

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	1.000	Preferred Cover Depth (m)	1.350
Time of Entry (mins)	5.00	Include Intermediate Ground	x
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Add Inflow (l/s)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
S1	0.010	5.00		70.961	1200	534171.671	122665.066	1.575	69.386
S2				69.970	1200	534161.936	122678.697	1.575	68.395
S3 (Ph1_PP_1-6)	0.050	5.00		70.431		534151.963	122701.317	1.651	68.780
S4	0.082	5.00		69.290	1200	534150.149	122677.955	1.650	67.640
S5 (Ph1_PP_7-9)	0.046	5.00		68.515		534133.444	122676.061	1.000	67.515
S6	0.017	5.00		68.180	1200	534140.634	122666.072	1.650	66.530
S7 (Ph1_PP_10-11)	0.040	5.00		66.775		534120.669	122656.760	1.000	65.775
S8	0.017	5.00		66.207	1200	534127.878	122646.332	1.650	64.557
S9 (Ph1_AC_1)	0.074	5.00		65.500		534140.751	122616.668	2.200	63.300
S10				65.222	1200	534127.504	122623.507	2.011	63.211
S11 (Ph1_PP_12-13)	0.032	5.00		65.600		534110.254	122639.403	1.000	64.600
S12	0.016	5.00		64.488	1200	534115.442	122629.892	2.011	62.477
S13 (Ph1_PP_14-15)	0.050	5.00		62.675		534093.124	122629.604	0.355	62.320
S14	0.045	5.00		63.138	1200	534105.086	122617.647	1.631	61.507
S15 (Ph1_PP_34-37)	0.021	5.00		64.200		534141.934	122576.051	1.000	63.200
S16				64.165	1200	534132.848	122564.534	1.575	62.590
S17	0.035	5.00		63.841	1200	534124.823	122557.285	1.575	62.266
S18 (Ph1_PP_28-30)	0.020	5.00		61.750		534096.060	122559.537	1.000	60.750
S19	0.046	5.00		61.447	1200	534100.107	122571.842	1.747	59.700
S20 (Ph1_PP_16-18)	0.060	5.00		59.850		534066.130	122607.924	1.025	58.825
S21	0.049	5.00		60.144	1200	534078.948	122593.146	1.822	58.322
S22 (Ph1_PP_19-20)	0.055	5.00		58.155		534039.211	122579.752	1.146	57.009
S23	0.045	5.00		57.659	1200	534049.196	122564.697	1.922	55.737
S24 (Ph1_AC_2)	0.059	5.00		62.500		534117.441	122526.385	2.200	60.300
S25 (Ph1_AC_3)	0.066	5.00		57.800		534063.935	122513.729	1.400	56.400
S26				57.850	1200	534058.538	122520.475	1.577	56.273
S27 (Ph1_PP_24-26)	0.049	5.00		56.230		534059.825	122539.366	1.000	55.230
S28	0.024	5.00		56.272	1200	534050.773	122531.975	1.575	54.697
S29				53.000	1350	534033.514	122539.585	1.725	51.275
S30				52.800	1350	534028.591	122528.419	1.725	51.075
S31 (Ph1_AC_4)		5.00		54.000		534037.093	122489.503	3.000	51.000
S32 (Hydrobrake)				52.200	1500	534027.594	122478.299	1.658	50.542
S33				54.500	1350	534035.926	122460.293	5.013	49.487
S34				51.200	1350	534011.647	122438.329	1.818	49.382
S35				48.400	1500	533987.861	122445.230	1.725	46.675
S36				48.244	1350	533977.940	122446.013	2.894	45.350
S37	0.098	5.00		48.016	1350	533969.566	122431.237	2.695	45.321
S38	0.063	5.00		46.945	1350	533961.450	122400.789	1.725	45.220
S39				46.680	1350	533956.137	122391.860	1.725	44.955
S40	0.081	5.00		51.844	1200	534018.674	122380.956	1.575	50.269
S41	0.041	5.00		49.458	1200	534001.177	122357.771	1.575	47.883
S42	0.016	5.00		48.967	1200	533994.115	122356.447	1.575	47.392

Nodes

Name	Area (ha)	T of E (mins)	Add Inflow (l/s)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
S43	0.034	5.00		48.421	1200	533984.011	122361.085	1.575	46.846
S44	0.072	5.00		46.420	1350	533949.458	122380.543	1.725	44.695
S45				45.962	1350	533940.146	122385.787	1.725	44.237
S46	0.128	5.00		45.593	1350	533934.768	122376.744	1.725	43.868
S47	0.014	5.00		47.617	1200	533799.992	122400.682	1.575	46.042
S48				47.617	1200	533794.626	122391.162	1.640	45.977
S49	0.021	5.00		47.617	1200	533800.536	122381.074	1.710	45.907
S50	0.033	5.00		47.617	1200	533812.983	122369.880	1.810	45.807
S51	0.040	5.00		47.617	1200	533823.985	122356.639	1.913	45.704
S52 (Ph2_AC_3)		5.00		46.000		533829.419	122330.597	1.780	44.220
S53	0.037	5.00		45.755	1200	533837.401	122332.327	1.575	44.180
S54	0.018	5.00		46.629	1200	533832.196	122345.087	2.532	44.097
S55 (Ph2_PP_133-137)	0.057	5.00		46.400		533859.130	122365.501	1.000	45.400
S56	0.036	5.00		46.417	1200	533864.856	122357.987	2.530	43.887
S57 (Ph2_PP_120-126)	0.062	5.00		50.850		533832.531	122398.295	1.000	49.850
S58	0.029	5.00		51.330	1200	533829.106	122407.740	1.575	49.755
S59	0.022	5.00		50.183	1200	533870.338	122420.813	1.575	48.608
S60	0.034	5.00		46.602	1200	533887.069	122373.989	1.575	45.027
S61				46.041	1200	533890.405	122366.606	2.316	43.725
S62	0.042	5.00		45.381	1200	533895.002	122356.784	1.721	43.660
S63 (Ph2_PP_109-119)	0.081	5.00		46.000		533908.632	122367.590	1.000	45.000
S64				46.000	1200	533908.517	122356.064	1.100	44.900
S65	0.026	5.00		44.829	1200	533902.051	122349.194	1.575	43.254
S66	0.012	5.00		44.237	1350	533914.111	122342.007	1.950	42.287
S67	0.030	5.00		43.987	1350	533909.334	122333.973	2.487	41.500
S68	0.115	5.00		43.490	1350	533909.583	122314.934	2.648	40.842
S69	0.149	5.00		43.620	1350	533926.992	122309.442	2.815	40.805
S69 (Ph2_AC_1)	0.159	5.00		44.000	1200	533944.001	122318.585	1.781	42.219
S70	0.008	5.00		43.721	1200	533938.322	122303.118	2.946	40.775
S71	0.027	5.00		43.546	1200	533950.622	122296.063	2.801	40.745
S72				43.206	1200	533953.673	122286.700	2.481	40.725
S73	0.037	5.00		42.980	1200	533953.207	122280.148	2.270	40.710
S74	0.018	5.00		42.220	1800	533940.897	122255.767	1.990	40.230
S75				41.800	1350	533938.322	122247.598	1.650	40.150
S77 (Ph2_AC_2)		5.00		43.000		533936.164	122257.492	2.750	40.250
Ph3_PP_89-92_235-238	0.059	5.00		53.800		533702.822	122254.944	1.000	52.800
S82	0.015	5.00		53.355	1200	533713.114	122253.351	1.575	51.780
Ph3_PP_212-213	0.042	5.00		53.250		533728.914	122266.855	1.000	52.250
S83	0.017	5.00		52.751	1200	533734.139	122264.861	1.575	51.176
S84	0.047	5.00		51.846	1200	533752.565	122274.537	1.575	50.271
S85	0.030	5.00		51.467	1200	533760.529	122281.189	1.575	49.892
S86	0.044	5.00		50.708	1200	533767.966	122305.757	1.575	49.133
Ph3_PP_198-202	0.057	5.00		56.000		533708.858	122302.155	1.000	55.000
S87	0.013	5.00		55.230	1200	533711.021	122310.344	1.500	53.730
S88	0.011	5.00		54.046	1200	533725.615	122318.947	1.500	52.546
S89	0.059	5.00		52.800	1200	533742.604	122325.803	1.450	51.350
Ph3_Basin_3_Inlet				50.500		533754.714	122330.275	1.500	49.000
Ph3_Basin_3_Outfall		5.00		50.500		533760.174	122329.554	1.500	49.000
S90 Hydrobrake				50.200	1200	533769.863	122325.924	1.400	48.800
Ph3_Basin_2_Inlet 1				48.500		533780.642	122321.885	1.268	47.232
S91 Ph3_Basin_2_Inlet 2				48.500		533784.300	122318.016	1.300	47.200
Ph3_Basin_2_outlet		5.00		48.500		533808.697	122306.299	1.300	47.200

Nodes

Name	Area (ha)	T of E (mins)	Add Inflow (l/s)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
S92 Hydrobrake	0.068	5.00		48.500	1200	533811.324	122303.797	1.400	47.100
S93				47.000	1350	533825.091	122290.543	1.725	45.275
Ph3_PP_Block_B	0.028	5.00		47.325		533802.643	122266.297	1.000	46.325
S94	0.028	5.00		47.277	1200	533813.338	122255.351	1.500	45.777
S95	0.037	5.00		46.567	1350	533835.524	122280.284	1.725	44.842
S96 (Ph3_AC_2)		5.00		44.100		533848.338	122273.887	1.600	42.500
S97	0.088	5.00		46.000	1800	533845.348	122271.104	3.500	42.500
S98	0.099	5.00		43.600	1800	533878.156	122236.205	2.255	41.345
S99	0.012	5.00		41.800	1800	533889.082	122229.328	2.105	39.695
S100	0.046	5.00		55.347	1200	533630.800	122263.772	1.575	53.772
S101	0.051	5.00		55.582	1200	533640.545	122270.315	1.880	53.702
S102	0.026	5.00		54.468	1200	533652.699	122251.585	1.575	52.893
S103	0.063	5.00		53.264	1200	533662.716	122232.601	1.650	51.614
S104	0.088	5.00		52.768	1200	533664.305	122223.676	1.650	51.118
S105	0.098	5.00		50.596	1200	533680.894	122189.936	1.725	48.871
S106	0.031	5.00		49.927	1200	533683.796	122178.293	1.725	48.202
Ph3_PP_271-274	0.045	5.00		48.450		533687.929	122147.091	0.850	47.600
S107	0.062	5.00		49.047	1200	533691.232	122153.660	1.725	47.322
S109	0.029	5.00		48.947	1350	533699.628	122152.056	2.809	46.138
S110	0.060	5.00		48.927	1200	533744.601	122181.269	1.575	47.352
Ph3_PP_275-284	0.054	5.00		48.500		533730.500	122153.681	1.000	47.500
S111	0.107	5.00		47.881	1350	533749.387	122166.117	1.908	45.973
S112	0.096	5.00		45.616	1350	533788.965	122175.574	1.983	43.633
S113	0.071	5.00		45.066	1350	533807.533	122180.284	1.725	43.341
S114	0.006	5.00		44.982	1500	533813.223	122184.923	1.875	43.107
Ph3_PP_224-228	0.051	5.00		50.260		533727.812	122200.462	1.000	49.260
S115	0.000	5.00		49.811	1200	533744.137	122200.916	1.575	48.236
Ph3_PP_221-223	0.029	5.00		49.675		533758.774	122214.468	1.000	48.675
S116	0.012	5.00		49.021	1200	533765.448	122213.043	1.575	47.446
S117	0.049	5.00		48.739	1200	533777.522	122226.431	1.575	47.164
S118	0.014	5.00		51.683	1200	533750.899	122262.510	1.500	50.183
S119	0.135	5.00		48.395	1200	533786.185	122231.700	1.650	46.745
S120	0.130	5.00		45.021	1500	533822.848	122198.296	1.950	43.071
S121	0.077	5.00		43.897	1500	533837.463	122190.381	1.875	42.022
S122	0.038	5.00		43.082	1500	533850.889	122185.864	1.875	41.207
S123	0.051	5.00		41.660	1500	533875.702	122180.079	1.875	39.785
S124 (Ph3_PP_151-155)	0.075	5.00		42.500		533880.606	122205.947	1.000	41.500
S125 (Ph3_AC_1)	0.000	5.00		41.200	1800	533905.400	122188.857	2.450	38.750
S126 (Ph3 Hydrobrake)				41.000	2100	533907.483	122187.873	2.300	38.700
S126_OUT (Connection to Existing)				40.330	1800	533911.755	122185.857	1.880	38.450
PH1_AC1_Inlet				65.500		534147.928	122617.086	2.200	63.300
Ph1_AC2_Inlet				62.500		534125.282	122539.172	2.200	60.300
Ph1_AC3_Inlet				57.800		534073.946	122502.558	1.400	56.400
Ph3_Basin_1_Inlet				48.010		533689.445	122131.614	1.800	46.210
Ph3_Basin_1_Outlet		5.00		48.010		533701.689	122135.837	1.800	46.210
S125				40.900	1800	533902.265	122176.817	1.827	39.073
PC3_AC_1_Inlet1				41.200		533896.043	122217.264	2.450	38.750
PC3_AC_1_Inlet2				41.200		533886.578	122203.148	2.421	38.779
S8 (ph4)			2.4	40.740	1350	533940.592	122208.852	1.725	39.015
S9(ph4)				40.150	1350	533927.181	122192.358	1.550	38.600
S10(ph4)				40.000	1800	533922.418	122185.616	1.500	38.500
S126_out existing discharge P1+2+4				40.330		533913.681	122182.683	1.880	38.450

Nodes

Name	Area (ha)	T of E (mins)	Add Inflow (l/s)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
Ph1_Basin_Outlet		5.00		52.200		534023.984	122486.099	1.200	51.000
Ph1_Basin_Inlet1				52.200		534027.905	122519.317	1.200	51.000
Ph1_Basin_Inlet2				52.200		534028.082	122491.927	1.200	51.000
Ph2_PP_145-150	0.022	5.00		43.750		533879.065	122315.602	1.000	42.750
S24A				63.762		534122.238	122523.046	3.462	60.300
S24B				62.460		534108.859	122506.570	2.294	60.166
S24C				60.742		534094.559	122484.521	1.592	59.150
S24D				60.212		534083.749	122491.533	1.612	58.600

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)
18.000	S1	S2	16.750	0.600	69.386	68.395	0.991	16.9	225	5.09	50.0
18.001	S2	S4	11.810	0.600	68.395	67.715	0.680	17.4	225	5.15	50.0
19.000	S3 (Ph1_PP_1-6)	S4	23.432	0.600	68.780	67.715	1.065	22.0	225	5.14	50.0
18.002	S4	S6	15.223	0.600	67.640	66.530	1.110	13.7	300	5.21	50.0
20.000	S5 (Ph1_PP_7-9)	S6	12.308	0.600	67.515	66.680	0.835	14.7	150	5.08	50.0
18.003	S6	S8	23.503	0.600	66.530	64.557	1.973	11.9	300	5.29	50.0
21.000	S7 (Ph1_PP_10-11)	S8	12.677	0.600	65.775	64.707	1.068	11.9	150	5.07	50.0
18.004	S8	S12	20.614	0.600	64.557	62.477	2.080	9.9	300	5.36	50.0
22.000	S9 (Ph1_AC_1)	S10	14.908	0.600	63.300	63.211	0.089	167.5	225	5.25	50.0
22.001	S10	S12	13.648	0.600	63.211	62.552	0.659	20.7	225	5.33	50.0
23.000	S11 (Ph1_PP_12-13)	S12	10.834	0.600	64.600	62.627	1.973	5.5	150	5.04	50.0
18.005	S12	S14	16.037	0.600	62.477	61.582	0.895	17.9	300	5.43	50.0
24.000	S13 (Ph1_PP_14-15)	S14	16.913	0.600	62.320	61.657	0.663	25.5	150	5.14	50.0
18.006	S14	S21	35.826	0.600	61.507	58.322	3.185	11.2	300	5.56	50.0
25.000	S15 (Ph1_PP_34-37)	S16	14.670	0.600	63.200	62.590	0.610	24.0	225	5.09	50.0
25.001	S16	S17	10.814	0.600	62.590	62.266	0.324	33.4	225	5.17	50.0
25.002	S17	S19	28.684	0.600	62.266	59.700	2.566	11.2	225	5.29	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)
18.000	3.198	127.1	1.8	1.350	1.350	0.010	0.0
18.001	3.155	125.4	1.8	1.350	1.350	0.010	0.0
19.000	2.801	111.4	9.0	1.426	1.350	0.050	0.0
18.002	4.267	301.6	25.7	1.350	1.350	0.142	0.0
20.000	2.637	46.6	8.3	0.850	1.350	0.046	0.0
18.003	4.579	323.7	37.0	1.350	1.350	0.205	0.0
21.000	2.940	52.0	7.2	0.850	1.350	0.040	0.0
18.004	5.022	355.0	47.3	1.350	1.711	0.262	0.0
22.000	1.007	40.0	13.4	1.975	1.786	0.074	0.0
22.001	2.888	114.8	13.4	1.786	1.711	0.074	0.0
23.000	4.329	76.5	5.8	0.850	1.711	0.032	0.0
18.005	3.731	263.7	69.4	1.711	1.256	0.384	0.0
24.000	2.001	35.4	9.0	0.205	1.331	0.050	0.0
18.006	4.713	333.1	86.6	1.331	1.522	0.479	0.0
25.000	2.679	106.5	3.8	0.775	1.350	0.021	0.0
25.001	2.272	90.3	3.8	1.350	1.350	0.021	0.0
25.002	3.935	156.5	10.1	1.350	1.522	0.056	0.0

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)
26.000	S18 (Ph1_PP_28-30)	S19	12.953	0.600	60.750	59.700	1.050	12.3	150	5.07	50.0
25.003	S19	S21	30.026	0.600	59.700	58.397	1.303	23.0	225	5.47	50.0
27.000	S20 (Ph1_PP_16-18)	S21	19.562	0.600	58.825	58.397	0.428	45.7	225	5.17	50.0
18.007	S21	S23	41.165	0.600	58.322	55.737	2.585	15.9	300	5.73	50.0
28.000	S22 (Ph1_PP_19-20)	S23	18.065	0.600	57.009	55.887	1.122	16.1	150	5.12	50.0
18.008	S23	S29	29.606	0.600	55.737	51.350	4.387	6.7	300	5.82	50.0
38.000	S24 (Ph1_AC_2)	S24A	5.845	0.600	60.300	60.300	0.000	0.0	225	5.10	50.0
29.000	S25 (Ph1_AC_3)	S26	8.639	0.600	56.400	56.348	0.052	166.9	225	5.14	50.0
29.001	S26	S28	13.876	0.600	56.273	54.697	1.576	8.8	225	5.19	50.0
30.000	S27 (Ph1_PP_24-26)	S28	11.686	0.600	55.230	54.722	0.508	23.0	150	5.09	50.0
29.002	S28	S29	18.862	0.600	54.697	51.425	3.272	5.8	225	5.25	50.0
18.009	S29	S30	12.203	0.600	51.275	51.075	0.200	61.0	375	5.90	50.0
18.010	S30	Ph1_Basin_Inlet1	9.128	0.600	51.075	51.000	0.075	121.7	375	6.00	50.0
41.000	S31 (Ph1_AC_4)	Ph1_Basin_Inlet2	9.331	0.600	51.000	51.000	0.000	0.0	375	5.16	50.0
1.000	Ph1_Basin_Outlet	S32 (Hydrobrake)	8.595	0.600	51.000	50.542	0.458	18.8	375	5.03	50.0
1.001	S32 (Hydrobrake)	S33	19.840	0.600	50.542	49.487	1.055	18.8	375	5.11	50.0
1.002	S33	S34	32.740	0.600	49.487	49.382	0.105	311.8	375	5.65	50.0
1.003	S34	S35	24.767	0.600	49.382	46.675	2.707	9.1	375	5.72	50.0
1.004	S35	S36	9.952	0.600	46.675	45.350	1.325	7.5	375	5.74	50.0
1.005	S36	S37	16.984	0.600	45.350	45.321	0.029	585.7	375	6.12	50.0
1.006	S37	S38	31.511	0.600	45.321	45.220	0.101	312.0	375	6.64	50.0
1.007	S38	S39	10.390	0.600	45.220	44.955	0.265	39.2	375	6.70	50.0
1.008	S39	S44	13.141	0.600	44.955	44.695	0.260	50.5	375	6.78	50.0
2.000	S40	S41	29.046	0.600	50.269	47.883	2.386	12.2	225	5.13	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)
26.000	2.884	51.0	3.6	0.850	1.597	0.020	0.0
25.003	2.737	108.8	22.0	1.522	1.522	0.122	0.0
27.000	1.940	77.1	10.8	0.800	1.522	0.060	0.0
18.007	3.959	279.8	128.3	1.522	1.622	0.710	0.0
28.000	2.523	44.6	9.9	0.996	1.622	0.055	0.0
18.008	6.088	430.3	146.4	1.622	1.350	0.810	0.0
38.000	1.000	39.8	10.7	1.975	3.237	0.059	0.0
29.000	1.009	40.1	11.9	1.175	1.277	0.066	0.0
29.001	4.436	176.4	11.9	1.352	1.350	0.066	0.0
30.000	2.108	37.3	8.9	0.850	1.400	0.049	0.0
29.002	5.485	218.1	25.1	1.350	1.350	0.139	0.0
18.009	2.323	256.5	171.5	1.350	1.350	0.949	0.0
18.010	1.641	181.2	171.5	1.350	0.825	0.949	0.0
41.000	1.000	110.4	0.0	2.625	0.825	0.000	0.0
1.000	4.199	463.7	0.0	0.825	1.283	0.000	0.0
1.001	4.194	463.2	0.0	1.283	4.638	0.000	0.0
1.002	1.020	112.7	0.0	4.638	1.443	0.000	0.0
1.003	6.019	664.8	0.0	1.443	1.350	0.000	0.0
1.004	6.645	733.9	0.0	1.350	2.519	0.000	0.0
1.005	0.741	81.9	0.0	2.519	2.320	0.000	0.0
1.006	1.020	112.7	17.7	2.320	1.350	0.098	0.0
1.007	2.901	320.4	29.1	1.350	1.350	0.161	0.0
1.008	2.553	282.0	29.1	1.350	1.350	0.161	0.0
2.000	3.770	149.9	14.6	1.350	1.350	0.081	0.0

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)
2.001	S41	S42	7.185	0.600	47.883	47.392	0.491	14.6	225	5.16	50.0
2.002	S42	S43	11.118	0.600	47.392	46.846	0.546	20.4	225	5.23	50.0
2.003	S43	S44	39.655	0.600	46.846	44.845	2.001	19.8	225	5.45	50.0
1.009	S44	S45	10.687	0.600	44.695	44.237	0.458	23.3	375	6.83	50.0
1.010	S45	S46	10.521	0.600	44.237	43.868	0.369	28.5	375	6.88	50.0
1.011	S46	S66	40.415	0.600	43.868	42.512	1.356	29.8	375	7.08	50.0
3.000	S47	S48	10.928	0.600	46.042	45.977	0.065	168.1	225	5.18	50.0
3.001	S48	S49	11.692	0.600	45.977	45.907	0.070	167.0	225	5.37	50.0
3.002	S49	S50	16.740	0.600	45.907	45.807	0.100	167.4	225	5.65	50.0
3.003	S50	S51	17.215	0.600	45.807	45.704	0.103	167.1	225	5.94	50.0
3.004	S51	S54	14.173	0.600	45.704	44.097	1.607	8.8	225	5.99	50.0
4.000	S52 (Ph2_AC_3)	S53	8.167	0.600	44.220	44.180	0.040	204.2	225	5.15	50.0
4.001	S53	S54	13.781	0.600	44.180	44.097	0.083	166.0	225	5.38	50.0
3.005	S54	S56	35.115	0.600	44.097	43.887	0.210	167.2	225	6.57	50.0
5.000	S55 (Ph2_PP_133-137)	S56	9.447	0.600	45.400	44.012	1.388	6.8	100	5.05	50.0
3.006	S56	S61	26.964	0.600	43.887	43.725	0.162	166.4	225	7.01	50.0
6.000	S57 (Ph2_PP_120-126)	S58	10.047	0.600	49.850	49.830	0.020	502.3	225	5.29	50.0
6.001	S58	S59	43.255	0.600	49.755	48.608	1.147	37.7	225	5.63	50.0
6.002	S59	S60	49.723	0.600	48.608	45.027	3.581	13.9	225	5.86	50.0
6.003	S60	S61	8.102	0.600	45.027	43.725	1.302	6.2	225	5.89	50.0
3.007	S61	S62	10.845	0.600	43.725	43.660	0.065	166.8	225	7.19	50.0
3.008	S62	S65	10.358	0.600	43.660	43.404	0.256	40.5	225	7.28	50.0
7.000	S63 (Ph2_PP_109-119)	S64	11.527	0.600	45.000	44.900	0.100	115.3	150	5.21	50.0
7.001	S64	S65	9.434	0.600	44.900	43.329	1.571	6.0	150	5.24	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)
2.001	3.438	136.7	22.0	1.350	1.350	0.122	0.0
2.002	2.912	115.8	24.9	1.350	1.350	0.138	0.0
2.003	2.952	117.4	31.1	1.350	1.350	0.172	0.0
1.009	3.764	415.7	73.2	1.350	1.350	0.405	0.0
1.010	3.404	375.9	73.2	1.350	1.350	0.405	0.0
1.011	3.329	367.7	96.3	1.350	1.350	0.533	0.0
3.000	1.005	40.0	2.5	1.350	1.415	0.014	0.0
3.001	1.009	40.1	2.5	1.415	1.485	0.014	0.0
3.002	1.007	40.1	6.3	1.485	1.585	0.035	0.0
3.003	1.008	40.1	12.3	1.585	1.688	0.068	0.0
3.004	4.432	176.2	19.5	1.688	2.307	0.108	0.0
4.000	0.911	36.2	0.0	1.555	1.350	0.000	0.0
4.001	1.012	40.2	6.7	1.350	2.307	0.037	0.0
3.005	1.008	40.1	29.5	2.307	2.305	0.163	0.0
5.000	2.982	23.4	10.3	0.900	2.305	0.057	0.0
3.006	1.010	40.2	46.3	2.305	2.091	0.256	0.0
6.000	0.577	22.9	11.2	0.775	1.275	0.062	0.0
6.001	2.137	85.0	16.4	1.350	1.350	0.091	0.0
6.002	3.530	140.3	20.4	1.350	1.350	0.113	0.0
6.003	5.279	209.9	26.6	1.350	2.091	0.147	0.0
3.007	1.009	40.1	72.8	2.091	1.496	0.403	0.0
3.008	2.062	82.0	80.4	1.496	1.200	0.445	0.0
7.000	0.935	16.5	14.6	0.850	0.950	0.081	0.0
7.001	4.139	73.1	14.6	0.950	1.350	0.081	0.0

Links

Link 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)	Rainfall (mm/h)
3.009	S65	S66	14.039	0.600	43.254	42.587	0.667	21.0	375	7.34	50.0
	S66	S67	9.347	0.600	42.287	41.500	0.787	11.9	600	7.36	50.0
1.013	S67	S68	19.041	0.600	41.500	40.842	0.658	28.9	600	7.43	50.0
1.014	S68	S69	18.255	0.600	40.842	40.805	0.037	493.4	600	7.71	50.0
1.015	S69	S70	12.975	0.600	40.805	40.775	0.030	432.5	600	7.89	50.0
9.000	S69 (Ph2_AC_1)	S70	16.477	0.600	42.219	42.015	0.204	80.8	150	5.25	50.0
1.016	S70	S71	14.180	0.600	40.775	40.745	0.030	472.7	600	8.11	50.0
1.017	S71	S72	9.848	0.600	40.745	40.725	0.020	492.4	600	8.26	50.0
1.018	S72	S73	6.569	0.600	40.725	40.710	0.015	437.9	600	8.35	50.0
1.019	S73	S74	27.312	0.600	40.710	40.230	0.480	56.9	600	8.49	50.0
1.020	S74	S75	8.565	0.600	40.230	40.150	0.080	107.1	300	8.59	50.0
1.021	S75	S8 (ph4)	38.812	0.600	40.150	39.015	1.135	34.2	300	8.83	50.0
1.022	S8 (ph4)	S9(ph4)	21.258	0.600	39.015	38.600	0.415	51.2	300	8.99	50.0
1.023	S9(ph4)	S10(ph4)	8.255	0.600	38.600	38.500	0.100	82.5	300	9.07	50.0
1.024	S10(ph4)	S126_out existing discharge P1+2+4	9.216	0.600	38.500	38.450	0.050	184.3	300	9.20	50.0
32.000	Ph3_PP_271-274	S107	7.353	0.600	47.600	47.547	0.053	138.7	150	5.14	50.0
36.001	S82	S83	23.969	0.600	51.780	51.176	0.604	39.7	225	5.25	50.0
36.002	S83	S84	20.812	0.600	51.176	50.271	0.905	23.0	225	5.38	50.0
36.003	S84	S85	10.377	0.600	50.271	49.892	0.379	27.4	225	5.44	50.0
36.004	S85	S86	25.669	0.600	49.892	49.133	0.759	33.8	225	5.63	50.0
36.005	S86	S91 Ph3_Basin_2_Inlet 2	20.423	0.600	49.133	47.200	1.933	10.6	225	5.72	50.0
39.001	S87	S88	16.941	0.600	53.730	52.546	1.184	14.3	150	5.14	50.0
39.002	S88	S89	18.320	0.600	52.546	51.350	1.196	15.3	150	5.26	50.0
39.003	S89	Ph3_Basin_3_Inlet	12.909	0.600	51.350	49.000	2.350	5.5	150	5.31	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)
3.009	3.964	437.8	99.7	1.200	1.275	0.552	0.0
3	7.090	2004.7	198.2	1.350	1.887	1.097	0.0
1.013	4.538	1283.0	203.6	1.887	2.048	1.127	0.0
1.014	1.089	308.0	228.4	2.048	2.215	1.264	0.0
1.015	1.164	329.2	255.3	2.215	2.346	1.413	0.0
9.000	1.119	19.8	28.7	1.631	1.556	0.159	0.0
1.016	1.113	314.7	285.5	2.346	2.201	1.580	0.0
1.017	1.090	308.3	290.4	2.201	1.881	1.607	0.0
1.018	1.157	327.1	290.4	1.881	1.670	1.607	0.0
1.019	3.232	913.9	297.1	1.670	1.390	1.644	0.0
1.020	1.519	107.4	300.3	1.690	1.350	1.662	0.0
1.021	2.697	190.7	300.3	1.350	1.425	1.662	0.0
1.022	2.201	155.6	302.7	1.425	1.250	1.662	2.4
1.023	1.731	122.4	302.7	1.250	1.200	1.662	2.4
1.024	1.155	81.6	302.7	1.200	1.580	1.662	2.4
32.000	0.851	15.0	8.1	0.700	1.350	0.045	0.0
36.001	2.082	82.8	13.4	1.350	1.350	0.074	0.0
36.002	2.740	108.9	24.0	1.350	1.350	0.133	0.0
36.003	2.510	99.8	32.5	1.350	1.350	0.180	0.0
36.004	2.257	89.7	37.9	1.350	1.350	0.210	0.0
36.005	4.048	161.0	45.9	1.350	1.075	0.254	0.0
39.001	2.677	47.3	12.6	1.350	1.350	0.070	0.0
39.002	2.587	45.7	14.6	1.350	1.300	0.081	0.0
39.003	4.328	76.5	25.3	1.300	1.350	0.140	0.0

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)
40.001	S90 Hydrobrake	Ph3_Basin_2_Inlet 1	11.511	0.600	48.800	47.232	1.568	7.3	225	5.13	50.0
34.000	Ph3_Basin_2_outlet	S92 Hydrobrake	3.628	0.600	47.200	47.100	0.100	36.3	225	5.03	50.0
34.001	S92 Hydrobrake	S93	19.110	0.600	47.100	45.400	1.700	11.2	225	5.11	50.0
34.002	S93	S95	14.632	0.600	45.275	44.842	0.433	33.8	375	5.19	50.0
33.001	S94	S95	33.375	0.600	45.777	44.992	0.785	42.5	225	5.38	50.0
33.002	S95	S97	13.446	0.600	44.842	42.500	2.342	5.7	375	5.41	50.0
35.000	S96 (Ph3_AC_2)	S97	4.085	0.600	42.500	42.500	0.000	0.0	375	5.07	50.0
33.003	S97	S98	47.899	0.600	42.500	41.345	1.155	41.5	375	5.69	50.0
33.004	S98	S99	12.910	0.600	41.345	39.695	1.650	7.8	375	5.72	50.0
33.005	S99	PC3_AC_1_Inlet1	13.928	0.600	39.695	38.750	0.945	14.7	375	5.77	50.0
31.000	S100	S101	11.738	0.600	53.772	53.702	0.070	167.0	225	5.19	50.0
31.001	S101	S102	22.328	0.600	53.702	52.893	0.809	27.6	225	5.34	50.0
31.002	S102	S103	21.465	0.600	52.893	51.689	1.204	17.8	225	5.46	50.0
31.003	S103	S104	9.065	0.600	51.614	51.118	0.496	18.3	300	5.50	50.0
31.004	S104	S105	37.598	0.600	51.118	48.946	2.172	17.3	300	5.66	50.0
31.005	S105	S106	11.999	0.600	48.871	48.202	0.669	17.9	375	5.71	50.0
31.006	S106	S107	25.731	0.600	48.202	47.322	0.880	29.2	375	5.84	50.0
31.007	S107	Ph3_Basin_1_Inlet	22.118	0.600	47.322	46.210	1.112	19.9	375	5.93	50.0
11.000	Ph3_Basin_1_Outlet	S109	16.349	0.600	46.210	46.158	0.052	313.0	375	5.27	50.0
11.001	S109	S111	51.708	0.600	46.138	45.973	0.165	313.0	375	6.11	50.0
13.000	S110	S111	15.890	0.600	47.352	46.123	1.229	12.9	225	5.07	50.0
11.002	S111	S112	40.692	0.600	45.973	43.633	2.340	17.4	375	6.27	50.0
11.003	S112	S113	19.156	0.600	43.633	43.341	0.292	65.6	375	6.41	50.0
11.004	S113	S114	7.341	0.600	43.341	43.257	0.084	87.4	375	6.47	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)
40.001	4.859	193.2	0.0	1.175	1.043	0.000	0.0
34.000	2.179	86.6	0.0	1.075	1.175	0.000	0.0
34.001	3.924	156.0	12.3	1.175	1.375	0.068	0.0
34.002	3.126	345.2	12.3	1.350	1.350	0.068	0.0
33.001	2.012	80.0	10.1	1.275	1.350	0.056	0.0
33.002	7.602	839.6	29.1	1.350	3.125	0.161	0.0
35.000	1.000	110.4	0.0	1.225	3.125	0.000	0.0
33.003	2.820	311.5	45.0	3.125	1.880	0.249	0.0
33.004	6.510	719.0	62.9	1.880	1.730	0.348	0.0
33.005	4.740	523.5	65.1	1.730	2.075	0.360	0.0
31.000	1.009	40.1	8.3	1.350	1.655	0.046	0.0
31.001	2.500	99.4	17.5	1.655	1.350	0.097	0.0
31.002	3.113	123.8	22.2	1.350	1.350	0.123	0.0
31.003	3.694	261.1	33.6	1.350	1.350	0.186	0.0
31.004	3.796	268.3	49.5	1.350	1.350	0.274	0.0
31.005	4.295	474.4	67.2	1.350	1.350	0.372	0.0
31.006	3.361	371.2	72.8	1.350	1.350	0.403	0.0
31.007	4.078	450.4	92.2	1.350	1.425	0.510	0.0
11.000	1.019	112.5	0.0	1.425	2.414	0.000	0.0
11.001	1.019	112.5	5.2	2.434	1.533	0.029	0.0
13.000	3.658	145.5	10.8	1.350	1.533	0.060	0.0
11.002	4.362	481.8	45.2	1.533	1.608	0.250	0.0
11.003	2.240	247.4	62.5	1.608	1.350	0.346	0.0
11.004	1.939	214.1	75.4	1.350	1.350	0.417	0.0

Links

	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)	R (mm)
5	S114	S120	16.477	0.600	43.107	43.071	0.036	455.0	525	6.74	
1	S115	S116	24.520	0.600	48.236	47.446	0.790	31.0	225	5.23	
2	S116	S117	18.028	0.600	47.446	47.164	0.282	63.9	225	5.47	
3	S117	S119	10.140	0.600	47.164	46.820	0.344	29.5	225	5.54	
0	S118	S119	46.844	0.600	50.183	46.895	3.288	14.2	150	5.29	
4	S119	S120	49.598	0.600	46.745	43.298	3.447	14.4	300	5.74	
6	S120	S121	16.621	0.600	43.073	42.022	1.051	15.8	525	6.79	
7	S121	S122	14.165	0.600	42.022	41.207	0.815	17.4	525	6.83	
8	S122	S123	25.478	0.600	41.207	39.785	1.422	17.9	525	6.91	
9	S123	S125	26.763	0.600	39.785	39.073	0.712	37.6	525	7.03	
0	S125	S126 (Ph3 Hydrobrake)	12.225	0.600	39.073	38.775	0.298	41.0	525	7.09	
0	S124 (Ph3_PP_151-155)	PC3_AC_1_Inlet2	6.595	0.600	41.500	40.250	1.250	5.3	150	5.02	
0	S125 (Ph3_AC_1)	S126 (Ph3 Hydrobrake)	2.304	0.600	38.750	38.700	0.050	46.1	600	5.01	
1	S126 (Ph3 Hydrobrake)	S126_OUT (Connection to Existing)	4.724	0.600	38.700	38.450	0.250	18.9	300	7.11	
0	Ph3_PP_275-284	S111	22.614	0.600	47.500	46.198	1.302	17.4	150	5.15	
0	Ph3_PP_221-223	S116	6.824	0.600	48.675	47.521	1.154	5.9	150	5.03	
0	Ph3_PP_224-228	S115	16.331	0.600	49.260	48.311	0.949	17.2	150	5.11	
0	Ph3_PP_89-92_235-238	S82	10.415	0.600	52.800	51.855	0.945	11.0	150	5.05	
0	Ph3_PP_212-213	S83	5.593	0.600	52.250	51.251	0.999	5.6	150	5.02	
0	Ph3_PP_198-202	S87	8.470	0.600	55.000	53.730	1.270	6.7	150	5.04	
0	Ph3_Basin_3_Outfall	S90 Hydrobrake	10.347	0.600	49.000	48.800	0.200	51.7	225	5.09	
0	S77 (Ph2_AC_2)	S74	5.038	0.600	40.250	40.230	0.020	251.9	600	5.05	
0	Ph3_PP_Block_B	S94	15.304	0.600	46.325	45.777	0.548	27.9	225	5.10	
1	Ph2_PP_145-150	S68	30.525	0.600	42.750	41.217	1.533	19.9	225	5.17	

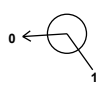
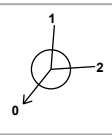
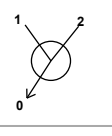
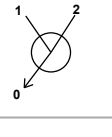
	Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
	11.005	1.043	225.8	76.4	1.350	1.425	0.423	0.0
	14.001	2.356	93.7	9.2	1.350	1.350	0.051	0.0
	14.002	1.638	65.1	16.6	1.350	1.350	0.092	0.0
	14.003	2.418	96.2	25.5	1.350	1.350	0.141	0.0
	16.000	2.682	47.4	2.5	1.350	1.350	0.014	0.0
	14.004	4.165	294.4	52.4	1.350	1.423	0.290	0.0
	11.006	5.652	1223.4	152.3	1.423	1.350	0.843	0.0
	11.007	5.390	1166.8	166.2	1.350	1.350	0.920	0.0
	11.008	5.309	1149.2	173.1	1.350	1.350	0.958	0.0
	11.009	3.661	792.6	182.3	1.350	1.302	1.009	0.0
	11.010	3.504	758.5	182.3	1.302	1.700	1.009	0.0
	42.000	4.416	78.0	13.6	0.850	0.800	0.075	0.0
	17.000	3.593	1016.0	0.0	1.850	1.700	0.000	0.0
	11.011	3.633	256.8	182.3	2.000	1.580	1.009	0.0
	12.000	2.428	42.9	9.8	0.850	1.533	0.054	0.0
	15.000	4.171	73.7	5.2	0.850	1.350	0.029	0.0
	14.000	2.440	43.1	9.2	0.850	1.350	0.051	0.0
	36.000	3.052	53.9	10.7	0.850	1.350	0.059	0.0
	37.000	4.287	75.8	7.6	0.850	1.350	0.042	0.0
	39.000	3.927	69.4	10.3	0.850	1.350	0.057	0.0
	40.000	1.822	72.5	0.0	1.275	1.175	0.000	0.0
	10.000	1.530	432.5	0.0	2.150	1.390	0.000	0.0
	33.000	2.485	98.8	5.1	0.775	1.275	0.028	0.0
	8.000	2.945	117.1	4.0	0.775	2.048	0.022	0.0

Links

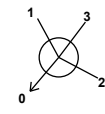
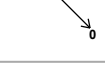
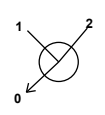
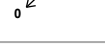
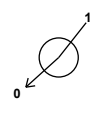
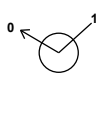
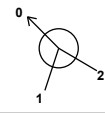
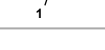
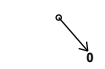
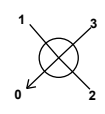
Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
38.001	S24A	S24B	21.224	0.600	60.300	60.166	0.134	158.4	225	5.44	50.0
38.002	S24B	S24C	26.280	0.600	60.166	59.150	1.016	25.9	225	5.61	50.0
38.003	S24C	S24D	12.885	0.600	59.150	58.637	0.513	25.1	225	5.69	50.0
38.004	S24D	Ph1_AC3_Inlet	14.753	0.600	58.600	56.440	2.160	6.8	225	5.74	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)
38.001	1.036	41.2	10.7	3.237	2.069	0.059	0.0
38.002	2.583	102.7	10.7	2.069	1.367	0.059	0.0
38.003	2.621	104.2	10.7	1.367	1.350	0.059	0.0
38.004	5.038	200.3	10.7	1.387	1.135	0.059	0.0

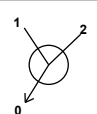
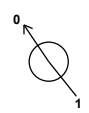
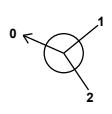
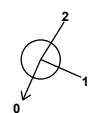
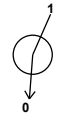
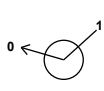
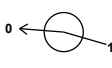
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S1	534171.671	122665.066	70.961	1.575	1200		0	18.000	69.386	225
S2	534161.936	122678.697	69.970	1.575	1200		1	18.000	68.395	225
S3 (Ph1_PP_1-6)	534151.963	122701.317	70.431	1.651			0	18.001	68.395	225
S4	534150.149	122677.955	69.290	1.650	1200		1 2 0	19.000 18.001 18.002	67.715 67.715 67.640	225 225 300
S5 (Ph1_PP_7-9)	534133.444	122676.061	68.515	1.000			0	20.000	67.515	150
S6	534140.634	122666.072	68.180	1.650	1200		1 2 0	20.000 18.002 18.003	66.680 66.530 66.530	150 300 300
S7 (Ph1_PP_10-11)	534120.669	122656.760	66.775	1.000			0	21.000	65.775	150
S8	534127.878	122646.332	66.207	1.650	1200		1 2 0	21.000 18.003 18.004	64.707 64.557 64.557	150 300 300
S9 (Ph1_AC_1)	534140.751	122616.668	65.500	2.200			0	22.000	63.300	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S10	534127.504	122623.507	65.222	2.011	1200		1	22.000	63.211	225
							0	22.001	63.211	225
S11 (Ph1_PP_12-13)	534110.254	122639.403	65.600	1.000			0	23.000	64.600	150
S12	534115.442	122629.892	64.488	2.011	1200		1	23.000	62.627	150
							2	22.001	62.552	225
							3	18.004	62.477	300
							0	18.005	62.477	300
S13 (Ph1_PP_14-15)	534093.124	122629.604	62.675	0.355			0	24.000	62.320	150
S14	534105.086	122617.647	63.138	1.631	1200		1	24.000	61.657	150
							2	18.005	61.582	300
							0	18.006	61.507	300
S15 (Ph1_PP_34-37)	534141.934	122576.051	64.200	1.000			0	25.000	63.200	225
S16	534132.848	122564.534	64.165	1.575	1200		1	25.000	62.590	225
							0	25.001	62.590	225
S17	534124.823	122557.285	63.841	1.575	1200		1	25.001	62.266	225
							0	25.002	62.266	225
S18 (Ph1_PP_28-30)	534096.060	122559.537	61.750	1.000			0	26.000	60.750	150
S19	534100.107	122571.842	61.447	1.747	1200		1	26.000	59.700	150
							2	25.002	59.700	225
							0	25.003	59.700	225
S20 (Ph1_PP_16-18)	534066.130	122607.924	59.850	1.025			0	27.000	58.825	225
S21	534078.948	122593.146	60.144	1.822	1200		1	27.000	58.397	225
							2	25.003	58.397	225
							3	18.006	58.322	300
							0	18.007	58.322	300
S22 (Ph1_PP_19-20)	534039.211	122579.752	58.155	1.146			0	28.000	57.009	150

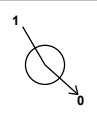
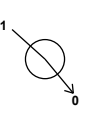
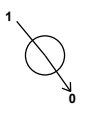
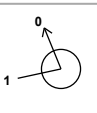
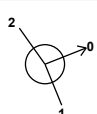
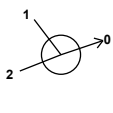
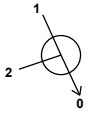
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S23	534049.196	122564.697	57.659	1.922	1200		1 28.000 2 18.007 0 18.008	55.887 55.737 55.737	150 300 300
S24 (Ph1_AC_2)	534117.441	122526.385	62.500	2.200			0 38.000	60.300	225
S25 (Ph1_AC_3)	534063.935	122513.729	57.800	1.400			0 29.000	56.400	225
S26	534058.538	122520.475	57.850	1.577	1200		1 29.000 0 29.001	56.348 56.273	225 225
S27 (Ph1_PP_24-26)	534059.825	122539.366	56.230	1.000			0 30.000	55.230	150
S28	534050.773	122531.975	56.272	1.575	1200		1 30.000 2 29.001 0 29.002	54.722 54.697 54.697	150 225 225
S29	534033.514	122539.585	53.000	1.725	1350		1 29.002 2 18.008 0 18.009	51.425 51.350 51.275	225 300 375
S30	534028.591	122528.419	52.800	1.725	1350		1 18.009 0 18.010	51.075 51.075	375 375
S31 (Ph1_AC_4)	534037.093	122489.503	54.000	3.000			0 41.000	51.000	375
S32 (Hydrobrake)	534027.594	122478.299	52.200	1.658	1500		1 1.000 0 1.001	50.542 50.542	375 375
S33	534035.926	122460.293	54.500	5.013	1350		1 1.001 0 1.002	49.487 49.487	375 375
S34	534011.647	122438.329	51.200	1.818	1350		1 1.002 0 1.003	49.382 49.382	375 375
S35	533987.861	122445.230	48.400	1.725	1500		1 1.003 0 1.004	46.675 46.675	375 375

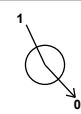
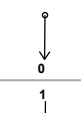
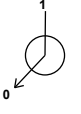
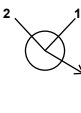
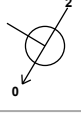
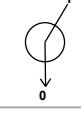
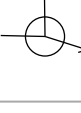
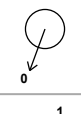
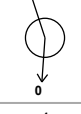
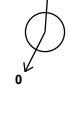
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
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						0 1.005	45.350	375	
S37	533969.566	122431.237	48.016	2.695	1350		1 1.005	45.321	375
						0 1.006	45.321	375	
S38	533961.450	122400.789	46.945	1.725	1350		1 1.006	45.220	375
						0 1.007	45.220	375	
S39	533956.137	122391.860	46.680	1.725	1350		1 1.007	44.955	375
						0 1.008	44.955	375	
S40	534018.674	122380.956	51.844	1.575	1200		0 2.000	50.269	225
S41	534001.177	122357.771	49.458	1.575	1200		1 2.000	47.883	225
						0 2.001	47.883	225	
S42	533994.115	122356.447	48.967	1.575	1200		1 2.001	47.392	225
						0 2.002	47.392	225	
S43	533984.011	122361.085	48.421	1.575	1200		1 2.002	46.846	225
						0 2.003	46.846	225	
S44	533949.458	122380.543	46.420	1.725	1350		1 2.003	44.845	225
						2 1.008	44.695	375	
						0 1.009	44.695	375	
S45	533940.146	122385.787	45.962	1.725	1350		1 1.009	44.237	375
						0 1.010	44.237	375	
S46	533934.768	122376.744	45.593	1.725	1350		1 1.010	43.868	375
						0 1.011	43.868	375	
S47	533799.992	122400.682	47.617	1.575	1200		0 3.000	46.042	225
S48	533794.626	122391.162	47.617	1.640	1200		1 3.000	45.977	225
						0 3.001	45.977	225	

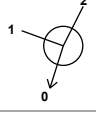
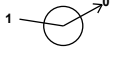
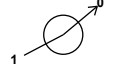
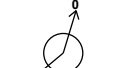
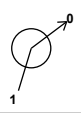
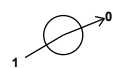
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S49	533800.536	122381.074	47.617	1.710	1200		1 3.001	45.907	225
							0 3.002	45.907	225
S50	533812.983	122369.880	47.617	1.810	1200		1 3.002	45.807	225
							0 3.003	45.807	225
S51	533823.985	122356.639	47.617	1.913	1200		1 3.003	45.704	225
							0 3.004	45.704	225
S52 (Ph2_AC_3)	533829.419	122330.597	46.000	1.780			0 4.000	44.220	225
S53	533837.401	122332.327	45.755	1.575	1200		1 4.000	44.180	225
							0 4.001	44.180	225
S54	533832.196	122345.087	46.629	2.532	1200		1 4.001	44.097	225
							2 3.004	44.097	225
							0 3.005	44.097	225
S55 (Ph2_PP_133-137)	533859.130	122365.501	46.400	1.000			0 5.000	45.400	100
S56	533864.856	122357.987	46.417	2.530	1200		1 5.000	44.012	100
							2 3.005	43.887	225
							0 3.006	43.887	225
S57 (Ph2_PP_120-126)	533832.531	122398.295	50.850	1.000			0 6.000	49.850	225
							1 6.000	49.830	225
S58	533829.106	122407.740	51.330	1.575	1200		0 6.001	49.755	225
S59	533870.338	122420.813	50.183	1.575	1200		1 6.001	48.608	225
							0 6.002	48.608	225
S60	533887.069	122373.989	46.602	1.575	1200		1 6.002	45.027	225
							0 6.003	45.027	225
S61	533890.405	122366.606	46.041	2.316	1200		1 6.003	43.725	225
							2 3.006	43.725	225
							0 3.007	43.725	225

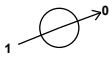
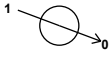
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S62	533895.002	122356.784	45.381	1.721	1200		1 3.007	43.660	225
						0 3.008	43.660	225	
S63 (Ph2_PP_109-119)	533908.632	122367.590	46.000	1.000			0 7.000	45.000	150
S64	533908.517	122356.064	46.000	1.100	1200		1 7.000	44.900	150
						0 7.001	44.900	150	
S65	533902.051	122349.194	44.829	1.575	1200		1 7.001	43.329	150
						2 3.008	43.404	225	
						0 3.009	43.254	375	
S66	533914.111	122342.007	44.237	1.950	1350		1 3.009	42.587	375
						2 1.011	42.512	375	
						0 3	42.287	600	
S67	533909.334	122333.973	43.987	2.487	1350		1 3	41.500	600
						0 1.013	41.500	600	
S68	533909.583	122314.934	43.490	2.648	1350		1 8.000	41.217	225
						2 1.013	40.842	600	
						0 1.014	40.842	600	
S69	533926.992	122309.442	43.620	2.815	1350		1 1.014	40.805	600
						0 1.015	40.805	600	
S69 (Ph2_AC_1)	533944.001	122318.585	44.000	1.781	1200		0 9.000	42.219	150
S70	533938.322	122303.118	43.721	2.946	1200		1 9.000	42.015	150
						2 1.015	40.775	600	
						0 1.016	40.775	600	
S71	533950.622	122296.063	43.546	2.801	1200		1 1.016	40.745	600
						0 1.017	40.745	600	
S72	533953.673	122286.700	43.206	2.481	1200		1 1.017	40.725	600
						0 1.018	40.725	600	
S73	533953.207	122280.148	42.980	2.270	1200		1 1.018	40.710	600
						0 1.019	40.710	600	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S74	533940.897	122255.767	42.220	1.990	1800		1	10.000	40.230	600
							2	1.019	40.230	600
							0	1.020	40.230	300
S75	533938.322	122247.598	41.800	1.650	1350		1	1.020	40.150	300
0	1.021	40.150	300							
S77 (Ph2_AC_2)	533936.164	122257.492	43.000	2.750			0	10.000	40.250	600
Ph3_PP_89-92_235-238	533702.822	122254.944	53.800	1.000				0	36.000	52.800
S82	533713.114	122253.351	53.355	1.575	1200			1	36.000	51.855
0							0	36.001	51.780	225
Ph3_PP_212-213	533728.914	122266.855	53.250	1.000			0	37.000	52.250	150
S83	533734.139	122264.861	52.751	1.575	1200			1	37.000	51.251
2						2		36.001	51.176	225
0						0		36.002	51.176	225
S84	533752.565	122274.537	51.846	1.575	1200		1	36.002	50.271	225
0							0	36.003	50.271	225
S85	533760.529	122281.189	51.467	1.575	1200		1	36.003	49.892	225
0							0	36.004	49.892	225
S86	533767.966	122305.757	50.708	1.575	1200		1	36.004	49.133	225
0							0	36.005	49.133	225
Ph3_PP_198-202	533708.858	122302.155	56.000	1.000			0	39.000	55.000	150
S87	533711.021	122310.344	55.230	1.500	1200			1	39.000	53.730
0						0		39.001	53.730	150
S88	533725.615	122318.947	54.046	1.500	1200		1	39.001	52.546	150
0							0	39.002	52.546	150

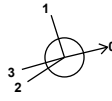
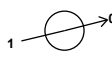
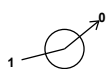
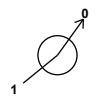
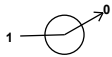
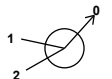
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S89	533742.604	122325.803	52.800	1.450	1200		1 39.002	51.350	150
Ph3_Basin_3_Inlet	533754.714	122330.275	50.500	1.500			0 39.003 1 39.003	51.350 49.000	150 150
Ph3_Basin_3_Outfall	533760.174	122329.554	50.500	1.500			0 40.000	49.000	225
S90 Hydrobrake	533769.863	122325.924	50.200	1.400	1200		1 40.000	48.800	225
Ph3_Basin_2_Inlet 1	533780.642	122321.885	48.500	1.268			0 40.001 1 40.001	48.800 47.232	225 225
S91 Ph3_Basin_2_Inlet 2	533784.300	122318.016	48.500	1.300			1 36.005	47.200	225
Ph3_Basin_2_outlet	533808.697	122306.299	48.500	1.300			0 34.000	47.200	225
S92 Hydrobrake	533811.324	122303.797	48.500	1.400	1200		1 34.000	47.100	225
S93	533825.091	122290.543	47.000	1.725	1350		0 34.001 1 34.001	47.100 45.400	225 225
Ph3_PP_Block_B	533802.643	122266.297	47.325	1.000			0 33.000	46.325	225
S94	533813.338	122255.351	47.277	1.500	1200		1 33.000	45.777	225
S95	533835.524	122280.284	46.567	1.725	1350		0 33.001 1 34.002 2 33.001	45.777 44.842 44.992	225 375 225
S96 (Ph3_AC_2)	533848.338	122273.887	44.100	1.600			0 35.000	42.500	375

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S97	533845.348	122271.104	46.000	3.500	1800		1 35.000 2 33.002 0 33.003	42.500 42.500 42.500	375 375 375
S98	533878.156	122236.205	43.600	2.255	1800		1 33.003 0 33.004	41.345 41.345	375 375
S99	533889.082	122229.328	41.800	2.105	1800		1 33.004 0 33.005	39.695 39.695	375 375
S100	533630.800	122263.772	55.347	1.575	1200		0 31.000 1 31.000	53.772 53.702	225 225
S101	533640.545	122270.315	55.582	1.880	1200		0 31.001 1 31.001	53.702 52.893	225 225
S102	533652.699	122251.585	54.468	1.575	1200		0 31.002 1 31.002	52.893 51.689	225 225
S103	533662.716	122232.601	53.264	1.650	1200		0 31.003 1 31.003	51.614 51.118	300 300
S104	533664.305	122223.676	52.768	1.650	1200		0 31.004 1 31.004	51.118 48.946	300 300
S105	533680.894	122189.936	50.596	1.725	1200		0 31.005 1 31.005	48.871 48.202	375 375
S106	533683.796	122178.293	49.927	1.725	1200		0 31.006 1 31.006	48.202 47.600	375 150
Ph3_PP_271-274	533687.929	122147.091	48.450	0.850			0 32.000 1 32.000 2 31.006 0 31.007	47.600 47.547 47.322 47.322	150 375 375 375
S107	533691.232	122153.660	49.047	1.725	1200		1 11.000 0 11.001	46.158 46.138	375 375
S109	533699.628	122152.056	48.947	2.809	1350				

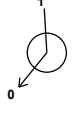
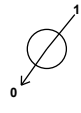
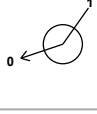
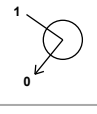
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)									
S110	533744.601	122181.269	48.927	1.575	1200	 0	13.000	47.352	225									
Ph3_PP_275-284	533730.500	122153.681	48.500	1.000		 0	12.000	47.500	150									
S111	533749.387	122166.117	47.881	1.908	1350	 1 2 3 0	13.000	46.123	225	12.000	46.198	150	11.001	45.973	375	11.002	45.973	375
S112	533788.965	122175.574	45.616	1.983	1350	 1 0	11.002	43.633	375	11.003	43.633	375						
S113	533807.533	122180.284	45.066	1.725	1350	 1 0	11.003	43.341	375	11.004	43.341	375						
S114	533813.223	122184.923	44.982	1.875	1500	 1 0	11.004	43.257	375	11.005	43.107	525						
Ph3_PP_224-228	533727.812	122200.462	50.260	1.000		 0	14.000	49.260	150									
S115	533744.137	122200.916	49.811	1.575	1200	 1 0	14.000	48.311	150	14.001	48.236	225						
Ph3_PP_221-223	533758.774	122214.468	49.675	1.000		 0	15.000	48.675	150									
S116	533765.448	122213.043	49.021	1.575	1200	 1 2 0	15.000	47.521	150	14.001	47.446	225	14.002	47.446	225			
S117	533777.522	122226.431	48.739	1.575	1200	 1 0	14.002	47.164	225	14.003	47.164	225						
S118	533750.899	122262.510	51.683	1.500	1200	 0	16.000	50.183	150									
S119	533786.185	122231.700	48.395	1.650	1200	 1 2 0	16.000	46.895	150	14.003	46.820	225	14.004	46.745	300			

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S120	533822.848	122198.296	45.021	1.950	1500	1 2 0	1 2	14.004 11.005	43.298 43.071	300 525
S121	533837.463	122190.381	43.897	1.875	1500	1 0 0	1 0	11.006 11.007	42.022 42.022	525 525
S122	533850.889	122185.864	43.082	1.875	1500	1 0 0	1 0	11.007 11.008	41.207 41.207	525 525
S123	533875.702	122180.079	41.660	1.875	1500	1 0 0	1 0	11.008 11.009	39.785 39.785	525 525
S124 (Ph3_PP_151-155)	533880.606	122205.947	42.500	1.000		0 0 0	0 0	42.000	41.500	150
S125 (Ph3_AC_1)	533905.400	122188.857	41.200	2.450	1800	0 0 0	0 0	17.000	38.750	600
S126 (Ph3 Hydrobrake)	533907.483	122187.873	41.000	2.300	2100	1 2 0	1 2 0	17.000 11.010 11.011	38.700 38.775 38.700	600 525 300
S126_OUT (Connection to Existing)	533911.755	122185.857	40.330	1.880	1800	1 0 0	1	11.011	38.450	300
PH1_AC1_Inlet	534147.928	122617.086	65.500	2.200		0 0 0				
Ph1_AC2_Inlet	534125.282	122539.172	62.500	2.200		0 0 0				
Ph1_AC3_Inlet	534073.946	122502.558	57.800	1.400		1 1 1	1	38.004	56.440	225
Ph3_Basin_1_Inlet	533689.445	122131.614	48.010	1.800		1 0 0	1	31.007	46.210	375
Ph3_Basin_1_Outlet	533701.689	122135.837	48.010	1.800		0 0 0	0 0	11.000	46.210	375

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S125	533902.265	122176.817	40.900	1.827	1800		1	11.009	39.073	525
PC3_AC_1_Inlet1	533896.043	122217.264	41.200	2.450			1	33.005	38.750	375
PC3_AC_1_Inlet2	533886.578	122203.148	41.200	2.421			1	42.000	40.250	150
S8(ph4)	533940.592	122208.852	40.740	1.725	1350		1	1.021	39.015	300
S9(ph4)	533927.181	122192.358	40.150	1.550	1350		1	1.022	38.600	300
S10(ph4)	533922.418	122185.616	40.000	1.500	1800		1	1.023	38.500	300
S126_out existing discharge P1+2+4	533913.681	122182.683	40.330	1.880			1	1.024	38.450	300
Ph1_Basin_Outlet	534023.984	122486.099	52.200	1.200			0	1.000	51.000	375
Ph1_Basin_Inlet1	534027.905	122519.317	52.200	1.200			1	18.010	51.000	375
Ph1_Basin_Inlet2	534028.082	122491.927	52.200	1.200			1	41.000	51.000	375
Ph2_PP_145-150	533879.065	122315.602	43.750	1.000			0	8.000	42.750	225
S24A	534122.238	122523.046	63.762	3.462			1	38.000	60.300	225
S24B	534108.859	122506.570	62.460	2.294			1	38.001	60.166	225
							0	38.002	60.166	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S24C	534094.559	122484.521	60.742	1.592		1	38.002	59.150	225
						0	38.003	59.150	225
S24D	534083.749	122491.533	60.212	1.612		1	38.003	58.637	225
						0	38.004	58.600	225

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)	0.0		

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440 | 2160

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
10	40	0	0
30	40	0	0
100	45	0	0

Node S126_OUT (Connection to Existing) Surcharged Outfall

Overrides Design Area	x	Depression Storage Area (m²)	0	Evapo-transpiration (mm/day)	0
Overrides Design Additional Inflow	x	Depression Storage Depth (mm)	0		

Applies to All storms

Time (mins)	Depth (m)	Time (mins)	Depth (m)
0	0.600	2160	0.600

Node S126_out existing discharge P1+2+4 Surcharged Outfall

Overrides Design Area	x	Depression Storage Area (m²)	0	Evapo-transpiration (mm/day)	0
Overrides Design Additional Inflow	x	Depression Storage Depth (mm)	0		

Applies to All storms

Time (mins)	Depth (m)	Time (mins)	Depth (m)
0	0.600	2160	0.600

Node S3 (Ph1_PP_1-6) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.050
Downstream Link	19.000	Invert Level (m)	68.780	Discharge Coefficient	0.600

Node S9 (Ph1 AC 1) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.050
Downstream Link	22.000	Invert Level (m)	63.300	Discharge Coefficient	0.600

Node S15 (Ph1 PP 34-37) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.050
Downstream Link	25.000	Invert Level (m)	63.200	Discharge Coefficient	0.600

Node S24 (Ph1 AC 2) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.050
Downstream Link	38.000	Invert Level (m)	60.300	Discharge Coefficient	0.600

Node S25 (Ph1 AC 3) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.050
Downstream Link	29.000	Invert Level (m)	56.400	Discharge Coefficient	0.600

Node S18 (Ph1 PP 28-30) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.100
Downstream Link	26.000	Invert Level (m)	60.750	Discharge Coefficient	0.600

Node S5 (Ph1 PP 7-9) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.100
Downstream Link	20.000	Invert Level (m)	67.515	Discharge Coefficient	0.600

Node S7 (Ph1 PP 10-11) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.100
Downstream Link	21.000	Invert Level (m)	65.775	Discharge Coefficient	0.600

Node S57 (Ph2 PP 120-126) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.050
Downstream Link	6.000	Invert Level (m)	49.850	Discharge Coefficient	0.600

Node S64 Online Orifice Control

Flap Valve	x	Invert Level (m)	44.900	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.150		

Node S22 (Ph1 PP 19-20) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.100
Downstream Link	28.000	Invert Level (m)	57.009	Discharge Coefficient	0.600

Node S27 (Ph1 PP 24-26) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.100
Downstream Link	30.000	Invert Level (m)	55.230	Discharge Coefficient	0.600

Node S55 (Ph2 PP 133-137) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.065
Downstream Link	5.000	Invert Level (m)	45.400	Discharge Coefficient	0.600

Node S69 (Ph2 AC 1) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.020
Downstream Link	9.000	Invert Level (m)	42.219	Discharge Coefficient	0.600

Node S126 (Ph3 Hydrobrake) Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	11.011	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0139-1200-2300-1200
Invert Level (m)	38.700	Min Outlet Diameter (m)	0.225
Design Depth (m)	2.300	Min Node Diameter (mm)	1500
Design Flow (l/s)	12.0		

Node S109 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	11.001	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0082-3500-1500-3500
Invert Level (m)	46.138	Min Outlet Diameter (m)	0.100
Design Depth (m)	1.500	Min Node Diameter (mm)	1200
Design Flow (l/s)	3.5		

Node S124 (Ph3 PP 151-155) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.025
Downstream Link	42.000	Invert Level (m)	41.500	Discharge Coefficient	0.600

Node Ph3 PP 271-274 Online Orifice Control

Flap Valve	x	Invert Level (m)	47.600	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.050		

Node Ph3 PP 275-284 Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.040
Downstream Link	12.000	Invert Level (m)	47.500	Discharge Coefficient	0.600

Node Ph3 PP 221-223 Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.025
Downstream Link	15.000	Invert Level (m)	48.675	Discharge Coefficient	0.600

Node Ph3 PP 224-228 Online Orifice Control

Flap Valve	x	Invert Level (m)	49.260	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.060		

Node Ph3 PP 89-92 235-238 Online Orifice Control

Flap Valve	x	Invert Level (m)	52.800	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.040		

Node Ph3 PP 212-213 Online Orifice Control

Flap Valve	x	Invert Level (m)	52.250	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.040		

Node Ph3 PP 198-202 Online Orifice Control

Flap Valve	x	Invert Level (m)	55.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.050		

Node S90 Hydrobrake Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	40.001	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0042-9000-1200-9000
Invert Level (m)	48.800	Min Outlet Diameter (m)	0.075
Design Depth (m)	1.200	Min Node Diameter (mm)	1200
Design Flow (l/s)	0.9		

Node S92 Hydrobrake Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	47.100	Product Number	CTL-SHE-0090-3600-1000-3600
Design Depth (m)	1.000	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	3.6	Min Node Diameter (mm)	1200

Node S97 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	42.500	Product Number	CTL-SHE-0092-5000-2000-5000
Design Depth (m)	2.000	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node S74 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	1.020	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0170-1700-2000-1700
Invert Level (m)	40.230	Min Outlet Diameter (m)	0.225
Design Depth (m)	2.000	Min Node Diameter (mm)	1800
Design Flow (l/s)	17.0		

Node S10(ph4) Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	38.500	Product Number	CTL-SHE-0189-1940-1500-1940
Design Depth (m)	1.500	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	19.4	Min Node Diameter (mm)	1800

Node S32 (Hydrobrake) Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	1.001	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0077-4000-2500-4000
Invert Level (m)	50.542	Min Outlet Diameter (m)	0.100
Design Depth (m)	2.500	Min Node Diameter (mm)	1200
Design Flow (l/s)	4.0		

Node Ph3_PP_Block_B Online Orifice Control

Flap Valve	x	Invert Level (m)	46.325	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.050		

Node Ph2_PP_145-150 Online Orifice Control

Flap Valve	x	Invert Level (m)	42.750	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.050		

Node S3 (Ph1_PP_1-6) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	68.780	Slope (1:X)	40.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	8.600	Inf Depth (m)	0.750
Porosity	0.30	Length (m)	36.000		

Node S9 (Ph1_AC_1) Tank Storage Structure

Invert Level (m)	63.300	Time to half empty (mins)	Analyse flow through structure	x
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Inlets

PH1_AC1_Inlet

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	40.0	1.000	40.0

Node S15 (Ph1_PP_34-37) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	63.200	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	1.000
Safety Factor	2.0	Width (m)	11.000	Inf Depth (m)	
Porosity	0.30	Length (m)	11.000		

Node S25 (Ph1_AC_3) Tank Storage Structure

Invert Level (m)	56.400	Time to half empty (mins)	Analyse flow through structure	x
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Inlets

Ph1_AC3_Inlet

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	45.0	1.000	45.0

Node S24 (Ph1_AC_2) Tank Storage Structure

Invert Level (m) 60.300 | Time to half empty (mins) | Analyse flow through structure x

Inlets

Ph1_AC2_Inlet

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	45.0	1.000	45.0

Node S18 (Ph1_PP_28-30) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	60.750	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.500	Inf Depth (m)	
Porosity	0.30	Length (m)	11.000		

Node S5 (Ph1_PP_7-9) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	67.515	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	25.000		

Node S7 (Ph1_PP_10-11) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	65.775	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	21.500		

Node S11 (Ph1_PP_12-13) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	64.600	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	15.000		

Node S13 (Ph1_PP_14-15) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	62.320	Slope (1:X)	40.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	38.000		

Node S20 (Ph1_PP_16-18) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	58.825	Slope (1:X)	40.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.800
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	44.000		

Node S22 (Ph1 PP 19-20) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	57.009	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	21.000		

Node S27 (Ph1 PP 24-26) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	55.230	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	27.000		

Node S31 (Ph1 AC 4) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	51.000
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)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	400.0	400.0	1.200	400.0	485.1	1.201	0.0	485.1

Node S63 (Ph2 PP 109-119) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	45.000	Slope (1:X)	50.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	9.400	Inf Depth (m)	
Porosity	0.30	Length (m)	50.000		

Node S77 (Ph2 AC 2) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	40.232
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

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	700.0	700.0	2.000	700.0	887.6	2.001	0.0	887.6

Node S69 (Ph2 AC 1) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	42.220
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)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	181.5	181.5	1.000	181.5	229.3	1.001	0.0	229.3

Node S52 (Ph2 AC 3) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	44.220
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

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	70.0	70.0	1.000	70.0	99.7	1.001	0.0	99.7

Node S57 (Ph2 PP 120-126) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	49.850	Slope (1:X)	50.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	19.000		

Node S55 (Ph2 PP 133-137) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	45.400	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	24.000		

Node S125 (Ph3 AC 1) Tank Storage Structure

Invert Level (m)	38.750	Analyse flow through structure	✓	Main Channel Slope (1:X)	1000.0
Time to half empty (mins)		Main Channel Length (m)	29.100	Main Channel n	0.015

Inlets

PC3_AC_1_Inlet1 PC3_AC_1_Inlet2

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	535.0	2.000	535.0	2.100	0.0

Node S124 (Ph3 PP 151-155) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	41.500	Slope (1:X)	250.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	42.000		

Node S96 (Ph3 AC 2) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	42.500
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	271.0	271.0	1.000	271.0	329.4	1.001	0.0	329.4

Node Ph3 PP 271-274 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	47.600	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	11.000	Inf Depth (m)	
Porosity	0.30	Length (m)	17.800		

Node Ph3 PP 275-284 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	47.500	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	17.000	Inf Depth (m)	
Porosity	0.30	Length (m)	13.000		

Node Ph3_PP_221-223 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	48.675	Slope (1:X)	40.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	22.000		

Node Ph3_PP_224-228 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	49.260	Slope (1:X)	40.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	24.500		

Node Ph3_PP_89-92_235-238 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	52.800	Slope (1:X)	40.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	17.000	Inf Depth (m)	
Porosity	0.30	Length (m)	10.000		

Node Ph3_PP_212-213 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	52.250	Slope (1:X)	40.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	17.000		

Node Ph3_PP_198-202 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	55.000	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	1.00	Length (m)	18.500		

Node Ph3_Basin_3 Outfall Pond Storage Structure

Invert Level (m)	49.000	Time to half empty (mins)	Analyse flow through structure	x
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Inlets

Ph3_Basin_3_Inlet

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	44.3	1.200	180.4

Node Ph3_Basin_2_outlet Pond Storage Structure

Invert Level (m)	47.200	Analyse flow through structure	✓	Main Channel Slope (1:X)	1000.0
Time to half empty (mins)		Main Channel Length (m)	32.100	Main Channel n	0.025

Inlets

Ph3_Basin_2_Inlet 1 | S91 Ph3_Basin_2_Inlet 2

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	102.0	1.000	338.0

Node Ph3_Basin_1_Outlet Pond Storage Structure

Invert Level (m) 46.210 | Time to half empty (mins) | Analyse flow through structure x

Inlets

Ph3_Basin_1_Inlet

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	144.0	1.500	515.0

Node Ph1_Basin_Outlet Pond Storage Structure

Invert Level (m) 51.000 | Time to half empty (mins) | Analyse flow through structure x

Inlets

Ph1_Basin_Inlet1 | Ph1_Basin_Inlet2

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	539.0	1.200	805.0

Node Ph3_PP_Block_B Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	46.325	Slope (1:X)	20.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	0.750
Porosity	0.30	Length (m)	27.600		

Node Ph2_PP_145-150 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	42.750	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.750
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	0.750
Porosity	0.30	Length (m)	20.000		

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	45	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.350
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)	Invert Level (m)
1	0.085	5.00	72.800	1200	534222.232	122580.115	1.575	71.225
2			71.100	1200	534205.349	122545.998	1.575	69.525
3	0.092	5.00	75.197	1200	534303.199	122603.494	1.575	73.622
4	0.143	5.00	72.984	1200	534273.777	122551.124	1.650	71.334
5	0.114	5.00	70.975	1200	534260.364	122522.526	1.725	69.250
6			70.594	1350	534259.356	122516.906	1.944	68.650
7	0.115	5.00	71.100	1350	534306.008	122491.775	2.566	68.534
8			71.000	1350	534326.968	122482.326	2.517	68.483
9			71.700	1350	534391.478	122508.592	3.370	68.330
10	0.050	5.00	77.123	1200	534276.234	122689.726	1.575	75.548
11	0.086	5.00	76.388	1200	534263.977	122670.368	1.575	74.813
12	0.026	5.00	74.500	1200	534243.445	122638.516	1.575	72.925
13 (Ph4_PP_364-367)	0.048	5.00	75.450		534243.703	122654.453	1.000	74.450
14	0.070	5.00	74.980	1200	534248.792	122646.589	2.263	72.717
15	0.095	5.00	75.508	1350	534292.027	122618.457	3.008	72.500
16 (Ph4_PP_355-359)	0.076	5.00	76.580		534310.878	122685.013	1.000	75.580
17	0.000	5.00	76.564	1200	534318.430	122679.950	1.575	74.989
18	0.034	5.00	76.160		534332.627	122672.215	1.575	74.585
19	0.042	5.00	75.997		534324.790	122657.893	1.575	74.422
20	0.077	5.00	75.733		534310.917	122628.707	1.634	74.099
21	0.034	5.00	75.498		534306.046	122612.846	3.121	72.377
22	0.080	5.00	73.879	1200	534344.086	122546.158	1.575	72.304
23	0.057	5.00	73.869	1200	534360.308	122582.475	1.800	72.069
24 (Ph4_PP_344-346)	0.072	5.00	73.660		534380.772	122639.139	1.000	72.660
25	0.031	5.00	73.683	1200	534374.400	122620.059	1.575	72.108
26	0.050	5.00	73.709		534366.012	122594.159	1.987	71.722
27			71.250		534407.175	122574.974	1.800	69.450
28 (Ph4_Basin_1)			68.700		534428.230	122522.979	1.700	67.000
28_OUT			67.500		534444.519	122514.623	2.725	64.775

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	1	2	38.066	0.600	71.225	69.525	1.700	22.4	225	5.23	50.0
1.001	2	6	61.344	0.600	69.525	68.950	0.575	106.7	225	6.04	50.0
2.000	3	4	60.069	0.600	73.622	71.409	2.213	27.1	225	5.40	50.0
2.001	4	5	31.587	0.600	71.334	69.325	2.009	15.7	300	5.53	50.0
2.002	5	6	5.710	0.600	69.250	68.800	0.450	12.7	375	5.55	50.0
1.002	6	7	52.990	0.600	68.650	68.534	0.116	456.8	525	6.88	50.0
1.003	7	8	22.991	0.600	68.534	68.483	0.051	450.8	525	7.25	50.0
1.004	8	9	69.652	0.600	68.483	68.330	0.153	455.2	525	8.36	50.0
1.005	9	28 (Ph4_Basin_1)	39.468	0.600	68.330	67.760	0.570	69.2	525	8.61	50.0
3.000	10	11	22.912	0.600	75.548	74.813	0.735	31.2	225	5.16	50.0
3.001	11	14	28.214	0.600	74.813	72.867	1.946	14.5	225	5.30	50.0
4.000	12	14	9.683	0.600	72.925	72.867	0.058	167.0	225	5.16	50.0
5.000	13 (Ph4_PP_364-367)	14	9.367	0.600	74.450	72.942	1.508	6.2	150	5.04	50.0
3.002	14	15	51.582	0.600	72.717	72.500	0.217	238.0	375	6.03	50.0
3.003	15	21	15.100	0.600	72.500	72.452	0.048	313.0	375	6.28	50.0
6.000	16 (Ph4_PP_355-359)	17	9.092	0.600	75.580	75.064	0.516	17.6	150	5.06	50.0
6.001	17	18	16.167	0.600	74.989	74.585	0.404	40.0	225	5.19	50.0
6.002	18	19	16.326	0.600	74.585	74.422	0.163	100.2	225	5.40	50.0
6.003	19	20	32.315	0.600	74.422	74.099	0.323	100.0	225	5.81	50.0
6.004	20	21	16.592	0.600	74.099	72.602	1.497	11.1	225	5.88	50.0
3.004	21	26	62.810	0.600	72.377	71.722	0.655	95.9	450	6.78	50.0
7.000	22	23	39.775	0.600	72.304	72.069	0.235	169.3	225	5.66	50.0
7.001	23	26	13.002	0.600	72.069	71.947	0.122	106.6	225	5.83	50.0
8.000	24 (Ph4_PP_344-346)	25	20.116	0.600	72.660	72.183	0.477	42.2	150	5.22	50.0

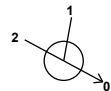
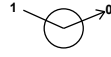
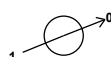
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.000	2.777	110.4	22.3	1.350	1.350	0.085	0.0
1.001	1.265	50.3	22.3	1.350	1.419	0.085	0.0
2.000	2.521	100.2	24.1	1.350	1.350	0.092	0.0
2.001	3.984	281.6	61.6	1.350	1.350	0.235	0.0
2.002	5.109	564.3	91.4	1.350	1.419	0.349	0.0
1.002	1.041	225.4	113.7	1.419	2.041	0.434	0.0
1.003	1.048	226.9	143.8	2.041	1.992	0.549	0.0
1.004	1.043	225.8	143.8	1.992	2.845	0.549	0.0
1.005	2.694	583.2	143.8	2.845	0.415	0.549	0.0
3.000	2.351	93.5	13.1	1.350	1.350	0.050	0.0
3.001	3.454	137.3	35.6	1.350	1.888	0.136	0.0
4.000	1.009	40.1	6.8	1.350	1.888	0.026	0.0
5.000	4.069	71.9	12.6	0.850	1.888	0.048	0.0
3.002	1.170	129.2	73.4	1.888	2.633	0.280	0.0
3.003	1.019	112.5	98.3	2.633	2.671	0.375	0.0
6.000	2.411	42.6	19.9	0.850	1.350	0.076	0.0
6.001	2.074	82.5	19.9	1.350	1.350	0.076	0.0
6.002	1.306	51.9	28.8	1.350	1.350	0.110	0.0
6.003	1.307	52.0	39.8	1.350	1.409	0.152	0.0
6.004	3.952	157.1	60.0	1.409	2.671	0.229	0.0
3.004	2.076	330.2	167.2	2.671	1.537	0.638	0.0
7.000	1.002	39.8	21.0	1.350	1.575	0.080	0.0
7.001	1.266	50.3	35.9	1.575	1.537	0.137	0.0
8.000	1.554	27.5	18.9	0.850	1.350	0.072	0.0

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)
8.001	25	26	27.224	0.600	72.108	71.947	0.161	169.1	225	5.67	50.0
3.005	26	27	45.414	0.600	71.722	69.450	2.272	20.0	450	6.95	50.0
3.006	27	28 (Ph4_Basin_1)	56.096	0.600	69.450	67.750	1.700	33.0	450	7.21	50.0
1.006	28 (Ph4_Basin_1)	28_OUT	18.307	0.600	67.000	64.775	2.225	8.2	375	8.66	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)
8.001	1.002	39.9	27.0	1.350	1.537	0.103	0.0
3.005	4.563	725.7	243.1	1.537	1.350	0.928	0.0
3.006	3.548	564.3	243.1	1.350	0.500	0.928	0.0
1.006	6.348	701.1	387.0	1.325	2.350	1.477	0.0

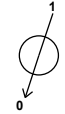
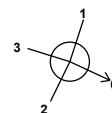
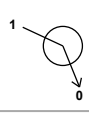
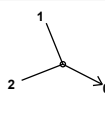
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
1	534222.232	122580.115	72.800	1.575	1200		0	1.000	71.225	225
2	534205.349	122545.998	71.100	1.575	1200		1	1.000	69.525	225
							0	1.001	69.525	225
3	534303.199	122603.494	75.197	1.575	1200		0	2.000	73.622	225
4	534273.777	122551.124	72.984	1.650	1200		1	2.000	71.409	225
							0	2.001	71.334	300
5	534260.364	122522.526	70.975	1.725	1200		1	2.001	69.325	300
							0	2.002	69.250	375
6	534259.356	122516.906	70.594	1.944	1350		1	2.002	68.800	375
							2	1.001	68.950	225
							0	1.002	68.650	525
7	534306.008	122491.775	71.100	2.566	1350		1	1.002	68.534	525
							0	1.003	68.534	525
8	534326.968	122482.326	71.000	2.517	1350		1	1.003	68.483	525
							0	1.004	68.483	525
9	534391.478	122508.592	71.700	3.370	1350		1	1.004	68.330	525
							0	1.005	68.330	525

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
10	534276.234	122689.726	77.123	1.575	1200		0	3.000	75.548	225
11	534263.977	122670.368	76.388	1.575	1200		1	3.000	74.813	225
12	534243.445	122638.516	74.500	1.575	1200		0	3.001	74.813	225
13 (Ph4_PP_364-367)	534243.703	122654.453	75.450	1.000			0	4.000	72.925	225
14	534248.792	122646.589	74.980	2.263	1200		1	5.000	72.942	150
15	534292.027	122618.457	75.508	3.008	1350		2	4.000	72.867	225
16 (Ph4_PP_355-359)	534310.878	122685.013	76.580	1.000			3	3.001	72.867	225
17	534318.430	122679.950	76.564	1.575	1200		0	3.002	72.717	375
18	534332.627	122672.215	76.160	1.575			1	3.002	72.500	375
19	534324.790	122657.893	75.997	1.575			0	3.003	72.500	375
20	534310.917	122628.707	75.733	1.634			0	6.000	75.580	150
21	534306.046	122612.846	75.498	3.121			1	6.000	75.064	150
22	534344.086	122546.158	73.879	1.575	1200		0	6.001	74.989	225
							1	6.001	74.585	225
							0	6.002	74.585	225
							1	6.002	74.422	225
							0	6.003	74.422	225
							1	6.003	74.099	225
							0	6.004	74.099	225
							1	6.004	72.602	225
							2	3.003	72.452	375
							0	3.004	72.377	450
							0	7.000	72.304	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
23	534360.308	122582.475	73.869	1.800	1200		1 7.000	72.069	225
24 (Ph4_PP_344-346)	534380.772	122639.139	73.660	1.000			0 7.001	72.069	225
25	534374.400	122620.059	73.683	1.575	1200		1 8.000	72.183	150
26	534366.012	122594.159	73.709	1.987			1 8.001 2 7.001 3 3.004	71.947 71.947 71.722	225 225 450
27	534407.175	122574.974	71.250	1.800			1 3.005	69.450	450
28 (Ph4_Basin_1)	534428.230	122522.979	68.700	1.700			1 3.006 2 1.005	67.750 67.760	450 525
28_OUT	534444.519	122514.623	67.500	2.725			1 1.006	64.775	375

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 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440 | 2160

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
10	40	0	0
30	40	0	0
100	45	0	0

Node 28 (Ph4_Basin_1) Online Hydro-Brake® Control

Flap Valve	x	Design Flow (l/s)	4.9
Downstream Link	1.006	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	67.000	Product Number	CTL-SHE-0094-4900-1700-4900
Design Depth (m)	1.700	Min Outlet Diameter (m)	0.150

Node 28 (Ph4 Basin 1) Online Hydro-Brake® Control

Min Node Diameter (mm) 1200

Node 24 (Ph4 PP 344-346) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.040
Downstream Link	8.000	Invert Level (m)	72.660	Discharge Coefficient	0.600

Node 13 (Ph4 PP 364-367) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.250
Downstream Link	5.000	Invert Level (m)	74.450	Discharge Coefficient	0.600

Node 16 (Ph4 PP 355-359) Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.250
Downstream Link	6.000	Invert Level (m)	75.580	Discharge Coefficient	0.600

Node 28 (Ph4 Basin 1) Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	1.0	Invert Level (m)	67.000
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	588.3	588.3	1.700	1555.0	1573.9

Node 24 (Ph4 PP 344-346) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	72.660	Slope (1:X)	150.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	150	Depth (m)	0.750
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	46.000		

Node 13 (Ph4 PP 364-367) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	74.450	Slope (1:X)	50.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	0.750
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	28.000		

Node 16 (Ph4 PP 355-359) Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	75.580	Slope (1:X)	60.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	0.750
Safety Factor	2.0	Width (m)	6.000	Inf Depth (m)	
Porosity	0.30	Length (m)	37.000		

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 summer	1	10	71.271	0.046	10.2	0.1012	0.0000	OK
15 minute summer	2	11	69.592	0.067	10.1	0.0755	0.0000	OK
15 minute summer	3	11	73.672	0.050	11.0	0.1147	0.0000	OK
15 minute summer	4	10	71.399	0.065	27.8	0.1848	0.0000	OK
15 minute summer	5	10	69.328	0.078	41.1	0.1905	0.0000	OK
15 minute summer	6	11	68.819	0.169	50.0	0.2423	0.0000	OK
15 minute summer	7	11	68.731	0.197	63.6	0.4592	0.0000	OK
15 minute summer	8	12	68.670	0.187	61.4	0.2674	0.0000	OK
15 minute summer	9	13	68.445	0.115	62.1	0.1640	0.0000	OK
15 minute summer	10	10	75.586	0.038	6.0	0.0677	0.0000	OK
15 minute summer	11	10	74.866	0.053	16.2	0.1175	0.0000	OK
15 minute summer	12	10	72.968	0.043	3.1	0.0634	0.0000	OK
15 minute summer	13 (Ph4_PP_364-367)	11	74.514	0.064	5.8	0.3785	0.0000	OK
15 minute summer	14	11	72.843	0.126	32.3	0.2199	0.0000	OK
15 minute summer	15	11	72.669	0.169	43.2	0.3487	0.0000	OK
15 minute summer	16 (Ph4_PP_355-359)	11	75.670	0.090	9.1	0.5868	0.0000	OK
15 minute summer	17	11	75.037	0.048	8.4	0.0545	0.0000	OK
15 minute summer	18	11	74.662	0.077	12.2	0.0331	0.0000	OK
15 minute summer	19	11	74.516	0.094	17.0	0.0503	0.0000	OK
15 minute summer	20	11	74.163	0.064	25.7	0.0604	0.0000	OK
15 minute summer	21	11	72.527	0.150	72.3	0.0328	0.0000	OK
15 minute summer	22	10	72.378	0.074	9.6	0.1582	0.0000	OK
15 minute summer	23	11	72.162	0.093	16.2	0.1634	0.0000	OK
180 minute summer	24 (Ph4_PP_344-346)	116	72.855	0.195	3.9	4.5601	0.0000	SURCHARGED
15 minute summer	25	11	72.160	0.052	4.7	0.0797	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	10.1	1.428	0.091	0.2953	
15 minute summer	2	1.001	6	9.5	0.974	0.189	0.5976	
15 minute summer	3	2.000	4	10.7	1.649	0.107	0.3896	
15 minute summer	4	2.001	5	27.4	2.520	0.097	0.3440	
15 minute summer	5	2.002	6	40.9	2.738	0.073	0.0855	
15 minute summer	6	1.002	7	50.4	0.753	0.224	3.5557	
15 minute summer	7	1.003	8	61.4	0.872	0.271	1.6381	
15 minute summer	8	1.004	9	62.1	1.216	0.275	3.5996	
15 minute summer	9	1.005	28 (Ph4_Basin_1)	61.0	1.778	0.105	1.3535	
15 minute summer	10	3.000	11	5.9	1.033	0.063	0.1325	
15 minute summer	11	3.001	14	16.0	2.292	0.116	0.1968	
15 minute summer	12	4.000	14	3.1	0.587	0.076	0.0504	
15 minute summer	13 (Ph4_PP_364-367)	5.000	14	5.3	2.357	0.073	0.0210	
15 minute summer	14	3.002	15	32.3	0.812	0.250	2.0765	
15 minute summer	15	3.003	21	42.7	0.960	0.379	0.6718	
15 minute summer	16 (Ph4_PP_355-359)	6.000	17	8.4	1.843	0.197	0.0414	
15 minute summer	17	6.001	18	8.3	0.946	0.101	0.1465	
15 minute summer	18	6.002	19	12.2	0.883	0.235	0.2259	
15 minute summer	19	6.003	20	16.9	1.360	0.325	0.4051	
15 minute summer	20	6.004	21	25.7	2.849	0.164	0.1497	
15 minute summer	21	3.004	26	71.9	1.891	0.218	2.4076	
15 minute summer	22	7.000	23	9.4	0.710	0.235	0.5299	
15 minute summer	23	7.001	26	16.0	1.088	0.318	0.1914	
180 minute summer	24 (Ph4_PP_344-346)	8.000	25	1.4	0.813	0.050	0.0343	
15 minute summer	25	8.001	26	4.6	0.669	0.115	0.1872	

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	26	11	71.833	0.111	98.2	0.0558	0.0000	OK
15 minute summer	27	12	69.577	0.127	97.6	0.0000	0.0000	OK
1440 minute summer	28 (Ph4_Basin_1)	990	67.402	0.402	21.0	282.1375	0.0000	SURCHARGED
1440 minute summer	28_OUT	990	64.796	0.021	4.4	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	26	3.005	27	97.6	2.940	0.135	1.5097	
15 minute summer	27	3.006	28 (Ph4_Basin_1)	97.6	2.699	0.173	2.0282	
1440 minute summer	28 (Ph4_Basin_1)	1.006	28_OUT	4.4	1.788	0.006	0.0455	315.7

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	71.321	0.096	42.6	0.2124	0.0000	OK
15 minute summer	2	11	69.683	0.158	42.3	0.1790	0.0000	OK
15 minute summer	3	10	73.730	0.108	46.1	0.2487	0.0000	OK
15 minute summer	4	10	71.476	0.142	116.7	0.4058	0.0000	OK
15 minute summer	5	10	69.433	0.183	172.9	0.4483	0.0000	OK
15 minute summer	6	11	69.125	0.475	211.0	0.6799	0.0000	OK
15 minute summer	7	11	69.023	0.489	264.1	1.1386	0.0000	OK
15 minute summer	8	11	68.902	0.419	262.0	0.6000	0.0000	OK
15 minute summer	9	12	68.583	0.253	260.1	0.3617	0.0000	OK
15 minute summer	10	10	75.627	0.079	25.0	0.1392	0.0000	OK
15 minute summer	11	10	74.924	0.111	67.9	0.2463	0.0000	OK
15 minute summer	12	11	73.241	0.316	13.0	0.4617	0.0000	SURCHARGED
15 minute summer	13 (Ph4_PP_364-367)	12	74.606	0.156	24.0	1.9764	0.0000	SURCHARGED
15 minute summer	14	11	73.231	0.514	132.1	0.8996	0.0000	SURCHARGED
15 minute summer	15	11	72.962	0.462	178.0	0.9528	0.0000	SURCHARGED
15 minute summer	16 (Ph4_PP_355-359)	11	75.802	0.222	38.1	3.0119	0.0000	SURCHARGED
15 minute summer	17	12	75.135	0.146	33.0	0.1652	0.0000	OK
15 minute summer	18	12	75.071	0.486	46.8	0.2099	0.0000	SURCHARGED
15 minute summer	19	12	74.893	0.471	65.6	0.2511	0.0000	SURCHARGED
15 minute summer	20	11	74.244	0.145	100.9	0.1364	0.0000	OK
15 minute summer	21	11	72.738	0.361	295.2	0.0786	0.0000	OK
15 minute summer	22	11	72.672	0.368	40.1	0.7911	0.0000	SURCHARGED
15 minute summer	23	11	72.426	0.357	65.1	0.6304	0.0000	SURCHARGED
180 minute summer	24 (Ph4_PP_344-346)	132	73.124	0.464	12.5	22.1311	0.0000	SURCHARGED
15 minute summer	25	10	72.213	0.105	17.0	0.1599	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	42.3	1.985	0.383	0.8683	
15 minute summer	2	1.001	6	41.8	1.384	0.832	1.9329	
15 minute summer	3	2.000	4	45.2	2.438	0.451	1.1141	
15 minute summer	4	2.001	5	115.9	3.689	0.411	0.9922	
15 minute summer	5	2.002	6	172.3	3.119	0.305	0.4416	
15 minute summer	6	1.002	7	209.0	1.010	0.927	10.9996	
15 minute summer	7	1.003	8	262.0	1.320	1.155	4.5346	
15 minute summer	8	1.004	9	260.1	1.797	1.152	9.9505	
15 minute summer	9	1.005	28 (Ph4_Basin_1)	262.1	2.626	0.449	3.9395	
15 minute summer	10	3.000	11	24.9	1.565	0.266	0.3648	
15 minute summer	11	3.001	14	67.5	3.053	0.492	0.8355	
15 minute summer	12	4.000	14	13.5	0.727	0.337	0.3851	
15 minute summer	13 (Ph4_PP_364-367)	5.000	14	20.7	3.156	0.288	0.1099	
15 minute summer	14	3.002	15	132.5	1.202	1.026	5.6893	
15 minute summer	15	3.003	21	178.0	1.634	1.582	1.5663	
15 minute summer	16 (Ph4_PP_355-359)	6.000	17	33.0	2.561	0.776	0.1173	
15 minute summer	17	6.001	18	33.5	1.192	0.406	0.5420	
15 minute summer	18	6.002	19	47.3	1.188	0.910	0.6493	
15 minute summer	19	6.003	20	64.6	1.773	1.243	1.0788	
15 minute summer	20	6.004	21	101.0	3.920	0.643	0.4315	
15 minute summer	21	3.004	26	294.1	2.620	0.891	7.0664	
15 minute summer	22	7.000	23	37.9	0.953	0.951	1.5819	
15 minute summer	23	7.001	26	65.0	1.635	1.291	0.5055	
180 minute summer	24 (Ph4_PP_344-346)	8.000	25	2.2	0.931	0.080	0.0476	
15 minute summer	25	8.001	26	16.7	0.949	0.420	0.4807	

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	26	11	71.968	0.246	399.8	0.1239	0.0000	OK
15 minute summer	27	12	69.732	0.282	396.7	0.0000	0.0000	OK
2160 minute winter	28 (Ph4_Basin_1)	2040	68.086	1.086	27.0	973.6682	0.0000	SURCHARGED
60 minute summer	28_OUT	37	64.796	0.021	4.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	26	3.005	27	396.7	4.106	0.547	4.3857	
15 minute summer	27	3.006	28 (Ph4_Basin_1)	395.4	3.861	0.701	5.7446	
2160 minute winter	28 (Ph4_Basin_1)	1.006	28_OUT	4.5	1.788	0.006	0.0456	488.9

Results for 30 year +40% 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 summer	1	10	71.337	0.112	55.8	0.2479	0.0000	OK
15 minute summer	2	12	70.050	0.525	55.4	0.5939	0.0000	SURCHARGED
15 minute summer	3	10	73.750	0.128	60.4	0.2938	0.0000	OK
15 minute summer	4	9	71.493	0.159	153.0	0.4564	0.0000	OK
15 minute summer	5	11	69.616	0.366	227.8	0.8976	0.0000	OK
15 minute summer	6	11	69.459	0.809	265.4	1.1576	0.0000	SURCHARGED
15 minute summer	7	11	69.267	0.733	339.1	1.7054	0.0000	SURCHARGED
15 minute summer	8	11	69.100	0.617	335.8	0.8830	0.0000	SURCHARGED
15 minute summer	9	12	68.622	0.292	329.7	0.4182	0.0000	OK
15 minute summer	10	10	75.639	0.091	32.8	0.1611	0.0000	OK
15 minute summer	11	11	74.954	0.141	89.0	0.3145	0.0000	OK
15 minute summer	12	11	73.732	0.807	17.1	1.1793	0.0000	SURCHARGED
15 minute summer	13 (Ph4_PP_364-367)	12	74.635	0.185	31.5	2.7494	0.0000	SURCHARGED
15 minute summer	14	11	73.720	1.003	171.1	1.7549	0.0000	SURCHARGED
15 minute summer	15	11	73.313	0.813	221.7	1.6777	0.0000	SURCHARGED
15 minute summer	16 (Ph4_PP_355-359)	12	75.875	0.295	49.9	5.1697	0.0000	SURCHARGED
15 minute summer	17	11	75.433	0.444	39.6	0.5027	0.0000	SURCHARGED
15 minute summer	18	11	75.357	0.772	53.8	0.3335	0.0000	SURCHARGED
15 minute summer	19	11	75.145	0.723	77.9	0.3853	0.0000	SURCHARGED
15 minute summer	20	11	74.270	0.171	125.2	0.1615	0.0000	OK
15 minute summer	21	11	73.027	0.650	364.4	0.1418	0.0000	SURCHARGED
15 minute summer	22	11	73.053	0.749	52.5	1.6085	0.0000	SURCHARGED
15 minute summer	23	11	72.632	0.563	85.4	0.9935	0.0000	SURCHARGED
120 minute winter	24 (Ph4_PP_344-346)	112	73.233	0.573	14.6	29.7848	0.0000	SURCHARGED
15 minute summer	25	10	72.230	0.122	22.0	0.1863	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	55.4	2.100	0.502	1.1331	
15 minute summer	2	1.001	6	54.2	1.439	1.078	2.4397	
15 minute summer	3	2.000	4	59.3	2.600	0.591	1.3699	
15 minute summer	4	2.001	5	153.0	3.832	0.543	1.6750	
15 minute summer	5	2.002	6	224.7	3.242	0.398	0.6277	
15 minute summer	6	1.002	7	263.6	1.221	1.170	11.4476	
15 minute summer	7	1.003	8	335.8	1.554	1.480	4.9668	
15 minute summer	8	1.004	9	329.7	1.835	1.460	11.8231	
15 minute summer	9	1.005	28 (Ph4_Basin_1)	332.2	2.779	0.570	4.7177	
15 minute summer	10	3.000	11	32.6	1.653	0.349	0.4694	
15 minute summer	11	3.001	14	87.4	3.049	0.636	0.9317	
15 minute summer	12	4.000	14	21.2	0.735	0.527	0.3851	
15 minute summer	13 (Ph4_PP_364-367)	5.000	14	26.9	3.373	0.375	0.1159	
15 minute summer	14	3.002	15	163.5	1.482	1.265	5.6893	
15 minute summer	15	3.003	21	218.5	1.981	1.942	1.6655	
15 minute summer	16 (Ph4_PP_355-359)	6.000	17	39.6	2.547	0.931	0.1601	
15 minute summer	17	6.001	18	41.9	1.282	0.508	0.6430	
15 minute summer	18	6.002	19	52.4	1.318	1.010	0.6493	
15 minute summer	19	6.003	20	76.9	2.005	1.481	1.1672	
15 minute summer	20	6.004	21	124.6	3.932	0.793	0.5993	
15 minute summer	21	3.004	26	359.7	2.590	1.089	8.2999	
15 minute summer	22	7.000	23	49.6	1.247	1.245	1.5819	
15 minute summer	23	7.001	26	85.2	2.143	1.693	0.5119	
120 minute winter	24 (Ph4_PP_344-346)	8.000	25	2.5	0.962	0.090	0.0515	
15 minute summer	25	8.001	26	21.6	1.008	0.541	0.5824	

Results for 30 year +40% 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 summer	26	11	72.007	0.285	495.5	0.1434	0.0000	OK
15 minute summer	27	12	69.787	0.337	493.4	0.0000	0.0000	OK
2160 minute winter	28 (Ph4_Basin_1)	2100	68.308	1.308	33.0	1255.8110	0.0000	SURCHARGED
15 minute winter	28_OUT	15	64.796	0.021	4.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	26	3.005	27	493.4	4.248	0.680	5.2638	
15 minute summer	27	3.006	28 (Ph4_Basin_1)	495.8	4.007	0.879	6.9405	
2160 minute winter	28 (Ph4_Basin_1)	1.006	28_OUT	4.4	1.788	0.006	0.0456	521.9

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.67%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	12	71.472	0.247	72.4	0.5458	0.0000	SURCHARGED
15 minute summer	2	12	70.878	1.353	68.6	1.5300	0.0000	FLOOD RISK
15 minute summer	3	10	73.775	0.153	78.4	0.3516	0.0000	OK
15 minute summer	4	11	71.548	0.214	198.8	0.6138	0.0000	OK
15 minute summer	5	11	70.268	1.018	292.4	2.4976	0.0000	SURCHARGED
15 minute summer	6	11	69.985	1.335	340.0	1.9103	0.0000	SURCHARGED
15 minute summer	7	11	69.660	1.126	432.3	2.6217	0.0000	SURCHARGED
15 minute summer	8	11	69.376	0.893	430.2	1.2781	0.0000	SURCHARGED
15 minute summer	9	12	68.678	0.348	426.7	0.4983	0.0000	OK
15 minute summer	10	12	75.726	0.178	42.6	0.3146	0.0000	OK
15 minute summer	11	12	75.615	0.802	115.6	1.7837	0.0000	SURCHARGED
15 minute summer	12	11	74.434	1.509	23.0	2.2049	0.0000	FLOOD RISK
15 minute summer	13 (Ph4_PP_364-367)	12	74.692	0.242	40.9	4.6509	0.0000	SURCHARGED
15 minute summer	14	11	74.413	1.696	195.9	2.9688	0.0000	SURCHARGED
15 minute summer	15	11	73.845	1.345	269.9	2.7740	0.0000	SURCHARGED
15 minute summer	16 (Ph4_PP_355-359)	13	76.031	0.451	64.7	11.6878	0.0000	SURCHARGED
15 minute summer	17	12	75.847	0.858	43.2	0.9705	0.0000	SURCHARGED
15 minute summer	18	11	75.814	1.229	55.3	0.5310	0.0000	SURCHARGED
15 minute summer	19	11	75.677	1.255	79.6	0.6690	0.0000	SURCHARGED
15 minute summer	20	11	74.899	0.800	138.8	0.7535	0.0000	SURCHARGED
15 minute summer	21	11	73.419	1.042	430.2	0.2272	0.0000	SURCHARGED
15 minute summer	22	11	73.612	1.308	68.2	2.8085	0.0000	FLOOD RISK
15 minute summer	23	11	72.931	0.862	109.6	1.5204	0.0000	SURCHARGED
120 minute winter	24 (Ph4_PP_344-346)	116	73.389	0.729	18.9	40.7952	0.0000	FLOOD RISK
15 minute summer	25	11	72.252	0.144	28.2	0.2195	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	68.6	2.184	0.622	1.5139	
15 minute summer	2	1.001	6	67.2	1.690	1.336	2.4397	
15 minute summer	3	2.000	4	77.0	2.747	0.768	1.6859	
15 minute summer	4	2.001	5	195.3	3.806	0.693	1.9626	
15 minute summer	5	2.002	6	282.5	3.194	0.501	0.6298	
15 minute summer	6	1.002	7	338.4	1.566	1.501	11.4476	
15 minute summer	7	1.003	8	430.2	1.992	1.896	4.9668	
15 minute summer	8	1.004	9	426.7	2.116	1.890	12.8178	
15 minute summer	9	1.005	28 (Ph4_Basin_1)	430.4	2.935	0.738	5.7867	
15 minute summer	10	3.000	11	42.3	1.668	0.453	0.8420	
15 minute summer	11	3.001	14	101.6	3.094	0.740	1.1221	
15 minute summer	12	4.000	14	31.0	0.780	0.773	0.3851	
15 minute summer	13 (Ph4_PP_364-367)	5.000	14	35.2	3.324	0.489	0.1649	
15 minute summer	14	3.002	15	195.5	1.773	1.513	5.6893	
15 minute summer	15	3.003	21	266.8	2.419	2.372	1.6655	
15 minute summer	16 (Ph4_PP_355-359)	6.000	17	43.2	2.492	1.014	0.1601	
15 minute summer	17	6.001	18	47.3	1.413	0.574	0.6430	
15 minute summer	18	6.002	19	54.5	1.371	1.050	0.6493	
15 minute summer	19	6.003	20	80.1	2.015	1.542	1.2852	
15 minute summer	20	6.004	21	135.6	3.941	0.863	0.6599	
15 minute summer	21	3.004	26	426.0	2.790	1.290	8.9966	
15 minute summer	22	7.000	23	63.0	1.585	1.582	1.5819	
15 minute summer	23	7.001	26	108.8	2.737	2.162	0.5119	
120 minute winter	24 (Ph4_PP_344-346)	8.000	25	2.8	0.997	0.102	0.0562	
15 minute summer	25	8.001	26	27.7	1.065	0.695	0.7077	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.67%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	26	12	72.061	0.339	602.3	0.1704	0.0000	OK
15 minute summer	27	12	70.181	0.731	600.7	0.0000	0.0000	SURCHARGED
2160 minute winter	28 (Ph4_Basin_1)	2100	68.671	1.671	44.0	1777.3230	0.0000	FLOOD RISK
2160 minute winter	28_OUT	2100	64.797	0.022	4.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	26	3.005	27	600.7	4.315	0.828	6.5049	
15 minute summer	27	3.006	28 (Ph4_Basin_1)	587.6	4.159	1.041	8.8877	
2160 minute winter	28 (Ph4_Basin_1)	1.006	28_OUT	4.8	1.834	0.007	0.0483	572.9

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	45	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.350
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
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)	Invert Level (m)
Swale Inlet	0.027	5.00	70.300		534250.423	122513.287	0.500	69.800
CD1	0.022	5.00	69.500		534255.605	122496.230	0.500	69.000
CD2	0.028	5.00	68.500		534268.306	122479.840	0.500	68.000
CD3	0.024	5.00	68.110		534273.346	122459.184	1.000	67.110
CD4	0.023	5.00	66.786		534267.323	122441.792	0.900	65.886
CD5	0.017	5.00	65.450		534253.643	122430.093	0.500	64.950
CD6	0.012	5.00	64.020		534240.579	122426.623	0.500	63.520
CD7	0.019	5.00	63.000		534230.073	122425.619	0.500	62.500
CD8	0.041	5.00	62.500		534213.772	122423.883	0.500	62.000
CD9	0.036	5.00	61.300		534174.831	122420.219	1.100	60.200
Swale Outlet	0.000	5.00	59.600		534139.568	122416.659	1.000	58.600
Ph4_Swale_AC_2		5.00	58.200		534089.935	122416.357	3.165	55.035
1	0.046	5.00	59.400		534128.123	122408.781	1.725	57.675
Ph4_Swale_AC_1		5.00	62.000		534164.284	122432.382	3.390	58.610
2	0.032	5.00	57.320	1350	534096.767	122405.752	1.725	55.595
3			56.720	1350	534086.255	122405.752	1.725	54.995
4			55.750	1350	534067.947	122411.425	1.725	54.025
5			50.850	1350	534040.590	122370.308	1.725	49.125
6			46.100	1350	534001.860	122314.201	1.725	44.375
7			41.630	1350	533962.999	122245.048	1.725	39.905
8			40.740	1350	533941.232	122209.603	1.725	39.015
9			40.150	1350	533926.647	122192.492	1.207	38.943
10			40.000	1350	533922.418	122185.616	1.083	38.917
12			40.330	1350	533911.653	122185.755	1.505	38.825
J1			62.936		534212.396	122423.774	1.000	61.936

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	Swale Inlet	CD1	16.980	0.035	69.800	69.000	0.800	21.2	500	5.11	50.0
1.001	CD1	CD2	20.800	0.035	69.000	68.000	1.000	20.8	500	5.24	50.0
1.002	CD2	CD3	7.000	0.035	68.000	67.610	0.390	17.9	300	5.34	50.0
1.003	CD3	CD4	17.110	0.035	67.110	65.886	1.224	14.0	500	5.43	50.0

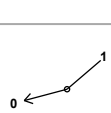
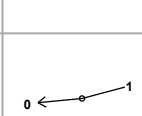
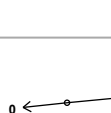
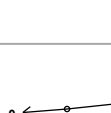
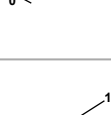
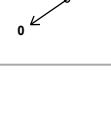
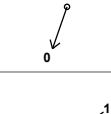
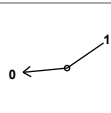
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	2.610	2610.2	7.1	0.000	0.000	0.027	0.0	25	0.483
1.001	2.637	2636.7	12.8	0.000	0.000	0.049	0.0	36	0.602
1.002	1.199	84.8	20.2	0.200	0.200	0.077	0.0	100	0.985
1.003	3.216	3216.4	26.5	0.500	0.400	0.101	0.0	47	0.864

Links

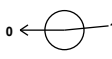
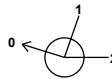
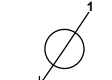
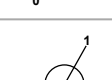
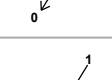
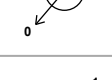
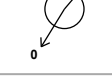
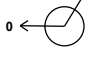
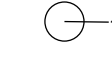
Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.004	CD4	CD5	15.869	0.035	66.286	64.950	1.336	11.9	500	5.50	50.0
1.005	CD5	CD6	18.000	0.035	64.950	63.520	1.430	12.6	500	5.59	50.0
1.006	CD6	CD7	13.800	0.035	63.520	62.500	1.020	13.5	500	5.66	50.0
1.007	CD7	CD8	10.600	0.035	62.500	62.000	0.500	21.2	500	5.73	50.0
1.008	CD8	J1	11.330	0.035	62.000	61.936	0.064	177.0	500	5.94	50.0
1.010_1	CD9	Swale Outlet	32.750	0.035	60.700	59.100	1.600	20.5	500	6.76	50.0
2.000	Ph4_Swale_AC_1	Swale Outlet	17.847	0.600	58.610	58.600	0.010	1784.7	300	5.82	50.0
1.010	Swale Outlet	1	56.411	0.035	58.600	57.675	0.925	61.0	375	8.00	50.0
1.011	1	2	31.543	0.035	57.675	55.595	2.080	15.2	375	8.35	50.0
1.013	2	3	10.512	0.035	55.595	54.995	0.600	17.5	375	8.48	50.0
1.014	3	4	19.167	0.035	54.995	54.025	0.970	19.8	375	8.72	50.0
1.015	4	5	49.386	0.035	54.025	49.125	4.900	10.1	375	9.16	50.0
1.016	5	6	68.176	0.035	49.125	44.375	4.750	14.4	375	9.89	50.0
1.017	6	7	79.324	0.035	44.375	39.905	4.470	17.7	375	10.83	50.0
1.018	7	8	41.595	0.035	39.905	39.015	0.890	46.7	375	11.64	50.0
1.019	8	9	22.484	0.035	39.015	38.943	0.072	313.0	375	12.76	50.0
1.020	9	10	8.072	0.035	38.943	38.917	0.026	313.0	375	13.17	50.0
1.021	10	12	10.766	0.035	38.917	38.825	0.092	117.0	375	13.50	50.0
3.000	Ph4_Swale_AC_2	3	11.225	0.600	55.035	54.995	0.040	280.6	375	5.17	50.0
1.009	J1	CD9	47.250	0.035	61.936	60.200	1.736	27.2	450	6.55	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)
1.004	3.489	3489.2	32.5	0.000	0.000	0.124	0.0	51	0.980
1.005	3.389	3389.5	36.9	0.000	0.000	0.141	0.0	55	0.992
1.006	3.269	3269.3	40.1	0.000	0.000	0.153	0.0	59	0.994
1.007	2.612	2611.7	45.1	0.000	0.000	0.172	0.0	72	0.885
1.008	0.904	903.8	55.8	0.000	0.500	0.213	0.0	139	0.439
1.010_1	2.658	2658.0	65.2	0.100	0.000	0.249	0.0	86	0.997
2.000	0.363	25.7	0.0	3.090	0.700	0.000	0.0	0	0.000
1.010	0.755	83.4	65.2	0.625	1.350	0.249	0.0	249	0.835
1.011	1.514	167.2	77.3	1.350	1.350	0.295	0.0	179	1.484
1.013	1.409	155.6	85.7	1.350	1.350	0.327	0.0	199	1.443
1.014	1.326	146.5	85.7	1.350	1.350	0.327	0.0	206	1.378
1.015	1.857	205.1	85.7	1.350	1.350	0.327	0.0	169	1.773
1.016	1.556	171.9	85.7	1.350	1.350	0.327	0.0	187	1.555
1.017	1.400	154.6	85.7	1.350	1.350	0.327	0.0	200	1.436
1.018	0.862	95.3	85.7	1.350	1.350	0.327	0.0	278	0.976
1.019	0.333	36.8	85.7	1.350	0.832	0.327	0.0	375	0.338
1.020	0.333	36.8	85.7	0.832	0.708	0.327	0.0	375	0.338
1.021	0.545	60.2	85.7	0.708	1.130	0.327	0.0	375	0.552
3.000	1.076	118.9	0.0	2.790	1.350	0.000	0.0	0	0.000
1.009	1.276	203.0	55.8	0.550	0.650	0.213	0.0	161	1.089

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
Swale Inlet	534250.423	122513.287	70.300	0.500			0	1.000	69.800	500
CD1	534255.605	122496.230	69.500	0.500			1	1.000	69.000	500
CD2	534268.306	122479.840	68.500	0.500			1	1.001	68.000	500
CD3	534273.346	122459.184	68.110	1.000			1	1.002	67.610	300
CD4	534267.323	122441.792	66.786	0.900			1	1.003	67.110	500
CD5	534253.643	122430.093	65.450	0.500			1	1.004	64.950	500
CD6	534240.579	122426.623	64.020	0.500			1	1.005	63.520	500
CD7	534230.073	122425.619	63.000	0.500			1	1.006	62.500	500
CD8	534213.772	122423.883	62.500	0.500			1	1.007	62.000	500
CD9	534174.831	122420.219	61.300	1.100			1	1.009	60.200	450
Swale Outlet	534139.568	122416.659	59.600	1.000			1	2.000	58.600	300
							2	1.010_1	59.100	500
							0	1.010	58.600	375
Ph4_Swale_AC_2	534089.935	122416.357	58.200	3.165			0	3.000	55.035	375
1	534128.123	122408.781	59.400	1.725			1	1.010	57.675	375
							0	1.011	57.675	375

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
Ph4_Swale_AC_1	534164.284	122432.382	62.000	3.390			0	2.000	58.610	300
2	534096.767	122405.752	57.320	1.725	1350		1	1.011	55.595	375
3	534086.255	122405.752	56.720	1.725	1350		0	1.013	55.595	375
							1	3.000	54.995	375
							2	1.013	54.995	375
							0	1.014	54.995	375
4	534067.947	122411.425	55.750	1.725	1350		1	1.014	54.025	375
							0	1.015	54.025	375
5	534040.590	122370.308	50.850	1.725	1350		1	1.015	49.125	375
							0	1.016	49.125	375
6	534001.860	122314.201	46.100	1.725	1350		1	1.016	44.375	375
							0	1.017	44.375	375
7	533962.999	122245.048	41.630	1.725	1350		1	1.017	39.905	375
							0	1.018	39.905	375
8	533941.232	122209.603	40.740	1.725	1350		1	1.018	39.015	375
							0	1.019	39.015	375
9	533926.647	122192.492	40.150	1.207	1350		1	1.019	38.943	375
							0	1.020	38.943	375
10	533922.418	122185.616	40.000	1.083	1350		1	1.020	38.917	375
							0	1.021	38.917	375
12	533911.653	122185.755	40.330	1.505	1350		1	1.021	38.825	375
J1	534212.396	122423.774	62.936	1.000			1	1.008	61.936	500
							0	1.009	61.936	450

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Detailed	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 (m ³ /ha)	20.0		

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440 | 2160

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
10	40	0	0
30	40	0	0
100	45	0	0

Node 3 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	1.014	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0073-2600-1237-2600
Invert Level (m)	54.995	Min Outlet Diameter (m)	0.100
Design Depth (m)	1.237	Min Node Diameter (mm)	1200
Design Flow (l/s)	2.6		

Node CD1 Online Weir Control

Flap Valve	x	Invert Level (m)	68.500	Width (m)	0.020
Downstream Link	1.001	Design Depth (m)	0.500	Discharge Coefficient	0.590
Replaces Downstream Link	x	Design Flow (l/s)	10.0		

Node CD2 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.350
Downstream Link	1.002	Invert Level (m)	67.500	Discharge Coefficient	0.590

Node CD3 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.075
Downstream Link	1.003	Invert Level (m)	67.110	Discharge Coefficient	0.590

Node CD4 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.060
Downstream Link	1.004	Invert Level (m)	65.886	Discharge Coefficient	0.590

Node CD5 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.075
Downstream Link	1.005	Invert Level (m)	64.450	Discharge Coefficient	0.590

Node CD6 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.075
Downstream Link	1.006	Invert Level (m)	63.020	Discharge Coefficient	0.590

Node CD7 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.100
Downstream Link	1.007	Invert Level (m)	62.000	Discharge Coefficient	0.590

Node CD8 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.100
Downstream Link	1.008	Invert Level (m)	61.500	Discharge Coefficient	0.590

Node CD9 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	0.100
Downstream Link	1.010_1	Invert Level (m)	60.200	Discharge Coefficient	0.590

Node Swale Outlet Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	58.600	Product Number	CTL-SHE-0065-1900-1000-1900
Design Depth (m)	1.000	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	1.9	Min Node Diameter (mm)	1200

Node Ph4 Swale AC 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	58.610
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	350.0	350.0	1.000	350.0	416.3	1.001	0.0	416.3

Node Ph4 Swale AC 2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	55.035
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	240

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	75.0	75.0	1.500	75.0	121.0	1.510	0.0	121.0

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 76.61%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	Swale Inlet	10	69.810	0.010	13.5	0.0110	0.0000	OK
15 minute summer	CD1	11	68.629	-0.371	12.5	0.0000	0.0000	OK
15 minute summer	CD1 Filter Layer (1.000)	11	68.581	0.081	24.3	0.5296	0.0000	OK
15 minute summer	CD2 (1.001)	12	68.190	0.190	15.7	0.0000	0.0000	OK
15 minute summer	CD2	12	68.182	0.182	30.9	0.2046	0.0000	OK
15 minute summer	CD2 Filter Layer (1.001)	11	67.881	0.381	23.8	2.7020	0.0000	OK
15 minute summer	CD3	12	67.580	-0.030	44.6	0.0000	0.0000	OK
15 minute summer	CD4	12	65.996	0.110	21.6	0.0562	0.0000	OK
15 minute summer	CD4 Filter Layer (1.003)	12	65.717	0.331	54.1	2.2196	0.0000	OK
15 minute summer	CD5	12	64.666	-0.284	8.5	0.0000	0.0000	OK
15 minute summer	CD5 Filter Layer (1.004)	12	64.599	0.149	61.0	0.9598	0.0000	OK
15 minute summer	CD6	13	63.273	-0.247	6.0	0.0000	0.0000	OK
15 minute summer	CD6 Filter Layer (1.005)	13	63.191	0.171	65.7	1.2837	0.0000	OK
30 minute summer	CD7	20	62.604	0.104	11.3	0.0793	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	Swale Inlet	1.000	CD1	1.5	0.283	0.001	0.0877	
15 minute summer	CD1	1.001	CD2	0.0	0.000	0.000	2.1145	
15 minute summer	CD1	Filtration (1.000)		24.3				
15 minute summer	CD1 Filter Layer	Underdrain (1.000)		11.9	1.239	0.228	0.1635	
15 minute summer	CD1 Filter Layer	Infiltration (1.000)		0.0				
15 minute summer	CD2	1.002	CD3	34.7	1.139	0.409	0.2130	
15 minute summer	CD2	Filtration (1.001)		6.4				
15 minute summer	CD2 Filter Layer	Underdrain (1.001)		23.9	1.608	0.453	0.2683	
15 minute summer	CD2 Filter Layer	Infiltration (1.001)		0.0				
15 minute summer	CD3	1.003	CD4	10.8	0.449	0.003	0.9239	
15 minute summer	CD4	1.004	CD5	0.0	0.000	0.000	0.0002	
15 minute summer	CD4	Filtration (1.003)		54.1				
15 minute summer	CD4 Filter Layer	Underdrain (1.003)		34.0	2.298	0.524	0.2194	
15 minute summer	CD4 Filter Layer	Infiltration (1.003)		0.0				
15 minute summer	CD5	1.005	CD6	0.0	0.000	0.000	0.0003	
15 minute summer	CD5	Filtration (1.004)		7.8				
15 minute summer	CD5 Filter Layer	Underdrain (1.004)		54.3	3.425	0.769	0.2252	
15 minute summer	CD5 Filter Layer	Infiltration (1.004)		0.0				
15 minute summer	CD6	1.006	CD7	0.0	0.000	0.000	0.5177	
15 minute summer	CD6	Filtration (1.005)		5.2				
15 minute summer	CD6 Filter Layer	Underdrain (1.005)		61.2	3.747	0.894	0.2675	
15 minute summer	CD6 Filter Layer	Infiltration (1.005)		0.0				
30 minute summer	CD7	1.007	CD8	20.6	0.120	0.008	2.6739	
30 minute summer	CD7	Filtration (1.006)		6.1				

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 76.61%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	CD7 Filter Layer (1.006)	13	62.395	0.395	66.1	2.1580	0.0000	OK
30 minute summer	CD8	21	62.323	0.323	36.3	0.5309	0.0000	OK
15 minute summer	CD8 Filter Layer (1.007)	11	62.000	0.500	64.2	2.4634	0.0000	OK
30 minute summer	J1 (1.008)	22	62.255	0.319	46.2	0.0000	0.0000	OK
30 minute summer	CD9	22	61.258	1.058	77.1	0.6933	0.0000	FLOOD RISK
30 minute summer	Swale Outlet (1.010_1)	22	59.103	0.003	7.3	0.0000	0.0000	OK
600 minute summer	Swale Outlet	600	58.937	0.337	17.5	0.0000	0.0000	OK
30 minute summer	Swale Outlet Filter Layer (1.010_1)	24	58.928	0.328	76.8	4.8102	0.0000	OK
360 minute winter	Ph4_Swale_AC_2	352	55.488	0.453	4.6	33.9732	0.0000	SURCHARGED
15 minute summer	1	11	57.768	0.093	23.0	0.0495	0.0000	OK
600 minute winter	Ph4_Swale_AC_1	585	58.934	0.324	10.2	107.7759	0.0000	SURCHARGED
15 minute summer	2	11	55.721	0.126	38.3	0.2279	0.0000	OK
360 minute winter	3	352	55.488	0.493	7.3	0.7054	0.0000	SURCHARGED
120 minute summer	4	234	54.054	0.029	2.4	0.0413	0.0000	OK
120 minute summer	5	242	49.156	0.031	2.4	0.0449	0.0000	OK
120 minute summer	6	248	44.408	0.033	2.4	0.0472	0.0000	OK
120 minute summer	7	248	39.947	0.042	2.4	0.0594	0.0000	OK
120 minute summer	8	250	39.081	0.066	2.4	0.0938	0.0000	OK
120 minute summer	9	252	39.009	0.066	2.4	0.0941	0.0000	OK
120 minute summer	10	252	38.981	0.064	2.4	0.0916	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	CD7 Filter Layer	Underdrain (1.006)		62.4	3.547	0.945	0.2429	
15 minute summer	CD7 Filter Layer	Infiltration (1.006)		0.0				
30 minute summer	CD8	1.008	J1	46.2	0.155	0.051	4.4657	
30 minute summer	CD8	Filtration (1.007)		7.7				
30 minute summer	CD8 Filter Layer	Underdrain (1.007)		46.3	2.631	0.887	0.1866	
15 minute summer	CD8 Filter Layer	Infiltration (1.007)		0.0				
30 minute summer	CD9	1.010_1	Swale Outlet	7.3	0.782	0.003	0.3229	
600 minute summer	Swale Outlet	1.010	1	1.8	0.334	0.022	0.3698	
600 minute summer	Swale Outlet	Filtration (1.010_1)		17.8				
600 minute summer	Swale Outlet Filter Layer	Underdrain (1.010_1)		17.1	1.248	0.322	0.3800	
30 minute summer	Swale Outlet Filter Layer	Infiltration (1.010_1)		0.0				
360 minute winter	Ph4_Swale_AC_2	3.000	3	-4.6	-0.150	-0.039	1.2381	
15 minute summer	1	1.011	2	22.3	0.836	0.134	0.8493	
600 minute winter	Ph4_Swale_AC_1	2.000	Swale Outlet	-10.2	-0.471	-0.396	1.2568	
15 minute summer	2	1.013	3	37.9	0.894	0.244	0.4823	
360 minute winter	3	1.014	4	2.4	0.540	0.016	0.0862	
120 minute summer	4	1.015	5	2.4	0.586	0.012	0.2034	
120 minute summer	5	1.016	6	2.4	0.533	0.014	0.3089	
120 minute summer	6	1.017	7	2.4	0.428	0.016	0.4479	
120 minute summer	7	1.018	8	2.4	0.257	0.025	0.4049	
120 minute summer	8	1.019	9	2.4	0.187	0.066	0.2900	
120 minute summer	9	1.020	10	2.4	0.190	0.066	0.1025	
120 minute summer	10	1.021	12	2.4	0.285	0.040	0.0939	44.7

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 76.61%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	J2	1380	38.859	0.034	2.4	0.0000	0.0000	OK
30 minute summer	J1	22	62.119	0.183	70.0	0.0000	0.0000	OK
15 minute summer	J1 Filter Layer (1.008)	9	61.936	0.500	88.6	2.6335	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	J1	1.009	CD9	69.9	0.546	0.344	5.1700	
30 minute summer	J1	Filtration (1.008)		23.4				
30 minute summer	J1 Filter Layer	Underdrain (1.008)		24.7	1.402	1.459	0.1995	
15 minute summer	J1 Filter Layer	Infiltration (1.008)		0.0				

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 91.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	Swale Inlet	10	69.813	0.013	17.7	0.0141	0.0000	OK
15 minute summer	CD1	11	68.659	-0.341	16.6	0.0000	0.0000	OK
15 minute summer	CD1 Filter Layer (1.000)	11	68.598	0.098	31.9	0.6390	0.0000	OK
15 minute summer	CD2 (1.001)	12	68.227	0.227	17.9	0.0000	0.0000	OK
15 minute summer	CD2	11	68.218	0.218	45.1	0.2442	0.0000	OK
15 minute summer	CD2 Filter Layer (1.001)	11	67.909	0.409	29.5	2.7767	0.0000	OK
15 minute summer	CD3	11	67.686	0.076	60.4	0.0732	0.0000	SURCHARGED
15 minute summer	CD4	12	66.044	0.158	31.0	0.0807	0.0000	OK
15 minute summer	CD4 Filter Layer (1.003)	12	65.745	0.359	71.6	2.2647	0.0000	OK
15 minute summer	CD5	13	64.745	-0.205	11.2	0.0000	0.0000	OK
15 minute summer	CD5 Filter Layer (1.004)	13	64.645	0.195	81.0	1.3115	0.0000	OK
30 minute summer	CD6	22	63.573	0.053	7.2	0.0255	0.0000	OK
15 minute summer	CD6 Filter Layer (1.005)	13	63.392	0.372	84.2	2.9874	0.0000	OK
30 minute summer	CD7	20	62.643	0.143	13.5	0.1094	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	Swale Inlet	1.000	CD1	2.3	0.329	0.001	0.1162	
15 minute summer	CD1	1.001	CD2	0.0	0.000	0.000	2.7864	
15 minute summer	CD1	Filtration (1.000)		31.9				
15 minute summer	CD1 Filter Layer	Underdrain (1.000)		15.3	1.279	0.292	0.1919	
15 minute summer	CD1 Filter Layer	Infiltration (1.000)		0.0				
15 minute summer	CD2	1.002	CD3	45.4	1.219	0.536	0.2608	
15 minute summer	CD2	Filtration (1.001)		8.6				
15 minute summer	CD2 Filter Layer	Underdrain (1.001)		31.3	1.954	0.594	0.3000	
15 minute summer	CD2 Filter Layer	Infiltration (1.001)		0.0				
15 minute summer	CD3	1.003	CD4	16.6	0.437	0.005	1.5001	
15 minute summer	CD4	1.004	CD5	0.0	0.000	0.000	0.0002	
15 minute summer	CD4	Filtration (1.003)		71.6				
15 minute summer	CD4 Filter Layer	Underdrain (1.003)		43.0	2.741	0.662	0.2385	
15 minute summer	CD4 Filter Layer	Infiltration (1.003)		0.0				
15 minute summer	CD5	1.005	CD6	0.0	0.000	0.000	0.1682	
15 minute summer	CD5	Filtration (1.004)		10.5				
15 minute summer	CD5 Filter Layer	Underdrain (1.004)		72.2	4.291	1.022	0.2472	
15 minute summer	CD5 Filter Layer	Infiltration (1.004)		0.0				
30 minute summer	CD6	1.006	CD7	0.5	0.009	0.000	0.9241	
30 minute summer	CD6	Filtration (1.005)		6.4				
30 minute summer	CD6 Filter Layer	Underdrain (1.005)		76.8	4.383	1.121	0.3169	
15 minute summer	CD6 Filter Layer	Infiltration (1.005)		0.0				
30 minute summer	CD7	1.007	CD8	35.8	0.131	0.014	3.8182	
30 minute summer	CD7	Filtration (1.006)		6.9				

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 91.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	CD7 Filter Layer (1.006)	12	62.500	0.500	75.5	3.1489	0.0000	OK
30 minute summer	CD8	21	62.399	0.399	52.9	0.6551	0.0000	OK
15 minute summer	CD8 Filter Layer (1.007)	10	62.000	0.500	81.4	2.4634	0.0000	OK
30 minute summer	J1 (1.008)	22	62.306	0.370	59.1	0.0000	0.0000	OK
15 minute winter	CD9	14	61.300	1.100	86.3	0.7222	0.0000	FLOOD RISK
30 minute summer	Swale Outlet (1.010_1)	22	59.113	0.013	30.2	0.0000	0.0000	OK
600 minute winter	Swale Outlet	570	59.047	0.447	14.6	0.0000	0.0000	SURCHARGED
30 minute summer	Swale Outlet Filter Layer (1.010_1)	23	59.067	0.467	93.7	6.7558	0.0000	OK
600 minute summer	Ph4_Swale_AC_2	615	55.683	0.648	6.0	48.5755	0.0000	SURCHARGED
15 minute summer	1	10	57.782	0.107	30.2	0.0568	0.0000	OK
600 minute winter	Ph4_Swale_AC_1	585	59.046	0.436	12.7	144.8698	0.0000	SURCHARGED
15 minute summer	2	11	55.741	0.146	50.3	0.2632	0.0000	OK
600 minute summer	3	615	55.683	0.688	8.7	0.9840	0.0000	SURCHARGED
30 minute summer	4	51	54.054	0.029	2.4	0.0413	0.0000	OK
30 minute summer	5	60	49.156	0.031	2.4	0.0449	0.0000	OK
30 minute summer	6	65	44.408	0.033	2.4	0.0472	0.0000	OK
30 minute summer	7	66	39.947	0.042	2.4	0.0594	0.0000	OK
15 minute summer	8	21	39.081	0.066	2.4	0.0938	0.0000	OK
30 minute summer	9	70	39.009	0.066	2.4	0.0941	0.0000	OK
30 minute summer	10	70	38.981	0.064	2.4	0.0916	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	CD7 Filter Layer	Underdrain (1.006)		69.5	3.946	1.053	0.2429	
15 minute summer	CD7 Filter Layer	Infiltration (1.006)		0.0				
30 minute summer	CD8	1.008	J1	59.1	0.155	0.065	5.8389	
30 minute summer	CD8	Filtration (1.007)		5.8				
30 minute summer	CD8 Filter Layer	Underdrain (1.007)		46.9	2.663	0.898	0.1866	
15 minute summer	CD8 Filter Layer	Infiltration (1.007)		0.0				
15 minute winter	CD9	1.010_1	Swale Outlet	17.6	1.036	0.007	0.6005	
600 minute winter	Swale Outlet	1.010	1	1.8	0.333	0.022	0.3625	
600 minute winter	Swale Outlet	Filtration (1.010_1)		14.9				
600 minute winter	Swale Outlet Filter Layer	Underdrain (1.010_1)		14.4	1.073	0.271	0.3692	
30 minute summer	Swale Outlet Filter Layer	Infiltration (1.010_1)		0.0				
600 minute summer	Ph4_Swale_AC_2	3.000	3	-6.0	-0.092	-0.050	1.2381	
15 minute summer	1	1.011	2	29.3	0.902	0.175	1.0319	
600 minute winter	Ph4_Swale_AC_1	2.000	Swale Outlet	-12.7	-0.475	-0.494	1.2568	
15 minute summer	2	1.013	3	49.7	0.995	0.320	0.5821	
600 minute summer	3	1.014	4	2.4	0.540	0.016	0.0862	
30 minute summer	4	1.015	5	2.4	0.650	0.012	0.2034	
30 minute summer	5	1.016	6	2.4	0.570	0.014	0.3089	
30 minute summer	6	1.017	7	2.4	0.491	0.016	0.4479	
30 minute summer	7	1.018	8	2.4	0.324	0.025	0.4049	
15 minute summer	8	1.019	9	2.4	0.189	0.065	0.2878	
30 minute summer	9	1.020	10	2.4	0.200	0.066	0.1025	
30 minute summer	10	1.021	12	2.4	0.285	0.040	0.0939	35.4

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 91.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	12	69	38.859	0.034	2.4	0.0000	0.0000	OK
30 minute summer	J1	22	62.140	0.204	85.5	0.0000	0.0000	OK
15 minute summer	J1 Filter Layer (1.008)	9	61.936	0.500	107.2	2.6335	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	J1	1.009	CD9	85.3	0.646	0.420	5.3953	
30 minute summer	J1	Filtration (1.008)		31.1				
30 minute summer	J1 Filter Layer	Underdrain (1.008)		27.4	1.554	1.617	0.1995	
15 minute summer	J1 Filter Layer	Infiltration (1.008)		0.0				

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 93.01%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	Swale Inlet	10	69.817	0.017	23.0	0.0178	0.0000	OK
15 minute summer	CD1	11	68.698	-0.302	22.2	0.0000	0.0000	OK
15 minute summer	CD1 Filter Layer (1.000)	11	68.619	0.119	41.4	0.8094	0.0000	OK
15 minute summer	CD2 (1.001)	12	68.272	0.272	16.6	0.0000	0.0000	OK
15 minute summer	CD2	11	68.257	0.257	58.8	0.2880	0.0000	OK
15 minute summer	CD2 Filter Layer (1.001)	11	67.948	0.448	37.3	2.9100	0.0000	OK
15 minute summer	CD3	11	67.793	0.183	78.0	0.1763	0.0000	SURCHARGED
15 minute summer	CD4	13	66.184	0.298	42.8	0.1524	0.0000	OK
15 minute summer	CD4 Filter Layer (1.003)	13	65.824	0.438	84.9	2.3424	0.0000	OK
30 minute summer	CD5	22	65.016	0.066	13.3	0.0454	0.0000	OK
30 minute summer	CD5 Filter Layer (1.004)	21	64.881	0.431	95.8	2.9257	0.0000	OK
30 minute summer	CD6	22	63.616	0.096	9.4	0.0465	0.0000	OK
15 minute summer	CD6 Filter Layer (1.005)	13	63.520	0.500	96.0	4.1441	0.0000	OK
30 minute summer	CD7	21	62.690	0.190	20.5	0.1449	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	Swale Inlet	1.000	CD1	3.4	0.379	0.001	0.1526	
15 minute summer	CD1	1.001	CD2	0.0	0.000	0.000	3.7282	
15 minute summer	CD1	Filtration (1.000)		41.4				
15 minute summer	CD1 Filter Layer	Underdrain (1.000)		19.4	1.383	0.371	0.2022	
15 minute summer	CD1 Filter Layer	Infiltration (1.000)		0.0				
15 minute summer	CD2	1.002	CD3	58.5	1.293	0.690	0.3167	
15 minute summer	CD2	Filtration (1.001)		11.7				
15 minute summer	CD2 Filter Layer	Underdrain (1.001)		40.4	2.311	0.765	0.3476	
15 minute summer	CD2 Filter Layer	Infiltration (1.001)		0.0				
15 minute summer	CD3	1.003	CD4	24.0	0.418	0.007	3.7612	
15 minute summer	CD4	1.004	CD5	0.0	0.000	0.000	0.2422	
15 minute summer	CD4	Filtration (1.003)		84.9				
15 minute summer	CD4 Filter Layer	Underdrain (1.003)		52.9	3.156	0.816	0.2693	
15 minute summer	CD4 Filter Layer	Infiltration (1.003)		0.0				
30 minute summer	CD5	1.005	CD6	1.3	0.039	0.000	0.7226	
30 minute summer	CD5	Filtration (1.004)		14.0				
30 minute summer	CD5 Filter Layer	Underdrain (1.004)		82.6	4.694	1.169	0.2794	
30 minute summer	CD5 Filter Layer	Infiltration (1.004)		0.0				
30 minute summer	CD6	1.006	CD7	11.0	0.124	0.003	1.5201	
30 minute summer	CD6	Filtration (1.005)		17.7				
30 minute summer	CD6 Filter Layer	Underdrain (1.005)		79.7	4.528	1.163	0.3169	
15 minute summer	CD6 Filter Layer	Infiltration (1.005)		0.0				
30 minute summer	CD7	1.007	CD8	51.2	0.141	0.020	5.0927	
30 minute summer	CD7	Filtration (1.006)		11.2				

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 93.01%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	CD7 Filter Layer (1.006)	11	62.500	0.500	77.6	3.2071	0.0000	OK
30 minute summer	CD8	21	62.472	0.472	72.6	0.7752	0.0000	OK
15 minute summer	CD8 Filter Layer (1.007)	9	62.000	0.500	96.0	2.4634	0.0000	OK
30 minute summer	J1 (1.008)	22	62.354	0.418	72.5	0.0000	0.0000	OK
15 minute summer	CD9	11	61.300	1.100	104.9	0.7790	0.0000	FLOOD RISK
960 minute winter	Swale Outlet (1.010_1)	930	59.260	0.160	1.7	0.0000	0.0000	OK
960 minute winter	Swale Outlet	945	59.257	0.657	14.6	0.0000	0.0000	SURCHARGED
30 minute summer	Swale Outlet Filter Layer (1.010_1)	20	59.100	0.500	115.3	7.5344	0.0000	OK
720 minute winter	Ph4_Swale_AC_2	690	55.872	0.837	4.6	62.8105	0.0000	SURCHARGED
15 minute summer	1	11	57.797	0.122	39.2	0.0652	0.0000	OK
960 minute winter	Ph4_Swale_AC_1	945	59.255	0.645	11.7	214.4480	0.0000	SURCHARGED
720 minute winter	2	690	55.873	0.278	7.1	0.5002	0.0000	OK
720 minute winter	3	690	55.872	0.877	7.1	1.2557	0.0000	SURCHARGED
15 minute summer	4	38	54.054	0.029	2.4	0.0413	0.0000	OK
15 minute summer	5	47	49.156	0.031	2.4	0.0449	0.0000	OK
15 minute summer	6	52	44.408	0.033	2.4	0.0472	0.0000	OK
15 minute summer	7	53	39.947	0.042	2.4	0.0594	0.0000	OK
15 minute winter	8	20	39.081	0.066	2.4	0.0946	0.0000	OK
15 minute summer	9	57	39.009	0.066	2.4	0.0941	0.0000	OK
15 minute summer	10	57	38.981	0.064	2.4	0.0916	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	CD7 Filter Layer	Underdrain (1.006)		69.4	3.945	1.052	0.2429	
15 minute summer	CD7 Filter Layer	Infiltration (1.006)		0.0				
30 minute summer	CD8	1.008	J1	72.5	0.155	0.080	7.3027	
30 minute summer	CD8	Filtration (1.007)		5.9				
30 minute summer	CD8 Filter Layer	Underdrain (1.007)		46.5	2.641	0.890	0.1866	
15 minute summer	CD8 Filter Layer	Infiltration (1.007)		0.0				
15 minute summer	CD9	1.010_1	Swale Outlet	40.8	1.313	0.015	1.1072	
960 minute winter	Swale Outlet	1.010	1	1.8	0.319	0.022	0.3585	
960 minute winter	Swale Outlet	Filtration (1.010_1)		13.9				
960 minute winter	Swale Outlet Filter Layer	Underdrain (1.010_1)		13.5	1.012	0.253	0.3654	
30 minute summer	Swale Outlet Filter Layer	Infiltration (1.010_1)		0.0				
720 minute winter	Ph4_Swale_AC_2	3.000	3	-4.6	-0.098	-0.039	1.2381	
15 minute summer	1	1.011	2	38.3	0.968	0.229	1.2520	
960 minute winter	Ph4_Swale_AC_1	2.000	Swale Outlet	-11.7	-0.369	-0.456	1.2568	
720 minute winter	2	1.013	3	7.1	0.188	0.046	1.0395	
720 minute winter	3	1.014	4	2.4	0.540	0.016	0.0862	
15 minute summer	4	1.015	5	2.4	0.698	0.012	0.2034	
15 minute summer	5	1.016	6	2.4	0.619	0.014	0.3089	
15 minute summer	6	1.017	7	2.4	0.540	0.016	0.4479	
15 minute summer	7	1.018	8	2.4	0.342	0.025	0.4060	
15 minute winter	8	1.019	9	2.4	0.190	0.066	0.2900	
15 minute summer	9	1.020	10	2.4	0.207	0.066	0.1025	
15 minute summer	10	1.021	12	2.4	0.285	0.040	0.0939	33.7

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 93.01%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	12	56	38.859	0.034	2.4	0.0000	0.0000	OK
30 minute summer	J1	22	62.161	0.225	100.7	0.0000	0.0000	OK
15 minute summer	J1 Filter Layer (1.008)	8	61.936	0.500	126.5	2.6335	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	J1	1.009	CD9	100.6	0.740	0.495	5.6101	
30 minute summer	J1	Filtration (1.008)		39.9				
30 minute summer	J1 Filter Layer	Underdrain (1.008)		29.8	1.695	1.764	0.1995	
15 minute summer	J1 Filter Layer	Infiltration (1.008)		0.0				