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

Half Drain Time : 513 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	44.149	0.414	0.6	15.8	O K
30 min Summer	44.240	0.505	0.6	20.6	O K
60 min Summer	44.325	0.590	0.6	25.0	O K
120 min Summer	44.396	0.661	0.6	28.7	O K
180 min Summer	44.423	0.688	0.6	30.1	O K
240 min Summer	44.431	0.696	0.6	30.5	O K
360 min Summer	44.428	0.693	0.6	30.3	O K
480 min Summer	44.413	0.678	0.6	29.6	O K
600 min Summer	44.399	0.664	0.6	28.8	O K
720 min Summer	44.384	0.649	0.6	28.1	O K
960 min Summer	44.354	0.619	0.6	26.5	O K
1440 min Summer	44.297	0.562	0.6	23.5	O K
2160 min Summer	44.219	0.484	0.6	19.5	O K
2880 min Summer	44.151	0.416	0.6	16.0	O K
4320 min Summer	44.045	0.310	0.6	10.5	O K
5760 min Summer	43.975	0.240	0.6	6.8	O K
7200 min Summer	43.940	0.205	0.6	5.0	O K
8640 min Summer	43.918	0.183	0.5	4.0	O K
10080 min Summer	43.900	0.165	0.5	3.3	O K
15 min Winter	44.188	0.453	0.6	17.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	145.390	0.0	19
30 min Summer	94.521	0.0	33
60 min Summer	58.456	0.0	64
120 min Summer	34.908	0.0	122
180 min Summer	25.476	0.0	182
240 min Summer	20.256	0.0	242
360 min Summer	14.649	0.0	360
480 min Summer	11.633	0.0	416
600 min Summer	9.722	0.0	476
720 min Summer	8.392	0.0	536
960 min Summer	6.650	0.0	666
1440 min Summer	4.783	0.0	938
2160 min Summer	3.435	0.0	1340
2880 min Summer	2.714	0.0	1728
4320 min Summer	1.944	0.0	2424
5760 min Summer	1.533	0.0	3112
7200 min Summer	1.275	0.0	3752
8640 min Summer	1.096	0.0	4496
10080 min Summer	0.964	0.0	5152
15 min Winter	145.390	0.0	19

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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	44.291	0.556	0.6	23.3	O K
60 min Winter	44.389	0.654	0.6	28.3	O K
120 min Winter	44.471	0.736	0.6	32.6	O K
180 min Winter	44.505	0.770	0.6	34.4	O K
240 min Winter	44.519	0.784	0.6	35.1	O K
360 min Winter	44.523	0.788	0.6	35.3	O K
480 min Winter	44.511	0.776	0.6	34.7	O K
600 min Winter	44.491	0.756	0.6	33.6	O K
720 min Winter	44.471	0.736	0.6	32.6	O K
960 min Winter	44.432	0.697	0.6	30.6	O K
1440 min Winter	44.350	0.615	0.6	26.3	O K
2160 min Winter	44.233	0.498	0.6	20.2	O K
2880 min Winter	44.132	0.397	0.6	15.0	O K
4320 min Winter	43.985	0.250	0.6	7.4	O K
5760 min Winter	43.929	0.194	0.5	4.5	O K
7200 min Winter	43.900	0.165	0.5	3.3	O K
8640 min Winter	43.879	0.144	0.4	2.5	O K
10080 min Winter	43.862	0.127	0.3	1.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
30 min Winter	94.521	0.0	33
60 min Winter	58.456	0.0	62
120 min Winter	34.908	0.0	120
180 min Winter	25.476	0.0	178
240 min Winter	20.256	0.0	236
360 min Winter	14.649	0.0	348
480 min Winter	11.633	0.0	458
600 min Winter	9.722	0.0	556
720 min Winter	8.392	0.0	576
960 min Winter	6.650	0.0	724
1440 min Winter	4.783	0.0	1024
2160 min Winter	3.435	0.0	1448
2880 min Winter	2.714	0.0	1820
4320 min Winter	1.944	0.0	2468
5760 min Winter	1.533	0.0	3104
7200 min Winter	1.275	0.0	3816
8640 min Winter	1.096	0.0	4496
10080 min Winter	0.964	0.0	5152

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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)	20.600	Shortest Storm (mins)	15
Ratio R	0.422	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.063

Time (mins) From:	To:	Area (ha)
0	4	0.063

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Model Details

Storage is Online Cover Level (m) 44.735

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.06152	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	17.3
Max Percolation (l/s)	48.1	Slope (1:X)	80.0
Safety Factor	5.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	43.735	Membrane Depth (m)	0

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