

Network Details

Manhole Schedule

Manhole	Catchment Area (ha)	Diameter (m)	Type	CL (m)	IL (m)	Depth To Soffit (m)	Easting (m)	Northing (m)
RWP121A	0.000	0.180	Type E	6.228	5.700	0.428	488752.818	98318.534
RE121A	0.000	0.180	Type E	6.251	5.650	0.501	488750.662	98318.644
PS58	0.000	0.450	450	6.310	5.500	0.710	488744.778	98316.580
RWP144B	0.000	0.180	Type E	6.135	5.600	0.435	488709.609	98300.511
RE144A	0.000	0.180	Type E	6.207	5.550	0.557	488708.754	98304.863
PS38	0.000	0.450	450	5.981	5.300	0.581	488728.731	98309.134
RE121B	0.000	0.180	Type E	6.375	5.650	0.625	488757.160	98308.020
RE144B	0.000	0.180	Type E	6.022	5.400	0.522	488711.672	98291.872
PS41	0.000	0.450	450	6.160	5.000	1.060	488729.078	98297.109
RWP147B	0.000	0.180	Type E	6.036	5.600	0.336	488730.396	98299.119
PS42	0.000	0.450	450	6.088	4.900	1.088	488731.231	98298.879
S2 (D)	0.049	0.480	Type E	6.006	5.500	0.356	488731.424	98300.880
PS39	0.000	0.450	Unknown	6.180	4.825	1.205	488733.212	98298.629
RE91A	0.000	0.180	Type E	6.272	5.700	0.472	488757.795	98283.597
S24 (D)	0.027	0.180	Type E	6.062	5.500	0.412	488735.282	98274.835
PS44	0.000	0.250	250	6.117	5.400	0.567	488736.944	98276.106
RE91B	0.000	0.180	Type E	6.448	5.600	0.748	488753.547	98295.357
PS45	0.000	0.450	450	6.289	5.100	1.039	488732.705	98287.654
S1	0.043	1.350	Type C	6.285	4.750	1.235	488753.992	98299.541
S3	0.073	1.350	Type C	6.091	4.615	1.176	488731.360	98291.332
YGS4	0.000	0.180	Type E	6.015	5.500	0.365	488703.930	98299.821
S4	0.004	1.350	Type C	5.794	4.400	1.019	488696.132	98299.932
S5	0.048	1.350	Type C	5.650	4.325	0.950	488696.223	98279.636
RWP148A	0.000	0.180	Type E	6.103	5.500	0.503	488719.760	98280.866
RE148A	0.000	0.180	Type E	6.110	5.350	0.610	488720.862	98281.251
S16	0.010	0.450	450	5.743	4.900	0.693	488726.939	98260.580
RWP148B	0.000	0.180	Type E	6.008	5.500	0.408	488710.600	98278.171
RE148B	0.014	0.180	Type E	6.055	5.350	0.555	488708.893	98277.749
RE152B	0.000	0.180	Type E	5.777	5.350	0.327	488716.751	98244.785
ACO151A	0.015	0.180	Type E	5.700	4.900	0.700	488715.395	98255.023
S17	0.000	0.450	450	5.698	4.500	1.048	488713.835	98255.374
S7	0.000	1.350	Type C	5.446	4.150	0.921	488700.143	98249.911
S10	0.000	1.350	Type C	5.325	4.000	0.950	488699.411	98232.987
S11	0.032	0.000	Type C	5.150	4.000	0.775	488689.938	98215.568
S12	0.000	1.350	Type C	5.367	3.970	1.022	488693.509	98206.563
S8	0.108	1.500	Type C	5.245	3.927	0.943	488706.114	98212.490
S26	0.000	0.450	Unknown	5.650	4.100	1.400	488731.654	98215.438
S25	0.000	1.350	Type C	5.650	4.050	1.450	488728.302	98213.864
S20	0.000	1.350	Type C	5.198	3.900	1.148	488709.879	98204.328
S23	0.000	0.000	Type C	5.000	3.875	0.900	488709.538	98199.636

Pipe Schedule

Pipe Number	US Manhole	US IL (m)	DS Manhole	DS IL (m)	Shape	Dimension (m)	Length (m)	Gradient (1:x)	Roughness (mm)	US Depth To Soffit (m)	DS Depth To Soffit (m)
1.000	RWP121A	5.700	RE121A	5.650	Circ	0.1mØ	2.159	43.2	0.600	0.428	0.501
1.001	RE121A	5.650	PS58	5.500	Circ	0.1mØ	6.236	41.6	0.600	0.501	0.710
1.002	PS58	5.500	PS38	5.300	Circ	0.1mØ	17.691	88.5	0.600	0.710	0.581
2.000	RWP144B	5.600	RE144A	5.550	Circ	0.1mØ	4.435	88.7	0.600	0.435	0.557
2.001	RE144A	5.550	PS38	5.300	Circ	0.1mØ	20.428	81.7	0.600	0.557	0.581
1.003	PS38	5.300	PS39	4.875	Circ	0.1mØ	11.421	26.9	0.600	0.581	1.205
3.000	RE121B	5.650	PS39	4.875	Circ	0.1mØ	25.724	33.2	0.600	0.625	1.205
4.000	RE144B	5.400	PS41	5.000	Circ	0.1mØ	18.176	45.4	0.600	0.522	1.060
4.001	PS41	5.000	PS42	4.900	Circ	0.1mØ	2.787	27.9	0.600	1.060	1.088
5.000	RWP147B	5.600	PS42	4.900	Circ	0.1mØ	0.869	1.2	0.600	0.336	1.088
4.002	PS42	4.900	PS39	4.875	Circ	0.1mØ	1.997	79.9	0.600	1.088	1.205
6.000	S2 (D)	5.500	PS39	4.825	Circ	0.15mØ	2.875	4.3	0.600	0.356	1.205
1.004	PS39	4.825	S3	4.765	Circ	0.15mØ	7.528	125.5	0.600	1.205	1.176
7.000	RE91A	5.700	PS44	5.450	Circ	0.1mØ	22.156	88.6	0.600	0.472	0.567
8.000	S24 (D)	5.500	PS44	5.400	Circ	0.15mØ	2.092	20.9	0.600	0.412	0.567
7.001	PS44	5.400	PS45	5.100	Circ	0.15mØ	12.302	41.0	0.600	0.567	1.039
9.000	RE91B	5.600	PS45	5.150	Circ	0.1mØ	22.220	49.4	0.600	0.748	1.039

Pipe Schedule

Pipe Number	US Manhole	US IL (m)	DS Manhole	DS IL (m)	Shape	Dimension (m)	Length (m)	Gradient (1:x)	Roughness (mm)	US Depth To Soffit (m)	DS Depth To Soffit (m)
7.002	PS45	5.100	S3	4.765	Circ	0.15mØ	3.916	11.7	0.600	1.039	1.176
10.000	S1	4.750	S3	4.615	Circ	0.3mØ	24.075	178.3	0.600	1.235	1.176
1.005	S3	4.615	S5	4.400	Circ	0.3mØ	37.033	172.2	0.600	1.176	0.950
11.000	YGS4	5.500	S4	4.625	Circ	0.15mØ	7.799	8.9	0.600	0.365	1.019
11.001	S4	4.400	S5	4.325	Circ	0.375mØ	20.296	270.6	0.600	1.019	0.950
1.006	S5	4.325	S7	4.150	Circ	0.375mØ	29.983	171.3	0.600	0.950	0.921
12.000	RWP148A	5.500	RE148A	5.400	Circ	0.1mØ	1.167	11.7	0.600	0.503	0.610
12.001	RE148A	5.350	S16	4.900	Circ	0.15mØ	21.546	47.9	0.600	0.610	0.693
12.002	S16	4.900	S17	4.500	Circ	0.15mØ	14.100	35.2	0.600	0.693	1.048
13.000	RWP148B	5.500	RE148B	5.400	Circ	0.1mØ	1.759	17.6	0.600	0.408	0.555
13.001	RE148B	5.350	S17	4.500	Circ	0.15mØ	22.914	27.0	0.600	0.555	1.048
14.000	RE152B	5.350	S17	4.550	Circ	0.1mØ	10.982	13.7	0.600	0.327	1.048
15.000	ACO151A	4.900	S17	4.550	Circ	0.1mØ	1.598	4.6	0.600	0.700	1.048
12.003	S17	4.500	S7	4.375	Circ	0.15mØ	14.742	117.9	0.600	1.048	0.921
1.007	S7	4.150	S10	4.000	Circ	0.375mØ	16.940	112.9	0.600	0.921	0.950
1.008	S10	4.000	S8	3.927	Circ	0.375mØ	21.565	295.4	0.600	0.950	0.943
16.000	S11	4.000	S12	3.970	Circ	0.375mØ	9.687	322.9	0.600	0.775	1.022
16.001	S12	3.970	S8	3.927	Circ	0.375mØ	13.929	323.9	0.600	1.022	0.943
1.009	S8	3.927	S20	3.900	Circ	0.375mØ	8.988	332.9	0.600	0.943	0.923
17.000	S26	4.100	S25	4.050	Circ	0.15mØ	3.703	74.1	0.600	1.400	1.450
17.001	S25	4.050	S20	3.900	Circ	0.15mØ	20.745	138.3	0.600	1.450	1.148
1.010	S20	3.900	S23	3.875	Circ	0.225mØ	4.704	188.2	0.600	1.073	0.900

Permeable Paving Schedule

Permeable Paving	Assigned Manhole	Effective Storage Volume (m3)	CL (m)	IL (m)	Storage Infil Rate (m/hr)	Safety Factor	Easting (m)	Northing (m)
S2	S2 (D)	17.944	6.006	5.426	0.00000000	2.00	488733.978	98306.464
S24	S24 (D)	9.914	6.062	5.482	0.00000000	2.00	488734.064	98284.188

Outfall Details

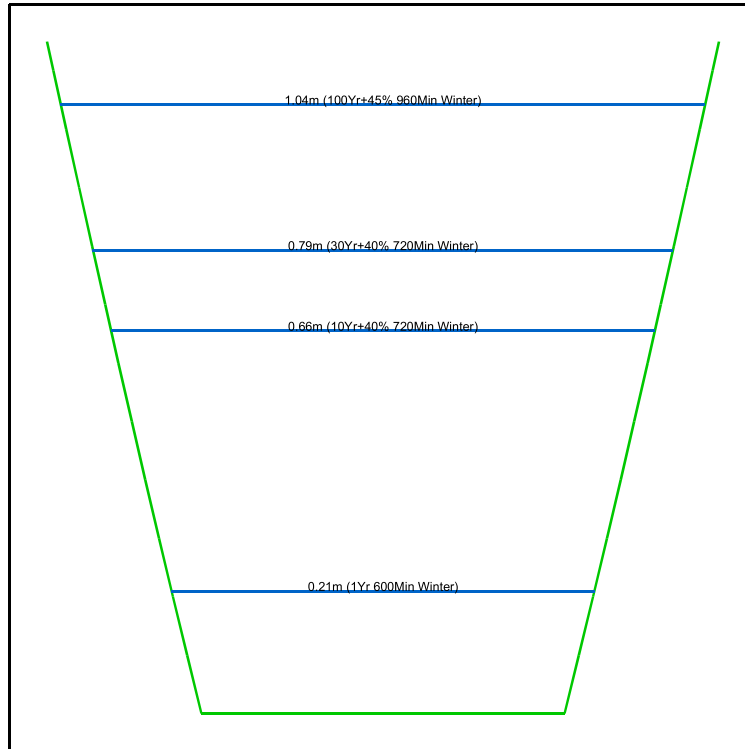
Outfall Manhole S23 : Free Discharge

Flow Control Details

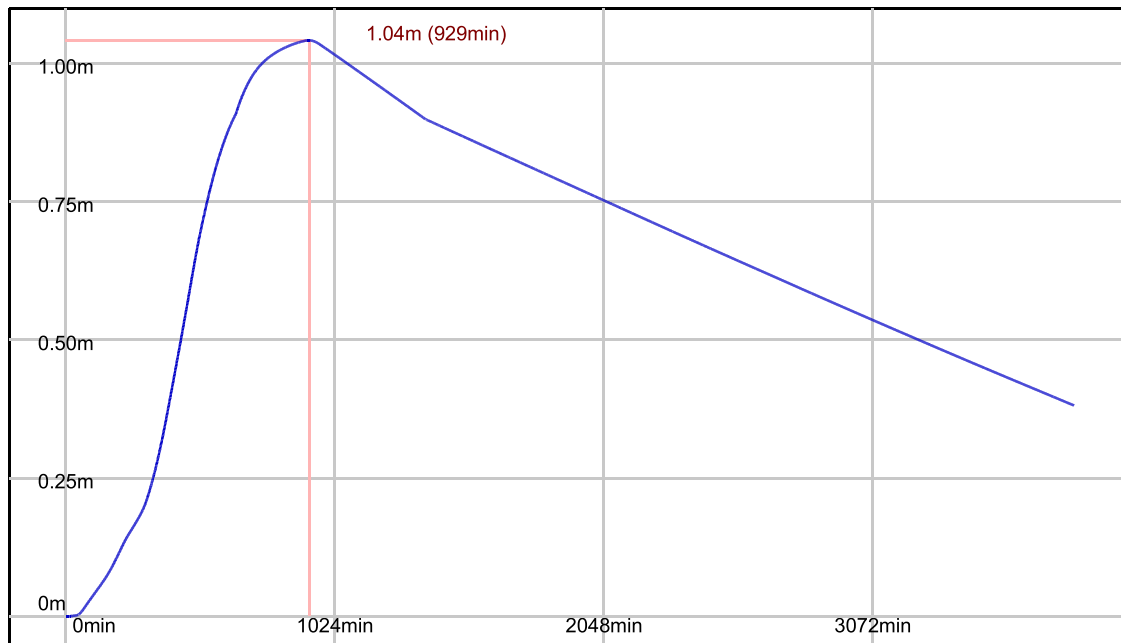
Pond Structure at Manhole S11

Pond Invert (m)	Max Depth (m)	Volume To Water Level (m3)	Water Level (m)	Freeboard (m)	Infil Base (m/hr)	Infil Side (m/hr)	Safety Factor
4.000	1.150	185.283	5.000	0.150	0.00000000	0.00000000	2.00

Pond Depth/Area Diagram at S11



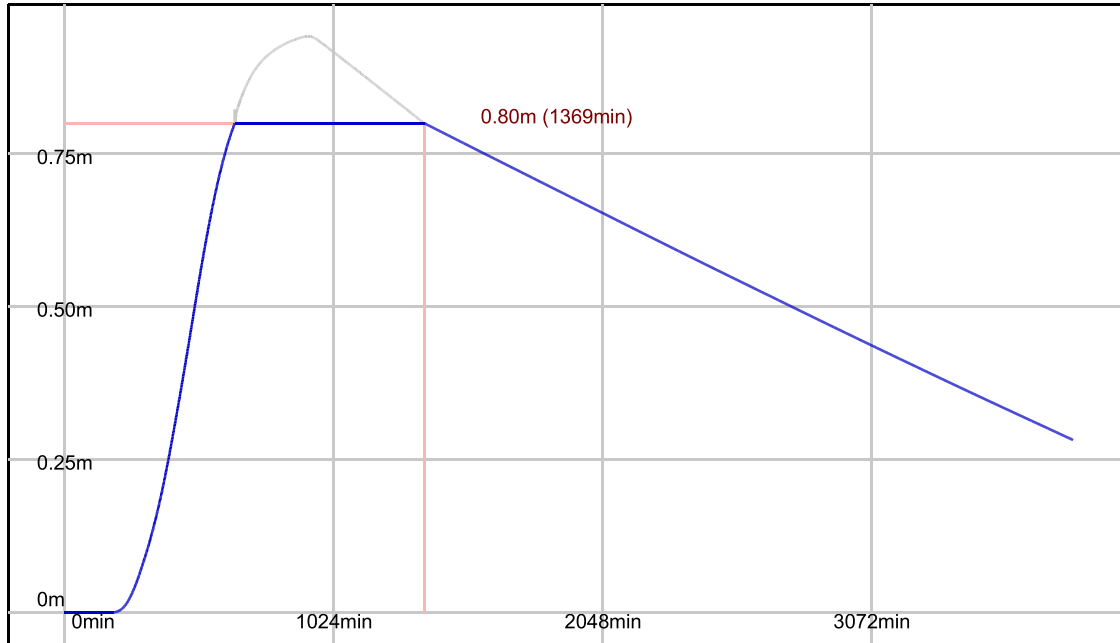
Pond at S11 (100Yr+45% 960Min Winter)



Tank Structure at Manhole S26

Tank Invert (m)	Tank Height (m)	Porosity Ratio (%)	Area (m2)	Effective Area (m2) Area x Porosity Ratio	Max Storage (m3) Effective Area x Height	Infil Base (m/hr)	Infil Side (m/hr)	Safety Factor
4.100	0.800	95.00	196.388	186.568	149.255	0.00000000	0.00000000	2.00

Tank at S26 (100Yr+45% 960Min Winter)

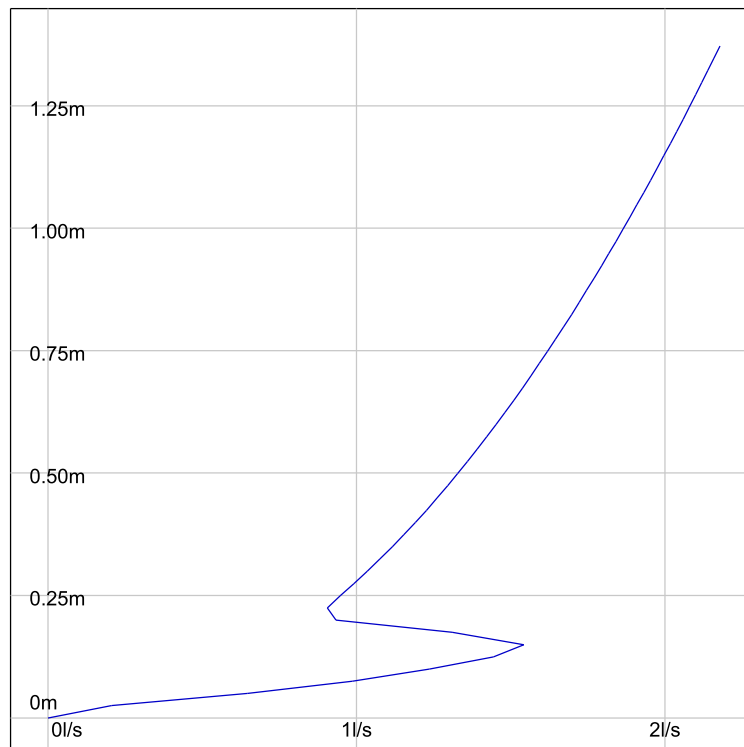


Controls within Manhole S20

Hydro-Brake® Optimum Control at Manhole S20

Model Ref	Design Depth (m)	Design Flow (l/s)	Depth Above Invert (m)	FF Head (m)	FF Flow (l/s)	KF Head (m)	KF Flow (l/s)
CHE-0062-2000-1155-2000 ID:626597	1.155	2.000	0.000	0.151	1.543	0.215	0.899

Hydro-Brake® Optimum Control at S20



Simulation Settings

FEH2022 (point): Filename=FEH_Point_Descriptors_488693_97897_v5_0_1.xml

Summer (Cv: 1.00), Winter (Cv: 1.00)

Global Time of Entry: 5.0 mins

Durations (mins): 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440

Return Periods (yrs) + Climate Change: (1, +0%), (10, +40%), (30, +40%), (100, +45%)

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %
1Yr 15Min Winter	16.942	0.00	0.17	30Yr+40% 15Min Summer	112.863	0.00	0.92
1Yr 15Min Summer	16.942	0.00	0.15	30Yr+40% 15Min Winter	112.863	0.00	0.83
1Yr 30Min Winter	10.755	0.00	0.17	30Yr+40% 30Min Summer	74.071	0.00	1.11
1Yr 30Min Summer	10.755	0.00	0.16	30Yr+40% 30Min Winter	74.071	0.00	1.07
1Yr 60Min Winter	6.786	0.00	0.09	30Yr+40% 60Min Summer	46.547	0.00	1.28
1Yr 60Min Summer	6.786	0.00	0.10	30Yr+40% 60Min Winter	46.547	0.00	1.28
1Yr 120Min Summer	5.246	0.00	0.08	30Yr+40% 120Min Summer	27.731	0.00	1.31
1Yr 120Min Winter	5.246	0.00	0.09	30Yr+40% 120Min Winter	27.731	0.00	1.31
1Yr 180Min Summer	4.383	0.00	0.00	30Yr+40% 180Min Summer	20.307	0.00	1.21
1Yr 180Min Winter	4.383	0.00	0.00	30Yr+40% 180Min Winter	20.307	0.00	1.21
1Yr 240Min Summer	3.631	0.00	0.00	30Yr+40% 240Min Summer	16.265	0.00	1.09
1Yr 240Min Winter	3.631	0.00	0.00	30Yr+40% 240Min Winter	16.265	0.00	1.09
1Yr 360Min Summer	2.818	0.00	0.00	30Yr+40% 360Min Summer	11.803	0.00	0.81
1Yr 360Min Winter	2.818	0.00	0.00	30Yr+40% 360Min Winter	11.803	0.00	0.81
1Yr 480Min Summer	2.343	0.00	0.00	30Yr+40% 480Min Summer	9.367	0.00	0.56
1Yr 480Min Winter	2.343	0.00	0.00	30Yr+40% 480Min Winter	9.367	0.00	0.56
1Yr 600Min Summer	2.004	0.00	0.00	30Yr+40% 600Min Summer	7.810	0.00	0.34
1Yr 600Min Winter	2.004	0.00	0.00	30Yr+40% 600Min Winter	7.810	0.00	0.34
1Yr 720Min Winter	1.752	0.00	0.00	30Yr+40% 720Min Summer	6.721	0.00	0.14
1Yr 720Min Summer	1.752	0.00	0.00	30Yr+40% 720Min Winter	6.721	0.00	0.14
1Yr 960Min Summer	1.420	0.00	0.00	30Yr+40% 960Min Summer	5.302	0.00	0.03
1Yr 960Min Winter	1.420	0.00	0.00	30Yr+40% 960Min Winter	5.302	0.00	0.03
1Yr 1440Min Summer	1.059	0.00	0.00	30Yr+40% 1440Min Summer	3.817	0.00	0.00
1Yr 1440Min Winter	1.059	0.00	0.00	30Yr+40% 1440Min Winter	3.817	0.00	0.00
10Yr+40% 15Min Summer	87.036	0.00	0.42	100Yr+45% 15Min Summer	146.276	0.00	1.36
10Yr+40% 15Min Winter	87.036	0.00	0.37	100Yr+45% 15Min Winter	146.276	0.00	1.30
10Yr+40% 30Min Summer	56.678	0.00	0.61	100Yr+45% 30Min Summer	96.982	0.00	1.54
10Yr+40% 30Min Winter	56.678	0.00	0.63	100Yr+45% 30Min Winter	96.982	0.00	1.47
10Yr+40% 60Min Summer	35.401	0.00	0.88	100Yr+45% 60Min Summer	61.530	0.00	1.72
10Yr+40% 60Min Winter	35.401	0.00	0.87	100Yr+45% 60Min Winter	61.530	0.00	1.75
10Yr+40% 120Min Winter	21.745	0.00	0.91	100Yr+45% 120Min Summer	35.946	0.00	1.84
10Yr+40% 120Min Summer	21.745	0.00	0.91	100Yr+45% 120Min Winter	35.946	0.00	1.85
10Yr+40% 180Min Summer	16.178	0.00	0.83	100Yr+45% 180Min Summer	26.053	0.00	1.75
10Yr+40% 180Min Winter	16.178	0.00	0.83	100Yr+45% 180Min Winter	26.053	0.00	1.76
10Yr+40% 240Min Summer	13.001	0.00	0.72	100Yr+45% 240Min Summer	20.923	0.00	1.64
10Yr+40% 240Min Winter	13.001	0.00	0.72	100Yr+45% 240Min Winter	20.923	0.00	1.64
10Yr+40% 360Min Summer	9.488	0.00	0.46	100Yr+45% 360Min Summer	15.176	0.00	1.31
10Yr+40% 360Min Winter	9.488	0.00	0.46	100Yr+45% 360Min Winter	15.176	0.00	1.30
10Yr+40% 480Min Summer	7.563	0.00	0.22	100Yr+45% 480Min Summer	12.028	0.00	0.99
10Yr+40% 480Min Winter	7.563	0.00	0.22	100Yr+45% 480Min Winter	12.028	0.00	0.99
10Yr+40% 600Min Winter	6.323	0.00	0.09	100Yr+45% 600Min Summer	10.033	0.00	0.74
10Yr+40% 600Min Summer	6.323	0.00	0.08	100Yr+45% 600Min Winter	10.033	0.00	0.73
10Yr+40% 720Min Summer	5.451	0.00	0.05	100Yr+45% 720Min Summer	8.641	0.00	0.50
10Yr+40% 720Min Winter	5.451	0.00	0.05	100Yr+45% 720Min Winter	8.641	0.00	0.49
10Yr+40% 960Min Summer	4.313	0.00	0.00	100Yr+45% 960Min Summer	6.827	0.00	0.16
10Yr+40% 960Min Winter	4.313	0.00	0.00	100Yr+45% 960Min Winter	6.827	0.00	0.17
10Yr+40% 1440Min Summer	3.111	0.00	0.00	100Yr+45% 1440Min Winter	4.922	0.00	0.00
10Yr+40% 1440Min Winter	3.111	0.00	0.00	100Yr+45% 1440Min Summer	4.922	0.00	0.05

Simulation Results

Return Period Yrs: 1.0

Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
RWP121A	-	0	5.700	0.000	0.000		OK
RE121A	-	0	5.650	0.000	0.000		OK
PS58	-	0	5.500	0.000	0.000		OK
RWP144B	-	0	5.600	0.000	0.000		OK
RE144A	-	0	5.550	0.000	0.000		OK
PS38	-	0	5.300	0.000	0.000		OK
RE121B	-	0	5.650	0.000	0.000		OK
RE144B	-	0	5.400	0.000	0.000		OK
PS41	-	0	5.000	0.000	0.000		OK
RWP147B	-	0	5.600	0.000	0.000		OK
PS42	-	0	4.900	0.000	0.000		OK
S2 (D)	15 min Summer	8	5.522	0.022	4.915		OK
PS39	15 min Summer	8	4.877	0.052	4.174		OK
RE91A	-	0	5.700	0.000	0.000		OK
S24 (D)	15 min Summer	8	5.523	0.023	2.744		OK
PS44	15 min Summer	8	5.428	0.028	1.970		OK
RE91B	-	0	5.600	0.000	0.000		OK
PS45	15 min Summer	8	5.120	0.020	1.957		OK
S1	15 min Summer	8	4.795	0.045	4.317		OK
S3	15 min Summer	9	4.706	0.091	17.176		OK
YGS4	-	0	5.500	0.000	0.000		OK
S4	15 min Summer	9	4.423	0.023	0.424		OK
S5	15 min Summer	9	4.420	0.095	22.191		OK
RWP148A	-	0	5.500	0.000	0.000		OK
RE148A	-	0	5.350	0.000	0.000		OK
S16	15 min Summer	8	4.918	0.018	0.959		OK
RWP148B	-	0	5.500	0.000	0.000		OK
RE148B	15 min Summer	8	5.371	0.021	1.419		OK
RE152B	-	0	5.350	0.000	0.000		OK
ACO151A	15 min Summer	8	4.916	0.016	1.548		OK
S17	15 min Summer	9	4.549	0.049	3.786		OK
S7	15 min Summer	9	4.242	0.092	25.853		OK
S10	600 min Winter	518	4.212	0.212	1.026		OK
S11	600 min Winter	509	4.210	0.210	0.073		OK
S12	600 min Winter	513	4.212	0.242	0.803		OK
S8	600 min Winter	513	4.214	0.287	1.897		OK
S26	600 min Winter	514	4.209	0.109	0.000		OK
S25	600 min Winter	513	4.210	0.160	0.142		Surcharged
S20	600 min Winter	513	4.215	0.315	1.298		Surcharged
S23	180 min Summer	694	3.906	0.031	1.543		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Winter	0	RWP121A	RE121A	0.000	0.000	0.000	0.000	OK
1.001	15 min Winter	0	RE121A	PS58	0.000	0.000	0.000	0.000	OK
1.002	15 min Winter	0	PS58	PS38	0.000	0.000	0.000	0.000	OK
2.000	15 min Winter	0	RWP144B	RE144A	0.000	0.000	0.000	0.000	OK
2.001	15 min Winter	0	RE144A	PS38	0.000	0.000	0.000	0.000	OK
1.003	15 min Summer	8	PS38	PS39	0.001	0.000	0.000	0.000	OK
3.000	15 min Summer	8	RE121B	PS39	0.001	0.000	0.000	0.000	OK
4.000	15 min Winter	0	RE144B	PS41	0.000	0.000	0.000	0.000	OK
4.001	15 min Winter	0	PS41	PS42	0.000	0.000	0.000	0.000	OK
5.000	15 min Winter	0	RWP147B	PS42	0.000	0.000	0.000	0.000	OK
4.002	15 min Summer	8	PS42	PS39	0.001	0.000	0.000	0.000	OK
6.000	15 min Summer	8	S2 (D)	PS39	0.037	1.225	4.174	0.048	OK

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.004	15 min Summer	8	PS39	S3	0.052	0.760	4.135	0.262	OK
7.000	15 min Winter	0	RE91A	PS44	0.000	0.000	0.000	0.000	OK
8.000	15 min Summer	8	S24 (D)	PS44	0.026	0.986	1.970	0.050	OK
7.001	15 min Summer	8	PS44	PS45	0.024	1.072	1.957	0.070	OK
9.000	15 min Winter	0	RE91B	PS45	0.000	0.000	0.000	0.000	OK
7.002	15 min Summer	8	PS45	S3	0.020	1.417	1.948	0.037	OK
10.000	15 min Summer	9	S1	S3	0.068	0.358	4.234	0.051	OK
1.005	15 min Summer	9	S3	S5	0.091	0.960	17.395	0.206	OK
11.000	15 min Winter	0	YGS4	S4	0.000	0.000	0.000	0.000	OK
11.001	15 min Summer	10	S4	S5	0.059	0.063	0.663	0.005	OK
1.006	15 min Summer	9	S5	S7	0.093	1.023	22.013	0.144	OK
12.000	15 min Winter	0	RWP148A	RE148A	0.000	0.000	0.000	0.000	OK
12.001	15 min Summer	8	RE148A	S16	0.009	0.000	0.000	0.000	OK
12.002	15 min Summer	9	S16	S17	0.034	0.325	0.946	0.031	OK
13.000	15 min Winter	0	RWP148B	RE148B	0.000	0.000	0.000	0.000	OK
13.001	15 min Summer	9	RE148B	S17	0.035	0.471	1.410	0.041	OK
14.000	15 min Winter	0	RE152B	S17	0.000	0.000	0.000	0.000	OK
15.000	15 min Summer	8	ACO151A	S17	0.016	1.943	1.542	0.054	OK
12.003	15 min Summer	9	S17	S7	0.049	0.762	3.840	0.235	OK
1.007	600 min Winter	504	S7	S10	0.135	0.456	4.456	0.024	OK
1.008	600 min Winter	518	S10	S8	0.250	0.199	3.762	0.033	OK
16.000	600 min Winter	513	S11	S12	0.225	0.221	3.816	0.035	OK
16.001	600 min Winter	513	S12	S8	0.265	0.159	2.751	0.025	OK
1.009	600 min Winter	513	S8	S20	0.301	0.159	4.337	0.040	OK
17.000	600 min Winter	931	S26	S25	0.130	0.544	5.113	0.248	OK
17.001	600 min Summer	995	S25	S20	0.150	0.208	3.282	0.218	Surcharged
1.010	180 min Summer	694	S20	S23	0.031	0.473	1.543	0.041	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S2	1440 min Summer	764	5.510	0.084	0.124		OK
S24	180 min Summer	97	5.520	0.038	0.286		OK

Return Period Yrs: 10.0

Climate Change %: 40

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
RWP121A	-	0	5.700	0.000	0.000		OK
RE121A	-	0	5.650	0.000	0.000		OK
PS58	-	0	5.500	0.000	0.000		OK
RWP144B	-	0	5.600	0.000	0.000		OK
RE144A	-	0	5.550	0.000	0.000		OK
PS38	-	0	5.300	0.000	0.000		OK
RE121B	-	0	5.650	0.000	0.000		OK
RE144B	-	0	5.400	0.000	0.000		OK
PS41	15 min Summer	9	5.009	0.009	0.000		OK
RWP147B	-	0	5.600	0.000	0.000		OK
PS42	15 min Summer	9	5.010	0.110	0.063		Surcharged
S2 (D)	15 min Summer	8	5.552	0.052	25.251		OK
PS39	15 min Summer	9	5.010	0.185	21.781		Surcharged
RE91A	-	0	5.700	0.000	0.000		OK
S24 (D)	15 min Summer	8	5.555	0.055	14.098		OK
PS44	15 min Summer	8	5.469	0.069	11.348		OK
RE91B	-	0	5.600	0.000	0.000		OK
PS45	15 min Summer	8	5.147	0.047	11.277		OK
S1	15 min Summer	9	4.869	0.119	21.235		OK
S3	15 min Summer	9	4.869	0.254	91.290		OK
YGS4	-	0	5.500	0.000	0.000		OK
S4	720 min Winter	693	4.655	0.255	0.015		OK
S5	720 min Winter	693	4.655	0.330	0.984		OK
RWP148A	-	0	5.500	0.000	0.000		OK
RE148A	-	0	5.350	0.000	0.000		OK
S16	15 min Summer	8	4.941	0.041	4.923		OK
RWP148B	-	0	5.500	0.000	0.000		OK
RE148B	15 min Summer	8	5.397	0.047	7.290		OK
RE152B	-	0	5.350	0.000	0.000		OK
ACO151A	15 min Summer	8	4.936	0.036	7.953		OK
S17	15 min Summer	10	4.688	0.188	16.358		Surcharged
S7	720 min Winter	693	4.655	0.505	1.120		Surcharged
S10	720 min Winter	693	4.655	0.655	1.119		Surcharged
S11	720 min Winter	694	4.655	0.655	0.108		Surcharged
S12	720 min Winter	693	4.655	0.685	0.109		Surcharged
S8	720 min Winter	693	4.655	0.728	1.603		Surcharged
S26	720 min Winter	693	4.655	0.555	0.008		Surcharged
S25	720 min Winter	693	4.655	0.605	0.009		Surcharged
S20	720 min Winter	693	4.655	0.755	1.602		Surcharged
S23	720 min Winter	693	3.906	0.031	1.594		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Summer	0	RWP121A	RE121A	0.000	0.000	0.000	0.000	OK
1.001	15 min Summer	0	RE121A	PS58	0.000	0.000	0.000	0.000	OK
1.002	15 min Summer	0	PS58	PS38	0.000	0.000	0.000	0.000	OK
2.000	15 min Summer	0	RWP144B	RE144A	0.000	0.000	0.000	0.000	OK
2.001	15 min Summer	0	RE144A	PS38	0.000	0.000	0.000	0.000	OK
1.003	15 min Summer	7	PS38	PS39	0.050	0.000	0.000	0.000	OK
3.000	15 min Summer	7	RE121B	PS39	0.050	0.000	0.000	0.000	OK
4.000	15 min Summer	9	RE144B	PS41	0.005	0.000	0.000	0.000	OK
4.001	15 min Summer	9	PS41	PS42	0.055	0.070	0.063	0.005	OK
5.000	15 min Summer	8	RWP147B	PS42	0.050	0.000	0.000	0.000	OK
4.002	15 min Summer	11	PS42	PS39	0.100	0.362	1.173	0.174	Surcharged
6.000	15 min Summer	8	S2 (D)	PS39	0.101	1.836	22.619	0.260	OK
1.004	15 min Summer	9	PS39	S3	0.142	1.271	21.962	1.390	OK
7.000	15 min Summer	8	RE91A	PS44	0.010	0.000	0.000	0.000	OK
8.000	15 min Summer	8	S24 (D)	PS44	0.062	1.635	11.348	0.290	OK
7.001	15 min Summer	8	PS44	PS45	0.058	1.778	11.277	0.405	OK

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
9.000	15 min Summer	0	RE91B	PS45	0.000	0.000	0.000	0.000	OK
7.002	15 min Summer	9	PS45	S3	0.075	2.142	11.247	0.215	OK
10.000	15 min Summer	9	S1	S3	0.187	0.523	22.101	0.267	OK
1.005	15 min Summer	9	S3	S5	0.244	1.472	90.564	1.074	OK
11.000	720 min Winter	693	YGS4	S4	0.015	0.000	0.000	0.000	OK
11.001	720 min Winter	693	S4	S5	0.293	0.029	0.167	0.001	OK
1.006	720 min Winter	693	S5	S7	0.353	0.688	9.978	0.065	OK
12.000	15 min Summer	0	RWP148A	RE148A	0.000	0.000	0.000	0.000	OK
12.001	15 min Summer	8	RE148A	S16	0.020	0.000	0.000	0.000	OK
12.002	15 min Summer	8	S16	S17	0.095	0.472	4.887	0.163	OK
13.000	15 min Summer	0	RWP148B	RE148B	0.000	0.000	0.000	0.000	OK
13.001	15 min Summer	8	RE148B	S17	0.098	0.688	7.262	0.211	OK
14.000	15 min Summer	8	RE152B	S17	0.050	0.000	0.000	0.000	OK
15.000	15 min Summer	8	ACO151A	S17	0.068	2.489	7.937	0.277	OK
12.003	600 min Summer	585	S17	S7	0.150	0.687	2.695	0.165	Surcharged
1.007	15 min Winter	10	S7	S10	0.375	1.101	119.880	0.637	Surcharged
1.008	15 min Winter	9	S10	S8	0.375	1.051	116.114	1.004	Surcharged
16.000	15 min Winter	21	S11	S12	0.375	0.167	18.409	0.166	Surcharged
16.001	15 min Winter	21	S12	S8	0.375	0.169	18.696	0.169	Surcharged
1.009	60 min Summer	40	S8	S20	0.375	0.444	23.714	0.218	Surcharged
17.000	1440 min Winter	3805	S26	S25	0.150	0.554	6.081	0.295	Surcharged
17.001	1440 min Winter	3962	S25	S20	0.150	0.200	3.131	0.208	Surcharged
1.010	720 min Winter	693	S20	S23	0.031	0.478	1.594	0.042	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S2	120 min Summer	71	5.547	0.121	1.673		OK
S24	30 min Summer	21	5.559	0.077	2.201		OK

Return Period Yrs: 30.0

Climate Change %: 40

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
RWP121A	-	0	5.700	0.000	0.000		OK
RE121A	-	0	5.650	0.000	0.000		OK
PS58	-	0	5.500	0.000	0.000		OK
RWP144B	-	0	5.600	0.000	0.000		OK
RE144A	-	0	5.550	0.000	0.000		OK
PS38	-	0	5.300	0.000	0.000		OK
RE121B	-	0	5.650	0.000	0.000		OK
RE144B	-	0	5.400	0.000	0.000		OK
PS41	15 min Summer	10	5.196	0.196	0.142		Surcharged
RWP147B	-	0	5.600	0.000	0.000		OK
PS42	15 min Summer	10	5.195	0.295	0.274		Surcharged
S2 (D)	15 min Summer	8	5.560	0.060	32.744		OK
PS39	15 min Summer	10	5.193	0.368	23.457		Surcharged
RE91A	-	0	5.700	0.000	0.000		OK
S24 (D)	15 min Summer	8	5.565	0.065	18.281		OK
PS44	15 min Summer	8	5.481	0.081	14.928		OK
RE91B	-	0	5.600	0.000	0.000		OK
PS45	15 min Summer	10	5.160	0.060	13.176		OK
S1	15 min Summer	10	5.078	0.328	22.869		Surcharged
S3	15 min Summer	10	5.070	0.455	97.745		Surcharged
YGS4	-	0	5.500	0.000	0.000		OK
S4	15 min Summer	11	4.800	0.400	1.382		Surcharged
S5	15 min Summer	10	4.803	0.478	122.797		Surcharged
RWP148A	-	0	5.500	0.000	0.000		OK
RE148A	-	0	5.350	0.000	0.000		OK
S16	15 min Summer	8	4.947	0.047	6.385		OK
RWP148B	-	0	5.500	0.000	0.000		OK
RE148B	15 min Summer	8	5.403	0.053	9.454		OK
RE152B	-	0	5.350	0.000	0.000		OK
ACO151A	15 min Summer	10	4.955	0.055	8.201		OK
S17	15 min Summer	10	4.897	0.397	21.176		Surcharged
S7	720 min Winter	697	4.793	0.643	1.202		Surcharged
S10	720 min Winter	697	4.793	0.793	1.202		Surcharged
S11	720 min Winter	697	4.793	0.793	0.118		Surcharged
S12	720 min Winter	697	4.793	0.823	0.109		Surcharged
S8	720 min Winter	697	4.793	0.866	1.706		Surcharged
S26	720 min Winter	696	4.793	0.693	0.003		Surcharged
S25	720 min Winter	696	4.793	0.743	0.004		Surcharged
S20	720 min Winter	697	4.793	0.893	1.734		Surcharged
S23	720 min Winter	697	3.907	0.032	1.734		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Summer	0	RWP121A	RE121A	0.000	0.000	0.000	0.000	OK
1.001	15 min Summer	0	RE121A	PS58	0.000	0.000	0.000	0.000	OK
1.002	15 min Summer	0	PS58	PS38	0.000	0.000	0.000	0.000	OK
2.000	15 min Summer	0	RWP144B	RE144A	0.000	0.000	0.000	0.000	OK
2.001	15 min Summer	0	RE144A	PS38	0.000	0.000	0.000	0.000	OK
1.003	15 min Summer	7	PS38	PS39	0.050	0.000	0.000	0.000	OK
3.000	15 min Summer	7	RE121B	PS39	0.050	0.000	0.000	0.000	OK
4.000	15 min Summer	9	RE144B	PS41	0.050	0.000	0.000	0.000	OK
4.001	30 min Summer	19	PS41	PS42	0.100	0.229	1.506	0.131	Surcharged
5.000	15 min Summer	7	RWP147B	PS42	0.050	0.000	0.000	0.000	OK
4.002	30 min Summer	19	PS42	PS39	0.100	0.480	2.951	0.437	Surcharged
6.000	15 min Summer	8	S2 (D)	PS39	0.105	2.235	29.487	0.339	OK
1.004	15 min Winter	8	PS39	S3	0.150	1.390	24.564	1.555	Surcharged
7.000	15 min Summer	8	RE91A	PS44	0.016	0.000	0.000	0.000	OK
8.000	15 min Summer	8	S24 (D)	PS44	0.073	1.752	14.928	0.382	OK
7.001	15 min Summer	9	PS44	PS45	0.069	1.913	14.831	0.533	OK

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
9.000	15 min Summer	10	RE91B	PS45	0.005	0.000	0.000	0.000	OK
7.002	15 min Summer	10	PS45	S3	0.105	2.080	14.783	0.282	OK
10.000	15 min Summer	10	S1	S3	0.300	0.552	24.726	0.298	Surcharged
1.005	15 min Winter	10	S3	S5	0.300	1.460	100.420	1.190	Surcharged
11.000	15 min Summer	10	YGS4	S4	0.075	0.000	0.000	0.000	OK
11.001	30 min Summer	21	S4	S5	0.375	0.046	4.777	0.040	Surcharged
1.006	15 min Winter	10	S5	S7	0.375	1.402	113.648	0.746	Surcharged
12.000	15 min Summer	0	RWP148A	RE148A	0.000	0.000	0.000	0.000	OK
12.001	15 min Summer	8	RE148A	S16	0.023	0.000	0.000	0.000	OK
12.002	15 min Summer	8	S16	S17	0.098	0.517	6.341	0.211	OK
13.000	15 min Summer	8	RWP148B	RE148B	0.002	0.000	0.000	0.000	OK
13.001	15 min Summer	8	RE148B	S17	0.102	0.738	9.419	0.274	OK
14.000	15 min Summer	7	RE152B	S17	0.050	0.000	0.000	0.000	OK
15.000	15 min Summer	10	ACO151A	S17	0.077	2.343	10.108	0.353	OK
12.003	15 min Winter	9	S17	S7	0.150	1.154	20.395	1.251	Surcharged
1.007	15 min Winter	10	S7	S10	0.375	1.175	129.737	0.690	Surcharged
1.008	15 min Winter	8	S10	S8	0.375	1.154	127.481	1.102	Surcharged
16.000	15 min Winter	17	S11	S12	0.375	0.215	23.704	0.214	Surcharged
16.001	15 min Winter	17	S12	S8	0.375	0.215	23.792	0.216	Surcharged
1.009	60 min Summer	40	S8	S20	0.375	0.449	27.372	0.251	Surcharged
17.000	1440 min Winter	4482	S26	S25	0.150	0.478	5.558	0.269	Surcharged
17.001	1440 min Winter	4639	S25	S20	0.150	0.193	3.065	0.204	Surcharged
1.010	720 min Winter	697	S20	S23	0.032	0.491	1.734	0.046	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S2	60 min Summer	42	5.561	0.135	2.932		OK
S24	30 min Summer	20	5.573	0.091	3.150		OK

Return Period Yrs: 100.0

Climate Change %: 45

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
RWP121A	-	0	5.700	0.000	0.000		OK
RE121A	-	0	5.650	0.000	0.000		OK
PS58	15 min Summer	11	5.522	0.022	0.000		OK
RWP144B	-	0	5.600	0.000	0.000		OK
RE144A	-	0	5.550	0.000	0.000		OK
PS38	15 min Summer	10	5.507	0.207	2.070		Surcharged
RE121B	-	0	5.650	0.000	0.000		OK
RE144B	15 min Summer	11	5.522	0.122	0.000		Surcharged
PS41	15 min Summer	11	5.504	0.504	1.171		Surcharged
RWP147B	-	0	5.600	0.000	0.000		OK
PS42	15 min Summer	10	5.505	0.605	3.557		Surcharged
S2 (D)	15 min Summer	10	5.598	0.098	33.761		OK
PS39	15 min Summer	10	5.511	0.686	27.091		Surcharged
RE91A	-	0	5.700	0.000	0.000		OK
S24 (D)	30 min Summer	17	5.581	0.081	20.278		OK
PS44	15 min Summer	10	5.526	0.126	17.003		OK
RE91B	-	0	5.600	0.000	0.000		OK
PS45	15 min Summer	10	5.442	0.342	16.640		Surcharged
S1	15 min Summer	10	5.425	0.675	29.655		Surcharged
S3	15 min Summer	10	5.411	0.796	116.210		Surcharged
YGS4	-	0	5.500	0.000	0.000		OK
S4	30 min Summer	19	5.061	0.661	1.803		Surcharged
S5	30 min Summer	18	5.061	0.736	132.384		Surcharged
RWP148A	-	0	5.500	0.000	0.000		OK
RE148A	-	0	5.350	0.000	0.000		OK
S16	15 min Summer	10	5.150	0.250	6.583		Surcharged
RWP148B	-	0	5.500	0.000	0.000		OK
RE148B	15 min Summer	8	5.412	0.062	12.251		OK
RE152B	-	0	5.350	0.000	0.000		OK
ACO151A	15 min Summer	10	5.178	0.278	10.633		Surcharged
S17	15 min Summer	10	5.137	0.637	24.920		Surcharged
S7	960 min Winter	925	5.042	0.892	1.325		Surcharged
S10	960 min Winter	925	5.042	1.042	1.336		Surcharged
S11	960 min Winter	924	5.042	1.042	0.140		Flood Risk
S12	960 min Winter	925	5.042	1.072	0.156		Surcharged
S8	960 min Winter	925	5.042	1.115	1.963		Surcharged
S26	960 min Winter	923	5.042	0.942	0.013		Surcharged
S25	960 min Winter	924	5.042	0.992	0.011		Surcharged
S20	960 min Winter	926	5.042	1.142	1.970		Surcharged
S23	960 min Winter	925	3.909	0.034	1.962		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Summer	0	RWP121A	RE121A	0.000	0.000	0.000	0.000	OK
1.001	15 min Summer	11	RE121A	PS58	0.011	0.000	0.000	0.000	OK
1.002	15 min Summer	12	PS58	PS38	0.061	0.118	0.107	0.017	OK
2.000	15 min Summer	0	RWP144B	RE144A	0.000	0.000	0.000	0.000	OK
2.001	15 min Summer	10	RE144A	PS38	0.050	0.000	0.000	0.000	OK
1.003	30 min Summer	21	PS38	PS39	0.100	0.522	2.907	0.248	Surcharged
3.000	15 min Summer	6	RE121B	PS39	0.050	0.000	0.000	0.000	OK
4.000	15 min Summer	12	RE144B	PS41	0.100	0.294	1.726	0.192	Surcharged
4.001	15 min Winter	14	PS41	PS42	0.100	0.613	3.808	0.331	Surcharged
5.000	15 min Summer	6	RWP147B	PS42	0.050	0.000	0.000	0.000	OK
4.002	15 min Winter	14	PS42	PS39	0.100	0.880	6.915	1.023	Surcharged
6.000	15 min Summer	10	S2 (D)	PS39	0.124	2.667	36.942	0.425	OK
1.004	30 min Summer	21	PS39	S3	0.150	1.429	25.261	1.599	Surcharged
7.000	15 min Summer	10	RE91A	PS44	0.038	0.000	0.000	0.000	OK
8.000	30 min Summer	18	S24 (D)	PS44	0.102	1.915	20.195	0.517	OK
7.001	15 min Summer	10	PS44	PS45	0.138	2.000	19.512	0.701	OK

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
9.000	15 min Summer	9	RE91B	PS45	0.050	0.000	0.000	0.000	OK
7.002	30 min Summer	19	PS45	S3	0.150	2.178	18.852	0.360	Surcharged
10.000	15 min Winter	9	S1	S3	0.300	0.528	28.600	0.345	Surcharged
1.005	15 min Winter	9	S3	S5	0.300	1.569	110.873	1.314	Surcharged
11.000	15 min Summer	8	YGS4	S4	0.075	0.000	0.000	0.000	OK
11.001	15 min Winter	13	S4	S5	0.375	0.048	4.816	0.040	Surcharged
1.006	15 min Winter	10	S5	S7	0.375	1.384	134.022	0.879	Surcharged
12.000	15 min Summer	0	RWP148A	RE148A	0.000	0.000	0.000	0.000	OK
12.001	15 min Summer	9	RE148A	S16	0.075	0.000	0.000	0.000	OK
12.002	15 min Winter	10	S16	S17	0.150	0.603	7.608	0.253	Surcharged
13.000	15 min Summer	8	RWP148B	RE148B	0.006	0.000	0.000	0.000	OK
13.001	15 min Summer	8	RE148B	S17	0.106	0.917	12.210	0.355	OK
14.000	15 min Summer	6	RE152B	S17	0.050	0.000	0.000	0.000	OK
15.000	15 min Winter	9	ACO151A	S17	0.100	2.376	11.262	0.394	Surcharged
12.003	15 min Winter	8	S17	S7	0.150	1.364	24.112	1.479	Surcharged
1.007	15 min Winter	10	S7	S10	0.375	1.368	151.146	0.804	Surcharged
1.008	15 min Winter	11	S10	S8	0.375	1.345	148.542	1.284	Surcharged
16.000	15 min Winter	18	S11	S12	0.375	0.303	33.466	0.303	Surcharged
16.001	15 min Winter	18	S12	S8	0.375	0.304	33.531	0.304	Surcharged
1.009	60 min Summer	36	S8	S20	0.375	0.496	31.251	0.287	Surcharged
17.000	1440 min Winter	5459	S26	S25	0.150	0.513	6.185	0.300	Surcharged
17.001	1440 min Summer	5616	S25	S20	0.150	0.206	3.215	0.214	Surcharged
1.010	960 min Winter	925	S20	S23	0.034	0.509	1.962	0.052	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S2	60 min Summer	40	5.582	0.156	4.269		OK
S24	30 min Summer	19	5.592	0.110	4.736		OK