

The Civil Engineering Practice					Page 1																																																																																																																																																																																																																			
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Summary of Results for 100 year Return Period (+40%) Half Drain Time : 95 minutes. <table><thead><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr></thead><tbody><tr><td>15 min Summer</td><td>14.755</td><td>1.355</td><td>0.4</td><td>2.6</td><td>O K</td></tr><tr><td>30 min Summer</td><td>15.156</td><td>1.756</td><td>0.4</td><td>3.3</td><td>O K</td></tr><tr><td>60 min Summer</td><td>15.443</td><td>2.043</td><td>0.4</td><td>3.8</td><td>O K</td></tr><tr><td>120 min Summer</td><td>15.528</td><td>2.128</td><td>0.4</td><td>3.9</td><td>O K</td></tr><tr><td>180 min Summer</td><td>15.474</td><td>2.074</td><td>0.4</td><td>3.8</td><td>O K</td></tr><tr><td>240 min Summer</td><td>15.370</td><td>1.970</td><td>0.4</td><td>3.7</td><td>O K</td></tr><tr><td>360 min Summer</td><td>15.153</td><td>1.753</td><td>0.4</td><td>3.3</td><td>O K</td></tr><tr><td>480 min 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Innovyze		Source Control 2020.1			
<u>Summary of Results for 100 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	15.413	2.013	0.4	3.7	O K
60 min Winter	15.770	2.370	0.4	4.4	Flood Risk
120 min Winter	15.865	2.465	0.4	4.5	Flood Risk
180 min Winter	15.782	2.382	0.4	4.4	Flood Risk
240 min Winter	15.627	2.227	0.4	4.1	Flood Risk
360 min Winter	15.286	1.886	0.4	3.5	O K
480 min Winter	14.947	1.547	0.4	2.9	O K
600 min Winter	14.634	1.234	0.4	2.4	O K
720 min Winter	14.357	0.957	0.4	1.9	O K
960 min Winter	13.940	0.540	0.4	1.1	O K
1440 min Winter	13.732	0.332	0.4	0.7	O K
2160 min Winter	13.645	0.245	0.3	0.5	O K
2880 min Winter	13.596	0.196	0.2	0.4	O K
4320 min Winter	13.543	0.143	0.2	0.3	O K
5760 min Winter	13.514	0.114	0.1	0.3	O K
7200 min Winter	13.495	0.095	0.1	0.2	O K
8640 min Winter	13.483	0.083	0.1	0.2	O K
10080 min Winter	13.473	0.073	0.1	0.2	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	86.178	0.0	31		
60 min Winter	55.250	0.0	60		
120 min Winter	34.177	0.0	102		
180 min Winter	25.410	0.0	138		
240 min Winter	20.436	0.0	176		
360 min Winter	15.037	0.0	248		
480 min Winter	12.081	0.0	318		
600 min Winter	10.185	0.0	380		
720 min Winter	8.854	0.0	440		
960 min Winter	7.093	0.0	540		
1440 min Winter	5.178	0.0	750		
2160 min Winter	3.772	0.0	1104		
2880 min Winter	3.009	0.0	1468		
4320 min Winter	2.184	0.0	2204		
5760 min Winter	1.738	0.0	2936		
7200 min Winter	1.455	0.0	3672		
8640 min Winter	1.260	0.0	4384		
10080 min Winter	1.115	0.0	5136		
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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)	19.500	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.012

Time (mins)	Area
From:	To: (ha)
0	4 0.012

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Model Details

Storage is Online Cover Level (m) 15.900

Lined Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.00000	Ring Diameter (m)	1.50
Infiltration Coefficient Side (m/hr)	2.16000	Pit Multiplier	1.2
Safety Factor	4.0	Number Required	1
Porosity	0.30	Cap Volume Depth (m)	2.500
Invert Level (m)	13.400	Cap Infiltration Depth (m)	0.400

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