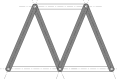


Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	0.750	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

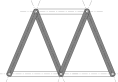
Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S1	0.045	5.00	74.279	1200	384704.257	149876.783	1.509
S2	0.031	5.00	74.682	1350	384730.081	149879.924	2.117
S3	0.027	5.00	74.939	1350	384746.854	149881.259	2.441
S4	0.060	5.00	75.164	1350	384764.792	149882.009	2.813
S5	0.024	5.00	74.437	1350	384764.374	149902.731	2.138
S6	0.028	5.00	73.622	1350	384758.199	149921.960	1.651
S7	0.030	5.00	73.042	1500	384752.857	149939.330	1.727
S8			72.857	1500	384757.834	149948.611	1.592
S9	0.000	5.00	72.664	1500	384793.087	149959.295	1.509
Basin 1b			71.600		384800.438	149991.554	1.000
S11	0.039	5.00	75.082	1200	384788.243	149883.191	1.503
S10		5.00	76.850	1200	384801.926	149821.997	1.425
S12	0.035	5.00	74.972	1350	384799.976	149887.936	1.558
S13	0.061	5.00	74.779	1350	384819.009	149892.948	1.429
S14	0.048	5.00	74.450	1200	384849.908	149901.975	1.500
S15	0.021	5.00	74.272	1350	384862.891	149905.197	1.577
S16	0.028	5.00	74.060	1350	384865.922	149912.228	1.650
S17	0.020	5.00	73.426	1350	384859.789	149935.301	1.649
S18	0.038	5.00	72.759	1500	384853.355	149959.509	1.373
S19			72.438	1500	384814.017	149948.914	1.158
Basin 2c	0.010	5.00	74.300		384823.530	149915.472	1.000
Basin 1a			71.100		384794.617	150009.193	1.000
Basin 2a	0.005	5.00	73.300		384815.710	149940.923	1.000
Outfall			70.710	1200	384792.946	150020.517	0.910
Swale	0.060	5.00	72.820		384746.162	149934.415	0.620
Basin 2b	0.010	5.00	73.800		384819.459	149927.811	1.000
Basin 1c			72.100		384806.200	149970.442	1.000
Carpark 1	0.062	5.00	74.292		384897.433	149921.717	1.059
Carpark 2	0.035	5.00	72.600		384876.112	149965.572	1.057
Carpark 3	0.006	5.00	74.170		384712.257	149882.486	1.102
Carpark 4	0.012	5.00	74.550		384716.215	149859.331	1.373
Carpark 5	0.010	5.00	74.650		384721.702	149883.891	1.712
Carpark 6	0.010	5.00	74.850		384734.813	149885.082	1.935
Carpark 7	0.014	5.00	74.475		384728.582	149864.872	1.479
Swale 1	0.055	5.00	75.100		384822.766	149865.940	0.700
S20			71.050	1500	384794.077	150014.276	0.961
1	0.075		72.850		384766.519	149954.073	1.209
J1		5.00	72.750		384797.082	149964.029	1.109
Carpark 8	0.041	5.00	73.550		384856.925	149931.667	1.502



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)
1.000	S1	S2	26.012	0.600	72.770	72.640	0.130	200.0	300	5.86	50.0
1.001	S2	S3	16.826	0.600	72.565	72.498	0.067	250.0	375	6.10	50.0
1.002	S3	S4	17.954	0.600	72.498	72.426	0.072	250.0	375	6.36	50.0
1.003	S4	S5	20.726	0.600	72.351	72.299	0.052	400.0	450	6.71	50.0
1.004	S5	S6	20.197	0.600	72.299	71.971	0.328	61.6	450	6.83	50.0
1.005	S6	S7	18.172	0.600	71.971	71.390	0.581	31.3	450	6.92	50.0
1.006	S7	S8	10.532	0.600	71.315	71.265	0.050	210.6	525	7.03	50.0
1.007	S8	S9	36.836	0.600	71.265	71.155	0.110	334.9	525	7.54	50.0
1.008	S9	Basin 1c	12.674	0.600	71.155	71.100	0.055	230.4	525	7.68	50.0
2.000	S10	S11	62.705	0.600	75.425	73.654	1.771	35.4	225	5.47	50.0
2.001	S11	S12	12.656	0.600	73.579	73.489	0.090	140.6	300	5.63	50.0
2.002	S12	S13	19.562	0.600	73.414	73.350	0.064	305.7	375	5.95	50.0
3.000	S14	S15	13.377	0.600	72.950	72.770	0.180	74.3	300	5.12	50.0
3.001	S15	S16	7.656	0.600	72.695	72.485	0.210	36.5	375	5.16	50.0
3.002	S16	S17	23.874	0.600	72.410	71.777	0.633	37.7	450	5.28	50.0
3.003	S17	S18	25.048	0.600	71.777	71.461	0.316	79.3	450	5.47	50.0
3.004	S18	S19	40.740	0.600	71.386	71.280	0.106	384.3	525	6.06	50.0
2.003	S13	Basin 2c	23.103	0.600	73.350	73.300	0.050	462.1	375	6.41	50.0
3.006	S19	Basin 1c	7.350	0.600	71.280	71.100	0.180	40.8	525	6.59	50.0
2.000_1	Swale	S7	8.305	0.600	72.200	71.690	0.510	16.3	150	5.06	50.0
2.003_1	Basin 2c	Basin 2b	13.034	0.600	73.300	72.800	0.500	26.1	375	6.47	50.0
2.003_2	Basin 2b	Basin 2a	13.637	0.600	72.800	72.300	0.500	27.3	375	6.54	50.0
3.005	Basin 2a	S19	8.168	0.600	72.300	71.430	0.870	9.4	375	6.56	50.0
3.006_1	Basin 1c	Basin 1b	21.884	0.600	71.100	70.600	0.500	43.8	525	7.79	50.0

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)
1.000	1.108	78.3	8.5	1.209	1.742	0.063	0.0	67	0.733
1.001	1.141	126.0	17.3	1.742	2.066	0.128	0.0	93	0.808
1.002	1.141	126.0	21.0	2.066	2.363	0.155	0.0	103	0.853
1.003	1.010	160.7	29.1	2.363	1.688	0.215	0.0	129	0.773
1.004	2.593	412.5	32.4	1.688	1.201	0.239	0.0	84	1.566
1.005	3.644	579.5	36.2	1.201	1.202	0.267	0.0	75	2.065
1.006	1.539	333.2	48.4	1.202	1.067	0.357	0.0	134	1.110
1.007	1.218	263.7	48.4	1.067	0.984	0.357	0.0	152	0.938
1.008	1.471	318.4	48.4	0.984	0.475	0.357	0.0	137	1.074
2.000	2.206	87.7	0.0	1.200	1.203	0.000	0.0	0	0.000
2.001	1.324	93.6	5.3	1.203	1.183	0.039	0.0	48	0.720
2.002	1.031	113.9	10.0	1.183	1.054	0.074	0.0	74	0.641
3.000	1.826	129.1	6.5	1.200	1.202	0.048	0.0	45	0.966
3.001	3.007	332.1	9.4	1.202	1.200	0.069	0.0	43	1.348
3.002	3.319	527.8	13.1	1.200	1.199	0.097	0.0	48	1.431
3.003	2.284	363.3	21.4	1.199	0.848	0.158	0.0	73	1.274
3.004	1.136	246.0	26.6	0.848	0.633	0.196	0.0	116	0.754
2.003	0.836	92.3	25.7	1.054	0.625	0.190	0.0	135	0.720
3.006	3.512	760.3	55.7	0.633	0.475	0.411	0.0	95	2.092
2.000_1	2.508	44.3	8.1	0.470	1.202	0.060	0.0	44	1.924
2.003_1	3.561	393.2	27.1	0.625	0.625	0.200	0.0	66	2.080
2.003_2	3.481	384.4	28.5	0.625	0.625	0.210	0.0	68	2.073
3.005	5.942	656.2	29.1	0.625	0.633	0.215	0.0	53	3.045
3.006_1	3.392	734.3	104.1	0.475	0.475	0.768	0.0	132	2.430



Links

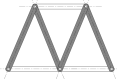
Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
3.006_2	Basin 1b	Basin 1a	18.575	0.600	70.600	70.100	0.500	37.2	525	7.87	50.0
3.007	Basin 1a	S20	5.112	0.600	70.100	70.089	0.011	464.7	525	7.95	50.0
2.000_2	Carpark 3	S1	9.825	0.600	73.068	72.970	0.098	100.0	100	5.21	50.0
1.000_1	Carpark 4	S1	21.156	0.600	73.177	72.970	0.207	102.2	100	5.46	50.0
4.000	Carpark 5	S2	9.271	0.600	72.938	72.845	0.093	100.0	100	5.20	50.0
5.000	Carpark 6	S2	7.000	0.600	72.915	72.845	0.070	100.0	100	5.15	50.0
3.000_1	Carpark 7	S2	15.126	0.600	72.996	72.845	0.151	100.2	100	5.33	50.0
9.000	Swale 1	S13	27.268	0.600	74.400	73.575	0.825	33.1	100	5.34	50.0
3.008	S20	Outfall	6.343	0.600	70.089	69.800	0.289	21.9	300	7.99	50.0
7.000	J1	S9	6.194	0.600	71.641	71.580	0.061	101.5	100	5.14	50.0
11.000	Carpark 8	S17	4.627	0.600	72.048	72.002	0.046	100.6	100	5.10	50.0

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)
3.006_2	3.683	797.2	104.1	0.475	0.475	0.768	0.0	127	2.582
3.007	1.032	223.4	104.1	0.475	0.436	0.768	0.0	251	1.014
2.000_2	0.769	6.0	0.8	1.002	1.209	0.006	0.0	25	0.531
1.000_1	0.760	6.0	1.6	1.273	1.209	0.012	0.0	36	0.645
4.000	0.769	6.0	1.4	1.612	1.737	0.010	0.0	32	0.621
5.000	0.769	6.0	1.4	1.835	1.737	0.010	0.0	32	0.621
3.000_1	0.768	6.0	1.9	1.379	1.737	0.014	0.0	39	0.681
9.000	1.346	10.6	7.5	0.600	1.104	0.055	0.0	62	1.459
3.008	3.370	238.2	104.1	0.661	0.610	0.768	0.0	139	3.260
7.000	0.763	6.0	0.0	1.009	0.984	0.000	0.0	0	0.000
11.000	0.766	6.0	5.6	1.402	1.324	0.041	0.0	76	0.870

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	26.012	200.0	300	Circular	74.279	72.770	1.209	74.682	72.640	1.742
1.001	16.826	250.0	375	Circular	74.682	72.565	1.742	74.939	72.498	2.066
1.002	17.954	250.0	375	Circular	74.939	72.498	2.066	75.164	72.426	2.363
1.003	20.726	400.0	450	Circular	75.164	72.351	2.363	74.437	72.299	1.688
1.004	20.197	61.6	450	Circular	74.437	72.299	1.688	73.622	71.971	1.201
1.005	18.172	31.3	450	Circular	73.622	71.971	1.201	73.042	71.390	1.202
1.006	10.532	210.6	525	Circular	73.042	71.315	1.202	72.857	71.265	1.067
1.007	36.836	334.9	525	Circular	72.857	71.265	1.067	72.664	71.155	0.984
1.008	12.674	230.4	525	Circular	72.664	71.155	0.984	72.100	71.100	0.475

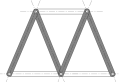
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	S1	1200	Manhole	Adoptable	S2	1350	Manhole	Adoptable
1.001	S2	1350	Manhole	Adoptable	S3	1350	Manhole	Adoptable
1.002	S3	1350	Manhole	Adoptable	S4	1350	Manhole	Adoptable
1.003	S4	1350	Manhole	Adoptable	S5	1350	Manhole	Adoptable
1.004	S5	1350	Manhole	Adoptable	S6	1350	Manhole	Adoptable
1.005	S6	1350	Manhole	Adoptable	S7	1500	Manhole	Adoptable
1.006	S7	1500	Manhole	Adoptable	S8	1500	Manhole	Adoptable
1.007	S8	1500	Manhole	Adoptable	S9	1500	Manhole	Adoptable
1.008	S9	1500	Manhole	Adoptable	Basin 1c		Junction	



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)
2.000	62.705	35.4	225	Circular	76.850	75.425	1.200	75.082	73.654	1.203
2.001	12.656	140.6	300	Circular	75.082	73.579	1.203	74.972	73.489	1.183
2.002	19.562	305.7	375	Circular	74.972	73.414	1.183	74.779	73.350	1.054
3.000	13.377	74.3	300	Circular	74.450	72.950	1.200	74.272	72.770	1.202
3.001	7.656	36.5	375	Circular	74.272	72.695	1.202	74.060	72.485	1.200
3.002	23.874	37.7	450	Circular	74.060	72.410	1.200	73.426	71.777	1.199
3.003	25.048	79.3	450	Circular	73.426	71.777	1.199	72.759	71.461	0.848
3.004	40.740	384.3	525	Circular	72.759	71.386	0.848	72.438	71.280	0.633
2.003	23.103	462.1	375	Circular	74.779	73.350	1.054	74.300	73.300	0.625
3.006	7.350	40.8	525	Circular	72.438	71.280	0.633	72.100	71.100	0.475
2.000_1	8.305	16.3	150	Circular	72.820	72.200	0.470	73.042	71.690	1.202
2.003_1	13.034	26.1	375	Circular	74.300	73.300	0.625	73.800	72.800	0.625
2.003_2	13.637	27.3	375	Circular	73.800	72.800	0.625	73.300	72.300	0.625
3.005	8.168	9.4	375	Circular	73.300	72.300	0.625	72.438	71.430	0.633
3.006_1	21.884	43.8	525	Circular	72.100	71.100	0.475	71.600	70.600	0.475
3.006_2	18.575	37.2	525	Circular	71.600	70.600	0.475	71.100	70.100	0.475
3.007	5.112	464.7	525	Circular	71.100	70.100	0.475	71.050	70.089	0.436
2.000_2	9.825	100.0	100	Circular	74.170	73.068	1.002	74.279	72.970	1.209
1.000_1	21.156	102.2	100	Circular	74.550	73.177	1.273	74.279	72.970	1.209
4.000	9.271	100.0	100	Circular	74.650	72.938	1.612	74.682	72.845	1.737
5.000	7.000	100.0	100	Circular	74.850	72.915	1.835	74.682	72.845	1.737
3.000_1	15.126	100.2	100	Circular	74.475	72.996	1.379	74.682	72.845	1.737
9.000	27.268	33.1	100	Circular	75.100	74.400	0.600	74.779	73.575	1.104
3.008	6.343	21.9	300	Circular	71.050	70.089	0.661	70.710	69.800	0.610
7.000	6.194	101.5	100	Circular	72.750	71.641	1.009	72.664	71.580	0.984

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
2.000	S10	1200	Manhole	Adoptable	S11	1200	Manhole	Adoptable
2.001	S11	1200	Manhole	Adoptable	S12	1350	Manhole	Adoptable
2.002	S12	1350	Manhole	Adoptable	S13	1350	Manhole	Adoptable
3.000	S14	1200	Manhole	Adoptable	S15	1350	Manhole	Adoptable
3.001	S15	1350	Manhole	Adoptable	S16	1350	Manhole	Adoptable
3.002	S16	1350	Manhole	Adoptable	S17	1350	Manhole	Adoptable
3.003	S17	1350	Manhole	Adoptable	S18	1500	Manhole	Adoptable
3.004	S18	1500	Manhole	Adoptable	S19	1500	Manhole	Adoptable
2.003	S13	1350	Manhole	Adoptable	Basin 2c		Junction	
3.006	S19	1500	Manhole	Adoptable	Basin 1c		Junction	
2.000_1	Swale		Junction		S7	1500	Manhole	Adoptable
2.003_1	Basin 2c		Junction		Basin 2b		Junction	
2.003_2	Basin 2b		Junction		Basin 2a		Junction	
3.005	Basin 2a		Junction		S19	1500	Manhole	Adoptable
3.006_1	Basin 1c		Junction		Basin 1b		Junction	
3.006_2	Basin 1b		Junction		Basin 1a		Junction	
3.007	Basin 1a		Junction		S20	1500	Manhole	Adoptable
2.000_2	Carpark 3		Junction		S1	1200	Manhole	Adoptable
1.000_1	Carpark 4		Junction		S1	1200	Manhole	Adoptable
4.000	Carpark 5		Junction		S2	1350	Manhole	Adoptable
5.000	Carpark 6		Junction		S2	1350	Manhole	Adoptable
3.000_1	Carpark 7		Junction		S2	1350	Manhole	Adoptable
9.000	Swale 1		Junction		S13	1350	Manhole	Adoptable
3.008	S20	1500	Manhole	Adoptable	Outfall	1200	Manhole	Adoptable
7.000	J1		Junction		S9	1500	Manhole	Adoptable



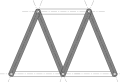
Pipeline Schedule

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)
11.000	4.627	100.6	100	Circular	73.550	72.048	1.402	73.426	72.002	1.324

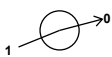
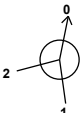
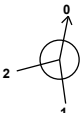
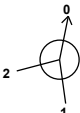
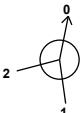
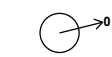
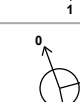
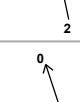
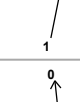
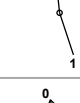
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
11.000	Carpark 8		Junction		S17	1350	Manhole	Adoptable

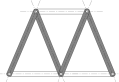
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S1	384704.257	149876.783	74.279	1.509	1200		1 2.000_2 2 1.000_1	72.970 72.970	100 100
S2	384730.081	149879.924	74.682	2.117	1350		1 5.000 2 4.000 3 3.000_1 4 1.000 0 1.001	72.845 72.845 72.845 72.640 72.565	100 100 100 300 375
S3	384746.854	149881.259	74.939	2.441	1350		1 1.001 0 1.002	72.498 72.498	375 375
S4	384764.792	149882.009	75.164	2.813	1350		1 1.002 0 1.003	72.426 72.351	375 450
S5	384764.374	149902.731	74.437	2.138	1350		1 1.003 0 1.004	72.299 72.299	450 450
S6	384758.199	149921.960	73.622	1.651	1350		1 1.004 0 1.005	71.971 71.971	450 450
S7	384752.857	149939.330	73.042	1.727	1500		1 2.000_1 2 1.005 0 1.006	71.690 71.390 71.315	150 450 525
S8	384757.834	149948.611	72.857	1.592	1500		1 1.006 0 1.007	71.265 71.265	525 525
S9	384793.087	149959.295	72.664	1.509	1500		1 7.000 2 1.007 0 1.008	71.580 71.155 71.155	100 525 525
Basin 1b	384800.438	149991.554	71.600	1.000			1 3.006_1 0 3.006_2	70.600 70.600	525 525

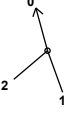


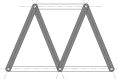
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S11	384788.243	149883.191	75.082	1.503	1200	 1	2.000	73.654	225
S10	384801.926	149821.997	76.850	1.425	1200	 0	2.001	73.579	300
S12	384799.976	149887.936	74.972	1.558	1350	 0	2.000	75.425	225
S13	384819.009	149892.948	74.779	1.429	1350	 1	2.001	73.489	300
S14	384849.908	149901.975	74.450	1.500	1200	 0	2.002	73.414	375
S15	384862.891	149905.197	74.272	1.577	1350	 1	2.002	73.350	375
S16	384865.922	149912.228	74.060	1.650	1350	 0	2.003	73.350	375
S17	384859.789	149935.301	73.426	1.649	1350	 0	3.000	72.950	300
S18	384853.355	149959.509	72.759	1.373	1500	 1	3.000	72.770	300
S19	384814.017	149948.914	72.438	1.158	1500	 0	3.001	72.695	375
Basin 2c	384823.530	149915.472	74.300	1.000		 1	3.001	72.485	375
Basin 1a	384794.617	150009.193	71.100	1.000		 0	3.002	72.410	450
Basin 2a	384815.710	149940.923	73.300	1.000		 1	3.002	72.002	100
						 2	3.002	71.777	450
						 0	3.003	71.777	450
						 1	3.003	71.461	450
						 0	3.004	71.386	525
						 1	3.004	71.280	525
						 2	3.005	71.430	375
						 0	3.006	71.280	525
						1	2.003	73.300	375
						0	2.003_1	73.300	375
						1	3.006_2	70.100	525
						0	3.007	70.100	525
						1	2.003_2	72.300	375
						0	3.005	72.300	375



Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
Outfall	384792.946	150020.517	70.710	0.910	1200	 1	3.008	69.800	300
Swale	384746.162	149934.415	72.820	0.620		 0			
Basin 2b	384819.459	149927.811	73.800	1.000		 0 1	2.000_1 2.003_1	72.200 72.800	150 375
Basin 1c	384806.200	149970.442	72.100	1.000		 0 1 2	3.006 1.008	71.100 71.100	525 525
Carpark 1	384897.433	149921.717	74.292	1.059		 0	3.006_1	71.100	525
Carpark 2	384876.112	149965.572	72.600	1.057		 0			
Carpark 3	384712.257	149882.486	74.170	1.102		 0	2.000_2	73.068	100
Carpark 4	384716.215	149859.331	74.550	1.373		 0	1.000_1	73.177	100
Carpark 5	384721.702	149883.891	74.650	1.712		 0	4.000	72.938	100
Carpark 6	384734.813	149885.082	74.850	1.935		 0	5.000	72.915	100
Carpark 7	384728.582	149864.872	74.475	1.479		 0	3.000_1	72.996	100
Swale 1	384822.766	149865.940	75.100	0.700		 0	9.000	74.400	100
S20	384794.077	150014.276	71.050	0.961	1500	 1	3.007	70.089	525
						 0	3.008	70.089	300



Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
1	384766.519	149954.073	72.850	1.209						
J1	384797.082	149964.029	72.750	1.109			0	7.000	71.641	100
Carpark 8	384856.925	149931.667	73.550	1.502			0	11.000	72.048	100

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	20.0		

Storm Durations

15	60	240	480	960	2880	10080
30	120	360	720	1440	7200	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	0	0	0
100	40	10	0

Node S20 Online Hydro-Brake® Control

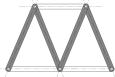
Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	70.089	Product Number	CTL-SHE-0111-5600-1000-5600
Design Depth (m)	1.000	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.6	Min Node Diameter (mm)	1200

Node Basin 1b Online Orifice Control

Flap Valve	x	Invert Level (m)	70.600	Diameter (m)	0.068
Downstream Link	3.006_2	Design Depth (m)	1.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	9.7		

Node Basin 1c Online Orifice Control

Flap Valve	x	Invert Level (m)	71.100	Diameter (m)	0.087
Downstream Link	3.006_1	Design Depth (m)	1.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	15.5		



Node Basin 2a Online Orifice Control

Flap Valve	x	Invert Level (m)	72.300	Diameter (m)	0.029
Downstream Link	3.005	Design Depth (m)	1.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	1.8		

Node Basin 2b Online Orifice Control

Flap Valve	x	Invert Level (m)	72.800	Diameter (m)	0.042
Downstream Link	2.003_2	Design Depth (m)	1.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	3.8		

Node Basin 2c Online Orifice Control

Flap Valve	x	Invert Level (m)	73.300	Diameter (m)	0.071
Downstream Link	2.003_1	Design Depth (m)	1.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	10.5		

Node S18 Online Orifice Control

Flap Valve	x	Invert Level (m)	71.386	Diameter (m)	0.036
Downstream Link	3.004	Design Depth (m)	0.450	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	1.8		

Node S16 Online Orifice Control

Flap Valve	x	Invert Level (m)	72.410	Diameter (m)	0.026
Downstream Link	3.002	Design Depth (m)	0.450	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	1.0		

Node Carpark 4 Online Orifice Control

Flap Valve	x	Invert Level (m)	73.177	Diameter (m)	0.008
Downstream Link	1.000_1	Design Depth (m)	0.450	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.1		

Node Carpark 3 Online Orifice Control

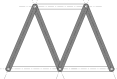
Flap Valve	x	Invert Level (m)	73.068	Diameter (m)	0.008
Downstream Link	2.000_2	Design Depth (m)	0.450	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.1		

Node Carpark 5 Online Orifice Control

Flap Valve	x	Invert Level (m)	72.938	Diameter (m)	0.008
Downstream Link	4.000	Design Depth (m)	0.450	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.1		

Node Carpark 6 Online Orifice Control

Flap Valve	x	Invert Level (m)	72.915	Diameter (m)	0.008
Downstream Link	5.000	Design Depth (m)	0.450	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.1		



Node Carpark 7 Online Orifice Control

Flap Valve	x	Invert Level (m)	72.996	Diameter (m)	0.008
Downstream Link	3.000_1	Design Depth (m)	0.450	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.1		

Node Swale Online Orifice Control

Flap Valve	x	Invert Level (m)	72.200	Diameter (m)	0.007
Downstream Link	2.000_1	Design Depth (m)	0.600	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.1		

Node Swale 1 Online Orifice Control

Flap Valve	x	Invert Level (m)	74.400	Diameter (m)	0.007
Downstream Link	9.000	Design Depth (m)	0.600	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.1		

Node J1 Online Orifice Control

Flap Valve	x	Invert Level (m)	71.641	Diameter (m)	0.008
Downstream Link	7.000	Design Depth (m)	0.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.1		

Node Carpark 8 Online Orifice Control

Flap Valve	x	Invert Level (m)	72.048	Diameter (m)	0.008
Downstream Link	11.000	Design Depth (m)	0.450	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.1		

Node Basin 2a Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	72.300
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	97.4	97.4	1.000	205.5	213.7

Node Swale Depth/Area Storage Structure

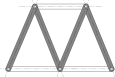
Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	72.200
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	127.5	127.5	0.600	232.1	235.8

Node Basin 2c Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	73.300
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	98

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	48.4	48.4	1.000	162.4	167.6



Node Basin 2b Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	72.800
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	97.0	97.0	1.000	172.4	182.7

Node Basin 1c Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	71.100
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	216

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	112.2	112.2	1.000	281.1	287.9

Node Basin 1b Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	70.600
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	108.1	108.1	1.000	236.3	244.2

Node Basin 1a Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	70.100
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	141.4	141.4	1.000	371.6	378.1

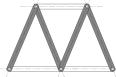
Node S16 Porous Paving Storage Structure

Underdrain Link Type	Circular	Base Inf Coefficient (m/hr)	0.00000
Underdrain Diameter (mm)	150	Side Inf Coefficient (m/hr)	0.00000
Underdrain Velocity	Colebrook-White	Safety Factor	2.0
Underdrain ks (mm) / n	0.600	Porosity	1.00
Underdrain Length (m)	32.909	Invert Level (m)	72.410
Underdrain Slope (1:X)	40.0	Time to half empty (mins)	
Underdrain Height above base (m)	0.000		

Inlets

Carpark 1

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	11.5	0.0	0.450	11.5	0.0	0.451	314.5	303.0



Node S18 Porous Paving Storage Structure

Underdrain Link Type	Circular	Base Inf Coefficient (m/hr)	0.00000
Underdrain Diameter (mm)	150	Side Inf Coefficient (m/hr)	0.00000
Underdrain Velocity	Colebrook-White	Safety Factor	2.0
Underdrain ks (mm) / n	0.600	Porosity	1.00
Underdrain Length (m)	23.552	Invert Level (m)	71.386
Underdrain Slope (1:X)	150.0	Time to half empty (mins)	
Underdrain Height above base (m)	0.000		

Inlets

Carpark 2

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	8.2	0.0	0.450	8.2	0.0	0.451	167.1	158.9

Node Carpark 3 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	73.068	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	1.00	Length (m)	7.170		

Node Carpark 4 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	73.177	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	1.00	Length (m)	6.299		

Node Carpark 5 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	72.938	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	
Safety Factor	2.0	Width (m)	9.600	Inf Depth (m)	
Porosity	1.00	Length (m)	5.520		

Node Carpark 6 Carpark Storage Structure

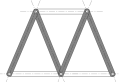
Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	72.915	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	
Safety Factor	2.0	Width (m)	9.600	Inf Depth (m)	
Porosity	1.00	Length (m)	5.302		

Node Carpark 7 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	72.996	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	
Safety Factor	2.0	Width (m)	5.451	Inf Depth (m)	
Porosity	1.00	Length (m)	13.046		

Node Swale 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	74.400
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	



Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	45.8	45.8	0.600	223.9	225.4

Node J1 Rain Garden Storage Structure

Filter Conductivity (m/hr)	0.00000	Porosity	1.00
Filter Depth (m)	0.500	Invert Level (m)	71.641
Base Inf Coefficient (m/hr)	0.10000	Time to half empty (mins)	0
Side Inf Coefficient (m/hr)	0.00000	Analyse flow through structure	x
Safety Factor	2.0		

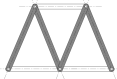
Inlets

1

Depth (m)	Area (m ²)
0.000	344.4

Node Carpark 8 Carpark Storage Structure

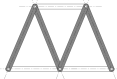
Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	72.048	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	1.00	Length (m)	41.044		



Results for 1 year 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 summer	S1	11	72.818	0.048	4.3	0.0824	0.0000	OK
15 minute summer	S2	11	72.626	0.061	7.1	0.1049	0.0000	OK
15 minute summer	S3	11	72.570	0.072	9.7	0.1187	0.0000	OK
15 minute summer	S4	11	72.443	0.092	15.1	0.1704	0.0000	OK
15 minute summer	S5	11	72.364	0.065	17.2	0.1072	0.0000	OK
15 minute summer	S6	11	72.029	0.058	19.7	0.1028	0.0000	OK
15 minute summer	S7	11	71.415	0.100	22.2	0.2106	0.0000	OK
15 minute summer	S8	12	71.369	0.104	22.0	0.1837	0.0000	OK
360 minute summer	S9	224	71.267	0.112	8.0	0.1977	0.0000	OK
720 minute summer	Basin 1b	555	70.810	0.210	5.2	25.4769	0.0000	OK
15 minute summer	S11	10	73.620	0.041	3.7	0.0684	0.0000	OK
15 minute summer	S10	1	75.425	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S12	11	73.476	0.062	7.0	0.1164	0.0000	OK
15 minute summer	S13	11	73.439	0.089	12.6	0.2023	0.0000	OK
15 minute summer	S14	10	72.989	0.039	4.6	0.0697	0.0000	OK
480 minute summer	S15	320	72.936	0.241	1.9	0.4094	0.0000	OK
480 minute summer	S16	320	72.936	0.526	4.2	13.8352	0.0000	SURCHARGED
360 minute summer	S17	248	71.867	0.090	1.7	0.1504	0.0000	OK
360 minute summer	S18	240	71.866	0.480	3.6	6.5278	0.0000	OK
720 minute summer	S19	555	71.301	0.021	2.3	0.0378	0.0000	OK
240 minute summer	Basin 2c	144	73.430	0.130	5.8	7.2856	0.0000	OK
960 minute summer	Basin 1a	765	70.218	0.118	4.0	18.3439	0.0000	OK
960 minute summer	Basin 2a	900	72.460	0.160	1.3	17.0289	0.0000	OK
960 minute summer	Outfall	765	69.827	0.027	3.9	0.0000	0.0000	OK
10080 minute winter	Swale	7320	72.367	0.167	0.2	24.0404	0.0000	SURCHARGED

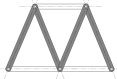
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S1	1.000	S2	4.2	0.594	0.054	0.1845	
15 minute summer	S2	1.001	S3	7.2	0.546	0.057	0.2211	
15 minute summer	S3	1.002	S4	9.6	0.670	0.076	0.2564	
15 minute summer	S4	1.003	S5	15.0	0.818	0.094	0.3846	
15 minute summer	S5	1.004	S6	17.1	1.323	0.041	0.2614	
15 minute summer	S6	1.005	S7	19.5	1.680	0.034	0.2106	
15 minute summer	S7	1.006	S8	22.0	0.757	0.066	0.3067	
15 minute summer	S8	1.007	S9	22.2	0.802	0.084	1.0216	
360 minute summer	S9	1.008	Basin 1c	7.6	0.630	0.024	0.5863	
720 minute summer	Basin 1b	3.006_2	Basin 1a	4.0	0.629	0.005	0.3739	
15 minute summer	S11	2.001	S12	3.6	0.638	0.039	0.0724	
15 minute summer	S10	2.000	S11	0.0	0.000	0.000	0.0000	
15 minute summer	S12	2.002	S13	6.9	0.442	0.061	0.3098	
15 minute summer	S13	2.003	Basin 2c	12.7	1.060	0.137	0.3575	
15 minute summer	S14	3.000	S15	4.6	0.850	0.036	0.1603	
480 minute summer	S15	3.001	S16	1.7	0.462	0.005	0.7088	
480 minute summer	S16	3.002	S17	1.0	0.560	0.002	0.2772	
360 minute summer	S17	3.003	S18	1.9	0.438	0.005	2.1643	
360 minute summer	S18	3.004	S19	1.8	0.438	0.007	0.1726	
720 minute summer	S19	3.006	Basin 1c	2.3	0.577	0.003	0.2027	
240 minute summer	Basin 2c	2.003_1	Basin 2b	3.2	0.815	0.008	0.2426	
960 minute summer	Basin 1a	3.007	S20	3.9	0.103	0.018	0.1981	
960 minute summer	Basin 2a	3.005	S19	0.7	0.974	0.001	0.0056	
10080 minute winter	Swale	2.000_1	S7	0.0	0.394	0.001	0.0009	



Results for 1 year 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
480 minute summer	Basin 2b	344	72.947	0.147	3.1	15.1111	0.0000	OK
360 minute summer	Basin 1c	224	71.267	0.167	9.4	21.0805	0.0000	OK
15 minute winter	Carpark 1	10	73.243	0.010	5.6	0.0000	0.0000	OK
360 minute summer	Carpark 2	240	71.868	0.325	1.2	0.0000	0.0000	OK
960 minute winter	Carpark 3	585	73.126	0.058	0.1	0.8020	0.0000	OK
1440 minute winter	Carpark 4	990	73.272	0.095	0.1	1.9356	0.0000	OK
1440 minute winter	Carpark 5	930	72.996	0.058	0.1	1.6036	0.0000	OK
1440 minute winter	Carpark 6	930	72.973	0.058	0.1	1.6034	0.0000	OK
7200 minute summer	Carpark 7	3960	73.089	0.093	0.1	2.3722	0.0000	OK
10080 minute summer	Swale 1	6720	74.632	0.232	0.2	18.9580	0.0000	SURCHARGED
960 minute summer	S20	765	70.218	0.129	3.9	0.2282	0.0000	OK
10080 minute winter	1	7560	71.739	0.098	0.2	0.0000	0.0000	OK
10080 minute winter	J1	7620	71.738	0.097	0.1	33.7458	0.0000	OK
15 minute summer	J1 Filter Layer	1	71.141	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	Carpark 8	6780	72.256	0.208	0.1	10.5185	0.0000	SURCHARGED

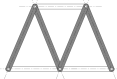
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	Basin 2b	2.003_2	Basin 2a	1.3	0.577	0.003	0.2743	
360 minute summer	Basin 1c	3.006_1	Basin 1b	5.6	0.706	0.008	0.8703	
15 minute winter	Carpark 1	Porous Paving	S16	0.0	0.007	0.001		
360 minute summer	Carpark 2	Porous Paving	S18	0.9	0.049	0.059		
960 minute winter	Carpark 3	2.000_2	S1	0.0	0.200	0.005	0.0015	
1440 minute winter	Carpark 4	1.000_1	S1	0.0	0.216	0.007	0.0039	
1440 minute winter	Carpark 5	4.000	S2	0.0	0.200	0.005	0.0014	
1440 minute winter	Carpark 6	5.000	S2	0.0	0.200	0.005	0.0011	
7200 minute summer	Carpark 7	3.000_1	S2	0.0	0.216	0.007	0.0028	
10080 minute summer	Swale 1	9.000	S13	0.0	0.340	0.005	0.0039	
960 minute summer	S20	3.008	Outfall	3.9	1.238	0.016	0.0201	148.6
10080 minute winter	J1	7.000	S9	0.0	0.217	0.007	0.0012	
10080 minute winter	J1	Filtration		0.0				
15 minute summer	J1 Filter Layer	Infiltration		0.0				
10080 minute winter	Carpark 8	11.000	S17	0.1	0.245	0.010	0.0011	



Results for 30 year Critical Storm Duration. Lowest mass balance: 99.68%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	10	72.873	0.103	18.9	0.1774	0.0000	OK
15 minute summer	S2	10	72.704	0.139	31.5	0.2403	0.0000	OK
15 minute summer	S3	11	72.657	0.159	42.4	0.2628	0.0000	OK
15 minute summer	S4	11	72.544	0.193	66.6	0.3577	0.0000	OK
15 minute summer	S5	11	72.441	0.142	76.6	0.2345	0.0000	OK
15 minute summer	S6	11	72.093	0.122	88.1	0.2157	0.0000	OK
15 minute summer	S7	11	71.550	0.235	100.3	0.4979	0.0000	OK
240 minute summer	S8	164	71.495	0.230	29.4	0.4064	0.0000	OK
240 minute summer	S9	164	71.495	0.340	27.8	0.6007	0.0000	OK
720 minute summer	Basin 1b	675	71.061	0.461	8.7	63.5050	0.0000	OK
120 minute summer	S11	84	73.681	0.102	7.5	0.1684	0.0000	OK
15 minute summer	S10	1	75.425	0.000	0.0	0.0000	0.0000	OK
120 minute summer	S12	84	73.681	0.267	14.2	0.5020	0.0000	OK
120 minute summer	S13	84	73.681	0.331	24.4	0.7561	0.0000	OK
360 minute winter	S14	344	73.229	0.279	2.9	0.4939	0.0000	OK
360 minute winter	S15	344	73.229	0.534	4.1	0.9065	0.0000	SURCHARGED
360 minute winter	S16	344	73.229	0.819	8.6	55.7898	0.0000	SURCHARGED
240 minute winter	S17	240	72.064	0.287	2.8	0.4799	0.0000	OK
240 minute winter	S18	236	72.063	0.677	7.9	28.9442	0.0000	SURCHARGED
240 minute summer	S19	172	71.498	0.218	15.1	0.3851	0.0000	OK
120 minute summer	Basin 2c	84	73.681	0.381	24.0	26.7839	0.0000	SURCHARGED
720 minute summer	Basin 1a	900	70.337	0.237	6.3	40.0402	0.0000	OK
960 minute winter	Basin 2a	1155	72.705	0.405	2.2	48.3261	0.0000	SURCHARGED
720 minute summer	Outfall	900	69.831	0.031	5.5	0.0000	0.0000	OK
10080 minute winter	Swale	8760	72.527	0.327	0.3	51.6002	0.0000	FLOOD RISK

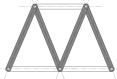
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S1	1.000	S2	18.5	0.901	0.236	0.5372	
15 minute summer	S2	1.001	S3	31.3	0.769	0.248	0.6861	
15 minute summer	S3	1.002	S4	42.6	1.006	0.338	0.7600	
15 minute summer	S4	1.003	S5	66.9	1.250	0.417	1.1130	
15 minute summer	S5	1.004	S6	76.8	1.991	0.186	0.7803	
15 minute summer	S6	1.005	S7	88.3	2.100	0.152	0.7746	
15 minute summer	S7	1.006	S8	100.5	1.092	0.302	0.9698	
240 minute summer	S8	1.007	S9	27.8	0.549	0.105	4.3988	
240 minute summer	S9	1.008	Basin 1c	26.0	0.900	0.082	2.0401	
720 minute summer	Basin 1b	3.006_2	Basin 1a	6.3	0.754	0.008	0.9275	
120 minute summer	S11	2.001	S12	7.5	0.756	0.080	0.4348	
15 minute summer	S10	2.000	S11	0.0	0.000	0.000	0.0320	
120 minute summer	S12	2.002	S13	12.7	0.383	0.111	1.8278	
120 minute summer	S13	2.003	Basin 2c	22.1	0.724	0.240	2.4636	
360 minute winter	S14	3.000	S15	2.8	0.443	0.022	0.9276	
360 minute winter	S15	3.001	S16	3.9	0.527	0.012	0.8444	
360 minute winter	S16	3.002	S17	1.3	0.507	0.002	1.2891	
240 minute winter	S17	3.003	S18	2.8	0.461	0.008	3.3190	
240 minute winter	S18	3.004	S19	3.1	0.443	0.013	2.2281	
240 minute summer	S19	3.006	Basin 1c	17.8	0.727	0.023	0.9493	
120 minute summer	Basin 2c	2.003_1	Basin 2b	6.2	1.084	0.016	0.7031	
720 minute summer	Basin 1a	3.007	S20	5.5	0.103	0.025	0.4989	
960 minute winter	Basin 2a	3.005	S19	1.1	1.135	0.002	0.0079	
10080 minute winter	Swale	2.000_1	S7	0.1	0.439	0.001	0.0011	



Results for 30 year Critical Storm Duration. Lowest mass balance: 99.68%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	Basin 2b	376	73.213	0.413	5.8	46.5336	0.0000	SURCHARGED
240 minute summer	Basin 1c	168	71.495	0.395	27.6	57.4544	0.0000	OK
15 minute summer	Carpark 1	10	73.252	0.020	26.0	0.0000	0.0000	OK
240 minute winter	Carpark 2	232	72.066	0.523	2.8	0.0000	0.0000	OK
480 minute winter	Carpark 3	440	73.184	0.116	0.3	2.7645	0.0000	SURCHARGED
720 minute summer	Carpark 4	720	73.403	0.226	0.6	5.9280	0.0000	SURCHARGED
720 minute summer	Carpark 5	675	73.061	0.123	0.5	5.0664	0.0000	SURCHARGED
720 minute summer	Carpark 6	675	73.041	0.126	0.5	5.0581	0.0000	SURCHARGED
960 minute summer	Carpark 7	960	73.163	0.167	0.6	7.2934	0.0000	SURCHARGED
7200 minute winter	Swale 1	6720	74.796	0.396	0.3	42.0788	0.0000	SURCHARGED
720 minute summer	S20	900	70.337	0.248	5.5	0.4387	0.0000	OK
10080 minute summer	1	9360	71.845	0.204	0.6	0.0000	0.0000	OK
10080 minute summer	J1	9420	71.845	0.204	0.3	70.5281	0.0000	SURCHARGED
15 minute summer	J1 Filter Layer	1	71.141	0.000	0.0	0.0000	0.0000	OK
2880 minute winter	Carpark 8	2760	72.367	0.319	0.5	24.6526	0.0000	SURCHARGED

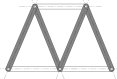
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	Basin 2b	2.003_2	Basin 2a	2.3	0.628	0.006	0.7134	
240 minute summer	Basin 1c	3.006_1	Basin 1b	9.4	0.955	0.013	2.1055	
15 minute summer	Carpark 1	Porous Paving	S16	0.2	0.021	0.008		
240 minute winter	Carpark 2	Porous Paving	S18	1.9	0.107	0.130		
480 minute winter	Carpark 3	2.000_2	S1	0.0	0.224	0.007	0.0019	
720 minute summer	Carpark 4	1.000_1	S1	0.1	0.247	0.010	0.0053	
720 minute summer	Carpark 5	4.000	S2	0.0	0.226	0.008	0.0019	
720 minute summer	Carpark 6	5.000	S2	0.0	0.227	0.008	0.0014	
960 minute summer	Carpark 7	3.000_1	S2	0.1	0.237	0.009	0.0034	
7200 minute winter	Swale 1	9.000	S13	0.1	0.368	0.006	0.0047	
720 minute summer	S20	3.008	Outfall	5.5	1.362	0.023	0.0256	200.2
10080 minute summer	J1	7.000	S9	0.1	0.243	0.010	0.0015	
10080 minute summer	J1	Filtration		0.0				
15 minute summer	J1 Filter Layer	Infiltration		0.0				
2880 minute winter	Carpark 8	11.000	S17	0.1	0.262	0.012	0.0013	



Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	10	72.921	0.151	36.8	0.2693	0.0000	OK
15 minute summer	S2	10	72.781	0.216	61.6	0.3797	0.0000	OK
15 minute summer	S3	11	72.736	0.238	82.9	0.3985	0.0000	OK
15 minute summer	S4	10	72.631	0.280	130.2	0.5318	0.0000	OK
15 minute summer	S5	11	72.507	0.208	149.2	0.3487	0.0000	OK
15 minute summer	S6	11	72.150	0.179	171.8	0.3235	0.0000	OK
240 minute summer	S7	176	71.780	0.465	57.0	0.9999	0.0000	OK
240 minute summer	S8	176	71.780	0.515	55.5	0.9104	0.0000	OK
240 minute summer	S9	176	71.780	0.625	53.1	1.1046	0.0000	SURCHARGED
720 minute winter	Basin 1b	735	71.301	0.701	11.6	107.3380	0.0000	FLOOD RISK
120 minute summer	S11	92	73.991	0.412	14.6	0.7005	0.0000	SURCHARGED
15 minute summer	S10	1	75.425	0.000	0.0	0.0000	0.0000	OK
120 minute summer	S12	92	73.991	0.577	23.7	1.1104	0.0000	SURCHARGED
120 minute summer	S13	92	73.991	0.641	45.5	1.5187	0.0000	SURCHARGED
720 minute winter	S14	690	73.694	0.744	3.3	1.3657	0.0000	SURCHARGED
720 minute winter	S15	690	73.694	0.999	4.6	1.7227	0.0000	SURCHARGED
720 minute winter	S16	690	73.694	1.284	10.1	127.8255	0.0000	SURCHARGED
720 minute winter	S17	705	72.337	0.560	2.8	0.9515	0.0000	SURCHARGED
720 minute winter	S18	705	72.337	0.951	5.1	75.6438	0.0000	SURCHARGED
240 minute summer	S19	176	71.780	0.500	20.2	0.8836	0.0000	OK
120 minute summer	Basin 2c	92	73.990	0.690	48.0	60.7231	0.0000	SURCHARGED
2880 minute summer	Basin 1a	3120	70.771	0.671	14.0	146.6475	0.0000	SURCHARGED
1440 minute summer	Basin 2a	1680	73.001	0.701	5.5	94.9950	0.0000	FLOOD RISK
360 minute summer	Outfall	576	69.832	0.032	5.6	0.0000	0.0000	OK
10080 minute summer	Swale	10080	72.738	0.538	0.8	94.9074	0.0000	FLOOD RISK

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	S1	1.000	S2	36.2	1.063	0.462	0.8855	
15 minute summer	S2	1.001	S3	60.8	0.875	0.483	1.1732	
15 minute summer	S3	1.002	S4	82.9	1.205	0.658	1.2346	
15 minute summer	S4	1.003	S5	130.5	1.491	0.812	1.8112	
15 minute summer	S5	1.004	S6	149.8	2.299	0.363	1.3167	
15 minute summer	S6	1.005	S7	172.3	2.098	0.297	1.5175	
240 minute summer	S7	1.006	S8	55.5	0.793	0.166	2.1982	
240 minute summer	S8	1.007	S9	53.1	0.564	0.201	7.9392	
240 minute summer	S9	1.008	Basin 1c	50.9	1.132	0.160	2.7380	
720 minute winter	Basin 1b	3.006_2	Basin 1a	7.9	0.896	0.010	1.8984	
120 minute summer	S11	2.001	S12	10.6	0.726	0.114	0.8912	
15 minute summer	S10	2.000	S11	0.0	0.000	0.000	0.8410	
120 minute summer	S12	2.002	S13	22.7	0.350	0.199	2.1576	
120 minute summer	S13	2.003	Basin 2c	44.3	0.851	0.480	2.5482	
720 minute winter	S14	3.000	S15	3.2	0.465	0.025	0.9420	
720 minute winter	S15	3.001	S16	4.5	0.508	0.013	0.8444	
720 minute winter	S16	3.002	S17	1.6	0.518	0.003	1.9163	
720 minute winter	S17	3.003	S18	2.5	0.437	0.007	3.9687	
720 minute winter	S18	3.004	S19	3.2	0.431	0.013	6.2529	
240 minute summer	S19	3.006	Basin 1c	-15.6	0.804	-0.021	1.5740	
120 minute summer	Basin 2c	2.003_1	Basin 2b	8.5	1.270	0.022	0.8580	
2880 minute summer	Basin 1a	3.007	S20	5.6	0.103	0.025	1.1044	
1440 minute summer	Basin 2a	3.005	S19	1.5	1.235	0.002	0.2468	
10080 minute summer	Swale	2.000_1	S7	0.1	0.474	0.002	0.0013	



Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	Basin 2b	504	73.505	0.705	8.1	87.2110	0.0000	FLOOD RISK
240 minute summer	Basin 1c	176	71.780	0.680	50.9	115.3561	0.0000	SURCHARGED
720 minute winter	Carpark 1	675	73.697	0.464	4.2	0.0000	0.0000	OK
720 minute winter	Carpark 2	690	72.340	0.796	2.4	0.0000	0.0000	OK
960 minute winter	Carpark 3	900	73.274	0.206	0.3	5.8657	0.0000	SURCHARGED
1440 minute winter	Carpark 4	1380	73.605	0.428	0.5	12.0853	0.0000	SURCHARGED
1440 minute summer	Carpark 5	1440	73.175	0.237	0.6	11.0720	0.0000	SURCHARGED
1440 minute summer	Carpark 6	1440	73.158	0.243	0.6	11.0320	0.0000	SURCHARGED
2880 minute winter	Carpark 7	2700	73.281	0.285	0.3	15.6261	0.0000	SURCHARGED
10080 minute summer	Swale 1	10080	75.004	0.604	0.7	82.8478	0.0000	FLOOD RISK
2880 minute summer	S20	3120	70.771	0.682	5.6	1.2047	0.0000	FLOOD RISK
10080 minute summer	1	10080	71.990	0.349	1.0	0.0000	0.0000	OK
10080 minute summer	J1	10080	71.990	0.349	0.5	120.6625	0.0000	SURCHARGED
15 minute summer	J1 Filter Layer	1	71.141	0.000	0.0	0.0000	0.0000	OK
2880 minute winter	Carpark 8	2820	72.525	0.477	0.9	53.9043	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	Basin 2b	2.003_2	Basin 2a	3.0	0.716	0.008	0.7735	
240 minute summer	Basin 1c	3.006_1	Basin 1b	12.6	1.089	0.017	2.8695	
720 minute winter	Carpark 1	Porous Paving	S16	2.0	0.134	0.071		
720 minute winter	Carpark 2	Porous Paving	S18	1.3	0.072	0.088		
960 minute winter	Carpark 3	2.000_2	S1	0.1	0.245	0.010	0.0024	
1440 minute winter	Carpark 4	1.000_1	S1	0.1	0.274	0.015	0.0067	
1440 minute summer	Carpark 5	4.000	S2	0.1	0.251	0.011	0.0024	
1440 minute summer	Carpark 6	5.000	S2	0.1	0.252	0.011	0.0018	
2880 minute winter	Carpark 7	3.000_1	S2	0.1	0.258	0.012	0.0041	
10080 minute summer	Swale 1	9.000	S13	0.1	0.393	0.007	0.0055	
2880 minute summer	S20	3.008	Outfall	5.6	1.369	0.023	0.0259	709.3
10080 minute summer	J1	7.000	S9	0.1	0.265	0.013	0.0018	
10080 minute summer	J1	Filtration		0.0				
15 minute summer	J1 Filter Layer	Infiltration		0.0				
2880 minute winter	Carpark 8	11.000	S17	0.1	0.279	0.016	0.0362	