

Odyssey		Page 1																																																																																																																																																																																																																		
Tuscany House White Hart Lane Basingstoke RG21 4AF	Stakers Farm, Yapton 19-156 Site Infiltration Blanket_RevB																																																																																																																																																																																																																			
Date 16/04/2021 08:53 File Infiltration Blanket_70...	Designed by AK Checked by																																																																																																																																																																																																																			
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<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 1383 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>5.052</td><td>0.052</td><td>1.2</td><td>68.6</td><td>O K</td></tr><tr><td>30 min Summer</td><td>5.068</td><td>0.068</td><td>1.2</td><td>89.8</td><td>O K</td></tr><tr><td>60 min Summer</td><td>5.085</td><td>0.085</td><td>1.2</td><td>112.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>5.104</td><td>0.104</td><td>1.2</td><td>137.3</td><td>Flood Risk</td></tr><tr><td>180 min Summer</td><td>5.115</td><td>0.115</td><td>1.2</td><td>151.7</td><td>Flood Risk</td></tr><tr><td>240 min Summer</td><td>5.122</td><td>0.122</td><td>1.2</td><td>161.0</td><td>Flood Risk</td></tr><tr><td>360 min Summer</td><td>5.130</td><td>0.130</td><td>1.2</td><td>171.5</td><td>Flood Risk</td></tr><tr><td>480 min Summer</td><td>5.134</td><td>0.134</td><td>1.2</td><td>176.7</td><td>Flood Risk</td></tr><tr><td>600 min Summer</td><td>5.136</td><td>0.136</td><td>1.2</td><td>179.4</td><td>Flood Risk</td></tr><tr><td>720 min Summer</td><td>5.137</td><td>0.137</td><td>1.2</td><td>180.4</td><td>Flood Risk</td></tr><tr><td>960 min Summer</td><td>5.136</td><td>0.136</td><td>1.2</td><td>179.7</td><td>Flood Risk</td></tr><tr><td>1440 min Summer</td><td>5.133</td><td>0.133</td><td>1.2</td><td>175.8</td><td>Flood Risk</td></tr><tr><td>2160 min Summer</td><td>5.130</td><td>0.130</td><td>1.2</td><td>171.1</td><td>Flood Risk</td></tr><tr><td>2880 min Summer</td><td>5.127</td><td>0.127</td><td>1.2</td><td>166.9</td><td>Flood Risk</td></tr><tr><td>4320 min Summer</td><td>5.122</td><td>0.122</td><td>1.2</td><td>160.2</td><td>Flood Risk</td></tr><tr><td>5760 min Summer</td><td>5.117</td><td>0.117</td><td>1.2</td><td>154.6</td><td>Flood Risk</td></tr><tr><td>7200 min Summer</td><td>5.114</td><td>0.114</td><td>1.2</td><td>150.3</td><td>Flood Risk</td></tr><tr><td>8640 min Summer</td><td>5.111</td><td>0.111</td><td>1.2</td><td>146.8</td><td>Flood Risk</td></tr><tr><td>10080 min Summer</td><td>5.109</td><td>0.109</td><td>1.2</td><td>144.1</td><td>Flood Risk</td></tr><tr><td>15 min Winter</td><td>5.058</td><td>0.058</td><td>1.2</td><td>76.9</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>87.620</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>57.683</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>36.448</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>22.639</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>16.928</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>13.676</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>10.003</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>7.960</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>6.652</td><td>0.0</td><td>602</td></tr><tr><td>720 min Summer</td><td>5.738</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>4.539</td><td>0.0</td><td>960</td></tr><tr><td>1440 min Summer</td><td>3.269</td><td>0.0</td><td>1182</td></tr><tr><td>2160 min Summer</td><td>2.374</td><td>0.0</td><td>1556</td></tr><tr><td>2880 min Summer</td><td>1.907</td><td>0.0</td><td>1960</td></tr><tr><td>4320 min Summer</td><td>1.430</td><td>0.0</td><td>2772</td></tr><tr><td>5760 min Summer</td><td>1.183</td><td>0.0</td><td>3632</td></tr><tr><td>7200 min Summer</td><td>1.034</td><td>0.0</td><td>4400</td></tr><tr><td>8640 min Summer</td><td>0.933</td><td>0.0</td><td>5192</td></tr><tr><td>10080 min Summer</td><td>0.861</td><td>0.0</td><td>6048</td></tr><tr><td>15 min Winter</td><td>87.620</td><td>0.0</td><td>19</td></tr></table>			Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	5.052	0.052	1.2	68.6	O K	30 min Summer	5.068	0.068	1.2	89.8	O K	60 min Summer	5.085	0.085	1.2	112.4	O K	120 min Summer	5.104	0.104	1.2	137.3	Flood Risk	180 min Summer	5.115	0.115	1.2	151.7	Flood Risk	240 min Summer	5.122	0.122	1.2	161.0	Flood Risk	360 min Summer	5.130	0.130	1.2	171.5	Flood Risk	480 min Summer	5.134	0.134	1.2	176.7	Flood Risk	600 min Summer	5.136	0.136	1.2	179.4	Flood Risk	720 min Summer	5.137	0.137	1.2	180.4	Flood Risk	960 min Summer	5.136	0.136	1.2	179.7	Flood Risk	1440 min Summer	5.133	0.133	1.2	175.8	Flood Risk	2160 min Summer	5.130	0.130	1.2	171.1	Flood Risk	2880 min Summer	5.127	0.127	1.2	166.9	Flood Risk	4320 min Summer	5.122	0.122	1.2	160.2	Flood Risk	5760 min Summer	5.117	0.117	1.2	154.6	Flood Risk	7200 min Summer	5.114	0.114	1.2	150.3	Flood Risk	8640 min Summer	5.111	0.111	1.2	146.8	Flood Risk	10080 min Summer	5.109	0.109	1.2	144.1	Flood Risk	15 min Winter	5.058	0.058	1.2	76.9	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	87.620	0.0	19	30 min Summer	57.683	0.0	34	60 min Summer	36.448	0.0	64	120 min Summer	22.639	0.0	124	180 min Summer	16.928	0.0	182	240 min Summer	13.676	0.0	242	360 min Summer	10.003	0.0	362	480 min Summer	7.960	0.0	482	600 min Summer	6.652	0.0	602	720 min Summer	5.738	0.0	720	960 min Summer	4.539	0.0	960	1440 min Summer	3.269	0.0	1182	2160 min Summer	2.374	0.0	1556	2880 min Summer	1.907	0.0	1960	4320 min Summer	1.430	0.0	2772	5760 min Summer	1.183	0.0	3632	7200 min Summer	1.034	0.0	4400	8640 min Summer	0.933	0.0	5192	10080 min Summer	0.861	0.0	6048	15 min Winter	87.620	0.0	19
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Tuscany House White Hart Lane Basingstoke RG21 4AF	Stakers Farm, Yapton 19-156 Site Infiltration Blanket_RevB				
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Micro Drainage					
Source Control 2020.1.3					
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	5.076	0.076	1.2	100.7	O K
60 min Winter	5.096	0.096	1.2	126.1	O K
120 min Winter	5.117	0.117	1.2	154.4	Flood Risk
180 min Winter	5.130	0.130	1.2	170.7	Flood Risk
240 min Winter	5.138	0.138	1.2	181.4	Flood Risk
360 min Winter	5.147	0.147	1.2	193.8	Flood Risk
480 min Winter	5.152	0.152	1.2	200.3	Flood Risk
600 min Winter	5.155	0.155	1.2	203.9	Flood Risk
720 min Winter	5.156	0.156	1.2	205.7	Flood Risk
960 min Winter	5.157	0.157	1.2	206.4	Flood Risk
1440 min Winter	5.153	0.153	1.2	202.1	Flood Risk
2160 min Winter	5.147	0.147	1.2	194.4	Flood Risk
2880 min Winter	5.142	0.142	1.2	187.8	Flood Risk
4320 min Winter	5.133	0.133	1.2	175.4	Flood Risk
5760 min Winter	5.125	0.125	1.2	164.1	Flood Risk
7200 min Winter	5.117	0.117	1.2	154.3	Flood Risk
8640 min Winter	5.111	0.111	1.2	145.7	Flood Risk
10080 min Winter	5.105	0.105	1.2	138.3	Flood Risk
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	57.683	0.0	33		
60 min Winter	36.448	0.0	62		
120 min Winter	22.639	0.0	122		
180 min Winter	16.928	0.0	180		
240 min Winter	13.676	0.0	240		
360 min Winter	10.003	0.0	356		
480 min Winter	7.960	0.0	472		
600 min Winter	6.652	0.0	588		
720 min Winter	5.738	0.0	702		
960 min Winter	4.539	0.0	926		
1440 min Winter	3.269	0.0	1354		
2160 min Winter	2.374	0.0	1684		
2880 min Winter	1.907	0.0	2136		
4320 min Winter	1.430	0.0	3028		
5760 min Winter	1.183	0.0	3920		
7200 min Winter	1.034	0.0	4760		
8640 min Winter	0.933	0.0	5616		
10080 min Winter	0.861	0.0	6448		
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Micro Drainage Source Control 2020.1.3		

Rainfall Details

Rainfall Model	FEH
Return Period (years)	10
FEH Rainfall Version	2013
Site Location	GB 497682 103581 SU 97682 03581
Data Type	Point
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	0.750
Cv (Winter)	0.840
Shortest Storm (mins)	15
Longest Storm (mins)	10080
Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.422

Time (mins)	Area
From:	To: (ha)
0	4 0.422

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Model Details

Storage is Online Cover Level (m) 5.400

Infiltration Blanket Structure

Infiltration Coefficient Base (m/hr)	0.00648	Diameter/Width (m)	37.0
Safety Factor	2.0	Length (m)	37.5
Porosity	0.95	Cap Volume Depth (m)	0.000
Invert Level (m)	5.000		

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