

Project Name : Burndell Road, Yapton  
Job No : 18-070  
Note Title : Drainage Strategy Technical Note  
Author : Luke Phillips  
Checked : Luke Hart  
Approved : Ryan Saul  
Date : July 2019

## 1.0 INTRODUCTION

1.1 Odyssey have been instructed by Bovis Homes to prepare this drainage technical note in support of their Reserved Matters (RM) application for the residential development at Burndell Road, Yapton. This follows the grant of outline planning permission on 13<sup>th</sup> October 2017 (Ref: Y/19/16/OUT)

1.2 The description of the development at the outline application was:

*“Outline application for the development of a maximum of 108 No. residential dwellings, vehicular access from Burndell Road, public open space, ancillary works & associated infrastructure.”*

1.3 The aim of this report is to support the discharge of Conditions 5, 6, and 24, which are set out below:

### **Condition 5**

*“Development shall not commence until full details of the proposed surface water drainage scheme, including maintenance and management, have been submitted to and approved in writing by the Local Planning Authority. No building shall be occupied until the complete surface water drainage system serving that property has been implemented in accordance with the agreed details and the details so agreed shall be maintained in accordance with the scheme in perpetuity.”*

**Condition 6**

*“Prior to the commencement of construction works details of a proposed foul drainage system shall be submitted to an approved in writing by the local planning authority. This shall include details of its siting, design and subsequent management/ maintenance. No dwelling shall be occupied until works for the disposal of sewage have been fully implemented in accordance with the approved details.”*

**Condition 24**

*“No part of the development shall be first occupied until provision has been made within the site in accordance with plans and details to be submitted to and approved by the local planning authority to prevent surface water draining onto the public highway.”*

## **2.0 EXISTING SITE**

- 2.1 The proposed development site comprises of 3.87ha of greenfield land, located South of an existing residential development fronting Burndell Road and Fellows Gardens. The site is relatively flat with a fall of approximately 1.2m across the site from North to South.
- 2.2 The existing drainage regime relies on surface water infiltrating through the underlying strata, with any excess runoff discharging into the network of ditches abutting the site's southern boundary.
- 2.3 There are no public surface water sewers in close proximity to the site.
- 2.4 Existing geology maps and further borehole testing has proven that the underlying geology consists predominantly of sandy, gravelly clay above the Upper Chalk Formation. Making the site unsuitable for the use of an infiltrating surface water drainage strategy.
- 2.5 Furthermore, infiltration testing carried out proved that the geology of the ground has poor permeability, and therefore the use of any infiltrating SuDS features would not be a viable option for this site.
- 2.6 There are no existing foul water sewers present within the site. The nearest public foul water sewer is located in Burndell Road and currently serves the existing residential developments on Park Drive and Fairholme Drive.
- 2.7 In order to safeguard against potential flooding from the surrounding ditches, all structures have been located a minimum of five metres away from the top of any existing ditch bank.

### 3.0 PROPOSED SURFACE WATER DRAINAGE STRATEGY

- 3.1 The surface water drainage strategy for the proposed development is shown on the drawing listed below which can be found in **Appendix A**:
- 18-070/103 – Preliminary Engineering Layout
- 3.2 The surface water drainage strategy has been designed in accordance with the strategy set out in the Odyssey Flood Risk Assessment (FRA) submitted as part of the outline planning application for the site. The FRA detailed the need for cellular storage attenuation crates, an attenuation basin, and lined permeable paving systems in order to provide surface water storage and treatment, prior to discharging into the ditches surrounding the site.
- 3.3 The surface water drainage system has been designed to accommodate all rainfall events up to the 1 in 100 year event plus climate change (+40%.) Supporting calculations can be found within **Appendix C**.
- 3.4 During extreme events, excess flood waters will be predominantly conveyed within the carriageways to the ditches and open space to the East and South of the site. The overland flow routes can be found on drawing **18-070/105** appended in **Appendix B**.
- 3.5 The proposed drainage strategy splits the development into 4 separate sub-catchments. The Northern catchment drains to the East and utilises an offline cellular storage tank combined with flow control device in order to manage the stormwater. This catchment then discharges into the Eastern ditch at a rate of 7.0 l/s.
- 3.6 The three Southern catchments each drain to a separate cellular storage attenuation tank prior to discharging into the attenuation basin located within the South West of the site. The surface water is discharged from each cellular storage crate at a controlled rate, before being conveyed through the basin and discharged into the Southern ditch at a rate of 7.0 l/s.
- 3.7 Generated surface water run-off from roofs and private driveways will be conveyed through permeable paving systems and private pipe networks to the main sewer network. All highway drainage will be captured with trapped road gullies that discharge into the main sewer network.
- 3.8 The permeable paving will also ensure that any surface water generated by roofs and private driveways will be contained within the private drainage network without draining onto the public highway.

- 3.9 The main sewer network will then convey the surface water to the respective attenuation feature before it is discharged at a combined rate of 14 l/s as previously agreed at the outline planning stage. The discharge rates proposed are listed within the table below;

|                           | Discharge Rate |
|---------------------------|----------------|
| <b>Northern Catchment</b> | 7.0 l/s        |
| <b>Southern Catchment</b> | 7.0 l/s        |
| <b>Total</b>              | 14.0 l/s       |

- 3.10 Surface water treatment will be provided by the permeable paving via both the grit layer and geotextile that the blocks are bedded on, as well as the underlying gravel media comprising of washed no-fines material. These measures provide filtration and the breakdown of hydrocarbons as the water is conveyed through the system and into the piped network.
- 3.11 The proposed attenuation basin will also provide treatment through the surface vegetation and ground cover. Nutrients, oils/grease, and metals can all be removed through filtration via the vegetated basins.
- 3.12 The proposed permeable paving and attenuation basin combined with trapped gullies and catchpits that form part of the piped network will provide sufficient treatment of the surface water prior to discharge into the existing ditches.

#### **4.0 PROPOSED FOUL WATER DRAINAGE STRATEGY**

4.1 The foul water drainage strategy for the proposed development is shown on the drawing listed below which can be found in **Appendix A:**

- 18-070/103 – Preliminary Engineering Layout

4.2 The foul water drainage strategy has been designed in accordance with strategy set out in the Odyssey FRA submitted as part of the outline planning application for the site.

4.3 All foul effluent created by the development is to be discharged through private foul water sewer networks into the main foul water sewer network that runs through the site.

4.4 These main sewers have been designed in accordance with Sewers for Adoption 7<sup>th</sup> Edition.

4.5 All foul effluent is to be discharged to the pumping station located towards the South West corner of the site. It will then be pumped via rising main to the North before discharging into the existing Southern Water manhole 2003 in Burndell Road.

## 5.0 PROPOSED MANAGEMENT AND MAINTENANCE

- 5.1 All foul and surface water sewer networks shown on drawing **18-070/103** are to be offered for adoption by Southern Water and as such will be maintained by Southern Water in accordance with their maintenance and management program.
- 5.2 Any surface water drainage systems that take highway drainage only, will be offered for adoption by West Sussex County Council and as such will be maintained by West Sussex County Council in accordance with their maintenance and management program.
- 5.3 Any drainage solely serving an individual property and located within the property curtilage will be maintained by the property owner. A covenant will be imposed to ensure that the appearance and materials used in the construction of the permeable parking bays are not altered in any way.
- 5.4 Any drainage features not offered for adoption, including the cellular storage attenuation crates and the attenuation basin, are to be maintained by a private management company in accordance with the following schedule and any recommendations made by manufacturers.

### Permeable Paving

| Maintenance Category   | Maintenance Activity                                       | Comments                                                                                                                                                                               | Frequency                                               |
|------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Routine Maintenance    | Visual inspection of paving.                               | Ensure joints are kept fully filled.                                                                                                                                                   | Monthly (depending on local environment)                |
|                        | Paving should be agitated (e.g. brushed, vacuumed, etc.)   | To ensure no vegetation of any sort is allowed to grow and develop in the joints.                                                                                                      | Six monthly or as required (Spring and Autumn seasons). |
|                        | Paving should be inspected after any heavy precipitations. | Ensure no displacement of any organic matter into the surface of the pavement.                                                                                                         | As required.                                            |
| Corrective Maintenance | Inspection of outfall should be undertaken.                | Non-infiltration systems to have outfall checked for debris and blockages.                                                                                                             | Six monthly or as required.                             |
|                        | Removal of weeds.                                          | To ensure weeds are killed effectively they should be actively growing so that the glyphosate will go down to the roots. Glyphosate based weed killers include Roundup and Tumbleweed. | As required.                                            |
|                        | Laying material may require cleaning and /or replacing.    | Depending on the environment the permeable pavement has received and been exposed to.                                                                                                  | 25 to 30-year period.                                   |

### Pipe Systems, Gullies, and Manholes

| Maintenance Category   | Maintenance Activity                                             | Comments                                             | Frequency                                       |
|------------------------|------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------|
| Routine Maintenance    | Inspect and identify any areas that are not operating correctly. | Gullies and private manholes and inspection chambers | Monthly (for the first 3 months) then annually. |
|                        | Remove debris from gratings, sumps / silt traps.                 |                                                      | Annually                                        |
| Infrequent Maintenance | Clear blockages.                                                 | Piped system.                                        | As required.                                    |

### Cellular Storage Attenuation Tanks

| Maintenance Category   | Maintenance Activity                                                     | Comments                                                         | Frequency                                          |
|------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------|
| Routine Maintenance    | Inspect and identify any areas that are not operating correctly.         |                                                                  | Monthly (for the first 3 months) then six monthly. |
|                        | Remove sediment from upstream and downstream catchpits.                  | Remove sediment from sump when 50% volume lost.                  | Six monthly, or as required.                       |
| Infrequent Maintenance | Clear blockage via distribution pipe by rodding / jetting via catchpits. |                                                                  | As required.                                       |
| Corrective Maintenance | Membrane repair.                                                         | Membrane to be repaired in accordance with manufactures details. | As required.                                       |

### Concrete Storage Attenuation Tanks

| Maintenance Category   | Maintenance Activity                                                                  | Comments                                                                                            | Frequency                                          |
|------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Routine Maintenance    | Inspect and identify any areas that are not operating correctly.                      |                                                                                                     | Monthly (for the first 3 months) then six monthly. |
|                        | Remove sediment from tank floor.                                                      | Silt pump should be placed temporarily within a downstream sump/silt trap during maintenance works. | Annually, or as required.                          |
| Infrequent Maintenance | Clear blockage by rodding / jetting via catchpits or jetting from within tank itself. |                                                                                                     | As required.                                       |

### Attenuation Basin

| Maintenance Category   | Maintenance Activity                                                                                                  | Comments                                      | Frequency                                                                                                                              |
|------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Routine Maintenance    | Litter picking and general                                                                                            | Ensure a free-flowing water route is observed | Three times/year at end of winter, mid-summer, after autumn leaf fall, or as required based on site-specific observations of clogging. |
| Infrequent Maintenance | Stabilise and mow contributing and adjacent grass                                                                     |                                               | As required.                                                                                                                           |
|                        | Removal of weeds                                                                                                      |                                               | As required                                                                                                                            |
|                        | Remediation works of any landscaping or any other component that is deemed to have an adverse impact on the flow path |                                               | As required                                                                                                                            |
|                        | Remove sediment from inlets, outlet and forebay                                                                       |                                               | As required                                                                                                                            |

### Flow Control Devices

| Maintenance Category   | Maintenance Activity                                             | Comments | Frequency                                          |
|------------------------|------------------------------------------------------------------|----------|----------------------------------------------------|
| Routine Maintenance    | Inspect and identify any areas that are not operating correctly. |          | Monthly (for the first 3 months) then six monthly. |
|                        | Remove sediment from upstream silt trap (sump).                  |          | Six monthly, or as required.                       |
|                        | Hose down unit / chamber                                         |          | Six monthly, or as required.                       |
| Infrequent Maintenance | Clear blockages                                                  |          | As required.                                       |

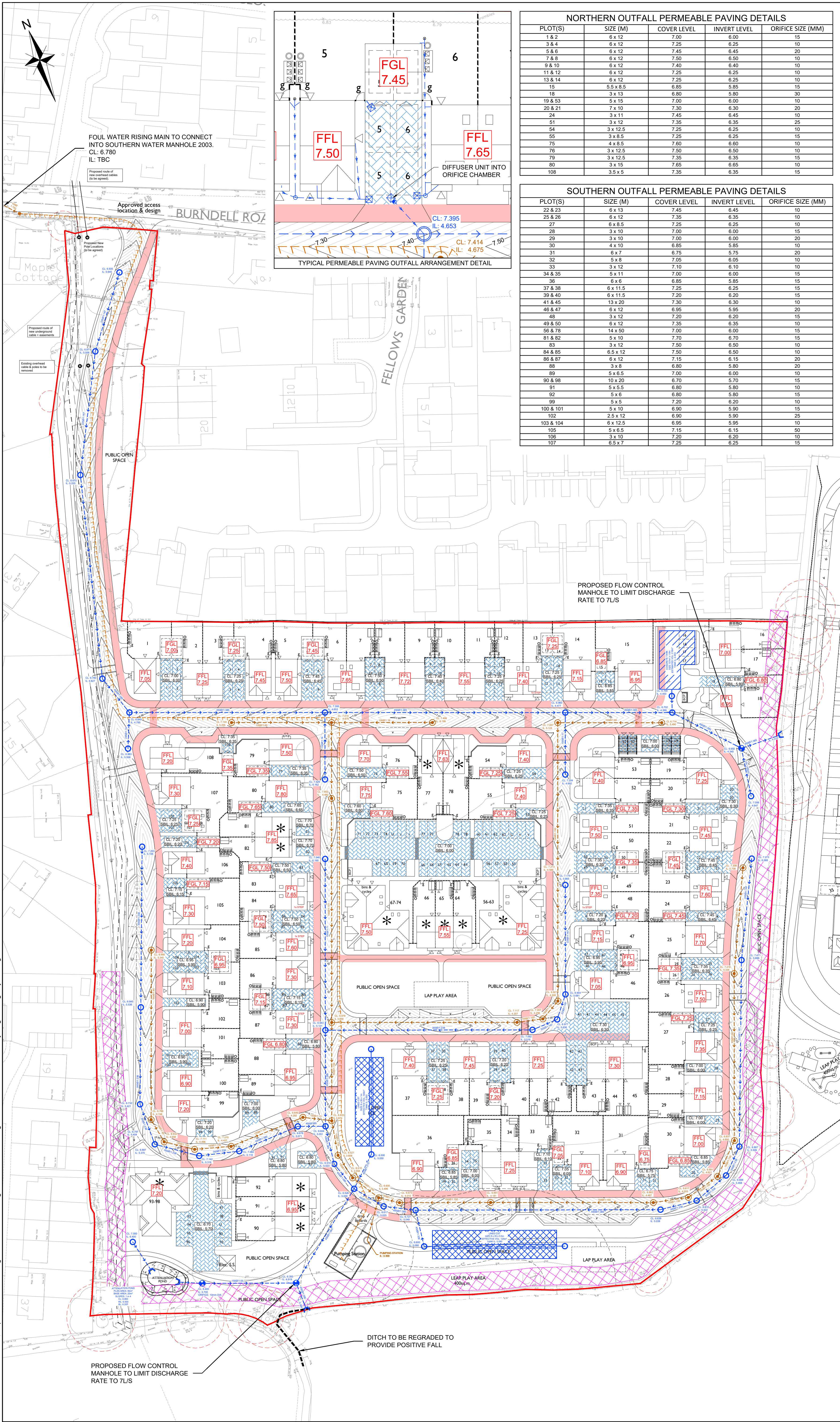
| Inspection Activity                                                                          | Comments | Frequency |
|----------------------------------------------------------------------------------------------|----------|-----------|
| Inspect all inlets / outlets, to check they are in good condition and operating as designed. |          | Annually. |

## **6.0 CONCLUSION**

- 6.1 This technical note has provided details of the proposed surface water and foul water drainage systems proposed within the proposed development at Burndell Road, Yapton.
- 6.2 This technical note, combined with other documents submitted as part of the Reserved Matters application provides the detail required to discharge Conditions 5, 6, and 24.
- 6.3 This note has demonstrated how the proposals accord with the FRA, NPPF and local Planning Policies with regards to surface and foul water drainage.

## **APPENDIX A**

### **Odyssey Preliminary Engineering Layout**



| NORTHERN OUTFALL PERMEABLE PAVING DETAILS |           |             |              |                   |
|-------------------------------------------|-----------|-------------|--------------|-------------------|
| PLOT(S)                                   | SIZE (M)  | COVER LEVEL | INVERT LEVEL | ORIFICE SIZE (MM) |
| 1 & 2                                     | 6 x 12    | 7.00        | 6.00         | 15                |
| 3 & 4                                     | 6 x 12    | 7.25        | 6.25         | 10                |
| 5 & 6                                     | 6 x 12    | 7.45        | 6.45         | 20                |
| 7 & 8                                     | 6 x 12    | 7.50        | 6.50         | 10                |
| 9 & 10                                    | 6 x 12    | 7.40        | 6.40         | 10                |
| 11 & 12                                   | 6 x 12    | 7.25        | 6.25         | 10                |
| 13 & 14                                   | 6 x 12    | 7.25        | 6.25         | 10                |
| 15                                        | 5.5 x 8.5 | 6.85        | 5.85         | 15                |
| 18                                        | 3 x 13    | 6.80        | 5.80         | 30                |
| 19 & 53                                   | 5 x 15    | 7.00        | 6.00         | 10                |
| 20 & 21                                   | 7 x 10    | 7.30        | 6.30         | 20                |
| 24                                        | 3 x 11    | 7.45        | 6.45         | 10                |
| 51                                        | 3 x 12    | 7.35        | 6.35         | 25                |
| 54                                        | 3 x 12.5  | 7.25        | 6.25         | 10                |
| 55                                        | 3 x 8.5   | 7.25        | 6.25         | 15                |
| 75                                        | 4 x 8.5   | 7.60        | 6.60         | 10                |
| 76                                        | 3 x 12.5  | 7.50        | 6.50         | 10                |
| 79                                        | 3 x 12.5  | 7.35        | 6.35         | 15                |
| 80                                        | 3 x 15    | 7.65        | 6.65         | 10                |
| 108                                       | 3.5 x 5   | 7.35        | 6.35         | 15                |

| SOUTHERN OUTFALL PERMEABLE PAVING DETAILS |          |             |              |                   |
|-------------------------------------------|----------|-------------|--------------|-------------------|
| PLOT(S)                                   | SIZE (M) | COVER LEVEL | INVERT LEVEL | ORIFICE SIZE (MM) |
| 22 & 23                                   | 6 x 13   | 7.45        | 6.45         | 10                |
| 25 & 26                                   | 6 x 12   | 7.35        | 6.35         | 10                |
| 27                                        | 6 x 8.5  | 7.25        | 6.25         | 10                |
| 28                                        | 3 x 10   | 7.00        | 6.00         | 15                |
| 29                                        | 3 x 10   | 7.00        | 6.00         | 20                |
| 30                                        | 4 x 10   | 6.85        | 5.85         | 10                |
| 31                                        | 6 x 7    | 6.75        | 5.75         | 20                |
| 32                                        | 5 x 8    | 7.05        | 6.05         | 10                |
| 33                                        | 3 x 12   | 7.10        | 6.10         | 10                |
| 34 & 35                                   | 5 x 11   | 7.00        | 6.00         | 15                |
| 36                                        | 6 x 6    | 6.85        | 5.85         | 15                |
| 37 & 38                                   | 6 x 11.5 | 7.25        | 6.25         | 15                |
| 39 & 40                                   | 6 x 11.5 | 7.20        | 6.20         | 15                |
| 41 & 45                                   | 13 x 20  | 7.30        | 6.30         | 10                |
| 46 & 47                                   | 6 x 12   | 6.95        | 5.95         | 20                |
| 48                                        | 3 x 12   | 7.20        | 6.20         | 15                |
| 49 & 50                                   | 6 x 12   | 7.35        | 6.35         | 10                |
| 56 & 78                                   | 14 x 50  | 7.00        | 6.00         | 15                |
| 81 & 82                                   | 5 x 10   | 7.70        | 6.70         | 15                |
| 83                                        | 3 x 12   | 7.50        | 6.50         | 10                |
| 84 & 85                                   | 6.5 x 12 | 7.50        | 6.50         | 10                |
| 86 & 87                                   | 6 x 12   | 7.15        | 6.15         | 20                |
| 88                                        | 3 x 8    | 6.80        | 5.80         | 20                |
| 89                                        | 5 x 6.5  | 7.00        | 6.00         | 10                |
| 90 & 98                                   | 10 x 20  | 6.70        | 5.70         | 15                |
| 91                                        | 5 x 5.5  | 6.80        | 5.80         | 10                |
| 92                                        | 5 x 6    | 6.80        | 5.80         | 15                |
| 99                                        | 5 x 5    | 7.20        | 6.20         | 10                |
| 100 & 101                                 | 5 x 10   | 6.90        | 5.90         | 15                |
| 102                                       | 2.5 x 12 | 6.90        | 5.90         | 25                |
| 103 & 104                                 | 6 x 12.5 | 6.95        | 5.95         | 10                |
| 105                                       | 5 x 6.5  | 7.15        | 6.15         | 50                |
| 106                                       | 3 x 10   | 7.20        | 6.20         | 10                |
| 107                                       | 6.5 x 7  | 7.25        | 6.25         | 15                |

- NOTES
- REPRODUCED FROM ORDNANCE SURVEY (®) BY THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT. ALL RIGHTS RESERVED. LICENCE NUMBER 100045322.
- DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
  - ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN METRES.
  - THIS DRAWING IS A PRELIMINARY REVIEW ONLY AND SUBJECT TO DETAILED DESIGN.
  - TOPOGRAPHICAL SURVEY HAS BEEN TAKEN FROM DIGITAL TERRAIN SURVEYS DRAWING DTS220414-7Q1B, DATED JANUARY 19'.
  - ODYSSEY ACCEPT NO LIABILITY FOR THE ACCURACY OF SURVEY INFORMATION AND LAYOUTS SUPPLIED BY OTHERS.
  - MASTERPLAN IS BASED ON URBAN PULSE DESIGN SITE PLAN DRAWING 18-1065-005D DATED 03/04/19.
  - FOR OVERLAND FLOW ROUTES REFER TO ODYSSEY DRAWING 18-070/105.
  - FOR LANDSCAPING DETAILS, REFER TO LANDSCAPE ARCHITECTS DRAWINGS.
  - ALL PERMEABLE PAVING TO HAVE A DEPTH OF 1m.

- LEGEND
- SITE BOUNDARY
  - PROPOSED FINISHED FLOOR LEVEL (mAOD)
  - PROPOSED FINISHED GARAGE LEVEL (mAOD)
  - EXISTING LEVEL (mAOD). SEE NOTE 5.
  - PROPOSED HIGHWAY CONTOURS.
  - FOUL SEWER AND MANHOLE (GRADIENT/PIPE SIZE)
  - SURFACE WATER SEWER AND MANHOLE (GRADIENT/PIPE SIZE)
  - FLOW CONTROL CHAMBER
  - PROPOSED CELLULAR STORAGE ATTENUATION TANK
  - PROPOSED CONCRETE STORAGE ATTENUATION TANK
  - PROPOSED HEADWALL
  - FOUL RISING MAIN
  - 5m BUFFER FROM TOP OF EMBANKMENT
  - 15m CLEARANCE FROM CENTRE OF PUMPING STATION WET WELL
  - PERMEABLE PAVING
  - INDICATIVE SERVICE CORRIDOR
  - TREE ROOT PROTECTION ZONE
  - EXTENT OF DITCH TO BE REGRADED

FOR PLANNING PURPOSES ONLY

|     |                                                   |     |     |     |          |
|-----|---------------------------------------------------|-----|-----|-----|----------|
| K   | CELLULAR STORAGE TANK REPLACED WITH CONCRETE TANK | SG  | LH  | LH  | 24.07.19 |
| J   | PERMEABLE PAVING AND ORIFICE DETAILS ADDED.       | JA  | SG  | LH  | 12.07.19 |
| H   | DRAINAGE UPDATED AS PER ARUN DC COMMENTS          | SG  | LH  | LH  | 25.06.19 |
| G   | DRAINAGE UPDATED AS PER ARUN DC COMMENTS          | JA  | SG  | LH  | 20.06.19 |
| F   | DRAINAGE UPDATED AS PER ARUN DC COMMENTS          | JA  | LH  | LH  | 07.06.19 |
| E   | DRAINAGE UPDATED AS PER ARUN DC COMMENTS          | JA  | SG  | LH  | 16.05.19 |
| D   | DRAINAGE UPDATED AND TYPICAL DETAIL ADDED         | JA  | LH  | LH  | 26.04.19 |
| C   | SITE LAYOUT UPDATED                               | SG  | LH  | LH  | 05.04.19 |
| B   | SITE LAYOUT UPDATED                               | TSB | SG  | LH  | 21.02.19 |
| A   | PLANNING ISSUE                                    | JA  | LH  | RS  | 23.11.18 |
| Rev | Amendments                                        | Dm  | Chk | App | Date     |

**ODYSSEY**

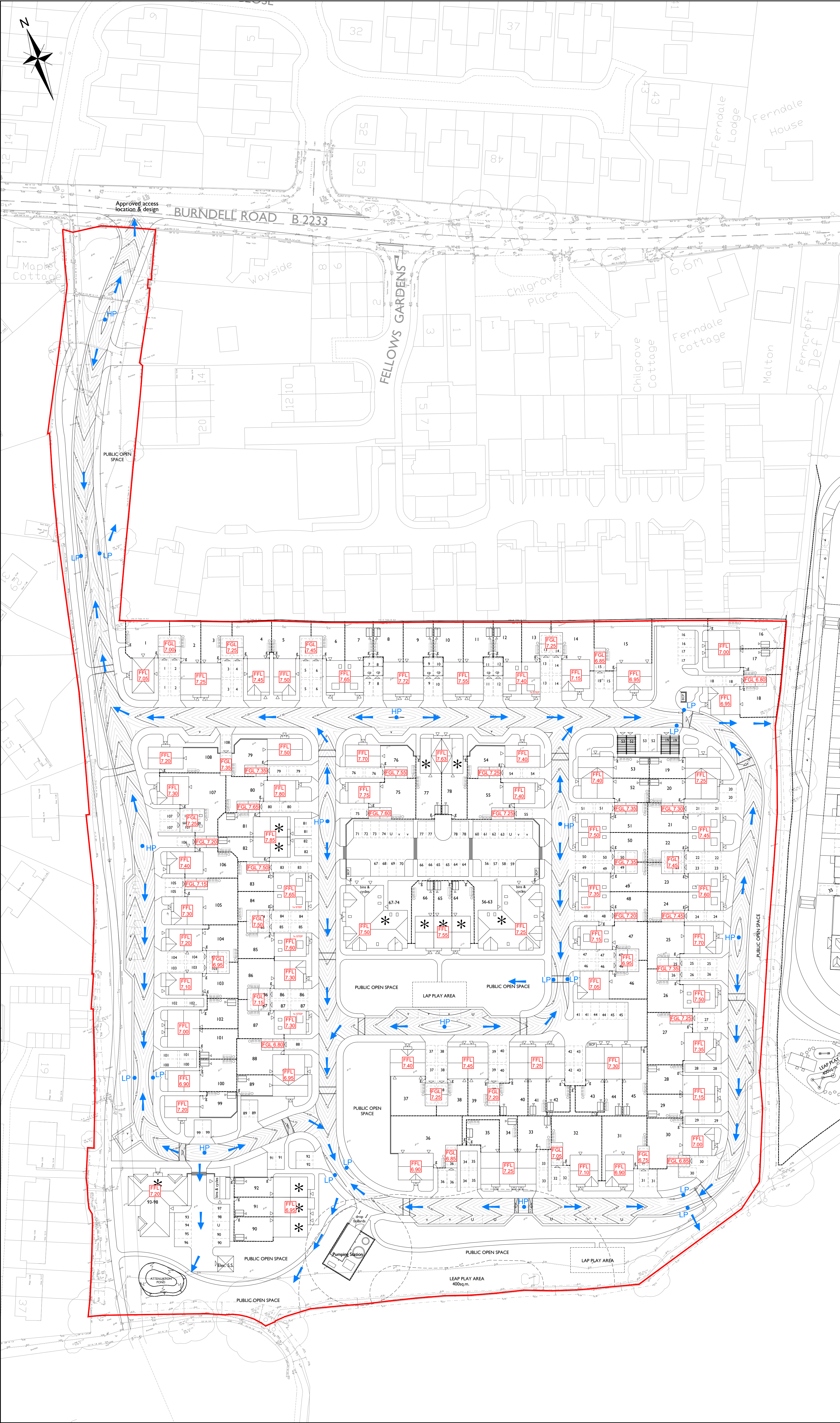
Tuscany House  
White Hart Lane  
Basingstoke  
Hampshire RG21 4AF

Telephone: 01256 331144  
Fax: 01256 331134  
E: info@odysseyconsult.co.uk  
W: www.odysseyconsult.co.uk

|                                     |            |          |     |
|-------------------------------------|------------|----------|-----|
| Job Title                           |            |          |     |
| LAND SOUTH OF BURNDILL ROAD, YAPTON |            |          |     |
| Drawing Title                       |            |          |     |
| PRELIMINARY ENGINEERING LAYOUT      |            |          |     |
| Client                              |            |          |     |
| BOVIS HOMES                         |            |          |     |
| Scale                               | Date       | Designed | SG  |
| 1:500 @A1                           | NOV 18     |          |     |
| Drawn                               | Checked    | Approved | RS  |
| SOM                                 | LH         |          |     |
| Job No                              | Drawing No |          | Rev |
| 18-070                              | 18-070/103 |          | K   |

## **APPENDIX B**

### **Odyssey Overland Flow Routes**



NOTES

REPRODUCED FROM ORDNANCE SURVEY (®) BY THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. (©) CROWN COPYRIGHT. ALL RIGHTS RESERVED. LICENCE NUMBER 100045322.

1. DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.

2. ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN METRES.

3. THIS DRAWING IS A PRELIMINARY REVIEW ONLY AND SUBJECT TO DETAILED DESIGN.

5. TOPOGRAPHICAL SURVEY HAS BEEN TAKEN FROM DIGITAL TERRAIN SURVEYS DRAWING DTS220414-7Q1B, DATED JANUARY 19'.

6. ODYSSEY ACCEPT NO LIABILITY FOR THE ACCURACY OF SURVEY INFORMATION AND LAYOUTS SUPPLIED BY OTHERS.

7. MASTERPLAN IS BASED ON URBAN PULSE DESIGN SITE PLAN DRAWING 18-1065-005D DATED 03/04/19.

8. FOR PROPOSED SURFACE WATER DRAINAGE LAYOUT REFER TO ODYSSEY DRAWING 18-070/103.

LEGEND

SITE BOUNDARY

FFL  
7.00

PROPOSED FINISHED FLOOR LEVEL (mAOD)

FGL  
7.00

PROPOSED FINISHED GARAGE LEVEL (mAOD)

6.80

EXISTING LEVEL (mAOD). SEE NOTE 5.

7.50

PROPOSED HIGHWAY CONTOURS.

INDICATIVE DIRECTION OF OVERLAND FLOW

LP

LOW POINT

HP

HIGH POINT

FOR PLANNING PURPOSES ONLY

D ATTENUATION POND AMENDED

SG LH LH

25.06.19

C SITE LAYOUT UPDATED

SG LH LH

05.04.19

B SITE LAYOUT UPDATED

TSB SG LH

21.02.19

A PLANNING ISSUE

JA LH RS

23.11.18

Rev

Amendments

Drn

Chk

App

Date

ODYSSEY

Tuscany House  
White Hart Lane  
Basingstoke  
Hampshire RG21 4AF

Telephone: 01256 331144  
Fax: 01256 331134  
E: info@odysseyconsult.co.uk  
W: www.odysseyconsult.co.uk

Job Title

LAND SOUTH OF BURNDILL ROAD,  
YAPTON

Drawing Title

OVERLAND FLOW ROUTE

Client

BOVIS HOMES

Scale

1:500 @A1

Date

NOV 18

Designed

SG

Drawn

SOM

Checked

LH

Approved

RS

Job No

18-070

Drawing No

18-070/105

Rev

D

ARUN DISTRICT COUNCIL V180318RES

## **APPENDIX C**

### **Microdrainage Calculations**

|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 1                                                                              |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions Network 2018.1                              |                                 |                                                                                     |

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for SW Network

Pipe Sizes STANDARD Manhole Sizes STANDARD

FEH Rainfall Model

|                                               |        |
|-----------------------------------------------|--------|
| Return Period (years)                         | 2      |
| FEH Rainfall Version                          | 1999   |
| Site Location GB 498650 101750 SU 98650 01750 |        |
| C (1km)                                       | -0.025 |
| D1 (1km)                                      | 0.390  |
| D2 (1km)                                      | 0.245  |
| D3 (1km)                                      | 0.403  |
| E (1km)                                       | 0.310  |
| F (1km)                                       | 2.321  |
| Maximum Rainfall (mm/hr)                      | 50     |
| Maximum Time of Concentration (mins)          | 30     |
| Foul Sewage (l/s/ha)                          | 0.000  |
| Volumetric Runoff Coeff.                      | 0.750  |
| PIMP (%)                                      | 100    |
| Add Flow / Climate Change (%)                 | 0      |
| Minimum Backdrop Height (m)                   | 0.200  |
| Maximum Backdrop Height (m)                   | 1.500  |
| Min Design Depth for Optimisation (m)         | 1.200  |
| Min Vel for Auto Design only (m/s)            | 1.00   |
| Min Slope for Optimisation (1:X)              | 500    |

Designed with Level Soffits

Time Area Diagram for SW Network at outfall (pipe S1.008)

| Time<br>(mins) | Area<br>(ha) | Time<br>(mins) | Area<br>(ha) | Time<br>(mins) | Area<br>(ha) |
|----------------|--------------|----------------|--------------|----------------|--------------|
| 0-4            | 0.322        | 4-8            | 0.375        | 8-12           | 0.013        |

Total Area Contributing (ha) = 0.710

Total Pipe Volume (m³) = 42.781

Time Area Diagram at outfall (pipe S23.011)

| Time<br>(mins) | Area<br>(ha) | Time<br>(mins) | Area<br>(ha) | Time<br>(mins) | Area<br>(ha) |
|----------------|--------------|----------------|--------------|----------------|--------------|
| 0-4            | 0.451        | 4-8            | 0.730        | 8-12           | 0.001        |

Total Area Contributing (ha) = 1.182

Total Pipe Volume (m³) = 59.406

©1982-2018 Innovyze

| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                 |                |                |                  |                      |                                 |                   |              |              | Page 2                                                                              |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|----------------|------------------|----------------------|---------------------------------|-------------------|--------------|--------------|-------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------|----|---------------|-------------|----------------|----------------|----------------|--------------------|-----------|-------------|-------------|---------|------|----------------|--------|--------|-------|-------|-------|------|-----|-------|---|-----|--------------|--|-------------------------------------------------------------------------------------|--------|--------|-------|-------|-------|------|-----|-------|---|-----|--------------|--|-------------------------------------------------------------------------------------|--------|--------|-------|-------|-------|------|-----|-------|---|-----|--------------|--|-------------------------------------------------------------------------------------|--------|--------|-------|-------|-------|------|-----|-------|---|-----|--------------|--|-------------------------------------------------------------------------------------|--------|--------|-------|------|-------|------|-----|-------|---|-----|--------------|--|-------------------------------------------------------------------------------------|--------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|--|-------------------------------------------------------------------------------------|--------|-------|-------|-----|-------|------|-----|-------|---|-----|--------------|--|-------------------------------------------------------------------------------------|--------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|--|-------------------------------------------------------------------------------------|--------|-------|-------|-----|-------|------|-----|-------|---|-----|--------------|--|--------------------------------------------------------------------------------------|--------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|--|---------------------------------------------------------------------------------------|--------|-------|-------|-----|-------|------|-----|-------|---|-----|--------------|--|---------------------------------------------------------------------------------------|--------|--------|-------|-------|-------|------|-----|-------|---|-----|--------------|--|---------------------------------------------------------------------------------------|--------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|--|---------------------------------------------------------------------------------------|--------|-------|-------|------|-------|------|-----|-------|---|-----|--------------|--|---------------------------------------------------------------------------------------|----|-----------------|----------------|--------------|------------------|----------------------|---------------|-------------------|--------------|--------------|---------------|--------|-------|------|-------|-------|-----|-----|-----|------|------|-----|--------|-------|------|-------|-------|-----|-----|-----|------|------|-----|--------|-------|------|-------|-------|-----|-----|-----|------|------|------|--------|-------|------|-------|-------|-----|-----|-----|------|-------|------|--------|-------|------|-------|-------|-----|-----|-----|------|-------|-----|--------|-------|------|-------|-------|-----|-----|-----|------|-----|-----|--------|-------|------|-------|-------|-----|-----|-----|------|------|-----|--------|-------|------|-------|-------|-----|-----|-----|------|-----|-----|--------|-------|------|-------|-------|-----|-----|-----|------|------|-----|--------|-------|------|-------|-------|-----|-----|-----|------|-----|-----|--------|-------|------|-------|-------|-----|-----|-----|------|------|-----|--------|-------|------|-------|-------|-----|-----|-----|------|-------|------|--------|-------|------|-------|-------|-----|-----|-----|------|-----|-----|--------|-------|------|-------|-------|-----|-----|-----|------|------|-----|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                |                |                  |                      | Burndell Road,<br>Yapton        |                   |              |              |  |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                |                |                  |                      | Designed by SG<br>Checked by LH |                   |              |              |                                                                                     |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| XP Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                 |                |                |                  |                      | Network 2018.1                  |                   |              |              |                                                                                     |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| <p style="text-align: center;"><u>Network Design Table for SW Network</u></p> <p style="text-align: center;">« - Indicates pipe capacity &lt; flow</p> <table><tr><th>PN</th><th>Length<br/>(m)</th><th>Fall<br/>(m)</th><th>Slope<br/>(1:X)</th><th>I.Area<br/>(ha)</th><th>T.E.<br/>(mins)</th><th>Base<br/>Flow (l/s)</th><th>k<br/>(mm)</th><th>HYD<br/>SECT</th><th>DIA<br/>(mm)</th><th>Section</th><th>Type</th><th>Auto<br/>Design</th></tr><tr><td>S1.000</td><td>23.258</td><td>0.139</td><td>167.3</td><td>0.015</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td><td></td><td></td></tr><tr><td>S1.001</td><td>35.092</td><td>0.211</td><td>166.3</td><td>0.040</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td><td></td><td></td></tr><tr><td>S1.002</td><td>57.745</td><td>0.243</td><td>237.6</td><td>0.049</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td><td></td><td></td></tr><tr><td>S1.003</td><td>12.182</td><td>0.032</td><td>380.7</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>450</td><td>Pipe/Conduit</td><td></td><td></td></tr><tr><td>S2.000</td><td>10.197</td><td>0.537</td><td>19.0</td><td>0.031</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td><td></td><td></td></tr><tr><td>S3.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.019</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td><td></td></tr><tr><td>S3.001</td><td>7.043</td><td>1.095</td><td>6.4</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td><td></td></tr><tr><td>S4.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.024</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td><td></td></tr><tr><td>S4.001</td><td>7.655</td><td>0.795</td><td>9.6</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td><td></td></tr><tr><td>S5.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.009</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td><td></td></tr><tr><td>S5.001</td><td>7.655</td><td>1.195</td><td>6.4</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td><td></td></tr><tr><td>S1.004</td><td>55.100</td><td>0.143</td><td>385.3</td><td>0.061</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>450</td><td>Pipe/Conduit</td><td></td><td></td></tr><tr><td>S6.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.009</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td><td></td></tr><tr><td>S6.001</td><td>4.667</td><td>0.278</td><td>16.8</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td><td></td></tr></table> <p style="text-align: center;"><u>Network Results Table</u></p> <table><tr><th>PN</th><th>Rain<br/>(mm/hr)</th><th>T.C.<br/>(mins)</th><th>US/IL<br/>(m)</th><th>Σ I.Area<br/>(ha)</th><th>Σ Base<br/>Flow (l/s)</th><th>Foul<br/>(l/s)</th><th>Add Flow<br/>(l/s)</th><th>Vel<br/>(m/s)</th><th>Cap<br/>(l/s)</th><th>Flow<br/>(l/s)</th></tr><tr><td>S1.000</td><td>50.00</td><td>4.38</td><td>5.645</td><td>0.015</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.01</td><td>40.1</td><td>2.0</td></tr><tr><td>S1.001</td><td>50.00</td><td>4.96</td><td>5.506</td><td>0.055</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.01</td><td>40.2</td><td>7.4</td></tr><tr><td>S1.002</td><td>50.00</td><td>5.91</td><td>5.220</td><td>0.104</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.02</td><td>71.8</td><td>14.1</td></tr><tr><td>S1.003</td><td>50.00</td><td>6.11</td><td>4.827</td><td>0.104</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.04</td><td>164.8</td><td>14.1</td></tr><tr><td>S2.000</td><td>50.00</td><td>4.06</td><td>5.558</td><td>0.031</td><td>0.0</td><td>0.0</td><td>0.0</td><td>3.02</td><td>120.0</td><td>4.2</td></tr><tr><td>S3.000</td><td>50.00</td><td>4.25</td><td>6.250</td><td>0.019</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>2.6</td></tr><tr><td>S3.001</td><td>50.00</td><td>4.29</td><td>6.240</td><td>0.019</td><td>0.0</td><td>0.0</td><td>0.0</td><td>3.07</td><td>24.1</td><td>2.6</td></tr><tr><td>S4.000</td><td>50.00</td><td>4.19</td><td>6.000</td><td>0.024</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.44</td><td>7.8</td><td>3.2</td></tr><tr><td>S4.001</td><td>50.00</td><td>4.23</td><td>5.990</td><td>0.024</td><td>0.0</td><td>0.0</td><td>0.0</td><td>3.27</td><td>57.7</td><td>3.2</td></tr><tr><td>S5.000</td><td>50.00</td><td>4.25</td><td>6.350</td><td>0.009</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>1.2</td></tr><tr><td>S5.001</td><td>50.00</td><td>4.29</td><td>6.340</td><td>0.009</td><td>0.0</td><td>0.0</td><td>0.0</td><td>3.07</td><td>24.2</td><td>1.2</td></tr><tr><td>S1.004</td><td>48.61</td><td>7.00</td><td>4.795</td><td>0.248</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.03</td><td>163.8</td><td>32.6</td></tr><tr><td>S6.000</td><td>50.00</td><td>4.25</td><td>6.500</td><td>0.009</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>1.2</td></tr><tr><td>S6.001</td><td>50.00</td><td>4.29</td><td>6.490</td><td>0.009</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.89</td><td>14.9</td><td>1.2</td></tr></table> <p style="text-align: center;">©1982-2018 Innovyze</p> |                 |                |                |                  |                      |                                 |                   |              |              |                                                                                     |      |                                                                                       | PN | Length<br>(m) | Fall<br>(m) | Slope<br>(1:X) | I.Area<br>(ha) | T.E.<br>(mins) | Base<br>Flow (l/s) | k<br>(mm) | HYD<br>SECT | DIA<br>(mm) | Section | Type | Auto<br>Design | S1.000 | 23.258 | 0.139 | 167.3 | 0.015 | 4.00 | 0.0 | 0.600 | o | 225 | Pipe/Conduit |  |  | S1.001 | 35.092 | 0.211 | 166.3 | 0.040 | 0.00 | 0.0 | 0.600 | o | 225 | Pipe/Conduit |  |  | S1.002 | 57.745 | 0.243 | 237.6 | 0.049 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit |  |  | S1.003 | 12.182 | 0.032 | 380.7 | 0.000 | 0.00 | 0.0 | 0.600 | o | 450 | Pipe/Conduit |  |  | S2.000 | 10.197 | 0.537 | 19.0 | 0.031 | 4.00 | 0.0 | 0.600 | o | 225 | Pipe/Conduit |  |  | S3.000 | 5.000 | 0.010 | 500.0 | 0.019 | 4.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  |  | S3.001 | 7.043 | 1.095 | 6.4 | 0.000 | 0.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  |  | S4.000 | 5.000 | 0.010 | 500.0 | 0.024 | 4.00 | 0.0 | 0.600 | o | 150 | Pipe/Conduit |  |  | S4.001 | 7.655 | 0.795 | 9.6 | 0.000 | 0.00 | 0.0 | 0.600 | o | 150 | Pipe/Conduit |  |  | S5.000 | 5.000 | 0.010 | 500.0 | 0.009 | 4.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  |  | S5.001 | 7.655 | 1.195 | 6.4 | 0.000 | 0.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  |  | S1.004 | 55.100 | 0.143 | 385.3 | 0.061 | 0.00 | 0.0 | 0.600 | o | 450 | Pipe/Conduit |  |  | S6.000 | 5.000 | 0.010 | 500.0 | 0.009 | 4.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  |  | S6.001 | 4.667 | 0.278 | 16.8 | 0.000 | 0.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  |  | PN | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m) | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Foul<br>(l/s) | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s) | S1.000 | 50.00 | 4.38 | 5.645 | 0.015 | 0.0 | 0.0 | 0.0 | 1.01 | 40.1 | 2.0 | S1.001 | 50.00 | 4.96 | 5.506 | 0.055 | 0.0 | 0.0 | 0.0 | 1.01 | 40.2 | 7.4 | S1.002 | 50.00 | 5.91 | 5.220 | 0.104 | 0.0 | 0.0 | 0.0 | 1.02 | 71.8 | 14.1 | S1.003 | 50.00 | 6.11 | 4.827 | 0.104 | 0.0 | 0.0 | 0.0 | 1.04 | 164.8 | 14.1 | S2.000 | 50.00 | 4.06 | 5.558 | 0.031 | 0.0 | 0.0 | 0.0 | 3.02 | 120.0 | 4.2 | S3.000 | 50.00 | 4.25 | 6.250 | 0.019 | 0.0 | 0.0 | 0.0 | 0.34 | 2.7 | 2.6 | S3.001 | 50.00 | 4.29 | 6.240 | 0.019 | 0.0 | 0.0 | 0.0 | 3.07 | 24.1 | 2.6 | S4.000 | 50.00 | 4.19 | 6.000 | 0.024 | 0.0 | 0.0 | 0.0 | 0.44 | 7.8 | 3.2 | S4.001 | 50.00 | 4.23 | 5.990 | 0.024 | 0.0 | 0.0 | 0.0 | 3.27 | 57.7 | 3.2 | S5.000 | 50.00 | 4.25 | 6.350 | 0.009 | 0.0 | 0.0 | 0.0 | 0.34 | 2.7 | 1.2 | S5.001 | 50.00 | 4.29 | 6.340 | 0.009 | 0.0 | 0.0 | 0.0 | 3.07 | 24.2 | 1.2 | S1.004 | 48.61 | 7.00 | 4.795 | 0.248 | 0.0 | 0.0 | 0.0 | 1.03 | 163.8 | 32.6 | S6.000 | 50.00 | 4.25 | 6.500 | 0.009 | 0.0 | 0.0 | 0.0 | 0.34 | 2.7 | 1.2 | S6.001 | 50.00 | 4.29 | 6.490 | 0.009 | 0.0 | 0.0 | 0.0 | 1.89 | 14.9 | 1.2 |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Length<br>(m)   | Fall<br>(m)    | Slope<br>(1:X) | I.Area<br>(ha)   | T.E.<br>(mins)       | Base<br>Flow (l/s)              | k<br>(mm)         | HYD<br>SECT  | DIA<br>(mm)  | Section                                                                             | Type | Auto<br>Design                                                                        |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S1.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 23.258          | 0.139          | 167.3          | 0.015            | 4.00                 | 0.0                             | 0.600             | o            | 225          | Pipe/Conduit                                                                        |      |    |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S1.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 35.092          | 0.211          | 166.3          | 0.040            | 0.00                 | 0.0                             | 0.600             | o            | 225          | Pipe/Conduit                                                                        |      |    |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S1.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 57.745          | 0.243          | 237.6          | 0.049            | 0.00                 | 0.0                             | 0.600             | o            | 300          | Pipe/Conduit                                                                        |      |    |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S1.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 12.182          | 0.032          | 380.7          | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 450          | Pipe/Conduit                                                                        |      |    |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S2.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 10.197          | 0.537          | 19.0           | 0.031            | 4.00                 | 0.0                             | 0.600             | o            | 225          | Pipe/Conduit                                                                        |      |    |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S3.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.000           | 0.010          | 500.0          | 0.019            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit                                                                        |      |    |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S3.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 7.043           | 1.095          | 6.4            | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit                                                                        |      |    |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S4.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.000           | 0.010          | 500.0          | 0.024            | 4.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit                                                                        |      |    |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S4.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 7.655           | 0.795          | 9.6            | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit                                                                        |      |   |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S5.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.000           | 0.010          | 500.0          | 0.009            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit                                                                        |      |  |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S5.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 7.655           | 1.195          | 6.4            | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit                                                                        |      |  |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S1.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 55.100          | 0.143          | 385.3          | 0.061            | 0.00                 | 0.0                             | 0.600             | o            | 450          | Pipe/Conduit                                                                        |      |  |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S6.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.000           | 0.010          | 500.0          | 0.009            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit                                                                        |      |  |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S6.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4.667           | 0.278          | 16.8           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit                                                                        |      |  |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m)   | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Foul<br>(l/s)                   | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s)                                                                       |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S1.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.38           | 5.645          | 0.015            | 0.0                  | 0.0                             | 0.0               | 1.01         | 40.1         | 2.0                                                                                 |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S1.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.96           | 5.506          | 0.055            | 0.0                  | 0.0                             | 0.0               | 1.01         | 40.2         | 7.4                                                                                 |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S1.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 5.91           | 5.220          | 0.104            | 0.0                  | 0.0                             | 0.0               | 1.02         | 71.8         | 14.1                                                                                |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S1.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 6.11           | 4.827          | 0.104            | 0.0                  | 0.0                             | 0.0               | 1.04         | 164.8        | 14.1                                                                                |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S2.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.06           | 5.558          | 0.031            | 0.0                  | 0.0                             | 0.0               | 3.02         | 120.0        | 4.2                                                                                 |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S3.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.25           | 6.250          | 0.019            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 2.6                                                                                 |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S3.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.29           | 6.240          | 0.019            | 0.0                  | 0.0                             | 0.0               | 3.07         | 24.1         | 2.6                                                                                 |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S4.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.19           | 6.000          | 0.024            | 0.0                  | 0.0                             | 0.0               | 0.44         | 7.8          | 3.2                                                                                 |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S4.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.23           | 5.990          | 0.024            | 0.0                  | 0.0                             | 0.0               | 3.27         | 57.7         | 3.2                                                                                 |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S5.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.25           | 6.350          | 0.009            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.2                                                                                 |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S5.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.29           | 6.340          | 0.009            | 0.0                  | 0.0                             | 0.0               | 3.07         | 24.2         | 1.2                                                                                 |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S1.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 48.61           | 7.00           | 4.795          | 0.248            | 0.0                  | 0.0                             | 0.0               | 1.03         | 163.8        | 32.6                                                                                |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S6.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.25           | 6.500          | 0.009            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.2                                                                                 |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |
| S6.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.29           | 6.490          | 0.009            | 0.0                  | 0.0                             | 0.0               | 1.89         | 14.9         | 1.2                                                                                 |      |                                                                                       |    |               |             |                |                |                |                    |           |             |             |         |      |                |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |        |       |      |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                     |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                      |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |     |       |      |     |       |   |     |              |  |                                                                                       |        |        |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |       |       |      |     |       |   |     |              |  |                                                                                       |        |       |       |      |       |      |     |       |   |     |              |  |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |      |      |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |       |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |        |       |      |       |       |     |     |     |      |       |      |        |       |      |       |       |     |     |     |      |     |     |        |       |      |       |       |     |     |     |      |      |     |

| Odyssey Markides                                         |                 |                |                |                  |                      |                                 |                   |              |              |               | Page 3                                                                                |  |  |
|----------------------------------------------------------|-----------------|----------------|----------------|------------------|----------------------|---------------------------------|-------------------|--------------|--------------|---------------|---------------------------------------------------------------------------------------|--|--|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF |                 |                |                |                  |                      | Burndell Road,<br>Yapton        |                   |              |              |               |    |  |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      |                 |                |                |                  |                      | Designed by SG<br>Checked by LH |                   |              |              |               |                                                                                       |  |  |
| XP Solutions                                             |                 |                |                |                  |                      | Network 2018.1                  |                   |              |              |               |                                                                                       |  |  |
| <u>Network Design Table for SW Network</u>               |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |  |
| PN                                                       | Length<br>(m)   | Fall<br>(m)    | Slope<br>(1:X) | I.Area<br>(ha)   | T.E.<br>(mins)       | Base<br>Flow (l/s)              | k<br>(mm)         | HYD<br>SECT  | DIA<br>(mm)  | Section Type  | Auto<br>Design                                                                        |  |  |
| S7.000                                                   | 5.000           | 0.010          | 500.0          | 0.011            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S7.001                                                   | 8.420           | 0.428          | 19.7           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S8.000                                                   | 5.000           | 0.010          | 500.0          | 0.014            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S8.001                                                   | 3.333           | 0.128          | 26.0           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S9.000                                                   | 4.995           | 0.010          | 500.0          | 0.011            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S9.001                                                   | 10.012          | 0.378          | 26.5           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S6.002                                                   | 18.846          | 1.209          | 15.6           | 0.028            | 0.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |    |  |  |
| S10.000                                                  | 5.000           | 0.010          | 500.0          | 0.028            | 4.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |    |  |  |
| S10.001                                                  | 9.596           | 1.487          | 6.5            | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |    |  |  |
| S11.000                                                  | 5.000           | 0.010          | 500.0          | 0.019            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |   |  |  |
| S11.001                                                  | 6.862           | 1.487          | 4.6            | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |  |
| S12.000                                                  | 5.000           | 0.010          | 500.0          | 0.017            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |  |
| S12.001                                                  | 4.482           | 1.387          | 3.2            | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |  |
| S13.000                                                  | 5.000           | 0.010          | 500.0          | 0.014            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |  |
| S13.001                                                  | 3.330           | 1.237          | 2.7            | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |  |
| <u>Network Results Table</u>                             |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |  |
| PN                                                       | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m)   | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Foul<br>(l/s)                   | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s) |                                                                                       |  |  |
| S7.000                                                   | 50.00           | 4.25           | 6.650          | 0.011            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.5           |                                                                                       |  |  |
| S7.001                                                   | 50.00           | 4.33           | 6.640          | 0.011            | 0.0                  | 0.0                             | 0.0               | 1.75         | 13.7         | 1.5           |                                                                                       |  |  |
| S8.000                                                   | 50.00           | 4.25           | 6.350          | 0.014            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.9           |                                                                                       |  |  |
| S8.001                                                   | 50.00           | 4.28           | 6.340          | 0.014            | 0.0                  | 0.0                             | 0.0               | 1.52         | 11.9         | 1.9           |                                                                                       |  |  |
| S9.000                                                   | 50.00           | 4.25           | 6.600          | 0.011            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.5           |                                                                                       |  |  |
| S9.001                                                   | 50.00           | 4.36           | 6.590          | 0.011            | 0.0                  | 0.0                             | 0.0               | 1.51         | 11.8         | 1.5           |                                                                                       |  |  |
| S6.002                                                   | 50.00           | 4.48           | 6.162          | 0.073            | 0.0                  | 0.0                             | 0.0               | 2.56         | 45.3         | 9.9           |                                                                                       |  |  |
| S10.000                                                  | 50.00           | 4.19           | 6.450          | 0.028            | 0.0                  | 0.0                             | 0.0               | 0.44         | 7.8          | 3.8           |                                                                                       |  |  |
| S10.001                                                  | 50.00           | 4.23           | 6.440          | 0.028            | 0.0                  | 0.0                             | 0.0               | 3.99         | 70.6         | 3.8           |                                                                                       |  |  |
| S11.000                                                  | 50.00           | 4.25           | 6.500          | 0.019            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 2.6           |                                                                                       |  |  |
| S11.001                                                  | 50.00           | 4.28           | 6.490          | 0.019            | 0.0                  | 0.0                             | 0.0               | 3.63         | 28.5         | 2.6           |                                                                                       |  |  |
| S12.000                                                  | 50.00           | 4.25           | 6.400          | 0.017            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 2.3           |                                                                                       |  |  |
| S12.001                                                  | 50.00           | 4.26           | 6.390          | 0.017            | 0.0                  | 0.0                             | 0.0               | 4.33         | 34.0         | 2.3           |                                                                                       |  |  |
| S13.000                                                  | 50.00           | 4.25           | 6.250          | 0.014            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.9           |                                                                                       |  |  |
| S13.001                                                  | 50.00           | 4.26           | 6.240          | 0.014            | 0.0                  | 0.0                             | 0.0               | 4.75         | 37.3         | 1.9           |                                                                                       |  |  |
| ©1982-2018 Innovyze                                      |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |  |

| Odyssey Markides                                         |                 |                |                |                  |                                 |                    |                   |              |              | Page 4                                                                              |                                                                                       |
|----------------------------------------------------------|-----------------|----------------|----------------|------------------|---------------------------------|--------------------|-------------------|--------------|--------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF |                 |                |                |                  | Burndell Road,<br>Yapton        |                    |                   |              |              |  |                                                                                       |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      |                 |                |                |                  | Designed by SG<br>Checked by LH |                    |                   |              |              |                                                                                     |                                                                                       |
| XP Solutions                                             |                 |                |                |                  | Network 2018.1                  |                    |                   |              |              |                                                                                     |                                                                                       |
| <u>Network Design Table for SW Network</u>               |                 |                |                |                  |                                 |                    |                   |              |              |                                                                                     |                                                                                       |
| PN                                                       | Length<br>(m)   | Fall<br>(m)    | Slope<br>(1:X) | I.Area<br>(ha)   | T.E.<br>(mins)                  | Base<br>Flow (l/s) | k<br>(mm)         | HYD<br>SECT  | DIA<br>(mm)  | Section Type                                                                        | Auto<br>Design                                                                        |
| S1.005                                                   | 67.722          | 0.176          | 384.8          | 0.033            | 0.00                            | 0.0                | 0.600             | o            | 450          | Pipe/Conduit                                                                        |    |
| S14.000                                                  | 5.000           | 0.010          | 500.0          | 0.011            | 4.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |
| S14.001                                                  | 5.470           | 1.238          | 4.4            | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |
| S15.000                                                  | 5.000           | 0.010          | 500.0          | 0.010            | 4.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |
| S15.001                                                  | 12.229          | 1.238          | 9.9            | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |
| S16.000                                                  | 5.000           | 0.010          | 500.0          | 0.020            | 4.00                            | 0.0                | 0.600             | o            | 150          | Pipe/Conduit                                                                        |    |
| S16.001                                                  | 9.808           | 1.388          | 7.1            | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 150          | Pipe/Conduit                                                                        |    |
| S14.002                                                  | 17.458          | 0.175          | 99.8           | 0.024            | 0.00                            | 0.0                | 0.600             | o            | 150          | Pipe/Conduit                                                                        |    |
| S17.000                                                  | 5.000           | 0.010          | 500.0          | 0.020            | 4.00                            | 0.0                | 0.600             | o            | 150          | Pipe/Conduit                                                                        |   |
| S17.001                                                  | 4.927           | 1.463          | 3.4            | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 150          | Pipe/Conduit                                                                        |  |
| S18.000                                                  | 5.000           | 0.010          | 500.0          | 0.019            | 4.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |  |
| S18.001                                                  | 3.331           | 1.013          | 3.3            | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |  |
| S1.006                                                   | 30.144          | 0.078          | 386.5          | 0.025            | 0.00                            | 0.0                | 0.600             | o            | 450          | Pipe/Conduit                                                                        |  |
| <u>Network Results Table</u>                             |                 |                |                |                  |                                 |                    |                   |              |              |                                                                                     |                                                                                       |
| PN                                                       | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m)   | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s)            | Foul<br>(l/s)      | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s)                                                                       |                                                                                       |
| S1.005                                                   | 44.37           | 8.09           | 4.653          | 0.432            | 0.0                             | 0.0                | 0.0               | 1.03         | 163.9        | 51.9                                                                                |                                                                                       |
| S14.000                                                  | 50.00           | 4.25           | 6.250          | 0.011            | 0.0                             | 0.0                | 0.0               | 0.34         | 2.7          | 1.5                                                                                 |                                                                                       |
| S14.001                                                  | 50.00           | 4.27           | 6.240          | 0.011            | 0.0                             | 0.0                | 0.0               | 3.71         | 29.1         | 1.5                                                                                 |                                                                                       |
| S15.000                                                  | 50.00           | 4.25           | 6.250          | 0.010            | 0.0                             | 0.0                | 0.0               | 0.34         | 2.7          | 1.4                                                                                 |                                                                                       |
| S15.001                                                  | 50.00           | 4.33           | 6.240          | 0.010            | 0.0                             | 0.0                | 0.0               | 2.47         | 19.4         | 1.4                                                                                 |                                                                                       |
| S16.000                                                  | 50.00           | 4.19           | 6.350          | 0.020            | 0.0                             | 0.0                | 0.0               | 0.44         | 7.8          | 2.7                                                                                 |                                                                                       |
| S16.001                                                  | 50.00           | 4.23           | 6.340          | 0.020            | 0.0                             | 0.0                | 0.0               | 3.82         | 67.4         | 2.7                                                                                 |                                                                                       |
| S14.002                                                  | 50.00           | 4.62           | 4.952          | 0.065            | 0.0                             | 0.0                | 0.0               | 1.01         | 17.8         | 8.9                                                                                 |                                                                                       |
| S17.000                                                  | 50.00           | 4.19           | 6.250          | 0.020            | 0.0                             | 0.0                | 0.0               | 0.44         | 7.8          | 2.7                                                                                 |                                                                                       |
| S17.001                                                  | 50.00           | 4.20           | 6.240          | 0.020            | 0.0                             | 0.0                | 0.0               | 5.53         | 97.8         | 2.7                                                                                 |                                                                                       |
| S18.000                                                  | 50.00           | 4.25           | 5.850          | 0.019            | 0.0                             | 0.0                | 0.0               | 0.34         | 2.7          | 2.6                                                                                 |                                                                                       |
| S18.001                                                  | 50.00           | 4.26           | 5.840          | 0.019            | 0.0                             | 0.0                | 0.0               | 4.30         | 33.7         | 2.6                                                                                 |                                                                                       |
| S1.006                                                   | 42.77           | 8.58           | 4.477          | 0.562            | 0.0                             | 0.0                | 0.0               | 1.03         | 163.5        | 65.0                                                                                |                                                                                       |
| ©1982-2018 Innovyze                                      |                 |                |                |                  |                                 |                    |                   |              |              |                                                                                     |                                                                                       |

| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                |                |                  |                      |                                 |                   |              |              |               | Page 5                                                                                |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|----------------|------------------|----------------------|---------------------------------|-------------------|--------------|--------------|---------------|---------------------------------------------------------------------------------------|--|----|-----------------|----------------|----------------|------------------|----------------------|--------------------|-------------------|--------------|--------------|---------------|----------------|---------|-------|-------|-------|-------|------|-----|-------|-------|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|------|-------|-----|---------|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-----|-------|------|------|-------|---------|-------|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|---------|-------|------|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|------|-------|------|--------|-------|------|-------|--------------|-------------------------------------------------------------------------------------|--------|--------|-------|-------|-------|---------|-------|-------|-------|-------|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-------|---------|-------|------|-------|-------|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|---------|-------|------|-------|-------|-----|-----|--------------|-------------------------------------------------------------------------------------|---------|--------|--------|-------|-------|-------|-------|-------|-----|-----|--------------|-------------------------------------------------------------------------------------|--------|---------|-------|-------|-------|-------|-----|-------|-----|------|--------------|--------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|------|------|--------------|---------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|-----|-----|--------------|---------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|------|-------|-----|-----|--------------|---------------------------------------------------------------------------------------|---------|-------|-------|------|-------|------|-----|-------|---|-----|--------------|---------------------------------------------------------------------------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                 |                |                |                  |                      | Burndell Road,<br>Yapton        |                   |              |              |               |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |                |                |                  |                      | Designed by SG<br>Checked by LH |                   |              |              |               |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| XP Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |                |                |                  |                      | Network 2018.1                  |                   |              |              |               |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| <p style="text-align: center;"><u>Network Design Table for SW Network</u></p> <table><tr><th>PN</th><th>Length<br/>(m)</th><th>Fall<br/>(m)</th><th>Slope<br/>(1:X)</th><th>I.Area<br/>(ha)</th><th>T.E.<br/>(mins)</th><th>Base<br/>Flow (l/s)</th><th>k<br/>(mm)</th><th>HYD<br/>SECT</th><th>DIA<br/>(mm)</th><th>Section Type</th><th>Auto<br/>Design</th></tr><tr><td>S19.000</td><td>4.661</td><td>0.051</td><td>91.4</td><td>0.020</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>450</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S20.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.023</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S20.001</td><td>7.013</td><td>1.041</td><td>6.7</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S21.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.013</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S21.001</td><td>8.789</td><td>1.241</td><td>7.1</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S1.007</td><td>21.970</td><td>0.059</td><td>372.4</td><td>0.032</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>450</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S22.000</td><td>4.998</td><td>0.010</td><td>499.8</td><td>0.027</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S22.001</td><td>4.924</td><td>1.568</td><td>3.1</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S22.002</td><td>13.744</td><td>0.082</td><td>167.6</td><td>0.034</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S1.008</td><td>11.291</td><td>0.030</td><td>376.4</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>450</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S23.000</td><td>5.002</td><td>0.010</td><td>500.2</td><td>0.018</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S23.001</td><td>6.193</td><td>0.247</td><td>25.1</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S24.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.010</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S24.001</td><td>5.420</td><td>0.247</td><td>21.9</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr></table> |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  | PN | Length<br>(m)   | Fall<br>(m)    | Slope<br>(1:X) | I.Area<br>(ha)   | T.E.<br>(mins)       | Base<br>Flow (l/s) | k<br>(mm)         | HYD<br>SECT  | DIA<br>(mm)  | Section Type  | Auto<br>Design | S19.000 | 4.661 | 0.051 | 91.4  | 0.020 | 4.00 | 0.0 | 0.600 | o     | 450 | Pipe/Conduit |  | S20.000 | 5.000 | 0.010 | 500.0 | 0.023 | 4.00 | 0.0  | 0.600 | o   | 150     | Pipe/Conduit |  | S20.001 | 7.013 | 1.041 | 6.7 | 0.000 | 0.00 | 0.0  | 0.600 | o       | 150   | Pipe/Conduit |  | S21.000 | 5.000 | 0.010 | 500.0 | 0.013 | 4.00 | 0.0 | 0.600   | o     | 100  | Pipe/Conduit |  | S21.001 | 8.789 | 1.241 | 7.1  | 0.000 | 0.00 | 0.0    | 0.600 | o    | 100   | Pipe/Conduit |  | S1.007 | 21.970 | 0.059 | 372.4 | 0.032 | 0.00    | 0.0   | 0.600 | o     | 450   | Pipe/Conduit |  | S22.000 | 4.998 | 0.010 | 499.8 | 0.027   | 4.00  | 0.0  | 0.600 | o     | 150 | Pipe/Conduit |  | S22.001 | 4.924 | 1.568 | 3.1     | 0.000 | 0.00 | 0.0   | 0.600 | o   | 150 | Pipe/Conduit |  | S22.002 | 13.744 | 0.082  | 167.6 | 0.034 | 0.00  | 0.0   | 0.600 | o   | 225 | Pipe/Conduit |  | S1.008 | 11.291  | 0.030 | 376.4 | 0.000 | 0.00  | 0.0 | 0.600 | o   | 450  | Pipe/Conduit |  | S23.000 | 5.002 | 0.010 | 500.2 | 0.018 | 4.00 | 0.0 | 0.600 | o    | 100  | Pipe/Conduit |  | S23.001 | 6.193 | 0.247 | 25.1  | 0.000 | 0.00 | 0.0 | 0.600 | o   | 100 | Pipe/Conduit |  | S24.000 | 5.000 | 0.010 | 500.0 | 0.010 | 4.00 | 0.0  | 0.600 | o   | 100 | Pipe/Conduit |  | S24.001 | 5.420 | 0.247 | 21.9 | 0.000 | 0.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Length<br>(m)   | Fall<br>(m)    | Slope<br>(1:X) | I.Area<br>(ha)   | T.E.<br>(mins)       | Base<br>Flow (l/s)              | k<br>(mm)         | HYD<br>SECT  | DIA<br>(mm)  | Section Type  | Auto<br>Design                                                                        |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S19.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 4.661           | 0.051          | 91.4           | 0.020            | 4.00                 | 0.0                             | 0.600             | o            | 450          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S20.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5.000           | 0.010          | 500.0          | 0.023            | 4.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S20.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7.013           | 1.041          | 6.7            | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S21.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5.000           | 0.010          | 500.0          | 0.013            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S21.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 8.789           | 1.241          | 7.1            | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S1.007                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 21.970          | 0.059          | 372.4          | 0.032            | 0.00                 | 0.0                             | 0.600             | o            | 450          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S22.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 4.998           | 0.010          | 499.8          | 0.027            | 4.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S22.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 4.924           | 1.568          | 3.1            | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S22.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 13.744          | 0.082          | 167.6          | 0.034            | 0.00                 | 0.0                             | 0.600             | o            | 225          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S1.008                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 11.291          | 0.030          | 376.4          | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 450          | Pipe/Conduit  |   |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S23.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5.002           | 0.010          | 500.2          | 0.018            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S23.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6.193           | 0.247          | 25.1           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S24.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5.000           | 0.010          | 500.0          | 0.010            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S24.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5.420           | 0.247          | 21.9           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| <p style="text-align: center;"><u>Network Results Table</u></p> <table><tr><th>PN</th><th>Rain<br/>(mm/hr)</th><th>T.C.<br/>(mins)</th><th>US/IL<br/>(m)</th><th>Σ I.Area<br/>(ha)</th><th>Σ Base<br/>Flow (l/s)</th><th>Foul<br/>(l/s)</th><th>Add Flow<br/>(l/s)</th><th>Vel<br/>(m/s)</th><th>Cap<br/>(l/s)</th><th>Flow<br/>(l/s)</th></tr><tr><td>S19.000</td><td>50.00</td><td>4.04</td><td>4.450</td><td>0.020</td><td>0.0</td><td>0.0</td><td>0.0</td><td>2.13</td><td>338.4</td><td>2.7</td></tr><tr><td>S20.000</td><td>50.00</td><td>4.19</td><td>5.800</td><td>0.023</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.44</td><td>7.8</td><td>3.1</td></tr><tr><td>S20.001</td><td>50.00</td><td>4.22</td><td>5.790</td><td>0.023</td><td>0.0</td><td>0.0</td><td>0.0</td><td>3.91</td><td>69.1</td><td>3.1</td></tr><tr><td>S21.000</td><td>50.00</td><td>4.25</td><td>6.000</td><td>0.013</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>1.8</td></tr><tr><td>S21.001</td><td>50.00</td><td>4.30</td><td>5.990</td><td>0.013</td><td>0.0</td><td>0.0</td><td>0.0</td><td>2.92</td><td>23.0</td><td>1.8</td></tr><tr><td>S1.007</td><td>41.71</td><td>8.93</td><td>4.399</td><td>0.650</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.05</td><td>166.6</td><td>73.4</td></tr><tr><td>S22.000</td><td>50.00</td><td>4.19</td><td>6.300</td><td>0.027</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.44</td><td>7.8</td><td>3.7</td></tr><tr><td>S22.001</td><td>50.00</td><td>4.20</td><td>6.290</td><td>0.027</td><td>0.0</td><td>0.0</td><td>0.0</td><td>5.73</td><td>101.2</td><td>3.7</td></tr><tr><td>S22.002</td><td>50.00</td><td>4.43</td><td>4.647</td><td>0.061</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.01</td><td>40.0</td><td>8.2</td></tr><tr><td>S1.008</td><td>41.19</td><td>9.11</td><td>4.340</td><td>0.710</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.04</td><td>165.7</td><td>79.3</td></tr><tr><td>S23.000</td><td>50.00</td><td>4.25</td><td>6.450</td><td>0.018</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>2.4</td></tr><tr><td>S23.001</td><td>50.00</td><td>4.31</td><td>6.440</td><td>0.018</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.55</td><td>12.2</td><td>2.4</td></tr><tr><td>S24.000</td><td>50.00</td><td>4.25</td><td>6.450</td><td>0.010</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>1.4</td></tr><tr><td>S24.001</td><td>50.00</td><td>4.30</td><td>6.440</td><td>0.010</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.66</td><td>13.0</td><td>1.4</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  | PN | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m)   | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Foul<br>(l/s)      | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s) | S19.000        | 50.00   | 4.04  | 4.450 | 0.020 | 0.0   | 0.0  | 0.0 | 2.13  | 338.4 | 2.7 | S20.000      | 50.00                                                                               | 4.19    | 5.800 | 0.023 | 0.0   | 0.0   | 0.0  | 0.44 | 7.8   | 3.1 | S20.001 | 50.00        | 4.22                                                                                | 5.790   | 0.023 | 0.0   | 0.0 | 0.0   | 3.91 | 69.1 | 3.1   | S21.000 | 50.00 | 4.25         | 6.000                                                                               | 0.013   | 0.0   | 0.0   | 0.0   | 0.34  | 2.7  | 1.8 | S21.001 | 50.00 | 4.30 | 5.990        | 0.013                                                                               | 0.0     | 0.0   | 0.0   | 2.92 | 23.0  | 1.8  | S1.007 | 41.71 | 8.93 | 4.399 | 0.650        | 0.0                                                                                 | 0.0    | 0.0    | 1.05  | 166.6 | 73.4  | S22.000 | 50.00 | 4.19  | 6.300 | 0.027 | 0.0          | 0.0                                                                                 | 0.0     | 0.44  | 7.8   | 3.7   | S22.001 | 50.00 | 4.20 | 6.290 | 0.027 | 0.0 | 0.0          | 0.0                                                                                 | 5.73    | 101.2 | 3.7   | S22.002 | 50.00 | 4.43 | 4.647 | 0.061 | 0.0 | 0.0 | 0.0          | 1.01                                                                                | 40.0    | 8.2    | S1.008 | 41.19 | 9.11  | 4.340 | 0.710 | 0.0   | 0.0 | 0.0 | 1.04         | 165.7                                                                               | 79.3   | S23.000 | 50.00 | 4.25  | 6.450 | 0.018 | 0.0 | 0.0   | 0.0 | 0.34 | 2.7          | 2.4                                                                                  | S23.001 | 50.00 | 4.31  | 6.440 | 0.018 | 0.0  | 0.0 | 0.0   | 1.55 | 12.2 | 2.4          | S24.000                                                                               | 50.00   | 4.25  | 6.450 | 0.010 | 0.0   | 0.0  | 0.0 | 0.34  | 2.7 | 1.4 | S24.001      | 50.00                                                                                 | 4.30    | 6.440 | 0.010 | 0.0   | 0.0   | 0.0  | 1.66 | 13.0  | 1.4 |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m)   | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Foul<br>(l/s)                   | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s) |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S19.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 50.00           | 4.04           | 4.450          | 0.020            | 0.0                  | 0.0                             | 0.0               | 2.13         | 338.4        | 2.7           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S20.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 50.00           | 4.19           | 5.800          | 0.023            | 0.0                  | 0.0                             | 0.0               | 0.44         | 7.8          | 3.1           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S20.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 50.00           | 4.22           | 5.790          | 0.023            | 0.0                  | 0.0                             | 0.0               | 3.91         | 69.1         | 3.1           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S21.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 50.00           | 4.25           | 6.000          | 0.013            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.8           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S21.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 50.00           | 4.30           | 5.990          | 0.013            | 0.0                  | 0.0                             | 0.0               | 2.92         | 23.0         | 1.8           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S1.007                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 41.71           | 8.93           | 4.399          | 0.650            | 0.0                  | 0.0                             | 0.0               | 1.05         | 166.6        | 73.4          |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S22.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 50.00           | 4.19           | 6.300          | 0.027            | 0.0                  | 0.0                             | 0.0               | 0.44         | 7.8          | 3.7           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S22.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 50.00           | 4.20           | 6.290          | 0.027            | 0.0                  | 0.0                             | 0.0               | 5.73         | 101.2        | 3.7           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S22.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 50.00           | 4.43           | 4.647          | 0.061            | 0.0                  | 0.0                             | 0.0               | 1.01         | 40.0         | 8.2           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S1.008                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 41.19           | 9.11           | 4.340          | 0.710            | 0.0                  | 0.0                             | 0.0               | 1.04         | 165.7        | 79.3          |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S23.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 50.00           | 4.25           | 6.450          | 0.018            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 2.4           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S23.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 50.00           | 4.31           | 6.440          | 0.018            | 0.0                  | 0.0                             | 0.0               | 1.55         | 12.2         | 2.4           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S24.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 50.00           | 4.25           | 6.450          | 0.010            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.4           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S24.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 50.00           | 4.30           | 6.440          | 0.010            | 0.0                  | 0.0                             | 0.0               | 1.66         | 13.0         | 1.4           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |     |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |     |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |        |       |      |       |              |                                                                                     |        |        |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |       |         |       |      |       |       |     |              |                                                                                     |         |       |       |         |       |      |       |       |     |     |              |                                                                                     |         |        |        |       |       |       |       |       |     |     |              |                                                                                     |        |         |       |       |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |

| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                 |                |                |                  |                                 |                    |                   |              |              | Page 6                                                                              |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|----------------|------------------|---------------------------------|--------------------|-------------------|--------------|--------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----|---------------|-------------|----------------|----------------|----------------|--------------------|-----------|-------------|-------------|--------------|----------------|---------|--------|-------|-------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|--------|-------|-------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|------|-------|------|-----|-------|---|-----|--------------|--------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|---------------------------------------------------------------------------------------|---------|--------|-------|-------|-------|------|-----|-------|---|-----|--------------|---------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|---------------------------------------------------------------------------------------|---------|-------|-------|------|-------|------|-----|-------|---|-----|--------------|---------------------------------------------------------------------------------------|----|-----------------|----------------|--------------|------------------|----------------------|---------------|-------------------|--------------|--------------|---------------|---------|-------|------|-------|-------|-----|-----|-----|------|------|-----|---------|-------|------|-------|-------|-----|-----|-----|------|-----|-----|---------|-------|------|-------|-------|-----|-----|-----|------|------|-----|---------|-------|------|-------|-------|-----|-----|-----|------|-----|-----|---------|-------|------|-------|-------|-----|-----|-----|------|------|-----|---------|-------|------|-------|-------|-----|-----|-----|------|-----|-----|---------|-------|------|-------|-------|-----|-----|-----|------|------|-----|---------|-------|------|-------|-------|-----|-----|-----|------|------|------|---------|-------|------|-------|-------|-----|-----|-----|------|-----|-----|---------|-------|------|-------|-------|-----|-----|-----|------|------|-----|---------|-------|------|-------|-------|-----|-----|-----|------|------|------|---------|-------|------|-------|-------|-----|-----|-----|------|------|------|---------|-------|------|-------|-------|-----|-----|-----|------|-----|-----|---------|-------|------|-------|-------|-----|-----|-----|------|------|-----|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                |                |                  | Burndell Road,<br>Yapton        |                    |                   |              |              |  |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                |                |                  | Designed by SG<br>Checked by LH |                    |                   |              |              |                                                                                     |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| XP Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                 |                |                |                  | Network 2018.1                  |                    |                   |              |              |                                                                                     |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| <p style="text-align: center;"><u>Network Design Table for SW Network</u></p> <table><tr><th>PN</th><th>Length<br/>(m)</th><th>Fall<br/>(m)</th><th>Slope<br/>(1:X)</th><th>I.Area<br/>(ha)</th><th>T.E.<br/>(mins)</th><th>Base<br/>Flow (l/s)</th><th>k<br/>(mm)</th><th>HYD<br/>SECT</th><th>DIA<br/>(mm)</th><th>Section Type</th><th>Auto<br/>Design</th></tr><tr><td>S23.002</td><td>28.743</td><td>0.172</td><td>167.1</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S25.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.017</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S25.001</td><td>7.936</td><td>0.319</td><td>24.9</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S26.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.015</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S26.001</td><td>6.040</td><td>0.219</td><td>27.6</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S27.000</td><td>4.992</td><td>0.010</td><td>499.2</td><td>0.013</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S27.001</td><td>5.271</td><td>0.219</td><td>24.1</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S23.003</td><td>52.563</td><td>0.315</td><td>166.9</td><td>0.041</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S28.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.014</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S28.001</td><td>8.947</td><td>0.284</td><td>31.5</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S23.004</td><td>8.967</td><td>0.038</td><td>236.0</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S23.005</td><td>10.913</td><td>0.046</td><td>237.2</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S29.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.007</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S29.001</td><td>5.665</td><td>0.218</td><td>26.0</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr></table> <p style="text-align: center;"><u>Network Results Table</u></p> <table><tr><th>PN</th><th>Rain<br/>(mm/hr)</th><th>T.C.<br/>(mins)</th><th>US/IL<br/>(m)</th><th>Σ I.Area<br/>(ha)</th><th>Σ Base<br/>Flow (l/s)</th><th>Foul<br/>(l/s)</th><th>Add Flow<br/>(l/s)</th><th>Vel<br/>(m/s)</th><th>Cap<br/>(l/s)</th><th>Flow<br/>(l/s)</th></tr><tr><td>S23.002</td><td>50.00</td><td>4.79</td><td>6.068</td><td>0.028</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.01</td><td>40.1</td><td>3.8</td></tr><tr><td>S25.000</td><td>50.00</td><td>4.25</td><td>6.350</td><td>0.017</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>2.3</td></tr><tr><td>S25.001</td><td>50.00</td><td>4.33</td><td>6.340</td><td>0.017</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.55</td><td>12.2</td><td>2.3</td></tr><tr><td>S26.000</td><td>50.00</td><td>4.25</td><td>6.250</td><td>0.015</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>2.0</td></tr><tr><td>S26.001</td><td>50.00</td><td>4.32</td><td>6.240</td><td>0.015</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.48</td><td>11.6</td><td>2.0</td></tr><tr><td>S27.000</td><td>50.00</td><td>4.25</td><td>6.250</td><td>0.013</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>1.8</td></tr><tr><td>S27.001</td><td>50.00</td><td>4.30</td><td>6.240</td><td>0.013</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.58</td><td>12.4</td><td>1.8</td></tr><tr><td>S23.003</td><td>50.00</td><td>5.66</td><td>5.896</td><td>0.114</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.01</td><td>40.1</td><td>15.5</td></tr><tr><td>S28.000</td><td>50.00</td><td>4.25</td><td>6.000</td><td>0.014</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>1.9</td></tr><tr><td>S28.001</td><td>50.00</td><td>4.35</td><td>5.990</td><td>0.014</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.38</td><td>10.8</td><td>1.9</td></tr><tr><td>S23.004</td><td>50.00</td><td>5.80</td><td>5.506</td><td>0.128</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.02</td><td>72.0</td><td>17.4</td></tr><tr><td>S23.005</td><td>50.00</td><td>5.98</td><td>5.468</td><td>0.128</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.02</td><td>71.8</td><td>17.4</td></tr><tr><td>S29.000</td><td>50.00</td><td>4.25</td><td>5.850</td><td>0.007</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>0.9</td></tr><tr><td>S29.001</td><td>50.00</td><td>4.31</td><td>5.840</td><td>0.007</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.52</td><td>11.9</td><td>0.9</td></tr></table> |                 |                |                |                  |                                 |                    |                   |              |              |                                                                                     |                                                                                       | PN | Length<br>(m) | Fall<br>(m) | Slope<br>(1:X) | I.Area<br>(ha) | T.E.<br>(mins) | Base<br>Flow (l/s) | k<br>(mm) | HYD<br>SECT | DIA<br>(mm) | Section Type | Auto<br>Design | S23.002 | 28.743 | 0.172 | 167.1 | 0.000 | 0.00 | 0.0 | 0.600 | o | 225 | Pipe/Conduit |  | S25.000 | 5.000 | 0.010 | 500.0 | 0.017 | 4.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  | S25.001 | 7.936 | 0.319 | 24.9 | 0.000 | 0.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  | S26.000 | 5.000 | 0.010 | 500.0 | 0.015 | 4.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  | S26.001 | 6.040 | 0.219 | 27.6 | 0.000 | 0.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  | S27.000 | 4.992 | 0.010 | 499.2 | 0.013 | 4.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  | S27.001 | 5.271 | 0.219 | 24.1 | 0.000 | 0.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  | S23.003 | 52.563 | 0.315 | 166.9 | 0.041 | 0.00 | 0.0 | 0.600 | o | 225 | Pipe/Conduit |  | S28.000 | 5.000 | 0.010 | 500.0 | 0.014 | 4.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  | S28.001 | 8.947 | 0.284 | 31.5 | 0.000 | 0.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  | S23.004 | 8.967 | 0.038 | 236.0 | 0.000 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit |  | S23.005 | 10.913 | 0.046 | 237.2 | 0.000 | 0.00 | 0.0 | 0.600 | o | 300 | Pipe/Conduit |  | S29.000 | 5.000 | 0.010 | 500.0 | 0.007 | 4.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  | S29.001 | 5.665 | 0.218 | 26.0 | 0.000 | 0.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  | PN | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m) | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Foul<br>(l/s) | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s) | S23.002 | 50.00 | 4.79 | 6.068 | 0.028 | 0.0 | 0.0 | 0.0 | 1.01 | 40.1 | 3.8 | S25.000 | 50.00 | 4.25 | 6.350 | 0.017 | 0.0 | 0.0 | 0.0 | 0.34 | 2.7 | 2.3 | S25.001 | 50.00 | 4.33 | 6.340 | 0.017 | 0.0 | 0.0 | 0.0 | 1.55 | 12.2 | 2.3 | S26.000 | 50.00 | 4.25 | 6.250 | 0.015 | 0.0 | 0.0 | 0.0 | 0.34 | 2.7 | 2.0 | S26.001 | 50.00 | 4.32 | 6.240 | 0.015 | 0.0 | 0.0 | 0.0 | 1.48 | 11.6 | 2.0 | S27.000 | 50.00 | 4.25 | 6.250 | 0.013 | 0.0 | 0.0 | 0.0 | 0.34 | 2.7 | 1.8 | S27.001 | 50.00 | 4.30 | 6.240 | 0.013 | 0.0 | 0.0 | 0.0 | 1.58 | 12.4 | 1.8 | S23.003 | 50.00 | 5.66 | 5.896 | 0.114 | 0.0 | 0.0 | 0.0 | 1.01 | 40.1 | 15.5 | S28.000 | 50.00 | 4.25 | 6.000 | 0.014 | 0.0 | 0.0 | 0.0 | 0.34 | 2.7 | 1.9 | S28.001 | 50.00 | 4.35 | 5.990 | 0.014 | 0.0 | 0.0 | 0.0 | 1.38 | 10.8 | 1.9 | S23.004 | 50.00 | 5.80 | 5.506 | 0.128 | 0.0 | 0.0 | 0.0 | 1.02 | 72.0 | 17.4 | S23.005 | 50.00 | 5.98 | 5.468 | 0.128 | 0.0 | 0.0 | 0.0 | 1.02 | 71.8 | 17.4 | S29.000 | 50.00 | 4.25 | 5.850 | 0.007 | 0.0 | 0.0 | 0.0 | 0.34 | 2.7 | 0.9 | S29.001 | 50.00 | 4.31 | 5.840 | 0.007 | 0.0 | 0.0 | 0.0 | 1.52 | 11.9 | 0.9 |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Length<br>(m)   | Fall<br>(m)    | Slope<br>(1:X) | I.Area<br>(ha)   | T.E.<br>(mins)                  | Base<br>Flow (l/s) | k<br>(mm)         | HYD<br>SECT  | DIA<br>(mm)  | Section Type                                                                        | Auto<br>Design                                                                        |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S23.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 28.743          | 0.172          | 167.1          | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 225          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S25.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5.000           | 0.010          | 500.0          | 0.017            | 4.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S25.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7.936           | 0.319          | 24.9           | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S26.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5.000           | 0.010          | 500.0          | 0.015            | 4.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S26.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6.040           | 0.219          | 27.6           | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S27.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 4.992           | 0.010          | 499.2          | 0.013            | 4.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S27.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5.271           | 0.219          | 24.1           | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S23.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 52.563          | 0.315          | 166.9          | 0.041            | 0.00                            | 0.0                | 0.600             | o            | 225          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S28.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5.000           | 0.010          | 500.0          | 0.014            | 4.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S28.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8.947           | 0.284          | 31.5           | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |   |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S23.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8.967           | 0.038          | 236.0          | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 300          | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S23.005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10.913          | 0.046          | 237.2          | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 300          | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S29.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5.000           | 0.010          | 500.0          | 0.007            | 4.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S29.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5.665           | 0.218          | 26.0           | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m)   | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s)            | Foul<br>(l/s)      | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s)                                                                       |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S23.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 4.79           | 6.068          | 0.028            | 0.0                             | 0.0                | 0.0               | 1.01         | 40.1         | 3.8                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S25.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 4.25           | 6.350          | 0.017            | 0.0                             | 0.0                | 0.0               | 0.34         | 2.7          | 2.3                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S25.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 4.33           | 6.340          | 0.017            | 0.0                             | 0.0                | 0.0               | 1.55         | 12.2         | 2.3                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S26.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 4.25           | 6.250          | 0.015            | 0.0                             | 0.0                | 0.0               | 0.34         | 2.7          | 2.0                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S26.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 4.32           | 6.240          | 0.015            | 0.0                             | 0.0                | 0.0               | 1.48         | 11.6         | 2.0                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S27.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 4.25           | 6.250          | 0.013            | 0.0                             | 0.0                | 0.0               | 0.34         | 2.7          | 1.8                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S27.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 4.30           | 6.240          | 0.013            | 0.0                             | 0.0                | 0.0               | 1.58         | 12.4         | 1.8                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S23.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 5.66           | 5.896          | 0.114            | 0.0                             | 0.0                | 0.0               | 1.01         | 40.1         | 15.5                                                                                |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S28.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 4.25           | 6.000          | 0.014            | 0.0                             | 0.0                | 0.0               | 0.34         | 2.7          | 1.9                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S28.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 4.35           | 5.990          | 0.014            | 0.0                             | 0.0                | 0.0               | 1.38         | 10.8         | 1.9                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S23.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 5.80           | 5.506          | 0.128            | 0.0                             | 0.0                | 0.0               | 1.02         | 72.0         | 17.4                                                                                |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S23.005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 5.98           | 5.468          | 0.128            | 0.0                             | 0.0                | 0.0               | 1.02         | 71.8         | 17.4                                                                                |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S29.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 4.25           | 5.850          | 0.007            | 0.0                             | 0.0                | 0.0               | 0.34         | 2.7          | 0.9                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| S29.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00           | 4.31           | 5.840          | 0.007            | 0.0                             | 0.0                | 0.0               | 1.52         | 11.9         | 0.9                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                |                |                  |                                 |                    |                   |              |              |                                                                                     |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                      |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |        |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |      |      |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |

| Odyssey Markides                                         |                 |                |                |                  |                      |                                 |                   |              |              |               | Page 7                                                                                |  |  |
|----------------------------------------------------------|-----------------|----------------|----------------|------------------|----------------------|---------------------------------|-------------------|--------------|--------------|---------------|---------------------------------------------------------------------------------------|--|--|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF |                 |                |                |                  |                      | Burndell Road,<br>Yapton        |                   |              |              |               |    |  |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      |                 |                |                |                  |                      | Designed by SG<br>Checked by LH |                   |              |              |               |                                                                                       |  |  |
| XP Solutions                                             |                 |                |                |                  |                      | Network 2018.1                  |                   |              |              |               |                                                                                       |  |  |
| <u>Network Design Table for SW Network</u>               |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |  |
| PN                                                       | Length<br>(m)   | Fall<br>(m)    | Slope<br>(1:X) | I.Area<br>(ha)   | T.E.<br>(mins)       | Base<br>Flow (l/s)              | k<br>(mm)         | HYD<br>SECT  | DIA<br>(mm)  | Section Type  | Auto<br>Design                                                                        |  |  |
| S23.006                                                  | 10.494          | 0.044          | 238.5          | 0.029            | 0.00                 | 0.0                             | 0.600             | o            | 300          | Pipe/Conduit  |    |  |  |
| S30.000                                                  | 5.000           | 0.010          | 500.0          | 0.019            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S30.001                                                  | 5.482           | 0.162          | 33.8           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S31.000                                                  | 5.000           | 0.010          | 500.0          | 0.008            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S31.001                                                  | 10.296          | 0.462          | 22.3           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S32.000                                                  | 5.000           | 0.010          | 500.0          | 0.010            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S32.001                                                  | 7.810           | 0.512          | 15.3           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S33.000                                                  | 5.000           | 0.010          | 500.0          | 0.019            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S33.001                                                  | 5.831           | 0.412          | 14.2           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S34.000                                                  | 5.000           | 0.010          | 500.0          | 0.013            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |   |  |  |
| S34.001                                                  | 5.000           | 0.262          | 19.1           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |  |
| S23.007                                                  | 69.027          | 0.179          | 385.6          | 0.026            | 0.00                 | 0.0                             | 0.600             | o            | 450          | Pipe/Conduit  |  |  |  |
| S35.000                                                  | 10.506          | 0.031          | 338.9          | 0.000            | 4.00                 | 0.0                             | 0.600             | o            | 450          | Pipe/Conduit  |  |  |  |
| S23.008                                                  | 9.072           | 0.024          | 378.0          | 0.027            | 0.00                 | 0.0                             | 0.600             | o            | 450          | Pipe/Conduit  |  |  |  |
| <u>Network Results Table</u>                             |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |  |
| PN                                                       | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m)   | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Foul<br>(l/s)                   | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s) |                                                                                       |  |  |
| S23.006                                                  | 50.00           | 6.15           | 5.422          | 0.164            | 0.0                  | 0.0                             | 0.0               | 1.01         | 71.7         | 22.3          |                                                                                       |  |  |
| S30.000                                                  | 50.00           | 4.25           | 5.750          | 0.019            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 2.6           |                                                                                       |  |  |
| S30.001                                                  | 50.00           | 4.32           | 5.740          | 0.019            | 0.0                  | 0.0                             | 0.0               | 1.33         | 10.5         | 2.6           |                                                                                       |  |  |
| S31.000                                                  | 50.00           | 4.25           | 6.050          | 0.008            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.1           |                                                                                       |  |  |
| S31.001                                                  | 50.00           | 4.35           | 6.040          | 0.008            | 0.0                  | 0.0                             | 0.0               | 1.64         | 12.9         | 1.1           |                                                                                       |  |  |
| S32.000                                                  | 50.00           | 4.25           | 6.100          | 0.010            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.4           |                                                                                       |  |  |
| S32.001                                                  | 50.00           | 4.31           | 6.090          | 0.010            | 0.0                  | 0.0                             | 0.0               | 1.99         | 15.6         | 1.4           |                                                                                       |  |  |
| S33.000                                                  | 50.00           | 4.25           | 6.000          | 0.019            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 2.6           |                                                                                       |  |  |
| S33.001                                                  | 50.00           | 4.29           | 5.990          | 0.019            | 0.0                  | 0.0                             | 0.0               | 2.06         | 16.2         | 2.6           |                                                                                       |  |  |
| S34.000                                                  | 50.00           | 4.25           | 5.850          | 0.013            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.8           |                                                                                       |  |  |
| S34.001                                                  | 50.00           | 4.29           | 5.840          | 0.013            | 0.0                  | 0.0                             | 0.0               | 1.78         | 13.9         | 1.8           |                                                                                       |  |  |
| S23.007                                                  | 47.45           | 7.27           | 5.228          | 0.259            | 0.0                  | 0.0                             | 0.0               | 1.03         | 163.7        | 33.3          |                                                                                       |  |  |
| S35.000                                                  | 50.00           | 4.16           | 5.080          | 0.000            | 0.0                  | 0.0                             | 0.0               | 1.10         | 174.7        | 0.0           |                                                                                       |  |  |
| S23.008                                                  | 46.86           | 7.42           | 5.049          | 0.287            | 0.0                  | 0.0                             | 0.0               | 1.04         | 165.3        | 36.4          |                                                                                       |  |  |
| ©1982-2018 Innovyze                                      |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |  |

| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |                |                |                  |                      |                                 |                   |              |              |               | Page 8                                                                                |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|----------------|------------------|----------------------|---------------------------------|-------------------|--------------|--------------|---------------|---------------------------------------------------------------------------------------|--|----|-----------------|----------------|----------------|------------------|----------------------|--------------------|-------------------|--------------|--------------|---------------|----------------|---------|-------|-------|-------|-------|------|-----|-------|-------|------|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|------|-------|-----|---------|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|------|-------|------|------|-------|---------|-------|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|---------|-------|------|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|------|-------|------|---------|-------|------|-------|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|---------|-------|-------|-------|-------|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|------|---------|-------|------|-------|-------|-----|--------------|-------------------------------------------------------------------------------------|---------|--------|-------|---------|-------|------|-------|-------|-----|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|---------|-------|-------|-------|-------|-------|-----|-----|--------------|-------------------------------------------------------------------------------------|---------|---------|-------|------|-------|-------|-----|-------|-----|------|--------------|--------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|------|------|--------------|---------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|-----|-----|--------------|---------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|------|-------|-----|-----|--------------|---------------------------------------------------------------------------------------|---------|-------|-------|------|-------|------|-----|-------|---|-----|--------------|---------------------------------------------------------------------------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |                |                |                  |                      | Burndell Road,<br>Yapton        |                   |              |              |               |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |                |                |                  |                      | Designed by SG<br>Checked by LH |                   |              |              |               |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| XP Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                 |                |                |                  |                      | Network 2018.1                  |                   |              |              |               |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| <p style="text-align: center;"><u>Network Design Table for SW Network</u></p> <table><tr><th>PN</th><th>Length<br/>(m)</th><th>Fall<br/>(m)</th><th>Slope<br/>(1:X)</th><th>I.Area<br/>(ha)</th><th>T.E.<br/>(mins)</th><th>Base<br/>Flow (l/s)</th><th>k<br/>(mm)</th><th>HYD<br/>SECT</th><th>DIA<br/>(mm)</th><th>Section Type</th><th>Auto<br/>Design</th></tr><tr><td>S23.009</td><td>9.664</td><td>0.025</td><td>386.6</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>450</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S36.000</td><td>4.998</td><td>0.010</td><td>499.8</td><td>0.016</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S36.001</td><td>6.863</td><td>0.450</td><td>15.3</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S37.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.010</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S37.001</td><td>4.482</td><td>0.250</td><td>17.9</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S38.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.016</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S38.001</td><td>3.330</td><td>0.250</td><td>13.3</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S36.002</td><td>48.237</td><td>0.619</td><td>77.9</td><td>0.061</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S39.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.013</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S39.001</td><td>3.330</td><td>0.169</td><td>19.7</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S40.000</td><td>4.999</td><td>0.010</td><td>499.9</td><td>0.026</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S40.001</td><td>7.886</td><td>0.569</td><td>13.9</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S41.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.020</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S41.001</td><td>5.507</td><td>0.400</td><td>13.8</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td></tr></table> |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  | PN | Length<br>(m)   | Fall<br>(m)    | Slope<br>(1:X) | I.Area<br>(ha)   | T.E.<br>(mins)       | Base<br>Flow (l/s) | k<br>(mm)         | HYD<br>SECT  | DIA<br>(mm)  | Section Type  | Auto<br>Design | S23.009 | 9.664 | 0.025 | 386.6 | 0.000 | 0.00 | 0.0 | 0.600 | o     | 450  | Pipe/Conduit |  | S36.000 | 4.998 | 0.010 | 499.8 | 0.016 | 4.00 | 0.0  | 0.600 | o   | 100     | Pipe/Conduit |  | S36.001 | 6.863 | 0.450 | 15.3 | 0.000 | 0.00 | 0.0  | 0.600 | o       | 100   | Pipe/Conduit |  | S37.000 | 5.000 | 0.010 | 500.0 | 0.010 | 4.00 | 0.0 | 0.600   | o     | 100  | Pipe/Conduit |  | S37.001 | 4.482 | 0.250 | 17.9 | 0.000 | 0.00 | 0.0     | 0.600 | o    | 100   | Pipe/Conduit |  | S38.000 | 5.000 | 0.010 | 500.0 | 0.016 | 4.00    | 0.0   | 0.600 | o     | 100   | Pipe/Conduit |  | S38.001 | 3.330 | 0.250 | 13.3 | 0.000   | 0.00  | 0.0  | 0.600 | o     | 100 | Pipe/Conduit |  | S36.002 | 48.237 | 0.619 | 77.9    | 0.061 | 0.00 | 0.0   | 0.600 | o   | 150 | Pipe/Conduit |  | S39.000 | 5.000 | 0.010   | 500.0 | 0.013 | 4.00  | 0.0   | 0.600 | o   | 100 | Pipe/Conduit |  | S39.001 | 3.330   | 0.169 | 19.7 | 0.000 | 0.00  | 0.0 | 0.600 | o   | 100  | Pipe/Conduit |  | S40.000 | 4.999 | 0.010 | 499.9 | 0.026 | 4.00 | 0.0 | 0.600 | o    | 150  | Pipe/Conduit |  | S40.001 | 7.886 | 0.569 | 13.9  | 0.000 | 0.00 | 0.0 | 0.600 | o   | 150 | Pipe/Conduit |  | S41.000 | 5.000 | 0.010 | 500.0 | 0.020 | 4.00 | 0.0  | 0.600 | o   | 150 | Pipe/Conduit |  | S41.001 | 5.507 | 0.400 | 13.8 | 0.000 | 0.00 | 0.0 | 0.600 | o | 150 | Pipe/Conduit |  |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Length<br>(m)   | Fall<br>(m)    | Slope<br>(1:X) | I.Area<br>(ha)   | T.E.<br>(mins)       | Base<br>Flow (l/s)              | k<br>(mm)         | HYD<br>SECT  | DIA<br>(mm)  | Section Type  | Auto<br>Design                                                                        |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S23.009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 9.664           | 0.025          | 386.6          | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 450          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S36.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.998           | 0.010          | 499.8          | 0.016            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S36.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6.863           | 0.450          | 15.3           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S37.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5.000           | 0.010          | 500.0          | 0.010            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S37.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.482           | 0.250          | 17.9           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S38.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5.000           | 0.010          | 500.0          | 0.016            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S38.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.330           | 0.250          | 13.3           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S36.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 48.237          | 0.619          | 77.9           | 0.061            | 0.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S39.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5.000           | 0.010          | 500.0          | 0.013            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S39.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.330           | 0.169          | 19.7           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |   |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S40.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.999           | 0.010          | 499.9          | 0.026            | 4.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |  |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S40.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7.886           | 0.569          | 13.9           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |  |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S41.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5.000           | 0.010          | 500.0          | 0.020            | 4.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |  |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S41.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5.507           | 0.400          | 13.8           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |  |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| <p style="text-align: center;"><u>Network Results Table</u></p> <table><tr><th>PN</th><th>Rain<br/>(mm/hr)</th><th>T.C.<br/>(mins)</th><th>US/IL<br/>(m)</th><th>Σ I.Area<br/>(ha)</th><th>Σ Base<br/>Flow (l/s)</th><th>Foul<br/>(l/s)</th><th>Add Flow<br/>(l/s)</th><th>Vel<br/>(m/s)</th><th>Cap<br/>(l/s)</th><th>Flow<br/>(l/s)</th></tr><tr><td>S23.009</td><td>46.25</td><td>7.57</td><td>5.025</td><td>0.287</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.03</td><td>163.5</td><td>36.4</td></tr><tr><td>S36.000</td><td>50.00</td><td>4.25</td><td>6.700</td><td>0.016</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>2.2</td></tr><tr><td>S36.001</td><td>50.00</td><td>4.30</td><td>6.690</td><td>0.016</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.99</td><td>15.6</td><td>2.2</td></tr><tr><td>S37.000</td><td>50.00</td><td>4.25</td><td>6.500</td><td>0.010</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>1.4</td></tr><tr><td>S37.001</td><td>50.00</td><td>4.29</td><td>6.490</td><td>0.010</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.83</td><td>14.4</td><td>1.4</td></tr><tr><td>S38.000</td><td>50.00</td><td>4.25</td><td>6.500</td><td>0.016</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>2.2</td></tr><tr><td>S38.001</td><td>50.00</td><td>4.27</td><td>6.490</td><td>0.016</td><td>0.0</td><td>0.0</td><td>0.0</td><td>2.13</td><td>16.7</td><td>2.2</td></tr><tr><td>S36.002</td><td>50.00</td><td>5.01</td><td>6.190</td><td>0.103</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.14</td><td>20.1</td><td>13.9</td></tr><tr><td>S39.000</td><td>50.00</td><td>4.25</td><td>5.800</td><td>0.013</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>1.8</td></tr><tr><td>S39.001</td><td>50.00</td><td>4.28</td><td>5.790</td><td>0.013</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.75</td><td>13.7</td><td>1.8</td></tr><tr><td>S40.000</td><td>50.00</td><td>4.19</td><td>6.150</td><td>0.026</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.44</td><td>7.8</td><td>3.5</td></tr><tr><td>S40.001</td><td>50.00</td><td>4.24</td><td>6.140</td><td>0.026</td><td>0.0</td><td>0.0</td><td>0.0</td><td>2.72</td><td>48.1</td><td>3.5</td></tr><tr><td>S41.000</td><td>50.00</td><td>4.19</td><td>6.350</td><td>0.020</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.44</td><td>7.8</td><td>2.7</td></tr><tr><td>S41.001</td><td>50.00</td><td>4.22</td><td>6.340</td><td>0.020</td><td>0.0</td><td>0.0</td><td>0.0</td><td>2.73</td><td>48.2</td><td>2.7</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  | PN | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m)   | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Foul<br>(l/s)      | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s) | S23.009        | 46.25   | 7.57  | 5.025 | 0.287 | 0.0   | 0.0  | 0.0 | 1.03  | 163.5 | 36.4 | S36.000      | 50.00                                                                               | 4.25    | 6.700 | 0.016 | 0.0   | 0.0   | 0.0  | 0.34 | 2.7   | 2.2 | S36.001 | 50.00        | 4.30                                                                                | 6.690   | 0.016 | 0.0   | 0.0  | 0.0   | 1.99 | 15.6 | 2.2   | S37.000 | 50.00 | 4.25         | 6.500                                                                               | 0.010   | 0.0   | 0.0   | 0.0   | 0.34  | 2.7  | 1.4 | S37.001 | 50.00 | 4.29 | 6.490        | 0.010                                                                               | 0.0     | 0.0   | 0.0   | 1.83 | 14.4  | 1.4  | S38.000 | 50.00 | 4.25 | 6.500 | 0.016        | 0.0                                                                                 | 0.0     | 0.0   | 0.34  | 2.7   | 2.2   | S38.001 | 50.00 | 4.27  | 6.490 | 0.016 | 0.0          | 0.0                                                                                 | 0.0     | 2.13  | 16.7  | 2.2  | S36.002 | 50.00 | 5.01 | 6.190 | 0.103 | 0.0 | 0.0          | 0.0                                                                                 | 1.14    | 20.1   | 13.9  | S39.000 | 50.00 | 4.25 | 5.800 | 0.013 | 0.0 | 0.0 | 0.0          | 0.34                                                                                | 2.7     | 1.8   | S39.001 | 50.00 | 4.28  | 5.790 | 0.013 | 0.0   | 0.0 | 0.0 | 1.75         | 13.7                                                                                | 1.8     | S40.000 | 50.00 | 4.19 | 6.150 | 0.026 | 0.0 | 0.0   | 0.0 | 0.44 | 7.8          | 3.5                                                                                  | S40.001 | 50.00 | 4.24  | 6.140 | 0.026 | 0.0  | 0.0 | 0.0   | 2.72 | 48.1 | 3.5          | S41.000                                                                               | 50.00   | 4.19  | 6.350 | 0.020 | 0.0   | 0.0  | 0.0 | 0.44  | 7.8 | 2.7 | S41.001      | 50.00                                                                                 | 4.22    | 6.340 | 0.020 | 0.0   | 0.0   | 0.0  | 2.73 | 48.2  | 2.7 |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m)   | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Foul<br>(l/s)                   | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s) |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S23.009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 46.25           | 7.57           | 5.025          | 0.287            | 0.0                  | 0.0                             | 0.0               | 1.03         | 163.5        | 36.4          |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S36.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.00           | 4.25           | 6.700          | 0.016            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 2.2           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S36.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.00           | 4.30           | 6.690          | 0.016            | 0.0                  | 0.0                             | 0.0               | 1.99         | 15.6         | 2.2           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S37.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.00           | 4.25           | 6.500          | 0.010            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.4           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S37.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.00           | 4.29           | 6.490          | 0.010            | 0.0                  | 0.0                             | 0.0               | 1.83         | 14.4         | 1.4           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S38.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.00           | 4.25           | 6.500          | 0.016            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 2.2           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S38.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.00           | 4.27           | 6.490          | 0.016            | 0.0                  | 0.0                             | 0.0               | 2.13         | 16.7         | 2.2           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S36.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.00           | 5.01           | 6.190          | 0.103            | 0.0                  | 0.0                             | 0.0               | 1.14         | 20.1         | 13.9          |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S39.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.00           | 4.25           | 5.800          | 0.013            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.8           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S39.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.00           | 4.28           | 5.790          | 0.013            | 0.0                  | 0.0                             | 0.0               | 1.75         | 13.7         | 1.8           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S40.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.00           | 4.19           | 6.150          | 0.026            | 0.0                  | 0.0                             | 0.0               | 0.44         | 7.8          | 3.5           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S40.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.00           | 4.24           | 6.140          | 0.026            | 0.0                  | 0.0                             | 0.0               | 2.72         | 48.1         | 3.5           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S41.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.00           | 4.19           | 6.350          | 0.020            | 0.0                  | 0.0                             | 0.0               | 0.44         | 7.8          | 2.7           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| S41.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 50.00           | 4.22           | 6.340          | 0.020            | 0.0                  | 0.0                             | 0.0               | 2.73         | 48.2         | 2.7           |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |    |                 |                |                |                  |                      |                    |                   |              |              |               |                |         |       |       |       |       |      |     |       |       |      |              |                                                                                     |         |       |       |       |       |      |      |       |     |         |              |                                                                                     |         |       |       |      |       |      |      |       |         |       |              |                                                                                     |         |       |       |       |       |      |     |         |       |      |              |                                                                                     |         |       |       |      |       |      |         |       |      |       |              |                                                                                     |         |       |       |       |       |         |       |       |       |       |              |                                                                                     |         |       |       |      |         |       |      |       |       |     |              |                                                                                     |         |        |       |         |       |      |       |       |     |     |              |                                                                                     |         |       |         |       |       |       |       |       |     |     |              |                                                                                     |         |         |       |      |       |       |     |       |     |      |              |                                                                                      |         |       |       |       |       |      |     |       |      |      |              |                                                                                       |         |       |       |       |       |      |     |       |     |     |              |                                                                                       |         |       |       |       |       |      |      |       |     |     |              |                                                                                       |         |       |       |      |       |      |     |       |   |     |              |                                                                                       |

| Odyssey Markides                                         |                 |                |                |                  |                      |                                 |                   |              |              |               | Page 9                                                                                |  |  |
|----------------------------------------------------------|-----------------|----------------|----------------|------------------|----------------------|---------------------------------|-------------------|--------------|--------------|---------------|---------------------------------------------------------------------------------------|--|--|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF |                 |                |                |                  |                      | Burndell Road,<br>Yapton        |                   |              |              |               |    |  |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      |                 |                |                |                  |                      | Designed by SG<br>Checked by LH |                   |              |              |               |                                                                                       |  |  |
| XP Solutions                                             |                 |                |                |                  |                      | Network 2018.1                  |                   |              |              |               |                                                                                       |  |  |
| <u>Network Design Table for SW Network</u>               |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |  |
| PN                                                       | Length<br>(m)   | Fall<br>(m)    | Slope<br>(1:X) | I.Area<br>(ha)   | T.E.<br>(mins)       | Base<br>Flow (l/s)              | k<br>(mm)         | HYD<br>SECT  | DIA<br>(mm)  | Section Type  | Auto<br>Design                                                                        |  |  |
| S42.000                                                  | 5.000           | 0.010          | 500.0          | 0.013            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S42.001                                                  | 2.528           | 0.200          | 12.6           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S43.000                                                  | 4.983           | 0.010          | 500.0          | 0.124            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S43.001                                                  | 10.637          | 0.200          | 53.2           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S41.002                                                  | 30.809          | 0.184          | 167.4          | 0.053            | 0.00                 | 0.0                             | 0.600             | o            | 225          | Pipe/Conduit  |    |  |  |
| S44.000                                                  | 5.000           | 0.010          | 500.0          | 0.026            | 4.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |    |  |  |
| S44.001                                                  | 10.271          | 0.246          | 41.8           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |    |  |  |
| S41.003                                                  | 7.439           | 0.045          | 165.3          | 0.014            | 0.00                 | 0.0                             | 0.600             | o            | 225          | Pipe/Conduit  |    |  |  |
| S45.000                                                  | 5.000           | 0.010          | 500.0          | 0.048            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |  |
| S45.001                                                  | 6.507           | 0.529          | 12.3           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |   |  |  |
| S41.004                                                  | 7.565           | 0.045          | 168.1          | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 225          | Pipe/Conduit  |  |  |  |
| S46.000                                                  | 5.023           | 0.010          | 502.3          | 0.022            | 4.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |  |  |  |
| S46.001                                                  | 3.305           | 0.574          | 5.8            | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |  |  |  |
| S47.000                                                  | 5.000           | 0.010          | 500.0          | 0.020            | 4.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |  |  |  |
| <u>Network Results Table</u>                             |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |  |
| PN                                                       | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m)   | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Foul<br>(l/s)                   | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s) |                                                                                       |  |  |
| S42.000                                                  | 50.00           | 4.25           | 6.200          | 0.013            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.8           |                                                                                       |  |  |
| S42.001                                                  | 50.00           | 4.27           | 6.190          | 0.013            | 0.0                  | 0.0                             | 0.0               | 2.19         | 17.2         | 1.8           |                                                                                       |  |  |
| S43.000                                                  | 50.00           | 4.25           | 6.200          | 0.124            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7«         | 16.8          |                                                                                       |  |  |
| S43.001                                                  | 50.00           | 4.41           | 6.190          | 0.124            | 0.0                  | 0.0                             | 0.0               | 1.06         | 8.3«         | 16.8          |                                                                                       |  |  |
| S41.002                                                  | 50.00           | 4.92           | 5.865          | 0.210            | 0.0                  | 0.0                             | 0.0               | 1.01         | 40.1         | 28.4          |                                                                                       |  |  |
| S44.000                                                  | 50.00           | 4.19           | 5.950          | 0.026            | 0.0                  | 0.0                             | 0.0               | 0.44         | 7.8          | 3.5           |                                                                                       |  |  |
| S44.001                                                  | 50.00           | 4.30           | 5.940          | 0.026            | 0.0                  | 0.0                             | 0.0               | 1.56         | 27.6         | 3.5           |                                                                                       |  |  |
| S41.003                                                  | 50.00           | 5.05           | 5.681          | 0.250            | 0.0                  | 0.0                             | 0.0               | 1.01         | 40.3         | 33.9          |                                                                                       |  |  |
| S45.000                                                  | 50.00           | 4.25           | 6.300          | 0.048            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7«         | 6.5           |                                                                                       |  |  |
| S45.001                                                  | 50.00           | 4.30           | 6.290          | 0.048            | 0.0                  | 0.0                             | 0.0               | 2.22         | 17.4         | 6.5           |                                                                                       |  |  |
| S41.004                                                  | 50.00           | 5.17           | 5.636          | 0.298            | 0.0                  | 0.0                             | 0.0               | 1.01         | 40.0«        | 40.4          |                                                                                       |  |  |
| S46.000                                                  | 50.00           | 4.19           | 6.250          | 0.022            | 0.0                  | 0.0                             | 0.0               | 0.44         | 7.8          | 3.0           |                                                                                       |  |  |
| S46.001                                                  | 50.00           | 4.20           | 6.240          | 0.022            | 0.0                  | 0.0                             | 0.0               | 4.23         | 74.7         | 3.0           |                                                                                       |  |  |
| S47.000                                                  | 50.00           | 4.19           | 6.200          | 0.020            | 0.0                  | 0.0                             | 0.0               | 0.44         | 7.8          | 2.7           |                                                                                       |  |  |
| ©1982-2018 Innovyze                                      |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |  |

| Odyssey Markides                                         |                 |                |                |                  |                      |                                 |                   |              |              |               | Page 10                                                                               |  |
|----------------------------------------------------------|-----------------|----------------|----------------|------------------|----------------------|---------------------------------|-------------------|--------------|--------------|---------------|---------------------------------------------------------------------------------------|--|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF |                 |                |                |                  |                      | Burndell Road,<br>Yapton        |                   |              |              |               |    |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      |                 |                |                |                  |                      | Designed by SG<br>Checked by LH |                   |              |              |               |                                                                                       |  |
| XP Solutions                                             |                 |                |                |                  |                      | Network 2018.1                  |                   |              |              |               |                                                                                       |  |
| <u>Network Design Table for SW Network</u>               |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |
| PN                                                       | Length<br>(m)   | Fall<br>(m)    | Slope<br>(1:X) | I.Area<br>(ha)   | T.E.<br>(mins)       | Base<br>Flow (l/s)              | k<br>(mm)         | HYD<br>SECT  | DIA<br>(mm)  | Section Type  | Auto<br>Design                                                                        |  |
| S47.001                                                  | 4.481           | 0.524          | 8.6            | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |    |  |
| S41.005                                                  | 58.355          | 0.245          | 238.2          | 0.035            | 0.00                 | 0.0                             | 0.600             | o            | 300          | Pipe/Conduit  |    |  |
| S36.003                                                  | 27.089          | 0.070          | 387.0          | 0.039            | 0.00                 | 0.0                             | 0.600             | o            | 450          | Pipe/Conduit  |    |  |
| S48.000                                                  | 5.000           | 0.010          | 500.0          | 0.028            | 4.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |    |  |
| S48.001                                                  | 5.520           | 0.264          | 20.9           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 150          | Pipe/Conduit  |    |  |
| S49.000                                                  | 5.000           | 0.010          | 500.0          | 0.007            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |
| S49.001                                                  | 6.282           | 0.264          | 23.8           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |
| S50.000                                                  | 5.000           | 0.010          | 500.0          | 0.016            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |
| S50.001                                                  | 8.153           | 0.314          | 26.0           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |   |  |
| S48.002                                                  | 45.251          | 0.190          | 238.2          | 0.020            | 0.00                 | 0.0                             | 0.600             | o            | 300          | Pipe/Conduit  |  |  |
| S51.000                                                  | 4.999           | 0.010          | 499.9          | 0.016            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |
| S51.001                                                  | 6.870           | 0.154          | 44.6           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |
| S52.000                                                  | 5.000           | 0.010          | 500.0          | 0.017            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |
| S52.001                                                  | 6.179           | 0.154          | 40.1           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |
| <u>Network Results Table</u>                             |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |
| PN                                                       | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m)   | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Foul<br>(l/s)                   | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s) |                                                                                       |  |
| S47.001                                                  | 50.00           | 4.21           | 6.190          | 0.020            | 0.0                  | 0.0                             | 0.0               | 3.47         | 61.3         | 2.7           |                                                                                       |  |
| S41.005                                                  | 50.00           | 6.13           | 5.516          | 0.375            | 0.0                  | 0.0                             | 0.0               | 1.01         | 71.7         | 50.8          |                                                                                       |  |
| S36.003                                                  | 50.00           | 6.57           | 5.121          | 0.556            | 0.0                  | 0.0                             | 0.0               | 1.03         | 163.4        | 75.3          |                                                                                       |  |
| S48.000                                                  | 50.00           | 4.19           | 6.150          | 0.028            | 0.0                  | 0.0                             | 0.0               | 0.44         | 7.8          | 3.8           |                                                                                       |  |
| S48.001                                                  | 50.00           | 4.23           | 6.140          | 0.028            | 0.0                  | 0.0                             | 0.0               | 2.21         | 39.1         | 3.8           |                                                                                       |  |
| S49.000                                                  | 50.00           | 4.25           | 6.200          | 0.007            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 0.9           |                                                                                       |  |
| S49.001                                                  | 50.00           | 4.31           | 6.190          | 0.007            | 0.0                  | 0.0                             | 0.0               | 1.59         | 12.5         | 0.9           |                                                                                       |  |
| S50.000                                                  | 50.00           | 4.25           | 6.250          | 0.016            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 2.2           |                                                                                       |  |
| S50.001                                                  | 50.00           | 4.34           | 6.240          | 0.016            | 0.0                  | 0.0                             | 0.0               | 1.52         | 11.9         | 2.2           |                                                                                       |  |
| S48.002                                                  | 50.00           | 5.08           | 5.726          | 0.071            | 0.0                  | 0.0                             | 0.0               | 1.01         | 71.7         | 9.6           |                                                                                       |  |
| S51.000                                                  | 50.00           | 4.25           | 5.900          | 0.016            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 2.2           |                                                                                       |  |
| S51.001                                                  | 50.00           | 4.35           | 5.890          | 0.016            | 0.0                  | 0.0                             | 0.0               | 1.16         | 9.1          | 2.2           |                                                                                       |  |
| S52.000                                                  | 50.00           | 4.25           | 5.900          | 0.017            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 2.3           |                                                                                       |  |
| S52.001                                                  | 50.00           | 4.33           | 5.890          | 0.017            | 0.0                  | 0.0                             | 0.0               | 1.22         | 9.6          | 2.3           |                                                                                       |  |
| ©1982-2018 Innovyze                                      |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |

| Odyssey Markides                                         |                 |                |                |                  |                      |                                 |                   |              |              |               | Page 11                                                                               |  |
|----------------------------------------------------------|-----------------|----------------|----------------|------------------|----------------------|---------------------------------|-------------------|--------------|--------------|---------------|---------------------------------------------------------------------------------------|--|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF |                 |                |                |                  |                      | Burndell Road,<br>Yapton        |                   |              |              |               |    |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      |                 |                |                |                  |                      | Designed by SG<br>Checked by LH |                   |              |              |               |                                                                                       |  |
| XP Solutions                                             |                 |                |                |                  |                      | Network 2018.1                  |                   |              |              |               |                                                                                       |  |
| <u>Network Design Table for SW Network</u>               |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |
| PN                                                       | Length<br>(m)   | Fall<br>(m)    | Slope<br>(1:X) | I.Area<br>(ha)   | T.E.<br>(mins)       | Base<br>Flow (l/s)              | k<br>(mm)         | HYD<br>SECT  | DIA<br>(mm)  | Section Type  | Auto<br>Design                                                                        |  |
| S53.000                                                  | 5.000           | 0.010          | 500.0          | 0.015            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |
| S53.001                                                  | 8.613           | 0.204          | 42.2           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |
| S48.003                                                  | 27.325          | 0.115          | 237.6          | 0.051            | 0.00                 | 0.0                             | 0.600             | o            | 300          | Pipe/Conduit  |    |  |
| S48.004                                                  | 12.022          | 0.051          | 235.7          | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 300          | Pipe/Conduit  |    |  |
| S48.005                                                  | 12.930          | 0.054          | 239.4          | 0.013            | 0.00                 | 0.0                             | 0.600             | o            | 300          | Pipe/Conduit  |    |  |
| S54.000                                                  | 5.004           | 0.010          | 500.4          | 0.009            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |
| S54.001                                                  | 5.506           | 0.674          | 8.2            | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |
| S48.006                                                  | 11.368          | 0.048          | 236.8          | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 300          | Pipe/Conduit  |    |  |
| S55.000                                                  | 5.000           | 0.010          | 500.0          | 0.008            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |    |  |
| S55.001                                                  | 5.464           | 0.522          | 10.5           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |   |  |
| S56.000                                                  | 5.000           | 0.010          | 500.0          | 0.011            | 4.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |
| S56.001                                                  | 3.343           | 0.322          | 10.4           | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 100          | Pipe/Conduit  |  |  |
| S48.007                                                  | 17.921          | 0.047          | 385.0          | 0.021            | 0.00                 | 0.0                             | 0.600             | o            | 450          | Pipe/Conduit  |  |  |
| S48.008                                                  | 7.799           | 0.020          | 385.0          | 0.000            | 0.00                 | 0.0                             | 0.600             | o            | 450          | Pipe/Conduit  |  |  |
| <u>Network Results Table</u>                             |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |
| PN                                                       | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m)   | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Foul<br>(l/s)                   | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s) |                                                                                       |  |
| S53.000                                                  | 50.00           | 4.25           | 5.950          | 0.015            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 2.0           |                                                                                       |  |
| S53.001                                                  | 50.00           | 4.37           | 5.940          | 0.015            | 0.0                  | 0.0                             | 0.0               | 1.19         | 9.3          | 2.0           |                                                                                       |  |
| S48.003                                                  | 50.00           | 5.53           | 5.536          | 0.170            | 0.0                  | 0.0                             | 0.0               | 1.02         | 71.8         | 23.0          |                                                                                       |  |
| S48.004                                                  | 50.00           | 5.72           | 5.421          | 0.170            | 0.0                  | 0.0                             | 0.0               | 1.02         | 72.1         | 23.0          |                                                                                       |  |
| S48.005                                                  | 50.00           | 5.94           | 5.370          | 0.183            | 0.0                  | 0.0                             | 0.0               | 1.01         | 71.5         | 24.8          |                                                                                       |  |
| S54.000                                                  | 50.00           | 4.25           | 6.200          | 0.009            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.6          | 1.2           |                                                                                       |  |
| S54.001                                                  | 50.00           | 4.28           | 6.190          | 0.009            | 0.0                  | 0.0                             | 0.0               | 2.72         | 21.4         | 1.2           |                                                                                       |  |
| S48.006                                                  | 50.00           | 6.12           | 5.316          | 0.192            | 0.0                  | 0.0                             | 0.0               | 1.02         | 71.9         | 26.0          |                                                                                       |  |
| S55.000                                                  | 50.00           | 4.25           | 6.000          | 0.008            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.1           |                                                                                       |  |
| S55.001                                                  | 50.00           | 4.28           | 5.990          | 0.008            | 0.0                  | 0.0                             | 0.0               | 2.40         | 18.9         | 1.1           |                                                                                       |  |
| S56.000                                                  | 50.00           | 4.25           | 5.800          | 0.011            | 0.0                  | 0.0                             | 0.0               | 0.34         | 2.7          | 1.5           |                                                                                       |  |
| S56.001                                                  | 50.00           | 4.27           | 5.790          | 0.011            | 0.0                  | 0.0                             | 0.0               | 2.41         | 18.9         | 1.5           |                                                                                       |  |
| S48.007                                                  | 50.00           | 6.41           | 5.118          | 0.231            | 0.0                  | 0.0                             | 0.0               | 1.03         | 163.8        | 31.3          |                                                                                       |  |
| S48.008                                                  | 50.00           | 6.54           | 5.071          | 0.231            | 0.0                  | 0.0                             | 0.0               | 1.03         | 163.8        | 31.3          |                                                                                       |  |
| ©1982-2018 Innovyze                                      |                 |                |                |                  |                      |                                 |                   |              |              |               |                                                                                       |  |

| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |                |                |                  |                                 |                    |                   |              |              | Page 12                                                                             |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|----------------|------------------|---------------------------------|--------------------|-------------------|--------------|--------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----|---------------|-------------|----------------|----------------|----------------|--------------------|-----------|-------------|-------------|--------------|----------------|---------|--------|-------|-------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|--------|-------|-------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|--------|-------|-------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|--------|-------|------|-------|------|-----|-------|---|-----|--------------|-------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|--------------------------------------------------------------------------------------|---------|--------|-------|------|-------|------|-----|-------|---|-----|--------------|---------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|------|-----|-------|---|-----|--------------|---------------------------------------------------------------------------------------|----|-----------------|----------------|--------------|------------------|----------------------|---------------|-------------------|--------------|--------------|---------------|---------|-------|------|-------|-------|-----|-----|-----|------|-------|-------|---------|-------|------|-------|-------|-----|-----|-----|------|-----|-----|---------|-------|------|-------|-------|-----|-----|-----|------|------|-----|---------|-------|------|-------|-------|-----|-----|-----|------|-------|-------|---------|-------|------|-------|-------|-----|-----|-----|------|-------|-----|---------|-------|------|-------|-------|-----|-----|-----|------|-------|-------|---------|-------|------|-------|-------|-----|-----|-----|------|------|-----|---------|-------|------|-------|-------|-----|-----|-----|------|------|-----|---------|-------|------|-------|-------|-----|-----|-----|------|-----|-----|---------|-------|------|-------|-------|-----|-----|-----|------|------|-----|---------|-------|------|-------|-------|-----|-----|-----|------|-------|-------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |                |                |                  | Burndell Road,<br>Yapton        |                    |                   |              |              |  |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                 |                |                |                  | Designed by SG<br>Checked by LH |                    |                   |              |              |                                                                                     |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| XP Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |                |                |                  | Network 2018.1                  |                    |                   |              |              |                                                                                     |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| <p style="text-align: center;"><u>Network Design Table for SW Network</u></p> <table><tr><th>PN</th><th>Length<br/>(m)</th><th>Fall<br/>(m)</th><th>Slope<br/>(1:X)</th><th>I.Area<br/>(ha)</th><th>T.E.<br/>(mins)</th><th>Base<br/>Flow (l/s)</th><th>k<br/>(mm)</th><th>HYD<br/>SECT</th><th>DIA<br/>(mm)</th><th>Section Type</th><th>Auto<br/>Design</th></tr><tr><td>S36.004</td><td>10.873</td><td>0.028</td><td>385.0</td><td>0.007</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>450</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S57.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.011</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S57.001</td><td>4.383</td><td>0.417</td><td>10.5</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S36.005</td><td>8.998</td><td>0.023</td><td>385.0</td><td>0.032</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>450</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S58.000</td><td>10.839</td><td>0.050</td><td>216.8</td><td>0.000</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>450</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S23.010</td><td>31.185</td><td>0.081</td><td>385.0</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>450</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S59.000</td><td>6.364</td><td>0.400</td><td>15.9</td><td>0.008</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S59.001</td><td>26.456</td><td>0.481</td><td>55.0</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S60.000</td><td>5.000</td><td>0.010</td><td>500.0</td><td>0.050</td><td>4.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S60.001</td><td>15.304</td><td>0.771</td><td>19.8</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td></tr><tr><td>S23.011</td><td>7.194</td><td>0.019</td><td>378.6</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>450</td><td>Pipe/Conduit</td><td></td></tr></table> <p style="text-align: center;"><u>Network Results Table</u></p> <table><tr><th>PN</th><th>Rain<br/>(mm/hr)</th><th>T.C.<br/>(mins)</th><th>US/IL<br/>(m)</th><th>Σ I.Area<br/>(ha)</th><th>Σ Base<br/>Flow (l/s)</th><th>Foul<br/>(l/s)</th><th>Add Flow<br/>(l/s)</th><th>Vel<br/>(m/s)</th><th>Cap<br/>(l/s)</th><th>Flow<br/>(l/s)</th></tr><tr><td>S36.004</td><td>49.75</td><td>6.74</td><td>5.051</td><td>0.794</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.03</td><td>163.8</td><td>107.0</td></tr><tr><td>S57.000</td><td>50.00</td><td>4.25</td><td>5.800</td><td>0.011</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.34</td><td>2.7</td><td>1.5</td></tr><tr><td>S57.001</td><td>50.00</td><td>4.28</td><td>5.790</td><td>0.011</td><td>0.0</td><td>0.0</td><td>0.0</td><td>2.40</td><td>18.8</td><td>1.5</td></tr><tr><td>S36.005</td><td>49.08</td><td>6.89</td><td>5.023</td><td>0.838</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.03</td><td>163.8</td><td>111.4</td></tr><tr><td>S58.000</td><td>50.00</td><td>4.13</td><td>5.050</td><td>0.000</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.38</td><td>219.0</td><td>0.0</td></tr><tr><td>S23.010</td><td>44.42</td><td>8.08</td><td>5.000</td><td>1.124</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.03</td><td>163.8</td><td>135.3</td></tr><tr><td>S59.000</td><td>50.00</td><td>4.05</td><td>6.200</td><td>0.008</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.95</td><td>15.3</td><td>1.1</td></tr><tr><td>S59.001</td><td>50.00</td><td>4.38</td><td>5.700</td><td>0.008</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.36</td><td>24.0</td><td>1.1</td></tr><tr><td>S60.000</td><td>50.00</td><td>4.19</td><td>6.000</td><td>0.050</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.44</td><td>7.8</td><td>6.8</td></tr><tr><td>S60.001</td><td>50.00</td><td>4.30</td><td>5.990</td><td>0.050</td><td>0.0</td><td>0.0</td><td>0.0</td><td>2.27</td><td>40.1</td><td>6.8</td></tr><tr><td>S23.011</td><td>44.03</td><td>8.19</td><td>4.919</td><td>1.182</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.04</td><td>165.2</td><td>141.0</td></tr></table> |                 |                |                |                  |                                 |                    |                   |              |              |                                                                                     |                                                                                       | PN | Length<br>(m) | Fall<br>(m) | Slope<br>(1:X) | I.Area<br>(ha) | T.E.<br>(mins) | Base<br>Flow (l/s) | k<br>(mm) | HYD<br>SECT | DIA<br>(mm) | Section Type | Auto<br>Design | S36.004 | 10.873 | 0.028 | 385.0 | 0.007 | 0.00 | 0.0 | 0.600 | o | 450 | Pipe/Conduit |  | S57.000 | 5.000 | 0.010 | 500.0 | 0.011 | 4.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  | S57.001 | 4.383 | 0.417 | 10.5 | 0.000 | 0.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  | S36.005 | 8.998 | 0.023 | 385.0 | 0.032 | 0.00 | 0.0 | 0.600 | o | 450 | Pipe/Conduit |  | S58.000 | 10.839 | 0.050 | 216.8 | 0.000 | 4.00 | 0.0 | 0.600 | o | 450 | Pipe/Conduit |  | S23.010 | 31.185 | 0.081 | 385.0 | 0.000 | 0.00 | 0.0 | 0.600 | o | 450 | Pipe/Conduit |  | S59.000 | 6.364 | 0.400 | 15.9 | 0.008 | 4.00 | 0.0 | 0.600 | o | 100 | Pipe/Conduit |  | S59.001 | 26.456 | 0.481 | 55.0 | 0.000 | 0.00 | 0.0 | 0.600 | o | 150 | Pipe/Conduit |  | S60.000 | 5.000 | 0.010 | 500.0 | 0.050 | 4.00 | 0.0 | 0.600 | o | 150 | Pipe/Conduit |  | S60.001 | 15.304 | 0.771 | 19.8 | 0.000 | 0.00 | 0.0 | 0.600 | o | 150 | Pipe/Conduit |  | S23.011 | 7.194 | 0.019 | 378.6 | 0.000 | 0.00 | 0.0 | 0.600 | o | 450 | Pipe/Conduit |  | PN | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m) | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s) | Foul<br>(l/s) | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s) | S36.004 | 49.75 | 6.74 | 5.051 | 0.794 | 0.0 | 0.0 | 0.0 | 1.03 | 163.8 | 107.0 | S57.000 | 50.00 | 4.25 | 5.800 | 0.011 | 0.0 | 0.0 | 0.0 | 0.34 | 2.7 | 1.5 | S57.001 | 50.00 | 4.28 | 5.790 | 0.011 | 0.0 | 0.0 | 0.0 | 2.40 | 18.8 | 1.5 | S36.005 | 49.08 | 6.89 | 5.023 | 0.838 | 0.0 | 0.0 | 0.0 | 1.03 | 163.8 | 111.4 | S58.000 | 50.00 | 4.13 | 5.050 | 0.000 | 0.0 | 0.0 | 0.0 | 1.38 | 219.0 | 0.0 | S23.010 | 44.42 | 8.08 | 5.000 | 1.124 | 0.0 | 0.0 | 0.0 | 1.03 | 163.8 | 135.3 | S59.000 | 50.00 | 4.05 | 6.200 | 0.008 | 0.0 | 0.0 | 0.0 | 1.95 | 15.3 | 1.1 | S59.001 | 50.00 | 4.38 | 5.700 | 0.008 | 0.0 | 0.0 | 0.0 | 1.36 | 24.0 | 1.1 | S60.000 | 50.00 | 4.19 | 6.000 | 0.050 | 0.0 | 0.0 | 0.0 | 0.44 | 7.8 | 6.8 | S60.001 | 50.00 | 4.30 | 5.990 | 0.050 | 0.0 | 0.0 | 0.0 | 2.27 | 40.1 | 6.8 | S23.011 | 44.03 | 8.19 | 4.919 | 1.182 | 0.0 | 0.0 | 0.0 | 1.04 | 165.2 | 141.0 |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Length<br>(m)   | Fall<br>(m)    | Slope<br>(1:X) | I.Area<br>(ha)   | T.E.<br>(mins)                  | Base<br>Flow (l/s) | k<br>(mm)         | HYD<br>SECT  | DIA<br>(mm)  | Section Type                                                                        | Auto<br>Design                                                                        |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S36.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 10.873          | 0.028          | 385.0          | 0.007            | 0.00                            | 0.0                | 0.600             | o            | 450          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S57.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.000           | 0.010          | 500.0          | 0.011            | 4.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S57.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4.383           | 0.417          | 10.5           | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S36.005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 8.998           | 0.023          | 385.0          | 0.032            | 0.00                            | 0.0                | 0.600             | o            | 450          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S58.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 10.839          | 0.050          | 216.8          | 0.000            | 4.00                            | 0.0                | 0.600             | o            | 450          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S23.010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 31.185          | 0.081          | 385.0          | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 450          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S59.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.364           | 0.400          | 15.9           | 0.008            | 4.00                            | 0.0                | 0.600             | o            | 100          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S59.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 26.456          | 0.481          | 55.0           | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 150          | Pipe/Conduit                                                                        |    |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S60.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.000           | 0.010          | 500.0          | 0.050            | 4.00                            | 0.0                | 0.600             | o            | 150          | Pipe/Conduit                                                                        |   |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S60.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 15.304          | 0.771          | 19.8           | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 150          | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S23.011                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 7.194           | 0.019          | 378.6          | 0.000            | 0.00                            | 0.0                | 0.600             | o            | 450          | Pipe/Conduit                                                                        |  |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Rain<br>(mm/hr) | T.C.<br>(mins) | US/IL<br>(m)   | Σ I.Area<br>(ha) | Σ Base<br>Flow (l/s)            | Foul<br>(l/s)      | Add Flow<br>(l/s) | Vel<br>(m/s) | Cap<br>(l/s) | Flow<br>(l/s)                                                                       |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S36.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 49.75           | 6.74           | 5.051          | 0.794            | 0.0                             | 0.0                | 0.0               | 1.03         | 163.8        | 107.0                                                                               |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S57.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.25           | 5.800          | 0.011            | 0.0                             | 0.0                | 0.0               | 0.34         | 2.7          | 1.5                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S57.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.28           | 5.790          | 0.011            | 0.0                             | 0.0                | 0.0               | 2.40         | 18.8         | 1.5                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S36.005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 49.08           | 6.89           | 5.023          | 0.838            | 0.0                             | 0.0                | 0.0               | 1.03         | 163.8        | 111.4                                                                               |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S58.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.13           | 5.050          | 0.000            | 0.0                             | 0.0                | 0.0               | 1.38         | 219.0        | 0.0                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S23.010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 44.42           | 8.08           | 5.000          | 1.124            | 0.0                             | 0.0                | 0.0               | 1.03         | 163.8        | 135.3                                                                               |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S59.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.05           | 6.200          | 0.008            | 0.0                             | 0.0                | 0.0               | 1.95         | 15.3         | 1.1                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S59.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.38           | 5.700          | 0.008            | 0.0                             | 0.0                | 0.0               | 1.36         | 24.0         | 1.1                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S60.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.19           | 6.000          | 0.050            | 0.0                             | 0.0                | 0.0               | 0.44         | 7.8          | 6.8                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S60.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 50.00           | 4.30           | 5.990          | 0.050            | 0.0                             | 0.0                | 0.0               | 2.27         | 40.1         | 6.8                                                                                 |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| S23.011                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 44.03           | 8.19           | 4.919          | 1.182            | 0.0                             | 0.0                | 0.0               | 1.04         | 165.2        | 141.0                                                                               |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                 |                |                |                  |                                 |                    |                   |              |              |                                                                                     |                                                                                       |    |               |             |                |                |                |                    |           |             |             |              |                |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |        |       |       |       |      |     |       |   |     |              |                                                                                     |         |       |       |      |       |      |     |       |   |     |              |                                                                                     |         |        |       |      |       |      |     |       |   |     |              |                                                                                     |         |       |       |       |       |      |     |       |   |     |              |                                                                                      |         |        |       |      |       |      |     |       |   |     |              |                                                                                       |         |       |       |       |       |      |     |       |   |     |              |                                                                                       |    |                 |                |              |                  |                      |               |                   |              |              |               |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |       |     |         |       |      |       |       |     |     |     |      |       |       |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |     |     |         |       |      |       |       |     |     |     |      |      |     |         |       |      |       |       |     |     |     |      |       |       |

| Odyssey Markides                                         |           |              |               |                                 |         |                           |               | Page 13                                                                             |                           |
|----------------------------------------------------------|-----------|--------------|---------------|---------------------------------|---------|---------------------------|---------------|-------------------------------------------------------------------------------------|---------------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF |           |              |               | Burndell Road,<br>Yapton        |         |                           |               |  |                           |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      |           |              |               | Designed by SG<br>Checked by LH |         |                           |               |                                                                                     |                           |
| XP Solutions                                             |           |              |               | Network 2018.1                  |         |                           |               |                                                                                     |                           |
| <u>Manhole Schedules for SW Network</u>                  |           |              |               |                                 |         |                           |               |                                                                                     |                           |
| MH Name                                                  | MH CL (m) | MH Depth (m) | MH Connection | MH Diam., L*W (mm)              | PN      | Pipe Out Invert Level (m) | Diameter (mm) | PN                                                                                  | Pipes In Invert Level (m) |
| S1                                                       | 6.935     | 1.290        | Open Manhole  | 1200                            | S1.000  | 5.645                     | 225           |                                                                                     |                           |
| S2                                                       | 6.971     | 1.465        | Open Manhole  | 1200                            | S1.001  | 5.506                     | 225           | S1.000                                                                              | 5.506                     |
| S3                                                       | 6.670     | 1.450        | Open Manhole  | 1200                            | S1.002  | 5.220                     | 300           | S1.001                                                                              | 5.295                     |
| S4                                                       | 6.780     | 1.953        | Open Manhole  | 1350                            | S1.003  | 4.827                     | 450           | S1.002                                                                              | 4.977                     |
| S5                                                       | 6.983     | 1.425        | Open Manhole  | 1200                            | S2.000  | 5.558                     | 225           |                                                                                     |                           |
| PP_3-4                                                   | 7.250     | 1.000        | Open Manhole  | 1200                            | S3.000  | 6.250                     | 100           |                                                                                     |                           |
| ORI_3-4                                                  | 7.250     | 1.010        | Open Manhole  | 1200                            | S3.001  | 6.240                     | 100           | S3.000                                                                              | 6.240                     |
| PP_1-2                                                   | 7.000     | 1.000        | Open Manhole  | 1200                            | S4.000  | 6.000                     | 150           |                                                                                     |                           |
| ORI_1-2                                                  | 7.000     | 1.010        | Open Manhole  | 1200                            | S4.001  | 5.990                     | 150           | S4.000                                                                              | 5.990                     |
| PP_108                                                   | 7.350     | 1.000        | Open Manhole  | 1200                            | S5.000  | 6.350                     | 100           |                                                                                     |                           |
| ORI_108                                                  | 7.350     | 1.010        | Open Manhole  | 1200                            | S5.001  | 6.340                     | 100           | S5.000                                                                              | 6.340                     |
| S6                                                       | 6.849     | 2.054        | Open Manhole  | 1350                            | S1.004  | 4.795                     | 450           | S1.003                                                                              | 4.795                     |
|                                                          |           |              |               |                                 |         |                           |               | S2.000                                                                              | 5.021                     |
|                                                          |           |              |               |                                 |         |                           |               | S3.001                                                                              | 5.145                     |
|                                                          |           |              |               |                                 |         |                           |               | S4.001                                                                              | 5.195                     |
|                                                          |           |              |               |                                 |         |                           |               | S5.001                                                                              | 5.145                     |
| PP_76                                                    | 7.500     | 1.000        | Open Manhole  | 1200                            | S6.000  | 6.500                     | 100           |                                                                                     |                           |
| ORI_76                                                   | 7.500     | 1.010        | Open Manhole  | 1200                            | S6.001  | 6.490                     | 100           | S6.000                                                                              | 6.490                     |
| PP_80                                                    | 7.650     | 1.000        | Open Manhole  | 1200                            | S7.000  | 6.650                     | 100           |                                                                                     |                           |
| ORI_80                                                   | 7.600     | 0.960        | Open Manhole  | 1200                            | S7.001  | 6.640                     | 100           | S7.000                                                                              | 6.640                     |
| PP_79                                                    | 7.350     | 1.000        | Open Manhole  | 1200                            | S8.000  | 6.350                     | 100           |                                                                                     |                           |
| ORI_79                                                   | 7.350     | 1.010        | Open Manhole  | 1200                            | S8.001  | 6.340                     | 100           | S8.000                                                                              | 6.340                     |
| PP_75                                                    | 7.600     | 1.000        | Open Manhole  | 1200                            | S9.000  | 6.600                     | 100           |                                                                                     |                           |
| ORI_75                                                   | 7.600     | 1.010        | Open Manhole  | 1200                            | S9.001  | 6.590                     | 100           | S9.000                                                                              | 6.590                     |
| S7                                                       | 7.512     | 1.350        | Open Manhole  | 1200                            | S6.002  | 6.162                     | 150           | S6.001                                                                              | 6.212                     |
|                                                          |           |              |               |                                 |         |                           |               | S7.001                                                                              | 6.212                     |
|                                                          |           |              |               |                                 |         |                           |               | S8.001                                                                              | 6.212                     |
|                                                          |           |              |               |                                 |         |                           |               | S9.001                                                                              | 6.212                     |
| PP_5-6                                                   | 7.450     | 1.000        | Open Manhole  | 1200                            | S10.000 | 6.450                     | 150           |                                                                                     |                           |
| ORI_5-6                                                  | 7.450     | 1.010        | Open Manhole  | 1200                            | S10.001 | 6.440                     | 150           | S10.000                                                                             | 6.440                     |
| PP_7-8                                                   | 7.500     | 1.000        | Open Manhole  | 1200                            | S11.000 | 6.500                     | 100           |                                                                                     |                           |
| ORI_7-8                                                  | 7.500     | 1.010        | Open Manhole  | 1200                            | S11.001 | 6.490                     | 100           | S11.000                                                                             | 6.490                     |
| PP_9-10                                                  | 7.400     | 1.000        | Open Manhole  | 1200                            | S12.000 | 6.400                     | 100           |                                                                                     |                           |
| ORI_9-10                                                 | 7.400     | 1.010        | Open Manhole  | 1200                            | S12.001 | 6.390                     | 100           | S12.000                                                                             | 6.390                     |
| PP_11-12                                                 | 7.250     | 1.000        | Open Manhole  | 1200                            | S13.000 | 6.250                     | 100           |                                                                                     |                           |
| ORI_11-12                                                | 7.250     | 1.010        | Open Manhole  | 1200                            | S13.001 | 6.240                     | 100           | S13.000                                                                             | 6.240                     |
| S8                                                       | 7.395     | 2.743        | Open Manhole  | 1350                            | S1.005  | 4.653                     | 450           | S1.004                                                                              | 4.652                     |
|                                                          |           |              |               |                                 |         |                           |               | S6.002                                                                              | 4.953                     |
| ©1982-2018 Innovyze                                      |           |              |               |                                 |         |                           |               |                                                                                     |                           |

| Odyssey Markides                                         |           |              |               |                                 |         |                           |               | Page 14                                                                             |                           |
|----------------------------------------------------------|-----------|--------------|---------------|---------------------------------|---------|---------------------------|---------------|-------------------------------------------------------------------------------------|---------------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF |           |              |               | Burndell Road,<br>Yapton        |         |                           |               |  |                           |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      |           |              |               | Designed by SG<br>Checked by LH |         |                           |               |                                                                                     |                           |
| XP Solutions                                             |           |              |               | Network 2018.1                  |         |                           |               |                                                                                     |                           |
| <u>Manhole Schedules for SW Network</u>                  |           |              |               |                                 |         |                           |               |                                                                                     |                           |
| MH Name                                                  | MH CL (m) | MH Depth (m) | MH Connection | MH Diam. ,L*W (mm)              | PN      | Pipe Out Invert Level (m) | Diameter (mm) | PN                                                                                  | Pipes In Invert Level (m) |
|                                                          |           |              |               |                                 |         |                           |               | S10.001                                                                             | 4.953                     |
|                                                          |           |              |               |                                 |         |                           |               | S11.001                                                                             | 5.003                     |
|                                                          |           |              |               |                                 |         |                           |               | S12.001                                                                             | 5.003                     |
|                                                          |           |              |               |                                 |         |                           |               | S13.001                                                                             | 5.003                     |
| PP_54                                                    | 7.250     | 1.000        | Open Manhole  | 1200                            | S14.000 | 6.250                     | 100           |                                                                                     |                           |
| ORI_54                                                   | 7.250     | 1.010        | Open Manhole  | 1200                            | S14.001 | 6.240                     | 100           | S14.000                                                                             | 6.240                     |
| PP_55                                                    | 7.250     | 1.000        | Open Manhole  | 1200                            | S15.000 | 6.250                     | 100           |                                                                                     |                           |
| ORI_55                                                   | 7.250     | 1.010        | Open Manhole  | 1200                            | S15.001 | 6.240                     | 100           | S15.000                                                                             | 6.240                     |
| PP_51                                                    | 7.350     | 1.000        | Open Manhole  | 1200                            | S16.000 | 6.350                     | 150           |                                                                                     |                           |
| ORI_51                                                   | 7.350     | 1.010        | Open Manhole  | 1200                            | S16.001 | 6.340                     | 150           | S16.000                                                                             | 6.340                     |
| S9                                                       | 7.204     | 2.252        | Open Manhole  | 1200                            | S14.002 | 4.952                     | 150           | S14.001                                                                             | 5.002                     |
|                                                          |           |              |               |                                 |         |                           |               | S15.001                                                                             | 5.002                     |
|                                                          |           |              |               |                                 |         |                           |               | S16.001                                                                             | 4.952                     |
| PP_13-14                                                 | 7.250     | 1.000        | Open Manhole  | 1200                            | S17.000 | 6.250                     | 150           |                                                                                     |                           |
| ORI_13-14                                                | 7.250     | 1.010        | Open Manhole  | 1200                            | S17.001 | 6.240                     | 150           | S17.000                                                                             | 6.240                     |
| PP_15                                                    | 6.850     | 1.000        | Open Manhole  | 1200                            | S18.000 | 5.850                     | 100           |                                                                                     |                           |
| ORI_15                                                   | 6.850     | 1.010        | Open Manhole  | 1200                            | S18.001 | 5.840                     | 100           | S18.000                                                                             | 5.840                     |
| S10                                                      | 6.960     | 2.483        | Open Manhole  | 1350                            | S1.006  | 4.477                     | 450           | S1.005                                                                              | 4.477                     |
|                                                          |           |              |               |                                 |         |                           |               | S14.002                                                                             | 4.777                     |
|                                                          |           |              |               |                                 |         |                           |               | S17.001                                                                             | 4.777                     |
|                                                          |           |              |               |                                 |         |                           |               | S18.001                                                                             | 4.827                     |
| S11a                                                     | 6.700     | 2.250        | Open Manhole  | 1350                            | S19.000 | 4.450                     | 450           |                                                                                     |                           |
| PP_18                                                    | 6.800     | 1.000        | Open Manhole  | 1200                            | S20.000 | 5.800                     | 150           |                                                                                     |                           |
| ORI_18                                                   | 6.800     | 1.010        | Open Manhole  | 1200                            | S20.001 | 5.790                     | 150           | S20.000                                                                             | 5.790                     |
| PP_19-53                                                 | 7.000     | 1.000        | Open Manhole  | 1200                            | S21.000 | 6.000                     | 100           |                                                                                     |                           |
| ORI_19-53                                                | 7.000     | 1.010        | Open Manhole  | 1200                            | S21.001 | 5.990                     | 100           | S21.000                                                                             | 5.990                     |
| S11                                                      | 6.702     | 2.303        | Open Manhole  | 1350                            | S1.007  | 4.399                     | 450           | S1.006                                                                              | 4.399                     |
|                                                          |           |              |               |                                 |         |                           |               | S19.000                                                                             | 4.399                     |
|                                                          |           |              |               |                                 |         |                           |               | S20.001                                                                             | 4.749                     |
|                                                          |           |              |               |                                 |         |                           |               | S21.001                                                                             | 4.749                     |
| PP_20-21                                                 | 7.300     | 1.000        | Open Manhole  | 1200                            | S22.000 | 6.300                     | 150           |                                                                                     |                           |
| ORI_20-21                                                | 7.300     | 1.010        | Open Manhole  | 1200                            | S22.001 | 6.290                     | 150           | S22.000                                                                             | 6.290                     |
| S12                                                      | 7.056     | 2.409        | Open Manhole  | 1200                            | S22.002 | 4.647                     | 225           | S22.001                                                                             | 4.722                     |
| S13                                                      | 6.884     | 2.544        | Open Manhole  | 1350                            | S1.008  | 4.340                     | 450           | S1.007                                                                              | 4.340                     |
|                                                          |           |              |               |                                 |         |                           |               | S22.002                                                                             | 4.565                     |
|                                                          | 7.000     | 2.690        | Open Manhole  | 0                               |         | OUTFALL                   |               | S1.008                                                                              | 4.310                     |
| PP_22-23                                                 | 7.450     | 1.000        | Open Manhole  | 1200                            | S23.000 | 6.450                     | 100           |                                                                                     |                           |
| ©1982-2018 Innovyze                                      |           |              |               |                                 |         |                           |               |                                                                                     |                           |

| Odyssey Markides                                         |           |              |               |                                 |         |                           |               | Page 15                                                                             |                           |
|----------------------------------------------------------|-----------|--------------|---------------|---------------------------------|---------|---------------------------|---------------|-------------------------------------------------------------------------------------|---------------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF |           |              |               | Burndell Road,<br>Yapton        |         |                           |               |  |                           |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      |           |              |               | Designed by SG<br>Checked by LH |         |                           |               |                                                                                     |                           |
| XP Solutions                                             |           |              |               | Network 2018.1                  |         |                           |               |                                                                                     |                           |
| <u>Manhole Schedules for SW Network</u>                  |           |              |               |                                 |         |                           |               |                                                                                     |                           |
| MH Name                                                  | MH CL (m) | MH Depth (m) | MH Connection | MH Diam., L*W (mm)              | PN      | Pipe Out Invert Level (m) | Diameter (mm) | PN                                                                                  | Pipes In Invert Level (m) |
| ORI_22-23                                                | 7.450     | 1.010        | Open Manhole  | 1200                            | S23.001 | 6.440                     | 100           | S23.000                                                                             | 6.440                     |
| PP_24                                                    | 7.450     | 1.000        | Open Manhole  | 1200                            | S24.000 | 6.450                     | 100           |                                                                                     |                           |
| ORI_24                                                   | 7.450     | 1.010        | Open Manhole  | 1200                            | S24.001 | 6.440                     | 100           | S24.000                                                                             | 6.440                     |
| S15                                                      | 7.273     | 1.205        | Open Manhole  | 1200                            | S23.002 | 6.068                     | 225           | S23.001                                                                             | 6.193                     |
|                                                          |           |              |               |                                 |         |                           |               | S24.001                                                                             | 6.193                     |
| PP_25-26                                                 | 7.350     | 1.000        | Open Manhole  | 1200                            | S25.000 | 6.350                     | 100           |                                                                                     |                           |
| ORI_25-26                                                | 7.350     | 1.010        | Open Manhole  | 1200                            | S25.001 | 6.340                     | 100           | S25.000                                                                             | 6.340                     |
| PP_27                                                    | 7.250     | 1.000        | Open Manhole  | 1200                            | S26.000 | 6.250                     | 100           |                                                                                     |                           |
| ORI_27                                                   | 7.250     | 1.010        | Open Manhole  | 1200                            | S26.001 | 6.240                     | 100           | S26.000                                                                             | 6.240                     |
| PP_28                                                    | 7.250     | 1.000        | Open Manhole  | 1200                            | S27.000 | 6.250                     | 100           |                                                                                     |                           |
| ORI_28                                                   | 7.250     | 1.010        | Open Manhole  | 1200                            | S27.001 | 6.240                     | 100           | S27.000                                                                             | 6.240                     |
| S16                                                      | 7.471     | 1.575        | Open Manhole  | 1200                            | S23.003 | 5.896                     | 225           | S23.002                                                                             | 5.896                     |
|                                                          |           |              |               |                                 |         |                           |               | S25.001                                                                             | 6.021                     |
|                                                          |           |              |               |                                 |         |                           |               | S26.001                                                                             | 6.021                     |
|                                                          |           |              |               |                                 |         |                           |               | S27.001                                                                             | 6.021                     |
| PP_29                                                    | 7.000     | 1.000        | Open Manhole  | 1200                            | S28.000 | 6.000                     | 100           |                                                                                     |                           |
| ORI_29                                                   | 7.000     | 1.010        | Open Manhole  | 1200                            | S28.001 | 5.990                     | 100           | S28.000                                                                             | 5.990                     |
| S18                                                      | 6.909     | 1.403        | Open Manhole  | 1200                            | S23.004 | 5.506                     | 300           | S23.003                                                                             | 5.581                     |
|                                                          |           |              |               |                                 |         |                           |               | S28.001                                                                             | 5.706                     |
| S19                                                      | 6.695     | 1.227        | Open Manhole  | 1200                            | S23.005 | 5.468                     | 300           | S23.004                                                                             | 5.468                     |
| PP_30                                                    | 6.850     | 1.000        | Open Manhole  | 1200                            | S29.000 | 5.850                     | 100           |                                                                                     |                           |
| ORI_30                                                   | 6.850     | 1.010        | Open Manhole  | 1200                            | S29.001 | 5.840                     | 100           | S29.000                                                                             | 5.840                     |
| S20                                                      | 6.610     | 1.188        | Open Manhole  | 1200                            | S23.006 | 5.422                     | 300           | S23.005                                                                             | 5.422                     |
|                                                          |           |              |               |                                 |         |                           |               | S29.001                                                                             | 5.622                     |
| PP_31                                                    | 6.750     | 1.000        | Open Manhole  | 1200                            | S30.000 | 5.750                     | 100           |                                                                                     |                           |
| ORI_31                                                   | 6.750     | 1.010        | Open Manhole  | 1200                            | S30.001 | 5.740                     | 100           | S30.000                                                                             | 5.740                     |
| PP_32                                                    | 7.050     | 1.000        | Open Manhole  | 1200                            | S31.000 | 6.050                     | 100           |                                                                                     |                           |
| ORI_32                                                   | 7.050     | 1.010        | Open Manhole  | 1200                            | S31.001 | 6.040                     | 100           | S31.000                                                                             | 6.040                     |
| PP_33                                                    | 7.100     | 1.000        | Open Manhole  | 1200                            | S32.000 | 6.100                     | 100           |                                                                                     |                           |
| ORI_33                                                   | 7.100     | 1.010        | Open Manhole  | 1200                            | S32.001 | 6.090                     | 100           | S32.000                                                                             | 6.090                     |
| PP_34-35                                                 | 7.000     | 1.000        | Open Manhole  | 1200                            | S33.000 | 6.000                     | 100           |                                                                                     |                           |
| ORI_34-35                                                | 7.000     | 1.010        | Open Manhole  | 1200                            | S33.001 | 5.990                     | 100           | S33.000                                                                             | 5.990                     |
| PP_36                                                    | 6.850     | 1.000        | Open Manhole  | 1200                            | S34.000 | 5.850                     | 100           |                                                                                     |                           |
| ORI_36                                                   | 6.850     | 1.010        | Open Manhole  | 1200                            | S34.001 | 5.840                     | 100           | S34.000                                                                             | 5.840                     |
| S21                                                      | 6.639     | 1.411        | Open Manhole  | 1350                            | S23.007 | 5.228                     | 450           | S23.006                                                                             | 5.378                     |
|                                                          |           |              |               |                                 |         |                           |               | S30.001                                                                             | 5.578                     |
|                                                          |           |              |               |                                 |         |                           |               | S31.001                                                                             | 5.578                     |
|                                                          |           |              |               |                                 |         |                           |               | S32.001                                                                             | 5.578                     |
| ©1982-2018 Innovyze                                      |           |              |               |                                 |         |                           |               |                                                                                     |                           |

| Odyssey Markides                                         |           |              |               |                                 |         |                           |               | Page 16                                                                             |                           |
|----------------------------------------------------------|-----------|--------------|---------------|---------------------------------|---------|---------------------------|---------------|-------------------------------------------------------------------------------------|---------------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF |           |              |               | Burndell Road,<br>Yapton        |         |                           |               |  |                           |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      |           |              |               | Designed by SG<br>Checked by LH |         |                           |               |                                                                                     |                           |
| XP Solutions                                             |           |              |               | Network 2018.1                  |         |                           |               |                                                                                     |                           |
| <u>Manhole Schedules for SW Network</u>                  |           |              |               |                                 |         |                           |               |                                                                                     |                           |
| MH Name                                                  | MH CL (m) | MH Depth (m) | MH Connection | MH Diam., L*W (mm)              | PN      | Pipe Out Invert Level (m) | Diameter (mm) | PN                                                                                  | Pipes In Invert Level (m) |
|                                                          |           |              |               |                                 |         |                           |               | S33.001                                                                             | 5.578                     |
|                                                          |           |              |               |                                 |         |                           |               | S34.001                                                                             | 5.578                     |
| S23a                                                     | 6.600     | 1.520        | Open Manhole  | 1350                            | S35.000 | 5.080                     | 450           |                                                                                     |                           |
| S23                                                      | 6.727     | 1.678        | Open Manhole  | 1350                            | S23.008 | 5.049                     | 450           | S23.007                                                                             | 5.049                     |
|                                                          |           |              |               |                                 |         |                           |               | S35.000                                                                             | 5.049                     |
| S24                                                      | 6.617     | 1.592        | Open Manhole  | 1350                            | S23.009 | 5.025                     | 450           | S23.008                                                                             | 5.025                     |
| PP_81-82                                                 | 7.700     | 1.000        | Open Manhole  | 1200                            | S36.000 | 6.700                     | 100           |                                                                                     |                           |
| ORI_81-82                                                | 7.700     | 1.010        | Open Manhole  | 1200                            | S36.001 | 6.690                     | 100           | S36.000                                                                             | 6.690                     |
| PP_83                                                    | 7.500     | 1.000        | Open Manhole  | 1200                            | S37.000 | 6.500                     | 100           |                                                                                     |                           |
| ORI_83                                                   | 7.500     | 1.010        | Open Manhole  | 1200                            | S37.001 | 6.490                     | 100           | S37.000                                                                             | 6.490                     |
| PP_84-85                                                 | 7.500     | 1.000        | Open Manhole  | 1200                            | S38.000 | 6.500                     | 100           |                                                                                     |                           |
| ORI_84-85                                                | 7.500     | 1.010        | Open Manhole  | 1200                            | S38.001 | 6.490                     | 100           | S38.000                                                                             | 6.490                     |
| S29                                                      | 7.454     | 1.264        | Open Manhole  | 1200                            | S36.002 | 6.190                     | 150           | S36.001                                                                             | 6.240                     |
|                                                          |           |              |               |                                 |         |                           |               | S37.001                                                                             | 6.240                     |
|                                                          |           |              |               |                                 |         |                           |               | S38.001                                                                             | 6.240                     |
| PP_88                                                    | 6.800     | 1.000        | Open Manhole  | 1200                            | S39.000 | 5.800                     | 100           |                                                                                     |                           |
| ORI_88                                                   | 6.800     | 1.010        | Open Manhole  | 1200                            | S39.001 | 5.790                     | 100           | S39.000                                                                             | 5.790                     |
| PP_86-87                                                 | 7.150     | 1.000        | Open Manhole  | 1200                            | S40.000 | 6.150                     | 150           |                                                                                     |                           |
| ORI_86-87                                                | 7.150     | 1.010        | Open Manhole  | 1200                            | S40.001 | 6.140                     | 150           | S40.000                                                                             | 6.140                     |
| PP_49-50                                                 | 7.350     | 1.000        | Open Manhole  | 1200                            | S41.000 | 6.350                     | 150           |                                                                                     |                           |
| ORI_49-50                                                | 7.350     | 1.010        | Open Manhole  | 1200                            | S41.001 | 6.340                     | 150           | S41.000                                                                             | 6.340                     |
| PP_48                                                    | 7.200     | 1.000        | Open Manhole  | 1200                            | S42.000 | 6.200                     | 100           |                                                                                     |                           |
| ORI_48                                                   | 7.200     | 1.010        | Open Manhole  | 1200                            | S42.001 | 6.190                     | 100           | S42.000                                                                             | 6.190                     |
| PP_56-78                                                 | 7.200     | 1.000        | Open Manhole  | 1200                            | S43.000 | 6.200                     | 100           |                                                                                     |                           |
| ORI_56-78                                                | 7.200     | 1.010        | Open Manhole  | 1200                            | S43.001 | 6.190                     | 100           | S43.000                                                                             | 6.190                     |
| S25                                                      | 7.179     | 1.314        | Open Manhole  | 1200                            | S41.002 | 5.865                     | 225           | S41.001                                                                             | 5.940                     |
|                                                          |           |              |               |                                 |         |                           |               | S42.001                                                                             | 5.990                     |
|                                                          |           |              |               |                                 |         |                           |               | S43.001                                                                             | 5.990                     |
| PP_46-47                                                 | 6.950     | 1.000        | Open Manhole  | 1200                            | S44.000 | 5.950                     | 150           |                                                                                     |                           |
| ORI_46-47                                                | 6.950     | 1.010        | Open Manhole  | 1200                            | S44.001 | 5.940                     | 150           | S44.000                                                                             | 5.940                     |
| S26                                                      | 6.904     | 1.223        | Open Manhole  | 1200                            | S41.003 | 5.681                     | 225           | S41.002                                                                             | 5.681                     |
|                                                          |           |              |               |                                 |         |                           |               | S44.001                                                                             | 5.694                     |
| PP_41-45                                                 | 7.300     | 1.000        | Open Manhole  | 1200                            | S45.000 | 6.300                     | 100           |                                                                                     |                           |
| ORI_41-45                                                | 7.300     | 1.010        | Open Manhole  | 1200                            | S45.001 | 6.290                     | 100           | S45.000                                                                             | 6.290                     |
| S27                                                      | 6.977     | 1.341        | Open Manhole  | 1200                            | S41.004 | 5.636                     | 225           | S41.003                                                                             | 5.636                     |
|                                                          |           |              |               |                                 |         |                           |               | S45.001                                                                             | 5.761                     |
| PP_37-38                                                 | 7.250     | 1.000        | Open Manhole  | 1200                            | S46.000 | 6.250                     | 150           |                                                                                     |                           |
| ORI_37-38                                                | 7.250     | 1.010        | Open Manhole  | 1200                            | S46.001 | 6.240                     | 150           | S46.000                                                                             | 6.240                     |
| ©1982-2018 Innovyze                                      |           |              |               |                                 |         |                           |               |                                                                                     |                           |

| Odyssey Markides                                         |           |              |               |                                 |         |                           |               | Page 17                                                                             |                  |
|----------------------------------------------------------|-----------|--------------|---------------|---------------------------------|---------|---------------------------|---------------|-------------------------------------------------------------------------------------|------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF |           |              |               | Burndell Road,<br>Yapton        |         |                           |               |  |                  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      |           |              |               | Designed by SG<br>Checked by LH |         |                           |               |                                                                                     |                  |
| XP Solutions                                             |           |              |               | Network 2018.1                  |         |                           |               |                                                                                     |                  |
| <u>Manhole Schedules for SW Network</u>                  |           |              |               |                                 |         |                           |               |                                                                                     |                  |
| MH Name                                                  | MH CL (m) | MH Depth (m) | MH Connection | MH Diam., L*W (mm)              | PN      | Pipe Out Invert Level (m) | Diameter (mm) | PN                                                                                  | Pipes Inve Level |
| PP_39-40                                                 | 7.200     | 1.000        | Open Manhole  | 1200                            | S47.000 | 6.200                     | 150           |                                                                                     |                  |
| ORI_39-40                                                | 7.200     | 1.010        | Open Manhole  | 1200                            | S47.001 | 6.190                     | 150           | S47.000                                                                             | 6.190            |
| S28                                                      | 7.062     | 1.546        | Open Manhole  | 1200                            | S41.005 | 5.516                     | 300           | S41.004                                                                             | 5.516            |
|                                                          |           |              |               |                                 |         |                           |               | S46.001                                                                             | 5.516            |
|                                                          |           |              |               |                                 |         |                           |               | S47.001                                                                             | 5.516            |
| S30                                                      | 6.943     | 1.822        | Open Manhole  | 1350                            | S36.003 | 5.121                     | 450           | S36.002                                                                             | 5.121            |
|                                                          |           |              |               |                                 |         |                           |               | S39.001                                                                             | 5.121            |
|                                                          |           |              |               |                                 |         |                           |               | S40.001                                                                             | 5.121            |
|                                                          |           |              |               |                                 |         |                           |               | S41.005                                                                             | 5.121            |
| PP_105                                                   | 7.150     | 1.000        | Open Manhole  | 1200                            | S48.000 | 6.150                     | 150           |                                                                                     |                  |
| ORI_105                                                  | 7.150     | 1.010        | Open Manhole  | 1200                            | S48.001 | 6.140                     | 150           | S48.000                                                                             | 6.140            |
| PP_106                                                   | 7.200     | 1.000        | Open Manhole  | 1200                            | S49.000 | 6.200                     | 100           |                                                                                     |                  |
| ORI_106                                                  | 7.200     | 1.010        | Open Manhole  | 1200                            | S49.001 | 6.190                     | 100           | S49.000                                                                             | 6.190            |
| PP_107                                                   | 7.250     | 1.000        | Open Manhole  | 1200                            | S50.000 | 6.250                     | 100           |                                                                                     |                  |
| ORI_107                                                  | 7.250     | 1.010        | Open Manhole  | 1200                            | S50.001 | 6.240                     | 100           | S50.000                                                                             | 6.240            |
| S31                                                      | 7.154     | 1.428        | Open Manhole  | 1200                            | S48.002 | 5.726                     | 300           | S48.001                                                                             | 5.726            |
|                                                          |           |              |               |                                 |         |                           |               | S49.001                                                                             | 5.726            |
|                                                          |           |              |               |                                 |         |                           |               | S50.001                                                                             | 5.726            |
| PP_102                                                   | 6.900     | 1.000        | Open Manhole  | 1200                            | S51.000 | 5.900                     | 100           |                                                                                     |                  |
| ORI_102                                                  | 6.900     | 1.010        | Open Manhole  | 1200                            | S51.001 | 5.890                     | 100           | S51.000                                                                             | 5.890            |
| PP_100-101                                               | 6.900     | 1.000        | Open Manhole  | 1200                            | S52.000 | 5.900                     | 100           |                                                                                     |                  |
| ORI_100-101                                              | 6.900     | 1.010        | Open Manhole  | 1200                            | S52.001 | 5.890                     | 100           | S52.000                                                                             | 5.890            |
| PP_103-104                                               | 6.950     | 1.000        | Open Manhole  | 1200                            | S53.000 | 5.950                     | 100           |                                                                                     |                  |
| ORI_103-104                                              | 6.950     | 1.010        | Open Manhole  | 1200                            | S53.001 | 5.940                     | 100           | S53.000                                                                             | 5.940            |
| S32                                                      | 6.858     | 1.322        | Open Manhole  | 1200                            | S48.003 | 5.536                     | 300           | S48.002                                                                             | 5.536            |
|                                                          |           |              |               |                                 |         |                           |               | S51.001                                                                             | 5.536            |
|                                                          |           |              |               |                                 |         |                           |               | S52.001                                                                             | 5.536            |
|                                                          |           |              |               |                                 |         |                           |               | S53.001                                                                             | 5.536            |
| S33                                                      | 6.732     | 1.311        | Open Manhole  | 1200                            | S48.004 | 5.421                     | 300           | S48.003                                                                             | 5.421            |
| S34                                                      | 6.887     | 1.517        | Open Manhole  | 1200                            | S48.005 | 5.370                     | 300           | S48.004                                                                             | 5.370            |
| PP_99                                                    | 7.200     | 1.000        | Open Manhole  | 1200                            | S54.000 | 6.200                     | 100           |                                                                                     |                  |
| ORI_99                                                   | 7.200     | 1.010        | Open Manhole  | 1200                            | S54.001 | 6.190                     | 100           | S54.000                                                                             | 6.190            |
| S35                                                      | 7.020     | 1.704        | Open Manhole  | 1200                            | S48.006 | 5.316                     | 300           | S48.005                                                                             | 5.316            |
|                                                          |           |              |               |                                 |         |                           |               | S54.001                                                                             | 5.316            |
| PP_89                                                    | 7.000     | 1.000        | Open Manhole  | 1200                            | S55.000 | 6.000                     | 100           |                                                                                     |                  |
| ORI_89                                                   | 7.000     | 1.010        | Open Manhole  | 1200                            | S55.001 | 5.990                     | 100           | S55.000                                                                             | 5.990            |
| PP_91                                                    | 6.800     | 1.000        | Open Manhole  | 1200                            | S56.000 | 5.800                     | 100           |                                                                                     |                  |
| ORI_91                                                   | 6.800     | 1.010        | Open Manhole  | 1200                            | S56.001 | 5.790                     | 100           | S56.000                                                                             | 5.790            |
| ©1982-2018 Innovyze                                      |           |              |               |                                 |         |                           |               |                                                                                     |                  |

|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 18                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions<br>Network 2018.1                           |                                 |                                                                                     |

Manhole Schedules for SW Network

| MH Name   | MH CL (m) | MH Depth (m) | MH Connection | MH Diam., L*W (mm) | PN      | Pipe Out Invert Level (m) | Diameter (mm) | PN      | Pipes In Invert Level (m) | Diameter (mm) | Back (m) |
|-----------|-----------|--------------|---------------|--------------------|---------|---------------------------|---------------|---------|---------------------------|---------------|----------|
| S36       | 6.935     | 1.817        | Open Manhole  | 1350               | S48.007 | 5.118                     | 450           | S48.006 | 5.268                     | 300           |          |
|           |           |              |               |                    |         |                           |               | S55.001 | 5.468                     | 100           |          |
|           |           |              |               |                    |         |                           |               | S56.001 | 5.468                     | 100           |          |
| S37       | 6.638     | 1.567        | Open Manhole  | 1350               | S48.008 | 5.071                     | 450           | S48.007 | 5.071                     | 450           |          |
| S38       | 6.604     | 1.553        | Open Manhole  | 1350               | S36.004 | 5.051                     | 450           | S36.003 | 5.051                     | 450           |          |
|           |           |              |               |                    |         |                           |               | S48.008 | 5.051                     | 450           |          |
| PP_92     | 6.800     | 1.000        | Open Manhole  | 1200               | S57.000 | 5.800                     | 100           |         |                           |               |          |
| ORI_92    | 6.800     | 1.010        | Open Manhole  | 1200               | S57.001 | 5.790                     | 100           | S57.000 | 5.790                     | 100           |          |
| S39       | 6.600     | 1.577        | Open Manhole  | 1350               | S36.005 | 5.023                     | 450           | S36.004 | 5.023                     | 450           |          |
|           |           |              |               |                    |         |                           |               | S57.001 | 5.373                     | 100           |          |
| S40a      | 6.500     | 1.450        | Open Manhole  | 1350               | S58.000 | 5.050                     | 450           |         |                           |               |          |
| S40       | 6.526     | 1.526        | Open Manhole  | 1350               | S23.010 | 5.000                     | 450           | S23.009 | 5.000                     | 450           |          |
|           |           |              |               |                    |         |                           |               | S36.005 | 5.000                     | 450           |          |
|           |           |              |               |                    |         |                           |               | S58.000 | 5.000                     | 450           |          |
| POND      | 6.800     | 0.600        | Open Manhole  | 1200               | S59.000 | 6.200                     | 100           |         |                           |               |          |
| S41       | 6.800     | 1.100        | Open Manhole  | 1200               | S59.001 | 5.700                     | 150           | S59.000 | 5.800                     | 100           |          |
| PP_90-98  | 7.000     | 1.000        | Open Manhole  | 1200               | S60.000 | 6.000                     | 150           |         |                           |               |          |
| ORI_90-98 | 7.000     | 1.010        | Open Manhole  | 1200               | S60.001 | 5.990                     | 150           | S60.000 | 5.990                     | 150           |          |
| S42       | 6.350     | 1.431        | Open Manhole  | 1350               | S23.011 | 4.919                     | 450           | S23.010 | 4.919                     | 450           |          |
|           |           |              |               |                    |         |                           |               | S59.001 | 5.219                     | 150           |          |
|           |           |              |               |                    |         |                           |               | S60.001 | 5.219                     | 150           |          |
|           | 7.000     | 2.100        | Open Manhole  | 0                  |         | OUTFALL                   |               | S23.011 | 4.900                     | 450           |          |

Free Flowing Outfall Details for SW Network

| Outfall Pipe Number | Outfall Name | C. Level (m) | I. Level (m) | Min I. Level (m) | D, L (mm) | W (mm) |
|---------------------|--------------|--------------|--------------|------------------|-----------|--------|
|---------------------|--------------|--------------|--------------|------------------|-----------|--------|

|        |  |       |       |       |   |   |
|--------|--|-------|-------|-------|---|---|
| S1.008 |  | 7.000 | 4.310 | 0.000 | 0 | 0 |
|--------|--|-------|-------|-------|---|---|

Free Flowing Outfall Details for SW Network

| Outfall Pipe Number | Outfall Name | C. Level (m) | I. Level (m) | Min I. Level (m) | D, L (mm) | W (mm) |
|---------------------|--------------|--------------|--------------|------------------|-----------|--------|
|---------------------|--------------|--------------|--------------|------------------|-----------|--------|

|         |  |       |       |       |   |   |
|---------|--|-------|-------|-------|---|---|
| S23.011 |  | 7.000 | 4.900 | 0.000 | 0 | 0 |
|---------|--|-------|-------|-------|---|---|

|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 19                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions Network 2018.1                              |                                 |                                                                                     |

Simulation Criteria for SW Network

|                                 |       |                                            |       |
|---------------------------------|-------|--------------------------------------------|-------|
| Volumetric Runoff Coeff         | 0.750 | Additional Flow - % of Total Flow          | 0.000 |
| Areal Reduction Factor          | 1.000 | MADD Factor * 10m <sup>3</sup> /ha Storage | 2.000 |
| Hot Start (mins)                | 0     | Inlet Coefficient                          | 0.800 |
| Hot Start Level (mm)            | 0     | Flow per Person per Day (l/per/day)        | 0.000 |
| Manhole Headloss Coeff (Global) | 0.500 | Run Time (mins)                            | 60    |
| Foul Sewage per hectare (l/s)   | 0.000 | Output Interval (mins)                     | 1     |

|                             |    |                              |    |
|-----------------------------|----|------------------------------|----|
| Number of Input Hydrographs | 0  | Number of Storage Structures | 58 |
| Number of Online Controls   | 57 | Number of Time/Area Diagrams | 0  |
| Number of Offline Controls  | 0  | Number of Real Time Controls | 0  |

Synthetic Rainfall Details

|                       |                                 |
|-----------------------|---------------------------------|
| Rainfall Model        | FEH                             |
| Return Period (years) | 2                               |
| FEH Rainfall Version  | 1999                            |
| Site Location         | GB 498650 101750 SU 98650 01750 |
| C (1km)               | -0.025                          |
| D1 (1km)              | 0.390                           |
| D2 (1km)              | 0.245                           |
| D3 (1km)              | 0.403                           |
| E (1km)               | 0.310                           |
| F (1km)               | 2.321                           |
| Summer Storms         | Yes                             |
| Winter Storms         | No                              |
| Cv (Summer)           | 0.750                           |
| Cv (Winter)           | 0.840                           |
| Storm Duration (mins) | 30                              |

©1982-2018 Innovyze

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                 |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 | Page 20                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                 |                                                                                     |
| Network 2018.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                 |                                                                                     |
| <p style="text-align: center;"><u>Online Controls for SW Network</u></p> <p><u>Orifice Manhole: ORI_3-4, DS/PN: S3.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.240</p> <p><u>Orifice Manhole: ORI_1-2, DS/PN: S4.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 5.990</p> <p><u>Orifice Manhole: ORI_108, DS/PN: S5.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 6.340</p> <p><u>Orifice Manhole: ORI_76, DS/PN: S6.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.490</p> <p><u>Orifice Manhole: ORI_80, DS/PN: S7.001, Volume (m³): 1.1</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.640</p> <p><u>Orifice Manhole: ORI_79, DS/PN: S8.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 6.340</p> <p><u>Orifice Manhole: ORI_75, DS/PN: S9.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.590</p> <p><u>Orifice Manhole: ORI_5-6, DS/PN: S10.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.020 Discharge Coefficient 0.600 Invert Level (m) 6.440</p> <p><u>Orifice Manhole: ORI_7-8, DS/PN: S11.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.490</p> <p><u>Orifice Manhole: ORI_9-10, DS/PN: S12.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.390</p> <p><u>Orifice Manhole: ORI_11-12, DS/PN: S13.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.240</p> |                                 |                                                                                     |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                                                                                     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                 |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|----------------|----------------------------|-----------------|-------|-------------------|-----|------------|------------|-----------|---------------------------|-------------|---------|----------------|-----|---------------|-----|------------------|-------|-----------------------------------|-----|---------------------------------|------|----------------|----------|------------|---------------------------|-------|-----|------------|-------|-----|-----------|-------|-----|
| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                 | Page 21                                                                             |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Burndell Road,<br>Yapton        |  |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Designed by SG<br>Checked by LH |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| XP Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Network 2018.1                  |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| <p><u>Orifice Manhole: ORI_54, DS/PN: S14.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.240</p> <p><u>Orifice Manhole: ORI_55, DS/PN: S15.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 6.240</p> <p><u>Orifice Manhole: ORI_51, DS/PN: S16.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.025 Discharge Coefficient 0.600 Invert Level (m) 6.340</p> <p><u>Orifice Manhole: ORI_13-14, DS/PN: S17.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.240</p> <p><u>Orifice Manhole: ORI_15, DS/PN: S18.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 5.840</p> <p><u>Orifice Manhole: ORI_18, DS/PN: S20.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.030 Discharge Coefficient 0.600 Invert Level (m) 5.790</p> <p><u>Orifice Manhole: ORI_19-53, DS/PN: S21.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 5.990</p> <p><u>Orifice Manhole: ORI_20-21, DS/PN: S22.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.020 Discharge Coefficient 0.600 Invert Level (m) 6.290</p> <p><u>Hydro-Brake® Optimum Manhole: S13, DS/PN: S1.008, Volume (m³): 7.4</u></p> <table><tr><td>Unit Reference</td><td>MD-SHE-0106-7000-2250-7000</td></tr><tr><td>Design Head (m)</td><td>2.250</td></tr><tr><td>Design Flow (l/s)</td><td>7.0</td></tr><tr><td>Flush-Flo™</td><td>Calculated</td></tr><tr><td>Objective</td><td>Minimise upstream storage</td></tr><tr><td>Application</td><td>Surface</td></tr><tr><td>Sump Available</td><td>Yes</td></tr><tr><td>Diameter (mm)</td><td>106</td></tr><tr><td>Invert Level (m)</td><td>4.340</td></tr><tr><td>Minimum Outlet Pipe Diameter (mm)</td><td>150</td></tr><tr><td>Suggested Manhole Diameter (mm)</td><td>1200</td></tr></table> <table><tr><td>Control Points</td><td>Head (m)</td><td>Flow (l/s)</td></tr><tr><td>Design Point (Calculated)</td><td>2.250</td><td>7.0</td></tr><tr><td>Flush-Flo™</td><td>0.458</td><td>5.9</td></tr><tr><td>Kick-Flo®</td><td>0.944</td><td>4.7</td></tr></table> |                                 |                                                                                     | Unit Reference | MD-SHE-0106-7000-2250-7000 | Design Head (m) | 2.250 | Design Flow (l/s) | 7.0 | Flush-Flo™ | Calculated | Objective | Minimise upstream storage | Application | Surface | Sump Available | Yes | Diameter (mm) | 106 | Invert Level (m) | 4.340 | Minimum Outlet Pipe Diameter (mm) | 150 | Suggested Manhole Diameter (mm) | 1200 | Control Points | Head (m) | Flow (l/s) | Design Point (Calculated) | 2.250 | 7.0 | Flush-Flo™ | 0.458 | 5.9 | Kick-Flo® | 0.944 | 4.7 |
| Unit Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MD-SHE-0106-7000-2250-7000      |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Design Head (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2.250                           |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Design Flow (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 7.0                             |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Flush-Flo™                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Calculated                      |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Objective                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Minimise upstream storage       |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Surface                         |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Sump Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Yes                             |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Diameter (mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 106                             |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.340                           |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Minimum Outlet Pipe Diameter (mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 150                             |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Suggested Manhole Diameter (mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1200                            |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Control Points                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Head (m)                        | Flow (l/s)                                                                          |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Design Point (Calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2.250                           | 7.0                                                                                 |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Flush-Flo™                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.458                           | 5.9                                                                                 |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| Kick-Flo®                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.944                           | 4.7                                                                                 |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                 |                                                                                     |                |                            |                 |       |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |

|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 22                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions Network 2018.1                              |                                 |                                                                                     |

Hydro-Brake® Optimum Manhole: S13, DS/PN: S1.008, Volume (m³): 7.4

| Control Points            | Head (m) | Flow (l/s) |
|---------------------------|----------|------------|
| Mean Flow over Head Range | -        | 5.6        |

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

| Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) |
|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| 0.100     | 3.6        | 1.200     | 5.2        | 3.000     | 8.0        | 7.000     | 12.0       |
| 0.200     | 5.2        | 1.400     | 5.6        | 3.500     | 8.6        | 7.500     | 12.4       |
| 0.300     | 5.7        | 1.600     | 6.0        | 4.000     | 9.2        | 8.000     | 12.7       |
| 0.400     | 5.9        | 1.800     | 6.3        | 4.500     | 9.7        | 8.500     | 13.1       |
| 0.500     | 5.9        | 2.000     | 6.6        | 5.000     | 10.2       | 9.000     | 13.5       |
| 0.600     | 5.8        | 2.200     | 6.9        | 5.500     | 10.7       | 9.500     | 13.8       |
| 0.800     | 5.4        | 2.400     | 7.2        | 6.000     | 11.1       |           |            |
| 1.000     | 4.8        | 2.600     | 7.5        | 6.500     | 11.5       |           |            |

Orifice Manhole: ORI\_22-23, DS/PN: S23.001, Volume (m³): 1.2

Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.440

Orifice Manhole: ORI\_24, DS/PN: S24.001, Volume (m³): 1.2

Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.440

Orifice Manhole: ORI\_25-26, DS/PN: S25.001, Volume (m³): 1.2

Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.340

Orifice Manhole: ORI\_27, DS/PN: S26.001, Volume (m³): 1.2

Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.240

Orifice Manhole: ORI\_28, DS/PN: S27.001, Volume (m³): 1.2

Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 6.240

Orifice Manhole: ORI\_29, DS/PN: S28.001, Volume (m³): 1.2

Diameter (m) 0.020 Discharge Coefficient 0.600 Invert Level (m) 5.990

Orifice Manhole: ORI\_30, DS/PN: S29.001, Volume (m³): 1.2

Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 5.840

©1982-2018 Innovyze

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                 |                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 | Page 23                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Network 2018.1                  |                                                                                     |
| <p><u>Orifice Manhole: ORI_31, DS/PN: S30.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.020 Discharge Coefficient 0.600 Invert Level (m) 5.740</p> <p><u>Orifice Manhole: ORI_32, DS/PN: S31.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.040</p> <p><u>Orifice Manhole: ORI_33, DS/PN: S32.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.090</p> <p><u>Orifice Manhole: ORI_34-35, DS/PN: S33.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 5.990</p> <p><u>Orifice Manhole: ORI_36, DS/PN: S34.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 5.840</p> <p><u>Orifice Manhole: ORI_81-82, DS/PN: S36.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 6.690</p> <p><u>Orifice Manhole: ORI_83, DS/PN: S37.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.490</p> <p><u>Orifice Manhole: ORI_84-85, DS/PN: S38.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.490</p> <p><u>Orifice Manhole: ORI_88, DS/PN: S39.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.020 Discharge Coefficient 0.600 Invert Level (m) 5.790</p> <p><u>Orifice Manhole: ORI_86-87, DS/PN: S40.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.020 Discharge Coefficient 0.600 Invert Level (m) 6.140</p> <p><u>Orifice Manhole: ORI_49-50, DS/PN: S41.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.340</p> <p><u>Orifice Manhole: ORI_48, DS/PN: S42.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 6.190</p> |                                 |                                                                                     |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                 |                                                                                     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                 |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                 | Page 24                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Network 2018.1                  |                                                                                     |
| <p><u>Orifice Manhole: ORI_56-78, DS/PN: S43.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 6.190</p> <p><u>Orifice Manhole: ORI_46-47, DS/PN: S44.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.020 Discharge Coefficient 0.600 Invert Level (m) 5.940</p> <p><u>Orifice Manhole: ORI_41-45, DS/PN: S45.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.290</p> <p><u>Orifice Manhole: ORI_37-38, DS/PN: S46.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 6.240</p> <p><u>Orifice Manhole: ORI_39-40, DS/PN: S47.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 6.190</p> <p><u>Orifice Manhole: ORI_105, DS/PN: S48.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.140</p> <p><u>Orifice Manhole: ORI_106, DS/PN: S49.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.190</p> <p><u>Orifice Manhole: ORI_107, DS/PN: S50.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 6.240</p> <p><u>Orifice Manhole: ORI_102, DS/PN: S51.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.025 Discharge Coefficient 0.600 Invert Level (m) 5.890</p> <p><u>Orifice Manhole: ORI_100-101, DS/PN: S52.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 5.890</p> <p><u>Orifice Manhole: ORI_103-104, DS/PN: S53.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 5.940</p> <p><u>Orifice Manhole: ORI_99, DS/PN: S54.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 6.190</p> |                                 |                                                                                     |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                 |                                                                                     |

| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                 | Page 25                                                                             |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|----------------|----------------------------|-----------------|-----------|-------------------|-----|------------|------------|-----------|---------------------------|-------------|---------|----------------|-----|---------------|-----|------------------|-------|-----------------------------------|-----|---------------------------------|------|----------------|----------|------------|---------------------------|-------|-----|------------|-------|-----|-----------|-------|-----|---------------------------|---|-----|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|------|-------|-----|-------|-----|-------|-----|-------|------|-------|-----|-------|-----|-------|-----|-------|------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Burndell Road,<br>Yapton        |  |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Designed by SG<br>Checked by LH |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| XP Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Network 2018.1                  |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| <p><u>Orifice Manhole: ORI_89, DS/PN: S55.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 5.990</p> <p><u>Orifice Manhole: ORI_91, DS/PN: S56.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 5.790</p> <p><u>Orifice Manhole: ORI_92, DS/PN: S57.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 5.790</p> <p><u>Orifice Manhole: S41, DS/PN: S59.001, Volume (m³): 1.3</u></p> <p>Diameter (m) 0.010 Discharge Coefficient 0.600 Invert Level (m) 5.700</p> <p><u>Orifice Manhole: ORI_90-98, DS/PN: S60.001, Volume (m³): 1.2</u></p> <p>Diameter (m) 0.015 Discharge Coefficient 0.600 Invert Level (m) 5.990</p> <p><u>Hydro-Brake® Optimum Manhole: S42, DS/PN: S23.011, Volume (m³): 7.5</u></p> <table><tr><td>Unit Reference</td><td>MD-SHE-0114-7000-1650-7000</td></tr><tr><td>Design Head (m)</td><td>1.650</td></tr><tr><td>Design Flow (l/s)</td><td>7.0</td></tr><tr><td>Flush-Flo™</td><td>Calculated</td></tr><tr><td>Objective</td><td>Minimise upstream storage</td></tr><tr><td>Application</td><td>Surface</td></tr><tr><td>Sump Available</td><td>Yes</td></tr><tr><td>Diameter (mm)</td><td>114</td></tr><tr><td>Invert Level (m)</td><td>4.919</td></tr><tr><td>Minimum Outlet Pipe Diameter (mm)</td><td>150</td></tr><tr><td>Suggested Manhole Diameter (mm)</td><td>1200</td></tr></table> <table><tr><th>Control Points</th><th>Head (m)</th><th>Flow (l/s)</th></tr><tr><td>Design Point (Calculated)</td><td>1.650</td><td>7.0</td></tr><tr><td>Flush-Flo™</td><td>0.492</td><td>7.0</td></tr><tr><td>Kick-Flo®</td><td>1.008</td><td>5.6</td></tr><tr><td>Mean Flow over Head Range</td><td>-</td><td>6.1</td></tr></table> <p>The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated</p> <table><tr><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th></tr><tr><td>0.100</td><td>4.0</td><td>0.600</td><td>6.9</td><td>1.600</td><td>6.9</td><td>2.600</td><td>8.7</td></tr><tr><td>0.200</td><td>6.1</td><td>0.800</td><td>6.6</td><td>1.800</td><td>7.3</td><td>3.000</td><td>9.3</td></tr><tr><td>0.300</td><td>6.7</td><td>1.000</td><td>5.6</td><td>2.000</td><td>7.7</td><td>3.500</td><td>10.0</td></tr><tr><td>0.400</td><td>6.9</td><td>1.200</td><td>6.0</td><td>2.200</td><td>8.0</td><td>4.000</td><td>10.6</td></tr><tr><td>0.500</td><td>7.0</td><td>1.400</td><td>6.5</td><td>2.400</td><td>8.3</td><td>4.500</td><td>11.2</td></tr></table> |                                 |                                                                                     | Unit Reference | MD-SHE-0114-7000-1650-7000 | Design Head (m) | 1.650     | Design Flow (l/s) | 7.0 | Flush-Flo™ | Calculated | Objective | Minimise upstream storage | Application | Surface | Sump Available | Yes | Diameter (mm) | 114 | Invert Level (m) | 4.919 | Minimum Outlet Pipe Diameter (mm) | 150 | Suggested Manhole Diameter (mm) | 1200 | Control Points | Head (m) | Flow (l/s) | Design Point (Calculated) | 1.650 | 7.0 | Flush-Flo™ | 0.492 | 7.0 | Kick-Flo® | 1.008 | 5.6 | Mean Flow over Head Range | - | 6.1 | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | 0.100 | 4.0 | 0.600 | 6.9 | 1.600 | 6.9 | 2.600 | 8.7 | 0.200 | 6.1 | 0.800 | 6.6 | 1.800 | 7.3 | 3.000 | 9.3 | 0.300 | 6.7 | 1.000 | 5.6 | 2.000 | 7.7 | 3.500 | 10.0 | 0.400 | 6.9 | 1.200 | 6.0 | 2.200 | 8.0 | 4.000 | 10.6 | 0.500 | 7.0 | 1.400 | 6.5 | 2.400 | 8.3 | 4.500 | 11.2 |
| Unit Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MD-SHE-0114-7000-1650-7000      |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Design Head (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1.650                           |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Design Flow (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 7.0                             |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Flush-Flo™                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Calculated                      |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Objective                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Minimise upstream storage       |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Surface                         |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Sump Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Yes                             |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Diameter (mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 114                             |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4.919                           |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Minimum Outlet Pipe Diameter (mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 150                             |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Suggested Manhole Diameter (mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1200                            |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Control Points                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Head (m)                        | Flow (l/s)                                                                          |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Design Point (Calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1.650                           | 7.0                                                                                 |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Flush-Flo™                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.492                           | 7.0                                                                                 |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Kick-Flo®                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1.008                           | 5.6                                                                                 |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Mean Flow over Head Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                               | 6.1                                                                                 |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| Depth (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Flow (l/s)                      | Depth (m)                                                                           | Flow (l/s)     | Depth (m)                  | Flow (l/s)      | Depth (m) | Flow (l/s)        |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| 0.100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4.0                             | 0.600                                                                               | 6.9            | 1.600                      | 6.9             | 2.600     | 8.7               |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| 0.200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.1                             | 0.800                                                                               | 6.6            | 1.800                      | 7.3             | 3.000     | 9.3               |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| 0.300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.7                             | 1.000                                                                               | 5.6            | 2.000                      | 7.7             | 3.500     | 10.0              |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| 0.400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.9                             | 1.200                                                                               | 6.0            | 2.200                      | 8.0             | 4.000     | 10.6              |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| 0.500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 7.0                             | 1.400                                                                               | 6.5            | 2.400                      | 8.3             | 4.500     | 11.2              |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 |                                                                                     |                |                            |                 |           |                   |     |            |            |           |                           |             |         |                |     |               |     |                  |       |                                   |     |                                 |      |                |          |            |                           |       |     |            |       |     |           |       |     |                           |   |     |           |            |           |            |           |            |           |            |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |       |     |       |     |       |     |       |      |

|                                                                            |                                 |                                                                                     |            |           |            |           |            |
|----------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|------------|-----------|------------|-----------|------------|
| Odyssey Markides                                                           |                                 | Page 26                                                                             |            |           |            |           |            |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                   | Burndell Road,<br>Yapton        |  |            |           |            |           |            |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                        | Designed by SG<br>Checked by LH |                                                                                     |            |           |            |           |            |
| XP Solutions<br>Network 2018.1                                             |                                 |                                                                                     |            |           |            |           |            |
| <u>Hydro-Brake® Optimum Manhole: S42, DS/PN: S23.011, Volume (m³): 7.5</u> |                                 |                                                                                     |            |           |            |           |            |
| Depth (m)                                                                  | Flow (l/s)                      | Depth (m)                                                                           | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) |
| 5.000                                                                      | 11.8                            | 6.500                                                                               | 13.4       | 8.000     | 14.8       | 9.500     | 16.0       |
| 5.500                                                                      | 12.4                            | 7.000                                                                               | 13.9       | 8.500     | 15.2       |           |            |
| 6.000                                                                      | 12.9                            | 7.500                                                                               | 14.3       | 9.000     | 15.6       |           |            |
| ©1982-2018 Innovyze                                                        |                                 |                                                                                     |            |           |            |           |            |

|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 27                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions Network 2018.1                              |                                 |                                                                                     |
| <u>Storage Structures for SW Network</u>                 |                                 |                                                                                     |
| <u>Porous Car Park Manhole: PP_3-4, DS/PN: S3.000</u>    |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m) 6.0                                                                       |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m) 12.0                                                                     |
| Max Percolation (l/s)                                    | 20.0                            | Slope (1:X) 500.0                                                                   |
| Safety Factor                                            | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                 | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                         | 6.250                           | Membrane Depth (mm) 300                                                             |
| <u>Porous Car Park Manhole: PP_1-2, DS/PN: S4.000</u>    |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m) 6.0                                                                       |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m) 12.0                                                                     |
| Max Percolation (l/s)                                    | 20.0                            | Slope (1:X) 500.0                                                                   |
| Safety Factor                                            | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                 | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                         | 6.000                           | Membrane Depth (mm) 300                                                             |
| <u>Porous Car Park Manhole: PP_108, DS/PN: S5.000</u>    |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m) 3.5                                                                       |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m) 5.0                                                                      |
| Max Percolation (l/s)                                    | 4.9                             | Slope (1:X) 500.0                                                                   |
| Safety Factor                                            | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                 | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                         | 6.350                           | Membrane Depth (mm) 300                                                             |
| <u>Porous Car Park Manhole: PP_76, DS/PN: S6.000</u>     |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m) 3.0                                                                       |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m) 12.5                                                                     |
| Max Percolation (l/s)                                    | 10.4                            | Slope (1:X) 500.0                                                                   |
| Safety Factor                                            | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                 | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                         | 6.500                           | Membrane Depth (mm) 300                                                             |
| <u>Porous Car Park Manhole: PP_80, DS/PN: S7.000</u>     |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m) 3.0                                                                       |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m) 15.0                                                                     |
| Max Percolation (l/s)                                    | 12.5                            | Slope (1:X) 500.0                                                                   |
| Safety Factor                                            | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                 | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                         | 6.650                           | Membrane Depth (mm) 300                                                             |
| <u>Porous Car Park Manhole: PP_79, DS/PN: S8.000</u>     |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Max Percolation (l/s) 10.4                                                          |
| Membrane Percolation (mm/hr)                             | 1000                            | Safety Factor 2.0                                                                   |
| ©1982-2018 Innovyze                                      |                                 |                                                                                     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                 |                                                                                     |          |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|----------|------|-------------|-------|------------------|-------|-------------------------|---|-----------|-----|----------------------|---|------------|------|---------------------|-----|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|-----|-----------------------|-----|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|------|-----------------------|------|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|------|-----------------------|------|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|------|-----------------------|------|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|------|-----------------------|------|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|
| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 | Page 28                                                                             |          |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Burndell Road,<br>Yapton        |  |          |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Designed by SG<br>Checked by LH |                                                                                     |          |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| XP Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                 |                                                                                     |          |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Network 2018.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                 |                                                                                     |          |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| <p><u>Porous Car Park Manhole: PP_79, DS/PN: S8.000</u></p> <table><tr><td>Porosity</td><td>0.30</td><td>Slope (1:X)</td><td>500.0</td></tr><tr><td>Invert Level (m)</td><td>6.350</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Width (m)</td><td>3.0</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Length (m)</td><td>12.5</td><td>Membrane Depth (mm)</td><td>300</td></tr></table> <p><u>Porous Car Park Manhole: PP_75, DS/PN: S9.000</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>4.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>8.5</td></tr><tr><td>Max Percolation (l/s)</td><td>9.4</td><td>Slope (1:X)</td><td>500.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>6.600</td><td>Membrane Depth (mm)</td><td>300</td></tr></table> <p><u>Porous Car Park Manhole: PP_5-6, DS/PN: S10.000</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>6.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>12.0</td></tr><tr><td>Max Percolation (l/s)</td><td>20.0</td><td>Slope (1:X)</td><td>500.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>6.450</td><td>Membrane Depth (mm)</td><td>300</td></tr></table> <p><u>Porous Car Park Manhole: PP_7-8, DS/PN: S11.000</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>6.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>12.0</td></tr><tr><td>Max Percolation (l/s)</td><td>20.0</td><td>Slope (1:X)</td><td>500.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>6.500</td><td>Membrane Depth (mm)</td><td>300</td></tr></table> <p><u>Porous Car Park Manhole: PP_9-10, DS/PN: S12.000</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>6.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>12.0</td></tr><tr><td>Max Percolation (l/s)</td><td>20.0</td><td>Slope (1:X)</td><td>500.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>6.400</td><td>Membrane Depth (mm)</td><td>300</td></tr></table> <p><u>Porous Car Park Manhole: PP_11-12, DS/PN: S13.000</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>6.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>12.0</td></tr><tr><td>Max Percolation (l/s)</td><td>20.0</td><td>Slope (1:X)</td><td>500.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>6.250</td><td>Membrane Depth (mm)</td><td>300</td></tr></table> |                                 |                                                                                     | Porosity | 0.30 | Slope (1:X) | 500.0 | Invert Level (m) | 6.350 | Depression Storage (mm) | 5 | Width (m) | 3.0 | Evaporation (mm/day) | 3 | Length (m) | 12.5 | Membrane Depth (mm) | 300 | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 4.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 8.5 | Max Percolation (l/s) | 9.4 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.600 | Membrane Depth (mm) | 300 | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 6.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 12.0 | Max Percolation (l/s) | 20.0 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.450 | Membrane Depth (mm) | 300 | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 6.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 12.0 | Max Percolation (l/s) | 20.0 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.500 | Membrane Depth (mm) | 300 | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 6.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 12.0 | Max Percolation (l/s) | 20.0 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.400 | Membrane Depth (mm) | 300 | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 6.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 12.0 | Max Percolation (l/s) | 20.0 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.250 | Membrane Depth (mm) | 300 |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.30                            | Slope (1:X)                                                                         | 500.0    |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6.350                           | Depression Storage (mm)                                                             | 5        |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Width (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.0                             | Evaporation (mm/day)                                                                | 3        |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Length (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 12.5                            | Membrane Depth (mm)                                                                 | 300      |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.00000                         | Width (m)                                                                           | 4.0      |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1000                            | Length (m)                                                                          | 8.5      |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 9.4                             | Slope (1:X)                                                                         | 500.0    |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.0                             | Depression Storage (mm)                                                             | 5        |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.30                            | Evaporation (mm/day)                                                                | 3        |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6.600                           | Membrane Depth (mm)                                                                 | 300      |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.00000                         | Width (m)                                                                           | 6.0      |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1000                            | Length (m)                                                                          | 12.0     |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20.0                            | Slope (1:X)                                                                         | 500.0    |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.0                             | Depression Storage (mm)                                                             | 5        |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.30                            | Evaporation (mm/day)                                                                | 3        |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6.450                           | Membrane Depth (mm)                                                                 | 300      |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.00000                         | Width (m)                                                                           | 6.0      |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1000                            | Length (m)                                                                          | 12.0     |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20.0                            | Slope (1:X)                                                                         | 500.0    |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.0                             | Depression Storage (mm)                                                             | 5        |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.30                            | Evaporation (mm/day)                                                                | 3        |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6.500                           | Membrane Depth (mm)                                                                 | 300      |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.00000                         | Width (m)                                                                           | 6.0      |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1000                            | Length (m)                                                                          | 12.0     |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20.0                            | Slope (1:X)                                                                         | 500.0    |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.0                             | Depression Storage (mm)                                                             | 5        |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.30                            | Evaporation (mm/day)                                                                | 3        |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6.400                           | Membrane Depth (mm)                                                                 | 300      |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.00000                         | Width (m)                                                                           | 6.0      |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1000                            | Length (m)                                                                          | 12.0     |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20.0                            | Slope (1:X)                                                                         | 500.0    |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.0                             | Depression Storage (mm)                                                             | 5        |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.30                            | Evaporation (mm/day)                                                                | 3        |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6.250                           | Membrane Depth (mm)                                                                 | 300      |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                                                                                     |          |      |             |       |                  |       |                         |   |           |     |                      |   |            |      |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                 |                                                                                     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|------|-----------------------|------|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|-----|-----------------------|-----|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|------|-----------------------|------|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|------|-----------------------|------|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|-----|-----------------------|------|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|------------------|-------|---------------|-----|--------------------------------------|---------|----------|------|--------------------------------------|---------|--|--|
| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                 | Page 29                                                                             |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Burndell Road,<br>Yapton        |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Designed by SG<br>Checked by LH |                                                                                     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| XP Solutions Network 2018.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                 |                                                                                     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| <p><u>Porous Car Park Manhole: PP_54, DS/PN: S14.000</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>3.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>12.5</td></tr><tr><td>Max Percolation (l/s)</td><td>10.4</td><td>Slope (1:X)</td><td>500.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>6.250</td><td>Membrane Depth (mm)</td><td>300</td></tr></table> <p><u>Porous Car Park Manhole: PP_55, DS/PN: S15.000</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>3.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>8.5</td></tr><tr><td>Max Percolation (l/s)</td><td>7.1</td><td>Slope (1:X)</td><td>500.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>6.250</td><td>Membrane Depth (mm)</td><td>300</td></tr></table> <p><u>Porous Car Park Manhole: PP_51, DS/PN: S16.000</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>3.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>12.0</td></tr><tr><td>Max Percolation (l/s)</td><td>10.0</td><td>Slope (1:X)</td><td>500.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>6.350</td><td>Membrane Depth (mm)</td><td>300</td></tr></table> <p><u>Porous Car Park Manhole: PP_13-14, DS/PN: S17.000</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>6.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>12.0</td></tr><tr><td>Max Percolation (l/s)</td><td>20.0</td><td>Slope (1:X)</td><td>500.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>6.000</td><td>Membrane Depth (mm)</td><td>300</td></tr></table> <p><u>Porous Car Park Manhole: PP_15, DS/PN: S18.000</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>5.5</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>8.5</td></tr><tr><td>Max Percolation (l/s)</td><td>13.0</td><td>Slope (1:X)</td><td>500.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>5.850</td><td>Membrane Depth (mm)</td><td>300</td></tr></table> <p><u>Cellular Storage Manhole: S11a, DS/PN: S19.000</u></p> <table><tr><td>Invert Level (m)</td><td>4.450</td><td>Safety Factor</td><td>2.0</td></tr><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Porosity</td><td>0.95</td></tr><tr><td>Infiltration Coefficient Side (m/hr)</td><td>0.00000</td><td></td><td></td></tr></table> |                                 |                                                                                     | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 3.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 12.5 | Max Percolation (l/s) | 10.4 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.250 | Membrane Depth (mm) | 300 | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 3.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 8.5 | Max Percolation (l/s) | 7.1 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.250 | Membrane Depth (mm) | 300 | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 3.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 12.0 | Max Percolation (l/s) | 10.0 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.350 | Membrane Depth (mm) | 300 | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 6.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 12.0 | Max Percolation (l/s) | 20.0 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.000 | Membrane Depth (mm) | 300 | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 5.5 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 8.5 | Max Percolation (l/s) | 13.0 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 5.850 | Membrane Depth (mm) | 300 | Invert Level (m) | 4.450 | Safety Factor | 2.0 | Infiltration Coefficient Base (m/hr) | 0.00000 | Porosity | 0.95 | Infiltration Coefficient Side (m/hr) | 0.00000 |  |  |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.00000                         | Width (m)                                                                           | 3.0                                  |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1000                            | Length (m)                                                                          | 12.5                                 |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 10.4                            | Slope (1:X)                                                                         | 500.0                                |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.0                             | Depression Storage (mm)                                                             | 5                                    |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.30                            | Evaporation (mm/day)                                                                | 3                                    |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6.250                           | Membrane Depth (mm)                                                                 | 300                                  |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.00000                         | Width (m)                                                                           | 3.0                                  |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1000                            | Length (m)                                                                          | 8.5                                  |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 7.1                             | Slope (1:X)                                                                         | 500.0                                |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.0                             | Depression Storage (mm)                                                             | 5                                    |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.30                            | Evaporation (mm/day)                                                                | 3                                    |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6.250                           | Membrane Depth (mm)                                                                 | 300                                  |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.00000                         | Width (m)                                                                           | 3.0                                  |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1000                            | Length (m)                                                                          | 12.0                                 |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 10.0                            | Slope (1:X)                                                                         | 500.0                                |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.0                             | Depression Storage (mm)                                                             | 5                                    |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.30                            | Evaporation (mm/day)                                                                | 3                                    |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6.350                           | Membrane Depth (mm)                                                                 | 300                                  |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.00000                         | Width (m)                                                                           | 6.0                                  |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1000                            | Length (m)                                                                          | 12.0                                 |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 20.0                            | Slope (1:X)                                                                         | 500.0                                |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.0                             | Depression Storage (mm)                                                             | 5                                    |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.30                            | Evaporation (mm/day)                                                                | 3                                    |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6.000                           | Membrane Depth (mm)                                                                 | 300                                  |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.00000                         | Width (m)                                                                           | 5.5                                  |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1000                            | Length (m)                                                                          | 8.5                                  |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 13.0                            | Slope (1:X)                                                                         | 500.0                                |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.0                             | Depression Storage (mm)                                                             | 5                                    |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.30                            | Evaporation (mm/day)                                                                | 3                                    |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5.850                           | Membrane Depth (mm)                                                                 | 300                                  |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4.450                           | Safety Factor                                                                       | 2.0                                  |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.00000                         | Porosity                                                                            | 0.95                                 |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| Infiltration Coefficient Side (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.00000                         |                                                                                     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                 |                                                                                     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |     |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                  |       |               |     |                                      |         |          |      |                                      |         |  |  |

| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                 | Page 30                                                                             |           |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|-------|-------|-------|-------|-----|-------|-------|-------|-------|--|--|--|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|------|-----------------------|------|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|------|-----------------------|------|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|------|-----------------------|------|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|------|-----------------------|------|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|--------------------------------------|---------|-----------|-----|------------------------------|------|------------|------|-----------------------|-----|-------------|-------|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|---------------------|-----|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Burndell Road,<br>Yapton        |  |           |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Designed by SG<br>Checked by LH |                                                                                     |           |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| XP Solutions Network 2018.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                 |                                                                                     |           |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| <p align="center"><u>Cellular Storage Manhole: S11a, DS/PN: S19.000</u></p> <table border="1"> <thead> <tr> <th>Depth (m)</th> <th>Area (m<sup>2</sup>)</th> <th>Inf. Area (m<sup>2</sup>)</th> <th>Depth (m)</th> <th>Area (m<sup>2</sup>)</th> <th>Inf. Area (m<sup>2</sup>)</th> </tr> </thead> <tbody> <tr> <td>0.000</td> <td>132.0</td> <td>132.0</td> <td>1.626</td> <td>0.0</td> <td>210.4</td> </tr> <tr> <td>1.625</td> <td>132.0</td> <td>210.4</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p align="center"><u>Porous Car Park Manhole: PP_18, DS/PN: S20.000</u></p> <table border="1"> <tbody> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00000</td> <td>Width (m)</td> <td>3.0</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>13.0</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>10.8</td> <td>Slope (1:X)</td> <td>500.0</td> </tr> <tr> <td>Safety Factor</td> <td>2.0</td> <td>Depression Storage (mm)</td> <td>5</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Invert Level (m)</td> <td>5.800</td> <td>Membrane Depth (mm)</td> <td>300</td> </tr> </tbody> </table> <p align="center"><u>Porous Car Park Manhole: PP_19-53, DS/PN: S21.000</u></p> <table border="1"> <tbody> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00000</td> <td>Width (m)</td> <td>5.0</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>15.0</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>20.8</td> <td>Slope (1:X)</td> <td>500.0</td> </tr> <tr> <td>Safety Factor</td> <td>2.0</td> <td>Depression Storage (mm)</td> <td>5</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Invert Level (m)</td> <td>6.000</td> <td>Membrane Depth (mm)</td> <td>300</td> </tr> </tbody> </table> <p align="center"><u>Porous Car Park Manhole: PP_20-21, DS/PN: S22.000</u></p> <table border="1"> <tbody> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00000</td> <td>Width (m)</td> <td>7.0</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>10.0</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>19.4</td> <td>Slope (1:X)</td> <td>500.0</td> </tr> <tr> <td>Safety Factor</td> <td>2.0</td> <td>Depression Storage (mm)</td> <td>5</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Invert Level (m)</td> <td>6.300</td> <td>Membrane Depth (mm)</td> <td>300</td> </tr> </tbody> </table> <p align="center"><u>Porous Car Park Manhole: PP_22-23, DS/PN: S23.000</u></p> <table border="1"> <tbody> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00000</td> <td>Width (m)</td> <td>6.0</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>13.0</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>21.7</td> <td>Slope (1:X)</td> <td>500.0</td> </tr> <tr> <td>Safety Factor</td> <td>2.0</td> <td>Depression Storage (mm)</td> <td>5</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Invert Level (m)</td> <td>6.450</td> <td>Membrane Depth (mm)</td> <td>300</td> </tr> </tbody> </table> <p align="center"><u>Porous Car Park Manhole: PP_24, DS/PN: S24.000</u></p> <table border="1"> <tbody> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00000</td> <td>Width (m)</td> <td>3.0</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>11.0</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>9.2</td> <td>Slope (1:X)</td> <td>500.0</td> </tr> <tr> <td>Safety Factor</td> <td>2.0</td> <td>Depression Storage (mm)</td> <td>5</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Invert Level (m)</td> <td>6.450</td> <td>Membrane Depth (mm)</td> <td>300</td> </tr> </tbody> </table> |                                 |                                                                                     | Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) | 0.000 | 132.0 | 132.0 | 1.626 | 0.0 | 210.4 | 1.625 | 132.0 | 210.4 |  |  |  | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 3.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 13.0 | Max Percolation (l/s) | 10.8 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 5.800 | Membrane Depth (mm) | 300 | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 5.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 15.0 | Max Percolation (l/s) | 20.8 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.000 | Membrane Depth (mm) | 300 | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 7.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 10.0 | Max Percolation (l/s) | 19.4 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.300 | Membrane Depth (mm) | 300 | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 6.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 13.0 | Max Percolation (l/s) | 21.7 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.450 | Membrane Depth (mm) | 300 | Infiltration Coefficient Base (m/hr) | 0.00000 | Width (m) | 3.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 11.0 | Max Percolation (l/s) | 9.2 | Slope (1:X) | 500.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.450 | Membrane Depth (mm) | 300 |
| Depth (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Area (m <sup>2</sup> )          | Inf. Area (m <sup>2</sup> )                                                         | Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| 0.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 132.0                           | 132.0                                                                               | 1.626     | 0.0                    | 210.4                       |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| 1.625                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 132.0                           | 210.4                                                                               |           |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.00000                         | Width (m)                                                                           | 3.0       |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1000                            | Length (m)                                                                          | 13.0      |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 10.8                            | Slope (1:X)                                                                         | 500.0     |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2.0                             | Depression Storage (mm)                                                             | 5         |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.30                            | Evaporation (mm/day)                                                                | 3         |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5.800                           | Membrane Depth (mm)                                                                 | 300       |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.00000                         | Width (m)                                                                           | 5.0       |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1000                            | Length (m)                                                                          | 15.0      |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 20.8                            | Slope (1:X)                                                                         | 500.0     |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2.0                             | Depression Storage (mm)                                                             | 5         |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.30                            | Evaporation (mm/day)                                                                | 3         |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6.000                           | Membrane Depth (mm)                                                                 | 300       |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.00000                         | Width (m)                                                                           | 7.0       |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1000                            | Length (m)                                                                          | 10.0      |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 19.4                            | Slope (1:X)                                                                         | 500.0     |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2.0                             | Depression Storage (mm)                                                             | 5         |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.30                            | Evaporation (mm/day)                                                                | 3         |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6.300                           | Membrane Depth (mm)                                                                 | 300       |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.00000                         | Width (m)                                                                           | 6.0       |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1000                            | Length (m)                                                                          | 13.0      |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 21.7                            | Slope (1:X)                                                                         | 500.0     |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2.0                             | Depression Storage (mm)                                                             | 5         |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.30                            | Evaporation (mm/day)                                                                | 3         |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6.450                           | Membrane Depth (mm)                                                                 | 300       |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.00000                         | Width (m)                                                                           | 3.0       |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1000                            | Length (m)                                                                          | 11.0      |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 9.2                             | Slope (1:X)                                                                         | 500.0     |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2.0                             | Depression Storage (mm)                                                             | 5         |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.30                            | Evaporation (mm/day)                                                                | 3         |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6.450                           | Membrane Depth (mm)                                                                 | 300       |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                 |                                                                                     |           |                        |                             |           |                        |                             |       |       |       |       |     |       |       |       |       |  |  |  |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |      |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |                                      |         |           |     |                              |      |            |      |                       |     |             |       |               |     |                         |   |          |      |                      |   |                  |       |                     |     |

|                                                          |                                 |                                                                                     |       |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|-------|
| Odyssey Markides                                         |                                 | Page 31                                                                             |       |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |       |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |       |
| XP Solutions Network 2018.1                              |                                 |                                                                                     |       |
| <u>Porous Car Park Manhole: PP_25-26, DS/PN: S25.000</u> |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m)                                                                           | 6.0   |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m)                                                                          | 12.0  |
| Max Percolation (l/s)                                    | 20.0                            | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                            | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                 | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                         | 6.350                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_27, DS/PN: S26.000</u>    |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m)                                                                           | 6.0   |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m)                                                                          | 8.5   |
| Max Percolation (l/s)                                    | 14.2                            | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                            | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                 | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                         | 6.250                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_28, DS/PN: S27.000</u>    |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m)                                                                           | 3.0   |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m)                                                                          | 10.0  |
| Max Percolation (l/s)                                    | 8.3                             | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                            | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                 | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                         | 6.000                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_29, DS/PN: S28.000</u>    |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m)                                                                           | 3.0   |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m)                                                                          | 10.0  |
| Max Percolation (l/s)                                    | 8.3                             | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                            | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                 | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                         | 6.000                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_30, DS/PN: S29.000</u>    |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m)                                                                           | 4.0   |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m)                                                                          | 10.0  |
| Max Percolation (l/s)                                    | 11.1                            | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                            | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                 | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                         | 5.850                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_31, DS/PN: S30.000</u>    |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Invert Level (m)                                                                    | 5.750 |
| Membrane Percolation (mm/hr)                             | 1000                            | Width (m)                                                                           | 6.0   |
| Max Percolation (l/s)                                    | 11.7                            | Length (m)                                                                          | 7.0   |
| Safety Factor                                            | 2.0                             | Slope (1:X)                                                                         | 500.0 |
| Porosity                                                 | 0.30                            | Depression Storage (mm)                                                             | 5     |
| ©1982-2018 Innovyze                                      |                                 |                                                                                     |       |

|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 32                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions Network 2018.1                              |                                 |                                                                                     |

Porous Car Park Manhole: PP\_31, DS/PN: S30.000

Evaporation (mm/day) 3 Membrane Depth (mm) 300

Porous Car Park Manhole: PP\_32, DS/PN: S31.000

|                                              |                         |       |
|----------------------------------------------|-------------------------|-------|
| Infiltration Coefficient Base (m/hr) 0.00000 | Width (m)               | 5.0   |
| Membrane Percolation (mm/hr) 1000            | Length (m)              | 8.0   |
| Max Percolation (l/s) 11.1                   | Slope (1:X)             | 500.0 |
| Safety Factor 2.0                            | Depression Storage (mm) | 5     |
| Porosity 0.30                                | Evaporation (mm/day)    | 3     |
| Invert Level (m) 6.050                       | Membrane Depth (mm)     | 300   |

Porous Car Park Manhole: PP\_33, DS/PN: S32.000

|                                              |                         |       |
|----------------------------------------------|-------------------------|-------|
| Infiltration Coefficient Base (m/hr) 0.00000 | Width (m)               | 3.0   |
| Membrane Percolation (mm/hr) 1000            | Length (m)              | 12.0  |
| Max Percolation (l/s) 10.0                   | Slope (1:X)             | 500.0 |
| Safety Factor 2.0                            | Depression Storage (mm) | 5     |
| Porosity 0.30                                | Evaporation (mm/day)    | 3     |
| Invert Level (m) 6.100                       | Membrane Depth (mm)     | 300   |

Porous Car Park Manhole: PP\_34-35, DS/PN: S33.000

|                                              |                         |       |
|----------------------------------------------|-------------------------|-------|
| Infiltration Coefficient Base (m/hr) 0.00000 | Width (m)               | 5.0   |
| Membrane Percolation (mm/hr) 1000            | Length (m)              | 11.0  |
| Max Percolation (l/s) 15.3                   | Slope (1:X)             | 500.0 |
| Safety Factor 2.0                            | Depression Storage (mm) | 5     |
| Porosity 0.30                                | Evaporation (mm/day)    | 3     |
| Invert Level (m) 6.000                       | Membrane Depth (mm)     | 300   |

Porous Car Park Manhole: PP\_36, DS/PN: S34.000

|                                              |                         |       |
|----------------------------------------------|-------------------------|-------|
| Infiltration Coefficient Base (m/hr) 0.00000 | Width (m)               | 6.0   |
| Membrane Percolation (mm/hr) 1000            | Length (m)              | 6.0   |
| Max Percolation (l/s) 10.0                   | Slope (1:X)             | 500.0 |
| Safety Factor 2.0                            | Depression Storage (mm) | 5     |
| Porosity 0.30                                | Evaporation (mm/day)    | 3     |
| Invert Level (m) 6.000                       | Membrane Depth (mm)     | 300   |

Cellular Storage Manhole: S23a, DS/PN: S35.000

|                                              |                   |  |
|----------------------------------------------|-------------------|--|
| Invert Level (m) 5.080                       | Safety Factor 2.0 |  |
| Infiltration Coefficient Base (m/hr) 0.00000 | Porosity 0.95     |  |
| Infiltration Coefficient Side (m/hr) 0.00000 |                   |  |

| Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) |
|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|
| 0.000     | 264.0                  | 264.0                       | 0.501     | 0.0                    | 305.0                       |
| 0.500     | 264.0                  | 305.0                       |           |                        |                             |

©1982-2018 Innovyze

|                                                          |                                 |                                                                                     |       |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|-------|
| Odyssey Markides                                         |                                 | Page 33                                                                             |       |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |       |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |       |
| XP Solutions Network 2018.1                              |                                 |                                                                                     |       |
| <u>Porous Car Park Manhole: PP_81-82, DS/PN: S36.000</u> |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m)                                                                           | 5.0   |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m)                                                                          | 9.5   |
| Max Percolation (l/s)                                    | 13.2                            | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                            | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                 | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                         | 6.700                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_83, DS/PN: S37.000</u>    |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m)                                                                           | 3.0   |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m)                                                                          | 8.0   |
| Max Percolation (l/s)                                    | 6.7                             | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                            | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                 | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                         | 6.500                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_84-85, DS/PN: S38.000</u> |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m)                                                                           | 6.5   |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m)                                                                          | 12.0  |
| Max Percolation (l/s)                                    | 21.7                            | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                            | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                 | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                         | 6.500                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_88, DS/PN: S39.000</u>    |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m)                                                                           | 3.0   |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m)                                                                          | 8.0   |
| Max Percolation (l/s)                                    | 6.7                             | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                            | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                 | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                         | 5.800                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_86-87, DS/PN: S40.000</u> |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m)                                                                           | 6.0   |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m)                                                                          | 12.0  |
| Max Percolation (l/s)                                    | 20.0                            | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                            | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                 | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                         | 6.150                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_49-50, DS/PN: S41.000</u> |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Invert Level (m)                                                                    | 6.350 |
| Membrane Percolation (mm/hr)                             | 1000                            | Width (m)                                                                           | 6.0   |
| Max Percolation (l/s)                                    | 20.0                            | Length (m)                                                                          | 12.0  |
| Safety Factor                                            | 2.0                             | Slope (1:X)                                                                         | 500.0 |
| Porosity                                                 | 0.30                            | Depression Storage (mm)                                                             | 5     |
| ©1982-2018 Innovyze                                      |                                 |                                                                                     |       |

|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 34                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions Network 2018.1                              |                                 |                                                                                     |
|                                                          |                                 |                                                                                     |
| <u>Porous Car Park Manhole: PP_49-50, DS/PN: S41.000</u> |                                 |                                                                                     |
| Evaporation (mm/day) 3 Membrane Depth (mm) 300           |                                 |                                                                                     |
| <u>Porous Car Park Manhole: PP_48, DS/PN: S42.000</u>    |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m) 3.0                                                                       |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m) 12.0                                                                     |
| Max Percolation (l/s)                                    | 10.0                            | Slope (1:X) 500.0                                                                   |
| Safety Factor                                            | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                 | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                         | 6.200                           | Membrane Depth (mm) 300                                                             |
| <u>Porous Car Park Manhole: PP_56-78, DS/PN: S43.000</u> |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m) 14.0                                                                      |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m) 50.0                                                                     |
| Max Percolation (l/s)                                    | 194.4                           | Slope (1:X) 500.0                                                                   |
| Safety Factor                                            | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                 | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                         | 6.200                           | Membrane Depth (mm) 300                                                             |
| <u>Porous Car Park Manhole: PP_46-47, DS/PN: S44.000</u> |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m) 6.0                                                                       |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m) 12.0                                                                     |
| Max Percolation (l/s)                                    | 20.0                            | Slope (1:X) 500.0                                                                   |
| Safety Factor                                            | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                 | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                         | 5.950                           | Membrane Depth (mm) 300                                                             |
| <u>Porous Car Park Manhole: PP_41-45, DS/PN: S45.000</u> |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m) 13.0                                                                      |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m) 20.0                                                                     |
| Max Percolation (l/s)                                    | 72.2                            | Slope (1:X) 500.0                                                                   |
| Safety Factor                                            | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                 | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                         | 6.300                           | Membrane Depth (mm) 300                                                             |
| <u>Porous Car Park Manhole: PP_37-38, DS/PN: S46.000</u> |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                     | 0.00000                         | Width (m) 6.0                                                                       |
| Membrane Percolation (mm/hr)                             | 1000                            | Length (m) 11.5                                                                     |
| Max Percolation (l/s)                                    | 19.2                            | Slope (1:X) 500.0                                                                   |
| Safety Factor                                            | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                 | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                         | 6.250                           | Membrane Depth (mm) 300                                                             |
| ©1982-2018 Innovyze                                      |                                 |                                                                                     |

|                                                            |                                 |                                                                                     |       |
|------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|-------|
| Odyssey Markides                                           |                                 | Page 35                                                                             |       |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF   | Burndell Road,<br>Yapton        |  |       |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX        | Designed by SG<br>Checked by LH |                                                                                     |       |
| XP Solutions                                               | Network 2018.1                  |                                                                                     |       |
|                                                            |                                 |                                                                                     |       |
| <u>Porous Car Park Manhole: PP_39-40, DS/PN: S47.000</u>   |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                       | 0.00000                         | Width (m)                                                                           | 6.0   |
| Membrane Percolation (mm/hr)                               | 1000                            | Length (m)                                                                          | 11.5  |
| Max Percolation (l/s)                                      | 19.2                            | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                              | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                   | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                           | 6.200                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_105, DS/PN: S48.000</u>     |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                       | 0.00000                         | Width (m)                                                                           | 5.0   |
| Membrane Percolation (mm/hr)                               | 1000                            | Length (m)                                                                          | 6.5   |
| Max Percolation (l/s)                                      | 9.0                             | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                              | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                   | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                           | 6.150                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_106, DS/PN: S49.000</u>     |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                       | 0.00000                         | Width (m)                                                                           | 3.0   |
| Membrane Percolation (mm/hr)                               | 1000                            | Length (m)                                                                          | 10.0  |
| Max Percolation (l/s)                                      | 8.3                             | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                              | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                   | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                           | 6.200                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_107, DS/PN: S50.000</u>     |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                       | 0.00000                         | Width (m)                                                                           | 6.5   |
| Membrane Percolation (mm/hr)                               | 1000                            | Length (m)                                                                          | 7.0   |
| Max Percolation (l/s)                                      | 12.6                            | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                              | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                   | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                           | 6.250                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_102, DS/PN: S51.000</u>     |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                       | 0.00000                         | Width (m)                                                                           | 2.5   |
| Membrane Percolation (mm/hr)                               | 1000                            | Length (m)                                                                          | 12.0  |
| Max Percolation (l/s)                                      | 8.3                             | Slope (1:X)                                                                         | 500.0 |
| Safety Factor                                              | 2.0                             | Depression Storage (mm)                                                             | 5     |
| Porosity                                                   | 0.30                            | Evaporation (mm/day)                                                                | 3     |
| Invert Level (m)                                           | 5.900                           | Membrane Depth (mm)                                                                 | 300   |
| <u>Porous Car Park Manhole: PP_100-101, DS/PN: S52.000</u> |                                 |                                                                                     |       |
| Infiltration Coefficient Base (m/hr)                       | 0.00000                         | Invert Level (m)                                                                    | 5.900 |
| Membrane Percolation (mm/hr)                               | 1000                            | Width (m)                                                                           | 5.0   |
| Max Percolation (l/s)                                      | 13.9                            | Length (m)                                                                          | 10.0  |
| Safety Factor                                              | 2.0                             | Slope (1:X)                                                                         | 500.0 |
| Porosity                                                   | 0.30                            | Depression Storage (mm)                                                             | 5     |
| ©1982-2018 Innovyze                                        |                                 |                                                                                     |       |

|                                                            |                                 |                                                                                     |
|------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                           |                                 | Page 36                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF   | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX        | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions                                               | Network 2018.1                  |                                                                                     |
|                                                            |                                 |                                                                                     |
| <u>Porous Car Park Manhole: PP_100-101, DS/PN: S52.000</u> |                                 |                                                                                     |
| Evaporation (mm/day) 3    Membrane Depth (mm) 300          |                                 |                                                                                     |
| <u>Porous Car Park Manhole: PP_103-104, DS/PN: S53.000</u> |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                       | 0.00000                         | Width (m) 6.0                                                                       |
| Membrane Percolation (mm/hr)                               | 1000                            | Length (m) 12.5                                                                     |
| Max Percolation (l/s)                                      | 20.8                            | Slope (1:X) 500.0                                                                   |
| Safety Factor                                              | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                   | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                           | 5.950                           | Membrane Depth (mm) 300                                                             |
| <u>Porous Car Park Manhole: PP_99, DS/PN: S54.000</u>      |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                       | 0.00000                         | Width (m) 5.0                                                                       |
| Membrane Percolation (mm/hr)                               | 1000                            | Length (m) 5.0                                                                      |
| Max Percolation (l/s)                                      | 6.9                             | Slope (1:X) 500.0                                                                   |
| Safety Factor                                              | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                   | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                           | 6.200                           | Membrane Depth (mm) 300                                                             |
| <u>Porous Car Park Manhole: PP_89, DS/PN: S55.000</u>      |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                       | 0.00000                         | Width (m) 5.0                                                                       |
| Membrane Percolation (mm/hr)                               | 1000                            | Length (m) 6.5                                                                      |
| Max Percolation (l/s)                                      | 9.0                             | Slope (1:X) 500.0                                                                   |
| Safety Factor                                              | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                   | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                           | 6.000                           | Membrane Depth (mm) 300                                                             |
| <u>Porous Car Park Manhole: PP_91, DS/PN: S56.000</u>      |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                       | 0.00000                         | Width (m) 5.0                                                                       |
| Membrane Percolation (mm/hr)                               | 1000                            | Length (m) 5.5                                                                      |
| Max Percolation (l/s)                                      | 7.6                             | Slope (1:X) 500.0                                                                   |
| Safety Factor                                              | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                   | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                           | 5.800                           | Membrane Depth (mm) 300                                                             |
| <u>Porous Car Park Manhole: PP_92, DS/PN: S57.000</u>      |                                 |                                                                                     |
| Infiltration Coefficient Base (m/hr)                       | 0.00000                         | Width (m) 5.0                                                                       |
| Membrane Percolation (mm/hr)                               | 1000                            | Length (m) 6.0                                                                      |
| Max Percolation (l/s)                                      | 8.3                             | Slope (1:X) 500.0                                                                   |
| Safety Factor                                              | 2.0                             | Depression Storage (mm) 5                                                           |
| Porosity                                                   | 0.30                            | Evaporation (mm/day) 3                                                              |
| Invert Level (m)                                           | 5.800                           | Membrane Depth (mm) 300                                                             |
| ©1982-2018 Innovyze                                        |                                 |                                                                                     |



|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 38                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions Network 2018.1                              |                                 |                                                                                     |

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for SW Network

Simulation Criteria

|                                 |       |                                            |       |
|---------------------------------|-------|--------------------------------------------|-------|
| Areal Reduction Factor          | 1.000 | Additional Flow - % of Total Flow          | 0.000 |
| Hot Start (mins)                | 0     | MADD Factor * 10m <sup>3</sup> /ha Storage | 2.000 |
| Hot Start Level (mm)            | 0     | Inlet Coefficient                          | 0.800 |
| Manhole Headloss Coeff (Global) | 0.500 | Flow per Person per Day (l/per/day)        | 0.000 |
| Foul Sewage per hectare (l/s)   | 0.000 |                                            |       |

|                             |    |                              |    |
|-----------------------------|----|------------------------------|----|
| Number of Input Hydrographs | 0  | Number of Storage Structures | 58 |
| Number of Online Controls   | 57 | Number of Time/Area Diagrams | 0  |
| Number of Offline Controls  | 0  | Number of Real Time Controls | 0  |

Synthetic Rainfall Details

|                      |                                 |
|----------------------|---------------------------------|
| Rainfall Model       | FEH                             |
| FEH Rainfall Version | 1999                            |
| Site Location        | GB 498650 101750 SU 98650 01750 |
| C (1km)              | -0.025                          |
| D1 (1km)             | 0.390                           |
| D2 (1km)             | 0.245                           |
| D3 (1km)             | 0.403                           |
| E (1km)              | 0.310                           |
| F (1km)              | 2.321                           |
| Cv (Summer)          | 0.750                           |
| Cv (Winter)          | 0.840                           |

|                                    |                                 |
|------------------------------------|---------------------------------|
| Margin for Flood Risk Warning (mm) | 300.0                           |
| Analysis Timestep                  | 2.5 Second Increment (Extended) |
| DTS Status                         | OFF                             |
| DVD Status                         | ON                              |
| Inertia Status                     | ON                              |

|                          |                                           |
|--------------------------|-------------------------------------------|
| Profile(s)               | Summer and Winter                         |
| Duration(s) (mins)       | 15, 30, 60, 120, 240, 360, 480, 960, 1440 |
| Return Period(s) (years) | 1, 30, 100                                |
| Climate Change (%)       | 0, 0, 40                                  |

| PN     | US/MH<br>Name | Storm      | Return<br>Period | Climate<br>Change | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow | Overflow<br>Act. |
|--------|---------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|------------------|
| S1.000 | S1            | 15 Winter  | 1                | +0%               | 100/240 Summer         |                    |                       |                  |
| S1.001 | S2            | 15 Winter  | 1                | +0%               | 100/15 Summer          |                    |                       |                  |
| S1.002 | S3            | 15 Winter  | 1                | +0%               | 100/15 Summer          |                    |                       |                  |
| S1.003 | S4            | 15 Winter  | 1                | +0%               | 100/15 Summer          |                    |                       |                  |
| S2.000 | S5            | 15 Winter  | 1                | +0%               | 100/120 Winter         |                    |                       |                  |
| S3.000 | PP_3-4        | 960 Winter | 1                | +0%               | 1/480 Winter           |                    |                       |                  |
| S3.001 | ORI_3-4       | 960 Winter | 1                | +0%               | 1/360 Winter           |                    |                       |                  |
| S4.000 | PP_1-2        | 480 Winter | 1                | +0%               | 30/30 Summer           |                    |                       |                  |
| S4.001 | ORI_1-2       | 480 Winter | 1                | +0%               | 30/15 Winter           |                    |                       |                  |
| S5.000 | PP_108        | 120 Winter | 1                | +0%               | 30/15 Summer           |                    |                       |                  |
| S5.001 | ORI_108       | 120 Winter | 1                | +0%               | 30/15 Summer           |                    |                       |                  |

©1982-2018 Innovyze

|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 39                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions                                             |                                 |                                                                                     |
| Network 2018.1                                           |                                 |                                                                                     |

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for SW Network

| PN     | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³) | Flow /<br>Cap.<br>(l/s) | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status     | Level<br>Exceeded |
|--------|---------------|-----------------------|----------------------------|---------------------------|-------------------------|-------------------|-----------------------|------------|-------------------|
| S1.000 | S1            | 5.676                 | -0.194                     | 0.000                     | 0.05                    |                   | 1.7                   | OK         |                   |
| S1.001 | S2            | 5.562                 | -0.169                     | 0.000                     | 0.14                    |                   | 5.3                   | OK         |                   |
| S1.002 | S3            | 5.295                 | -0.225                     | 0.000                     | 0.14                    |                   | 9.7                   | OK         |                   |
| S1.003 | S4            | 4.926                 | -0.351                     | 0.000                     | 0.09                    |                   | 9.7                   | OK         |                   |
| S2.000 | S5            | 5.585                 | -0.198                     | 0.000                     | 0.04                    |                   | 3.6                   | OK         |                   |
| S3.000 | PP_3-4        | 6.352                 | 0.002                      | 0.000                     | 0.02                    |                   | 0.1                   | SURCHARGED |                   |
| S3.001 | ORI_3-4       | 6.352                 | 0.012                      | 0.000                     | 0.00                    |                   | 0.1                   | SURCHARGED |                   |
| S4.000 | PP_1-2        | 6.098                 | -0.052                     | 0.000                     | 0.02                    |                   | 0.2                   | OK         |                   |
| S4.001 | ORI_1-2       | 6.098                 | -0.042                     | 0.000                     | 0.00                    |                   | 0.1                   | OK         |                   |
| S5.000 | PP_108        | 6.417                 | -0.033                     | 0.000                     | 0.04                    |                   | 0.1                   | OK         |                   |
| S5.001 | ORI_108       | 6.416                 | -0.024                     | 0.000                     | 0.01                    |                   | 0.1                   | OK         |                   |

| Odyssey Markides                                                                                           |               |             |                  |                                 |                        | Page 40            |                                                                                     |
|------------------------------------------------------------------------------------------------------------|---------------|-------------|------------------|---------------------------------|------------------------|--------------------|-------------------------------------------------------------------------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                   |               |             |                  | Burndell Road,<br>Yapton        |                        |                    |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                        |               |             |                  | Designed by SG<br>Checked by LH |                        |                    |                                                                                     |
| XP Solutions                                                                                               |               |             |                  | Network 2018.1                  |                        |                    |                                                                                     |
| <u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |             |                  |                                 |                        |                    |                                                                                     |
| PN                                                                                                         | US/MH<br>Name | Storm       | Return<br>Period | Climate<br>Change               | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow<br>Overflow Act.                                              |
| S1.004                                                                                                     | S6            | 15 Winter   | 1                | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S6.000                                                                                                     | PP_76         | 480 Winter  | 1                | +0%                             | 30/30 Summer           |                    |                                                                                     |
| S6.001                                                                                                     | ORI_76        | 480 Winter  | 1                | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S7.000                                                                                                     | PP_80         | 480 Winter  | 1                | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S7.001                                                                                                     | ORI_80        | 480 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S8.000                                                                                                     | PP_79         | 240 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S8.001                                                                                                     | ORI_79        | 240 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S9.000                                                                                                     | PP_75         | 480 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S9.001                                                                                                     | ORI_75        | 480 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S6.002                                                                                                     | S7            | 15 Winter   | 1                | +0%                             | 100/360 Winter         |                    |                                                                                     |
| S10.000                                                                                                    | PP_5-6        | 240 Winter  | 1                | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S10.001                                                                                                    | ORI_5-6       | 240 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S11.000                                                                                                    | PP_7-8        | 960 Winter  | 1                | +0%                             | 1/480 Winter           |                    |                                                                                     |
| S11.001                                                                                                    | ORI_7-8       | 960 Winter  | 1                | +0%                             | 1/360 Winter           |                    |                                                                                     |
| S12.000                                                                                                    | PP_9-10       | 960 Winter  | 1                | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S12.001                                                                                                    | ORI_9-10      | 960 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S13.000                                                                                                    | PP_11-12      | 480 Winter  | 1                | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S13.001                                                                                                    | ORI_11-12     | 480 Winter  | 1                | +0%                             | 30/30 Summer           |                    |                                                                                     |
| S1.005                                                                                                     | S8            | 15 Winter   | 1                | +0%                             | 30/360 Winter          |                    |                                                                                     |
| S14.000                                                                                                    | PP_54         | 480 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S14.001                                                                                                    | ORI_54        | 480 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S15.000                                                                                                    | PP_55         | 120 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S15.001                                                                                                    | ORI_55        | 120 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S16.000                                                                                                    | PP_51         | 120 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S16.001                                                                                                    | ORI_51        | 120 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S14.002                                                                                                    | S9            | 15 Winter   | 1                | +0%                             | 30/360 Winter          |                    |                                                                                     |
| S17.000                                                                                                    | PP_13-14      | 1440 Winter | 1                | +0%                             | 100/60 Winter          |                    |                                                                                     |
| S17.001                                                                                                    | ORI_13-14     | 960 Summer  | 1                | +0%                             | 100/60 Winter          |                    |                                                                                     |
| S18.000                                                                                                    | PP_15         | 360 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S18.001                                                                                                    | ORI_15        | 360 Winter  | 1                | +0%                             | 1/240 Winter           |                    |                                                                                     |
| S1.006                                                                                                     | S10           | 30 Winter   | 1                | +0%                             | 30/60 Winter           |                    |                                                                                     |
| S19.000                                                                                                    | S11a          | 240 Winter  | 1                | +0%                             | 30/60 Winter           |                    |                                                                                     |
| S20.000                                                                                                    | PP_18         | 60 Winter   | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S20.001                                                                                                    | ORI_18        | 60 Winter   | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S21.000                                                                                                    | PP_19-53      | 480 Winter  | 1                | +0%                             | 30/60 Summer           |                    |                                                                                     |
| S21.001                                                                                                    | ORI_19-53     | 480 Winter  | 1                | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S1.007                                                                                                     | S11           | 30 Winter   | 1                | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S22.000                                                                                                    | PP_20-21      | 240 Winter  | 1                | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S22.001                                                                                                    | ORI_20-21     | 240 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S22.002                                                                                                    | S12           | 15 Winter   | 1                | +0%                             | 30/60 Winter           |                    |                                                                                     |
| S1.008                                                                                                     | S13           | 30 Winter   | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S23.000                                                                                                    | PP_22-23      | 960 Winter  | 1                | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S23.001                                                                                                    | ORI_22-23     | 960 Winter  | 1                | +0%                             | 1/960 Winter           |                    |                                                                                     |
| S24.000                                                                                                    | PP_24         | 480 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S24.001                                                                                                    | ORI_24        | 480 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S23.002                                                                                                    | S15           | 480 Winter  | 1                | +0%                             | 100/480 Winter         |                    |                                                                                     |
| S25.000                                                                                                    | PP_25-26      | 960 Winter  | 1                | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S25.001                                                                                                    | ORI_25-26     | 960 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| ©1982-2018 Innovyze                                                                                        |               |             |                  |                                 |                        |                    |                                                                                     |

| Odyssey Markides                                                                                           |               |                       |                            |                                 |                |                   |                       | Page 41                                                                             |                   |
|------------------------------------------------------------------------------------------------------------|---------------|-----------------------|----------------------------|---------------------------------|----------------|-------------------|-----------------------|-------------------------------------------------------------------------------------|-------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                   |               |                       |                            | Burndell Road,<br>Yapton        |                |                   |                       |  |                   |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                        |               |                       |                            | Designed by SG<br>Checked by LH |                |                   |                       |                                                                                     |                   |
| XP Solutions                                                                                               |               |                       |                            | Network 2018.1                  |                |                   |                       |                                                                                     |                   |
| <u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |                       |                            |                                 |                |                   |                       |                                                                                     |                   |
| PN                                                                                                         | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³)       | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status                                                                              | Level<br>Exceeded |
| S1.004                                                                                                     | S6            | 4.898                 | -0.347                     | 0.000                           | 0.11           |                   | 17.1                  | OK                                                                                  |                   |
| S6.000                                                                                                     | PP_76         | 6.566                 | -0.034                     | 0.000                           | 0.02           |                   | 0.1                   | OK                                                                                  |                   |
| S6.001                                                                                                     | ORI_76        | 6.566                 | -0.024                     | 0.000                           | 0.00           |                   | 0.1                   | OK                                                                                  |                   |
| S7.000                                                                                                     | PP_80         | 6.726                 | -0.024                     | 0.000                           | 0.02           |                   | 0.1                   | OK                                                                                  |                   |
| S7.001                                                                                                     | ORI_80        | 6.726                 | -0.014                     | 0.000                           | 0.00           |                   | 0.1                   | OK                                                                                  |                   |
| S8.000                                                                                                     | PP_79         | 6.428                 | -0.022                     | 0.000                           | 0.04           |                   | 0.1                   | OK                                                                                  |                   |
| S8.001                                                                                                     | ORI_79        | 6.427                 | -0.013                     | 0.000                           | 0.01           |                   | 0.1                   | OK                                                                                  |                   |
| S9.000                                                                                                     | PP_75         | 6.687                 | -0.013                     | 0.000                           | 0.02           |                   | 0.1                   | OK                                                                                  |                   |
| S9.001                                                                                                     | ORI_75        | 6.687                 | -0.003                     | 0.000                           | 0.01           |                   | 0.1                   | OK                                                                                  |                   |
| S6.002                                                                                                     | S7            | 6.186                 | -0.126                     | 0.000                           | 0.06           |                   | 2.7                   | OK                                                                                  |                   |
| S10.000                                                                                                    | PP_5-6        | 6.541                 | -0.059                     | 0.000                           | 0.03           |                   | 0.3                   | OK                                                                                  |                   |
| S10.001                                                                                                    | ORI_5-6       | 6.541                 | -0.049                     | 0.000                           | 0.00           |                   | 0.3                   | OK                                                                                  |                   |
| S11.000                                                                                                    | PP_7-8        | 6.602                 | 0.002                      | 0.000                           | 0.02           |                   | 0.1                   | SURCHARGED                                                                          |                   |
| S11.001                                                                                                    | ORI_7-8       | 6.602                 | 0.012                      | 0.000                           | 0.00           |                   | 0.1                   | SURCHARGED                                                                          |                   |
| S12.000                                                                                                    | PP_9-10       | 6.490                 | -0.010                     | 0.000                           | 0.02           |                   | 0.1                   | OK                                                                                  |                   |
| S12.001                                                                                                    | ORI_9-10      | 6.489                 | -0.001                     | 0.000                           | 0.00           |                   | 0.1                   | OK                                                                                  |                   |
| S13.000                                                                                                    | PP_11-12      | 6.321                 | -0.029                     | 0.000                           | 0.02           |                   | 0.1                   | OK                                                                                  |                   |
| S13.001                                                                                                    | ORI_11-12     | 6.321                 | -0.019                     | 0.000                           | 0.00           |                   | 0.1                   | OK                                                                                  |                   |
| S1.005                                                                                                     | S8            | 4.767                 | -0.336                     | 0.000                           | 0.14           |                   | 21.3                  | OK                                                                                  |                   |
| S14.000                                                                                                    | PP_54         | 6.334                 | -0.016                     | 0.000                           | 0.02           |                   | 0.1                   | OK                                                                                  |                   |
| S14.001                                                                                                    | ORI_54        | 6.334                 | -0.006                     | 0.000                           | 0.00           |                   | 0.1                   | OK                                                                                  |                   |
| S15.000                                                                                                    | PP_55         | 6.312                 | -0.038                     | 0.000                           | 0.04           |                   | 0.1                   | OK                                                                                  |                   |
| S15.001                                                                                                    | ORI_55        | 6.312                 | -0.028                     | 0.000                           | 0.01           |                   | 0.1                   | OK                                                                                  |                   |
| S16.000                                                                                                    | PP_51         | 6.427                 | -0.073                     | 0.000                           | 0.04           |                   | 0.4                   | OK                                                                                  |                   |
| S16.001                                                                                                    | ORI_51        | 6.426                 | -0.064                     | 0.000                           | 0.01           |                   | 0.4                   | OK                                                                                  |                   |
| S14.002                                                                                                    | S9            | 4.991                 | -0.111                     | 0.000                           | 0.15           |                   | 2.5                   | OK                                                                                  |                   |
| S17.000                                                                                                    | PP_13-14      | 6.227                 | -0.173                     | 0.000                           | 0.00           |                   | 0.0                   | OK                                                                                  |                   |
| S17.001                                                                                                    | ORI_13-14     | 6.241                 | -0.149                     | 0.000                           | 0.00           |                   | 0.0                   | OK                                                                                  |                   |
| S18.000                                                                                                    | PP_15         | 5.946                 | -0.004                     | 0.000                           | 0.05           |                   | 0.2                   | OK                                                                                  |                   |
| S18.001                                                                                                    | ORI_15        | 5.946                 | 0.006                      | 0.000                           | 0.01           |                   | 0.1                   | SURCHARGED                                                                          |                   |
| S1.006                                                                                                     | S10           | 4.666                 | -0.261                     | 0.000                           | 0.14           |                   | 20.2                  | OK                                                                                  |                   |
| S19.000                                                                                                    | S11a          | 4.606                 | -0.294                     | 0.000                           | 0.02           |                   | 2.9                   | OK                                                                                  |                   |
| S20.000                                                                                                    | PP_18         | 5.876                 | -0.074                     | 0.000                           | 0.06           |                   | 0.5                   | OK                                                                                  |                   |
| S20.001                                                                                                    | ORI_18        | 5.875                 | -0.065                     | 0.000                           | 0.01           |                   | 0.5                   | OK                                                                                  |                   |
| S21.000                                                                                                    | PP_19-53      | 6.065                 | -0.035                     | 0.000                           | 0.02           |                   | 0.1                   | OK                                                                                  |                   |
| S21.001                                                                                                    | ORI_19-53     | 6.065                 | -0.025                     | 0.000                           | 0.00           |                   | 0.1                   | OK                                                                                  |                   |
| S1.007                                                                                                     | S11           | 4.647                 | -0.202                     | 0.000                           | 0.05           |                   | 6.4                   | OK                                                                                  |                   |
| S22.000                                                                                                    | PP_20-21      | 6.388                 | -0.062                     | 0.000                           | 0.03           |                   | 0.3                   | OK                                                                                  |                   |
| S22.001                                                                                                    | ORI_20-21     | 6.388                 | -0.052                     | 0.000                           | 0.00           |                   | 0.2                   | OK                                                                                  |                   |
| S22.002                                                                                                    | S12           | 4.693                 | -0.179                     | 0.000                           | 0.09           |                   | 3.1                   | OK                                                                                  |                   |
| S1.008                                                                                                     | S13           | 4.645                 | -0.145                     | 0.000                           | 0.05           |                   | 5.6                   | OK                                                                                  |                   |
| S23.000                                                                                                    | PP_22-23      | 6.542                 | -0.008                     | 0.000                           | 0.02           |                   | 0.1                   | OK                                                                                  |                   |
| S23.001                                                                                                    | ORI_22-23     | 6.541                 | 0.001                      | 0.000                           | 0.01           |                   | 0.1                   | SURCHARGED                                                                          |                   |
| S24.000                                                                                                    | PP_24         | 6.530                 | -0.020                     | 0.000                           | 0.02           |                   | 0.1                   | OK                                                                                  |                   |
| S24.001                                                                                                    | ORI_24        | 6.530                 | -0.010                     | 0.000                           | 0.01           |                   | 0.1                   | OK                                                                                  |                   |
| S23.002                                                                                                    | S15           | 6.072                 | -0.221                     | 0.000                           | 0.00           |                   | 0.1                   | OK                                                                                  |                   |
| S25.000                                                                                                    | PP_25-26      | 6.440                 | -0.010                     | 0.000                           | 0.02           |                   | 0.1                   | OK                                                                                  |                   |
| ©1982-2018 Innovyze                                                                                        |               |                       |                            |                                 |                |                   |                       |                                                                                     |                   |

|                                                                                                            |               |                       |                            |                           |                |                   |                                                                                     |        |                   |
|------------------------------------------------------------------------------------------------------------|---------------|-----------------------|----------------------------|---------------------------|----------------|-------------------|-------------------------------------------------------------------------------------|--------|-------------------|
| Odyssey Markides                                                                                           |               |                       |                            |                           |                |                   | Page 42                                                                             |        |                   |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                   |               |                       |                            | Burndell Road,<br>Yapton  |                |                   |  |        |                   |
| Date 15/07/2019 10:24                                                                                      |               |                       |                            | Designed by SG            |                |                   |                                                                                     |        |                   |
| File 18-070 SW NETWORK.MDX                                                                                 |               |                       |                            | Checked by LH             |                |                   |                                                                                     |        |                   |
| XP Solutions                                                                                               |               |                       |                            | Network 2018.1            |                |                   |                                                                                     |        |                   |
| <u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |                       |                            |                           |                |                   |                                                                                     |        |                   |
| PN                                                                                                         | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s)                                                               | Status | Level<br>Exceeded |
| S25.001                                                                                                    | ORI_25-26     | 6.439                 | -0.001                     | 0.000                     | 0.01           |                   | 0.1                                                                                 | OK     |                   |
| ©1982-2018 Innovyze                                                                                        |               |                       |                            |                           |                |                   |                                                                                     |        |                   |

| Odyssey Markides                                                                                           |               |             |                  |                                 |                        | Page 43            |                                                                                     |
|------------------------------------------------------------------------------------------------------------|---------------|-------------|------------------|---------------------------------|------------------------|--------------------|-------------------------------------------------------------------------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                   |               |             |                  | Burndell Road,<br>Yapton        |                        |                    |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                        |               |             |                  | Designed by SG<br>Checked by LH |                        |                    |                                                                                     |
| XP Solutions                                                                                               |               |             |                  | Network 2018.1                  |                        |                    |                                                                                     |
| <u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |             |                  |                                 |                        |                    |                                                                                     |
| PN                                                                                                         | US/MH<br>Name | Storm       | Return<br>Period | Climate<br>Change               | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow                                                               |
| S26.000                                                                                                    | PP_27         | 480 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S26.001                                                                                                    | ORI_27        | 480 Winter  | 1                | +0%                             | 1/360 Winter           |                    |                                                                                     |
| S27.000                                                                                                    | PP_28         | 1440 Winter | 1                | +0%                             | 30/240 Winter          |                    |                                                                                     |
| S27.001                                                                                                    | ORI_28        | 1440 Winter | 1                | +0%                             | 30/240 Winter          |                    |                                                                                     |
| S23.003                                                                                                    | S16           | 15 Winter   | 1                | +0%                             | 100/360 Winter         |                    |                                                                                     |
| S28.000                                                                                                    | PP_29         | 120 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S28.001                                                                                                    | ORI_29        | 120 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S23.004                                                                                                    | S18           | 15 Winter   | 1                | +0%                             | 100/240 Winter         |                    |                                                                                     |
| S23.005                                                                                                    | S19           | 15 Winter   | 1                | +0%                             | 100/240 Summer         |                    |                                                                                     |
| S29.000                                                                                                    | PP_30         | 480 Winter  | 1                | +0%                             | 30/60 Winter           |                    |                                                                                     |
| S29.001                                                                                                    | ORI_30        | 480 Winter  | 1                | +0%                             | 30/60 Winter           |                    |                                                                                     |
| S23.006                                                                                                    | S20           | 15 Winter   | 1                | +0%                             | 100/120 Winter         |                    |                                                                                     |
| S30.000                                                                                                    | PP_31         | 120 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S30.001                                                                                                    | ORI_31        | 120 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S31.000                                                                                                    | PP_32         | 480 Winter  | 1                | +0%                             | 30/60 Summer           |                    |                                                                                     |
| S31.001                                                                                                    | ORI_32        | 480 Winter  | 1                | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S32.000                                                                                                    | PP_33         | 480 Winter  | 1                | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S32.001                                                                                                    | ORI_33        | 480 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S33.000                                                                                                    | PP_34-35      | 360 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S33.001                                                                                                    | ORI_34-35     | 360 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S34.000                                                                                                    | PP_36         | 120 Winter  | 1                | +0%                             | 1/15 Summer            |                    |                                                                                     |
| S34.001                                                                                                    | ORI_36        | 120 Winter  | 1                | +0%                             | 1/15 Summer            |                    |                                                                                     |
| S23.007                                                                                                    | S21           | 15 Winter   | 1                | +0%                             | 100/15 Winter          |                    |                                                                                     |
| S35.000                                                                                                    | S23a          | 360 Winter  | 1                | +0%                             | 100/120 Summer         |                    |                                                                                     |
| S23.008                                                                                                    | S23           | 30 Winter   | 1                | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S23.009                                                                                                    | S24           | 30 Winter   | 1                | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S36.000                                                                                                    | PP_81-82      | 360 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S36.001                                                                                                    | ORI_81-82     | 360 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S37.000                                                                                                    | PP_83         | 360 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S37.001                                                                                                    | ORI_83        | 360 Winter  | 1                | +0%                             | 1/240 Winter           |                    |                                                                                     |
| S38.000                                                                                                    | PP_84-85      | 960 Winter  | 1                | +0%                             | 30/30 Summer           |                    |                                                                                     |
| S38.001                                                                                                    | ORI_84-85     | 960 Winter  | 1                | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S36.002                                                                                                    | S29           | 15 Winter   | 1                | +0%                             | 30/15 Summer           | 100/15 Summer      |                                                                                     |
| S39.000                                                                                                    | PP_88         | 120 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S39.001                                                                                                    | ORI_88        | 120 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S40.000                                                                                                    | PP_86-87      | 240 Winter  | 1                | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S40.001                                                                                                    | ORI_86-87     | 240 Winter  | 1                | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S41.000                                                                                                    | PP_49-50      | 960 Winter  | 1                | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S41.001                                                                                                    | ORI_49-50     | 960 Winter  | 1                | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S42.000                                                                                                    | PP_48         | 240 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S42.001                                                                                                    | ORI_48        | 240 Winter  | 1                | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S43.000                                                                                                    | PP_56-78      | 1440 Winter | 1                | +0%                             | 1/240 Summer           |                    |                                                                                     |
| S43.001                                                                                                    | ORI_56-78     | 1440 Winter | 1                | +0%                             | 1/120 Winter           |                    |                                                                                     |
| S41.002                                                                                                    | S25           | 15 Winter   | 1                | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S44.000                                                                                                    | PP_46-47      | 240 Winter  | 1                | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S44.001                                                                                                    | ORI_46-47     | 240 Winter  | 1                | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S41.003                                                                                                    | S26           | 15 Winter   | 1                | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S45.000                                                                                                    | PP_41-45      | 1440 Winter | 1                | +0%                             | 1/480 Winter           |                    |                                                                                     |
| ©1982-2018 Innovyze                                                                                        |               |             |                  |                                 |                        |                    |                                                                                     |

| Odyssey Markides                                                                                           |               |                  |                    |                                 |                        |                |                   | Page 44                                                                             |            |
|------------------------------------------------------------------------------------------------------------|---------------|------------------|--------------------|---------------------------------|------------------------|----------------|-------------------|-------------------------------------------------------------------------------------|------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                   |               |                  |                    | Burndell Road,<br>Yapton        |                        |                |                   |  |            |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                        |               |                  |                    | Designed by SG<br>Checked by LH |                        |                |                   |                                                                                     |            |
| XP Solutions                                                                                               |               |                  |                    | Network 2018.1                  |                        |                |                   |                                                                                     |            |
| <u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |
| PN                                                                                                         | US/MH<br>Name | Overflow<br>Act. | Water Level<br>(m) | Surcharged Depth<br>(m)         | Flooded Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe Flow<br>(l/s)                                                                  | Status     |
| S26.000                                                                                                    | PP_27         |                  | 6.347              | -0.003                          | 0.000                  | 0.02           |                   | 0.1                                                                                 | OK         |
| S26.001                                                                                                    | ORI_27        |                  | 6.346              | 0.006                           | 0.000                  | 0.01           |                   | 0.1                                                                                 | SURCHARGED |
| S27.000                                                                                                    | PP_28         |                  | 6.261              | -0.089                          | 0.000                  | 0.01           |                   | 0.0                                                                                 | OK         |
| S27.001                                                                                                    | ORI_28        |                  | 6.258              | -0.082                          | 0.000                  | 0.00           |                   | 0.0                                                                                 | OK         |
| S23.003                                                                                                    | S16           |                  | 5.943              | -0.178                          | 0.000                  | 0.10           |                   | 3.7                                                                                 | OK         |
| S28.000                                                                                                    | PP_29         |                  | 6.068              | -0.032                          | 0.000                  | 0.07           |                   | 0.2                                                                                 | OK         |
| S28.001                                                                                                    | ORI_29        |                  | 6.067              | -0.023                          | 0.000                  | 0.02           |                   | 0.2                                                                                 | OK         |
| S23.004                                                                                                    | S18           |                  | 5.558              | -0.248                          | 0.000                  | 0.07           |                   | 3.9                                                                                 | OK         |
| S23.005                                                                                                    | S19           |                  | 5.521              | -0.247                          | 0.000                  | 0.07           |                   | 3.9                                                                                 | OK         |
| S29.000                                                                                                    | PP_30         |                  | 5.896              | -0.054                          | 0.000                  | 0.01           |                   | 0.0                                                                                 | OK         |
| S29.001                                                                                                    | ORI_30        |                  | 5.895              | -0.045                          | 0.000                  | 0.00           |                   | 0.0                                                                                 | OK         |
| S23.006                                                                                                    | S20           |                  | 5.489              | -0.233                          | 0.000                  | 0.11           |                   | 6.3                                                                                 | OK         |
| S30.000                                                                                                    | PP_31         |                  | 5.828              | -0.022                          | 0.000                  | 0.07           |                   | 0.2                                                                                 | OK         |
| S30.001                                                                                                    | ORI_31        |                  | 5.827              | -0.013                          | 0.000                  | 0.03           |                   | 0.2                                                                                 | OK         |
| S31.000                                                                                                    | PP_32         |                  | 6.103              | -0.047                          | 0.000                  | 0.02           |                   | 0.1                                                                                 | OK         |
| S31.001                                                                                                    | ORI_32        |                  | 6.102              | -0.038                          | 0.000                  | 0.00           |                   | 0.1                                                                                 | OK         |
| S32.000                                                                                                    | PP_33         |                  | 6.176              | -0.024                          | 0.000                  | 0.02           |                   | 0.1                                                                                 | OK         |
| S32.001                                                                                                    | ORI_33        |                  | 6.176              | -0.014                          | 0.000                  | 0.00           |                   | 0.1                                                                                 | OK         |
| S33.000                                                                                                    | PP_34-35      |                  | 6.088              | -0.012                          | 0.000                  | 0.04           |                   | 0.1                                                                                 | OK         |
| S33.001                                                                                                    | ORI_34-35     |                  | 6.087              | -0.003                          | 0.000                  | 0.01           |                   | 0.1                                                                                 | OK         |
| S34.000                                                                                                    | PP_36         |                  | 6.021              | 0.071                           | 0.000                  | 0.10           |                   | 0.3                                                                                 | SURCHARGED |
| S34.001                                                                                                    | ORI_36        |                  | 6.020              | 0.080                           | 0.000                  | 0.02           |                   | 0.2                                                                                 | SURCHARGED |
| S23.007                                                                                                    | S21           |                  | 5.298              | -0.380                          | 0.000                  | 0.06           |                   | 8.4                                                                                 | OK         |
| S35.000                                                                                                    | S23a          |                  | 5.142              | -0.388                          | 0.000                  | 0.01           |                   | 1.2                                                                                 | OK         |
| S23.008                                                                                                    | S23           |                  | 5.227              | -0.272                          | 0.000                  | 0.04           |                   | 4.1                                                                                 | OK         |
| S23.009                                                                                                    | S24           |                  | 5.230              | -0.245                          | 0.000                  | 0.03           |                   | 3.2                                                                                 | OK         |
| S36.000                                                                                                    | PP_81-82      |                  | 6.778              | -0.022                          | 0.000                  | 0.04           |                   | 0.1                                                                                 | OK         |
| S36.001                                                                                                    | ORI_81-82     |                  | 6.777              | -0.013                          | 0.000                  | 0.01           |                   | 0.1                                                                                 | OK         |
| S37.000                                                                                                    | PP_83         |                  | 6.594              | -0.006                          | 0.000                  | 0.02           |                   | 0.1                                                                                 | OK         |
| S37.001                                                                                                    | ORI_83        |                  | 6.594              | 0.004                           | 0.000                  | 0.01           |                   | 0.1                                                                                 | SURCHARGED |
| S38.000                                                                                                    | PP_84-85      |                  | 6.579              | -0.021                          | 0.000                  | 0.02           |                   | 0.1                                                                                 | OK         |
| S38.001                                                                                                    | ORI_84-85     |                  | 6.579              | -0.011                          | 0.000                  | 0.00           |                   | 0.1                                                                                 | OK         |
| S36.002                                                                                                    | S29           |                  | 6.245              | -0.095                          | 0.000                  | 0.29           |                   | 5.6                                                                                 | OK         |
| S39.000                                                                                                    | PP_88         |                  | 5.870              | -0.030                          | 0.000                  | 0.07           |                   | 0.2                                                                                 | OK         |
| S39.001                                                                                                    | ORI_88        |                  | 5.869              | -0.021                          | 0.000                  | 0.02           |                   | 0.2                                                                                 | OK         |
| S40.000                                                                                                    | PP_86-87      |                  | 6.234              | -0.066                          | 0.000                  | 0.03           |                   | 0.2                                                                                 | OK         |
| S40.001                                                                                                    | ORI_86-87     |                  | 6.233              | -0.057                          | 0.000                  | 0.01           |                   | 0.2                                                                                 | OK         |
| S41.000                                                                                                    | PP_49-50      |                  | 6.458              | -0.042                          | 0.000                  | 0.01           |                   | 0.1                                                                                 | OK         |
| S41.001                                                                                                    | ORI_49-50     |                  | 6.458              | -0.032                          | 0.000                  | 0.00           |                   | 0.1                                                                                 | OK         |
| S42.000                                                                                                    | PP_48         |                  | 6.273              | -0.027                          | 0.000                  | 0.04           |                   | 0.1                                                                                 | OK         |
| S42.001                                                                                                    | ORI_48        |                  | 6.272              | -0.018                          | 0.000                  | 0.01           |                   | 0.1                                                                                 | OK         |
| S43.000                                                                                                    | PP_56-78      |                  | 6.344              | 0.044                           | 0.000                  | 0.05           |                   | 0.2                                                                                 | SURCHARGED |
| S43.001                                                                                                    | ORI_56-78     |                  | 6.343              | 0.053                           | 0.000                  | 0.02           |                   | 0.2                                                                                 | SURCHARGED |
| S41.002                                                                                                    | S25           |                  | 5.919              | -0.171                          | 0.000                  | 0.13           |                   | 4.8                                                                                 | OK         |
| S44.000                                                                                                    | PP_46-47      |                  | 6.034              | -0.066                          | 0.000                  | 0.03           |                   | 0.2                                                                                 | OK         |
| S44.001                                                                                                    | ORI_46-47     |                  | 6.033              | -0.057                          | 0.000                  | 0.01           |                   | 0.2                                                                                 | OK         |
| S41.003                                                                                                    | S26           |                  | 5.750              | -0.156                          | 0.000                  | 0.21           |                   | 6.2                                                                                 | OK         |
| ©1982-2018 Innovyze                                                                                        |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |

|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|------------------------------------------------------------------------------------------------------------|---------------|------------------|---------------------------------|--------------|----------------|----------------|-------------------------------------------------------------------------------------|-----------------------|------------|
| Odyssey Markides                                                                                           |               |                  |                                 |              |                |                | Page 45                                                                             |                       |            |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                   |               |                  | Burndell Road,<br>Yapton        |              |                |                |  |                       |            |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                        |               |                  | Designed by SG<br>Checked by LH |              |                |                |                                                                                     |                       |            |
| XP Solutions                                                                                               |               |                  | Network 2018.1                  |              |                |                |                                                                                     |                       |            |
| <u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  | Water                           | Surcharged   | Flooded        |                |                                                                                     | Pipe                  |            |
| PN                                                                                                         | US/MH<br>Name | Overflow<br>Act. | Level<br>(m)                    | Depth<br>(m) | Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s)                                                                   | Pipe<br>Flow<br>(l/s) | Status     |
| S45.000                                                                                                    | PP_41-45      |                  | 6.416                           | 0.016        | 0.000          | 0.02           |                                                                                     | 0.1                   | SURCHARGED |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     |                       |            |
|                                                                                                            |               |                  |                                 |              |                |                |                                                                                     | </                    |            |

|                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|-------|----|------|----------|---------|----------|--|---------|-----------|--|---------|-----|--|---------|----------|--|---------|-----------|--|---------|-----|--|---------|----------|--|--|
| Odyssey Markides                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Page 46                                                                             |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                   | Burndell Road,<br>Yapton                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                        | Designed by SG<br>Checked by LH                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| XP Solutions                                                                                               | Network 2018.1                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| <u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
|                                                                                                            | <table><tr><td></td><td>US/MH</td><td>Level</td></tr><tr><td>PN</td><td>Name</td><td>Exceeded</td></tr><tr><td>S43.000</td><td>PP_56-78</td><td></td></tr><tr><td>S43.001</td><td>ORI_56-78</td><td></td></tr><tr><td>S41.002</td><td>S25</td><td></td></tr><tr><td>S44.000</td><td>PP_46-47</td><td></td></tr><tr><td>S44.001</td><td>ORI_46-47</td><td></td></tr><tr><td>S41.003</td><td>S26</td><td></td></tr><tr><td>S45.000</td><td>PP_41-45</td><td></td></tr></table> |                                                                                     | US/MH | Level | PN | Name | Exceeded | S43.000 | PP_56-78 |  | S43.001 | ORI_56-78 |  | S41.002 | S25 |  | S44.000 | PP_46-47 |  | S44.001 | ORI_46-47 |  | S41.003 | S26 |  | S45.000 | PP_41-45 |  |  |
|                                                                                                            | US/MH                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Level                                                                               |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| PN                                                                                                         | Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Exceeded                                                                            |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S43.000                                                                                                    | PP_56-78                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S43.001                                                                                                    | ORI_56-78                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S41.002                                                                                                    | S25                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S44.000                                                                                                    | PP_46-47                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S44.001                                                                                                    | ORI_46-47                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S41.003                                                                                                    | S26                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S45.000                                                                                                    | PP_41-45                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| ©1982-2018 Innovyze                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |

| Odyssey Markides                                                                                           |               |             |                                 |                   | Page 47                |                                                                                     |                       |
|------------------------------------------------------------------------------------------------------------|---------------|-------------|---------------------------------|-------------------|------------------------|-------------------------------------------------------------------------------------|-----------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                   |               |             | Burndell Road,<br>Yapton        |                   |                        |  |                       |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                        |               |             | Designed by SG<br>Checked by LH |                   |                        |                                                                                     |                       |
| XP Solutions                                                                                               |               |             | Network 2018.1                  |                   |                        |                                                                                     |                       |
| <u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |             |                                 |                   |                        |                                                                                     |                       |
| PN                                                                                                         | US/MH<br>Name | Storm       | Return<br>Period                | Climate<br>Change | First (X)<br>Surcharge | First (Y)<br>Flood                                                                  | First (Z)<br>Overflow |
| S45.001                                                                                                    | ORI_41-45     | 1440 Winter | 1                               | +0%               | 1/360 Winter           |                                                                                     |                       |
| S41.004                                                                                                    | S27           | 15 Winter   | 1                               | +0%               | 100/15 Summer          |                                                                                     |                       |
| S46.000                                                                                                    | PP_37-38      | 480 Winter  | 1                               | +0%               | 30/30 Winter           |                                                                                     |                       |
| S46.001                                                                                                    | ORI_37-38     | 480 Winter  | 1                               | +0%               | 30/30 Summer           |                                                                                     |                       |
| S47.000                                                                                                    | PP_39-40      | 360 Winter  | 1                               | +0%               | 30/30 Winter           |                                                                                     |                       |
| S47.001                                                                                                    | ORI_39-40     | 360 Winter  | 1                               | +0%               | 30/30 Winter           |                                                                                     |                       |
| S41.005                                                                                                    | S28           | 15 Winter   | 1                               | +0%               | 100/15 Summer          |                                                                                     |                       |
| S36.003                                                                                                    | S30           | 30 Winter   | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S48.000                                                                                                    | PP_105        | 30 Winter   | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S48.001                                                                                                    | ORI_105       | 30 Winter   | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S49.000                                                                                                    | PP_106        | 360 Winter  | 1                               | +0%               | 30/30 Winter           |                                                                                     |                       |
| S49.001                                                                                                    | ORI_106       | 360 Winter  | 1                               | +0%               | 30/30 Summer           |                                                                                     |                       |
| S50.000                                                                                                    | PP_107        | 360 Winter  | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S50.001                                                                                                    | ORI_107       | 360 Winter  | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S48.002                                                                                                    | S31           | 15 Winter   | 1                               | +0%               | 100/15 Summer          |                                                                                     |                       |
| S51.000                                                                                                    | PP_102        | 60 Winter   | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S51.001                                                                                                    | ORI_102       | 60 Winter   | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S52.000                                                                                                    | PP_100-101    | 360 Winter  | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S52.001                                                                                                    | ORI_100-101   | 360 Winter  | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S53.000                                                                                                    | PP_103-104    | 960 Winter  | 1                               | +0%               | 30/30 Winter           |                                                                                     |                       |
| S53.001                                                                                                    | ORI_103-104   | 960 Winter  | 1                               | +0%               | 30/30 Summer           |                                                                                     |                       |
| S48.003                                                                                                    | S32           | 15 Winter   | 1                               | +0%               | 100/15 Summer          |                                                                                     |                       |
| S48.004                                                                                                    | S33           | 15 Winter   | 1                               | +0%               | 100/15 Summer          |                                                                                     |                       |
| S48.005                                                                                                    | S34           | 15 Winter   | 1                               | +0%               | 100/15 Summer          |                                                                                     |                       |
| S54.000                                                                                                    | PP_99         | 360 Winter  | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S54.001                                                                                                    | ORI_99        | 360 Winter  | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S48.006                                                                                                    | S35           | 15 Winter   | 1                               | +0%               | 100/15 Summer          |                                                                                     |                       |
| S55.000                                                                                                    | PP_89         | 480 Winter  | 1                               | +0%               | 30/30 Winter           |                                                                                     |                       |
| S55.001                                                                                                    | ORI_89        | 480 Winter  | 1                               | +0%               | 30/15 Winter           |                                                                                     |                       |
| S56.000                                                                                                    | PP_91         | 480 Winter  | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S56.001                                                                                                    | ORI_91        | 480 Winter  | 1                               | +0%               | 1/240 Winter           |                                                                                     |                       |
| S48.007                                                                                                    | S36           | 30 Winter   | 1                               | +0%               | 100/15 Summer          |                                                                                     |                       |
| S48.008                                                                                                    | S37           | 30 Winter   | 1                               | +0%               | 100/15 Summer          |                                                                                     |                       |
| S36.004                                                                                                    | S38           | 30 Winter   | 1                               | +0%               | 30/15 Winter           |                                                                                     |                       |
| S57.000                                                                                                    | PP_92         | 240 Winter  | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S57.001                                                                                                    | ORI_92        | 240 Winter  | 1                               | +0%               | 30/15 Summer           |                                                                                     |                       |
| S36.005                                                                                                    | S39           | 30 Winter   | 1                               | +0%               | 30/15 Winter           |                                                                                     |                       |
| S58.000                                                                                                    | S40a          | 360 Winter  | 1                               | +0%               | 100/30 Winter          |                                                                                     |                       |
| S23.010                                                                                                    | S40           | 30 Winter   | 1                               | +0%               | 30/15 Winter           |                                                                                     |                       |
| S59.000                                                                                                    | POND          | 30 Winter   | 1                               | +0%               | 100/60 Winter          |                                                                                     |                       |
| S59.001                                                                                                    | S41           | 120 Winter  | 1                               | +0%               | 1/15 Summer            |                                                                                     |                       |
| S60.000                                                                                                    | PP_90-98      | 960 Winter  | 1                               | +0%               | 30/30 Winter           |                                                                                     |                       |
| S60.001                                                                                                    | ORI_90-98     | 960 Winter  | 1                               | +0%               | 30/30 Winter           |                                                                                     |                       |
| S23.011                                                                                                    | S42           | 30 Winter   | 1                               | +0%               | 30/15 Summer           | 100/240 Winter                                                                      |                       |
| ©1982-2018 Innovyze                                                                                        |               |             |                                 |                   |                        |                                                                                     |                       |

| Odyssey Markides                                                                                           |               |                  |                    |                                 |                        |                | Page 48                                                                             |                    |            |
|------------------------------------------------------------------------------------------------------------|---------------|------------------|--------------------|---------------------------------|------------------------|----------------|-------------------------------------------------------------------------------------|--------------------|------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                   |               |                  |                    | Burndell Road,<br>Yapton        |                        |                |  |                    |            |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                        |               |                  |                    | Designed by SG<br>Checked by LH |                        |                |                                                                                     |                    |            |
| XP Solutions                                                                                               |               |                  |                    | Network 2018.1                  |                        |                |                                                                                     |                    |            |
| <u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |                  |                    |                                 |                        |                |                                                                                     |                    |            |
| PN                                                                                                         | US/MH<br>Name | Overflow<br>Act. | Water Level<br>(m) | Surcharged Depth<br>(m)         | Flooded Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s)                                                                   | Pipe Flow<br>(l/s) | Status     |
| S45.001                                                                                                    | ORI_41-45     |                  | 6.416              | 0.026                           | 0.000                  | 0.00           |                                                                                     | 0.1                | SURCHARGED |
| S41.004                                                                                                    | S27           |                  | 5.705              | -0.156                          | 0.000                  | 0.21           |                                                                                     | 6.2                | OK         |
| S46.000                                                                                                    | PP_37-38      |                  | 6.340              | -0.060                          | 0.000                  | 0.02           |                                                                                     | 0.1                | OK         |
| S46.001                                                                                                    | ORI_37-38     |                  | 6.340              | -0.050                          | 0.000                  | 0.00           |                                                                                     | 0.1                | OK         |
| S47.000                                                                                                    | PP_39-40      |                  | 6.281              | -0.069                          | 0.000                  | 0.02           |                                                                                     | 0.1                | OK         |
| S47.001                                                                                                    | ORI_39-40     |                  | 6.280              | -0.060                          | 0.000                  | 0.00           |                                                                                     | 0.1                | OK         |
| S41.005                                                                                                    | S28           |                  | 5.590              | -0.226                          | 0.000                  | 0.14           |                                                                                     | 9.3                | OK         |
| S36.003                                                                                                    | S30           |                  | 5.263              | -0.308                          | 0.000                  | 0.11           |                                                                                     | 15.9               | OK         |
| S48.000                                                                                                    | PP_105        |                  | 6.221              | -0.079                          | 0.000                  | 0.14           |                                                                                     | 1.2                | OK         |
| S48.001                                                                                                    | ORI_105       |                  | 6.219              | -0.071                          | 0.000                  | 0.04           |                                                                                     | 1.2                | OK         |
| S49.000                                                                                                    | PP_106        |                  | 6.254              | -0.046                          | 0.000                  | 0.02           |                                                                                     | 0.1                | OK         |
| S49.001                                                                                                    | ORI_106       |                  | 6.254              | -0.036                          | 0.000                  | 0.00           |                                                                                     | 0.1                | OK         |
| S50.000                                                                                                    | PP_107        |                  | 6.329              | -0.021                          | 0.000                  | 0.04           |                                                                                     | 0.1                | OK         |
| S50.001                                                                                                    | ORI_107       |                  | 6.328              | -0.012                          | 0.000                  | 0.01           |                                                                                     | 0.1                | OK         |
| S48.002                                                                                                    | S31           |                  | 5.766              | -0.260                          | 0.000                  | 0.04           |                                                                                     | 2.7                | OK         |
| S51.000                                                                                                    | PP_102        |                  | 5.967              | -0.033                          | 0.000                  | 0.11           |                                                                                     | 0.4                | OK         |
| S51.001                                                                                                    | ORI_102       |                  | 5.965              | -0.025                          | 0.000                  | 0.04           |                                                                                     | 0.3                | OK         |
| S52.000                                                                                                    | PP_100-101    |                  | 5.981              | -0.019                          | 0.000                  | 0.04           |                                                                                     | 0.1                | OK         |
| S52.001                                                                                                    | ORI_100-101   |                  | 5.981              | -0.009                          | 0.000                  | 0.02           |                                                                                     | 0.1                | OK         |
| S53.000                                                                                                    | PP_103-104    |                  | 6.025              | -0.025                          | 0.000                  | 0.02           |                                                                                     | 0.1                | OK         |
| S53.001                                                                                                    | ORI_103-104   |                  | 6.025              | -0.015                          | 0.000                  | 0.01           |                                                                                     | 0.1                | OK         |
| S48.003                                                                                                    | S32           |                  | 5.603              | -0.233                          | 0.000                  | 0.11           |                                                                                     | 7.2                | OK         |
| S48.004                                                                                                    | S33           |                  | 5.491              | -0.230                          | 0.000                  | 0.12           |                                                                                     | 7.2                | OK         |
| S48.005                                                                                                    | S34           |                  | 5.445              | -0.225                          | 0.000                  | 0.14           |                                                                                     | 8.2                | OK         |
| S54.000                                                                                                    | PP_99         |                  | 6.280              | -0.020                          | 0.000                  | 0.02           |                                                                                     | 0.1                | OK         |
| S54.001                                                                                                    | ORI_99        |                  | 6.279              | -0.011                          | 0.000                  | 0.00           |                                                                                     | 0.1                | OK         |
| S48.006                                                                                                    | S35           |                  | 5.391              | -0.225                          | 0.000                  | 0.14           |                                                                                     | 8.3                | OK         |
| S55.000                                                                                                    | PP_89         |                  | 6.059              | -0.041                          | 0.000                  | 0.02           |                                                                                     | 0.1                | OK         |
| S55.001                                                                                                    | ORI_89        |                  | 6.059              | -0.031                          | 0.000                  | 0.00           |                                                                                     | 0.1                | OK         |
| S56.000                                                                                                    | PP_91         |                  | 5.897              | -0.003                          | 0.000                  | 0.02           |                                                                                     | 0.1                | OK         |
| S56.001                                                                                                    | ORI_91        |                  | 5.897              | 0.007                           | 0.000                  | 0.00           |                                                                                     | 0.1                | SURCHARGED |
| S48.007                                                                                                    | S36           |                  | 5.254              | -0.314                          | 0.000                  | 0.07           |                                                                                     | 9.0                | OK         |
| S48.008                                                                                                    | S37           |                  | 5.248              | -0.273                          | 0.000                  | 0.09           |                                                                                     | 8.1                | OK         |
| S36.004                                                                                                    | S38           |                  | 5.247              | -0.254                          | 0.000                  | 0.22           |                                                                                     | 22.3               | OK         |
| S57.000                                                                                                    | PP_92         |                  | 5.864              | -0.036                          | 0.000                  | 0.04           |                                                                                     | 0.1                | OK         |
| S57.001                                                                                                    | ORI_92        |                  | 5.863              | -0.027                          | 0.000                  | 0.01           |                                                                                     | 0.1                | OK         |
| S36.005                                                                                                    | S39           |                  | 5.238              | -0.235                          | 0.000                  | 0.24           |                                                                                     | 23.6               | OK         |
| S58.000                                                                                                    | S40a          |                  | 5.157              | -0.343                          | 0.000                  | 0.01           |                                                                                     | 1.4                | OK         |
| S23.010                                                                                                    | S40           |                  | 5.231              | -0.219                          | 0.000                  | 0.08           |                                                                                     | 11.1               | OK         |
| S59.000                                                                                                    | POND          |                  | 6.212              | -0.088                          | 0.000                  | 0.03           |                                                                                     | 0.4                | OK         |
| S59.001                                                                                                    | S41           |                  | 6.038              | 0.188                           | 0.000                  | 0.01           |                                                                                     | 0.1                | SURCHARGED |
| S60.000                                                                                                    | PP_90-98      |                  | 6.117              | -0.033                          | 0.000                  | 0.02           |                                                                                     | 0.2                | OK         |
| S60.001                                                                                                    | ORI_90-98     |                  | 6.117              | -0.023                          | 0.000                  | 0.00           |                                                                                     | 0.2                | OK         |
| S23.011                                                                                                    | S42           |                  | 5.229              | -0.140                          | 0.000                  | 0.07           |                                                                                     | 6.6                | OK         |
| ©1982-2018 Innovyze                                                                                        |               |                  |                    |                                 |                        |                |                                                                                     |                    |            |

|                                                                                                            |                                 |                                                                                     |
|------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                                                                           |                                 | Page 49                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                   | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                        | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions                                                                                               | Network 2018.1                  |                                                                                     |
| <u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |                                 |                                                                                     |
| PN                                                                                                         | US/MH<br>Name                   | Level<br>Exceeded                                                                   |
| S45.001                                                                                                    | ORI_41-45                       |                                                                                     |
| S41.004                                                                                                    | S27                             |                                                                                     |
| S46.000                                                                                                    | PP_37-38                        |                                                                                     |
| S46.001                                                                                                    | ORI_37-38                       |                                                                                     |
| S47.000                                                                                                    | PP_39-40                        |                                                                                     |
| S47.001                                                                                                    | ORI_39-40                       |                                                                                     |
| S41.005                                                                                                    | S28                             |                                                                                     |
| S36.003                                                                                                    | S30                             |                                                                                     |
| S48.000                                                                                                    | PP_105                          |                                                                                     |
| S48.001                                                                                                    | ORI_105                         |                                                                                     |
| S49.000                                                                                                    | PP_106                          |                                                                                     |
| S49.001                                                                                                    | ORI_106                         |                                                                                     |
| S50.000                                                                                                    | PP_107                          |                                                                                     |
| S50.001                                                                                                    | ORI_107                         |                                                                                     |
| S48.002                                                                                                    | S31                             |                                                                                     |
| S51.000                                                                                                    | PP_102                          |                                                                                     |
| S51.001                                                                                                    | ORI_102                         |                                                                                     |
| S52.000                                                                                                    | PP_100-101                      |                                                                                     |
| S52.001                                                                                                    | ORI_100-101                     |                                                                                     |
| S53.000                                                                                                    | PP_103-104                      |                                                                                     |
| S53.001                                                                                                    | ORI_103-104                     |                                                                                     |
| S48.003                                                                                                    | S32                             |                                                                                     |
| S48.004                                                                                                    | S33                             |                                                                                     |
| S48.005                                                                                                    | S34                             |                                                                                     |
| S54.000                                                                                                    | PP_99                           |                                                                                     |
| S54.001                                                                                                    | ORI_99                          |                                                                                     |
| S48.006                                                                                                    | S35                             |                                                                                     |
| S55.000                                                                                                    | PP_89                           |                                                                                     |
| S55.001                                                                                                    | ORI_89                          |                                                                                     |
| S56.000                                                                                                    | PP_91                           |                                                                                     |
| S56.001                                                                                                    | ORI_91                          |                                                                                     |
| S48.007                                                                                                    | S36                             |                                                                                     |
| S48.008                                                                                                    | S37                             |                                                                                     |
| S36.004                                                                                                    | S38                             |                                                                                     |
| S57.000                                                                                                    | PP_92                           |                                                                                     |
| S57.001                                                                                                    | ORI_92                          |                                                                                     |
| S36.005                                                                                                    | S39                             |                                                                                     |
| S58.000                                                                                                    | S40a                            |                                                                                     |
| S23.010                                                                                                    | S40                             |                                                                                     |
| S59.000                                                                                                    | POND                            |                                                                                     |
| S59.001                                                                                                    | S41                             |                                                                                     |
| S60.000                                                                                                    | PP_90-98                        |                                                                                     |
| S60.001                                                                                                    | ORI_90-98                       |                                                                                     |
| S23.011                                                                                                    | S42                             | 8                                                                                   |
| ©1982-2018 Innovyze                                                                                        |                                 |                                                                                     |

|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 50                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions Network 2018.1                              |                                 |                                                                                     |

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)  
for SW Network

Simulation Criteria

|                                 |       |                                            |       |
|---------------------------------|-------|--------------------------------------------|-------|
| Areal Reduction Factor          | 1.000 | Additional Flow - % of Total Flow          | 0.000 |
| Hot Start (mins)                | 0     | MADD Factor * 10m <sup>3</sup> /ha Storage | 2.000 |
| Hot Start Level (mm)            | 0     | Inlet Coefficient                          | 0.800 |
| Manhole Headloss Coeff (Global) | 0.500 | Flow per Person per Day (l/per/day)        | 0.000 |
| Foul Sewage per hectare (l/s)   | 0.000 |                                            |       |

|                             |    |                              |    |
|-----------------------------|----|------------------------------|----|
| Number of Input Hydrographs | 0  | Number of Storage Structures | 58 |
| Number of Online Controls   | 57 | Number of Time/Area Diagrams | 0  |
| Number of Offline Controls  | 0  | Number of Real Time Controls | 0  |

Synthetic Rainfall Details

|                      |                                 |
|----------------------|---------------------------------|
| Rainfall Model       | FEH                             |
| FEH Rainfall Version | 1999                            |
| Site Location        | GB 498650 101750 SU 98650 01750 |
| C (1km)              | -0.025                          |
| D1 (1km)             | 0.390                           |
| D2 (1km)             | 0.245                           |
| D3 (1km)             | 0.403                           |
| E (1km)              | 0.310                           |
| F (1km)              | 2.321                           |
| Cv (Summer)          | 0.750                           |
| Cv (Winter)          | 0.840                           |

|                                    |                                 |
|------------------------------------|---------------------------------|
| Margin for Flood Risk Warning (mm) | 300.0                           |
| Analysis Timestep                  | 2.5 Second Increment (Extended) |
| DTS Status                         | OFF                             |
| DVD Status                         | ON                              |
| Inertia Status                     | ON                              |

|                          |                                           |
|--------------------------|-------------------------------------------|
| Profile(s)               | Summer and Winter                         |
| Duration(s) (mins)       | 15, 30, 60, 120, 240, 360, 480, 960, 1440 |
| Return Period(s) (years) | 1, 30, 100                                |
| Climate Change (%)       | 0, 0, 40                                  |

| PN     | US/MH<br>Name | Storm      | Return<br>Period | Climate<br>Change | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow | Overflow<br>Act. |
|--------|---------------|------------|------------------|-------------------|------------------------|--------------------|-----------------------|------------------|
| S1.000 | S1            | 15 Winter  | 30               | +0%               | 100/240 Summer         |                    |                       |                  |
| S1.001 | S2            | 15 Winter  | 30               | +0%               | 100/15 Summer          |                    |                       |                  |
| S1.002 | S3            | 15 Winter  | 30               | +0%               | 100/15 Summer          |                    |                       |                  |
| S1.003 | S4            | 360 Winter | 30               | +0%               | 100/15 Summer          |                    |                       |                  |
| S2.000 | S5            | 15 Winter  | 30               | +0%               | 100/120 Winter         |                    |                       |                  |
| S3.000 | PP_3-4        | 480 Winter | 30               | +0%               | 1/480 Winter           |                    |                       |                  |
| S3.001 | ORI_3-4       | 480 Winter | 30               | +0%               | 1/360 Winter           |                    |                       |                  |
| S4.000 | PP_1-2        | 480 Winter | 30               | +0%               | 30/30 Summer           |                    |                       |                  |
| S4.001 | ORI_1-2       | 480 Winter | 30               | +0%               | 30/15 Winter           |                    |                       |                  |
| S5.000 | PP_108        | 120 Winter | 30               | +0%               | 30/15 Summer           |                    |                       |                  |
| S5.001 | ORI_108       | 120 Winter | 30               | +0%               | 30/15 Summer           |                    |                       |                  |

©1982-2018 Innovyze

|                                                                                                             |               |                       |                            |                                 |                |                   |                                                                                     |            |                   |
|-------------------------------------------------------------------------------------------------------------|---------------|-----------------------|----------------------------|---------------------------------|----------------|-------------------|-------------------------------------------------------------------------------------|------------|-------------------|
| Odyssey Markides                                                                                            |               |                       |                            |                                 |                |                   | Page 51                                                                             |            |                   |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                    |               |                       |                            | Burndell Road,<br>Yapton        |                |                   |  |            |                   |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                         |               |                       |                            | Designed by SG<br>Checked by LH |                |                   |                                                                                     |            |                   |
| XP Solutions                                                                                                |               |                       |                            | Network 2018.1                  |                |                   |                                                                                     |            |                   |
| <u>30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |                       |                            |                                 |                |                   |                                                                                     |            |                   |
| PN                                                                                                          | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³)       | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s)                                                               | Status     | Level<br>Exceeded |
| S1.000                                                                                                      | S1            | 5.702                 | -0.168                     | 0.000                           | 0.15           |                   | 5.4                                                                                 | OK         |                   |
| S1.001                                                                                                      | S2            | 5.622                 | -0.109                     | 0.000                           | 0.51           |                   | 19.2                                                                                | OK         |                   |
| S1.002                                                                                                      | S3            | 5.379                 | -0.141                     | 0.000                           | 0.52           |                   | 35.5                                                                                | OK         |                   |
| S1.003                                                                                                      | S4            | 5.111                 | -0.166                     | 0.000                           | 0.05           |                   | 5.1                                                                                 | OK         |                   |
| S2.000                                                                                                      | S5            | 5.608                 | -0.175                     | 0.000                           | 0.11           |                   | 11.4                                                                                | OK         |                   |
| S3.000                                                                                                      | PP_3-4        | 6.524                 | 0.174                      | 0.000                           | 0.04           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S3.001                                                                                                      | ORI_3-4       | 6.524                 | 0.184                      | 0.000                           | 0.01           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S4.000                                                                                                      | PP_1-2        | 6.281                 | 0.131                      | 0.000                           | 0.03           |                   | 0.3                                                                                 | SURCHARGED |                   |
| S4.001                                                                                                      | ORI_1-2       | 6.280                 | 0.140                      | 0.000                           | 0.01           |                   | 0.2                                                                                 | SURCHARGED |                   |
| S5.000                                                                                                      | PP_108        | 6.573                 | 0.123                      | 0.000                           | 0.09           |                   | 0.3                                                                                 | SURCHARGED |                   |
| S5.001                                                                                                      | ORI_108       | 6.572                 | 0.132                      | 0.000                           | 0.01           |                   | 0.2                                                                                 | SURCHARGED |                   |
| ©1982-2018 Innovyze                                                                                         |               |                       |                            |                                 |                |                   |                                                                                     |            |                   |

|                                                                                                             |               |             |                  |                                 |                        |                                                                                     |                                        |
|-------------------------------------------------------------------------------------------------------------|---------------|-------------|------------------|---------------------------------|------------------------|-------------------------------------------------------------------------------------|----------------------------------------|
| Odyssey Markides                                                                                            |               |             |                  |                                 |                        | Page 52                                                                             |                                        |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                    |               |             |                  | Burndell Road,<br>Yapton        |                        |  |                                        |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                         |               |             |                  | Designed by SG<br>Checked by LH |                        |                                                                                     |                                        |
| XP Solutions                                                                                                |               |             |                  | Network 2018.1                  |                        |                                                                                     |                                        |
| <u>30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |             |                  |                                 |                        |                                                                                     |                                        |
| PN                                                                                                          | US/MH<br>Name | Storm       | Return<br>Period | Climate<br>Change               | First (X)<br>Surcharge | First (Y)<br>Flood                                                                  | First (Z)<br>Overflow<br>Overflow Act. |
| S1.004                                                                                                      | S6            | 360 Winter  | 30               | +0%                             | 100/15 Summer          |                                                                                     |                                        |
| S6.000                                                                                                      | PP_76         | 480 Winter  | 30               | +0%                             | 30/30 Summer           |                                                                                     |                                        |
| S6.001                                                                                                      | ORI_76        | 480 Winter  | 30               | +0%                             | 30/15 Winter           |                                                                                     |                                        |
| S7.000                                                                                                      | PP_80         | 480 Winter  | 30               | +0%                             | 30/15 Winter           |                                                                                     |                                        |
| S7.001                                                                                                      | ORI_80        | 480 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S8.000                                                                                                      | PP_79         | 240 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S8.001                                                                                                      | ORI_79        | 240 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S9.000                                                                                                      | PP_75         | 480 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S9.001                                                                                                      | ORI_75        | 480 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S6.002                                                                                                      | S7            | 15 Winter   | 30               | +0%                             | 100/360 Winter         |                                                                                     |                                        |
| S10.000                                                                                                     | PP_5-6        | 240 Winter  | 30               | +0%                             | 30/15 Winter           |                                                                                     |                                        |
| S10.001                                                                                                     | ORI_5-6       | 240 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S11.000                                                                                                     | PP_7-8        | 480 Winter  | 30               | +0%                             | 1/480 Winter           |                                                                                     |                                        |
| S11.001                                                                                                     | ORI_7-8       | 480 Winter  | 30               | +0%                             | 1/360 Winter           |                                                                                     |                                        |
| S12.000                                                                                                     | PP_9-10       | 480 Winter  | 30               | +0%                             | 30/15 Winter           |                                                                                     |                                        |
| S12.001                                                                                                     | ORI_9-10      | 480 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S13.000                                                                                                     | PP_11-12      | 480 Winter  | 30               | +0%                             | 30/30 Winter           |                                                                                     |                                        |
| S13.001                                                                                                     | ORI_11-12     | 480 Winter  | 30               | +0%                             | 30/30 Summer           |                                                                                     |                                        |
| S1.005                                                                                                      | S8            | 360 Winter  | 30               | +0%                             | 30/360 Winter          |                                                                                     |                                        |
| S14.000                                                                                                     | PP_54         | 480 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S14.001                                                                                                     | ORI_54        | 480 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S15.000                                                                                                     | PP_55         | 240 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S15.001                                                                                                     | ORI_55        | 240 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S16.000                                                                                                     | PP_51         | 120 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S16.001                                                                                                     | ORI_51        | 120 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S14.002                                                                                                     | S9            | 360 Winter  | 30               | +0%                             | 30/360 Winter          |                                                                                     |                                        |
| S17.000                                                                                                     | PP_13-14      | 1440 Winter | 30               | +0%                             | 100/60 Winter          |                                                                                     |                                        |
| S17.001                                                                                                     | ORI_13-14     | 1440 Winter | 30               | +0%                             | 100/60 Winter          |                                                                                     |                                        |
| S18.000                                                                                                     | PP_15         | 360 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S18.001                                                                                                     | ORI_15        | 360 Winter  | 30               | +0%                             | 1/240 Winter           |                                                                                     |                                        |
| S1.006                                                                                                      | S10           | 360 Winter  | 30               | +0%                             | 30/60 Winter           |                                                                                     |                                        |
| S19.000                                                                                                     | S11a          | 360 Winter  | 30               | +0%                             | 30/60 Winter           |                                                                                     |                                        |
| S20.000                                                                                                     | PP_18         | 60 Winter   | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S20.001                                                                                                     | ORI_18        | 60 Winter   | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S21.000                                                                                                     | PP_19-53      | 480 Winter  | 30               | +0%                             | 30/60 Summer           |                                                                                     |                                        |
| S21.001                                                                                                     | ORI_19-53     | 480 Winter  | 30               | +0%                             | 30/30 Winter           |                                                                                     |                                        |
| S1.007                                                                                                      | S11           | 360 Winter  | 30               | +0%                             | 30/30 Winter           |                                                                                     |                                        |
| S22.000                                                                                                     | PP_20-21      | 240 Winter  | 30               | +0%                             | 30/15 Winter           |                                                                                     |                                        |
| S22.001                                                                                                     | ORI_20-21     | 240 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S22.002                                                                                                     | S12           | 360 Winter  | 30               | +0%                             | 30/60 Winter           |                                                                                     |                                        |
| S1.008                                                                                                      | S13           | 360 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S23.000                                                                                                     | PP_22-23      | 480 Winter  | 30               | +0%                             | 30/15 Winter           |                                                                                     |                                        |
| S23.001                                                                                                     | ORI_22-23     | 480 Winter  | 30               | +0%                             | 1/960 Winter           |                                                                                     |                                        |
| S24.000                                                                                                     | PP_24         | 480 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S24.001                                                                                                     | ORI_24        | 480 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| S23.002                                                                                                     | S15           | 480 Winter  | 30               | +0%                             | 100/480 Winter         |                                                                                     |                                        |
| S25.000                                                                                                     | PP_25-26      | 480 Winter  | 30               | +0%                             | 30/15 Winter           |                                                                                     |                                        |
| S25.001                                                                                                     | ORI_25-26     | 480 Winter  | 30               | +0%                             | 30/15 Summer           |                                                                                     |                                        |
| ©1982-2018 Innovyze                                                                                         |               |             |                  |                                 |                        |                                                                                     |                                        |

| Odyssey Markides                                                                                            |               |                       |                            |                                 |                |                   | Page 53                                                                             |            |                   |
|-------------------------------------------------------------------------------------------------------------|---------------|-----------------------|----------------------------|---------------------------------|----------------|-------------------|-------------------------------------------------------------------------------------|------------|-------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                    |               |                       |                            | Burndell Road,<br>Yapton        |                |                   |  |            |                   |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                         |               |                       |                            | Designed by SG<br>Checked by LH |                |                   |                                                                                     |            |                   |
| XP Solutions                                                                                                |               |                       |                            | Network 2018.1                  |                |                   |                                                                                     |            |                   |
| <u>30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |                       |                            |                                 |                |                   |                                                                                     |            |                   |
| PN                                                                                                          | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³)       | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s)                                                               | Status     | Level<br>Exceeded |
| S1.004                                                                                                      | S6            | 5.111                 | -0.134                     | 0.000                           | 0.07           |                   | 10.0                                                                                | OK         |                   |
| S6.000                                                                                                      | PP_76         | 6.689                 | 0.089                      | 0.000                           | 0.03           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S6.001                                                                                                      | ORI_76        | 6.688                 | 0.098                      | 0.000                           | 0.01           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S7.000                                                                                                      | PP_80         | 6.861                 | 0.111                      | 0.000                           | 0.03           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S7.001                                                                                                      | ORI_80        | 6.861                 | 0.121                      | 0.000                           | 0.01           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S8.000                                                                                                      | PP_79         | 6.588                 | 0.138                      | 0.000                           | 0.08           |                   | 0.3                                                                                 | SURCHARGED |                   |
| S8.001                                                                                                      | ORI_79        | 6.586                 | 0.146                      | 0.000                           | 0.02           |                   | 0.2                                                                                 | SURCHARGED |                   |
| S9.000                                                                                                      | PP_75         | 6.853                 | 0.153                      | 0.000                           | 0.04           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S9.001                                                                                                      | ORI_75        | 6.852                 | 0.162                      | 0.000                           | 0.01           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S6.002                                                                                                      | S7            | 6.213                 | -0.099                     | 0.000                           | 0.25           |                   | 10.7                                                                                | OK         |                   |
| S10.000                                                                                                     | PP_5-6        | 6.724                 | 0.124                      | 0.000                           | 0.05           |                   | 0.5                                                                                 | SURCHARGED |                   |
| S10.001                                                                                                     | ORI_5-6       | 6.723                 | 0.133                      | 0.000                           | 0.01           |                   | 0.4                                                                                 | SURCHARGED |                   |
| S11.000                                                                                                     | PP_7-8        | 6.774                 | 0.174                      | 0.000                           | 0.04           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S11.001                                                                                                     | ORI_7-8       | 6.774                 | 0.184                      | 0.000                           | 0.00           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S12.000                                                                                                     | PP_9-10       | 6.642                 | 0.142                      | 0.000                           | 0.03           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S12.001                                                                                                     | ORI_9-10      | 6.641                 | 0.151                      | 0.000                           | 0.00           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S13.000                                                                                                     | PP_11-12      | 6.444                 | 0.094                      | 0.000                           | 0.03           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S13.001                                                                                                     | ORI_11-12     | 6.444                 | 0.104                      | 0.000                           | 0.00           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S1.005                                                                                                      | S8            | 5.113                 | 0.010                      | 0.000                           | 0.09           |                   | 13.0                                                                                | SURCHARGED |                   |
| S14.000                                                                                                     | PP_54         | 6.488                 | 0.138                      | 0.000                           | 0.03           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S14.001                                                                                                     | ORI_54        | 6.488                 | 0.148                      | 0.000                           | 0.00           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S15.000                                                                                                     | PP_55         | 6.452                 | 0.102                      | 0.000                           | 0.07           |                   | 0.2                                                                                 | SURCHARGED |                   |
| S15.001                                                                                                     | ORI_55        | 6.451                 | 0.111                      | 0.000                           | 0.01           |                   | 0.2                                                                                 | SURCHARGED |                   |
| S16.000                                                                                                     | PP_51         | 6.604                 | 0.104                      | 0.000                           | 0.08           |                   | 0.7                                                                                 | SURCHARGED |                   |
| S16.001                                                                                                     | ORI_51        | 6.603                 | 0.113                      | 0.000                           | 0.01           |                   | 0.7                                                                                 | SURCHARGED |                   |
| S14.002                                                                                                     | S9            | 5.116                 | 0.014                      | 0.000                           | 0.12           |                   | 2.0                                                                                 | SURCHARGED |                   |
| S17.000                                                                                                     | PP_13-14      | 6.382                 | -0.018                     | 0.000                           | 0.01           |                   | 0.1                                                                                 | OK         |                   |
| S17.001                                                                                                     | ORI_13-14     | 6.382                 | -0.008                     | 0.000                           | 0.00           |                   | 0.1                                                                                 | OK         |                   |
| S18.000                                                                                                     | PP_15         | 6.140                 | 0.190                      | 0.000                           | 0.08           |                   | 0.3                                                                                 | SURCHARGED |                   |
| S18.001                                                                                                     | ORI_15        | 6.139                 | 0.199                      | 0.000                           | 0.01           |                   | 0.3                                                                                 | SURCHARGED |                   |
| S1.006                                                                                                      | S10           | 5.126                 | 0.199                      | 0.000                           | 0.10           |                   | 14.1                                                                                | SURCHARGED |                   |
| S19.000                                                                                                     | S11a          | 5.102                 | 0.202                      | 0.000                           | 0.02           |                   | 4.1                                                                                 | SURCHARGED |                   |
| S20.000                                                                                                     | PP_18         | 6.051                 | 0.101                      | 0.000                           | 0.12           |                   | 1.1                                                                                 | SURCHARGED |                   |
| S20.001                                                                                                     | ORI_18        | 6.050                 | 0.110                      | 0.000                           | 0.02           |                   | 0.9                                                                                 | SURCHARGED |                   |
| S21.000                                                                                                     | PP_19-53      | 6.175                 | 0.075                      | 0.000                           | 0.03           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S21.001                                                                                                     | ORI_19-53     | 6.174                 | 0.084                      | 0.000                           | 0.00           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S1.007                                                                                                      | S11           | 5.122                 | 0.273                      | 0.000                           | 0.04           |                   | 6.1                                                                                 | SURCHARGED |                   |
| S22.000                                                                                                     | PP_20-21      | 6.567                 | 0.117                      | 0.000                           | 0.05           |                   | 0.4                                                                                 | SURCHARGED |                   |
| S22.001                                                                                                     | ORI_20-21     | 6.566                 | 0.126                      | 0.000                           | 0.01           |                   | 0.4                                                                                 | SURCHARGED |                   |
| S22.002                                                                                                     | S12           | 5.120                 | 0.248                      | 0.000                           | 0.06           |                   | 2.0                                                                                 | SURCHARGED |                   |
| S1.008                                                                                                      | S13           | 5.128                 | 0.338                      | 0.000                           | 0.06           |                   | 5.9                                                                                 | SURCHARGED |                   |
| S23.000                                                                                                     | PP_22-23      | 6.693                 | 0.143                      | 0.000                           | 0.03           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S23.001                                                                                                     | ORI_22-23     | 6.693                 | 0.153                      | 0.000                           | 0.01           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S24.000                                                                                                     | PP_24         | 6.682                 | 0.132                      | 0.000                           | 0.03           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S24.001                                                                                                     | ORI_24        | 6.681                 | 0.141                      | 0.000                           | 0.01           |                   | 0.1                                                                                 | SURCHARGED |                   |
| S23.002                                                                                                     | S15           | 6.074                 | -0.219                     | 0.000                           | 0.01           |                   | 0.2                                                                                 | OK         |                   |
| S25.000                                                                                                     | PP_25-26      | 6.592                 | 0.142                      | 0.000                           | 0.03           |                   | 0.1                                                                                 | SURCHARGED |                   |
| ©1982-2018 Innovyze                                                                                         |               |                       |                            |                                 |                |                   |                                                                                     |            |                   |

|                                                                                                             |               |                       |                            |                                 |                |                   |                                                                                     |            |                   |
|-------------------------------------------------------------------------------------------------------------|---------------|-----------------------|----------------------------|---------------------------------|----------------|-------------------|-------------------------------------------------------------------------------------|------------|-------------------|
| Odyssey Markides                                                                                            |               |                       |                            |                                 |                |                   | Page 54                                                                             |            |                   |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                    |               |                       |                            | Burndell Road,<br>Yapton        |                |                   |  |            |                   |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                         |               |                       |                            | Designed by SG<br>Checked by LH |                |                   |                                                                                     |            |                   |
| XP Solutions                                                                                                |               |                       |                            | Network 2018.1                  |                |                   |                                                                                     |            |                   |
| <u>30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |                       |                            |                                 |                |                   |                                                                                     |            |                   |
| PN                                                                                                          | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³)       | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s)                                                               | Status     | Level<br>Exceeded |
| S25.001                                                                                                     | ORI_25-26     | 6.591                 | 0.151                      | 0.000                           | 0.01           |                   | 0.1                                                                                 | SURCHARGED |                   |
| ©1982-2018 Innovyze                                                                                         |               |                       |                            |                                 |                |                   |                                                                                     |            |                   |

|                                                                                                             |               |            |                  |                                 |                        |                                                                                     |                       |
|-------------------------------------------------------------------------------------------------------------|---------------|------------|------------------|---------------------------------|------------------------|-------------------------------------------------------------------------------------|-----------------------|
| Odyssey Markides                                                                                            |               |            |                  |                                 |                        | Page 55                                                                             |                       |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                    |               |            |                  | Burndell Road,<br>Yapton        |                        |  |                       |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                         |               |            |                  | Designed by SG<br>Checked by LH |                        |                                                                                     |                       |
| XP Solutions                                                                                                |               |            |                  | Network 2018.1                  |                        |                                                                                     |                       |
| <u>30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |            |                  |                                 |                        |                                                                                     |                       |
| PN                                                                                                          | US/MH<br>Name | Storm      | Return<br>Period | Climate<br>Change               | First (X)<br>Surcharge | First (Y)<br>Flood                                                                  | First (Z)<br>Overflow |
| S26.000                                                                                                     | PP_27         | 480 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S26.001                                                                                                     | ORI_27        | 480 Winter | 30               | +0%                             | 1/360 Winter           |                                                                                     |                       |
| S27.000                                                                                                     | PP_28         | 480 Winter | 30               | +0%                             | 30/240 Winter          |                                                                                     |                       |
| S27.001                                                                                                     | ORI_28        | 480 Winter | 30               | +0%                             | 30/240 Winter          |                                                                                     |                       |
| S23.003                                                                                                     | S16           | 15 Winter  | 30               | +0%                             | 100/360 Winter         |                                                                                     |                       |
| S28.000                                                                                                     | PP_29         | 120 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S28.001                                                                                                     | ORI_29        | 120 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S23.004                                                                                                     | S18           | 15 Winter  | 30               | +0%                             | 100/240 Winter         |                                                                                     |                       |
| S23.005                                                                                                     | S19           | 15 Winter  | 30               | +0%                             | 100/240 Summer         |                                                                                     |                       |
| S29.000                                                                                                     | PP_30         | 480 Winter | 30               | +0%                             | 30/60 Winter           |                                                                                     |                       |
| S29.001                                                                                                     | ORI_30        | 480 Winter | 30               | +0%                             | 30/60 Winter           |                                                                                     |                       |
| S23.006                                                                                                     | S20           | 15 Winter  | 30               | +0%                             | 100/120 Winter         |                                                                                     |                       |
| S30.000                                                                                                     | PP_31         | 120 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S30.001                                                                                                     | ORI_31        | 120 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S31.000                                                                                                     | PP_32         | 480 Winter | 30               | +0%                             | 30/60 Summer           |                                                                                     |                       |
| S31.001                                                                                                     | ORI_32        | 480 Winter | 30               | +0%                             | 30/30 Winter           |                                                                                     |                       |
| S32.000                                                                                                     | PP_33         | 480 Winter | 30               | +0%                             | 30/15 Winter           |                                                                                     |                       |
| S32.001                                                                                                     | ORI_33        | 480 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S33.000                                                                                                     | PP_34-35      | 360 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S33.001                                                                                                     | ORI_34-35     | 360 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S34.000                                                                                                     | PP_36         | 120 Winter | 30               | +0%                             | 1/15 Summer            |                                                                                     |                       |
| S34.001                                                                                                     | ORI_36        | 120 Winter | 30               | +0%                             | 1/15 Summer            |                                                                                     |                       |
| S23.007                                                                                                     | S21           | 15 Winter  | 30               | +0%                             | 100/15 Winter          |                                                                                     |                       |
| S35.000                                                                                                     | S23a          | 480 Winter | 30               | +0%                             | 100/120 Summer         |                                                                                     |                       |
| S23.008                                                                                                     | S23           | 15 Winter  | 30               | +0%                             | 100/15 Summer          |                                                                                     |                       |
| S23.009                                                                                                     | S24           | 15 Winter  | 30               | +0%                             | 100/15 Summer          |                                                                                     |                       |
| S36.000                                                                                                     | PP_81-82      | 360 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S36.001                                                                                                     | ORI_81-82     | 360 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S37.000                                                                                                     | PP_83         | 480 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S37.001                                                                                                     | ORI_83        | 480 Winter | 30               | +0%                             | 1/240 Winter           |                                                                                     |                       |
| S38.000                                                                                                     | PP_84-85      | 480 Winter | 30               | +0%                             | 30/30 Summer           |                                                                                     |                       |
| S38.001                                                                                                     | ORI_84-85     | 480 Winter | 30               | +0%                             | 30/15 Winter           |                                                                                     |                       |
| S36.002                                                                                                     | S29           | 15 Winter  | 30               | +0%                             | 30/15 Summer           | 100/15 Summer                                                                       |                       |
| S39.000                                                                                                     | PP_88         | 120 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S39.001                                                                                                     | ORI_88        | 120 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S40.000                                                                                                     | PP_86-87      | 240 Winter | 30               | +0%                             | 30/15 Winter           |                                                                                     |                       |
| S40.001                                                                                                     | ORI_86-87     | 240 Winter | 30               | +0%                             | 30/15 Winter           |                                                                                     |                       |
| S41.000                                                                                                     | PP_49-50      | 480 Winter | 30               | +0%                             | 30/30 Winter           |                                                                                     |                       |
| S41.001                                                                                                     | ORI_49-50     | 480 Winter | 30               | +0%                             | 30/30 Winter           |                                                                                     |                       |
| S42.000                                                                                                     | PP_48         | 240 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S42.001                                                                                                     | ORI_48        | 240 Winter | 30               | +0%                             | 30/15 Summer           |                                                                                     |                       |
| S43.000                                                                                                     | PP_56-78      | 960 Winter | 30               | +0%                             | 1/240 Summer           |                                                                                     |                       |
| S43.001                                                                                                     | ORI_56-78     | 960 Winter | 30               | +0%                             | 1/120 Winter           |                                                                                     |                       |
| S41.002                                                                                                     | S25           | 15 Winter  | 30               | +0%                             | 100/15 Summer          |                                                                                     |                       |
| S44.000                                                                                                     | PP_46-47      | 240 Winter | 30               | +0%                             | 30/15 Winter           |                                                                                     |                       |
| S44.001                                                                                                     | ORI_46-47     | 240 Winter | 30               | +0%                             | 30/15 Winter           |                                                                                     |                       |
| S41.003                                                                                                     | S26           | 15 Winter  | 30               | +0%                             | 100/15 Summer          |                                                                                     |                       |
| S45.000                                                                                                     | PP_41-45      | 960 Winter | 30               | +0%                             | 1/480 Winter           |                                                                                     |                       |
| ©1982-2018 Innovyze                                                                                         |               |            |                  |                                 |                        |                                                                                     |                       |

| Odyssey Markides                                                                                            |               |                  |                    |                                 |                        |                |                   | Page 56                                                                             |            |
|-------------------------------------------------------------------------------------------------------------|---------------|------------------|--------------------|---------------------------------|------------------------|----------------|-------------------|-------------------------------------------------------------------------------------|------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                    |               |                  |                    | Burndell Road,<br>Yapton        |                        |                |                   |  |            |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                         |               |                  |                    | Designed by SG<br>Checked by LH |                        |                |                   |                                                                                     |            |
| XP Solutions                                                                                                |               |                  |                    | Network 2018.1                  |                        |                |                   |                                                                                     |            |
| <u>30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |
| PN                                                                                                          | US/MH<br>Name | Overflow<br>Act. | Water Level<br>(m) | Surcharged Depth<br>(m)         | Flooded Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe Flow<br>(l/s)                                                                  | Status     |
| S26.000                                                                                                     | PP_27         |                  | 6.520              | 0.170                           | 0.000                  | 0.04           |                   | 0.1                                                                                 | SURCHARGED |
| S26.001                                                                                                     | ORI_27        |                  | 6.519              | 0.179                           | 0.000                  | 0.01           |                   | 0.1                                                                                 | SURCHARGED |
| S27.000                                                                                                     | PP_28         |                  | 6.388              | 0.038                           | 0.000                  | 0.05           |                   | 0.2                                                                                 | SURCHARGED |
| S27.001                                                                                                     | ORI_28        |                  | 6.387              | 0.047                           | 0.000                  | 0.02           |                   | 0.2                                                                                 | SURCHARGED |
| S23.003                                                                                                     | S16           |                  | 5.994              | -0.127                          | 0.000                  | 0.38           |                   | 14.7                                                                                | OK         |
| S28.000                                                                                                     | PP_29         |                  | 6.224              | 0.124                           | 0.000                  | 0.13           |                   | 0.4                                                                                 | SURCHARGED |
| S28.001                                                                                                     | ORI_29        |                  | 6.222              | 0.132                           | 0.000                  | 0.04           |                   | 0.4                                                                                 | SURCHARGED |
| S23.004                                                                                                     | S18           |                  | 5.614              | -0.192                          | 0.000                  | 0.27           |                   | 15.0                                                                                | OK         |
| S23.005                                                                                                     | S19           |                  | 5.586              | -0.182                          | 0.000                  | 0.27           |                   | 15.2                                                                                | OK         |
| S29.000                                                                                                     | PP_30         |                  | 5.983              | 0.033                           | 0.000                  | 0.03           |                   | 0.1                                                                                 | SURCHARGED |
| S29.001                                                                                                     | ORI_30        |                  | 5.983              | 0.043                           | 0.000                  | 0.01           |                   | 0.1                                                                                 | SURCHARGED |
| S23.006                                                                                                     | S20           |                  | 5.563              | -0.159                          | 0.000                  | 0.44           |                   | 24.8                                                                                | OK         |
| S30.000                                                                                                     | PP_31         |                  | 6.002              | 0.152                           | 0.000                  | 0.14           |                   | 0.5                                                                                 | SURCHARGED |
| S30.001                                                                                                     | ORI_31        |                  | 6.000              | 0.160                           | 0.000                  | 0.05           |                   | 0.4                                                                                 | SURCHARGED |
| S31.000                                                                                                     | PP_32         |                  | 6.205              | 0.055                           | 0.000                  | 0.03           |                   | 0.1                                                                                 | SURCHARGED |
| S31.001                                                                                                     | ORI_32        |                  | 6.204              | 0.064                           | 0.000                  | 0.01           |                   | 0.1                                                                                 | SURCHARGED |
| S32.000                                                                                                     | PP_33         |                  | 6.319              | 0.119                           | 0.000                  | 0.03           |                   | 0.1                                                                                 | SURCHARGED |
| S32.001                                                                                                     | ORI_33        |                  | 6.318              | 0.128                           | 0.000                  | 0.01           |                   | 0.1                                                                                 | SURCHARGED |
| S33.000                                                                                                     | PP_34-35      |                  | 6.260              | 0.160                           | 0.000                  | 0.08           |                   | 0.3                                                                                 | SURCHARGED |
| S33.001                                                                                                     | ORI_34-35     |                  | 6.259              | 0.169                           | 0.000                  | 0.02           |                   | 0.2                                                                                 | SURCHARGED |
| S34.000                                                                                                     | PP_36         |                  | 6.162              | 0.212                           | 0.000                  | 0.12           |                   | 0.4                                                                                 | SURCHARGED |
| S34.001                                                                                                     | ORI_36        |                  | 6.161              | 0.221                           | 0.000                  | 0.02           |                   | 0.3                                                                                 | SURCHARGED |
| S23.007                                                                                                     | S21           |                  | 5.452              | -0.226                          | 0.000                  | 0.20           |                   | 31.1                                                                                | OK         |
| S35.000                                                                                                     | S23a          |                  | 5.410              | -0.120                          | 0.000                  | 0.02           |                   | 2.3                                                                                 | OK         |
| S23.008                                                                                                     | S23           |                  | 5.436              | -0.063                          | 0.000                  | 0.09           |                   | 9.0                                                                                 | OK         |
| S23.009                                                                                                     | S24           |                  | 5.442              | -0.033                          | 0.000                  | 0.07           |                   | 6.9                                                                                 | OK         |
| S36.000                                                                                                     | PP_81-82      |                  | 6.935              | 0.135                           | 0.000                  | 0.07           |                   | 0.2                                                                                 | SURCHARGED |
| S36.001                                                                                                     | ORI_81-82     |                  | 6.933              | 0.143                           | 0.000                  | 0.02           |                   | 0.2                                                                                 | SURCHARGED |
| S37.000                                                                                                     | PP_83         |                  | 6.782              | 0.182                           | 0.000                  | 0.04           |                   | 0.1                                                                                 | SURCHARGED |
| S37.001                                                                                                     | ORI_83        |                  | 6.782              | 0.192                           | 0.000                  | 0.01           |                   | 0.1                                                                                 | SURCHARGED |
| S38.000                                                                                                     | PP_84-85      |                  | 6.712              | 0.112                           | 0.000                  | 0.03           |                   | 0.1                                                                                 | SURCHARGED |
| S38.001                                                                                                     | ORI_84-85     |                  | 6.712              | 0.122                           | 0.000                  | 0.01           |                   | 0.1                                                                                 | SURCHARGED |
| S36.002                                                                                                     | S29           |                  | 6.417              | 0.077                           | 0.000                  | 1.06           |                   | 20.7                                                                                | SURCHARGED |
| S39.000                                                                                                     | PP_88         |                  | 6.035              | 0.135                           | 0.000                  | 0.14           |                   | 0.5                                                                                 | SURCHARGED |
| S39.001                                                                                                     | ORI_88        |                  | 6.033              | 0.143                           | 0.000                  | 0.04           |                   | 0.4                                                                                 | SURCHARGED |
| S40.000                                                                                                     | PP_86-87      |                  | 6.401              | 0.101                           | 0.000                  | 0.05           |                   | 0.4                                                                                 | SURCHARGED |
| S40.001                                                                                                     | ORI_86-87     |                  | 6.401              | 0.111                           | 0.000                  | 0.01           |                   | 0.4                                                                                 | SURCHARGED |
| S41.000                                                                                                     | PP_49-50      |                  | 6.639              | 0.139                           | 0.000                  | 0.01           |                   | 0.1                                                                                 | SURCHARGED |
| S41.001                                                                                                     | ORI_49-50     |                  | 6.639              | 0.149                           | 0.000                  | 0.00           |                   | 0.1                                                                                 | SURCHARGED |
| S42.000                                                                                                     | PP_48         |                  | 6.424              | 0.124                           | 0.000                  | 0.07           |                   | 0.2                                                                                 | SURCHARGED |
| S42.001                                                                                                     | ORI_48        |                  | 6.423              | 0.133                           | 0.000                  | 0.02           |                   | 0.2                                                                                 | SURCHARGED |
| S43.000                                                                                                     | PP_56-78      |                  | 6.503              | 0.203                           | 0.000                  | 0.08           |                   | 0.3                                                                                 | SURCHARGED |
| S43.001                                                                                                     | ORI_56-78     |                  | 6.501              | 0.211                           | 0.000                  | 0.03           |                   | 0.3                                                                                 | SURCHARGED |
| S41.002                                                                                                     | S25           |                  | 5.981              | -0.109                          | 0.000                  | 0.51           |                   | 19.3                                                                                | OK         |
| S44.000                                                                                                     | PP_46-47      |                  | 6.201              | 0.101                           | 0.000                  | 0.05           |                   | 0.4                                                                                 | SURCHARGED |
| S44.001                                                                                                     | ORI_46-47     |                  | 6.201              | 0.111                           | 0.000                  | 0.02           |                   | 0.4                                                                                 | SURCHARGED |
| S41.003                                                                                                     | S26           |                  | 5.838              | -0.068                          | 0.000                  | 0.81           |                   | 24.3                                                                                | OK         |
| ©1982-2018 Innovyze                                                                                         |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |

|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|-------------------------------------------------------------------------------------------------------------|---------------|------------------|--------------------|---------------------------------|------------------------|----------------|-------------------|-------------------------------------------------------------------------------------|------------|--|
| Odyssey Markides                                                                                            |               |                  |                    |                                 |                        |                | Page 57           |                                                                                     |            |  |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                    |               |                  |                    | Burndell Road,<br>Yapton        |                        |                |                   |  |            |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                         |               |                  |                    | Designed by SG<br>Checked by LH |                        |                |                   |                                                                                     |            |  |
| XP Solutions                                                                                                |               |                  |                    | Network 2018.1                  |                        |                |                   |                                                                                     |            |  |
| <u>30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
| PN                                                                                                          | US/MH<br>Name | Overflow<br>Act. | Water Level<br>(m) | Surcharged Depth<br>(m)         | Flooded Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe Flow<br>(l/s)                                                                  | Status     |  |
| S45.000                                                                                                     | PP_41-45      |                  | 6.576              | 0.176                           | 0.000                  | 0.03           |                   | 0.1                                                                                 | SURCHARGED |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |
|                                                                                                             |               |                  |                    |                                 |                        |                |                   |                                                                                     |            |  |

|                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|-------|----|------|----------|---------|----------|--|---------|-----------|--|---------|-----|--|---------|----------|--|---------|-----------|--|---------|-----|--|---------|----------|--|--|
| Odyssey Markides                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Page 58                                                                             |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                    | Burndell Road,<br>Yapton                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                         | Designed by SG<br>Checked by LH                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| XP Solutions                                                                                                | Network 2018.1                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| <u>30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
|                                                                                                             | <table><tr><td></td><td>US/MH</td><td>Level</td></tr><tr><td>PN</td><td>Name</td><td>Exceeded</td></tr><tr><td>S43.000</td><td>PP_56-78</td><td></td></tr><tr><td>S43.001</td><td>ORI_56-78</td><td></td></tr><tr><td>S41.002</td><td>S25</td><td></td></tr><tr><td>S44.000</td><td>PP_46-47</td><td></td></tr><tr><td>S44.001</td><td>ORI_46-47</td><td></td></tr><tr><td>S41.003</td><td>S26</td><td></td></tr><tr><td>S45.000</td><td>PP_41-45</td><td></td></tr></table> |                                                                                     | US/MH | Level | PN | Name | Exceeded | S43.000 | PP_56-78 |  | S43.001 | ORI_56-78 |  | S41.002 | S25 |  | S44.000 | PP_46-47 |  | S44.001 | ORI_46-47 |  | S41.003 | S26 |  | S45.000 | PP_41-45 |  |  |
|                                                                                                             | US/MH                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Level                                                                               |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| PN                                                                                                          | Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Exceeded                                                                            |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S43.000                                                                                                     | PP_56-78                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S43.001                                                                                                     | ORI_56-78                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S41.002                                                                                                     | S25                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S44.000                                                                                                     | PP_46-47                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S44.001                                                                                                     | ORI_46-47                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S41.003                                                                                                     | S26                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| S45.000                                                                                                     | PP_41-45                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |
| ©1982-2018 Innovyze                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                     |       |       |    |      |          |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |  |

| Odyssey Markides                                                                                            |               |            |                  |                                 | Page 59                |                    |                                                                                     |
|-------------------------------------------------------------------------------------------------------------|---------------|------------|------------------|---------------------------------|------------------------|--------------------|-------------------------------------------------------------------------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                    |               |            |                  | Burndell Road,<br>Yapton        |                        |                    |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                         |               |            |                  | Designed by SG<br>Checked by LH |                        |                    |                                                                                     |
| XP Solutions                                                                                                |               |            |                  | Network 2018.1                  |                        |                    |                                                                                     |
| <u>30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |            |                  |                                 |                        |                    |                                                                                     |
| PN                                                                                                          | US/MH<br>Name | Storm      | Return<br>Period | Climate<br>Change               | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow                                                               |
| S45.001                                                                                                     | ORI_41-45     | 960 Winter | 30               | +0%                             | 1/360 Winter           |                    |                                                                                     |
| S41.004                                                                                                     | S27           | 15 Winter  | 30               | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S46.000                                                                                                     | PP_37-38      | 480 Winter | 30               | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S46.001                                                                                                     | ORI_37-38     | 480 Winter | 30               | +0%                             | 30/30 Summer           |                    |                                                                                     |
| S47.000                                                                                                     | PP_39-40      | 480 Winter | 30               | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S47.001                                                                                                     | ORI_39-40     | 480 Winter | 30               | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S41.005                                                                                                     | S28           | 15 Winter  | 30               | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S36.003                                                                                                     | S30           | 15 Winter  | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S48.000                                                                                                     | PP_105        | 30 Winter  | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S48.001                                                                                                     | ORI_105       | 30 Winter  | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S49.000                                                                                                     | PP_106        | 360 Winter | 30               | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S49.001                                                                                                     | ORI_106       | 360 Winter | 30               | +0%                             | 30/30 Summer           |                    |                                                                                     |
| S50.000                                                                                                     | PP_107        | 360 Winter | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S50.001                                                                                                     | ORI_107       | 360 Winter | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S48.002                                                                                                     | S31           | 15 Winter  | 30               | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S51.000                                                                                                     | PP_102        | 60 Winter  | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S51.001                                                                                                     | ORI_102       | 60 Winter  | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S52.000                                                                                                     | PP_100-101    | 360 Winter | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S52.001                                                                                                     | ORI_100-101   | 360 Winter | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S53.000                                                                                                     | PP_103-104    | 480 Winter | 30               | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S53.001                                                                                                     | ORI_103-104   | 480 Winter | 30               | +0%                             | 30/30 Summer           |                    |                                                                                     |
| S48.003                                                                                                     | S32           | 15 Winter  | 30               | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S48.004                                                                                                     | S33           | 15 Winter  | 30               | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S48.005                                                                                                     | S34           | 15 Winter  | 30               | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S54.000                                                                                                     | PP_99         | 480 Winter | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S54.001                                                                                                     | ORI_99        | 480 Winter | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S48.006                                                                                                     | S35           | 15 Winter  | 30               | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S55.000                                                                                                     | PP_89         | 480 Winter | 30               | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S55.001                                                                                                     | ORI_89        | 480 Winter | 30               | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S56.000                                                                                                     | PP_91         | 480 Winter | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S56.001                                                                                                     | ORI_91        | 480 Winter | 30               | +0%                             | 1/240 Winter           |                    |                                                                                     |
| S48.007                                                                                                     | S36           | 15 Winter  | 30               | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S48.008                                                                                                     | S37           | 30 Winter  | 30               | +0%                             | 100/15 Summer          |                    |                                                                                     |
| S36.004                                                                                                     | S38           | 15 Winter  | 30               | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S57.000                                                                                                     | PP_92         | 240 Winter | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S57.001                                                                                                     | ORI_92        | 240 Winter | 30               | +0%                             | 30/15 Summer           |                    |                                                                                     |
| S36.005                                                                                                     | S39           | 15 Winter  | 30               | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S58.000                                                                                                     | S40a          | 480 Winter | 30               | +0%                             | 100/30 Winter          |                    |                                                                                     |
| S23.010                                                                                                     | S40           | 15 Winter  | 30               | +0%                             | 30/15 Winter           |                    |                                                                                     |
| S59.000                                                                                                     | POND          | 120 Winter | 30               | +0%                             | 100/60 Winter          |                    |                                                                                     |
| S59.001                                                                                                     | S41           | 120 Winter | 30               | +0%                             | 1/15 Summer            |                    |                                                                                     |
| S60.000                                                                                                     | PP_90-98      | 960 Winter | 30               | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S60.001                                                                                                     | ORI_90-98     | 960 Winter | 30               | +0%                             | 30/30 Winter           |                    |                                                                                     |
| S23.011                                                                                                     | S42           | 15 Winter  | 30               | +0%                             | 30/15 Summer           | 100/240 Winter     |                                                                                     |
| ©1982-2018 Innovyze                                                                                         |               |            |                  |                                 |                        |                    |                                                                                     |

| Odyssey Markides                                                                                            |               |                  |                       |                                 |                           |                | Page 60                                                                             |                       |            |
|-------------------------------------------------------------------------------------------------------------|---------------|------------------|-----------------------|---------------------------------|---------------------------|----------------|-------------------------------------------------------------------------------------|-----------------------|------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                    |               |                  |                       | Burndell Road,<br>Yapton        |                           |                |  |                       |            |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                         |               |                  |                       | Designed by SG<br>Checked by LH |                           |                |                                                                                     |                       |            |
| XP Solutions                                                                                                |               |                  |                       | Network 2018.1                  |                           |                |                                                                                     |                       |            |
| <u>30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |               |                  |                       |                                 |                           |                |                                                                                     |                       |            |
| PN                                                                                                          | US/MH<br>Name | Overflow<br>Act. | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m)      | Flooded<br>Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s)                                                                   | Pipe<br>Flow<br>(l/s) | Status     |
| S45.001                                                                                                     | ORI_41-45     |                  | 6.576                 | 0.186                           | 0.000                     | 0.01           |                                                                                     | 0.1                   | SURCHARGED |
| S41.004                                                                                                     | S27           |                  | 5.792                 | -0.069                          | 0.000                     | 0.82           |                                                                                     | 24.6                  | OK         |
| S46.000                                                                                                     | PP_37-38      |                  | 6.511                 | 0.111                           | 0.000                     | 0.03           |                                                                                     | 0.2                   | SURCHARGED |
| S46.001                                                                                                     | ORI_37-38     |                  | 6.511                 | 0.121                           | 0.000                     | 0.01           |                                                                                     | 0.2                   | SURCHARGED |
| S47.000                                                                                                     | PP_39-40      |                  | 6.433                 | 0.083                           | 0.000                     | 0.03           |                                                                                     | 0.2                   | SURCHARGED |
| S47.001                                                                                                     | ORI_39-40     |                  | 6.433                 | 0.093                           | 0.000                     | 0.01           |                                                                                     | 0.2                   | SURCHARGED |
| S41.005                                                                                                     | S28           |                  | 5.674                 | -0.142                          | 0.000                     | 0.50           |                                                                                     | 34.3                  | OK         |
| S36.003                                                                                                     | S30           |                  | 5.576                 | 0.005                           | 0.000                     | 0.41           |                                                                                     | 57.3                  | SURCHARGED |
| S48.000                                                                                                     | PP_105        |                  | 6.399                 | 0.099                           | 0.000                     | 0.29           |                                                                                     | 2.6                   | SURCHARGED |
| S48.001                                                                                                     | ORI_105       |                  | 6.394                 | 0.104                           | 0.000                     | 0.08           |                                                                                     | 2.5                   | SURCHARGED |
| S49.000                                                                                                     | PP_106        |                  | 6.361                 | 0.061                           | 0.000                     | 0.03           |                                                                                     | 0.1                   | SURCHARGED |
| S49.001                                                                                                     | ORI_106       |                  | 6.361                 | 0.071                           | 0.000                     | 0.01           |                                                                                     | 0.1                   | SURCHARGED |
| S50.000                                                                                                     | PP_107        |                  | 6.491                 | 0.141                           | 0.000                     | 0.07           |                                                                                     | 0.2                   | SURCHARGED |
| S50.001                                                                                                     | ORI_107       |                  | 6.489                 | 0.149                           | 0.000                     | 0.02           |                                                                                     | 0.2                   | SURCHARGED |
| S48.002                                                                                                     | S31           |                  | 5.801                 | -0.225                          | 0.000                     | 0.13           |                                                                                     | 9.0                   | OK         |
| S51.000                                                                                                     | PP_102        |                  | 6.124                 | 0.124                           | 0.000                     | 0.21           |                                                                                     | 0.7                   | SURCHARGED |
| S51.001                                                                                                     | ORI_102       |                  | 6.120                 | 0.130                           | 0.000                     | 0.07           |                                                                                     | 0.6                   | SURCHARGED |
| S52.000                                                                                                     | PP_100-101    |                  | 6.144                 | 0.144                           | 0.000                     | 0.07           |                                                                                     | 0.2                   | SURCHARGED |
| S52.001                                                                                                     | ORI_100-101   |                  | 6.142                 | 0.152                           | 0.000                     | 0.03           |                                                                                     | 0.2                   | SURCHARGED |
| S53.000                                                                                                     | PP_103-104    |                  | 6.154                 | 0.104                           | 0.000                     | 0.03           |                                                                                     | 0.1                   | SURCHARGED |
| S53.001                                                                                                     | ORI_103-104   |                  | 6.153                 | 0.113                           | 0.000                     | 0.01           |                                                                                     | 0.1                   | SURCHARGED |
| S48.003                                                                                                     | S32           |                  | 5.674                 | -0.162                          | 0.000                     | 0.42           |                                                                                     | 27.1                  | OK         |
| S48.004                                                                                                     | S33           |                  | 5.635                 | -0.086                          | 0.000                     | 0.46           |                                                                                     | 26.7                  | OK         |
| S48.005                                                                                                     | S34           |                  | 5.623                 | -0.047                          | 0.000                     | 0.51           |                                                                                     | 29.8                  | OK         |
| S54.000                                                                                                     | PP_99         |                  | 6.442                 | 0.142                           | 0.000                     | 0.04           |                                                                                     | 0.1                   | SURCHARGED |
| S54.001                                                                                                     | ORI_99        |                  | 6.441                 | 0.151                           | 0.000                     | 0.01           |                                                                                     | 0.1                   | SURCHARGED |
| S48.006                                                                                                     | S35           |                  | 5.599                 | -0.017                          | 0.000                     | 0.47           |                                                                                     | 27.0                  | OK         |
| S55.000                                                                                                     | PP_89         |                  | 6.178                 | 0.078                           | 0.000                     | 0.03           |                                                                                     | 0.1                   | SURCHARGED |
| S55.001                                                                                                     | ORI_89        |                  | 6.177                 | 0.087                           | 0.000                     | 0.01           |                                                                                     | 0.1                   | SURCHARGED |
| S56.000                                                                                                     | PP_91         |                  | 6.089                 | 0.189                           | 0.000                     | 0.04           |                                                                                     | 0.1                   | SURCHARGED |
| S56.001                                                                                                     | ORI_91        |                  | 6.089                 | 0.199                           | 0.000                     | 0.01           |                                                                                     | 0.1                   | SURCHARGED |
| S48.007                                                                                                     | S36           |                  | 5.568                 | 0.000                           | 0.000                     | 0.23           |                                                                                     | 28.2                  | OK         |
| S48.008                                                                                                     | S37           |                  | 5.521                 | 0.000                           | 0.000                     | 0.24           |                                                                                     | 22.7                  | OK         |
| S36.004                                                                                                     | S38           |                  | 5.511                 | 0.010                           | 0.000                     | 0.68           |                                                                                     | 69.9                  | SURCHARGED |
| S57.000                                                                                                     | PP_92         |                  | 6.004                 | 0.104                           | 0.000                     | 0.07           |                                                                                     | 0.2                   | SURCHARGED |
| S57.001                                                                                                     | ORI_92        |                  | 6.003                 | 0.113                           | 0.000                     | 0.01           |                                                                                     | 0.2                   | SURCHARGED |
| S36.005                                                                                                     | S39           |                  | 5.484                 | 0.011                           | 0.000                     | 0.75           |                                                                                     | 73.4                  | SURCHARGED |
| S58.000                                                                                                     | S40a          |                  | 5.409                 | -0.091                          | 0.000                     | 0.01           |                                                                                     | 1.8                   | OK         |
| S23.010                                                                                                     | S40           |                  | 5.464                 | 0.014                           | 0.000                     | 0.18           |                                                                                     | 24.9                  | SURCHARGED |
| S59.000                                                                                                     | POND          |                  | 6.245                 | -0.055                          | 0.000                     | 0.05           |                                                                                     | 0.7                   | OK         |
| S59.001                                                                                                     | S41           |                  | 6.244                 | 0.394                           | 0.000                     | 0.01           |                                                                                     | 0.2                   | SURCHARGED |
| S60.000                                                                                                     | PP_90-98      |                  | 6.294                 | 0.144                           | 0.000                     | 0.03           |                                                                                     | 0.3                   | SURCHARGED |
| S60.001                                                                                                     | ORI_90-98     |                  | 6.294                 | 0.154                           | 0.000                     | 0.01           |                                                                                     | 0.3                   | SURCHARGED |
| S23.011                                                                                                     | S42           |                  | 5.466                 | 0.097                           | 0.000                     | 0.07           |                                                                                     | 7.0                   | SURCHARGED |
| ©1982-2018 Innovyze                                                                                         |               |                  |                       |                                 |                           |                |                                                                                     |                       |            |

|                                                                                                             |                                 |                                                                                     |
|-------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                                                                            |                                 | Page 61                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                    | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                         | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions                                                                                                | Network 2018.1                  |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
| <u>30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u><br><u>for SW Network</u> |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |
|                                                                                                             |                                 |                                                                                     |

|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 62                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions                                             | Network 2018.1                  |                                                                                     |

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW Network

Simulation Criteria

Areal Reduction Factor 1.000      Additional Flow - % of Total Flow 0.000  
 Hot Start (mins)      0      MADD Factor \* 10m<sup>3</sup>/ha Storage 2.000  
 Hot Start Level (mm)      0      Inlet Coefficient 0.800  
 Manhole Headloss Coeff (Global) 0.500      Flow per Person per Day (l/per/day) 0.000  
 Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs      0      Number of Storage Structures 58  
 Number of Online Controls 57      Number of Time/Area Diagrams      0  
 Number of Offline Controls      0      Number of Real Time Controls      0

Synthetic Rainfall Details

Rainfall Model      FEH  
 FEH Rainfall Version      1999  
 Site Location GB 498650 101750 SU 98650 01750  
     C (1km)      -0.025  
     D1 (1km)      0.390  
     D2 (1km)      0.245  
     D3 (1km)      0.403  
     E (1km)      0.310  
     F (1km)      2.321  
     Cv (Summer)      0.750  
     Cv (Winter)      0.840

Margin for Flood Risk Warning (mm)      300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
     DTS Status      OFF  
     DVD Status      ON  
     Inertia Status      ON

Profile(s)      Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years)      1, 30, 100  
 Climate Change (%)      0, 0, 40

| PN     | US/MH Name | Storm      | Return Period | Climate Change | First (X) Surchage | First (Y) Flood | First (Z) Overflow | Overflow Act. |
|--------|------------|------------|---------------|----------------|--------------------|-----------------|--------------------|---------------|
| S1.000 | S1         | 480 Winter | 100           | +40%           | 100/240 Summer     |                 |                    |               |
| S1.001 | S2         | 480 Winter | 100           | +40%           | 100/15 Summer      |                 |                    |               |
| S1.002 | S3         | 480 Winter | 100           | +40%           | 100/15 Summer      |                 |                    |               |
| S1.003 | S4         | 480 Winter | 100           | +40%           | 100/15 Summer      |                 |                    |               |
| S2.000 | S5         | 480 Winter | 100           | +40%           | 100/120 Winter     |                 |                    |               |
| S3.000 | PP_3-4     | 480 Winter | 100           | +40%           | 1/480 Winter       |                 |                    |               |
| S3.001 | ORI_3-4    | 480 Winter | 100           | +40%           | 1/360 Winter       |                 |                    |               |
| S4.000 | PP_1-2     | 480 Winter | 100           | +40%           | 30/30 Summer       |                 |                    |               |
| S4.001 | ORI_1-2    | 480 Winter | 100           | +40%           | 30/15 Winter       |                 |                    |               |
| S5.000 | PP_108     | 120 Winter | 100           | +40%           | 30/15 Summer       |                 |                    |               |
| S5.001 | ORI_108    | 120 Winter | 100           | +40%           | 30/15 Summer       |                 |                    |               |

|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 63                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions                                             | Network 2018.1                  |                                                                                     |

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW Network

| PN     | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³) | Flow /<br>Cap.<br>(l/s) | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status     | Level<br>Exceeded |
|--------|---------------|-----------------------|----------------------------|---------------------------|-------------------------|-------------------|-----------------------|------------|-------------------|
| S1.000 | S1            | 6.629                 | 0.759                      | 0.000                     | 0.03                    |                   | 1.2                   | SURCHARGED |                   |
| S1.001 | S2            | 6.629                 | 0.898                      | 0.000                     | 0.11                    |                   | 4.2                   | SURCHARGED |                   |
| S1.002 | S3            | 6.628                 | 1.108                      | 0.000                     | 0.12                    |                   | 8.0                   | FLOOD RISK |                   |
| S1.003 | S4            | 6.626                 | 1.349                      | 0.000                     | 0.07                    |                   | 8.0                   | FLOOD RISK |                   |
| S2.000 | S5            | 6.626                 | 0.843                      | 0.000                     | 0.02                    |                   | 2.4                   | SURCHARGED |                   |
| S3.000 | PP_3-4        | 6.831                 | 0.481                      | 0.000                     | 0.06                    |                   | 0.2                   | SURCHARGED |                   |
| S3.001 | ORI_3-4       | 6.831                 | 0.491                      | 0.000                     | 0.01                    |                   | 0.2                   | SURCHARGED |                   |
| S4.000 | PP_1-2        | 6.667                 | 0.517                      | 0.000                     | 0.04                    |                   | 0.4                   | SURCHARGED |                   |
| S4.001 | ORI_1-2       | 6.667                 | 0.527                      | 0.000                     | 0.01                    |                   | 0.4                   | SURCHARGED |                   |
| S5.000 | PP_108        | 6.850                 | 0.400                      | 0.000                     | 0.15                    |                   | 0.5                   | SURCHARGED |                   |
| S5.001 | ORI_108       | 6.849                 | 0.409                      | 0.000                     | 0.02                    |                   | 0.3                   | SURCHARGED |                   |

| Odyssey Markides                                                                                   |               |            |                  |                                 |                       | Page 64            |                                                                                     |                  |
|----------------------------------------------------------------------------------------------------|---------------|------------|------------------|---------------------------------|-----------------------|--------------------|-------------------------------------------------------------------------------------|------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                           |               |            |                  | Burndell Road,<br>Yapton        |                       |                    |  |                  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                |               |            |                  | Designed by SG<br>Checked by LH |                       |                    |                                                                                     |                  |
| XP Solutions                                                                                       |               |            |                  | Network 2018.1                  |                       |                    |                                                                                     |                  |
| <u>100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW Network</u> |               |            |                  |                                 |                       |                    |                                                                                     |                  |
| PN                                                                                                 | US/MH<br>Name | Storm      | Return<br>Period | Climate<br>Change               | First (X)<br>Surchage | First (Y)<br>Flood | First (Z)<br>Overflow                                                               | Overflow<br>Act. |
| S1.004                                                                                             | S6            | 480 Winter | 100              | +40%                            | 100/15 Summer         |                    |                                                                                     |                  |
| S6.000                                                                                             | PP_76         | 480 Winter | 100              | +40%                            | 30/30 Summer          |                    |                                                                                     |                  |
| S6.001                                                                                             | ORI_76        | 480 Winter | 100              | +40%                            | 30/15 Winter          |                    |                                                                                     |                  |
| S7.000                                                                                             | PP_80         | 480 Winter | 100              | +40%                            | 30/15 Winter          |                    |                                                                                     |                  |
| S7.001                                                                                             | ORI_80        | 480 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S8.000                                                                                             | PP_79         | 360 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S8.001                                                                                             | ORI_79        | 360 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S9.000                                                                                             | PP_75         | 480 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S9.001                                                                                             | ORI_75        | 480 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S6.002                                                                                             | S7            | 480 Winter | 100              | +40%                            | 100/360 Winter        |                    |                                                                                     |                  |
| S10.000                                                                                            | PP_5-6        | 360 Winter | 100              | +40%                            | 30/15 Winter          |                    |                                                                                     |                  |
| S10.001                                                                                            | ORI_5-6       | 360 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S11.000                                                                                            | PP_7-8        | 480 Winter | 100              | +40%                            | 1/480 Winter          |                    |                                                                                     |                  |
| S11.001                                                                                            | ORI_7-8       | 480 Winter | 100              | +40%                            | 1/360 Winter          |                    |                                                                                     |                  |
| S12.000                                                                                            | PP_9-10       | 480 Winter | 100              | +40%                            | 30/15 Winter          |                    |                                                                                     |                  |
| S12.001                                                                                            | ORI_9-10      | 480 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S13.000                                                                                            | PP_11-12      | 480 Winter | 100              | +40%                            | 30/30 Winter          |                    |                                                                                     |                  |
| S13.001                                                                                            | ORI_11-12     | 480 Winter | 100              | +40%                            | 30/30 Summer          |                    |                                                                                     |                  |
| S1.005                                                                                             | S8            | 480 Winter | 100              | +40%                            | 30/360 Winter         |                    |                                                                                     |                  |
| S14.000                                                                                            | PP_54         | 480 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S14.001                                                                                            | ORI_54        | 480 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S15.000                                                                                            | PP_55         | 240 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S15.001                                                                                            | ORI_55        | 240 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S16.000                                                                                            | PP_51         | 120 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S16.001                                                                                            | ORI_51        | 120 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S14.002                                                                                            | S9            | 480 Winter | 100              | +40%                            | 30/360 Winter         |                    |                                                                                     |                  |
| S17.000                                                                                            | PP_13-14      | 960 Winter | 100              | +40%                            | 100/60 Winter         |                    |                                                                                     |                  |
| S17.001                                                                                            | ORI_13-14     | 960 Winter | 100              | +40%                            | 100/60 Winter         |                    |                                                                                     |                  |
| S18.000                                                                                            | PP_15         | 480 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S18.001                                                                                            | ORI_15        | 480 Winter | 100              | +40%                            | 1/240 Winter          |                    |                                                                                     |                  |
| S1.006                                                                                             | S10           | 480 Winter | 100              | +40%                            | 30/60 Winter          |                    |                                                                                     |                  |
| S19.000                                                                                            | S11a          | 480 Winter | 100              | +40%                            | 30/60 Winter          |                    |                                                                                     |                  |
| S20.000                                                                                            | PP_18         | 480 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S20.001                                                                                            | ORI_18        | 480 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S21.000                                                                                            | PP_19-53      | 480 Winter | 100              | +40%                            | 30/60 Summer          |                    |                                                                                     |                  |
| S21.001                                                                                            | ORI_19-53     | 480 Winter | 100              | +40%                            | 30/30 Winter          |                    |                                                                                     |                  |
| S1.007                                                                                             | S11           | 480 Winter | 100              | +40%                            | 30/30 Winter          |                    |                                                                                     |                  |
| S22.000                                                                                            | PP_20-21      | 360 Winter | 100              | +40%                            | 30/15 Winter          |                    |                                                                                     |                  |
| S22.001                                                                                            | ORI_20-21     | 360 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S22.002                                                                                            | S12           | 480 Winter | 100              | +40%                            | 30/60 Winter          |                    |                                                                                     |                  |
| S1.008                                                                                             | S13           | 480 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S23.000                                                                                            | PP_22-23      | 480 Winter | 100              | +40%                            | 30/15 Winter          |                    |                                                                                     |                  |
| S23.001                                                                                            | ORI_22-23     | 480 Winter | 100              | +40%                            | 1/960 Winter          |                    |                                                                                     |                  |
| S24.000                                                                                            | PP_24         | 480 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S24.001                                                                                            | ORI_24        | 480 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| S23.002                                                                                            | S15           | 960 Winter | 100              | +40%                            | 100/480 Winter        |                    |                                                                                     |                  |
| S25.000                                                                                            | PP_25-26      | 480 Winter | 100              | +40%                            | 30/15 Winter          |                    |                                                                                     |                  |
| S25.001                                                                                            | ORI_25-26     | 480 Winter | 100              | +40%                            | 30/15 Summer          |                    |                                                                                     |                  |
| ©1982-2018 Innovyze                                                                                |               |            |                  |                                 |                       |                    |                                                                                     |                  |

|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 65                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions                                             |                                 |                                                                                     |
| Network 2018.1                                           |                                 |                                                                                     |

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW Network

| PN      | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status     | Level<br>Exceeded |
|---------|---------------|-----------------------|----------------------------|---------------------------|----------------|-------------------|-----------------------|------------|-------------------|
| S1.004  | S6            | 6.625                 | 1.380                      | 0.000                     | 0.09           |                   | 13.9                  | FLOOD RISK |                   |
| S6.000  | PP_76         | 6.904                 | 0.304                      | 0.000                     | 0.05           |                   | 0.2                   | SURCHARGED |                   |
| S6.001  | ORI_76        | 6.904                 | 0.314                      | 0.000                     | 0.01           |                   | 0.1                   | SURCHARGED |                   |
| S7.000  | PP_80         | 7.096                 | 0.346                      | 0.000                     | 0.05           |                   | 0.2                   | SURCHARGED |                   |
| S7.001  | ORI_80        | 7.095                 | 0.355                      | 0.000                     | 0.01           |                   | 0.1                   | SURCHARGED |                   |
| S8.000  | PP_79         | 6.869                 | 0.419                      | 0.000                     | 0.11           |                   | 0.4                   | SURCHARGED |                   |
| S8.001  | ORI_79        | 6.867                 | 0.427                      | 0.000                     | 0.03           |                   | 0.3                   | SURCHARGED |                   |
| S9.000  | PP_75         | 7.139                 | 0.439                      | 0.000                     | 0.06           |                   | 0.2                   | SURCHARGED |                   |
| S9.001  | ORI_75        | 7.138                 | 0.448                      | 0.000                     | 0.01           |                   | 0.2                   | SURCHARGED |                   |
| S6.002  | S7            | 6.628                 | 0.316                      | 0.000                     | 0.07           |                   | 2.8                   | SURCHARGED |                   |
| S10.000 | PP_5-6        | 7.048                 | 0.448                      | 0.000                     | 0.07           |                   | 0.7                   | SURCHARGED |                   |
| S10.001 | ORI_5-6       | 7.046                 | 0.456                      | 0.000                     | 0.01           |                   | 0.6                   | SURCHARGED |                   |
| S11.000 | PP_7-8        | 7.070                 | 0.470                      | 0.000                     | 0.06           |                   | 0.2                   | SURCHARGED |                   |
| S11.001 | ORI_7-8       | 7.070                 | 0.480                      | 0.000                     | 0.01           |                   | 0.2                   | SURCHARGED |                   |
| S12.000 | PP_9-10       | 6.910                 | 0.410                      | 0.000                     | 0.05           |                   | 0.2                   | SURCHARGED |                   |
| S12.001 | ORI_9-10      | 6.909                 | 0.419                      | 0.000                     | 0.01           |                   | 0.1                   | SURCHARGED |                   |
| S13.000 | PP_11-12      | 6.680                 | 0.330                      | 0.000                     | 0.05           |                   | 0.2                   | SURCHARGED |                   |
| S13.001 | ORI_11-12     | 6.679                 | 0.339                      | 0.000                     | 0.00           |                   | 0.1                   | SURCHARGED |                   |
| S1.005  | S8            | 6.624                 | 1.521                      | 0.000                     | 0.12           |                   | 18.9                  | SURCHARGED |                   |
| S14.000 | PP_54         | 6.779                 | 0.429                      | 0.000                     | 0.05           |                   | 0.2                   | SURCHARGED |                   |
| S14.001 | ORI_54        | 6.779                 | 0.439                      | 0.000                     | 0.01           |                   | 0.1                   | SURCHARGED |                   |
| S15.000 | PP_55         | 6.704                 | 0.354                      | 0.000                     | 0.11           |                   | 0.4                   | SURCHARGED |                   |
| S15.001 | ORI_55        | 6.702                 | 0.362                      | 0.000                     | 0.02           |                   | 0.3                   | SURCHARGED |                   |
| S16.000 | PP_51         | 6.929                 | 0.429                      | 0.000                     | 0.12           |                   | 1.1                   | SURCHARGED |                   |
| S16.001 | ORI_51        | 6.927                 | 0.437                      | 0.000                     | 0.02           |                   | 1.0                   | SURCHARGED |                   |
| S14.002 | S9            | 6.624                 | 1.522                      | 0.000                     | 0.18           |                   | 3.0                   | SURCHARGED |                   |
| S17.000 | PP_13-14      | 6.705                 | 0.305                      | 0.000                     | 0.02           |                   | 0.1                   | SURCHARGED |                   |
| S17.001 | ORI_13-14     | 6.705                 | 0.315                      | 0.000                     | 0.00           |                   | 0.1                   | SURCHARGED |                   |
| S18.000 | PP_15         | 6.707                 | 0.757                      | 0.000                     | 0.12           |                   | 0.4                   | FLOOD RISK |                   |
| S18.001 | ORI_15        | 6.707                 | 0.767                      | 0.000                     | 0.01           |                   | 0.4                   | FLOOD RISK |                   |
| S1.006  | S10           | 6.621                 | 1.694                      | 0.000                     | 0.17           |                   | 23.3                  | SURCHARGED |                   |
| S19.000 | S11a          | 6.619                 | 1.719                      | 0.000                     | 0.03           |                   | 4.4                   | FLOOD RISK |                   |
| S20.000 | PP_18         | 6.658                 | 0.708                      | 0.000                     | 0.13           |                   | 1.2                   | FLOOD RISK |                   |
| S20.001 | ORI_18        | 6.658                 | 0.718                      | 0.000                     | 0.02           |                   | 1.2                   | FLOOD RISK |                   |
| S21.000 | PP_19-53      | 6.422                 | 0.322                      | 0.000                     | 0.04           |                   | 0.1                   | SURCHARGED |                   |
| S21.001 | ORI_19-53     | 6.423                 | 0.333                      | 0.000                     | 0.01           |                   | 0.1                   | SURCHARGED |                   |
| S1.007  | S11           | 6.619                 | 1.770                      | 0.000                     | 0.05           |                   | 7.3                   | FLOOD RISK |                   |
| S22.000 | PP_20-21      | 6.884                 | 0.434                      | 0.000                     | 0.07           |                   | 0.7                   | SURCHARGED |                   |
| S22.001 | ORI_20-21     | 6.883                 | 0.443                      | 0.000                     | 0.01           |                   | 0.6                   | SURCHARGED |                   |
| S22.002 | S12           | 6.618                 | 1.746                      | 0.000                     | 0.10           |                   | 3.4                   | SURCHARGED |                   |
| S1.008  | S13           | 6.616                 | 1.826                      | 0.000                     | 0.07           |                   | 7.0                   | FLOOD RISK |                   |
| S23.000 | PP_22-23      | 6.952                 | 0.402                      | 0.000                     | 0.05           |                   | 0.2                   | SURCHARGED |                   |
| S23.001 | ORI_22-23     | 6.951                 | 0.411                      | 0.000                     | 0.01           |                   | 0.1                   | SURCHARGED |                   |
| S24.000 | PP_24         | 6.945                 | 0.395                      | 0.000                     | 0.05           |                   | 0.2                   | SURCHARGED |                   |
| S24.001 | ORI_24        | 6.945                 | 0.405                      | 0.000                     | 0.01           |                   | 0.1                   | SURCHARGED |                   |
| S23.002 | S15           | 6.369                 | 0.076                      | 0.000                     | 0.01           |                   | 0.5                   | SURCHARGED |                   |
| S25.000 | PP_25-26      | 6.853                 | 0.403                      | 0.000                     | 0.05           |                   | 0.2                   | SURCHARGED |                   |

|                                                                                                    |               |                       |                            |                                 |                |                   |                                                                                     |            |                   |
|----------------------------------------------------------------------------------------------------|---------------|-----------------------|----------------------------|---------------------------------|----------------|-------------------|-------------------------------------------------------------------------------------|------------|-------------------|
| Odyssey Markides                                                                                   |               |                       |                            |                                 |                |                   | Page 66                                                                             |            |                   |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                           |               |                       |                            | Burndell Road,<br>Yapton        |                |                   |  |            |                   |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                |               |                       |                            | Designed by SG<br>Checked by LH |                |                   |                                                                                     |            |                   |
| XP Solutions                                                                                       |               |                       |                            | Network 2018.1                  |                |                   |                                                                                     |            |                   |
| <u>100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW Network</u> |               |                       |                            |                                 |                |                   |                                                                                     |            |                   |
| PN                                                                                                 | US/MH<br>Name | Water<br>Level<br>(m) | Surcharged<br>Depth<br>(m) | Flooded<br>Volume<br>(m³)       | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s)                                                               | Status     | Level<br>Exceeded |
| S25.001                                                                                            | ORI_25-26     | 6.852                 | 0.412                      | 0.000                           | 0.01           |                   | 0.1                                                                                 | SURCHARGED |                   |
| ©1982-2018 Innovyze                                                                                |               |                       |                            |                                 |                |                   |                                                                                     |            |                   |

| Odyssey Markides                                                                                   |               |            |                  |                                 |                        | Page 67            |                                                                                     |
|----------------------------------------------------------------------------------------------------|---------------|------------|------------------|---------------------------------|------------------------|--------------------|-------------------------------------------------------------------------------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                           |               |            |                  | Burndell Road,<br>Yapton        |                        |                    |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                |               |            |                  | Designed by SG<br>Checked by LH |                        |                    |                                                                                     |
| XP Solutions                                                                                       |               |            |                  | Network 2018.1                  |                        |                    |                                                                                     |
| <u>100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW Network</u> |               |            |                  |                                 |                        |                    |                                                                                     |
| PN                                                                                                 | US/MH<br>Name | Storm      | Return<br>Period | Climate<br>Change               | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow                                                               |
| S26.000                                                                                            | PP_27         | 480 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S26.001                                                                                            | ORI_27        | 480 Winter | 100              | +40%                            | 1/360 Winter           |                    |                                                                                     |
| S27.000                                                                                            | PP_28         | 480 Winter | 100              | +40%                            | 30/240 Winter          |                    |                                                                                     |
| S27.001                                                                                            | ORI_28        | 480 Winter | 100              | +40%                            | 30/240 Winter          |                    |                                                                                     |
| S23.003                                                                                            | S16           | 960 Winter | 100              | +40%                            | 100/360 Winter         |                    |                                                                                     |
| S28.000                                                                                            | PP_29         | 120 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S28.001                                                                                            | ORI_29        | 120 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S23.004                                                                                            | S18           | 960 Winter | 100              | +40%                            | 100/240 Winter         |                    |                                                                                     |
| S23.005                                                                                            | S19           | 960 Winter | 100              | +40%                            | 100/240 Summer         |                    |                                                                                     |
| S29.000                                                                                            | PP_30         | 960 Winter | 100              | +40%                            | 30/60 Winter           |                    |                                                                                     |
| S29.001                                                                                            | ORI_30        | 960 Winter | 100              | +40%                            | 30/60 Winter           |                    |                                                                                     |
| S23.006                                                                                            | S20           | 960 Winter | 100              | +40%                            | 100/120 Winter         |                    |                                                                                     |
| S30.000                                                                                            | PP_31         | 960 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S30.001                                                                                            | ORI_31        | 960 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S31.000                                                                                            | PP_32         | 960 Winter | 100              | +40%                            | 30/60 Summer           |                    |                                                                                     |
| S31.001                                                                                            | ORI_32        | 960 Winter | 100              | +40%                            | 30/30 Winter           |                    |                                                                                     |
| S32.000                                                                                            | PP_33         | 480 Winter | 100              | +40%                            | 30/15 Winter           |                    |                                                                                     |
| S32.001                                                                                            | ORI_33        | 480 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S33.000                                                                                            | PP_34-35      | 480 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S33.001                                                                                            | ORI_34-35     | 480 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S34.000                                                                                            | PP_36         | 240 Winter | 100              | +40%                            | 1/15 Summer            |                    |                                                                                     |
| S34.001                                                                                            | ORI_36        | 240 Winter | 100              | +40%                            | 1/15 Summer            |                    |                                                                                     |
| S23.007                                                                                            | S21           | 960 Winter | 100              | +40%                            | 100/15 Winter          |                    |                                                                                     |
| S35.000                                                                                            | S23a          | 960 Winter | 100              | +40%                            | 100/120 Summer         |                    |                                                                                     |
| S23.008                                                                                            | S23           | 960 Winter | 100              | +40%                            | 100/15 Summer          |                    |                                                                                     |
| S23.009                                                                                            | S24           | 960 Winter | 100              | +40%                            | 100/15 Summer          |                    |                                                                                     |
| S36.000                                                                                            | PP_81-82      | 360 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S36.001                                                                                            | ORI_81-82     | 360 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S37.000                                                                                            | PP_83         | 480 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S37.001                                                                                            | ORI_83        | 480 Winter | 100              | +40%                            | 1/240 Winter           |                    |                                                                                     |
| S38.000                                                                                            | PP_84-85      | 480 Winter | 100              | +40%                            | 30/30 Summer           |                    |                                                                                     |
| S38.001                                                                                            | ORI_84-85     | 480 Winter | 100              | +40%                            | 30/15 Winter           |                    |                                                                                     |
| S36.002                                                                                            | S29           | 15 Winter  | 100              | +40%                            | 30/15 Summer           | 100/15 Summer      |                                                                                     |
| S39.000                                                                                            | PP_88         | 960 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S39.001                                                                                            | ORI_88        | 960 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S40.000                                                                                            | PP_86-87      | 360 Winter | 100              | +40%                            | 30/15 Winter           |                    |                                                                                     |
| S40.001                                                                                            | ORI_86-87     | 360 Winter | 100              | +40%                            | 30/15 Winter           |                    |                                                                                     |
| S41.000                                                                                            | PP_49-50      | 480 Winter | 100              | +40%                            | 30/30 Winter           |                    |                                                                                     |
| S41.001                                                                                            | ORI_49-50     | 480 Winter | 100              | +40%                            | 30/30 Winter           |                    |                                                                                     |
| S42.000                                                                                            | PP_48         | 240 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S42.001                                                                                            | ORI_48        | 240 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S43.000                                                                                            | PP_56-78      | 960 Winter | 100              | +40%                            | 1/240 Summer           |                    |                                                                                     |
| S43.001                                                                                            | ORI_56-78     | 960 Winter | 100              | +40%                            | 1/120 Winter           |                    |                                                                                     |
| S41.002                                                                                            | S25           | 960 Winter | 100              | +40%                            | 100/15 Summer          |                    |                                                                                     |
| S44.000                                                                                            | PP_46-47      | 360 Winter | 100              | +40%                            | 30/15 Winter           |                    |                                                                                     |
| S44.001                                                                                            | ORI_46-47     | 360 Winter | 100              | +40%                            | 30/15 Winter           |                    |                                                                                     |
| S41.003                                                                                            | S26           | 960 Winter | 100              | +40%                            | 100/15 Summer          |                    |                                                                                     |
| S45.000                                                                                            | PP_41-45      | 960 Winter | 100              | +40%                            | 1/480 Winter           |                    |                                                                                     |
| ©1982-2018 Innovyze                                                                                |               |            |                  |                                 |                        |                    |                                                                                     |

|                                                          |                                 |                                                                                     |
|----------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                         |                                 | Page 68                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX      | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions                                             |                                 |                                                                                     |
| Network 2018.1                                           |                                 |                                                                                     |

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW Network

| PN      | US/MH<br>Name | Overflow<br>Act. | Water Level<br>(m) | Surcharged Depth<br>(m) | Flooded Volume<br>(m <sup>3</sup> ) | Flow /<br>Cap. | Overflow<br>(l/s) | Pipe<br>Flow<br>(l/s) | Status     |
|---------|---------------|------------------|--------------------|-------------------------|-------------------------------------|----------------|-------------------|-----------------------|------------|
| S26.000 | PP_27         |                  | 6.824              | 0.474                   | 0.000                               | 0.06           |                   | 0.2                   | SURCHARGED |
| S26.001 | ORI_27        |                  | 6.823              | 0.483                   | 0.000                               | 0.02           |                   | 0.2                   | SURCHARGED |
| S27.000 | PP_28         |                  | 6.690              | 0.340                   | 0.000                               | 0.10           |                   | 0.3                   | SURCHARGED |
| S27.001 | ORI_28        |                  | 6.688              | 0.348                   | 0.000                               | 0.03           |                   | 0.3                   | SURCHARGED |
| S23.003 | S16           |                  | 6.368              | 0.247                   | 0.000                               | 0.08           |                   | 3.2                   | SURCHARGED |
| S28.000 | PP_29         |                  | 6.501              | 0.401                   | 0.000                               | 0.22           |                   | 0.7                   | SURCHARGED |
| S28.001 | ORI_29        |                  | 6.498              | 0.408                   | 0.000                               | 0.06           |                   | 0.6                   | SURCHARGED |
| S23.004 | S18           |                  | 6.365              | 0.559                   | 0.000                               | 0.27           |                   | 15.1                  | SURCHARGED |
| S23.005 | S19           |                  | 6.365              | 0.597                   | 0.000                               | 0.26           |                   | 14.7                  | SURCHARGED |
| S29.000 | PP_30         |                  | 6.275              | 0.325                   | 0.000                               | 0.04           |                   | 0.1                   | SURCHARGED |
| S29.001 | ORI_30        |                  | 6.275              | 0.335                   | 0.000                               | 0.01           |                   | 0.1                   | SURCHARGED |
| S23.006 | S20           |                  | 6.364              | 0.642                   | 0.000                               | 0.23           |                   | 13.2                  | FLOOD RISK |
| S30.000 | PP_31         |                  | 6.390              | 0.540                   | 0.000                               | 0.16           |                   | 0.5                   | SURCHARGED |
| S30.001 | ORI_31        |                  | 6.389              | 0.549                   | 0.000                               | 0.06           |                   | 0.5                   | SURCHARGED |
| S31.000 | PP_32         |                  | 6.411              | 0.261                   | 0.000                               | 0.04           |                   | 0.1                   | SURCHARGED |
| S31.001 | ORI_32        |                  | 6.410              | 0.270                   | 0.000                               | 0.01           |                   | 0.1                   | SURCHARGED |
| S32.000 | PP_33         |                  | 6.573              | 0.373                   | 0.000                               | 0.05           |                   | 0.2                   | SURCHARGED |
| S32.001 | ORI_33        |                  | 6.572              | 0.382                   | 0.000                               | 0.01           |                   | 0.1                   | SURCHARGED |
| S33.000 | PP_34-35      |                  | 6.563              | 0.463                   | 0.000                               | 0.11           |                   | 0.4                   | SURCHARGED |
| S33.001 | ORI_34-35     |                  | 6.561              | 0.471                   | 0.000                               | 0.02           |                   | 0.3                   | SURCHARGED |
| S34.000 | PP_36         |                  | 6.422              | 0.472                   | 0.000                               | 0.13           |                   | 0.4                   | SURCHARGED |
| S34.001 | ORI_36        |                  | 6.420              | 0.480                   | 0.000                               | 0.03           |                   | 0.4                   | SURCHARGED |
| S23.007 | S21           |                  | 6.363              | 0.685                   | 0.000                               | 0.06           |                   | 9.4                   | FLOOD RISK |
| S35.000 | S23a          |                  | 6.363              | 0.833                   | 0.000                               | 0.21           |                   | 24.4                  | FLOOD RISK |
| S23.008 | S23           |                  | 6.363              | 0.864                   | 0.000                               | 0.28           |                   | 28.4                  | SURCHARGED |
| S23.009 | S24           |                  | 6.363              | 0.888                   | 0.000                               | 0.32           |                   | 31.8                  | FLOOD RISK |
| S36.000 | PP_81-82      |                  | 7.212              | 0.412                   | 0.000                               | 0.11           |                   | 0.4                   | SURCHARGED |
| S36.001 | ORI_81-82     |                  | 7.210              | 0.420                   | 0.000                               | 0.02           |                   | 0.3                   | SURCHARGED |
| S37.000 | PP_83         |                  | 7.110              | 0.510                   | 0.000                               | 0.06           |                   | 0.2                   | SURCHARGED |
| S37.001 | ORI_83        |                  | 7.110              | 0.520                   | 0.000                               | 0.01           |                   | 0.2                   | SURCHARGED |
| S38.000 | PP_84-85      |                  | 6.941              | 0.341                   | 0.000                               | 0.05           |                   | 0.2                   | SURCHARGED |
| S38.001 | ORI_84-85     |                  | 6.940              | 0.350                   | 0.000                               | 0.01           |                   | 0.1                   | SURCHARGED |
| S36.002 | S29           |                  | 7.455              | 1.115                   | 1.066                               | 1.65           |                   | 32.4                  | FLOOD      |
| S39.000 | PP_88         |                  | 6.393              | 0.493                   | 0.000                               | 0.13           |                   | 0.4                   | SURCHARGED |
| S39.001 | ORI_88        |                  | 6.393              | 0.503                   | 0.000                               | 0.04           |                   | 0.4                   | SURCHARGED |
| S40.000 | PP_86-87      |                  | 6.699              | 0.399                   | 0.000                               | 0.07           |                   | 0.6                   | SURCHARGED |
| S40.001 | ORI_86-87     |                  | 6.697              | 0.407                   | 0.000                               | 0.01           |                   | 0.6                   | SURCHARGED |
| S41.000 | PP_49-50      |                  | 6.949              | 0.449                   | 0.000                               | 0.02           |                   | 0.2                   | SURCHARGED |
| S41.001 | ORI_49-50     |                  | 6.949              | 0.459                   | 0.000                               | 0.00           |                   | 0.2                   | SURCHARGED |
| S42.000 | PP_48         |                  | 6.689              | 0.389                   | 0.000                               | 0.12           |                   | 0.4                   | SURCHARGED |
| S42.001 | ORI_48        |                  | 6.688              | 0.398                   | 0.000                               | 0.03           |                   | 0.3                   | SURCHARGED |
| S43.000 | PP_56-78      |                  | 6.766              | 0.466                   | 0.000                               | 0.10           |                   | 0.3                   | SURCHARGED |
| S43.001 | ORI_56-78     |                  | 6.764              | 0.474                   | 0.000                               | 0.04           |                   | 0.3                   | SURCHARGED |
| S41.002 | S25           |                  | 6.375              | 0.285                   | 0.000                               | 0.09           |                   | 3.5                   | SURCHARGED |
| S44.000 | PP_46-47      |                  | 6.499              | 0.399                   | 0.000                               | 0.07           |                   | 0.6                   | SURCHARGED |
| S44.001 | ORI_46-47     |                  | 6.497              | 0.407                   | 0.000                               | 0.03           |                   | 0.6                   | SURCHARGED |
| S41.003 | S26           |                  | 6.372              | 0.466                   | 0.000                               | 0.42           |                   | 12.7                  | SURCHARGED |

|                                                                                                    |          |          |       |                                 |          |        |          |                                                                                     |            |  |
|----------------------------------------------------------------------------------------------------|----------|----------|-------|---------------------------------|----------|--------|----------|-------------------------------------------------------------------------------------|------------|--|
| Odyssey Markides                                                                                   |          |          |       |                                 |          |        | Page 69  |                                                                                     |            |  |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                           |          |          |       | Burndell Road,<br>Yapton        |          |        |          |  |            |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                |          |          |       | Designed by SG<br>Checked by LH |          |        |          |                                                                                     |            |  |
| XP Solutions                                                                                       |          |          |       | Network 2018.1                  |          |        |          |                                                                                     |            |  |
| <u>100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW Network</u> |          |          |       |                                 |          |        |          |                                                                                     |            |  |
|                                                                                                    |          |          |       |                                 |          |        |          |                                                                                     |            |  |
|                                                                                                    |          |          | Water | Surcharged                      | Flooded  |        |          | Pipe                                                                                |            |  |
| PN                                                                                                 | US/MH    | Overflow | Level | Depth                           | Volume   | Flow / | Overflow | Flow                                                                                | Status     |  |
|                                                                                                    | Name     | Act.     | (m)   | (m)                             | (m³)     | Cap.   | (l/s)    | (l/s)                                                                               |            |  |
| S45.000                                                                                            | PP_41-45 |          | 6.840 | 0.440                           | 0.000    | 0.05   |          | 0.2                                                                                 | SURCHARGED |  |
|                                                                                                    |          |          |       |                                 |          |        |          |                                                                                     |            |  |
|                                                                                                    |          |          |       | US/MH                           | Level    |        |          |                                                                                     |            |  |
|                                                                                                    | PN       |          |       | Name                            | Exceeded |        |          |                                                                                     |            |  |
|                                                                                                    | S26.000  |          |       | PP_27                           |          |        |          |                                                                                     |            |  |
|                                                                                                    | S26.001  |          |       | ORI_27                          |          |        |          |                                                                                     |            |  |
|                                                                                                    | S27.000  |          |       | PP_28                           |          |        |          |                                                                                     |            |  |
|                                                                                                    | S27.001  |          |       | ORI_28                          |          |        |          |                                                                                     |            |  |
|                                                                                                    | S23.003  |          |       | S16                             |          |        |          |                                                                                     |            |  |
|                                                                                                    | S28.000  |          |       | PP_29                           |          |        |          |                                                                                     |            |  |
|                                                                                                    | S28.001  |          |       | ORI_29                          |          |        |          |                                                                                     |            |  |
|                                                                                                    | S23.004  |          |       | S18                             |          |        |          |                                                                                     |            |  |
|                                                                                                    | S23.005  |          |       | S19                             |          |        |          |                                                                                     |            |  |
|                                                                                                    | S29.000  |          |       | PP_30                           |          |        |          |                                                                                     |            |  |
|                                                                                                    | S29.001  |          |       | ORI_30                          |          |        |          |                                                                                     |            |  |
|                                                                                                    | S23.006  |          |       | S20                             |          |        |          |                                                                                     |            |  |
|                                                                                                    | S30.000  |          |       | PP_31                           |          |        |          |                                                                                     |            |  |
|                                                                                                    | S30.001  |          |       | ORI_31                          |          |        |          |                                                                                     |            |  |
|                                                                                                    | S31.000  |          |       | PP_32                           |          |        |          |                                                                                     |            |  |
|                                                                                                    | S31.001  |          |       | ORI_32                          |          |        |          |                                                                                     |            |  |
|                                                                                                    | S32.000  |          |       | PP_33                           |          |        |          |                                                                                     |            |  |
|                                                                                                    | S32.001  |          |       | ORI_33                          |          |        |          |                                                                                     |            |  |
|                                                                                                    | S33.000  |          |       | PP_34-35                        |          |        |          |                                                                                     |            |  |
|                                                                                                    | S33.001  |          |       | ORI_34-35                       |          |        |          |                                                                                     |            |  |
|                                                                                                    | S34.000  |          |       | PP_36                           |          |        |          |                                                                                     |            |  |
|                                                                                                    | S34.001  |          |       | ORI_36                          |          |        |          |                                                                                     |            |  |
|                                                                                                    | S23.007  |          |       | S21                             |          |        |          |                                                                                     |            |  |
|                                                                                                    | S35.000  |          |       | S23a                            |          |        |          |                                                                                     |            |  |
|                                                                                                    | S23.008  |          |       | S23                             |          |        |          |                                                                                     |            |  |
|                                                                                                    | S23.009  |          |       | S24                             |          |        |          |                                                                                     |            |  |
|                                                                                                    | S36.000  |          |       | PP_81-82                        |          |        |          |                                                                                     |            |  |
|                                                                                                    | S36.001  |          |       | ORI_81-82                       |          |        |          |                                                                                     |            |  |
|                                                                                                    | S37.000  |          |       | PP_83                           |          |        |          |                                                                                     |            |  |
|                                                                                                    | S37.001  |          |       | ORI_83                          |          |        |          |                                                                                     |            |  |
|                                                                                                    | S38.000  |          |       | PP_84-85                        |          |        |          |                                                                                     |            |  |
|                                                                                                    | S38.001  |          |       | ORI_84-85                       |          |        |          |                                                                                     |            |  |
|                                                                                                    | S36.002  |          |       | S29                             |          | 2      |          |                                                                                     |            |  |
|                                                                                                    | S39.000  |          |       | PP_88                           |          |        |          |                                                                                     |            |  |
|                                                                                                    | S39.001  |          |       | ORI_88                          |          |        |          |                                                                                     |            |  |
|                                                                                                    | S40.000  |          |       | PP_86-87                        |          |        |          |                                                                                     |            |  |
|                                                                                                    | S40.001  |          |       | ORI_86-87                       |          |        |          |                                                                                     |            |  |
|                                                                                                    | S41.000  |          |       | PP_49-50                        |          |        |          |                                                                                     |            |  |
|                                                                                                    | S41.001  |          |       | ORI_49-50                       |          |        |          |                                                                                     |            |  |
|                                                                                                    | S42.000  |          |       | PP_48                           |          |        |          |                                                                                     |            |  |
|                                                                                                    | S42.001  |          |       | ORI_48                          |          |        |          |                                                                                     |            |  |
| ©1982-2018 Innovyze                                                                                |          |          |       |                                 |          |        |          |                                                                                     |            |  |

| Odyssey Markides                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                 | Page 70                                                                             |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|----|---------------|-------------------|---------|----------|--|---------|-----------|--|---------|-----|--|---------|----------|--|---------|-----------|--|---------|-----|--|---------|----------|--|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                         | Burndell Road,<br>Yapton        |  |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                                                                                                                                                                                                                                                                                                                                                                                              | Designed by SG<br>Checked by LH |                                                                                     |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |
| XP Solutions<br>Network 2018.1                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 |                                                                                     |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |
| <u>100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW Network</u>                                                                                                                                                                                                                                                                                                                                                                               |                                 |                                                                                     |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |
| <table><thead><tr><th>PN</th><th>US/MH<br/>Name</th><th>Level<br/>Exceeded</th></tr></thead><tbody><tr><td>S43.000</td><td>PP_56-78</td><td></td></tr><tr><td>S43.001</td><td>ORI_56-78</td><td></td></tr><tr><td>S41.002</td><td>S25</td><td></td></tr><tr><td>S44.000</td><td>PP_46-47</td><td></td></tr><tr><td>S44.001</td><td>ORI_46-47</td><td></td></tr><tr><td>S41.003</td><td>S26</td><td></td></tr><tr><td>S45.000</td><td>PP_41-45</td><td></td></tr></tbody></table> |                                 |                                                                                     | PN | US/MH<br>Name | Level<br>Exceeded | S43.000 | PP_56-78 |  | S43.001 | ORI_56-78 |  | S41.002 | S25 |  | S44.000 | PP_46-47 |  | S44.001 | ORI_46-47 |  | S41.003 | S26 |  | S45.000 | PP_41-45 |  |
| PN                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | US/MH<br>Name                   | Level<br>Exceeded                                                                   |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |
| S43.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PP_56-78                        |                                                                                     |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |
| S43.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ORI_56-78                       |                                                                                     |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |
| S41.002                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | S25                             |                                                                                     |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |
| S44.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PP_46-47                        |                                                                                     |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |
| S44.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ORI_46-47                       |                                                                                     |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |
| S41.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | S26                             |                                                                                     |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |
| S45.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PP_41-45                        |                                                                                     |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                 |                                                                                     |    |               |                   |         |          |  |         |           |  |         |     |  |         |          |  |         |           |  |         |     |  |         |          |  |

|                                                                                                    |               |            |                  |                                 |                        |                    |                                                                                     |
|----------------------------------------------------------------------------------------------------|---------------|------------|------------------|---------------------------------|------------------------|--------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                                                                   |               |            |                  |                                 | Page 71                |                    |                                                                                     |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                           |               |            |                  | Burndell Road,<br>Yapton        |                        |                    |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                |               |            |                  | Designed by SG<br>Checked by LH |                        |                    |                                                                                     |
| XP Solutions                                                                                       |               |            |                  | Network 2018.1                  |                        |                    |                                                                                     |
| <u>100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW Network</u> |               |            |                  |                                 |                        |                    |                                                                                     |
| PN                                                                                                 | US/MH<br>Name | Storm      | Return<br>Period | Climate<br>Change               | First (X)<br>Surcharge | First (Y)<br>Flood | First (Z)<br>Overflow                                                               |
| S45.001                                                                                            | ORI_41-45     | 960 Winter | 100              | +40%                            | 1/360 Winter           |                    |                                                                                     |
| S41.004                                                                                            | S27           | 960 Winter | 100              | +40%                            | 100/15 Summer          |                    |                                                                                     |
| S46.000                                                                                            | PP_37-38      | 480 Winter | 100              | +40%                            | 30/30 Winter           |                    |                                                                                     |
| S46.001                                                                                            | ORI_37-38     | 480 Winter | 100              | +40%                            | 30/30 Summer           |                    |                                                                                     |
| S47.000                                                                                            | PP_39-40      | 480 Winter | 100              | +40%                            | 30/30 Winter           |                    |                                                                                     |
| S47.001                                                                                            | ORI_39-40     | 480 Winter | 100              | +40%                            | 30/30 Winter           |                    |                                                                                     |
| S41.005                                                                                            | S28           | 960 Winter | 100              | +40%                            | 100/15 Summer          |                    |                                                                                     |
| S36.003                                                                                            | S30           | 960 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S48.000                                                                                            | PP_105        | 30 Winter  | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S48.001                                                                                            | ORI_105       | 30 Winter  | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S49.000                                                                                            | PP_106        | 480 Winter | 100              | +40%                            | 30/30 Winter           |                    |                                                                                     |
| S49.001                                                                                            | ORI_106       | 480 Winter | 100              | +40%                            | 30/30 Summer           |                    |                                                                                     |
| S50.000                                                                                            | PP_107        | 360 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S50.001                                                                                            | ORI_107       | 360 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S48.002                                                                                            | S31           | 960 Winter | 100              | +40%                            | 100/15 Summer          |                    |                                                                                     |
| S51.000                                                                                            | PP_102        | 120 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S51.001                                                                                            | ORI_102       | 120 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S52.000                                                                                            | PP_100-101    | 480 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S52.001                                                                                            | ORI_100-101   | 480 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S53.000                                                                                            | PP_103-104    | 960 Winter | 100              | +40%                            | 30/30 Winter           |                    |                                                                                     |
| S53.001                                                                                            | ORI_103-104   | 960 Winter | 100              | +40%                            | 30/30 Summer           |                    |                                                                                     |
| S48.003                                                                                            | S32           | 960 Winter | 100              | +40%                            | 100/15 Summer          |                    |                                                                                     |
| S48.004                                                                                            | S33           | 960 Winter | 100              | +40%                            | 100/15 Summer          |                    |                                                                                     |
| S48.005                                                                                            | S34           | 960 Winter | 100              | +40%                            | 100/15 Summer          |                    |                                                                                     |
| S54.000                                                                                            | PP_99         | 480 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S54.001                                                                                            | ORI_99        | 480 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S48.006                                                                                            | S35           | 960 Winter | 100              | +40%                            | 100/15 Summer          |                    |                                                                                     |
| S55.000                                                                                            | PP_89         | 960 Winter | 100              | +40%                            | 30/30 Winter           |                    |                                                                                     |
| S55.001                                                                                            | ORI_89        | 960 Winter | 100              | +40%                            | 30/15 Winter           |                    |                                                                                     |
| S56.000                                                                                            | PP_91         | 960 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S56.001                                                                                            | ORI_91        | 960 Winter | 100              | +40%                            | 1/240 Winter           |                    |                                                                                     |
| S48.007                                                                                            | S36           | 960 Winter | 100              | +40%                            | 100/15 Summer          |                    |                                                                                     |
| S48.008                                                                                            | S37           | 960 Winter | 100              | +40%                            | 100/15 Summer          |                    |                                                                                     |
| S36.004                                                                                            | S38           | 960 Winter | 100              | +40%                            | 30/15 Winter           |                    |                                                                                     |
| S57.000                                                                                            | PP_92         | 960 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S57.001                                                                                            | ORI_92        | 960 Winter | 100              | +40%                            | 30/15 Summer           |                    |                                                                                     |
| S36.005                                                                                            | S39           | 960 Winter | 100              | +40%                            | 30/15 Winter           |                    |                                                                                     |
| S58.000                                                                                            | S40a          | 960 Winter | 100              | +40%                            | 100/30 Winter          |                    |                                                                                     |
| S23.010                                                                                            | S40           | 960 Winter | 100              | +40%                            | 30/15 Winter           |                    |                                                                                     |
| S59.000                                                                                            | POND          | 480 Winter | 100              | +40%                            | 100/60 Winter          |                    |                                                                                     |
| S59.001                                                                                            | S41           | 480 Winter | 100              | +40%                            | 1/15 Summer            |                    |                                                                                     |
| S60.000                                                                                            | PP_90-98      | 960 Winter | 100              | +40%                            | 30/30 Winter           |                    |                                                                                     |
| S60.001                                                                                            | ORI_90-98     | 960 Winter | 100              | +40%                            | 30/30 Winter           |                    |                                                                                     |
| S23.011                                                                                            | S42           | 960 Winter | 100              | +40%                            | 30/15 Summer           | 100/240 Winter     |                                                                                     |
| ©1982-2018 Innovyze                                                                                |               |            |                  |                                 |                        |                    |                                                                                     |

| Odyssey Markides                                                                                   |               |                  |                    |                                 |                        |                | Page 72                                                                             |                    |            |
|----------------------------------------------------------------------------------------------------|---------------|------------------|--------------------|---------------------------------|------------------------|----------------|-------------------------------------------------------------------------------------|--------------------|------------|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                           |               |                  |                    | Burndell Road,<br>Yapton        |                        |                |  |                    |            |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                |               |                  |                    | Designed by SG<br>Checked by LH |                        |                |                                                                                     |                    |            |
| XP Solutions                                                                                       |               |                  |                    | Network 2018.1                  |                        |                |                                                                                     |                    |            |
| <u>100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW Network</u> |               |                  |                    |                                 |                        |                |                                                                                     |                    |            |
| PN                                                                                                 | US/MH<br>Name | Overflow<br>Act. | Water Level<br>(m) | Surcharged Depth<br>(m)         | Flooded Volume<br>(m³) | Flow /<br>Cap. | Overflow<br>(l/s)                                                                   | Pipe Flow<br>(l/s) | Status     |
| S45.001                                                                                            | ORI_41-45     |                  | 6.840              | 0.450                           | 0.000                  | 0.01           |                                                                                     | 0.2                | SURCHARGED |
| S41.004                                                                                            | S27           |                  | 6.371              | 0.510                           | 0.000                  | 0.41           |                                                                                     | 12.1               | SURCHARGED |
| S46.000                                                                                            | PP_37-38      |                  | 6.811              | 0.411                           | 0.000                  | 0.04           |                                                                                     | 0.4                | SURCHARGED |
| S46.001                                                                                            | ORI_37-38     |                  | 6.810              | 0.420                           | 0.000                  | 0.01           |                                                                                     | 0.4                | SURCHARGED |
| S47.000                                                                                            | PP_39-40      |                  | 6.703              | 0.353                           | 0.000                  | 0.04           |                                                                                     | 0.3                | SURCHARGED |
| S47.001                                                                                            | ORI_39-40     |                  | 6.702              | 0.362                           | 0.000                  | 0.01           |                                                                                     | 0.3                | SURCHARGED |
| S41.005                                                                                            | S28           |                  | 6.370              | 0.554                           | 0.000                  | 0.12           |                                                                                     | 8.2                | SURCHARGED |
| S36.003                                                                                            | S30           |                  | 6.366              | 0.795                           | 0.000                  | 0.16           |                                                                                     | 22.1               | SURCHARGED |
| S48.000                                                                                            | PP_105        |                  | 6.735              | 0.435                           | 0.000                  | 0.48           |                                                                                     | 4.3                | SURCHARGED |
| S48.001                                                                                            | ORI_105       |                  | 6.727              | 0.437                           | 0.000                  | 0.12           |                                                                                     | 3.9                | SURCHARGED |
| S49.000                                                                                            | PP_106        |                  | 6.551              | 0.251                           | 0.000                  | 0.04           |                                                                                     | 0.1                | SURCHARGED |
| S49.001                                                                                            | ORI_106       |                  | 6.550              | 0.260                           | 0.000                  | 0.01           |                                                                                     | 0.1                | SURCHARGED |
| S50.000                                                                                            | PP_107        |                  | 6.777              | 0.427                           | 0.000                  | 0.11           |                                                                                     | 0.4                | SURCHARGED |
| S50.001                                                                                            | ORI_107       |                  | 6.775              | 0.435                           | 0.000                  | 0.03           |                                                                                     | 0.3                | SURCHARGED |
| S48.002                                                                                            | S31           |                  | 6.370              | 0.344                           | 0.000                  | 0.05           |                                                                                     | 3.3                | SURCHARGED |
| S51.000                                                                                            | PP_102        |                  | 6.407              | 0.407                           | 0.000                  | 0.31           |                                                                                     | 1.0                | SURCHARGED |
| S51.001                                                                                            | ORI_102       |                  | 6.402              | 0.412                           | 0.000                  | 0.11           |                                                                                     | 0.9                | SURCHARGED |
| S52.000                                                                                            | PP_100-101    |                  | 6.443              | 0.443                           | 0.000                  | 0.11           |                                                                                     | 0.4                | SURCHARGED |
| S52.001                                                                                            | ORI_100-101   |                  | 6.442              | 0.452                           | 0.000                  | 0.04           |                                                                                     | 0.3                | SURCHARGED |
| S53.000                                                                                            | PP_103-104    |                  | 6.428              | 0.378                           | 0.000                  | 0.04           |                                                                                     | 0.1                | SURCHARGED |
| S53.001                                                                                            | ORI_103-104   |                  | 6.427              | 0.387                           | 0.000                  | 0.02           |                                                                                     | 0.1                | SURCHARGED |
| S48.003                                                                                            | S32           |                  | 6.370              | 0.534                           | 0.000                  | 0.22           |                                                                                     | 14.2               | SURCHARGED |
| S48.004                                                                                            | S33           |                  | 6.368              | 0.647                           | 0.000                  | 0.20           |                                                                                     | 11.5               | SURCHARGED |
| S48.005                                                                                            | S34           |                  | 6.368              | 0.698                           | 0.000                  | 0.20           |                                                                                     | 11.9               | SURCHARGED |
| S54.000                                                                                            | PP_99         |                  | 6.726              | 0.426                           | 0.000                  | 0.06           |                                                                                     | 0.2                | SURCHARGED |
| S54.001                                                                                            | ORI_99        |                  | 6.725              | 0.435                           | 0.000                  | 0.01           |                                                                                     | 0.2                | SURCHARGED |
| S48.006                                                                                            | S35           |                  | 6.367              | 0.751                           | 0.000                  | 0.21           |                                                                                     | 12.3               | SURCHARGED |
| S55.000                                                                                            | PP_89         |                  | 6.415              | 0.315                           | 0.000                  | 0.04           |                                                                                     | 0.1                | SURCHARGED |
| S55.001                                                                                            | ORI_89        |                  | 6.415              | 0.325                           | 0.000                  | 0.01           |                                                                                     | 0.1                | SURCHARGED |
| S56.000                                                                                            | PP_91         |                  | 6.466              | 0.566                           | 0.000                  | 0.05           |                                                                                     | 0.2                | SURCHARGED |
| S56.001                                                                                            | ORI_91        |                  | 6.465              | 0.575                           | 0.000                  | 0.01           |                                                                                     | 0.2                | SURCHARGED |
| S48.007                                                                                            | S36           |                  | 6.366              | 0.798                           | 0.000                  | 0.10           |                                                                                     | 13.1               | SURCHARGED |
| S48.008                                                                                            | S37           |                  | 6.365              | 0.844                           | 0.000                  | 0.17           |                                                                                     | 16.5               | FLOOD RISK |
| S36.004                                                                                            | S38           |                  | 6.365              | 0.864                           | 0.000                  | 0.35           |                                                                                     | 35.6               | FLOOD RISK |
| S57.000                                                                                            | PP_92         |                  | 6.369              | 0.469                           | 0.000                  | 0.09           |                                                                                     | 0.3                | SURCHARGED |
| S57.001                                                                                            | ORI_92        |                  | 6.369              | 0.479                           | 0.000                  | 0.02           |                                                                                     | 0.3                | SURCHARGED |
| S36.005                                                                                            | S39           |                  | 6.363              | 0.890                           | 0.000                  | 0.38           |                                                                                     | 36.9               | FLOOD RISK |
| S58.000                                                                                            | S40a          |                  | 6.362              | 0.862                           | 0.000                  | 0.25           |                                                                                     | 38.5               | FLOOD RISK |
| S23.010                                                                                            | S40           |                  | 6.362              | 0.912                           | 0.000                  | 0.35           |                                                                                     | 49.6               | FLOOD RISK |
| S59.000                                                                                            | POND          |                  | 6.337              | 0.037                           | 0.000                  | 0.03           |                                                                                     | 0.3                | SURCHARGED |
| S59.001                                                                                            | S41           |                  | 6.337              | 0.487                           | 0.000                  | 0.01           |                                                                                     | 0.2                | SURCHARGED |
| S60.000                                                                                            | PP_90-98      |                  | 6.629              | 0.479                           | 0.000                  | 0.04           |                                                                                     | 0.4                | SURCHARGED |
| S60.001                                                                                            | ORI_90-98     |                  | 6.629              | 0.489                           | 0.000                  | 0.01           |                                                                                     | 0.3                | SURCHARGED |
| S23.011                                                                                            | S42           |                  | 6.359              | 0.990                           | 9.248                  | 0.07           |                                                                                     | 7.0                | FLOOD      |
| ©1982-2018 Innovyze                                                                                |               |                  |                    |                                 |                        |                |                                                                                     |                    |            |

|                                                                                                    |                                 |                                                                                     |
|----------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Odyssey Markides                                                                                   |                                 | Page 73                                                                             |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                           | Burndell Road,<br>Yapton        |  |
| Date 15/07/2019 10:24<br>File 18-070 SW NETWORK.MDX                                                | Designed by SG<br>Checked by LH |                                                                                     |
| XP Solutions                                                                                       | Network 2018.1                  |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
| <u>100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW Network</u> |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    |                                 |                                                                                     |
|                                                                                                    | </                              |                                                                                     |