

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

Half Drain Time : 105 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m <sup>3</sup> )	Status
15 min Summer	0.486	0.486	5.8	41.5	O K
30 min Summer	0.601	0.601	6.1	51.4	O K
60 min Summer	0.671	0.671	6.2	57.4	O K
120 min Summer	0.668	0.668	6.2	57.1	O K
180 min Summer	0.637	0.637	6.2	54.5	O K
240 min Summer	0.602	0.602	6.1	51.5	O K
360 min Summer	0.533	0.533	5.9	45.6	O K
480 min Summer	0.470	0.470	5.8	40.2	O K
600 min Summer	0.412	0.412	5.7	35.2	O K
720 min Summer	0.359	0.359	5.6	30.7	O K
960 min Summer	0.266	0.266	5.4	22.8	O K
1440 min Summer	0.136	0.136	5.1	11.6	O K
2160 min Summer	0.051	0.051	5.0	4.3	O K
2880 min Summer	0.040	0.040	4.0	3.4	O K
4320 min Summer	0.029	0.029	2.8	2.5	O K
5760 min Summer	0.023	0.023	2.3	2.0	O K
7200 min Summer	0.019	0.019	1.9	1.6	O K
8640 min Summer	0.017	0.017	1.7	1.4	O K
10080 min Summer	0.015	0.015	1.5	1.2	O K
15 min Winter	0.550	0.550	6.0	47.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m <sup>3</sup> )	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	60
120 min Summer	34.176	0.0	96
180 min Summer	25.072	0.0	128
240 min Summer	20.006	0.0	162
360 min Summer	14.514	0.0	230
480 min Summer	11.557	0.0	298
600 min Summer	9.678	0.0	362
720 min Summer	8.369	0.0	426
960 min Summer	6.648	0.0	550
1440 min Summer	4.799	0.0	780
2160 min Summer	3.459	0.0	1100
2880 min Summer	2.739	0.0	1456
4320 min Summer	1.968	0.0	2200
5760 min Summer	1.556	0.0	2936
7200 min Summer	1.295	0.0	3672
8640 min Summer	1.115	0.0	4312
10080 min Summer	0.982	0.0	5000
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 (m <sup>3</sup> )	Status
30 min Winter	0.686	0.686	6.3	58.6	O K
60 min Winter	0.776	0.776	6.4	66.3	O K
120 min Winter	0.776	0.776	6.4	66.3	O K
180 min Winter	0.737	0.737	6.4	63.0	O K
240 min Winter	0.687	0.687	6.3	58.7	O K
360 min Winter	0.584	0.584	6.0	50.0	O K
480 min Winter	0.490	0.490	5.9	41.9	O K
600 min Winter	0.403	0.403	5.7	34.5	O K
720 min Winter	0.326	0.326	5.5	27.8	O K
960 min Winter	0.197	0.197	5.3	16.8	O K
1440 min Winter	0.052	0.052	5.0	4.4	O K
2160 min Winter	0.037	0.037	3.6	3.1	O K
2880 min Winter	0.029	0.029	2.9	2.5	O K
4320 min Winter	0.021	0.021	2.1	1.8	O K
5760 min Winter	0.017	0.017	1.7	1.4	O K
7200 min Winter	0.014	0.014	1.4	1.2	O K
8640 min Winter	0.012	0.012	1.2	1.0	O K
10080 min Winter	0.011	0.011	1.1	0.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m <sup>3</sup> )	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	102
180 min Winter	25.072	0.0	138
240 min Winter	20.006	0.0	176
360 min Winter	14.514	0.0	250
480 min Winter	11.557	0.0	320
600 min Winter	9.678	0.0	386
720 min Winter	8.369	0.0	450
960 min Winter	6.648	0.0	570
1440 min Winter	4.799	0.0	750
2160 min Winter	3.459	0.0	1092
2880 min Winter	2.739	0.0	1448
4320 min Winter	1.968	0.0	2180
5760 min Winter	1.556	0.0	2856
7200 min Winter	1.295	0.0	3576
8640 min Winter	1.115	0.0	4400
10080 min Winter	0.982	0.0	4976

Unit 3 Sherwood Oaks Close  
 Sherwood Oaks Business Park  
 Mansfield Nottinghamshire ...



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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)	20.000	Shortest Storm (mins)	15
Ratio R	0.405	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.178

Time (mins)	Area
From:	To: (ha)
0	4 0.178

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Model Details

Storage is Online Cover Level (m) 10.000

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0  
 Infiltration Coefficient Base (m/hr) 0.19400 Porosity 0.95  
 Infiltration Coefficient Side (m/hr) 0.19400

Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )
0.000	90.0	90.0	0.900	0.0	120.4
0.800	90.0	120.4			