



Cole Easdon Consultants		Page 1
York House, Edison Park Dorcan Way Swindon, SN3 3RB	Garage 34 Whitelands Farm Bicester	
Date Feb 2011 File AREA 16 (GARAGE 3...	Designed By TGL Checked By	
Elstree Computing Ltd	Source Control W.12.4	

Summary of Results for 100 year Return Period (+30%)

Half Drain Time : 91 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	100.110	0.110	0.3	1.7	O K
30 min Summer	100.140	0.140	0.3	2.2	O K
60 min Summer	100.162	0.162	0.3	2.6	O K
120 min Summer	100.169	0.169	0.3	2.7	O K
180 min Summer	100.167	0.167	0.3	2.7	O K
240 min Summer	100.161	0.161	0.3	2.6	O K
360 min Summer	100.146	0.146	0.3	2.3	O K
480 min Summer	100.131	0.131	0.3	2.1	O K
600 min Summer	100.116	0.116	0.3	1.8	O K
720 min Summer	100.103	0.103	0.3	1.6	O K
960 min Summer	100.082	0.082	0.3	1.2	O K
1440 min Summer	100.057	0.057	0.3	0.8	O K
2160 min Summer	100.047	0.047	0.2	0.6	O K
2880 min Summer	100.043	0.043	0.2	0.5	O K
4320 min Summer	100.036	0.036	0.1	0.4	O K
5760 min Summer	100.032	0.032	0.1	0.3	O K
7200 min Summer	100.030	0.030	0.1	0.3	O K
8640 min Summer	100.027	0.027	0.1	0.3	O K
10080 min Summer	100.026	0.026	0.1	0.2	O K
15 min Winter	100.125	0.125	0.3	2.0	O K
30 min Winter	100.159	0.159	0.3	2.5	O K
60 min Winter	100.185	0.185	0.3	3.0	O K


Storm Event	Rain (mm/hr)	Time-Peak (mins)
15 min Summer	128.285	18
30 min Summer	84.226	32
60 min Summer	52.662	60
120 min Summer	31.800	96
180 min Summer	23.353	128
240 min Summer	18.644	162
360 min Summer	13.543	230
480 min Summer	10.792	294
600 min Summer	9.043	358
720 min Summer	7.823	420
960 min Summer	6.219	532
1440 min Summer	4.493	750
2160 min Summer	3.241	1104
2880 min Summer	2.568	1468
4320 min Summer	1.847	2204
5760 min Summer	1.461	2936
7200 min Summer	1.217	3672
8640 min Summer	1.048	4408
10080 min Summer	0.923	5128
15 min Winter	128.285	18
30 min Winter	84.226	32
60 min Winter	52.662	60

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Summary of Results for 100 year Return Period (+30%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (1/s)	Max Volume (m ³)	Status
120 min Winter	100.192	0.192	0.3	3.1	O K
180 min Winter	100.188	0.188	0.3	3.0	O K
240 min Winter	100.178	0.178	0.3	2.9	O K
360 min Winter	100.155	0.155	0.3	2.5	O K
480 min Winter	100.131	0.131	0.3	2.1	O K
600 min Winter	100.109	0.109	0.3	1.7	O K
720 min Winter	100.090	0.090	0.3	1.3	O K
960 min Winter	100.062	0.062	0.3	0.9	O K
1440 min Winter	100.048	0.048	0.2	0.6	O K
2160 min Winter	100.041	0.041	0.2	0.5	O K
2880 min Winter	100.037	0.037	0.1	0.4	O K
4320 min Winter	100.031	0.031	0.1	0.3	O K
5760 min Winter	100.028	0.028	0.1	0.3	O K
7200 min Winter	100.025	0.025	0.1	0.2	O K
8640 min Winter	100.023	0.023	0.1	0.2	O K
10080 min Winter	100.022	0.022	0.0	0.2	O K

Storm Event	Rain (mm/hr)	Time-Peak (mins)
120 min Winter	31.800	110
180 min Winter	23.353	138
240 min Winter	18.644	176
360 min Winter	13.543	248
480 min Winter	10.792	316
600 min Winter	9.043	380
720 min Winter	7.823	438
960 min Winter	6.219	538
1440 min Winter	4.493	748
2160 min Winter	3.241	1120
2880 min Winter	2.568	1464
4320 min Winter	1.847	2240
5760 min Winter	1.461	2992
7200 min Winter	1.217	3632
8640 min Winter	1.048	4360
10080 min Winter	0.923	5048

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Model Details

Storage is Online Cover Level (m) 102.000

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.03600	Width (m)	11.6
Membrane Percolation (mm/hr)	1000	Length (m)	5.0
Max Percolation (l/s)	16.1	Slope (1:X)	200.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	100.000	Cap Volume Depth (m)	0.000