

Unit E4
Threemilestone Industrial
Truro, TR4 9LD

J-3349
Soakaway Calc



Date 08/03/2024
File J-3349 SOAKAWAY CALC.SRCX

Designed by LT
Checked by

Innovyze Source Control 2020.1.3

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

Half Drain Time : 268 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	98.516	0.516	0.5	7.8	O K
30 min Summer	98.691	0.691	0.5	10.5	O K
60 min Summer	98.870	0.870	0.6	13.2	O K
120 min Summer	98.949	0.949	0.6	14.4	O K
180 min Summer	98.971	0.971	0.6	14.8	O K
240 min Summer	98.974	0.974	0.6	14.8	O K
360 min Summer	98.966	0.966	0.6	14.7	O K
480 min Summer	98.947	0.947	0.6	14.4	O K
600 min Summer	98.922	0.922	0.6	14.0	O K
720 min Summer	98.894	0.894	0.6	13.6	O K
960 min Summer	98.838	0.838	0.6	12.7	O K
1440 min Summer	98.730	0.730	0.5	11.1	O K
2160 min Summer	98.589	0.589	0.5	9.0	O K
2880 min Summer	98.474	0.474	0.4	7.2	O K
4320 min Summer	98.300	0.300	0.4	4.6	O K
5760 min Summer	98.182	0.182	0.4	2.8	O K
7200 min Summer	98.105	0.105	0.3	1.6	O K
8640 min Summer	98.061	0.061	0.3	0.9	O K
10080 min Summer	98.047	0.047	0.3	0.7	O K
15 min Winter	98.581	0.581	0.5	8.8	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	162.170	0.0	18
30 min Summer	110.935	0.0	33
60 min Summer	72.825	0.0	62
120 min Summer	43.294	0.0	122
180 min Summer	32.014	0.0	178
240 min Summer	25.856	0.0	206
360 min Summer	19.125	0.0	268
480 min Summer	15.415	0.0	336
600 min Summer	13.016	0.0	406
720 min Summer	11.319	0.0	476
960 min Summer	9.045	0.0	614
1440 min Summer	6.555	0.0	882
2160 min Summer	4.726	0.0	1276
2880 min Summer	3.740	0.0	1648
4320 min Summer	2.681	0.0	2380
5760 min Summer	2.117	0.0	3104
7200 min Summer	1.765	0.0	3752
8640 min Summer	1.524	0.0	4408
10080 min Summer	1.347	0.0	5104
15 min Winter	162.170	0.0	18

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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	98.779	0.779	0.5	11.8	O K
60 min Winter	98.984	0.984	0.6	15.0	O K
120 min Winter	99.084	1.084	0.6	16.5	O K
180 min Winter	99.118	1.118	0.6	17.0	O K
240 min Winter	99.124	1.124	0.6	17.1	O K
360 min Winter	99.112	1.112	0.6	16.9	O K
480 min Winter	99.087	1.087	0.6	16.5	O K
600 min Winter	99.050	1.050	0.6	16.0	O K
720 min Winter	99.009	1.009	0.6	15.3	O K
960 min Winter	98.925	0.925	0.6	14.1	O K
1440 min Winter	98.767	0.767	0.5	11.7	O K
2160 min Winter	98.570	0.570	0.5	8.7	O K
2880 min Winter	98.416	0.416	0.4	6.3	O K
4320 min Winter	98.196	0.196	0.4	3.0	O K
5760 min Winter	98.068	0.068	0.3	1.0	O K
7200 min Winter	98.045	0.045	0.3	0.7	O K
8640 min Winter	98.039	0.039	0.2	0.6	O K
10080 min Winter	98.034	0.034	0.2	0.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
30 min Winter	110.935	0.0	33
60 min Winter	72.825	0.0	62
120 min Winter	43.294	0.0	118
180 min Winter	32.014	0.0	174
240 min Winter	25.856	0.0	226
360 min Winter	19.125	0.0	282
480 min Winter	15.415	0.0	360
600 min Winter	13.016	0.0	438
720 min Winter	11.319	0.0	514
960 min Winter	9.045	0.0	662
1440 min Winter	6.555	0.0	950
2160 min Winter	4.726	0.0	1344
2880 min Winter	3.740	0.0	1732
4320 min Winter	2.681	0.0	2464
5760 min Winter	2.117	0.0	3056
7200 min Winter	1.765	0.0	3648
8640 min Winter	1.524	0.0	4392
10080 min Winter	1.347	0.0	5088

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Rainfall Details

Rainfall Model	FEH
Return Period (years)	100
FEH Rainfall Version	2013
Site Location	GB 189509 75523 SW 89509 75523
Data Type	Point
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	0.750
Cv (Winter)	0.840
Shortest Storm (mins)	15
Longest Storm (mins)	10080
Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.027

Time (mins)	Area
From:	To: (ha)
0	4 0.027

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Model Details

Storage is Online Cover Level (m) 100.000

Cellular Storage Structure

Invert Level (m) 98.000 Safety Factor 3.0
 Infiltration Coefficient Base (m/hr) 0.20300 Porosity 0.95
 Infiltration Coefficient Side (m/hr) 0.20300

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	16.0	16.0	1.201	0.0	35.2
1.200	16.0	35.2			