

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

Half Drain Time : 836 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (mE)	Status
15 min Summer	16.915	0.165	0.1	7.2	O K
30 min Summer	16.974	0.224	0.1	9.8	O K
60 min Summer	17.038	0.288	0.2	12.6	O K
120 min Summer	17.102	0.352	0.2	15.4	O K
180 min Summer	17.136	0.386	0.2	16.9	O K
240 min Summer	17.157	0.407	0.2	17.8	O K
360 min Summer	17.182	0.432	0.3	18.9	O K
480 min Summer	17.194	0.444	0.3	19.4	O K
600 min Summer	17.200	0.450	0.3	19.7	O K
720 min Summer	17.205	0.455	0.3	19.9	O K
960 min Summer	17.212	0.462	0.3	20.2	O K
1440 min Summer	17.215	0.465	0.3	20.3	O K
2160 min Summer	17.209	0.459	0.3	20.0	O K
2880 min Summer	17.196	0.446	0.3	19.5	O K
4320 min Summer	17.166	0.416	0.2	18.2	O K
5760 min Summer	17.138	0.388	0.2	16.9	O K
7200 min Summer	17.113	0.363	0.2	15.9	O K
8640 min Summer	17.091	0.341	0.2	14.9	O K
10080 min Summer	17.073	0.323	0.2	14.1	O K
15 min Winter	16.935	0.185	0.1	8.1	O K
30 min Winter	17.001	0.251	0.1	11.0	O K
60 min Winter	17.072	0.322	0.2	14.1	O K
120 min Winter	17.145	0.395	0.2	17.3	O K
180 min Winter	17.184	0.434	0.3	18.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (mE)	Time-Peak (mins)
15 min Summer	125.250	0.0	23
30 min Summer	85.368	0.0	37
60 min Summer	55.544	0.0	66
120 min Summer	34.816	0.0	126
180 min Summer	26.038	0.0	184
240 min Summer	21.042	0.0	244
360 min Summer	15.601	0.0	362
480 min Summer	12.593	0.0	480
600 min Summer	10.656	0.0	530
720 min Summer	9.290	0.0	590
960 min Summer	7.475	0.0	712
1440 min Summer	5.489	0.0	982
2160 min Summer	4.021	0.0	1388
2880 min Summer	3.220	0.0	1792
4320 min Summer	2.348	0.0	2596
5760 min Summer	1.878	0.0	3400
7200 min Summer	1.581	0.0	4176
8640 min Summer	1.373	0.0	4928
10080 min Summer	1.219	0.0	5648
15 min Winter	125.250	0.0	23
30 min Winter	85.368	0.0	37
60 min Winter	55.544	0.0	66
120 min Winter	34.816	0.0	124
180 min Winter	26.038	0.0	182

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

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (mE)	Status
240 min Winter	17.207	0.457	0.3	20.0	O K
360 min Winter	17.236	0.486	0.3	21.2	O K
480 min Winter	17.251	0.501	0.3	21.9	O K
600 min Winter	17.258	0.508	0.3	22.2	O K
720 min Winter	17.261	0.511	0.3	22.3	O K
960 min Winter	17.266	0.516	0.3	22.6	O K
1440 min Winter	17.264	0.514	0.3	22.5	O K
2160 min Winter	17.247	0.497	0.3	21.7	O K
2880 min Winter	17.224	0.474	0.3	20.7	O K
4320 min Winter	17.177	0.427	0.2	18.7	O K
5760 min Winter	17.138	0.388	0.2	16.9	O K
7200 min Winter	17.105	0.355	0.2	15.5	O K
8640 min Winter	17.077	0.327	0.2	14.3	O K
10080 min Winter	17.053	0.303	0.2	13.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (mE)	Time-Peak (mins)
240 min Winter	21.042	0.0	238
360 min Winter	15.601	0.0	352
480 min Winter	12.593	0.0	462
600 min Winter	10.656	0.0	566
720 min Winter	9.290	0.0	652
960 min Winter	7.475	0.0	742
1440 min Winter	5.489	0.0	1050
2160 min Winter	4.021	0.0	1496
2880 min Winter	3.220	0.0	1932
4320 min Winter	2.348	0.0	2768
5760 min Winter	1.878	0.0	3568
7200 min Winter	1.581	0.0	4328
8640 min Winter	1.373	0.0	5104
10080 min Winter	1.219	0.0	5856

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Date 09.07.2021 File 108.5009 - PLOT 30, 31, 32, 33&3...	Designed by RD Checked by RW	
XP Solutions	Source Control 2014.1	

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)	19.600	Shortest Storm (mins)	15
Ratio R	0.322	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.031

Time (mins)	Area	Time (mins)	Area
From	To: (ha)	From	To: (ha)
0	4 0.015	4	8 0.016

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Model Details

Storage is Online Cover Level (m) 18.300

Cellular Storage Structure

Invert Level (m) 16.750 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.30852

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	46.0	46.0	0.800	46.0	67.7	0.801	0.0	67.7