

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

Half Drain Time : 411 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	4.878	0.178	1.1	20.6	O K
30 min Summer	4.938	0.238	1.1	27.7	O K
60 min Summer	4.997	0.297	1.1	34.9	O K
120 min Summer	5.049	0.349	1.1	41.2	O K
180 min Summer	5.070	0.370	1.1	43.7	O K
240 min Summer	5.077	0.377	1.1	44.6	O K
360 min Summer	5.075	0.375	1.1	44.4	O K
480 min Summer	5.070	0.370	1.1	43.7	O K
600 min Summer	5.062	0.362	1.1	42.8	O K
720 min Summer	5.054	0.354	1.1	41.8	O K
960 min Summer	5.036	0.336	1.1	39.6	O K
1440 min Summer	4.999	0.299	1.1	35.2	O K
2160 min Summer	4.947	0.247	1.1	28.8	O K
2880 min Summer	4.900	0.200	1.1	23.1	O K
4320 min Summer	4.824	0.124	1.1	14.0	O K
5760 min Summer	4.776	0.076	1.1	8.2	O K
7200 min Summer	4.752	0.052	1.1	5.2	O K
8640 min Summer	4.745	0.045	1.0	4.4	O K
10080 min Summer	4.740	0.040	0.8	3.8	O K
15 min Winter	4.901	0.201	1.1	23.3	O K
30 min Winter	4.968	0.268	1.1	31.4	O K
60 min Winter	5.036	0.336	1.1	39.6	O K
120 min Winter	5.097	0.397	1.1	47.0	O K
180 min Winter	5.125	0.425	1.1	50.2	O K
240 min Winter	5.138	0.438	1.1	51.6	O K
360 min Winter	5.143	0.443	1.1	52.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	124.633	0.0	22
30 min Summer	83.789	0.0	37
60 min Summer	53.779	0.0	66
120 min Summer	33.337	0.0	126
180 min Summer	24.832	0.0	186
240 min Summer	20.006	0.0	244
360 min Summer	14.706	0.0	334
480 min Summer	11.818	0.0	390
600 min Summer	9.966	0.0	454
720 min Summer	8.665	0.0	518
960 min Summer	6.943	0.0	656
1440 min Summer	5.071	0.0	928
2160 min Summer	3.696	0.0	1324
2880 min Summer	2.949	0.0	1704
4320 min Summer	2.142	0.0	2424
5760 min Summer	1.705	0.0	3056
7200 min Summer	1.427	0.0	3680
8640 min Summer	1.235	0.0	4408
10080 min Summer	1.093	0.0	5144
15 min Winter	124.633	0.0	22
30 min Winter	83.789	0.0	37
60 min Winter	53.779	0.0	66
120 min Winter	33.337	0.0	124
180 min Winter	24.832	0.0	182
240 min Winter	20.006	0.0	238
360 min Winter	14.706	0.0	350

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Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
480 min Winter	5.133	0.433	1.1	51.1	O K
600 min Winter	5.121	0.421	1.1	49.8	O K
720 min Winter	5.109	0.409	1.1	48.5	O K
960 min Winter	5.084	0.384	1.1	45.4	O K
1440 min Winter	5.028	0.328	1.1	38.6	O K
2160 min Winter	4.946	0.246	1.1	28.8	O K
2880 min Winter	4.875	0.175	1.1	20.2	O K
4320 min Winter	4.773	0.073	1.1	7.9	O K
5760 min Winter	4.745	0.045	1.0	4.4	O K
7200 min Winter	4.738	0.038	0.8	3.6	O K
8640 min Winter	4.733	0.033	0.7	3.0	O K
10080 min Winter	4.729	0.029	0.6	2.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
480 min Winter	11.818	0.0	452
600 min Winter	9.966	0.0	486
720 min Winter	8.665	0.0	560
960 min Winter	6.943	0.0	714
1440 min Winter	5.071	0.0	1012
2160 min Winter	3.696	0.0	1428
2880 min Winter	2.949	0.0	1792
4320 min Winter	2.142	0.0	2424
5760 min Winter	1.705	0.0	2944
7200 min Winter	1.427	0.0	3680
8640 min Winter	1.235	0.0	4408
10080 min Winter	1.093	0.0	5080

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) 0.098

Time (mins)	Area	Time (mins)	Area
From: To: (ha)		From: To: (ha)	
0 4	0.000	4 8	0.098

Model Details

Storage is Online Cover Level (m) 5.350

Complex Structure

Cellular Storage

Invert Level (m)

4.700

Safety Factor

2.0

Infiltration Coefficient Base (m/hr)

0.02262

Porosity

0.95

Infiltration Coefficient Side (m/hr)

0.02262

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	30.0	30.0	0.400	30.0	38.8	0.500	0.0	38.8

Porous Car Park

Infiltration Coefficient Base (m/hr)

0.02262

Width (m)

14.0

Membrane Percolation (mm/hr)

1000

Length (m)

22.0

Max Percolation (l/s)

85.6

Slope (1:X)

1000.0

Safety Factor

2.0

Depression Storage (mm)

5

Porosity

0.30

Evaporation (mm/day)

3

Invert Level (m)

4.700

Cap Volume Depth (m)

0.450