

Ground Floor, 24 High Street
Whittlesford
Cambs, CB22 4LT

Leeway Avenue, Gt Shelford
Plot 1 Soakaway
AT - 02



Date 12/04/2023 12:47
File 3093 - Plot 1 Soakaway...

Designed by JF
Checked by

Innovyze Source Control 2020.1.3

Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 409 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	18.573	0.373	0.0	1.1	O K
30 min Summer	18.674	0.474	0.0	1.3	O K
60 min Summer	18.765	0.565	0.0	1.6	O K
120 min Summer	18.837	0.637	0.1	1.8	O K
180 min Summer	18.861	0.661	0.1	1.9	O K
240 min Summer	18.866	0.666	0.1	1.9	O K
360 min Summer	18.865	0.665	0.1	1.9	O K
480 min Summer	18.863	0.663	0.1	1.9	O K
600 min Summer	18.858	0.658	0.1	1.9	O K
720 min Summer	18.851	0.651	0.1	1.9	O K
960 min Summer	18.834	0.634	0.1	1.8	O K
1440 min Summer	18.796	0.596	0.0	1.7	O K
2160 min Summer	18.741	0.541	0.0	1.5	O K
2880 min Summer	18.694	0.494	0.0	1.4	O K
4320 min Summer	18.622	0.422	0.0	1.2	O K
5760 min Summer	18.570	0.370	0.0	1.1	O K
7200 min Summer	18.530	0.330	0.0	0.9	O K
8640 min Summer	18.499	0.299	0.0	0.9	O K
10080 min Summer	18.473	0.273	0.0	0.8	O K
15 min Winter	18.617	0.417	0.0	1.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	143.954	0.0	19
30 min Summer	92.629	0.0	33
60 min Summer	56.713	0.0	62
120 min Summer	33.583	0.0	122
180 min Summer	24.424	0.0	180
240 min Summer	19.389	0.0	234
360 min Summer	13.924	0.0	286
480 min Summer	11.018	0.0	348
600 min Summer	9.182	0.0	416
720 min Summer	7.908	0.0	484
960 min Summer	6.245	0.0	618
1440 min Summer	4.471	0.0	894
2160 min Summer	3.197	0.0	1296
2880 min Summer	2.518	0.0	1676
4320 min Summer	1.796	0.0	2424
5760 min Summer	1.413	0.0	3176
7200 min Summer	1.172	0.0	3896
8640 min Summer	1.006	0.0	4664
10080 min Summer	0.884	0.0	5352
15 min Winter	143.954	0.0	19

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
30 min Winter	18.731	0.531	0.0	1.5	O K
60 min Winter	18.834	0.634	0.1	1.8	O K
120 min Winter	18.916	0.716	0.1	2.0	O K
180 min Winter	18.945	0.745	0.1	2.1	O K
240 min Winter	18.953	0.753	0.1	2.1	O K
360 min Winter	18.946	0.746	0.1	2.1	O K
480 min Winter	18.940	0.740	0.1	2.1	O K
600 min Winter	18.930	0.730	0.1	2.1	O K
720 min Winter	18.917	0.717	0.1	2.0	O K
960 min Winter	18.888	0.688	0.1	2.0	O K
1440 min Winter	18.829	0.629	0.1	1.8	O K
2160 min Winter	18.752	0.552	0.0	1.6	O K
2880 min Winter	18.691	0.491	0.0	1.4	O K
4320 min Winter	18.600	0.400	0.0	1.1	O K
5760 min Winter	18.539	0.339	0.0	1.0	O K
7200 min Winter	18.494	0.294	0.0	0.8	O K
8640 min Winter	18.460	0.260	0.0	0.7	O K
10080 min Winter	18.433	0.233	0.0	0.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
30 min Winter	92.629	0.0	33
60 min Winter	56.713	0.0	62
120 min Winter	33.583	0.0	120
180 min Winter	24.424	0.0	176
240 min Winter	19.389	0.0	230
360 min Winter	13.924	0.0	292
480 min Winter	11.018	0.0	366
600 min Winter	9.182	0.0	444
720 min Winter	7.908	0.0	520
960 min Winter	6.245	0.0	666
1440 min Winter	4.471	0.0	952
2160 min Winter	3.197	0.0	1364
2880 min Winter	2.518	0.0	1760
4320 min Winter	1.796	0.0	2548
5760 min Winter	1.413	0.0	3288
7200 min Winter	1.172	0.0	4040
8640 min Winter	1.006	0.0	4760
10080 min Winter	0.884	0.0	5544

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.450	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.004

Time (mins)	Area
From: To:	(ha)
0	4 0.004

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Model Details

Storage is Online Cover Level (m) 20.100

Cellular Storage Structure

Invert Level (m) 18.200 Safety Factor 2.0
 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
 Infiltration Coefficient Side (m/hr) 0.08511

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	3.0	3.0	0.801	0.0	8.5
0.800	3.0	8.5			