

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	10	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Width (mm)	Depth (m)
1.14	0.008	5.00	15.050	450		1.050
1.15	0.000		15.050	450		1.220
1.16	0.011	5.00	15.123	450		1.453
RE1.4	0.003	5.00	15.046	450		1.396
1.23	0.004	5.00	15.120	450		1.570
1.17			15.082	450		1.757
1.25	0.006	5.00	15.148	600	450	1.698
1.26	0.006	5.00	15.125	450		1.775
1.24	0.006	5.00	15.157	450		1.657
1.18	0.000		14.949	1200		1.724
1.19	0.025	5.00	14.787	1200		1.737
1.20	0.019	5.00	14.899	1200		2.729
RE1.2	0.003	5.00	15.048	250		1.348
RE1.3	0.004	5.00	15.125	250		1.425
1.27	0.006	5.00	14.993	450		1.693
NODE-2	0.014	5.00	14.909	250		2.776
1.21	0.018	5.00	14.640	1200		2.670
1.22	0.016	5.00	14.778	1200		2.908
1.01	0.006	5.00	15.165	450		0.815
1.02	0.003	5.00	15.065	450		1.035
1.09	0.003	5.00	15.141	450		0.791
1.03	0.000		15.065	450		1.135
1.10	0.009	5.00	15.148	450		0.628
1.11	0.004	5.00	15.148	450		0.798
NODE-1	0.000		15.065	300		1.304
1.12	0.005	5.00	15.164	450		1.144
1.04	0.000		15.065	450		1.365
1.05	0.000		15.119	450		1.609
1.06	0.008	5.00	15.052	450		1.642
RE1.1	0.002	5.00	15.085	250		0.785
1.13	0.005	5.00	15.090	450		0.720
1.07	0.000		14.960	1200		1.730
1.08	0.013	5.00	14.925	1200		3.055
CS1	0.000		14.867	1200		3.047
DMH			14.834	300		3.024

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)
1.000	1.14	1.15	2.126	0.600	14.000	13.900	0.100	21.3	150	5.02
1.001	1.15	1.16	3.831	0.600	13.830	13.740	0.090	42.6	150	5.06
1.002	1.16	1.17	3.397	0.600	13.670	13.400	0.270	12.6	150	5.08
2.000	RE1.4	1.23	5.320	0.600	13.650	13.550	0.100	53.2	150	5.06
2.001	1.23	1.17	2.963	0.600	13.550	13.400	0.150	19.8	150	5.09
1.003	1.17	1.18	9.627	0.600	13.325	13.225	0.100	96.3	150	5.24
3.000	1.25	1.26	5.591	0.600	13.450	13.350	0.100	55.9	150	5.07

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1.14	1.15	2.194	38.8	1.1	0.900	1.000	0.008	17	0.961
1.001	1.15	1.16	1.547	27.3	1.1	1.070	1.233	0.008	20	0.747
1.002	1.16	1.17	2.856	50.5	2.6	1.303	1.532	0.019	23	1.508
2.000	RE1.4	1.23	1.382	24.4	0.4	1.246	1.420	0.003	14	0.519
2.001	1.23	1.17	2.276	40.2	0.9	1.420	1.532	0.007	16	0.953
1.003	1.17	1.18	1.024	18.1	3.5	1.607	1.574	0.026	45	0.795
3.000	1.25	1.26	1.348	23.8	0.8	1.548	1.625	0.006	19	0.626

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)
3.001	1.26	1.18	4.834	0.600	13.350	13.225	0.125	38.7	150	5.12
4.000	1.24	1.18	4.093	0.600	13.500	13.225	0.275	14.9	150	5.03
1.004	1.18	1.19	7.282	0.600	13.225	13.125	0.100	72.8	150	5.35
1.005	1.19	1.20	24.622	0.600	13.050	12.170	0.880	28.0	225	5.51
1.006	1.20	NODE-2	5.601	0.600	12.170	12.133	0.037	150.0	225	5.60
5.000	RE1.2	1.27	16.994	0.600	13.700	13.370	0.330	51.5	150	5.20
6.000	RE1.3	1.27	9.612	0.600	13.700	13.370	0.330	29.1	150	5.09
5.001	1.27	NODE-2	6.060	0.600	13.300	12.208	1.092	5.5	150	5.23
1.007	NODE-2	1.21	24.246	0.600	12.133	11.970	0.163	148.7	225	5.98
1.008	1.21	1.22	12.149	0.600	11.970	11.870	0.100	121.5	225	6.15
1.009	1.22	CS1	4.721	0.600	11.870	11.820	0.050	94.4	225	6.21
7.000	1.01	1.02	3.989	0.600	14.350	14.100	0.250	16.0	150	5.03
7.001	1.02	1.03	5.582	0.600	14.030	13.930	0.100	55.8	150	5.10
8.000	1.09	1.03	2.812	0.600	14.350	14.000	0.350	8.0	150	5.01
7.002	1.03	NODE-1	17.618	0.600	13.930	13.761	0.169	104.2	150	5.39
9.000	1.10	1.11	3.539	0.600	14.520	14.420	0.100	35.4	150	5.03
9.001	1.11	NODE-1	4.104	0.600	14.350	13.761	0.589	7.0	150	5.05
7.003	NODE-1	1.04	6.275	0.600	13.761	13.700	0.061	102.9	150	5.50
10.000	1.12	1.04	2.827	0.600	14.020	13.770	0.250	11.3	150	5.02
7.004	1.04	1.05	8.704	0.600	13.700	13.510	0.190	45.8	150	5.60
7.005	1.05	1.06	8.294	0.600	13.510	13.410	0.100	82.9	150	5.72
7.006	1.06	1.07	6.592	0.600	13.410	13.305	0.105	62.8	150	5.81
11.000	RE1.1	1.07	7.970	0.600	14.300	14.170	0.130	61.3	150	5.10
12.000	1.13	1.07	3.825	0.600	14.370	14.170	0.200	19.1	150	5.03
7.007	1.07	1.08	22.215	0.600	13.230	13.080	0.150	148.1	225	6.15
7.008	1.08	CS1	3.828	0.600	11.870	11.820	0.050	76.6	225	6.20
1.010	CS1	DMH	1.417	0.600	11.820	11.810	0.010	141.7	225	6.23

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Pro Depth (mm)	Pro Velocity (m/s)
3.001	1.26	1.18	1.623	28.7	1.6	1.625	1.574	0.012	24	0.882
4.000	1.24	1.18	2.624	46.4	0.8	1.507	1.574	0.006	14	0.992
1.004	1.18	1.19	1.179	20.8	6.0	1.574	1.512	0.044	55	1.019
1.005	1.19	1.20	2.483	98.7	9.4	1.512	2.504	0.069	46	1.569
1.006	1.20	NODE-2	1.065	42.3	11.9	2.504	2.551	0.088	81	0.917
5.000	RE1.2	1.27	1.405	24.8	0.4	1.198	1.473	0.003	13	0.512
6.000	RE1.3	1.27	1.872	33.1	0.5	1.275	1.473	0.004	13	0.685
5.001	1.27	NODE-2	4.306	76.1	1.8	1.543	2.551	0.013	16	1.767
1.007	NODE-2	1.21	1.070	42.5	15.6	2.551	2.445	0.115	94	0.990
1.008	1.21	1.22	1.185	47.1	18.0	2.445	2.683	0.133	96	1.107
1.009	1.22	CS1	1.346	53.5	20.2	2.683	2.822	0.149	95	1.251
7.000	1.01	1.02	2.534	44.8	0.8	0.665	0.815	0.006	14	0.985
7.001	1.02	1.03	1.349	23.8	1.2	0.885	0.985	0.009	23	0.709
8.000	1.09	1.03	3.577	63.2	0.4	0.641	0.915	0.003	8	0.977
7.002	1.03	NODE-1	0.984	17.4	1.6	0.985	1.154	0.012	31	0.615
9.000	1.10	1.11	1.697	30.0	1.2	0.478	0.578	0.009	21	0.836
9.001	1.11	NODE-1	3.841	67.9	1.8	0.648	1.154	0.013	17	1.651
7.003	NODE-1	1.04	0.990	17.5	3.4	1.154	1.215	0.025	45	0.769
10.000	1.12	1.04	3.012	53.2	0.7	0.994	1.145	0.005	12	1.041
7.004	1.04	1.05	1.490	26.3	4.1	1.215	1.459	0.030	40	1.081
7.005	1.05	1.06	1.104	19.5	4.1	1.459	1.492	0.030	47	0.876
7.006	1.06	1.07	1.271	22.5	5.1	1.492	1.505	0.038	49	1.035
11.000	RE1.1	1.07	1.286	22.7	0.3	0.635	0.640	0.002	11	0.425
12.000	1.13	1.07	2.313	40.9	0.7	0.570	0.640	0.005	14	0.874
7.007	1.07	1.08	1.072	42.6	6.1	1.505	1.620	0.045	58	0.767
7.008	1.08	CS1	1.496	59.5	7.9	2.830	2.822	0.058	55	1.043
1.010	CS1	DMH	1.096	43.6	28.1	2.822	2.799	0.207	131	1.162

Manhole Schedule

Node	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Node Type	Connections	Link	IL (m)	Dia (mm)
1.14	15.050	1.050	450		Manhole				
									
						0	1.000	14.000	150
1.15	15.050	1.220	450		Manhole				
									
						1	1.000	13.900	150
						0	1.001	13.830	150

Manhole Schedule

Node	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Node Type	Connections	Link	IL (m)	Dia (mm)	
1.16	15.123	1.453	450		Manhole		1	1.001	13.740	150
							0	1.002	13.670	150
RE1.4	15.046	1.396	450		Manhole		0	2.000	13.650	150
1.23	15.120	1.570	450		Manhole		1	2.000	13.550	150
							0	2.001	13.550	150
1.17	15.082	1.757	450		Manhole		1	2.001	13.400	150
							2	1.002	13.400	150
							0	1.003	13.325	150
1.25	15.148	1.698	600	450	Manhole		0	3.000	13.450	150
1.26	15.125	1.775	450		Manhole		1	3.000	13.350	150
							0	3.001	13.350	150
1.24	15.157	1.657	450		Manhole		0	4.000	13.500	150
1.18	14.949	1.724	1200		Manhole		1	4.000	13.225	150
							2	3.001	13.225	150
							3	1.003	13.225	150
							0	1.004	13.225	150
1.19	14.787	1.737	1200		Manhole		1	1.004	13.125	150
							0	1.005	13.050	225
1.20	14.899	2.729	1200		Manhole		1	1.005	12.170	225
							0	1.006	12.170	225
RE1.2	15.048	1.348	250		Manhole		0	5.000	13.700	150
RE1.3	15.125	1.425	250		Manhole		0	6.000	13.700	150
1.27	14.993	1.693	450		Manhole		1	6.000	13.370	150
							2	5.000	13.370	150
							0	5.001	13.300	150
NODE-2	14.909	2.776	250		Manhole		1	5.001	12.208	150
							2	1.006	12.133	225
							0	1.007	12.133	225
1.21	14.640	2.670	1200		Manhole		1	1.007	11.970	225
							0	1.008	11.970	225
1.22	14.778	2.908	1200		Manhole		1	1.008	11.870	225
							0	1.009	11.870	225
1.01	15.165	0.815	450		Manhole		0	7.000	14.350	150

Manhole Schedule

Node	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Node Type	Connections	Link	IL (m)	Dia (mm)	
1.02	15.065	1.035	450		Manhole		1	7.000	14.100	150
							0	7.001	14.030	150
1.09	15.141	0.791	450		Manhole		0	8.000	14.350	150
1.03	15.065	1.135	450		Manhole		1	8.000	14.000	150
							2	7.001	13.930	150
							0	7.002	13.930	150
1.10	15.148	0.628	450		Manhole		0	9.000	14.520	150
1.11	15.148	0.798	450		Manhole		1	9.000	14.420	150
							0	9.001	14.350	150
NODE-1	15.065	1.304	300		Manhole		1	9.001	13.761	150
							2	7.002	13.761	150
							0	7.003	13.761	150
1.12	15.164	1.144	450		Manhole		0	10.000	14.020	150
1.04	15.065	1.365	450		Manhole		1	10.000	13.770	150
							2	7.003	13.700	150
							0	7.004	13.700	150
1.05	15.119	1.609	450		Manhole		1	7.004	13.510	150
							0	7.005	13.510	150
1.06	15.052	1.642	450		Manhole		1	7.005	13.410	150
							0	7.006	13.410	150
RE1.1	15.085	0.785	250		Manhole		0	11.000	14.300	150
1.13	15.090	0.720	450		Manhole		0	12.000	14.370	150
1.07	14.960	1.730	1200		Manhole		1	12.000	14.170	150
							2	11.000	14.170	150
							3	7.006	13.305	150
							0	7.007	13.230	225
1.08	14.925	3.055	1200		Manhole		1	7.007	13.080	225
							0	7.008	11.870	225
CS1	14.867	3.047	1200		Manhole		1	7.008	11.820	225
							2	1.009	11.820	225
							0	1.010	11.820	225
DMH	14.834	3.024	300		Manhole		1	1.010	11.810	225

Simulation Settings

Rainfall Methodology	FSR	Summer CV	0.750	Drain Down Time (mins)	240
FSR Region	England and Wales	Winter CV	0.840	Additional Storage (m³/ha)	20.0
M5-60 (mm)	20.000	Analysis Speed	Normal	Check Discharge Rate(s)	x
Ratio-R	0.400	Skip Steady State	✓	Check Discharge Volume	x

Storm Durations

Storm Durations											
15 30 60 120 180 240 360 480 600 720 960 1440											
Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)				
1	0	0	0	30	0	0	0				
10	0	0	0	100	40	0	0				

Node DMH Offline Weir Control

Flap Valve	x	Invert Level (m)	11.810	Design Flow (l/s)		Discharge Coefficient	0.590
Loop to Node	CS1	Design Depth (m)	2.500	Width (m)	0.300		

Node CS1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	11.220
Side Inf Coefficient (m/hr)	16.16000	Porosity	0.95	Time to half empty (mins)	16

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	24.0	24.0	1.200	24.0	48.0	1.201	0.0	48.0

Results for 1 year Critical Storm Duration. Lowest mass balance: 97.68%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m³)	Status
15 minute winter	1.14	10	14.019	0.019	1.1	0.0000	OK
15 minute winter	1.15	11	13.851	0.021	1.1	0.0000	OK
15 minute winter	1.16	10	13.695	0.025	2.7	0.0000	OK
15 minute summer	RE1.4	11	13.663	0.013	0.4	0.0000	OK
15 minute winter	1.23	10	13.567	0.017	1.0	0.0000	OK
15 minute winter	1.17	10	13.372	0.047	3.7	0.0000	OK
15 minute summer	1.25	11	13.469	0.019	0.8	0.0000	OK
15 minute summer	1.26	11	13.374	0.024	1.6	0.0000	OK
15 minute summer	1.24	11	13.514	0.014	0.8	0.0000	OK
15 minute winter	1.18	11	13.284	0.059	6.0	0.0000	OK
15 minute winter	1.19	11	13.097	0.047	9.4	0.0000	OK
15 minute winter	1.20	11	12.265	0.095	12.0	0.0000	OK
15 minute winter	RE1.2	11	13.713	0.013	0.4	0.0000	OK
15 minute winter	RE1.3	10	13.714	0.014	0.6	0.0000	OK
15 minute winter	1.27	10	13.316	0.016	1.7	0.0000	OK
15 minute winter	NODE-2	11	12.231	0.098	15.6	0.0000	OK
15 minute winter	1.21	11	12.075	0.105	18.0	0.0000	OK
15 minute winter	1.22	11	11.979	0.109	20.1	0.0000	OK
15 minute summer	1.01	11	14.364	0.014	0.8	0.0000	OK
15 minute summer	1.02	11	14.053	0.023	1.2	0.0000	OK
15 minute summer	1.09	11	14.359	0.009	0.4	0.0000	OK
15 minute winter	1.03	11	13.961	0.031	1.6	0.0000	OK
15 minute winter	1.10	10	14.542	0.022	1.3	0.0000	OK
15 minute winter	1.11	10	14.367	0.017	1.9	0.0000	OK
15 minute winter	NODE-1	11	13.808	0.047	3.4	0.0000	OK
15 minute winter	1.12	11	14.033	0.013	0.7	0.0000	OK
15 minute winter	1.04	11	13.741	0.041	4.1	0.0000	OK
15 minute winter	1.05	11	13.559	0.049	4.1	0.0000	OK
15 minute winter	1.06	11	13.463	0.053	5.2	0.0000	OK
15 minute winter	RE1.1	11	14.312	0.012	0.3	0.0000	OK
15 minute winter	1.13	11	14.384	0.014	0.7	0.0000	OK
15 minute winter	1.07	11	13.288	0.058	6.2	0.0000	OK
15 minute winter	1.08	11	11.931	0.061	7.7	0.0000	OK
30 minute winter	CS1	24	11.558	-0.262	21.9	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1.14	1.000	1.15	1.1	0.922	0.028	0.0025	
15 minute winter	1.15	1.001	1.16	1.1	0.735	0.040	0.0057	
15 minute winter	1.16	1.002	1.17	2.7	1.453	0.053	0.0063	
15 minute summer	RE1.4	2.000	1.23	0.4	0.445	0.016	0.0048	
15 minute winter	1.23	2.001	1.17	1.0	0.926	0.024	0.0031	
15 minute winter	1.17	1.003	1.18	3.6	0.654	0.200	0.0533	
15 minute summer	1.25	3.000	1.26	0.8	0.518	0.034	0.0087	
15 minute winter	1.26	3.001	1.18	1.6	0.483	0.056	0.0200	
15 minute summer	1.24	4.000	1.18	0.8	0.595	0.017	0.0145	
15 minute winter	1.18	1.004	1.19	6.0	0.979	0.289	0.0448	
15 minute winter	1.19	1.005	1.20	9.4	0.888	0.095	0.2679	
15 minute winter	1.20	1.006	NODE-2	11.9	0.740	0.282	0.0905	
15 minute winter	RE1.2	5.000	1.27	0.4	0.520	0.016	0.0130	
15 minute winter	RE1.3	6.000	1.27	0.6	0.701	0.017	0.0077	
15 minute winter	1.27	5.001	NODE-2	1.7	1.691	0.023	0.0080	
15 minute winter	NODE-2	1.007	1.21	15.7	0.906	0.368	0.4190	
15 minute winter	1.21	1.008	1.22	18.0	0.970	0.382	0.2253	
15 minute winter	1.22	1.009	CS1	20.0	1.148	0.374	0.0822	
15 minute summer	1.01	7.000	1.02	0.8	0.951	0.018	0.0034	
15 minute summer	1.02	7.001	1.03	1.2	0.573	0.050	0.0119	
15 minute summer	1.09	8.000	1.03	0.4	0.979	0.006	0.0011	
15 minute winter	1.03	7.002	NODE-1	1.6	0.439	0.092	0.0648	
15 minute winter	1.10	9.000	1.11	1.3	0.816	0.043	0.0055	
15 minute winter	1.11	9.001	NODE-1	1.9	0.894	0.027	0.0120	
15 minute winter	NODE-1	7.003	1.04	3.4	0.787	0.194	0.0271	
15 minute winter	1.12	10.000	1.04	0.7	1.026	0.013	0.0019	
15 minute winter	1.04	7.004	1.05	4.1	0.933	0.156	0.0385	
15 minute winter	1.05	7.005	1.06	4.1	0.787	0.211	0.0434	
15 minute winter	1.06	7.006	1.07	5.2	0.990	0.231	0.0346	
15 minute winter	RE1.1	11.000	1.07	0.3	0.446	0.013	0.0053	
15 minute winter	1.13	12.000	1.07	0.7	0.858	0.017	0.0031	
15 minute winter	1.07	7.007	1.08	6.0	0.756	0.142	0.1777	
15 minute winter	1.08	7.008	CS1	7.6	0.958	0.129	0.0306	
15 minute summer	CS1	1.010	DMH	0.0	0.000	0.000	0.0000	

Results for 1 year Critical Storm Duration. Lowest mass balance: 97.68%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m³)	Status
15 minute summer		DMH	1	11.810	0.000	0.0	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	CS1	Infiltration		13.5				
15 minute summer	DMH	Weir	CS1	0.0				0.0

Results for 10 year Critical Storm Duration. Lowest mass balance: 97.68%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m³)	Status
15 minute winter	1.14	10	14.027	0.027	2.2	0.0000	OK
15 minute winter	1.15	10	13.861	0.031	2.2	0.0000	OK
15 minute winter	1.16	10	13.705	0.035	5.2	0.0000	OK
15 minute winter	RE1.4	11	13.669	0.019	0.8	0.0000	OK
15 minute winter	1.23	10	13.574	0.024	1.9	0.0000	OK
15 minute winter	1.17	10	13.394	0.069	7.0	0.0000	OK
15 minute summer	1.25	10	13.477	0.026	1.6	0.0000	OK
15 minute winter	1.26	10	13.384	0.034	3.2	0.0000	OK
15 minute summer	1.24	10	13.519	0.019	1.6	0.0000	OK
15 minute winter	1.18	11	13.313	0.088	11.7	0.0000	OK
15 minute winter	1.19	11	13.115	0.065	18.2	0.0000	OK
15 minute winter	1.20	11	12.318	0.148	23.3	0.0000	OK
15 minute winter	RE1.2	11	13.719	0.019	0.8	0.0000	OK
15 minute winter	RE1.3	10	13.719	0.019	1.1	0.0000	OK
15 minute winter	1.27	10	13.322	0.022	3.5	0.0000	OK
15 minute winter	NODE-2	11	12.282	0.149	30.1	0.0000	OK
15 minute winter	1.21	11	12.135	0.165	34.9	0.0000	OK
15 minute winter	1.22	11	12.038	0.168	39.0	0.0000	OK
15 minute summer	1.01	10	14.370	0.020	1.6	0.0000	OK
15 minute winter	1.02	10	14.063	0.033	2.4	0.0000	OK
15 minute winter	1.09	10	14.362	0.012	0.8	0.0000	OK
15 minute winter	1.03	11	13.973	0.043	3.2	0.0000	OK
15 minute winter	1.10	10	14.551	0.031	2.5	0.0000	OK
15 minute winter	1.11	10	14.373	0.023	3.6	0.0000	OK
15 minute winter	NODE-1	11	13.830	0.069	6.7	0.0000	OK
15 minute winter	1.12	10	14.038	0.018	1.4	0.0000	OK
15 minute winter	1.04	11	13.759	0.059	7.9	0.0000	OK
15 minute winter	1.05	11	13.582	0.072	8.0	0.0000	OK
15 minute winter	1.06	11	13.488	0.078	10.1	0.0000	OK
15 minute winter	RE1.1	11	14.316	0.016	0.5	0.0000	OK
15 minute winter	1.13	10	14.390	0.020	1.4	0.0000	OK
15 minute winter	1.07	11	13.314	0.084	12.0	0.0000	OK
15 minute winter	1.08	11	11.959	0.089	15.2	0.0000	OK
30 minute winter	CS1	23	11.834	0.014	42.1	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1.14	1.000	1.15	2.2	1.108	0.056	0.0042	
15 minute winter	1.15	1.001	1.16	2.2	0.886	0.079	0.0094	
15 minute winter	1.16	1.002	1.17	5.1	1.725	0.102	0.0101	
15 minute winter	RE1.4	2.000	1.23	0.8	0.539	0.033	0.0080	
15 minute winter	1.23	2.001	1.17	1.9	1.114	0.047	0.0050	
15 minute winter	1.17	1.003	1.18	7.0	0.749	0.384	0.0894	
15 minute summer	1.25	3.000	1.26	1.6	0.631	0.066	0.0141	
15 minute winter	1.26	3.001	1.18	3.2	0.495	0.110	0.0329	
15 minute summer	1.24	4.000	1.18	1.6	0.672	0.034	0.0241	
15 minute winter	1.18	1.004	1.19	11.6	1.145	0.556	0.0737	
15 minute winter	1.19	1.005	1.20	18.1	0.998	0.183	0.4562	
15 minute winter	1.20	1.006	NODE-2	23.2	0.837	0.548	0.1553	
15 minute winter	RE1.2	5.000	1.27	0.8	0.640	0.032	0.0212	
15 minute winter	RE1.3	6.000	1.27	1.1	0.848	0.032	0.0121	
15 minute winter	1.27	5.001	NODE-2	3.4	1.744	0.045	0.0308	
15 minute winter	NODE-2	1.007	1.21	30.3	1.025	0.713	0.7164	
15 minute winter	1.21	1.008	1.22	34.9	1.108	0.740	0.3824	
15 minute winter	1.22	1.009	CS1	38.9	1.341	0.727	0.1366	
15 minute winter	1.01	7.000	1.02	1.6	1.159	0.035	0.0055	
15 minute winter	1.02	7.001	1.03	2.4	0.681	0.099	0.0195	
15 minute winter	1.09	8.000	1.03	0.8	1.204	0.013	0.0019	
15 minute winter	1.03	7.002	NODE-1	3.2	0.527	0.182	0.1062	
15 minute winter	1.10	9.000	1.11	2.5	0.977	0.082	0.0089	
15 minute winter	1.11	9.001	NODE-1	3.5	0.990	0.052	0.0196	
15 minute winter	NODE-1	7.003	1.04	6.6	0.926	0.377	0.0448	
15 minute winter	1.12	10.000	1.04	1.4	1.247	0.026	0.0031	
15 minute winter	1.04	7.004	1.05	8.0	1.079	0.303	0.0644	
15 minute winter	1.05	7.005	1.06	8.0	0.910	0.411	0.0731	
15 minute winter	1.06	7.006	1.07	10.1	1.167	0.451	0.0573	
15 minute summer	RE1.1	11.000	1.07	0.5	0.520	0.022	0.0077	
15 minute winter	1.13	12.000	1.07	1.4	1.043	0.034	0.0051	
15 minute winter	1.07	7.007	1.08	11.9	0.905	0.279	0.2914	
15 minute winter	1.08	7.008	CS1	15.1	1.139	0.255	0.0509	
30 minute winter	CS1	1.010	DMH	0.1	0.062	0.002	0.0023	

Results for 10 year Critical Storm Duration. Lowest mass balance: 97.68%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m³)	Status
30 minute winter		DMH	23	11.834	0.024	0.6	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	CS1	Infiltration		26.4				
15 minute winter	DMH	Weir	CS1	0.3				0.0

Results for 30 year Critical Storm Duration. Lowest mass balance: 97.68%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m³)	Status
15 minute winter	1.14	10	14.030	0.030	2.8	0.0000	OK
15 minute winter	1.15	10	13.865	0.035	2.8	0.0000	OK
15 minute winter	1.16	10	13.710	0.040	6.5	0.0000	OK
15 minute winter	RE1.4	11	13.671	0.021	1.0	0.0000	OK
15 minute winter	1.23	10	13.577	0.027	2.4	0.0000	OK
15 minute winter	1.17	10	13.404	0.079	8.9	0.0000	OK
15 minute winter	1.25	10	13.481	0.031	2.1	0.0000	OK
15 minute winter	1.26	10	13.389	0.039	4.2	0.0000	OK
15 minute winter	1.24	10	13.522	0.022	2.1	0.0000	OK
15 minute winter	1.18	11	13.330	0.105	15.1	0.0000	OK
15 minute winter	1.19	10	13.124	0.074	23.4	0.0000	OK
15 minute winter	1.20	11	12.353	0.183	29.8	0.0000	OK
15 minute winter	RE1.2	11	13.721	0.021	1.0	0.0000	OK
15 minute winter	RE1.3	10	13.721	0.021	1.4	0.0000	OK
15 minute winter	1.27	10	13.325	0.025	4.5	0.0000	OK
15 minute winter	NODE-2	11	12.318	0.185	38.4	0.0000	OK
15 minute winter	1.21	11	12.182	0.212	44.3	0.0000	OK
15 minute winter	1.22	11	12.073	0.203	49.1	0.0000	OK
15 minute winter	1.01	10	14.373	0.023	2.1	0.0000	OK
15 minute winter	1.02	10	14.068	0.038	3.1	0.0000	OK
15 minute winter	1.09	10	14.364	0.014	1.0	0.0000	OK
15 minute winter	1.03	11	13.979	0.049	4.1	0.0000	OK
15 minute winter	1.10	10	14.555	0.035	3.1	0.0000	OK
15 minute winter	1.11	10	14.376	0.026	4.5	0.0000	OK
15 minute winter	NODE-1	11	13.840	0.079	8.5	0.0000	OK
15 minute winter	1.12	10	14.039	0.019	1.7	0.0000	OK
15 minute winter	1.04	11	13.768	0.068	10.0	0.0000	OK
15 minute winter	1.05	11	13.594	0.084	10.1	0.0000	OK
15 minute winter	1.06	11	13.500	0.090	12.7	0.0000	OK
15 minute winter	RE1.1	11	14.318	0.018	0.7	0.0000	OK
15 minute winter	1.13	10	14.392	0.022	1.7	0.0000	OK
15 minute winter	1.07	11	13.326	0.096	15.1	0.0000	OK
30 minute winter	1.08	23	11.979	0.109	15.2	0.0000	OK
30 minute winter	CS1	23	11.980	0.160	54.2	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1.14	1.000	1.15	2.8	1.178	0.072	0.0050	
15 minute winter	1.15	1.001	1.16	2.7	0.943	0.100	0.0111	
15 minute winter	1.16	1.002	1.17	6.5	1.830	0.129	0.0121	
15 minute winter	RE1.4	2.000	1.23	1.0	0.569	0.041	0.0095	
15 minute winter	1.23	2.001	1.17	2.4	1.186	0.059	0.0060	
15 minute winter	1.17	1.003	1.18	8.8	0.778	0.487	0.1087	
15 minute winter	1.25	3.000	1.26	2.1	0.679	0.087	0.0172	
15 minute winter	1.26	3.001	1.18	4.2	0.508	0.145	0.0404	
15 minute winter	1.24	4.000	1.18	2.1	0.670	0.045	0.0301	
15 minute winter	1.18	1.004	1.19	15.0	1.206	0.718	0.0902	
15 minute winter	1.19	1.005	1.20	23.2	1.032	0.235	0.5650	
15 minute winter	1.20	1.006	NODE-2	29.5	0.858	0.696	0.1945	
15 minute winter	RE1.2	5.000	1.27	1.0	0.684	0.040	0.0248	
15 minute winter	RE1.3	6.000	1.27	1.4	0.913	0.042	0.0145	
15 minute winter	1.27	5.001	NODE-2	4.5	1.700	0.058	0.0474	
15 minute winter	NODE-2	1.007	1.21	38.4	1.049	0.902	0.8930	
15 minute winter	1.21	1.008	1.22	43.9	1.149	0.932	0.4645	
15 minute winter	1.22	1.009	CS1	48.9	1.401	0.914	0.1634	
15 minute winter	1.01	7.000	1.02	2.1	1.252	0.047	0.0067	
15 minute winter	1.02	7.001	1.03	3.1	0.729	0.129	0.0236	
15 minute winter	1.09	8.000	1.03	1.0	1.287	0.016	0.0022	
15 minute winter	1.03	7.002	NODE-1	4.1	0.563	0.233	0.1275	
15 minute winter	1.10	9.000	1.11	3.1	1.035	0.102	0.0105	
15 minute winter	1.11	9.001	NODE-1	4.5	1.085	0.066	0.0235	
15 minute winter	NODE-1	7.003	1.04	8.4	0.978	0.480	0.0539	
15 minute winter	1.12	10.000	1.04	1.7	1.319	0.032	0.0036	
15 minute winter	1.04	7.004	1.05	10.1	1.128	0.382	0.0778	
15 minute winter	1.05	7.005	1.06	10.1	0.952	0.519	0.0882	
15 minute winter	1.06	7.006	1.07	12.8	1.229	0.568	0.0685	
15 minute winter	RE1.1	11.000	1.07	0.7	0.574	0.031	0.0097	
15 minute winter	1.13	12.000	1.07	1.7	1.103	0.041	0.0058	
15 minute winter	1.07	7.007	1.08	15.0	0.963	0.353	0.3472	
15 minute winter	1.08	7.008	CS1	19.2	1.209	0.323	0.0913	
15 minute winter	CS1	1.010	DMH	1.9	0.288	0.044	0.0434	

Results for 30 year Critical Storm Duration. Lowest mass balance: 97.68%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m³)	Status
30 minute winter		DMH	23	11.982	0.172	1.2	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	CS1	Infiltration		33.3				
30 minute winter	DMH	Weir	CS1	4.1				0.3

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.68%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m³)	Status
15 minute winter	1.14	10	14.042	0.042	5.0	0.0000	OK
15 minute winter	1.15	10	13.878	0.048	5.0	0.0000	OK
15 minute winter	1.16	9	13.724	0.054	11.8	0.0000	OK
15 minute winter	RE1.4	10	13.679	0.029	1.9	0.0000	OK
15 minute summer	1.23	9	13.584	0.034	4.2	0.0000	OK
15 minute winter	1.17	11	13.573	0.248	16.1	0.0000	SURCHARGED
15 minute winter	1.25	9	13.491	0.041	3.8	0.0000	OK
15 minute winter	1.26	11	13.487	0.137	7.6	0.0000	OK
15 minute winter	1.24	10	13.529	0.029	3.8	0.0000	OK
15 minute winter	1.18	11	13.477	0.252	25.8	0.0000	SURCHARGED
15 minute winter	1.19	12	13.210	0.160	40.3	0.0000	OK
15 minute winter	1.20	12	13.102	0.932	49.5	0.0000	SURCHARGED
15 minute winter	RE1.2	10	13.728	0.028	1.9	0.0000	OK
15 minute winter	RE1.3	10	13.729	0.029	2.5	0.0000	OK
15 minute winter	1.27	10	13.333	0.033	8.1	0.0000	OK
15 minute winter	NODE-2	12	13.026	0.893	61.7	0.0000	SURCHARGED
30 minute winter	1.21	23	12.769	0.799	56.8	0.0000	SURCHARGED
30 minute winter	1.22	23	12.692	0.822	62.2	0.0000	SURCHARGED
15 minute winter	1.01	10	14.382	0.032	3.8	0.0000	OK
15 minute winter	1.02	10	14.084	0.054	5.7	0.0000	OK
15 minute winter	1.09	10	14.369	0.019	1.9	0.0000	OK
15 minute winter	1.03	10	13.998	0.068	7.5	0.0000	OK
15 minute winter	1.10	10	14.569	0.049	5.7	0.0000	OK
15 minute winter	1.11	10	14.385	0.035	8.1	0.0000	OK
15 minute winter	NODE-1	11	13.883	0.122	15.6	0.0000	OK
15 minute winter	1.12	9	14.046	0.026	3.1	0.0000	OK
15 minute winter	1.04	11	13.807	0.107	18.3	0.0000	OK
15 minute winter	1.05	11	13.698	0.188	18.1	0.0000	SURCHARGED
15 minute winter	1.06	11	13.584	0.174	22.3	0.0000	SURCHARGED
15 minute winter	RE1.1	10	14.325	0.025	1.3	0.0000	OK
15 minute winter	1.13	10	14.400	0.030	3.1	0.0000	OK
15 minute winter	1.07	11	13.364	0.134	26.2	0.0000	OK
30 minute winter	1.08	23	12.650	0.780	27.8	0.0000	SURCHARGED
30 minute winter	CS1	23	12.647	0.827	125.6	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1.14	1.000	1.15	5.0	1.360	0.128	0.0078	
15 minute winter	1.15	1.001	1.16	4.9	1.097	0.180	0.0172	
15 minute winter	1.16	1.002	1.17	11.8	1.968	0.233	0.0382	
15 minute winter	RE1.4	2.000	1.23	1.9	0.712	0.077	0.0141	
15 minute winter	1.23	2.001	1.17	4.4	1.287	0.108	0.0303	
15 minute winter	1.17	1.003	1.18	15.3	0.872	0.848	0.1695	
15 minute winter	1.25	3.000	1.26	3.8	0.767	0.159	0.0576	
15 minute winter	1.26	3.001	1.18	6.9	0.606	0.241	0.0834	
15 minute winter	1.24	4.000	1.18	3.8	0.856	0.082	0.0409	
15 minute winter	1.18	1.004	1.19	25.5	1.450	1.225	0.1262	
15 minute winter	1.19	1.005	1.20	38.2	1.124	0.387	0.8617	
15 minute winter	1.20	1.006	NODE-2	45.6	1.145	1.076	0.2228	
15 minute winter	RE1.2	5.000	1.27	1.9	0.819	0.075	0.0386	
15 minute winter	RE1.3	6.000	1.27	2.5	1.082	0.075	0.0220	
15 minute winter	1.27	5.001	NODE-2	8.1	1.785	0.107	0.0620	
15 minute winter	NODE-2	1.007	1.21	59.7	1.501	1.403	0.9643	
15 minute winter	1.21	1.008	1.22	68.0	1.709	1.443	0.4832	
15 minute summer	1.22	1.009	CS1	75.5	1.899	1.411	0.1878	
15 minute winter	1.01	7.000	1.02	3.8	1.471	0.084	0.0102	
15 minute winter	1.02	7.001	1.03	5.6	0.840	0.237	0.0375	
15 minute winter	1.09	8.000	1.03	1.9	1.539	0.030	0.0035	
15 minute winter	1.03	7.002	NODE-1	7.4	0.634	0.427	0.2033	
15 minute winter	1.10	9.000	1.11	5.7	1.208	0.188	0.0166	
15 minute winter	1.11	9.001	NODE-1	8.1	1.331	0.120	0.0377	
15 minute winter	NODE-1	7.003	1.04	15.3	1.072	0.872	0.0904	
15 minute winter	1.12	10.000	1.04	3.1	1.534	0.058	0.0074	
15 minute winter	1.04	7.004	1.05	18.1	1.210	0.688	0.1353	
15 minute winter	1.05	7.005	1.06	17.7	1.006	0.907	0.1460	
15 minute winter	1.06	7.006	1.07	22.0	1.344	0.979	0.1127	
15 minute winter	RE1.1	11.000	1.07	1.3	0.682	0.056	0.0148	
15 minute winter	1.13	12.000	1.07	3.1	1.302	0.076	0.0091	
15 minute winter	1.07	7.007	1.08	26.0	1.101	0.610	0.5253	
15 minute winter	1.08	7.008	CS1	33.1	1.373	0.556	0.1522	
30 minute winter	CS1	1.010	DMH	-14.0	-0.351	-0.320	0.0564	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.68%

Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m³)	Status
30 minute winter		DMH	23	12.637	0.827	73.1	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	CS1	Infiltration		53.9				
30 minute winter	DMH	Weir	CS1	24.6				-6.2