


Hydro Logic Services		Page 3
The Corner House 18-20 West End Road Mortimer RG7 3TF		
Date 29/03/2018 18:28	Designed by aquigley	
File L0148 Soakaway dwelling...	Checked by	
Micro Drainage		Source Control 2017.1

Rainfall Details


Rainfall Model	FEH
Return Period (years)	100
FEH Rainfall Version	2013
Site Location	GB 366100 221600 SO 66100 21600
Data Type	Catchment
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	0.750
Cv (Winter)	0.840
Shortest Storm (mins)	15
Longest Storm (mins)	10080
Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.026

Time (mins)	Area
From:	To: (ha)
0	4 0.026

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<u>Model Details</u>  Storage is Online Cover Level (m) 1.000  <u>Infiltration Trench Structure</u>  <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.01000</td> <td>Trench Width (m)</td> <td>5.0</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>0.01000</td> <td>Trench Length (m)</td> <td>13.0</td> </tr> <tr> <td>Safety Factor</td> <td>1.5</td> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>0.000</td> </tr> <tr> <td>Invert Level (m)</td> <td>0.000</td> <td>Cap Infiltration Depth (m)</td> <td>0.000</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.01000	Trench Width (m)	5.0	Infiltration Coefficient Side (m/hr)	0.01000	Trench Length (m)	13.0	Safety Factor	1.5	Slope (1:X)	0.0	Porosity	0.30	Cap Volume Depth (m)	0.000	Invert Level (m)	0.000	Cap Infiltration Depth (m)	0.000
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○ Dwellings Driveway

Hydro Logic Services

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The Corner House

18-20 West End Road

Mortimer RG7 3TF

Date 29/03/2018 18:21

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File L0148 Soakaway driveway...

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Micro Drainage

Source Control 2017.1

Micro Drainage

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

Half Drain Time : 730 minutes.

Storm Event		Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer		0.329	0.329	0.4	14.8	O K
30 min Summer		0.440	0.440	0.4	19.8	O K
60 min Summer		0.558	0.558	0.4	25.1	O K
120 min Summer		0.656	0.656	0.5	29.5	O K
180 min Summer		0.710	0.710	0.5	31.9	Flood Risk
240 min Summer		0.742	0.742	0.5	33.4	Flood Risk
360 min Summer		0.772	0.772	0.5	34.7	Flood Risk
480 min Summer		0.777	0.777	0.5	35.0	Flood Risk
600 min Summer		0.772	0.772	0.5	34.7	Flood Risk
720 min Summer		0.764	0.764	0.5	34.4	Flood Risk
960 min Summer		0.743	0.743	0.5	33.4	Flood Risk
1440 min Summer		0.698	0.698	0.5	31.4	O K
2160 min Summer		0.634	0.634	0.5	28.5	O K
2880 min Summer		0.580	0.580	0.4	26.1	O K
4320 min Summer		0.494	0.494	0.4	22.2	O K
5760 min Summer		0.427	0.427	0.4	19.2	O K
7200 min Summer		0.376	0.376	0.4	16.9	O K
8640 min Summer		0.335	0.335	0.4	15.1	O K
10080 min Summer		0.302	0.302	0.4	13.6	O K
15 min Winter		0.369	0.369	0.4	16.6	O K

Storm Event		Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer		132.160	0.0	19
30 min Summer		89.040	0.0	34
60 min Summer		57.540	0.0	64
120 min Summer		35.000	0.0	122
180 min Summer		26.079	0.0	182
240 min Summer		21.105	0.0	242
360 min Summer		15.563	0.0	360
480 min Summer		12.476	0.0	480
600 min Summer		10.482	0.0	536
720 min Summer		9.077	0.0	596
960 min Summer		7.210	0.0	722
1440 min Summer		5.197	0.0	984
2160 min Summer		3.734	0.0	1404
2880 min Summer		2.960	0.0	1816
4320 min Summer		2.154	0.0	2596
5760 min Summer		1.737	0.0	3400
7200 min Summer		1.487	0.0	4176
8640 min Summer		1.320	0.0	4928
10080 min Summer		1.202	0.0	5648
15 min Winter		132.160	0.0	19

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Hydro Logic Services

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Micro Drainage


Source Control 2017.1

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

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	0.494	0.494	0.4	22.2	O K
60 min Winter	0.628	0.628	0.5	28.2	O K
120 min Winter	0.740	0.740	0.5	33.3	Flood Risk
180 min Winter	0.803	0.803	0.5	36.1	Flood Risk
240 min Winter	0.843	0.843	0.5	37.9	Flood Risk
360 min Winter	0.883	0.883	0.5	39.7	Flood Risk
480 min Winter	0.895	0.895	0.5	40.3	Flood Risk
600 min Winter	0.893	0.893	0.5	40.2	Flood Risk
720 min Winter	0.882	0.882	0.5	39.7	Flood Risk
960 min Winter	0.856	0.856	0.5	38.5	Flood Risk
1440 min Winter	0.800	0.800	0.5	36.0	Flood Risk
2160 min Winter	0.710	0.710	0.5	32.0	Flood Risk
2880 min Winter	0.631	0.631	0.5	28.4	O K
4320 min Winter	0.504	0.504	0.4	22.7	O K
5760 min Winter	0.406	0.406	0.4	18.3	O K
7200 min Winter	0.332	0.332	0.4	14.9	O K
8640 min Winter	0.273	0.273	0.4	12.3	O K
10080 min Winter	0.226	0.226	0.3	10.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
30 min Winter	89.040	0.0	33
60 min Winter	57.540	0.0	62
120 min Winter	35.000	0.0	120
180 min Winter	26.079	0.0	180
240 min Winter	21.105	0.0	238
360 min Winter	15.563	0.0	352
480 min Winter	12.476	0.0	462
600 min Winter	10.482	0.0	570
720 min Winter	9.077	0.0	670
960 min Winter	7.210	0.0	758
1440 min Winter	5.198	0.0	1066
2160 min Winter	3.734	0.0	1516
2880 min Winter	2.960	0.0	1960
4320 min Winter	2.154	0.0	2808
5760 min Winter	1.737	0.0	3584
7200 min Winter	1.487	0.0	4392
8640 min Winter	1.320	0.0	5104
10080 min Winter	1.202	0.0	5856

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Longest Storm (mins)	10080
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Time Area Diagram

Total Area (ha) 0.061

Time (mins)	Area
From:	To: (ha)
0	4 0.061

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*Offices at*

**Bromyard**

**Exeter**

**Reading**

**Sheffield**

**Stirling**

*Registered office*

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Clevedon,  
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