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

Half Drain Time : 147 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	0.112	0.112	0.2	1.5	O K
30 min Summer	0.144	0.144	0.2	1.9	O K
60 min Summer	0.170	0.170	0.2	2.3	O K
120 min Summer	0.182	0.182	0.2	2.5	O K
180 min Summer	0.181	0.181	0.2	2.5	O K
240 min Summer	0.176	0.176	0.2	2.4	O K
360 min Summer	0.165	0.165	0.2	2.2	O K
480 min Summer	0.152	0.152	0.2	2.1	O K
600 min Summer	0.140	0.140	0.2	1.9	O K
720 min Summer	0.128	0.128	0.2	1.7	O K
960 min Summer	0.107	0.107	0.2	1.4	O K
1440 min Summer	0.074	0.074	0.2	0.9	O K
2160 min Summer	0.049	0.049	0.2	0.6	O K
2880 min Summer	0.040	0.040	0.1	0.4	O K
4320 min Summer	0.030	0.030	0.1	0.3	O K
5760 min Summer	0.024	0.024	0.1	0.2	O K
7200 min Summer	0.021	0.021	0.1	0.2	O K
8640 min Summer	0.019	0.019	0.1	0.1	O K
10080 min Summer	0.018	0.018	0.1	0.1	O K
15 min Winter	0.127	0.127	0.2	1.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	138.754	0.0	18
30 min Summer	90.906	0.0	32
60 min Summer	56.713	0.0	62
120 min Summer	34.176	0.0	114
180 min Summer	25.072	0.0	142
240 min Summer	20.006	0.0	174
360 min Summer	14.514	0.0	242
480 min Summer	11.557	0.0	310
600 min Summer	9.678	0.0	376
720 min Summer	8.369	0.0	440
960 min Summer	6.648	0.0	568
1440 min Summer	4.799	0.0	796
2160 min Summer	3.459	0.0	1124
2880 min Summer	2.739	0.0	1496
4320 min Summer	1.968	0.0	2204
5760 min Summer	1.556	0.0	2936
7200 min Summer	1.295	0.0	3672
8640 min Summer	1.115	0.0	4400
10080 min Summer	0.982	0.0	5120
15 min Winter	138.754	0.0	18

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	0.163	0.163	0.2	2.2	O K
60 min Winter	0.194	0.194	0.2	2.6	O K
120 min Winter	0.210	0.210	0.2	2.9	O K
180 min Winter	0.207	0.207	0.2	2.8	O K
240 min Winter	0.201	0.201	0.2	2.8	O K
360 min Winter	0.184	0.184	0.2	2.5	O K
480 min Winter	0.166	0.166	0.2	2.2	O K
600 min Winter	0.147	0.147	0.2	2.0	O K
720 min Winter	0.129	0.129	0.2	1.7	O K
960 min Winter	0.097	0.097	0.2	1.3	O K
1440 min Winter	0.054	0.054	0.2	0.6	O K
2160 min Winter	0.039	0.039	0.1	0.4	O K
2880 min Winter	0.031	0.031	0.1	0.3	O K
4320 min Winter	0.023	0.023	0.1	0.2	O K
5760 min Winter	0.019	0.019	0.1	0.1	O K
7200 min Winter	0.017	0.017	0.1	0.1	O K
8640 min Winter	0.016	0.016	0.0	0.1	O K
10080 min Winter	0.015	0.015	0.0	0.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
30 min Winter	90.906	0.0	32
60 min Winter	56.713	0.0	60
120 min Winter	34.176	0.0	116
180 min Winter	25.072	0.0	166
240 min Winter	20.006	0.0	188
360 min Winter	14.514	0.0	264
480 min Winter	11.557	0.0	336
600 min Winter	9.678	0.0	406
720 min Winter	8.369	0.0	472
960 min Winter	6.648	0.0	598
1440 min Winter	4.799	0.0	796
2160 min Winter	3.459	0.0	1144
2880 min Winter	2.739	0.0	1496
4320 min Winter	1.968	0.0	2220
5760 min Winter	1.556	0.0	2936
7200 min Winter	1.295	0.0	3624
8640 min Winter	1.115	0.0	4368
10080 min Winter	0.982	0.0	5088

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	0.405	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.007

Time (mins) From:	To:	Area (ha)
0	4	0.007

Model Details

Storage is Online Cover Level (m) 10.000

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.02630	Width (m)	4.8
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	13.3	Slope (1:X)	500.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	0.000	Membrane Depth (m)	0