

Robert Clark Associates		Page 1
Willow Cottage Herne Lane Rustington BN16 3EE	The Old Brewery Duke Street Littlehampton	
Date 7.3.18 File PP1.SRCX	Designed by RTFC Checked by	
Micro Drainage	Source Control 2016.1	

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

Half Drain Time : 28 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	4.604	0.054	0.4	0.7	0 K
30 min Summer	4.619	0.069	0.4	1.0	0 K
60 min Summer	4.630	0.080	0.4	1.1	0 K
120 min Summer	4.630	0.080	0.4	1.1	Flood Risk
180 min Summer	4.623	0.073	0.4	1.0	0 K
240 min Summer	4.615	0.065	0.4	0.9	0 K
360 min Summer	4.601	0.051	0.4	0.7	0 K
480 min Summer	4.594	0.044	0.4	0.6	0 K
600 min Summer	4.589	0.039	0.3	0.5	0 K
720 min Summer	4.585	0.035	0.3	0.5	0 K
960 min Summer	4.580	0.030	0.2	0.4	0 K
1440 min Summer	4.573	0.023	0.2	0.3	0 K
2160 min Summer	4.567	0.017	0.1	0.2	0 K
2880 min Summer	4.564	0.014	0.1	0.2	0 K
4320 min Summer	4.560	0.010	0.1	0.1	0 K
5760 min Summer	4.558	0.008	0.1	0.1	0 K
7200 min Summer	4.557	0.007	0.1	0.1	0 K
8640 min Summer	4.556	0.006	0.0	0.1	0 K
10080 min Summer	4.555	0.005	0.0	0.1	0 K
15 min Winter	4.613	0.063	0.4	0.9	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	124.633	0.0	16
30 min Summer	83.789	0.0	26
60 min Summer	53.779	0.0	44
120 min Summer	33.337	0.0	78
180 min Summer	24.832	0.0	110
240 min Summer	20.006	0.0	140
360 min Summer	14.706	0.0	198
480 min Summer	11.818	0.0	258
600 min Summer	9.966	0.0	320
720 min Summer	8.665	0.0	378
960 min Summer	6.943	0.0	500
1440 min Summer	5.071	0.0	738
2160 min Summer	3.696	0.0	1104
2880 min Summer	2.949	0.0	1468
4320 min Summer	2.142	0.0	2164
5760 min Summer	1.705	0.0	2912
7200 min Summer	1.427	0.0	3672
8640 min Summer	1.235	0.0	4408
10080 min Summer	1.093	0.0	5136
15 min Winter	124.633	0.0	16

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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	4.630	0.080	0.4	1.1	Flood Risk
60 min Winter	4.640	0.090	0.4	1.2	Flood Risk
120 min Winter	4.635	0.085	0.4	1.2	Flood Risk
180 min Winter	4.623	0.073	0.4	1.0	0 K
240 min Winter	4.610	0.060	0.4	0.8	0 K
360 min Winter	4.595	0.045	0.4	0.6	0 K
480 min Winter	4.588	0.038	0.3	0.5	0 K
600 min Winter	4.583	0.033	0.3	0.5	0 K
720 min Winter	4.579	0.029	0.2	0.4	0 K
960 min Winter	4.574	0.024	0.2	0.3	0 K
1440 min Winter	4.567	0.017	0.1	0.2	0 K
2160 min Winter	4.563	0.013	0.1	0.2	0 K
2880 min Winter	4.560	0.010	0.1	0.1	0 K
4320 min Winter	4.557	0.007	0.1	0.1	0 K
5760 min Winter	4.556	0.006	0.0	0.1	0 K
7200 min Winter	4.555	0.005	0.0	0.1	0 K
8640 min Winter	4.554	0.004	0.0	0.1	0 K
10080 min Winter	4.554	0.004	0.0	0.0	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
30 min Winter	83.789	0.0	28
60 min Winter	53.779	0.0	46
120 min Winter	33.337	0.0	84
180 min Winter	24.832	0.0	116
240 min Winter	20.006	0.0	146
360 min Winter	14.706	0.0	202
480 min Winter	11.818	0.0	264
600 min Winter	9.966	0.0	324
720 min Winter	8.665	0.0	384
960 min Winter	6.943	0.0	510
1440 min Winter	5.071	0.0	750
2160 min Winter	3.696	0.0	1100
2880 min Winter	2.949	0.0	1428
4320 min Winter	2.142	0.0	2208
5760 min Winter	1.705	0.0	2944
7200 min Winter	1.427	0.0	3744
8640 min Winter	1.235	0.0	4400
10080 min Winter	1.093	0.0	5128

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<u>Model Details</u> Storage is Online Cover Level (m) 4.930 <u>Porous Car Park Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.04918</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>12.8</td> </tr> <tr> <td>Safety Factor</td> <td>1.5</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> </tr> <tr> <td>Invert Level (m)</td> <td>4.550</td> </tr> <tr> <td>Width (m)</td> <td>4.8</td> </tr> <tr> <td>Length (m)</td> <td>9.6</td> </tr> <tr> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Depression Storage (mm)</td> <td>5</td> </tr> <tr> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Membrane Depth (m)</td> <td>0</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.04918	Membrane Percolation (mm/hr)	1000	Max Percolation (l/s)	12.8	Safety Factor	1.5	Porosity	0.30	Invert Level (m)	4.550	Width (m)	4.8	Length (m)	9.6	Slope (1:X)	0.0	Depression Storage (mm)	5	Evaporation (mm/day)	3	Membrane Depth (m)	0
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