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1 Market Place Mews Henley-on-Thames RG9 2AH	Premier Inn, Bicester Hotel Car Park Porous Car Park 1:100y...	
Date 01.03.2012 File Bottom-CP.srcx	Designed By MRR Checked By	
Micro Drainage	Source Control W.12.4	

Summary of Results for 100 year Return Period (+30%)

Half Drain Time : 145 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	67.380	0.180	11.4	91.7	O K
30 min Summer	67.417	0.217	11.4	121.7	O K
60 min Summer	67.446	0.246	11.4	144.9	O K
120 min Summer	67.455	0.255	11.4	152.9	O K
180 min Summer	67.450	0.250	11.4	148.5	O K
240 min Summer	67.442	0.242	11.4	141.9	O K
360 min Summer	67.426	0.226	11.4	128.7	O K
480 min Summer	67.410	0.210	11.4	116.1	O K
600 min Summer	67.395	0.195	11.4	103.9	O K
720 min Summer	67.381	0.181	11.4	92.3	O K
960 min Summer	67.355	0.155	11.4	71.0	O K
1440 min Summer	67.312	0.112	11.4	37.9	O K
2160 min Summer	67.261	0.061	11.4	11.3	O K
2880 min Summer	67.244	0.044	10.1	5.9	O K
4320 min Summer	67.232	0.032	7.3	3.1	O K
5760 min Summer	67.225	0.025	5.7	1.9	O K
7200 min Summer	67.221	0.021	4.8	1.3	O K
8640 min Summer	67.219	0.019	4.2	1.1	O K

Storm Event	Rain (mm/hr)	Time-Peak (mins)
15 min Summer	128.285	24
30 min Summer	84.226	38
60 min Summer	52.662	64
120 min Summer	31.800	118
180 min Summer	23.353	146
240 min Summer	18.644	178
360 min Summer	13.543	246
480 min Summer	10.792	314
600 min Summer	9.043	380
720 min Summer	7.823	444
960 min Summer	6.219	570
1440 min Summer	4.493	804
2160 min Summer	3.241	1128
2880 min Summer	2.568	1468
4320 min Summer	1.847	2204
5760 min Summer	1.461	2904
7200 min Summer	1.217	3640
8640 min Summer	1.048	4344

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Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	67.218	0.018	3.6	0.9	O K
15 min Winter	67.397	0.197	11.4	105.5	O K
30 min Winter	67.439	0.239	11.4	139.7	O K
60 min Winter	67.473	0.273	11.4	167.3	O K
120 min Winter	67.489	0.289	11.4	180.1	O K
180 min Winter	67.482	0.282	11.4	174.8	O K
240 min Winter	67.472	0.272	11.4	166.3	O K
360 min Winter	67.449	0.249	11.4	147.4	O K
480 min Winter	67.425	0.225	11.4	128.2	O K
600 min Winter	67.402	0.202	11.4	109.4	O K
720 min Winter	67.380	0.180	11.4	91.5	O K
960 min Winter	67.341	0.141	11.4	59.6	O K
1440 min Winter	67.272	0.072	11.4	15.6	O K
2160 min Winter	67.241	0.041	9.3	4.9	O K
2880 min Winter	67.232	0.032	7.3	3.1	O K
4320 min Winter	67.223	0.023	5.3	1.6	O K
5760 min Winter	67.219	0.019	4.2	1.1	O K
7200 min Winter	67.218	0.018	3.6	0.9	O K
8640 min Winter	67.216	0.016	3.0	0.8	O K

Storm Event	Rain (mm/hr)	Time-Peak (mins)
10080 min Summer	0.923	5144
15 min Winter	128.285	24
30 min Winter	84.226	38
60 min Winter	52.662	64
120 min Winter	31.800	120
180 min Winter	23.353	168
240 min Winter	18.644	192
360 min Winter	13.543	268
480 min Winter	10.792	342
600 min Winter	9.043	412
720 min Winter	7.823	478
960 min Winter	6.219	602
1440 min Winter	4.493	804
2160 min Winter	3.241	1104
2880 min Winter	2.568	1452
4320 min Winter	1.847	2188
5760 min Winter	1.461	2984
7200 min Winter	1.217	3576
8640 min Winter	1.048	4304

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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 (m³)	Status
10080 min Winter	67.215	0.015	2.6	0.7	O K

Storm Event	Rain (mm/hr)	Time-Peak (mins)
10080 min Winter	0.923	5136

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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) 0.487

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.162	4-8	0.162	8-12	0.162

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Model Details

Storage is Online Cover Level (m) 67.800

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.03006	Width (m)	20.0
Membrane Percolation (mm/hr)	1000	Length (m)	136.0
Max Percolation (l/s)	755.6	Slope (1:X)	1000.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	67.200	Cap Volume Depth (m)	0.420