

Cole Easdon Consultants				Page 1																																																																																																																																																																																																																			
York House, Edison Park Dorcan Way Swindon, SN3 3RB		Godbey House, Hayling Island, South Soakaway																																																																																																																																																																																																																					
Date April 2018 File 5550 South SA 30yr.srcx		Designed by RT Checked by RB																																																																																																																																																																																																																					
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<u>Summary of Results for 30 year Return Period</u> Half Drain Time : 1255 minutes. <table><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><tr><td>15 min Summer</td><td>4.061</td><td>0.061</td><td>0.1</td><td>4.7</td><td>0 K</td></tr><tr><td>30 min Summer</td><td>4.080</td><td>0.080</td><td>0.1</td><td>6.2</td><td>0 K</td></tr><tr><td>60 min Summer</td><td>4.101</td><td>0.101</td><td>0.1</td><td>7.9</td><td>0 K</td></tr><tr><td>120 min Summer</td><td>4.123</td><td>0.123</td><td>0.1</td><td>9.6</td><td>0 K</td></tr><tr><td>180 min Summer</td><td>4.135</td><td>0.135</td><td>0.1</td><td>10.5</td><td>0 K</td></tr><tr><td>240 min Summer</td><td>4.143</td><td>0.143</td><td>0.1</td><td>11.2</td><td>0 K</td></tr><tr><td>360 min Summer</td><td>4.154</td><td>0.154</td><td>0.1</td><td>12.0</td><td>0 K</td></tr><tr><td>480 min Summer</td><td>4.160</td><td>0.160</td><td>0.1</td><td>12.5</td><td>0 K</td></tr><tr><td>600 min Summer</td><td>4.164</td><td>0.164</td><td>0.1</td><td>12.8</td><td>0 K</td></tr><tr><td>720 min Summer</td><td>4.167</td><td>0.167</td><td>0.1</td><td>13.0</td><td>0 K</td></tr><tr><td>960 min Summer</td><td>4.168</td><td>0.168</td><td>0.1</td><td>13.1</td><td>0 K</td></tr><tr><td>1440 min Summer</td><td>4.168</td><td>0.168</td><td>0.1</td><td>13.1</td><td>0 K</td></tr><tr><td>2160 min Summer</td><td>4.165</td><td>0.165</td><td>0.1</td><td>12.9</td><td>0 K</td></tr><tr><td>2880 min Summer</td><td>4.160</td><td>0.160</td><td>0.1</td><td>12.4</td><td>0 K</td></tr><tr><td>4320 min Summer</td><td>4.147</td><td>0.147</td><td>0.1</td><td>11.5</td><td>0 K</td></tr><tr><td>5760 min Summer</td><td>4.134</td><td>0.134</td><td>0.1</td><td>10.4</td><td>0 K</td></tr><tr><td>7200 min Summer</td><td>4.121</td><td>0.121</td><td>0.1</td><td>9.4</td><td>0 K</td></tr><tr><td>8640 min Summer</td><td>4.110</td><td>0.110</td><td>0.1</td><td>8.5</td><td>0 K</td></tr><tr><td>10080 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Summer	4.123	0.123	0.1	9.6	0 K	180 min Summer	4.135	0.135	0.1	10.5	0 K	240 min Summer	4.143	0.143	0.1	11.2	0 K	360 min Summer	4.154	0.154	0.1	12.0	0 K	480 min Summer	4.160	0.160	0.1	12.5	0 K	600 min Summer	4.164	0.164	0.1	12.8	0 K	720 min Summer	4.167	0.167	0.1	13.0	0 K	960 min Summer	4.168	0.168	0.1	13.1	0 K	1440 min Summer	4.168	0.168	0.1	13.1	0 K	2160 min Summer	4.165	0.165	0.1	12.9	0 K	2880 min Summer	4.160	0.160	0.1	12.4	0 K	4320 min Summer	4.147	0.147	0.1	11.5	0 K	5760 min Summer	4.134	0.134	0.1	10.4	0 K	7200 min Summer	4.121	0.121	0.1	9.4	0 K	8640 min Summer	4.110	0.110	0.1	8.5	0 K	10080 min Summer	4.099	0.099	0.1	7.7	0 K	15 min Winter	4.068	0.068	0.1	5.3	0 K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	68.836	0.0	19	30 min Summer	45.828	0.0	34	60 min Summer	29.238	0.0	64	120 min Summer	18.112	0.0	124	180 min Summer	13.534	0.0	182	240 min Summer	10.952	0.0	242	360 min Summer	8.106	0.0	362	480 min Summer	6.544	0.0	482	600 min 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York House, Edison Park Dorcan Way Swindon, SN3 3RB		Godbey House, Hayling Island, South Soakaway			
Date April 2018 File 5550 South SA 30yr.srcx		Designed by RT Checked by RB			
Elstree Computing Ltd		Source Control 2016.1			
Summary of Results for 30 year Return Period					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	4.090	0.090	0.1	7.0	0 K
60 min Winter	4.113	0.113	0.1	8.8	0 K
120 min Winter	4.138	0.138	0.1	10.8	0 K
180 min Winter	4.152	0.152	0.1	11.9	0 K
240 min Winter	4.162	0.162	0.1	12.6	0 K
360 min Winter	4.174	0.174	0.1	13.6	0 K
480 min Winter	4.182	0.182	0.1	14.2	0 K
600 min Winter	4.187	0.187	0.1	14.6	0 K
720 min Winter	4.190	0.190	0.1	14.8	0 K
960 min Winter	4.194	0.194	0.1	15.1	0 K
1440 min Winter	4.193	0.193	0.1	15.0	0 K
2160 min Winter	4.188	0.188	0.1	14.6	0 K
2880 min Winter	4.180	0.180	0.1	14.0	0 K
4320 min Winter	4.160	0.160	0.1	12.5	0 K
5760 min Winter	4.140	0.140	0.1	10.9	0 K
7200 min Winter	4.120	0.120	0.1	9.4	0 K
8640 min Winter	4.102	0.102	0.1	8.0	0 K
10080 min Winter	4.087	0.087	0.1	6.8	0 K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	45.828	0.0	33		
60 min Winter	29.238	0.0	62		
120 min Winter	18.112	0.0	122		
180 min Winter	13.534	0.0	180		
240 min Winter	10.952	0.0	238		
360 min Winter	8.106	0.0	356		
480 min Winter	6.544	0.0	472		
600 min Winter	5.539	0.0	586		
720 min Winter	4.832	0.0	700		
960 min Winter	3.892	0.0	922		
1440 min Winter	2.866	0.0	1330		
2160 min Winter	2.108	0.0	1664		
2880 min Winter	1.693	0.0	2108		
4320 min Winter	1.242	0.0	3024		
5760 min Winter	0.996	0.0	3864		
7200 min Winter	0.839	0.0	4680		
8640 min Winter	0.730	0.0	5440		
10080 min Winter	0.648	0.0	6152		
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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	30	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 %	+0

Time Area Diagram

Total Area (ha) 0.037

Time (mins)	Area
From: To:	(ha)
0	4 0.037

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Model Details

Storage is Online Cover Level (m) 5.100

Cellular Storage Structure

Invert Level (m) 4.000 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00830 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00830

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	82.0	82.0	0.401	0.0	96.5
0.400	82.0	96.5			