

Odyssey		Page 1																																																																																																																																																																																																																		
Tuscany House	Stakers Farm, Yapton																																																																																																																																																																																																																			
White Hart Lane	19-156																																																																																																																																																																																																																			
Baskingstoke RG21 4AF	Road 2 and Plots 23,25-28_RevB																																																																																																																																																																																																																			
Date 10/12/2020 14:59	Designed by AK																																																																																																																																																																																																																			
File Road 2_including Plots	Checked by																																																																																																																																																																																																																			
XP Solutions	Source Control 2020.1																																																																																																																																																																																																																			
<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 2269 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>0.083</td><td>0.083</td><td>0.3</td><td>26.4</td><td>O K</td></tr><tr><td>30 min Summer</td><td>0.113</td><td>0.113</td><td>0.3</td><td>35.9</td><td>O K</td></tr><tr><td>60 min Summer</td><td>0.145</td><td>0.145</td><td>0.3</td><td>46.4</td><td>Flood Risk</td></tr><tr><td>120 min Summer</td><td>0.171</td><td>0.171</td><td>0.3</td><td>54.7</td><td>Flood Risk</td></tr><tr><td>180 min Summer</td><td>0.187</td><td>0.187</td><td>0.3</td><td>59.6</td><td>Flood Risk</td></tr><tr><td>240 min Summer</td><td>0.197</td><td>0.197</td><td>0.3</td><td>62.9</td><td>Flood Risk</td></tr><tr><td>360 min Summer</td><td>0.209</td><td>0.209</td><td>0.3</td><td>66.6</td><td>Flood Risk</td></tr><tr><td>480 min Summer</td><td>0.216</td><td>0.216</td><td>0.3</td><td>68.8</td><td>Flood Risk</td></tr><tr><td>600 min Summer</td><td>0.220</td><td>0.220</td><td>0.3</td><td>70.2</td><td>Flood Risk</td></tr><tr><td>720 min Summer</td><td>0.223</td><td>0.223</td><td>0.3</td><td>71.0</td><td>Flood Risk</td></tr><tr><td>960 min Summer</td><td>0.225</td><td>0.225</td><td>0.3</td><td>71.7</td><td>Flood Risk</td></tr><tr><td>1440 min Summer</td><td>0.223</td><td>0.223</td><td>0.3</td><td>71.1</td><td>Flood Risk</td></tr><tr><td>2160 min Summer</td><td>0.216</td><td>0.216</td><td>0.3</td><td>68.8</td><td>Flood Risk</td></tr><tr><td>2880 min Summer</td><td>0.210</td><td>0.210</td><td>0.3</td><td>67.2</td><td>Flood Risk</td></tr><tr><td>4320 min Summer</td><td>0.203</td><td>0.203</td><td>0.3</td><td>64.8</td><td>Flood Risk</td></tr><tr><td>5760 min Summer</td><td>0.197</td><td>0.197</td><td>0.3</td><td>62.8</td><td>Flood Risk</td></tr><tr><td>7200 min Summer</td><td>0.192</td><td>0.192</td><td>0.3</td><td>61.2</td><td>Flood Risk</td></tr><tr><td>8640 min Summer</td><td>0.188</td><td>0.188</td><td>0.3</td><td>60.0</td><td>Flood Risk</td></tr><tr><td>10080 min Summer</td><td>0.185</td><td>0.185</td><td>0.3</td><td>59.0</td><td>Flood Risk</td></tr><tr><td>15 min Winter</td><td>0.093</td><td>0.093</td><td>0.3</td><td>29.8</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>141.164</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>94.700</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>60.903</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>36.128</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>26.473</td><td>0.0</td><td>184</td></tr><tr><td>240 min Summer</td><td>21.126</td><td>0.0</td><td>244</td></tr><tr><td>360 min Summer</td><td>15.214</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>12.016</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>9.993</td><td>0.0</td><td>602</td></tr><tr><td>720 min Summer</td><td>8.590</td><td>0.0</td><td>722</td></tr><tr><td>960 min Summer</td><td>6.756</td><td>0.0</td><td>962</td></tr><tr><td>1440 min Summer</td><td>4.823</td><td>0.0</td><td>1440</td></tr><tr><td>2160 min Summer</td><td>3.462</td><td>0.0</td><td>1836</td></tr><tr><td>2880 min Summer</td><td>2.754</td><td>0.0</td><td>2192</td></tr><tr><td>4320 min Summer</td><td>2.025</td><td>0.0</td><td>2984</td></tr><tr><td>5760 min Summer</td><td>1.648</td><td>0.0</td><td>3808</td></tr><tr><td>7200 min Summer</td><td>1.419</td><td>0.0</td><td>4616</td></tr><tr><td>8640 min Summer</td><td>1.264</td><td>0.0</td><td>5456</td></tr><tr><td>10080 min Summer</td><td>1.153</td><td>0.0</td><td>6344</td></tr><tr><td>15 min Winter</td><td>141.164</td><td>0.0</td><td>19</td></tr></tbody></table>			Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	0.083	0.083	0.3	26.4	O K	30 min Summer	0.113	0.113	0.3	35.9	O K	60 min Summer	0.145	0.145	0.3	46.4	Flood Risk	120 min Summer	0.171	0.171	0.3	54.7	Flood Risk	180 min Summer	0.187	0.187	0.3	59.6	Flood Risk	240 min Summer	0.197	0.197	0.3	62.9	Flood Risk	360 min Summer	0.209	0.209	0.3	66.6	Flood Risk	480 min Summer	0.216	0.216	0.3	68.8	Flood Risk	600 min Summer	0.220	0.220	0.3	70.2	Flood Risk	720 min Summer	0.223	0.223	0.3	71.0	Flood Risk	960 min Summer	0.225	0.225	0.3	71.7	Flood Risk	1440 min Summer	0.223	0.223	0.3	71.1	Flood Risk	2160 min Summer	0.216	0.216	0.3	68.8	Flood Risk	2880 min Summer	0.210	0.210	0.3	67.2	Flood Risk	4320 min Summer	0.203	0.203	0.3	64.8	Flood Risk	5760 min Summer	0.197	0.197	0.3	62.8	Flood Risk	7200 min Summer	0.192	0.192	0.3	61.2	Flood Risk	8640 min Summer	0.188	0.188	0.3	60.0	Flood Risk	10080 min Summer	0.185	0.185	0.3	59.0	Flood Risk	15 min Winter	0.093	0.093	0.3	29.8	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	141.164	0.0	19	30 min Summer	94.700	0.0	34	60 min Summer	60.903	0.0	64	120 min Summer	36.128	0.0	124	180 min Summer	26.473	0.0	184	240 min Summer	21.126	0.0	244	360 min Summer	15.214	0.0	362	480 min Summer	12.016	0.0	482	600 min Summer	9.993	0.0	602	720 min Summer	8.590	0.0	722	960 min Summer	6.756	0.0	962	1440 min Summer	4.823	0.0	1440	2160 min Summer	3.462	0.0	1836	2880 min Summer	2.754	0.0	2192	4320 min Summer	2.025	0.0	2984	5760 min Summer	1.648	0.0	3808	7200 min Summer	1.419	0.0	4616	8640 min Summer	1.264	0.0	5456	10080 min Summer	1.153	0.0	6344	15 min Winter	141.164	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																															
15 min Summer	0.083	0.083	0.3	26.4	O K																																																																																																																																																																																																															
30 min Summer	0.113	0.113	0.3	35.9	O K																																																																																																																																																																																																															
60 min Summer	0.145	0.145	0.3	46.4	Flood Risk																																																																																																																																																																																																															
120 min Summer	0.171	0.171	0.3	54.7	Flood Risk																																																																																																																																																																																																															
180 min Summer	0.187	0.187	0.3	59.6	Flood Risk																																																																																																																																																																																																															
240 min Summer	0.197	0.197	0.3	62.9	Flood Risk																																																																																																																																																																																																															
360 min Summer	0.209	0.209	0.3	66.6	Flood Risk																																																																																																																																																																																																															
480 min Summer	0.216	0.216	0.3	68.8	Flood Risk																																																																																																																																																																																																															
600 min Summer	0.220	0.220	0.3	70.2	Flood Risk																																																																																																																																																																																																															
720 min Summer	0.223	0.223	0.3	71.0	Flood Risk																																																																																																																																																																																																															
960 min Summer	0.225	0.225	0.3	71.7	Flood Risk																																																																																																																																																																																																															
1440 min Summer	0.223	0.223	0.3	71.1	Flood Risk																																																																																																																																																																																																															
2160 min Summer	0.216	0.216	0.3	68.8	Flood Risk																																																																																																																																																																																																															
2880 min Summer	0.210	0.210	0.3	67.2	Flood Risk																																																																																																																																																																																																															
4320 min Summer	0.203	0.203	0.3	64.8	Flood Risk																																																																																																																																																																																																															
5760 min Summer	0.197	0.197	0.3	62.8	Flood Risk																																																																																																																																																																																																															
7200 min Summer	0.192	0.192	0.3	61.2	Flood Risk																																																																																																																																																																																																															
8640 min Summer	0.188	0.188	0.3	60.0	Flood Risk																																																																																																																																																																																																															
10080 min Summer	0.185	0.185	0.3	59.0	Flood Risk																																																																																																																																																																																																															
15 min Winter	0.093	0.093	0.3	29.8	O K																																																																																																																																																																																																															
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																	
15 min Summer	141.164	0.0	19																																																																																																																																																																																																																	
30 min Summer	94.700	0.0	34																																																																																																																																																																																																																	
60 min Summer	60.903	0.0	64																																																																																																																																																																																																																	
120 min Summer	36.128	0.0	124																																																																																																																																																																																																																	
180 min Summer	26.473	0.0	184																																																																																																																																																																																																																	
240 min Summer	21.126	0.0	244																																																																																																																																																																																																																	
360 min Summer	15.214	0.0	362																																																																																																																																																																																																																	
480 min Summer	12.016	0.0	482																																																																																																																																																																																																																	
600 min Summer	9.993	0.0	602																																																																																																																																																																																																																	
720 min Summer	8.590	0.0	722																																																																																																																																																																																																																	
960 min Summer	6.756	0.0	962																																																																																																																																																																																																																	
1440 min Summer	4.823	0.0	1440																																																																																																																																																																																																																	
2160 min Summer	3.462	0.0	1836																																																																																																																																																																																																																	
2880 min Summer	2.754	0.0	2192																																																																																																																																																																																																																	
4320 min Summer	2.025	0.0	2984																																																																																																																																																																																																																	
5760 min Summer	1.648	0.0	3808																																																																																																																																																																																																																	
7200 min Summer	1.419	0.0	4616																																																																																																																																																																																																																	
8640 min Summer	1.264	0.0	5456																																																																																																																																																																																																																	
10080 min Summer	1.153	0.0	6344																																																																																																																																																																																																																	
15 min Winter	141.164	0.0	19																																																																																																																																																																																																																	
©1982-2020 Innovyze																																																																																																																																																																																																																				

Odyssey				Page 2	
Tuscany House		Stakers Farm, Yapton			
White Hart Lane		19-156			
Baskingstoke RG21 4AF		Road 2 and Plots 23,25-28_RevB			
Date 10/12/2020 14:59		Designed by AK			
File Road 2_including Plots		Checked by			
XP Solutions		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	0.127	0.127	0.3	40.5	Flood Risk
60 min Winter	0.164	0.164	0.3	52.2	Flood Risk
120 min Winter	0.193	0.193	0.3	61.6	Flood Risk
180 min Winter	0.211	0.211	0.3	67.2	Flood Risk
240 min Winter	0.222	0.222	0.3	70.9	Flood Risk
360 min Winter	0.237	0.237	0.3	75.3	Flood Risk
480 min Winter	0.263	0.263	0.3	77.9	Flood Risk
600 min Winter	0.280	0.280	0.3	79.6	Flood Risk
720 min Winter	0.291	0.291	0.3	80.7	Flood Risk
960 min Winter	0.302	0.302	0.3	81.8	Flood Risk
1440 min Winter	0.302	0.302	0.3	81.9	Flood Risk
2160 min Winter	0.283	0.283	0.3	79.9	Flood Risk
2880 min Winter	0.256	0.256	0.3	77.2	Flood Risk
4320 min Winter	0.231	0.231	0.3	73.8	Flood Risk
5760 min Winter	0.221	0.221	0.3	70.4	Flood Risk
7200 min Winter	0.211	0.211	0.3	67.4	Flood Risk
8640 min Winter	0.203	0.203	0.3	64.8	Flood Risk
10080 min Winter	0.195	0.195	0.3	62.4	Flood Risk
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	94.700	0.0	34		
60 min Winter	60.903	0.0	64		
120 min Winter	36.128	0.0	122		
180 min Winter	26.473	0.0	182		
240 min Winter	21.126	0.0	240		
360 min Winter	15.214	0.0	358		
480 min Winter	12.016	0.0	476		
600 min Winter	9.993	0.0	594		
720 min Winter	8.590	0.0	708		
960 min Winter	6.756	0.0	942		
1440 min Winter	4.823	0.0	1398		
2160 min Winter	3.462	0.0	2036		
2880 min Winter	2.754	0.0	2364		
4320 min Winter	2.025	0.0	3244		
5760 min Winter	1.648	0.0	4160		
7200 min Winter	1.419	0.0	5048		
8640 min Winter	1.264	0.0	5968		
10080 min Winter	1.153	0.0	6856		
©1982-2020 Innovyze					

Odyssey		Page 3
Tuscany House White Hart Lane Baskingstoke RG21 4AF	Stakers Farm, Yapton 19-156 Road 2 and Plots 23,25-28_RevB	
Date 10/12/2020 14:59	Designed by AK	
File Road 2_including Plots	Checked by	
XP Solutions		Source Control 2020.1

Rainfall Details

Rainfall Model	FEH
Return Period (years)	100
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) 0.107

	Time (mins)	Area
From:	To:	(ha)
	0	4 0.107

©1982-2020 Innovyze

Odyssey		Page 4
Tuscany House White Hart Lane Baskingstoke RG21 4AF	Stakers Farm, Yapton 19-156 Road 2 and Plots 23,25-28_RevB	
Date 10/12/2020 14:59 File Road 2_including Plots	Designed by AK Checked by	
XP Solutions Source Control 2020.1		

Model Details

Storage is Online Cover Level (m) 0.415

Complex Structure

Cellular Storage

Invert Level (m) 0.000 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00648 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	336.0	336.0	0.236	0.0	336.0
0.235	336.0	336.0			

Porous Car Park

Infiltration Coefficient Base (m/hr) 0.00000	Width (m) 18.3
Membrane Percolation (mm/hr) 1000	Length (m) 18.3
Max Percolation (l/s) 93.0	Slope (1:X) 0.0
Safety Factor 2.0	Depression Storage (mm) 5
Porosity 0.30	Evaporation (mm/day) 3
Invert Level (m) 0.235	Membrane Depth (m) 0

©1982-2020 Innovyze