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Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D (FSR 15 & 30)	
Date 09/05/2023	Designed by PS	
File (FSR 15 + 30) M380-Catch C&D-V5.11 (RM Ph3).MDX	Checked by BF	
Causeway	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	10	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	1.737	12-16	3.065	16-20	3.295	20-24	0.348

Total Area Contributing (ha) = 8.592

Total Pipe Volume (m³) = 2542.641

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	98.19	5.38	26.053	0.096	0.0	0.0	0.0	1.56	62.1	25.5
S1.001	93.91	6.01	25.466	0.161	0.0	0.0	0.0	1.01	71.3	41.0
S1.002	87.79	7.01	25.235	0.287	0.0	0.0	0.0	1.01	111.2	68.3
S1.003	86.42	7.26	25.045	0.296	0.0	0.0	0.0	1.02	112.1	69.3
S2.000	98.65	5.32	32.182	0.105	0.0	0.0	0.0	1.01	40.0	28.0
S2.001	97.00	5.55	32.067	0.165	0.0	0.0	0.0	2.39	95.1	43.3
S2.002	96.38	5.64	30.964	0.189	0.0	0.0	0.0	2.97	118.1	49.3
S2.003	95.53	5.76	30.167	0.228	0.0	0.0	0.0	2.86	113.9	58.9
S2.004	93.87	6.01	29.152	0.271	0.0	0.0	0.0	2.43	96.7	68.9
S2.005	93.24	6.11	27.906	0.289	0.0	0.0	0.0	2.35	93.4	72.9
S2.006	92.94	6.15	27.470	0.298	0.0	0.0	0.0	5.24	208.4	74.9
S1.004	85.12	7.50	24.847	0.616	0.0	0.0	0.0	1.00	215.5	142.0
S1.005	81.33	8.26	24.818	0.754	0.0	0.0	0.0	1.00	217.1	166.2
S1.006	81.21	8.29	24.725	0.771	0.0	0.0	0.0	6.45	1396.8	169.6

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Causeway	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	96.55	5.61	25.255	0.147	0.0	0.0	0.0	1.45	57.7	38.4
S3.001	92.95	6.15	24.446	0.229	0.0	0.0	0.0	1.29	142.2	57.6
S3.002	91.41	6.40	24.235	0.275	0.0	0.0	0.0	1.01	111.6	68.2
S3.003	87.81	7.01	24.188	0.345	0.0	0.0	0.0	1.00	110.9	82.1
S3.004	86.66	7.22	24.074	0.354	0.0	0.0	0.0	1.02	113.1	83.1
S1.007	77.76	9.06	23.733	1.288	0.0	0.0	0.0	1.28	459.8	271.3
S4.000	95.33	5.79	24.593	0.168	0.0	0.0	0.0	1.02	40.7	43.4
S4.001	94.23	5.96	24.218	0.240	0.0	0.0	0.0	1.00	70.5	61.2
S4.002	90.91	6.48	24.103	0.312	0.0	0.0	0.0	1.00	110.2	76.9
S4.003	87.21	7.12	24.007	0.377	0.0	0.0	0.0	1.00	110.6	89.1
S1.008	77.04	9.23	23.514	1.682	0.0	0.0	0.0	1.25	554.0	351.0
S1.009	76.53	9.35	23.488	1.700	0.0	0.0	0.0	1.25	553.1	352.4
S1.010	75.32	9.65	23.469	1.830	0.0	0.0	0.0	3.56	1572.8	373.4
S1.011	75.13	9.70	22.433	1.905	0.0	0.0	0.0	3.60	1591.1	387.5
S5.000	98.56	5.33	24.355	0.061	0.0	0.0	0.0	1.24	22.0	16.2
S5.001	94.22	5.96	23.827	0.250	0.0	0.0	0.0	1.94	137.4	63.8
S1.012	73.90	10.02	22.113	2.195	0.0	0.0	0.0	1.39	883.9	439.2
S1.013	73.22	10.21	22.060	2.224	0.0	0.0	0.0	1.40	890.6	441.1
S1.014	72.12	10.51	22.029	2.236	0.0	0.0	0.0	0.91	576.4	441.1
S6.000	99.62	5.19	29.800	0.136	0.0	0.0	0.0	2.94	116.9	36.8
S6.001	98.93	5.28	28.140	0.164	0.0	0.0	0.0	2.71	107.6	44.0
S6.002	96.95	5.56	27.500	0.203	0.0	0.0	0.0	1.82	72.3	53.2
S7.000	98.42	5.35	28.985	0.136	0.0	0.0	0.0	1.99	79.1	36.2
S7.001	96.01	5.69	27.945	0.241	0.0	0.0	0.0	1.58	111.5	62.6
S7.002	95.07	5.83	27.545	0.272	0.0	0.0	0.0	1.81	199.7	70.1
S7.003	93.66	6.04	27.395	0.347	0.0	0.0	0.0	1.81	199.6	87.9
S7.004	91.68	6.36	27.165	0.391	0.0	0.0	0.0	1.91	210.7	97.0
S6.003	90.67	6.52	26.770	0.629	0.0	0.0	0.0	2.54	281.0	154.6

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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

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S6.004	89.79	6.67	26.280	0.715	0.0	0.0	0.0	4.86	537.2	173.8
S8.000	97.62	5.46	23.978	0.048	0.0	0.0	0.0	1.00	17.7	12.8
S8.001	94.81	5.87	23.628	0.131	0.0	0.0	0.0	1.07	42.6	33.6
S8.002	92.40	6.24	23.376	0.159	0.0	0.0	0.0	1.01	71.3	39.7
S6.005	86.99	7.16	22.983	0.927	0.0	0.0	0.0	1.08	306.6	218.4
S6.006	86.87	7.18	22.919	0.936	0.0	0.0	0.0	6.30	1780.7	220.1
S6.007	85.84	7.37	22.386	0.947	0.0	0.0	0.0	1.07	303.6	220.2
S6.008	85.38	7.45	22.212	0.960	0.0	0.0	0.0	1.90	839.2	221.9
S6.009	84.73	7.58	22.002	1.010	0.0	0.0	0.0	0.97	617.1	231.9
S6.010	83.88	7.74	21.995	1.010	0.0	0.0	0.0	0.99	628.7	231.9
S1.015	71.45	10.70	21.985	3.271	0.0	0.0	0.0	1.00	638.2	632.9
S1.016	70.66	10.93	21.973	3.271	0.0	0.0	0.0	1.02	647.0	632.9
S1.017	69.98	11.13	21.958	3.271	0.0	0.0	0.0	1.01	645.3	632.9
S9.000	97.86	5.43	24.927	0.085	0.0	0.0	0.0	1.58	62.7	22.4
S9.001	94.29	5.95	24.262	0.185	0.0	0.0	0.0	1.25	88.6	47.2
S9.002	93.69	6.04	24.013	0.212	0.0	0.0	0.0	1.49	105.1	53.8
S9.003	92.06	6.29	23.939	0.259	0.0	0.0	0.0	1.55	109.5	64.7
S10.000	99.63	5.19	24.003	0.075	0.0	0.0	0.0	1.49	59.3	20.2
S9.004	90.91	6.48	23.710	0.367	0.0	0.0	0.0	1.76	124.6	90.4
S9.005	90.43	6.56	23.388	0.406	0.0	0.0	0.0	1.97	218.0	99.5
S9.006	89.97	6.64	23.202	0.406	0.0	0.0	0.0	2.74	435.8	99.5
S9.007	88.93	6.81	22.970	0.451	0.0	0.0	0.0	2.32	369.4	108.7
S9.008	88.03	6.97	22.648	0.490	0.0	0.0	0.0	2.08	330.4	116.8
S9.009	87.11	7.13	22.444	0.524	0.0	0.0	0.0	1.27	202.1	123.5
S1.018	69.43	11.30	21.945	3.833	0.0	0.0	0.0	1.50	954.4	720.7
S1.019	68.14	11.70	21.910	3.833	0.0	0.0	0.0	1.59	1009.1	720.7
S1.020	67.70	11.84	21.800	3.833	0.0	0.0	0.0	1.98	428.5	720.7
S1.021	63.73	13.24	21.680	3.833	0.0	0.0	0.0	1.08	232.8	720.7
S1.022	60.28	14.63	21.470	3.833	0.0	0.0	0.0	1.08	232.8	720.7

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Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D (FSR 15 & 30)	
Date 09/05/2023	Designed by PS	
File (FSR 15 + 30) M380-Catch C&D-V5.11 (RM Ph3).MDX	Checked by BF	
Causeway	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
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	57.25	16.02	21.260	3.833	0.0	0.0	0.0	1.08	233.1	720.7
S1.024	55.53	16.89	21.050	3.833	0.0	0.0	0.0	1.04	226.1	720.7
S1.025	55.10	17.13	20.930	3.833	0.0	0.0	0.0	1.02	221.1	720.7
S11.000	97.26	5.51	26.512	0.035	0.0	0.0	0.0	1.27	22.5	9.2
S11.001	95.06	5.83	25.815	0.111	0.0	0.0	0.0	1.69	67.2	28.6
S11.002	94.53	5.91	25.200	0.169	0.0	0.0	0.0	2.16	152.4	43.3
S11.003	93.91	6.00	25.007	0.178	0.0	0.0	0.0	1.85	130.6	45.3
S11.004	93.09	6.13	24.865	0.194	0.0	0.0	0.0	3.04	214.8	48.9
S12.000	100.66	5.05	25.784	0.048	0.0	0.0	0.0	2.24	39.5	13.1
S13.000	100.63	5.06	25.755	0.049	0.0	0.0	0.0	2.72	108.3	13.4
S12.001	99.12	5.26	25.365	0.137	0.0	0.0	0.0	1.61	63.9	36.8
S12.002	98.15	5.39	25.000	0.190	0.0	0.0	0.0	2.24	158.6	50.5
S12.003	97.51	5.48	24.636	0.231	0.0	0.0	0.0	2.20	155.9	61.0
S12.004	95.78	5.73	24.405	0.263	0.0	0.0	0.0	1.89	133.3	68.2
S11.005	89.42	6.73	23.853	0.521	0.0	0.0	0.0	1.11	176.1	126.2
S11.006	88.91	6.82	23.734	0.589	0.0	0.0	0.0	1.65	263.1	141.8
S14.000	98.90	5.28	25.448	0.065	0.0	0.0	0.0	1.61	113.7	17.4
S14.001	97.85	5.43	25.160	0.164	0.0	0.0	0.0	2.76	195.3	43.5
S14.002	96.76	5.58	24.422	0.253	0.0	0.0	0.0	2.52	178.2	66.3
S15.000	100.47	5.08	24.425	0.030	0.0	0.0	0.0	2.69	107.0	8.2
S11.007	87.93	6.99	23.527	0.982	0.0	0.0	0.0	1.21	341.9	233.8
S11.008	84.21	7.68	23.496	0.982	0.0	0.0	0.0	1.21	342.9	233.8
S11.009	82.95	7.93	23.370	0.982	0.0	0.0	0.0	1.09	308.1	233.8
S16.000	100.79	5.04	24.815	0.043	0.0	0.0	0.0	3.03	53.5	11.7
S17.000	100.47	5.08	24.656	0.036	0.0	0.0	0.0	2.10	37.1	9.8

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Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D (FSR 15 & 30)	
Date 09/05/2023 File (FSR 15 + 30) M380-Catch C&D-V5.11 (RM Ph3).MDX	Designed by PS Checked by BF	
Causeway	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	98.92	5.28	24.168	0.109	0.0	0.0	0.0	1.41	55.9	29.2
S16.002	97.49	5.48	23.966	0.137	0.0	0.0	0.0	1.41	55.9	36.2
S16.003	96.27	5.65	23.774	0.178	0.0	0.0	0.0	1.00	39.9	46.4
S11.010	80.84	8.37	23.337	1.181	0.0	0.0	0.0	1.21	342.8	258.6
S11.011	80.39	8.47	23.257	1.233	0.0	0.0	0.0	2.10	595.0	268.4
S18.000	99.80	5.17	23.759	0.000	0.0	0.0	0.0	1.11	44.0	0.0
S18.001	97.62	5.46	23.680	0.112	0.0	0.0	0.0	0.98	39.1	29.7
S18.002	96.74	5.59	23.580	0.140	0.0	0.0	0.0	0.98	38.9	36.8
S11.012	77.23	9.18	23.164	1.383	0.0	0.0	0.0	1.00	283.1	289.4
S11.013	76.51	9.36	23.090	1.452	0.0	0.0	0.0	1.02	287.7	300.9
S11.014	75.57	9.59	22.971	1.452	0.0	0.0	0.0	0.65	141.2	300.9
S19.000	99.73	5.17	23.140	0.038	0.0	0.0	0.0	1.00	70.9	10.3
S20.000	100.10	5.13	23.128	0.044	0.0	0.0	0.0	1.00	71.0	11.9
S19.001	95.61	5.75	23.097	0.114	0.0	0.0	0.0	0.90	63.6	29.5
S19.002	94.68	5.89	22.994	0.140	0.0	0.0	0.0	1.25	88.4	35.9
S11.015	73.01	10.26	22.828	1.592	0.0	0.0	0.0	0.56	121.1	314.8
S11.016	71.46	10.69	22.566	1.592	0.0	0.0	0.0	0.49	106.6	314.8
S21.000	99.06	5.26	22.711	0.017	0.0	0.0	0.0	1.00	39.7	4.6
S21.001	97.69	5.45	22.618	0.071	0.0	0.0	0.0	1.00	39.9	18.8
S11.017	69.07	11.41	22.451	1.663	0.0	0.0	0.0	0.52	112.8	314.8
S22.000	98.28	5.37	22.558	0.026	0.0	0.0	0.0	1.01	71.3	6.9
S22.001	95.69	5.74	22.465	0.069	0.0	0.0	0.0	1.01	71.3	18.0
S22.002	94.44	5.92	22.372	0.096	0.0	0.0	0.0	1.01	71.6	24.6
S11.018	68.91	11.46	22.225	1.760	0.0	0.0	0.0	0.57	124.2	328.4
S11.019	66.98	12.08	22.204	1.760	0.0	0.0	0.0	0.54	118.2	328.4

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Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D (FSR 15 & 30)	
Date 09/05/2023 File (FSR 15 + 30) M380-Catch C&D-V5.11 (RM Ph3).MDX	Designed by PS Checked by BF	
Causeway	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
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 600	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	64.37	13.00	21.978	1.760	0.0	0.0	0.0	0.52	112.5	328.4
S23.000	96.60	5.61	22.059	0.019	0.0	0.0	0.0	1.00	39.8	5.0
S23.001	95.55	5.76	21.844	0.109	0.0	0.0	0.0	1.00	39.8	28.2
S11.021	61.43	14.15	21.690	1.869	0.0	0.0	0.0	0.44	96.2	328.4
S11.022	61.32	14.19	21.466	1.869	0.0	0.0	0.0	1.72	372.0	328.4
S11.023	60.85	14.39	21.439	1.869	0.0	0.0	0.0	0.44	96.7	328.4
S24.000	99.97	5.14	26.162	0.028	0.0	0.0	0.0	1.68	118.9	7.6
S24.001	97.73	5.45	25.998	0.041	0.0	0.0	0.0	2.08	146.7	10.9
S24.002	96.51	5.62	25.263	0.112	0.0	0.0	0.0	1.55	170.7	29.3
S24.003	95.63	5.75	25.146	0.145	0.0	0.0	0.0	1.96	217.0	37.6
S24.004	93.55	6.06	24.969	0.192	0.0	0.0	0.0	1.86	205.1	48.6
S24.005	89.95	6.64	24.604	0.282	0.0	0.0	0.0	1.00	110.8	68.7
S24.006	88.81	6.83	24.420	0.410	0.0	0.0	0.0	1.43	226.8	98.6
S24.007	87.47	7.07	24.338	0.447	0.0	0.0	0.0	1.01	160.8	105.9
S24.008	86.50	7.25	24.303	0.468	0.0	0.0	0.0	1.02	161.7	109.6
S25.000	100.83	5.03	25.569	0.028	0.0	0.0	0.0	4.65	184.9	7.6
S24.009	82.92	7.94	24.276	0.534	0.0	0.0	0.0	1.01	160.4	119.9
S24.010	79.50	8.66	24.172	0.592	0.0	0.0	0.0	1.87	297.5	127.5
S26.000	100.48	5.08	24.143	0.025	0.0	0.0	0.0	3.04	215.1	6.8
S24.011	77.34	9.16	23.406	0.870	0.0	0.0	0.0	1.00	216.2	182.2
S24.012	74.79	9.79	23.346	0.964	0.0	0.0	0.0	0.99	214.9	195.3
S24.013	73.24	10.20	23.196	1.091	0.0	0.0	0.0	1.08	305.8	216.4
S24.014	70.94	10.84	23.218	1.145	0.0	0.0	0.0	1.00	216.3	220.0
S24.015	70.05	11.11	23.140	1.224	0.0	0.0	0.0	1.00	216.4	232.2
S24.016	68.71	11.52	23.008	1.224	0.0	0.0	0.0	0.63	136.8	232.2
S24.017	66.40	12.28	22.776	1.224	0.0	0.0	0.0	0.58	125.3	232.2
S24.018	65.69	12.53	22.448	1.224	0.0	0.0	0.0	0.53	114.7	232.2
S24.019	65.15	12.72	22.366	1.224	0.0	0.0	0.0	0.62	134.2	232.2

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Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D (FSR 15 & 30)	
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Causeway	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
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	99.98	5.14	22.683	0.008	0.0	0.0	0.0	1.06	74.8	2.2
S27.001	94.68	5.89	22.642	0.070	0.0	0.0	0.0	1.06	74.6	17.8
S27.002	93.25	6.11	22.427	0.107	0.0	0.0	0.0	1.06	74.7	26.9
S24.020	64.53	12.94	22.264	1.331	0.0	0.0	0.0	0.60	130.3	232.5
S24.021	64.28	13.03	22.147	1.331	0.0	0.0	0.0	0.91	197.5	232.5
S24.022	64.06	13.11	21.995	1.331	0.0	0.0	0.0	1.00	159.2	232.5
S24.023	62.44	13.74	21.983	1.331	0.0	0.0	0.0	0.51	111.9	232.5
S1.026	55.03	17.16	20.550	7.032	0.0	0.0	0.0	3.77	599.5	1048.0
S1.027	54.91	17.22	20.287	7.032	0.0	0.0	0.0	3.79	603.4	1048.0
S1.028	54.25	17.59	19.784	7.032	0.0	0.0	0.0	1.14	181.0	1048.0
S28.000	95.43	5.78	22.086	0.498	0.0	0.0	0.0	1.88	406.8	128.8
S28.001	88.80	6.84	21.468	1.021	0.0	0.0	0.0	1.43	309.6	245.6
S28.002	88.27	6.93	21.095	1.021	0.0	0.0	0.0	3.25	702.6	245.6
S28.003	87.41	7.08	20.347	1.021	0.0	0.0	0.0	2.34	1489.8	245.6
S28.004	86.68	7.21	20.227	1.021	0.0	0.0	0.0	1.51	960.0	245.6
S29.000	98.41	5.35	21.135	0.117	0.0	0.0	0.0	0.90	63.9	31.2
S29.001	96.40	5.64	21.071	0.167	0.0	0.0	0.0	1.00	70.9	43.6
S29.002	94.96	5.85	21.001	0.201	0.0	0.0	0.0	1.00	70.8	51.7
S29.003	94.11	5.98	20.949	0.210	0.0	0.0	0.0	1.01	71.3	53.5
S29.004	93.64	6.05	20.917	0.256	0.0	0.0	0.0	1.89	133.6	64.9
S30.000	99.29	5.23	21.087	0.000	0.0	0.0	0.0	1.00	17.7	0.0
S28.005	85.58	7.42	19.899	1.337	0.0	0.0	0.0	1.78	2016.1	309.9
S28.006	83.88	7.74	19.850	1.380	0.0	0.0	0.0	1.52	1723.0	313.6
S28.007	83.47	7.82	19.800	1.387	0.0	0.0	0.0	1.66	1880.7	313.6
S28.008	82.86	7.95	19.784	1.421	0.0	0.0	0.0	1.47	1667.8	319.0
S31.000	98.51	5.34	21.638	0.053	0.0	0.0	0.0	1.46	58.0	14.1
S31.001	97.01	5.55	21.269	0.087	0.0	0.0	0.0	1.01	40.0	22.9
S31.002	94.43	5.93	21.194	0.110	0.0	0.0	0.0	1.01	40.0	28.1
S31.003	93.65	6.05	21.058	0.122	0.0	0.0	0.0	1.01	40.1	30.9

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Causeway	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	92.71	6.19	21.015	0.139	0.0	0.0	0.0	1.00	39.8	34.9
S28.009	82.44	8.03	19.767	1.560	0.0	0.0	0.0	1.76	1990.7	348.4
S28.010	81.51	8.23	19.747	1.560	0.0	0.0	0.0	1.71	1938.0	348.4
S1.029	53.70	17.90	19.705	8.592	0.0	0.0	0.0	1.46	1647.8	1249.7
S1.030	52.66	18.50	19.664	8.592	0.0	0.0	0.0	1.11	177.0	1249.7
S1.031	52.10	18.84	19.542	8.592	0.0	0.0	0.0	0.99	157.2	1249.7
S1.032	51.14	19.45	19.494	8.592	0.0	0.0	0.0	1.00	159.7	1249.7
S1.033	49.38	20.62	19.403	8.592	0.0	0.0	0.0	1.00	159.8	1249.7
S1.034	47.89	21.70	19.228	8.592	0.0	0.0	0.0	1.01	160.2	1249.7
S1.035	47.55	21.96	19.066	8.592	0.0	0.0	0.0	1.04	165.5	1249.7
S1.036	47.05	22.35	19.023	8.592	0.0	0.0	0.0	0.28	61.6	1249.7
S1.037	45.90	23.27	19.003	8.592	0.0	0.0	0.0	0.27	59.6	1249.7

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Causeway	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

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Causeway	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
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. (mm)	L*W
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

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Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D (FSR 15 & 30)	
Date 09/05/2023	Designed by PS	
File (FSR 15 + 30) M380-Catch C&D-V5.11 (RM Ph3).MDX	Checked by BF	
Causeway	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
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. 800	1. 175	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. 670	1. 825	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	

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

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

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File (FSR 15 + 30) M380-Catch C&D-V5.11 (RM Ph3).MDX	Checked by BF	
Causeway	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
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	600	S3303	24.980	23.196	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	23.143	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		

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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 ¥=	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

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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

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

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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

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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

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Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D (FSR 15 & 30)	
Date 09/05/2023	Designed by PS	
File (FSR 15 + 30) M380-Catch C&D-V5.11 (RM Ph3).MDX	Checked by BF	
Causeway	Network 2020.1.3	

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

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Stratton Park House Wanborough Road Swindon SN3 4HG	M380: Boorley Gardens SW Drainage - Planning Catchments C + D (FSR 15 & 30)	
Date 09/05/2023	Designed by PS	
File (FSR 15 + 30) 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

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 FSR M5-60 (mm) 20.000 Cv (Summer) 0.750
 Region England and Wales Ratio R 0.350 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) 15, 30
 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	15 minute 2 year Winter I+0%	15	1	27.478	26.135	-0.143	0.000	0.28	0.087	16.2	OK
S1.001	S3001	15 minute 2 year Winter I+0%	15	1	26.966	25.597	-0.169	0.000	0.39	0.165	25.5	OK
S1.002	S3002	15 minute 2 year Winter I+0%	15	1	26.704	25.403	-0.207	0.000	0.40	0.452	41.6	OK
S1.003	S3003	15 minute 2 year Winter I+0%	15	1	28.014	25.229	-0.191	0.000	0.48	1.581	42.2	OK
S2.000	S3050	15 minute 2 year Winter I+0%	15	1	33.607	32.295	-0.112	0.000	0.49	0.123	17.7	OK
S2.001	S3051	15 minute 2 year Winter I+0%	15	1	33.552	32.152	-0.140	0.000	0.30	0.180	26.6	OK
S2.002	S3052	15 minute 2 year Winter I+0%	15	1	32.390	31.047	-0.142	0.000	0.29	0.105	30.2	OK
S2.003	S3053	15 minute 2 year Winter I+0%	15	1	31.592	30.259	-0.133	0.000	0.35	0.109	35.9	OK
S2.004	S3054	15 minute 2 year Winter I+0%	15	1	30.545	29.259	-0.118	0.000	0.46	0.131	42.1	OK
S2.005	S3055	15 minute 2 year Winter I+0%	15	1	29.217	28.025	-0.106	0.000	0.55	0.160	44.5	OK
S2.006	S3056	15 minute 2 year Winter I+0%	15	1	28.782	27.546	-0.149	0.000	0.25	0.095	45.6	OK
S1.004	S3004	15 minute 2 year Winter I+0%	15	1	28.294	25.179	-0.193	0.000	0.72	1.098	87.2	OK
S1.005	S3005	15 minute 2 year Winter I+0%	15	1	28.322	25.095	-0.248	0.000	0.53	1.601	101.5	OK
S1.006	S3006	15 minute 2 year Winter I+0%	15	1	27.532	24.859	-0.391	0.000	0.15	1.221	103.7	OK
S3.000	S3060	15 minute 2 year Winter I+0%	15	1	26.680	25.362	-0.118	0.000	0.45	0.116	25.2	OK
S3.001	S3061	15 minute 2 year Winter I+0%	15	1	26.141	24.583	-0.238	0.000	0.28	0.193	36.5	OK
S3.002	S3062	15 minute 2 year Winter I+0%	15	1	26.114	24.425	-0.185	0.000	0.49	1.124	42.4	OK
S3.003	S3063	15 minute 2 year Winter I+0%	15	1	26.410	24.379	-0.184	0.000	0.50	0.828	50.4	OK
S3.004	S3064	15 minute 2 year Winter I+0%	15	1	27.500	24.282	-0.167	0.000	0.59	1.704	51.1	OK
S1.007	S3007	15 minute 2 year Winter I+0%	15	1	27.348	24.099	-0.309	0.000	0.41	0.807	167.5	OK
S4.000	S3070	15 minute 2 year Winter I+0%	15	1	25.790	24.739	-0.079	0.000	0.72	0.160	28.0	OK
S4.001	S3072	15 minute 2 year Winter I+0%	15	1	25.325	24.403	-0.115	0.000	0.69	0.358	38.1	OK
S4.002	S3073	15 minute 2 year Winter I+0%	15	1	25.456	24.290	-0.188	0.000	0.49	0.398	47.7	OK

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Stratton Park House	M380: Boorley Gardens	
Wanborough Road	SW Drainage - Planning	
Swindon SN3 4HG	Catchments C + D (FSR 15 & 30)	
Date 09/05/2023	Designed by PS	
File (FSR 15 + 30) 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	15 minute 2 year Winter I+0%	15	1	25.586	24.207	-0.175	0.000	0.55	1.498	55.2	OK
S1.008	S3008	15 minute 2 year Winter I+0%	15	1	26.600	24.020	-0.244	0.000	0.79	12.741	213.1	OK
S1.009	S3009	15 minute 2 year Winter I+0%	15	1	26.345	23.978	-0.260	0.000	0.84	3.950	213.7	OK
S1.010	S3010	15 minute 2 year Winter I+0%	15	1	26.150	23.671	-0.548	0.000	0.16	0.874	222.1	OK
S1.011	S3011	15 minute 2 year Winter I+0%	15	1	24.845	22.761	-0.422	0.000	0.35	2.344	225.3	OK
S5.000	S3080	15 minute 2 year Winter I+0%	15	1	25.677	24.431	-0.074	0.000	0.49	0.080	10.3	OK
S5.001	S3081	15 minute 2 year Winter I+0%	15	1	25.276	23.937	-0.190	0.000	0.29	0.120	38.3	OK
S1.012	S3012	15 minute 2 year Winter I+0%	15	1	24.078	22.735	-0.278	0.000	0.39	3.499	245.0	OK
S1.013	S3013	15 minute 2 year Winter I+0%	15	1	23.942	22.716	-0.244	0.000	0.56	11.993	242.4	OK
S1.014	S3014	15 minute 2 year Winter I+0%	15	1	23.833	22.696	-0.233	0.000	0.89	7.453	243.6	OK
S6.000	S3090	15 minute 2 year Winter I+0%	15	1	31.555	29.871	-0.154	0.000	0.21	0.074	23.5	OK
S6.001	S3091	15 minute 2 year Winter I+0%	15	1	29.895	28.223	-0.142	0.000	0.29	0.099	27.3	OK
S6.002	S3092	15 minute 2 year Winter I+0%	15	1	29.250	27.612	-0.113	0.000	0.49	0.141	33.1	OK
S7.000	S3110	15 minute 2 year Winter I+0%	15	1	30.720	29.071	-0.139	0.000	0.31	0.092	23.0	OK
S7.001	S3111	15 minute 2 year Winter I+0%	15	1	29.740	28.073	-0.172	0.000	0.38	0.152	38.3	OK
S7.002	S3112	15 minute 2 year Winter I+0%	15	1	29.410	27.681	-0.239	0.000	0.28	0.233	43.0	OK
S7.003	S3113	15 minute 2 year Winter I+0%	15	1	29.250	27.539	-0.231	0.000	0.31	0.427	53.6	OK
S7.004	S3114	15 minute 2 year Winter I+0%	15	1	29.025	27.309	-0.231	0.000	0.31	0.446	59.0	OK
S6.003	S3093	15 minute 2 year Winter I+0%	15	1	28.650	26.934	-0.211	0.000	0.40	0.530	96.6	OK
S6.004	S3094	15 minute 2 year Winter I+0%	15	1	28.150	26.400	-0.255	0.000	0.22	0.240	108.0	OK
S8.000	S3120	15 minute 2 year Winter I+0%	15	1	26.200	24.053	-0.075	0.000	0.48	0.079	8.2	OK
S8.001	S3121	15 minute 2 year Winter I+0%	15	1	26.500	23.743	-0.110	0.000	0.51	0.135	20.1	OK
S8.002	S3122	15 minute 2 year Winter I+0%	15	1	26.440	23.504	-0.172	0.000	0.38	0.182	24.0	OK
S6.005	S3095	15 minute 2 year Winter I+0%	15	1	26.160	23.304	-0.279	0.000	0.55	0.605	138.9	OK
S6.006	S3096	15 minute 2 year Winter I+0%	15	1	24.555	23.096	-0.423	0.000	0.19	1.503	139.3	OK
S6.007	S3097	15 minute 2 year Winter I+0%	15	1	24.220	22.835	-0.151	0.000	0.90	1.336	140.7	OK
S6.008	S3098	15 minute 2 year Winter I+0%	15	1	23.845	22.679	-0.283	0.000	0.28	2.371	135.8	OK
S6.009	S3099	15 minute 2 year Winter I+0%	15	1	23.675	22.672	-0.230	0.000	0.30	3.801	133.5	OK
S6.010	S3100	15 minute 2 year Winter I+0%	15	1	23.600	22.669	-0.226	0.000	0.34	4.018	126.7	OK
S1.015	S3015	15 minute 2 year Winter I+0%	15	1	23.565	22.664	-0.221	0.000	1.01	11.223	336.3	OK
S1.016	S3016	15 minute 2 year Winter I+0%	15	1	23.660	22.637	-0.236	0.000	1.15	5.777	335.9	OK
S1.017	S3017	15 minute 2 year Winter I+0%	15	1	23.840	22.587	-0.271	0.000	1.05	6.384	335.9	OK
S9.000	S3130	15 minute 2 year Winter I+0%	15	1	26.352	25.003	-0.149	0.000	0.24	0.080	14.3	OK
S9.001	S3131	15 minute 2 year Winter I+0%	15	1	25.763	24.386	-0.176	0.000	0.35	0.151	28.8	OK
S9.002	S3132	15 minute 2 year Winter I+0%	15	1	25.576	24.159	-0.154	0.000	0.47	0.511	32.4	OK
S9.003	S3133	15 minute 2 year Winter I+0%	15	1	25.493	24.072	-0.167	0.000	0.40	0.278	38.7	OK
S10.000	S3140	15 minute 2 year Winter I+0%	15	1	25.428	24.079	-0.149	0.000	0.24	0.080	12.9	OK
S9.004	S3134	15 minute 2 year Winter I+0%	15	1	25.210	23.864	-0.146	0.000	0.51	0.463	55.6	OK
S9.005	S3135	15 minute 2 year Winter I+0%	15	1	24.964	23.569	-0.194	0.000	0.47	0.336	60.7	OK
S9.006	S3136	15 minute 2 year Winter I+0%	15	1	24.852	23.347	-0.305	0.000	0.23	0.249	61.1	OK
S9.007	S3137	15 minute 2 year Winter I+0%	15	1	24.696	23.112	-0.308	0.000	0.22	0.336	67.3	OK
S9.008	S3138	15 minute 2 year Winter I+0%	15	1	24.374	22.812	-0.286	0.000	0.28	0.505	72.5	OK
S9.009	S3139	15 minute 2 year Winter I+0%	15	1	24.123	22.673	-0.221	0.000	0.51	1.011	76.4	OK
S1.018	S3018	30 minute 2 year Winter I+0%	30	1	23.970	22.544	-0.301	0.000	0.77	5.618	378.9	OK
S1.019	S3019	30 minute 2 year Winter I+0%	30	1	23.500	22.465	-0.345	0.000	0.48	5.759	373.4	OK
S1.020	S3020-BASIN D	30 minute 2 year Winter I+0%	30	1	23.500	22.456	0.131	0.000	0.37	276.924	101.3	SURCHARGED

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-GON	30 minute 2 year Winter I+0%	30	1	24.020	22.432	0.227	0.000	0.44	4.580	96.1	SURCHARGED
S1. 022	S3023	30 minute 2 year Winter I+0%	30	1	25.220	21.713	-0.282	0.000	0.44	4.565	95.1	OK
S1. 023	S3024	30 minute 2 year Winter I+0%	30	1	25.535	21.501	-0.284	0.000	0.43	4.500	94.1	OK
S1. 024	S3026	30 minute 2 year Winter I+0%	30	1	24.960	21.334	-0.241	0.000	0.45	6.238	91.8	OK
S1. 025	S3028	30 minute 2 year Winter I+0%	30	1	24.350	21.260	-0.195	0.000	0.72	6.380	91.5	OK
S11. 000	S3150	15 minute 2 year Winter I+0%	15	1	28.020	26.566	-0.096	0.000	0.28	0.055	6.0	OK
S11. 001	S3151	15 minute 2 year Winter I+0%	15	1	27.356	25.895	-0.145	0.000	0.27	0.086	17.1	OK
S11. 002	S3152	15 minute 2 year Winter I+0%	15	1	26.707	25.298	-0.202	0.000	0.23	0.106	25.5	OK
S11. 003	S3153	15 minute 2 year Winter I+0%	15	1	26.514	25.116	-0.191	0.000	0.28	0.165	26.8	OK
S11. 004	S3154	15 minute 2 year Winter I+0%	15	1	26.322	24.943	-0.222	0.000	0.15	0.123	29.1	OK
S12. 000	S3180	15 minute 2 year Winter I+0%	15	1	27.308	25.834	-0.100	0.000	0.24	0.051	8.3	OK
S13. 000	S3190	15 minute 2 year Winter I+0%	15	1	27.405	25.802	-0.178	0.000	0.10	0.047	8.4	OK
S12. 001	S3181	15 minute 2 year Winter I+0%	15	1	27.233	25.463	-0.127	0.000	0.39	0.119	22.3	OK
S12. 002	S3182	15 minute 2 year Winter I+0%	15	1	26.894	25.096	-0.204	0.000	0.22	0.105	30.1	OK
S12. 003	S3183	15 minute 2 year Winter I+0%	15	1	26.521	24.749	-0.187	0.000	0.30	0.175	36.2	OK
S12. 004	S3184	15 minute 2 year Winter I+0%	15	1	26.290	24.526	-0.179	0.000	0.34	0.196	41.0	OK
S11. 005	S3155	15 minute 2 year Winter I+0%	15	1	25.834	24.079	-0.224	0.000	0.50	0.372	77.6	OK
S11. 006	S3156	15 minute 2 year Winter I+0%	15	1	26.130	23.962	-0.222	0.000	0.51	2.346	86.4	OK
S14. 000	S3200	15 minute 2 year Winter I+0%	15	1	27.248	25.514	-0.234	0.000	0.11	0.069	11.1	OK
S14. 001	S3201	15 minute 2 year Winter I+0%	15	1	26.960	25.237	-0.223	0.000	0.15	0.138	25.4	OK
S14. 002	S3202	15 minute 2 year Winter I+0%	15	1	26.657	24.523	-0.199	0.000	0.24	0.134	38.4	OK
S15. 000	SH316	15 minute 2 year Winter I+0%	15	1	26.150	24.459	-0.191	0.000	0.06	0.033	5.2	OK
S11. 007	S3157	15 minute 2 year Winter I+0%	15	1	26.356	23.906	-0.221	0.000	0.71	1.110	141.6	OK
S11. 008	S3158	15 minute 2 year Winter I+0%	15	1	25.760	23.826	-0.270	0.000	0.45	1.893	136.6	OK
S11. 009	S3159	15 minute 2 year Winter I+0%	15	1	25.205	23.754	-0.216	0.000	0.73	8.026	131.3	OK
S16. 000	S3210	15 minute 2 year Winter I+0%	15	1	26.390	24.856	-0.109	0.000	0.16	0.041	7.4	OK
S17. 000	S3220	15 minute 2 year Winter I+0%	15	1	26.231	24.700	-0.106	0.000	0.19	0.044	6.2	OK
S16. 001	S3211	15 minute 2 year Winter I+0%	15	1	26.202	24.262	-0.131	0.000	0.36	0.101	17.8	OK
S16. 002	S3212	15 minute 2 year Winter I+0%	15	1	26.040	24.072	-0.119	0.000	0.44	0.174	22.0	OK
S16. 003	S3213	15 minute 2 year Winter I+0%	15	1	25.813	23.932	-0.067	0.000	0.84	0.351	28.1	OK
S11. 010	S3160	15 minute 2 year Winter I+0%	15	1	25.672	23.705	-0.232	0.000	0.53	2.764	148.4	OK
S11. 011	S3161	15 minute 2 year Winter I+0%	15	1	25.057	23.655	-0.202	0.000	0.42	5.605	146.3	OK
S18. 000	SH323	15 minute 2 year Winter I+0%	15	1	25.250	23.780	-0.204	0.000	0.00	0.019	0.1	OK
S18. 001	S3230	15 minute 2 year Winter I+0%	15	1	25.150	23.789	-0.116	0.000	0.46	0.212	16.3	OK
S18. 002	S3231	15 minute 2 year Winter I+0%	15	1	24.920	23.716	-0.089	0.000	0.68	0.373	20.3	OK
S11. 012	S3162	15 minute 2 year Winter I+0%	15	1	24.964	23.633	-0.131	0.000	0.64	3.091	155.3	OK
S11. 013	S3163	15 minute 2 year Winter I+0%	15	1	24.890	23.582	-0.108	0.000	1.10	9.768	156.8	OK
S11. 014	S3164	15 minute 2 year Winter I+0%	15	1	24.022	23.125	-0.897	0.000	0.02	0.200	157.0	OK
S19. 000	S3240	15 minute 2 year Winter I+0%	15	1	24.640	23.227	-0.213	0.000	0.11	0.093	6.4	OK
S20. 000	S3250	15 minute 2 year Winter I+0%	15	1	24.628	23.224	-0.204	0.000	0.14	0.103	7.5	OK
S19. 001	S3241	15 minute 2 year Winter I+0%	15	1	24.597	23.214	-0.183	0.000	0.31	0.377	18.2	OK
S19. 002	S3242	15 minute 2 year Winter I+0%	15	1	24.000	23.114	-0.180	0.000	0.34	0.501	21.7	OK
S11. 015	S3165	15 minute 2 year Winter I+0%	15	1	23.922	23.001	-0.921	0.000	0.02	1.037	166.4	OK
S11. 016	S3166	15 minute 2 year Winter I+0%	15	1	23.652	22.752	-0.900	0.000	0.02	2.222	165.9	OK
S21. 000	S3260	15 minute 2 year Winter I+0%	15	1	24.136	22.755	-0.181	0.000	0.08	0.044	2.9	OK
S21. 001	S3261	15 minute 2 year Winter I+0%	15	1	24.043	22.706	-0.137	0.000	0.32	0.187	10.8	OK

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	15 minute 2 year Winter I+0%	15	1	23.459	22.636	-0.823	0.000	0.03	1.745	169.8	OK
S22.000	S3270	15 minute 2 year Winter I+0%	15	1	24.058	22.611	-0.247	0.000	0.07	0.054	4.4	OK
S22.001	S3271	15 minute 2 year Winter I+0%	15	1	23.965	22.548	-0.217	0.000	0.17	0.240	10.7	OK
S22.002	S3272	15 minute 2 year Winter I+0%	15	1	23.872	22.474	-0.198	0.000	0.25	0.299	14.5	OK
S11.018	S3168	15 minute 2 year Winter I+0%	15	1	23.365	22.400	-0.965	0.000	0.02	2.366	175.9	OK
S11.019	S3169	15 minute 2 year Winter I+0%	15	1	23.316	22.385	-0.931	0.000	0.02	0.220	176.0	OK
S11.020	S3170	15 minute 2 year Winter I+0%	15	1	22.996	22.166	-0.830	0.000	0.03	2.358	174.7	OK
S23.000	S3280	15 minute 2 year Winter I+0%	15	1	23.484	22.104	-0.180	0.000	0.09	0.045	3.2	OK
S23.001	S3281	15 minute 2 year Winter I+0%	15	1	23.269	21.957	-0.112	0.000	0.50	0.276	16.3	OK
S11.021	S3171	30 minute 2 year Winter I+0%	30	1	22.739	21.900	-0.839	0.000	0.03	3.284	180.7	OK
S11.022	S3172	30 minute 2 year Winter I+0%	30	1	22.621	21.795	-0.196	0.000	0.71	11.169	177.3	OK*
S11.023	S3173	30 minute 2 year Winter I+0%	30	1	22.633	21.641	-0.992	0.000	0.02	0.421	177.1	OK
S24.000	S3290	15 minute 2 year Winter I+0%	15	1	27.878	26.205	-0.257	0.000	0.05	0.043	4.8	OK
S24.001	S3291	15 minute 2 year Winter I+0%	15	1	27.725	26.041	-0.257	0.000	0.05	0.069	6.7	OK
S24.002	S3292	15 minute 2 year Winter I+0%	15	1	27.292	25.352	-0.286	0.000	0.13	0.122	17.0	OK
S24.003	S3293	15 minute 2 year Winter I+0%	15	1	27.136	25.237	-0.284	0.000	0.13	0.228	21.9	OK
S24.004	S3294	15 minute 2 year Winter I+0%	15	1	26.998	25.068	-0.276	0.000	0.16	0.205	28.6	OK
S24.005	S3295	15 minute 2 year Winter I+0%	15	1	26.633	24.772	-0.207	0.000	0.41	0.568	40.7	OK
S24.006	S3296	15 minute 2 year Winter I+0%	15	1	26.623	24.632	-0.238	0.000	0.34	1.105	56.7	OK
S24.007	S3297	15 minute 2 year Winter I+0%	15	1	26.942	24.602	-0.186	0.000	0.57	1.493	60.3	OK
S24.008	S3298	15 minute 2 year Winter I+0%	15	1	27.141	24.564	-0.189	0.000	0.63	1.331	63.2	OK
S25.000	S3320	15 minute 2 year Winter I+0%	15	1	27.291	25.596	-0.198	0.000	0.03	0.025	4.8	OK
S24.009	S3299	15 minute 2 year Winter I+0%	15	1	27.239	24.500	-0.226	0.000	0.49	0.849	69.6	OK
S24.010	S3300	15 minute 2 year Winter I+0%	15	1	26.728	24.331	-0.291	0.000	0.27	1.418	74.8	OK
S26.000	S3330	15 minute 2 year Winter I+0%	15	1	25.706	24.175	-0.268	0.000	0.02	0.030	4.3	OK
S24.011	S3301	15 minute 2 year Winter I+0%	15	1	25.786	23.742	-0.189	0.000	0.55	1.864	99.4	OK
S24.012	S3302	15 minute 2 year Winter I+0%	15	1	25.425	23.690	-0.181	0.000	0.56	4.008	104.6	OK
S24.013	S3303	30 minute 2 year Winter I+0%	30	1	24.980	23.634	-0.162	0.000	0.62	5.347	109.4	OK
S24.014	S3304	30 minute 2 year Winter I+0%	30	1	24.943	23.586	-0.157	0.000	0.60	3.961	111.5	OK
S24.015	S3305	30 minute 2 year Winter I+0%	30	1	24.865	23.529	-0.136	0.000	0.90	6.021	116.0	OK
S24.016	S3306	30 minute 2 year Winter I+0%	30	1	24.643	23.146	-1.497	0.000	0.01	0.204	116.0	OK
S24.017	S3307	30 minute 2 year Winter I+0%	30	1	24.775	22.919	-1.856	0.000	0.00	0.555	115.8	OK
S24.018	S3308	30 minute 2 year Winter I+0%	30	1	24.194	22.598	-1.596	0.000	0.01	1.341	115.9	OK
S24.019	S3309	30 minute 2 year Winter I+0%	30	1	24.085	22.504	-1.581	0.000	0.00	0.361	116.0	OK
S27.000	S3340	15 minute 2 year Winter I+0%	15	1	24.183	22.726	-0.257	0.000	0.02	0.043	1.4	OK
S27.001	S3341	15 minute 2 year Winter I+0%	15	1	24.142	22.719	-0.223	0.000	0.14	0.152	10.1	OK
S27.002	S3342	15 minute 2 year Winter I+0%	15	1	23.927	22.528	-0.199	0.000	0.25	0.285	15.4	OK
S24.020	S3310	30 minute 2 year Winter I+0%	30	1	23.831	22.408	-1.423	0.000	0.01	0.465	122.2	OK
S24.021	S3311	30 minute 2 year Winter I+0%	30	1	23.455	22.287	-1.168	0.000	0.01	0.433	122.2	OK
S24.022	S3312	30 minute 2 year Winter I+0%	30	1	23.461	22.279	-0.166	0.000	0.72	1.328	122.0	OK*
S24.023	S3313	30 minute 2 year Winter I+0%	30	1	23.546	22.140	-1.406	0.000	0.01	0.304	121.9	OK
S1.026	S3029-Basin C	30 minute 2 year Winter I+0%	30	1	21.900	20.836	-0.164	0.000	0.28	357.731	80.2	OK
S1.027		30 minute 2 year Winter I+0%	30	1	22.440	20.826	0.089	0.000	0.20	1.560	79.0	SURCHARGED
S1.028		30 minute 2 year Winter I+0%	30	1	22.645	20.810	0.576	0.000	0.50	3.557	75.7	SURCHARGED
S28.000	S3350	15 minute 2 year Winter I+0%	15	1	24.098	22.255	-0.356	0.000	0.22	0.291	83.2	OK
S28.001	S3351	15 minute 2 year Winter I+0%	15	1	23.359	21.740	-0.253	0.000	0.50	2.299	146.1	OK

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	15 minute 2 year Winter I+0%	15	1	22.742	21.296	-0.324	0.000	0.31	1.817	147.1	OK
S28.003	S3353	30 minute 2 year Winter I+0%	30	1	22.519	20.790	-0.457	0.000	0.13	1.148	127.8	OK
S28.004	S3354	30 minute 2 year Winter I+0%	30	1	22.616	20.790	-0.337	0.000	0.28	7.971	127.5	OK
S29.000	S3370	15 minute 2 year Winter I+0%	15	1	23.318	21.266	-0.169	0.000	0.35	0.142	19.7	OK
S29.001	S3371	15 minute 2 year Winter I+0%	15	1	23.170	21.213	-0.158	0.000	0.44	0.564	26.7	OK
S29.002	S3372	15 minute 2 year Winter I+0%	15	1	22.964	21.161	-0.140	0.000	0.54	0.604	31.1	OK
S29.003	S3373	15 minute 2 year Winter I+0%	15	1	22.764	21.120	-0.129	0.000	0.62	0.552	32.5	OK
S29.004	S3374	15 minute 2 year Winter I+0%	15	1	22.667	21.059	-0.158	0.000	0.45	0.306	38.7	OK
S30.000	S3380	15 minute 2 year Summer I+0%	15	1	22.437	21.087	-0.150	0.000	0.00	0.000	0.0	OK
S28.005	S3355	30 minute 2 year Winter I+0%	30	1	22.561	20.790	-0.309	0.000	0.13	6.663	156.6	OK
S28.006	S3356	30 minute 2 year Winter I+0%	30	1	22.401	20.790	-0.260	0.000	0.12	19.366	133.7	OK
S28.007	S3357	30 minute 2 year Winter I+0%	30	1	22.379	20.790	-0.210	0.000	0.13	27.557	97.2	OK
S28.008	S3358	30 minute 2 year Winter I+0%	30	1	22.415	20.790	-0.194	0.000	0.14	8.729	90.5	OK
S31.000	S3390	15 minute 2 year Winter I+0%	15	1	23.337	21.700	-0.163	0.000	0.17	0.065	9.0	OK
S31.001	S3391	15 minute 2 year Winter I+0%	15	1	23.137	21.370	-0.124	0.000	0.41	0.161	14.0	OK
S31.002	S3392	15 minute 2 year Winter I+0%	15	1	22.984	21.303	-0.116	0.000	0.47	0.233	17.3	OK
S31.003	S3393	15 minute 2 year Winter I+0%	15	1	22.666	21.189	-0.094	0.000	0.63	0.360	18.8	OK
S31.004	S3394	15 minute 2 year Winter I+0%	15	1	22.568	21.149	-0.091	0.000	0.66	0.257	21.2	OK
S28.009	S3359	30 minute 2 year Winter I+0%	30	1	22.484	20.790	-0.177	0.000	0.13	11.404	93.6	OK
S28.010	S3360	30 minute 2 year Winter I+0%	30	1	22.471	20.790	-0.157	0.000	0.08	9.916	80.1	OK
S1.029	S3032	30 minute 2 year Winter I+0%	30	1	22.290	20.790	-0.115	0.000	0.08	27.846	80.4	OK
S1.030	S3033-CON	30 minute 2 year Winter I+0%	30	1	22.415	20.787	0.673	0.000	0.29	30.114	45.7	SURCHARGED
S1.031	S3034	30 minute 2 year Winter I+0%	30	1	23.160	19.733	-0.259	0.000	0.37	1.725	45.7	OK
S1.032	S3035	30 minute 2 year Winter I+0%	30	1	23.110	19.670	-0.274	0.000	0.32	0.955	45.6	OK
S1.033	S3036	30 minute 2 year Winter I+0%	30	1	21.990	19.573	-0.280	0.000	0.31	1.478	45.6	OK
S1.034	S3037	30 minute 2 year Winter I+0%	30	1	21.475	19.398	-0.280	0.000	0.31	1.859	45.6	OK
S1.035	S3038	30 minute 2 year Winter I+0%	30	1	21.015	19.258	-0.258	0.000	0.38	2.260	45.6	OK
S1.036	S3039-HW	30 minute 2 year Winter I+0%	30	1	19.850	19.152	-0.698	0.000	0.03	0.408	45.6	OK
S1.037	S3040	30 minute 2 year Winter I+0%	30	1	20.192	19.131	-1.061	0.000	0.01	0.306	45.5	OK

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	FSR M5-60 (mm) 20.000	Cv (Summer) 0.750
Region England and Wales	Ratio R 0.350	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)	15, 30
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	15 minute 30 year Winter I+0%	15	1	27.478	26.171	-0.107	0.000	0.52	0.128	30.6	OK
S1.001	S3001	15 minute 30 year Winter I+0%	15	1	26.966	25.674	-0.092	0.000	0.79	0.319	52.0	OK
S1.002	S3002	15 minute 30 year Winter I+0%	15	1	26.704	25.554	-0.056	0.000	0.80	1.829	83.0	OK
S1.003	S3003	15 minute 30 year Winter I+0%	15	1	28.014	25.432	0.012	0.000	0.95	5.754	84.0	SURCHARGED
S2.000	S3050	15 minute 30 year Winter I+0%	15	1	33.607	32.357	-0.050	0.000	0.93	0.192	33.6	OK
S2.001	S3051	15 minute 30 year Winter I+0%	15	1	33.552	32.196	-0.096	0.000	0.60	0.338	53.9	OK
S2.002	S3052	15 minute 30 year Winter I+0%	15	1	32.390	31.091	-0.098	0.000	0.59	0.177	61.7	OK
S2.003	S3053	15 minute 30 year Winter I+0%	15	1	31.592	30.312	-0.080	0.000	0.72	0.191	74.5	OK
S2.004	S3054	15 minute 30 year Winter I+0%	15	1	30.545	29.391	0.014	0.000	0.96	0.361	87.4	SURCHARGED
S2.005	S3055	15 minute 30 year Winter I+0%	15	1	29.217	28.253	0.122	0.000	1.14	0.645	92.4	SURCHARGED
S2.006	S3056	15 minute 30 year Winter I+0%	15	1	28.782	27.586	-0.109	0.000	0.52	0.154	94.9	OK
S1.004	S3004	15 minute 30 year Winter I+0%	15	1	28.294	25.390	0.018	0.000	1.47	2.386	179.1	SURCHARGED
S1.005	S3005	15 minute 30 year Winter I+0%	15	1	28.322	25.348	0.005	0.000	1.04	3.535	200.1	SURCHARGED
S1.006	S3006	15 minute 30 year Winter I+0%	15	1	27.532	24.917	-0.333	0.000	0.29	2.337	203.5	OK
S3.000	S3060	15 minute 30 year Winter I+0%	15	1	26.680	25.418	-0.062	0.000	0.85	0.179	47.0	OK
S3.001	S3061	15 minute 30 year Winter I+0%	15	1	26.141	24.652	-0.169	0.000	0.56	0.301	72.9	OK
S3.002	S3062	15 minute 30 year Winter I+0%	15	1	26.114	24.581	-0.029	0.000	0.92	3.345	79.7	OK
S3.003	S3063	15 minute 30 year Winter I+0%	15	1	26.410	24.541	-0.022	0.000	0.96	1.788	95.8	OK
S3.004	S3064	15 minute 30 year Winter I+0%	15	1	27.500	24.449	0.000	0.000	1.06	3.904	91.2	OK
S1.007	S3007	15 minute 30 year Winter I+0%	15	1	27.348	24.370	-0.038	0.000	0.77	2.637	309.8	OK
S4.000	S3070	15 minute 30 year Winter I+0%	15	1	25.790	25.055	0.237	0.000	1.27	0.517	49.6	SURCHARGED
S4.001	S3072	15 minute 30 year Winter I+0%	15	1	25.325	24.542	0.024	0.000	1.27	1.189	69.6	SURCHARGED
S4.002	S3073	15 minute 30 year Winter I+0%	15	1	25.456	24.438	-0.040	0.000	0.89	0.944	87.5	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	15 minute 30 year Winter I+0%	15	1	25.586	24.373	-0.009	0.000	0.98	3.379	98.5	OK
S1.008	S3008	15 minute 30 year Winter I+0%	15	1	26.600	24.277	0.013	0.000	1.49	24.770	401.4	SURCHARGED
S1.009	S3009	30 minute 30 year Summer I+0%	30	1	26.345	24.238	0.000	0.000	1.43	6.410	364.5	OK
S1.010	S3010	15 minute 30 year Winter I+0%	15	1	26.150	23.755	-0.464	0.000	0.31	1.478	420.2	OK
S1.011	S3011	15 minute 30 year Winter I+0%	15	1	24.845	23.118	-0.065	0.000	0.65	9.890	416.9	OK
S5.000	S3080	15 minute 30 year Winter I+0%	15	1	25.677	24.472	-0.033	0.000	0.93	0.126	19.5	OK
S5.001	S3081	15 minute 30 year Winter I+0%	15	1	25.276	24.004	-0.123	0.000	0.64	0.200	84.5	OK
S1.012	S3012	15 minute 30 year Winter I+0%	15	1	24.078	23.083	0.070	0.000	0.71	7.069	451.7	SURCHARGED
S1.013	S3013	15 minute 30 year Winter I+0%	15	1	23.942	23.046	0.086	0.000	1.05	18.052	454.1	SURCHARGED
S1.014	S3014	15 minute 30 year Winter I+0%	15	1	23.833	23.013	0.084	0.000	1.65	10.971	452.4	SURCHARGED
S6.000	S3090	15 minute 30 year Winter I+0%	15	1	31.555	29.900	-0.125	0.000	0.41	0.108	44.6	OK
S6.001	S3091	15 minute 30 year Winter I+0%	15	1	29.895	28.263	-0.102	0.000	0.57	0.157	53.7	OK
S6.002	S3092	15 minute 30 year Winter I+0%	15	1	29.250	27.689	-0.036	0.000	0.98	0.274	66.1	OK
S7.000	S3110	15 minute 30 year Winter I+0%	15	1	30.720	29.110	-0.100	0.000	0.58	0.136	43.6	OK
S7.001	S3111	15 minute 30 year Winter I+0%	15	1	29.740	28.148	-0.097	0.000	0.77	0.275	78.4	OK
S7.002	S3112	15 minute 30 year Winter I+0%	15	1	29.410	27.755	-0.165	0.000	0.58	0.454	88.7	OK
S7.003	S3113	15 minute 30 year Winter I+0%	15	1	29.250	27.622	-0.148	0.000	0.66	0.879	113.2	OK
S7.004	S3114	15 minute 30 year Winter I+0%	15	1	29.025	27.393	-0.147	0.000	0.68	0.968	128.0	OK
S6.003	S3093	15 minute 30 year Winter I+0%	15	1	28.650	27.037	-0.108	0.000	0.85	1.297	205.7	OK
S6.004	S3094	15 minute 30 year Winter I+0%	15	1	28.150	26.462	-0.193	0.000	0.47	0.455	231.5	OK
S8.000	S3120	15 minute 30 year Winter I+0%	15	1	26.200	24.109	-0.019	0.000	0.92	0.142	15.5	OK
S8.001	S3121	15 minute 30 year Winter I+0%	15	1	26.500	23.880	0.027	0.000	1.07	0.445	42.3	SURCHARGED
S8.002	S3122	15 minute 30 year Winter I+0%	15	1	26.440	23.644	-0.032	0.000	0.78	0.747	49.0	OK
S6.005	S3095	15 minute 30 year Summer I+0%	15	1	26.160	23.583	0.000	0.000	1.09	2.621	276.2	OK
S6.006	S3096	15 minute 30 year Winter I+0%	15	1	24.555	23.183	-0.336	0.000	0.40	2.997	292.3	OK
S6.007	S3097	15 minute 30 year Winter I+0%	15	1	24.220	23.056	0.070	0.000	1.88	2.403	292.3	SURCHARGED
S6.008	S3098	15 minute 30 year Winter I+0%	15	1	23.845	23.022	0.060	0.000	0.58	4.984	280.3	SURCHARGED
S6.009	S3099	15 minute 30 year Winter I+0%	15	1	23.675	23.004	0.102	0.000	0.63	6.103	282.3	SURCHARGED
S6.010	S3100	15 minute 30 year Winter I+0%	15	1	23.600	22.994	0.099	0.000	0.76	5.912	281.0	SURCHARGED
S1.015	S3015	15 minute 30 year Winter I+0%	15	1	23.565	22.980	0.095	0.000	2.04	16.682	680.6	SURCHARGED
S1.016	S3016	15 minute 30 year Winter I+0%	15	1	23.660	22.936	0.063	0.000	2.33	8.436	681.1	SURCHARGED
S1.017	S3017	15 minute 30 year Winter I+0%	15	1	23.840	22.889	0.031	0.000	2.12	9.771	679.5	SURCHARGED
S9.000	S3130	15 minute 30 year Winter I+0%	15	1	26.352	25.035	-0.117	0.000	0.45	0.117	27.1	OK
S9.001	S3131	15 minute 30 year Winter I+0%	15	1	25.763	24.459	-0.103	0.000	0.73	0.292	59.8	OK
S9.002	S3132	15 minute 30 year Winter I+0%	15	1	25.576	24.258	-0.055	0.000	1.00	1.300	68.1	OK
S9.003	S3133	15 minute 30 year Winter I+0%	15	1	25.493	24.180	-0.059	0.000	0.83	0.610	81.0	OK
S10.000	S3140	15 minute 30 year Winter I+0%	15	1	25.428	24.111	-0.117	0.000	0.46	0.117	24.4	OK
S9.004	S3134	15 minute 30 year Winter I+0%	15	1	25.210	24.018	0.008	0.000	1.03	1.685	111.2	SURCHARGED
S9.005	S3135	15 minute 30 year Winter I+0%	15	1	24.964	23.677	-0.086	0.000	0.93	0.784	121.5	OK
S9.006	S3136	15 minute 30 year Winter I+0%	15	1	24.852	23.414	-0.238	0.000	0.45	0.434	122.0	OK
S9.007	S3137	15 minute 30 year Winter I+0%	15	1	24.696	23.180	-0.240	0.000	0.44	0.599	135.2	OK
S9.008	S3138	15 minute 30 year Winter I+0%	15	1	24.374	22.933	-0.165	0.000	0.57	1.347	144.5	OK
S9.009	S3139	15 minute 30 year Winter I+0%	15	1	24.123	22.885	-0.009	0.000	1.00	2.857	148.4	OK
S1.018	S3018	15 minute 30 year Winter I+0%	15	1	23.970	22.845	0.000	0.000	1.59	10.089	775.3	OK
S1.019	S3019	30 minute 30 year Winter I+0%	30	1	23.500	22.708	-0.102	0.000	0.95	9.093	750.3	OK
S1.020	S3020-BASIN D	30 minute 30 year Winter I+0%	30	1	23.500	22.689	0.364	0.000	0.70	502.252	194.8	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	30 minute 30 year Winter I+0%	30	1	24.020	22.641	0.436	0.000	0.89	4.949	193.2	SURCHARGED
S1.022	S3023	30 minute 30 year Winter I+0%	30	1	25.220	21.853	-0.142	0.000	0.88	10.732	191.3	OK
S1.023	S3024	30 minute 30 year Winter I+0%	30	1	25.535	21.701	-0.084	0.000	0.84	13.341	183.5	OK
S1.024	S3026	30 minute 30 year Winter I+0%	30	1	24.960	21.552	-0.023	0.000	0.90	15.999	182.9	OK
S1.025	S3028	30 minute 30 year Summer I+0%	30	1	24.350	21.455	0.000	0.000	1.28	11.369	163.3	OK
S11.000	S3150	15 minute 30 year Winter I+0%	15	1	28.020	26.590	-0.072	0.000	0.52	0.082	11.2	OK
S11.001	S3151	15 minute 30 year Winter I+0%	15	1	27.356	25.941	-0.099	0.000	0.59	0.149	37.1	OK
S11.002	S3152	15 minute 30 year Winter I+0%	15	1	26.707	25.355	-0.145	0.000	0.52	0.205	57.0	OK
S11.003	S3153	15 minute 30 year Winter I+0%	15	1	26.514	25.183	-0.124	0.000	0.63	0.351	59.7	OK
S11.004	S3154	15 minute 30 year Winter I+0%	15	1	26.322	24.987	-0.178	0.000	0.34	0.223	64.6	OK
S12.000	S3180	15 minute 30 year Winter I+0%	15	1	27.308	25.856	-0.078	0.000	0.46	0.076	15.7	OK
S13.000	S3190	15 minute 30 year Winter I+0%	15	1	27.405	25.820	-0.160	0.000	0.18	0.068	16.0	OK
S12.001	S3181	15 minute 30 year Winter I+0%	15	1	27.233	25.518	-0.072	0.000	0.78	0.216	45.2	OK
S12.002	S3182	15 minute 30 year Winter I+0%	15	1	26.894	25.146	-0.154	0.000	0.47	0.191	63.4	OK
S12.003	S3183	15 minute 30 year Winter I+0%	15	1	26.521	24.813	-0.123	0.000	0.64	0.352	77.3	OK
S12.004	S3184	15 minute 30 year Winter I+0%	15	1	26.290	24.598	-0.107	0.000	0.73	0.395	87.6	OK
S11.005	S3155	15 minute 30 year Winter I+0%	15	1	25.834	24.389	0.086	0.000	1.04	2.262	163.5	SURCHARGED
S11.006	S3156	15 minute 30 year Winter I+0%	15	1	26.130	24.261	0.077	0.000	1.04	6.742	176.2	SURCHARGED
S14.000	S3200	15 minute 30 year Winter I+0%	15	1	27.248	25.541	-0.207	0.000	0.20	0.099	21.0	OK
S14.001	S3201	15 minute 30 year Winter I+0%	15	1	26.960	25.277	-0.183	0.000	0.32	0.243	55.3	OK
S14.002	S3202	15 minute 30 year Winter I+0%	15	1	26.657	24.581	-0.141	0.000	0.55	0.260	86.1	OK
S15.000	SH316	15 minute 30 year Winter I+0%	15	1	26.150	24.474	-0.176	0.000	0.11	0.050	9.8	OK
S11.007	S3157	15 minute 30 year Winter I+0%	15	1	26.356	24.179	0.052	0.000	1.49	2.896	295.7	SURCHARGED
S11.008	S3158	15 minute 30 year Winter I+0%	15	1	25.760	24.139	0.043	0.000	0.93	4.109	281.0	SURCHARGED
S11.009	S3159	15 minute 30 year Winter I+0%	15	1	25.205	24.047	0.077	0.000	1.48	14.730	266.8	SURCHARGED
S16.000	S3210	15 minute 30 year Winter I+0%	15	1	26.390	24.873	-0.092	0.000	0.31	0.060	14.0	OK
S17.000	S3220	15 minute 30 year Winter I+0%	15	1	26.231	24.718	-0.088	0.000	0.36	0.065	11.7	OK
S16.001	S3211	15 minute 30 year Winter I+0%	15	1	26.202	24.355	-0.038	0.000	0.70	0.228	34.8	OK
S16.002	S3212	15 minute 30 year Winter I+0%	15	1	26.040	24.251	0.060	0.000	0.88	0.811	43.6	SURCHARGED
S16.003	S3213	15 minute 30 year Winter I+0%	15	1	25.813	24.107	0.108	0.000	1.68	0.925	56.1	SURCHARGED
S11.010	S3160	15 minute 30 year Winter I+0%	15	1	25.672	24.001	0.064	0.000	1.10	5.592	311.5	SURCHARGED
S11.011	S3161	15 minute 30 year Winter I+0%	15	1	25.057	23.909	0.052	0.000	0.91	9.489	316.9	SURCHARGED
S18.000	SH323	15 minute 30 year Winter I+0%	15	1	25.250	23.976	-0.008	0.000	0.02	0.240	0.8	OK
S18.001	S3230	15 minute 30 year Winter I+0%	15	1	25.150	23.978	0.073	0.000	1.03	0.713	36.2	SURCHARGED
S18.002	S3231	15 minute 30 year Winter I+0%	15	1	24.920	23.879	0.074	0.000	1.50	0.968	44.9	SURCHARGED
S11.012	S3162	15 minute 30 year Winter I+0%	15	1	24.964	23.851	0.087	0.000	1.36	4.495	332.0	SURCHARGED
S11.013	S3163	15 minute 30 year Winter I+0%	15	1	24.890	23.705	0.015	0.000	2.39	12.238	338.7	SURCHARGED
S11.014	S3164	15 minute 30 year Winter I+0%	15	1	24.022	23.206	-0.816	0.000	0.04	0.454	337.3	OK
S19.000	S3240	15 minute 30 year Winter I+0%	15	1	24.640	23.283	-0.157	0.000	0.22	0.156	12.2	OK
S20.000	S3250	15 minute 30 year Winter I+0%	15	1	24.628	23.282	-0.146	0.000	0.27	0.168	14.2	OK
S19.001	S3241	15 minute 30 year Winter I+0%	15	1	24.597	23.274	-0.123	0.000	0.63	0.713	36.6	OK
S19.002	S3242	15 minute 30 year Winter I+0%	15	1	24.000	23.177	-0.117	0.000	0.68	1.072	44.1	OK
S11.015	S3165	15 minute 30 year Winter I+0%	15	1	23.922	23.091	-0.831	0.000	0.05	2.641	364.4	OK
S11.016	S3166	15 minute 30 year Winter I+0%	15	1	23.652	22.848	-0.804	0.000	0.05	5.509	365.4	OK
S21.000	S3260	15 minute 30 year Winter I+0%	15	1	24.136	22.783	-0.153	0.000	0.16	0.076	5.5	OK
S21.001	S3261	15 minute 30 year Winter I+0%	15	1	24.043	22.760	-0.083	0.000	0.71	0.382	24.1	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	15 minute 30 year Winter I+0%	15	1	23.459	22.727	-0.732	0.000	0.06	4.028	372.6	OK
S22.000	S3270	15 minute 30 year Winter I+0%	15	1	24.058	22.638	-0.220	0.000	0.13	0.085	8.3	OK
S22.001	S3271	15 minute 30 year Winter I+0%	15	1	23.965	22.593	-0.172	0.000	0.36	0.464	22.5	OK
S22.002	S3272	15 minute 30 year Winter I+0%	15	1	23.872	22.533	-0.139	0.000	0.55	0.692	31.4	OK
S11.018	S3168	15 minute 30 year Winter I+0%	15	1	23.365	22.490	-0.875	0.000	0.04	5.740	379.8	OK
S11.019	S3169	15 minute 30 year Winter I+0%	15	1	23.316	22.476	-0.840	0.000	0.05	0.639	379.7	OK
S11.020	S3170	15 minute 30 year Winter I+0%	15	1	22.996	22.258	-0.738	0.000	0.06	5.535	380.5	OK
S23.000	S3280	30 minute 30 year Winter I+0%	30	1	23.484	22.122	-0.162	0.000	0.13	0.065	4.9	OK
S23.001	S3281	30 minute 30 year Winter I+0%	30	1	23.269	22.119	0.050	0.000	0.87	1.276	28.6	SURCHARGED
S11.021	S3171	30 minute 30 year Winter I+0%	30	1	22.739	22.111	-0.628	0.000	0.06	15.559	336.2	OK
S11.022	S3172	30 minute 30 year Winter I+0%	30	1	22.621	22.095	0.104	0.000	1.22	40.255	303.0	SURCHARGED*
S11.023	S3173	30 minute 30 year Winter I+0%	30	1	22.633	21.708	-0.925	0.000	0.04	0.640	303.6	OK
S24.000	S3290	15 minute 30 year Winter I+0%	15	1	27.878	26.223	-0.239	0.000	0.09	0.064	9.1	OK
S24.001	S3291	15 minute 30 year Winter I+0%	15	1	27.725	26.062	-0.236	0.000	0.10	0.107	13.5	OK
S24.002	S3292	15 minute 30 year Winter I+0%	15	1	27.292	25.400	-0.238	0.000	0.28	0.216	38.2	OK
S24.003	S3293	15 minute 30 year Winter I+0%	15	1	27.136	25.287	-0.234	0.000	0.30	0.475	49.4	OK
S24.004	S3294	15 minute 30 year Winter I+0%	15	1	26.998	25.124	-0.220	0.000	0.35	0.450	64.4	OK
S24.005	S3295	15 minute 30 year Winter I+0%	15	1	26.633	24.932	-0.047	0.000	0.88	1.877	87.3	OK
S24.006	S3296	15 minute 30 year Winter I+0%	15	1	26.623	24.848	-0.022	0.000	0.73	4.073	122.8	OK
S24.007	S3297	15 minute 30 year Winter I+0%	15	1	26.942	24.806	0.018	0.000	1.22	2.899	128.6	SURCHARGED
S24.008	S3298	15 minute 30 year Winter I+0%	15	1	27.141	24.762	0.009	0.000	1.35	2.569	134.3	SURCHARGED
S25.000	S3320	15 minute 30 year Winter I+0%	15	1	27.291	25.606	-0.188	0.000	0.06	0.036	9.1	OK
S24.009	S3299	15 minute 30 year Winter I+0%	15	1	27.239	24.726	0.000	0.000	1.01	2.016	145.0	OK
S24.010	S3300	15 minute 30 year Winter I+0%	15	1	26.728	24.413	-0.209	0.000	0.54	2.837	151.7	OK
S26.000	S3330	15 minute 30 year Winter I+0%	15	1	25.706	24.184	-0.259	0.000	0.05	0.041	8.2	OK
S24.011	S3301	15 minute 30 year Winter I+0%	15	1	25.786	24.022	0.091	0.000	1.06	7.214	190.9	SURCHARGED
S24.012	S3302	15 minute 30 year Winter I+0%	15	1	25.425	23.955	0.084	0.000	1.09	7.171	202.0	SURCHARGED
S24.013	S3303	15 minute 30 year Winter I+0%	15	1	24.980	23.865	0.069	0.000	1.23	8.766	217.0	SURCHARGED
S24.014	S3304	30 minute 30 year Winter I+0%	30	1	24.943	23.785	0.042	0.000	1.18	6.205	221.3	SURCHARGED
S24.015	S3305	30 minute 30 year Winter I+0%	30	1	24.865	23.674	0.009	0.000	1.81	8.432	232.5	SURCHARGED
S24.016	S3306	30 minute 30 year Winter I+0%	30	1	24.643	23.203	-1.440	0.000	0.01	0.361	232.4	OK
S24.017	S3307	30 minute 30 year Winter I+0%	30	1	24.775	22.982	-1.793	0.000	0.01	1.264	232.0	OK
S24.018	S3308	30 minute 30 year Winter I+0%	30	1	24.194	22.658	-1.536	0.000	0.01	2.474	232.2	OK
S24.019	S3309	30 minute 30 year Winter I+0%	30	1	24.085	22.600	-1.485	0.000	0.01	1.158	230.1	OK
S27.000	S3340	15 minute 30 year Winter I+0%	15	1	24.183	22.765	-0.218	0.000	0.05	0.088	2.7	OK
S27.001	S3341	15 minute 30 year Winter I+0%	15	1	24.142	22.763	-0.179	0.000	0.33	0.267	22.9	OK
S27.002	S3342	30 minute 30 year Winter I+0%	30	1	23.927	22.599	-0.128	0.000	0.45	0.878	27.7	OK
S24.020	S3310	30 minute 30 year Winter I+0%	30	1	23.831	22.590	-1.241	0.000	0.01	2.855	237.7	OK
S24.021	S3311	30 minute 30 year Winter I+0%	30	1	23.455	22.586	-0.869	0.000	0.01	5.186	235.3	OK
S24.022	S3312	30 minute 30 year Winter I+0%	30	1	23.461	22.585	0.140	0.000	1.39	5.675	235.3	SURCHARGED*
S24.023	S3313	30 minute 30 year Winter I+0%	30	1	23.546	22.196	-1.350	0.000	0.01	0.464	235.3	OK
S1.026	S3029-Basin C	30 minute 30 year Winter I+0%	30	1	21.900	21.003	0.003	0.000	0.26	916.353	76.2	SURCHARGED
S1.027		30 minute 30 year Winter I+0%	30	1	22.440	21.041	0.304	0.000	0.17	1.974	66.9	SURCHARGED
S1.028		30 minute 30 year Winter I+0%	30	1	22.645	21.127	0.893	0.000	0.38	4.011	57.6	SURCHARGED
S28.000		15 minute 30 year Winter I+0%	15	1	24.098	22.327	-0.284	0.000	0.42	0.417	157.8	OK
S28.001	S3351	15 minute 30 year Winter I+0%	15	1	23.359	21.908	-0.085	0.000	0.97	6.145	280.3	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	15 minute 30 year Winter I+0%	15	1	22.742	21.390	-0.230	0.000	0.60	4.210	282.3	OK
S28.003	S3353	30 minute 30 year Winter I+0%	30	1	22.519	21.292	0.045	0.000	0.25	4.961	238.6	SURCHARGED
S28.004	S3354	30 minute 30 year Winter I+0%	30	1	22.616	21.282	0.155	0.000	0.48	15.087	218.4	SURCHARGED
S29.000	S3370	15 minute 30 year Winter I+0%	15	1	23.318	21.399	-0.036	0.000	0.65	0.293	36.3	OK
S29.001	S3371	15 minute 30 year Winter I+0%	15	1	23.170	21.363	-0.008	0.000	0.82	1.451	49.7	OK
S29.002	S3372	15 minute 30 year Winter I+0%	15	1	22.964	21.315	0.014	0.000	1.02	1.395	58.9	SURCHARGED
S29.003	S3373	30 minute 30 year Winter I+0%	30	1	22.764	21.291	0.042	0.000	1.00	1.165	52.7	SURCHARGED
S29.004	S3374	30 minute 30 year Winter I+0%	30	1	22.667	21.284	0.067	0.000	0.74	0.860	63.9	SURCHARGED
S30.000	S3380	30 minute 30 year Winter I+0%	30	1	22.437	21.279	0.042	0.000	0.06	0.212	0.9	SURCHARGED
S28.005	S3355	30 minute 30 year Winter I+0%	30	1	22.561	21.275	0.176	0.000	0.22	11.723	269.3	SURCHARGED
S28.006	S3356	30 minute 30 year Winter I+0%	30	1	22.401	21.269	0.219	0.000	0.19	27.239	219.3	SURCHARGED
S28.007	S3357	30 minute 30 year Winter I+0%	30	1	22.379	21.263	0.263	0.000	0.22	36.436	173.6	SURCHARGED
S28.008	S3358	30 minute 30 year Winter I+0%	30	1	22.415	21.260	0.276	0.000	0.27	11.799	173.7	SURCHARGED
S31.000	S3390	15 minute 30 year Winter I+0%	15	1	23.337	21.726	-0.137	0.000	0.31	0.094	17.0	OK
S31.001	S3391	15 minute 30 year Winter I+0%	15	1	23.137	21.482	-0.012	0.000	0.77	0.531	26.5	OK
S31.002	S3392	15 minute 30 year Winter I+0%	15	1	22.984	21.438	0.019	0.000	0.89	0.660	32.7	SURCHARGED
S31.003	S3393	15 minute 30 year Winter I+0%	15	1	22.666	21.328	0.045	0.000	1.21	1.018	36.1	SURCHARGED
S31.004	S3394	30 minute 30 year Winter I+0%	30	1	22.568	21.269	0.029	0.000	1.05	0.500	33.8	SURCHARGED
S28.009	S3359	30 minute 30 year Winter I+0%	30	1	22.484	21.255	0.288	0.000	0.25	15.265	182.2	SURCHARGED
S28.010	S3360	30 minute 30 year Winter I+0%	30	1	22.471	21.250	0.303	0.000	0.17	12.954	174.9	SURCHARGED
S1.029	S3032	30 minute 30 year Winter I+0%	30	1	22.290	21.244	0.339	0.000	0.11	34.043	109.7	SURCHARGED
S1.030	S3033-CON	30 minute 30 year Winter I+0%	30	1	22.415	21.242	1.128	0.000	0.34	36.035	53.9	SURCHARGED
S1.031	S3034	30 minute 30 year Winter I+0%	30	1	23.160	19.750	-0.242	0.000	0.43	1.989	53.6	OK
S1.032	S3035	30 minute 30 year Winter I+0%	30	1	23.110	19.686	-0.258	0.000	0.38	1.091	53.5	OK
S1.033	S3036	30 minute 30 year Winter I+0%	30	1	21.990	19.589	-0.264	0.000	0.36	1.707	53.3	OK
S1.034	S3037	30 minute 30 year Winter I+0%	30	1	21.475	19.414	-0.264	0.000	0.36	2.166	53.1	OK
S1.035	S3038	30 minute 30 year Winter I+0%	30	1	21.015	19.275	-0.241	0.000	0.44	2.633	52.9	OK
S1.036	S3039-HW	30 minute 30 year Winter I+0%	30	1	19.850	19.162	-0.688	0.000	0.03	0.473	52.9	OK
S1.037	S3040	30 minute 30 year Winter I+0%	30	1	20.192	19.140	-1.052	0.000	0.01	0.380	52.9	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	FSR M5-60 (mm) 20.000	Cv (Summer) 0.750
Region England and Wales	Ratio R 0.350	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)	15, 30	
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	15 minute 100 year Winter I+40%	15	1	27.478	26.703	0.425	0.000	0.84	0.730	49.3	SURCHARGED
S1.001	S3001	15 minute 100 year Winter I+40%	15	1	26.966	26.348	0.582	0.000	1.20	2.373	78.9	SURCHARGED
S1.002	S3002	15 minute 100 year Winter I+40%	15	1	26.704	26.117	0.507	0.000	1.30	3.825	135.4	SURCHARGED
S1.003	S3003	15 minute 100 year Winter I+40%	15	1	28.014	25.768	0.348	0.000	1.58	7.598	139.2	SURCHARGED
S2.000	S3050	15 minute 100 year Winter I+40%	15	1	33.607	32.982	0.575	0.000	1.49	0.899	53.8	SURCHARGED
S2.001	S3051	15 minute 100 year Winter I+40%	15	1	33.552	32.762	0.470	0.000	0.92	1.500	81.8	SURCHARGED
S2.002	S3052	15 minute 100 year Winter I+40%	15	1	32.390	31.987	0.798	0.000	0.81	2.195	84.1	SURCHARGED
S2.003	S3053	15 minute 100 year Winter I+40%	15	1	31.592	31.475	1.083	0.000	0.95	2.047	98.5	FLOOD RISK
S2.004	S3054	15 minute 100 year Winter I+40%	15	1	30.545	30.546	1.169	0.370	1.24	2.742	113.3	FLOOD
S2.005	S3055	15 minute 100 year Winter I+40%	15	1	29.217	28.657	0.526	0.000	1.49	1.555	120.6	SURCHARGED
S2.006	S3056	15 minute 100 year Winter I+40%	15	1	28.782	27.607	-0.088	0.000	0.68	0.196	124.4	OK
S1.004	S3004	15 minute 100 year Winter I+40%	15	1	28.294	25.643	0.271	0.000	2.23	2.997	271.8	SURCHARGED
S1.005	S3005	15 minute 100 year Winter I+40%	15	1	28.322	25.517	0.174	0.000	1.68	4.036	322.1	SURCHARGED
S1.006	S3006	15 minute 100 year Winter I+40%	15	1	27.532	24.987	-0.263	0.000	0.47	3.940	328.0	OK
S3.000	S3060	15 minute 100 year Winter I+40%	15	1	26.680	26.392	0.912	0.000	1.26	1.281	70.0	FLOOD RISK
S3.001	S3061	15 minute 100 year Winter I+40%	15	1	26.141	25.385	0.564	0.000	0.76	3.339	98.2	SURCHARGED
S3.002	S3062	15 minute 100 year Winter I+40%	15	1	26.114	25.259	0.649	0.000	1.35	5.902	117.0	SURCHARGED
S3.003	S3063	15 minute 100 year Winter I+40%	15	1	26.410	25.172	0.609	0.000	1.47	2.903	146.8	SURCHARGED
S3.004	S3064	15 minute 100 year Winter I+40%	15	1	27.500	24.945	0.496	0.000	1.68	5.144	145.3	SURCHARGED
S1.007	S3007	15 minute 100 year Winter I+40%	15	1	27.348	24.809	0.401	0.000	1.28	4.590	517.9	SURCHARGED
S4.000	S3070	15 minute 100 year Winter I+40%	15	1	25.790	25.795	0.977	4.841	1.76	6.169	68.6	FLOOD
S4.001	S3072	15 minute 100 year Winter I+40%	15	1	25.325	25.096	0.578	0.000	1.82	2.874	100.0	FLOOD RISK
S4.002	S3073	15 minute 100 year Winter I+40%	15	1	25.456	24.966	0.488	0.000	1.39	1.835	135.7	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	15 minute 100 year Winter I+40%	15	1	25.586	24.815	0.433	0.000	1.61	4.460	160.9	SURCHARGED
S1.008	S3008	15 minute 100 year Winter I+40%	15	1	26.600	24.586	0.322	0.000	2.48	27.407	669.4	SURCHARGED
S1.009	S3009	15 minute 100 year Winter I+40%	15	1	26.345	24.412	0.174	0.000	2.64	7.202	674.2	SURCHARGED
S1.010	S3010	15 minute 100 year Winter I+40%	15	1	26.150	24.234	0.015	0.000	0.50	5.091	683.4	SURCHARGED
S1.011	S3011	30 minute 100 year Winter I+40%	30	1	24.845	23.985	0.802	0.000	1.06	30.585	685.5	SURCHARGED
S5.000	S3080	15 minute 100 year Winter I+40%	15	1	25.677	25.157	0.652	0.000	1.48	0.901	30.9	SURCHARGED
S5.001	S3081	15 minute 100 year Winter I+40%	15	1	25.276	24.337	0.210	0.000	1.02	0.880	134.6	SURCHARGED
S1.012	S3012	30 minute 100 year Winter I+40%	30	1	24.078	23.797	0.784	0.000	1.23	12.232	779.6	FLOOD RISK
S1.013	S3013	30 minute 100 year Winter I+40%	30	1	23.942	23.719	0.759	0.000	1.81	20.041	782.3	FLOOD RISK
S1.014	S3014	30 minute 100 year Winter I+40%	30	1	23.833	23.659	0.730	0.000	2.86	12.772	783.6	FLOOD RISK
S6.000	S3090	15 minute 100 year Winter I+40%	15	1	31.555	30.023	-0.002	0.000	0.73	0.247	80.2	OK
S6.001	S3091	15 minute 100 year Winter I+40%	15	1	29.895	29.290	0.925	0.000	0.91	2.085	85.7	SURCHARGED
S6.002	S3092	15 minute 100 year Winter I+40%	15	1	29.250	28.774	1.049	0.000	1.52	1.987	102.8	SURCHARGED
S7.000	S3110	15 minute 100 year Winter I+40%	15	1	30.720	29.522	0.312	0.000	0.97	0.601	73.2	SURCHARGED
S7.001	S3111	15 minute 100 year Winter I+40%	15	1	29.740	28.616	0.371	0.000	1.27	1.555	129.5	SURCHARGED
S7.002	S3112	15 minute 100 year Winter I+40%	15	1	29.410	28.141	0.221	0.000	0.90	2.928	136.3	SURCHARGED
S7.003	S3113	15 minute 100 year Winter I+40%	15	1	29.250	28.027	0.257	0.000	0.98	2.411	167.5	SURCHARGED
S7.004	S3114	15 minute 100 year Winter I+40%	15	1	29.025	27.802	0.262	0.000	0.99	3.309	186.7	SURCHARGED
S6.003	S3093	15 minute 100 year Winter I+40%	15	1	28.650	27.405	0.260	0.000	1.25	5.193	303.8	SURCHARGED
S6.004	S3094	15 minute 100 year Winter I+40%	15	1	28.150	26.513	-0.142	0.000	0.69	0.680	338.8	OK
S8.000	S3120	15 minute 100 year Winter I+40%	15	1	26.200	25.022	0.894	0.000	1.47	1.175	24.8	SURCHARGED
S8.001	S3121	15 minute 100 year Winter I+40%	15	1	26.500	24.490	0.637	0.000	1.75	1.438	68.8	SURCHARGED
S8.002	S3122	15 minute 100 year Winter I+40%	15	1	26.440	24.209	0.533	0.000	1.32	1.932	83.2	SURCHARGED
S6.005	S3095	15 minute 100 year Winter I+40%	15	1	26.160	24.129	0.546	0.000	1.73	4.593	435.8	SURCHARGED
S6.006	S3096	15 minute 100 year Winter I+40%	15	1	24.555	23.975	0.456	0.000	0.56	10.445	410.5	SURCHARGED
S6.007	S3097	15 minute 100 year Winter I+40%	15	1	24.220	23.814	0.828	0.000	2.65	4.358	412.7	SURCHARGED
S6.008	S3098	30 minute 100 year Winter I+40%	30	1	23.845	23.655	0.693	0.000	0.80	6.638	387.5	FLOOD RISK
S6.009	S3099	30 minute 100 year Winter I+40%	30	1	23.675	23.628	0.726	0.000	0.90	7.723	402.9	FLOOD RISK
S6.010	S3100	30 minute 100 year Winter I+40%	30	1	23.600	23.616	0.721	16.019	1.09	23.340	401.8	FLOOD
S1.015	S3015	30 minute 100 year Winter I+40%	30	1	23.565	23.603	0.718	37.850	2.89	56.305	963.2	FLOOD
S1.016	S3016	30 minute 100 year Winter I+40%	30	1	23.660	23.494	0.621	0.000	3.27	10.038	956.6	FLOOD RISK
S1.017	S3017	30 minute 100 year Winter I+40%	30	1	23.840	23.407	0.549	0.000	2.98	11.440	956.5	SURCHARGED
S9.000	S3130	15 minute 100 year Winter I+40%	15	1	26.352	25.616	0.464	0.000	0.72	0.774	42.8	SURCHARGED
S9.001	S3131	15 minute 100 year Winter I+40%	15	1	25.763	25.334	0.772	0.000	1.05	2.774	86.3	SURCHARGED
S9.002	S3132	15 minute 100 year Winter I+40%	15	1	25.576	25.046	0.733	0.000	1.45	3.834	99.1	SURCHARGED
S9.003	S3133	15 minute 100 year Winter I+40%	15	1	25.493	24.890	0.651	0.000	1.24	1.570	120.3	SURCHARGED
S10.000	S3140	15 minute 100 year Winter I+40%	15	1	25.428	24.657	0.429	0.000	0.74	0.734	39.2	SURCHARGED
S9.004	S3134	15 minute 100 year Winter I+40%	15	1	25.210	24.534	0.524	0.000	1.61	3.130	174.0	SURCHARGED
S9.005	S3135	15 minute 100 year Winter I+40%	15	1	24.964	23.881	0.118	0.000	1.47	1.858	191.4	SURCHARGED
S9.006	S3136	15 minute 100 year Winter I+40%	15	1	24.852	23.666	0.014	0.000	0.69	1.444	186.4	SURCHARGED
S9.007	S3137	15 minute 100 year Winter I+40%	15	1	24.696	23.573	0.153	0.000	0.64	2.644	198.8	SURCHARGED
S9.008	S3138	15 minute 100 year Winter I+40%	15	1	24.374	23.458	0.360	0.000	0.81	4.867	205.9	SURCHARGED
S9.009	S3139	15 minute 100 year Winter I+40%	15	1	24.123	23.336	0.442	0.000	1.47	4.164	218.7	SURCHARGED
S1.018	S3018	30 minute 100 year Winter I+40%	30	1	23.970	23.320	0.475	0.000	2.38	11.835	1166.4	SURCHARGED
S1.019	S3019	30 minute 100 year Winter I+40%	30	1	23.500	23.123	0.313	0.000	1.48	11.559	1165.0	SURCHARGED
S1.020	S3020-BASIN D	30 minute 100 year Winter I+40%	30	1	23.500	23.041	0.716	0.000	0.97	974.954	267.5	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	30 minute 100 year Winter I+40%	30	1	24.020	22.969	0.764	0.000	1.20	5.530	261.7	SURCHARGED
S1.022	S3023	30 minute 100 year Winter I+40%	30	1	25.220	22.153	0.158	0.000	1.14	20.102	248.9	SURCHARGED
S1.023	S3024	30 minute 100 year Winter I+40%	30	1	25.535	21.896	0.111	0.000	1.12	19.546	243.3	SURCHARGED
S1.024	S3026	30 minute 100 year Winter I+40%	30	1	24.960	21.637	0.062	0.000	1.19	18.613	241.9	SURCHARGED
S1.025	S3028	30 minute 100 year Winter I+40%	30	1	24.350	21.467	0.012	0.000	1.90	11.535	242.0	SURCHARGED
S11.000	S3150	15 minute 100 year Winter I+40%	15	1	28.020	26.665	0.003	0.000	0.92	0.167	19.9	SURCHARGED
S11.001	S3151	15 minute 100 year Winter I+40%	15	1	27.356	26.236	0.196	0.000	1.01	0.757	63.8	SURCHARGED
S11.002	S3152	15 minute 100 year Winter I+40%	15	1	26.707	25.927	0.427	0.000	0.84	1.985	92.2	SURCHARGED
S11.003	S3153	15 minute 100 year Winter I+40%	15	1	26.514	25.851	0.544	0.000	0.97	1.592	91.9	SURCHARGED
S11.004	S3154	15 minute 100 year Winter I+40%	15	1	26.322	25.767	0.602	0.000	0.51	1.658	97.9	SURCHARGED
S12.000	S3180	15 minute 100 year Winter I+40%	15	1	27.308	26.553	0.619	0.000	0.71	0.864	23.9	SURCHARGED
S13.000	S3190	15 minute 100 year Winter I+40%	15	1	27.405	26.448	0.468	0.000	0.30	0.778	26.7	SURCHARGED
S12.001	S3181	15 minute 100 year Winter I+40%	15	1	27.233	26.422	0.832	0.000	1.18	1.606	68.1	SURCHARGED
S12.002	S3182	15 minute 100 year Winter I+40%	15	1	26.894	26.145	0.845	0.000	0.64	2.008	86.6	SURCHARGED
S12.003	S3183	15 minute 100 year Winter I+40%	15	1	26.521	26.034	1.098	0.000	0.78	2.760	94.4	SURCHARGED
S12.004	S3184	15 minute 100 year Winter I+40%	15	1	26.290	25.904	1.199	0.000	0.85	2.439	102.2	SURCHARGED
S11.005	S3155	15 minute 100 year Winter I+40%	15	1	25.834	25.619	1.316	0.000	1.32	5.966	207.0	FLOOD RISK
S11.006	S3156	15 minute 100 year Winter I+40%	15	1	26.130	25.417	1.233	0.000	1.38	8.505	233.3	SURCHARGED
S14.000	S3200	15 minute 100 year Winter I+40%	15	1	27.248	25.636	-0.112	0.000	0.37	0.207	38.1	OK
S14.001	S3201	15 minute 100 year Winter I+40%	15	1	26.960	25.602	0.142	0.000	0.55	2.112	95.3	SURCHARGED
S14.002	S3202	15 minute 100 year Winter I+40%	15	1	26.657	25.494	0.772	0.000	0.82	2.819	129.5	SURCHARGED
S15.000	SH316	15 minute 100 year Winter I+40%	15	1	26.150	25.272	0.622	0.000	0.18	0.952	16.3	SURCHARGED
S11.007	S3157	15 minute 100 year Winter I+40%	15	1	26.356	25.251	1.124	0.000	2.08	6.169	411.8	SURCHARGED
S11.008	S3158	15 minute 100 year Winter I+40%	15	1	25.760	25.103	1.007	0.000	1.31	5.925	392.6	SURCHARGED
S11.009	S3159	15 minute 100 year Winter I+40%	15	1	25.205	24.898	0.928	0.000	2.16	16.482	389.1	SURCHARGED
S16.000	S3210	15 minute 100 year Winter I+40%	15	1	26.390	25.471	0.506	0.000	0.48	0.736	21.6	SURCHARGED
S17.000	S3220	15 minute 100 year Winter I+40%	15	1	26.231	25.464	0.658	0.000	0.48	0.908	15.9	SURCHARGED
S16.001	S3211	15 minute 100 year Winter I+40%	15	1	26.202	25.377	0.984	0.000	0.96	1.602	47.9	SURCHARGED
S16.002	S3212	15 minute 100 year Winter I+40%	15	1	26.040	25.222	1.031	0.000	1.21	2.062	59.9	SURCHARGED
S16.003	S3213	15 minute 100 year Winter I+40%	15	1	25.813	25.002	1.003	0.000	2.34	1.998	78.1	SURCHARGED
S11.010	S3160	15 minute 100 year Winter I+40%	15	1	25.672	24.748	0.811	0.000	1.64	7.027	462.0	SURCHARGED
S11.011	S3161	15 minute 100 year Winter I+40%	15	1	25.057	24.531	0.674	0.000	1.38	10.853	477.5	SURCHARGED
S18.000	SH323	15 minute 100 year Winter I+40%	15	1	25.250	24.664	0.680	0.000	0.07	1.018	2.6	SURCHARGED
S18.001	S3230	15 minute 100 year Winter I+40%	15	1	25.150	24.671	0.766	0.000	1.70	1.504	59.3	SURCHARGED
S18.002	S3231	15 minute 100 year Winter I+40%	15	1	24.920	24.459	0.654	0.000	2.40	1.640	71.7	SURCHARGED
S11.012	S3162	15 minute 100 year Winter I+40%	15	1	24.964	24.300	0.536	0.000	2.16	5.327	525.3	SURCHARGED
S11.013	S3163	15 minute 100 year Winter I+40%	15	1	24.890	23.939	0.249	0.000	3.82	13.263	542.5	SURCHARGED
S11.014	S3164	15 minute 100 year Winter I+40%	15	1	24.022	23.271	-0.751	0.000	0.06	0.784	541.4	OK
S19.000	S3240	15 minute 100 year Winter I+40%	15	1	24.640	23.449	0.009	0.000	0.38	0.344	21.5	SURCHARGED
S20.000	S3250	15 minute 100 year Winter I+40%	15	1	24.628	23.448	0.020	0.000	0.48	0.356	24.9	SURCHARGED
S19.001	S3241	15 minute 100 year Winter I+40%	15	1	24.597	23.434	0.037	0.000	1.08	1.435	62.8	SURCHARGED
S19.002	S3242	15 minute 100 year Winter I+40%	15	1	24.000	23.308	0.014	0.000	1.18	2.222	76.0	SURCHARGED
S11.015	S3165	15 minute 100 year Winter I+40%	15	1	23.922	23.170	-0.752	0.000	0.08	4.439	607.1	OK
S11.016	S3166	15 minute 100 year Winter I+40%	15	1	23.652	22.928	-0.724	0.000	0.09	9.390	608.1	OK
S21.000	S3260	15 minute 100 year Winter I+40%	15	1	24.136	22.898	-0.038	0.000	0.29	0.206	10.3	OK
S21.001	S3261	15 minute 100 year Winter I+40%	15	1	24.043	22.879	0.036	0.000	1.28	0.799	43.2	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
S11.017	S3167	15 minute 100 year Winter I+40%	15	1	23.459	22.808	-0.651	0.000	0.10	6.550	624.6	OK
S22.000	S3270	15 minute 100 year Winter I+40%	15	1	24.058	22.687	-0.171	0.000	0.24	0.140	15.1	OK
S22.001	S3271	15 minute 100 year Winter I+40%	15	1	23.965	22.662	-0.103	0.000	0.64	0.939	40.5	OK
S22.002	S3272	15 minute 100 year Winter I+40%	15	1	23.872	22.613	-0.059	0.000	0.99	1.244	56.5	OK
S11.018	S3168	15 minute 100 year Winter I+40%	15	1	23.365	22.575	-0.790	0.000	0.07	10.063	651.9	OK
S11.019	S3169	15 minute 100 year Winter I+40%	15	1	23.316	22.560	-0.756	0.000	0.08	1.091	650.6	OK
S11.020	S3170	30 minute 100 year Winter I+40%	30	1	22.996	22.414	-0.582	0.000	0.10	13.453	615.9	OK
S23.000	S3280	30 minute 100 year Winter I+40%	30	1	23.484	22.408	0.124	0.000	0.23	0.389	8.7	SURCHARGED
S23.001	S3281	30 minute 100 year Winter I+40%	30	1	23.269	22.402	0.333	0.000	1.54	2.029	50.5	SURCHARGED
S11.021	S3171	30 minute 100 year Winter I+40%	30	1	22.739	22.389	-0.350	0.000	0.10	43.324	563.0	OK
S11.022	S3172	30 minute 100 year Winter I+40%	30	1	22.621	22.380	0.389	0.000	2.05	82.909	509.9	FLOOD RISK*
S11.023	S3173	30 minute 100 year Winter I+40%	30	1	22.633	21.789	-0.844	0.000	0.07	0.910	509.9	OK
S24.000	S3290	15 minute 100 year Winter I+40%	15	1	27.878	26.244	-0.218	0.000	0.17	0.088	16.6	OK
S24.001	S3291	15 minute 100 year Winter I+40%	15	1	27.725	26.085	-0.213	0.000	0.18	0.148	24.5	OK
S24.002	S3292	15 minute 100 year Winter I+40%	15	1	27.292	25.993	0.355	0.000	0.48	3.001	64.7	SURCHARGED
S24.003	S3293	15 minute 100 year Winter I+40%	15	1	27.136	25.971	0.450	0.000	0.48	2.797	79.8	SURCHARGED
S24.004	S3294	15 minute 100 year Winter I+40%	15	1	26.998	25.942	0.598	0.000	0.50	2.902	91.7	SURCHARGED
S24.005	S3295	15 minute 100 year Winter I+40%	15	1	26.633	25.886	0.907	0.000	1.17	5.529	116.3	SURCHARGED
S24.006	S3296	15 minute 100 year Winter I+40%	15	1	26.623	25.766	0.896	0.000	1.06	7.088	179.0	SURCHARGED
S24.007	S3297	15 minute 100 year Winter I+40%	15	1	26.942	25.709	0.921	0.000	1.80	4.342	190.2	SURCHARGED
S24.008	S3298	15 minute 100 year Winter I+40%	15	1	27.141	25.646	0.893	0.000	1.95	3.989	194.1	SURCHARGED
S25.000	S3320	15 minute 100 year Winter I+40%	15	1	27.291	25.620	-0.174	0.000	0.11	0.052	16.6	OK
S24.009	S3299	15 minute 100 year Winter I+40%	15	1	27.239	25.555	0.829	0.000	1.45	3.559	208.2	SURCHARGED
S24.010	S3300	15 minute 100 year Winter I+40%	15	1	26.728	25.356	0.734	0.000	0.79	8.109	222.4	SURCHARGED
S26.000	S3330	15 minute 100 year Winter I+40%	15	1	25.706	24.923	0.480	0.000	0.08	0.876	13.5	SURCHARGED
S24.011	S3301	15 minute 100 year Winter I+40%	15	1	25.786	24.915	0.984	0.000	1.75	16.275	317.2	SURCHARGED
S24.012	S3302	15 minute 100 year Winter I+40%	15	1	25.425	24.724	0.853	0.000	1.84	8.545	341.6	SURCHARGED
S24.013	S3303	30 minute 100 year Winter I+40%	30	1	24.980	24.459	0.663	0.000	2.10	9.916	371.8	SURCHARGED
S24.014	S3304	30 minute 100 year Winter I+40%	30	1	24.943	24.226	0.483	0.000	2.05	7.190	384.2	SURCHARGED
S24.015	S3305	30 minute 100 year Winter I+40%	30	1	24.865	23.892	0.227	0.000	3.15	9.368	405.9	SURCHARGED
S24.016	S3306	30 minute 100 year Winter I+40%	30	1	24.643	23.269	-1.374	0.000	0.02	0.771	406.2	OK
S24.017	S3307	30 minute 100 year Winter I+40%	30	1	24.775	23.040	-1.735	0.000	0.01	2.276	406.0	OK
S24.018	S3308	30 minute 100 year Winter I+40%	30	1	24.194	22.858	-1.336	0.000	0.02	11.426	382.9	OK
S24.019	S3309	30 minute 100 year Winter I+40%	30	1	24.085	22.853	-1.232	0.000	0.01	5.441	374.3	OK
S27.000	S3340	30 minute 100 year Winter I+40%	30	1	24.183	22.878	-0.105	0.000	0.07	0.214	3.9	OK
S27.001	S3341	30 minute 100 year Winter I+40%	30	1	24.142	22.877	-0.065	0.000	0.48	0.640	33.3	OK
S27.002	S3342	30 minute 100 year Winter I+40%	30	1	23.927	22.864	0.137	0.000	0.78	3.576	48.3	SURCHARGED
S24.020	S3310	30 minute 100 year Winter I+40%	30	1	23.831	22.852	-0.979	0.000	0.02	8.533	385.1	OK
S24.021	S3311	30 minute 100 year Winter I+40%	30	1	23.455	22.851	-0.604	0.000	0.02	13.107	374.9	OK
S24.022	S3312	30 minute 100 year Winter I+40%	30	1	23.461	22.850	0.405	0.000	2.21	11.687	373.2	SURCHARGED*
S24.023	S3313	30 minute 100 year Winter I+40%	30	1	23.546	22.257	-1.289	0.000	0.02	0.657	373.3	OK
S1.026	S3029-Basin C	30 minute 100 year Winter I+40%	30	1	21.900	21.227	0.227	0.000	0.41	1816.738	119.6	SURCHARGED
S1.027	S3030	30 minute 100 year Winter I+40%	30	1	22.440	21.344	0.607	0.000	0.27	2.407	108.5	SURCHARGED
S1.028	S3031	30 minute 100 year Winter I+40%	30	1	22.645	21.714	1.480	0.000	0.43	4.852	65.0	SURCHARGED
S28.000	S3350	15 minute 100 year Winter I+40%	15	1	24.098	23.003	0.392	0.000	0.67	1.612	255.8	SURCHARGED
S28.001	S3351	15 minute 100 year Winter I+40%	15	1	23.359	22.704	0.711	0.000	1.64	20.817	475.4	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	30 minute 100 year Winter I+40%	30	1	22.742	22.383	0.763	0.000	0.80	21.629	375.5	SURCHARGED
S28.003	S3353	30 minute 100 year Winter I+40%	30	1	22.519	22.229	0.982	0.000	0.38	8.278	361.9	FLOOD RISK
S28.004	S3354	30 minute 100 year Winter I+40%	30	1	22.616	22.205	1.078	0.000	0.79	17.508	360.9	SURCHARGED
S29.000	S3370	30 minute 100 year Winter I+40%	30	1	23.318	22.303	0.868	0.000	0.96	1.316	53.0	SURCHARGED
S29.001	S3371	30 minute 100 year Winter I+40%	30	1	23.170	22.280	0.909	0.000	1.23	2.630	74.7	SURCHARGED
S29.002	S3372	30 minute 100 year Winter I+40%	30	1	22.964	22.253	0.952	0.000	1.55	2.531	89.4	SURCHARGED
S29.003	S3373	30 minute 100 year Winter I+40%	30	1	22.764	22.226	0.977	0.000	1.75	2.252	92.5	SURCHARGED
S29.004	S3374	30 minute 100 year Winter I+40%	30	1	22.667	22.209	0.992	0.000	1.31	1.916	113.1	SURCHARGED
S30.000	S3380	30 minute 100 year Winter I+40%	30	1	22.437	22.172	0.935	0.000	0.13	1.221	2.1	FLOOD RISK
S28.005	S3355	30 minute 100 year Winter I+40%	30	1	22.561	22.186	1.087	0.000	0.36	14.959	444.2	SURCHARGED
S28.006	S3356	30 minute 100 year Winter I+40%	30	1	22.401	22.172	1.122	0.000	0.37	30.380	431.3	FLOOD RISK
S28.007	S3357	30 minute 100 year Winter I+40%	30	1	22.379	22.156	1.156	0.000	0.54	39.545	417.1	FLOOD RISK
S28.008	S3358	30 minute 100 year Winter I+40%	30	1	22.415	22.147	1.163	0.000	0.63	14.876	407.7	FLOOD RISK
S31.000	S3390	30 minute 100 year Winter I+40%	30	1	23.337	22.257	0.394	0.000	0.43	0.695	23.5	SURCHARGED
S31.001	S3391	30 minute 100 year Winter I+40%	30	1	23.137	22.232	0.738	0.000	1.08	2.216	37.0	SURCHARGED
S31.002	S3392	30 minute 100 year Winter I+40%	30	1	22.984	22.206	0.787	0.000	1.26	1.593	46.3	SURCHARGED
S31.003	S3393	30 minute 100 year Winter I+40%	30	1	22.666	22.169	0.886	0.000	1.66	2.111	49.6	SURCHARGED
S31.004	S3394	30 minute 100 year Winter I+40%	30	1	22.568	22.154	0.914	0.000	1.77	1.521	56.9	SURCHARGED
S28.009	S3359	30 minute 100 year Winter I+40%	30	1	22.484	22.135	1.168	0.000	0.59	18.344	425.3	SURCHARGED
S28.010	S3360	30 minute 100 year Winter I+40%	30	1	22.471	22.124	1.177	0.000	0.39	15.985	409.9	SURCHARGED
S1.029	S3032	30 minute 100 year Winter I+40%	30	1	22.290	22.109	1.204	0.000	0.13	40.164	126.0	FLOOD RISK
S1.030	S3033-C0N	30 minute 100 year Winter I+40%	30	1	22.415	22.106	1.992	0.000	0.42	40.989	66.7	SURCHARGED
S1.031	S3034	30 minute 100 year Winter I+40%	30	1	23.160	19.777	-0.215	0.000	0.53	2.470	66.3	OK
S1.032	S3035	30 minute 100 year Winter I+40%	30	1	23.110	19.711	-0.233	0.000	0.47	1.315	66.1	OK
S1.033	S3036	30 minute 100 year Winter I+40%	30	1	21.990	19.612	-0.241	0.000	0.44	2.051	65.5	OK
S1.034	S3037	30 minute 100 year Winter I+40%	30	1	21.475	19.436	-0.242	0.000	0.44	2.643	64.9	OK
S1.035	S3038	30 minute 100 year Winter I+40%	30	1	21.015	19.302	-0.214	0.000	0.54	3.385	64.6	OK
S1.036	S3039-HW	30 minute 100 year Winter I+40%	30	1	19.850	19.180	-0.670	0.000	0.04	0.587	64.6	OK
S1.037	S3040	30 minute 100 year Winter I+40%	30	1	20.192	19.154	-1.038	0.000	0.01	0.494	64.6	OK

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	FSR M5-60 (mm) 20.000	Cv (Summer) 0.750
Region England and Wales	Ratio R 0.350	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)	15, 30
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	15 minute 30 year Winter I+30%	15	1	27.478	26.192	-0.086	0.000	0.68	0.152	39.8	OK
S1.001	S3001	15 minute 30 year Winter I+30%	15	1	26.966	25.845	0.079	0.000	0.95	0.925	62.4	SURCHARGED
S1.002	S3002	15 minute 30 year Winter I+30%	15	1	26.704	25.708	0.098	0.000	0.99	3.109	102.7	SURCHARGED
S1.003	S3003	15 minute 30 year Winter I+30%	15	1	28.014	25.512	0.092	0.000	1.19	6.781	104.9	SURCHARGED
S2.000	S3050	15 minute 30 year Winter I+30%	15	1	33.607	32.458	0.051	0.000	1.21	0.307	43.8	SURCHARGED
S2.001	S3051	15 minute 30 year Winter I+30%	15	1	33.552	32.220	-0.072	0.000	0.77	0.454	68.6	OK
S2.002	S3052	15 minute 30 year Winter I+30%	15	1	32.390	31.119	-0.070	0.000	0.75	0.231	78.7	OK
S2.003	S3053	15 minute 30 year Winter I+30%	15	1	31.592	30.714	0.322	0.000	0.85	0.921	88.5	SURCHARGED
S2.004	S3054	15 minute 30 year Winter I+30%	15	1	30.545	29.979	0.602	0.000	1.11	1.490	101.3	SURCHARGED
S2.005	S3055	15 minute 30 year Winter I+30%	15	1	29.217	28.436	0.305	0.000	1.31	1.055	106.4	SURCHARGED
S2.006	S3056	15 minute 30 year Winter I+30%	15	1	28.782	27.596	-0.099	0.000	0.60	0.174	109.0	OK
S1.004	S3004	15 minute 30 year Winter I+30%	15	1	28.294	25.450	0.078	0.000	1.80	2.610	218.8	SURCHARGED
S1.005	S3005	15 minute 30 year Winter I+30%	15	1	28.322	25.397	0.054	0.000	1.30	3.746	250.0	SURCHARGED
S1.006	S3006	15 minute 30 year Winter I+30%	15	1	27.532	24.943	-0.307	0.000	0.36	2.885	254.0	OK
S3.000	S3060	15 minute 30 year Winter I+30%	15	1	26.680	25.569	0.089	0.000	1.06	0.350	58.6	SURCHARGED
S3.001	S3061	15 minute 30 year Winter I+30%	15	1	26.141	24.823	0.002	0.000	0.66	0.886	86.1	SURCHARGED
S3.002	S3062	15 minute 30 year Winter I+30%	15	1	26.114	24.741	0.131	0.000	1.10	5.034	95.7	SURCHARGED
S3.003	S3063	15 minute 30 year Winter I+30%	15	1	26.410	24.689	0.126	0.000	1.16	2.210	116.3	SURCHARGED
S3.004	S3064	15 minute 30 year Winter I+30%	15	1	27.500	24.539	0.090	0.000	1.35	4.473	117.0	SURCHARGED
S1.007	S3007	15 minute 30 year Winter I+30%	15	1	27.348	24.449	0.041	0.000	0.99	3.151	398.5	SURCHARGED
S4.000	S3070	15 minute 30 year Winter I+30%	15	1	25.790	25.446	0.628	0.000	1.54	0.960	60.2	SURCHARGED
S4.001	S3072	15 minute 30 year Winter I+30%	15	1	25.325	24.698	0.180	0.000	1.50	2.198	82.3	SURCHARGED
S4.002	S3073	15 minute 30 year Winter I+30%	15	1	25.456	24.595	0.117	0.000	1.07	1.303	104.4	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
S4.003	S3074	15 minute 30 year Winter I+30%	15	1	25.586	24.483	0.101	0.000	1.24	3.946	123.9	SURCHARGED
S1.008	S3008	15 minute 30 year Winter I+30%	15	1	26.600	24.297	0.033	0.000	1.93	25.424	521.0	SURCHARGED
S1.009	S3009	15 minute 30 year Winter I+30%	15	1	26.345	24.238	0.000	0.000	2.05	6.410	523.0	OK
S1.010	S3010	15 minute 30 year Winter I+30%	15	1	26.150	23.798	-0.421	0.000	0.40	1.809	543.9	OK
S1.011	S3011	15 minute 30 year Winter I+30%	15	1	24.845	23.430	0.247	0.000	0.82	18.947	527.1	SURCHARGED
S5.000	S3080	15 minute 30 year Winter I+30%	15	1	25.677	24.634	0.129	0.000	1.15	0.310	24.1	SURCHARGED
S5.001	S3081	15 minute 30 year Winter I+30%	15	1	25.276	24.037	-0.090	0.000	0.82	0.242	107.7	OK
S1.012	S3012	15 minute 30 year Winter I+30%	15	1	24.078	23.376	0.363	0.000	0.89	9.257	566.7	SURCHARGED
S1.013	S3013	15 minute 30 year Winter I+30%	15	1	23.942	23.330	0.370	0.000	1.33	19.052	573.4	SURCHARGED
S1.014	S3014	15 minute 30 year Winter I+30%	15	1	23.833	23.290	0.361	0.000	2.11	11.833	579.3	SURCHARGED
S6.000	S3090	15 minute 30 year Winter I+30%	15	1	31.555	29.917	-0.108	0.000	0.53	0.127	58.0	OK
S6.001	S3091	15 minute 30 year Winter I+30%	15	1	29.895	28.353	-0.012	0.000	0.72	0.310	67.9	OK
S6.002	S3092	15 minute 30 year Winter I+30%	15	1	29.250	28.023	0.298	0.000	1.22	0.936	82.6	SURCHARGED
S7.000	S3110	15 minute 30 year Winter I+30%	15	1	30.720	29.134	-0.076	0.000	0.75	0.163	56.7	OK
S7.001	S3111	15 minute 30 year Winter I+30%	15	1	29.740	28.221	-0.024	0.000	0.99	0.455	101.3	OK
S7.002	S3112	15 minute 30 year Winter I+30%	15	1	29.410	27.792	-0.128	0.000	0.76	0.658	114.7	OK
S7.003	S3113	15 minute 30 year Winter I+30%	15	1	29.250	27.668	-0.102	0.000	0.85	1.167	145.8	OK
S7.004	S3114	15 minute 30 year Winter I+30%	15	1	29.025	27.449	-0.091	0.000	0.86	1.432	163.4	OK
S6.003	S3093	15 minute 30 year Winter I+30%	15	1	28.650	27.174	0.029	0.000	1.04	2.866	252.7	SURCHARGED
S6.004	S3094	15 minute 30 year Winter I+30%	15	1	28.150	26.486	-0.169	0.000	0.57	0.537	279.2	OK
S8.000	S3120	15 minute 30 year Winter I+30%	15	1	26.200	24.366	0.238	0.000	1.14	0.434	19.2	SURCHARGED
S8.001	S3121	15 minute 30 year Winter I+30%	15	1	26.500	24.022	0.169	0.000	1.30	0.839	51.4	SURCHARGED
S8.002	S3122	15 minute 30 year Winter I+30%	15	1	26.440	23.714	0.038	0.000	0.98	1.099	61.7	SURCHARGED
S6.005	S3095	15 minute 30 year Winter I+30%	15	1	26.160	23.624	0.041	0.000	1.42	2.840	358.7	SURCHARGED
S6.006	S3096	15 minute 30 year Winter I+30%	15	1	24.555	23.374	-0.145	0.000	0.48	6.672	350.3	OK
S6.007	S3097	15 minute 30 year Winter I+30%	15	1	24.220	23.339	0.353	0.000	2.23	3.441	347.0	SURCHARGED
S6.008	S3098	15 minute 30 year Winter I+30%	15	1	23.845	23.297	0.335	0.000	0.72	5.726	347.2	SURCHARGED
S6.009	S3099	15 minute 30 year Winter I+30%	15	1	23.675	23.275	0.373	0.000	0.79	6.823	357.3	SURCHARGED
S6.010	S3100	15 minute 30 year Winter I+30%	15	1	23.600	23.262	0.367	0.000	0.95	6.632	351.8	SURCHARGED
S1.015	S3015	15 minute 30 year Winter I+30%	15	1	23.565	23.248	0.363	0.000	2.54	17.649	847.6	SURCHARGED
S1.016	S3016	15 minute 30 year Winter I+30%	15	1	23.660	23.184	0.311	0.000	2.89	9.248	845.3	SURCHARGED
S1.017	S3017	15 minute 30 year Winter I+30%	15	1	23.840	23.113	0.255	0.000	2.62	10.679	842.2	SURCHARGED
S9.000	S3130	15 minute 30 year Winter I+30%	15	1	26.352	25.054	-0.098	0.000	0.59	0.138	35.2	OK
S9.001	S3131	15 minute 30 year Winter I+30%	15	1	25.763	24.640	0.078	0.000	0.88	0.916	72.4	SURCHARGED
S9.002	S3132	15 minute 30 year Winter I+30%	15	1	25.576	24.465	0.152	0.000	1.16	2.987	79.0	SURCHARGED
S9.003	S3133	15 minute 30 year Winter I+30%	15	1	25.493	24.369	0.130	0.000	0.97	0.980	93.8	SURCHARGED
S10.000	S3140	15 minute 30 year Winter I+30%	15	1	25.428	24.216	-0.012	0.000	0.57	0.235	30.0	OK
S9.004	S3134	15 minute 30 year Winter I+30%	15	1	25.210	24.151	0.141	0.000	1.22	2.547	132.5	SURCHARGED
S9.005	S3135	15 minute 30 year Winter I+30%	15	1	24.964	23.774	0.011	0.000	1.11	1.346	145.0	SURCHARGED
S9.006	S3136	15 minute 30 year Winter I+30%	15	1	24.852	23.437	-0.215	0.000	0.54	0.530	145.4	OK
S9.007	S3137	15 minute 30 year Winter I+30%	15	1	24.696	23.202	-0.218	0.000	0.52	0.727	159.4	OK
S9.008	S3138	15 minute 30 year Winter I+30%	15	1	24.374	23.135	0.037	0.000	0.66	3.393	168.2	SURCHARGED
S9.009	S3139	15 minute 30 year Winter I+30%	15	1	24.123	23.086	0.192	0.000	1.19	3.792	176.2	SURCHARGED
S1.018	S3018	15 minute 30 year Winter I+30%	15	1	23.970	23.046	0.201	0.000	2.00	11.109	979.9	SURCHARGED
S1.019	S3019	15 minute 30 year Winter I+30%	15	1	23.500	22.855	0.045	0.000	1.24	10.557	978.1	SURCHARGED
S1.020	S3020-BASIN D	30 minute 30 year Winter I+30%	30	1	23.500	22.817	0.492	0.000	0.85	656.487	234.7	SURCHARGED

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Stratton Park House Wanborough Road Swindon SN3 4HG		
Date 12/05/2023		
File (FSR 15 + 30) M380-Catch C&D-V5.11 (RM Ph3).MDX		
XP Solutions	Designed by PS Checked by BF	
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	30 minute 30 year Winter I+30%	30	1	24.020	22.763	0.558	0.000	1.06	5.164	230.7	SURCHARGED
S1.022	S3023	30 minute 30 year Winter I+30%	30	1	25.220	21.967	-0.028	0.000	1.00	15.774	217.4	OK
S1.023	S3024	30 minute 30 year Winter I+30%	30	1	25.535	21.775	-0.010	0.000	0.96	16.451	209.1	OK
S1.024	S3026	30 minute 30 year Winter I+30%	30	1	24.960	21.582	0.007	0.000	1.03	16.924	208.7	SURCHARGED
S1.025	S3028	30 minute 30 year Summer I+30%	30	1	24.350	21.455	0.000	0.000	1.56	11.369	198.7	OK
S11.000	S3150	15 minute 30 year Winter I+30%	15	1	28.020	26.604	-0.058	0.000	0.67	0.098	14.6	OK
S11.001	S3151	15 minute 30 year Winter I+30%	15	1	27.356	25.965	-0.075	0.000	0.76	0.190	48.2	OK
S11.002	S3152	15 minute 30 year Winter I+30%	15	1	26.707	25.383	-0.117	0.000	0.67	0.256	74.1	OK
S11.003	S3153	15 minute 30 year Winter I+30%	15	1	26.514	25.218	-0.089	0.000	0.82	0.454	77.5	OK
S11.004	S3154	15 minute 30 year Winter I+30%	15	1	26.322	25.006	-0.159	0.000	0.44	0.286	83.9	OK
S12.000	S3180	15 minute 30 year Winter I+30%	15	1	27.308	25.869	-0.065	0.000	0.60	0.090	20.4	OK
S13.000	S3190	15 minute 30 year Winter I+30%	15	1	27.405	25.829	-0.151	0.000	0.24	0.078	20.8	OK
S12.001	S3181	15 minute 30 year Winter I+30%	15	1	27.233	25.593	0.003	0.000	1.00	0.363	57.9	SURCHARGED
S12.002	S3182	15 minute 30 year Winter I+30%	15	1	26.894	25.229	-0.071	0.000	0.60	0.378	81.6	OK
S12.003	S3183	15 minute 30 year Winter I+30%	15	1	26.521	25.135	0.199	0.000	0.75	1.599	90.2	SURCHARGED
S12.004	S3184	15 minute 30 year Winter I+30%	15	1	26.290	25.050	0.345	0.000	0.80	1.474	96.0	SURCHARGED
S11.005	S3155	15 minute 30 year Winter I+30%	15	1	25.834	24.856	0.553	0.000	1.20	4.578	188.4	SURCHARGED
S11.006	S3156	15 minute 30 year Winter I+30%	15	1	26.130	24.719	0.535	0.000	1.24	7.507	208.9	SURCHARGED
S14.000	S3200	15 minute 30 year Winter I+30%	15	1	27.248	25.554	-0.194	0.000	0.27	0.114	27.3	OK
S14.001	S3201	15 minute 30 year Winter I+30%	15	1	26.960	25.295	-0.165	0.000	0.41	0.323	71.9	OK
S14.002	S3202	15 minute 30 year Winter I+30%	15	1	26.657	24.718	-0.004	0.000	0.71	0.639	111.9	OK
S15.000	SH316	15 minute 30 year Winter I+30%	15	1	26.150	24.615	-0.035	0.000	0.14	0.209	12.7	OK
S11.007	S3157	15 minute 30 year Winter I+30%	15	1	26.356	24.599	0.472	0.000	1.78	4.900	353.2	SURCHARGED
S11.008	S3158	15 minute 30 year Winter I+30%	15	1	25.760	24.544	0.448	0.000	1.12	4.937	335.9	SURCHARGED
S11.009	S3159	15 minute 30 year Winter I+30%	15	1	25.205	24.414	0.444	0.000	1.82	15.627	327.4	SURCHARGED
S16.000	S3210	15 minute 30 year Winter I+30%	15	1	26.390	24.882	-0.083	0.000	0.41	0.070	18.3	OK
S17.000	S3220	15 minute 30 year Winter I+30%	15	1	26.231	24.734	-0.072	0.000	0.46	0.083	15.3	OK
S16.001	S3211	15 minute 30 year Winter I+30%	15	1	26.202	24.690	0.297	0.000	0.86	0.774	43.0	SURCHARGED
S16.002	S3212	15 minute 30 year Winter I+30%	15	1	26.040	24.606	0.415	0.000	1.06	1.366	52.6	SURCHARGED
S16.003	S3213	15 minute 30 year Winter I+30%	15	1	25.813	24.487	0.488	0.000	2.00	1.415	67.1	SURCHARGED
S11.010	S3160	15 minute 30 year Winter I+30%	15	1	25.672	24.345	0.408	0.000	1.33	6.316	376.2	SURCHARGED
S11.011	S3161	15 minute 30 year Winter I+30%	15	1	25.057	24.201	0.344	0.000	1.12	10.269	388.2	SURCHARGED
S18.000	SH323	15 minute 30 year Winter I+30%	15	1	25.250	24.167	0.183	0.000	0.04	0.456	1.5	SURCHARGED
S18.001	S3230	15 minute 30 year Winter I+30%	15	1	25.150	24.171	0.266	0.000	1.32	0.939	46.2	SURCHARGED
S18.002	S3231	15 minute 30 year Winter I+30%	15	1	24.920	24.108	0.303	0.000	1.91	1.243	57.1	SURCHARGED
S11.012	S3162	15 minute 30 year Winter I+30%	15	1	24.964	24.045	0.281	0.000	1.69	4.876	411.3	SURCHARGED
S11.013	S3163	15 minute 30 year Winter I+30%	15	1	24.890	23.824	0.134	0.000	2.98	13.054	422.6	SURCHARGED
S11.014	S3164	15 minute 30 year Winter I+30%	15	1	24.022	23.234	-0.788	0.000	0.05	0.598	423.9	OK
S19.000	S3240	15 minute 30 year Winter I+30%	15	1	24.640	23.321	-0.119	0.000	0.28	0.199	15.9	OK
S20.000	S3250	15 minute 30 year Winter I+30%	15	1	24.628	23.319	-0.109	0.000	0.35	0.211	18.4	OK
S19.001	S3241	15 minute 30 year Winter I+30%	15	1	24.597	23.309	-0.088	0.000	0.82	0.908	47.5	OK
S19.002	S3242	15 minute 30 year Winter I+30%	15	1	24.000	23.215	-0.079	0.000	0.89	1.414	57.1	OK
S11.015	S3165	15 minute 30 year Winter I+30%	15	1	23.922	23.127	-0.795	0.000	0.06	3.376	465.2	OK
S11.016	S3166	15 minute 30 year Winter I+30%	15	1	23.652	22.885	-0.767	0.000	0.07	7.116	464.2	OK
S21.000	S3260	15 minute 30 year Winter I+30%	15	1	24.136	22.805	-0.131	0.000	0.20	0.100	7.2	OK
S21.001	S3261	15 minute 30 year Winter I+30%	15	1	24.043	22.790	-0.053	0.000	0.92	0.505	31.3	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	15 minute 30 year Winter I+30%	15	1	23. 459	22. 765	-0. 694	0. 000	0. 08	5. 114	471. 1	OK
S22. 000	S3270	15 minute 30 year Winter I+30%	15	1	24. 058	22. 655	-0. 203	0. 000	0. 17	0. 104	10. 8	OK
S22. 001	S3271	15 minute 30 year Winter I+30%	15	1	23. 965	22. 617	-0. 148	0. 000	0. 46	0. 633	29. 2	OK
S22. 002	S3272	15 minute 30 year Winter I+30%	15	1	23. 872	22. 562	-0. 110	0. 000	0. 71	0. 894	40. 7	OK
S11. 018	S3168	15 minute 30 year Winter I+30%	15	1	23. 365	22. 527	-0. 838	0. 000	0. 05	7. 361	490. 5	OK
S11. 019	S3169	15 minute 30 year Winter I+30%	15	1	23. 316	22. 514	-0. 802	0. 000	0. 06	0. 854	490. 9	OK
S11. 020	S3170	15 minute 30 year Winter I+30%	15	1	22. 996	22. 297	-0. 699	0. 000	0. 08	7. 161	484. 8	OK
S23. 000	S3280	30 minute 30 year Winter I+30%	30	1	23. 484	22. 231	-0. 053	0. 000	0. 17	0. 189	6. 3	OK
S23. 001	S3281	30 minute 30 year Winter I+30%	30	1	23. 269	22. 227	0. 158	0. 000	1. 13	1. 762	37. 0	SURCHARGED
S11. 021	S3171	30 minute 30 year Winter I+30%	30	1	22. 739	22. 217	-0. 522	0. 000	0. 08	24. 598	434. 4	OK
S11. 022	S3172	30 minute 30 year Winter I+30%	30	1	22. 621	22. 205	0. 214	0. 000	1. 60	55. 088	397. 0	SURCHARGED*
S11. 023	S3173	30 minute 30 year Winter I+30%	30	1	22. 633	21. 745	-0. 888	0. 000	0. 05	0. 764	396. 8	OK
S24. 000	S3290	15 minute 30 year Winter I+30%	15	1	27. 878	26. 231	-0. 231	0. 000	0. 12	0. 073	11. 9	OK
S24. 001	S3291	15 minute 30 year Winter I+30%	15	1	27. 725	26. 070	-0. 228	0. 000	0. 13	0. 122	17. 5	OK
S24. 002	S3292	15 minute 30 year Winter I+30%	15	1	27. 292	25. 422	-0. 216	0. 000	0. 37	0. 264	49. 6	OK
S24. 003	S3293	15 minute 30 year Winter I+30%	15	1	27. 136	25. 309	-0. 212	0. 000	0. 39	0. 606	64. 4	OK
S24. 004	S3294	15 minute 30 year Winter I+30%	15	1	26. 998	25. 180	-0. 164	0. 000	0. 46	0. 721	84. 0	OK
S24. 005	S3295	15 minute 30 year Winter I+30%	15	1	26. 633	25. 126	0. 147	0. 000	1. 07	3. 811	106. 1	SURCHARGED
S24. 006	S3296	15 minute 30 year Winter I+30%	15	1	26. 623	25. 008	0. 138	0. 000	0. 89	5. 146	150. 6	SURCHARGED
S24. 007	S3297	15 minute 30 year Winter I+30%	15	1	26. 942	24. 949	0. 161	0. 000	1. 53	3. 253	161. 5	SURCHARGED
S24. 008	S3298	15 minute 30 year Winter I+30%	15	1	27. 141	24. 884	0. 131	0. 000	1. 70	2. 894	169. 3	SURCHARGED
S25. 000	S3320	15 minute 30 year Winter I+30%	15	1	27. 291	25. 612	-0. 182	0. 000	0. 08	0. 043	11. 9	OK
S24. 009	S3299	15 minute 30 year Winter I+30%	15	1	27. 239	24. 792	0. 066	0. 000	1. 31	2. 251	187. 5	SURCHARGED
S24. 010	S3300	15 minute 30 year Winter I+30%	15	1	26. 728	24. 601	-0. 021	0. 000	0. 67	6. 153	187. 1	OK
S26. 000	S3330	15 minute 30 year Winter I+30%	15	1	25. 706	24. 289	-0. 154	0. 000	0. 06	0. 159	10. 6	OK
S24. 011	S3301	15 minute 30 year Winter I+30%	15	1	25. 786	24. 283	0. 352	0. 000	1. 29	12. 697	234. 1	SURCHARGED
S24. 012	S3302	15 minute 30 year Winter I+30%	15	1	25. 425	24. 186	0. 315	0. 000	1. 33	7. 594	247. 5	SURCHARGED
S24. 013	S3303	15 minute 30 year Winter I+30%	15	1	24. 980	24. 052	0. 256	0. 000	1. 52	9. 198	268. 5	SURCHARGED
S24. 014	S3304	30 minute 30 year Winter I+30%	30	1	24. 943	23. 928	0. 185	0. 000	1. 48	6. 664	277. 6	SURCHARGED
S24. 015	S3305	30 minute 30 year Winter I+30%	30	1	24. 865	23. 754	0. 089	0. 000	2. 27	9. 106	292. 2	SURCHARGED
S24. 016	S3306	30 minute 30 year Winter I+30%	30	1	24. 643	23. 227	-1. 416	0. 000	0. 02	0. 481	292. 3	OK
S24. 017	S3307	30 minute 30 year Winter I+30%	30	1	24. 775	23. 003	-1. 772	0. 000	0. 01	1. 626	292. 1	OK
S24. 018	S3308	30 minute 30 year Winter I+30%	30	1	24. 194	22. 703	-1. 491	0. 000	0. 01	3. 992	287. 4	OK
S24. 019	S3309	30 minute 30 year Winter I+30%	30	1	24. 085	22. 685	-1. 400	0. 000	0. 01	2. 183	283. 5	OK
S27. 000	S3340	15 minute 30 year Winter I+30%	15	1	24. 183	22. 785	-0. 198	0. 000	0. 06	0. 109	3. 5	OK
S27. 001	S3341	15 minute 30 year Winter I+30%	15	1	24. 142	22. 782	-0. 160	0. 000	0. 43	0. 331	29. 8	OK
S27. 002	S3342	30 minute 30 year Winter I+30%	30	1	23. 927	22. 691	-0. 036	0. 000	0. 58	1. 947	36. 0	OK
S24. 020	S3310	30 minute 30 year Winter I+30%	30	1	23. 831	22. 680	-1. 151	0. 000	0. 01	4. 635	294. 8	OK
S24. 021	S3311	30 minute 30 year Winter I+30%	30	1	23. 455	22. 678	-0. 777	0. 000	0. 02	7. 568	291. 4	OK
S24. 022	S3312	30 minute 30 year Winter I+30%	30	1	23. 461	22. 677	0. 232	0. 000	1. 72	7. 538	291. 2	SURCHARGED*
S24. 023	S3313	30 minute 30 year Winter I+30%	30	1	23. 546	22. 221	-1. 325	0. 000	0. 02	0. 544	291. 0	OK
S1. 026	S3029-Basin C	30 minute 30 year Winter I+30%	30	1	21. 900	21. 089	0. 089	0. 000	0. 24	1253. 229	68. 0	SURCHARGED
S1. 027	S3030	30 minute 30 year Winter I+30%	30	1	22. 440	21. 143	0. 406	0. 000	0. 15	2. 120	61. 5	SURCHARGED
S1. 028	S3031	30 minute 30 year Winter I+30%	30	1	22. 645	21. 313	1. 079	0. 000	0. 38	4. 278	57. 7	SURCHARGED
S28. 000	S3350	15 minute 30 year Winter I+30%	15	1	24. 098	22. 368	-0. 243	0. 000	0. 54	0. 490	205. 1	OK
S28. 001	S3351	15 minute 30 year Winter I+30%	15	1	23. 359	22. 158	0. 165	0. 000	1. 20	13. 877	346. 8	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
S28.002	S3352	30 minute 30 year Winter I+30%	30	1	22.742	21.633	0.013	0.000	0.63	13.958	297.2	SURCHARGED
S28.003	S3353	30 minute 30 year Winter I+30%	30	1	22.519	21.588	0.341	0.000	0.29	6.629	273.7	SURCHARGED
S28.004	S3354	30 minute 30 year Winter I+30%	30	1	22.616	21.577	0.450	0.000	0.54	15.909	247.7	SURCHARGED
S29.000	S3370	30 minute 30 year Winter I+30%	30	1	23.318	21.624	0.189	0.000	0.69	0.547	38.0	SURCHARGED
S29.001	S3371	30 minute 30 year Winter I+30%	30	1	23.170	21.613	0.242	0.000	0.89	1.876	53.9	SURCHARGED
S29.002	S3372	30 minute 30 year Winter I+30%	30	1	22.964	21.600	0.299	0.000	1.12	1.793	64.6	SURCHARGED
S29.003	S3373	30 minute 30 year Winter I+30%	30	1	22.764	21.587	0.338	0.000	1.28	1.529	67.3	SURCHARGED
S29.004	S3374	30 minute 30 year Winter I+30%	30	1	22.667	21.579	0.362	0.000	0.95	1.203	81.5	SURCHARGED
S30.000	S3380	30 minute 30 year Winter I+30%	30	1	22.437	21.558	0.321	0.000	0.26	0.527	4.2	SURCHARGED
S28.005	S3355	30 minute 30 year Winter I+30%	30	1	22.561	21.567	0.468	0.000	0.25	12.816	310.6	SURCHARGED
S28.006	S3356	30 minute 30 year Winter I+30%	30	1	22.401	21.559	0.509	0.000	0.24	28.258	280.9	SURCHARGED
S28.007	S3357	30 minute 30 year Winter I+30%	30	1	22.379	21.549	0.549	0.000	0.36	37.442	279.7	SURCHARGED
S28.008	S3358	30 minute 30 year Winter I+30%	30	1	22.415	21.543	0.559	0.000	0.43	12.783	279.5	SURCHARGED
S31.000	S3390	15 minute 30 year Winter I+30%	15	1	23.337	21.740	-0.123	0.000	0.41	0.109	22.2	OK
S31.001	S3391	15 minute 30 year Winter I+30%	15	1	23.137	21.658	0.164	0.000	0.96	1.268	32.9	SURCHARGED
S31.002	S3392	15 minute 30 year Winter I+30%	15	1	22.984	21.589	0.170	0.000	1.11	0.895	40.8	SURCHARGED
S31.003	S3393	30 minute 30 year Winter I+30%	30	1	22.666	21.551	0.268	0.000	1.28	1.413	38.2	SURCHARGED
S31.004	S3394	30 minute 30 year Winter I+30%	30	1	22.568	21.544	0.304	0.000	1.34	0.831	43.1	SURCHARGED
S28.009	S3359	30 minute 30 year Winter I+30%	30	1	22.484	21.534	0.567	0.000	0.40	16.264	291.3	SURCHARGED
S28.010	S3360	30 minute 30 year Winter I+30%	30	1	22.471	21.527	0.580	0.000	0.27	13.915	287.9	SURCHARGED
S1.029	S3032	30 minute 30 year Winter I+30%	30	1	22.290	21.516	0.611	0.000	0.12	35.972	119.2	SURCHARGED
S1.030	S3033-CON	30 minute 30 year Winter I+30%	30	1	22.415	21.513	1.399	0.000	0.37	37.594	58.1	SURCHARGED
S1.031	S3034	30 minute 30 year Winter I+30%	30	1	23.160	19.759	-0.233	0.000	0.46	2.147	57.8	OK
S1.032	S3035	30 minute 30 year Winter I+30%	30	1	23.110	19.694	-0.250	0.000	0.41	1.160	57.7	OK
S1.033	S3036	30 minute 30 year Winter I+30%	30	1	21.990	19.596	-0.257	0.000	0.38	1.817	57.1	OK
S1.034	S3037	30 minute 30 year Winter I+30%	30	1	21.475	19.421	-0.257	0.000	0.38	2.309	56.9	OK
S1.035	S3038	30 minute 30 year Winter I+30%	30	1	21.015	19.284	-0.232	0.000	0.47	2.875	56.6	OK
S1.036	S3039-HW	30 minute 30 year Winter I+30%	30	1	19.850	19.168	-0.682	0.000	0.04	0.509	56.6	OK
S1.037	S3040	30 minute 30 year Winter I+30%	30	1	20.192	19.145	-1.047	0.000	0.01	0.417	56.6	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	FSR M5-60 (mm) 20.000	Cv (Summer) 0.750
Region England and Wales	Ratio R 0.350	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)	15, 30
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 (m ³)	Flow / Cap.	Maximum Vol (m ³)	Pipe Flow (l/s)	Status
S1.000	S3000	15 minute 100 year Winter I+30%	15	1	27.478	26.513	0.235	0.000	0.78	0.515	45.9	SURCHARGED
S1.001	S3001	15 minute 100 year Winter I+30%	15	1	26.966	26.202	0.436	0.000	1.12	2.163	73.8	SURCHARGED
S1.002	S3002	15 minute 100 year Winter I+30%	15	1	26.704	26.009	0.399	0.000	1.21	3.669	126.5	SURCHARGED
S1.003	S3003	15 minute 100 year Winter I+30%	15	1	28.014	25.708	0.288	0.000	1.48	7.513	130.2	SURCHARGED
S2.000	S3050	15 minute 100 year Winter I+30%	15	1	33.607	32.742	0.335	0.000	1.50	0.627	54.2	SURCHARGED
S2.001	S3051	15 minute 100 year Winter I+30%	15	1	33.552	32.533	0.241	0.000	0.90	1.241	80.0	SURCHARGED
S2.002	S3052	15 minute 100 year Winter I+30%	15	1	32.390	31.792	0.603	0.000	0.81	1.751	84.1	SURCHARGED
S2.003	S3053	15 minute 100 year Winter I+30%	15	1	31.592	31.312	0.920	0.000	0.92	1.862	95.3	FLOOD RISK
S2.004	S3054	15 minute 100 year Winter I+30%	15	1	30.545	30.469	1.092	0.000	1.22	2.284	111.3	FLOOD RISK
S2.005	S3055	15 minute 100 year Winter I+30%	15	1	29.217	28.605	0.474	0.000	1.45	1.439	117.8	SURCHARGED
S2.006	S3056	15 minute 100 year Winter I+30%	15	1	28.782	27.605	-0.090	0.000	0.66	0.191	121.1	OK
S1.004	S3004	15 minute 100 year Winter I+30%	15	1	28.294	25.598	0.226	0.000	2.12	2.908	258.3	SURCHARGED
S1.005	S3005	15 minute 100 year Winter I+30%	15	1	28.322	25.484	0.141	0.000	1.58	3.976	303.2	SURCHARGED
S1.006	S3006	15 minute 100 year Winter I+30%	15	1	27.532	24.969	-0.281	0.000	0.44	3.517	309.2	OK
S3.000	S3060	15 minute 100 year Winter I+30%	15	1	26.680	26.159	0.679	0.000	1.21	1.017	67.4	SURCHARGED
S3.001	S3061	15 minute 100 year Winter I+30%	15	1	26.141	25.227	0.406	0.000	0.73	2.731	94.9	SURCHARGED
S3.002	S3062	15 minute 100 year Winter I+30%	15	1	26.114	25.131	0.521	0.000	1.30	5.719	113.0	SURCHARGED
S3.003	S3063	15 minute 100 year Winter I+30%	15	1	26.410	25.065	0.502	0.000	1.40	2.749	139.9	SURCHARGED
S3.004	S3064	15 minute 100 year Winter I+30%	15	1	27.500	24.868	0.419	0.000	1.63	5.034	140.5	SURCHARGED
S1.007	S3007	15 minute 100 year Winter I+30%	15	1	27.348	24.745	0.337	0.000	1.21	4.356	487.9	SURCHARGED
S4.000	S3070	15 minute 100 year Winter I+30%	15	1	25.790	25.792	0.974	2.409	1.71	3.757	66.5	FLOOD
S4.001	S3072	15 minute 100 year Winter I+30%	15	1	25.325	25.003	0.485	0.000	1.80	2.768	98.8	SURCHARGED
S4.002	S3073	15 minute 100 year Winter I+30%	15	1	25.456	24.879	0.401	0.000	1.32	1.710	129.5	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
S4.003	S3074	15 minute 100 year Winter I+30%	15	1	25.586	24.751	0.369	0.000	1.52	4.369	152.5	SURCHARGED
S1.008	S3008	15 minute 100 year Winter I+30%	15	1	26.600	24.518	0.254	0.000	2.35	27.233	633.8	SURCHARGED
S1.009	S3009	15 minute 100 year Winter I+30%	15	1	26.345	24.351	0.113	0.000	2.50	7.004	639.0	SURCHARGED
S1.010	S3010	30 minute 100 year Winter I+30%	30	1	26.150	24.152	-0.067	0.000	0.46	4.597	632.7	OK
S1.011	S3011	30 minute 100 year Winter I+30%	30	1	24.845	23.931	0.748	0.000	1.00	29.944	645.0	SURCHARGED
S5.000	S3080	15 minute 100 year Winter I+30%	15	1	25.677	24.960	0.455	0.000	1.44	0.679	30.2	SURCHARGED
S5.001	S3081	15 minute 100 year Winter I+30%	15	1	25.276	24.181	0.054	0.000	0.99	0.533	130.4	SURCHARGED
S1.012	S3012	30 minute 100 year Winter I+30%	30	1	24.078	23.760	0.747	0.000	1.14	11.977	724.1	SURCHARGED
S1.013	S3013	30 minute 100 year Winter I+30%	30	1	23.942	23.694	0.734	0.000	1.69	19.979	730.4	FLOOD RISK
S1.014	S3014	30 minute 100 year Winter I+30%	30	1	23.833	23.641	0.712	0.000	2.66	12.727	729.0	FLOOD RISK
S6.000	S3090	15 minute 100 year Winter I+30%	15	1	31.555	29.938	-0.087	0.000	0.68	0.150	75.1	OK
S6.001	S3091	15 minute 100 year Winter I+30%	15	1	29.895	29.061	0.696	0.000	0.87	1.650	81.9	SURCHARGED
S6.002	S3092	15 minute 100 year Winter I+30%	15	1	29.250	28.582	0.857	0.000	1.45	1.770	97.9	SURCHARGED
S7.000	S3110	15 minute 100 year Winter I+30%	15	1	30.720	29.304	0.094	0.000	0.94	0.355	70.8	SURCHARGED
S7.001	S3111	15 minute 100 year Winter I+30%	15	1	29.740	28.461	0.216	0.000	1.22	1.121	124.7	SURCHARGED
S7.002	S3112	15 minute 100 year Winter I+30%	15	1	29.410	28.011	0.091	0.000	0.87	2.206	131.9	SURCHARGED
S7.003	S3113	15 minute 100 year Winter I+30%	15	1	29.250	27.906	0.136	0.000	0.95	2.235	162.9	SURCHARGED
S7.004	S3114	15 minute 100 year Winter I+30%	15	1	29.025	27.696	0.156	0.000	0.94	3.082	179.0	SURCHARGED
S6.003	S3093	15 minute 100 year Winter I+30%	15	1	28.650	27.334	0.189	0.000	1.19	4.632	289.6	SURCHARGED
S6.004	S3094	15 minute 100 year Winter I+30%	15	1	28.150	26.505	-0.150	0.000	0.66	0.639	322.2	OK
S8.000	S3120	15 minute 100 year Winter I+30%	15	1	26.200	24.842	0.714	0.000	1.42	0.972	24.0	SURCHARGED
S8.001	S3121	15 minute 100 year Winter I+30%	15	1	26.500	24.314	0.461	0.000	1.64	1.239	64.5	SURCHARGED
S8.002	S3122	15 minute 100 year Winter I+30%	15	1	26.440	24.113	0.437	0.000	1.24	1.824	78.0	SURCHARGED
S6.005	S3095	15 minute 100 year Winter I+30%	15	1	26.160	24.058	0.475	0.000	1.65	4.362	415.8	SURCHARGED
S6.006	S3096	15 minute 100 year Winter I+30%	15	1	24.555	23.921	0.402	0.000	0.53	10.350	385.5	SURCHARGED
S6.007	S3097	15 minute 100 year Winter I+30%	15	1	24.220	23.781	0.795	0.000	2.47	4.300	384.7	SURCHARGED
S6.008	S3098	15 minute 100 year Winter I+30%	15	1	23.845	23.642	0.680	0.000	0.79	6.605	378.9	FLOOD RISK
S6.009	S3099	30 minute 100 year Winter I+30%	30	1	23.675	23.614	0.712	0.000	0.82	7.688	368.2	FLOOD RISK
S6.010	S3100	30 minute 100 year Winter I+30%	30	1	23.600	23.601	0.706	1.285	1.00	8.777	369.1	FLOOD
S1.015	S3015	30 minute 100 year Winter I+30%	30	1	23.565	23.588	0.703	22.627	2.87	40.987	958.5	FLOOD
S1.016	S3016	15 minute 100 year Winter I+30%	15	1	23.660	23.460	0.587	0.000	3.27	9.950	956.7	FLOOD RISK
S1.017	S3017	30 minute 100 year Winter I+30%	30	1	23.840	23.330	0.472	0.000	2.98	11.246	956.5	SURCHARGED
S9.000	S3130	15 minute 100 year Winter I+30%	15	1	26.352	25.394	0.242	0.000	0.70	0.523	41.6	SURCHARGED
S9.001	S3131	15 minute 100 year Winter I+30%	15	1	25.763	25.140	0.578	0.000	0.99	2.546	81.5	SURCHARGED
S9.002	S3132	15 minute 100 year Winter I+30%	15	1	25.576	24.884	0.571	0.000	1.37	3.651	93.4	SURCHARGED
S9.003	S3133	15 minute 100 year Winter I+30%	15	1	25.493	24.746	0.507	0.000	1.16	1.406	113.1	SURCHARGED
S10.000	S3140	15 minute 100 year Winter I+30%	15	1	25.428	24.539	0.311	0.000	0.69	0.601	36.3	SURCHARGED
S9.004	S3134	15 minute 100 year Winter I+30%	15	1	25.210	24.430	0.420	0.000	1.51	3.012	163.5	SURCHARGED
S9.005	S3135	15 minute 100 year Winter I+30%	15	1	24.964	23.853	0.090	0.000	1.38	1.730	180.0	SURCHARGED
S9.006	S3136	15 minute 100 year Winter I+30%	15	1	24.852	23.546	-0.106	0.000	0.66	0.986	179.5	OK
S9.007	S3137	15 minute 100 year Winter I+30%	15	1	24.696	23.488	0.068	0.000	0.62	2.358	191.1	SURCHARGED
S9.008	S3138	15 minute 100 year Winter I+30%	15	1	24.374	23.390	0.292	0.000	0.78	4.748	199.7	SURCHARGED
S9.009	S3139	30 minute 100 year Winter I+30%	30	1	24.123	23.289	0.395	0.000	1.22	4.097	181.0	SURCHARGED
S1.018	S3018	30 minute 100 year Winter I+30%	30	1	23.970	23.243	0.398	0.000	2.34	11.638	1146.8	SURCHARGED
S1.019	S3019	30 minute 100 year Winter I+30%	30	1	23.500	23.041	0.231	0.000	1.45	11.324	1142.5	SURCHARGED
S1.020	S3020-BASIN D	30 minute 100 year Winter I+30%	30	1	23.500	22.988	0.663	0.000	0.91	893.927	252.1	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	30 minute 100 year Winter I+30%	30	1	24.020	22.920	0.715	0.000	1.15	5.442	249.8	SURCHARGED
S1.022	S3023	30 minute 100 year Winter I+30%	30	1	25.220	22.108	0.113	0.000	1.11	19.579	241.4	SURCHARGED
S1.023	S3024	30 minute 100 year Winter I+30%	30	1	25.535	21.866	0.081	0.000	1.08	19.203	235.7	SURCHARGED
S1.024	S3026	30 minute 100 year Winter I+30%	30	1	24.960	21.623	0.048	0.000	1.15	18.174	234.6	SURCHARGED
S1.025	S3028	30 minute 100 year Winter I+30%	30	1	24.350	21.463	0.008	0.000	1.84	11.479	234.6	SURCHARGED
S11.000	S3150	15 minute 100 year Winter I+30%	15	1	28.020	26.623	-0.039	0.000	0.87	0.120	18.9	OK
S11.001	S3151	15 minute 100 year Winter I+30%	15	1	27.356	26.044	0.004	0.000	0.99	0.335	62.3	SURCHARGED
S11.002	S3152	15 minute 100 year Winter I+30%	15	1	26.707	25.733	0.233	0.000	0.84	1.379	92.6	SURCHARGED
S11.003	S3153	15 minute 100 year Winter I+30%	15	1	26.514	25.662	0.355	0.000	0.99	1.379	93.4	SURCHARGED
S11.004	S3154	15 minute 100 year Winter I+30%	15	1	26.322	25.584	0.419	0.000	0.49	1.451	93.9	SURCHARGED
S12.000	S3180	15 minute 100 year Winter I+30%	15	1	27.308	26.292	0.358	0.000	0.70	0.569	23.7	SURCHARGED
S13.000	S3190	15 minute 100 year Winter I+30%	15	1	27.405	26.198	0.218	0.000	0.28	0.496	24.8	SURCHARGED
S12.001	S3181	15 minute 100 year Winter I+30%	15	1	27.233	26.174	0.584	0.000	1.13	1.325	65.0	SURCHARGED
S12.002	S3182	15 minute 100 year Winter I+30%	15	1	26.894	25.923	0.623	0.000	0.65	1.756	88.9	SURCHARGED
S12.003	S3183	15 minute 100 year Winter I+30%	15	1	26.521	25.822	0.886	0.000	0.76	2.520	91.2	SURCHARGED
S12.004	S3184	15 minute 100 year Winter I+30%	15	1	26.290	25.705	1.000	0.000	0.83	2.213	99.9	SURCHARGED
S11.005	S3155	15 minute 100 year Winter I+30%	15	1	25.834	25.446	1.143	0.000	1.30	5.718	203.4	SURCHARGED
S11.006	S3156	15 minute 100 year Winter I+30%	15	1	26.130	25.260	1.076	0.000	1.35	8.281	228.2	SURCHARGED
S14.000	S3200	15 minute 100 year Winter I+30%	15	1	27.248	25.571	-0.177	0.000	0.34	0.133	35.4	OK
S14.001	S3201	15 minute 100 year Winter I+30%	15	1	26.960	25.423	-0.037	0.000	0.54	1.019	93.1	OK
S14.002	S3202	15 minute 100 year Winter I+30%	15	1	26.657	25.326	0.604	0.000	0.80	2.572	126.1	SURCHARGED
S15.000	SH316	15 minute 100 year Winter I+30%	15	1	26.150	25.127	0.477	0.000	0.17	0.788	15.2	SURCHARGED
S11.007	S3157	15 minute 100 year Winter I+30%	15	1	26.356	25.107	0.980	0.000	2.02	5.915	400.7	SURCHARGED
S11.008	S3158	15 minute 100 year Winter I+30%	15	1	25.760	24.972	0.876	0.000	1.26	5.694	377.9	SURCHARGED
S11.009	S3159	15 minute 100 year Winter I+30%	15	1	25.205	24.784	0.814	0.000	2.08	16.282	374.4	SURCHARGED
S16.000	S3210	15 minute 100 year Winter I+30%	15	1	26.390	25.281	0.316	0.000	0.48	0.522	21.6	SURCHARGED
S17.000	S3220	15 minute 100 year Winter I+30%	15	1	26.231	25.276	0.470	0.000	0.46	0.695	15.2	SURCHARGED
S16.001	S3211	15 minute 100 year Winter I+30%	15	1	26.202	25.199	0.806	0.000	0.95	1.401	47.6	SURCHARGED
S16.002	S3212	15 minute 100 year Winter I+30%	15	1	26.040	25.063	0.872	0.000	1.20	1.882	59.8	SURCHARGED
S16.003	S3213	15 minute 100 year Winter I+30%	15	1	25.813	24.869	0.870	0.000	2.32	1.847	77.7	SURCHARGED
S11.010	S3160	15 minute 100 year Winter I+30%	15	1	25.672	24.646	0.709	0.000	1.57	6.846	442.4	SURCHARGED
S11.011	S3161	15 minute 100 year Winter I+30%	15	1	25.057	24.447	0.590	0.000	1.32	10.704	456.8	SURCHARGED
S18.000	SH323	15 minute 100 year Winter I+30%	15	1	25.250	24.532	0.548	0.000	0.06	0.869	2.2	SURCHARGED
S18.001	S3230	15 minute 100 year Winter I+30%	15	1	25.150	24.539	0.634	0.000	1.62	1.355	56.5	SURCHARGED
S18.002	S3231	15 minute 100 year Winter I+30%	15	1	24.920	24.368	0.563	0.000	2.30	1.536	68.8	SURCHARGED
S11.012	S3162	15 minute 100 year Winter I+30%	15	1	24.964	24.236	0.472	0.000	2.05	5.212	498.5	SURCHARGED
S11.013	S3163	15 minute 100 year Winter I+30%	15	1	24.890	23.910	0.220	0.000	3.62	13.211	514.1	SURCHARGED
S11.014	S3164	15 minute 100 year Winter I+30%	15	1	24.022	23.263	-0.759	0.000	0.06	0.741	514.2	OK
S19.000	S3240	15 minute 100 year Winter I+30%	15	1	24.640	23.412	-0.028	0.000	0.35	0.302	19.8	OK
S20.000	S3250	15 minute 100 year Winter I+30%	15	1	24.628	23.410	-0.018	0.000	0.44	0.314	23.1	OK
S19.001	S3241	15 minute 100 year Winter I+30%	15	1	24.597	23.398	0.001	0.000	0.99	1.358	57.3	SURCHARGED
S19.002	S3242	15 minute 100 year Winter I+30%	15	1	24.000	23.294	0.000	0.000	1.04	2.140	67.2	OK
S11.015	S3165	15 minute 100 year Winter I+30%	15	1	23.922	23.163	-0.759	0.000	0.07	4.261	577.4	OK
S11.016	S3166	15 minute 100 year Winter I+30%	15	1	23.652	22.920	-0.732	0.000	0.08	8.966	579.2	OK
S21.000	S3260	15 minute 100 year Winter I+30%	15	1	24.136	22.881	-0.055	0.000	0.27	0.187	9.5	OK
S21.001	S3261	15 minute 100 year Winter I+30%	15	1	24.043	22.864	0.021	0.000	1.17	0.756	39.7	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
S11.017	S3167	15 minute 100 year Winter I+30%	15	1	23.459	22.799	-0.660	0.000	0.10	6.236	592.9	OK
S22.000	S3270	15 minute 100 year Winter I+30%	15	1	24.058	22.678	-0.180	0.000	0.22	0.130	14.0	OK
S22.001	S3271	15 minute 100 year Winter I+30%	15	1	23.965	22.650	-0.115	0.000	0.60	0.859	37.7	OK
S22.002	S3272	15 minute 100 year Winter I+30%	15	1	23.872	22.601	-0.071	0.000	0.92	1.156	52.6	OK
S11.018	S3168	15 minute 100 year Winter I+30%	15	1	23.365	22.566	-0.799	0.000	0.07	9.571	611.9	OK
S11.019	S3169	15 minute 100 year Winter I+30%	15	1	23.316	22.552	-0.764	0.000	0.08	1.049	614.2	OK
S11.020	S3170	30 minute 100 year Winter I+30%	30	1	22.996	22.382	-0.614	0.000	0.09	11.467	587.9	OK
S23.000	S3280	30 minute 100 year Winter I+30%	30	1	23.484	22.366	0.082	0.000	0.22	0.342	8.3	SURCHARGED
S23.001	S3281	30 minute 100 year Winter I+30%	30	1	23.269	22.361	0.292	0.000	1.46	1.982	47.7	SURCHARGED
S11.021	S3171	30 minute 100 year Winter I+30%	30	1	22.739	22.349	-0.390	0.000	0.09	38.628	534.5	OK
S11.022	S3172	30 minute 100 year Winter I+30%	30	1	22.621	22.340	0.349	0.000	1.95	76.154	486.0	FLOOD RISK*
S11.023	S3173	30 minute 100 year Winter I+30%	30	1	22.633	21.780	-0.853	0.000	0.06	0.881	486.2	OK
S24.000	S3290	15 minute 100 year Winter I+30%	15	1	27.878	26.241	-0.221	0.000	0.16	0.084	15.4	OK
S24.001	S3291	15 minute 100 year Winter I+30%	15	1	27.725	26.081	-0.217	0.000	0.17	0.142	22.7	OK
S24.002	S3292	15 minute 100 year Winter I+30%	15	1	27.292	25.743	0.105	0.000	0.45	1.667	60.4	SURCHARGED
S24.003	S3293	15 minute 100 year Winter I+30%	15	1	27.136	25.721	0.200	0.000	0.46	2.439	75.8	SURCHARGED
S24.004	S3294	15 minute 100 year Winter I+30%	15	1	26.998	25.693	0.349	0.000	0.50	2.545	92.0	SURCHARGED
S24.005	S3295	15 minute 100 year Winter I+30%	15	1	26.633	25.642	0.663	0.000	1.14	5.180	113.6	SURCHARGED
S24.006	S3296	15 minute 100 year Winter I+30%	15	1	26.623	25.529	0.659	0.000	1.00	6.483	169.1	SURCHARGED
S24.007	S3297	15 minute 100 year Winter I+30%	15	1	26.942	25.472	0.684	0.000	1.71	4.002	180.4	SURCHARGED
S24.008	S3298	15 minute 100 year Winter I+30%	15	1	27.141	25.410	0.657	0.000	1.85	3.651	184.5	SURCHARGED
S25.000	S3320	15 minute 100 year Winter I+30%	15	1	27.291	25.618	-0.176	0.000	0.11	0.050	15.4	OK
S24.009	S3299	15 minute 100 year Winter I+30%	15	1	27.239	25.344	0.618	0.000	1.45	3.202	207.7	SURCHARGED
S24.010	S3300	15 minute 100 year Winter I+30%	15	1	26.728	25.155	0.533	0.000	0.77	7.821	215.8	SURCHARGED
S26.000	S3330	15 minute 100 year Winter I+30%	15	1	25.706	24.744	0.301	0.000	0.07	0.674	12.6	SURCHARGED
S24.011	S3301	15 minute 100 year Winter I+30%	15	1	25.786	24.737	0.806	0.000	1.64	15.958	296.8	SURCHARGED
S24.012	S3302	15 minute 100 year Winter I+30%	15	1	25.425	24.564	0.693	0.000	1.71	8.260	317.7	SURCHARGED
S24.013	S3303	30 minute 100 year Winter I+30%	30	1	24.980	24.347	0.551	0.000	1.95	9.719	345.4	SURCHARGED
S24.014	S3304	30 minute 100 year Winter I+30%	30	1	24.943	24.142	0.399	0.000	1.91	7.043	357.8	SURCHARGED
S24.015	S3305	30 minute 100 year Winter I+30%	30	1	24.865	23.852	0.187	0.000	2.93	9.297	376.8	SURCHARGED
S24.016	S3306	30 minute 100 year Winter I+30%	30	1	24.643	23.258	-1.385	0.000	0.02	0.695	376.7	OK
S24.017	S3307	30 minute 100 year Winter I+30%	30	1	24.775	23.031	-1.744	0.000	0.01	2.115	375.8	OK
S24.018	S3308	30 minute 100 year Winter I+30%	30	1	24.194	22.815	-1.379	0.000	0.02	9.077	359.0	OK
S24.019	S3309	30 minute 100 year Winter I+30%	30	1	24.085	22.809	-1.276	0.000	0.01	4.476	351.6	OK
S27.000	S3340	30 minute 100 year Winter I+30%	30	1	24.183	22.832	-0.151	0.000	0.06	0.162	3.6	OK
S27.001	S3341	30 minute 100 year Winter I+30%	30	1	24.142	22.831	-0.111	0.000	0.44	0.493	30.9	OK
S27.002	S3342	30 minute 100 year Winter I+30%	30	1	23.927	22.819	0.092	0.000	0.73	3.331	45.0	SURCHARGED
S24.020	S3310	30 minute 100 year Winter I+30%	30	1	23.831	22.807	-1.024	0.000	0.02	7.438	362.3	OK
S24.021	S3311	30 minute 100 year Winter I+30%	30	1	23.455	22.806	-0.649	0.000	0.02	11.586	355.0	OK
S24.022	S3312	30 minute 100 year Winter I+30%	30	1	23.461	22.805	0.360	0.000	2.09	10.507	353.7	SURCHARGED*
S24.023	S3313	30 minute 100 year Winter I+30%	30	1	23.546	22.249	-1.297	0.000	0.02	0.631	353.9	OK
S1.026	S3029-Basin C	30 minute 100 year Winter I+30%	30	1	21.900	21.194	0.194	0.000	0.24	1678.832	70.3	SURCHARGED
S1.027	S3030	30 minute 100 year Winter I+30%	30	1	22.440	21.281	0.544	0.000	0.17	2.317	66.3	SURCHARGED
S1.028	S3031	30 minute 100 year Winter I+30%	30	1	22.645	21.594	1.360	0.000	0.39	4.679	59.9	SURCHARGED
S28.000	S3350	15 minute 100 year Winter I+30%	15	1	24.098	22.787	0.176	0.000	0.65	1.229	245.1	SURCHARGED
S28.001	S3351	15 minute 100 year Winter I+30%	15	1	23.359	22.538	0.545	0.000	1.52	20.254	440.4	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	30 minute 100 year Winter I+30%	30	1	22.742	22.147	0.527	0.000	0.74	21.212	347.6	SURCHARGED
S28.003	S3353	30 minute 100 year Winter I+30%	30	1	22.519	22.041	0.794	0.000	0.36	7.800	340.2	SURCHARGED
S28.004	S3354	30 minute 100 year Winter I+30%	30	1	22.616	22.021	0.894	0.000	0.74	17.040	337.5	SURCHARGED
S29.000	S3370	30 minute 100 year Winter I+30%	30	1	23.318	22.117	0.682	0.000	0.89	1.105	49.3	SURCHARGED
S29.001	S3371	30 minute 100 year Winter I+30%	30	1	23.170	22.096	0.725	0.000	1.15	2.421	69.9	SURCHARGED
S29.002	S3372	30 minute 100 year Winter I+30%	30	1	22.964	22.070	0.769	0.000	1.44	2.324	83.2	SURCHARGED
S29.003	S3373	30 minute 100 year Winter I+30%	30	1	22.764	22.045	0.796	0.000	1.63	2.046	86.1	SURCHARGED
S29.004	S3374	30 minute 100 year Winter I+30%	30	1	22.667	22.027	0.810	0.000	1.22	1.710	105.3	SURCHARGED
S30.000	S3380	30 minute 100 year Winter I+30%	30	1	22.437	22.011	0.774	0.000	0.09	1.039	1.4	SURCHARGED
S28.005	S3355	30 minute 100 year Winter I+30%	30	1	22.561	22.005	0.906	0.000	0.31	14.332	389.7	SURCHARGED
S28.006	S3356	30 minute 100 year Winter I+30%	30	1	22.401	21.992	0.942	0.000	0.34	29.757	390.7	SURCHARGED
S28.007	S3357	30 minute 100 year Winter I+30%	30	1	22.379	21.978	0.978	0.000	0.50	38.927	385.0	SURCHARGED
S28.008	S3358	30 minute 100 year Winter I+30%	30	1	22.415	21.970	0.986	0.000	0.59	14.262	382.1	SURCHARGED
S31.000	S3390	30 minute 100 year Winter I+30%	30	1	23.337	22.073	0.210	0.000	0.42	0.486	22.8	SURCHARGED
S31.001	S3391	30 minute 100 year Winter I+30%	30	1	23.137	22.051	0.557	0.000	1.02	2.012	35.1	SURCHARGED
S31.002	S3392	30 minute 100 year Winter I+30%	30	1	22.984	22.030	0.611	0.000	1.20	1.394	44.0	SURCHARGED
S31.003	S3393	30 minute 100 year Winter I+30%	30	1	22.666	21.997	0.714	0.000	1.62	1.917	48.4	SURCHARGED
S31.004	S3394	30 minute 100 year Winter I+30%	30	1	22.568	21.981	0.741	0.000	1.71	1.325	54.8	SURCHARGED
S28.009	S3359	30 minute 100 year Winter I+30%	30	1	22.484	21.959	0.992	0.000	0.55	17.734	399.6	SURCHARGED
S28.010	S3360	30 minute 100 year Winter I+30%	30	1	22.471	21.949	1.002	0.000	0.36	15.377	385.7	SURCHARGED
S1.029	S3032	30 minute 100 year Winter I+30%	30	1	22.290	21.935	1.030	0.000	0.13	38.932	126.1	SURCHARGED
S1.030	S3033-C0N	30 minute 100 year Winter I+30%	30	1	22.415	21.932	1.818	0.000	0.41	39.992	64.3	SURCHARGED
S1.031	S3034	30 minute 100 year Winter I+30%	30	1	23.160	19.771	-0.221	0.000	0.51	2.375	63.7	OK
S1.032	S3035	30 minute 100 year Winter I+30%	30	1	23.110	19.706	-0.238	0.000	0.45	1.267	63.6	OK
S1.033	S3036	30 minute 100 year Winter I+30%	30	1	21.990	19.607	-0.246	0.000	0.42	1.974	63.0	OK
S1.034	S3037	30 minute 100 year Winter I+30%	30	1	21.475	19.432	-0.246	0.000	0.42	2.523	62.6	OK
S1.035	S3038	30 minute 100 year Winter I+30%	30	1	21.015	19.297	-0.219	0.000	0.52	3.242	62.3	OK
S1.036	S3039-HW	30 minute 100 year Winter I+30%	30	1	19.850	19.177	-0.673	0.000	0.04	0.565	62.3	OK
S1.037	S3040	30 minute 100 year Winter I+30%	30	1	20.192	19.152	-1.040	0.000	0.01	0.472	62.3	OK