

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
RE7A	0.003	5.00	43.830	150	386315.900	393943.751	0.750
S07	0.013	5.00	43.830	450	386312.800	393943.817	0.781
S08A	0.012	5.00	43.480	450	386313.255	393964.562	0.830
S08	0.002	5.00	43.480	450	386316.001	393964.501	0.848
S09	0.016	5.00	43.700	450	386322.845	393964.351	1.114
RE16A	0.016	5.00	43.930	150	386327.225	393961.958	0.750
S16			43.930	450	386338.845	393961.679	0.866
S10	0.016	5.00	43.870	450	386343.660	393963.893	1.424
S01	0.019	5.00	44.530	450	386374.394	393938.897	1.050
S02			45.070	1200	386350.147	393939.221	1.832
S14	0.014	5.00	44.360	450	386322.954	393948.148	1.050
RE17A	0.008	5.00	44.750	150	386327.236	393944.301	0.750
S17			44.750	450	386338.259	393944.058	0.860
S15			44.530	450	386342.851	393947.707	1.419
RE3A	0.012	5.00	44.600	150	386355.476	393948.855	0.750
S03			44.600	1200	386350.317	393948.962	2.320
TANK			44.120		386350.520	393959.467	1.875
RE4A	0.013	5.00	43.900	150	386354.950	393964.232	0.750
S04			43.920	1500	386350.621	393962.691	1.686
S11	0.019	5.00	45.070	450	386386.283	393938.636	1.050
S12			44.780	450	386403.016	393938.309	0.927
S18	0.004	5.00	44.200	450	386406.457	393945.362	1.050
S13	0.009	5.00	44.380	450	386403.218	393948.083	1.272
S05			44.360	1200	386401.672	393961.569	2.296
S06			43.900	1200	386399.065	393966.111	1.853
EX MH1B			43.000	1200	386392.690	393983.962	1.016

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)
1.000	3.101	100.0	150	Circular	43.830	43.080	0.600	43.830	43.049	0.631
1.001	20.750	52.0	150	Circular	43.830	43.049	0.631	43.480	42.650	0.680
1.002	2.747	150.0	150	Circular	43.480	42.650	0.680	43.480	42.632	0.698
1.003	6.846	150.0	150	Circular	43.480	42.632	0.698	43.700	42.586	0.964
1.004	20.820	150.0	150	Circular	43.700	42.586	0.964	43.870	42.447	1.273
2.000	11.623	100.0	150	Circular	43.930	43.180	0.600	43.930	43.064	0.716
2.001	5.300	8.6	150	Circular	43.930	43.064	0.716	43.870	42.446	1.274
1.005	7.064	150.0	150	Circular	43.870	42.446	1.274	43.920	42.399	1.371
3.000	24.249	100.0	150	Circular	44.530	43.480	0.900	45.070	43.238	1.682

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	RE7A	150	Manhole	Adoptable	S07	450	Manhole	Adoptable
1.001	S07	450	Manhole	Adoptable	S08A	450	Manhole	Adoptable
1.002	S08A	450	Manhole	Adoptable	S08	450	Manhole	Adoptable
1.003	S08	450	Manhole	Adoptable	S09	450	Manhole	Adoptable
1.004	S09	450	Manhole	Adoptable	S10	450	Manhole	Adoptable
2.000	RE16A	150	Manhole	Adoptable	S16	450	Manhole	Adoptable
2.001	S16	450	Manhole	Adoptable	S10	450	Manhole	Adoptable
1.005	S10	450	Manhole	Adoptable	S04	1500	Manhole	Adoptable
3.000	S01	450	Manhole	Adoptable	S02	1200	Manhole	Adoptable

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)
3.001	9.742	100.0	150	Circular	45.070	43.238	1.682	44.600	43.141	1.309
4.000	19.902	100.0	150	Circular	44.360	43.310	0.900	44.530	43.111	1.269
5.000	11.026	100.0	150	Circular	44.750	44.000	0.600	44.750	43.890	0.710
5.001	5.865	7.5	150	Circular	44.750	43.890	0.710	44.530	43.111	1.269
4.001	7.571	100.0	150	Circular	44.530	43.111	1.269	44.600	43.035	1.415
6.000	5.160	100.0	150	Circular	44.600	43.850	0.600	44.600	43.798	0.652
3.002	10.507	300.0	300	Circular	44.600	42.280	2.020	44.120	42.245	1.575
3.003	3.226	300.0	300	Circular	44.120	42.245	1.575	43.920	42.234	1.386
7.000	4.595	100.0	150	Circular	43.900	43.150	0.600	43.920	43.104	0.666
1.006	51.063	300.0	300	Circular	43.920	42.234	1.386	44.360	42.064	1.996
8.000	16.736	100.0	150	Circular	45.070	44.020	0.900	44.780	43.853	0.777
8.001	9.776	13.1	150	Circular	44.780	43.853	0.777	44.380	43.108	1.122
9.000	4.230	100.0	150	Circular	44.200	43.150	0.900	44.380	43.108	1.122
8.002	13.574	100.0	150	Circular	44.380	43.108	1.122	44.360	42.972	1.238
1.007	5.237	300.0	300	Circular	44.360	42.064	1.996	43.900	42.047	1.553
1.008	18.955	300.0	300	Circular	43.900	42.047	1.553	43.000	41.984	0.716

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
3.001	S02	1200	Manhole	Adoptable	S03	1200	Manhole	Adoptable
4.000	S14	450	Manhole	Adoptable	S15	450	Manhole	Adoptable
5.000	RE17A	150	Manhole	Adoptable	S17	450	Manhole	Adoptable
5.001	S17	450	Manhole	Adoptable	S15	450	Manhole	Adoptable
4.001	S15	450	Manhole	Adoptable	S03	1200	Manhole	Adoptable
6.000	RE3A	150	Manhole	Adoptable	S03	1200	Manhole	Adoptable
3.002	S03	1200	Manhole	Adoptable	TANK		Junction	
3.003	TANK		Junction		S04	1500	Manhole	Adoptable
7.000	RE4A	150	Manhole	Adoptable	S04	1500	Manhole	Adoptable
1.006	S04	1500	Manhole	Adoptable	S05	1200	Manhole	Adoptable
8.000	S11	450	Manhole	Adoptable	S12	450	Manhole	Adoptable
8.001	S12	450	Manhole	Adoptable	S13	450	Manhole	Adoptable
9.000	S18	450	Manhole	Adoptable	S13	450	Manhole	Adoptable
8.002	S13	450	Manhole	Adoptable	S05	1200	Manhole	Adoptable
1.007	S05	1200	Manhole	Adoptable	S06	1200	Manhole	Adoptable
1.008	S06	1200	Manhole	Adoptable	EX MH1B	1200	Manhole	Adoptable

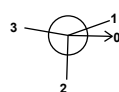
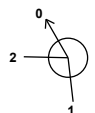
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
RE7A	386315.900	393943.751	43.830	0.750	150					
						0	1.000	43.080	150	
S07	386312.800	393943.817	43.830	0.781	450		1	1.000	43.049	150
						0	1.001	43.049	150	
S08A	386313.255	393964.562	43.480	0.830	450		1	1.001	42.650	150
						0	1.002	42.650	150	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S08	386316.001	393964.501	43.480	0.848	450	1  0	1.002	42.632	150	
						0 1.003	42.632	150		
S09	386322.845	393964.351	43.700	1.114	450	1  0	1.003	42.586	150	
						0 1.004	42.586	150		
RE16A	386327.225	393961.958	43.930	0.750	150	 0				
						0 2.000	43.180	150		
S16	386338.845	393961.679	43.930	0.866	450	1  0	1	2.000	43.064	150
						0 2.001	43.064	150		
S10	386343.660	393963.893	43.870	1.424	450	1  2	1	2.001	42.446	150
						2 1.004	42.447	150		
						0 1.005	42.446	150		
S01	386374.394	393938.897	44.530	1.050	450	0  0				
						0 3.000	43.480	150		
S02	386350.147	393939.221	45.070	1.832	1200	0  1	1	3.000	43.238	150
						0 3.001	43.238	150		
S14	386322.954	393948.148	44.360	1.050	450	 0				
						0 4.000	43.310	150		
RE17A	386327.236	393944.301	44.750	0.750	150	 0				
						0 5.000	44.000	150		
S17	386338.259	393944.058	44.750	0.860	450	1  0	1	5.000	43.890	150
						0 5.001	43.890	150		
S15	386342.851	393947.707	44.530	1.419	450	1 2	1	5.001	43.111	150
						2 4.000	43.111	150		
						0 4.001	43.111	150		
RE3A	386355.476	393948.855	44.600	0.750	150	0 0				
						0 6.000	43.850	150		
S03	386350.317	393948.962	44.600	2.320	1200	0 1	1	6.000	43.798	150
						2 4.001	43.035	150		
						3 3.001	43.141	150		
						0 3.002	42.280	300		

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
TANK	386350.520	393959.467	44.120	1.875			1	3.002	42.245	300
							0	3.003	42.245	300
RE4A	386354.950	393964.232	43.900	0.750	150		0	7.000	43.150	150
S04	386350.621	393962.691	43.920	1.686	1500		1	7.000	43.104	150
							2	3.003	42.234	300
							3	1.005	42.399	150
							0	1.006	42.234	300
S11	386386.283	393938.636	45.070	1.050	450		0	8.000	44.020	150
S12	386403.016	393938.309	44.780	0.927	450		1	8.000	43.853	150
							0	8.001	43.853	150
S18	386406.457	393945.362	44.200	1.050	450		0	9.000	43.150	150
S13	386403.218	393948.083	44.380	1.272	450		1	9.000	43.108	150
							2	8.001	43.108	150
							0	8.002	43.108	150
S05	386401.672	393961.569	44.360	2.296	1200		1	8.002	42.972	150
							2	1.006	42.064	300
							0	1.007	42.064	300
S06	386399.065	393966.111	43.900	1.853	1200		1	1.007	42.047	300
							0	1.008	42.047	300
EX MH1B	386392.690	393983.962	43.000	1.016	1200		1	1.008	41.984	300

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
Rainfall Events	Singular	Skip Steady State	x
FSR Region	England and Wales	Drain Down Time (mins)	240
M5-60 (mm)	19.000	Additional Storage (m³/ha)	20.0
Ratio-R	0.420	Starting Level (m)	
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

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
30	0	0	0
100	45	0	0
500	45	0	0

Node EX MH1B Surcharged Outfall

Overrides Design Area	x	Depression Storage Area (m ²)	0	Evapo-transpiration (mm/day)	0
Overrides Design Additional Inflow	x	Depression Storage Depth (mm)	0		

Applies to 30yr 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440 minute storms

Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)
0	1.426	300	1.426	600	1.426	900	1.426	1200	1.426
60	1.426	360	1.426	660	1.426	960	1.426	1260	1.426
120	1.426	420	1.426	720	1.426	1020	1.426	1320	1.426
180	1.426	480	1.426	780	1.426	1080	1.426	1380	1.426
240	1.426	540	1.426	840	1.426	1140	1.426	1440	1.426

Node S05 Online Hydro-Brake® Control

Flap Valve	✓	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	42.064	Product Number	CTL-SHE-0100-5000-1400-5000
Design Depth (m)	1.400	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node TANK Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	42.245
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	176

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	155.0	155.0	0.400	155.0	172.7	0.800	155.0	190.3
0.200	155.0	163.8	0.600	155.0	181.5	0.801	0.0	190.3

Node S08A Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	43.030	Slope (1:X)	21.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	4	Depth (m)	0.300
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	0.30	Length (m)	23.000		

Node S04 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	43.400	Slope (1:X)	21.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.300
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	16.000		

Node S09 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	43.250	Slope (1:X)	21.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	3	Depth (m)	0.300
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	0.30	Length (m)	7.000		

Node S10 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	43.420	Slope (1:X)	21.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.300
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	0.30	Length (m)	7.000		

Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	RE7A	11	43.096	0.016	0.4	0.0015	0.0000	OK
15 minute winter	S07	10	43.079	0.030	2.2	0.0148	0.0000	OK
15 minute winter	S08A	10	42.709	0.059	3.8	0.0266	0.0000	OK
15 minute winter	S08	11	42.690	0.058	4.0	0.0119	0.0000	OK
15 minute winter	S09	11	42.653	0.067	6.1	0.0301	0.0000	OK
15 minute winter	RE16A	10	43.219	0.039	2.2	0.0173	0.0000	OK
15 minute winter	S16	10	43.083	0.019	2.2	0.0031	0.0000	OK
15 minute winter	S10	11	42.548	0.102	10.3	0.0393	0.0000	OK
15 minute winter	S01	10	43.519	0.039	2.6	0.0203	0.0000	OK
15 minute winter	S02	11	43.278	0.039	2.5	0.0447	0.0000	OK
15 minute winter	S14	10	43.343	0.033	1.9	0.0140	0.0000	OK
15 minute winter	RE17A	10	44.028	0.028	1.1	0.0064	0.0000	OK
15 minute winter	S17	10	43.903	0.013	1.1	0.0021	0.0000	OK
15 minute winter	S15	11	43.154	0.043	2.9	0.0068	0.0000	OK
15 minute winter	RE3A	10	43.882	0.032	1.6	0.0107	0.0000	OK
15 minute winter	S03	11	42.344	0.064	7.0	0.0728	0.0000	OK
30 minute winter	TANK	27	42.292	0.047	13.1	6.8659	0.0000	OK
15 minute winter	RE4A	10	43.184	0.034	1.8	0.0123	0.0000	OK
15 minute winter	S04	13	42.322	0.088	12.0	0.1564	0.0000	OK
15 minute winter	S11	10	44.062	0.042	2.6	0.0219	0.0000	OK
15 minute winter	S12	10	43.876	0.023	2.5	0.0037	0.0000	OK
15 minute summer	S18	11	43.167	0.017	0.5	0.0041	0.0000	OK
15 minute winter	S13	11	43.159	0.051	4.2	0.0155	0.0000	OK
15 minute winter	S05	12	42.330	0.266	11.4	0.3006	0.0000	OK
15 minute winter	S06	12	42.103	0.056	4.6	0.0631	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	RE7A	1.000	S07	0.4	0.240	0.023	0.0054	
15 minute winter	S07	1.001	S08A	2.2	0.494	0.088	0.0933	
15 minute winter	S08A	1.002	S08	3.7	0.580	0.255	0.0175	
15 minute winter	S08	1.003	S09	4.0	0.575	0.277	0.0476	
15 minute winter	S09	1.004	S10	6.1	0.598	0.420	0.2119	
15 minute winter	RE16A	2.000	S16	2.2	0.899	0.122	0.0288	
15 minute winter	S16	2.001	S10	2.1	0.342	0.035	0.0374	
15 minute winter	S10	1.005	S04	10.3	0.846	0.711	0.0858	
15 minute winter	S01	3.000	S02	2.5	0.705	0.143	0.0876	
15 minute winter	S02	3.001	S03	2.5	0.698	0.142	0.0352	
15 minute winter	S14	4.000	S15	1.9	0.542	0.105	0.0692	
15 minute winter	RE17A	5.000	S17	1.1	0.742	0.061	0.0166	
15 minute winter	S17	5.001	S15	1.1	0.471	0.016	0.0144	
15 minute winter	S15	4.001	S03	2.9	0.724	0.164	0.0305	
15 minute winter	RE3A	6.000	S03	1.6	0.606	0.089	0.0135	
15 minute winter	S03	3.002	TANK	7.0	1.331	0.110	0.0654	
15 minute winter	TANK	3.003	S04	-10.6	-1.119	-0.166	0.0330	
15 minute winter	RE4A	7.000	S04	1.8	0.623	0.100	0.0132	
15 minute winter	S04	1.006	S05	7.2	0.371	0.112	2.0647	
15 minute winter	S11	8.000	S12	2.5	0.906	0.144	0.0481	
15 minute winter	S12	8.001	S13	2.5	0.746	0.051	0.0344	
15 minute summer	S18	9.000	S13	0.5	0.174	0.028	0.0133	
15 minute winter	S13	8.002	S05	4.2	0.811	0.238	0.0708	
15 minute winter	S05	1.007	S06	4.6	0.493	0.072	0.0490	
15 minute summer	S06	1.008	EX MH1B	4.6	0.547	0.072	0.1588	8.7

Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	EX MH1B	13	42.034	0.050	4.6	0.0000	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)
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Results for 30 year Critical Storm Duration. Lowest mass balance: 98.60%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	RE7A	10	43.104	0.024	1.0	0.0023	0.0000	OK
15 minute winter	S07	10	43.096	0.047	5.3	0.0230	0.0000	OK
15 minute winter	S08A	12	42.870	0.220	9.2	0.0986	0.0000	SURCHARGED
15 minute winter	S08	12	42.859	0.227	8.9	0.0468	0.0000	SURCHARGED
15 minute winter	S09	12	42.834	0.248	13.4	0.1107	0.0000	SURCHARGED
15 minute winter	RE16A	10	43.242	0.062	5.3	0.0275	0.0000	OK
15 minute winter	S16	10	43.094	0.030	5.3	0.0047	0.0000	OK
960 minute winter	S10	1185	42.714	0.268	1.5	0.1031	0.0000	SURCHARGED
15 minute winter	S01	10	43.543	0.063	6.3	0.0327	0.0000	OK
15 minute winter	S02	11	43.303	0.065	6.2	0.0730	0.0000	OK
15 minute winter	S14	10	43.362	0.052	4.7	0.0222	0.0000	OK
15 minute winter	RE17A	10	44.044	0.044	2.7	0.0101	0.0000	OK
15 minute winter	S17	10	43.911	0.021	2.7	0.0033	0.0000	OK
15 minute winter	S15	10	43.182	0.071	7.3	0.0113	0.0000	OK
15 minute winter	RE3A	10	43.902	0.052	4.0	0.0175	0.0000	OK
960 minute winter	S03	975	42.714	0.434	1.1	0.4912	0.0000	SURCHARGED
960 minute winter	TANK	990	42.714	0.469	3.3	69.0934	0.0000	SURCHARGED
15 minute winter	RE4A	10	43.204	0.054	4.3	0.0198	0.0000	OK
960 minute winter	S04	1110	42.714	0.480	2.4	0.8486	0.0000	SURCHARGED
15 minute winter	S11	10	44.087	0.067	6.3	0.0351	0.0000	OK
15 minute winter	S12	10	43.889	0.036	6.2	0.0057	0.0000	OK
15 minute winter	S18	10	43.195	0.045	1.3	0.0106	0.0000	OK
15 minute winter	S13	11	43.195	0.087	10.6	0.0262	0.0000	OK
960 minute winter	S05	960	42.715	0.651	0.7	0.7358	0.0000	SURCHARGED
960 minute winter	S06	1110	42.715	0.668	0.1	0.7554	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	RE7A	1.000	S07	1.0	0.309	0.055	0.0101	
15 minute winter	S07	1.001	S08A	5.2	0.567	0.212	0.2313	
15 minute winter	S08A	1.002	S08	8.3	0.645	0.573	0.0484	
15 minute winter	S08	1.003	S09	8.9	0.632	0.613	0.1205	
15 minute winter	S09	1.004	S10	13.5	0.765	0.932	0.3665	
15 minute winter	RE16A	2.000	S16	5.3	1.155	0.296	0.0542	
15 minute winter	S16	2.001	S10	5.2	0.433	0.086	0.0532	
15 minute winter	S10	1.005	S04	22.8	1.298	1.580	0.1212	
15 minute winter	S01	3.000	S02	6.2	0.881	0.351	0.1716	
15 minute winter	S02	3.001	S03	6.2	0.885	0.348	0.0680	
15 minute winter	S14	4.000	S15	4.6	0.679	0.261	0.1363	
15 minute winter	RE17A	5.000	S17	2.7	0.967	0.150	0.0315	
15 minute winter	S17	5.001	S15	2.7	0.581	0.041	0.0285	
15 minute winter	S15	4.001	S03	7.1	0.913	0.403	0.0593	
15 minute winter	RE3A	6.000	S03	4.0	0.775	0.224	0.0264	
15 minute winter	S03	3.002	TANK	17.9	1.589	0.281	0.3004	
15 minute winter	TANK	3.003	S04	-33.8	-1.824	-0.529	0.1141	
15 minute winter	RE4A	7.000	S04	4.3	0.785	0.241	0.0250	
15 minute summer	S04	1.006	S05	-10.6	0.391	-0.166	2.6495	
15 minute winter	S11	8.000	S12	6.2	1.161	0.352	0.0914	
15 minute winter	S12	8.001	S13	6.2	0.917	0.126	0.0675	
15 minute winter	S18	9.000	S13	1.3	0.209	0.076	0.0318	
15 minute winter	S13	8.002	S05	10.4	1.015	0.585	0.1390	
15 minute winter	S05	1.007	S06	3.8	0.537	0.059	0.3688	
15 minute summer	S06	1.008	EX MH1B	0.0	0.000	0.000	1.3348	0.0

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.60%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	EX MH1B	1	43.410	1.426	0.0	0.0000	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)
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Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	RE7A	12	43.396	0.316	2.5	0.0310	0.0000	SURCHARGED
15 minute winter	S07	12	43.394	0.345	9.3	0.1696	0.0000	SURCHARGED
15 minute winter	S08A	12	43.355	0.705	14.7	0.7815	0.0000	FLOOD RISK
15 minute winter	S08	12	43.331	0.699	14.1	0.1440	0.0000	FLOOD RISK
15 minute winter	S09	12	43.282	0.696	20.1	0.3271	0.0000	SURCHARGED
15 minute winter	RE16A	10	43.269	0.089	10.0	0.0395	0.0000	OK
15 minute winter	S16	10	43.105	0.041	9.9	0.0065	0.0000	OK
15 minute winter	S10	11	42.977	0.531	37.4	0.2038	0.0000	SURCHARGED
15 minute winter	S01	10	43.573	0.093	11.9	0.0482	0.0000	OK
15 minute winter	S02	11	43.334	0.096	11.8	0.1081	0.0000	OK
15 minute winter	S14	10	43.384	0.074	8.8	0.0315	0.0000	OK
15 minute winter	RE17A	10	44.060	0.060	5.0	0.0139	0.0000	OK
15 minute winter	S17	10	43.918	0.028	5.0	0.0044	0.0000	OK
15 minute winter	S15	10	43.219	0.108	13.6	0.0171	0.0000	OK
15 minute winter	RE3A	10	43.925	0.075	7.5	0.0252	0.0000	OK
120 minute winter	S03	118	42.666	0.386	10.3	0.4367	0.0000	SURCHARGED
120 minute winter	TANK	116	42.666	0.421	26.9	62.0120	0.0000	SURCHARGED
15 minute winter	RE4A	10	43.229	0.079	8.1	0.0287	0.0000	OK
120 minute winter	S04	116	42.666	0.432	18.4	0.7636	0.0000	SURCHARGED
15 minute winter	S11	10	44.119	0.099	11.9	0.0514	0.0000	OK
15 minute winter	S12	10	43.903	0.050	11.8	0.0079	0.0000	OK
15 minute winter	S18	11	43.288	0.138	2.5	0.0323	0.0000	OK
15 minute winter	S13	11	43.286	0.178	19.2	0.0536	0.0000	SURCHARGED
120 minute winter	S05	116	42.665	0.601	6.3	0.6801	0.0000	SURCHARGED
30 minute summer	S06	34	42.105	0.058	5.0	0.0658	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	RE7A	1.000	S07	2.6	0.400	0.147	0.0546	
15 minute summer	S07	1.001	S08A	8.8	0.614	0.355	0.3653	
15 minute winter	S08A	1.002	S08	13.6	0.774	0.943	0.0484	
15 minute winter	S08	1.003	S09	15.5	0.882	1.075	0.1205	
15 minute winter	S09	1.004	S10	21.0	1.196	1.456	0.3665	
15 minute winter	RE16A	2.000	S16	9.9	1.359	0.559	0.0858	
15 minute winter	S16	2.001	S10	9.9	0.768	0.162	0.0569	
15 minute winter	S10	1.005	S04	37.1	2.109	2.569	0.1231	
15 minute winter	S01	3.000	S02	11.8	1.013	0.662	0.2813	
15 minute winter	S02	3.001	S03	11.6	1.026	0.653	0.1101	
15 minute winter	S14	4.000	S15	8.7	0.780	0.490	0.2208	
15 minute winter	RE17A	5.000	S17	5.0	1.150	0.280	0.0489	
15 minute winter	S17	5.001	S15	4.9	0.647	0.076	0.0464	
15 minute winter	S15	4.001	S03	13.4	1.048	0.752	0.0967	
15 minute winter	RE3A	6.000	S03	7.4	0.908	0.420	0.0424	
15 minute winter	S03	3.002	TANK	32.3	1.645	0.506	0.6632	
15 minute winter	TANK	3.003	S04	-56.5	-1.969	-0.886	0.2186	
15 minute winter	RE4A	7.000	S04	8.1	0.919	0.454	0.0403	
15 minute winter	S04	1.006	S05	-13.8	0.438	-0.216	3.5509	
15 minute winter	S11	8.000	S12	11.8	1.356	0.664	0.1455	
15 minute winter	S12	8.001	S13	11.7	1.000	0.237	0.1110	
15 minute winter	S18	9.000	S13	2.7	0.211	0.152	0.0730	
15 minute winter	S13	8.002	S05	19.3	1.103	1.086	0.2276	
30 minute summer	S05	1.007	S06	5.0	0.503	0.078	0.0521	
30 minute summer	S06	1.008	EX MH1B	5.0	0.558	0.078	0.1699	56.8

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	EX MH1B	34	42.037	0.053	5.0	0.0000	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)
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Results for 500 year +45% CC Critical Storm Duration. Lowest mass balance: 99.82%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	RE7A	11	43.609	0.529	2.7	0.0519	0.0000	FLOOD RISK
15 minute winter	S07	11	43.608	0.559	12.6	0.2751	0.0000	FLOOD RISK
15 minute winter	S08A	11	43.480	0.830	22.6	1.2465	2.3070	FLOOD
15 minute winter	S08	12	43.474	0.842	15.0	0.1735	0.0000	FLOOD RISK
15 minute winter	S09	12	43.458	0.872	24.9	0.9910	0.0000	FLOOD RISK
15 minute winter	RE16A	10	43.289	0.109	14.2	0.0486	0.0000	OK
15 minute winter	S16	11	43.221	0.157	14.0	0.0249	0.0000	SURCHARGED
15 minute winter	S10	11	43.177	0.731	45.1	0.2806	0.0000	SURCHARGED
15 minute winter	S01	10	43.602	0.122	16.8	0.0637	0.0000	OK
15 minute winter	S02	11	43.365	0.127	16.6	0.1437	0.0000	OK
15 minute winter	S14	10	43.402	0.091	12.4	0.0390	0.0000	OK
15 minute winter	RE17A	10	44.073	0.073	7.1	0.0169	0.0000	OK
15 minute winter	S17	10	43.923	0.033	7.1	0.0053	0.0000	OK
15 minute winter	S15	10	43.281	0.170	19.3	0.0271	0.0000	SURCHARGED
15 minute winter	RE3A	10	43.943	0.093	10.6	0.0314	0.0000	OK
180 minute winter	S03	176	42.948	0.668	10.9	0.7551	0.0000	SURCHARGED
180 minute winter	TANK	176	42.948	0.703	29.4	103.4571	0.0000	SURCHARGED
15 minute winter	RE4A	10	43.249	0.099	11.5	0.0360	0.0000	OK
180 minute winter	S04	176	42.948	0.714	19.3	1.2609	0.0000	SURCHARGED
15 minute winter	S11	10	44.148	0.128	16.8	0.0668	0.0000	OK
15 minute winter	S12	11	43.913	0.060	16.6	0.0096	0.0000	OK
15 minute winter	S18	11	43.494	0.344	3.5	0.0809	0.0000	SURCHARGED
15 minute winter	S13	11	43.492	0.384	26.9	0.1155	0.0000	SURCHARGED
180 minute winter	S05	176	42.947	0.883	6.5	0.9988	0.0000	SURCHARGED
15 minute summer	S06	44	42.105	0.058	5.0	0.0658	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 summer	RE7A	1.000	S07	-3.2	0.338	-0.181	0.0546	
15 minute winter	S07	1.001	S08A	12.6	0.714	0.509	0.3653	
15 minute summer	S08A	1.002	S08	15.3	0.869	1.058	0.0484	
15 minute summer	S08	1.003	S09	17.6	1.002	1.220	0.1205	
15 minute summer	S09	1.004	S10	23.8	1.352	1.646	0.3665	
15 minute winter	RE16A	2.000	S16	14.0	1.375	0.788	0.1800	
15 minute winter	S16	2.001	S10	13.0	0.868	0.213	0.0933	
15 minute winter	S10	1.005	S04	44.9	2.549	3.103	0.1244	
15 minute winter	S01	3.000	S02	16.6	1.069	0.932	0.3758	
15 minute winter	S02	3.001	S03	16.4	1.083	0.923	0.1470	
15 minute winter	S14	4.000	S15	12.3	0.820	0.693	0.2871	
15 minute winter	RE17A	5.000	S17	7.1	1.262	0.397	0.0630	
15 minute winter	S17	5.001	S15	7.0	0.667	0.108	0.0601	
15 minute winter	S15	4.001	S03	18.9	1.083	1.065	0.1265	
15 minute winter	RE3A	6.000	S03	10.5	0.984	0.593	0.0552	
15 minute winter	S03	3.002	TANK	45.1	1.717	0.707	0.7399	
15 minute winter	TANK	3.003	S04	-72.9	-2.062	-1.143	0.2272	
15 minute winter	RE4A	7.000	S04	11.4	0.995	0.643	0.0527	
15 minute winter	S04	1.006	S05	-20.7	0.477	-0.325	3.5958	
15 minute winter	S11	8.000	S12	16.6	1.429	0.935	0.1889	
15 minute winter	S12	8.001	S13	16.5	1.166	0.334	0.1184	
15 minute summer	S18	9.000	S13	4.4	0.251	0.249	0.0745	
15 minute winter	S13	8.002	S05	26.9	1.527	1.514	0.2360	
720 minute summer	S05	1.007	S06	5.0	0.503	0.078	0.0521	
30 minute summer	S06	1.008	EX MH1B	5.0	0.558	0.078	0.1699	76.5

Results for 500 year +45% CC Critical Storm Duration. Lowest mass balance: 99.82%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	EX MH1B	117	42.037	0.053	5.0	0.0000	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)
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