

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

Half Drain Time : 575 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	4.375	0.175	0.4	19.9	O K
30 min Summer	4.437	0.237	0.4	27.1	O K
60 min Summer	4.504	0.304	0.4	34.7	O K
120 min Summer	4.571	0.371	0.4	42.3	O K
180 min Summer	4.608	0.408	0.4	46.5	O K
240 min Summer	4.654	0.454	0.4	49.0	O K
360 min Summer	4.827	0.627	0.9	50.7	O K
480 min Summer	4.829	0.629	0.9	50.9	O K
600 min Summer	4.830	0.630	0.9	51.0	O K
720 min Summer	4.831	0.631	0.9	51.1	O K
960 min Summer	4.831	0.631	0.9	51.1	O K
1440 min Summer	4.826	0.626	0.8	50.7	O K
2160 min Summer	4.816	0.616	0.7	49.9	O K
2880 min Summer	4.638	0.438	0.4	48.5	O K
4320 min Summer	4.578	0.378	0.4	43.1	O K
5760 min Summer	4.533	0.333	0.4	38.0	O K
7200 min Summer	4.492	0.292	0.4	33.3	O K
8640 min Summer	4.455	0.255	0.4	29.1	O K
10080 min Summer	4.421	0.221	0.4	25.2	O K
15 min Winter	4.397	0.197	0.4	22.5	O K
30 min Winter	4.468	0.268	0.4	30.5	O K
60 min Winter	4.543	0.343	0.4	39.1	O K
120 min Winter	4.625	0.425	0.4	47.8	O K
180 min Winter	4.841	0.641	1.1	51.8	O K
240 min Winter	4.859	0.659	1.2	53.2	O K
360 min Winter	4.876	0.676	1.2	54.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	124.633	0.0	23
30 min Summer	83.789	0.0	38
60 min Summer	53.779	0.0	68
120 min Summer	33.337	0.0	128
180 min Summer	24.832	0.0	186
240 min Summer	20.006	0.0	246
360 min Summer	14.706	0.0	364
480 min Summer	11.818	0.0	418
600 min Summer	9.966	0.0	476
720 min Summer	8.665	0.0	534
960 min Summer	6.943	0.0	668
1440 min Summer	5.071	0.0	956
2160 min Summer	3.696	0.0	1408
2880 min Summer	2.949	0.0	1960
4320 min Summer	2.142	0.0	2768
5760 min Summer	1.705	0.0	3568
7200 min Summer	1.427	0.0	4328
8640 min Summer	1.235	0.0	5104
10080 min Summer	1.093	0.0	5848
15 min Winter	124.633	0.0	23
30 min Winter	83.789	0.0	37
60 min Winter	53.779	0.0	66
120 min Winter	33.337	0.0	126
180 min Winter	24.832	0.0	182
240 min Winter	20.006	0.0	236
360 min Winter	14.706	0.0	342

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
480 min Winter	4.884	0.684	1.2	55.0	O K
600 min Winter	4.890	0.690	1.2	55.5	O K
720 min Winter	4.891	0.691	1.2	55.6	O K
960 min Winter	4.886	0.686	1.2	55.2	O K
1440 min Winter	4.864	0.664	1.2	53.5	O K
2160 min Winter	4.841	0.641	1.1	51.8	O K
2880 min Winter	4.826	0.626	0.8	50.7	O K
4320 min Winter	4.618	0.418	0.4	47.3	O K
5760 min Winter	4.548	0.348	0.4	39.6	O K
7200 min Winter	4.486	0.286	0.4	32.6	O K
8640 min Winter	4.431	0.231	0.4	26.3	O K
10080 min Winter	4.382	0.182	0.4	20.8	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
480 min Winter	11.818	0.0	388
600 min Winter	9.966	0.0	464
720 min Winter	8.665	0.0	540
960 min Winter	6.943	0.0	690
1440 min Winter	5.071	0.0	972
2160 min Winter	3.696	0.0	1408
2880 min Winter	2.949	0.0	1876
4320 min Winter	2.142	0.0	2992
5760 min Winter	1.705	0.0	3856
7200 min Winter	1.427	0.0	4616
8640 min Winter	1.235	0.0	5440
10080 min Winter	1.093	0.0	6152

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) 0.092

Time (mins)	Area	Time (mins)	Area
From: To: (ha)		From: To: (ha)	
0 4	0.000	4 8	0.092

Model Details

Storage is Online Cover Level (m) 5.300

Complex Structure

Cellular Storage

Invert Level (m) 4.200 Safety Factor 2.0
 Infiltration Coefficient Base (m/hr) 0.02261 Porosity 0.95
 Infiltration Coefficient Side (m/hr) 0.02261

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	120.0	120.0	0.400	120.0	137.6	0.500	0.0	137.6

Porous Car Park

Infiltration Coefficient Base (m/hr)	0.02261	Width (m)	14.0
Membrane Percolation (mm/hr)	1000	Length (m)	18.0
Max Percolation (l/s)	70.0	Slope (1:X)	1000.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	4.800	Cap Volume Depth (m)	0.000