

Odyssey		Page 1																																																																																																																																																																																																																		
Tuscany House White Hart Lane Basingstoke RG21 4AF	Stakers Farm, Yapton 1 in 10 inc basin area																																																																																																																																																																																																																			
Date 26/07/2020 22:21 File Infiltration Basin_70	Designed by AK Checked by																																																																																																																																																																																																																			
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Summary of Results for 10 year Return Period Half Drain Time : 1796 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>0.068</td><td>0.068</td><td>1.1</td><td>79.0</td><td>O K</td></tr><tr><td>30 min Summer</td><td>0.089</td><td>0.089</td><td>1.1</td><td>103.7</td><td>O K</td></tr><tr><td>60 min Summer</td><td>0.111</td><td>0.111</td><td>1.1</td><td>130.1</td><td>O K</td></tr><tr><td>120 min Summer</td><td>0.136</td><td>0.136</td><td>1.1</td><td>159.4</td><td>O K</td></tr><tr><td>180 min Summer</td><td>0.150</td><td>0.150</td><td>1.2</td><td>176.6</td><td>O K</td></tr><tr><td>240 min Summer</td><td>0.159</td><td>0.159</td><td>1.2</td><td>187.9</td><td>O K</td></tr><tr><td>360 min Summer</td><td>0.170</td><td>0.170</td><td>1.2</td><td>201.2</td><td>O K</td></tr><tr><td>480 min Summer</td><td>0.176</td><td>0.176</td><td>1.2</td><td>208.5</td><td>O K</td></tr><tr><td>600 min Summer</td><td>0.180</td><td>0.180</td><td>1.2</td><td>212.7</td><td>O K</td></tr><tr><td>720 min Summer</td><td>0.182</td><td>0.182</td><td>1.2</td><td>215.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>0.183</td><td>0.183</td><td>1.2</td><td>216.6</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>0.181</td><td>0.181</td><td>1.2</td><td>213.8</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>0.177</td><td>0.177</td><td>1.2</td><td>209.7</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>0.175</td><td>0.175</td><td>1.2</td><td>206.6</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>0.171</td><td>0.171</td><td>1.2</td><td>202.6</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>0.169</td><td>0.169</td><td>1.2</td><td>199.6</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>0.167</td><td>0.167</td><td>1.2</td><td>197.8</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>0.167</td><td>0.167</td><td>1.2</td><td>196.8</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>0.166</td><td>0.166</td><td>1.2</td><td>196.5</td><td>O K</td></tr><tr><td>15 min Winter</td><td>0.076</td><td>0.076</td><td>1.1</td><td>88.6</td><td>O K</td></tr></tbody></table> <table><thead><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr></thead><tbody><tr><td>15 min Summer</td><td>62.586</td><td>0.0</td><td>22</td></tr><tr><td>30 min Summer</td><td>41.202</td><td>0.0</td><td>37</td></tr><tr><td>60 min Summer</td><td>26.034</td><td>0.0</td><td>66</td></tr><tr><td>120 min Summer</td><td>16.170</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>12.091</td><td>0.0</td><td>184</td></tr><tr><td>240 min Summer</td><td>9.769</td><td>0.0</td><td>244</td></tr><tr><td>360 min Summer</td><td>7.145</td><td>0.0</td><td>364</td></tr><tr><td>480 min Summer</td><td>5.686</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>4.751</td><td>0.0</td><td>602</td></tr><tr><td>720 min Summer</td><td>4.098</td><td>0.0</td><td>722</td></tr><tr><td>960 min Summer</td><td>3.242</td><td>0.0</td><td>960</td></tr><tr><td>1440 min Summer</td><td>2.335</td><td>0.0</td><td>1342</td></tr><tr><td>2160 min Summer</td><td>1.695</td><td>0.0</td><td>1684</td></tr><tr><td>2880 min Summer</td><td>1.362</td><td>0.0</td><td>2072</td></tr><tr><td>4320 min Summer</td><td>1.021</td><td>0.0</td><td>2896</td></tr><tr><td>5760 min Summer</td><td>0.845</td><td>0.0</td><td>3744</td></tr><tr><td>7200 min Summer</td><td>0.738</td><td>0.0</td><td>4544</td></tr><tr><td>8640 min Summer</td><td>0.667</td><td>0.0</td><td>5368</td></tr><tr><td>10080 min Summer</td><td>0.615</td><td>0.0</td><td>6248</td></tr><tr><td>15 min Winter</td><td>62.586</td><td>0.0</td><td>22</td></tr></tbody></table>			Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	0.068	0.068	1.1	79.0	O K	30 min Summer	0.089	0.089	1.1	103.7	O K	60 min Summer	0.111	0.111	1.1	130.1	O K	120 min Summer	0.136	0.136	1.1	159.4	O K	180 min Summer	0.150	0.150	1.2	176.6	O K	240 min Summer	0.159	0.159	1.2	187.9	O K	360 min Summer	0.170	0.170	1.2	201.2	O K	480 min Summer	0.176	0.176	1.2	208.5	O K	600 min Summer	0.180	0.180	1.2	212.7	O K	720 min Summer	0.182	0.182	1.2	215.1	O K	960 min Summer	0.183	0.183	1.2	216.6	O K	1440 min Summer	0.181	0.181	1.2	213.8	O K	2160 min Summer	0.177	0.177	1.2	209.7	O K	2880 min Summer	0.175	0.175	1.2	206.6	O K	4320 min Summer	0.171	0.171	1.2	202.6	O K	5760 min Summer	0.169	0.169	1.2	199.6	O K	7200 min Summer	0.167	0.167	1.2	197.8	O K	8640 min Summer	0.167	0.167	1.2	196.8	O K	10080 min Summer	0.166	0.166	1.2	196.5	O K	15 min Winter	0.076	0.076	1.1	88.6	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	62.586	0.0	22	30 min Summer	41.202	0.0	37	60 min Summer	26.034	0.0	66	120 min Summer	16.170	0.0	124	180 min Summer	12.091	0.0	184	240 min Summer	9.769	0.0	244	360 min Summer	7.145	0.0	364	480 min Summer	5.686	0.0	482	600 min Summer	4.751	0.0	602	720 min Summer	4.098	0.0	722	960 min Summer	3.242	0.0	960	1440 min Summer	2.335	0.0	1342	2160 min Summer	1.695	0.0	1684	2880 min Summer	1.362	0.0	2072	4320 min Summer	1.021	0.0	2896	5760 min Summer	0.845	0.0	3744	7200 min Summer	0.738	0.0	4544	8640 min Summer	0.667	0.0	5368	10080 min Summer	0.615	0.0	6248	15 min Winter	62.586	0.0	22
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Odyssey			Page 2		
Tuscany House		Stakers Farm, Yapton			
White Hart Lane		1 in 10			
Basingstoke RG21 4AF		inc basin area			
Date 26/07/2020 22:21		Designed by AK			
File Infiltration Basin_70		Checked by			
Micro Drainage		Source Control 2020.1			
Summary of Results for 10 year Return Period					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	0.100	0.100	1.1	116.3	O K
60 min Winter	0.124	0.124	1.1	145.9	O K
120 min Winter	0.152	0.152	1.2	179.1	O K
180 min Winter	0.168	0.168	1.2	198.6	O K
240 min Winter	0.179	0.179	1.2	211.5	O K
360 min Winter	0.191	0.191	1.2	227.0	O K
480 min Winter	0.198	0.198	1.2	235.7	O K
600 min Winter	0.203	0.203	1.2	241.0	O K
720 min Winter	0.205	0.205	1.2	244.3	O K
960 min Winter	0.208	0.208	1.2	247.3	O K
1440 min Winter	0.207	0.207	1.2	246.6	O K
2160 min Winter	0.202	0.202	1.2	239.8	O K
2880 min Winter	0.198	0.198	1.2	235.4	O K
4320 min Winter	0.192	0.192	1.2	227.5	O K
5760 min Winter	0.186	0.186	1.2	220.2	O K
7200 min Winter	0.181	0.181	1.2	214.0	O K
8640 min Winter	0.176	0.176	1.2	208.7	O K
10080 min Winter	0.173	0.173	1.2	204.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	41.202	0.0	36		
60 min Winter	26.034	0.0	66		
120 min Winter	16.170	0.0	124		
180 min Winter	12.091	0.0	182		
240 min Winter	9.769	0.0	240		
360 min Winter	7.145	0.0	358		
480 min Winter	5.686	0.0	476		
600 min Winter	4.751	0.0	592		
720 min Winter	4.098	0.0	708		
960 min Winter	3.242	0.0	934		
1440 min Winter	2.335	0.0	1382		
2160 min Winter	1.695	0.0	1944		
2880 min Winter	1.362	0.0	2220		
4320 min Winter	1.021	0.0	3156		
5760 min Winter	0.845	0.0	4088		
7200 min Winter	0.738	0.0	4968		
8640 min Winter	0.667	0.0	5872		
10080 min Winter	0.615	0.0	6752		
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Odyssey		Page 3
Tuscany House White Hart Lane Basingstoke RG21 4AF	Stakers Farm, Yapton 1 in 10 inc basin area	
Date 26/07/2020 22:21 File Infiltration Basin_70	Designed by AK Checked by	
Micro Drainage		Source Control 2020.1

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 %	+0

Time Area Diagram

Total Area (ha) 0.681

Time (mins)	Area	Time (mins)	Area
From:	To: (ha)	From:	To: (ha)
0	4 0.553	4	8 0.128

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Odyssey		Page 4								
Tuscany House White Hart Lane Basingstoke RG21 4AF	Stakers Farm, Yapton 1 in 10 inc basin area									
Date 26/07/2020 22:21 File Infiltration Basin_70	Designed by AK Checked by									
Micro Drainage Source Control 2020.1										
<u>Model Details</u> Storage is Online Cover Level (m) 0.600 <u>Infiltration Basin Structure</u> Invert Level (m) 0.000 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.00648 Porosity 1.00 Infiltration Coefficient Side (m/hr) 0.00648 <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Depth (m)</th> <th>Area (m²)</th> <th>Depth (m)</th> <th>Area (m²)</th> </tr> </thead> <tbody> <tr> <td>0.000</td> <td>1146.0</td> <td>0.600</td> <td>1410.0</td> </tr> </tbody> </table>			Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	0.000	1146.0	0.600	1410.0
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