

**PROPOSED NEW DEVELOPMENT TO LAND
SOUTH OF AUTUMN GATE,
HOOK LANE
ALDINGBOURNE
WEST SUSSEX
PO20 0TE**

DRAINAGE STRATEGY REPORT

For:

DOMUSEA LTD

**Cowan Consultancy Ltd
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Whiteley
Fareham
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**TB/435050/eg
September 2023**

**Landguard Manor
Landguard Manor Road
Shanklin
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PO37 7JB**

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APPENDIX A - Drainage Strategy Drawing

APPENDIX B - Drainage Network Calculations

1.0 INTRODUCTION

- 1.1 This report has been prepared by Cowan Consultancy Limited (CCL) for Domusea Ltd.
- 1.2 This drainage strategy report is required, to form part of a planning application for the subject site, to demonstrate that the surface water can be adequately disposed of and provisions for the foul drainage have been considered.

2.0 GEOLOGY OF THE AREA

- 2.1.1 The site lies on OS grid reference (Eastings) 493545 (Northings) 104528 and Site GPS Coordinates 50.832735, -0.67303222.
- 2.1.2 By reference to the British Geological Maps, the site would be expected to lie within a bedrock of the London Clay Formation. Overlain by superficial deposits of River Terrace Deposits – Sand, silt and clay.
- 2.1.3 Borehole logs, which were undertaken for the drainage design at the adjacent Autumn Gate development, confirm that the site is underlain with River Terrace Deposits but did not encounter the London Clay within the borehole depths of 3m.

3.0 SITE DESCRIPTION

- 3.1.1 The site for the proposed development consists of approximately 0.3219 ha and is considered to be a greenfield development site.
- 3.1.2 The site consists mainly of unkept shrubs and grass with some trees / hedges to the site boundaries.
- 3.1.3 The site is adjoined to the north by the recently built Autumn Gate (Springfields) development with the Westergate development beyond this. To the south, west & east of the site is existing residential properties.
- 3.1.4 The site is relatively flat but with a gradual slope from north west to south east.
- 3.1.5 The proposed access to the site is via the existing Autumn Gate development.

- 3.1.6 The proposed site development consists of a mixture of 2, 3 & 4 bed detached & semi-detached houses, together with associated landscaping, amenity space and parking.

4.0 SURFACE WATER DRAINAGE STRATEGY

4.1 Pre-Development

- 4.2 The site is currently undeveloped land and its previous use is unknown at this stage. It is assumed not to have the benefit of any formal drainage serving the area.

- 4.3 The site slopes generally from north west to south east. Any rainfall which does not naturally permeate into the ground will ultimately discharge off site.

- 4.4 Southern Water sewer record plans indicate that there are no public surface water or combined sewers in the vicinity of the site.

4.5 Post-Development

- 4.6 The site is currently undeveloped and therefore any proposed development will increase the impermeable area, thus increasing surface water runoff rates and volumes of water.

- 4.7 Referencing the infiltration testing and groundwater monitoring data from the Autumn Gate development site, it would assume that disposing of the surface water via infiltration on site is not feasible.

- 4.8 There are no surface water bodies adjacent to any of the site boundaries, but there is a ditch to the north of the Autumn Gate development.

- 4.9 The development of Autumn Gate which is located to the north of the subject site, utilises a shallow attenuation system for the surface water drainage, which conveys the surface water flows to the north-eastern boundary of the site, where it discharges into a ditch. Via the ditch, the surface water enters the Westergate development surface water drainage system. This was agreed with the Management Company of the Westergate Development and approved by Arun DC as part of the Discharge of Conditions for the Autumn Gate development.

- 4.10 Cowan Consultancy Ltd carried out the drainage design for the Autumn Gate development and, as such, we have been able to use the Flow model to

determine that there is additional capacity within the existing system to accommodate the additional flows, whilst negating the need to increase the discharge rate into the ditch. Please see Appendix B for updated Flow calculations that include the addition of the impermeable areas of the proposed site.

- 4.11 As well as applying the additional impermeable areas to the model, we have also increased the climate change allowance from 40% to the current allowance of 45%. The calculations show there is sufficient capacity for both of these additions to the flow.
- 4.12 The discharge rate of 1.2 l/s remaining unaltered means that the agreement with the Westergate development Management Company will not be affected, neither will the Ordinary Watercourse Consent approval.
- 4.13 It is proposed that the subject site surface water is piped into the Autumn Gate development surface water system. Some additional attenuation will be required within the new development, this can be located at shallow depths underneath the property driveways.
- 4.14 The topography allows for a gravity system to be effective, assuming that shallow attenuation features are utilised.
- 4.15 A 400mm depth sub-base underneath permeable driveway areas has been designed to attenuate and convey the surface water. Water from roofs is drained to the permeable sub-base via pipework and diffuser units, with a silt trap proceeding each connection into the sub-base. The permeable driveway sub-bases are piped into the Autumn Gate access road permeable attenuation tank.
- 4.16 The scheme will include a climate change allowance of 45% and 10% urban creep will be applied to all impermeable areas except the access road.
- 4.17 Percolation testing to BRE 365 and groundwater monitoring data already obtained for the Autumn Gate site will suffice to accompany the drainage design on this proposed site.
- 4.18 The proposed Drainage Strategy can be seen in Appendix A

5.0 SUSTAINABLE URBAN DRAINAGE SYSTEMS

- 5.1 SuDS have been incorporated into the design to intercept rainfall and convey the water to the ditch outfall to the north-east of the site.

- 5.2 As well as providing storm water storage, the SuDS features are within the design to ensure the water quality entering the surface water body is acceptable.
- 5.3 In accordance with section 26.3 of CIRIA C753 recommends the use of simple index approach for assessing the minimum water quality management requirements and this method has been used to assess the suitability of above proposals as follows:
- (i) From table 26.2, residential roads runoff is considered low pollution hazard
 - (ii) From table 26.2 the following hazard indices are applicable;
Total suspended solids – 0.5
Metals – 0.4
Hydrocarbons – 0.4
 - (iii) From table 26.3, the indicative SuDS mitigation indices for permeable paving is as follows;
Total suspended solids – 0.7
Metals – 0.6
Hydrocarbons – 0.7
- 5.4 From the above it can be seen that the provision of permeable paving exceeds the pollution mitigation requirements.

6.0 FOUL DRAINAGE STRATEGY

6.1 Pre-Development

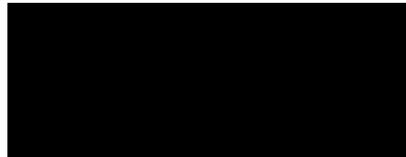
- 6.2 The site is currently undeveloped land and therefore it is unlikely that there will not be any foul drainage system serving the area.

- 6.3 Southern Water sewer record plans indicate that there is an existing 150mm diameter public foul sewer in Hook Lane. This flows from south to north.

6.4 Post-Development

- 6.5 The site will require a new foul drainage network.

- 6.6 The proposed site consists of 5 residential dwellings. Using the recommendations within Sewers for Adoption 7th Edition for an allowance of 4000 litres per unit per day, this will result in a peak flow of 0.23 l/s from the proposed development.
- 6.7 It is proposed that the new development is connected into the Autumn Gate development foul drainage network. However, It will be necessary to confirm with Southern Water that there is sufficient capacity within the system to accommodate the additional flow.



Signature.....

TIM BUTTON

For and on behalf of Cowan Consultancy Limited

APPENDIX A

DRAINAGE STRATEGY DRAWING

DRAINAGE SCHEME FOR AUTUMN GATE (ALREADY CONSTRUCTUED)

1. This drawing is to be read in conjunction with all relevant Engineers and Architects drawings, and the Specification.
2. All dimensions are in millimetres unless noted otherwise. All levels are in Metres Above an arbitrary datum and not to Ordnance Datum.
3. In accordance with CDM 2015 the Contractor is to:
 - Notify HSE of works.
 - Comply with the requirements of Health and Safety Plan(if applicable)
 - Provide risk assessments and method statements for all potential hazards relevant to this project.
4. The main contractor shall be responsible for the setting out and accuracy of all dimensions. They shall satisfy themselves that the information given is correct and any discrepancies should be noted to the Engineer immediately.
5. DO NOT SCALE. If discrepancy or query arises on dimensions consult Engineer.
6. The Contractor is responsible for specifying product and codes and ordering of drainage materials.
7. All drainage to be installed to BS5955 Pt6 and in strict accordance with the manufacturers instructions.
8. Cover grades and gully gratings are in accordance with BS497 P1
Cover Grades - D400 - carriageways.
B125 - carriageways for slow traffic.
A15 - inaccessible to vehicles
9. Sewer runs and manholes to be adopted are to be in accordance with Sewers for Adoption, 7th Edition.
10. Any drainage laid less than 600mm below FGL to be covered with minimum 150mm Gen 3 grade concrete to half diameter.
11. Provide 100x100 PCC lintel max span 650mm where svp exit the building.
12. ACO channels installed and bedded to manufacturers requirements.

ALL WORKS WITHIN TREE ROOT PROTECTION AREAS MUST BE IN ACCORDANCE WITH THE ABORICULTURAL METHOD STATEMENT AND SUBJECT TO APPROVAL BY THE ABORACULTURALIST.

IMPERMEABLE AREAS

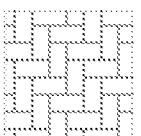
PLOT 1 ROOF = 78m²
PLOT 2 ROOF = 47m²
PLOT 2 PARKING = 33m²
PLOT 3 ROOF = 47m²
PLOT 3 PARKING = 39m²
PLOT 4 ROOF = 66m²
PLOT 4 PARKING = 64m²
PLOT 5 ROOF = 80m²
PLOT 5 PARKING = 78m²

TOTAL AREA = 576m²
PROPOSED ADDITIONAL AREA OF ACCESS ROAD - 48m²

10% URBAN CREEP TO BE APPLIED TO ALL IMPERMEABLE AREAS OF THE PROPOSED SITE EXCEPT FOR THE ADDITIONAL AREA OF ACCESS ROAD.

THEREFORE TOTAL AREA = 682m²

KEY



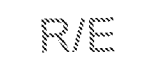
Tanked permeable driveway



Surface water drainage pipes



Surface water silt trap IC



R/E Rodding Eye



100mm dia perforated pipe located in sump within tanked permeable paving

+10.240
(+9.856)

Cover level / (formation level)

SEP 2023	TB	REVISIONS TO SITE PLAN	2
JUN 2023	TB	IMPERMEABLE AREAS ADDED	1
Date	By	Revision	QA'd

Status

PRELIMINARY

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Client: Dorsetsea Ltd

Project: Land South of Autumn Gate
Aldingbourne

Title: DRAINAGE STRATEGY

Date	Feb 2023	Issue	AS SHOWN	By	Dr. No.
Drawn	TB	Chk'd	EQ	QA'd	435050-221P

REVISIONS TO SITE PLAN

PRIVATE DRIVEWAY ACCESS ROAD

GRADE ST4 MASS CONCRETE BED AND HAUNCH

400mm depth Type 3 sub-base build-up to provide sufficient attenuation (SEE CALCULATIONS)

Impermeable membrane to the base and sides of the sub base

40mm PERMEABLE ASPHALT 10 SURFACE COURSE
80mm PERMEABLE ASPHALT 14 BINDER COURSE
140mm thick SUB-BASE (TYPE 3) / GRANULAR LAYER
POLYPROPYLENE PERMAFILT (OR) TEXTILE SURROUNDING CRATES
300mm THICK POLYPROPYLENE PERMAVOID GEOCELLULAR STORAGE LAYER (2no. 150mm THICK UNITS)
POLYPROPYLENE IMPERMEABLE GEOMEMBRANE TO UNDERSIDE AND UP SIDE OF CRATES
EXTENDING UP TO THE TOP OF SUB BASE
POLYPROPYLENE HEAVY DUTY GEOTEXTILE PROTECTION FLEECE
BEDDING LAYER 50mm THICK
PREPARED FORMATION (CAPPING IF REQUIRED TO ENGINEERS SPEC)

BASE OF TANKS ON 1:400 GRADIENT

(SECTION A-A) - SECTION THROUGH JUNCTION BETWEEN
TANKED PERMEABLE PRIVATE DRIVEWAY AREAS AND PERMEABLE
ACCESS ROAD WITH PERMAVOID SUB-BASE
REPLACEMENT ATTENUATION SYSTEM

STORM DRAINAGE LAYOUT

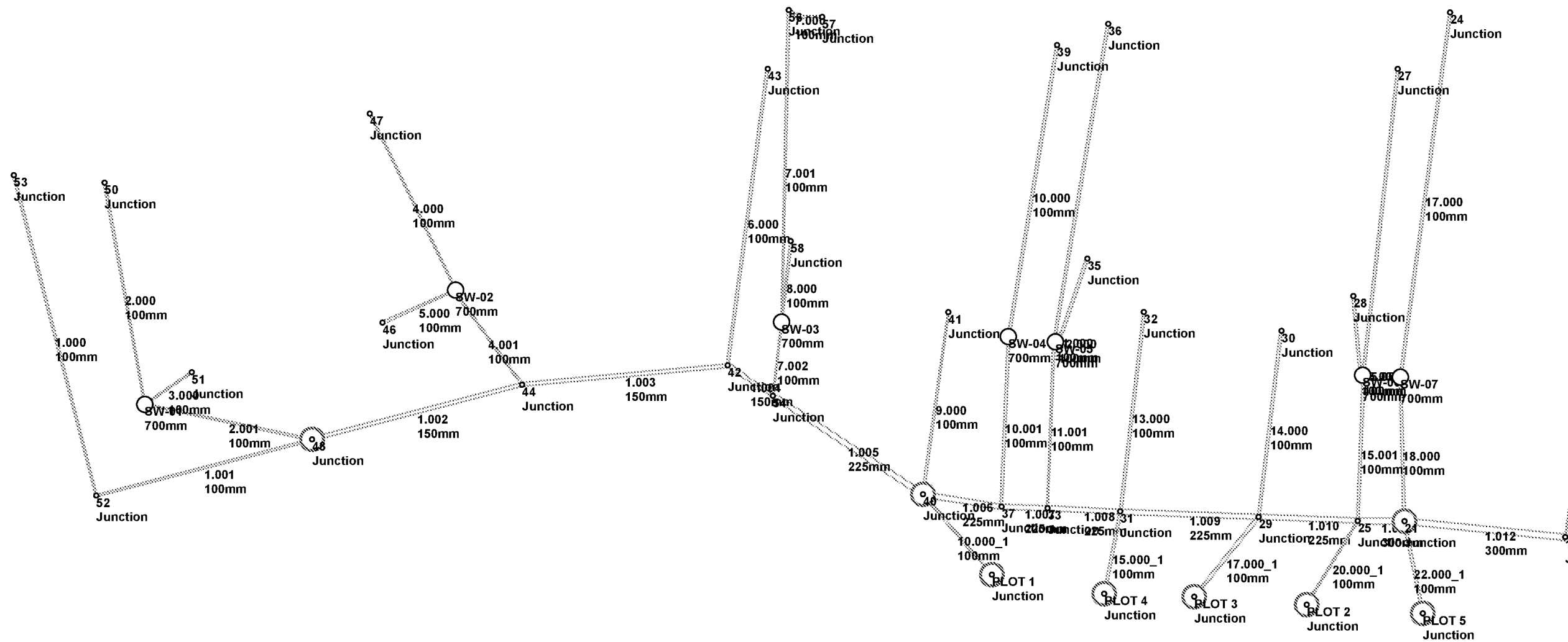
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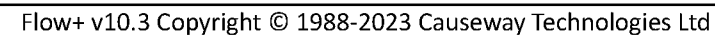
SCALE 1:20

DO NOT SCALE THIS DRAWING

APPENDIX B

DRAINAGE NETWORK CALCULATIONS





Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	0.400
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	6	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	✓
CV	1.000	Connection Type	Level Soffits		
Time of Entry (mins)	5.00	Minimum Backdrop Height (m)	0.200		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Width (mm)	Easting (m)	Northing (m)	Depth (m)
53		5.00	10.400			161026.272	49304.739	0.640
52			10.297			161029.884	49290.595	0.569
51		5.00	10.300			161034.070	49296.038	0.400
50		5.00	10.400			161030.248	49304.407	0.350
SW-01			10.300	700		161032.013	49294.619	0.780
48	0.013	5.00	10.276			161039.342	49293.075	0.569
47		5.00	10.460			161041.870	49307.455	0.460
46		5.00	10.300			161042.428	49298.230	0.350
SW-02			10.270	700		161045.631	49299.665	0.753
44			10.255			161048.544	49295.488	0.569
43		5.00	10.270			161059.309	49309.432	0.575
42			10.235			161057.553	49296.345	0.569
41		5.00	10.216			161067.220	49298.691	0.555
40	0.017	5.00	10.214			161066.110	49290.649	0.570
39		5.00	10.230			161071.986	49310.482	0.250
SW-04			10.216	700		161069.847	49297.610	0.722
37			10.205			161069.553	49290.105	0.569
36		5.00	10.230			161074.227	49311.417	0.250
35		5.00	10.194			161073.315	49301.052	0.300
SW-05			10.216	700		161071.911	49297.381	0.722
33			10.201			161071.569	49290.040	0.569
32		5.00	10.194			161075.785	49298.697	0.550
31			10.194			161074.752	49289.896	0.569
30		5.00	10.183			161081.820	49297.865	0.553
29			10.181			161080.817	49289.651	0.694
28		5.00	10.180			161084.968	49299.402	0.300
27		5.00	10.160			161086.911	49309.428	0.200
SW-06			10.180	700		161085.376	49295.907	0.743
25			10.171			161085.159	49289.476	0.693
24		5.00	10.160			161089.206	49311.922	0.200
SW-07			10.180	700		161087.028	49295.823	0.743
21	0.015	5.00	10.167			161087.209	49289.463	0.769
20		5.00	10.130			161096.381	49303.591	0.515
19			10.123			161094.252	49288.763	0.740
18		5.00	10.110			161100.338	49310.425	0.200
17		5.00	10.130			161096.637	49310.914	0.200
SW-08			10.150	700		161098.181	49294.483	0.737
15			10.112			161099.183	49288.072	0.740
14		5.00	10.125			161107.337	49301.900	0.533
13	0.023	5.00	10.125			161105.167	49286.789	0.766
12		5.00	10.115			161126.912	49285.201	0.265
SW-09			10.115	700		161116.529	49286.837	0.870
10	0.008	5.00	10.110			161111.313	49289.247	0.777
9		5.00	9.950			161129.855	49310.410	0.200
SW-13			10.050	700		161120.470	49311.513	0.767
7		5.00	10.125			161106.203	49300.505	0.300
6		5.00	10.065			161107.404	49309.111	0.300
SW-12			10.065	700		161109.040	49306.931	0.775
4	0.008	5.00	10.065			161113.813	49307.083	0.785
SW-14 (HYDRO)			10.000	1200		161115.614	49312.745	1.032
SW-15			9.950	1200		161128.995	49311.404	0.772
DITCH HEADWALL			9.960	225	225	161131.491	49318.685	0.833
54			10.230			161059.533	49294.998	0.569
SW-03			10.234	700		161059.914	49298.254	0.780
56			10.270			161060.228	49312.027	0.300
57		5.00	10.270			161061.692	49311.725	0.270
58		5.00	10.240			161060.312	49301.831	0.350
59			10.080			161113.241	49302.960	0.791
SW-11			10.085	700		161118.384	49302.118	0.781
61		5.00	10.100			161126.865	49300.847	0.300
62			10.088			161112.736	49299.347	0.791
63		5.00	10.100			161126.272	49297.681	0.548
64			10.094			161112.303	49296.248	0.790
SW-10			10.090	700		161116.164	49295.776	0.775
66		5.00	10.100			161125.552	49295.671	0.300
PLOT 1	0.012	5.00	10.350			161069.130	49287.100	0.500
PLOT 4	0.013	5.00	10.300			161074.051	49286.259	0.500
PLOT 3	0.009	5.00	10.300			161077.995	49286.128	0.500
PLOT 2	0.008	5.00	10.250			161082.925	49285.776	0.500
PLOT 5	0.016	5.00	10.250			161088.010	49285.392	0.500

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.022	SW-15	DITCH HEADWALL	7.697	0.600	9.178	9.127	0.051	150.0	300	9.03	33.6
1.021	SW-14 (HYDRO)	SW-15	13.448	0.600	9.268	9.178	0.090	150.0	300	8.93	38.9
1.020	4	SW-14 (HYDRO)	5.942	0.600	9.280	9.266	0.012	495.1	300	8.75	39.3
1.019	59	4	4.162	0.600	9.289	9.280	0.009	462.5	300	8.61	39.6
27.001	SW-13	4	7.996	0.600	9.583	9.506	0.077	103.8	100	5.33	50.0
28.001	SW-12	4	4.777	0.600	9.590	9.506	0.084	56.9	100	5.16	50.0
28.000	7	SW-12	7.024	0.600	9.825	9.590	0.235	29.9	100	5.08	50.0
29.000	6	SW-12	2.726	0.600	9.765	9.590	0.175	15.6	100	5.02	50.0
27.000	9	SW-13	9.450	0.600	9.750	9.583	0.167	56.6	100	5.15	50.0
1.018	62	59	3.648	0.600	9.297	9.289	0.008	456.0	300	8.51	39.9
26.001	SW-11	59	5.237	0.600	9.604	9.515	0.089	59.8	100	5.21	50.0
26.000	61	SW-11	8.577	0.600	9.800	9.604	0.196	43.8	100	5.12	50.0
1.017	64	62	3.129	0.600	9.304	9.297	0.007	447.0	300	8.43	40.1
25.000	63	62	13.638	0.600	9.552	9.523	0.029	470.3	100	5.65	48.9
1.016	10	64	7.071	0.600	9.333	9.304	0.029	243.8	300	8.36	40.3
24.002	SW-10	64	3.894	0.600	9.615	9.530	0.085	45.8	100	5.20	50.0
24.001	66	SW-10	9.390	0.600	9.800	9.615	0.185	59.8	100	5.14	50.0
1.015	13	10	6.619	0.600	9.359	9.333	0.026	254.6	300	8.24	40.6
23.001	SW-09	10	5.755	0.600	9.545	9.533	0.012	479.6	100	5.41	49.9
23.000	12	SW-09	10.527	0.600	9.850	9.545	0.305	34.5	100	5.13	50.0
1.014	15	13	6.120	0.600	9.372	9.359	0.013	470.8	300	6.13	40.8
22.000	14	13	15.366	0.600	9.592	9.559	0.033	462.6	100	5.72	48.6
1.013	19	15	4.979	0.600	9.383	9.372	0.011	452.7	300	7.99	41.2
20.001	SW-08	15	6.489	0.600	9.713	9.572	0.141	46.0	100	5.41	49.9
21.000	18	SW-08	16.087	0.600	9.910	9.713	0.197	81.7	100	5.31	50.0
20.000	17	SW-08	16.512	0.600	9.930	9.713	0.217	76.1	100	5.31	50.0
1.012	21	19	7.078	0.600	9.398	9.383	0.015	471.8	300	7.87	41.5
19.000	20	19	14.980	0.600	9.615	9.583	0.032	468.1	100	5.72	48.7
1.011	25	21	2.050	0.600	9.479	9.473	0.005	410.0	225	7.71	42.0
17.000	24	SW-07	16.246	0.600	9.960	9.737	0.223	72.9	100	5.30	50.0
18.000	SW-07	21	6.363	0.600	9.737	9.598	0.139	45.8	100	5.39	50.0
1.010	29	25	4.346	0.600	9.487	9.478	0.009	482.8	225	7.66	42.1
15.001	SW-06	25	6.436	0.600	9.737	9.603	0.134	48.0	100	5.33	50.0
16.000	28	SW-06	3.524	0.600	9.880	9.737	0.143	24.6	100	5.04	50.0
15.000	27	SW-06	13.609	0.600	9.960	9.737	0.223	61.0	100	5.23	50.0
1.009	31	29	6.070	0.600	9.625	9.612	0.013	466.9	225	7.53	42.5
14.000	30	29	8.275	0.600	9.630	9.612	0.018	459.7	100	5.39	50.0
1.008	33	31	3.186	0.600	9.632	9.625	0.007	455.2	225	7.36	43.0
13.000	32	31	0.861	0.600	9.644	9.625	0.019	466.4	100	5.42	49.9
1.007	37	33	2.017	0.600	9.636	9.632	0.004	504.3	225	7.28	43.2

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.022	1.281	90.6	42.0	0.472	0.533	0.284	0.0	143	1.257
1.021	1.281	90.6	42.3	0.432	0.472	0.284	0.0	144	1.259
1.020	0.700	49.5	42.7	0.485	0.432	0.284	0.0	216	0.784
1.019	0.724	51.2	39.4	0.491	0.485	0.260	0.0	198	0.796
27.001	0.754	5.9	1.9	0.367	0.459	0.010	0.0	39	0.669
28.001	1.023	8.0	1.3	0.375	0.459	0.007	0.0	28	0.759
28.000	1.416	11.1	0.4	0.200	0.375	0.002	0.0	13	0.656
29.000	1.967	15.4	1.0	0.200	0.375	0.005	0.0	17	1.083
27.000	1.026	8.1	1.9	0.100	0.367	0.010	0.0	33	0.841
1.018	0.730	51.6	39.3	0.491	0.491	0.257	0.0	197	0.801
26.001	1.006	7.9	0.4	0.381	0.465	0.002	0.0	16	0.535
26.000	1.168	9.2	0.4	0.200	0.381	0.002	0.0	14	0.582
1.017	0.737	52.1	38.6	0.490	0.491	0.251	0.0	192	0.804
25.000	0.348	2.7	1.2	0.448	0.465	0.006	0.0	46	0.335
1.016	1.002	70.8	37.9	0.477	0.490	0.246	0.0	156	1.018
24.002	1.142	9.0	1.0	0.375	0.464	0.005	0.0	23	0.761
24.001	1.084	8.5	1.0	0.200	0.375	0.005	0.0	23	0.722
1.015	0.981	69.3	36.0	0.466	0.477	0.232	0.0	153	0.989
23.001	0.345	2.7	1.2	0.470	0.477	0.006	0.0	46	0.334
23.000	1.317	10.3	1.2	0.165	0.470	0.006	0.0	23	0.878
1.014	0.718	50.7	31.8	0.440	0.466	0.203	0.0	172	0.756
22.000	0.351	2.8	1.1	0.433	0.466	0.006	0.0	43	0.329
1.013	0.731	51.8	30.3	0.440	0.440	0.192	0.0	165	0.760
20.001	1.139	8.9	2.1	0.337	0.440	0.011	0.0	33	0.934
21.000	0.852	6.7	0.8	0.100	0.337	0.004	0.0	23	0.567
20.000	0.888	6.9	1.3	0.100	0.337	0.007	0.0	30	0.685
1.012	0.717	50.7	29.6	0.469	0.440	0.186	0.0	165	0.744
19.000	0.349	2.7	1.1	0.415	0.440	0.006	0.0	44	0.330
1.011	0.689	25.4	24.2	0.468	0.469	0.150	0.0	176	0.725
17.000	0.903	7.1	0.8	0.100	0.343	0.004	0.0	23	0.601
18.000	1.142	9.0	0.8	0.343	0.469	0.004	0.0	21	0.713
1.010	0.568	23.4	21.4	0.469	0.468	0.132	0.0	169	0.665
15.001	1.115	8.8	1.9	0.243	0.468	0.010	0.0	32	0.890
16.000	1.561	12.3	0.8	0.200	0.343	0.004	0.0	17	0.858
15.000	0.987	7.8	1.1	0.100	0.343	0.006	0.0	26	0.708
1.009	0.598	23.8	19.7	0.344	0.344	0.121	0.0	156	0.667
14.000	0.352	2.8	0.5	0.453	0.469	0.003	0.0	29	0.268
1.008	0.606	24.1	17.2	0.344	0.344	0.105	0.0	141	0.658
13.000	0.350	2.7	0.6	0.450	0.469	0.003	0.0	31	0.274
1.007	0.575	22.9	15.7	0.344	0.344	0.095	0.0	137	0.618

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
11.001	SW-05	33	7.352	0.600	9.794	9.632	0.162	45.4	100	5.38	50.0
11.000	36	SW-05	14.227	0.600	9.980	9.794	0.186	76.5	100	5.27	50.0
12.000	35	SW-05	3.946	0.600	9.894	9.794	0.100	39.5	100	5.05	50.0
1.006	40	37	3.486	0.600	9.644	9.636	0.008	435.7	225	7.22	43.4
10.001	SW-04	37	7.511	0.600	9.794	9.636	0.158	47.5	100	5.35	50.0
10.000	39	SW-04	13.049	0.600	9.980	9.794	0.186	70.2	100	5.24	50.0
1.005	54	40	7.885	0.600	9.661	9.644	0.017	453.8	225	7.12	43.7
9.000	41	40	8.118	0.600	9.661	9.644	0.017	477.5	100	5.39	50.0
1.004	42	54	2.395	0.600	9.666	9.661	0.005	478.9	150	6.91	44.4
7.002	SW-03	54	3.278	0.600	9.754	9.661	0.093	35.2	100	5.30	50.0
8.000	58	SW-03	3.599	0.600	9.890	9.754	0.136	26.5	100	5.04	50.0
7.001	56	SW-03	13.777	0.600	9.970	9.754	0.216	63.8	100	5.26	50.0
7.000	57	56	1.653	0.600	10.000	9.970	0.030	51.8	100	5.02	50.0
1.003	44	42	9.050	0.600	9.686	9.666	0.020	452.5	150	6.82	44.7
6.000	43	42	13.204	0.600	9.695	9.666	0.029	453.3	100	5.62	49.0
1.002	48	44	9.513	0.600	9.707	9.686	0.021	453.0	150	6.49	45.6
4.001	SW-02	44	5.098	0.600	9.817	9.686	0.131	38.9	100	5.20	50.0
4.000	47	SW-02	8.650	0.600	10.000	9.817	0.183	47.3	100	5.13	50.0
5.000	46	SW-02	3.510	0.600	9.950	9.817	0.133	26.4	100	5.04	50.0
1.001	52	48	9.778	0.600	9.728	9.707	0.021	465.6	100	6.15	47.0
2.001	SW-01	48	7.490	0.600	9.820	9.707	0.113	66.3	100	5.27	50.0
3.000	51	SW-01	2.499	0.600	9.900	9.820	0.080	31.2	100	5.03	50.0
2.000	50	SW-01	9.946	0.600	10.050	9.820	0.230	43.2	100	5.14	50.0
1.000	53	52	14.598	0.600	9.760	9.728	0.032	456.2	100	5.69	48.8
10.000_1	PLOT 1	40	4.660	0.600	9.850	9.644	0.206	22.6	100	5.05	50.0
15.000_1	PLOT 4	31	3.704	0.600	9.800	9.625	0.175	21.2	100	5.04	50.0
17.000_1	PLOT 3	29	4.514	0.600	9.800	9.612	0.188	24.0	100	5.05	50.0
20.000_1	PLOT 2	25	4.322	0.600	9.750	9.603	0.147	29.4	100	5.05	50.0
22.000_1	PLOT 5	21	4.149	0.600	9.750	9.599	0.152	27.3	100	5.05	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
11.001	1.147	9.0	1.9	0.322	0.469	0.010	0.0	32	0.916
11.000	0.881	6.9	1.1	0.150	0.322	0.006	0.0	28	0.653
12.000	1.231	9.7	0.8	0.200	0.322	0.004	0.0	19	0.733
1.006	0.620	24.6	14.3	0.345	0.344	0.086	0.0	123	0.641
10.001	1.120	8.8	1.7	0.322	0.469	0.009	0.0	30	0.870
10.000	0.920	7.2	1.7	0.150	0.322	0.009	0.0	33	0.754
1.005	0.600	23.9	9.0	0.344	0.345	0.054	0.0	96	0.560
9.000	0.346	2.7	0.5	0.455	0.470	0.003	0.0	30	0.267
1.004	0.453	8.0	7.0	0.419	0.419	0.041	0.0	109	0.510
7.002	1.303	10.2	2.5	0.380	0.469	0.013	0.0	33	1.069
8.000	1.506	11.8	0.6	0.250	0.360	0.003	0.0	15	0.778
7.001	0.966	7.6	1.9	0.200	0.380	0.010	0.0	34	0.801
7.000	1.073	8.4	0.9	0.170	0.200	0.005	0.0	22	0.700
1.003	0.466	8.2	6.4	0.419	0.419	0.038	0.0	100	0.515
6.000	0.354	2.8	0.7	0.475	0.469	0.004	0.0	34	0.293
1.002	0.466	8.2	5.0	0.419	0.419	0.029	0.0	85	0.489
4.001	1.240	9.7	1.7	0.353	0.469	0.009	0.0	29	0.935
4.000	1.124	8.8	1.3	0.360	0.353	0.007	0.0	26	0.806
5.000	1.508	11.8	0.4	0.250	0.353	0.002	0.0	12	0.671
1.001	0.350	2.7	1.9	0.469	0.469	0.010	0.0	61	0.377
2.001	0.947	7.4	1.0	0.380	0.469	0.005	0.0	25	0.667
3.000	1.385	10.9	0.4	0.300	0.380	0.002	0.0	14	0.667
2.000	1.175	9.2	0.6	0.250	0.380	0.003	0.0	17	0.645
1.000	0.354	2.8	2.0	0.540	0.469	0.010	0.0	62	0.384
10.000_1	1.630	12.8	2.3	0.400	0.470	0.012	0.0	29	1.230
15.000_1	1.685	13.2	2.5	0.400	0.469	0.013	0.0	29	1.291
17.000_1	1.582	12.4	1.7	0.400	0.469	0.009	0.0	25	1.117
20.000_1	1.428	11.2	1.5	0.400	0.468	0.008	0.0	25	0.990
22.000_1	1.483	11.6	3.1	0.400	0.469	0.016	0.0	35	1.246

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.022	7.697	150.0	300	Circular	9.950	9.178	0.472	9.960	9.127	0.533
1.021	13.448	150.0	300	Circular	10.000	9.268	0.432	9.950	9.178	0.472
1.020	5.942	495.1	300	Circular	10.065	9.280	0.485	10.000	9.268	0.432
1.019	4.162	452.5	300	Circular	10.080	9.289	0.491	10.065	9.280	0.485
27.001	7.996	103.3	100	Circular	10.050	9.583	0.967	10.065	9.506	0.459
28.001	4.777	56.9	100	Circular	10.065	9.590	0.375	10.065	9.506	0.459
28.000	7.024	29.9	100	Circular	10.125	9.825	0.200	10.065	9.590	0.375

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Width (mm)	Node Type	MH Type
1.022	SW-15	1200	Manhole	Adoptable	DITCH HEADWALL	225	225	Manhole	Headwall 1
1.021	SW-14 (HYDRO)	1200	Manhole	Adoptable	SW-15	1200		Manhole	Adoptable
1.020	4		Junction		SW-14 (HYDRO)	1200		Manhole	Adoptable
1.019	59		Junction		4			Junction	
27.001	SW-13	700	Manhole	SD Chamber Outlet-CDR-2 600dia	4			Junction	
28.001	SW-12	700	Manhole	SD Chamber Outlet-CDR-2 600dia	4			Junction	
28.000	7		Junction		SW-12	700		Manhole	SD Chamber Outlet-CDR-2 600dia

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
29.000	2.726	15.6	100	Circular	10.065	9.765	0.299	10.065	9.590	0.475
27.000	9.450	59.6	100	Circular	9.950	9.750	0.199	10.050	9.583	0.467
1.018	3.646	456.0	300	Circular	10.088	9.297	0.491	10.080	9.289	0.491
26.001	5.237	58.8	100	Circular	10.085	9.604	0.381	10.080	9.515	0.465
26.000	8.577	43.8	100	Circular	10.100	9.800	0.299	10.085	9.604	0.481
1.017	3.129	447.0	300	Circular	10.094	9.304	0.490	10.088	9.297	0.491
25.000	13.638	479.3	100	Circular	10.100	9.552	0.448	10.088	9.523	0.465
1.016	7.071	243.8	300	Circular	10.110	9.333	0.477	10.094	9.304	0.490
24.002	3.894	45.8	100	Circular	10.090	9.615	0.375	10.094	9.530	0.464
24.001	9.390	50.8	100	Circular	10.100	9.800	0.299	10.090	9.615	0.475
1.015	6.619	254.6	300	Circular	10.125	9.359	0.466	10.110	9.333	0.477
23.001	5.755	479.6	100	Circular	10.115	9.545	0.470	10.110	9.533	0.477
23.000	10.527	34.5	100	Circular	10.115	9.850	0.165	10.115	9.545	0.470
1.014	6.130	470.8	300	Circular	10.112	9.372	0.440	10.125	9.359	0.466
22.000	15.266	482.6	100	Circular	10.125	9.592	0.433	10.125	9.559	0.466
1.013	4.979	452.7	300	Circular	10.123	9.363	0.440	10.112	9.372	0.440
20.001	6.489	46.0	100	Circular	10.150	9.713	0.337	10.112	9.572	0.440
21.000	16.087	81.7	100	Circular	10.110	9.910	0.199	10.150	9.713	0.337
20.000	16.512	76.1	100	Circular	10.130	9.930	0.199	10.150	9.713	0.337
1.012	7.078	471.8	300	Circular	10.167	9.398	0.469	10.123	9.383	0.440
19.000	14.980	468.1	100	Circular	10.130	9.615	0.415	10.123	9.583	0.440
1.011	2.050	419.0	225	Circular	10.171	9.478	0.468	10.167	9.473	0.469
17.000	16.246	72.9	100	Circular	10.160	9.960	0.199	10.180	9.737	0.343
18.000	6.263	45.8	100	Circular	10.180	9.737	0.343	10.167	9.598	0.469
1.010	4.346	482.8	225	Circular	10.181	9.487	0.469	10.171	9.478	0.468
15.001	6.436	48.0	100	Circular	10.180	9.737	0.343	10.171	9.603	0.468
16.000	3.524	24.6	100	Circular	10.180	9.880	0.299	10.180	9.737	0.343
15.000	13.609	61.0	100	Circular	10.160	9.960	0.199	10.180	9.737	0.343
1.009	6.070	466.9	225	Circular	10.194	9.625	0.344	10.181	9.612	0.344
14.000	8.275	459.7	100	Circular	10.183	9.630	0.453	10.181	9.612	0.469
1.008	3.186	455.2	225	Circular	10.201	9.632	0.344	10.194	9.625	0.344
13.000	8.861	469.4	100	Circular	10.194	9.644	0.450	10.194	9.625	0.469
1.007	2.017	504.3	225	Circular	10.205	9.636	0.344	10.201	9.632	0.344
11.001	7.352	45.4	100	Circular	10.216	9.794	0.322	10.201	9.632	0.469
11.000	14.227	76.5	100	Circular	10.230	9.980	0.150	10.216	9.794	0.322
12.000	3.946	39.5	100	Circular	10.194	9.894	0.299	10.216	9.794	0.322
1.006	3.486	435.7	225	Circular	10.214	9.644	0.345	10.205	9.636	0.344
10.001	7.511	47.5	100	Circular	10.216	9.794	0.322	10.205	9.636	0.469
10.000	13.049	70.2	100	Circular	10.230	9.980	0.150	10.216	9.794	0.322
1.005	7.885	463.8	225	Circular	10.230	9.661	0.344	10.214	9.644	0.345

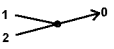
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Width (mm)	Node Type	MH Type
29.000	6		Junction		SW-12	700		Manhole	SD Chamber Outlet-CDR-2 600dia
27.000	9		Junction		SW-13	700		Manhole	SD Chamber Outlet-CDR-2 600dia
1.018	62		Junction		59			Junction	
26.001	SW-11	700	Manhole	SD Chamber Outlet-CDR-2 600dia	59			Junction	
26.000	61		Junction		SW-11	700		Manhole	SD Chamber Outlet-CDR-2 600dia
1.017	64		Junction		62			Junction	
25.000	63		Junction		62			Junction	
1.016	10		Junction		64			Junction	
24.002	SW-10	700	Manhole	SD Chamber Outlet-CDR-2 600dia	64			Junction	
24.001	66		Junction		SW-10	700		Manhole	SD Chamber Outlet-CDR-2 600dia
1.015	13		Junction		10			Junction	
23.001	SW-09	700	Manhole	SD Chamber Outlet-CDR-2 600dia	10			Junction	
23.000	12		Junction		SW-09	700		Manhole	SD Chamber Outlet-CDR-2 600dia
1.014	15		Junction		13			Junction	
22.000	14		Junction		13			Junction	
1.013	19		Junction		15			Junction	
20.001	SW-08	700	Manhole	SD Chamber Outlet-CDR-2 600dia	15			Junction	
21.000	18		Junction		SW-08	700		Manhole	SD Chamber Outlet-CDR-2 600dia
20.000	17		Junction		SW-08	700		Manhole	SD Chamber Outlet-CDR-2 600dia
1.012	21		Junction		19			Junction	
19.000	20		Junction		19			Junction	
1.011	25		Junction		21			Junction	
17.000	24		Junction		SW-07	700		Manhole	SD Chamber Outlet-CDR-2 600dia
18.000	SW-07	700	Manhole	SD Chamber Outlet-CDR-2 600dia	21			Junction	
1.010	29		Junction		25			Junction	
15.001	SW-06	700	Manhole	SD Chamber Outlet-CDR-2 600dia	25			Junction	
16.000	28		Junction		SW-06	700		Manhole	SD Chamber Outlet-CDR-2 600dia
15.000	27		Junction		SW-06	700		Manhole	SD Chamber Outlet-CDR-2 600dia
1.009	31		Junction		29			Junction	
14.000	30		Junction		29			Junction	
1.008	33		Junction		31			Junction	
13.000	32		Junction		31			Junction	
1.007	37		Junction		33			Junction	
11.001	SW-05	700	Manhole	SD Chamber Outlet-CDR-2 600dia	33			Junction	
11.000	36		Junction		SW-05	700		Manhole	SD Chamber Outlet-CDR-2 600dia
12.000	35		Junction		SW-05	700		Manhole	SD Chamber Outlet-CDR-2 600dia
1.006	40		Junction		37			Junction	
10.001	SW-04	700	Manhole	SD Chamber Outlet-CDR-2 600dia	37			Junction	
10.000	39		Junction		SW-04	700		Manhole	SD Chamber Outlet-CDR-2 600dia
1.005	54		Junction		40			Junction	

Pipeline Schedule

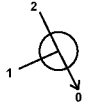
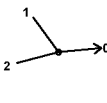
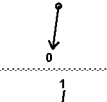
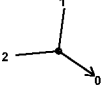
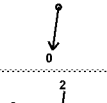
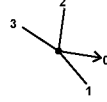
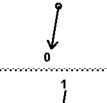
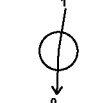
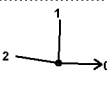
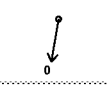
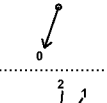
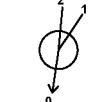
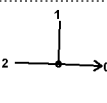
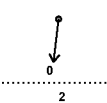
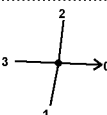
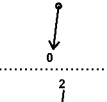
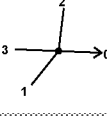
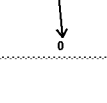
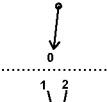
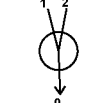
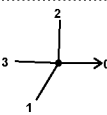
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
9.000	8.118	477.5	100	Circular	10.216	9.661	0.455	10.214	9.644	0.470
1.004	2.395	478.8	150	Circular	10.235	9.666	0.419	10.230	9.661	0.419
7.002	3.278	35.2	100	Circular	10.234	9.754	0.380	10.230	9.661	0.469
8.000	3.599	26.5	100	Circular	10.240	9.890	0.250	10.234	9.754	0.380
7.001	13.777	63.8	100	Circular	10.270	9.970	0.200	10.234	9.754	0.380
7.000	1.553	51.6	100	Circular	10.270	10.000	0.170	10.270	9.970	0.200
1.003	9.050	452.5	150	Circular	10.255	9.686	0.419	10.235	9.666	0.419
6.000	13.204	455.3	100	Circular	10.270	9.695	0.475	10.235	9.666	0.469
1.002	9.513	453.0	150	Circular	10.276	9.707	0.419	10.255	9.686	0.419
4.001	5.098	38.9	100	Circular	10.270	9.817	0.353	10.255	9.686	0.469
4.000	8.650	47.3	100	Circular	10.460	10.000	0.360	10.270	9.817	0.353
5.000	3.510	26.4	100	Circular	10.300	9.950	0.260	10.270	9.817	0.353
1.001	9.778	465.6	100	Circular	10.297	9.728	0.469	10.276	9.707	0.469
2.001	7.490	66.3	100	Circular	10.300	9.820	0.380	10.276	9.707	0.469
3.000	2.499	31.2	100	Circular	10.300	9.900	0.300	10.300	9.820	0.380
2.000	9.946	43.2	100	Circular	10.400	10.050	0.250	10.300	9.820	0.380
1.000	14.598	456.2	100	Circular	10.400	9.760	0.540	10.297	9.728	0.469
10.000_1	4.660	22.6	100	Circular	10.350	9.850	0.400	10.214	9.644	0.470
15.000_1	3.704	21.2	100	Circular	10.300	9.800	0.400	10.194	9.625	0.469
17.000_1	4.514	24.0	100	Circular	10.300	9.800	0.400	10.181	9.612	0.469
20.000_1	4.322	29.4	100	Circular	10.250	9.750	0.400	10.171	9.603	0.468
22.000_1	4.149	27.3	100	Circular	10.250	9.750	0.400	10.167	9.598	0.469

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Width (mm)	Node Type	MH Type
9.000	41		Junction		40			Junction	
1.004	42		Junction		54			Junction	
7.002	SW-03	700	Manhole	SD Chamber Outlet-CDR-2 600dia	54			Junction	
8.000	58		Junction		SW-03	700		Manhole	SD Chamber Outlet-CDR-2 600dia
7.001	56		Junction		SW-03	700		Manhole	SD Chamber Outlet-CDR-2 600dia
7.000	57		Junction		56			Junction	
1.003	44		Junction		42			Junction	
6.000	43		Junction		42			Junction	
1.002	48		Junction		44			Junction	
4.001	SW-02	700	Manhole	SD Chamber Outlet-CDR-2 600dia	44			Junction	
4.000	47		Junction		SW-02	700		Manhole	SD Chamber Outlet-CDR-2 600dia
5.000	46		Junction		SW-02	700		Manhole	SD Chamber Outlet-CDR-2 600dia
1.001	52		Junction		48			Junction	
2.001	SW-01	700	Manhole	SD Chamber Outlet-CDR-2 600dia	48			Junction	
3.000	51		Junction		SW-01	700		Manhole	SD Chamber Outlet-CDR-2 600dia
2.000	50		Junction		SW-01	700		Manhole	SD Chamber Outlet-CDR-2 600dia
1.000	53		Junction		52			Junction	
10.000_1	PLOT 1		Junction		40			Junction	
15.000_1	PLOT 4		Junction		31			Junction	
17.000_1	PLOT 3		Junction		29			Junction	
20.000_1	PLOT 2		Junction		25			Junction	
22.000_1	PLOT 5		Junction		21			Junction	

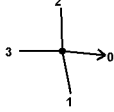
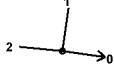
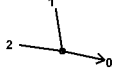
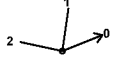
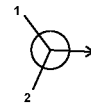
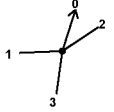
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)	
53	161026.272	49304.739	10.400	0.640				0	1.000	9.760	100
52	161029.884	49290.595	10.297	0.569				1	1.000	9.728	100
								0	1.001	9.728	100
51	161034.070	49296.038	10.300	0.400				0	3.000	9.900	100
50	161030.248	49304.407	10.400	0.350				0	2.000	10.050	100
SW-01	161032.013	49294.619	10.300	0.780	700			1	3.000	9.820	100
								2	2.000	9.820	100
								0	2.001	9.820	100
48	161039.342	49293.075	10.276	0.569				1	2.001	9.707	100
								2	1.001	9.707	100
								0	1.002	9.707	150
47	161041.870	49307.455	10.460	0.460				0	4.000	10.000	100
46	161042.428	49298.230	10.300	0.350				0	5.000	9.950	100

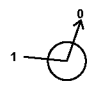
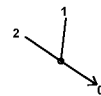
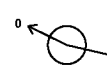
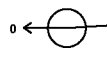
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)
SW-02	161045.631	49299.665	10.270	0.753	700			1 5.000 2 4.000	9.817 9.817	100 100
							0	4.001	9.817	100
44	161048.544	49295.488	10.255	0.569				1 4.001 2 1.002	9.686 9.686	100 150
							0	1.003	9.686	150
43	161059.309	49309.432	10.270	0.575						
							0	6.000	9.695	100
42	161057.553	49296.345	10.235	0.569				1 6.000 2 1.003	9.666 9.666	100 150
							0	1.004	9.666	150
41	161067.220	49298.691	10.216	0.555						
							0	9.000	9.661	100
40	161066.110	49290.649	10.214	0.570				1 10.000_1 2 9.000 3 1.005	9.644 9.644 9.644	100 100 225
							0	1.006	9.644	225
39	161071.986	49310.482	10.230	0.250						
							0	10.000	9.980	100
SW-04	161069.847	49297.610	10.216	0.722	700			1 10.000	9.794	100
							0	10.001	9.794	100
37	161069.553	49290.105	10.205	0.569				1 10.001 2 1.006	9.636 9.636	100 225
							0	1.007	9.636	225
36	161074.227	49311.417	10.230	0.250						
							0	11.000	9.980	100
35	161073.315	49301.052	10.194	0.300						
							0	12.000	9.894	100
SW-05	161071.911	49297.381	10.216	0.722	700			1 12.000 2 11.000	9.794 9.794	100 100
							0	11.001	9.794	100
33	161071.569	49290.040	10.201	0.569				1 11.001 2 1.007	9.632 9.632	100 225
							0	1.008	9.632	225
32	161075.785	49298.697	10.194	0.550						
							0	13.000	9.644	100
31	161074.752	49289.896	10.194	0.569				1 13.000_1 2 13.000 3 1.008	9.625 9.625 9.625	100 100 225
							0	1.009	9.625	225
30	161081.820	49297.865	10.183	0.553						
							0	14.000	9.630	100
29	161080.817	49289.651	10.181	0.694				1 17.000_1 2 14.000 3 1.009	9.612 9.612 9.612	100 100 225
							0	1.010	9.487	225
28	161084.968	49299.402	10.180	0.300						
							0	16.000	9.880	100
27	161086.911	49309.428	10.160	0.200						
							0	15.000	9.960	100
SW-06	161085.376	49295.907	10.180	0.743	700			1 16.000 2 15.000	9.737 9.737	100 100
							0	15.001	9.737	100
25	161085.159	49289.476	10.171	0.693				1 20.000_1 2 15.001 3 1.010	9.603 9.603 9.478	100 100 225
							0	1.011	9.478	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)
24	161089.206	49311.922	10.160	0.200				0	17.000	9.960 100
SW-07	161087.028	49295.823	10.180	0.743	700			1	17.000	9.737 100
								0	18.000	9.737 100
21	161087.209	49289.463	10.167	0.769				1	22.000_1	9.598 100
								2	18.000	9.598 100
								3	1.011	9.473 225
								0	1.012	9.398 300
20	161096.381	49303.591	10.130	0.515				0	19.000	9.615 100
19	161094.252	49288.763	10.123	0.740				1	19.000	9.583 100
								2	1.012	9.363 300
								0	1.013	9.383 300
18	161100.338	49310.425	10.110	0.200				0	21.000	9.910 100
17	161096.637	49310.914	10.130	0.200				0	20.000	9.930 100
SW-08	161098.181	49294.483	10.150	0.737	700			1	21.000	9.713 100
								2	20.000	9.713 100
								0	20.001	9.713 100
15	161099.183	49288.072	10.112	0.740				1	20.001	9.572 100
								2	1.013	9.372 300
								0	1.014	9.372 300
14	161107.337	49301.900	10.125	0.533				0	22.000	9.592 100
13	161105.167	49286.789	10.125	0.766				1	22.000	9.559 100
								2	1.014	9.359 300
								0	1.015	9.359 300
12	161126.912	49285.201	10.115	0.265				0	23.000	9.850 100
SW-09	161116.529	49286.837	10.115	0.870	700			1	23.000	9.545 100
								0	23.001	9.545 100
10	161111.313	49289.247	10.110	0.777				1	23.001	9.533 100
								2	1.015	9.333 300
								0	1.016	9.333 300
9	161129.855	49310.410	9.950	0.200				0	27.000	9.750 100
SW-13	161120.470	49311.513	10.050	0.767	700			1	27.000	9.583 100
								0	27.001	9.583 100
7	161106.203	49300.505	10.125	0.300				0	28.000	9.825 100
6	161107.404	49309.111	10.065	0.300				0	29.000	9.765 100
SW-12	161109.040	49306.931	10.065	0.775	700			1	29.000	9.590 100
								2	28.000	9.590 100
								0	28.001	9.590 100
4	161113.813	49307.083	10.065	0.785				1	28.001	9.506 100
								2	27.001	9.506 100
								3	1.019	9.280 300
								0	1.020	9.280 300
SW-14 (HYDRO)	161115.614	49312.745	10.000	1.032	1200			1	1.020	9.268 300
								0	1.021	9.268 300

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)
SW-15	161128.995	49311.404	9.950	0.772	1200			1 1.021	9.178	300
								0 1.022	9.178	300
DITCH HEADWALL	161131.491	49318.685	9.960	0.833	225	225		1 1.022	9.127	300
54	161059.533	49294.998	10.230	0.569				1 7.002 2 1.004	9.661 9.661	100 150
								0 1.005	9.661	225
SW-03	161059.914	49298.254	10.234	0.780	700			1 8.000 2 7.001	9.754 9.754	100 100
								0 7.002	9.754	100
56	161060.228	49312.027	10.270	0.300				1 7.000	9.970	100
								0 7.001	9.970	100
57	161061.692	49311.725	10.270	0.270				0 7.000	10.000	100
58	161060.312	49301.831	10.240	0.350				0 8.000	9.890	100
59	161113.241	49302.960	10.080	0.791				1 26.001 2 1.018	9.515 9.289	100 300
								0 1.019	9.289	300
SW-11	161118.384	49302.118	10.085	0.781	700			1 26.000	9.604	100
								0 26.001	9.604	100
61	161126.865	49300.847	10.100	0.300				0 26.000	9.800	100
62	161112.736	49299.347	10.088	0.791				1 25.000 2 1.017	9.523 9.297	100 300
								0 1.018	9.297	300
63	161126.272	49297.681	10.100	0.548				0 25.000	9.552	100
64	161112.303	49296.248	10.094	0.790				1 24.002 2 1.016	9.530 9.304	100 300
								0 1.017	9.304	300
SW-10	161116.164	49295.776	10.090	0.775	700			1 24.001	9.615	100
								0 24.002	9.615	100
66	161125.552	49295.671	10.100	0.300				0 24.000	9.800	100
PLOT 1	161069.130	49287.100	10.350	0.500				0 10.000_1	9.850	100
PLOT 4	161074.051	49286.259	10.300	0.500				0 15.000_1	9.800	100
PLOT 3	161077.995	49286.128	10.300	0.500				0 17.000_1	9.800	100
PLOT 2	161082.925	49285.776	10.250	0.500				0 20.000_1	9.750	100
PLOT 5	161088.010	49285.392	10.250	0.500				0 22.000_1	9.750	100

Simulation Settings

Rainfall Methodology	FEH-22	Skip Steady State	✓	2 year (l/s)	0.3	500 year (l/s)	1.7
Summer CV	1.000	Drain Down Time (mins)	240	10 year (l/s)	0.6	Check Discharge Volume	✓
Winter CV	1.000	Additional Storage (m³/ha)	0.0	30 year (l/s)	0.9	100 year +40% 360 minute (m³)	67
Analysis Speed	Detailed	Check Discharge Rate(s)	✓	100 year (l/s)	1.2		

Storm Durations

15 30 60 120 180 240 360 480 600 720 960 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	10	0	0	100	45	0	0
10	40	0	0	500	45	0	0
30	40	0	0				

Pre-development Discharge Rate

Site Makeup	Greenfield	SPR	0.30	Growth Factor 100 year	3.19	Q 10 year (l/s)	0.6
Greenfield Method	IH124	Region	7	Growth Factor 500 year	4.49	Q 30 year (l/s)	0.9
Positively Drained Area (ha)	0.208	Growth Factor 2 year	0.88	Betterment (%)	6	Q 100 year (l/s)	1.2
SAAR (mm)	749	Growth Factor 10 year	1.62	QBar	0.4	Q 500 year (l/s)	1.7
Soil Index	2	Growth Factor 30 year	2.40	Q 2 year (l/s)	0.3		

Pre-development Discharge Volume

Site Makeup	Greenfield	Soil Index	2	Return Period (years)	100	Betterment (%)	6
Greenfield Method	FSR/FEH	SPR	0.30	Climate Change (%)	40	PR	0.346
Positively Drained Area (ha)	0.208	CWI	112.444	Storm Duration (mins)	360	Runoff Volume (m³)	67

Node DITCH HEADWALL Surcharged Outfall

Overrides Design Area	x	Depression Storage Area (m²)	0	Evapo-transpiration (mm/day)	0
Overrides Design Additional Inflow	x	Depression Storage Depth (mm)	0		
Applies to All storms					

Time (mins)	Depth (m)	Time (mins)	Depth (m)
0	0.521	1440	0.521

Node SW-14 (HYDRO) Online Hydro-Brake® Control

Flap Valve	x	Design Flow (l/s)	1.2	Min Outlet Diameter (m)	0.075
Replaces Downstream Link	✓	Objective	(FP) Future proof	Min Node Diameter (mm)	1200
Invert Level (m)	9.268	Sump Available	✓		
Design Depth (m)	0.400	Product Number	CTL-SFP-0058-1200-0400-1200		

Node 48 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Width (m)	11.400	Depth (m)	0.300
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.707	Length (m)	11.400	Inf Depth (m)	0.300
Safety Factor	3.0	Time to half empty (mins)		Slope (1:X)	460.0		

Node 21 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Width (m)	12.250	Depth (m)	0.300
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.398	Length (m)	12.250	Inf Depth (m)	0.300
Safety Factor	3.0	Time to half empty (mins)		Slope (1:X)	460.0		

Node 40 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Width (m)	10.490	Depth (m)	0.300
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.644	Length (m)	10.490	Inf Depth (m)	0.300
Safety Factor	3.0	Time to half empty (mins)		Slope (1:X)	460.0		

Node 13 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Width (m)	15.090	Depth (m)	0.300
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.359	Length (m)	15.090	Inf Depth (m)	0.300
Safety Factor	3.0	Time to half empty (mins)		Slope (1:X)	460.0		

Node 10 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Width (m)	8.940	Depth (m)	0.300
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.333	Length (m)	8.940	Inf Depth (m)	0.300
Safety Factor	3.0	Time to half empty (mins)		Slope (1:X)	460.0		

Node 4 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Width (m)	8.940	Depth (m)	0.300
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.280	Length (m)	8.940	Inf Depth (m)	0.300
Safety Factor	3.0	Time to half empty (mins)		Slope (1:X)	460.0		

Node PLOT 1 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Width (m)	6.630	Depth (m)	
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.850	Length (m)	6.630	Inf Depth (m)	0.400
Safety Factor	2.0	Time to half empty (mins)	60	Slope (1:X)	500.0		

Node PLOT 4 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Width (m)	8.000	Depth (m)	
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.800	Length (m)	8.000	Inf Depth (m)	0.400
Safety Factor	2.0	Time to half empty (mins)		Slope (1:X)	500.0		

Node PLOT 3 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Width (m)	6.240	Depth (m)	
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.800	Length (m)	6.240	Inf Depth (m)	0.400
Safety Factor	2.0	Time to half empty (mins)		Slope (1:X)	500.0		

Node PLOT 2 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Width (m)	5.740	Depth (m)	
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.750	Length (m)	5.740	Inf Depth (m)	0.400
Safety Factor	2.0	Time to half empty (mins)		Slope (1:X)	500.0		

Node PLOT 5 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Width (m)	8.830	Depth (m)	
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.750	Length (m)	8.830	Inf Depth (m)	0.400
Safety Factor	2.0	Time to half empty (mins)		Slope (1:X)	500.0		

Results for 2 year +10% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	53	12	9.797	0.037	0.3	0.0000	0.0000	OK
15 minute summer	1.000:50%	12	9.797	0.053	1.9	0.1150	0.0000	OK
15 minute summer	52	12	9.776	0.048	1.6	0.0000	0.0000	OK
15 minute summer	51	1	9.900	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	11	9.873	0.013	0.4	0.0000	0.0000	OK
15 minute summer	50	1	10.050	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2.000:50%	10	9.952	0.017	0.6	0.0000	0.0000	OK
15 minute summer	SW-01	10	9.845	0.025	1.0	0.0096	0.0000	OK
180 minute summer	48	112	9.742	0.035	2.2	2.7742	0.0000	OK
15 minute summer	47	1	10.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4.000:50%	10	9.935	0.026	1.3	0.0373	0.0000	OK
15 minute summer	46	1	9.950	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5.000:50%	11	9.896	0.013	0.4	0.0099	0.0000	OK
15 minute summer	SW-02	11	9.845	0.028	1.6	0.0107	0.0000	OK
30 minute summer	44	20	9.731	0.045	1.6	0.0000	0.0000	OK
15 minute summer	43	12	9.721	0.026	0.2	0.0000	0.0000	OK
15 minute summer	6.000:50%	12	9.721	0.040	0.7	0.0000	0.0000	OK
30 minute summer	42	20	9.720	0.054	2.0	0.0000	0.0000	OK
120 minute summer	41	76	9.706	0.045	0.0	0.0000	0.0000	OK
120 minute summer	9.000:50%	76	9.706	0.053	0.3	0.0000	0.0000	OK
120 minute summer	40	76	9.706	0.062	5.8	5.2920	0.0000	OK
15 minute summer	39	1	9.980	0.000	0.0	0.0000	0.0000	OK
15 minute summer	10.000:50%	10	9.922	0.035	1.7	0.0000	0.0000	OK
15 minute summer	SW-04	11	9.823	0.029	1.7	0.0113	0.0000	OK
120 minute summer	37	74	9.702	0.066	4.0	0.0000	0.0000	OK
15 minute summer	36	1	9.980	0.000	0.0	0.0000	0.0000	OK
15 minute summer	11.000:50%	10	9.915	0.028	1.1	0.0000	0.0000	OK
15 minute summer	35	1	9.894	0.000	0.0	0.0000	0.0000	OK
15 minute winter	12.000:50%	11	9.863	0.019	0.7	0.0000	0.0000	OK
15 minute summer	SW-05	11	9.824	0.030	1.8	0.0117	0.0000	OK
120 minute summer	33	72	9.699	0.067	4.5	0.0000	0.0000	OK
120 minute summer	32	72	9.693	0.049	0.0	0.0000	0.0000	OK
120 minute summer	13.000:50%	72	9.693	0.058	0.3	0.1462	0.0000	OK
120 minute summer	31	72	9.693	0.068	5.6	0.0000	0.0000	OK
15 minute summer	30	12	9.647	0.017	0.1	0.0000	0.0000	OK
15 minute summer	14.000:50%	12	9.647	0.026	0.5	0.0000	0.0000	OK
15 minute summer	29	12	9.566	0.079	6.1	0.0000	0.0000	OK
15 minute summer	28	1	9.880	0.000	0.0	0.0000	0.0000	OK
15 minute summer	16.000:50%	11	9.825	0.016	0.7	0.0000	0.0000	OK
15 minute summer	27	1	9.960	0.000	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	53	1.000	1.000:50%	-0.3	-0.134	-0.092	0.0248	
15 minute summer	53	1.000	52	1.6	0.408	0.578	0.0289	
15 minute summer	52	1.001	48	1.6	0.645	0.582	0.0251	
15 minute summer	51	3.000	3.000:50%	0.0	0.000	0.000	0.0004	
15 minute summer	51	3.000	SW-01	0.4	0.395	0.037	0.0013	
15 minute summer	50	2.000	2.000:50%	0.0	0.000	0.000	0.0022	
15 minute summer	50	2.000	SW-01	0.6	0.506	0.061	0.0060	
15 minute summer	SW-01	2.001	48	1.0	0.759	0.130	0.0101	
180 minute summer	48	1.002	44	1.0	0.302	0.121	0.0337	
15 minute summer	47	4.000	4.000:50%	0.0	0.000	0.000	0.0035	
15 minute summer	47	4.000	SW-02	1.2	0.732	0.141	0.0074	
15 minute summer	46	5.000	5.000:50%	0.0	0.000	0.000	0.0005	
15 minute summer	46	5.000	SW-02	0.4	0.357	0.034	0.0021	
15 minute summer	SW-02	4.001	44	1.6	0.677	0.169	0.0126	
30 minute summer	44	1.003	42	1.6	0.317	0.191	0.0454	
15 minute summer	43	6.000	6.000:50%	-0.2	-0.148	-0.081	0.0151	
15 minute summer	43	6.000	42	0.5	0.258	0.183	0.0237	
30 minute summer	42	1.004	54	2.0	0.351	0.254	0.0138	
120 minute summer	41	9.000	9.000:50%	0.0	-0.053	-0.018	0.0155	
120 minute summer	41	9.000	40	0.2	0.087	0.075	0.0189	
120 minute summer	40	1.006	37	3.7	0.416	0.151	0.0323	
15 minute summer	39	10.000	10.000:50%	0.0	0.000	0.000	0.0080	
15 minute summer	39	10.000	SW-04	1.7	0.768	0.231	0.0142	
15 minute summer	SW-04	10.001	37	1.7	0.626	0.188	0.0212	
120 minute summer	37	1.007	33	4.1	0.430	0.177	0.0197	
15 minute summer	36	11.000	11.000:50%	0.0	0.000	0.000	0.0062	
15 minute summer	36	11.000	SW-05	1.1	0.587	0.159	0.0134	
15 minute summer	35	12.000	12.000:50%	0.0	0.000	0.000	0.0010	
15 minute summer	35	12.000	SW-05	0.7	0.486	0.072	0.0030	
15 minute summer	SW-05	11.001	33	1.8	0.630	0.200	0.0227	
120 minute summer	33	1.008	31	4.6	0.463	0.189	0.0318	
120 minute summer	32	13.000	13.000:50%	0.0	-0.035	-0.017	0.0190	
120 minute summer	32	13.000	31	0.2	-0.076	0.077	0.0230	
120 minute summer	31	1.009	29	5.6	0.599	0.235	0.0567	
15 minute summer	30	14.000	14.000:50%	-0.1	-0.132	-0.038	0.0051	
15 minute summer	30	14.000	29	0.4	0.317	0.156	0.0057	
15 minute summer	29	1.010	25	6.1	0.500	0.259	0.0551	
15 minute summer	28	16.000	16.000:50%	0.0	0.000	0.000	0.0007	
15 minute summer	28	16.000	SW-06	0.7	0.551	0.057	0.0026	
15 minute summer	27	15.000	15.000:50%	0.0	0.000	0.000	0.0053	

Results for 2 year +10% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	15.000:50%	11	9.874	0.025	1.1	0.0458	0.0000	OK
15 minute summer	SW-06	11	9.769	0.032	1.8	0.0122	0.0000	OK
15 minute summer	25	12	9.559	0.081	9.0	0.0000	0.0000	OK
15 minute summer	24	1	9.960	0.000	0.0	0.0000	0.0000	OK
15 minute summer	17.000:50%	11	9.872	0.023	0.8	0.0386	0.0000	OK
15 minute summer	SW-07	11	9.757	0.020	0.8	0.0078	0.0000	OK
720 minute winter	21	705	9.518	0.120	3.6	15.2242	0.0000	OK
15 minute summer	20	12	9.640	0.025	0.2	0.0000	0.0000	OK
15 minute summer	19.000:50%	11	9.640	0.041	1.1	0.0000	0.0000	OK
720 minute winter	19	705	9.518	0.135	3.4	0.0000	0.0000	OK
15 minute summer	18	1	9.910	0.000	0.0	0.0000	0.0000	OK
15 minute summer	21.000:50%	11	9.833	0.022	0.7	0.0332	0.0000	OK
15 minute summer	17	1	9.930	0.000	0.0	0.0000	0.0000	OK
15 minute summer	20.000:50%	11	9.850	0.029	1.3	0.0596	0.0000	OK
15 minute summer	SW-08	11	9.745	0.032	1.9	0.0125	0.0000	OK
720 minute winter	15	705	9.518	0.146	3.5	0.0000	0.0000	OK
30 minute summer	14	19	9.614	0.022	0.1	0.0000	0.0000	OK
15 minute summer	22.000:50%	12	9.613	0.037	1.1	0.0636	0.0000	OK
720 minute winter	13	705	9.518	0.159	4.1	30.8877	0.0000	OK
15 minute summer	12	1	9.850	0.000	0.0	0.0000	0.0000	OK
15 minute summer	23.000:50%	11	9.720	0.022	1.1	0.0292	0.0000	OK
15 minute summer	SW-09	11	9.589	0.044	1.1	0.0168	0.0000	OK
720 minute winter	10	705	9.518	0.185	2.2	13.1335	0.0000	OK
15 minute summer	9	1	9.750	0.000	0.0	0.0000	0.0000	OK
15 minute summer	27.000:50%	11	9.699	0.033	1.8	0.0801	0.0000	OK
15 minute summer	SW-13	11	9.621	0.038	1.7	0.0148	0.0000	OK
15 minute summer	7	1	9.825	0.000	0.0	0.0000	0.0000	OK
15 minute summer	28.000:50%	11	9.721	0.013	0.4	0.0109	0.0000	OK
15 minute summer	6	1	9.765	0.000	0.0	0.0000	0.0000	OK
15 minute summer	29.000:50%	11	9.694	0.016	0.9	0.0000	0.0000	OK
15 minute summer	SW-12	11	9.617	0.027	1.3	0.0106	0.0000	OK
720 minute winter	4	705	9.518	0.238	1.5	17.1281	0.0000	OK
720 minute winter	SW-14 (HYDRO)	705	9.518	0.250	0.1	0.2831	0.0000	OK
720 minute winter	SW-15	705	9.518	0.340	0.1	0.3848	0.0000	SURCHARGED
15 minute summer	DITCH HEADWALL	1	9.648	0.521	0.0	0.0000	0.0000	OK
30 minute summer	54	21	9.716	0.055	3.9	0.0000	0.0000	OK
15 minute summer	SW-03	11	9.789	0.035	2.3	0.0135	0.0000	OK
15 minute summer	56	11	9.992	0.022	0.8	0.0000	0.0000	OK
15 minute summer	7.001:50%	11	9.896	0.034	1.7	0.0000	0.0000	OK
15 minute summer	57	11	10.006	0.006	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	27	15.000	SW-06	1.1	0.590	0.139	0.0125	
15 minute summer	SW-06	15.001	25	1.8	0.853	0.202	0.0134	
15 minute summer	25	1.011	21	9.1	0.726	0.356	0.0256	
15 minute summer	24	17.000	17.000:50%	0.0	0.000	0.000	0.0056	
15 minute summer	24	17.000	SW-07	0.8	0.622	0.110	0.0102	
15 minute summer	SW-07	18.000	21	0.8	0.686	0.085	0.0071	
720 minute winter	21	1.012	19	3.3	0.390	0.064	0.2024	
15 minute summer	20	19.000	19.000:50%	-0.2	-0.134	-0.072	0.0169	
15 minute summer	20	19.000	19	1.0	0.395	0.365	0.0191	
720 minute winter	19	1.013	15	3.3	0.380	0.065	0.1616	
15 minute summer	18	21.000	21.000:50%	0.0	0.000	0.000	0.0050	
15 minute summer	18	21.000	SW-08	0.7	0.406	0.102	0.0138	
15 minute summer	17	20.000	20.000:50%	0.0	0.000	0.000	0.0076	
15 minute summer	17	20.000	SW-08	1.2	0.605	0.175	0.0166	
15 minute summer	SW-08	20.001	15	1.9	0.879	0.210	0.0138	
720 minute winter	15	1.014	13	3.5	0.432	0.069	0.2206	
30 minute summer	14	22.000	22.000:50%	-0.1	-0.088	-0.040	0.0149	
30 minute summer	14	22.000	13	0.9	0.378	0.311	0.0174	
720 minute winter	13	1.015	10	2.0	0.398	0.029	0.2769	
15 minute summer	12	23.000	23.000:50%	0.0	0.000	0.000	0.0034	
15 minute summer	12	23.000	SW-09	1.1	0.551	0.106	0.0120	
15 minute summer	SW-09	23.001	10	1.1	0.393	0.399	0.0158	
720 minute winter	10	1.016	64	1.0	0.271	0.015	0.3518	
15 minute summer	9	27.000	27.000:50%	0.0	0.000	0.000	0.0053	
15 minute summer	9	27.000	SW-13	1.7	0.693	0.213	0.0118	
15 minute summer	SW-13	27.001	4	1.7	0.635	0.287	0.0214	
15 minute summer	7	28.000	28.000:50%	0.0	0.000	0.000	0.0010	
15 minute summer	7	28.000	SW-12	0.4	0.354	0.036	0.0041	
15 minute summer	6	29.000	29.000:50%	0.0	0.000	0.000	0.0006	
15 minute summer	6	29.000	SW-12	0.9	0.735	0.058	0.0018	
15 minute summer	SW-12	28.001	4	1.3	0.750	0.162	0.0083	
720 minute winter	4	1.020	SW-14 (HYDRO)	0.1	0.113	0.002	0.3649	
720 minute winter	SW-14 (HYDRO)	Hydro-Brake®	SW-15	0.1				
720 minute winter	SW-15	1.022	DITCH HEADWALL	0.0	0.000	0.000	0.5420	0.0
30 minute summer	54	1.005	40	3.9	0.675	0.163	0.0550	
15 minute summer	SW-03	7.002	54	2.3	0.680	0.222	0.0111	
15 minute summer	56	7.001	7.001:50%	0.8	0.462	0.110	0.0125	
15 minute summer	56	7.001	SW-03	1.7	0.725	0.228	0.0164	
15 minute summer	57	7.000	7.000:50%	0.0	-0.086	0.005	0.0006	

Results for 2 year +10% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	7.000:50%	10	10.006	0.021	0.9	0.0000	0.0000	OK
15 minute summer	58	1	9.890	0.000	0.0	0.0000	0.0000	OK
15 minute summer	8.000:50%	10	9.837	0.015	0.6	0.0000	0.0000	OK
720 minute winter	59	705	9.518	0.229	1.2	0.0000	0.0000	OK
15 minute summer	SW-11	11	9.619	0.015	0.4	0.0059	0.0000	OK
15 minute summer	26.001:50%	11	9.575	0.015	0.4	0.0000	0.0000	OK
15 minute summer	61	1	9.800	0.000	0.0	0.0000	0.0000	OK
15 minute summer	26.000:50%	11	9.716	0.014	0.4	0.0130	0.0000	OK
720 minute winter	62	705	9.518	0.221	1.2	0.0000	0.0000	OK
15 minute summer	63	11	9.579	0.027	0.2	0.0000	0.0000	OK
15 minute summer	25.000:50%	11	9.578	0.041	1.1	0.0000	0.0000	OK
720 minute winter	64	705	9.518	0.214	1.1	0.0000	0.0000	OK
15 minute summer	SW-10	11	9.637	0.022	0.9	0.0083	0.0000	OK
15 minute summer	24.002:50%	11	9.595	0.022	1.0	0.0239	0.0000	OK
15 minute summer	66	1	9.800	0.000	0.0	0.0000	0.0000	OK
15 minute summer	24.001:50%	11	9.730	0.022	0.9	0.0315	0.0000	OK
15 minute summer	PLOT 1	11	9.876	0.026	2.2	0.2541	0.0000	OK
15 minute summer	PLOT 4	12	9.826	0.026	2.4	0.3423	0.0000	OK
15 minute summer	PLOT 3	11	9.823	0.023	1.7	0.1922	0.0000	OK
15 minute summer	PLOT 2	12	9.773	0.023	1.5	0.1658	0.0000	OK
15 minute summer	PLOT 5	12	9.779	0.029	2.9	0.4741	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	57	7.000	56	0.8	0.667	0.099	0.0010	
15 minute summer	58	8.000	8.000:50%	0.0	0.000	0.000	0.0007	
15 minute summer	58	8.000	SW-03	0.6	0.405	0.049	0.0028	
720 minute winter	59	1.019	4	1.2	0.201	0.022	0.2451	
15 minute summer	SW-11	26.001	26.001:50%	0.4	0.528	0.050	0.0020	
15 minute summer	SW-11	26.001	59	0.4	0.525	0.049	0.0019	
15 minute summer	61	26.000	26.000:50%	0.0	0.000	0.000	0.0015	
15 minute summer	61	26.000	SW-11	0.4	0.552	0.043	0.0031	
720 minute winter	62	1.018	59	1.2	0.203	0.023	0.2070	
15 minute summer	63	25.000	25.000:50%	-0.2	-0.131	-0.073	0.0159	
15 minute summer	63	25.000	62	1.0	0.403	0.379	0.0176	
720 minute winter	64	1.017	62	1.1	0.224	0.021	0.1714	
15 minute summer	SW-10	24.002	24.002:50%	0.9	0.704	0.100	0.0025	
15 minute summer	SW-10	24.002	64	1.0	0.753	0.109	0.0025	
15 minute summer	66	24.001	24.001:50%	0.0	0.000	0.000	0.0030	
15 minute summer	66	24.001	SW-10	0.9	0.709	0.105	0.0059	
15 minute summer	PLOT 1	10.000_1	40	1.9	1.091	0.148	0.0110	
15 minute summer	PLOT 4	15.000_1	31	1.9	0.617	0.145	0.0119	
15 minute summer	PLOT 3	17.000_1	29	1.4	1.056	0.116	0.0061	
15 minute summer	PLOT 2	20.000_1	25	1.3	0.952	0.115	0.0058	
15 minute summer	PLOT 5	22.000_1	21	2.2	1.132	0.185	0.0079	

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	53	12	9.847	0.087	0.4	0.0000	0.0000	OK
15 minute summer	1.000:50%	12	9.847	0.103	5.5	0.4384	0.0000	SURCHARGED
30 minute summer	52	20	9.815	0.087	4.0	0.0000	0.0000	OK
15 minute summer	51	1	9.900	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	10	9.884	0.024	1.2	0.0000	0.0000	OK
15 minute summer	50	1	10.050	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2.000:50%	10	9.963	0.028	1.6	0.0000	0.0000	OK
15 minute summer	SW-01	10	9.863	0.043	2.8	0.0166	0.0000	OK
60 minute summer	48	43	9.779	0.072	9.6	7.3649	0.0000	OK
15 minute summer	47	1	10.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4.000:50%	11	9.956	0.047	3.7	0.1225	0.0000	OK
15 minute summer	46	1	9.950	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5.000:50%	11	9.903	0.020	1.0	0.0241	0.0000	OK
15 minute summer	SW-02	11	9.869	0.052	4.6	0.0200	0.0000	OK
60 minute summer	44	40	9.773	0.087	4.0	0.0000	0.0000	OK
60 minute summer	43	39	9.768	0.073	0.2	0.0000	0.0000	OK
60 minute summer	6.000:50%	39	9.768	0.087	1.3	0.0000	0.0000	OK
60 minute summer	42	39	9.768	0.102	4.4	0.0000	0.0000	OK
60 minute summer	41	39	9.764	0.103	0.2	0.0000	0.0000	SURCHARGED
60 minute summer	9.000:50%	39	9.763	0.110	0.9	0.0000	0.0000	SURCHARGED
60 minute summer	40	39	9.763	0.119	18.2	11.2779	0.0000	OK
15 minute summer	39	1	9.980	0.000	0.0	0.0000	0.0000	OK
15 minute summer	10.000:50%	10	9.952	0.065	4.7	0.0000	0.0000	OK
15 minute summer	SW-04	10	9.849	0.055	4.6	0.0211	0.0000	OK
60 minute summer	37	39	9.759	0.123	13.2	0.0000	0.0000	OK
15 minute summer	36	1	9.980	0.000	0.0	0.0000	0.0000	OK
15 minute summer	11.000:50%	10	9.936	0.049	3.1	0.0000	0.0000	OK
15 minute summer	35	1	9.894	0.000	0.0	0.0000	0.0000	OK
15 minute summer	12.000:50%	10	9.880	0.036	2.1	0.0000	0.0000	OK
15 minute summer	SW-05	10	9.852	0.058	5.2	0.0224	0.0000	OK
60 minute summer	33	38	9.756	0.124	14.7	0.0000	0.0000	OK
720 minute winter	32	690	9.755	0.111	0.1	0.0000	0.0000	SURCHARGED
720 minute winter	13.000:50%	690	9.754	0.120	0.2	0.6303	0.0000	SURCHARGED
720 minute winter	31	690	9.755	0.130	4.7	0.0000	0.0000	OK
600 minute winter	30	585	9.755	0.125	0.1	0.0000	0.0000	SURCHARGED
600 minute winter	14.000:50%	585	9.755	0.134	0.1	0.0000	0.0000	SURCHARGED
720 minute winter	29	690	9.755	0.268	5.2	0.0000	0.0000	SURCHARGED
15 minute summer	28	1	9.880	0.000	0.0	0.0000	0.0000	OK
15 minute summer	16.000:50%	10	9.838	0.030	2.1	0.0000	0.0000	OK
15 minute summer	27	1	9.960	0.000	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	53	1.000	1.000:50%	-0.4	-0.136	-0.149	0.0550	
15 minute summer	53	1.000	52	4.3	0.561	1.537	0.0547	
30 minute summer	52	1.001	48	3.8	0.752	1.387	0.0600	
15 minute summer	51	3.000	3.000:50%	0.0	0.000	0.000	0.0009	
15 minute summer	51	3.000	SW-01	1.2	0.514	0.108	0.0029	
15 minute summer	50	2.000	2.000:50%	0.0	0.000	0.000	0.0045	
15 minute summer	50	2.000	SW-01	1.6	0.632	0.171	0.0125	
15 minute summer	SW-01	2.001	48	2.7	1.032	0.366	0.0242	
60 minute summer	48	1.002	44	3.4	0.399	0.411	0.0900	
15 minute summer	47	4.000	4.000:50%	0.0	0.000	0.000	0.0079	
15 minute summer	47	4.000	SW-02	3.6	0.920	0.404	0.0168	
15 minute summer	46	5.000	5.000:50%	0.0	0.000	0.000	0.0010	
15 minute summer	46	5.000	SW-02	1.0	0.416	0.084	0.0046	
15 minute summer	SW-02	4.001	44	4.6	0.902	0.469	0.0261	
60 minute summer	44	1.003	42	4.0	0.405	0.490	0.1057	
60 minute summer	43	6.000	6.000:50%	-0.2	-0.055	-0.055	0.0442	
60 minute summer	43	6.000	42	1.1	0.258	0.400	0.0498	
60 minute summer	42	1.004	54	4.5	0.404	0.563	0.0311	
60 minute summer	41	9.000	9.000:50%	-0.2	-0.067	-0.065	0.0318	
60 minute summer	41	9.000	40	0.6	0.180	0.226	0.0318	
60 minute summer	40	1.006	37	12.1	0.586	0.491	0.0760	
15 minute summer	39	10.000	10.000:50%	0.0	0.000	0.000	0.0175	
15 minute summer	39	10.000	SW-04	4.6	0.951	0.643	0.0319	
15 minute summer	SW-04	10.001	37	4.6	0.843	0.528	0.0438	
60 minute summer	37	1.007	33	13.3	0.620	0.579	0.0449	
15 minute summer	36	11.000	11.000:50%	0.0	0.000	0.000	0.0137	
15 minute summer	36	11.000	SW-05	3.1	0.719	0.444	0.0306	
15 minute summer	35	12.000	12.000:50%	0.0	0.000	0.000	0.0025	
15 minute summer	35	12.000	SW-05	2.1	0.573	0.216	0.0072	
15 minute summer	SW-05	11.001	33	5.1	0.870	0.571	0.0449	
60 minute summer	33	1.008	31	14.7	0.673	0.611	0.0711	
720 minute winter	32	13.000	13.000:50%	-0.1	-0.011	-0.022	0.0347	
720 minute winter	32	13.000	31	-0.2	-0.039	-0.057	0.0347	
720 minute winter	31	1.009	29	4.7	0.571	0.200	0.1524	
600 minute winter	30	14.000	14.000:50%	-0.1	-0.039	-0.036	0.0324	
600 minute winter	30	14.000	29	-0.1	0.199	-0.040	0.0324	
720 minute winter	29	1.010	25	5.2	0.520	0.224	0.1728	
15 minute summer	28	16.000	16.000:50%	0.0	0.000	0.000	0.0017	
15 minute summer	28	16.000	SW-06	2.1	0.663	0.170	0.0058	
15 minute summer	27	15.000	15.000:50%	0.0	0.000	0.000	0.0112	

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	15.000:50%	11	9.892	0.044	3.1	0.1429	0.0000	OK
15 minute summer	SW-06	11	9.795	0.058	5.0	0.0223	0.0000	OK
720 minute winter	25	690	9.755	0.277	5.9	0.0000	0.0000	SURCHARGED
15 minute summer	24	1	9.960	0.000	0.0	0.0000	0.0000	OK
15 minute summer	17.000:50%	11	9.888	0.040	2.3	0.1178	0.0000	OK
15 minute summer	SW-07	11	9.772	0.035	2.2	0.0134	0.0000	OK
720 minute winter	21	690	9.755	0.357	7.3	40.9158	0.0000	SURCHARGED
720 minute winter	20	690	9.755	0.140	0.0	0.0000	0.0000	SURCHARGED
720 minute winter	19.000:50%	690	9.755	0.156	0.2	0.0000	0.0000	SURCHARGED
720 minute winter	19	690	9.755	0.372	4.5	0.0000	0.0000	SURCHARGED
15 minute summer	18	1	9.910	0.000	0.0	0.0000	0.0000	OK
15 minute summer	21.000:50%	11	9.849	0.037	2.1	0.1026	0.0000	OK
15 minute summer	17	1	9.930	0.000	0.0	0.0000	0.0000	OK
15 minute summer	20.000:50%	11	9.873	0.051	3.7	0.1999	0.0000	OK
15 minute summer	SW-08	11	9.773	0.060	5.4	0.0230	0.0000	OK
720 minute winter	15	690	9.755	0.383	5.0	0.0000	0.0000	SURCHARGED
720 minute winter	14	690	9.755	0.163	0.1	0.0000	0.0000	SURCHARGED
720 minute winter	22.000:50%	690	9.754	0.179	0.3	1.4525	0.0000	SURCHARGED
720 minute winter	13	690	9.755	0.396	6.0	61.4374	0.0000	SURCHARGED
15 minute summer	12	1	9.850	0.000	0.0	0.0000	0.0000	OK
720 minute winter	23.000:50%	690	9.754	0.056	0.3	0.1912	0.0000	OK
720 minute winter	SW-09	690	9.754	0.209	0.3	0.0806	0.0000	SURCHARGED
720 minute winter	10	690	9.755	0.422	2.7	21.8413	0.0000	SURCHARGED
720 minute winter	9	690	9.755	0.005	0.0	0.0000	0.0000	OK
720 minute winter	27.000:50%	690	9.754	0.088	0.4	0.5746	0.0000	OK
720 minute winter	SW-13	690	9.755	0.172	0.4	0.0661	0.0000	SURCHARGED
15 minute summer	7	1	9.825	0.000	0.0	0.0000	0.0000	OK
720 minute winter	28.000:50%	675	9.754	0.046	0.1	0.1397	0.0000	OK
15 minute summer	6	1	9.765	0.000	0.0	0.0000	0.0000	OK
720 minute winter	29.000:50%	690	9.754	0.077	0.7	0.0000	0.0000	OK
720 minute winter	SW-12	690	9.755	0.165	0.6	0.0634	0.0000	SURCHARGED
720 minute winter	4	690	9.755	0.475	1.7	21.8413	0.0000	SURCHARGED
720 minute winter	SW-14 (HYDRO)	690	9.755	0.487	1.2	0.5503	0.0000	SURCHARGED
720 minute winter	SW-15	480	9.649	0.471	1.2	0.5324	0.0000	SURCHARGED
15 minute summer	DITCH HEADWALL	1	9.648	0.521	0.0	0.0000	0.0000	OK
60 minute summer	54	39	9.766	0.105	7.9	0.0000	0.0000	OK
15 minute summer	SW-03	11	9.828	0.074	6.5	0.0284	0.0000	OK
15 minute summer	56	11	10.009	0.039	2.5	0.0000	0.0000	OK
15 minute summer	7.001:50%	11	9.927	0.065	5.0	0.0000	0.0000	OK
15 minute summer	57	10	10.023	0.023	0.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	27	15.000	SW-06	3.0	0.742	0.382	0.0272	
15 minute summer	SW-06	15.001	25	5.0	1.104	0.569	0.0290	
720 minute winter	25	1.011	21	5.9	0.632	0.232	0.0815	
15 minute summer	24	17.000	17.000:50%	0.0	0.000	0.000	0.0118	
15 minute summer	24	17.000	SW-07	2.2	0.815	0.306	0.0217	
15 minute summer	SW-07	18.000	21	2.1	0.913	0.239	0.0150	
720 minute winter	21	1.012	19	4.3	0.385	0.085	0.4984	
720 minute winter	20	19.000	19.000:50%	0.0	-0.028	0.012	0.0586	
720 minute winter	20	19.000	19	0.2	0.239	0.075	0.0586	
720 minute winter	19	1.013	15	4.5	0.364	0.086	0.3506	
15 minute summer	18	21.000	21.000:50%	0.0	0.000	0.000	0.0106	
15 minute summer	18	21.000	SW-08	2.0	0.527	0.295	0.0303	
15 minute summer	17	20.000	20.000:50%	0.0	0.000	0.000	0.0167	
15 minute summer	17	20.000	SW-08	3.4	0.765	0.493	0.0369	
15 minute summer	SW-08	20.001	15	5.3	1.139	0.595	0.0304	
720 minute winter	15	1.014	13	4.9	0.387	0.097	0.4310	
720 minute winter	14	22.000	22.000:50%	-0.1	-0.040	-0.022	0.0597	
720 minute winter	14	22.000	13	-0.2	0.240	-0.082	0.0597	
720 minute winter	13	1.015	10	1.6	0.371	0.023	0.4661	
15 minute summer	12	23.000	23.000:50%	0.0	0.000	0.000	0.0071	
15 minute summer	12	23.000	SW-09	3.1	0.675	0.303	0.0247	
720 minute winter	SW-09	23.001	10	0.3	0.267	0.111	0.0450	
720 minute winter	10	1.016	64	-1.9	0.302	-0.027	0.4979	
720 minute winter	9	27.000	27.000:50%	0.0	-0.003	-0.001	0.0175	
720 minute winter	9	27.000	SW-13	0.4	0.478	0.050	0.0357	
720 minute winter	SW-13	27.001	4	0.4	0.426	0.074	0.0626	
15 minute summer	7	28.000	28.000:50%	0.0	0.000	0.000	0.0020	
15 minute summer	7	28.000	SW-12	1.0	0.432	0.090	0.0084	
15 minute summer	6	29.000	29.000:50%	0.0	0.000	0.000	0.0012	
15 minute summer	6	29.000	SW-12	2.6	0.974	0.168	0.0037	
720 minute winter	SW-12	28.001	4	0.3	0.489	0.037	0.0374	
720 minute winter	4	1.020	SW-14 (HYDRO)	1.2	0.122	0.025	0.4184	
720 minute winter	SW-14 (HYDRO)	Hydro-Brake®	SW-15	1.2				
720 minute winter	SW-15	1.022	DITCH HEADWALL	1.2	0.017	0.013	0.5420	32.0
60 minute summer	54	1.005	40	7.8	0.557	0.327	0.1561	
15 minute summer	SW-03	7.002	54	6.5	0.976	0.635	0.0224	
15 minute summer	56	7.001	7.001:50%	2.4	0.596	0.322	0.0282	
15 minute summer	56	7.001	SW-03	5.0	0.871	0.657	0.0398	
15 minute summer	57	7.000	7.000:50%	0.2	0.173	0.025	0.0016	

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	7.000:50%	10	10.023	0.038	2.5	0.0000	0.0000	OK
15 minute summer	58	1	9.890	0.000	0.0	0.0000	0.0000	OK
15 minute summer	8.000:50%	10	9.847	0.025	1.6	0.0000	0.0000	OK
720 minute winter	59	690	9.755	0.466	1.4	0.0000	0.0000	SURCHARGED
720 minute winter	SW-11	690	9.755	0.151	0.1	0.0580	0.0000	SURCHARGED
720 minute winter	26.001:50%	690	9.754	0.195	0.4	0.0000	0.0000	SURCHARGED
15 minute summer	61	1	9.800	0.000	0.0	0.0000	0.0000	OK
720 minute winter	26.000:50%	690	9.755	0.053	0.1	0.1773	0.0000	OK
720 minute winter	62	690	9.755	0.458	1.2	0.0000	0.0000	SURCHARGED
720 minute winter	63	690	9.754	0.202	0.1	0.0000	0.0000	SURCHARGED
600 minute winter	25.000:50%	570	9.754	0.216	0.3	0.0000	0.0000	SURCHARGED
720 minute winter	64	690	9.755	0.451	1.8	0.0000	0.0000	SURCHARGED
720 minute winter	SW-10	690	9.755	0.140	0.3	0.0538	0.0000	SURCHARGED
720 minute winter	24.002:50%	690	9.754	0.182	1.1	1.5853	0.0000	SURCHARGED
15 minute summer	66	1	9.800	0.000	0.0	0.0000	0.0000	OK
720 minute winter	24.001:50%	690	9.754	0.047	0.2	0.1410	0.0000	OK
15 minute summer	PLOT 1	11	9.898	0.048	6.3	0.5348	0.0000	OK
15 minute summer	PLOT 4	11	9.847	0.047	6.8	0.7517	0.0000	OK
15 minute summer	PLOT 3	11	9.841	0.041	4.7	0.3982	0.0000	OK
15 minute summer	PLOT 2	11	9.791	0.041	4.2	0.3391	0.0000	OK
15 minute summer	PLOT 5	12	9.806	0.056	8.3	1.0939	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	57	7.000	56	2.5	0.892	0.292	0.0021	
15 minute summer	58	8.000	8.000:50%	0.0	0.000	0.000	0.0014	
15 minute summer	58	8.000	SW-03	1.6	0.496	0.134	0.0069	
720 minute winter	59	1.019	4	-1.4	0.208	-0.027	0.2931	
720 minute winter	SW-11	26.001	26.001:50%	0.2	0.346	0.024	0.0205	
720 minute winter	SW-11	26.001	59	-0.2	0.348	-0.030	0.0205	
15 minute summer	61	26.000	26.000:50%	0.0	0.000	0.000	0.0029	
15 minute summer	61	26.000	SW-11	1.0	0.735	0.113	0.0061	
720 minute winter	62	1.018	59	1.2	0.238	0.024	0.2569	
720 minute winter	63	25.000	25.000:50%	0.4	0.070	0.154	0.0534	
720 minute winter	63	25.000	62	0.3	0.270	0.110	0.0534	
720 minute winter	64	1.017	62	1.2	0.255	0.022	0.2203	
720 minute winter	SW-10	24.002	24.002:50%	0.2	0.465	0.022	0.0152	
720 minute winter	SW-10	24.002	64	1.0	0.469	0.107	0.0152	
15 minute summer	66	24.001	24.001:50%	0.0	0.000	0.000	0.0064	
15 minute summer	66	24.001	SW-10	2.6	0.946	0.302	0.0128	
15 minute summer	PLOT 1	10.000_1	40	5.9	1.430	0.460	0.0258	
15 minute summer	PLOT 4	15.000_1	31	5.9	0.984	0.449	0.0212	
15 minute summer	PLOT 3	17.000_1	29	4.4	1.447	0.356	0.0138	
15 minute summer	PLOT 2	20.000_1	25	4.0	1.306	0.354	0.0131	
15 minute summer	PLOT 5	22.000_1	21	6.9	1.548	0.596	0.0186	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	53	13	9.879	0.119	0.5	0.0000	0.0000	SURCHARGED
15 minute summer	1.000:50%	13	9.879	0.135	7.3	0.7519	0.0000	SURCHARGED
720 minute winter	52	705	9.857	0.129	0.5	0.0000	0.0000	SURCHARGED
15 minute summer	51	1	9.900	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	10	9.889	0.029	1.6	0.0000	0.0000	OK
15 minute summer	50	1	10.050	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2.000:50%	10	9.967	0.032	2.1	0.0000	0.0000	OK
15 minute summer	SW-01	10	9.871	0.051	3.7	0.0194	0.0000	OK
720 minute winter	48	705	9.857	0.150	2.7	17.0176	0.0000	SURCHARGED
15 minute summer	47	1	10.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4.000:50%	11	9.965	0.057	4.9	0.1772	0.0000	OK
15 minute summer	46	1	9.950	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5.000:50%	10	9.906	0.023	1.4	0.0326	0.0000	OK
15 minute summer	SW-02	11	9.881	0.064	6.1	0.0246	0.0000	OK
720 minute winter	44	705	9.857	0.171	2.0	0.0000	0.0000	SURCHARGED
720 minute winter	43	705	9.857	0.162	0.1	0.0000	0.0000	SURCHARGED
720 minute winter	6.000:50%	705	9.857	0.176	0.2	0.0000	0.0000	SURCHARGED
720 minute winter	42	705	9.857	0.191	2.0	0.0000	0.0000	SURCHARGED
720 minute winter	41	705	9.857	0.196	0.0	0.0000	0.0000	SURCHARGED
720 minute winter	9.000:50%	705	9.857	0.204	0.1	0.0000	0.0000	SURCHARGED
720 minute winter	40	705	9.857	0.213	4.5	21.0917	0.0000	OK
15 minute summer	39	1	9.980	0.000	0.0	0.0000	0.0000	OK
15 minute summer	10.000:50%	10	9.968	0.081	6.3	0.0000	0.0000	OK
15 minute summer	SW-04	10	9.862	0.068	6.2	0.0263	0.0000	OK
720 minute winter	37	705	9.857	0.221	4.6	0.0000	0.0000	OK
15 minute summer	36	1	9.980	0.000	0.0	0.0000	0.0000	OK
15 minute summer	11.000:50%	10	9.948	0.061	4.2	0.0000	0.0000	OK
15 minute summer	35	1	9.894	0.000	0.0	0.0000	0.0000	OK
15 minute summer	12.000:50%	10	9.887	0.043	2.8	0.0000	0.0000	OK
15 minute summer	SW-05	10	9.868	0.074	6.9	0.0283	0.0000	OK
720 minute winter	33	705	9.857	0.225	5.1	0.0000	0.0000	SURCHARGED
720 minute winter	32	705	9.857	0.213	0.0	0.0000	0.0000	SURCHARGED
720 minute winter	13.000:50%	705	9.857	0.222	0.4	2.1889	0.0000	SURCHARGED
720 minute winter	31	705	9.857	0.232	6.0	0.0000	0.0000	SURCHARGED
720 minute winter	30	690	9.857	0.227	0.1	0.0000	0.0000	SURCHARGED
720 minute winter	14.000:50%	690	9.857	0.236	0.1	0.0000	0.0000	SURCHARGED
720 minute winter	29	705	9.857	0.370	6.6	0.0000	0.0000	SURCHARGED
15 minute summer	28	1	9.880	0.000	0.0	0.0000	0.0000	OK
720 minute winter	16.000:50%	705	9.857	0.048	0.6	0.0000	0.0000	OK
15 minute summer	27	1	9.960	0.000	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	53	1.000	1.000:50%	-0.5	-0.150	-0.171	0.0571	
15 minute summer	53	1.000	52	4.8	0.617	1.736	0.0571	
720 minute winter	52	1.001	48	0.5	0.242	0.182	0.0765	
15 minute summer	51	3.000	3.000:50%	0.0	0.000	0.000	0.0012	
15 minute summer	51	3.000	SW-01	1.6	0.547	0.145	0.0036	
15 minute summer	50	2.000	2.000:50%	0.0	0.000	0.000	0.0054	
15 minute summer	50	2.000	SW-01	2.1	0.679	0.225	0.0153	
15 minute summer	SW-01	2.001	48	3.6	1.108	0.488	0.0309	
720 minute winter	48	1.002	44	-2.0	0.319	-0.241	0.1674	
15 minute summer	47	4.000	4.000:50%	0.0	0.000	0.000	0.0099	
15 minute summer	47	4.000	SW-02	4.7	0.955	0.535	0.0214	
15 minute summer	46	5.000	5.000:50%	0.0	0.000	0.000	0.0012	
15 minute summer	46	5.000	SW-02	1.4	0.435	0.114	0.0058	
15 minute summer	SW-02	4.001	44	6.1	0.968	0.622	0.0322	
720 minute winter	44	1.003	42	1.8	0.351	0.224	0.1593	
720 minute winter	43	6.000	6.000:50%	-0.1	-0.013	-0.018	0.0517	
720 minute winter	43	6.000	42	0.2	0.099	0.074	0.0517	
720 minute winter	42	1.004	54	2.0	0.360	0.255	0.0422	
720 minute winter	41	9.000	9.000:50%	0.0	-0.018	-0.014	0.0318	
720 minute winter	41	9.000	40	0.1	0.051	0.038	0.0318	
720 minute winter	40	1.006	37	4.2	0.420	0.171	0.1369	
15 minute summer	39	10.000	10.000:50%	0.0	0.000	0.000	0.0223	
15 minute summer	39	10.000	SW-04	6.2	0.997	0.859	0.0408	
15 minute summer	SW-04	10.001	37	6.2	0.915	0.708	0.0502	
720 minute winter	37	1.007	33	4.6	0.445	0.202	0.0800	
15 minute summer	36	11.000	11.000:50%	0.0	0.000	0.000	0.0176	
15 minute summer	36	11.000	SW-05	4.1	0.746	0.600	0.0396	
15 minute summer	35	12.000	12.000:50%	0.0	0.000	0.000	0.0031	
15 minute summer	35	12.000	SW-05	2.8	0.602	0.289	0.0092	
15 minute summer	SW-05	11.001	33	6.9	0.961	0.765	0.0514	
720 minute winter	33	1.008	31	5.1	0.491	0.212	0.1267	
720 minute winter	32	13.000	13.000:50%	0.0	-0.028	-0.013	0.0347	
720 minute winter	32	13.000	31	-0.3	-0.042	-0.118	0.0347	
720 minute winter	31	1.009	29	6.0	0.612	0.252	0.2414	
720 minute winter	30	14.000	14.000:50%	-0.1	-0.039	-0.031	0.0324	
720 minute winter	30	14.000	29	0.1	0.199	0.036	0.0324	
720 minute winter	29	1.010	25	6.6	0.524	0.280	0.1728	
15 minute summer	28	16.000	16.000:50%	0.0	0.000	0.000	0.0023	
15 minute summer	28	16.000	SW-06	2.8	0.708	0.226	0.0075	
15 minute summer	27	15.000	15.000:50%	0.0	0.000	0.000	0.0142	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	15.000:50%	11	9.901	0.053	4.2	0.2071	0.0000	OK
720 minute winter	SW-06	705	9.857	0.120	0.6	0.0463	0.0000	SURCHARGED
720 minute winter	25	705	9.857	0.379	7.5	0.0000	0.0000	SURCHARGED
15 minute summer	24	1	9.960	0.000	0.0	0.0000	0.0000	OK
15 minute summer	17.000:50%	11	9.895	0.047	3.1	0.1633	0.0000	OK
720 minute winter	SW-07	705	9.857	0.120	0.2	0.0463	0.0000	SURCHARGED
720 minute winter	21	705	9.857	0.459	9.2	40.9158	0.0000	SURCHARGED
720 minute winter	20	705	9.857	0.242	0.1	0.0000	0.0000	SURCHARGED
720 minute winter	19.000:50%	705	9.857	0.258	0.3	0.0000	0.0000	SURCHARGED
720 minute winter	19	705	9.857	0.474	5.4	0.0000	0.0000	SURCHARGED
15 minute summer	18	1	9.910	0.000	0.0	0.0000	0.0000	OK
720 minute winter	21.000:50%	705	9.857	0.045	0.2	0.1537	0.0000	OK
15 minute summer	17	1	9.930	0.000	0.0	0.0000	0.0000	OK
15 minute summer	20.000:50%	11	9.883	0.062	4.9	0.2888	0.0000	OK
720 minute winter	SW-08	705	9.857	0.144	0.6	0.0555	0.0000	SURCHARGED
720 minute winter	15	705	9.857	0.485	5.9	0.0000	0.0000	SURCHARGED
720 minute winter	14	705	9.857	0.265	0.1	0.0000	0.0000	SURCHARGED
720 minute winter	22.000:50%	705	9.857	0.281	0.9	3.6017	0.0000	SURCHARGED
720 minute winter	13	705	9.857	0.498	7.4	61.4374	0.0000	SURCHARGED
720 minute winter	12	705	9.857	0.007	0.0	0.0000	0.0000	OK
720 minute winter	23.000:50%	705	9.857	0.159	0.3	1.5190	0.0000	SURCHARGED
720 minute winter	SW-09	705	9.857	0.312	0.3	0.1202	0.0000	SURCHARGED
720 minute winter	10	705	9.857	0.524	3.4	21.8413	0.0000	SURCHARGED
720 minute winter	9	705	9.857	0.107	0.0	0.0000	0.0000	FLOOD RISK
720 minute winter	27.000:50%	705	9.857	0.190	0.5	2.7094	0.0000	SURCHARGED
720 minute winter	SW-13	705	9.857	0.274	0.5	0.1056	0.0000	FLOOD RISK
720 minute winter	7	705	9.857	0.032	0.0	0.0000	0.0000	OK
720 minute winter	28.000:50%	705	9.857	0.149	0.2	1.4377	0.0000	SURCHARGED
720 minute winter	6	705	9.857	0.092	0.1	0.0000	0.0000	OK
720 minute winter	29.000:50%	705	9.857	0.179	0.3	0.0000	0.0000	SURCHARGED
720 minute winter	SW-12	705	9.857	0.267	0.6	0.1028	0.0000	SURCHARGED
720 minute winter	4	705	9.857	0.577	2.1	21.8413	0.0000	SURCHARGED
720 minute winter	SW-14 (HYDRO)	705	9.857	0.589	1.2	0.6662	0.0000	FLOOD RISK
120 minute summer	SW-15	112	9.649	0.471	1.2	0.5330	0.0000	SURCHARGED
15 minute summer	DITCH HEADWALL	1	9.648	0.521	0.0	0.0000	0.0000	OK
720 minute winter	54	705	9.857	0.196	2.7	0.0000	0.0000	OK
15 minute summer	SW-03	11	9.870	0.116	8.7	0.0445	0.0000	SURCHARGED
15 minute summer	56	10	10.016	0.046	3.3	0.0000	0.0000	OK
15 minute summer	7.001:50%	11	9.949	0.087	6.8	0.0000	0.0000	OK
15 minute summer	57	10	10.030	0.030	0.2	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	27	15.000	SW-06	3.9	0.778	0.505	0.0344	
720 minute winter	SW-06	15.001	25	0.5	0.598	0.057	0.0504	
720 minute winter	25	1.011	21	7.4	0.649	0.291	0.0815	
15 minute summer	24	17.000	17.000:50%	0.0	0.000	0.000	0.0146	
15 minute summer	24	17.000	SW-07	2.9	0.873	0.405	0.0267	
720 minute winter	SW-07	18.000	21	0.2	0.464	0.022	0.0498	
720 minute winter	21	1.012	19	5.1	0.374	0.100	0.4984	
720 minute winter	20	19.000	19.000:50%	-0.1	-0.015	-0.024	0.0586	
720 minute winter	20	19.000	19	0.3	0.271	0.109	0.0586	
720 minute winter	19	1.013	15	5.3	0.347	0.103	0.3506	
15 minute summer	18	21.000	21.000:50%	0.0	0.000	0.000	0.0132	
15 minute summer	18	21.000	SW-08	2.6	0.563	0.395	0.0377	
15 minute summer	17	20.000	20.000:50%	0.0	0.000	0.000	0.0209	
15 minute summer	17	20.000	SW-08	4.5	0.796	0.642	0.0461	
720 minute winter	SW-08	20.001	15	0.6	0.637	0.068	0.0508	
720 minute winter	15	1.014	13	5.8	0.376	0.115	0.4310	
720 minute winter	14	22.000	22.000:50%	-0.1	-0.017	-0.048	0.0597	
720 minute winter	14	22.000	13	-0.6	0.273	-0.202	0.0597	
720 minute winter	13	1.015	10	2.2	0.391	0.031	0.4661	
720 minute winter	12	23.000	23.000:50%	0.0	0.004	0.002	0.0212	
720 minute winter	12	23.000	SW-09	0.3	0.328	0.029	0.0412	
720 minute winter	SW-09	23.001	10	0.3	0.267	0.111	0.0450	
720 minute winter	10	1.016	64	2.3	0.317	0.032	0.4979	
720 minute winter	9	27.000	27.000:50%	0.0	-0.004	-0.004	0.0370	
720 minute winter	9	27.000	SW-13	0.5	0.510	0.062	0.0370	
720 minute winter	SW-13	27.001	4	0.5	0.452	0.084	0.0626	
720 minute winter	7	28.000	28.000:50%	0.0	-0.006	-0.002	0.0175	
720 minute winter	7	28.000	SW-12	-0.1	0.291	-0.013	0.0275	
720 minute winter	6	29.000	29.000:50%	-0.1	-0.007	-0.003	0.0105	
720 minute winter	6	29.000	SW-12	0.5	0.535	0.030	0.0107	
720 minute winter	SW-12	28.001	4	0.4	0.489	0.050	0.0374	
720 minute winter	4	1.020	SW-14 (HYDRO)	1.2	0.121	0.025	0.4184	
720 minute winter	SW-14 (HYDRO)	Hydro-Brake®	SW-15	1.2				
120 minute summer	SW-15	1.022	DITCH HEADWALL	1.2	0.017	0.013	0.5420	13.7
720 minute winter	54	1.005	40	2.7	0.321	0.115	0.2985	
15 minute summer	SW-03	7.002	54	8.4	1.081	0.818	0.0256	
15 minute summer	56	7.001	7.001:50%	3.3	0.615	0.434	0.0371	
15 minute summer	56	7.001	SW-03	6.6	0.897	0.873	0.0519	
15 minute summer	57	7.000	7.000:50%	0.2	-0.127	0.023	0.0021	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	7.000:50%	10	10.030	0.045	3.4	0.0000	0.0000	OK
15 minute summer	58	1	9.890	0.000	0.0	0.0000	0.0000	OK
15 minute summer	8.000:50%	12	9.867	0.045	2.1	0.0000	0.0000	OK
720 minute winter	59	705	9.857	0.568	1.6	0.0000	0.0000	SURCHARGED
720 minute winter	SW-11	705	9.857	0.253	0.2	0.0974	0.0000	SURCHARGED
720 minute winter	26.001:50%	705	9.857	0.297	0.4	0.0000	0.0000	SURCHARGED
720 minute winter	61	705	9.857	0.057	0.0	0.0000	0.0000	OK
720 minute winter	26.000:50%	705	9.857	0.155	0.3	1.5394	0.0000	SURCHARGED
720 minute winter	62	705	9.857	0.560	1.8	0.0000	0.0000	SURCHARGED
720 minute winter	63	705	9.857	0.305	0.2	0.0000	0.0000	SURCHARGED
720 minute winter	25.000:50%	705	9.857	0.319	0.3	0.0000	0.0000	SURCHARGED
720 minute winter	64	705	9.857	0.553	2.3	0.0000	0.0000	SURCHARGED
720 minute winter	SW-10	705	9.857	0.242	0.4	0.0933	0.0000	SURCHARGED
720 minute winter	24.002:50%	705	9.857	0.284	0.7	3.8839	0.0000	SURCHARGED
720 minute winter	66	705	9.857	0.057	0.0	0.0000	0.0000	OK
720 minute winter	24.001:50%	705	9.857	0.149	0.3	1.4383	0.0000	SURCHARGED
15 minute summer	PLOT 1	11	9.907	0.057	8.4	0.6552	0.0000	OK
720 minute winter	PLOT 4	705	9.857	0.057	0.7	0.9462	0.0000	OK
720 minute winter	PLOT 3	705	9.857	0.057	0.5	0.5771	0.0000	OK
720 minute winter	PLOT 2	705	9.857	0.107	0.4	0.9682	0.0000	SURCHARGED
720 minute winter	PLOT 5	705	9.857	0.107	0.8	2.2986	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	57	7.000	56	3.3	0.965	0.396	0.0027	
15 minute summer	58	8.000	8.000:50%	0.0	0.000	0.000	0.0031	
15 minute summer	58	8.000	SW-03	2.1	0.496	0.176	0.0101	
720 minute winter	59	1.019	4	-1.4	0.241	-0.028	0.2931	
720 minute winter	SW-11	26.001	26.001:50%	-0.2	0.346	-0.025	0.0205	
720 minute winter	SW-11	26.001	59	-0.3	0.348	-0.035	0.0205	
720 minute winter	61	26.000	26.000:50%	0.0	-0.006	-0.003	0.0267	
720 minute winter	61	26.000	SW-11	-0.2	0.363	-0.019	0.0336	
720 minute winter	62	1.018	59	1.5	0.263	0.028	0.2569	
720 minute winter	63	25.000	25.000:50%	-0.2	-0.048	-0.061	0.0534	
720 minute winter	63	25.000	62	0.3	0.274	0.113	0.0534	
720 minute winter	64	1.017	62	-1.5	0.262	-0.029	0.2203	
720 minute winter	SW-10	24.002	24.002:50%	0.6	0.525	0.069	0.0152	
720 minute winter	SW-10	24.002	64	-0.7	0.499	-0.083	0.0152	
720 minute winter	66	24.001	24.001:50%	0.0	-0.006	-0.003	0.0292	
720 minute winter	66	24.001	SW-10	0.3	0.516	0.035	0.0367	
15 minute summer	PLOT 1	10.000_1	40	7.9	1.486	0.619	0.0290	
720 minute winter	PLOT 4	15.000_1	31	0.7	0.308	0.053	0.0231	
720 minute winter	PLOT 3	17.000_1	29	0.5	0.772	0.040	0.0281	
720 minute winter	PLOT 2	20.000_1	25	0.4	0.673	0.036	0.0338	
720 minute winter	PLOT 5	22.000_1	21	0.8	0.849	0.069	0.0325	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 94.45%								
Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	53	930	9.970	0.210	0.0	0.0000	0.0000	SURCHARGED
960 minute winter	1.000:50%	930	9.970	0.226	0.5	2.1160	0.0000	SURCHARGED
960 minute winter	52	930	9.970	0.242	0.5	0.0000	0.0000	SURCHARGED
960 minute winter	51	930	9.970	0.070	1.0	0.0000	0.0000	OK
960 minute winter	3.000:50%	930	9.970	0.110	2.1	0.0000	0.0000	SURCHARGED
15 minute summer	50	1	10.050	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2.000:50%	10	9.973	0.038	2.9	0.0000	0.0000	OK
960 minute winter	SW-01	930	9.970	0.150	1.6	0.0578	0.0000	SURCHARGED
960 minute winter	48	930	9.970	0.263	4.0	30.9577	0.0000	SURCHARGED
15 minute summer	47	1	10.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4.000:50%	11	9.978	0.070	6.5	0.2653	0.0000	OK
960 minute winter	46	930	9.970	0.020	0.0	0.0000	0.0000	OK
960 minute winter	5.000:50%	930	9.970	0.086	0.1	0.4637	0.0000	OK
960 minute winter	SW-02	930	9.970	0.153	0.5	0.0590	0.0000	SURCHARGED
960 minute winter	44	930	9.970	0.284	3.0	0.0000	0.0000	SURCHARGED
960 minute winter	43	930	9.970	0.275	0.1	0.0000	0.0000	SURCHARGED
960 minute winter	6.000:50%	930	9.970	0.290	0.2	0.0000	0.0000	SURCHARGED
960 minute winter	42	930	9.970	0.304	2.6	0.0000	0.0000	SURCHARGED
960 minute winter	41	930	9.970	0.309	0.1	0.0000	0.0000	SURCHARGED
960 minute winter	9.000:50%	930	9.970	0.317	0.2	0.0000	0.0000	SURCHARGED
960 minute winter	40	930	9.970	0.326	6.5	30.2126	0.0000	SURCHARGED
15 minute summer	39	12	10.028	0.048	0.5	0.0000	0.0000	OK
15 minute summer	10.000:50%	12	10.027	0.140	8.4	0.0000	0.0000	SURCHARGED
960 minute winter	SW-04	930	9.970	0.176	0.5	0.0679	0.0000	SURCHARGED
960 minute winter	37	930	9.970	0.334	4.6	0.0000	0.0000	SURCHARGED
15 minute summer	36	1	9.980	0.000	0.0	0.0000	0.0000	OK
15 minute summer	11.000:50%	12	9.978	0.091	5.6	0.0000	0.0000	OK
960 minute winter	35	930	9.970	0.076	0.0	0.0000	0.0000	OK
960 minute winter	12.000:50%	930	9.970	0.126	0.2	0.0000	0.0000	SURCHARGED
960 minute winter	SW-05	930	9.970	0.176	0.6	0.0678	0.0000	SURCHARGED
960 minute winter	33	930	9.970	0.338	5.1	0.0000	0.0000	SURCHARGED
960 minute winter	32	930	9.970	0.326	0.1	0.0000	0.0000	SURCHARGED
960 minute winter	13.000:50%	930	9.970	0.335	0.9	4.9941	0.0000	SURCHARGED
960 minute winter	31	930	9.970	0.345	6.0	0.0000	0.0000	SURCHARGED
960 minute winter	30	930	9.970	0.340	0.2	0.0000	0.0000	SURCHARGED
960 minute winter	14.000:50%	930	9.970	0.349	0.1	0.0000	0.0000	SURCHARGED
960 minute winter	29	930	9.970	0.483	6.5	0.0000	0.0000	SURCHARGED
960 minute winter	28	945	9.970	0.090	0.0	0.0000	0.0000	OK
960 minute winter	16.000:50%	930	9.969	0.161	1.0	0.0000	0.0000	SURCHARGED
960 minute winter	27	915	9.970	0.010	0.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	53	1.000	1.000:50%	0.0	-0.018	-0.014	0.0571	
960 minute winter	53	1.000	52	0.5	0.272	0.180	0.0571	
960 minute winter	52	1.001	48	0.5	0.226	0.182	0.0765	
960 minute winter	51	3.000	3.000:50%	1.5	0.372	0.142	0.0086	
960 minute winter	51	3.000	SW-01	-1.9	0.284	-0.171	0.0098	
15 minute summer	50	2.000	2.000:50%	0.0	0.000	0.000	0.0069	
15 minute summer	50	2.000	SW-01	2.9	0.745	0.310	0.0191	
960 minute winter	SW-01	2.001	48	0.4	0.202	0.058	0.0586	
960 minute winter	48	1.002	44	-2.9	0.313	-0.354	0.1675	
15 minute summer	47	4.000	4.000:50%	0.0	0.000	0.000	0.0126	
15 minute summer	47	4.000	SW-02	6.1	0.973	0.695	0.0272	
960 minute winter	46	5.000	5.000:50%	0.0	0.010	0.002	0.0073	
960 minute winter	46	5.000	SW-02	0.3	0.272	0.024	0.0132	
960 minute winter	SW-02	4.001	44	0.5	0.240	0.051	0.0399	
960 minute winter	44	1.003	42	-2.6	0.351	-0.312	0.1593	
960 minute winter	43	6.000	6.000:50%	-0.1	-0.017	-0.048	0.0517	
960 minute winter	43	6.000	42	0.2	0.099	0.073	0.0517	
960 minute winter	42	1.004	54	-2.5	0.355	-0.308	0.0422	
960 minute winter	41	9.000	9.000:50%	-0.1	-0.019	-0.036	0.0318	
960 minute winter	41	9.000	40	-0.1	0.047	-0.038	0.0318	
960 minute winter	40	1.006	37	4.1	0.411	0.168	0.1386	
15 minute summer	39	10.000	10.000:50%	0.7	0.121	0.090	0.0375	
15 minute summer	39	10.000	SW-04	7.6	1.000	1.048	0.0510	
960 minute winter	SW-04	10.001	37	0.5	0.231	0.057	0.0588	
960 minute winter	37	1.007	33	4.6	0.442	0.202	0.0802	
15 minute summer	36	11.000	11.000:50%	0.0	0.000	0.000	0.0267	
15 minute summer	36	11.000	SW-05	5.3	0.770	0.773	0.0545	
960 minute winter	35	12.000	12.000:50%	0.0	-0.011	0.005	0.0140	
960 minute winter	35	12.000	SW-05	0.4	0.368	0.043	0.0154	
960 minute winter	SW-05	11.001	33	0.5	0.175	0.056	0.0575	
960 minute winter	33	1.008	31	5.1	0.485	0.213	0.1267	
960 minute winter	32	13.000	13.000:50%	0.1	-0.021	0.034	0.0347	
960 minute winter	32	13.000	31	-0.6	-0.082	-0.224	0.0347	
960 minute winter	31	1.009	29	6.0	0.613	0.253	0.2414	
960 minute winter	30	14.000	14.000:50%	-0.2	-0.039	-0.069	0.0324	
960 minute winter	30	14.000	29	0.1	0.199	0.040	0.0324	
960 minute winter	29	1.010	25	6.5	0.493	0.276	0.1728	
960 minute winter	28	16.000	16.000:50%	0.0	-0.006	-0.002	0.0134	
960 minute winter	28	16.000	SW-06	-0.8	0.382	-0.065	0.0138	
960 minute winter	27	15.000	15.000:50%	0.0	0.006	0.004	0.0280	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	15.000:50%	930	9.970	0.121	0.3	1.1257	0.0000	SURCHARGED
960 minute winter	SW-06	930	9.970	0.233	0.5	0.0897	0.0000	SURCHARGED
960 minute winter	25	930	9.970	0.492	7.4	0.0000	0.0000	SURCHARGED
960 minute winter	24	930	9.970	0.010	0.0	0.0000	0.0000	OK
960 minute winter	17.000:50%	930	9.970	0.121	0.2	1.1246	0.0000	SURCHARGED
960 minute winter	SW-07	930	9.970	0.233	0.2	0.0898	0.0000	SURCHARGED
960 minute winter	21	930	9.970	0.572	9.1	40.9158	0.0000	FLOOD RISK
960 minute winter	20	930	9.970	0.355	0.0	0.0000	0.0000	FLOOD RISK
960 minute winter	19.000:50%	930	9.970	0.371	0.4	0.0000	0.0000	SURCHARGED
960 minute winter	19	930	9.970	0.587	4.9	0.0000	0.0000	FLOOD RISK
960 minute winter	18	930	9.970	0.060	0.0	0.0000	0.0000	OK
960 minute winter	21.000:50%	930	9.970	0.158	0.2	1.9408	0.0000	SURCHARGED
960 minute winter	17	930	9.970	0.040	0.0	0.0000	0.0000	OK
960 minute winter	20.000:50%	930	9.970	0.148	0.4	1.7018	0.0000	SURCHARGED
960 minute winter	SW-08	930	9.970	0.257	0.6	0.0990	0.0000	FLOOD RISK
960 minute winter	15	930	9.970	0.598	5.4	0.0000	0.0000	FLOOD RISK
960 minute winter	14	930	9.970	0.378	0.0	0.0000	0.0000	FLOOD RISK
960 minute winter	22.000:50%	930	9.970	0.394	1.3	7.0752	0.0000	SURCHARGED
960 minute winter	13	930	9.970	0.611	7.8	61.4374	0.0000	FLOOD RISK
960 minute winter	12	930	9.970	0.120	0.0	0.0000	0.0000	FLOOD RISK
960 minute winter	23.000:50%	930	9.970	0.272	0.4	4.4405	0.0000	SURCHARGED
960 minute winter	SW-09	930	9.970	0.425	0.3	0.1637	0.0000	FLOOD RISK
960 minute winter	10	930	9.970	0.637	2.6	21.8413	0.0000	FLOOD RISK
600 minute summer	9	555	9.950	0.200	0.1	0.0000	0.0000	FLOOD RISK
960 minute winter	27.000:50%	930	9.970	0.303	0.8	6.8803	0.0000	SURCHARGED
960 minute winter	SW-13	930	9.970	0.387	0.5	0.1490	0.0000	FLOOD RISK
960 minute winter	7	930	9.970	0.145	0.0	0.0000	0.0000	FLOOD RISK
960 minute winter	28.000:50%	930	9.970	0.262	0.4	4.4397	0.0000	SURCHARGED
960 minute winter	6	930	9.970	0.205	0.0	0.0000	0.0000	FLOOD RISK
960 minute winter	29.000:50%	930	9.970	0.292	0.3	0.0000	0.0000	SURCHARGED
960 minute winter	SW-12	930	9.970	0.380	0.8	0.1464	0.0000	FLOOD RISK
960 minute winter	4	930	9.970	0.690	2.2	21.8413	0.0000	FLOOD RISK
960 minute winter	SW-14 (HYDRO)	930	9.970	0.702	2.0	0.7941	0.0000	FLOOD RISK
240 minute winter	SW-15	152	9.650	0.472	1.2	0.5335	0.0000	SURCHARGED
15 minute summer	DITCH HEADWALL	1	9.648	0.521	0.0	0.0000	0.0000	OK
960 minute winter	54	930	9.970	0.309	2.7	0.0000	0.0000	SURCHARGED
960 minute winter	SW-03	930	9.970	0.216	0.7	0.0832	0.0000	SURCHARGED
15 minute summer	56	12	10.077	0.107	4.1	0.0000	0.0000	FLOOD RISK
15 minute summer	7.001:50%	12	10.053	0.191	8.4	0.0000	0.0000	SURCHARGED
15 minute summer	57	12	10.080	0.080	0.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	27	15.000	SW-06	0.3	0.414	0.039	0.0532	
960 minute winter	SW-06	15.001	25	0.7	0.598	0.082	0.0504	
960 minute winter	25	1.011	21	7.3	0.607	0.287	0.0815	
960 minute winter	24	17.000	17.000:50%	0.0	0.004	0.003	0.0335	
960 minute winter	24	17.000	SW-07	0.2	0.421	0.028	0.0636	
960 minute winter	SW-07	18.000	21	0.2	0.464	0.022	0.0498	
960 minute winter	21	1.012	19	4.7	0.325	0.093	0.4984	
960 minute winter	20	19.000	19.000:50%	0.1	-0.033	0.026	0.0586	
960 minute winter	20	19.000	19	0.6	0.271	0.237	0.0586	
960 minute winter	19	1.013	15	4.8	0.322	0.093	0.3506	
960 minute winter	18	21.000	21.000:50%	0.0	-0.004	0.004	0.0512	
960 minute winter	18	21.000	SW-08	0.2	0.301	0.030	0.0629	
960 minute winter	17	20.000	20.000:50%	0.0	-0.004	-0.003	0.0445	
960 minute winter	17	20.000	SW-08	0.4	0.456	0.058	0.0646	
960 minute winter	SW-08	20.001	15	0.6	0.607	0.067	0.0508	
960 minute winter	15	1.014	13	5.4	0.360	0.105	0.4310	
960 minute winter	14	22.000	22.000:50%	0.0	-0.028	-0.015	0.0597	
960 minute winter	14	22.000	13	-1.0	0.273	-0.365	0.0597	
960 minute winter	13	1.015	10	-1.8	0.388	-0.027	0.4661	
960 minute winter	12	23.000	23.000:50%	0.0	-0.007	-0.003	0.0412	
960 minute winter	12	23.000	SW-09	0.3	0.328	0.029	0.0412	
960 minute winter	SW-09	23.001	10	0.3	0.264	0.112	0.0450	
960 minute winter	10	1.016	64	2.3	0.312	0.033	0.4979	
600 minute summer	9	27.000	27.000:50%	-0.1	-0.011	-0.009	0.0370	
600 minute summer	9	27.000	SW-13	1.1	0.631	0.137	0.0370	
960 minute winter	SW-13	27.001	4	0.5	0.423	0.084	0.0626	
960 minute winter	7	28.000	28.000:50%	0.0	-0.005	0.003	0.0275	
960 minute winter	7	28.000	SW-12	-0.3	0.295	-0.028	0.0275	
960 minute winter	6	29.000	29.000:50%	0.0	-0.013	-0.003	0.0107	
960 minute winter	6	29.000	SW-12	0.4	0.451	0.028	0.0107	
960 minute winter	SW-12	28.001	4	0.3	0.489	0.042	0.0374	
960 minute winter	4	1.020	SW-14 (HYDRO)	2.0	0.122	0.040	0.4184	
960 minute winter	SW-14 (HYDRO)	Hydro-Brake®	SW-15	1.2				
240 minute winter	SW-15	1.022	DITCH HEADWALL	1.8	0.026	0.020	0.5420	21.9
960 minute winter	54	1.005	40	2.7	0.320	0.115	0.3136	
960 minute winter	SW-03	7.002	54	0.7	0.280	0.068	0.0256	
15 minute summer	56	7.001	7.001:50%	4.0	0.599	0.522	0.0539	
15 minute summer	56	7.001	SW-03	7.4	0.944	0.974	0.0539	
15 minute summer	57	7.000	7.000:50%	0.7	0.337	0.089	0.0056	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	7.000:50%	12	10.080	0.095	4.5	0.0000	0.0000	OK
960 minute winter	58	930	9.970	0.080	0.1	0.0000	0.0000	OK
960 minute winter	8.000:50%	930	9.970	0.148	0.2	0.0000	0.0000	SURCHARGED
960 minute winter	59	930	9.970	0.681	2.1	0.0000	0.0000	FLOOD RISK
960 minute winter	SW-11	930	9.970	0.366	0.3	0.1409	0.0000	FLOOD RISK
960 minute winter	26.001:50%	930	9.970	0.410	0.6	0.0000	0.0000	SURCHARGED
960 minute winter	61	930	9.970	0.170	0.0	0.0000	0.0000	FLOOD RISK
960 minute winter	26.000:50%	930	9.970	0.268	0.4	4.5964	0.0000	SURCHARGED
960 minute winter	62	930	9.970	0.673	1.8	0.0000	0.0000	FLOOD RISK
960 minute winter	63	930	9.970	0.418	0.0	0.0000	0.0000	FLOOD RISK
960 minute winter	25.000:50%	930	9.970	0.432	0.6	0.0000	0.0000	SURCHARGED
960 minute winter	64	930	9.970	0.666	2.3	0.0000	0.0000	FLOOD RISK
960 minute winter	SW-10	930	9.970	0.355	0.3	0.1367	0.0000	FLOOD RISK
960 minute winter	24.002:50%	930	9.970	0.397	1.2	7.5833	0.0000	SURCHARGED
960 minute winter	66	930	9.970	0.170	0.0	0.0000	0.0000	FLOOD RISK
960 minute winter	24.001:50%	930	9.970	0.262	0.4	4.4397	0.0000	SURCHARGED
960 minute winter	PLOT 1	930	9.970	0.120	0.6	1.4736	0.0000	SURCHARGED
960 minute winter	PLOT 4	930	9.970	0.170	0.9	3.1147	0.0000	SURCHARGED
960 minute winter	PLOT 3	930	9.970	0.170	0.5	1.8567	0.0000	SURCHARGED
960 minute winter	PLOT 2	930	9.970	0.220	0.5	2.0527	0.0000	SURCHARGED
960 minute winter	PLOT 5	930	9.970	0.220	0.8	4.9403	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	57	7.000	56	4.1	1.026	0.484	0.0060	
960 minute winter	58	8.000	8.000:50%	-0.1	-0.036	-0.012	0.0131	
960 minute winter	58	8.000	SW-03	0.2	0.319	0.017	0.0141	
960 minute winter	59	1.019	4	1.8	0.252	0.036	0.2931	
960 minute winter	SW-11	26.001	26.001:50%	-0.3	0.346	-0.044	0.0205	
960 minute winter	SW-11	26.001	59	-0.6	0.348	-0.074	0.0205	
960 minute winter	61	26.000	26.000:50%	0.0	-0.005	-0.003	0.0336	
960 minute winter	61	26.000	SW-11	-0.3	0.363	-0.032	0.0336	
960 minute winter	62	1.018	59	2.1	0.262	0.040	0.2569	
960 minute winter	63	25.000	25.000:50%	0.2	0.038	0.091	0.0534	
960 minute winter	63	25.000	62	0.3	0.270	0.110	0.0534	
960 minute winter	64	1.017	62	1.6	0.263	0.030	0.2203	
960 minute winter	SW-10	24.002	24.002:50%	0.3	0.465	0.033	0.0152	
960 minute winter	SW-10	24.002	64	-1.2	0.469	-0.134	0.0152	
960 minute winter	66	24.001	24.001:50%	0.0	-0.005	-0.003	0.0367	
960 minute winter	66	24.001	SW-10	0.3	0.515	0.035	0.0367	
960 minute winter	PLOT 1	10.000_1	40	0.9	0.354	0.069	0.0365	
960 minute winter	PLOT 4	15.000_1	31	0.7	0.308	0.053	0.0290	
960 minute winter	PLOT 3	17.000_1	29	0.7	0.760	0.053	0.0353	
960 minute winter	PLOT 2	20.000_1	25	0.4	0.673	0.036	0.0338	
960 minute winter	PLOT 5	22.000_1	21	0.8	0.840	0.069	0.0325	

Results for 500 year +45% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	53	480	10.010	0.250	0.1	0.0000	0.0000	SURCHARGED
720 minute winter	1.000:50%	480	10.010	0.266	0.9	2.9286	0.0000	SURCHARGED
720 minute winter	52	480	10.010	0.282	0.9	0.0000	0.0000	SURCHARGED
720 minute winter	51	480	10.009	0.109	0.0	0.0000	0.0000	SURCHARGED
720 minute winter	3.000:50%	480	10.009	0.149	0.3	0.0000	0.0000	SURCHARGED
15 minute summer	50	1	10.050	0.000	0.0	0.0000	0.0000	OK
480 minute winter	2.000:50%	344	10.009	0.074	0.4	0.0000	0.0000	OK
720 minute winter	SW-01	480	10.009	0.189	0.5	0.0728	0.0000	SURCHARGED
720 minute winter	48	480	10.009	0.302	6.2	35.5583	0.0000	SURCHARGED
720 minute winter	47	480	10.009	0.009	0.0	0.0000	0.0000	OK
720 minute winter	4.000:50%	480	10.009	0.100	0.6	0.5476	0.0000	SURCHARGED
720 minute winter	46	480	10.009	0.059	0.0	0.0000	0.0000	OK
720 minute winter	5.000:50%	480	10.008	0.125	0.5	0.9730	0.0000	SURCHARGED
720 minute winter	SW-02	480	10.009	0.192	0.8	0.0739	0.0000	SURCHARGED
720 minute winter	44	480	10.009	0.323	4.6	0.0000	0.0000	SURCHARGED
720 minute winter	43	480	10.008	0.313	0.1	0.0000	0.0000	SURCHARGED
480 minute winter	6.000:50%	344	10.007	0.327	0.4	0.0000	0.0000	SURCHARGED
720 minute winter	42	480	10.008	0.342	3.9	0.0000	0.0000	SURCHARGED
720 minute winter	41	480	10.007	0.346	0.1	0.0000	0.0000	SURCHARGED
480 minute winter	9.000:50%	344	10.007	0.355	0.3	0.0000	0.0000	SURCHARGED
720 minute winter	40	480	10.008	0.364	11.0	30.2126	0.0000	SURCHARGED
15 minute summer	39	12	10.194	0.214	1.3	0.0000	0.0000	FLOOD RISK
15 minute summer	10.000:50%	12	10.193	0.306	11.1	0.0000	0.0000	SURCHARGED
30 minute summer	SW-04	20	10.019	0.225	8.4	0.0865	0.0000	FLOOD RISK
720 minute winter	37	480	10.007	0.371	6.4	0.0000	0.0000	FLOOD RISK
15 minute summer	36	12	10.098	0.118	1.0	0.0000	0.0000	FLOOD RISK
15 minute summer	11.000:50%	12	10.096	0.209	7.4	0.0000	0.0000	SURCHARGED
30 minute summer	35	20	10.033	0.139	0.8	0.0000	0.0000	FLOOD RISK
30 minute summer	12.000:50%	20	10.033	0.189	4.6	0.0000	0.0000	SURCHARGED
30 minute summer	SW-05	20	10.022	0.228	8.6	0.0878	0.0000	FLOOD RISK
720 minute winter	33	480	10.007	0.375	7.2	0.0000	0.0000	FLOOD RISK
720 minute winter	32	480	10.007	0.363	0.1	0.0000	0.0000	FLOOD RISK
720 minute winter	13.000:50%	480	10.006	0.372	1.2	6.1472	0.0000	SURCHARGED
720 minute winter	31	480	10.007	0.382	8.3	0.0000	0.0000	FLOOD RISK
480 minute winter	30	344	10.006	0.376	0.2	0.0000	0.0000	FLOOD RISK
720 minute winter	14.000:50%	480	10.006	0.385	0.5	0.0000	0.0000	SURCHARGED
720 minute winter	29	480	10.006	0.519	9.1	0.0000	0.0000	FLOOD RISK
720 minute winter	28	480	10.006	0.126	0.0	0.0000	0.0000	FLOOD RISK
720 minute winter	16.000:50%	480	10.005	0.197	0.3	0.0000	0.0000	SURCHARGED
720 minute winter	27	480	10.006	0.046	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	53	1.000	1.000:50%	-0.1	-0.018	-0.024	0.0571	
720 minute winter	53	1.000	52	0.9	0.314	0.319	0.0571	
720 minute winter	52	1.001	48	0.9	0.263	0.320	0.0765	
720 minute winter	51	3.000	3.000:50%	0.0	0.011	0.004	0.0098	
720 minute winter	51	3.000	SW-01	0.2	0.350	0.020	0.0098	
15 minute summer	50	2.000	2.000:50%	0.0	0.000	0.000	0.0084	
15 minute summer	50	2.000	SW-01	3.8	0.789	0.408	0.0236	
720 minute winter	SW-01	2.001	48	0.5	0.208	0.070	0.0586	
720 minute winter	48	1.002	44	-4.0	-0.329	-0.492	0.1675	
720 minute winter	47	4.000	4.000:50%	0.0	-0.009	-0.004	0.0177	
720 minute winter	47	4.000	SW-02	0.7	0.595	0.076	0.0338	
720 minute winter	46	5.000	5.000:50%	0.0	-0.007	-0.003	0.0111	
720 minute winter	46	5.000	SW-02	-0.4	0.293	-0.030	0.0137	
720 minute winter	SW-02	4.001	44	0.9	0.281	0.089	0.0399	
720 minute winter	44	1.003	42	-3.7	0.374	-0.453	0.1593	
720 minute winter	43	6.000	6.000:50%	-0.1	-0.028	-0.045	0.0517	
720 minute winter	43	6.000	42	0.3	0.108	0.103	0.0517	
720 minute winter	42	1.004	54	-3.7	0.378	-0.458	0.0422	
720 minute winter	41	9.000	9.000:50%	-0.1	-0.028	-0.041	0.0318	
720 minute winter	41	9.000	40	0.2	0.043	0.069	0.0318	
720 minute winter	40	1.006	37	5.7	0.448	0.232	0.1386	
15 minute summer	39	10.000	10.000:50%	1.5	0.198	0.214	0.0510	
15 minute summer	39	10.000	SW-04	8.9	1.135	1.228	0.0510	
30 minute summer	SW-04	10.001	37	8.1	1.029	0.915	0.0588	
720 minute winter	37	1.007	33	6.4	0.486	0.280	0.0802	
15 minute summer	36	11.000	11.000:50%	1.1	0.160	0.160	0.0557	
15 minute summer	36	11.000	SW-05	5.7	0.787	0.818	0.0557	
30 minute summer	35	12.000	12.000:50%	-0.8	-0.245	-0.084	0.0154	
30 minute summer	35	12.000	SW-05	3.4	0.627	0.348	0.0154	
30 minute summer	SW-05	11.001	33	8.3	1.060	0.920	0.0575	
720 minute winter	33	1.008	31	7.2	0.544	0.299	0.1267	
720 minute winter	32	13.000	13.000:50%	-0.1	-0.030	-0.022	0.0347	
720 minute winter	32	13.000	31	-0.9	-0.115	-0.326	0.0347	
720 minute winter	31	1.009	29	8.3	0.677	0.350	0.2414	
480 minute winter	30	14.000	14.000:50%	-0.2	-0.043	-0.069	0.0324	
480 minute winter	30	14.000	29	0.3	0.282	0.108	0.0324	
720 minute winter	29	1.010	25	9.0	0.562	0.384	0.1728	
720 minute winter	28	16.000	16.000:50%	0.0	-0.016	-0.003	0.0138	
720 minute winter	28	16.000	SW-06	0.7	0.401	0.058	0.0138	
720 minute winter	27	15.000	15.000:50%	0.0	-0.009	-0.006	0.0386	

Results for 500 year +45% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	15.000:50%	480	10.006	0.157	0.5	1.8994	0.0000	SURCHARGED
480 minute winter	SW-06	344	10.006	0.269	1.2	0.1036	0.0000	FLOOD RISK
720 minute winter	25	480	10.005	0.527	10.4	0.0000	0.0000	FLOOD RISK
720 minute winter	24	480	10.005	0.045	0.0	0.0000	0.0000	OK
720 minute winter	17.000:50%	480	10.005	0.156	0.5	1.8795	0.0000	SURCHARGED
720 minute winter	SW-07	480	10.005	0.268	0.4	0.1033	0.0000	FLOOD RISK
480 minute winter	21	344	10.005	0.607	22.4	40.9158	0.0000	FLOOD RISK
720 minute winter	20	480	10.005	0.390	0.1	0.0000	0.0000	FLOOD RISK
720 minute winter	19.000:50%	480	10.005	0.406	0.5	0.0000	0.0000	SURCHARGED
480 minute winter	19	344	10.005	0.622	10.1	0.0000	0.0000	FLOOD RISK
720 minute winter	18	480	10.005	0.095	0.1	0.0000	0.0000	OK
720 minute winter	21.000:50%	480	10.004	0.193	0.7	2.8955	0.0000	SURCHARGED
720 minute winter	17	480	10.005	0.075	0.0	0.0000	0.0000	OK
720 minute winter	20.000:50%	480	10.005	0.183	0.6	2.6054	0.0000	SURCHARGED
720 minute winter	SW-08	480	10.005	0.292	0.9	0.1124	0.0000	FLOOD RISK
480 minute winter	15	344	10.004	0.632	11.1	0.0000	0.0000	FLOOD RISK
720 minute winter	14	480	10.004	0.412	0.1	0.0000	0.0000	FLOOD RISK
720 minute winter	22.000:50%	480	10.004	0.428	1.8	8.3481	0.0000	SURCHARGED
480 minute winter	13	344	10.004	0.645	16.9	61.4374	0.0000	FLOOD RISK
720 minute winter	12	480	10.004	0.154	0.0	0.0000	0.0000	FLOOD RISK
720 minute winter	23.000:50%	480	10.003	0.306	0.9	5.6024	0.0000	SURCHARGED
720 minute winter	SW-09	480	10.004	0.459	0.5	0.1765	0.0000	FLOOD RISK
480 minute winter	10	344	10.003	0.670	10.8	21.8413	0.0000	FLOOD RISK
120 minute summer	9	110	9.950	0.200	0.5	0.0000	0.0000	FLOOD RISK
600 minute winter	27.000:50%	420	10.002	0.335	1.4	8.4780	0.0000	PONDING
600 minute winter	SW-13	420	10.002	0.419	1.1	0.1613	0.0000	FLOOD RISK
480 minute winter	7	352	10.002	0.177	0.1	0.0000	0.0000	FLOOD RISK
720 minute winter	28.000:50%	480	10.001	0.294	0.9	5.5692	0.0000	SURCHARGED
480 minute winter	6	344	10.002	0.237	0.1	0.0000	0.0000	FLOOD RISK
720 minute winter	29.000:50%	480	10.001	0.324	0.4	0.0000	0.0000	SURCHARGED
720 minute winter	SW-12	480	10.002	0.412	0.8	0.1585	0.0000	FLOOD RISK
480 minute winter	4	344	10.002	0.722	12.3	21.8413	0.0000	FLOOD RISK
1440 minute winter	SW-14 (HYDRO)	900	10.000	0.732	8.7	0.8279	87.9031	FLOOD
60 minute winter	SW-15	140	9.651	0.473	1.2	0.5352	0.0000	SURCHARGED
15 minute summer	DITCH HEADWALL	1	9.648	0.521	0.0	0.0000	0.0000	OK
720 minute winter	54	480	10.008	0.347	3.8	0.0000	0.0000	SURCHARGED
600 minute winter	SW-03	420	10.008	0.254	1.3	0.0977	0.0000	SURCHARGED
15 minute summer	56	12	10.200	0.230	4.1	0.0000	0.0000	FLOOD RISK
15 minute summer	7.001:50%	12	10.170	0.308	9.2	0.0000	0.0000	SURCHARGED
15 minute summer	57	12	10.204	0.204	1.0	0.0000	0.0000	FLOOD RISK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	27	15.000	SW-06	0.5	0.489	0.064	0.0532	
480 minute winter	SW-06	15.001	25	1.3	0.729	0.148	0.0504	
720 minute winter	25	1.011	21	10.2	0.691	0.403	0.0815	
720 minute winter	24	17.000	17.000:50%	0.0	-0.005	-0.004	0.0458	
720 minute winter	24	17.000	SW-07	0.4	0.516	0.056	0.0636	
720 minute winter	SW-07	18.000	21	0.4	0.523	0.043	0.0498	
480 minute winter	21	1.012	19	9.6	0.434	0.189	0.4984	
720 minute winter	20	19.000	19.000:50%	-0.1	-0.026	-0.031	0.0586	
720 minute winter	20	19.000	19	0.5	0.297	0.167	0.0586	
480 minute winter	19	1.013	15	9.9	0.447	0.191	0.3506	
720 minute winter	18	21.000	21.000:50%	-0.1	-0.013	-0.008	0.0623	
720 minute winter	18	21.000	SW-08	-0.4	0.331	-0.060	0.0629	
720 minute winter	17	20.000	20.000:50%	0.0	-0.005	-0.005	0.0583	
720 minute winter	17	20.000	SW-08	0.6	0.511	0.087	0.0646	
720 minute winter	SW-08	20.001	15	0.9	0.690	0.100	0.0508	
480 minute winter	15	1.014	13	11.0	0.537	0.216	0.4310	
720 minute winter	14	22.000	22.000:50%	-0.1	-0.036	-0.034	0.0597	
720 minute winter	14	22.000	13	-1.3	0.295	-0.486	0.0597	
480 minute winter	13	1.015	10	10.1	0.505	0.146	0.4661	
720 minute winter	12	23.000	23.000:50%	0.0	-0.008	-0.004	0.0412	
720 minute winter	12	23.000	SW-09	0.5	0.359	0.048	0.0412	
720 minute winter	SW-09	23.001	10	-0.5	0.290	-0.176	0.0450	
480 minute winter	10	1.016	64	10.8	0.352	0.152	0.4979	
120 minute summer	9	27.000	27.000:50%	-0.5	-0.083	-0.060	0.0370	
120 minute summer	9	27.000	SW-13	5.2	0.847	0.642	0.0370	
600 minute winter	SW-13	27.001	4	0.8	0.476	0.135	0.0626	
480 minute winter	7	28.000	28.000:50%	-0.1	-0.013	-0.006	0.0275	
480 minute winter	7	28.000	SW-12	-1.0	0.303	-0.093	0.0275	
480 minute winter	6	29.000	29.000:50%	-0.1	-0.022	-0.007	0.0107	
480 minute winter	6	29.000	SW-12	0.6	0.610	0.039	0.0107	
720 minute winter	SW-12	28.001	4	-0.6	0.531	-0.070	0.0374	
480 minute winter	4	1.020	SW-14 (HYDRO)	12.3	0.175	0.249	0.4184	
1440 minute winter	SW-14 (HYDRO)	Hydro-Brake®	SW-15	1.2				
60 minute winter	SW-15	1.022	DITCH HEADWALL	2.1	0.029	0.023	0.5420	16.4
720 minute winter	54	1.005	40	3.8	0.343	0.160	0.3136	
600 minute winter	SW-03	7.002	54	1.3	0.327	0.126	0.0256	
15 minute summer	56	7.001	7.001:50%	4.6	0.606	0.601	0.0539	
15 minute summer	56	7.001	SW-03	8.5	1.083	1.117	0.0539	
15 minute summer	57	7.000	7.000:50%	1.1	0.335	0.128	0.0061	

Results for 500 year +45% CC Critical Storm Duration. Lowest mass balance: 94.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	7.000:50%	12	10.204	0.219	5.9	0.0000	0.0000	SURCHARGED
720 minute winter	58	480	10.008	0.118	0.1	0.0000	0.0000	SURCHARGED
720 minute winter	8.000:50%	480	10.008	0.186	0.6	0.0000	0.0000	SURCHARGED
480 minute winter	59	344	10.002	0.713	11.3	0.0000	0.0000	FLOOD RISK
720 minute winter	SW-11	480	10.002	0.398	0.8	0.1532	0.0000	FLOOD RISK
480 minute winter	26.001:50%	344	10.001	0.442	1.1	0.0000	0.0000	SURCHARGED
600 minute winter	61	420	10.002	0.202	0.1	0.0000	0.0000	FLOOD RISK
480 minute winter	26.000:50%	344	10.002	0.300	1.2	5.7539	0.0000	SURCHARGED
480 minute winter	62	344	10.002	0.705	11.2	0.0000	0.0000	FLOOD RISK
480 minute winter	63	344	10.003	0.451	0.7	0.0000	0.0000	FLOOD RISK
720 minute winter	25.000:50%	480	10.002	0.465	0.7	0.0000	0.0000	SURCHARGED
480 minute winter	64	344	10.003	0.699	10.9	0.0000	0.0000	FLOOD RISK
720 minute winter	SW-10	480	10.003	0.388	0.6	0.1493	0.0000	FLOOD RISK
720 minute winter	24.002:50%	480	10.002	0.430	1.6	8.8768	0.0000	SURCHARGED
600 minute winter	66	420	10.003	0.203	0.1	0.0000	0.0000	FLOOD RISK
600 minute winter	24.001:50%	420	10.002	0.295	1.0	5.6132	0.0000	SURCHARGED
720 minute winter	PLOT 1	480	10.008	0.158	1.0	1.9614	0.0000	SURCHARGED
720 minute winter	PLOT 4	480	10.007	0.207	1.1	3.8245	0.0000	SURCHARGED
720 minute winter	PLOT 3	480	10.006	0.206	0.8	2.2684	0.0000	SURCHARGED
720 minute winter	PLOT 2	480	10.006	0.256	0.8	2.3963	0.0000	SURCHARGED
480 minute winter	PLOT 5	344	10.006	0.256	2.0	5.7734	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	57	7.000	56	4.1	1.050	0.492	0.0061	
720 minute winter	58	8.000	8.000:50%	-0.1	-0.008	-0.006	0.0141	
720 minute winter	58	8.000	SW-03	-0.3	0.350	-0.028	0.0141	
480 minute winter	59	1.019	4	11.3	0.256	0.220	0.2931	
720 minute winter	SW-11	26.001	26.001:50%	-0.8	0.346	-0.106	0.0205	
720 minute winter	SW-11	26.001	59	-0.9	0.348	-0.110	0.0205	
600 minute winter	61	26.000	26.000:50%	-0.1	-0.010	-0.007	0.0336	
600 minute winter	61	26.000	SW-11	-0.8	0.449	-0.092	0.0336	
480 minute winter	62	1.018	59	11.2	0.288	0.217	0.2569	
480 minute winter	63	25.000	25.000:50%	-0.7	-0.093	-0.266	0.0534	
480 minute winter	63	25.000	62	0.7	0.321	0.241	0.0534	
480 minute winter	64	1.017	62	10.9	0.297	0.209	0.2203	
720 minute winter	SW-10	24.002	24.002:50%	0.9	0.525	0.106	0.0152	
720 minute winter	SW-10	24.002	64	-1.6	0.524	-0.179	0.0152	
600 minute winter	66	24.001	24.001:50%	-0.1	-0.009	-0.006	0.0367	
600 minute winter	66	24.001	SW-10	-0.6	0.562	-0.066	0.0367	
720 minute winter	PLOT 1	10.000_1	40	1.1	0.393	0.085	0.0365	
720 minute winter	PLOT 4	15.000_1	31	1.1	0.249	0.083	0.0290	
720 minute winter	PLOT 3	17.000_1	29	1.0	0.849	0.077	0.0353	
720 minute winter	PLOT 2	20.000_1	25	0.7	0.755	0.061	0.0338	
480 minute winter	PLOT 5	22.000_1	21	2.0	1.051	0.169	0.0325	