

Robert Clark Associates				Page 1	
Willow Cottage		The Wolds			
Herne Lane		Fontwell Avenue			
Rustington BN16 3EE		Eastergate			
Date 29 May 2018		Designed by RTFC			
File Permeable paving calcs.SRCX		Checked by			
Micro Drainage		Source Control 2016.1			
<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 1 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	13.853	0.013	10.6	0.8	0 K
30 min Summer	13.852	0.012	9.8	0.7	0 K
60 min Summer	13.849	0.009	7.7	0.5	0 K
120 min Summer	13.846	0.006	5.2	0.4	0 K
180 min Summer	13.845	0.005	4.0	0.3	0 K
240 min Summer	13.844	0.004	3.5	0.2	0 K
360 min Summer	13.843	0.003	2.7	0.2	0 K
480 min Summer	13.842	0.002	1.9	0.1	0 K
600 min Summer	13.842	0.002	1.9	0.1	0 K
720 min Summer	13.842	0.002	1.5	0.1	0 K
960 min Summer	13.842	0.002	1.5	0.1	0 K
1440 min Summer	13.841	0.001	1.0	0.1	0 K
2160 min Summer	13.841	0.001	1.0	0.1	0 K
2880 min Summer	13.841	0.001	0.6	0.1	0 K
4320 min Summer	13.841	0.001	0.6	0.1	0 K
5760 min Summer	13.841	0.001	0.6	0.1	0 K
7200 min Summer	13.840	0.000	0.2	0.1	0 K
8640 min Summer	13.840	0.000	0.0	0.0	0 K
10080 min Summer	13.840	0.000	0.0	0.0	0 K
15 min Winter	13.853	0.013	11.0	0.8	0 K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	124.633	0.0	11		
30 min Summer	83.789	0.0	18		
60 min Summer	53.779	0.0	32		
120 min Summer	33.337	0.0	64		
180 min Summer	24.832	0.0	92		
240 min Summer	20.006	0.0	122		
360 min Summer	14.706	0.0	180		
480 min Summer	11.818	0.0	246		
600 min Summer	9.966	0.0	302		
720 min Summer	8.665	0.0	362		
960 min Summer	6.943	0.0	486		
1440 min Summer	5.071	0.0	732		
2160 min Summer	3.696	0.0	1112		
2880 min Summer	2.949	0.0	1468		
4320 min Summer	2.142	0.0	2112		
5760 min Summer	1.705	0.0	3048		
7200 min Summer	1.427	0.0	3600		
8640 min Summer	1.235	0.0	0		
10080 min Summer	1.093	0.0	0		
15 min Winter	124.633	0.0	11		

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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
30 min Winter	13.851	0.011	8.9	0.7	0 K
60 min Winter	13.847	0.007	6.0	0.4	0 K
120 min Winter	13.845	0.005	4.0	0.3	0 K
180 min Winter	13.844	0.004	3.1	0.2	0 K
240 min Winter	13.843	0.003	2.3	0.2	0 K
360 min Winter	13.842	0.002	1.9	0.1	0 K
480 min Winter	13.842	0.002	1.5	0.1	0 K
600 min Winter	13.842	0.002	1.5	0.1	0 K
720 min Winter	13.841	0.001	1.0	0.1	0 K
960 min Winter	13.841	0.001	1.0	0.1	0 K
1440 min Winter	13.841	0.001	0.6	0.1	0 K
2160 min Winter	13.841	0.001	0.6	0.1	0 K
2880 min Winter	13.841	0.001	0.6	0.1	0 K
4320 min Winter	13.841	0.001	0.6	0.1	0 K
5760 min Winter	13.840	0.000	0.0	0.0	0 K
7200 min Winter	13.840	0.000	0.0	0.0	0 K
8640 min Winter	13.840	0.000	0.0	0.0	0 K
10080 min Winter	13.840	0.000	0.0	0.0	0 K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	83.789	0.0	18		
60 min Winter	53.779	0.0	34		
120 min Winter	33.337	0.0	62		
180 min Winter	24.832	0.0	98		
240 min Winter	20.006	0.0	128		
360 min Winter	14.706	0.0	182		
480 min Winter	11.818	0.0	238		
600 min Winter	9.966	0.0	316		
720 min Winter	8.665	0.0	372		
960 min Winter	6.943	0.0	496		
1440 min Winter	5.071	0.0	728		
2160 min Winter	3.696	0.0	1076		
2880 min Winter	2.949	0.0	1276		
4320 min Winter	2.142	0.0	2308		
5760 min Winter	1.705	0.0	0		
7200 min Winter	1.427	0.0	0		
8640 min Winter	1.235	0.0	0		
10080 min Winter	1.093	0.0	0		
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Micro Drainage Source Control 2016.1		

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) 0.020

Time (mins)	Area
From: To:	(ha)
0 4	0.020

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Model Details

Storage is Online Cover Level (m) 14.220

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	1.12320
Membrane Percolation (mm/hr)	1000
Max Percolation (l/s)	55.6
Safety Factor	1.5
Porosity	0.30
Invert Level (m)	13.840
Width (m)	10.0
Length (m)	20.0
Slope (1:X)	0.0
Depression Storage (mm)	5
Evaporation (mm/day)	3
Membrane Depth (m)	0

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