

Network Details

Manhole Schedule

Manhole	Catchment Area (ha)	Size (mm)	Type	CL (m)	IL (m)	Depth To Soffit (m)	Easting (m)	Northing (m)
S1	0.023	1350	Type C	27.243	25.761	1.257	495466.243	106740.511
S2	0.124	1350	Type C	27.162	25.630	1.232	495490.904	106724.349
S3	0.171	1350	Type C	28.019	26.520	1.200	495566.754	106745.408
S4	0.159	1350	Type C	27.162	25.340	1.447	495549.509	106701.453
S5	0.173	1350	Type C	27.340	25.840	1.200	495623.255	106722.423
S6	0.127	1350	Type C	26.602	24.952	1.200	495605.791	106679.245
S7	0.044	1350	Type C	25.941	24.291	1.200	495662.844	106657.313
S8	0.094	450	Unknown	26.131	25.306	0.600	495685.545	106688.670
S9	0.069	450	Unknown	25.865	25.040	0.600	495673.995	106662.304
S10	0.166	1350	Type C	25.500	23.796	1.254	495662.210	106636.377
S11	0.000	1800	Type C	24.050	22.560	0.590	495668.883	106610.304
S12	0.074	450	Unknown	26.424	25.590	0.609	495485.591	106689.001
S39	0.000	450	Unknown	26.415	25.506	0.684	495488.877	106685.483
S13	0.026	450	Unknown	25.912	25.088	0.600	495498.631	106663.536
S38	0.000	450	Unknown	25.315	24.666	0.424	495507.548	106642.779
S14	0.067	450	Unknown	24.920	24.020	0.600	495519.968	106614.790
S15	0.016	450	Unknown	24.474	23.574	0.600	495540.369	106597.156
S16	0.406	1500	Type C	24.531	22.910	1.114	495587.109	106586.980
S17	0.105	1500	Type C	24.332	22.755	1.052	495644.816	106581.313
S18	0.000	1800	Type C	24.050	22.560	0.965	495660.746	106586.979
S19	0.000	1800	Type C	24.050	22.550	0.825	495692.194	106583.130
S20	0.382	1500	Type C	23.573	22.337	0.561	495724.468	106581.497
S21	0.000	2100	Type C	23.400	22.020	0.630	495745.964	106580.386
S22	0.048	450	Unknown	27.571	26.746	0.600	495599.231	106760.701
S23	0.149	450	Unknown	27.482	26.382	0.800	495605.622	106782.996
S40	0.000	450	Unknown	26.545	25.174	1.071	495654.795	106782.996
S24	0.138	450	Unknown	25.916	24.415	1.200	495685.682	106782.991
S25	0.044	1350	Type C	25.930	24.430	1.200	495694.018	106723.210
S26	0.024	1350	Type C	25.712	24.212	1.200	495700.386	106736.509
S27	0.068	1350	Type C	25.078	23.428	1.350	495720.104	106758.312
S28	0.000	1350	Type C	23.814	22.170	1.244	495782.419	106701.762
S29	0.000	1350	Type C	23.899	22.120	1.329	495791.808	106685.673
S30	0.172	450	Unknown	25.244	24.344	0.675	495731.853	106686.447
S31	0.024	450	Unknown	24.299	23.210	0.864	495768.178	106676.952
S32	0.000	450	Unknown	24.135	22.715	1.120	495781.849	106674.901
S33	0.000	1350	Type C	23.903	22.086	1.367	495787.181	106673.680
S34	0.000	2100	Type C	23.400	22.020	0.892	495783.484	106663.958
S35	0.000	2100	Type C	23.400	22.000	0.725	495794.414	106588.598
S36	0.000	1500	Type C	23.400	21.942	1.308	495800.030	106587.315
S41	0.000	1350	Type C	22.346	21.850	0.346	495808.377	106584.414
S37	0.000	1350	Type C	21.210	21.060	0.000	495820.114	106580.338

Pipe Schedule

Pipe Number	US Manhole	US IL (m)	DS Manhole	DS IL (m)	Shape	Dimension (mm)	Length (m)	Gradient (1:x)	Roughness (mm)	US Depth To Soffit (m)	DS Depth To Soffit (m)
1.000	S1	25.761	S2	25.705	Circ	225	29.486	527	0.600	1.257	1.232
1.001	S2	25.630	S4	25.415	Circ	300	62.918	293	0.600	1.232	1.447
2.000	S3	26.520	S4	25.415	Circ	300	47.217	43	0.600	1.200	1.447
1.002	S4	25.340	S6	25.027	Circ	375	60.505	193	0.600	1.447	1.200
3.000	S5	25.840	S6	25.102	Circ	300	46.576	63	0.600	1.200	1.200
1.003	S6	24.952	S7	24.291	Circ	450	61.123	93	0.600	1.200	1.200
1.004	S7	24.291	S10	23.796	Circ	450	20.946	42	0.600	1.200	1.254
4.000	S8	25.306	S9	25.040	Circ	225	28.785	108	0.600	0.600	0.600
4.001	S9	25.040	S10	24.021	Circ	225	28.480	28	0.600	0.600	1.254
1.005	S10	23.796	S11	23.010	Circ	450	26.913	34	0.600	1.254	0.590
1.006	S11	22.560	S19	22.550	Circ	900	35.802	3580	0.600	0.590	0.600
5.000	S12	25.590	S39	25.506	Circ	225	4.814	57	0.600	0.609	0.684
5.001	S39	25.506	S13	25.088	Circ	225	24.017	57	0.600	0.684	0.600
5.002	S13	25.088	S38	24.666	Circ	225	22.592	54	0.600	0.600	0.424
5.003	S38	24.666	S14	24.095	Circ	225	30.620	54	0.600	0.424	0.600
5.004	S14	24.020	S15	23.574	Circ	300	26.967	60	0.600	0.600	0.600

Pipe Schedule

Pipe Number	US Manhole	US IL (m)	DS Manhole	DS IL (m)	Shape	Dimension (mm)	Length (m)	Gradient (1:x)	Roughness (mm)	US Depth To Soffit (m)	DS Depth To Soffit (m)
5.005	S15	23.574	S16	23.117	Circ	300	47.834	105	0.600	0.600	1.114
5.006	S16	22.910	S17	22.755	Circ	525	57.985	375	0.600	1.096	1.052
5.007	S17	22.755	S18	22.560	Circ	525	16.908	87	0.600	1.052	0.965
5.008	S18	22.560	S19	22.550	Circ	900	31.682	3168	0.600	0.590	0.600
1.007	S19	22.550	S20	22.337	Circ	675	32.315	152	0.600	0.825	0.561
1.008	S20	22.337	S21	22.095	Circ	675	21.524	89	0.600	0.561	0.630
1.009	S21	22.020	S35	22.000	Circ	1200	49.141	2457	0.600	0.180	0.200
6.000	S22	26.746	S23	26.457	Circ	225	23.193	80	0.600	0.600	0.800
6.001	S23	26.382	S40	25.174	Circ	300	49.173	41	0.600	0.800	1.071
6.002	S40	25.174	S24	24.415	Circ	300	30.887	41	0.600	1.071	1.200
6.003	S24	24.415	S27	23.579	Circ	300	42.355	51	0.600	1.200	1.200
7.000	S25	24.430	S26	24.212	Circ	300	14.745	68	0.600	1.200	1.200
7.001	S26	24.212	S27	23.578	Circ	300	29.397	46	0.600	1.200	1.200
6.004	S27	23.428	S28	22.270	Circ	300	84.149	73	0.600	1.350	1.244
6.005	S28	22.170	S29	22.120	Circ	450	18.629	375	0.600	1.194	1.329
6.006	S29	22.120	S33	22.086	Circ	450	12.855	375	0.600	1.329	1.367
8.000	S30	24.344	S31	23.210	Circ	225	37.545	33	0.600	0.675	0.864
8.001	S31	23.210	S32	22.715	Circ	300	13.824	28	0.600	0.789	1.120
8.002	S32	22.715	S33	22.370	Circ	300	5.470	16	0.600	1.120	1.233
6.007	S33	22.086	S34	22.058	Circ	450	10.402	375	0.600	1.367	0.892
6.008	S34	22.020	S35	22.000	Circ	1200	76.148	3807	0.600	0.180	0.200
1.010	S35	22.000	S36	21.942	Circ	675	5.761	100	0.600	0.725	0.783
1.011	S36	21.942	S41	21.850	Circ	150	8.837	96	0.600	1.308	0.346
1.012	S41	21.850	S37	21.060	Circ	150	12.424	16	0.600	0.346	0.000

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)
Permeable Paving 169	S2	7.236	27.162	26.782	0.00000000	2.00	495510.049	106774.973
Permeable Paving 170	S2	7.475	27.162	26.782	0.00000000	2.00	495504.901	106769.202
Permeable Paving 171	S2	14.439	27.162	26.782	0.00000000	2.00	495483.698	106733.940
Permeable Paving 14	S2	11.069	27.162	26.782	0.00000000	2.00	495518.545	106765.773
Permeable Paving 15	S2	10.462	27.162	26.782	0.00000000	2.00	495509.719	106756.417
Permeable Paving 16	S2	8.227	27.162	26.782	0.00000000	2.00	495494.370	106744.554
Permeable Paving 17	S2	4.124	27.162	26.782	0.00000000	2.00	495509.181	106727.399
Permeable Paving 18	S2	5.135	27.162	26.782	0.00000000	2.00	495520.360	106726.002
Permeable Paving 72	S2	6.432	27.162	26.782	0.00000000	2.00	495507.526	106778.030
Permeable Paving 12	S3	5.226	28.019	27.639	0.00000000	2.00	495586.773	106751.603
Permeable Paving 13	S3	18.303	28.019	27.639	0.00000000	2.00	495547.478	106761.736
Permeable Paving 21	S3	4.829	28.019	27.639	0.00000000	2.00	495555.796	106734.814
Permeable Paving 22	S3	4.407	28.019	27.639	0.00000000	2.00	495574.646	106730.676
Permeable Paving 19	S4	5.131	27.162	26.782	0.00000000	2.00	495531.131	106721.759
Permeable Paving 20	S4	5.474	27.162	26.782	0.00000000	2.00	495542.086	106717.997
Permeable Paving 23	S4	7.560	27.162	26.782	0.00000000	2.00	495573.713	106703.410
Permeable Paving 26	S4	2.549	27.162	26.782	0.00000000	2.00	495571.139	106685.456
Permeable Paving 27	S4	10.291	27.162	26.782	0.00000000	2.00	495556.118	106685.729
Permeable Paving 28	S4	5.143	27.162	26.782	0.00000000	2.00	495543.806	106690.570
Permeable Paving 29	S4	2.523	27.162	26.782	0.00000000	2.00	495534.159	106699.989
Permeable Paving 174	S4	2.127	27.162	26.782	0.00000000	2.00	495562.836	106720.902
Permeable Paving 5	S5	3.104	27.340	26.960	0.00000000	2.00	495638.964	106740.689
Permeable Paving 6	S5	12.755	27.340	26.960	0.00000000	2.00	495632.639	106724.617
Permeable Paving 7	S5	3.095	27.340	26.960	0.00000000	2.00	495625.743	106707.060
Permeable Paving 8	S5	12.881	27.340	26.960	0.00000000	2.00	495624.709	106742.253
Permeable Paving 9	S5	6.280	27.340	26.960	0.00000000	2.00	495610.846	106726.070
Permeable Paving 10	S5	6.258	27.340	26.960	0.00000000	2.00	495598.955	106715.860
Permeable Paving 24	S6	4.815	26.602	26.222	0.00000000	2.00	495585.371	106699.893
Permeable Paving 25	S6	10.298	26.602	26.222	0.00000000	2.00	495596.015	106696.249
Permeable Paving 44	S6	5.796	26.602	26.222	0.00000000	2.00	495592.065	106659.756
Permeable Paving 45	S6	2.900	26.602	26.222	0.00000000	2.00	495595.689	106668.969
Permeable Paving 52	S6	5.566	26.602	26.222	0.00000000	2.00	495607.962	106646.263
Permeable Paving 53	S6	8.439	26.602	26.222	0.00000000	2.00	495619.692	106661.529
Permeable Paving 56	S6	9.193	26.602	26.222	0.00000000	2.00	495629.005	106682.719
Permeable Paving 173	S6	2.125	26.602	26.222	0.00000000	2.00	495611.972	106700.917
Permeable Paving 47	S7	21.315	25.941	25.561	0.00000000	2.00	495649.027	106634.278
Permeable Paving 54	S7	4.485	25.941	25.561	0.00000000	2.00	495629.958	106657.742

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)
Permeable Paving 55	S7	4.461	25.941	25.561	0.00000000	2.00	495637.621	106650.931
Permeable Paving 57	S7	4.814	25.941	25.561	0.00000000	2.00	495639.325	106678.658
Permeable Paving 58	S7	4.815	25.941	25.561	0.00000000	2.00	495648.247	106675.143
Permeable Paving 74	S7	3.640	25.941	25.561	0.00000000	2.00	495661.578	106633.795
Permeable Paving 60	S8	10.887	26.131	25.751	0.00000000	2.00	495668.585	106696.143
Permeable Paving 61	S8	5.343	26.131	25.751	0.00000000	2.00	495674.760	106710.375
Permeable Paving 59	S9	5.539	25.865	25.485	0.00000000	2.00	495666.784	106681.030
Permeable Paving 160	S16	18.002	24.531	24.151	0.00000000	2.00	495598.634	106592.345
Permeable Paving 30	S16	2.913	24.531	24.151	0.00000000	2.00	495503.492	106701.468
Permeable Paving 31	S16	3.096	24.531	24.151	0.00000000	2.00	495501.146	106694.844
Permeable Paving 32	S16	2.903	24.531	24.151	0.00000000	2.00	495505.087	106676.513
Permeable Paving 33	S16	5.398	24.531	24.151	0.00000000	2.00	495512.708	106673.646
Permeable Paving 34	S16	3.991	24.531	24.151	0.00000000	2.00	495520.338	106661.877
Permeable Paving 35	S16	5.587	24.531	24.151	0.00000000	2.00	495521.255	106652.885
Permeable Paving 36	S16	9.564	24.531	24.151	0.00000000	2.00	495514.187	106639.103
Permeable Paving 37	S16	10.377	24.531	24.151	0.00000000	2.00	495521.098	106623.790
Permeable Paving 38	S16	5.000	24.531	24.151	0.00000000	2.00	495526.035	106642.315
Permeable Paving 39	S16	9.459	24.531	24.151	0.00000000	2.00	495539.464	106624.716
Permeable Paving 40	S16	6.895	24.531	24.151	0.00000000	2.00	495546.026	106613.028
Permeable Paving 41	S16	5.117	24.531	24.151	0.00000000	2.00	495564.121	106611.530
Permeable Paving 42	S16	5.385	24.531	24.151	0.00000000	2.00	495586.793	106646.350
Permeable Paving 43	S16	4.998	24.531	24.151	0.00000000	2.00	495582.430	106635.279
Permeable Paving 46	S16	8.143	24.531	24.151	0.00000000	2.00	495599.283	106605.995
Permeable Paving 50	S16	5.121	24.531	24.151	0.00000000	2.00	495598.000	106622.829
Permeable Paving 51	S16	5.580	24.531	24.151	0.00000000	2.00	495608.097	106631.305
Permeable Paving 172	S16	5.207	24.531	24.151	0.00000000	2.00	495574.543	106629.948
Permeable Paving 156	S17	6.249	24.332	23.952	0.00000000	2.00	495641.313	106591.195
Permeable Paving 157	S17	19.098	24.332	23.952	0.00000000	2.00	495647.521	106607.001
Permeable Paving 48	S17	13.261	24.332	23.952	0.00000000	2.00	495632.275	106616.691
Permeable Paving 49	S17	7.651	24.332	23.952	0.00000000	2.00	495631.604	106596.867
Permeable Paving 73	S17	11.593	24.332	23.952	0.00000000	2.00	495650.924	106603.200
Permeable Paving 3	S23	23.162	27.482	27.102	0.00000000	2.00	495621.838	106769.019
Permeable Paving 4	S24	6.138	25.916	25.536	0.00000000	2.00	495647.089	106751.794
Permeable Paving 65	S24	8.142	25.916	25.536	0.00000000	2.00	495693.341	106760.150
Permeable Paving 66	S24	4.049	25.916	25.536	0.00000000	2.00	495684.513	106768.766
Permeable Paving 67	S24	3.850	25.916	25.536	0.00000000	2.00	495663.163	106769.241
Permeable Paving 70	S24	3.933	25.916	25.536	0.00000000	2.00	495652.647	106779.962
Permeable Paving 71	S24	3.969	25.916	25.536	0.00000000	2.00	495680.097	106779.550
Permeable Paving 62	S25	5.525	25.930	25.550	0.00000000	2.00	495675.243	106722.682
Permeable Paving 63	S25	5.448	25.930	25.550	0.00000000	2.00	495682.746	106732.132
Permeable Paving 77	S25	4.125	25.930	25.550	0.00000000	2.00	495704.316	106726.328
Permeable Paving 64	S26	5.978	25.712	25.332	0.00000000	2.00	495693.856	106740.255
Permeable Paving 11	S27	5.914	25.078	24.698	0.00000000	2.00	495594.426	106742.699
Permeable Paving 68	S27	7.190	25.078	24.698	0.00000000	2.00	495723.944	106737.364
Permeable Paving 69	S27	4.785	25.078	24.698	0.00000000	2.00	495735.746	106723.087
Permeable Paving 75	S27	17.867	25.078	24.698	0.00000000	2.00	495741.971	106727.670
Permeable Paving 1	S30	3.314	25.244	24.864	0.00000000	2.00	495748.132	106698.326
Permeable Paving 2	S30	4.194	25.244	24.864	0.00000000	2.00	495742.266	106702.448
Permeable Paving 76	S30	4.360	25.244	24.864	0.00000000	2.00	495729.234	106698.819

Outfall Details

Outfall Manhole S37 : Surcharged (Constant Level)

Surcharged Constant

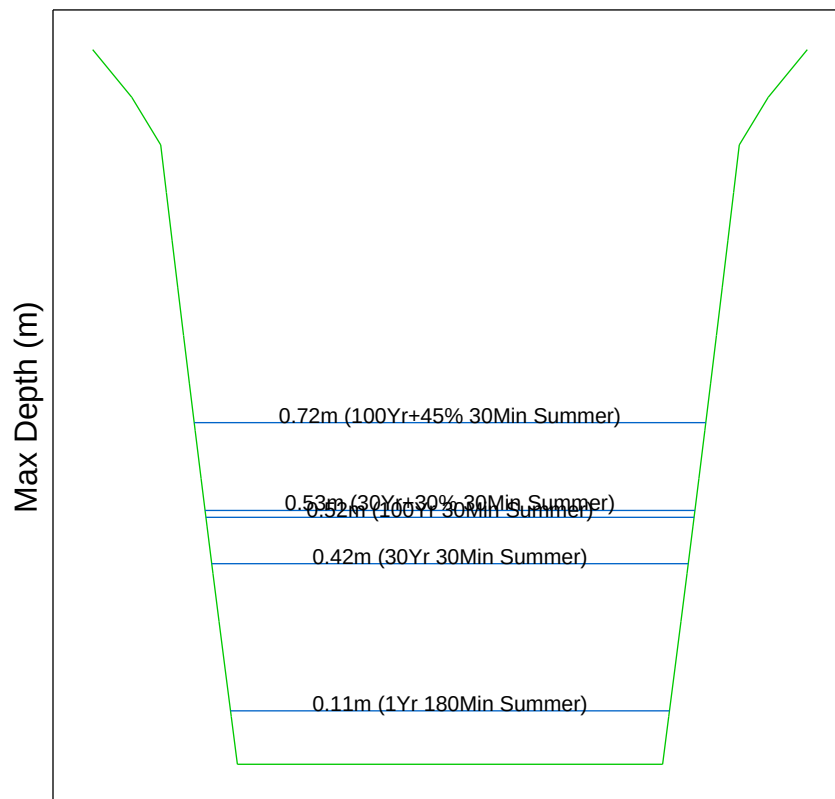
Water Elevation (m)	Water Depth (m)
21.200	0.140

Flow Control Details

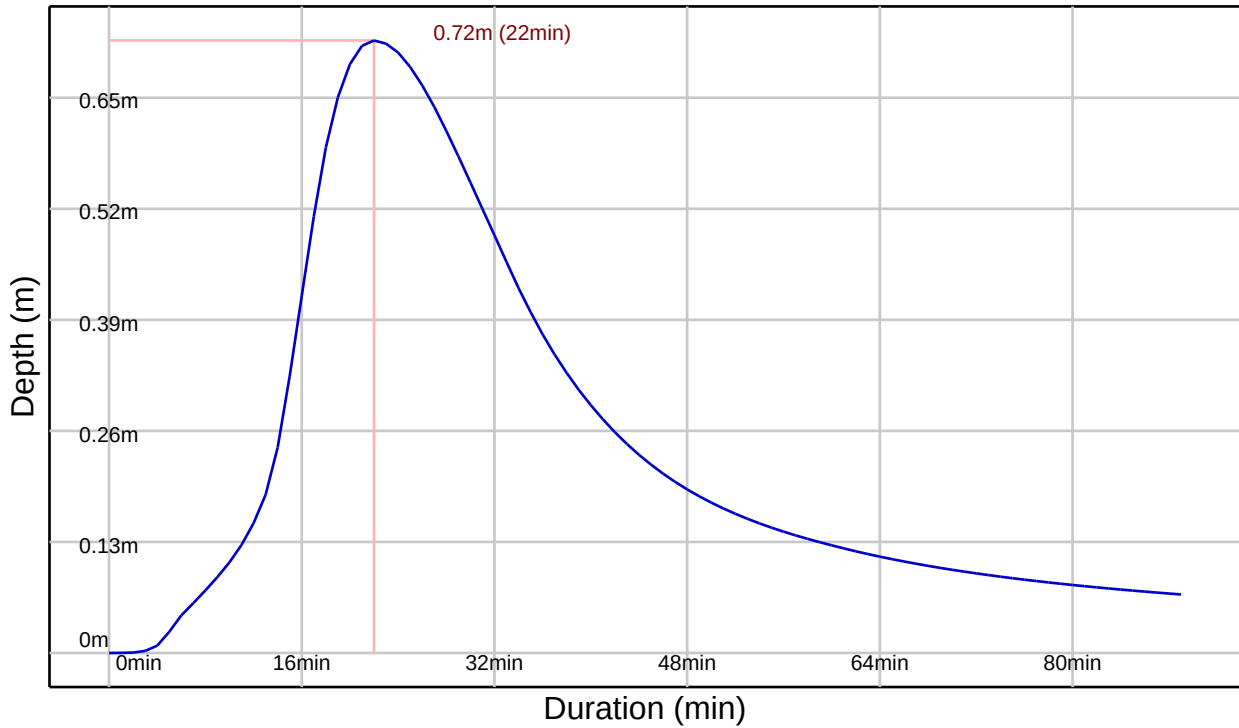
Pond Structure at Manhole S19

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
22.550	1.500	971.640	23.750	0.300	0.00000000	0.00000000	2.00

Pond Depth/Area Diagram at S19



ATTENUATION BASIN 1 at S19 (100Yr+45% 30Min Summer)

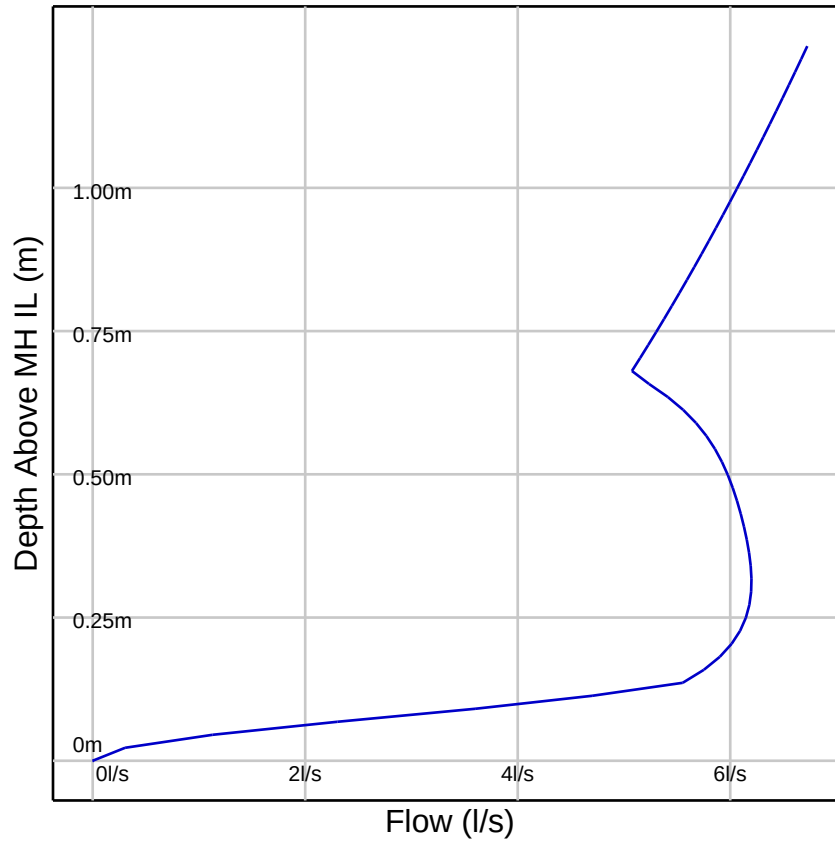


Controls within Manhole S36

Hydro-Brake® Optimum Control

Model Ref	Design Depth (m)	Design Flow (l/s)	Invert Offset (m)	FF Head (m)	FF Flow (l/s)	KF Head (m)	KF Flow (l/s)
SHE-0116-6200-1050-6200	1.050	6.200	0.000	0.313	6.200	0.676	5.059

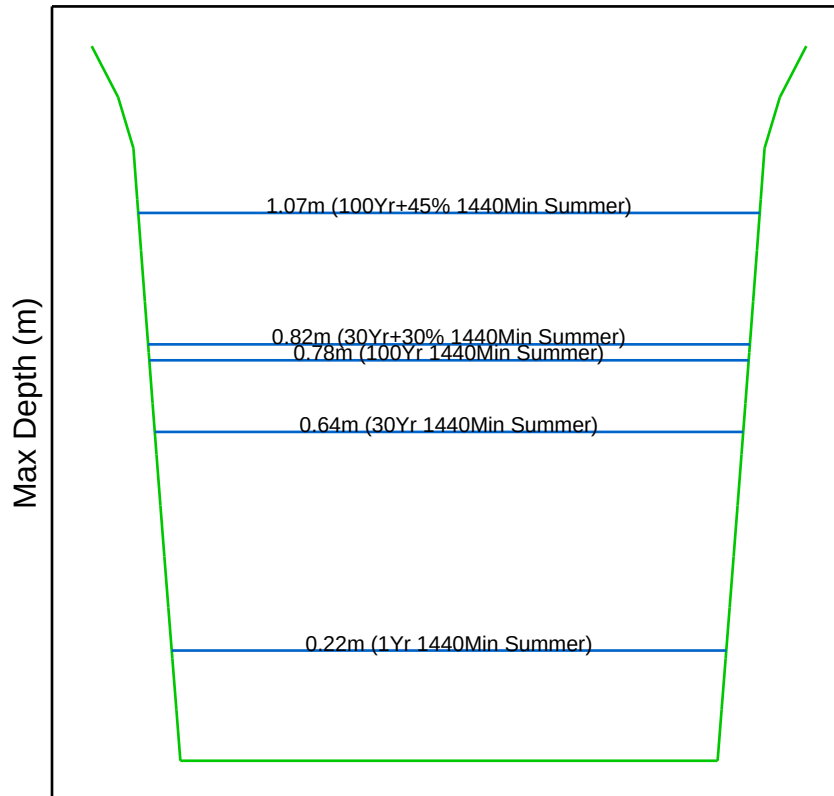
Hydro-Brake® Optimum Control from S36 to S41



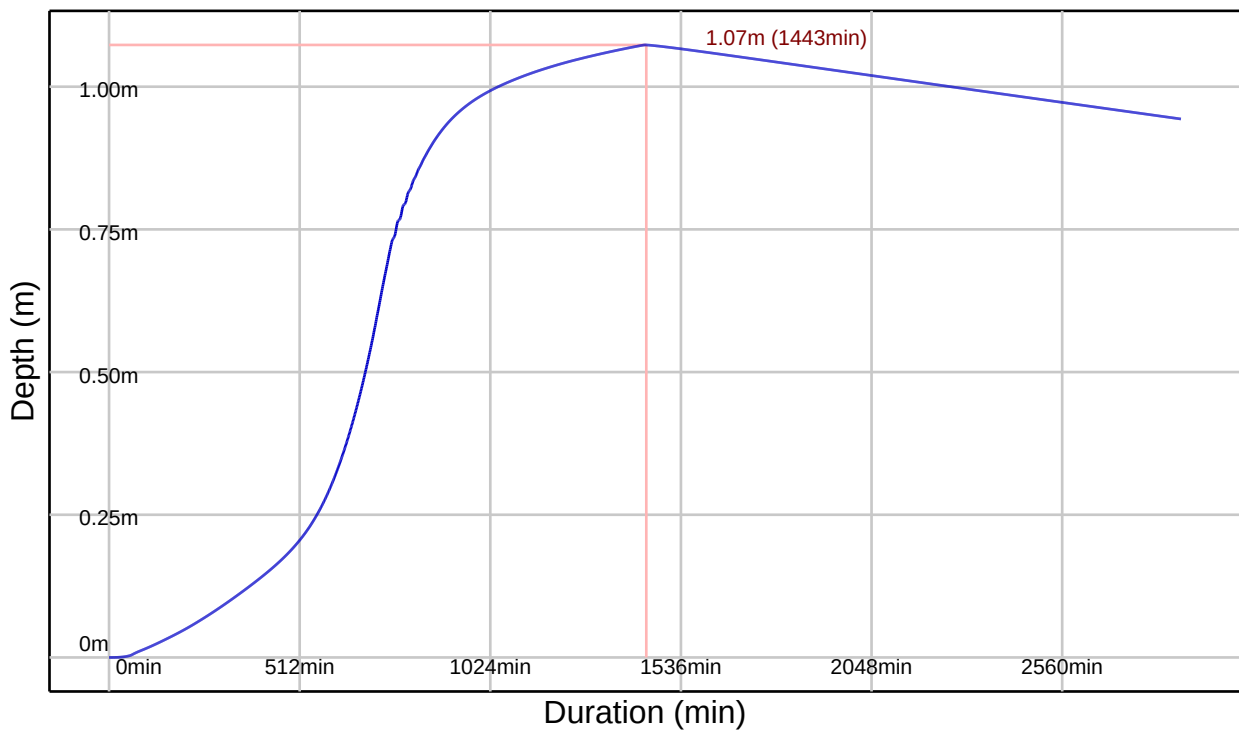
Pond Structure at Manhole S36

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
22.000	1.400	2779.626	23.100	0.300	0.00000000	0.00000000	2.00

Pond Depth/Area Diagram at S36



ATTENUATION BASIN 2 at S36 (100Yr+45% 1440Min Summer)



Simulation Settings

FEH2022 (point): Filename=FEH_Point_Descriptors_495613_106737_v5_1_0.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%), (30, +0%), (30, +30%), (100, +0%), (100, +45%)

Manhole Flood Risk Freeboard: 0.300m

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %
1Yr 15Min Winter	15.865	0.00	-0.22	30Yr+30% 360Min Summer	12.062	0.00	0.06
1Yr 15Min Summer	15.865	0.00	-0.19	30Yr+30% 360Min Winter	12.062	0.00	0.06
1Yr 30Min Winter	10.336	0.00	-0.20	30Yr+30% 480Min Summer	9.568	0.00	0.06
1Yr 30Min Summer	10.336	0.00	-0.20	30Yr+30% 480Min Winter	9.568	0.00	0.06
1Yr 60Min Summer	6.573	0.00	-0.13	30Yr+30% 600Min Summer	7.969	0.00	0.07
1Yr 60Min Winter	6.573	0.00	-0.11	30Yr+30% 600Min Winter	7.969	0.00	0.07
1Yr 120Min Winter	5.324	0.00	-0.04	30Yr+30% 720Min Summer	6.848	0.00	0.07
1Yr 120Min Summer	5.324	0.00	-0.03	30Yr+30% 720Min Winter	6.848	0.00	0.07
1Yr 180Min Summer	4.524	0.00	-0.04	30Yr+30% 960Min Summer	5.390	0.00	0.07
1Yr 180Min Winter	4.524	0.00	-0.04	30Yr+30% 960Min Winter	5.390	0.00	0.07
1Yr 240Min Winter	3.770	0.00	-0.04	30Yr+30% 1440Min Summer	3.858	0.00	0.05
1Yr 240Min Summer	3.770	0.00	-0.03	30Yr+30% 1440Min Winter	3.858	0.00	0.05
1Yr 360Min Summer	2.938	0.00	-0.03	100Yr 15Min Summer	103.034	0.00	-0.34
1Yr 360Min Winter	2.938	0.00	-0.03	100Yr 15Min Winter	103.034	0.00	-0.35
1Yr 480Min Summer	2.442	0.00	-0.02	100Yr 30Min Summer	69.314	0.00	-0.21
1Yr 480Min Winter	2.442	0.00	-0.02	100Yr 30Min Winter	69.314	0.00	-0.17
1Yr 600Min Summer	2.083	0.00	-0.02	100Yr 60Min Summer	44.642	0.00	-0.02
1Yr 600Min Winter	2.083	0.00	-0.03	100Yr 60Min Winter	44.642	0.00	-0.03
1Yr 720Min Winter	1.818	0.00	-0.02	100Yr 120Min Summer	26.840	0.00	-0.06
1Yr 720Min Summer	1.818	0.00	-0.02	100Yr 120Min Winter	26.840	0.00	-0.02
1Yr 960Min Summer	1.472	0.00	-0.02	100Yr 180Min Summer	19.693	0.00	-0.00
1Yr 960Min Winter	1.472	0.00	-0.02	100Yr 180Min Winter	19.693	0.00	-0.01
1Yr 1440Min Summer	1.105	0.00	-0.02	100Yr 240Min Summer	15.826	0.00	0.02
1Yr 1440Min Winter	1.105	0.00	-0.02	100Yr 240Min Winter	15.826	0.00	0.02
30Yr 15Min Summer	82.406	0.00	-0.29	100Yr 360Min Summer	11.488	0.00	0.04
30Yr 15Min Winter	82.406	0.00	-0.27	100Yr 360Min Winter	11.488	0.00	0.04
30Yr 30Min Summer	54.968	0.00	-0.20	100Yr 480Min Summer	9.116	0.00	0.04
30Yr 30Min Winter	54.968	0.00	-0.14	100Yr 480Min Winter	9.116	0.00	0.04
30Yr 60Min Summer	35.047	0.00	-0.02	100Yr 600Min Summer	7.606	0.00	0.05
30Yr 60Min Winter	35.047	0.00	-0.01	100Yr 600Min Winter	7.606	0.00	0.05
30Yr 120Min Summer	21.498	0.00	-0.07	100Yr 720Min Summer	6.548	0.00	0.05
30Yr 120Min Winter	21.498	0.00	-0.04	100Yr 720Min Winter	6.548	0.00	0.06
30Yr 180Min Summer	15.933	0.00	-0.05	100Yr 960Min Summer	5.157	0.00	0.05
30Yr 180Min Winter	15.933	0.00	-0.05	100Yr 960Min Winter	5.157	0.00	0.05
30Yr 240Min Summer	12.783	0.00	-0.04	100Yr 1440Min Summer	3.685	0.00	0.04
30Yr 240Min Winter	12.783	0.00	-0.04	100Yr 1440Min Winter	3.685	0.00	0.04
30Yr 360Min Summer	9.278	0.00	-0.03	100Yr+45% 15Min Summer	149.400	0.00	-0.43
30Yr 360Min Winter	9.278	0.00	-0.04	100Yr+45% 15Min Winter	149.400	0.00	-0.35
30Yr 480Min Summer	7.360	0.00	-0.03	100Yr+45% 30Min Summer	100.505	0.00	-0.15
30Yr 480Min Winter	7.360	0.00	-0.04	100Yr+45% 30Min Winter	100.505	0.00	-0.08
30Yr 600Min Summer	6.130	0.00	-0.03	100Yr+45% 60Min Summer	64.731	0.00	0.05
30Yr 600Min Winter	6.130	0.00	-0.02	100Yr+45% 60Min Winter	64.731	0.00	0.06
30Yr 720Min Summer	5.268	0.00	-0.03	100Yr+45% 120Min Summer	38.918	0.00	0.08
30Yr 720Min Winter	5.268	0.00	-0.02	100Yr+45% 120Min Winter	38.918	0.00	0.11
30Yr 960Min Summer	4.146	0.00	-0.03	100Yr+45% 180Min Summer	28.555	0.00	0.12
30Yr 960Min Winter	4.146	0.00	-0.02	100Yr+45% 180Min Winter	28.555	0.00	0.12
30Yr 1440Min Summer	2.968	0.00	-0.02	100Yr+45% 240Min Summer	22.947	0.00	0.14
30Yr 1440Min Winter	2.968	0.00	-0.02	100Yr+45% 240Min Winter	22.947	0.00	0.14
30Yr+30% 15Min Summer	107.128	0.00	-0.32	100Yr+45% 360Min Summer	16.657	0.00	0.15
30Yr+30% 15Min Winter	107.128	0.00	-0.34	100Yr+45% 360Min Winter	16.657	0.00	0.15
30Yr+30% 30Min Summer	71.458	0.00	-0.20	100Yr+45% 480Min Summer	13.218	0.00	0.16
30Yr+30% 30Min Winter	71.458	0.00	-0.16	100Yr+45% 480Min Winter	13.218	0.00	0.16
30Yr+30% 60Min Summer	45.561	0.00	-0.02	100Yr+45% 600Min Summer	11.029	0.00	0.16
30Yr+30% 60Min Winter	45.561	0.00	-0.02	100Yr+45% 600Min Winter	11.029	0.00	0.17

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %
30Yr+30% 120Min Summer	27.948	0.00	-0.04	100Yr+45% 720Min Summer	9.494	0.00	0.17
30Yr+30% 120Min Winter	27.948	0.00	-0.01	100Yr+45% 720Min Winter	9.494	0.00	0.17
30Yr+30% 180Min Summer	20.712	0.00	0.01	100Yr+45% 960Min Summer	7.477	0.00	0.16
30Yr+30% 180Min Winter	20.712	0.00	0.01	100Yr+45% 960Min Winter	7.477	0.00	0.16
30Yr+30% 240Min Summer	16.618	0.00	0.04	100Yr+45% 1440Min Winter	5.343	0.00	0.15
30Yr+30% 240Min Winter	16.618	0.00	0.03	100Yr+45% 1440Min Summer	5.343	0.00	0.15

Simulation Results

Return Period (yrs) + Climate Change (%):

1yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	15 min Summer	9	25.808	0.047	2.042		OK
S2	15 min Summer	10	25.691	0.061	5.612		OK
S3	15 min Summer	8	26.574	0.055	13.005		OK
S4	15 min Summer	9	25.452	0.112	28.965		OK
S5	15 min Summer	8	25.899	0.058	12.113		OK
S6	15 min Summer	9	25.068	0.116	47.143		OK
S7	15 min Summer	9	24.382	0.090	46.927		OK
S8	15 min Summer	8	25.364	0.058	7.331		OK
S9	15 min Summer	8	25.095	0.055	13.203		OK
S10	15 min Summer	9	23.907	0.111	74.114		OK
S11	15 min Summer	8	22.934	0.374	66.948		OK
S12	15 min Summer	8	25.640	0.050	6.948		OK
S39	15 min Summer	8	25.554	0.047	6.926		OK
S13	15 min Summer	8	25.143	0.055	9.298		OK
S38	15 min Summer	9	24.721	0.055	9.149		OK
S14	15 min Summer	9	24.085	0.065	15.266		OK
S15	15 min Summer	9	23.653	0.079	16.724		OK
S16	15 min Summer	9	23.053	0.143	41.925		OK
S17	15 min Summer	10	22.860	0.105	43.145		OK
S18	15 min Summer	8	22.779	0.219	42.023		OK
S19	180 min Summer	104	22.662	0.112	47.655		OK
S20	180 min Summer	101	22.446	0.109	57.643		OK
S21	60 min Summer	41	22.372	0.352	33.808		OK
S22	15 min Summer	8	26.788	0.042	4.463		OK
S23	15 min Summer	8	26.443	0.061	16.208		OK
S40	15 min Summer	9	25.234	0.060	15.801		OK
S24	15 min Summer	9	24.498	0.082	25.712		OK
S25	15 min Summer	8	24.458	0.028	2.683		OK
S26	15 min Summer	9	24.245	0.033	4.191		OK
S27	15 min Summer	9	23.529	0.101	33.037		OK
S28	60 min Summer	41	22.371	0.201	7.055		OK
S29	60 min Summer	41	22.371	0.251	6.524		OK
S30	15 min Summer	8	24.406	0.062	15.073		OK
S31	15 min Summer	8	23.269	0.059	17.253		OK
S32	15 min Summer	8	22.766	0.051	17.135		OK
S33	60 min Summer	40	22.371	0.285	11.640		OK
S34	60 min Summer	40	22.371	0.351	11.614		OK
S35	60 min Summer	41	22.371	0.371	42.615		OK
S36	1440 min Summer	1069	22.216	0.216	5.779		Surcharged
S41	1440 min Summer	1069	21.885	0.035	5.787		OK
S37	15 min Winter	0	21.200	0.140	0.000		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	9	S1	S2	0.041	0.398	1.970	0.088	OK
1.001	15 min Summer	10	S2	S4	0.059	0.602	5.920	0.092	OK
2.000	15 min Summer	8	S3	S4	0.055	1.444	12.704	0.075	OK
1.002	15 min Summer	9	S4	S6	0.111	1.036	28.360	0.198	OK
3.000	15 min Summer	9	S5	S6	0.058	1.233	11.816	0.084	OK
1.003	15 min Summer	9	S6	S7	0.103	1.706	46.927	0.140	OK
1.004	15 min Summer	10	S7	S10	0.101	1.771	46.394	0.093	OK
4.000	15 min Summer	8	S8	S9	0.057	0.922	7.270	0.146	OK
4.001	15 min Summer	8	S9	S10	0.055	1.740	13.021	0.132	OK
1.005	15 min Summer	9	S10	S11	0.109	2.472	73.666	0.133	OK
1.006	15 min Summer	9	S11	S19	0.194	1.735	100.878	0.310	OK
5.000	15 min Summer	8	S12	S39	0.048	1.099	6.926	0.101	OK
5.001	15 min Summer	8	S39	S13	0.051	1.010	6.879	0.100	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
5.002	15 min Summer	9	S13	S38	0.055	1.241	9.221	0.130	OK
5.003	15 min Summer	9	S38	S14	0.054	1.246	9.239	0.130	OK
5.004	15 min Summer	9	S14	S15	0.072	1.201	15.308	0.107	OK
5.005	15 min Summer	9	S15	S16	0.078	1.126	16.478	0.152	OK
5.006	15 min Summer	9	S16	S17	0.124	1.084	42.138	0.169	OK
5.007	15 min Summer	10	S17	S18	0.158	1.111	45.038	0.086	OK
5.008	180 min Summer	98	S18	S19	0.120	0.566	25.451	0.073	OK
1.007	180 min Summer	104	S19	S20	0.110	1.243	46.859	0.062	OK
1.008	60 min Summer	41	S20	S21	0.179	1.234	36.515	0.037	OK
1.009	60 min Summer	44	S21	S35	0.362	0.403	45.611	0.054	OK
6.000	15 min Summer	8	S22	S23	0.042	0.870	4.397	0.076	OK
6.001	15 min Summer	8	S23	S40	0.061	1.570	16.088	0.092	OK
6.002	15 min Summer	9	S40	S24	0.071	1.243	15.962	0.091	OK
6.003	15 min Summer	9	S24	S27	0.082	1.662	25.923	0.166	OK
7.000	15 min Summer	8	S25	S26	0.030	0.710	2.656	0.020	OK
7.001	15 min Summer	9	S26	S27	0.033	1.018	4.247	0.026	OK
6.004	15 min Summer	9	S27	S28	0.100	1.556	32.074	0.246	OK
6.005	60 min Summer	41	S28	S29	0.226	0.603	21.038	0.127	OK
6.006	60 min Summer	41	S29	S33	0.268	0.430	18.822	0.114	OK
8.000	15 min Summer	8	S30	S31	0.061	1.723	14.981	0.165	OK
8.001	15 min Summer	8	S31	S32	0.055	1.923	17.135	0.081	OK
8.002	15 min Summer	8	S32	S33	0.049	2.259	17.084	0.061	OK
6.007	60 min Summer	40	S33	S34	0.299	0.556	28.089	0.169	OK
6.008	60 min Summer	46	S34	S35	0.361	0.201	38.038	0.057	OK
1.010	1440 min Summer	1068	S35	S36	0.216	0.711	31.477	0.034	OK
1.011	1440 min Summer	1069	S36	S41	0.043	1.361	5.787	0.319	OK
1.012	1440 min Summer	1069	S41	S37	0.088	0.540	5.787	0.128	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 169	240 min Summer	141	26.793	0.010	0.153			OK
Permeable Paving 170	360 min Summer	201	26.793	0.010	0.154			OK
Permeable Paving 171	360 min Summer	211	26.796	0.014	0.231			OK
Permeable Paving 14	360 min Summer	207	26.795	0.012	0.198			OK
Permeable Paving 15	360 min Summer	206	26.794	0.012	0.191			OK
Permeable Paving 16	360 min Summer	202	26.793	0.011	0.169			OK
Permeable Paving 17	180 min Summer	106	26.791	0.008	0.105			OK
Permeable Paving 18	240 min Summer	137	26.791	0.009	0.123			OK
Permeable Paving 72	240 min Summer	140	26.792	0.010	0.138			OK
Permeable Paving 12	240 min Summer	137	27.648	0.009	0.125			OK
Permeable Paving 13	480 min Summer	277	27.654	0.015	0.266			OK
Permeable Paving 21	240 min Summer	137	27.648	0.009	0.115			OK
Permeable Paving 22	240 min Summer	136	27.648	0.008	0.114			OK
Permeable Paving 19	240 min Summer	137	26.791	0.009	0.123			OK
Permeable Paving 20	240 min Summer	138	26.792	0.009	0.130			OK
Permeable Paving 23	360 min Summer	201	26.793	0.010	0.156			OK
Permeable Paving 26	180 min Summer	102	26.789	0.007	0.081			OK
Permeable Paving 27	360 min Summer	206	26.794	0.012	0.188			OK
Permeable Paving 28	240 min Summer	137	26.791	0.009	0.123			OK
Permeable Paving 29	180 min Summer	102	26.789	0.007	0.080			OK
Permeable Paving 174	180 min Summer	101	26.789	0.006	0.070			OK
Permeable Paving 5	180 min Summer	103	26.968	0.007	0.093			OK
Permeable Paving 6	360 min Summer	209	26.973	0.013	0.216			OK
Permeable Paving 7	180 min Summer	103	26.968	0.007	0.093			OK
Permeable Paving 8	360 min Summer	209	26.973	0.013	0.219			OK
Permeable Paving 9	240 min Summer	139	26.970	0.010	0.144			OK
Permeable Paving 10	240 min Summer	139	26.970	0.010	0.143			OK
Permeable Paving 24	240 min Summer	137	26.230	0.009	0.115			OK
Permeable Paving 25	360 min Summer	206	26.234	0.012	0.188			OK
Permeable Paving 44	240 min Summer	139	26.231	0.009	0.133			OK
Permeable Paving 45	180 min Summer	103	26.229	0.007	0.086			OK
Permeable Paving 52	240 min Summer	138	26.231	0.009	0.133			OK
Permeable Paving 53	360 min Summer	203	26.233	0.011	0.166			OK
Permeable Paving 56	360 min Summer	204	26.233	0.011	0.177			OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 173	180 min Summer	101	26.228	0.006	0.070			OK
Permeable Paving 47	480 min Summer	280	25.577	0.016	0.290			OK
Permeable Paving 54	240 min Summer	136	25.570	0.008	0.116			OK
Permeable Paving 55	240 min Summer	136	25.570	0.008	0.115			OK
Permeable Paving 57	240 min Summer	137	25.570	0.009	0.115			OK
Permeable Paving 58	240 min Summer	137	25.570	0.009	0.115			OK
Permeable Paving 74	180 min Summer	104	25.569	0.008	0.101			OK
Permeable Paving 60	360 min Summer	206	25.763	0.012	0.199			OK
Permeable Paving 61	240 min Summer	138	25.760	0.009	0.127			OK
Permeable Paving 59	240 min Summer	138	25.494	0.009	0.132			OK
Permeable Paving 160	480 min Summer	276	24.165	0.015	0.263			OK
Permeable Paving 30	180 min Summer	103	24.158	0.007	0.087			OK
Permeable Paving 31	180 min Summer	103	24.158	0.007	0.093			OK
Permeable Paving 32	180 min Summer	103	24.158	0.007	0.087			OK
Permeable Paving 33	240 min Summer	138	24.160	0.009	0.129			OK
Permeable Paving 34	180 min Summer	105	24.159	0.008	0.108			OK
Permeable Paving 35	240 min Summer	138	24.160	0.009	0.133			OK
Permeable Paving 36	360 min Summer	205	24.162	0.012	0.181			OK
Permeable Paving 37	360 min Summer	206	24.162	0.012	0.190			OK
Permeable Paving 38	240 min Summer	137	24.159	0.009	0.120			OK
Permeable Paving 39	360 min Summer	204	24.162	0.011	0.182			OK
Permeable Paving 40	240 min Summer	140	24.161	0.010	0.148			OK
Permeable Paving 41	240 min Summer	137	24.159	0.009	0.123			OK
Permeable Paving 42	240 min Summer	138	24.160	0.009	0.128			OK
Permeable Paving 43	240 min Summer	137	24.159	0.009	0.120			OK
Permeable Paving 46	360 min Summer	202	24.161	0.011	0.167			OK
Permeable Paving 50	240 min Summer	137	24.159	0.009	0.123			OK
Permeable Paving 51	240 min Summer	138	24.160	0.009	0.133			OK
Permeable Paving 172	240 min Summer	137	24.160	0.009	0.125			OK
Permeable Paving 156	240 min Summer	139	23.961	0.010	0.143			OK
Permeable Paving 157	480 min Summer	278	23.967	0.015	0.268			OK
Permeable Paving 48	360 min Summer	209	23.965	0.013	0.225			OK
Permeable Paving 49	360 min Summer	201	23.962	0.010	0.158			OK
Permeable Paving 73	360 min Summer	208	23.964	0.012	0.204			OK
Permeable Paving 3	480 min Summer	281	27.118	0.016	0.303			OK
Permeable Paving 4	240 min Summer	139	25.545	0.010	0.140			OK
Permeable Paving 65	360 min Summer	202	25.546	0.011	0.167			OK
Permeable Paving 66	240 min Summer	135	25.544	0.008	0.107			OK
Permeable Paving 67	180 min Summer	105	25.543	0.008	0.104			OK
Permeable Paving 70	180 min Summer	105	25.544	0.008	0.106			OK
Permeable Paving 71	180 min Summer	105	25.544	0.008	0.107			OK
Permeable Paving 62	240 min Summer	138	25.559	0.009	0.132			OK
Permeable Paving 63	240 min Summer	138	25.559	0.009	0.130			OK
Permeable Paving 77	180 min Summer	106	25.558	0.008	0.105			OK
Permeable Paving 64	240 min Summer	139	25.342	0.009	0.137			OK
Permeable Paving 11	240 min Summer	139	24.708	0.009	0.135			OK
Permeable Paving 68	240 min Summer	141	24.709	0.010	0.152			OK
Permeable Paving 69	240 min Summer	137	24.707	0.009	0.114			OK
Permeable Paving 75	480 min Summer	276	24.713	0.015	0.261			OK
Permeable Paving 1	180 min Summer	104	24.871	0.007	0.092			OK
Permeable Paving 2	180 min Summer	106	24.872	0.008	0.107			OK
Permeable Paving 76	240 min Summer	136	24.872	0.008	0.113			OK

Return Period (yrs) + Climate Change (%):

30yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	15 min Summer	9	25.869	0.108	10.607		OK
S2	15 min Summer	9	25.782	0.152	34.296		OK
S3	15 min Summer	8	26.648	0.128	67.587		OK
S4	15 min Summer	9	25.666	0.326	155.232		OK
S5	15 min Summer	8	25.981	0.141	62.975		OK
S6	15 min Summer	9	25.245	0.294	248.786		OK
S7	15 min Summer	9	24.529	0.238	248.880		OK
S8	15 min Summer	8	25.456	0.150	38.098		OK
S9	15 min Summer	8	25.181	0.141	68.661		OK
S10	15 min Summer	9	24.092	0.295	392.537		OK
S11	15 min Winter	5	23.126	0.566	150.016		OK
S12	15 min Summer	8	25.717	0.127	36.093		OK
S39	15 min Summer	8	25.622	0.116	36.023		OK
S13	15 min Summer	8	25.227	0.140	48.406		OK
S38	15 min Summer	9	24.804	0.138	47.226		OK
S14	15 min Summer	8	24.183	0.164	80.146		OK
S15	15 min Summer	9	23.780	0.206	86.951		OK
S16	15 min Summer	8	23.265	0.355	222.110		OK
S17	15 min Summer	9	23.040	0.285	245.188		OK
S18	30 min Summer	22	22.982	0.422	76.210		OK
S19	30 min Summer	22	22.971	0.421	212.779		OK
S20	30 min Summer	22	22.939	0.602	322.579		OK
S21	15 min Summer	12	22.936	0.916	106.090		OK
S22	15 min Summer	8	26.846	0.100	23.187		OK
S23	15 min Summer	8	26.530	0.149	84.330		OK
S40	15 min Summer	8	25.317	0.143	83.857		OK
S24	15 min Summer	9	24.643	0.228	133.409		OK
S25	15 min Summer	8	24.494	0.064	13.962		OK
S26	15 min Summer	8	24.285	0.073	22.528		OK
S27	15 min Summer	11	24.153	0.724	112.907		Surcharged
S28	15 min Summer	11	23.061	0.891	129.012		Surcharged
S29	15 min Summer	11	23.027	0.907	116.776		Surcharged
S30	15 min Summer	8	24.511	0.168	78.323		OK
S31	15 min Summer	8	23.354	0.144	89.707		OK
S32	30 min Summer	17	23.016	0.301	74.506		Surcharged
S33	15 min Summer	11	23.000	0.914	163.040		Surcharged
S34	15 min Summer	11	22.960	0.940	162.487		OK
S35	15 min Summer	11	22.929	0.929	174.021		Surcharged
S36	1440 min Summer	1432	22.644	0.644	6.081		Surcharged
S41	60 min Summer	103	21.886	0.036	6.200		OK
S37	15 min Summer	0	21.200	0.140	0.000		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	9	S1	S2	0.097	0.662	10.811	0.484	OK
1.001	15 min Summer	9	S2	S4	0.202	0.754	34.344	0.533	OK
2.000	15 min Summer	9	S3	S4	0.189	1.929	67.151	0.394	OK
1.002	15 min Summer	9	S4	S6	0.306	1.575	151.074	1.053	OK
3.000	15 min Summer	9	S5	S6	0.141	1.939	62.079	0.443	OK
1.003	15 min Summer	9	S6	S7	0.266	2.540	248.584	0.740	OK
1.004	15 min Summer	9	S7	S10	0.267	2.643	247.869	0.498	OK
4.000	15 min Summer	8	S8	S9	0.145	1.393	37.832	0.759	OK
4.001	15 min Summer	8	S9	S10	0.138	2.669	68.018	0.689	OK
1.005	15 min Summer	9	S10	S11	0.282	3.747	392.337	0.708	OK
1.006	30 min Summer	21	S11	S19	0.423	2.039	354.796	1.089	OK
5.000	15 min Summer	8	S12	S39	0.121	1.645	36.023	0.524	OK
5.001	15 min Summer	8	S39	S13	0.128	1.537	35.843	0.521	OK
5.002	15 min Summer	8	S13	S38	0.139	1.868	48.044	0.675	OK
5.003	15 min Summer	9	S38	S14	0.135	1.916	47.918	0.674	OK
5.004	15 min Summer	9	S14	S15	0.184	1.768	79.879	0.558	OK
5.005	15 min Summer	9	S15	S16	0.203	1.725	87.653	0.808	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
5.006	15 min Summer	9	S16	S17	0.319	1.616	222.711	0.895	OK
5.007	30 min Summer	22	S17	S18	0.320	1.813	221.680	0.426	OK
5.008	30 min Summer	22	S18	S19	0.421	1.547	217.260	0.626	OK
1.007	30 min Summer	25	S19	S20	0.512	1.927	376.171	0.495	OK
1.008	30 min Summer	25	S20	S21	0.639	1.693	424.795	0.427	OK
1.009	15 min Summer	20	S21	S35	0.922	0.792	373.451	0.444	OK
6.000	15 min Summer	8	S22	S23	0.098	1.373	22.968	0.395	OK
6.001	15 min Summer	8	S23	S40	0.146	2.458	83.857	0.480	OK
6.002	15 min Summer	9	S40	S24	0.185	1.860	83.143	0.476	OK
6.003	15 min Summer	9	S24	S27	0.264	2.413	135.584	0.866	OK
7.000	15 min Summer	8	S25	S26	0.068	1.142	13.879	0.103	OK
7.001	15 min Summer	9	S26	S27	0.186	1.444	22.329	0.137	OK
6.004	15 min Winter	8	S27	S28	0.300	2.075	130.067	0.997	Surcharged
6.005	30 min Summer	18	S28	S29	0.450	0.841	133.789	0.807	OK
6.006	30 min Summer	18	S29	S33	0.450	0.855	135.934	0.820	OK
8.000	15 min Summer	8	S30	S31	0.156	2.654	77.905	0.859	OK
8.001	30 min Summer	17	S31	S32	0.213	2.658	80.781	0.383	OK
8.002	30 min Summer	17	S32	S33	0.300	2.798	78.375	0.280	Surcharged
6.007	30 min Summer	18	S33	S34	0.450	1.251	198.942	1.200	OK
6.008	15 min Summer	12	S34	S35	0.934	0.260	186.556	0.277	OK
1.010	1440 min Summer	1432	S35	S36	0.644	0.887	127.364	0.136	OK
1.011	60 min Winter	107	S36	S41	0.045	1.387	6.200	0.342	OK
1.012	60 min Winter	107	S41	S37	0.088	0.574	6.200	0.137	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 169	60 min Summer	41	26.822	0.039	1.403			OK
Permeable Paving 170	60 min Summer	41	26.822	0.040	1.449			OK
Permeable Paving 171	60 min Summer	42	26.831	0.048	1.348			OK
Permeable Paving 14	60 min Summer	42	26.828	0.045	1.033			OK
Permeable Paving 15	60 min Summer	42	26.827	0.044	0.977			OK
Permeable Paving 16	60 min Summer	41	26.824	0.041	1.595			OK
Permeable Paving 17	60 min Summer	41	26.814	0.031	0.799			OK
Permeable Paving 18	60 min Summer	41	26.817	0.035	0.995			OK
Permeable Paving 72	60 min Summer	41	26.820	0.038	1.247			OK
Permeable Paving 12	60 min Summer	41	27.674	0.035	1.013			OK
Permeable Paving 13	120 min Summer	74	27.690	0.051	1.761			OK
Permeable Paving 21	60 min Summer	41	27.673	0.034	0.936			OK
Permeable Paving 22	60 min Summer	41	27.672	0.032	0.854			OK
Permeable Paving 19	60 min Summer	41	26.817	0.035	0.995			OK
Permeable Paving 20	60 min Summer	41	26.818	0.035	1.061			OK
Permeable Paving 23	60 min Summer	41	26.823	0.040	1.466			OK
Permeable Paving 26	30 min Summer	24	26.807	0.025	0.559			OK
Permeable Paving 27	60 min Summer	42	26.827	0.044	0.961			OK
Permeable Paving 28	60 min Summer	41	26.817	0.035	0.997			OK
Permeable Paving 29	30 min Summer	24	26.807	0.025	0.553			OK
Permeable Paving 174	30 min Summer	23	26.805	0.023	0.511			OK
Permeable Paving 5	60 min Summer	40	26.988	0.027	0.645			OK
Permeable Paving 6	60 min Summer	42	27.007	0.047	1.192			OK
Permeable Paving 7	60 min Summer	40	26.987	0.027	0.643			OK
Permeable Paving 8	60 min Summer	42	27.007	0.047	1.203			OK
Permeable Paving 9	60 min Summer	41	26.998	0.037	1.217			OK
Permeable Paving 10	60 min Summer	41	26.998	0.037	1.213			OK
Permeable Paving 24	60 min Summer	41	26.255	0.034	0.933			OK
Permeable Paving 25	60 min Summer	42	26.266	0.044	0.961			OK
Permeable Paving 44	60 min Summer	41	26.258	0.036	1.124			OK
Permeable Paving 45	60 min Summer	39	26.248	0.026	0.644			OK
Permeable Paving 52	60 min Summer	41	26.257	0.036	1.079			OK
Permeable Paving 53	60 min Summer	41	26.263	0.042	1.636			OK
Permeable Paving 56	60 min Summer	42	26.264	0.043	0.860			OK
Permeable Paving 173	30 min Summer	23	26.244	0.023	0.511			OK
Permeable Paving 47	120 min Summer	75	25.614	0.053	1.887			OK
Permeable Paving 54	60 min Summer	41	25.594	0.033	0.869			OK
Permeable Paving 55	60 min Summer	41	25.594	0.032	0.865			OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 57	60 min Summer	41	25.595	0.034	0.933			OK
Permeable Paving 58	60 min Summer	41	25.595	0.034	0.933			OK
Permeable Paving 74	60 min Summer	40	25.591	0.029	0.756			OK
Permeable Paving 60	60 min Summer	42	25.796	0.045	1.017			OK
Permeable Paving 61	60 min Summer	41	25.786	0.035	1.036			OK
Permeable Paving 59	60 min Summer	41	25.521	0.036	1.074			OK
Permeable Paving 160	120 min Summer	74	24.201	0.051	1.731			OK
Permeable Paving 30	60 min Summer	39	24.177	0.026	0.647			OK
Permeable Paving 31	60 min Summer	40	24.178	0.027	0.643			OK
Permeable Paving 32	60 min Summer	39	24.177	0.026	0.645			OK
Permeable Paving 33	60 min Summer	41	24.186	0.035	1.046			OK
Permeable Paving 34	60 min Summer	41	24.181	0.031	0.774			OK
Permeable Paving 35	60 min Summer	41	24.186	0.036	1.083			OK
Permeable Paving 36	60 min Summer	42	24.194	0.043	0.894			OK
Permeable Paving 37	60 min Summer	42	24.195	0.044	0.970			OK
Permeable Paving 38	60 min Summer	41	24.185	0.034	0.969			OK
Permeable Paving 39	60 min Summer	42	24.194	0.043	0.884			OK
Permeable Paving 40	60 min Summer	41	24.189	0.039	1.337			OK
Permeable Paving 41	60 min Summer	41	24.185	0.034	0.992			OK
Permeable Paving 42	60 min Summer	41	24.186	0.035	1.044			OK
Permeable Paving 43	60 min Summer	41	24.185	0.034	0.969			OK
Permeable Paving 46	60 min Summer	41	24.192	0.041	1.579			OK
Permeable Paving 50	60 min Summer	41	24.185	0.034	0.993			OK
Permeable Paving 51	60 min Summer	41	24.186	0.036	1.082			OK
Permeable Paving 172	60 min Summer	41	24.185	0.035	1.009			OK
Permeable Paving 156	60 min Summer	41	23.989	0.037	1.211			OK
Permeable Paving 157	120 min Summer	75	24.003	0.052	1.691			OK
Permeable Paving 48	60 min Summer	42	23.999	0.047	1.238			OK
Permeable Paving 49	60 min Summer	41	23.992	0.040	1.483			OK
Permeable Paving 73	60 min Summer	42	23.997	0.046	1.083			OK
Permeable Paving 3	120 min Summer	76	27.156	0.054	1.845			OK
Permeable Paving 4	60 min Summer	41	25.573	0.037	1.190			OK
Permeable Paving 65	60 min Summer	41	25.577	0.041	1.578			OK
Permeable Paving 66	60 min Summer	41	25.567	0.031	0.785			OK
Permeable Paving 67	60 min Summer	40	25.566	0.030	0.800			OK
Permeable Paving 70	60 min Summer	41	25.566	0.031	0.762			OK
Permeable Paving 71	60 min Summer	41	25.566	0.031	0.769			OK
Permeable Paving 62	60 min Summer	41	25.585	0.036	1.071			OK
Permeable Paving 63	60 min Summer	41	25.585	0.035	1.056			OK
Permeable Paving 77	60 min Summer	41	25.581	0.031	0.800			OK
Permeable Paving 64	60 min Summer	41	25.369	0.037	1.159			OK
Permeable Paving 11	60 min Summer	41	24.735	0.037	1.146			OK
Permeable Paving 68	60 min Summer	41	24.738	0.039	1.394			OK
Permeable Paving 69	60 min Summer	41	24.732	0.033	0.928			OK
Permeable Paving 75	120 min Summer	74	24.749	0.051	1.719			OK
Permeable Paving 1	60 min Summer	40	24.892	0.028	0.688			OK
Permeable Paving 2	60 min Summer	41	24.896	0.031	0.813			OK
Permeable Paving 76	60 min Summer	41	24.896	0.032	0.845			OK

Return Period (yrs) + Climate Change (%):

30yr+30%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	15 min Summer	10	25.909	0.148	11.474		OK
S2	15 min Summer	10	25.895	0.265	36.220		OK
S3	15 min Summer	8	26.668	0.149	87.895		OK
S4	15 min Summer	10	25.825	0.485	171.896		Surcharged
S5	15 min Summer	8	26.004	0.163	81.910		OK
S6	15 min Summer	9	25.295	0.343	306.445		OK
S7	15 min Summer	9	24.570	0.279	306.708		OK
S8	15 min Summer	8	25.493	0.187	49.543		OK
S9	15 min Summer	8	25.212	0.172	89.223		OK
S10	15 min Summer	9	24.152	0.356	493.853		OK
S11	30 min Summer	20	23.097	0.537	305.596		OK
S12	15 min Summer	8	25.742	0.152	46.924		OK
S39	15 min Summer	8	25.645	0.138	46.830		OK
S13	15 min Summer	8	25.258	0.171	62.930		OK
S38	15 min Summer	9	24.834	0.168	61.424		OK
S14	15 min Summer	8	24.218	0.198	104.098		OK
S15	15 min Summer	9	23.838	0.264	113.006		OK
S16	15 min Summer	9	23.348	0.438	286.095		OK
S17	30 min Summer	21	23.094	0.339	128.758		OK
S18	30 min Summer	21	23.089	0.529	123.178		OK
S19	30 min Summer	22	23.083	0.533	307.043		OK
S20	30 min Summer	21	23.049	0.712	356.510		Surcharged
S21	15 min Summer	11	23.027	1.007	159.578		OK
S22	15 min Summer	8	26.863	0.117	30.145		OK
S23	15 min Summer	8	26.555	0.174	109.652		OK
S40	15 min Summer	10	25.427	0.253	90.970		OK
S24	15 min Summer	10	25.244	0.828	147.574		Surcharged
S25	15 min Summer	11	24.625	0.196	9.712		OK
S26	15 min Summer	11	24.657	0.444	16.426		Surcharged
S27	15 min Summer	11	24.608	1.179	144.900		Surcharged
S28	15 min Summer	11	23.169	0.999	146.493		Surcharged
S29	15 min Summer	11	23.122	1.002	155.696		Surcharged
S30	15 min Summer	9	24.841	0.497	97.745		Surcharged
S31	15 min Summer	10	23.399	0.189	105.419		OK
S32	15 min Summer	10	23.164	0.449	104.379		Surcharged
S33	15 min Summer	10	23.095	1.009	219.334		Surcharged
S34	15 min Summer	10	23.028	1.008	214.781		OK
S35	15 min Summer	11	23.016	1.016	213.518		Surcharged
S36	1440 min Summer	1438	22.816	0.816	4.773		Surcharged
S41	30 min Winter	68	21.886	0.036	6.200		OK
S37	15 min Summer	0	21.200	0.140	0.000		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	10	S1	S2	0.169	0.684	14.089	0.631	OK
1.001	15 min Summer	11	S2	S4	0.283	0.794	44.127	0.684	OK
2.000	15 min Summer	8	S3	S4	0.224	1.891	87.390	0.513	OK
1.002	15 min Summer	10	S4	S6	0.343	1.709	180.965	1.262	OK
3.000	15 min Summer	9	S5	S6	0.176	1.989	81.335	0.581	OK
1.003	15 min Summer	9	S6	S7	0.311	2.615	306.244	0.911	OK
1.004	15 min Summer	9	S7	S10	0.317	2.743	305.672	0.614	OK
4.000	15 min Summer	8	S8	S9	0.179	1.446	49.136	0.985	OK
4.001	15 min Summer	8	S9	S10	0.167	2.795	88.346	0.895	OK
1.005	15 min Summer	9	S10	S11	0.335	3.888	493.593	0.891	OK
1.006	30 min Summer	22	S11	S19	0.533	2.105	449.412	1.379	OK
5.000	15 min Summer	8	S12	S39	0.145	1.727	46.830	0.681	OK
5.001	15 min Summer	8	S39	S13	0.154	1.602	46.596	0.678	OK
5.002	15 min Summer	8	S13	S38	0.169	1.951	62.426	0.878	OK
5.003	15 min Summer	9	S38	S14	0.164	2.009	62.322	0.876	OK
5.004	15 min Summer	9	S14	S15	0.230	1.847	103.685	0.725	OK
5.005	15 min Summer	9	S15	S16	0.261	1.784	112.840	1.040	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
5.006	15 min Summer	9	S16	S17	0.388	1.678	288.060	1.158	OK
5.007	30 min Summer	21	S17	S18	0.432	1.925	285.267	0.548	OK
5.008	30 min Summer	21	S18	S19	0.530	1.569	274.619	0.792	OK
1.007	30 min Summer	27	S19	S20	0.604	2.068	523.128	0.688	OK
1.008	30 min Winter	26	S20	S21	0.675	1.942	575.563	0.579	Surcharged
1.009	15 min Summer	20	S21	S35	1.012	0.900	519.339	0.618	OK
6.000	15 min Summer	8	S22	S23	0.115	1.465	29.870	0.514	OK
6.001	15 min Summer	10	S23	S40	0.202	2.565	109.572	0.628	OK
6.002	15 min Summer	10	S40	S24	0.276	1.880	101.389	0.581	OK
6.003	30 min Summer	16	S24	S27	0.300	2.419	143.520	0.917	Surcharged
7.000	15 min Summer	11	S25	S26	0.248	1.226	18.070	0.134	OK
7.001	30 min Summer	22	S26	S27	0.300	1.448	30.835	0.189	Surcharged
6.004	30 min Summer	19	S27	S28	0.300	2.091	147.771	1.133	Surcharged
6.005	30 min Summer	20	S28	S29	0.450	0.954	151.742	0.915	OK
6.006	30 min Summer	20	S29	S33	0.450	0.962	153.034	0.923	OK
8.000	15 min Summer	10	S30	S31	0.207	2.666	97.744	1.078	OK
8.001	15 min Summer	10	S31	S32	0.245	2.924	111.728	0.529	OK
8.002	15 min Winter	10	S32	S33	0.300	3.319	104.131	0.371	Surcharged
6.007	30 min Summer	18	S33	S34	0.450	1.454	231.209	1.395	OK
6.008	15 min Summer	12	S34	S35	1.009	0.272	217.148	0.323	OK
1.010	240 min Winter	234	S35	S36	0.675	2.469	416.732	0.445	Surcharged
1.011	30 min Summer	68	S36	S41	0.045	1.387	6.200	0.342	OK
1.012	30 min Winter	68	S41	S37	0.088	0.574	6.200	0.137	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 169	60 min Summer	42	26.831	0.048	1.572			OK
Permeable Paving 170	60 min Summer	42	26.831	0.049	1.624			OK
Permeable Paving 171	60 min Summer	44	26.844	0.062	2.223			OK
Permeable Paving 14	60 min Summer	43	26.839	0.057	2.232			OK
Permeable Paving 15	60 min Summer	43	26.838	0.055	2.110			OK
Permeable Paving 16	60 min Summer	43	26.833	0.051	1.659			OK
Permeable Paving 17	60 min Summer	40	26.820	0.037	1.048			OK
Permeable Paving 18	60 min Summer	41	26.824	0.041	1.205			OK
Permeable Paving 72	60 min Summer	42	26.828	0.046	1.398			OK
Permeable Paving 12	60 min Summer	41	27.681	0.042	1.227			OK
Permeable Paving 13	120 min Summer	75	27.705	0.066	2.117			OK
Permeable Paving 21	60 min Summer	40	27.680	0.040	1.227			OK
Permeable Paving 22	60 min Summer	40	27.678	0.039	1.120			OK
Permeable Paving 19	60 min Summer	41	26.824	0.041	1.205			OK
Permeable Paving 20	60 min Summer	41	26.825	0.043	1.285			OK
Permeable Paving 23	60 min Summer	42	26.831	0.049	1.643			OK
Permeable Paving 26	30 min Summer	23	26.812	0.030	0.744			OK
Permeable Paving 27	60 min Summer	43	26.838	0.055	2.075			OK
Permeable Paving 28	60 min Summer	41	26.824	0.041	1.207			OK
Permeable Paving 29	30 min Summer	23	26.812	0.030	0.736			OK
Permeable Paving 174	30 min Summer	22	26.810	0.028	0.698			OK
Permeable Paving 5	30 min Summer	23	26.993	0.033	0.906			OK
Permeable Paving 6	60 min Summer	44	27.020	0.059	1.964			OK
Permeable Paving 7	30 min Summer	23	26.993	0.033	0.903			OK
Permeable Paving 8	60 min Summer	44	27.020	0.059	1.984			OK
Permeable Paving 9	60 min Summer	41	27.006	0.045	1.474			OK
Permeable Paving 10	60 min Summer	41	27.005	0.045	1.469			OK
Permeable Paving 24	60 min Summer	40	26.262	0.040	1.223			OK
Permeable Paving 25	60 min Summer	43	26.277	0.055	2.077			OK
Permeable Paving 44	60 min Summer	41	26.265	0.044	1.360			OK
Permeable Paving 45	30 min Summer	23	26.253	0.032	0.846			OK
Permeable Paving 52	60 min Summer	41	26.265	0.043	1.306			OK
Permeable Paving 53	60 min Summer	43	26.273	0.051	1.702			OK
Permeable Paving 56	60 min Summer	43	26.275	0.053	1.854			OK
Permeable Paving 173	30 min Summer	22	26.249	0.028	0.697			OK
Permeable Paving 47	120 min Summer	75	25.630	0.069	2.466			OK
Permeable Paving 54	60 min Summer	40	25.600	0.039	1.140			OK
Permeable Paving 55	60 min Summer	40	25.600	0.039	1.134			OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 57	60 min Summer	40	25.601	0.040	1.223			OK
Permeable Paving 58	60 min Summer	40	25.601	0.040	1.223			OK
Permeable Paving 74	60 min Summer	39	25.596	0.035	1.001			OK
Permeable Paving 60	60 min Summer	43	25.807	0.056	2.196			OK
Permeable Paving 61	60 min Summer	41	25.793	0.042	1.254			OK
Permeable Paving 59	60 min Summer	41	25.528	0.043	1.300			OK
Permeable Paving 160	120 min Summer	75	24.216	0.066	2.082			OK
Permeable Paving 30	30 min Summer	23	24.182	0.032	0.850			OK
Permeable Paving 31	30 min Summer	23	24.183	0.033	0.904			OK
Permeable Paving 32	30 min Summer	23	24.182	0.032	0.847			OK
Permeable Paving 33	60 min Summer	41	24.193	0.042	1.267			OK
Permeable Paving 34	60 min Summer	40	24.187	0.037	1.014			OK
Permeable Paving 35	60 min Summer	41	24.194	0.043	1.311			OK
Permeable Paving 36	60 min Summer	43	24.204	0.054	1.929			OK
Permeable Paving 37	60 min Summer	43	24.206	0.055	2.093			OK
Permeable Paving 38	60 min Summer	41	24.191	0.041	1.174			OK
Permeable Paving 39	60 min Summer	43	24.204	0.053	1.908			OK
Permeable Paving 40	60 min Summer	42	24.198	0.047	1.498			OK
Permeable Paving 41	60 min Summer	41	24.192	0.041	1.201			OK
Permeable Paving 42	60 min Summer	41	24.193	0.042	1.264			OK
Permeable Paving 43	60 min Summer	41	24.191	0.041	1.173			OK
Permeable Paving 46	60 min Summer	43	24.201	0.050	1.642			OK
Permeable Paving 50	60 min Summer	41	24.192	0.041	1.202			OK
Permeable Paving 51	60 min Summer	41	24.193	0.043	1.310			OK
Permeable Paving 172	60 min Summer	41	24.192	0.042	1.222			OK
Permeable Paving 156	60 min Summer	41	23.997	0.045	1.467			OK
Permeable Paving 157	120 min Summer	75	24.019	0.067	2.209			OK
Permeable Paving 48	60 min Summer	44	24.012	0.060	2.042			OK
Permeable Paving 49	60 min Summer	42	24.001	0.049	1.662			OK
Permeable Paving 73	60 min Summer	44	24.009	0.057	1.784			OK
Permeable Paving 3	120 min Summer	75	27.172	0.071	2.679			OK
Permeable Paving 4	60 min Summer	41	25.580	0.045	1.441			OK
Permeable Paving 65	60 min Summer	43	25.586	0.050	1.642			OK
Permeable Paving 66	60 min Summer	40	25.573	0.037	1.029			OK
Permeable Paving 67	60 min Summer	40	25.572	0.036	0.978			OK
Permeable Paving 70	60 min Summer	40	25.572	0.036	0.999			OK
Permeable Paving 71	60 min Summer	40	25.572	0.037	1.009			OK
Permeable Paving 62	60 min Summer	41	25.593	0.043	1.297			OK
Permeable Paving 63	60 min Summer	41	25.592	0.042	1.279			OK
Permeable Paving 77	60 min Summer	40	25.587	0.037	1.048			OK
Permeable Paving 64	60 min Summer	41	25.377	0.044	1.403			OK
Permeable Paving 11	60 min Summer	41	24.743	0.044	1.388			OK
Permeable Paving 68	60 min Summer	42	24.746	0.048	1.562			OK
Permeable Paving 69	60 min Summer	40	24.738	0.040	1.216			OK
Permeable Paving 75	120 min Summer	75	24.764	0.065	2.067			OK
Permeable Paving 1	30 min Summer	24	24.898	0.034	0.869			OK
Permeable Paving 2	60 min Summer	40	24.902	0.038	1.066			OK
Permeable Paving 76	60 min Summer	40	24.902	0.038	1.108			OK

Return Period (yrs) + Climate Change (%):

100yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	15 min Summer	8	25.884	0.123	13.841		OK
S2	15 min Summer	10	25.866	0.236	36.315		OK
S3	15 min Summer	8	26.665	0.146	84.517		OK
S4	15 min Summer	9	25.799	0.459	184.479		Surcharged
S5	15 min Summer	8	26.000	0.159	78.752		OK
S6	15 min Summer	9	25.286	0.334	296.957		OK
S7	15 min Summer	9	24.563	0.271	296.869		OK
S8	15 min Summer	8	25.486	0.180	47.641		OK
S9	15 min Summer	8	25.207	0.166	85.822		OK
S10	15 min Summer	9	24.141	0.344	476.633		OK
S11	15 min Winter	5	23.110	0.550	189.972		OK
S12	15 min Summer	8	25.738	0.148	45.131		OK
S39	15 min Summer	8	25.641	0.134	45.041		OK
S13	15 min Summer	8	25.253	0.165	60.528		OK
S38	15 min Summer	9	24.828	0.162	59.076		OK
S14	15 min Summer	8	24.212	0.192	100.141		OK
S15	15 min Summer	9	23.825	0.251	108.707		OK
S16	15 min Summer	9	23.333	0.423	275.685		OK
S17	30 min Summer	17	23.085	0.330	274.108		OK
S18	30 min Summer	21	23.079	0.519	113.718		OK
S19	30 min Summer	22	23.068	0.518	306.460		OK
S20	30 min Summer	22	23.036	0.699	383.525		Surcharged
S21	15 min Summer	11	23.013	0.993	169.701		OK
S22	15 min Summer	8	26.860	0.114	28.993		OK
S23	15 min Summer	8	26.552	0.170	105.453		OK
S40	15 min Summer	10	25.382	0.208	87.531		OK
S24	15 min Summer	10	25.159	0.744	144.041		Surcharged
S25	15 min Summer	11	24.568	0.138	13.636		OK
S26	30 min Summer	19	24.563	0.351	15.733		Surcharged
S27	15 min Summer	11	24.556	1.128	139.310		Surcharged
S28	15 min Summer	11	23.151	0.981	144.655		Surcharged
S29	15 min Summer	11	23.105	0.985	154.309		Surcharged
S30	15 min Summer	9	24.737	0.394	93.998		Surcharged
S31	15 min Summer	10	23.386	0.176	101.388		OK
S32	15 min Summer	10	23.133	0.418	100.244		Surcharged
S33	15 min Summer	10	23.072	0.986	212.056		Surcharged
S34	15 min Summer	10	23.011	0.991	205.650		OK
S35	15 min Summer	11	23.007	1.007	204.802		Surcharged
S36	1440 min Summer	1442	22.785	0.785	4.669		Surcharged
S41	1440 min Winter	687	21.886	0.036	6.200		OK
S37	15 min Summer	0	21.200	0.140	0.000		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	10	S1	S2	0.140	0.693	13.516	0.605	OK
1.001	15 min Summer	11	S2	S4	0.268	0.798	42.668	0.662	OK
2.000	15 min Summer	8	S3	S4	0.223	1.897	84.026	0.493	OK
1.002	15 min Summer	10	S4	S6	0.341	1.668	175.857	1.226	OK
3.000	15 min Summer	9	S5	S6	0.170	1.977	78.270	0.559	OK
1.003	15 min Summer	9	S6	S7	0.303	2.606	296.467	0.882	OK
1.004	15 min Summer	9	S7	S10	0.308	2.729	295.681	0.594	OK
4.000	15 min Summer	8	S8	S9	0.173	1.441	47.271	0.948	OK
4.001	15 min Summer	8	S9	S10	0.162	2.780	84.988	0.861	OK
1.005	15 min Summer	9	S10	S11	0.325	3.873	476.520	0.860	OK
1.006	30 min Summer	22	S11	S19	0.518	2.105	437.240	1.342	OK
5.000	15 min Summer	8	S12	S39	0.141	1.716	45.041	0.655	OK
5.001	15 min Summer	8	S39	S13	0.150	1.595	44.819	0.652	OK
5.002	15 min Summer	8	S13	S38	0.163	1.941	60.045	0.844	OK
5.003	15 min Summer	9	S38	S14	0.159	1.998	59.942	0.843	OK
5.004	15 min Summer	9	S14	S15	0.221	1.836	99.761	0.697	OK
5.005	15 min Summer	9	S15	S16	0.245	1.779	109.174	1.006	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
5.006	15 min Summer	9	S16	S17	0.376	1.671	277.488	1.116	OK
5.007	30 min Summer	21	S17	S18	0.420	1.910	277.827	0.534	OK
5.008	30 min Summer	21	S18	S19	0.518	1.573	264.847	0.763	OK
1.007	30 min Summer	27	S19	S20	0.597	2.052	504.829	0.664	OK
1.008	30 min Winter	26	S20	S21	0.675	1.910	560.741	0.564	Surcharged
1.009	15 min Summer	20	S21	S35	1.000	0.874	494.349	0.588	OK
6.000	15 min Summer	8	S22	S23	0.112	1.451	28.726	0.495	OK
6.001	15 min Summer	9	S23	S40	0.181	2.569	104.982	0.601	OK
6.002	15 min Summer	10	S40	S24	0.254	1.890	100.165	0.574	OK
6.003	15 min Winter	9	S24	S27	0.300	2.469	146.795	0.938	Surcharged
7.000	15 min Summer	12	S25	S26	0.219	1.213	18.411	0.136	OK
7.001	30 min Summer	19	S26	S27	0.300	1.490	26.180	0.160	Surcharged
6.004	30 min Summer	19	S27	S28	0.300	2.053	145.088	1.112	Surcharged
6.005	30 min Summer	20	S28	S29	0.450	0.948	150.808	0.910	OK
6.006	30 min Summer	20	S29	S33	0.450	0.961	152.769	0.922	OK
8.000	15 min Summer	10	S30	S31	0.201	2.661	93.922	1.036	OK
8.001	15 min Summer	10	S31	S32	0.238	2.914	107.873	0.511	OK
8.002	15 min Winter	10	S32	S33	0.300	3.288	100.630	0.359	Surcharged
6.007	30 min Summer	17	S33	S34	0.450	1.462	232.594	1.403	OK
6.008	15 min Summer	12	S34	S35	0.995	0.270	211.874	0.315	OK
1.010	480 min Summer	377	S35	S36	0.675	1.330	242.484	0.259	Surcharged
1.011	1440 min Winter	687	S36	S41	0.045	1.387	6.200	0.342	OK
1.012	1440 min Winter	687	S41	S37	0.088	0.574	6.200	0.137	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 169	60 min Summer	42	26.830	0.047	1.550			OK
Permeable Paving 170	60 min Summer	42	26.830	0.048	1.601			OK
Permeable Paving 171	60 min Summer	44	26.843	0.061	1.910			OK
Permeable Paving 14	60 min Summer	43	26.838	0.056	2.202			OK
Permeable Paving 15	60 min Summer	43	26.837	0.055	2.081			OK
Permeable Paving 16	60 min Summer	43	26.832	0.050	1.636			OK
Permeable Paving 17	60 min Summer	40	26.819	0.037	1.031			OK
Permeable Paving 18	60 min Summer	41	26.823	0.041	1.186			OK
Permeable Paving 72	60 min Summer	42	26.828	0.045	1.378			OK
Permeable Paving 12	60 min Summer	41	27.681	0.041	1.208			OK
Permeable Paving 13	60 min Summer	44	27.704	0.065	2.423			OK
Permeable Paving 21	60 min Summer	40	27.679	0.040	1.208			OK
Permeable Paving 22	60 min Summer	40	27.677	0.038	1.102			OK
Permeable Paving 19	60 min Summer	41	26.823	0.041	1.186			OK
Permeable Paving 20	60 min Summer	41	26.824	0.042	1.265			OK
Permeable Paving 23	60 min Summer	42	26.831	0.048	1.619			OK
Permeable Paving 26	30 min Summer	23	26.812	0.029	0.727			OK
Permeable Paving 27	60 min Summer	43	26.837	0.054	2.047			OK
Permeable Paving 28	60 min Summer	41	26.823	0.041	1.188			OK
Permeable Paving 29	30 min Summer	23	26.812	0.029	0.720			OK
Permeable Paving 174	30 min Summer	22	26.809	0.027	0.680			OK
Permeable Paving 5	60 min Summer	39	26.992	0.032	0.839			OK
Permeable Paving 6	60 min Summer	44	27.019	0.058	1.688			OK
Permeable Paving 7	60 min Summer	39	26.992	0.032	0.836			OK
Permeable Paving 8	60 min Summer	44	27.019	0.058	1.704			OK
Permeable Paving 9	60 min Summer	42	27.005	0.045	1.345			OK
Permeable Paving 10	60 min Summer	42	27.005	0.044	1.340			OK
Permeable Paving 24	60 min Summer	40	26.261	0.040	1.204			OK
Permeable Paving 25	60 min Summer	43	26.276	0.054	2.048			OK
Permeable Paving 44	60 min Summer	41	26.265	0.043	1.339			OK
Permeable Paving 45	30 min Summer	23	26.253	0.031	0.827			OK
Permeable Paving 52	60 min Summer	41	26.264	0.042	1.286			OK
Permeable Paving 53	60 min Summer	43	26.272	0.050	1.679			OK
Permeable Paving 56	60 min Summer	43	26.274	0.052	1.828			OK
Permeable Paving 173	30 min Summer	22	26.249	0.027	0.680			OK
Permeable Paving 47	60 min Summer	44	25.628	0.067	2.822			OK
Permeable Paving 54	60 min Summer	40	25.599	0.038	1.122			OK
Permeable Paving 55	60 min Summer	40	25.599	0.038	1.116			OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 57	60 min Summer	40	25.601	0.040	1.204			OK
Permeable Paving 58	60 min Summer	40	25.601	0.040	1.204			OK
Permeable Paving 74	60 min Summer	39	25.596	0.035	0.984			OK
Permeable Paving 60	60 min Summer	43	25.806	0.055	2.165			OK
Permeable Paving 61	60 min Summer	41	25.793	0.042	1.234			OK
Permeable Paving 59	60 min Summer	41	25.527	0.042	1.280			OK
Permeable Paving 160	60 min Summer	44	24.215	0.064	2.382			OK
Permeable Paving 30	30 min Summer	23	24.182	0.031	0.831			OK
Permeable Paving 31	60 min Summer	39	24.182	0.032	0.837			OK
Permeable Paving 32	30 min Summer	23	24.181	0.031	0.828			OK
Permeable Paving 33	60 min Summer	41	24.192	0.042	1.247			OK
Permeable Paving 34	60 min Summer	40	24.187	0.036	0.998			OK
Permeable Paving 35	60 min Summer	41	24.193	0.042	1.291			OK
Permeable Paving 36	60 min Summer	43	24.203	0.053	1.902			OK
Permeable Paving 37	60 min Summer	43	24.205	0.054	2.064			OK
Permeable Paving 38	60 min Summer	41	24.191	0.040	1.155			OK
Permeable Paving 39	60 min Summer	43	24.203	0.053	1.882			OK
Permeable Paving 40	60 min Summer	42	24.197	0.046	1.477			OK
Permeable Paving 41	60 min Summer	41	24.191	0.041	1.182			OK
Permeable Paving 42	60 min Summer	41	24.192	0.042	1.244			OK
Permeable Paving 43	60 min Summer	41	24.191	0.040	1.155			OK
Permeable Paving 46	60 min Summer	43	24.200	0.050	1.620			OK
Permeable Paving 50	60 min Summer	41	24.191	0.041	1.183			OK
Permeable Paving 51	60 min Summer	41	24.193	0.042	1.289			OK
Permeable Paving 172	60 min Summer	41	24.192	0.041	1.203			OK
Permeable Paving 156	60 min Summer	42	23.996	0.044	1.338			OK
Permeable Paving 157	60 min Summer	44	24.017	0.065	2.526			OK
Permeable Paving 48	60 min Summer	44	24.011	0.059	1.755			OK
Permeable Paving 49	60 min Summer	43	24.000	0.048	1.522			OK
Permeable Paving 73	60 min Summer	43	24.008	0.056	2.306			OK
Permeable Paving 3	60 min Summer	44	27.170	0.068	3.065			OK
Permeable Paving 4	60 min Summer	41	25.580	0.044	1.418			OK
Permeable Paving 65	60 min Summer	43	25.585	0.050	1.620			OK
Permeable Paving 66	60 min Summer	40	25.572	0.036	1.013			OK
Permeable Paving 67	60 min Summer	40	25.571	0.036	0.963			OK
Permeable Paving 70	60 min Summer	40	25.572	0.036	0.983			OK
Permeable Paving 71	60 min Summer	40	25.572	0.036	0.993			OK
Permeable Paving 62	60 min Summer	41	25.592	0.042	1.277			OK
Permeable Paving 63	60 min Summer	41	25.592	0.042	1.259			OK
Permeable Paving 77	60 min Summer	40	25.587	0.037	1.032			OK
Permeable Paving 64	60 min Summer	41	25.376	0.044	1.381			OK
Permeable Paving 11	60 min Summer	41	24.742	0.043	1.367			OK
Permeable Paving 68	60 min Summer	42	24.746	0.047	1.540			OK
Permeable Paving 69	60 min Summer	40	24.738	0.039	1.197			OK
Permeable Paving 75	60 min Summer	44	24.763	0.064	2.365			OK
Permeable Paving 1	60 min Summer	39	24.897	0.033	0.896			OK
Permeable Paving 2	60 min Summer	40	24.901	0.037	1.049			OK
Permeable Paving 76	60 min Summer	40	24.902	0.038	1.090			OK

Return Period (yrs) + Climate Change (%):

100yr+45%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	15 min Summer	10	26.454	0.693	16.009		Surcharged
S2	15 min Summer	10	26.442	0.812	50.516		Surcharged
S3	15 min Summer	9	26.750	0.230	118.017		OK
S4	15 min Summer	10	26.335	0.995	231.286		Surcharged
S5	15 min Summer	9	26.053	0.213	110.283		OK
S6	15 min Summer	10	25.580	0.628	377.215		Surcharged
S7	15 min Summer	10	24.770	0.479	371.417		Surcharged
S8	15 min Summer	9	25.894	0.588	66.174		Flood Risk
S9	15 min Summer	9	25.577	0.537	107.258		Flood Risk
S10	15 min Summer	10	24.445	0.649	588.603		Surcharged
S11	30 min Winter	22	23.282	0.722	354.667		OK
S12	15 min Summer	10	26.057	0.467	52.201		Surcharged
S39	15 min Summer	10	25.986	0.479	53.724		Surcharged
S13	15 min Summer	10	25.706	0.618	73.235		Flood Risk
S38	15 min Summer	10	25.224	0.558	73.844		Flood Risk
S14	15 min Summer	10	24.588	0.568	120.632		Surcharged
S15	15 min Summer	10	24.233	0.659	134.147		Flood Risk
S16	15 min Summer	9	23.539	0.630	374.249		Surcharged
S17	30 min Summer	20	23.303	0.548	257.431		Surcharged
S18	30 min Winter	23	23.269	0.709	164.251		OK
S19	30 min Summer	22	23.267	0.717	463.572		Surcharged
S20	15 min Summer	14	23.201	0.865	237.115		Surcharged
S21	15 min Summer	14	23.174	1.154	235.489		OK
S22	15 min Summer	10	26.935	0.189	33.535		OK
S23	15 min Summer	10	26.839	0.458	124.452		Surcharged
S40	15 min Summer	10	26.177	1.003	128.625		Surcharged
S24	15 min Summer	10	25.747	1.332	203.603		Flood Risk
S25	30 min Summer	18	24.964	0.534	19.322		Surcharged
S26	30 min Summer	18	24.975	0.763	28.626		Surcharged
S27	30 min Summer	18	24.944	1.516	195.973		Flood Risk
S28	15 min Summer	11	23.332	1.162	155.469		Surcharged
S29	15 min Summer	11	23.278	1.158	157.333		Surcharged
S30	15 min Summer	8	25.155	0.812	141.903		Flood Risk
S31	15 min Summer	10	23.483	0.273	121.738		OK
S32	15 min Summer	11	23.320	0.605	112.709		Surcharged
S33	15 min Summer	11	23.236	1.150	272.440		Surcharged
S34	15 min Summer	15	23.164	1.144	185.170		OK
S35	15 min Summer	15	23.163	1.163	494.391		Flood Risk
S36	1440 min Summer	1441	23.073	1.073	5.594		Surcharged
S41	15 min Summer	42	21.886	0.036	6.200		OK
S37	15 min Summer	0	21.200	0.140	0.000		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	9	S1	S2	0.225	0.665	16.580	0.743	OK
1.001	30 min Summer	20	S2	S4	0.300	0.938	61.662	0.956	Surcharged
2.000	15 min Summer	9	S3	S4	0.265	1.864	119.212	0.700	OK
1.002	30 min Summer	18	S4	S6	0.375	1.991	219.877	1.533	Surcharged
3.000	15 min Summer	9	S5	S6	0.256	1.986	113.228	0.808	OK
1.003	15 min Summer	11	S6	S7	0.450	2.689	375.286	1.117	OK
1.004	15 min Summer	11	S7	S10	0.450	2.989	403.556	0.810	OK
4.000	15 min Winter	8	S8	S9	0.225	1.476	58.691	1.177	OK
4.001	15 min Winter	9	S9	S10	0.225	2.786	102.402	1.037	OK
1.005	15 min Summer	10	S10	S11	0.450	4.000	593.215	1.071	OK
1.006	30 min Summer	22	S11	S19	0.719	2.110	567.144	1.740	OK
5.000	15 min Winter	9	S12	S39	0.225	1.767	60.285	0.877	OK
5.001	15 min Winter	9	S39	S13	0.225	1.609	58.799	0.855	OK
5.002	15 min Winter	9	S13	S38	0.225	1.971	76.553	1.076	OK
5.003	15 min Winter	11	S38	S14	0.225	2.007	73.413	1.032	OK
5.004	30 min Summer	16	S14	S15	0.300	1.819	119.198	0.833	Surcharged
5.005	15 min Winter	11	S15	S16	0.300	1.895	131.649	1.213	Surcharged

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
5.006	30 min Summer	19	S16	S17	0.525	1.707	351.934	1.415	OK
5.007	30 min Winter	20	S17	S18	0.525	1.878	329.791	0.633	OK
5.008	30 min Winter	23	S18	S19	0.713	1.647	314.326	0.906	OK
1.007	30 min Winter	28	S19	S20	0.675	2.247	727.616	0.957	Surcharged
1.008	30 min Winter	28	S20	S21	0.675	2.191	767.469	0.772	Surcharged
1.009	15 min Summer	22	S21	S35	1.156	1.098	706.212	0.840	OK
6.000	15 min Summer	10	S22	S23	0.207	1.547	41.749	0.719	OK
6.001	15 min Summer	9	S23	S40	0.300	2.606	144.341	0.827	Surcharged
6.002	15 min Winter	10	S40	S24	0.300	1.888	121.456	0.696	Surcharged
6.003	15 min Winter	8	S24	S27	0.300	2.413	162.720	1.040	Surcharged
7.000	15 min Winter	10	S25	S26	0.300	1.288	23.950	0.177	Surcharged
7.001	15 min Winter	9	S26	S27	0.300	1.487	34.332	0.210	Surcharged
6.004	60 min Summer	37	S27	S28	0.300	2.379	168.159	1.289	Surcharged
6.005	60 min Summer	37	S28	S29	0.450	1.081	171.920	1.037	OK
6.006	60 min Summer	37	S29	S33	0.450	1.093	173.830	1.049	OK
8.000	30 min Summer	16	S30	S31	0.225	2.674	105.999	1.169	OK
8.001	15 min Summer	10	S31	S32	0.287	2.966	127.149	0.602	OK
8.002	30 min Summer	15	S32	S33	0.300	2.669	122.701	0.438	Surcharged
6.007	30 min Summer	18	S33	S34	0.450	1.773	281.926	1.701	OK
6.008	15 min Summer	15	S34	S35	1.154	0.282	284.528	0.423	OK
1.010	120 min Winter	95	S35	S36	0.675	3.296	685.683	0.731	Surcharged
1.011	15 min Summer	42	S36	S41	0.045	1.387	6.200	0.342	OK
1.012	15 min Winter	45	S41	S37	0.088	0.574	6.200	0.137	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 169	60 min Summer	40	26.845	0.063	2.411			OK
Permeable Paving 170	60 min Summer	40	26.846	0.064	2.490			OK
Permeable Paving 171	60 min Summer	44	26.864	0.082	3.373			OK
Permeable Paving 14	60 min Summer	42	26.857	0.074	3.055			OK
Permeable Paving 15	60 min Summer	42	26.855	0.073	2.887			OK
Permeable Paving 16	60 min Summer	41	26.849	0.066	2.489			OK
Permeable Paving 17	30 min Summer	23	26.831	0.049	1.529			OK
Permeable Paving 18	60 min Summer	39	26.837	0.054	1.887			OK
Permeable Paving 72	60 min Summer	40	26.842	0.060	2.143			OK
Permeable Paving 12	60 min Summer	39	27.694	0.055	1.921			OK
Permeable Paving 13	60 min Summer	45	27.728	0.088	3.970			OK
Permeable Paving 21	60 min Summer	39	27.692	0.053	1.775			OK
Permeable Paving 22	60 min Summer	39	27.690	0.050	1.620			OK
Permeable Paving 19	60 min Summer	39	26.837	0.054	1.886			OK
Permeable Paving 20	60 min Summer	39	26.838	0.056	2.012			OK
Permeable Paving 23	60 min Summer	41	26.847	0.064	2.287			OK
Permeable Paving 26	30 min Summer	22	26.822	0.040	1.094			OK
Permeable Paving 27	60 min Summer	42	26.855	0.072	2.840			OK
Permeable Paving 28	60 min Summer	39	26.837	0.054	1.890			OK
Permeable Paving 29	30 min Summer	22	26.822	0.040	1.083			OK
Permeable Paving 174	30 min Summer	21	26.819	0.037	1.071			OK
Permeable Paving 5	30 min Summer	22	27.004	0.043	1.332			OK
Permeable Paving 6	60 min Summer	43	27.039	0.078	3.229			OK
Permeable Paving 7	30 min Summer	22	27.004	0.043	1.328			OK
Permeable Paving 8	60 min Summer	43	27.039	0.079	3.262			OK
Permeable Paving 9	60 min Summer	40	27.020	0.059	2.092			OK
Permeable Paving 10	60 min Summer	40	27.019	0.059	2.085			OK
Permeable Paving 24	60 min Summer	39	26.274	0.052	1.770			OK
Permeable Paving 25	60 min Summer	42	26.294	0.072	2.842			OK
Permeable Paving 44	60 min Summer	40	26.279	0.057	1.931			OK
Permeable Paving 45	30 min Summer	22	26.264	0.042	1.244			OK
Permeable Paving 52	60 min Summer	39	26.278	0.056	2.046			OK
Permeable Paving 53	60 min Summer	41	26.289	0.067	2.553			OK
Permeable Paving 56	60 min Summer	41	26.291	0.069	2.781			OK
Permeable Paving 173	30 min Summer	21	26.258	0.037	1.070			OK
Permeable Paving 47	60 min Summer	46	25.654	0.093	4.309			OK
Permeable Paving 54	60 min Summer	39	25.612	0.051	1.649			OK
Permeable Paving 55	60 min Summer	39	25.612	0.051	1.639			OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 57	60 min Summer	39	25.614	0.052	1.769			OK
Permeable Paving 58	60 min Summer	39	25.614	0.052	1.770			OK
Permeable Paving 74	30 min Summer	22	25.608	0.046	1.562			OK
Permeable Paving 60	60 min Summer	42	25.825	0.074	3.005			OK
Permeable Paving 61	15 min Summer	13	25.819	0.068	2.865			OK
Permeable Paving 59	15 min Summer	15	25.542	0.057	2.053			OK
Permeable Paving 160	60 min Summer	45	24.239	0.088	3.905			OK
Permeable Paving 30	30 min Summer	22	24.193	0.042	1.250			OK
Permeable Paving 31	30 min Summer	22	24.194	0.043	1.329			OK
Permeable Paving 32	30 min Summer	22	24.193	0.042	1.246			OK
Permeable Paving 33	60 min Summer	39	24.206	0.055	1.984			OK
Permeable Paving 34	30 min Summer	23	24.199	0.048	1.480			OK
Permeable Paving 35	60 min Summer	39	24.207	0.056	2.054			OK
Permeable Paving 36	60 min Summer	42	24.221	0.070	2.640			OK
Permeable Paving 37	60 min Summer	42	24.223	0.073	2.864			OK
Permeable Paving 38	60 min Summer	39	24.204	0.053	1.838			OK
Permeable Paving 39	60 min Summer	41	24.221	0.070	2.862			OK
Permeable Paving 40	60 min Summer	40	24.212	0.062	2.297			OK
Permeable Paving 41	60 min Summer	39	24.205	0.054	1.881			OK
Permeable Paving 42	60 min Summer	39	24.206	0.055	1.979			OK
Permeable Paving 43	60 min Summer	39	24.204	0.053	1.837			OK
Permeable Paving 46	60 min Summer	41	24.217	0.066	2.464			OK
Permeable Paving 50	60 min Summer	39	24.205	0.054	1.882			OK
Permeable Paving 51	60 min Summer	39	24.207	0.056	2.051			OK
Permeable Paving 172	60 min Summer	39	24.205	0.054	1.914			OK
Permeable Paving 156	60 min Summer	40	24.011	0.059	2.082			OK
Permeable Paving 157	60 min Summer	46	24.041	0.090	3.861			OK
Permeable Paving 48	60 min Summer	43	24.031	0.079	3.358			OK
Permeable Paving 49	60 min Summer	41	24.016	0.064	2.315			OK
Permeable Paving 73	60 min Summer	42	24.027	0.076	3.200			OK
Permeable Paving 3	60 min Summer	46	27.197	0.095	4.683			OK
Permeable Paving 4	30 min Summer	20	25.640	0.105	3.642			OK
Permeable Paving 65	30 min Summer	21	25.633	0.098	4.099			OK
Permeable Paving 66	30 min Summer	20	25.651	0.116	2.402			OK
Permeable Paving 67	30 min Summer	19	25.652	0.117	3.240			OK
Permeable Paving 70	30 min Summer	20	25.652	0.116	2.333			OK
Permeable Paving 71	30 min Summer	20	25.652	0.116	2.355			OK
Permeable Paving 62	60 min Summer	39	25.606	0.056	2.031			OK
Permeable Paving 63	60 min Summer	39	25.605	0.056	2.002			OK
Permeable Paving 77	30 min Summer	23	25.599	0.049	1.530			OK
Permeable Paving 64	60 min Summer	40	25.390	0.058	1.992			OK
Permeable Paving 11	30 min Summer	22	24.858	0.160	2.538			OK
Permeable Paving 68	30 min Summer	22	24.849	0.150	3.085			OK
Permeable Paving 69	30 min Summer	22	24.867	0.169	2.053			OK
Permeable Paving 75	30 min Summer	25	24.817	0.119	5.222			OK
Permeable Paving 1	15 min Summer	10	25.012	0.148	5.243			OK
Permeable Paving 2	15 min Summer	11	24.993	0.129	2.912			OK
Permeable Paving 76	15 min Summer	11	24.991	0.127	3.027			OK