



Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	17.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.300	Preferred Cover Depth (m)	1.200
CV	1.000	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	x

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
Car Park 1	0.035	5.00	132.150		415906.545	419519.015	0.891
S2.2	0.023	5.00	132.669	600	415933.125	419560.870	1.603
S3.3			132.718	600	415886.379	419553.216	1.652
S3.5	0.040	5.00	132.750	1200	415873.994	419561.220	2.150
S5.1	0.161	5.00	131.750	600	415868.111	419596.935	0.941
S3.1	0.032	5.00	132.650	600	415910.052	419531.656	1.125
S3.2	0.030	5.00	132.667	600	415907.507	419556.035	1.387
S4.2	0.060	5.00	132.651	600	415911.384	419589.201	1.366
S7.1			132.659	1200	415901.703	419521.092	1.489
S4.1	0.037	5.00	132.631	600	415912.729	419611.205	1.125
S1.2	0.017	5.00	132.616	600	415941.498	419575.252	1.524
S3.6			132.585	1500	415863.234	419578.669	2.684
S3.4	0.024	5.00	132.599	600	415882.995	419562.434	1.631
S4.3			132.554	600	415868.452	419583.087	1.701
S1.1	0.031	5.00	132.547	600	415943.017	419614.923	1.058
S2.1	0.032	5.00	132.486	600	415936.562	419531.548	1.125
S1.3			132.448	1200	415942.757	419561.838	2.324
S7.2	0.015	5.00	132.783	1200	415892.544	419525.002	1.668
S6.1	0.132	5.00	131.700	600	415963.706	419578.946	1.452
S8.1			131.631	600	415973.601	419549.310	1.595
S7.3	0.150	5.00	132.812	1200	415885.487	419538.353	1.786



Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
Soakaway 2			131.750		415862.115	419580.989	2.050
Soakaway 1			131.700		415953.740	419575.391	1.700
Car Park 2	0.015	5.00	132.750		415892.437	419521.329	1.586
Car Park 3	0.150	5.00	132.450		415883.335	419536.290	1.360
Car Park 4	0.131	5.00	131.100		415975.118	419550.620	0.600
Soakaway 2 Dummy Outfall			131.600		415858.401	419581.434	0.750
Soakaway 1 Dummy Outfall			131.650		415952.578	419580.080	0.900
Car Park 5	0.037	5.00	131.250		415928.791	419519.167	0.130
Car Park 5 Dumy Outfall			131.250		415928.901	419507.428	0.180
Car Park 6	0.096	5.00	130.100		415958.676	419534.556	0.130
Car Park 6 Dummy Outfall			130.100		415961.358	419522.324	0.180

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)
1.001	S1.1	S1.2	39.700	0.600	131.489	131.092	0.397	100.0	225	5.51	49.6
1.002	S1.2	S1.3	13.473	0.600	131.092	130.957	0.135	99.8	225	5.68	49.0
2.001	S2.1	S2.2	29.523	0.600	131.361	131.066	0.295	100.1	225	5.38	50.0
2.002	S2.2	S1.3	9.681	0.600	131.066	130.957	0.109	88.8	225	5.49	49.6
4.001	S4.1	S4.2	22.045	0.600	131.506	131.285	0.221	99.8	225	5.28	50.0
4.002	S4.2	S4.3	43.365	0.600	131.285	130.853	0.432	100.4	225	5.83	48.5

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)
1.001	1.307	52.0	5.6	0.833	1.299	0.031	0.0	50	0.860
1.002	1.308	52.0	8.5	1.299	1.266	0.048	0.0	61	0.968
2.001	1.307	52.0	5.8	0.900	1.378	0.032	0.0	51	0.868
2.002	1.388	55.2	9.9	1.378	1.266	0.055	0.0	65	1.059
4.001	1.309	52.0	6.7	0.900	1.141	0.037	0.0	54	0.904
4.002	1.305	51.9	17.0	1.141	1.476	0.097	0.0	88	1.170



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)
4.003	S4.3	S3.6	6.837	0.600	130.853	130.785	0.068	100.5	225	5.92	48.2
7.001	S7.1	S7.2	9.959	0.600	131.177	131.115	0.062	160.6	225	5.21	50.0
7.002	S7.2	S7.3	15.101	0.600	131.115	131.026	0.089	169.7	225	5.46	49.7
7.003	S7.3	S3.5	25.593	0.600	131.026	130.675	0.351	72.9	225	5.74	48.2
3.005	S3.5	S3.6	20.500	0.600	130.600	130.051	0.549	37.3	300	5.91	48.2
3.001	S3.1	S3.2	24.511	0.600	131.525	131.280	0.245	100.0	225	5.31	50.0
3.002	S3.2	S3.3	21.315	0.600	131.280	131.066	0.214	99.6	225	5.58	49.3
3.003	S3.3	S3.4	9.820	0.600	131.066	130.968	0.098	100.2	225	5.71	48.9
3.004	S3.4	S3.5	9.082	0.600	130.968	130.675	0.293	31.0	225	5.77	48.7
3.006	S3.6	Soakaway 2	2.576	0.600	129.901	129.894	0.007	368.0	450	5.96	48.0
5.001	S5.1	Soakaway 2	10.095	0.600	130.809	129.700	1.109	9.1	225	5.04	50.0
1.003	S1.3	Soakaway 1	7.576	0.600	130.124	130.000	0.124	61.1	375	5.73	48.8
6.001	S6.1	Soakaway 1	11.457	0.600	130.248	130.000	0.248	46.2	225	5.10	50.0
8.001	S8.1	Soakaway 1	5.732	0.600	130.036	130.000	0.036	159.2	225	5.12	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)
4.003	1.304	51.8	16.9	1.476	1.575	0.097	0.0	88	1.169
7.001	1.029	40.9	6.3	1.257	1.443	0.035	0.0	59	0.748
7.002	1.001	39.8	11.7	1.443	1.561	0.065	0.0	83	0.870
7.003	1.533	61.0	63.6	1.561	1.850	0.365	0.0	196	1.729
3.005	2.581	182.4	85.6	1.850	2.234	0.491	0.0	144	2.541
3.001	1.307	52.0	5.8	0.900	1.162	0.032	0.0	51	0.869
3.002	1.310	52.1	11.1	1.162	1.427	0.062	0.0	70	1.043
3.003	1.306	51.9	11.0	1.427	1.406	0.062	0.0	70	1.039
3.004	2.358	93.8	15.1	1.406	1.850	0.086	0.0	61	1.747
3.006	1.054	167.6	102.1	2.234	1.406	0.588	0.0	254	1.102
5.001	4.362	173.5	29.1	0.716	1.825	0.161	0.0	62	3.261
1.003	2.321	256.4	18.2	1.949	1.325	0.103	0.0	67	1.363
6.001	1.929	76.7	23.9	1.227	1.475	0.132	0.0	86	1.706
8.001	1.033	41.1	23.7	1.370	1.475	0.131	0.0	123	1.069

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)
Car Park 1 Outlet	Car Park 1	S7.1	5.269	0.600	131.259	131.170	0.089	59.2	225	5.05	50.0
Car Park 2 Outlet	Car Park 2	S7.2	8.375	0.600	131.164	131.115	0.049	170.9	225	5.14	50.0
Car Park 3 Outlet	Car Park 3	S7.3	9.468	0.600	131.090	131.026	0.064	147.9	225	5.15	50.0
Car Park 4 Outlet	Car Park 4	S8.1	5.000	0.600	130.500	130.111	0.389	12.9	150	5.03	50.0
Soakaway 2 Dummy Outfall	Soakaway 2	Soakaway 2 Dummy Outfall	5.000	0.600	130.900	130.850	0.050	100.0	100	6.07	46.8
Soakaway 1 Dummy Outfall	Soakaway 1	Soakaway 1 Dummy Outfall	5.000	0.600	130.800	130.750	0.050	100.0	100	5.84	48.7
Car Park 5 Dumy Outfall	Car Park 5	Car Park 5 Dumy Outfall	5.000	0.600	131.120	131.070	0.050	100.0	100	5.11	50.0
Car Park 6 Dummy Outfall	Car Park 6	Car Park 6 Dummy Outfall	5.000	0.600	129.970	129.920	0.050	100.0	100	5.11	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)
Car Park 1 Outlet	1.703	67.7	6.3	0.666	1.264	0.035	0.0	46	1.074
Car Park 2 Outlet	0.997	39.6	2.7	1.361	1.443	0.015	0.0	40	0.576
Car Park 3 Outlet	1.072	42.6	27.1	1.135	1.561	0.150	0.0	131	1.135
Car Park 4 Outlet	2.825	49.9	23.7	0.450	1.370	0.131	0.0	73	2.792
Soakaway 2 Dummy Outfall	0.769	6.0	126.7	0.750	0.650	0.749	0.0	100	0.790
Soakaway 1 Dummy Outfall	0.769	6.0	64.4	0.800	0.800	0.366	0.0	100	0.790
Car Park 5 Dumy Outfall	0.769	6.0	6.7	0.030	0.080	0.037	0.0	100	0.790
Car Park 6 Dummy Outfall	0.769	6.0	17.3	0.030	0.080	0.096	0.0	100	0.790

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.001	39.700	100.0	225	Circular	132.547	131.489	0.833	132.616	131.092	1.299
1.002	13.473	99.8	225	Circular	132.616	131.092	1.299	132.448	130.957	1.266
2.001	29.523	100.1	225	Circular	132.486	131.361	0.900	132.669	131.066	1.378
2.002	9.681	88.8	225	Circular	132.669	131.066	1.378	132.448	130.957	1.266
4.001	22.045	99.8	225	Circular	132.631	131.506	0.900	132.651	131.285	1.141
4.002	43.365	100.4	225	Circular	132.651	131.285	1.141	132.554	130.853	1.476
4.003	6.837	100.5	225	Circular	132.554	130.853	1.476	132.585	130.785	1.575
7.001	9.959	160.6	225	Circular	132.659	131.177	1.257	132.783	131.115	1.443
7.002	15.101	169.7	225	Circular	132.783	131.115	1.443	132.812	131.026	1.561
7.003	25.593	72.9	225	Circular	132.812	131.026	1.561	132.750	130.675	1.850
3.005	20.500	37.3	300	Circular	132.750	130.600	1.850	132.585	130.051	2.234
3.001	24.511	100.0	225	Circular	132.650	131.525	0.900	132.667	131.280	1.162
3.002	21.315	99.6	225	Circular	132.667	131.280	1.162	132.718	131.066	1.427
3.003	9.820	100.2	225	Circular	132.718	131.066	1.427	132.599	130.968	1.406
3.004	9.082	31.0	225	Circular	132.599	130.968	1.406	132.750	130.675	1.850

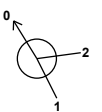
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.001	S1.1	600	Manhole	Adoptable	S1.2	600	Manhole	Adoptable
1.002	S1.2	600	Manhole	Adoptable	S1.3	1200	Manhole	Adoptable
2.001	S2.1	600	Manhole	Adoptable	S2.2	600	Manhole	Adoptable
2.002	S2.2	600	Manhole	Adoptable	S1.3	1200	Manhole	Adoptable
4.001	S4.1	600	Manhole	Adoptable	S4.2	600	Manhole	Adoptable
4.002	S4.2	600	Manhole	Adoptable	S4.3	600	Manhole	Adoptable
4.003	S4.3	600	Manhole	Adoptable	S3.6	1500	Manhole	Adoptable
7.001	S7.1	1200	Manhole	Adoptable	S7.2	1200	Manhole	Adoptable
7.002	S7.2	1200	Manhole	Adoptable	S7.3	1200	Manhole	Adoptable
7.003	S7.3	1200	Manhole	Adoptable	S3.5	1200	Manhole	Adoptable
3.005	S3.5	1200	Manhole	Adoptable	S3.6	1500	Manhole	Adoptable
3.001	S3.1	600	Manhole	Adoptable	S3.2	600	Manhole	Adoptable
3.002	S3.2	600	Manhole	Adoptable	S3.3	600	Manhole	Adoptable
3.003	S3.3	600	Manhole	Adoptable	S3.4	600	Manhole	Adoptable
3.004	S3.4	600	Manhole	Adoptable	S3.5	1200	Manhole	Adoptable

Pipeline Schedule

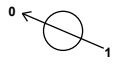
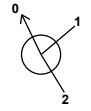
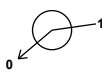
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
3.006	2.576	368.0	450	Circular	132.585	129.901	2.234	131.750	129.894	1.406
5.001	10.095	9.1	225	Circular	131.750	130.809	0.716	131.750	129.700	1.825
1.003	7.576	61.1	375	Circular	132.448	130.124	1.949	131.700	130.000	1.325
6.001	11.457	46.2	225	Circular	131.700	130.248	1.227	131.700	130.000	1.475
8.001	5.732	159.2	225	Circular	131.631	130.036	1.370	131.700	130.000	1.475
Car Park 1 Outlet	5.269	59.2	225	Circular	132.150	131.259	0.666	132.659	131.170	1.264
Car Park 2 Outlet	8.375	170.9	225	Circular	132.750	131.164	1.361	132.783	131.115	1.443
Car Park 3 Outlet	9.468	147.9	225	Circular	132.450	131.090	1.135	132.812	131.026	1.561
Car Park 4 Outlet	5.000	12.9	150	Circular	131.100	130.500	0.450	131.631	130.111	1.370
Soakaway 2 Dummy Outfall	5.000	100.0	100	Circular	131.750	130.900	0.750	131.600	130.850	0.650
Soakaway 1 Dummy Outfall	5.000	100.0	100	Circular	131.700	130.800	0.800	131.650	130.750	0.800
Car Park 5 Dummy Outfall	5.000	100.0	100	Circular	131.250	131.120	0.030	131.250	131.070	0.080
Car Park 6 Dummy Outfall	5.000	100.0	100	Circular	130.100	129.970	0.030	130.100	129.920	0.080

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
3.006	S3.6	1500	Manhole	Adoptable	Soakaway 2		Junction	
5.001	S5.1	600	Manhole	Adoptable	Soakaway 2		Junction	
1.003	S1.3	1200	Manhole	Adoptable	Soakaway 1		Junction	
6.001	S6.1	600	Manhole	Adoptable	Soakaway 1		Junction	
8.001	S8.1	600	Manhole	Adoptable	Soakaway 1		Junction	
Car Park 1 Outlet	Car Park 1		Junction		S7.1	1200	Manhole	Adoptable
Car Park 2 Outlet	Car Park 2		Junction		S7.2	1200	Manhole	Adoptable
Car Park 3 Outlet	Car Park 3		Junction		S7.3	1200	Manhole	Adoptable
Car Park 4 Outlet	Car Park 4		Junction		S8.1	600	Manhole	Adoptable
Soakaway 2 Dummy Outfall	Soakaway 2		Junction		Soakaway 2 Dummy Outfall		Junction	
Soakaway 1 Dummy Outfall	Soakaway 1		Junction		Soakaway 1 Dummy Outfall		Junction	
Car Park 5 Dummy Outfall	Car Park 5		Junction		Car Park 5 Dummy Outfall		Junction	
Car Park 6 Dummy Outfall	Car Park 6		Junction		Car Park 6 Dummy Outfall		Junction	

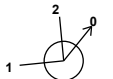
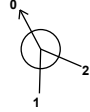
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
Car Park 1	415906.545	419519.015	132.150	0.891					
						0	Car Park 1 Outlet	131.259	225
S2.2	415933.125	419560.870	132.669	1.603	600		1 2.001	131.066	225
						0	2.002	131.066	225
S3.3	415886.379	419553.216	132.718	1.652	600		1 3.002	131.066	225
						0	3.003	131.066	225
S3.5	415873.994	419561.220	132.750	2.150	1200		1 7.003 2 3.004	130.675 130.675	225 225
						0	3.005	130.600	300
S5.1	415868.111	419596.935	131.750	0.941	600		0 5.001	130.809	225
S3.1	415910.052	419531.656	132.650	1.125	600		0 3.001	131.525	225
S3.2	415907.507	419556.035	132.667	1.387	600		1 3.001	131.280	225
						0	3.002	131.280	225
S4.2	415911.384	419589.201	132.651	1.366	600		1 4.001	131.285	225
						0	4.002	131.285	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S7.1	415901.703	419521.092	132.659	1.489	1200		Car Park 1 Outlet	131.170	225
						0	7.001	131.177	225
S4.1	415912.729	419611.205	132.631	1.125	600				
						0	4.001	131.506	225
S1.2	415941.498	419575.252	132.616	1.524	600				
						0	1.001	131.092	225
						0	1.002	131.092	225
S3.6	415863.234	419578.669	132.585	2.684	1500				
						1	4.003	130.785	225
						2	3.005	130.051	300
						0	3.006	129.901	450
S3.4	415882.995	419562.434	132.599	1.631	600				
						1	3.003	130.968	225
						0	3.004	130.968	225
S4.3	415868.452	419583.087	132.554	1.701	600				
						1	4.002	130.853	225
						0	4.003	130.853	225
S1.1	415943.017	419614.923	132.547	1.058	600				
						0	1.001	131.489	225
S2.1	415936.562	419531.548	132.486	1.125	600				
						0	2.001	131.361	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S1.3	415942.757	419561.838	132.448	2.324	1200		1 2.002 2 1.002 0 1.003	130.957 130.957 130.124	225 225 375
S7.2	415892.544	419525.002	132.783	1.668	1200		1 Car Park 2 Outlet 2 7.001 0 7.002	131.115 131.115 131.115	225 225 225
S6.1	415963.706	419578.946	131.700	1.452	600		0 6.001	130.248	225
S8.1	415973.601	419549.310	131.631	1.595	600		1 Car Park 4 Outlet 0 8.001	130.111 130.036	150 225
S7.3	415885.487	419538.353	132.812	1.786	1200		1 Car Park 3 Outlet 2 7.002 0 7.003	131.026 131.026 131.026	225 225 225
Soakaway 2	415862.115	419580.989	131.750	2.050			1 5.001 2 3.006 0 Soakaway 2 Dummy Outfall	129.700 129.894 130.900	225 450 100
Soakaway 1	415953.740	419575.391	131.700	1.700			1 8.001 2 6.001 3 1.003 0 Soakaway 1 Dummy Outfall	130.000 130.000 130.000 130.800	225 225 375 100
Car Park 2	415892.437	419521.329	132.750	1.586			0 Car Park 2 Outlet	131.164	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
Car Park 3	415883.335	419536.290	132.450	1.360					
						0	Car Park 3 Outlet	131.090	225
Car Park 4	415975.118	419550.620	131.100	0.600					
						0	Car Park 4 Outlet	130.500	150
Soakaway 2 Dummy Outfall	415858.401	419581.434	131.600	0.750					
						1	Soakaway 2 Dummy Outfall	130.850	100
Soakaway 1 Dummy Outfall	415952.578	419580.080	131.650	0.900					
						1	Soakaway 1 Dummy Outfall	130.750	100
Car Park 5	415928.791	419519.167	131.250	0.130					
						0	Car Park 5 Dmy Outfall	131.120	100
Car Park 5 Dmy Outfall	415928.901	419507.428	131.250	0.180					
						1	Car Park 5 Dmy Outfall	131.070	100
Car Park 6	415958.676	419534.556	130.100	0.130					
						0	Car Park 6 Dummy Outfall	129.970	100
Car Park 6 Dummy Outfall	415961.358	419522.324	130.100	0.180					
						1	Car Park 6 Dummy Outfall	129.920	100



Simulation Settings

Rainfall Methodology	FSR	Summer CV	1.000	Starting Level (m)	
Rainfall Events	Singular	Analysis Speed	Normal	Check Discharge Rate(s)	x
FSR Region	England and Wales	Skip Steady State	x	Check Discharge Volume	x
M5-60 (mm)	17.000	Drain Down Time (mins)	1440		
Ratio-R	0.300	Additional Storage (m³/ha)	0.0		

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440
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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
100	30	0	0

Node Soakaway 2 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.09288	Porosity	0.95	Pit Width (m)	12.000	Inf Depth (m)	
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	129.600	Pit Length (m)	36.000	Number Required	1
Safety Factor	2.0	Time to half empty (mins)	750	Depth (m)	1.200		

Node Soakaway 1 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.05616	Porosity	0.95	Pit Width (m)	20.000	Inf Depth (m)	
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	130.000	Pit Length (m)	16.000	Number Required	1
Safety Factor	2.0	Time to half empty (mins)	735	Depth (m)	0.800		

Node Car Park 1 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.05616	Porosity	0.30	Width (m)	5.000	Depth (m)	0.800
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	131.300	Length (m)	35.000	Inf Depth (m)	0.670
Safety Factor	2.0	Time to half empty (mins)	8	Slope (1:X)	50.0		

Node Car Park 2 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.05616	Porosity	0.30	Width (m)	5.000	Depth (m)	0.600
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	132.150	Length (m)	30.000	Inf Depth (m)	0.470
Safety Factor	2.0	Time to half empty (mins)	0	Slope (1:X)	200.0		

Node Car Park 3 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.05616	Porosity	0.30	Width (m)	5.000	Depth (m)	0.600
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	131.850	Length (m)	82.500	Inf Depth (m)	0.470
Safety Factor	2.0	Time to half empty (mins)	2	Slope (1:X)	200.0		

Node Car Park 4 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.05616	Porosity	0.30	Width (m)	10.000	Depth (m)	0.600
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	130.500	Length (m)	17.500	Inf Depth (m)	0.470
Safety Factor	2.0	Time to half empty (mins)	3	Slope (1:X)	40.0		

Node Car Park 5 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.05616	Porosity	0.30	Width (m)	6.000	Depth (m)	1.100
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	130.150	Length (m)	20.000	Inf Depth (m)	0.970
Safety Factor	2.0	Time to half empty (mins)	304	Slope (1:X)	23.0		

Node Car Park 6 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.05616	Porosity	0.30	Width (m)	10.000	Depth (m)	1.400
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	128.700	Length (m)	30.000	Inf Depth (m)	1.270
Safety Factor	2.0	Time to half empty (mins)	392	Slope (1:X)	22.0		

Results for 100 year +30% CC Critical Storm Duration. Lowest mass balance: 99.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	Car Park 1	22	131.981	0.721	54.0	17.4003	0.0000	FLOOD RISK
15 minute summer	S2.2	10	131.198	0.132	30.6	0.0375	0.0000	OK
15 minute summer	S3.3	11	131.213	0.147	34.1	0.0417	0.0000	OK
15 minute summer	S3.5	11	130.871	0.271	167.2	0.3066	0.0000	OK
15 minute summer	S5.1	10	130.932	0.123	90.1	0.0349	0.0000	OK
15 minute summer	S3.1	10	131.615	0.090	17.9	0.0255	0.0000	OK
15 minute summer	S3.2	10	131.422	0.142	34.6	0.0402	0.0000	OK
15 minute summer	S4.2	11	131.509	0.224	54.1	0.0634	0.0000	OK
30 minute summer	S7.1	22	131.976	0.806	43.0	0.9119	0.0000	SURCHARGED
15 minute summer	S4.1	10	131.604	0.097	20.7	0.0276	0.0000	OK
15 minute summer	S1.2	11	131.214	0.122	26.6	0.0345	0.0000	OK
600 minute summer	S3.6	600	130.788	0.887	54.4	1.5672	0.0000	SURCHARGED
15 minute summer	S3.4	11	131.097	0.129	47.1	0.0364	0.0000	OK
15 minute summer	S4.3	12	131.089	0.236	52.6	0.0669	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	Car Park 1	Car Park 1 Outlet	S7.1	43.0	1.082	0.635	0.2096	
30 minute summer	Car Park 1	Infiltration		1.3				
15 minute summer	S2.2	2.002	S1.3	30.2	1.335	0.548	0.2193	
15 minute summer	S3.3	3.003	S3.4	34.0	1.338	0.656	0.2503	
15 minute summer	S3.5	3.005	S3.6	167.4	2.705	0.917	1.2622	
15 minute summer	S5.1	5.001	Soakaway 2	89.9	4.233	0.518	0.2353	
15 minute summer	S3.1	3.001	S3.2	17.8	0.860	0.342	0.5056	
15 minute summer	S3.2	3.002	S3.3	34.1	1.264	0.654	0.5749	
15 minute summer	S4.2	4.002	S4.3	52.6	1.371	1.014	1.7237	
30 minute summer	S7.1	7.001	S7.2	44.3	1.113	1.082	0.3961	
15 minute summer	S4.1	4.001	S4.2	20.6	0.757	0.395	0.6148	
15 minute summer	S1.2	1.002	S1.3	26.2	1.258	0.503	0.2806	
600 minute summer	S3.6	3.006	Soakaway 2	53.6	0.951	0.320	0.4082	
15 minute summer	S3.4	3.004	S3.5	47.0	1.560	0.502	0.2732	
15 minute summer	S4.3	4.003	S3.6	51.0	1.358	0.984	0.2570	

**Results for 100 year +30% CC Critical Storm Duration. Lowest mass balance: 99.97%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1.1	10	131.577	0.088	17.3	0.0249	0.0000	OK
15 minute summer	S2.1	10	131.451	0.090	17.9	0.0255	0.0000	OK
600 minute summer	S1.3	570	130.761	0.637	15.1	0.7199	0.0000	SURCHARGED
30 minute summer	S7.2	20	131.972	0.856	47.7	0.9687	0.0000	SURCHARGED
600 minute summer	S6.1	570	130.761	0.513	12.2	0.1451	0.0000	SURCHARGED
600 minute summer	S8.1	570	130.761	0.725	11.9	0.2050	0.0000	SURCHARGED
30 minute summer	S7.3	19	131.978	0.952	121.4	1.0771	0.0000	SURCHARGED
600 minute summer	Soakaway 2	600	130.788	1.088	68.5	487.5580	0.0000	OK
600 minute summer	Soakaway 1	570	130.761	0.761	33.4	231.1950	0.0000	OK
30 minute summer	Car Park 2	20	131.973	0.808	9.3	0.0000	0.0000	SURCHARGED
30 minute summer	Car Park 3	20	132.077	0.987	79.6	7.7592	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S1.1	1.001	S1.2	17.1	0.942	0.329	0.7209	
15 minute summer	S2.1	2.001	S2.2	17.8	0.908	0.342	0.5772	
600 minute summer	S1.3	1.003	Soakaway 1	9.5	0.797	0.037	0.8356	
30 minute summer	S7.2	7.002	S7.3	48.6	1.222	1.222	0.6006	
600 minute summer	S6.1	6.001	Soakaway 1	12.1	1.033	0.157	0.4557	
600 minute summer	S8.1	8.001	Soakaway 1	11.8	0.776	0.288	0.2280	
30 minute summer	S7.3	7.003	S3.5	99.2	2.493	1.627	1.0076	
600 minute summer	Soakaway 2	Soakaway 2 Dummy Outfall	Soakaway 2 Dummy Outfall	0.0	0.000	0.000	0.0000	0.0
600 minute summer	Soakaway 2	Infiltration		5.6				
600 minute summer	Soakaway 1	Soakaway 1 Dummy Outfall	Soakaway 1 Dummy Outfall	0.0	0.000	0.000	0.0000	0.0
600 minute summer	Soakaway 1	Infiltration		2.5				
30 minute summer	Car Park 2	Car Park 2 Outlet	S7.2	8.1	0.289	0.204	0.3331	
30 minute summer	Car Park 2	Infiltration		0.0				
30 minute summer	Car Park 3	Car Park 3 Outlet	S7.3	51.8	1.303	1.215	0.3766	
30 minute summer	Car Park 3	Infiltration		1.8				



Results for 100 year +30% CC Critical Storm Duration. Lowest mass balance: 99.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	Car Park 4	12	130.804	0.304	73.3	5.5724	0.0000	FLOOD RISK
15 minute summer	Soakaway 2 Dummy Outfall	1	130.850	0.000	0.0	0.0000	0.0000	OK
15 minute summer	Soakaway 1 Dummy Outfall	1	130.750	0.000	0.0	0.0000	0.0000	OK
360 minute summer	Car Park 5	256	131.077	-0.043	5.3	17.7620	0.0000	OK
15 minute summer	Car Park 5 Dumy Outfall	1	131.070	0.000	0.0	0.0000	0.0000	OK
480 minute summer	Car Park 6	328	129.925	-0.045	10.8	49.6105	0.0000	OK
15 minute summer	Car Park 6 Dummy Outfall	1	129.920	0.000	0.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	Car Park 4	Car Park 4 Outlet	S8.1	51.0	2.900	1.022	0.0880	
15 minute summer	Car Park 4	Infiltration		0.9				
360 minute summer	Car Park 5	Car Park 5 Dumy Outfall	Car Park 5 Dumy Outfall	0.0	0.000	0.000	0.0000	0.0
360 minute summer	Car Park 5	Infiltration		0.9				
480 minute summer	Car Park 6	Car Park 6 Dummy Outfall	Car Park 6 Dummy Outfall	0.0	0.000	0.000	0.0000	0.0
480 minute summer	Car Park 6	Infiltration		2.1				