



PLANTING SPECIFICATION

These implementation and maintenance guidelines are for planning purposes only to indicate the level of workmanship to be specified and do not constitute a detailed specification.

1. GENERAL

- 1.1. All landscape operatives will be appropriately trained, certified and qualified to undertake the tasks required. When required, the relevant certificates will be made available for inspection. All work is to be carried out in accordance with the relevant British Standards, Codes of Practice and Legislation.
- 1.2. All plants shall conform to BS 3936 and be in accordance with the National Plant Specification. Supplying nurseries shall be registered under the H1A Nursery Certification Scheme. All plants shall be packed and transported in accordance with the Code of Practice for Plant Handling as produced by CPSE.
- 1.3. Planting shall not be carried out when the ground is waterlogged, frost bound or during periods of cold drying winds. All bare-root planting stock will be kept covered until actually planted in order to minimise water-loss and prevent the roots from drying out. Tree handling, storage and planting shall be in accordance with BS 8545 Chapters 9 to 10 and Annexes E to F.
- 1.4. The landscape contractor shall maintain all areas of new planting for a period of 12 months following practical completion. All stock deemed to be dead, dying or diseased within the defects period shall be replaced by the contractor at his own cost.
- 1.5. A minimum intervention approach will be used in terms of weed control. In areas of transplant trees/shrub or ornamental shrub planting this is to be achieved by using mulch mats and hand-weeding. Weed killer and other chemicals will be used as little as possible on site. Spot removal of weeds will be carried out by hand removal as necessary.

2. TREE PLANTING

Ground Preparation and Tree Pit Excavation

- 2.1. Where necessary remove existing weeds by hand. Chemical removal using a glyphosate based herbicide will be avoided unless large areas need clearing - following which allow a suitable period to elapse, as recommended by the manufacturer, for the herbicide to take effect.
- 2.2. Tree pits of at least 75mm diameter greater than the root system and no deeper than the rootball / container depth are to be excavated and the sides well scarified to prevent smearing. All extraneous matter such as plastic, wood, metal and stones greater than 50mm in any dimension shall be removed from site.
- 2.3. During excavation of the pit, the soil dug should be placed to one side separating topsoil and subsoil as far as is practical.
Tree Planting
- 2.4. Trees shall be planted as per the planting arrangement as set out on the planting plan and plant schedule.
- 2.5. The typical rooting depth for trees is 900mm. The first 300mm shall be made up of topsoil; it shall be ensured that a suitable subsoil provides the remainder of the minimum rooting depth.
- 2.6. The root system of the tree should be wetted prior to planting. The tree should be planted at the correct depth taking into account the position of the root flare and the finished level - the rootball or root stem transition should be level with the existing host soil or surface. The base of the rootball should typically sit on subsoil, for larger rootballs the subsoil will sit around the lower portion of the rootball.
- 2.7. Tree pits should be backfilled with the excavated topsoil, if the original topsoil is not available or deemed unsuitable, a multi-purpose topsoil should be used. Any subsoil excavated should be discarded and the subsoil depth (beyond 300mm deep) backfilled with a high sand content subsoil. Backfill should be added gradually, in layers of 150mm to 230mm depth, ensuring the tree is held upright. At each stage the fill should be firmed in to eliminate all air pockets under and around the root system, but with care being taken not to excessively compact the soil. The final layer should not be consolidated.
- 2.8. General-purpose slow release fertiliser (at the rate of 750g/m²) and Tree Planting and Mulching Compost at the rate of 200litres/m²) are to be incorporated into the top 150mm of topsoil during final cultivations.

Bulb planting
130 no. Crocus 'Pickwick'
130 no. Crocus speciosus 'Albus'

Bulb planting
200 no. Colchicum autumnale 'Album'
200 no. Narcissus 'Lieve'
1 no. Liriodendron tulipifera

Native Shrub Planting
23 no. Cornus sanguinea
14 no. Corylus avellana
33 no. Ligustrum vulgare
9 no. Rosa arvensis
14 no. Sambucus nigra

Native Shrub Planting
23 no. Cornus sanguinea
14 no. Corylus avellana
32 no. Ligustrum vulgare
9 no. Rosa arvensis
14 no. Sambucus nigra

Bulb planting
150 no. Crocus biflorus 'Blue Pearl'
150 no. Crocus 'Prins Claus'

3 no. Magnolia x soulangeana

Bulb planting
150 no. Crocus biflorus 'Blue Pearl'
150 no. Crocus 'Prins Claus'

1 no. Fagus sylvatica 'Rohanii'
3 no. Magnolia x soulangeana

2 no. Malus 'Evereste'
Bulb planting
200 no. Colchicum autumnale 'Album'
200 no. Narcissus 'Lieve'
1 no. Liriodendron tulipifera

Native Shrub Planting
25 no. Cornus sanguinea
15 no. Corylus avellana
35 no. Ligustrum vulgare
10 no. Rosa arvensis
15 no. Sambucus nigra

1 no. Tilia cordata

Native Shrub Planting
78 no. Cornus sanguinea
109 no. Corylus avellana
47 no. Ligustrum vulgare
31 no. Rosa arvensis
47 no. Sambucus nigra

Key

- Site boundary
- Existing vegetation to be retained
- Root protection area
- Existing vegetation to be removed
- Proposed feature trees
- Proposed tree planting
- Native shrub planting
- Native hedgerow planting
- Ornamental planting
- Ornamental hedge planting
- Areas of proposed amenity grass e.g. Germinal Seeds A22 or similar approved
- Areas of proposed long grass - to be maintained approximately between 100-200mm in height e.g. Emorsgate seeds EG5 or similar approved
- Bulb planting
- Proposed attenuation basins - design to engineers specification. To be seeded with a wildflower meadow mix suitable for seasonally wet soils e.g. Meadowmania MAS-WWILD7 or similar approved
- Proposed block paving laid in herringbone pattern eg. Marshalls Keyblock in Natural 200x100x60mm or similar approved
- Timber bollards - 1.0m height
- Benches - to be a mixture of timber and cast iron of a simple style, to be root fixed e.g. Furnitubes New Forest Bench for 3 persons NEB6
- Litter bins - to be a mixed timber/steel litter bin of a simple contemporary style to complement the seats/benches, to be root fixed e.g. Furnitubes Jubilee Litter Bin with galvanised steel frame JUB405T
- Dog waste bins - to be a steel dog waste bin of a simple contemporary style to be root fixed e.g. Furnitubes Lucky Dog Bin galvanised and powder coated in green LUK 745F
- Easment
- Existing ditch filled tith compacted type 3 material, wrapped in Terram Please refer to 'Site Drainage' dwg. no. 19812-GS-Z1-XX-DR-C-2061 by Gyoury Self Consulting Engineers
- Offline Cellular storage tank. 5.5m x 33m x 0.8m deep. Please refer to 'Site Drainage' dwg. no. 19812-GS-Z1-XX-DR-C-2061 by Gyoury Self Consulting Engineers

Note:

-For Detailed Soft On Plot Landscape Proposals refer to Pegasus dwg. no. P19-2044_03
-For Landscape Masterplan refer to Pegasus dwg. no. P19-2044_01
-For planting schedule please refer to P19-2044_02 (Sheet1)

Revisions:

First Issue: 26/02/2020 J.N.
A - 12/05/2020 ARWJ Amended to suit revised layout
B - 16/07/2020 NHAJ Amended to suit layout P19-0723_10M
C - 14/09/2020 J.N. Landscape proposals amended in accordance with layout P19-0723_10P & Site Drainage
D - 02/11/2020 NHAJ Landscape proposals updated in line with engineers comments

Detailed Public Open Space Landscape Proposals Land at Angels Nursery, Yapton Road, Barnham

Sheet 2 of 2

Client: Redrow Homes (Southern Counties)

DRWG No: P19-2044_02 Sheet No:2 REV: D

Drawn by : J.N

Approved by: NHA

Date: 02/11/2020

Scale: 1:250 @ A0



GTA Civils Ltd		Page 0
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface Network 1

« - Indicates pipe capacity < flow

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.000	23.738	0.158	150.2	0.000	5.00	0.0	0.600	o	225	Pipe/Conduit	
1.001	16.267	0.108	150.6	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
2.000	2.121	0.014	151.5	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
2.001	9.967	0.066	151.0	0.030	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.002	29.454	0.131	224.8	0.081	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	50.00	5.37	8.766	0.000	0.0	0.0	0.0	1.06	42.3	0.0
1.001	50.00	5.63	8.608	0.000	0.0	0.0	0.0	1.06	42.3	0.0
2.000	50.00	5.04	8.650	0.000	0.0	0.0	0.0	0.81	14.4	0.0
2.001	50.00	5.25	8.636	0.030	0.0	0.0	0.0	0.82	14.4	4.1
1.002	50.00	6.10	8.500	0.111	0.0	0.0	0.0	1.04	73.8	15.0

GTA Civils Ltd		Page 1
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.003	18.012	0.042	428.9	0.036	0.00	0.0	0.600	o	450	Pipe/Conduit	
3.000	2.077	0.045	46.2	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
3.001	8.745	0.078	112.1	0.096	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.004	18.084	0.045	401.9	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
4.000	1.493	0.025	59.7	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	E I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.003	50.00	6.40	8.369	0.147	0.0	0.0	0.0	0.98	155.1	19.9
3.000	50.00	5.02	8.800	0.000	0.0	0.0	0.0	1.48	26.2	0.0
3.001	50.00	5.18	8.755	0.096	0.0	0.0	0.0	0.95	16.8	13.0
1.004	50.00	6.70	8.327	0.243	0.0	0.0	0.0	1.01	160.3	32.9
4.000	50.00	5.02	8.435	0.000	0.0	0.0	0.0	1.30	23.0	0.0

GTA Civils Ltd		Page 2
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
4.001	5.547	0.193	28.7	0.156	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.005	18.849	0.047	401.0	0.018	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.006	48.674	0.123	395.7	0.108	0.00	0.0	0.600	o	450	Pipe/Conduit	
5.000	73.295	0.430	170.5	0.075	5.00	0.0	0.600	o	225	Pipe/Conduit	
6.000	39.940	0.534	74.8	0.043	5.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	E I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
4.001	50.00	5.07	8.410	0.156	0.0	0.0	0.0	1.89	33.3	21.1
1.005	50.00	7.01	8.282	0.417	0.0	0.0	0.0	1.01	160.5	56.5
1.006	50.00	7.81	8.235	0.525	0.0	0.0	0.0	1.02	161.6	71.1
5.000	50.00	6.22	8.616	0.075	0.0	0.0	0.0	1.00	39.7	10.2
6.000	50.00	5.57	9.007	0.043	0.0	0.0	0.0	1.16	20.6	5.8

GTA Civils Ltd		Page 3
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
6.001	9.264	0.062	149.4	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.007	7.127	0.019	375.1	0.037	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.008	78.290	0.047	1665.7	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
7.000	2.919	0.100	29.2	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
7.001	12.041	0.113	106.6	0.096	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	E I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
6.001	50.00	5.76	8.473	0.043	0.0	0.0	0.0	0.82	14.5	5.8
1.007	50.00	7.93	8.111	0.680	0.0	0.0	0.0	1.04	166.0	92.1
1.008	43.87	10.59	8.092	0.680	0.0	0.0	0.0	0.49	77.8	92.1
7.000	50.00	5.03	9.300	0.000	0.0	0.0	0.0	1.87	33.1	0.0
7.001	50.00	5.23	8.820	0.096	0.0	0.0	0.0	0.97	17.2	13.0

GTA Civils Ltd		Page 4
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
8.000	3.756	0.033	113.8	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
8.001	8.059	0.066	122.1	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
8.002	11.174	0.065	171.9	0.025	0.00	0.0	0.600	o	150	Pipe/Conduit	
8.003	9.461	0.075	126.1	0.012	0.00	0.0	0.600	o	150	Pipe/Conduit	
8.004	10.474	0.071	147.5	0.006	0.00	0.0	0.600	o	150	Pipe/Conduit	
7.002	73.310	0.179	409.6	0.178	0.00	0.0	0.600	o	450	Pipe/Conduit	
7.003	20.593	0.228	90.3	0.086	0.00	0.0	0.600	o	450	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL E (m)	I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
8.000	50.00	5.07	8.750	0.000	0.0	0.0	0.0	0.94	16.6	0.0
8.001	50.00	5.21	8.717	0.000	0.0	0.0	0.0	0.91	16.0	0.0
8.002	50.00	5.46	8.684	0.025	0.0	0.0	0.0	0.76	13.5	3.4
8.003	50.00	5.63	8.619	0.037	0.0	0.0	0.0	0.89	15.8	5.0
8.004	50.00	5.85	8.544	0.043	0.0	0.0	0.0	0.83	14.6	5.8
7.002	50.00	7.07	8.407	0.317	0.0	0.0	0.0	1.00	158.8	42.9
7.003	50.00	7.23	8.228	0.403	0.0	0.0	0.0	2.14	340.3	54.6

GTA Civils Ltd		Page 5
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.009	7.866	0.044	178.8	0.131	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.010	5.422	0.030	180.7	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	E I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.009	43.69	10.68	8.000	1.214	0.0	0.0	0.0	1.52	241.3	143.6
1.010	43.56	10.74	7.956	1.214	0.0	0.0	0.0	1.51	240.0	143.6

GTA Civils Ltd		Page 6
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.000	0.000	0.000
1.001	-	-	100	0.000	0.000	0.000
2.000	-	-	100	0.000	0.000	0.000
2.001	-	-	100	0.030	0.030	0.030
1.002	-	-	100	0.081	0.081	0.081
1.003	-	-	100	0.036	0.036	0.036
3.000	-	-	100	0.000	0.000	0.000
3.001	-	-	100	0.096	0.096	0.096
1.004	-	-	100	0.000	0.000	0.000
4.000	-	-	100	0.000	0.000	0.000
4.001	-	-	100	0.156	0.156	0.156
1.005	-	-	100	0.018	0.018	0.018
1.006	-	-	100	0.108	0.108	0.108
5.000	-	-	100	0.075	0.075	0.075
6.000	-	-	100	0.043	0.043	0.043
6.001	-	-	100	0.000	0.000	0.000
1.007	-	-	100	0.037	0.037	0.037
1.008	-	-	100	0.000	0.000	0.000
7.000	-	-	100	0.000	0.000	0.000
7.001	-	-	100	0.096	0.096	0.096
8.000	-	-	100	0.000	0.000	0.000
8.001	-	-	100	0.000	0.000	0.000
8.002	-	-	100	0.025	0.025	0.025
8.003	-	-	100	0.012	0.012	0.012
8.004	-	-	100	0.006	0.006	0.006
7.002	-	-	100	0.178	0.178	0.178

GTA Civils Ltd		Page 7
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
7.003	-	-	100	0.086	0.086	0.086
1.009	-	-	100	0.131	0.131	0.131
1.010	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				1.214	1.214	1.214

GTA Civils Ltd		Page 8
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	
<u>Online Controls for Surface Network 1</u> <u>Orifice Manhole: 4, DS/PN: 2.001, Volume (m³): 0.2</u> Diameter (m) 0.030 Discharge Coefficient 0.600 Invert Level (m) 8.636 <u>Orifice Manhole: 6, DS/PN: 3.001, Volume (m³): 0.2</u> Diameter (m) 0.020 Discharge Coefficient 0.600 Invert Level (m) 8.755 <u>Orifice Manhole: 7, DS/PN: 4.001, Volume (m³): 1.4</u> Diameter (m) 0.030 Discharge Coefficient 0.600 Invert Level (m) 8.410 <u>Orifice Manhole: 16, DS/PN: 7.001, Volume (m³): 0.2</u> Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 9.200 <u>Orifice Manhole: 20, DS/PN: 8.001, Volume (m³): 1.1</u> Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 8.717 <u>Hydro-Brake® Optimum Manhole: 20, DS/PN: 1.010, Volume (m³): 3.0</u> Unit Reference MD-SHE-0123-7300-1200-7300 Design Flow (l/s) 7.3 Design Head (m) 1.200 Flush-Flo™ Calculated		
©1982-2018 Innovyze		

GTA Civils Ltd		Page 9
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

Hydro-Brake® Optimum Manhole: 20, DS/PN: 1.010, Volume (m³): 3.0

Objective Minimise upstream storage	Invert Level (m) 7.956
Application	Surface Minimum Outlet Pipe Diameter (mm) 150
Sump Available	Yes Suggested Manhole Diameter (mm) 1200
Diameter (mm)	123

Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.200	7.3	Kick-Flo®	0.759	5.9
Flush-Flo™	0.354	7.3	Mean Flow over Head Range	-	6.3

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)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	4.4	0.600	6.9	1.600	8.4	2.600	10.5	5.000	14.3	7.500	17.4
0.200	6.9	0.800	6.0	1.800	8.8	3.000	11.2	5.500	15.0	8.000	17.9
0.300	7.3	1.000	6.7	2.000	9.3	3.500	12.1	6.000	15.6	8.500	18.5
0.400	7.3	1.200	7.3	2.200	9.7	4.000	12.9	6.500	16.2	9.000	19.0
0.500	7.1	1.400	7.8	2.400	10.1	4.500	13.6	7.000	16.8	9.500	19.5

GTA Civils Ltd		Page 10																																																																								
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results																																																																									
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by																																																																									
Micro Drainage	Network 2018.1																																																																									
<u>Storage Structures for Surface Network 1</u> <u>Porous Car Park Manhole: 3, DS/PN: 2.000</u> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Porosity</td><td>0.30</td><td>Slope (1:X)</td><td>0.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Invert Level (m)</td><td>8.650</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Max Percolation (l/s)</td><td>202.7</td><td>Width (m)</td><td>4.8</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Length (m)</td><td>152.0</td><td>Membrane Depth (mm)</td><td>0</td></tr></table> <u>Complex Manhole: S2, DS/PN: 1.003</u> <u>Porous Car Park</u> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Porosity</td><td>0.30</td><td>Slope (1:X)</td><td>0.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Invert Level (m)</td><td>8.800</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Max Percolation (l/s)</td><td>54.7</td><td>Width (m)</td><td>4.8</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Length (m)</td><td>41.0</td><td>Membrane Depth (mm)</td><td>0</td></tr></table> <u>Porous Car Park</u> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Porosity</td><td>0.30</td><td>Slope (1:X)</td><td>0.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Invert Level (m)</td><td>8.800</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Max Percolation (l/s)</td><td>75.0</td><td>Width (m)</td><td>10.0</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Length (m)</td><td>27.0</td><td>Membrane Depth (mm)</td><td>0</td></tr></table>			Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0	Membrane Percolation (mm/hr)	1000	Invert Level (m)	8.650	Depression Storage (mm)	5	Max Percolation (l/s)	202.7	Width (m)	4.8	Evaporation (mm/day)	3	Safety Factor	2.0	Length (m)	152.0	Membrane Depth (mm)	0	Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0	Membrane Percolation (mm/hr)	1000	Invert Level (m)	8.800	Depression Storage (mm)	5	Max Percolation (l/s)	54.7	Width (m)	4.8	Evaporation (mm/day)	3	Safety Factor	2.0	Length (m)	41.0	Membrane Depth (mm)	0	Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0	Membrane Percolation (mm/hr)	1000	Invert Level (m)	8.800	Depression Storage (mm)	5	Max Percolation (l/s)	75.0	Width (m)	10.0	Evaporation (mm/day)	3	Safety Factor	2.0	Length (m)	27.0	Membrane Depth (mm)	0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0																																																																					
Membrane Percolation (mm/hr)	1000	Invert Level (m)	8.650	Depression Storage (mm)	5																																																																					
Max Percolation (l/s)	202.7	Width (m)	4.8	Evaporation (mm/day)	3																																																																					
Safety Factor	2.0	Length (m)	152.0	Membrane Depth (mm)	0																																																																					
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0																																																																					
Membrane Percolation (mm/hr)	1000	Invert Level (m)	8.800	Depression Storage (mm)	5																																																																					
Max Percolation (l/s)	54.7	Width (m)	4.8	Evaporation (mm/day)	3																																																																					
Safety Factor	2.0	Length (m)	41.0	Membrane Depth (mm)	0																																																																					
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0																																																																					
Membrane Percolation (mm/hr)	1000	Invert Level (m)	8.800	Depression Storage (mm)	5																																																																					
Max Percolation (l/s)	75.0	Width (m)	10.0	Evaporation (mm/day)	3																																																																					
Safety Factor	2.0	Length (m)	27.0	Membrane Depth (mm)	0																																																																					
©1982-2018 Innovyze																																																																										

GTA Civils Ltd		Page 11																								
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results																									
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by																									
Micro Drainage	Network 2018.1																									
<u>Porous Car Park Manhole: 5, DS/PN: 3.000</u>																										
<table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Porosity</td><td>0.30</td><td>Slope (1:X)</td><td>0.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Invert Level (m)</td><td>8.800</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Max Percolation (l/s)</td><td>147.2</td><td>Width (m)</td><td>5.0</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Length (m)</td><td>106.0</td><td>Membrane Depth (mm)</td><td>0</td></tr></table>			Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0	Membrane Percolation (mm/hr)	1000	Invert Level (m)	8.800	Depression Storage (mm)	5	Max Percolation (l/s)	147.2	Width (m)	5.0	Evaporation (mm/day)	3	Safety Factor	2.0	Length (m)	106.0	Membrane Depth (mm)	0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0																					
Membrane Percolation (mm/hr)	1000	Invert Level (m)	8.800	Depression Storage (mm)	5																					
Max Percolation (l/s)	147.2	Width (m)	5.0	Evaporation (mm/day)	3																					
Safety Factor	2.0	Length (m)	106.0	Membrane Depth (mm)	0																					
<u>Porous Car Park Manhole: 6, DS/PN: 4.000</u>																										
<table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Porosity</td><td>0.30</td><td>Slope (1:X)</td><td>0.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Invert Level (m)</td><td>8.700</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Max Percolation (l/s)</td><td>322.0</td><td>Width (m)</td><td>4.2</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Length (m)</td><td>276.0</td><td>Membrane Depth (mm)</td><td>0</td></tr></table>			Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0	Membrane Percolation (mm/hr)	1000	Invert Level (m)	8.700	Depression Storage (mm)	5	Max Percolation (l/s)	322.0	Width (m)	4.2	Evaporation (mm/day)	3	Safety Factor	2.0	Length (m)	276.0	Membrane Depth (mm)	0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0																					
Membrane Percolation (mm/hr)	1000	Invert Level (m)	8.700	Depression Storage (mm)	5																					
Max Percolation (l/s)	322.0	Width (m)	4.2	Evaporation (mm/day)	3																					
Safety Factor	2.0	Length (m)	276.0	Membrane Depth (mm)	0																					
<u>Porous Car Park Manhole: 15, DS/PN: 7.000</u>																										
<table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Porosity</td><td>0.30</td><td>Slope (1:X)</td><td>0.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Invert Level (m)</td><td>9.300</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Max Percolation (l/s)</td><td>150.0</td><td>Width (m)</td><td>5.0</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Length (m)</td><td>108.0</td><td>Membrane Depth (mm)</td><td>0</td></tr></table>			Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0	Membrane Percolation (mm/hr)	1000	Invert Level (m)	9.300	Depression Storage (mm)	5	Max Percolation (l/s)	150.0	Width (m)	5.0	Evaporation (mm/day)	3	Safety Factor	2.0	Length (m)	108.0	Membrane Depth (mm)	0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0																					
Membrane Percolation (mm/hr)	1000	Invert Level (m)	9.300	Depression Storage (mm)	5																					
Max Percolation (l/s)	150.0	Width (m)	5.0	Evaporation (mm/day)	3																					
Safety Factor	2.0	Length (m)	108.0	Membrane Depth (mm)	0																					
<u>Porous Car Park Manhole: 19, DS/PN: 8.000</u>																										
<table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Porosity</td><td>0.30</td><td>Slope (1:X)</td><td>0.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Invert Level (m)</td><td>8.750</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Max Percolation (l/s)</td><td>156.0</td><td>Width (m)</td><td>15.6</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Length (m)</td><td>36.0</td><td>Membrane Depth (mm)</td><td>0</td></tr></table>			Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0	Membrane Percolation (mm/hr)	1000	Invert Level (m)	8.750	Depression Storage (mm)	5	Max Percolation (l/s)	156.0	Width (m)	15.6	Evaporation (mm/day)	3	Safety Factor	2.0	Length (m)	36.0	Membrane Depth (mm)	0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0																					
Membrane Percolation (mm/hr)	1000	Invert Level (m)	8.750	Depression Storage (mm)	5																					
Max Percolation (l/s)	156.0	Width (m)	15.6	Evaporation (mm/day)	3																					
Safety Factor	2.0	Length (m)	36.0	Membrane Depth (mm)	0																					
©1982-2018 Innovyze																										

GTA Civils Ltd		Page 12
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

Porous Car Park Manhole: S10, DS/PN: 7.002

Infiltration Coefficient	Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0
Membrane Percolation (mm/hr)	1000	Invert Level (m)	8.800	Depression Storage (mm)	5	
Max Percolation (l/s)	158.6	Width (m)	15.6	Evaporation (mm/day)	3	
Safety Factor	2.0	Length (m)	36.6	Membrane Depth (mm)	0	

Tank or Pond Manhole: S13, DS/PN: 1.009

Invert Level (m) 8.000

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	245.0	1.300	960.0

Time Area Diagram for Green Roof at Pipe Number 2.000 (Surface Network 1)

Area (m³) 730 Depression Storage (mm) 5 Evaporation (mm/day) 3 Decay Coefficient 0.050

Time (mins)	Area	Time (mins)	Area	Time (mins)	Area	Time (mins)	Area	Time (mins)	Area	Time (mins)	Area
From: To:	(ha)	From: To:	(ha)	From: To:	(ha)	From: To:	(ha)	From: To:	(ha)	From: To:	(ha)
0 4	0.013266	20 24	0.004880	40 44	0.001795	60 64	0.000660	80 84	0.000243	100 104	0.000089
4 8	0.010861	24 28	0.003996	44 48	0.001470	64 68	0.000541	84 88	0.000199	104 108	0.000073
8 12	0.008892	28 32	0.003271	48 52	0.001203	68 72	0.000443	88 92	0.000163	108 112	0.000060
12 16	0.007280	32 36	0.002678	52 56	0.000985	72 76	0.000362	92 96	0.000133	112 116	0.000049
16 20	0.005961	36 40	0.002193	56 60	0.000807	76 80	0.000297	96 100	0.000109	116 120	0.000040

GTA Civils Ltd		Page 13
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

Time Area Diagram for Green Roof at Pipe Number 3.000 (Surface Network 1)

Area (m³) 530 Depression Storage (mm) 5 Evaporation (mm/day) 3 Decay Coefficient 0.050

Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)
0	4	0.009631	20	24	0.003543	40	44	0.001303	60	64	0.000480	80	84	0.000176
4	8	0.007885	24	28	0.002901	44	48	0.001067	64	68	0.000393	84	88	0.000144
8	12	0.006456	28	32	0.002375	48	52	0.000874	68	72	0.000321	88	92	0.000118
12	16	0.005286	32	36	0.001944	52	56	0.000715	72	76	0.000263	92	96	0.000097
16	20	0.004328	36	40	0.001592	56	60	0.000586	76	80	0.000215	96	100	0.000079
												100	104	0.000065
												104	108	0.000053
												108	112	0.000043
												112	116	0.000036
												116	120	0.000029

Time Area Diagram for Green Roof at Pipe Number 4.000 (Surface Network 1)

Area (m³) 1130 Depression Storage (mm) 5 Evaporation (mm/day) 3 Decay Coefficient 0.050

Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)	Time (mins) From:	Time (mins) To:	Area (ha)
0	4	0.020534	20	24	0.007554	40	44	0.002779	60	64	0.001022	80	84	0.000376
4	8	0.016812	24	28	0.006185	44	48	0.002275	64	68	0.000837	84	88	0.000308
8	12	0.013765	28	32	0.005064	48	52	0.001863	68	72	0.000685	88	92	0.000252
12	16	0.011269	32	36	0.004146	52	56	0.001525	72	76	0.000561	92	96	0.000206
16	20	0.009227	36	40	0.003394	56	60	0.001249	76	80	0.000459	96	100	0.000169
												100	104	0.000138
												104	108	0.000113
												108	112	0.000093
												112	116	0.000076
												116	120	0.000062

GTA Civils Ltd		Page 14
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

Time Area Diagram for Green Roof at Pipe Number 7.000 (Surface Network 1)

Area (m³) 800 Depression Storage (mm) 5 Evaporation (mm/day) 3 Decay Coefficient 0.050

Time (mins) From: To:	Area (ha)	Time (mins) From: To:	Area (ha)	Time (mins) From: To:	Area (ha)	Time (mins) From: To:	Area (ha)	Time (mins) From: To:	Area (ha)	Time (mins) From: To:	Area (ha)
0 4	0.014538	20 24	0.005348	40 44	0.001967	60 64	0.000724	80 84	0.000266	100 104	0.000098
4 8	0.011902	24 28	0.004379	44 48	0.001611	64 68	0.000593	84 88	0.000218	104 108	0.000080
8 12	0.009745	28 32	0.003585	48 52	0.001319	68 72	0.000485	88 92	0.000178	108 112	0.000066
12 16	0.007978	32 36	0.002935	52 56	0.001080	72 76	0.000397	92 96	0.000146	112 116	0.000054
16 20	0.006532	36 40	0.002403	56 60	0.000884	76 80	0.000325	96 100	0.000120	116 120	0.000044

Time Area Diagram for Green Roof at Pipe Number 8.000 (Surface Network 1)

Area (m³) 560 Depression Storage (mm) 5 Evaporation (mm/day) 3 Decay Coefficient 0.050

Time (mins) From: To:	Area (ha)	Time (mins) From: To:	Area (ha)	Time (mins) From: To:	Area (ha)	Time (mins) From: To:	Area (ha)	Time (mins) From: To:	Area (ha)	Time (mins) From: To:	Area (ha)
0 4	0.010176	20 24	0.003744	40 44	0.001377	60 64	0.000507	80 84	0.000186	100 104	0.000069
4 8	0.008332	24 28	0.003065	44 48	0.001128	64 68	0.000415	84 88	0.000153	104 108	0.000056
8 12	0.006821	28 32	0.002509	48 52	0.000923	68 72	0.000340	88 92	0.000125	108 112	0.000046
12 16	0.005585	32 36	0.002055	52 56	0.000756	72 76	0.000278	92 96	0.000102	112 116	0.000038
16 20	0.004573	36 40	0.001682	56 60	0.000619	76 80	0.000228	96 100	0.000084	116 120	0.000031

Time Area Diagram at Pipe Number 8.000 for Surface Network 1

Total Area (ha) 0.043

GTA Civils Ltd		Page 15									
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results										
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by										
Micro Drainage	Network 2018.1										
<u>Time Area Diagram at Pipe Number 8.000 for Surface Network 1</u> <table> <thead> <tr> <th colspan="2">Time (mins)</th><th>Area</th></tr> <tr> <th>From:</th><th>To:</th><th>(ha)</th></tr> </thead> <tbody> <tr> <td>0</td><td>4</td><td>0.043</td></tr> </tbody> </table>			Time (mins)		Area	From:	To:	(ha)	0	4	0.043
Time (mins)		Area									
From:	To:	(ha)									
0	4	0.043									
©1982-2018 Innovyze											

GTA Civils Ltd		Page 16																																																
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results																																																	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by																																																	
Micro Drainage	Network 2018.1																																																	
<u>2 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1</u>																																																		
<u>Simulation Criteria</u>																																																		
Areal Reduction Factor 1.000 Manhole Headloss Coeff (Global) 0.500 MADD Factor * 10m³/ha Storage 2.000																																																		
Hot Start (mins) 0 Foul Sewage per hectare (l/s) 0.000 Inlet Coeffiecient 0.800																																																		
Hot Start Level (mm) 0 Additional Flow - % of Total Flow 0.000 Flow per Person per Day (l/per/day) 0.000																																																		
Number of Input Hydrographs 0 Number of Offline Controls 1 Number of Time/Area Diagrams 6																																																		
Number of Online Controls 6 Number of Storage Structures 8 Number of Real Time Controls 0																																																		
<u>Synthetic Rainfall Details</u>																																																		
Rainfall Model FEH Data Type Point																																																		
FEH Rainfall Version 2013 Cv (Summer) 1.000																																																		
Site Location GB 496649 103835 SU 96649 03835 Cv (Winter) 1.000																																																		
Margin for Flood Risk Warning (mm) 300.0 DVD Status ON																																																		
Analysis Timestep 2.5 Second Increment (Extended) Inertia Status OFF																																																		
DTS Status ON																																																		
Profile(s) Summer and Winter																																																		
Duration(s) (mins) 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160																																																		
Return Period(s) (years) 2, 30, 100																																																		
Climate Change (%) 0, 0, 40																																																		
<table><tr><td colspan="2"></td><td colspan="3">Water</td><td colspan="2">Surcharged</td><td colspan="2">Flooded</td><td colspan="3">Pipe</td></tr><tr><td colspan="2">US/MH</td><td>US/CL</td><td>Level</td><td>Depth</td><td>Volume</td><td>Flow /</td><td>Overflow</td><td>Maximum</td><td>Flow</td><td colspan="2"></td></tr><tr><td>PN</td><td>Name</td><td>Event</td><td>(m)</td><td>(m)</td><td>(m³)</td><td>Cap.</td><td>(l/s)</td><td>Vol (m³)</td><td>(l/s)</td><td>Status</td><td></td></tr><tr><td colspan="12"></td></tr></table>					Water			Surcharged		Flooded		Pipe			US/MH		US/CL	Level	Depth	Volume	Flow /	Overflow	Maximum	Flow			PN	Name	Event	(m)	(m)	(m³)	Cap.	(l/s)	Vol (m³)	(l/s)	Status													
		Water			Surcharged		Flooded		Pipe																																									
US/MH		US/CL	Level	Depth	Volume	Flow /	Overflow	Maximum	Flow																																									
PN	Name	Event	(m)	(m)	(m³)	Cap.	(l/s)	Vol (m³)	(l/s)	Status																																								
©1982-2018 Innovyze																																																		

GTA Civils Ltd		Page 17
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

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

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Maximum Vol (m³)	Pipe Flow (l/s)	Status
1.000	S1	240 minute 2 year Winter I+0%	9.926	8.766	-0.225	0.000	0.00		0.000	0.0	OK
1.001	S16	240 minute 2 year Winter I+0%	9.588	8.608	-0.225	0.000	0.00		0.000	0.0	OK
2.000	3	720 minute 2 year Summer I+0%	9.700	8.721	-0.079	0.000	0.05		15.532	0.5	OK*
2.001	4	60 minute 2 year Summer I+0%	9.700	8.771	-0.015	0.000	0.05		0.044	0.6	OK
1.002	S15	60 minute 2 year Summer I+0%	9.681	8.584	-0.216	0.000	0.17		0.172	11.6	OK
1.003	S2	480 minute 2 year Summer I+0%	9.769	8.506	-0.313	0.000	0.05		0.593	5.6	OK
3.000	5	600 minute 2 year Winter I+0%	9.700	9.005	0.055	0.000	0.04		32.831	0.6	SURCHARGED*
3.001	6	600 minute 2 year Winter I+0%	9.700	9.005	0.100	0.000	0.03		0.072	0.4	SURCHARGED
1.004	S3	480 minute 2 year Summer I+0%	9.801	8.506	-0.271	0.000	0.05		0.902	5.9	OK
4.000	6	360 minute 2 year Winter I+0%	10.000	8.831	0.246	0.000	0.11		45.927	1.1	SURCHARGED
4.001	7	360 minute 2 year Winter I+0%	10.000	8.831	0.271	0.000	0.04		0.368	1.2	SURCHARGED
1.005	S4	480 minute 2 year Summer I+0%	9.933	8.506	-0.226	0.000	0.06		1.434	7.7	OK
1.006	S5	480 minute 2 year Summer I+0%	10.112	8.505	-0.180	0.000	0.08		1.731	12.2	OK
5.000	14	60 minute 2 year Summer I+0%	9.903	8.698	-0.143	0.000	0.28		0.066	10.7	OK
6.000	18	60 minute 2 year Summer I+0%	9.750	9.065	-0.092	0.000	0.31		0.046	6.3	OK
6.001	19	60 minute 2 year Summer I+0%	9.950	8.547	-0.076	0.000	0.49		0.088	6.2	OK
1.007	S6	480 minute 2 year Summer I+0%	9.702	8.503	-0.058	0.000	0.18		7.705	17.6	OK
1.008	S7	480 minute 2 year Summer I+0%	9.232	8.502	-0.040	0.000	0.18	0.0	1.362	17.2	OK
7.000	15	360 minute 2 year Summer I+0%	10.014	9.404	-0.046	0.000	0.10		16.885	1.9	OK*
7.001	16	60 minute 2 year Summer I+0%	10.014	9.475	0.505	0.000	0.17		0.151	2.6	SURCHARGED
8.000	19	480 minute 2 year Summer I+0%	9.840	8.842	-0.058	0.000	0.11		15.454	1.3	OK
8.001	20	600 minute 2 year Summer I+0%	9.900	8.846	-0.021	0.000	0.09		0.144	1.2	OK
8.002	20	60 minute 2 year Summer I+0%	9.650	8.738	-0.096	0.000	0.28		0.059	3.4	OK
8.003	21	60 minute 2 year Summer I+0%	9.500	8.681	-0.088	0.000	0.36		0.057	5.0	OK

GTA Civils Ltd		Page 18
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

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

PN	US/MH Name		Event		US/CL (m)	Water	Surcharged	Flooded	Flow / Cap.	Overflow (l/s)	Maximum Vol (m³)	Pipe	Status
						Level (m)	Depth (m)	Volume (m³)				Flow (l/s)	
8.004	22	60 minute	2 year	Summer I+0%	9.400	8.615	-0.079	0.000	0.45		0.052	5.8	OK
7.002	S10	60 minute	2 year	Summer I+0%	10.033	8.550	-0.307	0.000	0.21		0.244	31.6	OK
7.003	S11	480 minute	2 year	Summer I+0%	9.865	8.501	-0.177	0.000	0.06		4.690	15.7	OK
1.009	S13	480 minute	2 year	Winter I+0%	9.300	8.499	0.049	0.000	0.06		188.868	9.8	SURCHARGED
1.010	20	600 minute	2 year	Summer I+0%	9.300	8.531	0.125	0.000	0.05		1.850	7.3	SURCHARGED

GTA Civils Ltd		Page 19
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

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

Simulation Criteria

Areal Reduction Factor	1.000	Manhole Headloss Coeff (Global)	0.500	MADD Factor * 10m³/ha Storage	2.000
Hot Start (mins)	0	Foul Sewage per hectare (l/s)	0.000	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Additional Flow - % of Total Flow	0.000	Flow per Person per Day (l/per/day)	0.000

Number of Input Hydrographs	0	Number of Offline Controls	1	Number of Time/Area Diagrams	6
Number of Online Controls	6	Number of Storage Structures	8	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FEH	Data Type	Point
FEH Rainfall Version	2013	Cv (Summer)	1.000
Site Location	GB 496649 103835 SU 96649 03835	Cv (Winter)	1.000

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

Profile(s)	Summer and Winter
Duration(s) (mins)	60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160
Return Period(s) (years)	2, 30, 100
Climate Change (%)	0, 0, 40

US/MH			US/CL	Water Level	Surcharged Depth	Flooded Volume	Flow / Overflow	Pipe Maximum	Pipe Flow	
PN	Name	Event	(m)	(m)	(m)	(m ³)	Cap. (l/s)	Vol (m ³)	(l/s)	Status

GTA Civils Ltd		Page 20
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

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

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Maximum Vol (m³)	Pipe Flow (l/s)	Status
1.000	S1	600 minute 30 year Summer I+0%	9.926	8.826	-0.165	0.000	0.00		0.009	0.0	OK
1.001	S16	600 minute 30 year Summer I+0%	9.588	8.826	-0.007	0.000	0.00		0.782	0.1	OK
2.000	3	720 minute 30 year Summer I+0%	9.700	8.845	0.045	0.000	0.07		42.772	0.8	SURCHARGED*
2.001	4	960 minute 30 year Summer I+0%	9.700	8.861	0.075	0.000	0.05		0.068	0.7	SURCHARGED
1.002	S15	600 minute 30 year Summer I+0%	9.681	8.826	0.026	0.000	0.08		1.118	5.6	SURCHARGED
1.003	S2	600 minute 30 year Summer I+0%	9.769	8.826	0.007	0.000	0.06		6.214	7.2	SURCHARGED
3.000	5	720 minute 30 year Winter I+0%	9.700	9.209	0.259	0.000	0.04		65.366	0.5	SURCHARGED*
3.001	6	720 minute 30 year Winter I+0%	9.700	9.208	0.303	0.000	0.04		0.104	0.5	SURCHARGED
1.004	S3	600 minute 30 year Summer I+0%	9.801	8.826	0.049	0.000	0.06		3.412	7.6	SURCHARGED
4.000	6	600 minute 30 year Winter I+0%	10.000	9.011	0.426	0.000	0.09		108.818	1.0	SURCHARGED
4.001	7	60 minute 30 year Summer I+0%	10.000	9.366	0.806	0.000	0.06		0.831	1.7	SURCHARGED
1.005	S4	600 minute 30 year Summer I+0%	9.933	8.826	0.094	0.000	0.08		3.602	9.6	SURCHARGED
1.006	S5	600 minute 30 year Summer I+0%	10.112	8.825	0.140	0.000	0.11		3.617	15.6	SURCHARGED
5.000	14	600 minute 30 year Summer I+0%	9.903	8.825	-0.016	0.000	0.12		0.177	4.8	OK
6.000	18	60 minute 30 year Summer I+0%	9.750	9.099	-0.058	0.000	0.69		0.075	13.7	OK
6.001	19	600 minute 30 year Summer I+0%	9.950	8.824	0.201	0.000	0.21		0.650	2.7	SURCHARGED
1.007	S6	600 minute 30 year Summer I+0%	9.702	8.824	0.263	0.000	0.25		11.542	24.5	SURCHARGED
1.008	S7	600 minute 30 year Winter I+0%	9.232	8.823	0.281	0.000	0.18	0.0	1.958	17.4	SURCHARGED
7.000	15	180 minute 30 year Winter I+0%	10.014	9.574	0.124	0.000	0.15		44.673	3.0	SURCHARGED*
7.001	16	60 minute 30 year Summer I+0%	10.014	9.648	0.678	0.000	0.22		0.179	3.4	SURCHARGED
8.000	19	360 minute 30 year Summer I+0%	9.840	8.928	0.028	0.000	0.17		30.071	1.9	SURCHARGED
8.001	20	360 minute 30 year Summer I+0%	9.900	8.925	0.058	0.000	0.13		0.229	1.9	SURCHARGED
8.002	20	600 minute 30 year Winter I+0%	9.650	8.841	0.007	0.000	0.20		0.147	2.4	SURCHARGED
8.003	21	600 minute 30 year Winter I+0%	9.500	8.837	0.068	0.000	0.20		0.223	2.9	SURCHARGED

GTA Civils Ltd		Page 21
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

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

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Maximum Vol (m³)	Pipe Flow (l/s)	Status
8.004	22	600 minute 30 year Winter I+0%	9.400	8.834	0.140	0.000	0.23		0.204	3.0	SURCHARGED
7.002	S10	600 minute 30 year Winter I+0%	10.033	8.831	-0.026	0.000	0.08		6.107	12.1	OK
7.003	S11	600 minute 30 year Winter I+0%	9.865	8.823	0.145	0.000	0.05		12.192	13.8	SURCHARGED
1.009	S13	600 minute 30 year Winter I+0%	9.300	8.822	0.372	0.000	0.05		368.090	8.5	SURCHARGED
1.010	20	720 minute 30 year Winter I+0%	9.300	8.857	0.451	0.000	0.05		2.318	7.3	SURCHARGED

GTA Civils Ltd				Page 23			
66a Church Walk Burgess Hill West Sussex RH15 9AS				Angels Nursery Yapton 7033 SW network results			
Date 25/06/2020 File 200625 Site SW network rev b.MDX				Designed by SDL Checked by			
Micro Drainage				Network 2018.1			



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

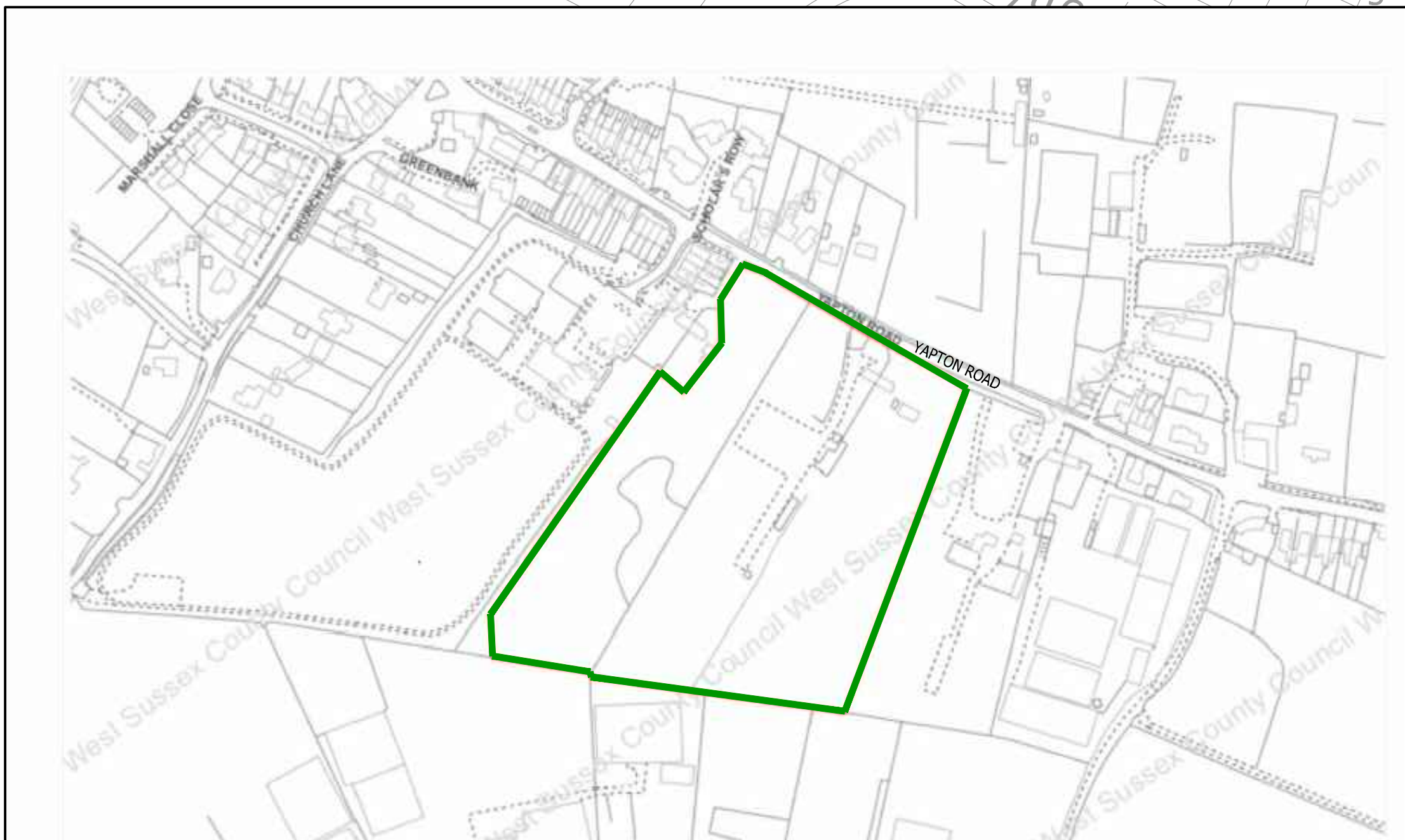
PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Maximum Vol (m³)	Pipe Flow (l/s)	Status
1.000	S1	960 minute 100 year Winter I+40%	9.926	9.149	0.158	0.000	0.00		0.060	0.0	SURCHARGED
1.001	S16	960 minute 100 year Winter I+40%	9.588	9.149	0.316	0.000	0.00		1.517	0.0	SURCHARGED
2.000	3	1440 minute 100 year Summer I+40%	9.700	9.122	0.322	0.000	0.14		103.846	1.6	SURCHARGED*
2.001	4	1440 minute 100 year Summer I+40%	9.700	9.143	0.357	0.000	0.05		0.113	0.7	SURCHARGED
1.002	S15	960 minute 100 year Winter I+40%	9.681	9.149	0.349	0.000	0.06		1.489	3.9	SURCHARGED
1.003	S2	960 minute 100 year Winter I+40%	9.769	9.149	0.330	0.000	0.05		51.938	5.5	SURCHARGED
3.000	5	960 minute 100 year Winter I+40%	9.700	9.594	0.644	0.000	0.04		127.040	0.6	FLOOD RISK*
3.001	6	60 minute 100 year Summer I+40%	9.700	9.695	0.790	0.000	0.05		0.181	0.8	FLOOD RISK
1.004	S3	960 minute 100 year Winter I+40%	9.801	9.149	0.372	0.000	0.05		3.958	5.9	SURCHARGED
4.000	6	960 minute 100 year Winter I+40%	10.000	9.338	0.753	0.000	0.09		222.684	0.9	SURCHARGED
4.001	7	60 minute 100 year Summer I+40%	10.000	10.004	1.444	4.367	0.08		5.747	2.1	FLOOD
1.005	S4	960 minute 100 year Winter I+40%	9.933	9.149	0.417	0.000	0.06		4.065	7.5	SURCHARGED
1.006	S5	960 minute 100 year Winter I+40%	10.112	9.148	0.463	0.000	0.08		4.083	12.3	SURCHARGED
5.000	14	60 minute 100 year Summer I+40%	9.903	9.278	0.437	0.000	1.01		0.569	39.1	SURCHARGED
6.000	18	60 minute 100 year Summer I+40%	9.750	9.566	0.409	0.000	1.05		0.479	20.9	FLOOD RISK
6.001	19	960 minute 100 year Winter I+40%	9.950	9.148	0.525	0.000	0.15		1.259	2.0	SURCHARGED
1.007	S6	960 minute 100 year Winter I+40%	9.702	9.147	0.586	0.000	0.19		12.012	18.7	SURCHARGED
1.008	S7	960 minute 100 year Winter I+40%	9.232	9.147	0.605	0.000	0.20	0.0	2.421	18.5	FLOOD RISK
7.000	15	240 minute 100 year Winter I+40%	10.014	9.878	0.428	0.000	0.21		94.149	4.1	FLOOD RISK*
7.001	16	60 minute 100 year Summer I+40%	10.014	10.015	1.045	0.697	0.30		0.929	4.6	FLOOD
8.000	19	720 minute 100 year Winter I+40%	9.840	9.175	0.275	0.000	0.16		71.664	1.8	SURCHARGED
8.001	20	720 minute 100 year Winter I+40%	9.900	9.174	0.307	0.000	0.13		0.445	1.8	SURCHARGED
8.002	20	960 minute 100 year Winter I+40%	9.650	9.154	0.320	0.000	0.23		0.208	2.8	SURCHARGED
8.003	21	960 minute 100 year Winter I+40%	9.500	9.152	0.383	0.000	0.24		0.274	3.4	SURCHARGED

GTA Civils Ltd		Page 24
66a Church Walk Burgess Hill West Sussex RH15 9AS	Angels Nursery Yapton 7033 SW network results	
Date 25/06/2020 File 200625 Site SW network rev b.MDX	Designed by SDL Checked by	
Micro Drainage	Network 2018.1	

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

PN	US/MH Name	Event	US/CL (m)	Water Surcharged			Flow / Cap.	Overflow (l/s)	Maximum Vol (m³)	Pipe Flow (l/s)	Status
				Level (m)	Depth (m)	Flooded Volume (m³)					
8.004	22	960 minute 100 year Winter I+40%	9.400	9.151	0.457	0.000	0.28		0.255	3.6	FLOOD RISK
7.002	S10	960 minute 100 year Winter I+40%	10.033	9.149	0.292	0.000	0.10		61.255	14.5	SURCHARGED
7.003	S11	960 minute 100 year Winter I+40%	9.865	9.147	0.469	0.000	0.07		12.753	18.4	SURCHARGED
1.009	S13	960 minute 100 year Winter I+40%	9.300	9.145	0.695	0.000	0.06		609.147	10.1	FLOOD RISK
1.010	20	60 minute 100 year Winter I+40%	9.300	9.192	0.786	0.000	0.05		2.799	7.3	FLOOD RISK

Appendix B Construction Drawings



LOCATION PLAN
SCALE 1:2500

REFER TO DRAWING
19812-GS-Z1-XX-DR-C-2105 FOR
DRAINAGE DETAILS RELATIVE
TO ALL ADOPTABLE DRAINAGE

ALL DRAINAGE PIPEWORK MATERIAL UP TO
300mm TO BE VITRIFIED CLAY, HIGH
STRENGTH. ABOVE 300mm TO BE HIGH
STRENGTH CONCRETE

ALL WORK TO BE AS SEWERS FOR
ADOPTION, 6TH EDITION+TECH
ADDENDUM & ANY SOUTHERN WATER
AMENDMENTS TO THIS EDITION

IMPORTANT NOTE:

ALL WORKS TO ADOPTABLE
SECTION 104 SURFACE
WATER AND FOUL WATER
SEWERS WILL BE AT RISK
UNTIL SECTION 104
TECHNICAL APPROVAL

SURFACE WATER MANHOLE SCHEDULE										
MH Ref	Easings	Northings	Size	CL	IL	SL	Depth to IL/SL	Depth to soffit	Type	Cover
S2	496302.487	104088.103	1200 x 675mm	10.010	8.969		1.041	0.816	Type D	D400
S3	496297.881	104080.616	1240 x 675mm	10.150	8.917		1.233	1.008	Type C	D400
S4	496267.536	104090.693	1240 x 675mm	9.750	8.725		1.025	0.800	Type D	D400
S7	496256.382	104089.630	1240 x 750mm	9.645	8.662		0.983	0.683	Type D	D400
S11	496228.719	104047.118	1240 x 900mm	9.900	8.483		1.417	0.967	Type D	D400
S12	496219.350	104032.524	1240 x 900mm	9.710	8.440		1.270	0.820	Type D	D400
S13	496208.608	104014.464	1240 x 900mm	9.840	8.388		1.452	1.002	Type C	D400
S14	496200.625	103994.530	1240 x 900mm	9.960	8.335		1.625	1.175	Type C	D400
S16	496198.823	103972.212	1240 x 900mm	9.750	8.278		1.472	1.022	Type C	D400
S19	496268.807	103969.591	1240 x 900mm	9.800	8.106		1.694	1.244	Type C	D400
S32	496237.766	104039.659	1240 x 900mm	9.860	8.488		1.372	0.922	Type D	D400
S35	496312.143	103995.513	1240 x 900mm	10.059	8.373		1.686	1.236	Type C	D400
S36	496307.212	103986.243	1240 x 900mm	9.890	8.335		1.555	1.105	Type C	D400
S37	496304.658	103966.243	1240 x 900mm	9.660	8.281		1.379	0.929	Type D	D400
S40	496287.744	103966.675	1240 x 900mm	10.030	8.236		1.794	1.344	Type C	D400

FOUL MANHOLE SCHEDULE										
MH	Easings	Northings	Size	CL	IL	Depth to IL	Depth to soffit	Type	Cover	
F2	496312.896	104111.172	1200mm	9.485	6.626	2.859	2.709	Type B	D400	
F3	496297.943	104085.632	1200mm	10.100	6.834	3.266	3.116	Type A	D400	
F4	496267.123	104092.975	1200mm	9.730	7.049	2.681	2.531	Type B	D400	
F5	496257.786	104088.342	1200mm	9.657	7.119	2.538	2.388	Type B	D400	
F6	496238.255	104057.084	1200mm	10.020	7.365	2.655	2.505	Type B	D400	
F7	496217.172	104025.815	1200mm	9.715	7.616	2.099	1.949	Type B	D400	
F8	496211.331	104016.092	1200mm	9.825	7.692	2.133	1.983	Type B	D400	
F9	496203.085	103995.851	1200mm	10.000	7.838	2.162	2.012	Type B	D400	
F10	496200.645	103974.286	1200mm	9.750	8.166	1.584	1.484	Type B	D400	
F18	496207.909	104031.222	1200mm	9.614	7.830	1.784	1.634	Type B	D400	
F19	496203.016	103971.890	1200mm	9.765	8.130	1.635	1.485	Type B	D400	
F20	496305.171	103986.827	1200mm	9.885	7.878	2.007	1.857	Type B	D400	
F21	496323.563	104035.043	1200mm	9.925	7.348	2.577	2.427	Type B	D400	
F22	496329.752	104052.250	1200mm	9.734	7.226	2.508	2.358	Type B	D400	
F23	496329.653	104060.688	1200mm	9.725	7.170	2.555	2.405	Type B	D400	
F24	496317.456	104071.010	1200mm	9.885	7.064	2.821	2.671	Type B	D400	

- DESIGN NOTES
1. SURFACE WATER/FOUL SEWER DESIGN TO SEWERS FOR ADOPTION 6TH EDITION. SUBJECT TO SECTION 104 APPROVAL BY SOUTHERN WATER.
 2. FOUNDATIONS OF BUILDINGS ADJACENT TO SEWERS TO BE DESIGNED TO BE SUFFICIENTLY DEEP IN ACCORDANCE WITH SEWERS FOR ADOPTION 7TH EDITION FIG B.1 & FIG B.2.
 3. CONTRACTOR TO ESTABLISH LOCATIONS OF ALL EXISTING SERVICES PRIOR TO COMMENCING.
 4. EXISTING TREES TO BE PROTECTED WHERE EXCAVATIONS RUN CLOSE.

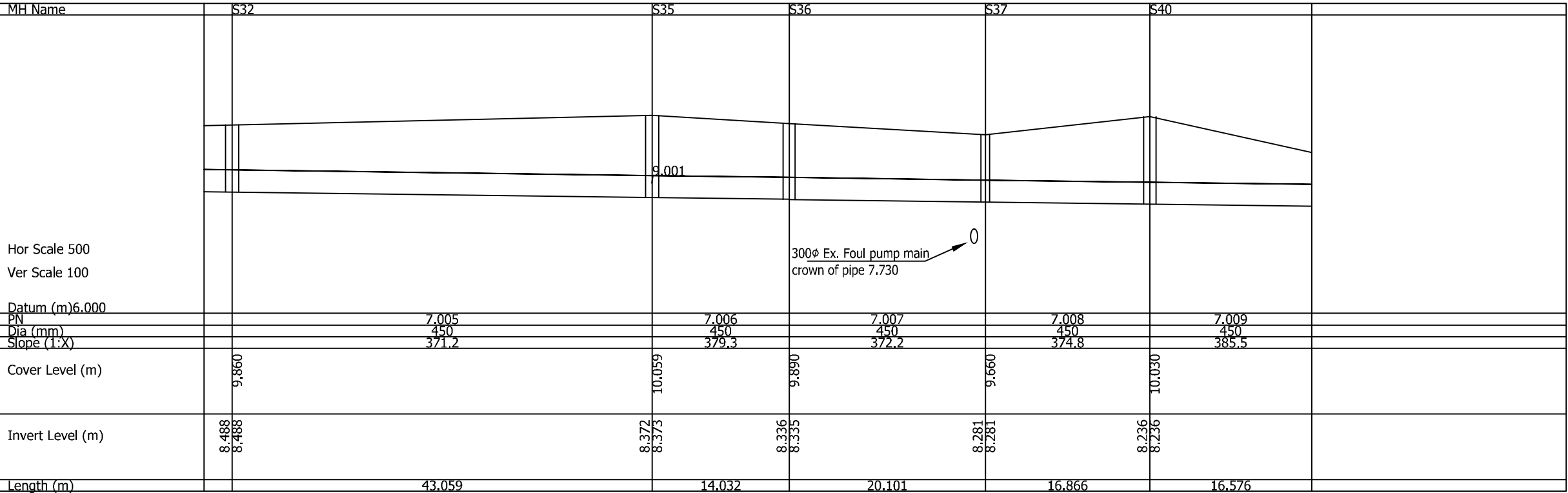
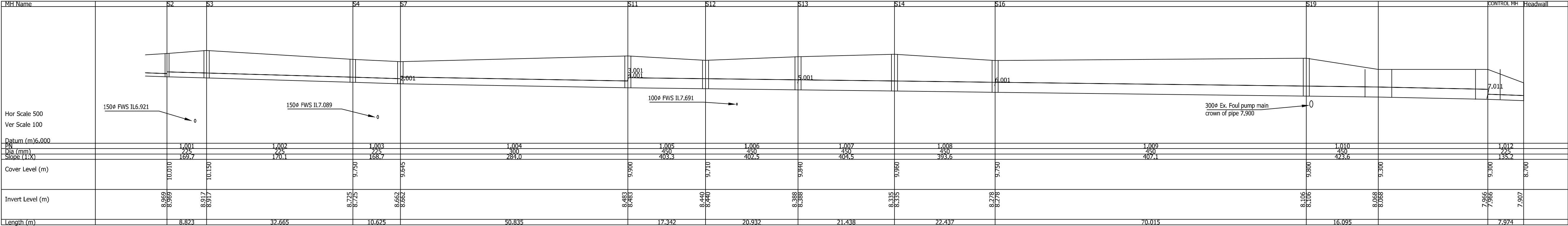
- GENERAL NOTES
1. The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non intrusive observations, record drawings or the like. The contractor shall safely carry out intrusive investigations, trial holes or soundings prior to commencing work to satisfy himself that it is safe to proceed and that the assessments are accurate. Any discrepancies shall be notified to gta prior to works commencing.
 2. Tender or billing drawings shall not be used for construction or the ordering of materials.
 3. Do not scale. All dimensions and levels to be site confirmed.
 4. This drawing shall be read in conjunction with all relevant architects, consultants drawings and specifications, together with H&S plan requirements.
 5. Copyright: This drawing must not be copied, amended nor reproduced without the prior written agreement of gta.
 6. All drawings specifications and recommendations made by gta are subject to Local Authority and other relevant Statutory Authorities approval. Any works or services made abortive due to the client proceeding prior to these approvals is considered wholly at the Clients risk. gta hold no responsibility for resulting abortive works or costs.

ABBREVIATIONS	
D307.0	DETAIL NUMBER - SEE DRAINAGE DETAIL SHEET
FD	FOUL DRAIN
SWD	SURFACE WATER DRAIN
FWS	ADOPTABLE FOUL WATER SEWER
SWS	ADOPTABLE SURFACE WATER SEWER
MH	MANHOLE
IC	INSPECTION CHAMBER
SA	SOAKAWAY
FIC	450mm DIA. FOUL INSPECTION CHAMBER - D202.6
SIC	450mm DIA. SURFACE WATER INSPECTION CHAMBER - D202.6
FAC	300mm DIA. FOUL ACCESS CHAMBER - D202.18
SAC	300mm DIA. SURFACE WATER ACCESS CHAMBER - D202.18
CI	CAST IRON
VC	VITRIFIED CLAY
CNC	CONCRETE
PVC-U	POLYVINYL CHLORIDE - UNPLASTICISED
G	SMALL GULLY - D209.0
YG	YARD GULLY - D209.2
RG	ROAD GULLY - D208.1
CPG	CAR PARK GULLY - D208.2
DP	BELOW GROUND DRAIN POINT
SVF	SOIL VENT PIPE DROP
RP	EXTERNAL RODDING POINT - D213.1
DT	SURFACE WATER DISTRIBUTION TANK
FFL	FINISHED FLOOR LEVEL
SSL	STRUCTURAL SLAB LEVEL
GL	GROUND LEVEL
CL	COVER LEVEL
IL	INVERT LEVEL
HL	HIGH LEVEL
BD	BACKDROP
CBS	CONCRETE BED & SURROUND
CLASS 5	GRANULAR BED & SURROUND
CLASS B	GRANULAR BED

- KEY
- Existing Foul Drainage
 - Private Storm Drainage
 - Private Foul Drainage
 - Adoptable Storm Drainage S104
 - Adoptable Foul Drainage S104
 - Adoptable Foul Sewer Manhole S104
 - Adoptable Storm Sewer Manhole S104
 - Agreement Boundary
 - 3m Easement outside of highway

C4	Updated to GTA Title Block	09/12/21	NG	MR
C3	Revised to Southern Water comments	09/11/20	SDL	MR
C2	Revised to Southern Water comments	15/10/20	SDL	MR
C1	CONSTRUCTION ISSUE	17/09/20	MR	SDL
P4	Updated to Client comments	21.2.20	GS	SDL
P3	Revised to latest site layout	31.1.20	MR	SDL
P2	Revised to updated site layout	20/12/19	MR	SDL
P1	INITIAL ISSUE	06/11/18	MR	SDL
Rev	Amendments	Date	Dsn	Chk

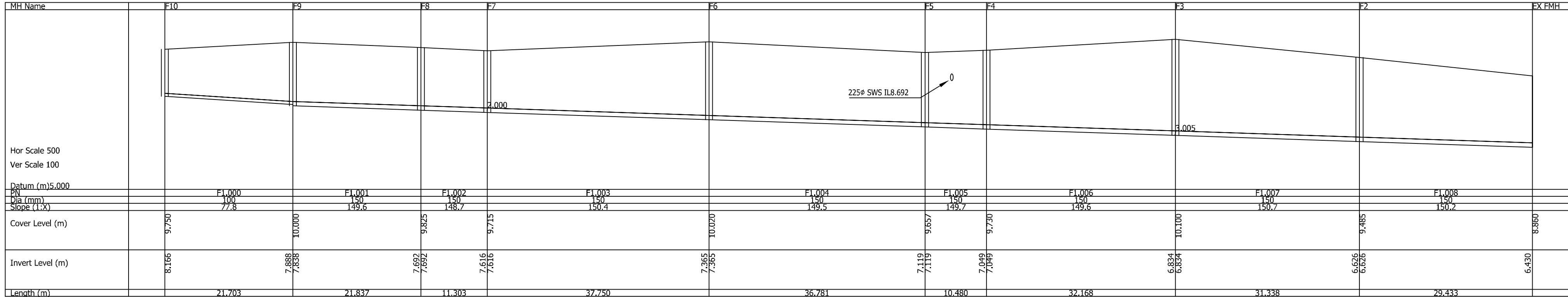
Status	CONSTRUCTION		
Client	 REDROW		
Architect	RH PARTNERSHIP		
Project	ANGEL & HYDE NURSERIES YAPTON ROAD, BARNHAM		
Title	SECTION 104 LAYOUT		
Date	NOVEMBER 2019	Scale @ A1	1:500
Clients Ref.		Project Ref.	7033
 Gloucester House, 66a Church Walk, Burgess Hill, West Sussex, RH15 9AS Tel:01444 871444 Web: www.gtacivils.co.uk			
Drawing Number	19812-GS-Z1-XX-DR-C-2020		Rev.
			C4



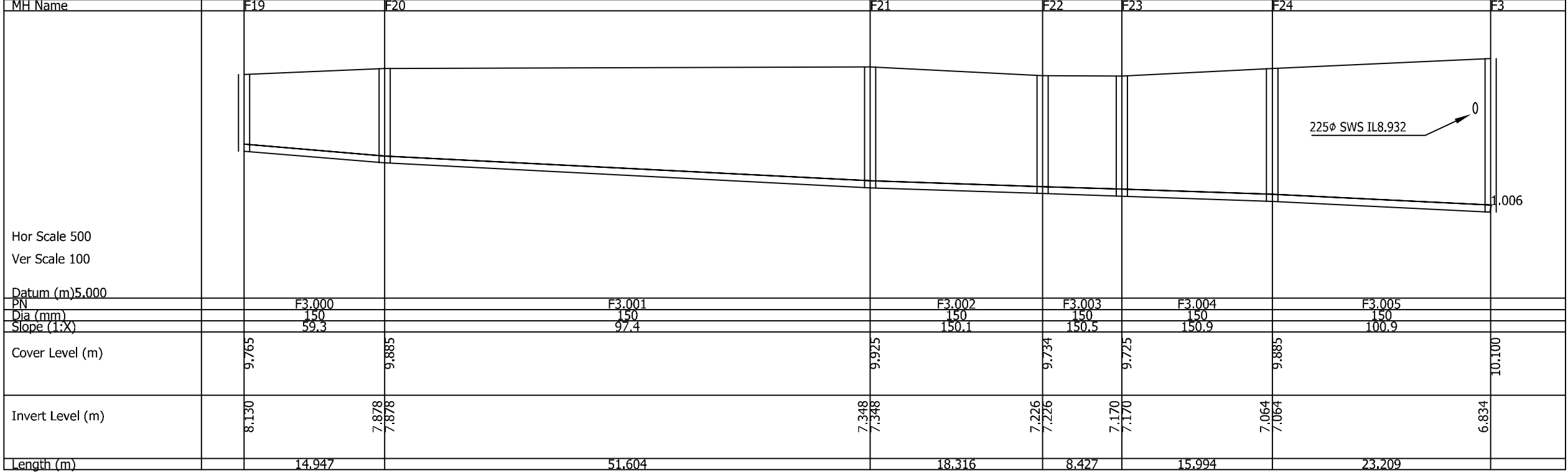
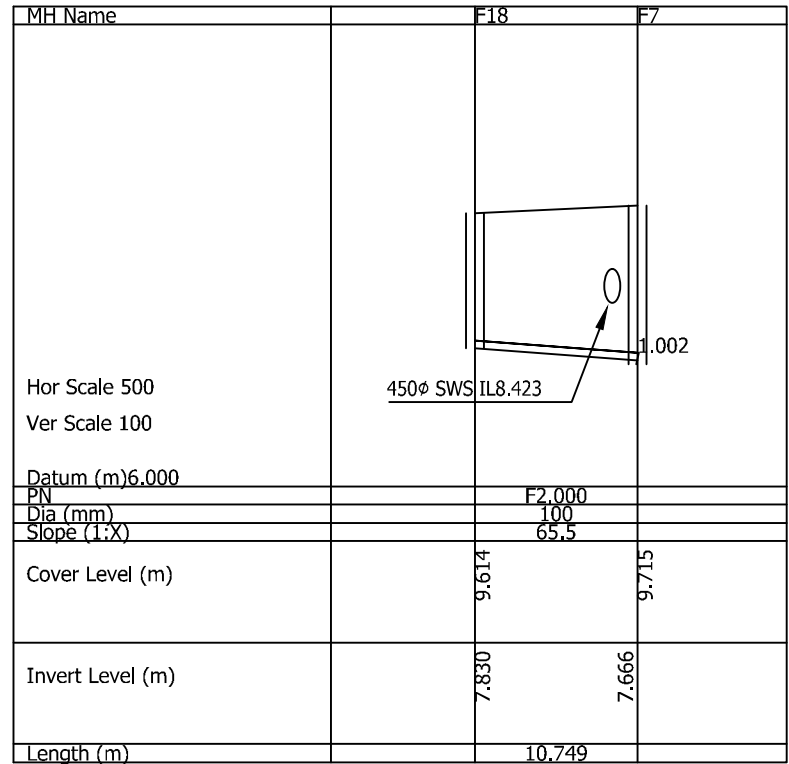
SURFACE WATER SEWER LONG SECTIONS
SCALE 1:500H, 1:100V

All sewer pipelines to be VC extra strength.

All drains shall have granular bed and surround as class `S` bedding, unless noted otherwise.



NOTE:
PLEASE REFER TO 2060 AND 2061 FOR DRAINAGE PLAN



FOUL WATER SEWER LONG SECTIONS
SCALE 1:500H, 1:100V

- GENERAL NOTES
1. The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non intrusive observations , record drawings or the like. The contractor shall safely carry out intrusive investigations, trial holes or soundings prior to commencing work to satisfy himself that it is safe to proceed and that the assessments are accurate. any discrepancies shall be notified to gta prior to works commencing.
 2. Tender or billing drawings shall not be used for construction or the ordering of materials.
 3. Do not scale. All dimensions and levels to be site confirmed.
 4. This drawing shall be read in conjunction with all relevant architects, consultants drawings and specifications, together with H&S plan requirements.
 5. Copyright : This drawing must not be copied, amended nor reproduced without the prior written agreement of gta.
 6. All drawings specifications and recommendations made by gta are subject to Local Authority and other relevant Statutory Authorities approval. Any works or services made abortive due to the client proceeding prior to these approvals is considered wholly at the Clients risk. gta hold no responsibility for resulting abortive works or costs.

C3	Updated to GTA Title Block	09.12.21	NG	MR
C2	Revised to Southern Water comments	15.10.20	SDL	MR
C1	CONSTRUCTION ISSUE	28.08.20	MR	SDL
Rev	Amendments	Date	Dsn	Chk
Status				
CONSTRUCTION				
Client				
Architect				
Project				
Title				
Date				
Clients Ref.				
Rev.				
Drawing Number				
Rev.				