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Dewey House 55 High Street Ringwood BH24 1AE	Rusington Road Edge Infiltration Trench	
Date Oct 2018 File Road Edge infiltr...	Designed By RHB Checked By	
Micro Drainage	Source Control W.12.4	

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

Half Drain Time : 460 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	3.174	0.434	0.2	4.3	O K
30 min Summer	3.307	0.567	0.2	5.7	O K
60 min Summer	3.440	0.700	0.2	7.1	O K
120 min Summer	3.559	0.819	0.2	8.3	O K
180 min Summer	3.610	0.870	0.2	8.9	O K
240 min Summer	3.630	0.890	0.2	9.1	O K
360 min Summer	3.632	0.892	0.2	9.1	O K
480 min Summer	3.624	0.884	0.2	9.0	O K
600 min Summer	3.610	0.870	0.2	8.9	O K
720 min Summer	3.594	0.854	0.2	8.7	O K
960 min Summer	3.558	0.818	0.2	8.3	O K
1440 min Summer	3.489	0.749	0.2	7.6	O K
2160 min Summer	3.396	0.656	0.2	6.6	O K
2880 min Summer	3.320	0.580	0.2	5.8	O K
4320 min Summer	3.196	0.456	0.2	4.5	O K
5760 min Summer	3.100	0.360	0.2	3.5	O K
7200 min Summer	3.023	0.283	0.1	2.7	O K
8640 min Summer	2.962	0.222	0.1	2.1	O K

Storm Event	Rain (mm/hr)	Time-Peak (mins)
15 min Summer	124.633	19
30 min Summer	83.789	33
60 min Summer	53.779	62
120 min Summer	33.337	122
180 min Summer	24.832	182
240 min Summer	20.006	240
360 min Summer	14.706	338
480 min Summer	11.818	394
600 min Summer	9.966	454
720 min Summer	8.665	520
960 min Summer	6.943	656
1440 min Summer	5.071	924
2160 min Summer	3.696	1320
2880 min Summer	2.949	1728
4320 min Summer	2.142	2468
5760 min Summer	1.705	3232
7200 min Summer	1.427	3960
8640 min Summer	1.235	4672

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Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	2.912	0.172	0.1	1.5	O K
15 min Winter	3.225	0.485	0.2	4.8	O K
30 min Winter	3.374	0.634	0.2	6.4	O K
60 min Winter	3.528	0.788	0.2	8.0	O K
120 min Winter	3.669	0.929	0.2	9.5	O K
180 min Winter	3.733	0.993	0.2	10.2	Flood Risk
240 min Winter	3.762	1.022	0.2	10.5	Flood Risk
360 min Winter	3.779	1.039	0.2	10.6	Flood Risk
480 min Winter	3.770	1.030	0.2	10.6	Flood Risk
600 min Winter	3.750	1.010	0.2	10.3	Flood Risk
720 min Winter	3.731	0.991	0.2	10.1	Flood Risk
960 min Winter	3.683	0.943	0.2	9.6	O K
1440 min Winter	3.577	0.837	0.2	8.5	O K
2160 min Winter	3.435	0.695	0.2	7.0	O K
2880 min Winter	3.322	0.582	0.2	5.8	O K
4320 min Winter	3.155	0.415	0.2	4.1	O K
5760 min Winter	3.031	0.291	0.2	2.8	O K
7200 min Winter	2.937	0.197	0.1	1.8	O K
8640 min Winter	2.867	0.127	0.1	1.1	O K
Storm Event	Rain (mm/hr)		Time-Peak (mins)		
10080 min Summer	1.093		5352		
15 min Winter	124.633		18		
30 min Winter	83.789		33		
60 min Winter	53.779		62		
120 min Winter	33.337		120		
180 min Winter	24.832		178		
240 min Winter	20.006		234		
360 min Winter	14.706		346		
480 min Winter	11.818		450		
600 min Winter	9.966		488		
720 min Winter	8.665		560		
960 min Winter	6.943		712		
1440 min Winter	5.071		1010		
2160 min Winter	3.696		1428		
2880 min Winter	2.949		1816		
4320 min Winter	2.142		2596		
5760 min Winter	1.705		3352		
7200 min Winter	1.427		4104		
8640 min Winter	1.235		4760		
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<u>Summary of Results for 100 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Winter	2.815	0.075	0.1	0.5	O K
Storm Event		Rain (mm/hr)	Time-Peak (mins)		
10080 min Winter		1.093	5352		
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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)	19.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time / Area Diagram

Total Area (ha) 0.019

Time (mins)	Area (ha)
0-4	0.019

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Model Details

Storage is Online Cover Level (m) 4.000

Infiltration Trench Structure

Infiltration Coefficient Base (m/hr)	0.01662	Trench Width (m)	1.4
Infiltration Coefficient Side (m/hr)	0.01662	Trench Length (m)	25.0
Safety Factor	1.5	Slope (1:X)	500.0
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	2.740	Cap Infiltration Depth (m)	0.600

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