

Unit E4
 Threemilestone Industrial Es...
 Truro, TR4 9LD

J-3268
 Soakaway Calc New



Date 05/12/2023
 File J-3268 Soakaway Calcs N...

Designed by LT
 Checked by

Innovyze Source Control 2020.1.3

Summary of Results for 100 year Return Period (+50%)

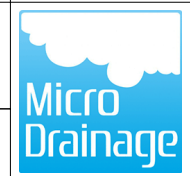
Half Drain Time : 47 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	98.646	0.646	0.5	1.5	O K
30 min Summer	98.812	0.812	0.5	1.9	O K
60 min Summer	98.917	0.917	0.5	2.2	O K
120 min Summer	98.947	0.947	0.5	2.2	O K
180 min Summer	98.913	0.913	0.5	2.2	O K
240 min Summer	98.857	0.857	0.5	2.0	O K
360 min Summer	98.737	0.737	0.5	1.8	O K
480 min Summer	98.626	0.626	0.5	1.5	O K
600 min Summer	98.526	0.526	0.5	1.2	O K
720 min Summer	98.437	0.437	0.4	1.0	O K
960 min Summer	98.292	0.292	0.4	0.7	O K
1440 min Summer	98.110	0.110	0.4	0.3	O K
2160 min Summer	98.044	0.044	0.3	0.1	O K
2880 min Summer	98.036	0.036	0.3	0.1	O K
4320 min Summer	98.026	0.026	0.2	0.1	O K
5760 min Summer	98.021	0.021	0.2	0.1	O K
7200 min Summer	98.018	0.018	0.1	0.0	O K
8640 min Summer	98.016	0.016	0.1	0.0	O K
10080 min Summer	98.014	0.014	0.1	0.0	O K
15 min Winter	98.739	0.739	0.5	1.8	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	112.880	0.0	17
30 min Summer	78.889	0.0	30
60 min Summer	52.842	0.0	48
120 min Summer	34.215	0.0	82
180 min Summer	26.099	0.0	116
240 min Summer	21.345	0.0	150
360 min Summer	16.002	0.0	218
480 min Summer	13.036	0.0	282
600 min Summer	11.107	0.0	344
720 min Summer	9.739	0.0	406
960 min Summer	7.903	0.0	522
1440 min Summer	5.873	0.0	750
2160 min Summer	4.350	0.0	1100
2880 min Summer	3.510	0.0	1456
4320 min Summer	2.587	0.0	2200
5760 min Summer	2.087	0.0	2912
7200 min Summer	1.767	0.0	3608
8640 min Summer	1.543	0.0	4384
10080 min Summer	1.376	0.0	5008
15 min Winter	112.880	0.0	17

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Summary of Results for 100 year Return Period (+50%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
30 min Winter	98.941	0.941	0.5	2.2	O K
60 min Winter	99.064	1.064	0.6	2.5	O K
120 min Winter	99.079	1.079	0.6	2.6	O K
180 min Winter	99.010	1.010	0.5	2.4	O K
240 min Winter	98.916	0.916	0.5	2.2	O K
360 min Winter	98.728	0.728	0.5	1.7	O K
480 min Winter	98.564	0.564	0.5	1.3	O K
600 min Winter	98.423	0.423	0.4	1.0	O K
720 min Winter	98.304	0.304	0.4	0.7	O K
960 min Winter	98.126	0.126	0.4	0.3	O K
1440 min Winter	98.043	0.043	0.3	0.1	O K
2160 min Winter	98.032	0.032	0.2	0.1	O K
2880 min Winter	98.026	0.026	0.2	0.1	O K
4320 min Winter	98.019	0.019	0.1	0.0	O K
5760 min Winter	98.015	0.015	0.1	0.0	O K
7200 min Winter	98.013	0.013	0.1	0.0	O K
8640 min Winter	98.011	0.011	0.1	0.0	O K
10080 min Winter	98.010	0.010	0.1	0.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
30 min Winter	78.889	0.0	30
60 min Winter	52.842	0.0	50
120 min Winter	34.215	0.0	88
180 min Winter	26.099	0.0	126
240 min Winter	21.345	0.0	162
360 min Winter	16.002	0.0	232
480 min Winter	13.036	0.0	296
600 min Winter	11.107	0.0	360
720 min Winter	9.739	0.0	420
960 min Winter	7.903	0.0	530
1440 min Winter	5.873	0.0	724
2160 min Winter	4.350	0.0	1076
2880 min Winter	3.510	0.0	1452
4320 min Winter	2.587	0.0	2156
5760 min Winter	2.087	0.0	2840
7200 min Winter	1.767	0.0	3552
8640 min Winter	1.543	0.0	4272
10080 min Winter	1.376	0.0	5104

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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)	17.500	Shortest Storm (mins)	15
Ratio R	0.281	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.009

Time (mins)		Area
From:	To:	(ha)
0	4	0.009

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Model Details

Storage is Online Cover Level (m) 100.000

Cellular Storage Structure

Invert Level (m) 98.000 Safety Factor 2.0
 Infiltration Coefficient Base (m/hr) 1.02400 Porosity 0.95
 Infiltration Coefficient Side (m/hr) 0.12400

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.5	2.5	1.300	0.0	15.7
1.200	2.5	15.7			