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20 Milton Park Abingdon Oxfordshire OX14 4SH	Land North of Green Lane Plots 38 + 41 Trench Soakaways	
Date 29/11/2016 File JNY8140 Plot 38-41 Tren...	Designed by HSS Checked by JR	
Causeway		Source Control 2014.1.1

Summary of Results for 100 year Return Period (+30%)

Half Drain Time : 26 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	75.137	0.687	1.2	2.6	O K
30 min Summer	75.225	0.775	1.2	2.9	O K
60 min Summer	75.231	0.781	1.2	2.9	O K
120 min Summer	75.146	0.696	1.2	2.6	O K
180 min Summer	75.053	0.603	1.1	2.3	O K
240 min Summer	74.964	0.514	1.0	1.9	O K
360 min Summer	74.823	0.373	0.9	1.4	O K
480 min Summer	74.718	0.268	0.8	1.0	O K
600 min Summer	74.638	0.188	0.8	0.7	O K
720 min Summer	74.578	0.128	0.7	0.5	O K
960 min Summer	74.509	0.059	0.7	0.2	O K
1440 min Summer	74.488	0.038	0.5	0.1	O K
2160 min Summer	74.478	0.028	0.4	0.1	O K
2880 min Summer	74.472	0.022	0.3	0.1	O K
4320 min Summer	74.466	0.016	0.2	0.1	O K
5760 min Summer	74.463	0.013	0.2	0.0	O K
7200 min Summer	74.461	0.011	0.1	0.0	O K
8640 min Summer	74.459	0.009	0.1	0.0	O K
10080 min Summer	74.458	0.008	0.1	0.0	O K
15 min Winter	75.235	0.785	1.2	2.9	O K


Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	128.285	0.0	16
30 min Summer	84.226	0.0	25
60 min Summer	52.662	0.0	42
120 min Summer	31.800	0.0	76
180 min Summer	23.353	0.0	110
240 min Summer	18.644	0.0	142
360 min Summer	13.543	0.0	204
480 min Summer	10.792	0.0	266
600 min Summer	9.043	0.0	324
720 min Summer	7.823	0.0	382
960 min Summer	6.219	0.0	492
1440 min Summer	4.493	0.0	734
2160 min Summer	3.241	0.0	1088
2880 min Summer	2.568	0.0	1464
4320 min Summer	1.847	0.0	2184
5760 min Summer	1.461	0.0	2936
7200 min Summer	1.217	0.0	3576
8640 min Summer	1.048	0.0	4336
10080 min Summer	0.923	0.0	5008
15 min Winter	128.285	0.0	16

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Summary of Results for 100 year Return Period (+30%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
30 min Winter	75.341	0.891	1.3	3.3	O K
60 min Winter	75.338	0.888	1.3	3.3	O K
120 min Winter	75.202	0.752	1.2	2.8	O K
180 min Winter	75.061	0.611	1.1	2.3	O K
240 min Winter	74.939	0.489	1.0	1.8	O K
360 min Winter	74.751	0.301	0.9	1.1	O K
480 min Winter	74.621	0.171	0.8	0.6	O K
600 min Winter	74.532	0.082	0.7	0.3	O K
720 min Winter	74.498	0.048	0.6	0.2	O K
960 min Winter	74.488	0.038	0.5	0.1	O K
1440 min Winter	74.478	0.028	0.4	0.1	O K
2160 min Winter	74.470	0.020	0.3	0.1	O K
2880 min Winter	74.466	0.016	0.2	0.1	O K
4320 min Winter	74.462	0.012	0.2	0.0	O K
5760 min Winter	74.459	0.009	0.1	0.0	O K
7200 min Winter	74.458	0.008	0.1	0.0	O K
8640 min Winter	74.457	0.007	0.1	0.0	O K
10080 min Winter	74.456	0.006	0.1	0.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
30 min Winter	84.226	0.0	27
60 min Winter	52.662	0.0	46
120 min Winter	31.800	0.0	82
180 min Winter	23.353	0.0	118
240 min Winter	18.644	0.0	150
360 min Winter	13.543	0.0	214
480 min Winter	10.792	0.0	272
600 min Winter	9.043	0.0	326
720 min Winter	7.823	0.0	368
960 min Winter	6.219	0.0	492
1440 min Winter	4.493	0.0	728
2160 min Winter	3.241	0.0	1084
2880 min Winter	2.568	0.0	1448
4320 min Winter	1.847	0.0	2104
5760 min Winter	1.461	0.0	2840
7200 min Winter	1.217	0.0	3664
8640 min Winter	1.048	0.0	4368
10080 min Winter	0.923	0.0	5024

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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	0.400	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.014

Time (mins)		Area
From:	To:	(ha)
0	4	0.014

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Model Details

Storage is Online Cover Level (m) 75.700

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr) 0.36624	Trench Width (m) 2.5
Infiltration Coefficient Side (m/hr) 0.36624	Trench Length (m) 5.0
Safety Factor 2.0	Slope (1:X) 1000.0
Porosity 0.30	Cap Volume Depth (m) 1.000
Invert Level (m) 74.450	Cap Infiltration Depth (m) 1.000