Rainfall Methodology	FSR
Return Period (years)	2
Additional Flow (%)	0
FSR Region	England and Wales
M5-60 (mm)	20.000
Ratio-R	0.400
CV	0.750
Time of Entry (mins)	5.00
Maximum Time of Concentration (mins)	30.00
Maximum Rainfall (mm/hr)	550.0
Minimum Velocity (m/s)	1.00
Connection Type	Level Soffits
Minimum Backdrop Height (m)	0.200
Preferred Cover Depth (m)	0.600
Include Intermediate Ground	
Enforce best practice design rules	

	Name	Area (ha)	T of E (mins)	Add Inflow (l/s)	Cover Level (m)	Node Type	Manhole Type	Diameter (mm)	Width (mm)	Easting (m)	Northing (m)	Depth (m)	Notes
	1	0.021	5.00		3.500	Manhole	Adoptable	1800				1.328	
	2	0.005	5.00		4.450	Manhole	Adoptable	100				0.700	
	3	0.005	5.00		3.700	Manhole	Adoptable	450				0.700	
	4	0.005	5.00		3.700	Manhole	Adoptable	450				0.819	
	5	0.005	5.00		3.700	Manhole	Adoptable	450				0.914	
	6	0.005	5.00		3.690	Manhole	Adoptable	450				0.952	
	7	0.005	5.00		3.700	Manhole	Adoptable	450				0.750	
	8	0.005	5.00		3.657	Manhole	Adoptable	450				0.750	
	9	0.005	5.00		3.600	Manhole	Adoptable	100				0.700	
	10	0.005	5.00		3.600	Manhole	Adoptable	100				0.700	
	11	0.005	5.00		3.600	Manhole	Adoptable	450				0.843	
	12	0.005	5.00		3.782	Manhole	Adoptable	450				1.142	
	13	0.021	5.00		3.675	Manhole	Adoptable	1800				1.574	
	14	0.005	5.00		3.700	Manhole	Adoptable	100				0.700	
	15	0.005	5.00		3.700	Manhole	Adoptable	100				0.700	
	16	0.005	5.00		3.700	Manhole	Adoptable	450				0.838	
	17	0.005	5.00		3.700	Manhole	Adoptable	450				0.750	
	18	0.005	5.00		3.634	Manhole	Adoptable	450				0.870	
	19	0.005	5.00		3.750	Manhole	Adoptable	450				0.750	
	20	0.005	5.00		3.640	Manhole	Adoptable	450				0.750	
	21	0.005	5.00		4.350	Manhole	Adoptable	100				0.700	
	22	0.005	5.00		3.700	Manhole	Adoptable	450				0.800	
	23	0.005	5.00		3.830	Manhole	Adoptable	450				0.982	
	24	0.021	5.00		3.637	Manhole	Adoptable	1800				1.562	
	25	0.019	5.00		3.585	Manhole	Adoptable	1800				1.540	
	26	0.005	5.00		4.500	Manhole	Adoptable	100				0.700	
	27	0.005	5.00		3.750	Manhole	Adoptable	450				0.750	
	28	0.005	5.00		3.795	Manhole	Adoptable	450				0.958	
	29	0.005	5.00		4.350	Manhole	Adoptable	100				0.700	

	30	0.005	5.00		3.500	Manhole	Adoptable	450				0.750
	31				3.825	Manhole	Adoptable	450				1.172
	32				3.663	Manhole	Adoptable	1800				1.648
	33				3.500	Manhole	Adoptable	1800				1.510

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	Name	US Node	DS Node	Length (m)	ks (mm) / n	Velocity Equation	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	Link Type	T of C (mins)	Rain (mm/hr)	Con Offset (m)	Min DS IL (m)	Lateral Area (ha)	Lateral Ins Point (%)	Lateral T of E (mins)
	1.000	1	13	35.373	0.600	Colebrook-White	2.172	2.101	0.071	500.0	600	Circular	5.54	67.2					
	2.000	2	3	14.156	0.600	Colebrook-White	3.750	3.000	0.750	18.9	100	Circular	5.13	69.5					
?	2.001	3	4	11.901	0.600	Colebrook-White	3.000	2.881	0.119	100.0	100	Circular	5.39	68.0					
?	2.002	4	5	4.523	0.600	Colebrook-White	2.881	2.836	0.045	100.0	100	Circular	5.49	67.5					
	2.003	5	6	4.811	0.600	Colebrook-White	2.786	2.738	0.048	100.0	150	Circular	5.57	67.1					
	2.004	6	13	14.681	0.600	Colebrook-White	2.738	2.551	0.187	78.5	150	Circular	5.78	65.9					
	3.000	7	8	4.274	0.600	Colebrook-White	2.950	2.907	0.043	100.0	150	Circular	5.07	69.8					
	3.001	8	13	16.303	0.600	Colebrook-White	2.907	2.551	0.356	45.8	150	Circular	5.25	68.8					
?	4.000	9	11	8.456	0.600	Colebrook-White	2.900	2.807	0.093	90.9	100	Circular	5.17	69.2					
?	5.000	10	11	9.286	0.600	Colebrook-White	2.900	2.807	0.093	100.0	100	Circular	5.20	69.1					
?	4.001	11	12	17.585	0.600	Colebrook-White	2.757	2.640	0.117	150.0	150	Circular	5.56	67.1					
	4.002	12	13	5.702	0.600	Colebrook-White	2.640	2.551	0.089	64.1	150	Circular	5.64	66.7					
	1.001	13	25	27.934	0.600	Colebrook-White	2.101	2.045	0.056	500.0	600	Circular	6.21	63.8					
?	6.000	14	16	13.845	0.600	Colebrook-White	3.000	2.862	0.138	100.0	100	Circular	5.30	68.5					
?	7.000	15	16	13.466	0.600	Colebrook-White	3.000	2.862	0.138	97.6	100	Circular	5.29	68.6					
?	6.001	16	18	4.762	0.600	Colebrook-White	2.862	2.814	0.048	100.0	100	Circular	5.40	68.0					
	8.000	17	18	4.674	0.600	Colebrook-White	2.950	2.764	0.186	25.1	150	Circular	5.04	70.0					
	6.002	18	25	12.585	0.600	Colebrook-White	2.764	2.495	0.269	46.8	150	Circular	5.55	67.2					
	9.000	19	20	9.225	0.600	Colebrook-White	3.000	2.890	0.110	83.9	150	Circular	5.14	69.4					
	9.001	20	25	13.560	0.600	Colebrook-White	2.890	2.495	0.395	34.3	150	Circular	5.27	68.7					
	10.000	21	22	16.449	0.600	Colebrook-White	3.650	2.950	0.700	23.5	100	Circular	5.17	69.3					
	10.001	22	23	5.155	0.600	Colebrook-White	2.900	2.848	0.052	100.0	150	Circular	5.26	68.8					
	10.002	23	24	4.993	0.600	Colebrook-White	2.848	2.525	0.323	15.5	150	Circular	5.29	68.6					
	10.003	24	25	14.800	0.600	Colebrook-White	2.075	2.045	0.030	500.0	600	Circular	5.52	67.3					
	1.002	25	32	15.018	0.600	Colebrook-White	2.045	2.015	0.030	500.0	600	Circular	6.45	62.7					
	11.000	26	27	9.502	0.600	Colebrook-White	3.800	3.050	0.750	12.7	100	Circular	5.07	69.8					
	11.001	27	28	16.269	0.600	Colebrook-White	3.000	2.837	0.163	100.0	150	Circular	5.34	68.3					
	11.002	28	31	3.395	0.600	Colebrook-White	2.837	2.653	0.184	18.5	150	Circular	5.37	68.2					
	12.000	29	30	12.870	0.600	Colebrook-White	3.650	2.800	0.850	15.1	100	Circular	5.11	69.6					
?	12.001	30	31	14.593	0.600	Colebrook-White	2.750	2.653	0.097	150.0	150	Circular	5.40	67.9					
	11.003	31	32	9.978	0.600	Colebrook-White	2.653	2.465	0.188	53.1	150	Circular	5.53	67.3					
	1.003	32	33	12.348	0.600	Colebrook-White	2.015	1.990	0.025	500.0	600	Circular	6.64	61.9					

Link Name	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)	US Node Name	Dia (mm)	Width (mm)	Node Type	MH Type	DS Node Name	Dia (mm)	Width (mm)	Node Type	MH Type
1.000	35.373	500.0	600	Circular	3.500	2.172	0.728	3.675	2.101	0.974	1	1800		Manhole	Adoptable	13	1800		Manhole	Adoptable
2.000	14.156	18.9	100	Circular	4.450	3.750	0.600	3.700	3.000	0.600	2	100		Manhole	Adoptable	3	450		Manhole	Adoptable
2.001	11.901	100.0	100	Circular	3.700	3.000	0.600	3.700	2.881	0.719	3	450		Manhole	Adoptable	4	450		Manhole	Adoptable
2.002	4.523	100.0	100	Circular	3.700	2.881	0.719	3.700	2.836	0.764	4	450		Manhole	Adoptable	5	450		Manhole	Adoptable
2.003	4.811	100.0	150	Circular	3.700	2.786	0.764	3.690	2.738	0.802	5	450		Manhole	Adoptable	6	450		Manhole	Adoptable
2.004	14.681	78.5	150	Circular	3.690	2.738	0.802	3.675	2.551	0.974	6	450		Manhole	Adoptable	13	1800		Manhole	Adoptable
3.000	4.274	100.0	150	Circular	3.700	2.950	0.600	3.657	2.907	0.600	7	450		Manhole	Adoptable	8	450		Manhole	Adoptable
3.001	16.303	45.8	150	Circular	3.657	2.907	0.600	3.675	2.551	0.974	8	450		Manhole	Adoptable	13	1800		Manhole	Adoptable
4.000	8.456	90.9	100	Circular	3.600	2.900	0.600	3.600	2.807	0.693	9	100		Manhole	Adoptable	11	450		Manhole	Adoptable
5.000	9.286	100.0	100	Circular	3.600	2.900	0.600	3.600	2.807	0.693	10	100		Manhole	Adoptable	11	450		Manhole	Adoptable
4.001	17.585	150.0	150	Circular	3.600	2.757	0.693	3.782	2.640	0.992	11	450		Manhole	Adoptable	12	450		Manhole	Adoptable
4.002	5.702	64.1	150	Circular	3.782	2.640	0.992	3.675	2.551	0.974	12	450		Manhole	Adoptable	13	1800		Manhole	Adoptable
1.001	27.934	500.0	600	Circular	3.675	2.101	0.974	3.585	2.045	0.940	13	1800		Manhole	Adoptable	25	1800		Manhole	Adoptable
6.000	13.845	100.0	100	Circular	3.700	3.000	0.600	3.700	2.862	0.738	14	100		Manhole	Adoptable	16	450		Manhole	Adoptable
7.000	13.466	97.6	100	Circular	3.700	3.000	0.600	3.700	2.862	0.738	15	100		Manhole	Adoptable	16	450		Manhole	Adoptable
6.001	4.762	100.0	100	Circular	3.700	2.862	0.738	3.634	2.814	0.720	16	450		Manhole	Adoptable	18	450		Manhole	Adoptable
8.000	4.674	25.1	150	Circular	3.700	2.950	0.600	3.634	2.764	0.720	17	450		Manhole	Adoptable	18	450		Manhole	Adoptable
6.002	12.585	46.8	150	Circular	3.634	2.764	0.720	3.585	2.495	0.940	18	450		Manhole	Adoptable	25	1800		Manhole	Adoptable
9.000	9.225	83.9	150	Circular	3.750	3.000	0.600	3.640	2.890	0.600	19	450		Manhole	Adoptable	20	450		Manhole	Adoptable
9.001	13.560	34.3	150	Circular	3.640	2.890	0.600	3.585	2.495	0.940	20	450		Manhole	Adoptable	25	1800		Manhole	Adoptable
10.000	16.449	23.5	100	Circular	4.350	3.650	0.600	3.700	2.950	0.650	21	100		Manhole	Adoptable	22	450		Manhole	Adoptable
10.001	5.155	100.0	150	Circular	3.700	2.900	0.650	3.830	2.848	0.832	22	450		Manhole	Adoptable	23	450		Manhole	Adoptable
10.002	4.993	15.5	150	Circular	3.830	2.848	0.832	3.637	2.525	0.962	23	450		Manhole	Adoptable	24	1800		Manhole	Adoptable
10.003	14.800	500.0	600	Circular	3.637	2.075	0.962	3.585	2.045	0.940	24	1800		Manhole	Adoptable	25	1800		Manhole	Adoptable
1.002	15.018	500.0	600	Circular	3.585	2.045	0.940	3.663	2.015	1.048	25	1800		Manhole	Adoptable	32	1800		Manhole	Adoptable
11.000	9.502	12.7	100	Circular	4.500	3.800	0.600	3.750	3.050	0.600	26	100		Manhole	Adoptable	27	450		Manhole	Adoptable
11.001	16.269	100.0	150	Circular	3.750	3.000	0.600	3.795	2.837	0.808	27	450		Manhole	Adoptable	28	450		Manhole	Adoptable
11.002	3.395	18.5	150	Circular	3.795	2.837	0.808	3.825	2.653	1.022	28	450		Manhole	Adoptable	31	450		Manhole	Adoptable
12.000	12.870	15.1	100	Circular	4.350	3.650	0.600	3.500	2.800	0.600	29	100		Manhole	Adoptable	30	450		Manhole	Adoptable
12.001	14.593	150.0	150	Circular	3.500	2.750	0.600	3.825	2.653	1.022	30	450		Manhole	Adoptable	31	450		Manhole	Adoptable
11.003	9.978	53.1	150	Circular	3.825	2.653	1.022	3.663	2.465	1.048	31	450		Manhole	Adoptable	32	1800		Manhole	Adoptable
1.003	12.348	500.0	600	Circular	3.663	2.015	1.048	3.500	1.990	0.910	32	1800		Manhole	Adoptable	33	1800		Manhole	Adoptable

Node Name	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Node Type	MH Type		Link ID	IL (m)	Dia (mm)	Link Type
1			3.500	1.328	1800		Manhole	Adoptable					
									0	1.000	2.172	600	Circular
2			4.450	0.700	100		Manhole	Adoptable					
									0	2.000	3.750	100	Circular
3			3.700	0.700	450		Manhole	Adoptable	1	2.000	3.000	100	Circular
									0	2.001	3.000	100	Circular
4			3.700	0.819	450		Manhole	Adoptable	1	2.001	2.881	100	Circular
									0	2.002	2.881	100	Circular
5			3.700	0.914	450		Manhole	Adoptable	1	2.002	2.836	100	Circular
									0	2.003	2.786	150	Circular
6			3.690	0.952	450		Manhole	Adoptable	1	2.003	2.738	150	Circular
									0	2.004	2.738	150	Circular
7			3.700	0.750	450		Manhole	Adoptable					
									0	3.000	2.950	150	Circular
8			3.657	0.750	450		Manhole	Adoptable	1	3.000	2.907	150	Circular

									0	3.001	2.907	150	Circular
9			3.600	0.700	100		Manhole	Adoptable					
									0	4.000	2.900	100	Circular
10			3.600	0.700	100		Manhole	Adoptable					
									0	5.000	2.900	100	Circular
11			3.600	0.843	450		Manhole	Adoptable	1	5.000	2.807	100	Circular
									2	4.000	2.807	100	Circular
									0	4.001	2.757	150	Circular
12			3.782	1.142	450		Manhole	Adoptable	1	4.001	2.640	150	Circular
									0	4.002	2.640	150	Circular
13			3.675	1.574	1800		Manhole	Adoptable	1	4.002	2.551	150	Circular
									2	3.001	2.551	150	Circular
									3	2.004	2.551	150	Circular
									4	1.000	2.101	600	Circular
									0	1.001	2.101	600	Circular
14			3.700	0.700	100		Manhole	Adoptable					
									0	6.000	3.000	100	Circular
15			3.700	0.700	100		Manhole	Adoptable					
									0	7.000	3.000	100	Circular
16			3.700	0.838	450		Manhole	Adoptable	1	7.000	2.862	100	Circular
									2	6.000	2.862	100	Circular

									0	6.001	2.862	100	Circular
17			3.700	0.750	450		Manhole	Adoptable					
									0	8.000	2.950	150	Circular
18			3.634	0.870	450		Manhole	Adoptable	1	8.000	2.764	150	Circular
									2	6.001	2.814	100	Circular
									0	6.002	2.764	150	Circular
19			3.750	0.750	450		Manhole	Adoptable					
									0	9.000	3.000	150	Circular
20			3.640	0.750	450		Manhole	Adoptable	1	9.000	2.890	150	Circular
									0	9.001	2.890	150	Circular
21			4.350	0.700	100		Manhole	Adoptable					
									0	10.000	3.650	100	Circular
22			3.700	0.800	450		Manhole	Adoptable	1	10.000	2.950	100	Circular
									0	10.001	2.900	150	Circular
23			3.830	0.982	450		Manhole	Adoptable	1	10.001	2.848	150	Circular
									0	10.002	2.848	150	Circular
24			3.637	1.562	1800		Manhole	Adoptable	1	10.002	2.525	150	Circular

									0	10.003	2.075	600	Circular
25			3.585	1.540	1800		Manhole	Adoptable	1	10.003	2.045	600	Circular
									2	9.001	2.495	150	Circular
									3	6.002	2.495	150	Circular
									4	1.001	2.045	600	Circular
									0	1.002	2.045	600	Circular
26			4.500	0.700	100		Manhole	Adoptable					
									0	11.000	3.800	100	Circular
27			3.750	0.750	450		Manhole	Adoptable	1	11.000	3.050	100	Circular
									0	11.001	3.000	150	Circular
28			3.795	0.958	450		Manhole	Adoptable	1	11.001	2.837	150	Circular
									0	11.002	2.837	150	Circular
29			4.350	0.700	100		Manhole	Adoptable					
									0	12.000	3.650	100	Circular
30			3.500	0.750	450		Manhole	Adoptable	1	12.000	2.800	100	Circular
									0	12.001	2.750	150	Circular
31			3.825	1.172	450		Manhole	Adoptable	1	12.001	2.653	150	Circular
									2	11.002	2.653	150	Circular
									0	11.003	2.653	150	Circular
32			3.663	1.648	1800		Manhole	Adoptable	1	11.003	2.465	150	Circular
									2	1.002	2.015	600	Circular

									0	1.003	2.015	600	Circular
33			3.500	1.510	1800		Manhole	Adoptable	1	1.003	1.990	600	Circular

Rainfall Methodology	FSR		Return Period (years)	Climate Change (%)
FSR Region	England and Wales		1	0
M5-60 (mm)	20.000		30	0
Ratio-R	0.400		100	40
Summer CV	0.750			
Winter CV	0.840			
Analysis Speed	Detailed			
Skip Steady State	x			
Drain Down Time (mins)	240			
Additional Storage (m³/ha)	20.0			
Storm Durations (mins)	15			
	30			
	60			
	120			
	180			
	240			
	360			
	480			
	600			
	720			
	960			
	1440			
	2160			
	2880			
	4320			
	5760			
	7200			
	8640			
	10080			
Check Discharge Rate(s)	x			
1 year (l/s)				
30 year (l/s)				

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100 year (l/s)				
Check Discharge Volume	x			
100 year 360 minute (m³)				

Hydro-Brake®												
Node	Flap Valve	Online / Offline	Replaces Downstream Link	Loop to Node	Invert Level (m)	Design Depth (m)	Design Flow (l/s)	Objective	Sump Available	Product Number	Min Outlet Diameter (m)	Min Node Diameter (mm)
32	x	Online			2.015	1.225	2.5	(HE) Minimise upstream storage		CTL-SHE-0072-2500-1225-2500	0.100	1200

Carpark											
Node	**Base Inf Coefficient (m/hr)**	**Side Inf Coefficient (m/hr)**	**Safety Factor**	**Porosity**	**Invert Level (m)**	**Time to half empty (mins)**	**Width (m)**	**Length (m)**	**Slope (1:X)**	**Depth (m)**	**Inf Depth (m)**
32	0.00000	0.00000	2.0	0.30	2.660	192	6.920	65.000	500.0		

Results for 1 year Critical Storm Duration. Lowest mass balance: 98.12%

Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	1	60	2.381	0.209	3.9	0.5980	0.0000	OK	1.000	13	-2.4	0.117	-0.008	3.8016	
15 minute winter	2	11	3.765	0.015	0.7	0.0023	0.0000	OK	2.000	3	0.7	0.495	0.050	0.0211	
15 minute winter	3	11	3.033	0.033	1.4	0.0099	0.0000	OK	2.001	4	1.4	0.512	0.232	0.0326	
15 minute winter	4	11	2.924	0.043	2.1	0.0122	0.0000	OK	2.002	5	2.1	0.670	0.346	0.0141	
15 minute winter	5	11	2.829	0.043	2.8	0.0115	0.0000	OK	2.003	6	2.8	0.665	0.157	0.0202	
15 minute winter	6	11	2.781	0.043	3.5	0.0115	0.0000	OK	2.004	13	3.5	0.839	0.173	0.0607	
15 minute winter	7	11	2.971	0.021	0.7	0.0061	0.0000	OK	3.000	8	0.7	0.430	0.039	0.0070	
15 minute winter	8	11	2.931	0.024	1.4	0.0070	0.0000	OK	3.001	13	1.4	0.787	0.053	0.0290	
15 minute winter	9	11	2.923	0.023	0.7	0.0035	0.0000	OK	4.000	11	0.7	0.526	0.110	0.0113	
15 minute winter	10	11	2.923	0.023	0.7	0.0035	0.0000	OK	5.000	11	0.7	0.509	0.116	0.0128	
15 minute winter	11	11	2.796	0.039	2.1	0.0109	0.0000	OK	4.001	12	2.1	0.585	0.145	0.0631	
15 minute winter	12	11	2.678	0.038	2.8	0.0094	0.0000	OK	4.002	13	2.8	0.831	0.125	0.0192	
60 minute winter	13	60	2.379	0.278	6.8	0.7816	0.0000	OK	1.001	25	3.2	0.220	0.010	4.0308	
15 minute winter	14	11	3.023	0.023	0.7	0.0035	0.0000	OK	6.000	16	0.7	0.317	0.116	0.0318	
15 minute winter	15	11	3.023	0.023	0.7	0.0034	0.0000	OK	7.000	16	0.7	0.319	0.114	0.0308	
15 minute winter	16	11	2.905	0.043	2.1	0.0120	0.0000	OK	6.001	18	2.1	0.674	0.346	0.0147	
15 minute winter	17	11	2.965	0.015	0.7	0.0043	0.0000	OK	8.000	18	0.7	0.358	0.020	0.0103	
15 minute winter	18	11	2.802	0.038	3.5	0.0104	0.0000	OK	6.002	25	3.5	1.009	0.133	0.0434	
15 minute winter	19	11	3.020	0.020	0.7	0.0057	0.0000	OK	9.000	20	0.7	0.473	0.036	0.0137	
15 minute winter	20	11	2.912	0.022	1.4	0.0065	0.0000	OK	9.001	25	1.4	0.870	0.046	0.0218	
15 minute winter	21	11	3.666	0.016	0.7	0.0025	0.0000	OK	10.000	22	0.7	0.855	0.056	0.0135	
15 minute winter	22	11	2.930	0.030	1.4	0.0085	0.0000	OK	10.001	23	1.4	0.670	0.079	0.0108	
15 minute winter	23	11	2.871	0.023	2.1	0.0060	0.0000	OK	10.002	24	2.1	1.277	0.046	0.0082	
60 minute winter	24	61	2.379	0.304	2.7	0.8560	0.0000	OK	10.003	25	1.8	0.150	0.006	2.2535	
60 minute winter	25	59	2.379	0.334	7.5	0.9330	0.0000	OK	1.002	32	2.7	0.300	0.009	2.5574	
15 minute winter	26	11	3.814	0.014	0.7	0.0021	0.0000	OK	11.000	27	0.7	1.060	0.041	0.0063	
15 minute winter	27	11	3.030	0.030	1.4	0.0087	0.0000	OK	11.001	28	1.4	0.673	0.079	0.0340	
15 minute winter	28	11	2.860	0.023	2.1	0.0060	0.0000	OK	11.002	31	2.1	0.796	0.050	0.0092	
15 minute winter	29	11	3.665	0.015	0.7	0.0022	0.0000	OK	12.000	30	0.7	0.998	0.045	0.0090	
15 minute winter	30	11	2.781	0.031	1.4	0.0092	0.0000	OK	12.001	31	1.4	0.440	0.097	0.0468	
15 minute winter	31	11	2.693	0.040	3.5	0.0063	0.0000	OK	11.003	32	3.5	0.961	0.143	0.0363	
60 minute winter	32	59	2.380	0.365	4.2	0.9281	0.0000	OK	Hydro-Brake®	33	2.3				23.5
15 minute summer	33	1	1.990	0.000	2.3	0.0000	0.0000	OK							

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.12%

Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	1	232	2.846	0.674	2.6	1.9270	0.0000	SURCHARGED	1.000	13	-1.3	0.120	-0.004	9.9638	
15 minute winter	2	10	3.773	0.023	1.7	0.0035	0.0000	OK	2.000	3	1.7	0.615	0.120	0.0395	
15 minute winter	3	10	3.053	0.053	3.4	0.0159	0.0000	OK	2.001	4	3.3	0.623	0.547	0.0629	
15 minute winter	4	11	2.957	0.076	5.0	0.0215	0.0000	OK	2.002	5	4.9	0.812	0.819	0.0275	
15 minute winter	5	11	2.857	0.071	6.5	0.0189	0.0000	OK	2.003	6	6.6	0.811	0.370	0.0390	
240 minute winter	6	228	2.845	0.107	1.5	0.0283	0.0000	OK	2.004	13	1.5	0.662	0.076	0.2280	
15 minute winter	7	10	2.983	0.033	1.7	0.0097	0.0000	OK	3.000	8	1.7	0.540	0.094	0.0133	
15 minute winter	8	10	2.944	0.037	3.4	0.0107	0.0000	OK	3.001	13	3.3	1.007	0.126	0.0635	
15 minute winter	9	10	2.936	0.036	1.7	0.0055	0.0000	OK	4.000	11	1.7	0.666	0.262	0.0211	
15 minute winter	10	10	2.937	0.037	1.7	0.0056	0.0000	OK	5.000	11	1.7	0.644	0.275	0.0239	
240 minute winter	11	232	2.845	0.088	0.9	0.0245	0.0000	OK	4.001	12	0.9	0.473	0.062	0.2494	
240 minute winter	12	232	2.845	0.205	1.2	0.0507	0.0000	SURCHARGED	4.002	13	1.9	0.658	0.087	0.1004	
240 minute winter	13	232	2.845	0.744	5.2	2.0933	0.0000	SURCHARGED	1.001	25	4.2	0.200	0.014	7.8684	
15 minute winter	14	10	3.036	0.036	1.7	0.0054	0.0000	OK	6.000	16	1.7	0.379	0.276	0.0612	
15 minute winter	15	10	3.036	0.036	1.7	0.0054	0.0000	OK	7.000	16	1.7	0.380	0.273	0.0593	
15 minute winter	16	11	2.938	0.076	5.0	0.0210	0.0000	OK	6.001	18	4.9	0.818	0.818	0.0287	
15 minute winter	17	10	2.972	0.022	1.7	0.0065	0.0000	OK	8.000	18	1.7	0.435	0.047	0.0193	
240 minute winter	18	232	2.845	0.081	1.5	0.0223	0.0000	OK	6.002	25	1.5	0.795	0.058	0.1721	
15 minute winter	19	10	3.030	0.030	1.7	0.0088	0.0000	OK	9.000	20	1.7	0.605	0.086	0.0256	
15 minute winter	20	10	2.924	0.034	3.4	0.0100	0.0000	OK	9.001	25	3.3	1.114	0.109	0.1053	
15 minute winter	21	10	3.675	0.025	1.7	0.0038	0.0000	OK	10.000	22	1.7	1.099	0.133	0.0250	
15 minute winter	22	10	2.947	0.047	3.4	0.0134	0.0000	OK	10.001	23	3.3	0.841	0.188	0.0205	
15 minute winter	23	10	2.884	0.036	5.0	0.0094	0.0000	OK	10.002	24	5.0	1.618	0.110	0.0303	
240 minute winter	24	232	2.845	0.770	2.3	2.1680	0.0000	SURCHARGED	10.003	25	1.7	0.111	0.006	4.1688	
240 minute winter	25	232	2.845	0.800	8.9	2.2340	0.0000	SURCHARGED	1.002	32	8.4	0.198	0.027	4.2302	
15 minute winter	26	10	3.822	0.022	1.7	0.0033	0.0000	OK	11.000	27	1.7	1.367	0.098	0.0117	
15 minute winter	27	10	3.046	0.046	3.4	0.0135	0.0000	OK	11.001	28	3.3	0.855	0.188	0.0636	
15 minute winter	28	10	2.873	0.036	5.0	0.0093	0.0000	OK	11.002	31	5.0	0.984	0.120	0.0175	
15 minute winter	29	10	3.673	0.023	1.7	0.0034	0.0000	OK	12.000	30	1.7	1.286	0.107	0.0168	
240 minute winter	30	232	2.845	0.095	0.6	0.0278	0.0000	OK	12.001	31	0.6	0.352	0.042	0.2146	
240 minute winter	31	232	2.845	0.192	1.5	0.0306	0.0000	SURCHARGED	11.003	32	1.5	0.757	0.062	0.1757	
240 minute winter	32	232	2.845	0.830	9.8	18.3786	0.0000	SURCHARGED	Hydro-Brake®	33	2.3				56.7
15 minute summer	33	1	1.990	0.000	2.3	0.0000	0.0000	OK							

Results for 100 year +40% Critical Storm Duration. Lowest mass balance: 98.12%

Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	1	344	3.187	1.015	2.4	2.9028	0.0000	SURCHARGED	1.000	13	1.6	0.125	0.005	9.9638	
15 minute winter	2	10	3.782	0.032	3.1	0.0048	0.0000	OK	2.000	3	3.1	0.685	0.220	0.0706	
360 minute winter	3	344	3.187	0.187	0.8	0.0565	0.0000	SURCHARGED	2.001	4	0.8	0.460	0.133	0.0931	
360 minute winter	4	344	3.187	0.306	1.2	0.0860	0.0000	SURCHARGED	2.002	5	1.2	0.580	0.199	0.0354	
360 minute winter	5	344	3.187	0.401	1.6	0.1074	0.0000	SURCHARGED	2.003	6	1.6	0.580	0.090	0.0847	
360 minute winter	6	344	3.187	0.449	2.0	0.1185	0.0000	SURCHARGED	2.004	13	1.9	0.662	0.096	0.2585	
360 minute winter	7	344	3.187	0.237	0.4	0.0691	0.0000	SURCHARGED	3.000	8	0.4	0.369	0.023	0.0752	
360 minute winter	8	344	3.187	0.280	0.8	0.0817	0.0000	SURCHARGED	3.001	13	0.8	0.612	0.030	0.2870	
360 minute winter	9	344	3.187	0.287	0.4	0.0433	0.0000	SURCHARGED	4.000	11	0.4	0.448	0.063	0.0662	
360 minute winter	10	344	3.187	0.287	0.4	0.0433	0.0000	SURCHARGED	5.000	11	0.4	0.433	0.066	0.0727	
360 minute winter	11	344	3.187	0.430	1.2	0.1195	0.0000	SURCHARGED	4.001	12	1.2	0.473	0.083	0.3096	
360 minute winter	12	344	3.187	0.547	1.6	0.1350	0.0000	SURCHARGED	4.002	13	1.8	0.658	0.082	0.1004	
360 minute winter	13	344	3.187	1.086	7.3	3.0527	0.0000	SURCHARGED	1.001	25	7.1	0.202	0.023	7.8684	
360 minute winter	14	344	3.187	0.187	0.4	0.0282	0.0000	SURCHARGED	6.000	16	0.4	0.280	0.066	0.1083	
360 minute winter	15	344	3.187	0.187	0.4	0.0282	0.0000	SURCHARGED	7.000	16	0.4	0.281	0.065	0.1054	
360 minute winter	16	344	3.187	0.325	1.2	0.0903	0.0000	SURCHARGED	6.001	18	1.2	0.584	0.200	0.0373	
360 minute winter	17	344	3.187	0.237	0.4	0.0691	0.0000	SURCHARGED	8.000	18	0.4	0.296	0.011	0.0823	
360 minute winter	18	344	3.187	0.423	2.0	0.1158	0.0000	SURCHARGED	6.002	25	2.0	0.795	0.077	0.2216	
360 minute winter	19	344	3.187	0.187	0.4	0.0545	0.0000	SURCHARGED	9.000	20	0.4	0.404	0.021	0.1624	
360 minute winter	20	344	3.187	0.297	0.8	0.0866	0.0000	SURCHARGED	9.001	25	0.8	0.670	0.026	0.2387	
15 minute winter	21	10	3.685	0.035	3.1	0.0052	0.0000	OK	10.000	22	3.1	1.302	0.245	0.0388	
360 minute winter	22	344	3.187	0.287	0.8	0.0814	0.0000	SURCHARGED	10.001	23	0.8	0.581	0.045	0.0908	
360 minute winter	23	344	3.187	0.339	1.2	0.0884	0.0000	SURCHARGED	10.002	24	1.2	0.999	0.026	0.0879	
360 minute winter	24	344	3.187	1.112	3.0	3.1281	0.0000	SURCHARGED	10.003	25	2.9	0.129	0.009	4.1688	
360 minute winter	25	344	3.187	1.142	13.8	3.1862	0.0000	SURCHARGED	1.002	32	13.6	0.207	0.044	4.2302	
15 minute winter	26	10	3.830	0.030	3.1	0.0045	0.0000	OK	11.000	27	3.1	1.619	0.180	0.0181	
360 minute winter	27	344	3.187	0.187	0.8	0.0545	0.0000	SURCHARGED	11.001	28	0.8	0.570	0.045	0.2864	
360 minute winter	28	344	3.187	0.350	1.2	0.0920	0.0000	SURCHARGED	11.002	31	1.2	0.634	0.029	0.0598	
15 minute winter	29	10	3.681	0.031	3.1	0.0047	0.0000	OK	12.000	30	3.1	1.525	0.197	0.0370	
360 minute winter	30	344	3.187	0.437	0.8	0.1275	0.0000	SURCHARGED	12.001	31	0.8	0.352	0.055	0.2569	
360 minute winter	31	344	3.187	0.534	2.0	0.0849	0.0000	SURCHARGED	11.003	32	1.7	0.746	0.069	0.1757	
360 minute winter	32	344	3.187	1.172	15.2	65.2765	0.0000	SURCHARGED	Hydro-Brake®	33	2.5				79.8
15 minute summer	33	1	1.990	0.000	2.3	0.0000	0.0000	OK							