

PFA Consulting Ltd		Page 1
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Catch C+D

Pipe Sizes STANDARD Manhole Sizes STANDARD

Return Period (years)		FEH Rainfall Model	5	Volumetric Runoff Coeff.	0.750
FEH Rainfall Version		2013		PIMP (%)	100
Site Location		GB 450306 114752		Add Flow / Climate Change (%)	0
Data Type		Point		Minimum Backdrop Height (m)	20.000
Maximum Rainfall (mm/hr)		550		Maximum Backdrop Height (m)	20.000
Maximum Time of Concentration (mins)		30		Min Design Depth for Optimisation (m)	1.200
Foul Sewage (l/s/ha)		0.000		Min Vel for Auto Design only (m/s)	1.00
				Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Time Area Diagram for Catch C+D

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.000	4-8	0.147	8-12	1.732	12-16	3.065	16-20	3.300	20-24	0.348

Total Area Contributing (ha) = 8.592

Total Pipe Volume (m³) = 2540.883

Network Design Table for Catch C+D

- Indicates pipe length does not match coordinates
 < - Indicates pipe capacity < flow

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
S1.000	35.949	0.512	70.2	0.096	5.00	0.0	0.600		o	225	Pipe/Conduit	⚠
S1.001	37.616	0.156	241.1	0.066	0.00	0.0	0.600		o	300	Pipe/Conduit	⚠
S1.002	60.836	0.190	320.2	0.126	0.00	0.0	0.600		o	375	Pipe/Conduit	⚠
S1.003	15.123	0.048	315.1	0.009	0.00	0.0	0.600		o	375	Pipe/Conduit	⚠
S2.000	19.287	0.115	167.7	0.105	5.00	0.0	0.600		o	225	Pipe/Conduit	⚠
S2.001	33.215	1.103	30.1	0.060	0.00	0.0	0.600		o	225	Pipe/Conduit	⚠
S2.002	15.620	0.797	19.6	0.024	0.00	0.0	0.600		o	225	Pipe/Conduit	⚠
S2.003	21.369	1.015	21.1	0.039	0.00	0.0	0.600		o	225	Pipe/Conduit	⚠
S2.004	36.334	1.246	29.2	0.043	0.00	0.0	0.600		o	225	Pipe/Conduit	⚠
S2.005	13.620	0.436	31.2	0.018	0.00	0.0	0.600		o	225	Pipe/Conduit	⚠
S2.006	14.675	2.323	6.3	0.009	0.00	0.0	0.600		o	225	Pipe/Conduit	⚠
S1.004	14.479	0.029	499.3	0.022	0.00	0.0	0.600		o	525	Pipe/Conduit	⚠
S1.005	45.757	0.093	492.0	0.138	0.00	0.0	0.600		o	525	Pipe/Conduit	⚠
S1.006	10.237	0.843	12.1	0.017	0.00	0.0	0.600		o	525	Pipe/Conduit	⚠

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S1.000	80.71	5.38	26.053	0.096	0.0	0.0	0.0	1.56	62.1	20.9
S1.001	77.08	6.01	25.466	0.161	0.0	0.0	0.0	1.01	71.3	33.7
S1.002	71.96	7.01	25.235	0.287	0.0	0.0	0.0	1.01	111.2	56.0
S1.003	70.81	7.26	25.045	0.296	0.0	0.0	0.0	1.02	112.1	56.8
S2.000	81.11	5.32	32.182	0.105	0.0	0.0	0.0	1.01	40.0	23.1
S2.001	79.69	5.55	32.067	0.165	0.0	0.0	0.0	2.39	95.1	35.6
S2.002	79.17	5.64	30.964	0.189	0.0	0.0	0.0	2.97	118.1	40.5
S2.003	78.45	5.76	30.167	0.228	0.0	0.0	0.0	2.86	113.9	48.4
S2.004	77.05	6.01	29.152	0.271	0.0	0.0	0.0	2.43	96.7	56.5
S2.005	76.52	6.11	27.906	0.289	0.0	0.0	0.0	2.35	93.4	59.8
S2.006	76.27	6.15	27.470	0.298	0.0	0.0	0.0	5.24	208.4	61.5
S1.004	69.73	7.50	24.847	0.616	0.0	0.0	0.0	1.00	215.5	116.3
S1.005	66.58	8.26	24.818	0.754	0.0	0.0	0.0	1.00	217.1	136.0
S1.006	66.48	8.29	24.725	0.771	0.0	0.0	0.0	6.45	1396.8	138.8

PFA Consulting Ltd		Page 2
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

Network Design Table for Catch C+D

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
S3.000	53.557	0.659	81.3	0.147	5.00	0.0	0.600		o	225	Pipe/Conduit	🔴
S3.001	41.576	0.211	197.0	0.082	0.00	0.0	0.600		o	375	Pipe/Conduit	🔴
S3.002	14.948	0.047	318.0	0.047	0.00	0.0	0.600		o	375	Pipe/Conduit	🔴
S3.003	36.706	0.114	322.0	0.070	0.00	0.0	0.600		o	375	Pipe/Conduit	🔴
S3.004	12.697	0.041	309.7	0.009	0.00	0.0	0.600		o	375	Pipe/Conduit	🔴
S1.007	59.337	0.144	412.1	0.163	0.00	0.0	0.600		o	675	Pipe/Conduit	🔴
S4.000	48.639	0.300	162.1	0.168	5.00	0.0	0.600		o	225	Pipe/Conduit	🔴
S4.001	9.863	0.040	246.6	0.072	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S4.002	31.323	0.096	326.3	0.072	0.00	0.0	0.600		o	375	Pipe/Conduit	🔴
S4.003	38.232	0.118	324.0	0.065	0.00	0.0	0.600		o	375	Pipe/Conduit	🔴
S1.008	12.810	0.026	492.7	0.016	0.00	0.0	0.600		o	750	Pipe/Conduit	🔴
S1.009	9.391	0.019	494.3	0.018	0.00	0.0	0.600		o	750	Pipe/Conduit	🔴
S1.010	64.152	1.036	61.9	0.130	0.00	0.0	0.600		o	750	Pipe/Conduit	🔴
S1.011	10.287	0.170	60.5	0.074	0.00	0.0	0.600		o	750	Pipe/Conduit	🔴
S5.000	24.808	0.378	65.6	0.061	5.00	0.0	0.600		o	150	Pipe/Conduit	🔴
S5.001	73.068	1.114	65.6	0.189	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S1.012	26.687	0.053	503.5	0.040	0.00	0.0	0.600		o	900	Pipe/Conduit	🔴
S1.013	15.378	0.031	496.1	0.030	0.00	0.0	0.600		o	900	Pipe/Conduit	🔴
S1.014	16.427	0.014	1173.4	0.012	0.00	0.0	0.600		o	900	Pipe/Conduit	🔴
S6.000	33.176	1.660	20.0	0.136	5.00	0.0	0.600		o	225	Pipe/Conduit	🔴
S6.001	15.082	0.640	23.6	0.028	0.00	0.0	0.600		o	225	Pipe/Conduit	🔴
S6.002	30.161	0.580	52.0	0.039	0.00	0.0	0.600		o	225	Pipe/Conduit	🔴
S7.000	41.909	0.965	43.4	0.136	5.00	0.0	0.600		o	225	Pipe/Conduit	🔴
S7.001	32.312	0.325	99.4	0.105	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S7.002	15.058	0.150	100.4	0.032	0.00	0.0	0.600		o	375	Pipe/Conduit	🔴
S7.003	23.125	0.230	100.5	0.074	0.00	0.0	0.600		o	375	Pipe/Conduit	🔴
S7.004	35.652	0.395	90.3	0.044	0.00	0.0	0.600		o	375	Pipe/Conduit	🔴
S6.003	24.959	0.490	50.9	0.036	0.00	0.0	0.600		o	375	Pipe/Conduit	🔴

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S3.000	79.31	5.61	25.255	0.147	0.0	0.0	0.0	1.45	57.7	31.5
S3.001	76.28	6.15	24.446	0.229	0.0	0.0	0.0	1.29	142.2	47.3
S3.002	74.97	6.40	24.235	0.275	0.0	0.0	0.0	1.01	111.6	55.9
S3.003	71.97	7.01	24.188	0.345	0.0	0.0	0.0	1.00	110.9	67.3
S3.004	71.01	7.22	24.074	0.354	0.0	0.0	0.0	1.02	113.1	68.1
S1.007	63.62	9.06	23.733	1.288	0.0	0.0	0.0	1.28	459.8	222.0
S4.000	78.28	5.79	24.593	0.168	0.0	0.0	0.0	1.02	40.7	35.6
S4.001	77.35	5.96	24.218	0.240	0.0	0.0	0.0	1.00	70.5	50.3
S4.002	74.56	6.48	24.103	0.312	0.0	0.0	0.0	1.00	110.2	63.1
S4.003	71.47	7.12	24.007	0.377	0.0	0.0	0.0	1.00	110.6	73.1
S1.008	63.03	9.23	23.514	1.682	0.0	0.0	0.0	1.25	554.0	287.1
S1.009	62.60	9.35	23.488	1.700	0.0	0.0	0.0	1.25	553.1	288.3
S1.010	61.60	9.65	23.469	1.830	0.0	0.0	0.0	3.56	1572.8	305.4
S1.011	61.45	9.70	22.433	1.905	0.0	0.0	0.0	3.60	1591.1	317.0
S5.000	81.03	5.33	24.355	0.061	0.0	0.0	0.0	1.24	22.0	13.3
S5.001	77.34	5.96	23.827	0.250	0.0	0.0	0.0	1.94	137.4	52.4
S1.012	60.43	10.02	22.113	2.195	0.0	0.0	0.0	1.39	883.9	359.2
S1.013	59.86	10.21	22.060	2.224	0.0	0.0	0.0	1.40	890.6	360.6
S1.014	58.96	10.51	22.029	2.236	0.0	0.0	0.0	0.91	576.4	360.6
S6.000	81.95	5.19	29.800	0.136	0.0	0.0	0.0	2.94	116.9	30.3
S6.001	81.35	5.28	28.140	0.164	0.0	0.0	0.0	2.71	107.6	36.2
S6.002	79.65	5.56	27.500	0.203	0.0	0.0	0.0	1.82	72.3	43.7
S7.000	80.91	5.35	28.985	0.136	0.0	0.0	0.0	1.99	79.1	29.7
S7.001	78.86	5.69	27.945	0.241	0.0	0.0	0.0	1.58	111.5	51.4
S7.002	78.06	5.83	27.545	0.272	0.0	0.0	0.0	1.81	199.7	57.6
S7.003	76.87	6.04	27.395	0.347	0.0	0.0	0.0	1.81	199.6	72.2
S7.004	75.20	6.36	27.165	0.391	0.0	0.0	0.0	1.91	210.7	79.6
S6.003	74.36	6.52	26.770	0.629	0.0	0.0	0.0	2.54	281.0	126.8

Network Design Table for Catch C+D

PN	Length (m)	Fall (m)	Slope (1:X)	I. Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
S6.004	43.011	3.072	14.0	0.085	0.00	0.0	0.600		o	375	Pipe/Conduit	⚠
S8.000	27.733	0.275	100.8	0.048	5.00	0.0	0.600		o	150	Pipe/Conduit	⚠
S8.001	26.245	0.177	148.3	0.082	0.00	0.0	0.600		o	225	Pipe/Conduit	⚠
S8.002	22.377	0.093	240.6	0.028	0.00	0.0	0.600		o	300	Pipe/Conduit	⚠
S6.005	31.872	0.064	498.0	0.054	0.00	0.0	0.600		o	600	Pipe/Conduit	⚠
S6.006	8.022	0.533	15.1	0.009	0.00	0.0	0.600		o	600	Pipe/Conduit	⚠
S6.007	12.185	0.024	507.7	0.012	0.00	0.0	0.600		o	600	Pipe/Conduit	⚠
S6.008	9.943	0.046	216.2	0.012	0.00	0.0	0.600		o	750	Pipe/Conduit	⚠
S6.009	7.177	0.007	1025.3	0.051	0.00	0.0	0.600		o	900	Pipe/Conduit	⚠
S6.010	9.883	0.010	988.3	0.000	0.00	0.0	0.600		o	900	Pipe/Conduit	⚠
S1.015	11.514	0.012	959.5	0.025	0.00	0.0	0.600		o	900	Pipe/Conduit	⚠
S1.016	14.009	0.015	933.9	0.000	0.00	0.0	0.600		o	900	Pipe/Conduit	⚠
S1.017	12.204	0.013	938.8	0.000	0.00	0.0	0.600		o	900	Pipe/Conduit	⚠
S9.000	40.635	0.590	68.9	0.085	5.00	0.0	0.600		o	225	Pipe/Conduit	⚠
S9.001	38.986	0.249	156.6	0.100	0.00	0.0	0.600		o	300	Pipe/Conduit	⚠
S9.002	8.268	0.074	111.7	0.027	0.00	0.0	0.600		o	300	Pipe/Conduit	⚠
S9.003	23.600	0.229	103.1	0.047	0.00	0.0	0.600		o	300	Pipe/Conduit	⚠
S10.000	16.795	0.218	77.0	0.075	5.00	0.0	0.600		o	225	Pipe/Conduit	⚠
S9.004	19.671	0.247	79.6	0.033	0.00	0.0	0.600		o	300	Pipe/Conduit	⚠
S9.005	9.366	0.111	84.4	0.039	0.00	0.0	0.600		o	375	Pipe/Conduit	⚠
S9.006	12.815	0.232	55.2	0.000	0.00	0.0	0.600		o	450	Pipe/Conduit	⚠
S9.007	24.711	0.322	76.7	0.045	0.00	0.0	0.600		o	450	Pipe/Conduit	⚠
S9.008	19.546	0.204	95.8	0.039	0.00	0.0	0.600		o	450	Pipe/Conduit	⚠
S9.009	12.446	0.049	254.0	0.034	0.00	0.0	0.600		o	450	Pipe/Conduit	⚠
S1.018	15.136	0.035	432.5	0.038	0.00	0.0	0.600		o	900	Pipe/Conduit	⚠
S1.019	38.718	0.100	387.2	0.000	0.00	0.0	0.600		o	900	Pipe/Conduit	⚠
S1.020	16.627	0.130	127.9	0.000	0.00	0.0	0.600		o	525	Pipe/Conduit	⚠
S1.021	89.994	0.210	428.5	0.000	0.00	0.0	0.600		o	525	Pipe/Conduit	⚠
S1.022	89.992	0.210	428.5	0.000	0.00	0.0	0.600		o	525	Pipe/Conduit	⚠

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I. Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S6.004	73.62	6.67	26.280	0.715	0.0	0.0	0.0	4.86	537.2	142.5
S8.000	80.23	5.46	23.978	0.048	0.0	0.0	0.0	1.00	17.7	10.5
S8.001	77.84	5.87	23.628	0.131	0.0	0.0	0.0	1.07	42.6	27.6
S8.002	75.81	6.24	23.376	0.159	0.0	0.0	0.0	1.01	71.3	32.6
S6.005	71.28	7.16	22.983	0.927	0.0	0.0	0.0	1.08	306.6	179.0
S6.006	71.19	7.18	22.919	0.936	0.0	0.0	0.0	6.30	1780.7	180.4
S6.007	70.33	7.37	22.386	0.947	0.0	0.0	0.0	1.07	303.6	180.4
S6.008	69.94	7.45	22.212	0.960	0.0	0.0	0.0	1.90	839.2	181.8
S6.009	69.41	7.58	22.002	1.010	0.0	0.0	0.0	0.97	617.1	189.9
S6.010	68.69	7.74	21.995	1.010	0.0	0.0	0.0	0.99	628.7	189.9
S1.015	58.40	10.70	21.985	3.271	0.0	0.0	0.0	1.00	638.2	517.4
S1.016	57.75	10.93	21.973	3.271	0.0	0.0	0.0	1.02	647.0	517.4
S1.017	57.19	11.13	21.958	3.271	0.0	0.0	0.0	1.01	645.3	517.4
S9.000	80.43	5.43	24.927	0.085	0.0	0.0	0.0	1.58	62.7	18.4
S9.001	77.40	5.95	24.262	0.185	0.0	0.0	0.0	1.25	88.6	38.7
S9.002	76.89	6.04	24.013	0.212	0.0	0.0	0.0	1.49	105.1	44.2
S9.003	75.53	6.29	23.939	0.259	0.0	0.0	0.0	1.55	109.5	53.1
S10.000	81.95	5.19	24.003	0.075	0.0	0.0	0.0	1.49	59.3	16.6
S9.004	74.56	6.48	23.710	0.367	0.0	0.0	0.0	1.76	124.6	74.2
S9.005	74.16	6.56	23.388	0.406	0.0	0.0	0.0	1.97	218.0	81.6
S9.006	73.77	6.64	23.202	0.406	0.0	0.0	0.0	2.74	435.8	81.6
S9.007	72.90	6.81	22.970	0.451	0.0	0.0	0.0	2.32	369.4	89.1
S9.008	72.15	6.97	22.648	0.490	0.0	0.0	0.0	2.08	330.4	95.7
S9.009	71.39	7.13	22.444	0.524	0.0	0.0	0.0	1.27	202.1	101.2
S1.018	56.74	11.30	21.945	3.833	0.0	0.0	0.0	1.50	954.4	588.9
S1.019	55.67	11.70	21.910	3.833	0.0	0.0	0.0	1.59	1009.1	588.9
S1.020	55.31	11.84	21.810	3.833	0.0	0.0	0.0	1.98	428.5	588.9
S1.021	52.03	13.24	21.680	3.833	0.0	0.0	0.0	1.08	232.8	588.9
S1.022	49.18	14.63	21.470	3.833	0.0	0.0	0.0	1.08	232.8	588.9

Network Design Table for Catch C+D

PN	Length (m)	Fall (m)	Slope (1:X)	I. Area (ha)	T. E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
S1. 023	89.821	0.210	427.7	0.000	0.00	0.0	0.600		o	525	Pipe/Conduit	🔴
S1. 024	54.518	0.120	454.3	0.000	0.00	0.0	0.600		o	525	Pipe/Conduit	🔴
S1. 025	14.238#	0.030	474.6	0.000	0.00	0.0	0.600		o	525	Pipe/Conduit	🔴
S11. 000	39.107	0.622	62.9	0.035	5.00	0.0	0.600		o	150	Pipe/Conduit	🔴
S11. 001	32.411	0.540	60.0	0.076	0.00	0.0	0.600		o	225	Pipe/Conduit	🔴
S11. 002	10.303	0.193	53.4	0.058	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S11. 003	10.303	0.142	72.6	0.009	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S11. 004	23.248	0.862	27.0	0.016	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S12. 000	7.032	0.344	20.4	0.048	5.00	0.0	0.600		o	150	Pipe/Conduit	🔴
S13. 000	9.073	0.390	23.3	0.049	5.00	0.0	0.600		o	225	Pipe/Conduit	🔴
S12. 001	19.266	0.290	66.4	0.040	0.00	0.0	0.600		o	225	Pipe/Conduit	🔴
S12. 002	17.962	0.364	49.3	0.053	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S12. 003	11.800	0.231	51.1	0.041	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S12. 004	28.031	0.402	69.7	0.032	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S11. 005	39.725	0.119	333.8	0.064	0.00	0.0	0.600		o	450	Pipe/Conduit	🔴
S11. 006	8.588	0.057	150.7	0.068	0.00	0.0	0.600		o	450	Pipe/Conduit	🔴
S14. 000	27.512	0.288	95.5	0.065	5.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S14. 001	24.054	0.738	32.6	0.099	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S14. 002	23.286	0.595	39.1	0.089	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S15. 000	12.458	0.523	23.8	0.030	5.00	0.0	0.600		o	225	Pipe/Conduit	🟡
S11. 007	12.441	0.031	401.3	0.110	0.00	0.0	0.600		o	600	Pipe/Conduit	🔴
S11. 008	50.277	0.126	399.0	0.000	0.00	0.0	0.600		o	600	Pipe/Conduit	🔴
S11. 009	16.281	0.033	493.4	0.000	0.00	0.0	0.600		o	600	Pipe/Conduit	🔴
S16. 000	6.404	0.572	11.2	0.043	5.00	0.0	0.600		o	150	Pipe/Conduit	🔴
S17. 000	9.571	0.413	23.2	0.036	5.00	0.0	0.600		o	150	Pipe/Conduit	🔴

Network Results Table

PN	Rain (mm/hr)	T. C. (mins)	US/IL (m)	Σ I. Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S1. 023	46.69	16.02	21.260	3.833	0.0	0.0	0.0	1.08	233.1	588.9
S1. 024	45.27	16.89	21.050	3.833	0.0	0.0	0.0	1.04	226.1	588.9
S1. 025	44.91	17.13	20.930	3.833	0.0	0.0	0.0	1.02	221.1	588.9
S11. 000	79.92	5.51	26.512	0.035	0.0	0.0	0.0	1.27	22.5	7.6
S11. 001	78.05	5.83	25.815	0.111	0.0	0.0	0.0	1.69	67.2	23.5
S11. 002	77.60	5.91	25.200	0.169	0.0	0.0	0.0	2.16	152.4	35.5
S11. 003	77.08	6.00	25.007	0.178	0.0	0.0	0.0	1.85	130.6	37.2
S11. 004	76.39	6.13	24.865	0.194	0.0	0.0	0.0	3.04	214.8	40.1
S12. 000	82.85	5.05	25.784	0.048	0.0	0.0	0.0	2.24	39.5	10.8
S13. 000	82.83	5.06	25.755	0.049	0.0	0.0	0.0	2.72	108.3	11.0
S12. 001	81.52	5.26	25.365	0.137	0.0	0.0	0.0	1.61	63.9	30.2
S12. 002	80.68	5.39	25.000	0.190	0.0	0.0	0.0	2.24	158.6	41.5
S12. 003	80.13	5.48	24.636	0.231	0.0	0.0	0.0	2.20	155.9	50.1
S12. 004	78.66	5.73	24.405	0.263	0.0	0.0	0.0	1.89	133.3	56.0
S11. 005	73.31	6.73	23.853	0.521	0.0	0.0	0.0	1.11	176.1	103.4
S11. 006	72.89	6.82	23.734	0.589	0.0	0.0	0.0	1.65	263.1	116.3
S14. 000	81.33	5.28	25.448	0.065	0.0	0.0	0.0	1.61	113.7	14.3
S14. 001	80.42	5.43	25.160	0.164	0.0	0.0	0.0	2.76	195.3	35.7
S14. 002	79.49	5.58	24.422	0.253	0.0	0.0	0.0	2.52	178.2	54.5
S15. 000	82.68	5.08	24.425	0.030	0.0	0.0	0.0	2.69	107.0	6.7
S11. 007	72.07	6.99	23.527	0.982	0.0	0.0	0.0	1.21	341.9	191.7
S11. 008	68.97	7.68	23.496	0.982	0.0	0.0	0.0	1.21	342.9	191.7
S11. 009	67.93	7.93	23.370	0.982	0.0	0.0	0.0	1.09	308.1	191.7
S16. 000	82.97	5.04	24.815	0.043	0.0	0.0	0.0	3.03	53.5	9.7
S17. 000	82.69	5.08	24.656	0.036	0.0	0.0	0.0	2.10	37.1	8.1

PFA Consulting Ltd		Page 5
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

Network Design Table for Catch C+D

PN	Length (m)	Fall (m)	Slope (1:X)	I. Area (ha)	T. E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
S16.001	17.473	0.202	86.5	0.030	0.00	0.0	0.600		o	225	Pipe/Conduit	
S16.002	16.645	0.192	86.7	0.028	0.00	0.0	0.600		o	225	Pipe/Conduit	
S16.003	10.486	0.062	169.1	0.041	0.00	0.0	0.600		o	225	Pipe/Conduit	
S11.010	31.952	0.080	399.4	0.021	0.00	0.0	0.600		o	600	Pipe/Conduit	
S11.011	12.436	0.093	133.7	0.052	0.00	0.0	0.600		o	600	Pipe/Conduit	
S18.000	10.976	0.079	138.9	0.000	5.00	0.0	0.600		o	225	Pipe/Conduit	
S18.001	17.571	0.100	175.7	0.112	0.00	0.0	0.600		o	225	Pipe/Conduit	
S18.002	7.268	0.041	177.3	0.028	0.00	0.0	0.600		o	225	Pipe/Conduit	
S11.012	43.134	0.074	582.9	0.010	0.00	0.0	0.600		o	600	Pipe/Conduit	
S11.013	10.732	0.019	564.8	0.069	0.00	0.0	0.600		o	600	Pipe/Conduit	
S11.014	9.000	0.143	62.9	0.000	0.00	0.0		0.045	3	1000	1:3 Swale	
S19.000	10.468	0.043	243.4	0.038	5.00	0.0	0.600		o	300	Pipe/Conduit	
S20.000	7.532	0.031	243.0	0.044	5.00	0.0	0.600		o	300	Pipe/Conduit	
S19.001	31.106	0.103	302.0	0.032	0.00	0.0	0.600		o	300	Pipe/Conduit	
S19.002	10.395	0.066	157.5	0.026	0.00	0.0	0.600		o	300	Pipe/Conduit	
S11.015	22.426	0.262	85.6	0.000	0.00	0.0		0.045	3	1000	1:3 Swale	
S11.016	12.703	0.115	110.5	0.000	0.00	0.0		0.045	3	1000	1:3 Swale	
S21.000	15.822	0.093	170.1	0.017	5.00	0.0	0.600		o	225	Pipe/Conduit	
S21.001	11.323	0.067	169.0	0.054	0.00	0.0	0.600		o	225	Pipe/Conduit	
S11.017	22.290	0.226	98.6	0.000	0.00	0.0		0.045	3	1000	1:3 Swale	
S22.000	22.392	0.093	240.8	0.026	5.00	0.0	0.600		o	300	Pipe/Conduit	
S22.001	22.392	0.093	240.8	0.043	0.00	0.0	0.600		o	300	Pipe/Conduit	
S22.002	11.234	0.047	239.0	0.027	0.00	0.0	0.600		o	300	Pipe/Conduit	
S11.018	1.710	0.021	81.4	0.000	0.00	0.0		0.045	3	1000	1:3 Swale	
S11.019	20.296	0.226	89.8	0.000	0.00	0.0		0.045	3	1000	1:3 Swale	

Network Results Table

PN	Rain (mm/hr)	T. C. (mins)	US/IL (m)	Σ I. Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S16.001	81.34	5.28	24.168	0.109	0.0	0.0	0.0	1.41	55.9	24.0
S16.002	80.12	5.48	23.966	0.137	0.0	0.0	0.0	1.41	55.9	29.7
S16.003	79.08	5.65	23.774	0.178	0.0	0.0	0.0	1.00	39.9	38.1
S11.010	66.18	8.37	23.337	1.181	0.0	0.0	0.0	1.21	342.8	211.7
S11.011	65.80	8.47	23.257	1.233	0.0	0.0	0.0	2.10	595.0	219.7
S18.000	82.10	5.17	23.759	0.000	0.0	0.0	0.0	1.11	44.0	0.0
S18.001	80.22	5.46	23.680	0.112	0.0	0.0	0.0	0.98	39.1	24.4
S18.002	79.48	5.59	23.580	0.140	0.0	0.0	0.0	0.98	38.9	30.2
S11.012	63.19	9.18	23.164	1.383	0.0	0.0	0.0	1.00	283.1	236.7
S11.013	62.58	9.36	23.090	1.452	0.0	0.0	0.0	1.02	287.7	246.2
S11.014	61.81	9.59	22.971	1.452	0.0	0.0	0.0	0.65	141.2	246.2
S19.000	82.04	5.17	23.140	0.038	0.0	0.0	0.0	1.00	70.9	8.4
S20.000	82.36	5.13	23.128	0.044	0.0	0.0	0.0	1.00	71.0	9.8
S19.001	78.52	5.75	23.097	0.114	0.0	0.0	0.0	0.90	63.6	24.2
S19.002	77.73	5.89	22.994	0.140	0.0	0.0	0.0	1.25	88.4	29.4
S11.015	59.69	10.26	22.828	1.592	0.0	0.0	0.0	0.56	121.1	257.4
S11.016	58.42	10.69	22.566	1.592	0.0	0.0	0.0	0.49	106.6	257.4
S21.000	81.46	5.26	22.711	0.017	0.0	0.0	0.0	1.00	39.7	3.8
S21.001	80.29	5.45	22.618	0.071	0.0	0.0	0.0	1.00	39.9	15.4
S11.017	56.44	11.41	22.451	1.663	0.0	0.0	0.0	0.52	112.8	257.4
S22.000	80.79	5.37	22.558	0.026	0.0	0.0	0.0	1.01	71.3	5.7
S22.001	78.58	5.74	22.465	0.069	0.0	0.0	0.0	1.01	71.3	14.8
S22.002	77.53	5.92	22.372	0.096	0.0	0.0	0.0	1.01	71.6	20.2
S11.018	56.30	11.46	22.225	1.760	0.0	0.0	0.0	0.57	124.2	268.3
S11.019	54.72	12.08	22.204	1.760	0.0	0.0	0.0	0.54	118.2	268.3

Network Design Table for Catch C+D

PN	Length (m)	Fall (m)	Slope (1:X)	I. Area (ha)	T. E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
S11.020	28.551	0.288	99.1	0.000	0.00	0.0		0.045	3	¥=/ 1000	1:3 Swale	🚧
S23.000	36.485	0.215	169.7	0.019	5.00	0.0	0.600			o 225	Pipe/Conduit	🚧
S23.001	9.144	0.054	169.3	0.090	0.00	0.0	0.600			o 225	Pipe/Conduit	🚧
S11.021	30.393	0.224	135.7	0.000	0.00	0.0		0.045	3	¥=/ 1000	1:3 Swale	🚧
S11.022	4.573	0.027	169.4	0.000	0.00	0.0	0.600			o 525	Pipe/Conduit	🚧
S11.023	5.237#	0.039	134.3	0.000	0.00	0.0		0.045	3	¥=/ 1000	1:3 Swale	🚧
S24.000	14.348	0.164	87.5	0.028	5.00	0.0	0.600			o 300	Pipe/Conduit	🚧
S24.001	38.017	0.660	57.6	0.013	0.00	0.0	0.600			o 300	Pipe/Conduit	🚧
S24.002	16.044	0.117	137.1	0.071	0.00	0.0	0.600			o 375	Pipe/Conduit	🚧
S24.003	15.071	0.177	85.1	0.033	0.00	0.0	0.600			o 375	Pipe/Conduit	🚧
S24.004	34.848	0.366	95.2	0.047	0.00	0.0	0.600			o 375	Pipe/Conduit	🚧
S24.005	34.848	0.108	322.7	0.090	0.00	0.0	0.600			o 375	Pipe/Conduit	🚧
S24.006	16.578	0.082	202.2	0.128	0.00	0.0	0.600			o 450	Pipe/Conduit	🚧
S24.007	14.379	0.036	399.4	0.037	0.00	0.0	0.600			o 450	Pipe/Conduit	🚧
S24.008	10.673	0.027	395.3	0.021	0.00	0.0	0.600			o 450	Pipe/Conduit	🚧
S25.000	8.564	1.068	8.0	0.028	5.00	0.0	0.600			o 225	Pipe/Conduit	🚧
S24.009	41.724	0.104	401.2	0.038	0.00	0.0	0.600			o 450	Pipe/Conduit	🚧
S24.010	81.518	0.691	118.0	0.058	0.00	0.0	0.600			o 450	Pipe/Conduit	🚧
S26.000	13.781	0.512	26.9	0.025	5.00	0.0	0.600			o 300	Pipe/Conduit	🚧
S24.011	29.760	0.060	496.0	0.253	0.00	0.0	0.600			o 525	Pipe/Conduit	🚧
S24.012	37.653	0.075	502.0	0.094	0.00	0.0	0.600			o 525	Pipe/Conduit	🚧
S24.013	26.529	0.053	500.5	0.127	0.00	0.0	0.600			o 525	Pipe/Conduit	🚧
S24.014	38.681	0.078	495.9	0.054	0.00	0.0	0.600			o 525	Pipe/Conduit	🚧
S24.015	15.856	0.032	495.5	0.079	0.00	0.0	0.600			o 525	Pipe/Conduit	🚧
S24.016	15.562	0.232	67.1	0.000	0.00	0.0		0.045	3	¥=/ 1000	1:3 Swale	🚧
S24.017	26.215	0.328	79.9	0.000	0.00	0.0		0.045	3	¥=/ 1000	1:3 Swale	🚧
S24.018	7.830	0.082	95.5	0.000	0.00	0.0		0.045	3	¥=/ 1000	1:3 Swale	🚧
S24.019	7.038	0.101	69.7	0.000	0.00	0.0		0.045	3	¥=/ 1000	1:3 Swale	🚧

Network Results Table

PN	Rain (mm/hr)	T. C. (mins)	US/IL (m)	Σ I. Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S11.020	52.56	13.00	21.978	1.760	0.0	0.0	0.0	0.52	112.5	268.3
S23.000	79.35	5.61	22.059	0.019	0.0	0.0	0.0	1.00	39.8	4.1
S23.001	78.47	5.76	21.844	0.109	0.0	0.0	0.0	1.00	39.8	23.2
S11.021	50.13	14.15	21.690	1.869	0.0	0.0	0.0	0.44	96.2	268.3
S11.022	50.05	14.19	21.466	1.869	0.0	0.0	0.0	1.72	372.0	268.3
S11.023	49.66	14.39	21.439	1.869	0.0	0.0	0.0	0.44	96.7	268.3
S24.000	82.25	5.14	26.162	0.028	0.0	0.0	0.0	1.68	118.9	6.2
S24.001	80.32	5.45	25.998	0.041	0.0	0.0	0.0	2.08	146.7	8.9
S24.002	79.28	5.62	25.263	0.112	0.0	0.0	0.0	1.55	170.7	24.0
S24.003	78.53	5.75	25.146	0.145	0.0	0.0	0.0	1.96	217.0	30.8
S24.004	76.78	6.06	24.969	0.192	0.0	0.0	0.0	1.86	205.1	39.9
S24.005	73.76	6.64	24.604	0.282	0.0	0.0	0.0	1.00	110.8	56.3
S24.006	72.81	6.83	24.420	0.410	0.0	0.0	0.0	1.43	226.8	80.8
S24.007	71.68	7.07	24.338	0.447	0.0	0.0	0.0	1.01	160.8	86.8
S24.008	70.88	7.25	24.303	0.468	0.0	0.0	0.0	1.02	161.7	89.8
S25.000	83.00	5.03	25.569	0.028	0.0	0.0	0.0	4.65	184.9	6.3
S24.009	67.90	7.94	24.276	0.534	0.0	0.0	0.0	1.01	160.4	98.2
S24.010	65.06	8.66	24.172	0.592	0.0	0.0	0.0	1.87	297.5	104.3
S26.000	82.69	5.08	24.143	0.025	0.0	0.0	0.0	3.04	215.1	5.6
S24.011	63.28	9.16	23.406	0.870	0.0	0.0	0.0	1.00	216.2	149.1
S24.012	61.17	9.79	23.346	0.964	0.0	0.0	0.0	0.99	214.9	159.7
S24.013	59.78	10.23	23.271	1.091	0.0	0.0	0.0	0.99	215.2	176.6
S24.014	57.89	10.88	23.218	1.145	0.0	0.0	0.0	1.00	216.3	179.5
S24.015	57.15	11.14	23.140	1.224	0.0	0.0	0.0	1.00	216.4	189.5
S24.016	56.05	11.56	23.008	1.224	0.0	0.0	0.0	0.63	136.8	189.5
S24.017	54.15	12.31	22.776	1.224	0.0	0.0	0.0	0.58	125.3	189.5
S24.018	53.56	12.56	22.448	1.224	0.0	0.0	0.0	0.53	114.7	189.5
S24.019	53.12	12.75	22.366	1.224	0.0	0.0	0.0	0.62	134.2	189.5

Network Design Table for Catch C+D

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
S27.000	8.972	0.041	218.8	0.008	5.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S27.001	47.357	0.215	220.3	0.062	0.00	0.0	0.600		o	300	Pipe/Conduit	🟡
S27.002	13.843	0.063	219.7	0.037	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S24.020	8.133	0.110	73.9	0.000	0.00	0.0		0.045	3	¥=/ 1000	1:3 Swale	🔴
S24.021	4.890	0.152	32.2	0.000	0.00	0.0		0.045	3	¥=/ 1000	1:3 Swale	🔴
S24.022	4.890	0.012	407.5	0.000	0.00	0.0	0.600		o	450	Pipe/Conduit	🔴
S24.023	19.341#	0.193	100.2	0.000	0.00	0.0		0.045	3	¥=/ 1000	1:3 Swale	🔴
S1.026	7.696	0.263	29.3	0.000	0.00	0.0	0.600		o	450	Pipe/Conduit	🔴
S1.027	14.529	0.503	28.9	0.000	0.00	0.0	0.600		o	450	Pipe/Conduit	🔴
S1.028	24.965	0.079	316.0	0.000	0.00	0.0	0.600		o	450	Pipe/Conduit	🔴
S28.000	87.610	0.618	141.8	0.498	5.00	0.0	0.600		o	525	Pipe/Conduit	🔴
S28.001	90.939	0.373	243.8	0.523	0.00	0.0	0.600		o	525	Pipe/Conduit	🔴
S28.002	17.829	0.373	47.8	0.000	0.00	0.0	0.600		o	525	Pipe/Conduit	🔴
S28.003	21.428	0.120	178.6	0.000	0.00	0.0	0.600		o	900	Pipe/Conduit	🔴
S28.004	11.970	0.028	427.5	0.000	0.00	0.0	0.600		o	900	Pipe/Conduit	🔴
S29.000	19.137	0.064	299.0	0.117	5.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S29.001	17.051	0.070	243.6	0.050	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S29.002	12.702	0.052	244.3	0.034	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S29.003	7.714	0.032	241.1	0.009	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S29.004	8.191	0.118	69.4	0.046	0.00	0.0	0.600		o	300	Pipe/Conduit	🔴
S30.000	13.965	0.138	101.2	0.000	5.00	0.0	0.600		o	150	Pipe/Conduit	🔴
S28.005	21.863	0.050	437.3	0.060	0.00	0.0	0.600		o	1200	Pipe/Conduit	🔴
S28.006	29.864	0.050	597.3	0.043	0.00	0.0	0.600		o	1200	Pipe/Conduit	🔴
S28.007	8.032	0.016	502.0	0.007	0.00	0.0	0.600		o	1200	Pipe/Conduit	🔴
S28.008	10.831	0.017	637.1	0.034	0.00	0.0	0.600		o	1200	Pipe/Conduit	🔴
S31.000	29.691	0.369	80.5	0.053	5.00	0.0	0.600		o	225	Pipe/Conduit	🔴
S31.001	12.611	0.075	168.1	0.034	0.00	0.0	0.600		o	225	Pipe/Conduit	🔴
S31.002	22.843	0.136	168.0	0.023	0.00	0.0	0.600		o	225	Pipe/Conduit	🔴
S31.003	7.180	0.043	167.0	0.012	0.00	0.0	0.600		o	225	Pipe/Conduit	🔴

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S27.000	82.25	5.14	22.683	0.008	0.0	0.0	0.0	1.06	74.8	1.8
S27.001	77.73	5.89	22.642	0.070	0.0	0.0	0.0	1.06	74.6	14.6
S27.002	76.52	6.11	22.427	0.107	0.0	0.0	0.0	1.06	74.7	22.1
S24.020	52.61	12.98	22.264	1.331	0.0	0.0	0.0	0.60	130.3	189.6
S24.021	52.41	13.07	22.147	1.331	0.0	0.0	0.0	0.91	197.5	189.6
S24.022	52.23	13.15	21.995	1.331	0.0	0.0	0.0	1.00	159.2	189.6
S24.023	50.89	13.78	21.983	1.331	0.0	0.0	0.0	0.51	111.9	189.6
S1.026	44.86	17.16	20.550	7.032	0.0	0.0	0.0	3.77	599.5	854.3
S1.027	44.76	17.22	20.287	7.032	0.0	0.0	0.0	3.79	603.4	854.3
S1.028	44.21	17.59	19.784	7.032	0.0	0.0	0.0	1.14	181.0	854.3
S28.000	78.37	5.78	22.086	0.498	0.0	0.0	0.0	1.88	406.8	105.8
S28.001	72.79	6.84	21.468	1.021	0.0	0.0	0.0	1.43	309.6	201.3
S28.002	72.35	6.93	21.095	1.021	0.0	0.0	0.0	3.25	702.6	201.3
S28.003	71.63	7.08	20.347	1.021	0.0	0.0	0.0	2.34	1489.8	201.3
S28.004	71.02	7.21	20.227	1.021	0.0	0.0	0.0	1.51	960.0	201.3
S29.000	80.90	5.35	21.135	0.117	0.0	0.0	0.0	0.90	63.9	25.6
S29.001	79.19	5.64	21.071	0.167	0.0	0.0	0.0	1.00	70.9	35.8
S29.002	77.96	5.85	21.001	0.201	0.0	0.0	0.0	1.00	70.8	42.4
S29.003	77.25	5.98	20.949	0.210	0.0	0.0	0.0	1.01	71.3	43.9
S29.004	76.85	6.05	20.917	0.256	0.0	0.0	0.0	1.89	133.6	53.3
S30.000	81.66	5.23	21.087	0.000	0.0	0.0	0.0	1.00	17.7	0.0
S28.005	70.11	7.42	19.899	1.337	0.0	0.0	0.0	1.78	2016.1	253.9
S28.006	68.69	7.74	19.850	1.380	0.0	0.0	0.0	1.52	1723.0	256.8
S28.007	68.36	7.82	19.800	1.387	0.0	0.0	0.0	1.66	1880.7	256.8
S28.008	67.85	7.95	19.784	1.421	0.0	0.0	0.0	1.47	1667.8	261.2
S31.000	80.99	5.34	21.638	0.053	0.0	0.0	0.0	1.46	58.0	11.6
S31.001	79.71	5.55	21.269	0.087	0.0	0.0	0.0	1.01	40.0	18.8
S31.002	77.52	5.93	21.194	0.110	0.0	0.0	0.0	1.01	40.0	23.1
S31.003	76.86	6.05	21.058	0.122	0.0	0.0	0.0	1.01	40.1	25.4

PFA Consulting Ltd		Page 8
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

Network Design Table for Catch C+D

PN	Length (m)	Fall (m)	Slope (1:X)	I. Area (ha)	T. E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
S31.004	8.808	0.052	169.4	0.017	0.00	0.0	0.600		o	225	Pipe/Conduit	⚠
S28.009	8.968	0.020	448.4	0.000	0.00	0.0	0.600		o	1200	Pipe/Conduit	⚠
S28.010	19.865	0.042	473.0	0.000	0.00	0.0	0.600		o	1200	Pipe/Conduit	⚠
S1.029	26.753	0.041	652.5	0.000	0.00	0.0	0.600		o	1200	Pipe/Conduit	⚠
S1.030	40.649	0.123	330.5	0.000	0.00	0.0	0.600		o	450	Pipe/Conduit	⚠
S1.031	20.060	0.048	417.9	0.000	0.00	0.0	0.600		o	450	Pipe/Conduit	⚠
S1.032	36.421	0.090	404.7	0.000	0.00	0.0	0.600		o	450	Pipe/Conduit	⚠
S1.033	70.745	0.175	404.3	0.000	0.00	0.0	0.600		o	450	Pipe/Conduit	⚠
S1.034	65.150	0.162	402.2	0.000	0.00	0.0	0.600		o	450	Pipe/Conduit	⚠
S1.035	16.217	0.043	377.1	0.000	0.00	0.0	0.600		o	450	Pipe/Conduit	⚠
S1.036	6.607	0.020	330.4	0.000	0.00	0.0		0.045	3	¥=/ 1000	1:3 Swale	⚠
S1.037	15.185	0.043	353.1	0.000	0.00	0.0		0.045	3	¥=/ 1000	1:3 Swale	⚠

Network Results Table

PN	Rain (mm/hr)	T. C. (mins)	US/IL (m)	Σ I. Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S31.004	76.07	6.19	21.015	0.139	0.0	0.0	0.0	1.00	39.8	28.6
S28.009	67.50	8.03	19.767	1.560	0.0	0.0	0.0	1.76	1990.7	285.3
S28.010	66.73	8.23	19.747	1.560	0.0	0.0	0.0	1.71	1938.0	285.3
S1.029	43.76	17.90	19.705	8.592	0.0	0.0	0.0	1.46	1647.8	1018.3
S1.030	42.90	18.50	19.664	8.592	0.0	0.0	0.0	1.11	177.0	1018.3
S1.031	42.44	18.84	19.542	8.592	0.0	0.0	0.0	0.99	157.2	1018.3
S1.032	41.65	19.45	19.494	8.592	0.0	0.0	0.0	1.00	159.7	1018.3
S1.033	40.20	20.62	19.403	8.592	0.0	0.0	0.0	1.00	159.8	1018.3
S1.034	38.97	21.70	19.228	8.592	0.0	0.0	0.0	1.01	160.2	1018.3
S1.035	38.69	21.96	19.066	8.592	0.0	0.0	0.0	1.04	165.5	1018.3
S1.036	38.27	22.35	19.023	8.592	0.0	0.0	0.0	0.28	61.6	1018.3
S1.037	37.33	23.27	19.003	8.592	0.0	0.0	0.0	0.27	59.6	1018.3

PFA Consulting Ltd		Page 9
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

PIPELINE SCHEDULES for Catch C+D

Upstream Manhole

- Indicates pipe length does not match coordinates

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM. (mm)	L*W
S1.000	o	225	S3000	27.478	26.053	1.200	Open Manhole		1200
S1.001	o	300	S3001	26.966	25.466	1.200	Open Manhole		1200
S1.002	o	375	S3002	26.704	25.235	1.094	Open Manhole		1350
S1.003	o	375	S3003	28.014	25.045	2.594	Open Manhole		1350
S2.000	o	225	S3050	33.607	32.182	1.200	Open Manhole		1200
S2.001	o	225	S3051	33.552	32.067	1.260	Open Manhole		1200
S2.002	o	225	S3052	32.390	30.964	1.201	Open Manhole		1200
S2.003	o	225	S3053	31.592	30.167	1.200	Open Manhole		1200
S2.004	o	225	S3054	30.545	29.152	1.168	Open Manhole		1200
S2.005	o	225	S3055	29.217	27.906	1.086	Open Manhole		1200
S2.006	o	225	S3056	28.782	27.470	1.087	Open Manhole		1200
S1.004	o	525	S3004	28.294	24.847	2.922	Open Manhole		1500
S1.005	o	525	S3005	28.322	24.818	2.979	Open Manhole		1500
S1.006	o	525	S3006	27.532	24.725	2.282	Open Manhole		1500
S3.000	o	225	S3060	26.680	25.255	1.200	Open Manhole		1200
S3.001	o	375	S3061	26.141	24.446	1.320	Open Manhole		1350
S3.002	o	375	S3062	26.114	24.235	1.504	Open Manhole		1350
S3.003	o	375	S3063	26.410	24.188	1.847	Open Manhole		1350
S3.004	o	375	S3064	27.500	24.074	3.051	Open Manhole		1350
S1.007	o	675	S3007	27.348	23.733	2.940	Open Manhole		1500
S4.000	o	225	S3070	25.790	24.593	0.972	Open Manhole		1200
S4.001	o	300	S3072	25.325	24.218	0.807	Open Manhole		1200
S4.002	o	375	S3073	25.456	24.103	0.978	Open Manhole		1350
S4.003	o	375	S3074	25.586	24.007	1.204	Open Manhole		1350
S1.008	o	750	S3008	26.600	23.514	2.336	Open Manhole		1800
S1.009	o	750	S3009	26.345	23.488	2.107	Open Manhole		1800
S1.010	o	750	S3010	26.150	23.469	1.931	Open Manhole		1800

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM. (mm)	L*W
S1.000	35.949	70.2	S3001	26.966	25.541	1.200	Open Manhole		1200
S1.001	37.616	241.1	S3002	26.704	25.310	1.094	Open Manhole		1350
S1.002	60.836	320.2	S3003	28.014	25.045	2.594	Open Manhole		1350
S1.003	15.123	315.1	S3004	28.294	24.997	2.922	Open Manhole		1500
S2.000	19.287	167.7	S3051	33.552	32.067	1.260	Open Manhole		1200
S2.001	33.215	30.1	S3052	32.390	30.964	1.201	Open Manhole		1200
S2.002	15.620	19.6	S3053	31.592	30.167	1.200	Open Manhole		1200
S2.003	21.369	21.1	S3054	30.545	29.152	1.168	Open Manhole		1200
S2.004	36.334	29.2	S3055	29.217	27.906	1.086	Open Manhole		1200
S2.005	13.620	31.2	S3056	28.782	27.470	1.087	Open Manhole		1200
S2.006	14.675	6.3	S3004	28.294	25.147	2.922	Open Manhole		1500
S1.004	14.479	499.3	S3005	28.322	24.818	2.979	Open Manhole		1500
S1.005	45.757	492.0	S3006	27.532	24.725	2.282	Open Manhole		1500
S1.006	10.237	12.1	S3007	27.348	23.882	2.941	Open Manhole		1500
S3.000	53.557	81.3	S3061	26.141	24.596	1.320	Open Manhole		1350
S3.001	41.576	197.0	S3062	26.114	24.235	1.504	Open Manhole		1350
S3.002	14.948	318.0	S3063	26.410	24.188	1.847	Open Manhole		1350
S3.003	36.706	322.0	S3064	27.500	24.074	3.051	Open Manhole		1350
S3.004	12.697	309.7	S3007	27.348	24.033	2.940	Open Manhole		1500
S1.007	59.337	412.1	S3008	26.600	23.589	2.336	Open Manhole		1800
S4.000	48.639	162.1	S3072	25.325	24.293	0.807	Open Manhole		1200
S4.001	9.863	246.6	S3073	25.456	24.178	0.978	Open Manhole		1350
S4.002	31.323	326.3	S3074	25.586	24.007	1.204	Open Manhole		1350
S4.003	38.232	324.0	S3008	26.600	23.889	2.336	Open Manhole		1800
S1.008	12.810	492.7	S3009	26.345	23.488	2.107	Open Manhole		1800
S1.009	9.391	494.3	S3010	26.150	23.469	1.931	Open Manhole		1800
S1.010	64.152	61.9	S3011	26.845	22.433	1.662	Open Manhole		1800

PFA Consulting Ltd		Page 10
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

PIPELINE SCHEDULES for Catch C+D

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1. 011	o	750	S3011	24. 845	22. 433	1. 662	Open Manhole	1800
S5. 000	o	150	S3080	25. 677	24. 355	1. 172	Open Manhole	1200
S5. 001	o	300	S3081	25. 276	23. 827	1. 149	Open Manhole	1200
S1. 012	o	900	S3012	24. 078	22. 113	1. 065	Open Manhole	1800
S1. 013	o	900	S3013	23. 942	22. 060	0. 982	Open Manhole	1800
S1. 014	o	900	S3014	23. 833	22. 029	0. 904	Open Manhole	1800
S6. 000	o	225	S3090	31. 555	29. 800	1. 530	Open Manhole	1200
S6. 001	o	225	S3091	29. 895	28. 140	1. 530	Open Manhole	1200
S6. 002	o	225	S3092	29. 250	27. 500	1. 525	Open Manhole	1200
S7. 000	o	225	S3110	30. 720	28. 985	1. 510	Open Manhole	1200
S7. 001	o	300	S3111	29. 740	27. 945	1. 495	Open Manhole	1200
S7. 002	o	375	S3112	29. 410	27. 545	1. 490	Open Manhole	1350
S7. 003	o	375	S3113	29. 250	27. 395	1. 480	Open Manhole	1350
S7. 004	o	375	S3114	29. 025	27. 165	1. 485	Open Manhole	1350
S6. 003	o	375	S3093	28. 650	26. 770	1. 505	Open Manhole	1350
S6. 004	o	375	S3094	28. 150	26. 280	1. 495	Open Manhole	1350
S8. 000	o	150	S3120	26. 200	23. 978	2. 072	Open Manhole	1200
S8. 001	o	225	S3121	26. 500	23. 628	2. 647	Open Manhole	1200
S8. 002	o	300	S3122	26. 440	23. 376	2. 764	Open Manhole	1200
S6. 005	o	600	S3095	26. 160	22. 983	2. 577	Open Manhole	1500
S6. 006	o	600	S3096	24. 555	22. 919	1. 036	Open Manhole	1500
S6. 007	o	600	S3097	24. 220	22. 386	1. 234	Open Manhole	1500
S6. 008	o	750	S3098	23. 845	22. 212	0. 883	Open Manhole	1800
S6. 009	o	900	S3099	23. 675	22. 002	0. 773	Open Manhole	1800
S6. 010	o	900	S3100	23. 600	21. 995	0. 705	Open Manhole	1800
S1. 015	o	900	S3015	23. 565	21. 985	0. 680	Open Manhole	1800

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1. 011	10. 287	60. 5	S3012	24. 078	22. 263	1. 065	Open Manhole	1800
S5. 000	24. 808	65. 6	S3081	25. 276	23. 977	1. 149	Open Manhole	1200
S5. 001	73. 068	65. 6	S3012	24. 078	22. 713	1. 065	Open Manhole	1800
S1. 012	26. 687	503. 5	S3013	23. 942	22. 060	0. 982	Open Manhole	1800
S1. 013	15. 378	496. 1	S3014	23. 833	22. 029	0. 904	Open Manhole	1800
S1. 014	16. 427	1173. 4	S3015	23. 565	22. 015	0. 650	Open Manhole	1800
S6. 000	33. 176	20. 0	S3091	29. 895	28. 140	1. 530	Open Manhole	1200
S6. 001	15. 082	23. 6	S3092	29. 250	27. 500	1. 525	Open Manhole	1200
S6. 002	30. 161	52. 0	S3093	28. 650	26. 920	1. 505	Open Manhole	1350
S7. 000	41. 909	43. 4	S3111	29. 740	28. 020	1. 495	Open Manhole	1200
S7. 001	32. 312	99. 4	S3112	29. 410	27. 620	1. 490	Open Manhole	1350
S7. 002	15. 058	100. 4	S3113	29. 250	27. 395	1. 480	Open Manhole	1350
S7. 003	23. 125	100. 5	S3114	29. 025	27. 165	1. 485	Open Manhole	1350
S7. 004	35. 652	90. 3	S3093	28. 650	26. 770	1. 505	Open Manhole	1350
S6. 003	24. 959	50. 9	S3094	28. 150	26. 280	1. 495	Open Manhole	1350
S6. 004	43. 011	14. 0	S3095	26. 160	23. 208	2. 577	Open Manhole	1500
S8. 000	27. 733	100. 8	S3121	26. 500	23. 703	2. 647	Open Manhole	1200
S8. 001	26. 245	148. 3	S3122	26. 440	23. 451	2. 764	Open Manhole	1200
S8. 002	22. 377	240. 6	S3095	26. 160	23. 283	2. 577	Open Manhole	1500
S6. 005	31. 872	498. 0	S3096	24. 555	22. 919	1. 036	Open Manhole	1500
S6. 006	8. 022	15. 1	S3097	24. 220	22. 386	1. 234	Open Manhole	1500
S6. 007	12. 185	507. 7	S3098	23. 845	22. 362	0. 883	Open Manhole	1800
S6. 008	9. 943	216. 2	S3099	23. 675	22. 166	0. 759	Open Manhole	1800
S6. 009	7. 177	1025. 3	S3100	23. 600	21. 995	0. 705	Open Manhole	1800
S6. 010	9. 883	988. 3	S3015	23. 565	21. 985	0. 680	Open Manhole	1800
S1. 015	11. 514	959. 5	S3016	23. 660	21. 973	0. 787	Open Manhole	1800

PIPELINE SCHEDULES for Catch C+D

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM. (mm)	L*W
S1. 016	o	900	S3016	23. 660	21. 973	0. 787	Open Manhole		1800
S1. 017	o	900	S3017	23. 840	21. 958	0. 982	Open Manhole		1800
S9. 000	o	225	S3130	26. 352	24. 927	1. 200	Open Manhole		1200
S9. 001	o	300	S3131	25. 763	24. 262	1. 201	Open Manhole		1200
S9. 002	o	300	S3132	25. 576	24. 013	1. 263	Open Manhole		1200
S9. 003	o	300	S3133	25. 493	23. 939	1. 254	Open Manhole		1200
S10. 000	o	225	S3140	25. 428	24. 003	1. 200	Open Manhole		1200
S9. 004	o	300	S3134	25. 210	23. 710	1. 200	Open Manhole		1200
S9. 005	o	375	S3135	24. 964	23. 388	1. 201	Open Manhole		1350
S9. 006	o	450	S3136	24. 852	23. 202	1. 200	Open Manhole		1350
S9. 007	o	450	S3137	24. 696	22. 970	1. 276	Open Manhole		1350
S9. 008	o	450	S3138	24. 374	22. 648	1. 276	Open Manhole		1350
S9. 009	o	450	S3139	24. 123	22. 444	1. 229	Open Manhole		1350
S1. 018	o	900	S3018	23. 970	21. 945	1. 125	Open Manhole		1800
S1. 019	o	900	S3019	23. 500	21. 910	0. 690	Open Manhole		1800
S1. 020	o	525	S3020-BASIN D	23. 500	21. 810	1. 165	Open Manhole		1800
S1. 021	o	525	S3021-COIN	24. 020	21. 680	1. 815	Open Manhole		1500
S1. 022	o	525	S3023	25. 220	21. 470	3. 225	Open Manhole		1500
S1. 023	o	525	S3024	25. 535	21. 260	3. 750	Open Manhole		1500
S1. 024	o	525	S3026	24. 960	21. 050	3. 385	Open Manhole		1500
S1. 025	o	525	S3028	24. 350	20. 930	2. 895	Open Manhole		1500
S11. 000	o	150	S3150	28. 020	26. 512	1. 358	Open Manhole		1200
S11. 001	o	225	S3151	27. 356	25. 815	1. 316	Open Manhole		1200
S11. 002	o	300	S3152	26. 707	25. 200	1. 207	Open Manhole		1200
S11. 003	o	300	S3153	26. 514	25. 007	1. 207	Open Manhole		1200
S11. 004	o	300	S3154	26. 322	24. 865	1. 157	Open Manhole		1200
S12. 000	o	150	S3180	27. 308	25. 784	1. 374	Open Manhole		1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM. (mm)	L*W
S1. 016	14. 009	933. 9	S3017	23. 840	21. 958	0. 982	Open Manhole		1800
S1. 017	12. 204	938. 8	S3018	23. 970	21. 945	1. 125	Open Manhole		1800
S9. 000	40. 635	68. 9	S3131	25. 763	24. 337	1. 201	Open Manhole		1200
S9. 001	38. 986	156. 6	S3132	25. 576	24. 013	1. 263	Open Manhole		1200
S9. 002	8. 268	111. 7	S3133	25. 493	23. 939	1. 254	Open Manhole		1200
S9. 003	23. 600	103. 1	S3134	25. 210	23. 710	1. 200	Open Manhole		1200
S10. 000	16. 795	77. 0	S3134	25. 210	23. 785	1. 200	Open Manhole		1200
S9. 004	19. 671	79. 6	S3135	24. 964	23. 463	1. 201	Open Manhole		1350
S9. 005	9. 366	84. 4	S3136	24. 852	23. 277	1. 200	Open Manhole		1350
S9. 006	12. 815	55. 2	S3137	24. 696	22. 970	1. 276	Open Manhole		1350
S9. 007	24. 711	76. 7	S3138	24. 374	22. 648	1. 276	Open Manhole		1350
S9. 008	19. 546	95. 8	S3139	24. 123	22. 444	1. 229	Open Manhole		1350
S9. 009	12. 446	254. 0	S3018	23. 970	22. 395	1. 125	Open Manhole		1800
S1. 018	15. 136	432. 5	S3019	23. 500	21. 910	0. 690	Open Manhole		1800
S1. 019	38. 718	387. 2	S3020-BASIN D	23. 500	21. 810	0. 790	Open Manhole		1800
S1. 020	16. 627	127. 9	S3021-COIN	24. 020	21. 680	1. 815	Open Manhole		1500
S1. 021	89. 994	428. 5	S3023	25. 220	21. 470	3. 225	Open Manhole		1500
S1. 022	89. 992	428. 5	S3024	25. 535	21. 260	3. 750	Open Manhole		1500
S1. 023	89. 821	427. 7	S3026	24. 960	21. 050	3. 385	Open Manhole		1500
S1. 024	54. 518	454. 3	S3028	24. 350	20. 930	2. 895	Open Manhole		1500
S1. 025	14. 238#	474. 6	S3029-Basin C	21. 900	20. 900	0. 475	Open Manhole		2700
S11. 000	39. 107	62. 9	S3151	27. 356	25. 890	1. 316	Open Manhole		1200
S11. 001	32. 411	60. 0	S3152	26. 707	25. 275	1. 207	Open Manhole		1200
S11. 002	10. 303	53. 4	S3153	26. 514	25. 007	1. 207	Open Manhole		1200
S11. 003	10. 303	72. 6	S3154	26. 322	24. 865	1. 157	Open Manhole		1200
S11. 004	23. 248	27. 0	S3155	25. 834	24. 003	1. 531	Open Manhole		1350
S12. 000	7. 032	20. 4	S3181	27. 233	25. 440	1. 643	Open Manhole		1200

PFA Consulting Ltd		Page 12
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

PIPELINE SCHEDULES for Catch C+D

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM. (mm)	L*W
S13. 000	o	225	S3190	27. 405	25. 755	1. 425	Open Manhole		1200
S12. 001	o	225	S3181	27. 233	25. 365	1. 643	Open Manhole		1200
S12. 002	o	300	S3182	26. 894	25. 000	1. 594	Open Manhole		1200
S12. 003	o	300	S3183	26. 521	24. 636	1. 585	Open Manhole		1200
S12. 004	o	300	S3184	26. 290	24. 405	1. 585	Open Manhole		1200
S11. 005	o	450	S3155	25. 834	23. 853	1. 531	Open Manhole		1350
S11. 006	o	450	S3156	26. 130	23. 734	1. 946	Open Manhole		1350
S14. 000	o	300	S3200	27. 248	25. 448	1. 500	Open Manhole		1200
S14. 001	o	300	S3201	26. 960	25. 160	1. 500	Open Manhole		1200
S14. 002	o	300	S3202	26. 657	24. 422	1. 935	Open Manhole		1200
S15. 000	o	225	SH316	26. 150	24. 425	1. 500	Open Manhole		1200
S11. 007	o	600	S3157	26. 356	23. 527	2. 229	Open Manhole		1500
S11. 008	o	600	S3158	25. 760	23. 496	1. 664	Open Manhole		1500
S11. 009	o	600	S3159	25. 205	23. 370	1. 235	Open Manhole		1500
S16. 000	o	150	S3210	26. 390	24. 815	1. 425	Open Manhole		1200
S17. 000	o	150	S3220	26. 231	24. 656	1. 425	Open Manhole		1200
S16. 001	o	225	S3211	26. 202	24. 168	1. 809	Open Manhole		1200
S16. 002	o	225	S3212	26. 040	23. 966	1. 849	Open Manhole		1200
S16. 003	o	225	S3213	25. 813	23. 774	1. 814	Open Manhole		1200
S11. 010	o	600	S3160	25. 672	23. 337	1. 735	Open Manhole		1500
S11. 011	o	600	S3161	25. 057	23. 257	1. 200	Open Manhole		1500
S18. 000	o	225	SH323	25. 250	23. 759	1. 266	Open Manhole		1200
S18. 001	o	225	S3230	25. 150	23. 680	1. 245	Open Manhole		1200
S18. 002	o	225	S3231	24. 920	23. 580	1. 115	Open Manhole		1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM. (mm)	L*W
S13. 000	9. 073	23. 3	S3181	27. 233	25. 365	1. 643	Open Manhole		1200
S12. 001	19. 266	66. 4	S3182	26. 894	25. 075	1. 594	Open Manhole		1200
S12. 002	17. 962	49. 3	S3183	26. 521	24. 636	1. 585	Open Manhole		1200
S12. 003	11. 800	51. 1	S3184	26. 290	24. 405	1. 585	Open Manhole		1200
S12. 004	28. 031	69. 7	S3155	25. 834	24. 003	1. 531	Open Manhole		1350
S11. 005	39. 725	333. 8	S3156	26. 130	23. 734	1. 946	Open Manhole		1350
S11. 006	8. 588	150. 7	S3157	26. 356	23. 677	2. 229	Open Manhole		1500
S14. 000	27. 512	95. 5	S3201	26. 960	25. 160	1. 500	Open Manhole		1200
S14. 001	24. 054	32. 6	S3202	26. 657	24. 422	1. 935	Open Manhole		1200
S14. 002	23. 286	39. 1	S3157	26. 356	23. 827	2. 229	Open Manhole		1500
S15. 000	12. 458	23. 8	S3157	26. 356	23. 902	2. 229	Open Manhole		1500
S11. 007	12. 441	401. 3	S3158	25. 760	23. 496	1. 664	Open Manhole		1500
S11. 008	50. 277	399. 0	S3159	25. 205	23. 370	1. 235	Open Manhole		1500
S11. 009	16. 281	493. 4	S3160	25. 672	23. 337	1. 735	Open Manhole		1500
S16. 000	6. 404	11. 2	S3211	26. 202	24. 243	1. 809	Open Manhole		1200
S17. 000	9. 571	23. 2	S3211	26. 202	24. 243	1. 809	Open Manhole		1200
S16. 001	17. 473	86. 5	S3212	26. 040	23. 966	1. 849	Open Manhole		1200
S16. 002	16. 645	86. 7	S3213	25. 813	23. 774	1. 814	Open Manhole		1200
S16. 003	10. 486	169. 1	S3160	25. 672	23. 712	1. 735	Open Manhole		1500
S11. 010	31. 952	399. 4	S3161	25. 057	23. 257	1. 200	Open Manhole		1500
S11. 011	12. 436	133. 7	S3162	24. 964	23. 164	1. 200	Open Manhole		1500
S18. 000	10. 976	138. 9	S3230	25. 150	23. 680	1. 245	Open Manhole		1200
S18. 001	17. 571	175. 7	S3231	24. 920	23. 580	1. 115	Open Manhole		1200
S18. 002	7. 268	177. 3	S3162	24. 964	23. 539	1. 200	Open Manhole		1500

PFA Consulting Ltd		Page 13
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

PIPELINE SCHEDULES for Catch C+D

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM., (mm)	L*W
S11.012	o	600	S3162	24.964	23.164	1.200	Open Manhole		1500
S11.013	o	600	S3163	24.890	23.090	1.200	Open Manhole		1500
S11.014	3 ¥=/	1000	S3164	24.022	22.971	0.901	Junction		
S19.000	o	300	S3240	24.640	23.140	1.200	Open Manhole		1200
S20.000	o	300	S3250	24.628	23.128	1.200	Open Manhole		1200
S19.001	o	300	S3241	24.597	23.097	1.200	Open Manhole		1200
S19.002	o	300	S3242	24.000	22.994	0.706	Open Manhole		1200
S11.015	3 ¥=/	1000	S3165	23.922	22.828	0.944	Junction		
S11.016	3 ¥=/	1000	S3166	23.652	22.566	0.936	Junction		
S21.000	o	225	S3260	24.136	22.711	1.200	Open Manhole		1200
S21.001	o	225	S3261	24.043	22.618	1.200	Open Manhole		1200
S11.017	3 ¥=/	1000	S3167	23.459	22.451	0.858	Junction		
S22.000	o	300	S3270	24.058	22.558	1.200	Open Manhole		1200
S22.001	o	300	S3271	23.965	22.465	1.200	Open Manhole		1200
S22.002	o	300	S3272	23.872	22.372	1.200	Open Manhole		1200
S11.018	3 ¥=/	1000	S3168	23.365	22.225	0.990	Junction		
S11.019	3 ¥=/	1000	S3169	23.316	22.204	0.962	Junction		
S11.020	3 ¥=/	1000	S3170	22.996	21.978	0.868	Junction		
S23.000	o	225	S3280	23.484	22.059	1.200	Open Manhole		1200
S23.001	o	225	S3281	23.269	21.844	1.200	Open Manhole		1200
S11.021	3 ¥=/	1000	S3171	22.739	21.690	0.899	Junction		
S11.022	o	525	S3172	22.621	21.466	0.630	Junction		
S11.023	3 ¥=/	1000	S3173	22.633	21.439	1.044	Junction		

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM., (mm)	L*W
S11.012	43.134	582.9	S3163	24.890	23.090	1.200	Open Manhole		1500
S11.013	10.732	564.8	S3164	24.022	23.071	0.351	Junction		
S11.014	9.000	62.9	S3165	23.922	22.828	0.944	Junction		
S19.000	10.468	243.4	S3241	24.597	23.097	1.200	Open Manhole		1200
S20.000	7.532	243.0	S3241	24.597	23.097	1.200	Open Manhole		1200
S19.001	31.106	302.0	S3242	24.000	22.994	0.706	Open Manhole		1200
S19.002	10.395	157.5	S3165	23.922	22.928	0.694	Junction		
S11.015	22.426	85.6	S3166	23.652	22.566	0.936	Junction		
S11.016	12.703	110.5	S3167	23.459	22.451	0.858	Junction		
S21.000	15.822	170.1	S3261	24.043	22.618	1.200	Open Manhole		1200
S21.001	11.323	169.0	S3167	23.459	22.551	0.683	Junction		
S11.017	22.290	98.6	S3168	23.365	22.225	0.990	Junction		
S22.000	22.392	240.8	S3271	23.965	22.465	1.200	Open Manhole		1200
S22.001	22.392	240.8	S3272	23.872	22.372	1.200	Open Manhole		1200
S22.002	11.234	239.0	S3168	23.365	22.325	0.740	Junction		
S11.018	1.710	81.4	S3169	23.316	22.204	0.962	Junction		
S11.019	20.296	89.8	S3170	22.996	21.978	0.868	Junction		
S11.020	28.551	99.1	S3171	22.739	21.690	0.899	Junction		
S23.000	36.485	169.7	S3281	23.269	21.844	1.200	Open Manhole		1200
S23.001	9.144	169.3	S3171	22.739	21.790	0.724	Junction		
S11.021	30.393	135.7	S3172	22.621	21.466	1.005	Junction		
S11.022	4.573	169.4	S3173	22.633	21.439	0.669	Junction		
S11.023	5.237#	134.3	S3029-Basin C	21.900	21.400	0.350	Open Manhole		2700

PIPELINE SCHEDULES for Catch C+D

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM. (mm)	L*W
S24.000	o	300	S3290	27.878	26.162	1.416	Open Manhole		1200
S24.001	o	300	S3291	27.725	25.998	1.427	Open Manhole		1200
S24.002	o	375	S3292	27.292	25.263	1.654	Open Manhole		1350
S24.003	o	375	S3293	27.136	25.146	1.615	Open Manhole		1350
S24.004	o	375	S3294	26.998	24.969	1.654	Open Manhole		1350
S24.005	o	375	S3295	26.633	24.604	1.654	Open Manhole		1350
S24.006	o	450	S3296	26.623	24.420	1.753	Open Manhole		1800
S24.007	o	450	S3297	26.942	24.338	2.154	Open Manhole		1350
S24.008	o	450	S3298	27.141	24.303	2.388	Open Manhole		1350
S25.000	o	225	S3320	27.291	25.569	1.497	Open Manhole		1200
S24.009	o	450	S3299	27.239	24.276	2.513	Open Manhole		1350
S24.010	o	450	S3300	26.728	24.172	2.106	Open Manhole		1350
S26.000	o	300	S3330	25.706	24.143	1.263	Open Manhole		1200
S24.011	o	525	S3301	25.786	23.406	1.855	Open Manhole		1500
S24.012	o	525	S3302	25.425	23.346	1.554	Open Manhole		1500
S24.013	o	525	S3303	24.980	23.271	1.184	Open Manhole		1500
S24.014	o	525	S3304	24.943	23.218	1.200	Open Manhole		1500
S24.015	o	525	S3305	24.865	23.140	1.200	Open Manhole		1500
S24.016	3 ¥=	1000	S3306	24.643	23.008	1.485	Open Manhole		1200
S24.017	3 ¥=	1000	S3307	24.775	22.776	1.849	Junction		
S24.018	3 ¥=	1000	S3308	24.194	22.448	1.596	Junction		
S24.019	3 ¥=	1000	S3309	24.085	22.366	1.569	Junction		
S27.000	o	300	S3340	24.183	22.683	1.200	Open Manhole		1200
S27.001	o	300	S3341	24.142	22.642	1.200	Open Manhole		1200
S27.002	o	300	S3342	23.927	22.427	1.200	Open Manhole		1200
S24.020	3 ¥=	1000	S3310	23.831	22.264	1.417	Junction		
S24.021	3 ¥=	1000	S3311	23.455	22.147	1.158	Junction		

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM. (mm)	L*W
S24.000	14.348	87.5	S3291	27.725	25.998	1.427	Open Manhole		1200
S24.001	38.017	57.6	S3292	27.292	25.338	1.654	Open Manhole		1350
S24.002	16.044	137.1	S3293	27.136	25.146	1.615	Open Manhole		1350
S24.003	15.071	85.1	S3294	26.998	24.969	1.654	Open Manhole		1350
S24.004	34.848	95.2	S3295	26.633	24.603	1.655	Open Manhole		1350
S24.005	34.848	322.7	S3296	26.623	24.496	1.752	Open Manhole		1800
S24.006	16.578	202.2	S3297	26.942	24.338	2.154	Open Manhole		1350
S24.007	14.379	399.4	S3298	27.141	24.302	2.389	Open Manhole		1350
S24.008	10.673	395.3	S3299	27.239	24.276	2.513	Open Manhole		1350
S25.000	8.564	8.0	S3299	27.239	24.501	2.513	Open Manhole		1350
S24.009	41.724	401.2	S3300	26.728	24.172	2.106	Open Manhole		1350
S24.010	81.518	118.0	S3301	25.786	23.481	1.855	Open Manhole		1500
S26.000	13.781	26.9	S3301	25.786	23.631	1.855	Open Manhole		1500
S24.011	29.760	496.0	S3302	25.425	23.346	1.554	Open Manhole		1500
S24.012	37.653	502.0	S3303	24.980	23.271	1.184	Open Manhole		1500
S24.013	26.529	500.5	S3304	24.943	23.218	1.200	Open Manhole		1500
S24.014	38.681	495.9	S3305	24.865	23.140	1.200	Open Manhole		1500
S24.015	15.856	495.5	S3306	24.643	23.108	1.010	Open Manhole		1200
S24.016	15.562	67.1	S3307	24.775	22.776	1.849	Junction		
S24.017	26.215	79.9	S3308	24.194	22.448	1.596	Junction		
S24.018	7.830	95.5	S3309	24.085	22.366	1.569	Junction		
S24.019	7.038	69.7	S3310	23.831	22.265	1.416	Junction		
S27.000	8.972	218.8	S3341	24.142	22.642	1.200	Open Manhole		1200
S27.001	47.357	220.3	S3342	23.927	22.427	1.200	Open Manhole		1200
S27.002	13.843	219.7	S3310	23.831	22.364	1.167	Junction		
S24.020	8.133	73.9	S3311	23.455	22.154	1.151	Junction		
S24.021	4.890	32.2	S3312	23.461	21.995	1.316	Junction		

PFA Consulting Ltd		Page 15
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

PIPELINE SCHEDULES for Catch C+D

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM., L*W (mm)
S24. 022	o	450	S3312	23. 461	21. 995	1. 016	Junction	
S24. 023	3 Ƴ=	1000	S3313	23. 546	21. 983	1. 413	Junction	
S1. 026	o	450	S3029-Basin C	21. 900	20. 550	0. 900	Open Manhole	2700
S1. 027	o	450	S3030	22. 440	20. 287	1. 703	Open Manhole	1350
S1. 028	o	450	S3031	22. 645	19. 784	2. 411	Open Manhole	1350
S28. 000	o	525	S3350	24. 098	22. 086	1. 487	Open Manhole	1500
S28. 001	o	525	S3351	23. 359	21. 468	1. 366	Open Manhole	1500
S28. 002	o	525	S3352	22. 742	21. 095	1. 122	Open Manhole	1500
S28. 003	o	900	S3353	22. 519	20. 347	1. 272	Open Manhole	1800
S28. 004	o	900	S3354	22. 616	20. 227	1. 489	Open Manhole	1800
S29. 000	o	300	S3370	23. 318	21. 135	1. 883	Open Manhole	1200
S29. 001	o	300	S3371	23. 170	21. 071	1. 799	Open Manhole	1200
S29. 002	o	300	S3372	22. 964	21. 001	1. 663	Open Manhole	1200
S29. 003	o	300	S3373	22. 764	20. 949	1. 515	Open Manhole	1200
S29. 004	o	300	S3374	22. 667	20. 917	1. 450	Open Manhole	1200
S30. 000	o	150	S3380	22. 437	21. 087	1. 200	Open Manhole	1200
S28. 005	o	1200	S3355	22. 561	19. 899	1. 462	Open Manhole	2100
S28. 006	o	1200	S3356	22. 401	19. 850	1. 351	Open Manhole	2100
S28. 007	o	1200	S3357	22. 379	19. 800	1. 379	Open Manhole	2100
S28. 008	o	1200	S3358	22. 415	19. 784	1. 431	Open Manhole	2100
S31. 000	o	225	S3390	23. 337	21. 638	1. 474	Open Manhole	1200
S31. 001	o	225	S3391	23. 137	21. 269	1. 643	Open Manhole	1200
S31. 002	o	225	S3392	22. 984	21. 194	1. 565	Open Manhole	1200
S31. 003	o	225	S3393	22. 666	21. 058	1. 383	Open Manhole	1200
S31. 004	o	225	S3394	22. 568	21. 015	1. 328	Open Manhole	1200
S28. 009	o	1200	S3359	22. 484	19. 767	1. 517	Open Manhole	2100
S28. 010	o	1200	S3360	22. 471	19. 747	1. 524	Open Manhole	2100

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM., L*W (mm)
S24. 022	4. 890	407. 5	S3313	23. 546	21. 983	1. 113	Junction	
S24. 023	19. 341#	100. 2	S3029-Basin C	21. 900	21. 790	-0. 040	Open Manhole	2700
S1. 026	7. 696	29. 3	S3030	22. 440	20. 287	1. 703	Open Manhole	1350
S1. 027	14. 529	28. 9	S3031	22. 645	19. 784	2. 411	Open Manhole	1350
S1. 028	24. 965	316. 0	S3032	22. 290	19. 705	2. 135	Open Manhole	3000
S28. 000	87. 610	141. 8	S3351	23. 359	21. 468	1. 366	Open Manhole	1500
S28. 001	90. 939	243. 8	S3352	22. 742	21. 095	1. 122	Open Manhole	1500
S28. 002	17. 829	47. 8	S3353	22. 519	20. 722	1. 272	Open Manhole	1800
S28. 003	21. 428	178. 6	S3354	22. 616	20. 227	1. 489	Open Manhole	1800
S28. 004	11. 970	427. 5	S3355	22. 561	20. 199	1. 462	Open Manhole	2100
S29. 000	19. 137	299. 0	S3371	23. 170	21. 071	1. 799	Open Manhole	1200
S29. 001	17. 051	243. 6	S3372	22. 964	21. 001	1. 663	Open Manhole	1200
S29. 002	12. 702	244. 3	S3373	22. 764	20. 949	1. 515	Open Manhole	1200
S29. 003	7. 714	241. 1	S3374	22. 667	20. 917	1. 450	Open Manhole	1200
S29. 004	8. 191	69. 4	S3355	22. 561	20. 799	1. 462	Open Manhole	2100
S30. 000	13. 965	101. 2	S3355	22. 561	20. 949	1. 462	Open Manhole	2100
S28. 005	21. 863	437. 3	S3356	22. 401	19. 849	1. 352	Open Manhole	2100
S28. 006	29. 864	597. 3	S3357	22. 379	19. 800	1. 379	Open Manhole	2100
S28. 007	8. 032	502. 0	S3358	22. 415	19. 784	1. 431	Open Manhole	2100
S28. 008	10. 831	637. 1	S3359	22. 484	19. 767	1. 517	Open Manhole	2100
S31. 000	29. 691	80. 5	S3391	23. 137	21. 269	1. 643	Open Manhole	1200
S31. 001	12. 611	168. 1	S3392	22. 984	21. 194	1. 565	Open Manhole	1200
S31. 002	22. 843	168. 0	S3393	22. 666	21. 058	1. 383	Open Manhole	1200
S31. 003	7. 180	167. 0	S3394	22. 568	21. 015	1. 328	Open Manhole	1200
S31. 004	8. 808	169. 4	S3359	22. 484	20. 963	1. 296	Open Manhole	2100
S28. 009	8. 968	448. 4	S3360	22. 471	19. 747	1. 524	Open Manhole	2100
S28. 010	19. 865	473. 0	S3032	22. 290	19. 705	1. 385	Open Manhole	3000

PIPELINE SCHEDULES for Catch C+D

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM., (mm)	L*W
S1. 029	o	1200	S3032	22. 290	19. 705	1. 385	Open Manhole		3000
S1. 030	o	450	S3033-CON	22. 415	19. 664	2. 301	Open Manhole		2700
S1. 031	o	450	S3034	23. 160	19. 542	3. 168	Open Manhole		1350
S1. 032	o	450	S3035	23. 110	19. 494	3. 166	Open Manhole		1350
S1. 033	o	450	S3036	21. 990	19. 403	2. 137	Open Manhole		1350
S1. 034	o	450	S3037	21. 475	19. 228	1. 797	Open Manhole		1350
S1. 035	o	450	S3038	21. 015	19. 066	1. 499	Open Manhole		1350
S1. 036	3 ¥=/	1000	S3039-HW	19. 850	19. 023	0. 677	Open Manhole		1000
S1. 037	3 ¥=/	1000	S3040	20. 192	19. 003	1. 039	Junction		

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C. Level (m)	I. Level (m)	D. Depth (m)	MH Connection	MH DIAM., (mm)	L*W
S1. 029	26. 753	652. 5	S3033-CON	22. 415	19. 664	1. 551	Open Manhole		2700
S1. 030	40. 649	330. 5	S3034	23. 160	19. 541	3. 169	Open Manhole		1350
S1. 031	20. 060	417. 9	S3035	23. 110	19. 494	3. 166	Open Manhole		1350
S1. 032	36. 421	404. 7	S3036	21. 990	19. 404	2. 136	Open Manhole		1350
S1. 033	70. 745	404. 3	S3037	21. 475	19. 228	1. 797	Open Manhole		1350
S1. 034	65. 150	402. 2	S3038	21. 015	19. 066	1. 499	Open Manhole		1350
S1. 035	16. 217	377. 1	S3039-HW	19. 850	19. 023	0. 377	Open Manhole		1000
S1. 036	6. 607	330. 4	S3040	20. 192	19. 003	1. 039	Junction		
S1. 037	15. 185	353. 1	SStream	19. 460	18. 960	0. 350	Open Manhole		0

PFA Consulting Ltd		Page 17
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

Area Summary for Catch C+D

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	User	-	100	0.007	0.007	0.007
	User	-	100	0.084	0.084	0.091
	User	-	100	0.005	0.005	0.096
1.001	User	-	100	0.061	0.061	0.061
	User	-	100	0.005	0.005	0.066
1.002	User	-	100	0.118	0.118	0.118
	User	-	100	0.003	0.003	0.120
	User	-	100	0.001	0.001	0.122
	User	-	100	0.002	0.002	0.123
	User	-	100	0.001	0.001	0.125
	User	-	100	0.001	0.001	0.126
1.003	User	-	100	0.009	0.009	0.009
2.000	User	-	100	0.037	0.037	0.037
	User	-	100	0.040	0.040	0.078
	User	-	100	0.017	0.017	0.095
	User	-	100	0.004	0.004	0.099
	User	-	100	0.002	0.002	0.101
	User	-	100	0.002	0.002	0.103
	User	-	100	0.002	0.002	0.105
2.001	User	-	100	0.049	0.049	0.049
	User	-	100	0.006	0.006	0.055
	User	-	100	0.005	0.005	0.060
2.002	User	-	100	0.018	0.018	0.018
	User	-	100	0.006	0.006	0.024
2.003	User	-	100	0.023	0.023	0.023
	User	-	100	0.008	0.008	0.031
	User	-	100	0.008	0.008	0.039
2.004	User	-	100	0.043	0.043	0.043
2.005	User	-	100	0.018	0.018	0.018
2.006	User	-	100	0.009	0.009	0.009
1.004	User	-	100	0.022	0.022	0.022
1.005	User	-	100	0.138	0.138	0.138
1.006	User	-	100	0.009	0.009	0.009
	User	-	100	0.008	0.008	0.017
3.000	User	-	100	0.132	0.132	0.132
	User	-	100	0.002	0.002	0.133
	User	-	100	0.003	0.003	0.136
	User	-	100	0.002	0.002	0.138
	User	-	100	0.002	0.002	0.141
	User	-	100	0.001	0.001	0.141
	User	-	100	0.001	0.001	0.142
	User	-	100	0.001	0.001	0.143
	User	-	100	0.000	0.000	0.144
	User	-	100	0.003	0.003	0.147
3.001	User	-	100	0.056	0.056	0.056
	User	-	100	0.006	0.006	0.062
	User	-	100	0.007	0.007	0.070
	User	-	100	0.007	0.007	0.077
	User	-	100	0.005	0.005	0.082
3.002	User	-	100	0.043	0.043	0.043
	User	-	100	0.001	0.001	0.045
	User	-	100	0.001	0.001	0.045
	User	-	100	0.001	0.001	0.047
3.003	User	-	100	0.059	0.059	0.059
	User	-	100	0.006	0.006	0.065
	User	-	100	0.005	0.005	0.070
3.004	User	-	100	0.009	0.009	0.009
1.007	User	-	100	0.163	0.163	0.163
4.000	-	-	100	0.168	0.168	0.168
4.001	-	-	100	0.072	0.072	0.072
4.002	User	-	100	0.043	0.043	0.043
	User	-	100	0.029	0.029	0.072
4.003	User	-	100	0.052	0.052	0.052
	User	-	100	0.010	0.010	0.062
	User	-	100	0.003	0.003	0.065
1.008	User	-	100	0.016	0.016	0.016
1.009	User	-	100	0.009	0.009	0.009
	User	-	100	0.009	0.009	0.018
1.010	User	-	100	0.017	0.017	0.017
	User	-	100	0.113	0.113	0.130
1.011	User	-	100	0.074	0.074	0.074
5.000	User	-	100	0.059	0.059	0.059
	User	-	100	0.002	0.002	0.061
5.001	User	-	100	0.189	0.189	0.189
1.012	User	-	100	0.040	0.040	0.040
1.013	User	-	100	0.030	0.030	0.030
1.014	User	-	100	0.012	0.012	0.012
6.000	User	-	100	0.072	0.072	0.072

Area Summary for Catch C+D

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
	User	-	100	0.052	0.052	0.123
	User	-	100	0.003	0.003	0.127
	User	-	100	0.004	0.004	0.131
	User	-	100	0.006	0.006	0.136
6.001	User	-	100	0.022	0.022	0.022
	User	-	100	0.002	0.002	0.024
	User	-	100	0.003	0.003	0.028
6.002	User	-	100	0.033	0.033	0.033
	User	-	100	0.006	0.006	0.039
7.000	User	-	100	0.136	0.136	0.136
7.001	User	-	100	0.105	0.105	0.105
7.002	User	-	100	0.032	0.032	0.032
7.003	User	-	100	0.068	0.068	0.068
	User	-	100	0.006	0.006	0.074
7.004	User	-	100	0.044	0.044	0.044
6.003	User	-	100	0.029	0.029	0.029
	User	-	100	0.007	0.007	0.036
6.004	User	-	100	0.085	0.085	0.085
8.000	User	-	100	0.000	0.000	0.000
	User	-	100	0.035	0.035	0.035
	User	-	100	0.013	0.013	0.048
8.001	User	-	100	0.082	0.082	0.082
8.002	User	-	100	0.028	0.028	0.028
6.005	User	-	100	0.054	0.054	0.054
6.006	User	-	100	0.009	0.009	0.009
6.007	User	-	100	0.012	0.012	0.012
6.008	User	-	100	0.012	0.012	0.012
6.009	User	-	100	0.051	0.051	0.051
6.010	-	-	100	0.000	0.000	0.000
1.015	User	-	100	0.009	0.009	0.009
	User	-	100	0.008	0.008	0.017
	User	-	100	0.008	0.008	0.025
1.016	-	-	100	0.000	0.000	0.000
1.017	-	-	100	0.000	0.000	0.000
9.000	User	-	100	0.080	0.080	0.080
	User	-	100	0.005	0.005	0.085
9.001	User	-	100	0.033	0.033	0.033
	User	-	100	0.003	0.003	0.036
	User	-	100	0.057	0.057	0.093
	User	-	100	0.007	0.007	0.100
9.002	User	-	100	0.021	0.021	0.021
	User	-	100	0.006	0.006	0.027
9.003	User	-	100	0.047	0.047	0.047
10.000	User	-	100	0.058	0.058	0.058
	User	-	100	0.017	0.017	0.075
9.004	User	-	100	0.033	0.033	0.033
9.005	User	-	100	0.039	0.039	0.039
9.006	-	-	100	0.000	0.000	0.000
9.007	User	-	100	0.045	0.045	0.045
9.008	User	-	100	0.039	0.039	0.039
9.009	User	-	100	0.034	0.034	0.034
1.018	User	-	100	0.038	0.038	0.038
1.019	-	-	100	0.000	0.000	0.000
1.020	-	-	100	0.000	0.000	0.000
1.021	-	-	100	0.000	0.000	0.000
1.022	-	-	100	0.000	0.000	0.000
1.023	-	-	100	0.000	0.000	0.000
1.024	-	-	100	0.000	0.000	0.000
1.025	-	-	100	0.000	0.000	0.000
11.000	-	-	100	0.035	0.035	0.035
11.001	-	-	100	0.076	0.076	0.076
11.002	-	-	100	0.058	0.058	0.058
11.003	-	-	100	0.009	0.009	0.009
11.004	-	-	100	0.016	0.016	0.016
12.000	-	-	100	0.048	0.048	0.048
13.000	-	-	100	0.049	0.049	0.049
12.001	-	-	100	0.040	0.040	0.040
12.002	-	-	100	0.053	0.053	0.053
12.003	-	-	100	0.041	0.041	0.041
12.004	-	-	100	0.032	0.032	0.032
11.005	-	-	100	0.064	0.064	0.064
11.006	-	-	100	0.068	0.068	0.068
14.000	-	-	100	0.065	0.065	0.065
14.001	-	-	100	0.099	0.099	0.099
14.002	-	-	100	0.089	0.089	0.089
15.000	-	-	100	0.030	0.030	0.030
11.007	-	-	100	0.110	0.110	0.110
11.008	-	-	100	0.000	0.000	0.000

PFA Consulting Ltd		Page 19
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

Area Summary for Catch C+D

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
11.009	-	-	100	0.000	0.000	0.000
16.000	-	-	100	0.043	0.043	0.043
17.000	-	-	100	0.036	0.036	0.036
16.001	-	-	100	0.030	0.030	0.030
16.002	-	-	100	0.028	0.028	0.028
16.003	-	-	100	0.041	0.041	0.041
11.010	-	-	100	0.021	0.021	0.021
11.011	-	-	100	0.052	0.052	0.052
18.000	-	-	100	0.000	0.000	0.000
18.001	User	-	100	0.112	0.112	0.112
18.002	-	-	100	0.028	0.028	0.028
11.012	-	-	100	0.010	0.010	0.010
11.013	-	-	100	0.069	0.069	0.069
11.014	-	-	100	0.000	0.000	0.000
19.000	-	-	100	0.038	0.038	0.038
20.000	-	-	100	0.044	0.044	0.044
19.001	-	-	100	0.032	0.032	0.032
19.002	User	-	100	0.026	0.026	0.026
11.015	-	-	100	0.000	0.000	0.000
11.016	-	-	100	0.000	0.000	0.000
21.000	-	-	100	0.017	0.017	0.017
21.001	-	-	100	0.054	0.054	0.054
11.017	-	-	100	0.000	0.000	0.000
22.000	-	-	100	0.026	0.026	0.026
22.001	User	-	100	0.043	0.043	0.043
22.002	-	-	100	0.027	0.027	0.027
11.018	-	-	100	0.000	0.000	0.000
11.019	-	-	100	0.000	0.000	0.000
11.020	-	-	100	0.000	0.000	0.000
23.000	-	-	100	0.019	0.019	0.019
23.001	-	-	100	0.090	0.090	0.090
11.021	-	-	100	0.000	0.000	0.000
11.022	-	-	100	0.000	0.000	0.000
11.023	-	-	100	0.000	0.000	0.000
24.000	-	-	100	0.028	0.028	0.028
24.001	-	-	100	0.013	0.013	0.013
24.002	-	-	100	0.071	0.071	0.071
24.003	-	-	100	0.033	0.033	0.033
24.004	-	-	100	0.047	0.047	0.047
24.005	-	-	100	0.090	0.090	0.090
24.006	-	-	100	0.128	0.128	0.128
24.007	-	-	100	0.037	0.037	0.037
24.008	-	-	100	0.021	0.021	0.021
25.000	-	-	100	0.028	0.028	0.028
24.009	-	-	100	0.038	0.038	0.038
24.010	-	-	100	0.058	0.058	0.058
26.000	-	-	100	0.025	0.025	0.025
24.011	-	-	100	0.253	0.253	0.253
24.012	-	-	100	0.094	0.094	0.094
24.013	-	-	100	0.127	0.127	0.127
24.014	-	-	100	0.054	0.054	0.054
24.015	-	-	100	0.079	0.079	0.079
24.016	-	-	100	0.000	0.000	0.000
24.017	-	-	100	0.000	0.000	0.000
24.018	-	-	100	0.000	0.000	0.000
24.019	-	-	100	0.000	0.000	0.000
27.000	-	-	100	0.008	0.008	0.008
27.001	User	-	100	0.062	0.062	0.062
27.002	-	-	100	0.037	0.037	0.037
24.020	-	-	100	0.000	0.000	0.000
24.021	-	-	100	0.000	0.000	0.000
24.022	-	-	100	0.000	0.000	0.000
24.023	-	-	100	0.000	0.000	0.000
1.026	-	-	100	0.000	0.000	0.000
1.027	-	-	100	0.000	0.000	0.000
1.028	-	-	100	0.000	0.000	0.000
28.000	User	-	50	0.997	0.498	0.498
28.001	User	-	50	1.046	0.523	0.523
28.002	-	-	100	0.000	0.000	0.000
28.003	-	-	100	0.000	0.000	0.000
28.004	-	-	100	0.000	0.000	0.000
29.000	-	-	100	0.117	0.117	0.117
29.001	-	-	100	0.050	0.050	0.050
29.002	-	-	100	0.034	0.034	0.034
29.003	-	-	100	0.009	0.009	0.009
29.004	-	-	100	0.046	0.046	0.046
30.000	-	-	100	0.000	0.000	0.000
28.005	-	-	100	0.060	0.060	0.060

Area Summary for Catch C+D

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
28.006	-	-	100	0.043	0.043	0.043
28.007	-	-	100	0.007	0.007	0.007
28.008	-	-	100	0.034	0.034	0.034
31.000	-	-	100	0.053	0.053	0.053
31.001	-	-	100	0.034	0.034	0.034
31.002	-	-	100	0.023	0.023	0.023
31.003	-	-	100	0.012	0.012	0.012
31.004	-	-	100	0.017	0.017	0.017
28.009	-	-	100	0.000	0.000	0.000
28.010	-	-	100	0.000	0.000	0.000
1.029	-	-	100	0.000	0.000	0.000
1.030	-	-	100	0.000	0.000	0.000
1.031	-	-	100	0.000	0.000	0.000
1.032	-	-	100	0.000	0.000	0.000
1.033	-	-	100	0.000	0.000	0.000
1.034	-	-	100	0.000	0.000	0.000
1.035	-	-	100	0.000	0.000	0.000
1.036	-	-	100	0.000	0.000	0.000
1.037	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				9.613	8.592	8.592

Online Controls for Catch C+D

Complex Manhole: S3021-CON, DS/PN: S1.021, Volume (m³): 7.4

Orifice

Diameter (m) 0.100 Discharge Coefficient 0.600 Invert Level (m) 21.680

Weir

Discharge Coef 0.544 Width (m) 1.500 Invert Level (m) 22.301

Hydro-Brake® Optimum Manhole: S3033-CON, DS/PN: S1.030, Volume (m³): 42.8

Unit Reference	MD-SFF-0239-7040-2551-2790	Sump Available	Yes
Design Head (m)	2.551	Diameter (mm)	239
Design Flow (l/s)	70.4	Invert Level (m)	19.664
Flush-Flo™	User Defined	Minimum Outlet Pipe Diameter (mm)	300
Objective	Minimise upstream storage	Suggested Manhole Diameter (mm)	1200
Application	Surface		

Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	2.551	70.4	Kick-Flo®	0.362	27.5
Flush-Flo™	0.300	27.9	Mean Flow over Head Range	-	47.3

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

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	7.9	0.800	40.2	2.000	62.5	4.000	87.6	7.000	115.2
0.200	24.1	1.000	44.7	2.200	65.5	4.500	92.8	7.500	119.2
0.300	27.9	1.200	48.8	2.400	68.3	5.000	97.7	8.000	123.0
0.400	28.8	1.400	52.6	2.600	71.0	5.500	102.4	8.500	126.7
0.500	32.0	1.600	56.1	3.000	76.2	6.000	106.8	9.000	130.3
0.600	35.0	1.800	59.4	3.500	82.1	6.500	111.1	9.500	133.8

Storage Structures for Catch C+D

Tank or Pond Manhole: S3020-BASIN D, DS/PN: S1.020

Invert Level (m) 21.810

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	73.7	0.290	356.4	0.590	693.1	0.990	1249.9	1.290	1645.1	1.690	2292.5
0.090	160.7	0.390	472.8	0.690	841.9	1.090	1380.3	1.490	1920.5		
0.190	256.2	0.490	581.7	0.890	1116.3	1.190	1513.6	1.590	2101.9		

Tank or Pond Manhole: S3029-Basin C, DS/PN: S1.026

Invert Level (m) 20.600

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	173.9	0.300	3228.6	0.600	4148.5	0.900	4628.0	1.200	5149.0	1.500	5725.0
0.100	1267.8	0.400	3815.8	0.700	4307.7	1.000	4790.0	1.300	5341.0	1.600	5914.0
0.200	2672.8	0.500	3988.0	0.800	4467.3	1.100	4954.0	1.400	5537.0	1.700	6110.0

2 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

Simulation Criteria

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

Number of Input Hydrographs 0	Number of Offline Controls 0	Number of Time/Area Diagrams 0
Number of Online Controls 2	Number of Storage Structures 2	Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH	Site Location GB 450306	114752 Cv (Summer) 0.750
FEH Rainfall Version 2013	Data Type	Point Cv (Winter) 0.840

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

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

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S1.000	S3000	60 minute 2 year Summer I+0%	60	1	27.478	26.116	-0.162	0.000	0.17	0.066	10.3	OK
S1.001	S3001	60 minute 2 year Summer I+0%	60	1	26.966	25.568	-0.198	0.000	0.25	0.112	16.6	OK
S1.002	S3002	60 minute 2 year Summer I+0%	60	1	26.704	25.369	-0.241	0.000	0.27	0.289	28.4	OK
S1.003	S3003	60 minute 2 year Summer I+0%	60	1	28.014	25.193	-0.227	0.000	0.33	1.062	28.9	OK
S2.000	S3050	60 minute 2 year Summer I+0%	60	1	33.607	32.268	-0.139	0.000	0.31	0.091	11.2	OK
S2.001	S3051	60 minute 2 year Summer I+0%	60	1	33.552	32.134	-0.158	0.000	0.19	0.139	17.2	OK
S2.002	S3052	60 minute 2 year Summer I+0%	60	1	32.390	31.030	-0.159	0.000	0.19	0.081	19.5	OK
S2.003	S3053	60 minute 2 year Summer I+0%	60	1	31.592	30.239	-0.153	0.000	0.22	0.085	23.3	OK
S2.004	S3054	60 minute 2 year Summer I+0%	60	1	30.545	29.237	-0.140	0.000	0.30	0.102	27.6	OK
S2.005	S3055	60 minute 2 year Summer I+0%	60	1	29.217	28.000	-0.131	0.000	0.36	0.118	29.4	OK
S2.006	S3056	60 minute 2 year Summer I+0%	60	1	28.782	27.531	-0.164	0.000	0.17	0.075	30.3	OK
S1.004	S3004	60 minute 2 year Summer I+0%	60	1	28.294	25.108	-0.264	0.000	0.49	0.681	60.1	OK
S1.005	S3005	60 minute 2 year Summer I+0%	60	1	28.322	25.042	-0.301	0.000	0.37	1.161	72.0	OK
S1.006	S3006	60 minute 2 year Summer I+0%	60	1	27.532	24.838	-0.412	0.000	0.10	0.816	73.3	OK
S3.000	S3060	60 minute 2 year Summer I+0%	60	1	26.680	25.336	-0.144	0.000	0.28	0.086	15.7	OK
S3.001	S3061	60 minute 2 year Summer I+0%	60	1	26.141	24.554	-0.267	0.000	0.18	0.148	23.7	OK
S3.002	S3062	60 minute 2 year Summer I+0%	60	1	26.114	24.385	-0.225	0.000	0.32	0.753	27.9	OK
S3.003	S3063	60 minute 2 year Summer I+0%	60	1	26.410	24.340	-0.223	0.000	0.34	0.595	34.3	OK
S3.004	S3064	60 minute 2 year Summer I+0%	60	1	27.500	24.240	-0.209	0.000	0.40	1.183	35.0	OK
S1.007	S3007	60 minute 2 year Summer I+0%	60	1	27.348	24.027	-0.381	0.000	0.30	0.540	120.5	OK
S4.000	S3070	60 minute 2 year Summer I+0%	60	1	25.790	24.700	-0.118	0.000	0.45	0.116	17.7	OK
S4.001	S3072	60 minute 2 year Summer I+0%	60	1	25.325	24.360	-0.158	0.000	0.45	0.227	24.8	OK
S4.002	S3073	60 minute 2 year Summer I+0%	60	1	25.456	24.250	-0.228	0.000	0.32	0.276	31.6	OK

PFA Consulting Ltd		Page 2
Stratton Park House	M380: Boorley Gardens	
Wanborough Road	SW Drainage - Planning	
Swindon SN3 4HG	Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

2 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S4.003	S3074	60 minute 2 year Summer I+0%	60	1	25.586	24.166	-0.216	0.000	0.38	1.046	37.7	OK
S1.008	S3008	60 minute 2 year Summer I+0%	60	1	26.600	23.942	-0.322	0.000	0.57	9.192	154.2	OK
S1.009	S3009	60 minute 2 year Summer I+0%	60	1	26.345	23.906	-0.332	0.000	0.61	3.179	155.9	OK
S1.010	S3010	60 minute 2 year Summer I+0%	60	1	26.150	23.641	-0.578	0.000	0.12	0.705	164.6	OK
S1.011	S3011	60 minute 2 year Summer I+0%	60	1	24.845	22.693	-0.490	0.000	0.26	1.545	169.5	OK
S5.000	S3080	60 minute 2 year Summer I+0%	60	1	25.677	24.412	-0.093	0.000	0.31	0.059	6.5	OK
S5.001	S3081	60 minute 2 year Summer I+0%	60	1	25.276	23.916	-0.211	0.000	0.19	0.095	25.3	OK
S1.012	S3012	60 minute 2 year Summer I+0%	60	1	24.078	22.652	-0.361	0.000	0.30	2.763	188.8	OK
S1.013	S3013	60 minute 2 year Summer I+0%	60	1	23.942	22.636	-0.324	0.000	0.44	10.051	188.1	OK
S1.014	S3014	60 minute 2 year Summer I+0%	60	1	23.833	22.618	-0.311	0.000	0.69	6.336	188.2	OK
S6.000	S3090	60 minute 2 year Summer I+0%	60	1	31.555	29.854	-0.171	0.000	0.13	0.056	14.6	OK
S6.001	S3091	60 minute 2 year Summer I+0%	60	1	29.895	28.205	-0.160	0.000	0.18	0.076	17.4	OK
S6.002	S3092	60 minute 2 year Summer I+0%	60	1	29.250	27.586	-0.139	0.000	0.31	0.105	21.2	OK
S7.000	S3110	60 minute 2 year Summer I+0%	60	1	30.720	29.052	-0.158	0.000	0.19	0.070	14.5	OK
S7.001	S3111	60 minute 2 year Summer I+0%	60	1	29.740	28.045	-0.200	0.000	0.24	0.109	24.8	OK
S7.002	S3112	60 minute 2 year Summer I+0%	60	1	29.410	27.654	-0.266	0.000	0.18	0.156	27.9	OK
S7.003	S3113	60 minute 2 year Summer I+0%	60	1	29.250	27.510	-0.260	0.000	0.21	0.285	35.3	OK
S7.004	S3114	60 minute 2 year Summer I+0%	60	1	29.025	27.281	-0.259	0.000	0.21	0.294	39.6	OK
S6.003	S3093	60 minute 2 year Summer I+0%	60	1	28.650	26.901	-0.244	0.000	0.26	0.358	64.2	OK
S6.004	S3094	60 minute 2 year Summer I+0%	60	1	28.150	26.375	-0.280	0.000	0.15	0.172	72.5	OK
S8.000	S3120	60 minute 2 year Summer I+0%	60	1	26.200	24.035	-0.093	0.000	0.31	0.058	5.2	OK
S8.001	S3121	60 minute 2 year Summer I+0%	60	1	26.500	23.718	-0.135	0.000	0.34	0.098	13.3	OK
S8.002	S3122	60 minute 2 year Summer I+0%	60	1	26.440	23.479	-0.197	0.000	0.26	0.114	16.1	OK
S6.005	S3095	60 minute 2 year Summer I+0%	60	1	26.160	23.235	-0.348	0.000	0.37	0.440	93.0	OK
S6.006	S3096	60 minute 2 year Summer I+0%	60	1	24.555	23.061	-0.458	0.000	0.13	1.019	94.0	OK
S6.007	S3097	60 minute 2 year Summer I+0%	60	1	24.220	22.725	-0.261	0.000	0.61	0.880	95.0	OK
S6.008	S3098	60 minute 2 year Summer I+0%	60	1	23.845	22.600	-0.362	0.000	0.19	1.703	92.6	OK
S6.009	S3099	60 minute 2 year Summer I+0%	60	1	23.675	22.595	-0.307	0.000	0.21	3.136	93.6	OK
S6.010	S3100	60 minute 2 year Summer I+0%	60	1	23.600	22.591	-0.304	0.000	0.25	3.462	91.0	OK
S1.015	S3015	60 minute 2 year Summer I+0%	60	1	23.565	22.587	-0.298	0.000	0.80	9.514	266.6	OK
S1.016	S3016	60 minute 2 year Summer I+0%	60	1	23.660	22.561	-0.312	0.000	0.91	4.946	265.3	OK
S1.017	S3017	60 minute 2 year Summer I+0%	60	1	23.840	22.515	-0.343	0.000	0.83	5.422	265.7	OK
S9.000	S3130	60 minute 2 year Summer I+0%	60	1	26.352	24.985	-0.167	0.000	0.15	0.060	9.1	OK
S9.001	S3131	60 minute 2 year Summer I+0%	60	1	25.763	24.359	-0.203	0.000	0.23	0.106	18.9	OK
S9.002	S3132	60 minute 2 year Summer I+0%	60	1	25.576	24.129	-0.184	0.000	0.32	0.312	21.6	OK
S9.003	S3133	60 minute 2 year Summer I+0%	60	1	25.493	24.045	-0.194	0.000	0.27	0.193	26.2	OK
S10.000	S3140	60 minute 2 year Summer I+0%	60	1	25.428	24.061	-0.167	0.000	0.15	0.060	8.0	OK
S9.004	S3134	60 minute 2 year Summer I+0%	60	1	25.210	23.831	-0.179	0.000	0.34	0.286	37.2	OK
S9.005	S3135	60 minute 2 year Summer I+0%	60	1	24.964	23.531	-0.232	0.000	0.31	0.241	40.9	OK
S9.006	S3136	60 minute 2 year Summer I+0%	60	1	24.852	23.318	-0.334	0.000	0.15	0.174	40.8	OK
S9.007	S3137	60 minute 2 year Summer I+0%	60	1	24.696	23.084	-0.336	0.000	0.15	0.231	45.1	OK
S9.008	S3138	60 minute 2 year Summer I+0%	60	1	24.374	22.781	-0.317	0.000	0.19	0.358	48.8	OK
S9.009	S3139	60 minute 2 year Summer I+0%	60	1	24.123	22.628	-0.266	0.000	0.35	0.680	52.1	OK
S1.018	S3018	120 minute 2 year Winter I+0%	120	1	23.970	22.499	-0.346	0.000	0.40	4.954	197.1	OK
S1.019	S3019	120 minute 2 year Winter I+0%	120	1	23.500	22.491	-0.319	0.000	0.25	6.135	194.7	OK
S1.020	S3020-BASIN D	120 minute 2 year Winter I+0%	120	1	23.500	22.481	0.146	0.000	0.38	297.852	106.0	SURCHARGED

PFA Consulting Ltd		Page 3
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

2 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S1.021	S3021-CON	120 minute 2 year Winter I+0%	120	1	24.020	22.455	0.250	0.000	0.49	4.603	105.8	SURCHARGED
S1.022	S3023	120 minute 2 year Winter I+0%	120	1	25.220	21.728	-0.267	0.000	0.48	5.167	105.6	OK
S1.023	S3024	120 minute 2 year Winter I+0%	120	1	25.535	21.517	-0.268	0.000	0.48	5.147	105.3	OK
S1.024	S3026	120 minute 2 year Winter I+0%	120	1	24.960	21.364	-0.211	0.000	0.51	7.509	104.7	OK
S1.025	S3028	120 minute 2 year Winter I+0%	120	1	24.350	21.293	-0.162	0.000	0.82	7.338	104.6	OK
S11.000	S3150	60 minute 2 year Summer I+0%	60	1	28.020	26.554	-0.108	0.000	0.17	0.041	3.8	OK
S11.001	S3151	60 minute 2 year Summer I+0%	60	1	27.356	25.879	-0.161	0.000	0.18	0.067	11.2	OK
S11.002	S3152	60 minute 2 year Summer I+0%	60	1	26.707	25.279	-0.221	0.000	0.15	0.084	17.0	OK
S11.003	S3153	60 minute 2 year Summer I+0%	60	1	26.514	25.095	-0.212	0.000	0.19	0.128	17.9	OK
S11.004	S3154	60 minute 2 year Summer I+0%	60	1	26.322	24.929	-0.236	0.000	0.10	0.099	19.5	OK
S12.000	S3180	60 minute 2 year Summer I+0%	60	1	27.308	25.823	-0.111	0.000	0.15	0.038	5.1	OK
S13.000	S3190	60 minute 2 year Summer I+0%	60	1	27.405	25.790	-0.190	0.000	0.06	0.034	5.3	OK
S12.001	S3181	60 minute 2 year Summer I+0%	60	1	27.233	25.441	-0.149	0.000	0.25	0.091	14.4	OK
S12.002	S3182	60 minute 2 year Summer I+0%	60	1	26.894	25.075	-0.225	0.000	0.14	0.081	19.6	OK
S12.003	S3183	60 minute 2 year Summer I+0%	60	1	26.521	24.726	-0.210	0.000	0.20	0.130	23.7	OK
S12.004	S3184	60 minute 2 year Summer I+0%	60	1	26.290	24.501	-0.204	0.000	0.22	0.138	26.8	OK
S11.005	S3155	60 minute 2 year Summer I+0%	60	1	25.834	24.033	-0.270	0.000	0.33	0.261	52.2	OK
S11.006	S3156	60 minute 2 year Summer I+0%	60	1	26.130	23.917	-0.267	0.000	0.35	1.613	58.6	OK
S14.000	S3200	60 minute 2 year Summer I+0%	60	1	27.248	25.499	-0.249	0.000	0.07	0.052	7.0	OK
S14.001	S3201	60 minute 2 year Summer I+0%	60	1	26.960	25.222	-0.238	0.000	0.10	0.110	16.8	OK
S14.002	S3202	60 minute 2 year Summer I+0%	60	1	26.657	24.503	-0.219	0.000	0.16	0.106	25.6	OK
S15.000	SH316	60 minute 2 year Summer I+0%	60	1	26.150	24.452	-0.198	0.000	0.03	0.025	3.2	OK
S11.007	S3157	60 minute 2 year Summer I+0%	60	1	26.356	23.824	-0.303	0.000	0.49	0.705	96.6	OK
S11.008	S3158	60 minute 2 year Summer I+0%	60	1	25.760	23.758	-0.338	0.000	0.32	1.357	95.0	OK
S11.009	S3159	60 minute 2 year Summer I+0%	60	1	25.205	23.682	-0.288	0.000	0.51	5.832	91.5	OK
S16.000	S3210	60 minute 2 year Summer I+0%	60	1	26.390	24.847	-0.118	0.000	0.10	0.030	4.6	OK
S17.000	S3220	60 minute 2 year Summer I+0%	60	1	26.231	24.690	-0.116	0.000	0.12	0.033	3.9	OK
S16.001	S3211	60 minute 2 year Summer I+0%	60	1	26.202	24.241	-0.152	0.000	0.23	0.077	11.5	OK
S16.002	S3212	60 minute 2 year Summer I+0%	60	1	26.040	24.048	-0.143	0.000	0.29	0.131	14.2	OK
S16.003	S3213	60 minute 2 year Summer I+0%	60	1	25.813	23.893	-0.106	0.000	0.55	0.218	18.2	OK
S11.010	S3160	60 minute 2 year Summer I+0%	60	1	25.672	23.636	-0.301	0.000	0.38	2.032	107.1	OK
S11.011	S3161	60 minute 2 year Summer I+0%	60	1	25.057	23.578	-0.279	0.000	0.31	4.074	107.7	OK
S18.000	SH323	60 minute 2 year Summer I+0%	60	1	25.250	23.762	-0.222	0.000	0.00	0.000	0.0	OK
S18.001	S3230	60 minute 2 year Summer I+0%	60	1	25.150	23.767	-0.138	0.000	0.32	0.165	11.1	OK
S18.002	S3231	60 minute 2 year Summer I+0%	60	1	24.920	23.688	-0.117	0.000	0.46	0.244	13.9	OK
S11.012	S3162	60 minute 2 year Summer I+0%	60	1	24.964	23.562	-0.202	0.000	0.48	2.455	118.1	OK
S11.013	S3163	60 minute 2 year Summer I+0%	60	1	24.890	23.511	-0.179	0.000	0.86	7.994	121.8	OK
S11.014	S3164	60 minute 2 year Summer I+0%	60	1	24.022	23.105	-0.917	0.000	0.01	0.160	121.8	OK
S19.000	S3240	60 minute 2 year Summer I+0%	60	1	24.640	23.205	-0.235	0.000	0.07	0.068	4.1	OK
S20.000	S3250	60 minute 2 year Summer I+0%	60	1	24.628	23.200	-0.228	0.000	0.09	0.076	4.7	OK
S19.001	S3241	60 minute 2 year Summer I+0%	60	1	24.597	23.189	-0.208	0.000	0.20	0.271	11.8	OK
S19.002	S3242	60 minute 2 year Summer I+0%	60	1	24.000	23.090	-0.204	0.000	0.22	0.328	14.4	OK
S11.015	S3165	60 minute 2 year Summer I+0%	60	1	23.922	22.979	-0.943	0.000	0.02	0.748	131.1	OK
S11.016	S3166	60 minute 2 year Summer I+0%	60	1	23.652	22.728	-0.924	0.000	0.02	1.750	130.8	OK
S21.000	S3260	60 minute 2 year Summer I+0%	60	1	24.136	22.744	-0.192	0.000	0.05	0.031	1.8	OK
S21.001	S3261	60 minute 2 year Summer I+0%	60	1	24.043	22.688	-0.155	0.000	0.21	0.147	7.2	OK

PFA Consulting Ltd		Page 4
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions		Network 2020.1.3

2 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S11.017	S3167	60 minute 2 year Summer I+0%	60	1	23.459	22.612	-0.847	0.000	0.02	1.369	134.8	OK
S22.000	S3270	60 minute 2 year Summer I+0%	60	1	24.058	22.598	-0.260	0.000	0.04	0.040	2.8	OK
S22.001	S3271	60 minute 2 year Summer I+0%	60	1	23.965	22.532	-0.233	0.000	0.11	0.190	7.0	OK
S22.002	S3272	60 minute 2 year Summer I+0%	60	1	23.872	22.455	-0.217	0.000	0.17	0.239	9.7	OK
S11.018	S3168	60 minute 2 year Summer I+0%	60	1	23.365	22.380	-0.985	0.000	0.02	1.887	140.9	OK
S11.019	S3169	60 minute 2 year Summer I+0%	60	1	23.316	22.364	-0.952	0.000	0.02	0.193	141.0	OK
S11.020	S3170	60 minute 2 year Summer I+0%	60	1	22.996	22.143	-0.853	0.000	0.02	1.879	140.7	OK
S23.000	S3280	60 minute 2 year Summer I+0%	60	1	23.484	22.093	-0.191	0.000	0.05	0.032	2.0	OK
S23.001	S3281	60 minute 2 year Summer I+0%	60	1	23.269	21.934	-0.135	0.000	0.33	0.196	10.9	OK
S11.021	S3171	60 minute 2 year Summer I+0%	60	1	22.739	21.874	-0.865	0.000	0.03	2.575	146.0	OK
S11.022	S3172	60 minute 2 year Summer I+0%	60	1	22.621	21.754	-0.237	0.000	0.58	8.451	144.4	OK*
S11.023	S3173	60 minute 2 year Summer I+0%	60	1	22.633	21.619	-1.014	0.000	0.02	0.359	144.4	OK
S24.000	S3290	60 minute 2 year Summer I+0%	60	1	27.878	26.196	-0.266	0.000	0.03	0.033	3.0	OK
S24.001	S3291	60 minute 2 year Summer I+0%	60	1	27.725	26.033	-0.265	0.000	0.03	0.054	4.3	OK
S24.002	S3292	60 minute 2 year Summer I+0%	60	1	27.292	25.336	-0.302	0.000	0.08	0.099	11.3	OK
S24.003	S3293	60 minute 2 year Summer I+0%	60	1	27.136	25.221	-0.300	0.000	0.09	0.186	14.6	OK
S24.004	S3294	60 minute 2 year Summer I+0%	60	1	26.998	25.050	-0.294	0.000	0.10	0.166	19.2	OK
S24.005	S3295	60 minute 2 year Summer I+0%	60	1	26.633	24.739	-0.240	0.000	0.28	0.395	27.7	OK
S24.006	S3296	60 minute 2 year Summer I+0%	60	1	26.623	24.586	-0.284	0.000	0.23	0.720	39.6	OK
S24.007	S3297	60 minute 2 year Summer I+0%	60	1	26.942	24.552	-0.236	0.000	0.41	1.086	42.9	OK
S24.008	S3298	60 minute 2 year Summer I+0%	60	1	27.141	24.514	-0.239	0.000	0.45	0.973	44.7	OK
S25.000	S3320	60 minute 2 year Summer I+0%	60	1	27.291	25.591	-0.203	0.000	0.02	0.019	3.0	OK
S24.009	S3299	60 minute 2 year Summer I+0%	60	1	27.239	24.461	-0.265	0.000	0.35	0.641	50.2	OK
S24.010	S3300	60 minute 2 year Summer I+0%	60	1	26.728	24.307	-0.315	0.000	0.20	1.035	54.6	OK
S26.000	S3330	60 minute 2 year Summer I+0%	60	1	25.706	24.164	-0.279	0.000	0.02	0.019	2.7	OK
S24.011	S3301	60 minute 2 year Summer I+0%	60	1	25.786	23.692	-0.239	0.000	0.42	1.262	76.0	OK
S24.012	S3302	60 minute 2 year Summer I+0%	60	1	25.425	23.641	-0.230	0.000	0.44	3.205	81.5	OK
S24.013	S3303	60 minute 2 year Summer I+0%	60	1	24.980	23.584	-0.212	0.000	0.50	4.323	88.9	OK
S24.014	S3304	60 minute 2 year Summer I+0%	60	1	24.943	23.534	-0.209	0.000	0.49	3.210	91.0	OK
S24.015	S3305	60 minute 2 year Summer I+0%	60	1	24.865	23.477	-0.188	0.000	0.74	4.926	94.9	OK
S24.016	S3306	60 minute 2 year Summer I+0%	60	1	24.643	23.132	-1.511	0.000	0.01	0.165	94.8	OK
S24.017	S3307	60 minute 2 year Summer I+0%	60	1	24.775	22.904	-1.871	0.000	0.00	0.381	94.7	OK
S24.018	S3308	60 minute 2 year Summer I+0%	60	1	24.194	22.583	-1.611	0.000	0.00	1.079	94.8	OK
S24.019	S3309	60 minute 2 year Summer I+0%	60	1	24.085	22.490	-1.595	0.000	0.00	0.260	94.9	OK
S27.000	S3340	60 minute 2 year Summer I+0%	60	1	24.183	22.715	-0.268	0.000	0.01	0.031	0.9	OK
S27.001	S3341	60 minute 2 year Summer I+0%	60	1	24.142	22.705	-0.237	0.000	0.10	0.123	6.9	OK
S27.002	S3342	60 minute 2 year Summer I+0%	60	1	23.927	22.510	-0.217	0.000	0.17	0.230	10.5	OK
S24.020	S3310	60 minute 2 year Summer I+0%	60	1	23.831	22.394	-1.437	0.000	0.00	0.337	100.4	OK
S24.021	S3311	60 minute 2 year Summer I+0%	60	1	23.455	22.257	-1.198	0.000	0.01	0.172	100.3	OK
S24.022	S3312	60 minute 2 year Summer I+0%	60	1	23.461	22.245	-0.200	0.000	0.59	1.039	100.1	OK*
S24.023	S3313	60 minute 2 year Summer I+0%	60	1	23.546	22.124	-1.422	0.000	0.01	0.259	100.2	OK
S1.026	S3029-Basin C	240 minute 2 year Winter I+0%	240	1	21.900	20.967	-0.033	0.000	0.23	784.222	66.5	OK
S1.027		240 minute 2 year Winter I+0%	240	1	22.440	20.958	0.221	0.000	0.16	1.845	65.5	SURCHARGED
S1.028		240 minute 2 year Winter I+0%	240	1	22.645	20.944	0.710	0.000	0.43	3.750	64.8	SURCHARGED
S28.000	S3350	60 minute 2 year Summer I+0%	60	1	24.098	22.216	-0.395	0.000	0.14	0.221	52.4	OK
S28.001	S3351	60 minute 2 year Summer I+0%	60	1	23.359	21.684	-0.309	0.000	0.35	1.401	100.9	OK

PFA Consulting Ltd		Page 5
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions		Network 2020.1.3

2 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S28.002	S3352	60 minute 2 year Summer I+0%	60	1	22.742	21.259	-0.361	0.000	0.21	1.296	100.5	OK
S28.003	S3353	240 minute 2 year Winter I+0%	240	1	22.519	20.931	-0.316	0.000	0.04	1.778	35.8	OK
S28.004	S3354	240 minute 2 year Winter I+0%	240	1	22.616	20.931	-0.196	0.000	0.08	10.743	34.4	OK
S29.000	S3370	60 minute 2 year Summer I+0%	60	1	23.318	21.235	-0.200	0.000	0.23	0.107	12.5	OK
S29.001	S3371	60 minute 2 year Summer I+0%	60	1	23.170	21.181	-0.190	0.000	0.29	0.363	17.3	OK
S29.002	S3372	60 minute 2 year Summer I+0%	60	1	22.964	21.125	-0.176	0.000	0.36	0.401	20.7	OK
S29.003	S3373	60 minute 2 year Summer I+0%	60	1	22.764	21.082	-0.167	0.000	0.41	0.383	21.4	OK
S29.004	S3374	60 minute 2 year Summer I+0%	60	1	22.667	21.029	-0.188	0.000	0.30	0.218	25.8	OK
S30.000	S3380	60 minute 2 year Summer I+0%	60	1	22.437	21.087	-0.150	0.000	0.00	0.000	0.0	OK
S28.005	S3355	240 minute 2 year Winter I+0%	240	1	22.561	20.930	-0.169	0.000	0.04	8.437	44.5	OK
S28.006	S3356	240 minute 2 year Winter I+0%	240	1	22.401	20.930	-0.120	0.000	0.04	22.589	44.2	OK
S28.007	S3357	240 minute 2 year Winter I+0%	240	1	22.379	20.930	-0.070	0.000	0.05	31.603	42.2	OK
S28.008	S3358	240 minute 2 year Winter I+0%	240	1	22.415	20.930	-0.054	0.000	0.07	9.954	42.6	OK
S31.000	S3390	60 minute 2 year Summer I+0%	60	1	23.337	21.686	-0.177	0.000	0.10	0.049	5.7	OK
S31.001	S3391	60 minute 2 year Summer I+0%	60	1	23.137	21.347	-0.147	0.000	0.26	0.123	9.0	OK
S31.002	S3392	60 minute 2 year Summer I+0%	60	1	22.984	21.280	-0.139	0.000	0.31	0.176	11.3	OK
S31.003	S3393	60 minute 2 year Summer I+0%	60	1	22.666	21.159	-0.124	0.000	0.42	0.218	12.5	OK
S31.004	S3394	60 minute 2 year Summer I+0%	60	1	22.568	21.119	-0.121	0.000	0.44	0.185	14.1	OK
S28.009	S3359	240 minute 2 year Winter I+0%	240	1	22.484	20.929	-0.038	0.000	0.06	12.976	46.6	OK
S28.010	S3360	240 minute 2 year Winter I+0%	240	1	22.471	20.929	-0.018	0.000	0.04	11.252	45.9	OK
S1.029	S3032	240 minute 2 year Winter I+0%	240	1	22.290	20.928	0.023	0.000	0.06	30.776	56.6	SURCHARGED
S1.030	S3033-CON	240 minute 2 year Winter I+0%	240	1	22.415	20.926	0.812	0.000	0.31	33.098	48.4	SURCHARGED
S1.031	S3034	240 minute 2 year Winter I+0%	240	1	23.160	19.739	-0.253	0.000	0.39	1.813	48.4	OK
S1.032	S3035	240 minute 2 year Winter I+0%	240	1	23.110	19.676	-0.268	0.000	0.34	1.005	48.4	OK
S1.033	S3036	240 minute 2 year Winter I+0%	240	1	21.990	19.579	-0.274	0.000	0.32	1.563	48.4	OK
S1.034	S3037	240 minute 2 year Winter I+0%	240	1	21.475	19.404	-0.274	0.000	0.33	1.978	48.4	OK
S1.035	S3038	240 minute 2 year Winter I+0%	240	1	21.015	19.265	-0.251	0.000	0.41	2.389	48.4	OK
S1.036	S3039-HW	240 minute 2 year Winter I+0%	240	1	19.850	19.156	-0.694	0.000	0.03	0.434	48.4	OK
S1.037	S3040	240 minute 2 year Winter I+0%	240	1	20.192	19.134	-1.058	0.000	0.01	0.335	48.4	OK

PFA Consulting Ltd		Page 6
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

Simulation Criteria

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

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
 Number of Online Controls 2 Number of Storage Structures 2 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH Site Location GB 450306 114752 Cv (Summer) 0.750
 FEH Rainfall Version 2013 Data Type Point Cv (Winter) 0.840

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

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

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S1.000	S3000	60 minute 30 year Summer I+0%	60	1	27.478	26.148	-0.130	0.000	0.38	0.102	22.0	OK
S1.001	S3001	60 minute 30 year Summer I+0%	60	1	26.966	25.628	-0.138	0.000	0.56	0.226	36.8	OK
S1.002	S3002	60 minute 30 year Summer I+0%	60	1	26.704	25.452	-0.158	0.000	0.61	0.752	64.1	OK
S1.003	S3003	60 minute 30 year Summer I+0%	60	1	28.014	25.384	-0.036	0.000	0.77	4.787	67.8	OK
S2.000	S3050	60 minute 30 year Summer I+0%	60	1	33.607	32.317	-0.090	0.000	0.67	0.147	24.1	OK
S2.001	S3051	60 minute 30 year Summer I+0%	60	1	33.552	32.170	-0.122	0.000	0.43	0.221	38.1	OK
S2.002	S3052	60 minute 30 year Summer I+0%	60	1	32.390	31.066	-0.123	0.000	0.42	0.130	43.7	OK
S2.003	S3053	60 minute 30 year Summer I+0%	60	1	31.592	30.281	-0.111	0.000	0.51	0.141	52.8	OK
S2.004	S3054	60 minute 30 year Summer I+0%	60	1	30.545	29.290	-0.087	0.000	0.69	0.183	62.9	OK
S2.005	S3055	60 minute 30 year Summer I+0%	60	1	29.217	28.062	-0.069	0.000	0.83	0.232	67.0	OK
S2.006	S3056	60 minute 30 year Summer I+0%	60	1	28.782	27.566	-0.129	0.000	0.38	0.121	68.9	OK
S1.004	S3004	60 minute 30 year Summer I+0%	60	1	28.294	25.352	-0.020	0.000	1.00	2.244	121.6	OK
S1.005	S3005	60 minute 30 year Summer I+0%	60	1	28.322	25.174	-0.169	0.000	0.78	2.265	149.3	OK
S1.006	S3006	60 minute 30 year Summer I+0%	60	1	27.532	24.890	-0.360	0.000	0.22	1.822	152.9	OK
S3.000	S3060	60 minute 30 year Summer I+0%	60	1	26.680	25.382	-0.098	0.000	0.61	0.138	33.8	OK
S3.001	S3061	60 minute 30 year Summer I+0%	60	1	26.141	24.613	-0.208	0.000	0.40	0.238	52.1	OK
S3.002	S3062	60 minute 30 year Summer I+0%	60	1	26.114	24.480	-0.130	0.000	0.71	1.856	61.9	OK
S3.003	S3063	60 minute 30 year Summer I+0%	60	1	26.410	24.436	-0.127	0.000	0.76	1.183	75.6	OK
S3.004	S3064	60 minute 30 year Summer I+0%	60	1	27.500	24.349	-0.100	0.000	0.89	2.665	76.8	OK
S1.007	S3007	60 minute 30 year Summer I+0%	60	1	27.348	24.281	-0.127	0.000	0.63	1.978	252.6	OK
S4.000	S3070	60 minute 30 year Summer I+0%	60	1	25.790	24.772	-0.046	0.000	0.97	0.197	37.9	OK
S4.001	S3072	60 minute 30 year Summer I+0%	60	1	25.325	24.457	-0.061	0.000	0.98	0.632	53.9	OK
S4.002	S3073	60 minute 30 year Summer I+0%	60	1	25.456	24.345	-0.133	0.000	0.71	0.596	69.6	OK

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S4.003	S3074	60 minute 30 year Summer I+0%	60	1	25.586	24.277	-0.105	0.000	0.82	2.355	81.9	OK
S1.008	S3008	60 minute 30 year Summer I+0%	60	1	26.600	24.227	-0.037	0.000	1.17	23.107	315.5	OK
S1.009	S3009	60 minute 30 year Summer I+0%	60	1	26.345	24.105	-0.133	0.000	1.24	5.271	317.5	OK
S1.010	S3010	60 minute 30 year Summer I+0%	60	1	26.150	23.719	-0.500	0.000	0.24	1.214	332.7	OK
S1.011	S3011	60 minute 30 year Summer I+0%	60	1	24.845	23.071	-0.112	0.000	0.53	8.641	342.9	OK
S5.000	S3080	60 minute 30 year Summer I+0%	60	1	25.677	24.445	-0.060	0.000	0.67	0.096	14.0	OK
S5.001	S3081	60 minute 30 year Summer I+0%	60	1	25.276	23.968	-0.159	0.000	0.44	0.156	58.3	OK
S1.012	S3012	60 minute 30 year Summer I+0%	60	1	24.078	23.043	0.030	0.000	0.60	6.695	383.7	SURCHARGED
S1.013	S3013	60 minute 30 year Summer I+0%	60	1	23.942	23.012	0.052	0.000	0.90	17.694	387.4	SURCHARGED
S1.014	S3014	60 minute 30 year Summer I+0%	60	1	23.833	22.984	0.055	0.000	1.42	10.770	388.7	SURCHARGED
S6.000	S3090	60 minute 30 year Summer I+0%	60	1	31.555	29.882	-0.143	0.000	0.29	0.087	31.4	OK
S6.001	S3091	60 minute 30 year Summer I+0%	60	1	29.895	28.239	-0.126	0.000	0.40	0.119	37.8	OK
S6.002	S3092	60 minute 30 year Summer I+0%	60	1	29.250	27.639	-0.086	0.000	0.69	0.188	46.9	OK
S7.000	S3110	60 minute 30 year Summer I+0%	60	1	30.720	29.086	-0.124	0.000	0.41	0.108	31.2	OK
S7.001	S3111	60 minute 30 year Summer I+0%	60	1	29.740	28.104	-0.141	0.000	0.55	0.202	55.6	OK
S7.002	S3112	60 minute 30 year Summer I+0%	60	1	29.410	27.713	-0.207	0.000	0.42	0.324	63.0	OK
S7.003	S3113	60 minute 30 year Summer I+0%	60	1	29.250	27.576	-0.194	0.000	0.47	0.615	80.2	OK
S7.004	S3114	60 minute 30 year Summer I+0%	60	1	29.025	27.347	-0.193	0.000	0.47	0.649	89.8	OK
S6.003	S3093	60 minute 30 year Summer I+0%	60	1	28.650	26.979	-0.166	0.000	0.59	0.777	144.4	OK
S6.004	S3094	60 minute 30 year Summer I+0%	60	1	28.150	26.430	-0.225	0.000	0.33	0.343	163.4	OK
S8.000	S3120	60 minute 30 year Summer I+0%	60	1	26.200	24.067	-0.061	0.000	0.65	0.095	11.1	OK
S8.001	S3121	60 minute 30 year Summer I+0%	60	1	26.500	23.778	-0.075	0.000	0.77	0.204	30.3	OK
S8.002	S3122	60 minute 30 year Summer I+0%	60	1	26.440	23.541	-0.135	0.000	0.58	0.285	36.6	OK
S6.005	S3095	60 minute 30 year Summer I+0%	60	1	26.160	23.408	-0.175	0.000	0.84	1.116	211.2	OK
S6.006	S3096	60 minute 30 year Summer I+0%	60	1	24.555	23.139	-0.380	0.000	0.29	2.177	212.3	OK
S6.007	S3097	60 minute 30 year Summer I+0%	60	1	24.220	23.019	0.033	0.000	1.38	2.226	214.0	SURCHARGED
S6.008	S3098	60 minute 30 year Summer I+0%	60	1	23.845	22.990	0.028	0.000	0.44	4.811	211.4	SURCHARGED
S6.009	S3099	60 minute 30 year Summer I+0%	60	1	23.675	22.975	0.073	0.000	0.48	5.960	217.0	SURCHARGED
S6.010	S3100	60 minute 30 year Summer I+0%	60	1	23.600	22.966	0.071	0.000	0.58	5.793	213.0	SURCHARGED
S1.015	S3015	60 minute 30 year Summer I+0%	60	1	23.565	22.956	0.071	0.000	1.74	16.400	581.0	SURCHARGED
S1.016	S3016	60 minute 30 year Summer I+0%	60	1	23.660	22.921	0.048	0.000	1.97	8.353	576.8	SURCHARGED
S1.017	S3017	60 minute 30 year Summer I+0%	60	1	23.840	22.881	0.023	0.000	1.80	9.724	577.8	SURCHARGED
S9.000	S3130	60 minute 30 year Summer I+0%	60	1	26.352	25.015	-0.137	0.000	0.33	0.094	19.4	OK
S9.001	S3131	60 minute 30 year Summer I+0%	60	1	25.763	24.417	-0.145	0.000	0.52	0.210	42.6	OK
S9.002	S3132	60 minute 30 year Summer I+0%	60	1	25.576	24.202	-0.111	0.000	0.71	0.788	48.7	OK
S9.003	S3133	60 minute 30 year Summer I+0%	60	1	25.493	24.110	-0.129	0.000	0.61	0.397	59.4	OK
S10.000	S3140	60 minute 30 year Summer I+0%	60	1	25.428	24.091	-0.137	0.000	0.33	0.094	17.2	OK
S9.004	S3134	60 minute 30 year Summer I+0%	60	1	25.210	23.911	-0.099	0.000	0.77	0.718	83.7	OK
S9.005	S3135	60 minute 30 year Summer I+0%	60	1	24.964	23.624	-0.139	0.000	0.71	0.536	92.5	OK
S9.006	S3136	60 minute 30 year Summer I+0%	60	1	24.852	23.384	-0.268	0.000	0.34	0.345	92.8	OK
S9.007	S3137	60 minute 30 year Summer I+0%	60	1	24.696	23.149	-0.271	0.000	0.33	0.473	102.5	OK
S9.008	S3138	60 minute 30 year Summer I+0%	60	1	24.374	22.910	-0.188	0.000	0.44	1.159	110.9	OK
S9.009	S3139	60 minute 30 year Summer I+0%	60	1	24.123	22.875	-0.019	0.000	0.77	2.780	115.1	OK
S1.018	S3018	60 minute 30 year Winter I+0%	60	1	23.970	22.845	0.000	0.000	1.29	10.088	630.2	OK
S1.019	S3019	60 minute 30 year Winter I+0%	60	1	23.500	22.779	-0.031	0.000	0.79	9.888	623.3	OK
S1.020	S3020-BASIN D	60 minute 30 year Winter I+0%	60	1	23.500	22.760	0.425	0.000	0.79	585.196	219.1	SURCHARGED

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event			Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S1.021	S3021-CON	60 minute	30 year	Winter I+0%	60	1	24.020	22.711	0.506	0.000	1.00	5.055	217.1	SURCHARGED
S1.022	S3023	60 minute	30 year	Winter I+0%	60	1	25.220	21.920	-0.075	0.000	0.95	13.740	207.7	OK
S1.023	S3024	60 minute	30 year	Winter I+0%	60	1	25.535	21.746	-0.039	0.000	0.91	15.310	199.5	OK
S1.024	S3026	60 minute	30 year	Winter I+0%	60	1	24.960	21.570	-0.005	0.000	0.98	16.578	199.2	OK
S1.025	S3028	240 minute	30 year	Winter I+0%	240	1	24.350	21.455	0.000	0.000	1.32	11.369	167.9	OK
S11.000	S3150	60 minute	30 year	Summer I+0%	60	1	28.020	26.575	-0.087	0.000	0.37	0.066	8.0	OK
S11.001	S3151	60 minute	30 year	Summer I+0%	60	1	27.356	25.916	-0.124	0.000	0.41	0.109	25.8	OK
S11.002	S3152	60 minute	30 year	Summer I+0%	60	1	26.707	25.325	-0.175	0.000	0.36	0.150	39.4	OK
S11.003	S3153	60 minute	30 year	Summer I+0%	60	1	26.514	25.147	-0.160	0.000	0.44	0.250	41.6	OK
S11.004	S3154	60 minute	30 year	Summer I+0%	60	1	26.322	24.964	-0.201	0.000	0.24	0.158	45.4	OK
S12.000	S3180	60 minute	30 year	Summer I+0%	60	1	27.308	25.843	-0.091	0.000	0.33	0.061	11.0	OK
S13.000	S3190	60 minute	30 year	Summer I+0%	60	1	27.405	25.808	-0.172	0.000	0.13	0.055	11.3	OK
S12.001	S3181	60 minute	30 year	Summer I+0%	60	1	27.233	25.485	-0.105	0.000	0.55	0.155	31.7	OK
S12.002	S3182	60 minute	30 year	Summer I+0%	60	1	26.894	25.118	-0.182	0.000	0.32	0.139	44.1	OK
S12.003	S3183	60 minute	30 year	Summer I+0%	60	1	26.521	24.777	-0.159	0.000	0.45	0.252	53.8	OK
S12.004	S3184	60 minute	30 year	Summer I+0%	60	1	26.290	24.557	-0.148	0.000	0.51	0.282	61.4	OK
S11.005	S3155	60 minute	30 year	Summer I+0%	60	1	25.834	24.221	-0.082	0.000	0.75	1.015	116.7	OK
S11.006	S3156	60 minute	30 year	Summer I+0%	60	1	26.130	24.158	-0.026	0.000	0.75	5.724	126.6	OK
S14.000	S3200	60 minute	30 year	Summer I+0%	60	1	27.248	25.524	-0.224	0.000	0.15	0.080	14.9	OK
S14.001	S3201	60 minute	30 year	Summer I+0%	60	1	26.960	25.255	-0.205	0.000	0.22	0.173	38.1	OK
S14.002	S3202	60 minute	30 year	Summer I+0%	60	1	26.657	24.550	-0.172	0.000	0.37	0.190	59.0	OK
S15.000	SH316	60 minute	30 year	Summer I+0%	60	1	26.150	24.466	-0.184	0.000	0.08	0.040	6.9	OK
S11.007	S3157	60 minute	30 year	Summer I+0%	60	1	26.356	24.127	0.000	0.000	1.03	2.583	204.3	OK
S11.008	S3158	60 minute	30 year	Summer I+0%	60	1	25.760	24.028	-0.068	0.000	0.66	3.489	199.5	OK
S11.009	S3159	60 minute	30 year	Summer I+0%	60	1	25.205	23.970	0.000	0.000	1.10	13.872	197.6	OK
S16.000	S3210	60 minute	30 year	Summer I+0%	60	1	26.390	24.862	-0.103	0.000	0.22	0.048	9.9	OK
S17.000	S3220	60 minute	30 year	Summer I+0%	60	1	26.231	24.707	-0.099	0.000	0.25	0.052	8.3	OK
S16.001	S3211	60 minute	30 year	Summer I+0%	60	1	26.202	24.282	-0.111	0.000	0.50	0.126	25.2	OK
S16.002	S3212	60 minute	30 year	Summer I+0%	60	1	26.040	24.099	-0.092	0.000	0.64	0.266	31.8	OK
S16.003	S3213	60 minute	30 year	Summer I+0%	60	1	25.813	24.020	0.021	0.000	1.23	0.658	41.3	SURCHARGED
S11.010	S3160	60 minute	30 year	Summer I+0%	60	1	25.672	23.886	-0.051	0.000	0.82	4.755	232.6	OK
S11.011	S3161	60 minute	30 year	Summer I+0%	60	1	25.057	23.812	-0.045	0.000	0.69	8.408	239.5	OK
S18.000	SH323	60 minute	30 year	Summer I+0%	60	1	25.250	23.858	-0.126	0.000	0.01	0.106	0.2	OK
S18.001	S3230	60 minute	30 year	Summer I+0%	60	1	25.150	23.860	-0.045	0.000	0.72	0.439	25.0	OK
S18.002	S3231	60 minute	30 year	Summer I+0%	60	1	24.920	23.811	0.006	0.000	1.01	0.760	30.1	SURCHARGED
S11.012	S3162	60 minute	30 year	Summer I+0%	60	1	24.964	23.775	0.011	0.000	1.06	4.217	258.7	SURCHARGED
S11.013	S3163	60 minute	30 year	Summer I+0%	60	1	24.890	23.690	0.000	0.000	1.88	12.046	267.4	OK
S11.014	S3164	60 minute	30 year	Summer I+0%	60	1	24.022	23.182	-0.840	0.000	0.03	0.334	267.6	OK
S19.000	S3240	60 minute	30 year	Summer I+0%	60	1	24.640	23.249	-0.191	0.000	0.16	0.117	8.7	OK
S20.000	S3250	60 minute	30 year	Summer I+0%	60	1	24.628	23.247	-0.181	0.000	0.19	0.129	10.1	OK
S19.001	S3241	60 minute	30 year	Summer I+0%	60	1	24.597	23.238	-0.159	0.000	0.45	0.515	25.9	OK
S19.002	S3242	60 minute	30 year	Summer I+0%	60	1	24.000	23.143	-0.151	0.000	0.49	0.763	31.7	OK
S11.015	S3165	60 minute	30 year	Summer I+0%	60	1	23.922	23.063	-0.859	0.000	0.04	2.089	291.5	OK
S11.016	S3166	60 minute	30 year	Summer I+0%	60	1	23.652	22.816	-0.836	0.000	0.04	4.311	291.4	OK
S21.000	S3260	60 minute	30 year	Summer I+0%	60	1	24.136	22.764	-0.172	0.000	0.11	0.055	3.9	OK
S21.001	S3261	60 minute	30 year	Summer I+0%	60	1	24.043	22.730	-0.113	0.000	0.49	0.256	16.6	OK

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S11. 017	S3167	60 minute 30 year Summer I+0%	60	1	23. 459	22. 698	-0. 761	0. 000	0. 05	3. 219	300. 7	OK
S22. 000	S3270	60 minute 30 year Summer I+0%	60	1	24. 058	22. 622	-0. 236	0. 000	0. 09	0. 067	6. 0	OK
S22. 001	S3271	60 minute 30 year Summer I+0%	60	1	23. 965	22. 568	-0. 197	0. 000	0. 26	0. 302	16. 1	OK
S22. 002	S3272	60 minute 30 year Summer I+0%	60	1	23. 872	22. 502	-0. 170	0. 000	0. 39	0. 478	22. 3	OK
S11. 018	S3168	60 minute 30 year Summer I+0%	60	1	23. 365	22. 467	-0. 898	0. 000	0. 04	4. 721	314. 9	OK
S11. 019	S3169	60 minute 30 year Summer I+0%	60	1	23. 316	22. 452	-0. 864	0. 000	0. 04	0. 495	315. 2	OK
S11. 020	S3170	60 minute 30 year Summer I+0%	60	1	22. 996	22. 231	-0. 765	0. 000	0. 05	4. 519	314. 4	OK
S23. 000	S3280	60 minute 30 year Summer I+0%	60	1	23. 484	22. 110	-0. 174	0. 000	0. 12	0. 052	4. 3	OK
S23. 001	S3281	60 minute 30 year Summer I+0%	60	1	23. 269	22. 075	0. 006	0. 000	0. 78	0. 979	25. 5	SURCHARGED
S11. 021	S3171	60 minute 30 year Summer I+0%	60	1	22. 739	22. 068	-0. 671	0. 000	0. 05	12. 473	306. 8	OK
S11. 022	S3172	60 minute 30 year Summer I+0%	60	1	22. 621	22. 050	0. 059	0. 000	1. 03	34. 828	256. 0	SURCHARGED*
S11. 023	S3173	60 minute 30 year Summer I+0%	60	1	22. 633	21. 688	-0. 945	0. 000	0. 03	0. 573	256. 4	OK
S24. 000	S3290	60 minute 30 year Summer I+0%	60	1	27. 878	26. 212	-0. 250	0. 000	0. 07	0. 050	6. 4	OK
S24. 001	S3291	60 minute 30 year Summer I+0%	60	1	27. 725	26. 050	-0. 248	0. 000	0. 07	0. 085	9. 5	OK
S24. 002	S3292	60 minute 30 year Summer I+0%	60	1	27. 292	25. 376	-0. 262	0. 000	0. 19	0. 162	26. 1	OK
S24. 003	S3293	60 minute 30 year Summer I+0%	60	1	27. 136	25. 262	-0. 259	0. 000	0. 21	0. 327	34. 0	OK
S24. 004	S3294	60 minute 30 year Summer I+0%	60	1	26. 998	25. 095	-0. 249	0. 000	0. 24	0. 314	45. 0	OK
S24. 005	S3295	60 minute 30 year Summer I+0%	60	1	26. 633	24. 827	-0. 152	0. 000	0. 65	0. 918	64. 8	OK
S24. 006	S3296	60 minute 30 year Summer I+0%	60	1	26. 623	24. 743	-0. 127	0. 000	0. 53	2. 650	89. 7	OK
S24. 007	S3297	60 minute 30 year Summer I+0%	60	1	26. 942	24. 711	-0. 077	0. 000	0. 91	2. 342	96. 3	OK
S24. 008	S3298	60 minute 30 year Summer I+0%	60	1	27. 141	24. 672	-0. 081	0. 000	1. 00	2. 080	99. 7	OK
S25. 000	S3320	60 minute 30 year Summer I+0%	60	1	27. 291	25. 599	-0. 195	0. 000	0. 04	0. 029	6. 4	OK
S24. 009	S3299	60 minute 30 year Summer I+0%	60	1	27. 239	24. 580	-0. 146	0. 000	0. 78	1. 291	112. 3	OK
S24. 010	S3300	60 minute 30 year Summer I+0%	60	1	26. 728	24. 380	-0. 242	0. 000	0. 43	2. 195	121. 6	OK
S26. 000	S3330	60 minute 30 year Summer I+0%	60	1	25. 706	24. 178	-0. 265	0. 000	0. 03	0. 034	5. 7	OK
S24. 011	S3301	60 minute 30 year Summer I+0%	60	1	25. 786	23. 949	0. 018	0. 000	0. 92	5. 610	166. 4	SURCHARGED
S24. 012	S3302	60 minute 30 year Summer I+0%	60	1	25. 425	23. 898	0. 027	0. 000	0. 97	6. 764	179. 9	SURCHARGED
S24. 013	S3303	60 minute 30 year Summer I+0%	60	1	24. 980	23. 828	0. 032	0. 000	1. 12	8. 426	198. 1	SURCHARGED
S24. 014	S3304	60 minute 30 year Summer I+0%	60	1	24. 943	23. 760	0. 017	0. 000	1. 09	6. 035	204. 8	SURCHARGED
S24. 015	S3305	60 minute 30 year Winter I+0%	60	1	24. 865	23. 665	0. 000	0. 000	1. 59	8. 344	204. 4	OK
S24. 016	S3306	60 minute 30 year Summer I+0%	60	1	24. 643	23. 196	-1. 447	0. 000	0. 01	0. 341	214. 5	OK
S24. 017	S3307	60 minute 30 year Summer I+0%	60	1	24. 775	22. 976	-1. 799	0. 000	0. 01	1. 189	214. 6	OK
S24. 018	S3308	60 minute 30 year Summer I+0%	60	1	24. 194	22. 651	-1. 543	0. 000	0. 01	2. 259	215. 0	OK
S24. 019	S3309	60 minute 30 year Summer I+0%	60	1	24. 085	22. 578	-1. 507	0. 000	0. 01	0. 919	213. 0	OK
S27. 000	S3340	60 minute 30 year Summer I+0%	60	1	24. 183	22. 744	-0. 239	0. 000	0. 03	0. 063	1. 9	OK
S27. 001	S3341	60 minute 30 year Summer I+0%	60	1	24. 142	22. 740	-0. 202	0. 000	0. 23	0. 198	16. 2	OK
S27. 002	S3342	60 minute 30 year Summer I+0%	60	1	23. 927	22. 574	-0. 153	0. 000	0. 40	0. 665	24. 6	OK
S24. 020	S3310	60 minute 30 year Summer I+0%	60	1	23. 831	22. 565	-1. 266	0. 000	0. 01	2. 392	220. 5	OK
S24. 021	S3311	60 minute 30 year Summer I+0%	60	1	23. 455	22. 560	-0. 895	0. 000	0. 01	4. 565	217. 8	OK
S24. 022	S3312	60 minute 30 year Summer I+0%	60	1	23. 461	22. 560	0. 115	0. 000	1. 29	5. 225	217. 9	SURCHARGED*
S24. 023	S3313	60 minute 30 year Summer I+0%	60	1	23. 546	22. 188	-1. 358	0. 000	0. 01	0. 438	217. 6	OK
S1. 026	S3029-Basin C	360 minute 30 year Winter I+0%	360	1	21. 900	21. 272	0. 272	0. 000	0. 43	2009. 637	124. 0	SURCHARGED
S1. 027	S3030	360 minute 30 year Winter I+0%	360	1	22. 440	21. 314	0. 577	0. 000	0. 29	2. 365	117. 2	SURCHARGED
S1. 028	S3031	360 minute 30 year Winter I+0%	360	1	22. 645	21. 365	1. 131	0. 000	0. 61	4. 352	92. 5	SURCHARGED
S28. 000	S3350	60 minute 30 year Summer I+0%	60	1	24. 098	22. 283	-0. 328	0. 000	0. 30	0. 339	112. 6	OK
S28. 001	S3351	60 minute 30 year Summer I+0%	60	1	23. 359	21. 815	-0. 178	0. 000	0. 75	3. 805	217. 9	OK

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S28.002	S3352	60 minute 30 year Winter I+0%	60	1	22.742	21.428	-0.192	0.000	0.39	5.562	184.8	OK
S28.003	S3353	60 minute 30 year Winter I+0%	60	1	22.519	21.386	0.139	0.000	0.18	5.653	174.4	SURCHARGED
S28.004	S3354	60 minute 30 year Winter I+0%	60	1	22.616	21.374	0.247	0.000	0.38	15.364	174.1	SURCHARGED
S29.000	S3370	60 minute 30 year Winter I+0%	60	1	23.318	21.445	0.010	0.000	0.39	0.345	21.7	SURCHARGED
S29.001	S3371	60 minute 30 year Winter I+0%	60	1	23.170	21.431	0.060	0.000	0.51	1.633	30.9	SURCHARGED
S29.002	S3372	60 minute 30 year Winter I+0%	60	1	22.964	21.412	0.111	0.000	0.64	1.580	37.1	SURCHARGED
S29.003	S3373	60 minute 30 year Winter I+0%	60	1	22.764	21.394	0.145	0.000	0.73	1.311	38.8	SURCHARGED
S29.004	S3374	60 minute 30 year Winter I+0%	60	1	22.667	21.381	0.164	0.000	0.55	0.980	47.1	SURCHARGED
S30.000	S3380	60 minute 30 year Winter I+0%	60	1	22.437	21.372	0.135	0.000	0.16	0.317	2.7	SURCHARGED
S28.005	S3355	360 minute 30 year Winter I+0%	360	1	22.561	21.366	0.267	0.000	0.07	12.118	88.6	SURCHARGED
S28.006	S3356	360 minute 30 year Winter I+0%	360	1	22.401	21.373	0.323	0.000	0.06	27.607	65.5	SURCHARGED
S28.007	S3357	360 minute 30 year Winter I+0%	360	1	22.379	21.382	0.382	0.000	0.09	36.861	66.1	SURCHARGED
S28.008	S3358	360 minute 30 year Winter I+0%	360	1	22.415	21.386	0.402	0.000	0.10	12.241	66.4	SURCHARGED
S31.000	S3390	60 minute 30 year Summer I+0%	60	1	23.337	21.710	-0.153	0.000	0.22	0.076	12.2	OK
S31.001	S3391	60 minute 30 year Winter I+0%	60	1	23.137	21.415	-0.079	0.000	0.47	0.302	16.2	OK
S31.002	S3392	60 minute 30 year Winter I+0%	60	1	22.984	21.398	-0.021	0.000	0.56	0.569	20.5	OK
S31.003	S3393	60 minute 30 year Winter I+0%	60	1	22.666	21.372	0.089	0.000	0.76	1.178	22.7	SURCHARGED
S31.004	S3394	60 minute 30 year Winter I+0%	60	1	22.568	21.360	0.120	0.000	0.80	0.622	25.8	SURCHARGED
S28.009	S3359	360 minute 30 year Winter I+0%	360	1	22.484	21.388	0.421	0.000	0.10	15.758	70.6	SURCHARGED
S28.010	S3360	360 minute 30 year Winter I+0%	360	1	22.471	21.390	0.443	0.000	0.06	13.442	68.1	SURCHARGED
S1.029	S3032	360 minute 30 year Winter I+0%	360	1	22.290	21.393	0.488	0.000	0.09	35.104	84.5	SURCHARGED
S1.030	S3033-CON	360 minute 30 year Winter I+0%	360	1	22.415	21.394	1.280	0.000	0.35	36.910	54.8	SURCHARGED
S1.031	S3034	60 minute 30 year Winter I+0%	60	1	23.160	19.753	-0.239	0.000	0.44	2.039	55.0	OK
S1.032	S3035	60 minute 30 year Winter I+0%	60	1	23.110	19.689	-0.255	0.000	0.39	1.114	54.9	OK
S1.033	S3036	60 minute 30 year Winter I+0%	60	1	21.990	19.591	-0.262	0.000	0.37	1.743	54.7	OK
S1.034	S3037	60 minute 30 year Winter I+0%	60	1	21.475	19.416	-0.262	0.000	0.37	2.220	54.6	OK
S1.035	S3038	60 minute 30 year Winter I+0%	60	1	21.015	19.279	-0.237	0.000	0.46	2.734	54.5	OK
S1.036	S3039-HW	60 minute 30 year Winter I+0%	60	1	19.850	19.164	-0.686	0.000	0.04	0.487	54.5	OK
S1.037	S3040	60 minute 30 year Winter I+0%	60	1	20.192	19.142	-1.050	0.000	0.01	0.396	54.5	OK

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

Simulation Criteria

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

Number of Input Hydrographs 0	Number of Offline Controls 0	Number of Time/Area Diagrams 0
Number of Online Controls 2	Number of Storage Structures 2	Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH	Site Location GB 450306	114752 Cv (Summer) 0.750
FEH Rainfall Version 2013	Data Type	Point Cv (Winter) 0.840

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

Profile(s)

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

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m ³)	Flow / Cap.	Maximum Vol (m ³)	Pipe Flow (l/s)	Status
S1.000	S3000	60 minute 100 year Summer I+40%	60	1	27.478	26.188	-0.090	0.000	0.67	0.147	39.2	OK
S1.001	S3001	60 minute 100 year Summer I+40%	60	1	26.966	25.873	0.107	0.000	0.94	1.035	62.1	SURCHARGED
S1.002	S3002	60 minute 100 year Summer I+40%	60	1	26.704	25.740	0.130	0.000	1.01	3.271	105.6	SURCHARGED
S1.003	S3003	60 minute 100 year Summer I+40%	60	1	28.014	25.541	0.121	0.000	1.23	7.088	108.2	SURCHARGED
S2.000	S3050	60 minute 100 year Summer I+40%	60	1	33.607	32.444	0.037	0.000	1.18	0.290	42.8	SURCHARGED
S2.001	S3051	60 minute 100 year Summer I+40%	60	1	33.552	32.215	-0.077	0.000	0.76	0.428	67.6	OK
S2.002	S3052	60 minute 100 year Summer I+40%	60	1	32.390	31.110	-0.079	0.000	0.74	0.213	77.5	OK
S2.003	S3053	60 minute 100 year Summer I+40%	60	1	31.592	30.702	0.310	0.000	0.85	0.900	87.7	SURCHARGED
S2.004	S3054	60 minute 100 year Summer I+40%	60	1	30.545	29.988	0.611	0.000	1.11	1.507	101.4	SURCHARGED
S2.005	S3055	60 minute 100 year Summer I+40%	60	1	29.217	28.444	0.313	0.000	1.32	1.075	107.1	SURCHARGED
S2.006	S3056	60 minute 100 year Summer I+40%	60	1	28.782	27.596	-0.099	0.000	0.60	0.174	110.0	OK
S1.004	S3004	60 minute 100 year Summer I+40%	60	1	28.294	25.470	0.098	0.000	1.85	2.652	224.6	SURCHARGED
S1.005	S3005	60 minute 100 year Summer I+40%	60	1	28.322	25.411	0.068	0.000	1.39	3.810	266.4	SURCHARGED
S1.006	S3006	60 minute 100 year Summer I+40%	60	1	27.532	24.951	-0.299	0.000	0.39	3.080	271.7	OK
S3.000	S3060	60 minute 100 year Summer I+40%	60	1	26.680	25.575	0.095	0.000	1.03	0.356	56.9	SURCHARGED
S3.001	S3061	60 minute 100 year Summer I+40%	60	1	26.141	24.908	0.087	0.000	0.64	1.268	83.3	SURCHARGED
S3.002	S3062	60 minute 100 year Summer I+40%	60	1	26.114	24.821	0.211	0.000	1.14	5.250	98.6	SURCHARGED
S3.003	S3063	60 minute 100 year Summer I+40%	60	1	26.410	24.763	0.200	0.000	1.22	2.318	121.6	SURCHARGED
S3.004	S3064	60 minute 100 year Summer I+40%	60	1	27.500	24.598	0.149	0.000	1.44	4.648	123.9	SURCHARGED
S1.007	S3007	60 minute 100 year Summer I+40%	60	1	27.348	24.498	0.090	0.000	1.09	3.359	441.8	SURCHARGED
S4.000	S3070	60 minute 100 year Summer I+40%	60	1	25.790	25.519	0.701	0.000	1.57	1.042	61.1	FLOOD RISK
S4.001	S3072	60 minute 100 year Summer I+40%	60	1	25.325	24.764	0.246	0.000	1.55	2.431	85.3	SURCHARGED
S4.002	S3073	60 minute 100 year Summer I+40%	60	1	25.456	24.647	0.169	0.000	1.12	1.378	109.9	SURCHARGED

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S4.003	S3074	60 minute 100 year Summer I+40%	60	1	25.586	24.523	0.141	0.000	1.31	4.042	131.3	SURCHARGED
S1.008	S3008	60 minute 100 year Summer I+40%	60	1	26.600	24.321	0.057	0.000	2.14	26.162	576.1	SURCHARGED
S1.009	S3009	60 minute 100 year Summer I+40%	60	1	26.345	24.248	0.010	0.000	2.27	6.479	581.3	SURCHARGED
S1.010	S3010	60 minute 100 year Summer I+40%	60	1	26.150	24.035	-0.184	0.000	0.44	3.713	602.5	OK
S1.011	S3011	60 minute 100 year Summer I+40%	60	1	24.845	23.840	0.657	0.000	0.94	28.868	606.4	SURCHARGED
S5.000	S3080	60 minute 100 year Summer I+40%	60	1	25.677	24.623	0.118	0.000	1.15	0.297	24.0	SURCHARGED
S5.001	S3081	60 minute 100 year Summer I+40%	60	1	25.276	24.036	-0.091	0.000	0.77	0.241	101.9	OK
S1.012	S3012	60 minute 100 year Summer I+40%	60	1	24.078	23.729	0.716	0.000	1.07	11.768	678.7	SURCHARGED
S1.013	S3013	60 minute 100 year Summer I+40%	60	1	23.942	23.670	0.710	0.000	1.59	19.916	685.0	FLOOD RISK
S1.014	S3014	60 minute 100 year Summer I+40%	60	1	23.833	23.621	0.692	0.000	2.49	12.676	683.7	FLOOD RISK
S6.000	S3090	60 minute 100 year Summer I+40%	60	1	31.555	29.914	-0.111	0.000	0.51	0.123	55.9	OK
S6.001	S3091	60 minute 100 year Summer I+40%	60	1	29.895	28.309	-0.056	0.000	0.70	0.234	66.5	OK
S6.002	S3092	60 minute 100 year Summer I+40%	60	1	29.250	27.991	0.266	0.000	1.20	0.872	81.1	SURCHARGED
S7.000	S3110	60 minute 100 year Summer I+40%	60	1	30.720	29.129	-0.081	0.000	0.74	0.158	55.6	OK
S7.001	S3111	60 minute 100 year Summer I+40%	60	1	29.740	28.182	-0.063	0.000	0.97	0.357	99.1	OK
S7.002	S3112	60 minute 100 year Summer I+40%	60	1	29.410	27.786	-0.134	0.000	0.74	0.626	112.2	OK
S7.003	S3113	60 minute 100 year Summer I+40%	60	1	29.250	27.658	-0.112	0.000	0.84	1.106	142.6	OK
S7.004	S3114	60 minute 100 year Summer I+40%	60	1	29.025	27.431	-0.109	0.000	0.84	1.287	159.0	OK
S6.003	S3093	60 minute 100 year Summer I+40%	60	1	28.650	27.161	0.016	0.000	1.02	2.707	248.7	SURCHARGED
S6.004	S3094	60 minute 100 year Summer I+40%	60	1	28.150	26.484	-0.171	0.000	0.57	0.530	278.6	OK
S8.000	S3120	60 minute 100 year Summer I+40%	60	1	26.200	24.347	0.219	0.000	1.11	0.412	18.8	SURCHARGED
S8.001	S3121	60 minute 100 year Summer I+40%	60	1	26.500	24.049	0.196	0.000	1.29	0.895	50.8	SURCHARGED
S8.002	S3122	60 minute 100 year Summer I+40%	60	1	26.440	23.894	0.218	0.000	0.98	1.576	61.4	SURCHARGED
S6.005	S3095	60 minute 100 year Summer I+40%	60	1	26.160	23.845	0.262	0.000	1.42	3.664	358.4	SURCHARGED
S6.006	S3096	60 minute 100 year Summer I+40%	60	1	24.555	23.743	0.224	0.000	0.46	10.035	334.3	SURCHARGED
S6.007	S3097	60 minute 100 year Summer I+40%	60	1	24.220	23.691	0.705	0.000	2.14	4.142	332.8	SURCHARGED
S6.008	S3098	60 minute 100 year Summer I+40%	60	1	23.845	23.627	0.665	0.000	0.68	6.566	329.2	FLOOD RISK
S6.009	S3099	60 minute 100 year Summer I+40%	60	1	23.675	23.600	0.698	0.000	0.76	7.652	342.5	FLOOD RISK
S6.010	S3100	60 minute 100 year Summer I+40%	60	1	23.600	23.586	0.691	0.000	0.93	7.458	343.4	FLOOD RISK
S1.015	S3015	60 minute 100 year Summer I+40%	60	1	23.565	23.571	0.686	6.484	2.87	24.589	959.2	FLOOD
S1.016	S3016	60 minute 100 year Summer I+40%	60	1	23.660	23.487	0.614	0.000	3.27	10.019	956.4	FLOOD RISK
S1.017	S3017	60 minute 100 year Summer I+40%	60	1	23.840	23.398	0.540	0.000	2.97	11.419	955.0	SURCHARGED
S9.000	S3130	60 minute 100 year Summer I+40%	60	1	26.352	25.050	-0.102	0.000	0.58	0.134	34.6	OK
S9.001	S3131	60 minute 100 year Summer I+40%	60	1	25.763	24.651	0.089	0.000	0.86	0.959	70.5	SURCHARGED
S9.002	S3132	60 minute 100 year Summer I+40%	60	1	25.576	24.477	0.164	0.000	1.16	3.039	78.7	SURCHARGED
S9.003	S3133	60 minute 100 year Summer I+40%	60	1	25.493	24.380	0.141	0.000	0.97	0.993	94.7	SURCHARGED
S10.000	S3140	60 minute 100 year Summer I+40%	60	1	25.428	24.224	-0.004	0.000	0.55	0.245	28.9	OK
S9.004	S3134	60 minute 100 year Summer I+40%	60	1	25.210	24.161	0.151	0.000	1.24	2.580	134.1	SURCHARGED
S9.005	S3135	60 minute 100 year Summer I+40%	60	1	24.964	23.777	0.014	0.000	1.13	1.366	147.5	SURCHARGED
S9.006	S3136	60 minute 100 year Winter I+40%	60	1	24.852	23.481	-0.171	0.000	0.48	0.713	130.2	OK
S9.007	S3137	60 minute 100 year Winter I+40%	60	1	24.696	23.448	0.028	0.000	0.46	2.164	141.5	SURCHARGED
S9.008	S3138	60 minute 100 year Winter I+40%	60	1	24.374	23.399	0.301	0.000	0.56	4.764	143.8	SURCHARGED
S9.009	S3139	60 minute 100 year Winter I+40%	60	1	24.123	23.356	0.462	0.000	1.02	4.192	151.5	SURCHARGED
S1.018	S3018	60 minute 100 year Winter I+40%	60	1	23.970	23.320	0.475	0.000	2.19	11.834	1072.7	SURCHARGED
S1.019	S3019	60 minute 100 year Winter I+40%	60	1	23.500	23.176	0.366	0.000	1.36	11.692	1067.8	SURCHARGED
S1.020	S3020-BASIN D	60 minute 100 year Winter I+40%	60	1	23.500	23.152	0.817	0.000	0.97	1157.506	267.0	SURCHARGED

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S1.021	S3021-COIN	60 minute 100 year Winter I+40%	60	1	24.020	23.054	0.849	0.000	1.20	5.661	260.8	SURCHARGED
S1.022	S3023	60 minute 100 year Winter I+40%	60	1	25.220	22.232	0.237	0.000	1.16	20.478	252.3	SURCHARGED
S1.023	S3024	60 minute 100 year Winter I+40%	60	1	25.535	21.958	0.173	0.000	1.15	20.276	251.3	SURCHARGED
S1.024	S3026	360 minute 100 year Winter I+40%	360	1	24.960	21.753	0.178	0.000	1.02	20.293	207.4	SURCHARGED
S1.025	S3028	480 minute 100 year Winter I+40%	480	1	24.350	21.733	0.278	0.000	1.50	12.887	191.1	SURCHARGED
S11.000	S3150	60 minute 100 year Summer I+40%	60	1	28.020	26.601	-0.061	0.000	0.66	0.095	14.3	OK
S11.001	S3151	60 minute 100 year Summer I+40%	60	1	27.356	25.959	-0.081	0.000	0.73	0.180	45.9	OK
S11.002	S3152	60 minute 100 year Summer I+40%	60	1	26.707	25.376	-0.124	0.000	0.64	0.243	70.2	OK
S11.003	S3153	60 minute 100 year Summer I+40%	60	1	26.514	25.209	-0.098	0.000	0.79	0.425	74.1	OK
S11.004	S3154	60 minute 100 year Summer I+40%	60	1	26.322	25.127	-0.038	0.000	0.41	0.700	78.4	OK
S12.000	S3180	60 minute 100 year Summer I+40%	60	1	27.308	25.866	-0.068	0.000	0.58	0.087	19.7	OK
S13.000	S3190	60 minute 100 year Summer I+40%	60	1	27.405	25.827	-0.153	0.000	0.23	0.076	20.1	OK
S12.001	S3181	60 minute 100 year Summer I+40%	60	1	27.233	25.613	0.023	0.000	0.97	0.409	56.1	SURCHARGED
S12.002	S3182	60 minute 100 year Summer I+40%	60	1	26.894	25.410	0.110	0.000	0.57	0.989	77.7	SURCHARGED
S12.003	S3183	60 minute 100 year Summer I+40%	60	1	26.521	25.330	0.394	0.000	0.72	1.962	86.8	SURCHARGED
S12.004	S3184	60 minute 100 year Summer I+40%	60	1	26.290	25.234	0.529	0.000	0.76	1.681	91.0	SURCHARGED
S11.005	S3155	60 minute 100 year Summer I+40%	60	1	25.834	25.018	0.715	0.000	1.14	5.025	179.0	SURCHARGED
S11.006	S3156	60 minute 100 year Summer I+40%	60	1	26.130	24.866	0.682	0.000	1.19	7.717	200.6	SURCHARGED
S14.000	S3200	60 minute 100 year Summer I+40%	60	1	27.248	25.551	-0.197	0.000	0.26	0.111	26.6	OK
S14.001	S3201	60 minute 100 year Summer I+40%	60	1	26.960	25.291	-0.169	0.000	0.39	0.304	67.8	OK
S14.002	S3202	60 minute 100 year Summer I+40%	60	1	26.657	24.919	0.197	0.000	0.64	1.306	101.4	SURCHARGED
S15.000	SH316	60 minute 100 year Summer I+40%	60	1	26.150	24.757	0.107	0.000	0.13	0.370	12.0	SURCHARGED
S11.007	S3157	60 minute 100 year Summer I+40%	60	1	26.356	24.740	0.613	0.000	1.71	5.267	339.9	SURCHARGED
S11.008	S3158	60 minute 100 year Summer I+40%	60	1	25.760	24.677	0.581	0.000	1.11	5.172	334.5	SURCHARGED
S11.009	S3159	60 minute 100 year Summer I+40%	60	1	25.205	24.526	0.556	0.000	1.84	15.825	331.9	SURCHARGED
S16.000	S3210	60 minute 100 year Summer I+40%	60	1	26.390	24.952	-0.013	0.000	0.39	0.149	17.5	OK
S17.000	S3220	60 minute 100 year Summer I+40%	60	1	26.231	24.949	0.143	0.000	0.44	0.326	14.6	SURCHARGED
S16.001	S3211	60 minute 100 year Summer I+40%	60	1	26.202	24.893	0.500	0.000	0.77	1.050	38.7	SURCHARGED
S16.002	S3212	60 minute 100 year Summer I+40%	60	1	26.040	24.788	0.597	0.000	0.92	1.571	45.9	SURCHARGED
S16.003	S3213	60 minute 100 year Summer I+40%	60	1	25.813	24.633	0.634	0.000	1.76	1.580	59.0	SURCHARGED
S11.010	S3160	60 minute 100 year Summer I+40%	60	1	25.672	24.451	0.514	0.000	1.40	6.503	395.3	SURCHARGED
S11.011	S3161	60 minute 100 year Summer I+40%	60	1	25.057	24.293	0.436	0.000	1.18	10.432	410.0	SURCHARGED
S18.000	SH323	60 minute 100 year Summer I+40%	60	1	25.250	24.348	0.364	0.000	0.04	0.661	1.3	SURCHARGED
S18.001	S3230	60 minute 100 year Summer I+40%	60	1	25.150	24.350	0.445	0.000	1.15	1.141	40.3	SURCHARGED
S18.002	S3231	60 minute 100 year Summer I+40%	60	1	24.920	24.227	0.422	0.000	1.64	1.377	49.1	SURCHARGED
S11.012	S3162	60 minute 100 year Summer I+40%	60	1	24.964	24.124	0.360	0.000	1.86	5.016	452.7	SURCHARGED
S11.013	S3163	60 minute 100 year Summer I+40%	60	1	24.890	23.864	0.174	0.000	3.32	13.128	471.1	SURCHARGED
S11.014	S3164	60 minute 100 year Summer I+40%	60	1	24.022	23.248	-0.774	0.000	0.06	0.670	470.7	OK
S19.000	S3240	60 minute 100 year Summer I+40%	60	1	24.640	23.313	-0.127	0.000	0.28	0.190	15.5	OK
S20.000	S3250	60 minute 100 year Summer I+40%	60	1	24.628	23.312	-0.116	0.000	0.34	0.202	18.0	OK
S19.001	S3241	60 minute 100 year Summer I+40%	60	1	24.597	23.302	-0.095	0.000	0.79	0.871	46.1	OK
S19.002	S3242	60 minute 100 year Summer I+40%	60	1	24.000	23.213	-0.081	0.000	0.88	1.396	56.4	OK
S11.015	S3165	60 minute 100 year Summer I+40%	60	1	23.922	23.144	-0.778	0.000	0.07	3.785	519.4	OK
S11.016	S3166	60 minute 100 year Summer I+40%	60	1	23.652	22.903	-0.749	0.000	0.08	8.090	519.6	OK
S21.000	S3260	60 minute 100 year Summer I+40%	60	1	24.136	22.825	-0.111	0.000	0.19	0.124	6.8	OK
S21.001	S3261	60 minute 100 year Summer I+40%	60	1	24.043	22.815	-0.028	0.000	0.86	0.610	29.1	OK

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S11. 017	S3167	60 minute 100 year Summer I+40%	60	1	23.459	22.783	-0.676	0.000	0.09	5.729	538.9	OK
S22. 000	S3270	60 minute 100 year Summer I+40%	60	1	24.058	22.651	-0.207	0.000	0.17	0.100	10.6	OK
S22. 001	S3271	60 minute 100 year Summer I+40%	60	1	23.965	22.611	-0.154	0.000	0.45	0.593	28.4	OK
S22. 002	S3272	60 minute 100 year Summer I+40%	60	1	23.872	22.571	-0.101	0.000	0.69	0.953	39.3	OK
S11. 018	S3168	60 minute 100 year Summer I+40%	60	1	23.365	22.550	-0.815	0.000	0.06	8.651	566.2	OK
S11. 019	S3169	60 minute 100 year Summer I+40%	60	1	23.316	22.539	-0.777	0.000	0.07	0.980	565.9	OK
S11. 020	S3170	60 minute 100 year Summer I+40%	60	1	22.996	22.368	-0.628	0.000	0.09	10.770	557.5	OK
S23. 000	S3280	60 minute 100 year Winter I+40%	60	1	23.484	22.359	0.075	0.000	0.16	0.334	6.0	SURCHARGED
S23. 001	S3281	60 minute 100 year Winter I+40%	60	1	23.269	22.350	0.281	0.000	0.97	1.970	31.9	SURCHARGED
S11. 021	S3171	60 minute 100 year Summer I+40%	60	1	22.739	22.332	-0.407	0.000	0.09	36.659	517.6	OK
S11. 022	S3172	60 minute 100 year Summer I+40%	60	1	22.621	22.323	0.332	0.000	1.91	73.378	475.8	FLOOD RISK*
S11. 023	S3173	60 minute 100 year Summer I+40%	60	1	22.633	21.776	-0.857	0.000	0.06	0.867	476.0	OK
S24. 000	S3290	60 minute 100 year Summer I+40%	60	1	27.878	26.230	-0.232	0.000	0.12	0.071	11.5	OK
S24. 001	S3291	60 minute 100 year Summer I+40%	60	1	27.725	26.068	-0.230	0.000	0.12	0.118	16.9	OK
S24. 002	S3292	60 minute 100 year Summer I+40%	60	1	27.292	25.417	-0.221	0.000	0.35	0.253	46.5	OK
S24. 003	S3293	60 minute 100 year Summer I+40%	60	1	27.136	25.343	-0.178	0.000	0.37	0.805	60.5	OK
S24. 004	S3294	60 minute 100 year Summer I+40%	60	1	26.998	25.318	-0.026	0.000	0.42	1.562	78.1	OK
S24. 005	S3295	60 minute 100 year Summer I+40%	60	1	26.633	25.274	0.295	0.000	1.04	4.580	103.0	SURCHARGED
S24. 006	S3296	60 minute 100 year Summer I+40%	60	1	26.623	25.188	0.318	0.000	0.88	5.617	149.2	SURCHARGED
S24. 007	S3297	60 minute 100 year Summer I+40%	60	1	26.942	25.141	0.353	0.000	1.52	3.529	160.8	SURCHARGED
S24. 008	S3298	60 minute 100 year Summer I+40%	60	1	27.141	25.094	0.341	0.000	1.67	3.198	166.1	SURCHARGED
S25. 000	S3320	60 minute 100 year Summer I+40%	60	1	27.291	25.611	-0.183	0.000	0.08	0.042	11.5	OK
S24. 009	S3299	60 minute 100 year Summer I+40%	60	1	27.239	25.049	0.323	0.000	1.26	2.700	180.9	SURCHARGED
S24. 010	S3300	60 minute 100 year Summer I+40%	60	1	26.728	24.906	0.284	0.000	0.68	7.464	191.3	SURCHARGED
S26. 000	S3330	60 minute 100 year Summer I+40%	60	1	25.706	24.593	0.150	0.000	0.05	0.503	9.5	SURCHARGED
S24. 011	S3301	60 minute 100 year Summer I+40%	60	1	25.786	24.586	0.655	0.000	1.49	15.592	270.1	SURCHARGED
S24. 012	S3302	60 minute 100 year Summer I+40%	60	1	25.425	24.455	0.584	0.000	1.58	8.069	294.0	SURCHARGED
S24. 013	S3303	60 minute 100 year Summer I+40%	60	1	24.980	24.268	0.472	0.000	1.84	9.580	325.7	SURCHARGED
S24. 014	S3304	60 minute 100 year Summer I+40%	60	1	24.943	24.085	0.342	0.000	1.81	6.941	338.6	SURCHARGED
S24. 015	S3305	60 minute 100 year Summer I+40%	60	1	24.865	23.825	0.160	0.000	2.77	9.247	357.0	SURCHARGED
S24. 016	S3306	60 minute 100 year Summer I+40%	60	1	24.643	23.251	-1.392	0.000	0.02	0.645	356.7	OK
S24. 017	S3307	60 minute 100 year Summer I+40%	60	1	24.775	23.024	-1.751	0.000	0.01	2.006	356.0	OK
S24. 018	S3308	60 minute 100 year Summer I+40%	60	1	24.194	22.798	-1.396	0.000	0.01	8.113	342.8	OK
S24. 019	S3309	60 minute 100 year Summer I+40%	60	1	24.085	22.790	-1.295	0.000	0.01	4.055	337.7	OK
S27. 000	S3340	60 minute 100 year Winter I+40%	60	1	24.183	22.819	-0.164	0.000	0.05	0.149	2.7	OK
S27. 001	S3341	60 minute 100 year Winter I+40%	60	1	24.142	22.818	-0.124	0.000	0.33	0.451	23.1	OK
S27. 002	S3342	60 minute 100 year Summer I+40%	60	1	23.927	22.801	0.074	0.000	0.68	3.160	41.9	SURCHARGED
S24. 020	S3310	60 minute 100 year Summer I+40%	60	1	23.831	22.788	-1.043	0.000	0.02	6.958	351.3	OK
S24. 021	S3311	60 minute 100 year Summer I+40%	60	1	23.455	22.787	-0.668	0.000	0.02	10.914	345.9	OK
S24. 022	S3312	60 minute 100 year Summer I+40%	60	1	23.461	22.786	0.341	0.000	2.04	10.028	345.0	SURCHARGED*
S24. 023	S3313	60 minute 100 year Summer I+40%	60	1	23.546	22.245	-1.301	0.000	0.02	0.618	345.1	OK
S1. 026	S3029-Basin C	480 minute 100 year Winter I+40%	480	1	21.900	21.724	0.724	0.000	0.59	4103.781	170.6	FLOOD RISK
S1. 027		480 minute 100 year Winter I+40%	480	1	22.440	21.787	1.050	0.000	0.42	3.043	167.2	SURCHARGED
S1. 028		480 minute 100 year Winter I+40%	480	1	22.645	21.864	1.630	0.000	0.97	5.067	147.1	SURCHARGED
S28. 000	S3350	60 minute 100 year Summer I+40%	60	1	24.098	22.638	0.027	0.000	0.53	0.967	200.7	SURCHARGED
S28. 001	S3351	60 minute 100 year Summer I+40%	60	1	23.359	22.573	0.580	0.000	1.15	20.387	332.0	SURCHARGED

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S28.002	S3352	60 minute 100 year Summer I+40%	60	1	22.742	22.243	0.623	0.000	0.67	21.381	313.9	SURCHARGED
S28.003	S3353	60 minute 100 year Summer I+40%	60	1	22.519	22.115	0.868	0.000	0.32	7.990	307.2	SURCHARGED
S28.004	S3354	60 minute 100 year Summer I+40%	60	1	22.616	22.096	0.969	0.000	0.66	17.229	300.2	SURCHARGED
S29.000	S3370	60 minute 100 year Summer I+40%	60	1	23.318	22.221	0.786	0.000	0.74	1.223	40.8	SURCHARGED
S29.001	S3371	60 minute 100 year Summer I+40%	60	1	23.170	22.196	0.825	0.000	0.93	2.535	56.0	SURCHARGED
S29.002	S3372	60 minute 100 year Summer I+40%	60	1	22.964	22.163	0.862	0.000	1.14	2.429	66.0	SURCHARGED
S29.003	S3373	60 minute 100 year Summer I+40%	60	1	22.764	22.130	0.881	0.000	1.29	2.143	67.9	SURCHARGED
S29.004	S3374	60 minute 100 year Summer I+40%	60	1	22.667	22.107	0.890	0.000	0.94	1.801	80.9	SURCHARGED
S30.000	S3380	60 minute 100 year Summer I+40%	60	1	22.437	22.081	0.844	0.000	0.30	1.119	4.8	SURCHARGED
S28.005	S3355	60 minute 100 year Summer I+40%	60	1	22.561	22.080	0.981	0.000	0.30	14.590	376.6	SURCHARGED
S28.006	S3356	60 minute 100 year Summer I+40%	60	1	22.401	22.067	1.017	0.000	0.33	30.015	378.7	SURCHARGED
S28.007	S3357	60 minute 100 year Summer I+40%	60	1	22.379	22.052	1.052	0.000	0.48	39.184	369.9	SURCHARGED
S28.008	S3358	60 minute 100 year Summer I+40%	60	1	22.415	22.043	1.059	0.000	0.57	14.517	369.9	SURCHARGED
S31.000	S3390	60 minute 100 year Summer I+40%	60	1	23.337	22.180	0.317	0.000	0.39	0.607	21.2	SURCHARGED
S31.001	S3391	60 minute 100 year Summer I+40%	60	1	23.137	22.153	0.659	0.000	0.81	2.127	28.0	SURCHARGED
S31.002	S3392	60 minute 100 year Summer I+40%	60	1	22.984	22.128	0.709	0.000	0.96	1.504	35.2	SURCHARGED
S31.003	S3393	60 minute 100 year Summer I+40%	60	1	22.666	22.085	0.802	0.000	1.19	2.016	35.7	SURCHARGED
S31.004	S3394	60 minute 100 year Summer I+40%	60	1	22.568	22.063	0.823	0.000	1.29	1.417	41.4	SURCHARGED
S28.009	S3359	60 minute 100 year Summer I+40%	60	1	22.484	22.032	1.065	0.000	0.54	17.988	393.5	SURCHARGED
S28.010	S3360	60 minute 100 year Summer I+40%	60	1	22.471	22.022	1.075	0.000	0.37	15.629	390.0	SURCHARGED
S1.029	S3032	60 minute 100 year Summer I+40%	60	1	22.290	22.006	1.101	0.000	0.09	39.440	85.5	FLOOD RISK
S1.030	S3033-CON	60 minute 100 year Summer I+40%	60	1	22.415	22.004	1.890	0.000	0.42	40.402	65.5	SURCHARGED
S1.031	S3034	60 minute 100 year Summer I+40%	60	1	23.160	19.775	-0.217	0.000	0.52	2.434	65.3	OK
S1.032	S3035	60 minute 100 year Summer I+40%	60	1	23.110	19.709	-0.235	0.000	0.46	1.296	65.2	OK
S1.033	S3036	60 minute 100 year Summer I+40%	60	1	21.990	19.610	-0.243	0.000	0.43	2.024	64.8	OK
S1.034	S3037	60 minute 100 year Summer I+40%	60	1	21.475	19.435	-0.243	0.000	0.43	2.608	64.4	OK
S1.035	S3038	60 minute 100 year Summer I+40%	60	1	21.015	19.301	-0.215	0.000	0.54	3.355	64.2	OK
S1.036	S3039-HW	60 minute 100 year Summer I+40%	60	1	19.850	19.179	-0.671	0.000	0.04	0.583	64.1	OK
S1.037	S3040	60 minute 100 year Summer I+40%	60	1	20.192	19.154	-1.038	0.000	0.01	0.490	64.2	OK

PFA Consulting Ltd	M380: Boorley Gardens	
Stratton Park House	SW Drainage - Sensitivity Test	
Wanborough Road	Catchments C + D	
Swindon SN3 4HG		
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

Simulation Criteria

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

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
 Number of Online Controls 2 Number of Storage Structures 2 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH Site Location GB 450306 114752 Cv (Summer) 0.750
 FEH Rainfall Version 2013 Data Type Point Cv (Winter) 0.840

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

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

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S1.000	S3000	60 minute 30 year Summer I+30%	60	1	27.478	26.164	-0.114	0.000	0.49	0.120	28.6	OK
S1.001	S3001	60 minute 30 year Summer I+30%	60	1	26.966	25.659	-0.107	0.000	0.73	0.285	47.9	OK
S1.002	S3002	60 minute 30 year Summer I+30%	60	1	26.704	25.542	-0.068	0.000	0.77	1.707	80.1	OK
S1.003	S3003	60 minute 30 year Summer I+30%	60	1	28.014	25.430	0.010	0.000	0.93	5.708	82.1	SURCHARGED
S2.000	S3050	60 minute 30 year Summer I+30%	60	1	33.607	32.344	-0.063	0.000	0.87	0.178	31.3	OK
S2.001	S3051	60 minute 30 year Summer I+30%	60	1	33.552	32.187	-0.105	0.000	0.55	0.299	49.5	OK
S2.002	S3052	60 minute 30 year Summer I+30%	60	1	32.390	31.083	-0.106	0.000	0.55	0.161	56.9	OK
S2.003	S3053	60 minute 30 year Summer I+30%	60	1	31.592	30.301	-0.091	0.000	0.66	0.174	68.6	OK
S2.004	S3054	60 minute 30 year Summer I+30%	60	1	30.545	29.318	-0.059	0.000	0.89	0.230	81.6	OK
S2.005	S3055	60 minute 30 year Summer I+30%	60	1	29.217	28.184	0.053	0.000	1.06	0.490	86.1	SURCHARGED
S2.006	S3056	60 minute 30 year Summer I+30%	60	1	28.782	27.581	-0.114	0.000	0.49	0.146	88.9	OK
S1.004	S3004	60 minute 30 year Summer I+30%	60	1	28.294	25.385	0.013	0.000	1.42	2.366	173.0	SURCHARGED
S1.005	S3005	60 minute 30 year Summer I+30%	60	1	28.322	25.343	0.000	0.000	1.06	3.511	202.8	OK
S1.006	S3006	60 minute 30 year Summer I+30%	60	1	27.532	24.919	-0.331	0.000	0.29	2.371	205.8	OK
S3.000	S3060	60 minute 30 year Summer I+30%	60	1	26.680	25.407	-0.073	0.000	0.78	0.166	43.5	OK
S3.001	S3061	60 minute 30 year Summer I+30%	60	1	26.141	24.644	-0.177	0.000	0.52	0.286	67.5	OK
S3.002	S3062	60 minute 30 year Summer I+30%	60	1	26.114	24.579	-0.031	0.000	0.87	3.312	75.4	OK
S3.003	S3063	60 minute 30 year Summer I+30%	60	1	26.410	24.540	-0.023	0.000	0.92	1.780	91.8	OK
S3.004	S3064	60 minute 30 year Summer I+30%	60	1	27.500	24.449	0.000	0.000	1.05	3.904	90.6	OK
S1.007	S3007	60 minute 30 year Summer I+30%	60	1	27.348	24.385	-0.023	0.000	0.81	2.741	328.8	OK
S4.000	S3070	60 minute 30 year Summer I+30%	60	1	25.790	24.993	0.175	0.000	1.21	0.447	47.3	SURCHARGED
S4.001	S3072	60 minute 30 year Summer I+30%	60	1	25.325	24.539	0.021	0.000	1.21	1.164	66.5	SURCHARGED
S4.002	S3073	60 minute 30 year Summer I+30%	60	1	25.456	24.464	-0.014	0.000	0.85	1.027	83.1	OK

PFA Consulting Ltd		Page 2
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Sensitivity Test Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S4.003	S3074	60 minute 30 year Summer I+30%	60	1	25.586	24.393	0.011	0.000	0.97	3.570	97.0	SURCHARGED
S1.008	S3008	60 minute 30 year Summer I+30%	60	1	26.600	24.279	0.015	0.000	1.59	24.839	428.7	SURCHARGED
S1.009	S3009	60 minute 30 year Winter I+30%	60	1	26.345	24.238	0.000	0.000	1.49	6.409	381.2	OK
S1.010	S3010	60 minute 30 year Summer I+30%	60	1	26.150	23.767	-0.452	0.000	0.33	1.566	455.1	OK
S1.011	S3011	60 minute 30 year Summer I+30%	60	1	24.845	23.229	0.046	0.000	0.72	13.079	463.0	SURCHARGED
S5.000	S3080	60 minute 30 year Summer I+30%	60	1	25.677	24.463	-0.042	0.000	0.87	0.117	18.2	OK
S5.001	S3081	60 minute 30 year Summer I+30%	60	1	25.276	23.992	-0.135	0.000	0.57	0.185	75.6	OK
S1.012	S3012	60 minute 30 year Summer I+30%	60	1	24.078	23.187	0.174	0.000	0.82	7.899	518.1	SURCHARGED
S1.013	S3013	60 minute 30 year Summer I+30%	60	1	23.942	23.145	0.185	0.000	1.21	18.506	520.4	SURCHARGED
S1.014	S3014	60 minute 30 year Summer I+30%	60	1	23.833	23.108	0.179	0.000	1.91	11.327	522.9	SURCHARGED
S6.000	S3090	60 minute 30 year Summer I+30%	60	1	31.555	29.895	-0.130	0.000	0.37	0.101	40.8	OK
S6.001	S3091	60 minute 30 year Summer I+30%	60	1	29.895	28.255	-0.110	0.000	0.52	0.144	49.2	OK
S6.002	S3092	60 minute 30 year Summer I+30%	60	1	29.250	27.668	-0.057	0.000	0.90	0.238	61.0	OK
S7.000	S3110	60 minute 30 year Summer I+30%	60	1	30.720	29.103	-0.107	0.000	0.54	0.127	40.5	OK
S7.001	S3111	60 minute 30 year Summer I+30%	60	1	29.740	28.133	-0.112	0.000	0.71	0.250	72.3	OK
S7.002	S3112	60 minute 30 year Summer I+30%	60	1	29.410	27.742	-0.178	0.000	0.54	0.403	81.9	OK
S7.003	S3113	60 minute 30 year Summer I+30%	60	1	29.250	27.607	-0.163	0.000	0.61	0.783	104.3	OK
S7.004	S3114	60 minute 30 year Summer I+30%	60	1	29.025	27.379	-0.161	0.000	0.62	0.848	116.5	OK
S6.003	S3093	60 minute 30 year Summer I+30%	60	1	28.650	27.020	-0.125	0.000	0.77	1.144	187.3	OK
S6.004	S3094	60 minute 30 year Summer I+30%	60	1	28.150	26.453	-0.202	0.000	0.43	0.423	211.9	OK
S8.000	S3120	60 minute 30 year Summer I+30%	60	1	26.200	24.085	-0.043	0.000	0.85	0.115	14.4	OK
S8.001	S3121	60 minute 30 year Summer I+30%	60	1	26.500	23.812	-0.041	0.000	1.00	0.272	39.3	OK
S8.002	S3122	60 minute 30 year Summer I+30%	60	1	26.440	23.636	-0.040	0.000	0.73	0.705	46.0	OK
S6.005	S3095	60 minute 30 year Summer I+30%	60	1	26.160	23.583	0.000	0.000	1.07	2.621	269.1	OK
S6.006	S3096	60 minute 30 year Summer I+30%	60	1	24.555	23.176	-0.343	0.000	0.37	2.868	269.9	OK
S6.007	S3097	60 minute 30 year Summer I+30%	60	1	24.220	23.147	0.161	0.000	1.74	2.796	270.8	SURCHARGED
S6.008	S3098	60 minute 30 year Summer I+30%	60	1	23.845	23.113	0.151	0.000	0.57	5.256	272.9	SURCHARGED
S6.009	S3099	60 minute 30 year Summer I+30%	60	1	23.675	23.094	0.192	0.000	0.63	6.349	283.5	SURCHARGED
S6.010	S3100	60 minute 30 year Summer I+30%	60	1	23.600	23.083	0.188	0.000	0.77	6.161	282.2	SURCHARGED
S1.015	S3015	60 minute 30 year Summer I+30%	60	1	23.565	23.069	0.184	0.000	2.32	17.073	775.1	SURCHARGED
S1.016	S3016	60 minute 30 year Summer I+30%	60	1	23.660	23.012	0.139	0.000	2.65	8.771	776.9	SURCHARGED
S1.017	S3017	60 minute 30 year Winter I+30%	60	1	23.840	22.979	0.121	0.000	2.18	10.296	699.9	SURCHARGED
S9.000	S3130	60 minute 30 year Summer I+30%	60	1	26.352	25.029	-0.123	0.000	0.42	0.110	25.3	OK
S9.001	S3131	60 minute 30 year Summer I+30%	60	1	25.763	24.444	-0.118	0.000	0.67	0.264	55.4	OK
S9.002	S3132	60 minute 30 year Summer I+30%	60	1	25.576	24.241	-0.072	0.000	0.92	1.131	63.0	OK
S9.003	S3133	60 minute 30 year Summer I+30%	60	1	25.493	24.143	-0.096	0.000	0.79	0.500	76.7	OK
S10.000	S3140	60 minute 30 year Summer I+30%	60	1	25.428	24.105	-0.123	0.000	0.42	0.110	22.4	OK
S9.004	S3134	60 minute 30 year Summer I+30%	60	1	25.210	23.955	-0.055	0.000	1.00	1.107	108.3	OK
S9.005	S3135	60 minute 30 year Summer I+30%	60	1	24.964	23.670	-0.093	0.000	0.91	0.751	119.2	OK
S9.006	S3136	60 minute 30 year Summer I+30%	60	1	24.852	23.411	-0.241	0.000	0.44	0.423	119.4	OK
S9.007	S3137	60 minute 30 year Summer I+30%	60	1	24.696	23.176	-0.244	0.000	0.43	0.576	132.0	OK
S9.008	S3138	60 minute 30 year Winter I+30%	60	1	24.374	22.977	-0.121	0.000	0.46	1.761	117.7	OK
S9.009	S3139	60 minute 30 year Winter I+30%	60	1	24.123	22.966	0.072	0.000	0.85	3.403	125.6	SURCHARGED
S1.018	S3018	60 minute 30 year Winter I+30%	60	1	23.970	22.957	0.112	0.000	1.67	10.860	815.0	SURCHARGED
S1.019	S3019	60 minute 30 year Winter I+30%	60	1	23.500	22.936	0.126	0.000	1.04	11.022	813.7	SURCHARGED
S1.020	S3020-BASIN D	60 minute 30 year Winter I+30%	60	1	23.500	22.915	0.580	0.000	0.88	787.264	244.2	SURCHARGED

PFA Consulting Ltd	M380: Boorley Gardens	Page 3 
Stratton Park House	SW Drainage - Sensitivity Test	
Wanborough Road	Catchments C + D	
Swindon SN3 4HG		
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S1.021	S3021-CON	60 minute 30 year Winter I+30%	60	1	24.020	22.852	0.647	0.000	1.09	5.304	238.4	SURCHARGED
S1.022	S3023	60 minute 30 year Winter I+30%	60	1	25.220	22.045	0.050	0.000	1.04	18.272	225.7	SURCHARGED
S1.023	S3024	60 minute 30 year Winter I+30%	60	1	25.535	21.824	0.039	0.000	1.03	17.929	223.9	SURCHARGED
S1.024	S3026	60 minute 30 year Winter I+30%	60	1	24.960	21.602	0.027	0.000	1.10	17.557	223.8	SURCHARGED
S1.025	S3028	360 minute 30 year Winter I+30%	360	1	24.350	21.484	0.029	0.000	1.41	11.772	179.8	SURCHARGED
S11.000	S3150	60 minute 30 year Summer I+30%	60	1	28.020	26.585	-0.077	0.000	0.48	0.077	10.4	OK
S11.001	S3151	60 minute 30 year Summer I+30%	60	1	27.356	25.933	-0.107	0.000	0.53	0.135	33.5	OK
S11.002	S3152	60 minute 30 year Summer I+30%	60	1	26.707	25.345	-0.155	0.000	0.47	0.187	51.2	OK
S11.003	S3153	60 minute 30 year Summer I+30%	60	1	26.514	25.171	-0.136	0.000	0.57	0.317	54.1	OK
S11.004	S3154	60 minute 30 year Summer I+30%	60	1	26.322	24.979	-0.186	0.000	0.31	0.198	59.0	OK
S12.000	S3180	60 minute 30 year Summer I+30%	60	1	27.308	25.852	-0.082	0.000	0.43	0.071	14.4	OK
S13.000	S3190	60 minute 30 year Summer I+30%	60	1	27.405	25.816	-0.164	0.000	0.17	0.064	14.7	OK
S12.001	S3181	60 minute 30 year Summer I+30%	60	1	27.233	25.507	-0.083	0.000	0.71	0.196	41.2	OK
S12.002	S3182	60 minute 30 year Summer I+30%	60	1	26.894	25.137	-0.163	0.000	0.42	0.174	57.4	OK
S12.003	S3183	60 minute 30 year Summer I+30%	60	1	26.521	24.801	-0.135	0.000	0.58	0.319	70.0	OK
S12.004	S3184	60 minute 30 year Summer I+30%	60	1	26.290	24.584	-0.121	0.000	0.66	0.356	79.8	OK
S11.005	S3155	60 minute 30 year Summer I+30%	60	1	25.834	24.354	0.051	0.000	0.97	1.982	151.2	SURCHARGED
S11.006	S3156	60 minute 30 year Summer I+30%	60	1	26.130	24.264	0.080	0.000	0.98	6.750	166.0	SURCHARGED
S14.000	S3200	60 minute 30 year Summer I+30%	60	1	27.248	25.536	-0.212	0.000	0.19	0.094	19.4	OK
S14.001	S3201	60 minute 30 year Summer I+30%	60	1	26.960	25.270	-0.190	0.000	0.29	0.211	49.5	OK
S14.002	S3202	60 minute 30 year Summer I+30%	60	1	26.657	24.571	-0.151	0.000	0.49	0.237	76.7	OK
S15.000	SH316	60 minute 30 year Summer I+30%	60	1	26.150	24.472	-0.178	0.000	0.10	0.047	9.0	OK
S11.007	S3157	60 minute 30 year Summer I+30%	60	1	26.356	24.221	0.094	0.000	1.42	3.144	281.7	SURCHARGED
S11.008	S3158	60 minute 30 year Summer I+30%	60	1	25.760	24.183	0.087	0.000	0.90	4.265	270.5	SURCHARGED
S11.009	S3159	60 minute 30 year Summer I+30%	60	1	25.205	24.103	0.133	0.000	1.46	15.066	262.9	SURCHARGED
S16.000	S3210	60 minute 30 year Summer I+30%	60	1	26.390	24.869	-0.096	0.000	0.29	0.056	12.9	OK
S17.000	S3220	60 minute 30 year Summer I+30%	60	1	26.231	24.715	-0.091	0.000	0.33	0.061	10.8	OK
S16.001	S3211	60 minute 30 year Summer I+30%	60	1	26.202	24.306	-0.087	0.000	0.65	0.160	32.7	OK
S16.002	S3212	60 minute 30 year Summer I+30%	60	1	26.040	24.235	0.044	0.000	0.81	0.748	40.1	SURCHARGED
S16.003	S3213	60 minute 30 year Summer I+30%	60	1	25.813	24.149	0.150	0.000	1.54	1.006	51.4	SURCHARGED
S11.010	S3160	60 minute 30 year Summer I+30%	60	1	25.672	24.059	0.122	0.000	1.10	5.807	309.4	SURCHARGED
S11.011	S3161	60 minute 30 year Summer I+30%	60	1	25.057	23.972	0.115	0.000	0.91	9.860	317.0	SURCHARGED
S18.000	SH323	60 minute 30 year Summer I+30%	60	1	25.250	23.995	0.011	0.000	0.03	0.262	1.1	SURCHARGED
S18.001	S3230	60 minute 30 year Summer I+30%	60	1	25.150	23.995	0.090	0.000	0.92	0.740	32.2	SURCHARGED
S18.002	S3231	60 minute 30 year Summer I+30%	60	1	24.920	23.951	0.146	0.000	1.31	1.063	39.2	SURCHARGED
S11.012	S3162	60 minute 30 year Summer I+30%	60	1	24.964	23.916	0.152	0.000	1.41	4.646	344.6	SURCHARGED
S11.013	S3163	60 minute 30 year Summer I+30%	60	1	24.890	23.769	0.079	0.000	2.51	12.782	355.8	SURCHARGED
S11.014	S3164	60 minute 30 year Summer I+30%	60	1	24.022	23.212	-0.810	0.000	0.04	0.487	356.9	OK
S19.000	S3240	60 minute 30 year Summer I+30%	60	1	24.640	23.272	-0.168	0.000	0.20	0.143	11.3	OK
S20.000	S3250	60 minute 30 year Summer I+30%	60	1	24.628	23.270	-0.158	0.000	0.25	0.155	13.1	OK
S19.001	S3241	60 minute 30 year Summer I+30%	60	1	24.597	23.263	-0.134	0.000	0.58	0.651	33.6	OK
S19.002	S3242	60 minute 30 year Summer I+30%	60	1	24.000	23.170	-0.124	0.000	0.64	1.003	41.2	OK
S11.015	S3165	60 minute 30 year Summer I+30%	60	1	23.922	23.101	-0.821	0.000	0.05	2.844	391.1	OK
S11.016	S3166	60 minute 30 year Summer I+30%	60	1	23.652	22.856	-0.796	0.000	0.06	5.818	390.3	OK
S21.000	S3260	60 minute 30 year Summer I+30%	60	1	24.136	22.777	-0.159	0.000	0.14	0.069	5.1	OK
S21.001	S3261	60 minute 30 year Summer I+30%	60	1	24.043	22.760	-0.083	0.000	0.64	0.381	21.6	OK

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S11.017	S3167	60 minute 30 year Summer I+30%	60	1	23.459	22.740	-0.719	0.000	0.07	4.369	402.1	OK
S22.000	S3270	60 minute 30 year Summer I+30%	60	1	24.058	22.632	-0.226	0.000	0.12	0.079	7.8	OK
S22.001	S3271	60 minute 30 year Summer I+30%	60	1	23.965	22.584	-0.181	0.000	0.33	0.406	20.8	OK
S22.002	S3272	60 minute 30 year Summer I+30%	60	1	23.872	22.523	-0.149	0.000	0.50	0.625	28.8	OK
S11.018	S3168	60 minute 30 year Summer I+30%	60	1	23.365	22.504	-0.861	0.000	0.05	6.323	421.1	OK
S11.019	S3169	60 minute 30 year Summer I+30%	60	1	23.316	22.490	-0.826	0.000	0.05	0.716	421.3	OK
S11.020	S3170	60 minute 30 year Summer I+30%	60	1	22.996	22.274	-0.722	0.000	0.07	6.132	421.2	OK
S23.000	S3280	60 minute 30 year Winter I+30%	60	1	23.484	22.201	-0.083	0.000	0.12	0.155	4.6	OK
S23.001	S3281	60 minute 30 year Winter I+30%	60	1	23.269	22.194	0.125	0.000	0.80	1.646	26.3	SURCHARGED
S11.021	S3171	60 minute 30 year Summer I+30%	60	1	22.739	22.183	-0.556	0.000	0.07	21.468	393.8	OK
S11.022	S3172	60 minute 30 year Summer I+30%	60	1	22.621	22.171	0.180	0.000	1.49	50.032	369.9	SURCHARGED*
S11.023	S3173	60 minute 30 year Summer I+30%	60	1	22.633	21.735	-0.898	0.000	0.05	0.729	370.0	OK
S24.000	S3290	60 minute 30 year Summer I+30%	60	1	27.878	26.220	-0.242	0.000	0.08	0.060	8.4	OK
S24.001	S3291	60 minute 30 year Summer I+30%	60	1	27.725	26.059	-0.239	0.000	0.09	0.101	12.3	OK
S24.002	S3292	60 minute 30 year Summer I+30%	60	1	27.292	25.392	-0.246	0.000	0.25	0.197	33.9	OK
S24.003	S3293	60 minute 30 year Summer I+30%	60	1	27.136	25.278	-0.243	0.000	0.27	0.425	44.2	OK
S24.004	S3294	60 minute 30 year Summer I+30%	60	1	26.998	25.114	-0.230	0.000	0.32	0.405	58.5	OK
S24.005	S3295	60 minute 30 year Summer I+30%	60	1	26.633	24.918	-0.061	0.000	0.83	1.718	82.6	OK
S24.006	S3296	60 minute 30 year Summer I+30%	60	1	26.623	24.846	-0.024	0.000	0.69	4.052	117.1	OK
S24.007	S3297	60 minute 30 year Summer I+30%	60	1	26.942	24.804	0.016	0.000	1.20	2.888	127.1	SURCHARGED
S24.008	S3298	60 minute 30 year Summer I+30%	60	1	27.141	24.761	0.008	0.000	1.33	2.566	132.2	SURCHARGED
S25.000	S3320	60 minute 30 year Summer I+30%	60	1	27.291	25.604	-0.190	0.000	0.06	0.034	8.4	OK
S24.009	S3299	60 minute 30 year Summer I+30%	60	1	27.239	24.726	0.000	0.000	1.01	2.016	144.2	OK
S24.010	S3300	60 minute 30 year Summer I+30%	60	1	26.728	24.414	-0.208	0.000	0.56	2.845	155.6	OK
S26.000	S3330	60 minute 30 year Summer I+30%	60	1	25.706	24.185	-0.258	0.000	0.04	0.042	7.5	OK
S24.011	S3301	60 minute 30 year Summer I+30%	60	1	25.786	24.167	0.236	0.000	1.15	10.383	207.3	SURCHARGED
S24.012	S3302	60 minute 30 year Summer I+30%	60	1	25.425	24.088	0.217	0.000	1.20	7.420	223.2	SURCHARGED
S24.013	S3303	60 minute 30 year Summer I+30%	60	1	24.980	23.978	0.182	0.000	1.39	9.066	245.1	SURCHARGED
S24.014	S3304	60 minute 30 year Summer I+30%	60	1	24.943	23.874	0.131	0.000	1.35	6.562	253.8	SURCHARGED
S24.015	S3305	60 minute 30 year Summer I+30%	60	1	24.865	23.729	0.064	0.000	2.08	8.941	267.4	SURCHARGED
S24.016	S3306	60 minute 30 year Summer I+30%	60	1	24.643	23.217	-1.426	0.000	0.01	0.414	267.4	OK
S24.017	S3307	60 minute 30 year Summer I+30%	60	1	24.775	22.994	-1.781	0.000	0.01	1.479	267.2	OK
S24.018	S3308	60 minute 30 year Summer I+30%	60	1	24.194	22.677	-1.517	0.000	0.01	3.126	266.5	OK
S24.019	S3309	60 minute 30 year Summer I+30%	60	1	24.085	22.655	-1.430	0.000	0.01	1.758	264.7	OK
S27.000	S3340	60 minute 30 year Summer I+30%	60	1	24.183	22.758	-0.225	0.000	0.04	0.079	2.4	OK
S27.001	S3341	60 minute 30 year Summer I+30%	60	1	24.142	22.755	-0.187	0.000	0.30	0.240	21.0	OK
S27.002	S3342	60 minute 30 year Summer I+30%	60	1	23.927	22.660	-0.067	0.000	0.52	1.537	32.0	OK
S24.020	S3310	60 minute 30 year Summer I+30%	60	1	23.831	22.648	-1.183	0.000	0.01	3.992	276.0	OK
S24.021	S3311	60 minute 30 year Summer I+30%	60	1	23.455	22.646	-0.809	0.000	0.02	6.644	273.0	OK
S24.022	S3312	60 minute 30 year Summer I+30%	60	1	23.461	22.645	0.200	0.000	1.61	6.864	272.9	SURCHARGED*
S24.023	S3313	60 minute 30 year Summer I+30%	60	1	23.546	22.213	-1.333	0.000	0.02	0.518	272.8	OK
S1.026	S3029-Basin C	360 minute 30 year Winter I+30%	360	1	21.900	21.475	0.475	0.000	0.43	2907.562	123.0	SURCHARGED
S1.027	S3030	360 minute 30 year Winter I+30%	360	1	22.440	21.473	0.736	0.000	0.30	2.592	119.1	SURCHARGED
S1.028	S3031	360 minute 30 year Winter I+30%	360	1	22.645	21.476	1.242	0.000	0.64	4.510	96.8	SURCHARGED
S28.000	S3350	60 minute 30 year Summer I+30%	60	1	24.098	22.314	-0.297	0.000	0.39	0.393	146.5	OK
S28.001	S3351	60 minute 30 year Summer I+30%	60	1	23.359	21.888	-0.105	0.000	0.98	5.575	283.0	OK

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S28.002	S3352	60 minute 30 year Summer I+30%	60	1	22.742	21.681	0.061	0.000	0.58	15.812	269.5	SURCHARGED
S28.003	S3353	60 minute 30 year Summer I+30%	60	1	22.519	21.626	0.379	0.000	0.25	6.730	237.8	SURCHARGED
S28.004	S3354	60 minute 30 year Summer I+30%	60	1	22.616	21.611	0.484	0.000	0.51	15.995	231.5	SURCHARGED
S29.000	S3370	60 minute 30 year Winter I+30%	60	1	23.318	21.696	0.261	0.000	0.50	0.629	27.9	SURCHARGED
S29.001	S3371	60 minute 30 year Summer I+30%	60	1	23.170	21.677	0.306	0.000	0.75	1.947	45.4	SURCHARGED
S29.002	S3372	60 minute 30 year Summer I+30%	60	1	22.964	21.655	0.354	0.000	0.91	1.854	52.9	SURCHARGED
S29.003	S3373	60 minute 30 year Summer I+30%	60	1	22.764	21.633	0.384	0.000	1.02	1.581	53.7	SURCHARGED
S29.004	S3374	60 minute 30 year Summer I+30%	60	1	22.667	21.618	0.401	0.000	0.77	1.248	66.6	SURCHARGED
S30.000	S3380	60 minute 30 year Summer I+30%	60	1	22.437	21.603	0.366	0.000	0.26	0.577	4.3	SURCHARGED
S28.005	S3355	60 minute 30 year Summer I+30%	60	1	22.561	21.598	0.499	0.000	0.23	12.923	281.4	SURCHARGED
S28.006	S3356	60 minute 30 year Summer I+30%	60	1	22.401	21.589	0.539	0.000	0.25	28.361	287.5	SURCHARGED
S28.007	S3357	60 minute 30 year Summer I+30%	60	1	22.379	21.579	0.579	0.000	0.37	37.544	284.6	SURCHARGED
S28.008	S3358	60 minute 30 year Summer I+30%	60	1	22.415	21.573	0.589	0.000	0.44	12.887	284.5	SURCHARGED
S31.000	S3390	60 minute 30 year Summer I+30%	60	1	23.337	21.721	-0.142	0.000	0.29	0.088	15.8	OK
S31.001	S3391	60 minute 30 year Winter I+30%	60	1	23.137	21.654	0.160	0.000	0.61	1.248	20.9	SURCHARGED
S31.002	S3392	60 minute 30 year Summer I+30%	60	1	22.984	21.631	0.212	0.000	0.85	0.942	31.2	SURCHARGED
S31.003	S3393	60 minute 30 year Summer I+30%	60	1	22.666	21.601	0.318	0.000	1.12	1.469	33.5	SURCHARGED
S31.004	S3394	60 minute 30 year Summer I+30%	60	1	22.568	21.586	0.346	0.000	1.18	0.877	37.8	SURCHARGED
S28.009	S3359	60 minute 30 year Summer I+30%	60	1	22.484	21.565	0.598	0.000	0.41	16.369	300.6	SURCHARGED
S28.010	S3360	60 minute 30 year Summer I+30%	60	1	22.471	21.557	0.610	0.000	0.28	14.021	293.6	SURCHARGED
S1.029	S3032	60 minute 30 year Summer I+30%	60	1	22.290	21.546	0.641	0.000	0.09	36.189	87.4	SURCHARGED
S1.030	S3033-CON	60 minute 30 year Summer I+30%	60	1	22.415	21.544	1.430	0.000	0.37	37.772	58.6	SURCHARGED
S1.031	S3034	60 minute 30 year Summer I+30%	60	1	23.160	19.760	-0.232	0.000	0.47	2.171	58.3	OK
S1.032	S3035	60 minute 30 year Summer I+30%	60	1	23.110	19.695	-0.249	0.000	0.41	1.168	58.1	OK
S1.033	S3036	60 minute 30 year Winter I+30%	60	1	21.990	19.597	-0.256	0.000	0.39	1.831	58.0	OK
S1.034	S3037	60 minute 30 year Winter I+30%	60	1	21.475	19.423	-0.255	0.000	0.39	2.343	57.9	OK
S1.035	S3038	60 minute 30 year Winter I+30%	60	1	21.015	19.287	-0.229	0.000	0.48	2.951	57.8	OK
S1.036	S3039-HW	60 minute 30 year Winter I+30%	60	1	19.850	19.169	-0.681	0.000	0.04	0.520	57.8	OK
S1.037	S3040	60 minute 30 year Winter I+30%	60	1	20.192	19.146	-1.046	0.000	0.01	0.428	57.8	OK

PFA Consulting Ltd		Page 6
Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Sensitivity Test Catchments C + D	
Date 12/05/2023	Designed by PS	
File M380-CATCH C&D-V5.11 (RM PH3).MDX	Checked by BF	
XP Solutions	Network 2020.1.3	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

Simulation Criteria

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

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 2 Number of Storage Structures 2 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH Site Location GB 450306 114752 Cv (Summer) 0.750
FEH Rainfall Version 2013 Data Type Point Cv (Winter) 0.840

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

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

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S1.000	S3000	60 minute 100 year Summer I+30%	60	1	27.478	26.182	-0.096	0.000	0.62	0.140	36.4	OK
S1.001	S3001	60 minute 100 year Summer I+30%	60	1	26.966	25.795	0.029	0.000	0.88	0.733	58.1	SURCHARGED
S1.002	S3002	60 minute 100 year Summer I+30%	60	1	26.704	25.678	0.068	0.000	0.95	2.957	98.7	SURCHARGED
S1.003	S3003	60 minute 100 year Summer I+30%	60	1	28.014	25.504	0.084	0.000	1.15	6.691	101.3	SURCHARGED
S2.000	S3050	60 minute 100 year Summer I+30%	60	1	33.607	32.421	0.014	0.000	1.10	0.265	39.7	SURCHARGED
S2.001	S3051	60 minute 100 year Summer I+30%	60	1	33.552	32.207	-0.085	0.000	0.70	0.391	62.7	OK
S2.002	S3052	60 minute 100 year Summer I+30%	60	1	32.390	31.102	-0.087	0.000	0.69	0.198	71.7	OK
S2.003	S3053	60 minute 100 year Summer I+30%	60	1	31.592	30.430	0.038	0.000	0.81	0.396	83.7	SURCHARGED
S2.004	S3054	60 minute 100 year Summer I+30%	60	1	30.545	29.793	0.416	0.000	1.06	1.133	96.7	SURCHARGED
S2.005	S3055	60 minute 100 year Summer I+30%	60	1	29.217	28.384	0.253	0.000	1.26	0.939	102.6	SURCHARGED
S2.006	S3056	60 minute 100 year Summer I+30%	60	1	28.782	27.593	-0.102	0.000	0.58	0.168	105.4	OK
S1.004	S3004	60 minute 100 year Summer I+30%	60	1	28.294	25.444	0.072	0.000	1.75	2.587	212.6	SURCHARGED
S1.005	S3005	60 minute 100 year Summer I+30%	60	1	28.322	25.391	0.048	0.000	1.31	3.723	251.8	SURCHARGED
S1.006	S3006	60 minute 100 year Summer I+30%	60	1	27.532	24.944	-0.306	0.000	0.36	2.916	256.8	OK
S3.000	S3060	60 minute 100 year Summer I+30%	60	1	26.680	25.446	-0.034	0.000	0.99	0.210	55.1	OK
S3.001	S3061	60 minute 100 year Summer I+30%	60	1	26.141	24.822	0.001	0.000	0.63	0.882	81.5	SURCHARGED
S3.002	S3062	60 minute 100 year Summer I+30%	60	1	26.114	24.742	0.132	0.000	1.07	5.036	92.9	SURCHARGED
S3.003	S3063	60 minute 100 year Summer I+30%	60	1	26.410	24.692	0.129	0.000	1.14	2.216	113.6	SURCHARGED
S3.004	S3064	60 minute 100 year Summer I+30%	60	1	27.500	24.547	0.098	0.000	1.34	4.503	115.6	SURCHARGED
S1.007	S3007	60 minute 100 year Summer I+30%	60	1	27.348	24.459	0.051	0.000	1.03	3.194	415.0	SURCHARGED
S4.000	S3070	60 minute 100 year Summer I+30%	60	1	25.790	25.359	0.541	0.000	1.47	0.861	57.5	SURCHARGED
S4.001	S3072	60 minute 100 year Summer I+30%	60	1	25.325	24.691	0.173	0.000	1.46	2.163	80.3	SURCHARGED
S4.002	S3073	60 minute 100 year Summer I+30%	60	1	25.456	24.590	0.112	0.000	1.05	1.295	102.8	SURCHARGED

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S4.003	S3074	60 minute 100 year Summer I+30%	60	1	25.586	24.481	0.099	0.000	1.22	3.942	122.5	SURCHARGED
S1.008	S3008	60 minute 100 year Summer I+30%	60	1	26.600	24.303	0.039	0.000	2.00	25.615	539.9	SURCHARGED
S1.009	S3009	60 minute 100 year Summer I+30%	60	1	26.345	24.239	0.001	0.000	2.13	6.419	544.2	SURCHARGED
S1.010	S3010	60 minute 100 year Summer I+30%	60	1	26.150	23.812	-0.407	0.000	0.42	1.917	576.9	OK
S1.011	S3011	60 minute 100 year Summer I+30%	60	1	24.845	23.646	0.463	0.000	0.88	24.867	567.2	SURCHARGED
S5.000	S3080	60 minute 100 year Summer I+30%	60	1	25.677	24.561	0.056	0.000	1.07	0.227	22.4	SURCHARGED
S5.001	S3081	60 minute 100 year Summer I+30%	60	1	25.276	24.018	-0.109	0.000	0.72	0.217	95.0	OK
S1.012	S3012	60 minute 100 year Summer I+30%	60	1	24.078	23.585	0.572	0.000	1.00	10.741	633.1	SURCHARGED
S1.013	S3013	60 minute 100 year Summer I+30%	60	1	23.942	23.535	0.575	0.000	1.48	19.572	639.1	SURCHARGED
S1.014	S3014	60 minute 100 year Summer I+30%	60	1	23.833	23.489	0.560	0.000	2.33	12.341	640.1	SURCHARGED
S6.000	S3090	60 minute 100 year Summer I+30%	60	1	31.555	29.909	-0.116	0.000	0.47	0.117	51.9	OK
S6.001	S3091	60 minute 100 year Summer I+30%	60	1	29.895	28.274	-0.091	0.000	0.66	0.176	62.6	OK
S6.002	S3092	60 minute 100 year Summer I+30%	60	1	29.250	27.886	0.161	0.000	1.13	0.662	76.2	SURCHARGED
S7.000	S3110	60 minute 100 year Summer I+30%	60	1	30.720	29.122	-0.088	0.000	0.69	0.149	51.6	OK
S7.001	S3111	60 minute 100 year Summer I+30%	60	1	29.740	28.169	-0.076	0.000	0.90	0.325	92.0	OK
S7.002	S3112	60 minute 100 year Summer I+30%	60	1	29.410	27.774	-0.146	0.000	0.69	0.559	104.2	OK
S7.003	S3113	60 minute 100 year Summer I+30%	60	1	29.250	27.644	-0.126	0.000	0.78	1.020	132.5	OK
S7.004	S3114	60 minute 100 year Summer I+30%	60	1	29.025	27.417	-0.123	0.000	0.78	1.170	147.8	OK
S6.003	S3093	60 minute 100 year Summer I+30%	60	1	28.650	27.067	-0.078	0.000	0.98	1.572	238.0	OK
S6.004	S3094	60 minute 100 year Summer I+30%	60	1	28.150	26.479	-0.176	0.000	0.55	0.513	268.4	OK
S8.000	S3120	60 minute 100 year Summer I+30%	60	1	26.200	24.251	0.123	0.000	1.05	0.303	17.7	SURCHARGED
S8.001	S3121	60 minute 100 year Summer I+30%	60	1	26.500	23.952	0.099	0.000	1.21	0.646	47.6	SURCHARGED
S8.002	S3122	60 minute 100 year Summer I+30%	60	1	26.440	23.689	0.013	0.000	0.91	0.991	57.6	SURCHARGED
S6.005	S3095	60 minute 100 year Summer I+30%	60	1	26.160	23.617	0.034	0.000	1.36	2.808	343.2	SURCHARGED
S6.006	S3096	60 minute 100 year Summer I+30%	60	1	24.555	23.555	0.036	0.000	0.43	9.356	316.9	SURCHARGED
S6.007	S3097	60 minute 100 year Summer I+30%	60	1	24.220	23.523	0.537	0.000	2.03	3.834	316.1	SURCHARGED
S6.008	S3098	60 minute 100 year Summer I+30%	60	1	23.845	23.487	0.525	0.000	0.65	6.212	315.8	SURCHARGED
S6.009	S3099	60 minute 100 year Summer I+30%	60	1	23.675	23.468	0.566	0.000	0.73	7.316	328.1	FLOOD RISK
S6.010	S3100	60 minute 100 year Summer I+30%	60	1	23.600	23.457	0.562	0.000	0.87	7.128	321.4	FLOOD RISK
S1.015	S3015	60 minute 100 year Summer I+30%	60	1	23.565	23.443	0.558	0.000	2.83	18.145	943.7	FLOOD RISK
S1.016	S3016	60 minute 100 year Summer I+30%	60	1	23.660	23.366	0.493	0.000	3.21	9.711	939.6	FLOOD RISK
S1.017	S3017	60 minute 100 year Summer I+30%	60	1	23.840	23.282	0.424	0.000	2.92	11.124	936.6	SURCHARGED
S9.000	S3130	60 minute 100 year Summer I+30%	60	1	26.352	25.045	-0.107	0.000	0.54	0.128	32.1	OK
S9.001	S3131	60 minute 100 year Summer I+30%	60	1	25.763	24.542	-0.020	0.000	0.82	0.557	67.6	OK
S9.002	S3132	60 minute 100 year Summer I+30%	60	1	25.576	24.387	0.074	0.000	1.10	2.523	74.7	SURCHARGED
S9.003	S3133	60 minute 100 year Summer I+30%	60	1	25.493	24.300	0.061	0.000	0.92	0.885	89.5	SURCHARGED
S10.000	S3140	60 minute 100 year Summer I+30%	60	1	25.428	24.160	-0.068	0.000	0.53	0.172	28.1	OK
S9.004	S3134	60 minute 100 year Summer I+30%	60	1	25.210	24.103	0.093	0.000	1.17	2.338	126.5	SURCHARGED
S9.005	S3135	60 minute 100 year Summer I+30%	60	1	24.964	23.764	0.001	0.000	1.07	1.286	139.3	SURCHARGED
S9.006	S3136	60 minute 100 year Summer I+30%	60	1	24.852	23.431	-0.221	0.000	0.51	0.506	138.9	OK
S9.007	S3137	60 minute 100 year Summer I+30%	60	1	24.696	23.359	-0.061	0.000	0.49	1.672	152.2	OK
S9.008	S3138	60 minute 100 year Summer I+30%	60	1	24.374	23.303	0.205	0.000	0.61	4.485	156.2	SURCHARGED
S9.009	S3139	60 minute 100 year Summer I+30%	60	1	24.123	23.248	0.354	0.000	1.11	4.038	164.8	SURCHARGED
S1.018	S3018	60 minute 100 year Summer I+30%	60	1	23.970	23.207	0.362	0.000	2.23	11.546	1091.8	SURCHARGED
S1.019	S3019	60 minute 100 year Winter I+30%	60	1	23.500	23.114	0.304	0.000	1.26	11.534	990.3	SURCHARGED
S1.020	S3020-BASIN D	60 minute 100 year Winter I+30%	60	1	23.500	23.090	0.755	0.000	0.93	1053.895	256.5	SURCHARGED

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S1.021	S3021-CON	60 minute 100 year Winter I+30%	60	1	24.020	23.013	0.808	0.000	1.16	5.589	252.9	SURCHARGED
S1.022	S3023	60 minute 100 year Winter I+30%	60	1	25.220	22.192	0.197	0.000	1.14	20.393	248.3	SURCHARGED
S1.023	S3024	60 minute 100 year Winter I+30%	60	1	25.535	21.920	0.135	0.000	1.14	19.831	248.0	SURCHARGED
S1.024	S3026	360 minute 100 year Winter I+30%	360	1	24.960	21.686	0.111	0.000	0.98	19.513	200.2	SURCHARGED
S1.025	S3028	480 minute 100 year Winter I+30%	480	1	24.350	21.665	0.210	0.000	1.44	12.766	183.8	SURCHARGED
S11.000	S3150	60 minute 100 year Summer I+30%	60	1	28.020	26.597	-0.065	0.000	0.61	0.090	13.3	OK
S11.001	S3151	60 minute 100 year Summer I+30%	60	1	27.356	25.952	-0.088	0.000	0.68	0.168	42.7	OK
S11.002	S3152	60 minute 100 year Summer I+30%	60	1	26.707	25.368	-0.132	0.000	0.59	0.228	65.1	OK
S11.003	S3153	60 minute 100 year Summer I+30%	60	1	26.514	25.199	-0.108	0.000	0.73	0.396	68.8	OK
S11.004	S3154	60 minute 100 year Summer I+30%	60	1	26.322	24.996	-0.169	0.000	0.39	0.251	75.0	OK
S12.000	S3180	60 minute 100 year Summer I+30%	60	1	27.308	25.863	-0.071	0.000	0.54	0.083	18.3	OK
S13.000	S3190	60 minute 100 year Summer I+30%	60	1	27.405	25.825	-0.155	0.000	0.21	0.073	18.6	OK
S12.001	S3181	60 minute 100 year Summer I+30%	60	1	27.233	25.534	-0.056	0.000	0.91	0.245	52.4	OK
S12.002	S3182	60 minute 100 year Summer I+30%	60	1	26.894	25.220	-0.080	0.000	0.54	0.349	73.0	OK
S12.003	S3183	60 minute 100 year Summer I+30%	60	1	26.521	25.142	0.206	0.000	0.71	1.626	84.9	SURCHARGED
S12.004	S3184	60 minute 100 year Summer I+30%	60	1	26.290	25.056	0.351	0.000	0.75	1.480	90.0	SURCHARGED
S11.005	S3155	60 minute 100 year Summer I+30%	60	1	25.834	24.861	0.558	0.000	1.09	4.592	170.8	SURCHARGED
S11.006	S3156	60 minute 100 year Summer I+30%	60	1	26.130	24.726	0.542	0.000	1.13	7.516	191.1	SURCHARGED
S14.000	S3200	60 minute 100 year Summer I+30%	60	1	27.248	25.547	-0.201	0.000	0.24	0.107	24.7	OK
S14.001	S3201	60 minute 100 year Summer I+30%	60	1	26.960	25.286	-0.174	0.000	0.36	0.281	63.0	OK
S14.002	S3202	60 minute 100 year Summer I+30%	60	1	26.657	24.769	0.047	0.000	0.62	0.806	97.3	SURCHARGED
S15.000	SH316	60 minute 100 year Summer I+30%	60	1	26.150	24.629	-0.021	0.000	0.12	0.225	11.3	OK
S11.007	S3157	60 minute 100 year Summer I+30%	60	1	26.356	24.613	0.486	0.000	1.59	4.938	315.9	SURCHARGED
S11.008	S3158	60 minute 100 year Summer I+30%	60	1	25.760	24.557	0.461	0.000	1.05	4.960	314.2	SURCHARGED
S11.009	S3159	60 minute 100 year Summer I+30%	60	1	25.205	24.423	0.453	0.000	1.74	15.643	312.3	SURCHARGED
S16.000	S3210	60 minute 100 year Summer I+30%	60	1	26.390	24.877	-0.088	0.000	0.36	0.065	16.4	OK
S17.000	S3220	60 minute 100 year Summer I+30%	60	1	26.231	24.803	-0.003	0.000	0.42	0.161	13.7	OK
S16.001	S3211	60 minute 100 year Summer I+30%	60	1	26.202	24.753	0.360	0.000	0.75	0.867	37.7	SURCHARGED
S16.002	S3212	60 minute 100 year Summer I+30%	60	1	26.040	24.658	0.467	0.000	0.89	1.425	44.4	SURCHARGED
S16.003	S3213	60 minute 100 year Summer I+30%	60	1	25.813	24.520	0.521	0.000	1.69	1.452	56.7	SURCHARGED
S11.010	S3160	60 minute 100 year Summer I+30%	60	1	25.672	24.357	0.420	0.000	1.32	6.336	372.0	SURCHARGED
S11.011	S3161	60 minute 100 year Summer I+30%	60	1	25.057	24.216	0.359	0.000	1.11	10.297	385.7	SURCHARGED
S18.000	SH323	60 minute 100 year Summer I+30%	60	1	25.250	24.257	0.273	0.000	0.03	0.557	1.3	SURCHARGED
S18.001	S3230	60 minute 100 year Summer I+30%	60	1	25.150	24.259	0.354	0.000	1.10	1.038	38.4	SURCHARGED
S18.002	S3231	60 minute 100 year Summer I+30%	60	1	24.920	24.155	0.350	0.000	1.57	1.296	47.1	SURCHARGED
S11.012	S3162	60 minute 100 year Summer I+30%	60	1	24.964	24.067	0.303	0.000	1.75	4.915	425.3	SURCHARGED
S11.013	S3163	60 minute 100 year Summer I+30%	60	1	24.890	23.838	0.148	0.000	3.12	13.080	442.4	SURCHARGED
S11.014	S3164	60 minute 100 year Summer I+30%	60	1	24.022	23.239	-0.783	0.000	0.05	0.624	441.9	OK
S19.000	S3240	60 minute 100 year Summer I+30%	60	1	24.640	23.301	-0.139	0.000	0.26	0.177	14.4	OK
S20.000	S3250	60 minute 100 year Summer I+30%	60	1	24.628	23.300	-0.128	0.000	0.32	0.189	16.7	OK
S19.001	S3241	60 minute 100 year Summer I+30%	60	1	24.597	23.291	-0.106	0.000	0.74	0.811	42.8	OK
S19.002	S3242	60 minute 100 year Summer I+30%	60	1	24.000	23.201	-0.093	0.000	0.81	1.291	52.4	OK
S11.015	S3165	60 minute 100 year Summer I+30%	60	1	23.922	23.133	-0.789	0.000	0.06	3.505	487.5	OK
S11.016	S3166	60 minute 100 year Summer I+30%	60	1	23.652	22.894	-0.758	0.000	0.07	7.598	487.4	OK
S21.000	S3260	60 minute 100 year Summer I+30%	60	1	24.136	22.812	-0.124	0.000	0.18	0.108	6.4	OK
S21.001	S3261	60 minute 100 year Summer I+30%	60	1	24.043	22.802	-0.041	0.000	0.80	0.556	27.1	OK

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S11. 017	S3167	60 minute 100 year Summer I+30%	60	1	23.459	22.774	-0.685	0.000	0.08	5.402	505.5	OK
S22. 000	S3270	60 minute 100 year Summer I+30%	60	1	24.058	22.646	-0.212	0.000	0.16	0.094	9.9	OK
S22. 001	S3271	60 minute 100 year Summer I+30%	60	1	23.965	22.604	-0.161	0.000	0.42	0.542	26.4	OK
S22. 002	S3272	60 minute 100 year Summer I+30%	60	1	23.872	22.558	-0.114	0.000	0.64	0.864	36.5	OK
S11. 018	S3168	60 minute 100 year Summer I+30%	60	1	23.365	22.539	-0.826	0.000	0.06	7.997	530.5	OK
S11. 019	S3169	60 minute 100 year Summer I+30%	60	1	23.316	22.527	-0.789	0.000	0.07	0.920	530.0	OK
S11. 020	S3170	60 minute 100 year Summer I+30%	60	1	22.996	22.338	-0.658	0.000	0.08	9.235	524.6	OK
S23. 000	S3280	60 minute 100 year Winter I+30%	60	1	23.484	22.318	0.034	0.000	0.15	0.287	5.7	SURCHARGED
S23. 001	S3281	60 minute 100 year Winter I+30%	60	1	23.269	22.309	0.240	0.000	0.95	1.919	31.0	SURCHARGED
S11. 021	S3171	60 minute 100 year Summer I+30%	60	1	22.739	22.292	-0.447	0.000	0.09	32.062	487.6	OK
S11. 022	S3172	60 minute 100 year Summer I+30%	60	1	22.621	22.284	0.293	0.000	1.81	66.855	450.9	SURCHARGED*
S11. 023	S3173	60 minute 100 year Summer I+30%	60	1	22.633	21.767	-0.866	0.000	0.06	0.835	450.9	OK
S24. 000	S3290	60 minute 100 year Summer I+30%	60	1	27.878	26.227	-0.235	0.000	0.11	0.068	10.7	OK
S24. 001	S3291	60 minute 100 year Summer I+30%	60	1	27.725	26.066	-0.232	0.000	0.12	0.114	15.7	OK
S24. 002	S3292	60 minute 100 year Summer I+30%	60	1	27.292	25.410	-0.228	0.000	0.32	0.239	43.2	OK
S24. 003	S3293	60 minute 100 year Summer I+30%	60	1	27.136	25.298	-0.223	0.000	0.34	0.539	56.2	OK
S24. 004	S3294	60 minute 100 year Summer I+30%	60	1	26.998	25.150	-0.194	0.000	0.40	0.568	74.5	OK
S24. 005	S3295	60 minute 100 year Summer I+30%	60	1	26.633	25.107	0.128	0.000	1.01	3.679	100.5	SURCHARGED
S24. 006	S3296	60 minute 100 year Summer I+30%	60	1	26.623	25.026	0.156	0.000	0.84	5.205	142.7	SURCHARGED
S24. 007	S3297	60 minute 100 year Summer I+30%	60	1	26.942	24.981	0.193	0.000	1.47	3.300	155.0	SURCHARGED
S24. 008	S3298	60 minute 100 year Summer I+30%	60	1	27.141	24.935	0.182	0.000	1.61	2.971	161.0	SURCHARGED
S25. 000	S3320	60 minute 100 year Summer I+30%	60	1	27.291	25.609	-0.185	0.000	0.07	0.039	10.7	OK
S24. 009	S3299	60 minute 100 year Summer I+30%	60	1	27.239	24.892	0.166	0.000	1.25	2.432	179.2	SURCHARGED
S24. 010	S3300	60 minute 100 year Summer I+30%	60	1	26.728	24.755	0.133	0.000	0.66	7.228	184.1	SURCHARGED
S26. 000	S3330	60 minute 100 year Summer I+30%	60	1	25.706	24.461	0.018	0.000	0.05	0.354	8.8	SURCHARGED
S24. 011	S3301	60 minute 100 year Summer I+30%	60	1	25.786	24.456	0.525	0.000	1.40	14.847	253.0	SURCHARGED
S24. 012	S3302	60 minute 100 year Summer I+30%	60	1	25.425	24.339	0.468	0.000	1.47	7.864	273.6	SURCHARGED
S24. 013	S3303	60 minute 100 year Summer I+30%	60	1	24.980	24.173	0.377	0.000	1.71	9.412	302.5	SURCHARGED
S24. 014	S3304	60 minute 100 year Summer I+30%	60	1	24.943	24.015	0.272	0.000	1.67	6.817	313.1	SURCHARGED
S24. 015	S3305	60 minute 100 year Summer I+30%	60	1	24.865	23.793	0.128	0.000	2.57	9.184	330.1	SURCHARGED
S24. 016	S3306	60 minute 100 year Summer I+30%	60	1	24.643	23.241	-1.402	0.000	0.02	0.578	329.8	OK
S24. 017	S3307	60 minute 100 year Summer I+30%	60	1	24.775	23.016	-1.759	0.000	0.01	1.851	329.8	OK
S24. 018	S3308	60 minute 100 year Summer I+30%	60	1	24.194	22.762	-1.432	0.000	0.01	6.200	321.3	OK
S24. 019	S3309	60 minute 100 year Summer I+30%	60	1	24.085	22.752	-1.333	0.000	0.01	3.323	317.6	OK
S27. 000	S3340	60 minute 100 year Winter I+30%	60	1	24.183	22.780	-0.203	0.000	0.04	0.104	2.5	OK
S27. 001	S3341	60 minute 100 year Winter I+30%	60	1	24.142	22.779	-0.163	0.000	0.31	0.320	21.4	OK
S27. 002	S3342	60 minute 100 year Summer I+30%	60	1	23.927	22.762	0.035	0.000	0.63	2.783	38.9	SURCHARGED
S24. 020	S3310	60 minute 100 year Summer I+30%	60	1	23.831	22.750	-1.081	0.000	0.02	6.086	331.5	OK
S24. 021	S3311	60 minute 100 year Summer I+30%	60	1	23.455	22.748	-0.707	0.000	0.02	9.614	327.5	OK
S24. 022	S3312	60 minute 100 year Summer I+30%	60	1	23.461	22.747	0.302	0.000	1.93	9.117	326.7	SURCHARGED*
S24. 023	S3313	60 minute 100 year Summer I+30%	60	1	23.546	22.237	-1.309	0.000	0.02	0.594	326.8	OK
S1. 026	S3029-Basin C	480 minute 100 year Winter I+30%	480	1	21.900	21.655	0.655	0.000	0.40	3765.166	115.9	FLOOD RISK
S1. 027		480 minute 100 year Winter I+30%	480	1	22.440	21.664	0.927	0.000	0.27	2.866	109.0	SURCHARGED
S1. 028		480 minute 100 year Winter I+30%	480	1	22.645	21.673	1.439	0.000	0.62	4.792	93.5	SURCHARGED
S28. 000		60 minute 100 year Summer I+30%	60	1	24.098	22.389	-0.222	0.000	0.49	0.527	186.4	OK
S28. 001	S3351	60 minute 100 year Summer I+30%	60	1	23.359	22.334	0.341	0.000	1.11	18.093	321.6	SURCHARGED

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Catch C+D

PN	US/MH Name	Event	Duration (mins)	Storm Rank	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Maximum Vol (m³)	Pipe Flow (l/s)	Status
S28.002	S3352	60 minute 100 year Summer I+30%	60	1	22.742	22.064	0.444	0.000	0.62	21.064	288.4	SURCHARGED
S28.003	S3353	60 minute 100 year Summer I+30%	60	1	22.519	21.954	0.707	0.000	0.30	7.578	284.3	SURCHARGED
S28.004	S3354	60 minute 100 year Summer I+30%	60	1	22.616	21.935	0.808	0.000	0.61	16.820	280.4	SURCHARGED
S29.000	S3370	60 minute 100 year Summer I+30%	60	1	23.318	22.053	0.618	0.000	0.71	1.033	39.6	SURCHARGED
S29.001	S3371	60 minute 100 year Summer I+30%	60	1	23.170	22.029	0.658	0.000	0.89	2.346	54.1	SURCHARGED
S29.002	S3372	60 minute 100 year Summer I+30%	60	1	22.964	21.998	0.697	0.000	1.09	2.243	62.9	SURCHARGED
S29.003	S3373	60 minute 100 year Summer I+30%	60	1	22.764	21.967	0.718	0.000	1.19	1.959	62.8	SURCHARGED
S29.004	S3374	60 minute 100 year Summer I+30%	60	1	22.667	21.946	0.729	0.000	0.86	1.618	74.0	SURCHARGED
S30.000	S3380	60 minute 100 year Summer I+30%	60	1	22.437	21.921	0.684	0.000	0.30	0.937	4.8	SURCHARGED
S28.005	S3355	60 minute 100 year Summer I+30%	60	1	22.561	21.920	0.821	0.000	0.29	14.036	355.5	SURCHARGED
S28.006	S3356	60 minute 100 year Summer I+30%	60	1	22.401	21.907	0.857	0.000	0.30	29.464	350.3	SURCHARGED
S28.007	S3357	60 minute 100 year Summer I+30%	60	1	22.379	21.894	0.894	0.000	0.44	38.636	341.6	SURCHARGED
S28.008	S3358	60 minute 100 year Summer I+30%	60	1	22.415	21.886	0.902	0.000	0.53	13.971	343.1	SURCHARGED
S31.000	S3390	60 minute 100 year Summer I+30%	60	1	23.337	22.017	0.154	0.000	0.37	0.423	20.1	SURCHARGED
S31.001	S3391	60 minute 100 year Summer I+30%	60	1	23.137	21.992	0.498	0.000	0.83	1.944	28.7	SURCHARGED
S31.002	S3392	60 minute 100 year Summer I+30%	60	1	22.984	21.966	0.547	0.000	0.95	1.321	35.0	SURCHARGED
S31.003	S3393	60 minute 100 year Summer I+30%	60	1	22.666	21.924	0.641	0.000	1.23	1.835	36.7	SURCHARGED
S31.004	S3394	60 minute 100 year Summer I+30%	60	1	22.568	21.904	0.664	0.000	1.30	1.237	41.9	SURCHARGED
S28.009	S3359	60 minute 100 year Summer I+30%	60	1	22.484	21.875	0.908	0.000	0.50	17.445	364.0	SURCHARGED
S28.010	S3360	60 minute 100 year Summer I+30%	60	1	22.471	21.866	0.919	0.000	0.34	15.089	363.0	SURCHARGED
S1.029	S3032	60 minute 100 year Summer I+30%	60	1	22.290	21.852	0.947	0.000	0.09	38.345	86.2	SURCHARGED
S1.030	S3033-CON	60 minute 100 year Summer I+30%	60	1	22.415	21.849	1.735	0.000	0.40	39.516	63.3	SURCHARGED
S1.031	S3034	60 minute 100 year Summer I+30%	60	1	23.160	19.770	-0.222	0.000	0.51	2.353	63.1	OK
S1.032	S3035	60 minute 100 year Summer I+30%	60	1	23.110	19.705	-0.239	0.000	0.45	1.254	63.0	OK
S1.033	S3036	60 minute 100 year Summer I+30%	60	1	21.990	19.606	-0.247	0.000	0.42	1.960	62.7	OK
S1.034	S3037	60 minute 100 year Summer I+30%	60	1	21.475	19.431	-0.247	0.000	0.42	2.512	62.4	OK
S1.035	S3038	60 minute 100 year Winter I+30%	60	1	21.015	19.297	-0.219	0.000	0.52	3.233	62.2	OK
S1.036	S3039-HW	60 minute 100 year Winter I+30%	60	1	19.850	19.176	-0.674	0.000	0.04	0.564	62.2	OK
S1.037	S3040	60 minute 100 year Winter I+30%	60	1	20.192	19.152	-1.040	0.000	0.01	0.471	62.2	OK