

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	1	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)	17.000	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)	Easting (m)	Northing (m)	Depth (m)
1	0.021	5.00	31.800	600	383612.458	397374.634	1.150
2	0.003	5.00	31.800	600	383624.675	397351.317	1.325
3			31.770	600	383627.733	397340.384	1.362
4			31.770	600	383625.650	397339.801	1.375
5	0.003	5.00	31.770	600	383653.577	397264.744	1.120
6	0.005	5.00	31.770	600	383639.822	397288.128	1.301
7	0.038	5.00	31.890	1350	383630.531	397317.590	1.854
8	0.001	5.00	33.400	600	383618.019	397244.462	1.425
9	0.037	5.00	33.360	900	383601.365	397275.030	1.617
10	0.045	5.00	33.500	1200	383589.758	397292.557	1.897
Blue Roof 1	0.212	5.00	34.000	1200	383626.961	397279.650	1.000
Blue Roof 2	0.222	5.00	34.000	1200	383608.779	397330.960	1.000
13			33.500	1350	383585.422	397294.010	3.803
14	0.015	5.00	33.000	2100	383574.596	397306.746	3.470
14_OUT			32.800	1200	383566.086	397315.962	3.395

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)	Rain (mm/hr)
1.006	14	14_OUT	12.544	0.600	29.530	29.405	0.125	100.0	300	6.80	40.5
1.005	13	14	16.716	0.600	29.697	29.530	0.167	100.0	450	6.66	40.9
1.004	7	13	50.900	0.600	30.036	29.697	0.339	150.0	450	6.53	41.3
Dummy 1	Blue Roof 1	13	43.951	0.600	33.000	32.900	0.100	439.5	225	6.19	42.4
Dummy 2	Blue Roof 2	13	43.713	0.600	33.000	32.900	0.100	437.1	300	5.98	43.1
3.002	10	13	4.573	0.600	31.603	31.573	0.030	150.0	225	5.95	43.2
3.001	9	10	21.022	0.600	31.743	31.603	0.140	150.0	225	5.87	43.4
3.000	8	9	34.810	0.600	31.975	31.743	0.232	150.0	225	5.54	44.6

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.006	1.572	111.1	66.1	3.170	3.095	0.602	0.0	167	1.637
1.005	2.033	323.3	65.0	3.353	3.020	0.587	0.0	136	1.602
1.004	1.657	263.6	7.8	1.404	3.353	0.070	0.0	52	0.751
Dummy 1	0.617	24.5	24.3	0.775	0.375	0.212	0.0	183	0.701
Dummy 2	0.745	52.7	25.9	0.700	0.300	0.222	0.0	149	0.742
3.002	1.065	42.3	9.7	1.672	1.702	0.083	0.0	73	0.870
3.001	1.065	42.3	4.5	1.392	1.672	0.038	0.0	49	0.693
3.000	1.065	42.3	0.1	1.200	1.392	0.001	0.0	9	0.232

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)	Rain (mm/hr)
1.003	4	7	22.741	0.600	30.395	30.261	0.134	169.7	225	6.02	42.9
2.001	6	7	30.892	0.600	30.469	30.263	0.206	150.0	225	5.91	43.3
2.000	5	6	27.130	0.600	30.650	30.469	0.181	150.0	225	5.42	45.0
1.002	3	4	2.163	0.600	30.408	30.395	0.013	166.4	225	5.64	44.2
1.001	2	3	11.353	0.600	30.475	30.408	0.067	169.4	225	5.60	44.4
1.000	1	2	26.324	0.600	30.650	30.475	0.175	150.0	225	5.41	45.1

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.003	1.001	39.8	2.8	1.150	1.404	0.024	0.0	40	0.578
2.001	1.065	42.3	0.9	1.076	1.402	0.008	0.0	23	0.438
2.000	1.065	42.3	0.4	0.895	1.076	0.003	0.0	15	0.319
1.002	1.011	40.2	2.9	1.137	1.150	0.024	0.0	41	0.591
1.001	1.001	39.8	2.9	1.100	1.137	0.024	0.0	41	0.586
1.000	1.065	42.3	2.6	0.925	1.100	0.021	0.0	37	0.590

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.006	12.544	100.0	300	Circular	33.000	29.530	3.170	32.800	29.405	3.095
1.005	16.716	100.0	450	Circular	33.500	29.697	3.353	33.000	29.530	3.020
1.004	50.900	150.0	450	Circular	31.890	30.036	1.404	33.500	29.697	3.353
Dummy 1	43.951	439.5	225	Circular	34.000	33.000	0.775	33.500	32.900	0.375
Dummy 2	43.713	437.1	300	Circular	34.000	33.000	0.700	33.500	32.900	0.300
3.002	4.573	150.0	225	Circular	33.500	31.603	1.672	33.500	31.573	1.702
3.001	21.022	150.0	225	Circular	33.360	31.743	1.392	33.500	31.603	1.672
3.000	34.810	150.0	225	Circular	33.400	31.975	1.200	33.360	31.743	1.392
1.003	22.741	169.7	225	Circular	31.770	30.395	1.150	31.890	30.261	1.404
2.001	30.892	150.0	225	Circular	31.770	30.469	1.076	31.890	30.263	1.402
2.000	27.130	150.0	225	Circular	31.770	30.650	0.895	31.770	30.469	1.076
1.002	2.163	166.4	225	Circular	31.770	30.408	1.137	31.770	30.395	1.150
1.001	11.353	169.4	225	Circular	31.800	30.475	1.100	31.770	30.408	1.137
1.000	26.324	150.0	225	Circular	31.800	30.650	0.925	31.800	30.475	1.100

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.006	14	2100	Manhole	Adoptable	14_OUT	1200	Manhole	Adoptable
1.005	13	1350	Manhole	Adoptable	14	2100	Manhole	Adoptable
1.004	7	1350	Manhole	Adoptable	13	1350	Manhole	Adoptable
Dummy 1	Blue Roof 1	1200	Manhole	Adoptable	13	1350	Manhole	Adoptable
Dummy 2	Blue Roof 2	1200	Manhole	Adoptable	13	1350	Manhole	Adoptable
3.002	10	1200	Manhole	Adoptable	13	1350	Manhole	Adoptable
3.001	9	900	Manhole	Adoptable	10	1200	Manhole	Adoptable
3.000	8	600	Manhole	Adoptable	9	900	Manhole	Adoptable
1.003	4	600	Manhole	Adoptable	7	1350	Manhole	Adoptable
2.001	6	600	Manhole	Adoptable	7	1350	Manhole	Adoptable
2.000	5	600	Manhole	Adoptable	6	600	Manhole	Adoptable
1.002	3	600	Manhole	Adoptable	4	600	Manhole	Adoptable
1.001	2	600	Manhole	Adoptable	3	600	Manhole	Adoptable
1.000	1	600	Manhole	Adoptable	2	600	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
1	383612.458	397374.634	31.800	1.150	600		0	1.000	30.650	225
2	383624.675	397351.317	31.800	1.325	600		1	1.000	30.475	225
3	383627.733	397340.384	31.770	1.362	600		1	1.001	30.408	225
4	383625.650	397339.801	31.770	1.375	600		0	1.002	30.408	225
5	383653.577	397264.744	31.770	1.120	600		1	1.002	30.395	225
6	383639.822	397288.128	31.770	1.301	600		0	1.003	30.395	225
7	383630.531	397317.590	31.890	1.854	1350		0	2.000	30.650	225
8	383618.019	397244.462	33.400	1.425	600		1	2.000	30.469	225
9	383601.365	397275.030	33.360	1.617	900		0	2.001	30.469	225
10	383589.758	397292.557	33.500	1.897	1200		1	2.001	30.263	225
Blue Roof 1	383626.961	397279.650	34.000	1.000	1200		2	1.003	30.261	225
Blue Roof 2	383608.779	397330.960	34.000	1.000	1200		0	1.004	30.036	450
13	383585.422	397294.010	33.500	3.803	1350		0	3.000	31.975	225
							1	3.000	31.743	225
							0	3.001	31.743	225
							1	3.001	31.603	225
							0	3.002	31.603	225
							0	Dummy 1	33.000	225
							0	Dummy 2	33.000	300
							1	Dummy 2	32.900	300
							2	Dummy 1	32.900	225
							3	3.002	31.573	225
							4	1.004	29.697	450
							0	1.005	29.697	450

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
14	383574.596	397306.746	33.000	3.470	2100	 1	1.005	29.530	450
						0	1.006	29.530	300
14_OUT	383566.086	397315.962	32.800	3.395	1200	 1	1.006	29.405	300

Simulation Settings

Rainfall Methodology	FSR	Skip Steady State	x
FSR Region	England and Wales	Drain Down Time (mins)	240
M5-60 (mm)	17.000	Additional Storage (m³/ha)	20.0
Ratio-R	0.400	Check Discharge Rate(s)	x
Summer CV	0.750	Check Discharge Volume	x
Analysis Speed	Normal		

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 %)
1	0	0	0
2	0	0	0
30	0	0	0
100	0	0	0
100	30	0	0

Node Blue Roof 2 Online Depth/Flow Control

Flap Valve	x	Invert Level (m)	33.000	Design Flow (l/s)	15.5
Replaces Downstream Link	✓	Design Depth (m)	0.100		

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.010	15.500	0.100	15.500

Node Blue Roof 1 Online Head/Flow Control

Flap Valve	x	Invert Level (m)	33.000	Design Flow (l/s)	15.5
Replaces Downstream Link	✓	Design Depth (m)	0.100		

Head (m)	Flow (l/s)	Head (m)	Flow (l/s)
0.010	15.500	0.100	15.500

Node 14 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	29.530	Product Number	CTL-SHE-0244-3750-2200-3750
Design Depth (m)	2.200	Min Outlet Diameter (m)	0.300
Design Flow (l/s)	37.5	Min Node Diameter (mm)	2100

Node Blue Roof 2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	33.000
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	24

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	400.0	0.0	0.100	400.0	0.0	0.101	0.0	0.0

Node Blue Roof 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	33.000
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	0

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	800.0	0.0	0.100	800.0	0.0	0.101	0.0	0.0

Node 9 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	32.800
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.33	Time to half empty (mins)	0

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	140.0	0.0	0.300	140.0	0.0	0.301	0.0	0.0

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	30.686	0.036	2.4	0.0233	0.0000	OK
15 minute summer	2	11	30.515	0.040	2.7	0.0132	0.0000	OK
15 minute summer	3	11	30.450	0.042	2.7	0.0120	0.0000	OK
15 minute summer	4	12	30.434	0.039	2.6	0.0111	0.0000	OK
15 minute summer	5	12	30.664	0.014	0.3	0.0046	0.0000	OK
30 minute summer	6	19	30.490	0.021	0.8	0.0075	0.0000	OK
15 minute summer	7	11	30.086	0.050	7.3	0.0923	0.0000	OK
60 minute summer	8	36	31.983	0.008	0.1	0.0024	0.0000	OK
15 minute summer	9	11	31.790	0.047	4.3	0.0516	0.0000	OK
15 minute summer	10	11	31.681	0.078	9.2	0.1249	0.0000	OK
30 minute summer	Blue Roof 1	21	33.008	0.008	21.4	5.8387	0.0000	OK
15 minute summer	Blue Roof 2	13	33.011	0.011	25.2	4.3210	0.0000	OK
15 minute summer	13	15	29.883	0.186	41.7	0.2664	0.0000	OK
30 minute summer	14	23	29.925	0.395	63.0	1.4036	0.0000	SURCHARGED
15 minute summer	14_OUT	1	29.405	0.000	34.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	2.4	0.540	0.056	0.1162	
15 minute summer	2	1.001	3	2.7	0.538	0.067	0.0565	
15 minute summer	3	1.002	4	2.6	0.555	0.065	0.0106	
15 minute summer	4	1.003	7	2.6	0.565	0.065	0.1042	
15 minute summer	5	2.000	6	0.3	0.242	0.007	0.0378	
30 minute summer	6	2.001	7	0.7	0.409	0.018	0.0563	
15 minute summer	7	1.004	13	7.0	0.386	0.027	1.7324	
60 minute summer	8	3.000	9	0.1	0.048	0.002	0.0872	
15 minute summer	9	3.001	10	4.1	0.460	0.098	0.1913	
15 minute summer	10	3.002	13	9.1	0.799	0.215	0.0522	
30 minute summer	Blue Roof 1	Head/Flow	13	11.8				
15 minute summer	Blue Roof 2	Depth/Flow	13	15.5				
15 minute summer	13	1.005	14	41.8	0.660	0.129	1.4104	
30 minute summer	14	Hydro-Brake®	14_OUT	36.0				38.4

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	30.691	0.041	3.1	0.0264	0.0000	OK
15 minute summer	2	11	30.521	0.046	3.4	0.0150	0.0000	OK
15 minute summer	3	11	30.456	0.048	3.4	0.0137	0.0000	OK
15 minute summer	4	12	30.439	0.044	3.4	0.0126	0.0000	OK
30 minute summer	5	19	30.666	0.016	0.4	0.0052	0.0000	OK
30 minute summer	6	19	30.493	0.024	1.1	0.0087	0.0000	OK
15 minute summer	7	11	30.093	0.057	9.5	0.1047	0.0000	OK
60 minute summer	8	38	31.983	0.008	0.1	0.0024	0.0000	OK
15 minute summer	9	11	31.797	0.054	5.5	0.0586	0.0000	OK
15 minute summer	10	11	31.693	0.090	11.9	0.1439	0.0000	OK
30 minute summer	Blue Roof 1	21	33.010	0.010	27.6	7.5193	0.0000	OK
15 minute summer	Blue Roof 2	13	33.017	0.017	32.6	6.3644	0.0000	OK
30 minute summer	13	23	29.998	0.301	48.3	0.4311	0.0000	OK
30 minute summer	14	22	30.021	0.491	77.2	1.7437	0.0000	SURCHARGED
15 minute summer	14_OUT	1	29.405	0.000	37.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	3.0	0.577	0.072	0.1388	
15 minute summer	2	1.001	3	3.4	0.573	0.086	0.0682	
15 minute summer	3	1.002	4	3.4	0.590	0.084	0.0127	
15 minute summer	4	1.003	7	3.3	0.608	0.083	0.1242	
30 minute summer	5	2.000	6	0.4	0.244	0.009	0.0466	
30 minute summer	6	2.001	7	1.0	0.447	0.024	0.0694	
15 minute summer	7	1.004	13	9.2	0.418	0.035	2.8332	
60 minute summer	8	3.000	9	0.1	0.052	0.002	0.1036	
15 minute summer	9	3.001	10	5.3	0.491	0.126	0.2307	
15 minute summer	10	3.002	13	11.7	0.854	0.277	0.0629	
30 minute summer	Blue Roof 1	Head/Flow	13	15.2				
15 minute summer	Blue Roof 2	Depth/Flow	13	15.5				
30 minute summer	13	1.005	14	76.2	0.657	0.236	2.2204	
30 minute summer	14	Hydro-Brake®	14_OUT	37.1				49.5

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	30.706	0.056	5.8	0.0364	0.0000	OK
15 minute summer	2	11	30.540	0.065	6.6	0.0212	0.0000	OK
15 minute summer	3	11	30.477	0.069	6.5	0.0195	0.0000	OK
15 minute summer	4	11	30.457	0.062	6.5	0.0177	0.0000	OK
15 minute summer	5	11	30.671	0.021	0.8	0.0072	0.0000	OK
15 minute summer	6	11	30.503	0.034	2.2	0.0121	0.0000	OK
30 minute summer	7	28	30.440	0.404	28.1	0.7430	0.0000	OK
15 minute summer	8	11	31.988	0.013	0.3	0.0038	0.0000	OK
15 minute summer	9	10	31.818	0.075	10.5	0.0817	0.0000	OK
15 minute summer	10	10	31.734	0.131	22.7	0.2102	0.0000	OK
30 minute summer	Blue Roof 1	23	33.023	0.023	52.5	17.5909	0.0000	OK
30 minute summer	Blue Roof 2	23	33.044	0.044	55.0	17.0697	0.0000	OK
30 minute summer	13	30	30.441	0.744	67.6	1.0642	0.0000	SURCHARGED
30 minute summer	14	30	30.441	0.910	69.5	3.2323	0.0000	SURCHARGED
15 minute summer	14_OUT	1	29.405	0.000	37.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	5.8	0.676	0.136	0.2242	
15 minute summer	2	1.001	3	6.5	0.670	0.164	0.1117	
15 minute summer	3	1.002	4	6.5	0.688	0.162	0.0208	
15 minute summer	4	1.003	7	6.4	0.732	0.161	0.2360	
15 minute summer	5	2.000	6	0.8	0.306	0.019	0.0761	
15 minute summer	6	2.001	7	2.0	0.550	0.048	0.2877	
30 minute summer	7	1.004	13	16.2	0.394	0.062	7.8467	
15 minute summer	8	3.000	9	0.3	0.053	0.006	0.2156	
15 minute summer	9	3.001	10	10.2	0.579	0.241	0.3729	
15 minute summer	10	3.002	13	22.4	1.005	0.528	0.1017	
30 minute summer	Blue Roof 1	Head/Flow	13	15.5				
30 minute summer	Blue Roof 2	Depth/Flow	13	15.5				
30 minute summer	13	1.005	14	65.8	0.636	0.203	2.6485	
30 minute summer	14	Hydro-Brake®	14_OUT	37.5				94.1

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	63	31.189	0.539	5.1	0.3493	0.0000	SURCHARGED
60 minute summer	2	63	31.192	0.717	10.5	0.2353	0.0000	SURCHARGED
60 minute summer	3	65	31.191	0.783	8.5	0.2215	0.0000	SURCHARGED
60 minute summer	4	63	31.192	0.797	9.0	0.2255	0.0000	SURCHARGED
60 minute summer	5	63	31.191	0.541	3.4	0.1819	0.0000	SURCHARGED
60 minute summer	6	63	31.190	0.721	8.9	0.2597	0.0000	SURCHARGED
60 minute summer	7	63	31.188	1.152	32.5	2.1210	0.0000	SURCHARGED
15 minute summer	8	11	31.989	0.014	0.4	0.0042	0.0000	OK
15 minute summer	9	10	31.828	0.085	13.5	0.0935	0.0000	OK
15 minute summer	10	10	31.759	0.155	29.3	0.2496	0.0000	OK
30 minute summer	Blue Roof 1	24	33.033	0.033	68.4	25.1740	0.0000	OK
30 minute summer	Blue Roof 2	24	33.065	0.065	71.6	25.0219	0.0000	OK
60 minute summer	13	64	31.188	1.491	63.8	2.1337	0.0000	SURCHARGED
60 minute summer	14	64	31.185	1.655	73.9	5.8760	0.0000	SURCHARGED
15 minute summer	14_OUT	1	29.405	0.000	37.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	1	1.000	2	5.1	0.653	0.121	1.0469	
60 minute summer	2	1.001	3	7.1	0.645	0.178	0.4515	
60 minute summer	3	1.002	4	9.0	0.657	0.224	0.0860	
60 minute summer	4	1.003	7	12.5	0.702	0.314	0.9044	
60 minute summer	5	2.000	6	4.6	0.279	0.110	1.0790	
60 minute summer	6	2.001	7	8.5	0.533	0.200	1.2286	
60 minute summer	7	1.004	13	24.2	0.348	0.092	8.0648	
15 minute summer	8	3.000	9	0.3	0.057	0.008	0.2573	
15 minute summer	9	3.001	10	13.2	0.609	0.311	0.4528	
15 minute summer	10	3.002	13	28.8	1.062	0.679	0.1237	
30 minute summer	Blue Roof 1	Head/Flow	13	15.5				
30 minute summer	Blue Roof 2	Depth/Flow	13	15.5				
60 minute summer	13	1.005	14	70.8	0.613	0.219	2.6485	
60 minute summer	14	Hydro-Brake®	14_OUT	37.5				153.8

Results for 100 year +30% CC Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	54	31.703	1.053	8.3	0.6821	0.0000	FLOOD RISK
60 minute summer	2	55	31.700	1.225	22.8	0.4019	0.0000	FLOOD RISK
60 minute summer	3	52	31.701	1.293	12.5	0.3658	0.0000	FLOOD RISK
60 minute summer	4	52	31.700	1.305	12.4	0.3695	0.0000	FLOOD RISK
60 minute summer	5	56	31.703	1.053	11.0	0.3539	0.0000	FLOOD RISK
60 minute summer	6	56	31.702	1.233	19.6	0.4439	0.0000	FLOOD RISK
60 minute summer	7	56	31.700	1.664	43.4	3.0629	0.0000	FLOOD RISK
15 minute summer	8	11	31.991	0.016	0.5	0.0047	0.0000	OK
15 minute summer	9	10	31.842	0.099	17.6	0.1082	0.0000	OK
15 minute summer	10	10	31.796	0.193	38.1	0.3095	0.0000	OK
60 minute summer	Blue Roof 1	43	33.047	0.047	66.6	35.7128	0.0000	OK
30 minute summer	Blue Roof 2	26	33.094	0.094	93.1	36.0932	0.0000	OK
60 minute summer	13	55	31.700	2.003	61.8	2.8664	0.0000	SURCHARGED
60 minute summer	14	55	31.696	2.166	64.8	7.6907	0.0000	SURCHARGED
15 minute summer	14_OUT	1	29.405	0.000	37.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	1	1.000	2	6.6	0.697	0.156	1.0469	
60 minute summer	2	1.001	3	-15.5	0.688	-0.389	0.4515	
60 minute summer	3	1.002	4	-12.5	0.701	-0.311	0.0860	
60 minute summer	4	1.003	7	12.4	0.712	0.312	0.9044	
60 minute summer	5	2.000	6	-10.2	-0.339	-0.240	1.0790	
60 minute summer	6	2.001	7	-17.2	0.547	-0.406	1.2286	
60 minute summer	7	1.004	13	25.6	0.336	0.097	8.0648	
15 minute summer	8	3.000	9	0.4	0.059	0.010	0.3125	
15 minute summer	9	3.001	10	17.2	0.631	0.406	0.5575	
15 minute summer	10	3.002	13	37.4	1.114	0.883	0.1528	
60 minute summer	Blue Roof 1	Head/Flow	13	15.5				
30 minute summer	Blue Roof 2	Depth/Flow	13	15.5				
60 minute summer	13	1.005	14	62.3	0.624	0.193	2.6485	
60 minute summer	14	Hydro-Brake®	14_OUT	37.5				200.3