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Date 11/07/2018 13:41 File PLOT 5 POROUS PARKING C...	Designed by jackprice Checked by GT	
XP Solutions	Source Control 2015.1	

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

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
30 min Winter	9.744	0.344	0.3	3.1	Flood Risk
60 min Winter	9.814	0.414	0.3	3.7	Flood Risk
120 min Winter	9.851	0.451	0.3	4.1	Flood Risk
180 min Winter	9.845	0.445	0.3	4.0	Flood Risk
240 min Winter	9.830	0.430	0.3	3.9	Flood Risk
360 min Winter	9.784	0.384	0.3	3.5	Flood Risk
480 min Winter	9.737	0.337	0.3	3.0	Flood Risk
600 min Winter	9.690	0.290	0.3	2.6	O K
720 min Winter	9.645	0.245	0.3	2.2	O K
960 min Winter	9.565	0.165	0.3	1.5	O K
1440 min Winter	9.460	0.060	0.3	0.5	O K
2160 min Winter	9.439	0.039	0.2	0.4	O K
2880 min Winter	9.431	0.031	0.2	0.3	O K
4320 min Winter	9.423	0.023	0.1	0.2	O K
5760 min Winter	9.418	0.018	0.1	0.2	O K
7200 min Winter	9.415	0.015	0.1	0.1	O K
8640 min Winter	9.413	0.013	0.1	0.1	O K
10080 min Winter	9.412	0.012	0.1	0.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
30 min Winter	79.091	0.0	32
60 min Winter	50.812	0.0	60
120 min Winter	31.590	0.0	116
180 min Winter	23.602	0.0	146
240 min Winter	19.071	0.0	184
360 min Winter	14.006	0.0	260
480 min Winter	11.257	0.0	332
600 min Winter	9.495	0.0	402
720 min Winter	8.257	0.0	468
960 min Winter	6.618	0.0	588
1440 min Winter	4.836	0.0	780
2160 min Winter	3.526	0.0	1100
2880 min Winter	2.815	0.0	1468
4320 min Winter	2.045	0.0	2200
5760 min Winter	1.629	0.0	2864
7200 min Winter	1.364	0.0	3624
8640 min Winter	1.179	0.0	4304
10080 min Winter	1.043	0.0	5224

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

Half Drain Time : 122 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	9.630	0.230	0.3	2.1	O K
30 min Summer	9.701	0.301	0.3	2.7	Flood Risk
60 min Summer	9.759	0.359	0.3	3.2	Flood Risk
120 min Summer	9.785	0.385	0.3	3.5	Flood Risk
180 min Summer	9.783	0.383	0.3	3.4	Flood Risk
240 min Summer	9.773	0.373	0.3	3.4	Flood Risk
360 min Summer	9.742	0.342	0.3	3.1	Flood Risk
480 min Summer	9.712	0.312	0.3	2.8	Flood Risk
600 min Summer	9.682	0.282	0.3	2.5	O K
720 min Summer	9.653	0.253	0.3	2.3	O K
960 min Summer	9.600	0.200	0.3	1.8	O K
1440 min Summer	9.519	0.119	0.3	1.1	O K
2160 min Summer	9.455	0.055	0.3	0.5	O K
2880 min Summer	9.443	0.043	0.2	0.4	O K
4320 min Summer	9.431	0.031	0.2	0.3	O K
5760 min Summer	9.425	0.025	0.1	0.2	O K
7200 min Summer	9.421	0.021	0.1	0.2	O K
8640 min Summer	9.418	0.018	0.1	0.2	O K
10080 min Summer	9.416	0.016	0.1	0.1	O K
15 min Winter	9.662	0.262	0.3	2.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	117.683	0.0	18
30 min Summer	79.091	0.0	32
60 min Summer	50.812	0.0	62
120 min Summer	31.590	0.0	104
180 min Summer	23.602	0.0	136
240 min Summer	19.071	0.0	170
360 min Summer	14.006	0.0	238
480 min Summer	11.257	0.0	306
600 min Summer	9.495	0.0	372
720 min Summer	8.257	0.0	436
960 min Summer	6.618	0.0	560
1440 min Summer	4.836	0.0	794
2160 min Summer	3.526	0.0	1108
2880 min Summer	2.815	0.0	1468
4320 min Summer	2.045	0.0	2204
5760 min Summer	1.629	0.0	2920
7200 min Summer	1.364	0.0	3656
8640 min Summer	1.179	0.0	4304
10080 min Summer	1.043	0.0	5136
15 min Winter	117.683	0.0	18

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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)	18.000	Shortest Storm (mins)	15
Ratio R	0.352	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.011

Time (mins)	Area
From:	To: (ha)
0	4 0.011

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Model Details

Storage is Online Cover Level (m) 10.000

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.06948	Width (m)	5.0
Membrane Percolation (mm/hr)	1000	Length (m)	6.0
Max Percolation (l/s)	8.3	Slope (1:X)	0.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	9.400	Cap Volume Depth (m)	0.000