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20 Milton Park Abingdon Oxfordshire OX14 4SH	Land North of Green Lane Plots 44 + 45 Trench Soakaways	
Date 29/11/2016 File JNY8140 Plot 42-43 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 : 157 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	75.481	0.481	0.2	1.8	O K
30 min Summer	75.608	0.608	0.2	2.3	O K
60 min Summer	75.706	0.706	0.2	2.6	O K
120 min Summer	75.745	0.745	0.2	2.8	O K
180 min Summer	75.735	0.735	0.2	2.7	O K
240 min Summer	75.713	0.713	0.2	2.7	O K
360 min Summer	75.666	0.666	0.2	2.5	O K
480 min Summer	75.624	0.624	0.2	2.3	O K
600 min Summer	75.584	0.584	0.2	2.2	O K
720 min Summer	75.547	0.547	0.2	2.0	O K
960 min Summer	75.479	0.479	0.2	1.8	O K
1440 min Summer	75.366	0.366	0.2	1.4	O K
2160 min Summer	75.240	0.240	0.1	0.9	O K
2880 min Summer	75.153	0.153	0.1	0.6	O K
4320 min Summer	75.059	0.059	0.1	0.2	O K
5760 min Summer	75.042	0.042	0.1	0.2	O K
7200 min Summer	75.036	0.036	0.1	0.1	O K
8640 min Summer	75.031	0.031	0.1	0.1	O K
10080 min Summer	75.027	0.027	0.1	0.1	O K
15 min Winter	75.542	0.542	0.2	2.0	O K


Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	128.285	0.0	18
30 min Summer	84.226	0.0	32
60 min Summer	52.662	0.0	62
120 min Summer	31.800	0.0	114
180 min Summer	23.353	0.0	142
240 min Summer	18.644	0.0	174
360 min Summer	13.543	0.0	242
480 min Summer	10.792	0.0	310
600 min Summer	9.043	0.0	380
720 min Summer	7.823	0.0	446
960 min Summer	6.219	0.0	578
1440 min Summer	4.493	0.0	836
2160 min Summer	3.241	0.0	1192
2880 min Summer	2.568	0.0	1556
4320 min Summer	1.847	0.0	2208
5760 min Summer	1.461	0.0	2936
7200 min Summer	1.217	0.0	3656
8640 min Summer	1.048	0.0	4392
10080 min Summer	0.923	0.0	5120
15 min Winter	128.285	0.0	18

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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	75.688	0.688	0.2	2.6	O K
60 min Winter	75.808	0.808	0.2	3.0	O K
120 min Winter	75.868	0.868	0.2	3.2	O K
180 min Winter	75.853	0.853	0.2	3.2	O K
240 min Winter	75.826	0.826	0.2	3.1	O K
360 min Winter	75.761	0.761	0.2	2.8	O K
480 min Winter	75.695	0.695	0.2	2.6	O K
600 min Winter	75.634	0.634	0.2	2.4	O K
720 min Winter	75.580	0.580	0.2	2.2	O K
960 min Winter	75.483	0.483	0.2	1.8	O K
1440 min Winter	75.327	0.327	0.1	1.2	O K
2160 min Winter	75.164	0.164	0.1	0.6	O K
2880 min Winter	75.067	0.067	0.1	0.2	O K
4320 min Winter	75.039	0.039	0.1	0.1	O K
5760 min Winter	75.031	0.031	0.1	0.1	O K
7200 min Winter	75.026	0.026	0.1	0.1	O K
8640 min Winter	75.022	0.022	0.0	0.1	O K
10080 min Winter	75.020	0.020	0.0	0.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
30 min Winter	84.226	0.0	32
60 min Winter	52.662	0.0	60
120 min Winter	31.800	0.0	116
180 min Winter	23.353	0.0	166
240 min Winter	18.644	0.0	188
360 min Winter	13.543	0.0	264
480 min Winter	10.792	0.0	336
600 min Winter	9.043	0.0	408
720 min Winter	7.823	0.0	478
960 min Winter	6.219	0.0	616
1440 min Winter	4.493	0.0	880
2160 min Winter	3.241	0.0	1236
2880 min Winter	2.568	0.0	1552
4320 min Winter	1.847	0.0	2204
5760 min Winter	1.461	0.0	2936
7200 min Winter	1.217	0.0	3600
8640 min Winter	1.048	0.0	4392
10080 min Winter	0.923	0.0	5112

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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) 0.008

Time (mins)		Area
From:	To:	(ha)
0	4	0.008

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Model Details

Storage is Online Cover Level (m) 76.250

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.06120	Trench Width (m)	2.5
Infiltration Coefficient Side (m/hr)	0.06120	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)	75.000	Cap Infiltration Depth (m)	0.650