

Odyssey				Page 1																																																																																																																																																																																																																			
Tuscany House		Stakers Farm, Yapton																																																																																																																																																																																																																					
White Hart Lane		19-156																																																																																																																																																																																																																					
Baskingstoke RG21 4AF		Road 1_S278 End_every 4.6m																																																																																																																																																																																																																					
Date 10/12/2020 12:10		Designed by AK																																																																																																																																																																																																																					
File Road 1_S278 end.SRCX		Checked by																																																																																																																																																																																																																					
XP Solutions		Source Control 2020.1																																																																																																																																																																																																																					
<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 653 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>0.188</td><td>0.188</td><td>0.0</td><td>0.5</td><td>O K</td></tr><tr><td>30 min Summer</td><td>0.220</td><td>0.220</td><td>0.0</td><td>0.7</td><td>Flood Risk</td></tr><tr><td>60 min Summer</td><td>0.250</td><td>0.250</td><td>0.0</td><td>0.9</td><td>Flood Risk</td></tr><tr><td>120 min Summer</td><td>0.281</td><td>0.281</td><td>0.0</td><td>1.1</td><td>Flood Risk</td></tr><tr><td>180 min Summer</td><td>0.297</td><td>0.297</td><td>0.0</td><td>1.3</td><td>Flood Risk</td></tr><tr><td>240 min Summer</td><td>0.307</td><td>0.307</td><td>0.0</td><td>1.3</td><td>Flood Risk</td></tr><tr><td>360 min Summer</td><td>0.315</td><td>0.315</td><td>0.0</td><td>1.4</td><td>Flood Risk</td></tr><tr><td>480 min Summer</td><td>0.316</td><td>0.316</td><td>0.0</td><td>1.4</td><td>Flood Risk</td></tr><tr><td>600 min Summer</td><td>0.314</td><td>0.314</td><td>0.0</td><td>1.4</td><td>Flood Risk</td></tr><tr><td>720 min Summer</td><td>0.312</td><td>0.312</td><td>0.0</td><td>1.4</td><td>Flood Risk</td></tr><tr><td>960 min Summer</td><td>0.307</td><td>0.307</td><td>0.0</td><td>1.3</td><td>Flood Risk</td></tr><tr><td>1440 min Summer</td><td>0.297</td><td>0.297</td><td>0.0</td><td>1.3</td><td>Flood Risk</td></tr><tr><td>2160 min Summer</td><td>0.281</td><td>0.281</td><td>0.0</td><td>1.1</td><td>Flood Risk</td></tr><tr><td>2880 min Summer</td><td>0.268</td><td>0.268</td><td>0.0</td><td>1.1</td><td>Flood Risk</td></tr><tr><td>4320 min Summer</td><td>0.247</td><td>0.247</td><td>0.0</td><td>0.9</td><td>Flood Risk</td></tr><tr><td>5760 min Summer</td><td>0.232</td><td>0.232</td><td>0.0</td><td>0.8</td><td>Flood Risk</td></tr><tr><td>7200 min Summer</td><td>0.223</td><td>0.223</td><td>0.0</td><td>0.7</td><td>Flood Risk</td></tr><tr><td>8640 min Summer</td><td>0.215</td><td>0.215</td><td>0.0</td><td>0.7</td><td>Flood Risk</td></tr><tr><td>10080 min Summer</td><td>0.209</td><td>0.209</td><td>0.0</td><td>0.7</td><td>O K</td></tr><tr><td>15 min Winter</td><td>0.202</td><td>0.202</td><td>0.0</td><td>0.6</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>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>33</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>122</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>360</td></tr><tr><td>480 min Summer</td><td>7.960</td><td>0.0</td><td>478</td></tr><tr><td>600 min Summer</td><td>6.652</td><td>0.0</td><td>522</td></tr><tr><td>720 min Summer</td><td>5.738</td><td>0.0</td><td>582</td></tr><tr><td>960 min Summer</td><td>4.539</td><td>0.0</td><td>704</td></tr><tr><td>1440 min Summer</td><td>3.269</td><td>0.0</td><td>968</td></tr><tr><td>2160 min Summer</td><td>2.374</td><td>0.0</td><td>1380</td></tr><tr><td>2880 min Summer</td><td>1.907</td><td>0.0</td><td>1784</td></tr><tr><td>4320 min Summer</td><td>1.430</td><td>0.0</td><td>2552</td></tr><tr><td>5760 min Summer</td><td>1.183</td><td>0.0</td><td>3288</td></tr><tr><td>7200 min Summer</td><td>1.034</td><td>0.0</td><td>4032</td></tr><tr><td>8640 min Summer</td><td>0.933</td><td>0.0</td><td>4760</td></tr><tr><td>10080 min Summer</td><td>0.861</td><td>0.0</td><td>5544</td></tr><tr><td>15 min Winter</td><td>87.620</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	0.188	0.188	0.0	0.5	O K	30 min Summer	0.220	0.220	0.0	0.7	Flood Risk	60 min Summer	0.250	0.250	0.0	0.9	Flood Risk	120 min Summer	0.281	0.281	0.0	1.1	Flood Risk	180 min Summer	0.297	0.297	0.0	1.3	Flood Risk	240 min Summer	0.307	0.307	0.0	1.3	Flood Risk	360 min Summer	0.315	0.315	0.0	1.4	Flood Risk	480 min Summer	0.316	0.316	0.0	1.4	Flood Risk	600 min Summer	0.314	0.314	0.0	1.4	Flood Risk	720 min Summer	0.312	0.312	0.0	1.4	Flood Risk	960 min Summer	0.307	0.307	0.0	1.3	Flood Risk	1440 min Summer	0.297	0.297	0.0	1.3	Flood Risk	2160 min Summer	0.281	0.281	0.0	1.1	Flood Risk	2880 min Summer	0.268	0.268	0.0	1.1	Flood Risk	4320 min Summer	0.247	0.247	0.0	0.9	Flood Risk	5760 min Summer	0.232	0.232	0.0	0.8	Flood Risk	7200 min Summer	0.223	0.223	0.0	0.7	Flood Risk	8640 min Summer	0.215	0.215	0.0	0.7	Flood Risk	10080 min Summer	0.209	0.209	0.0	0.7	O K	15 min Winter	0.202	0.202	0.0	0.6	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	33	60 min Summer	36.448	0.0	64	120 min Summer	22.639	0.0	122	180 min Summer	16.928	0.0	182	240 min Summer	13.676	0.0	242	360 min Summer	10.003	0.0	360	480 min Summer	7.960	0.0	478	600 min Summer	6.652	0.0	522	720 min Summer	5.738	0.0	582	960 min Summer	4.539	0.0	704	1440 min Summer	3.269	0.0	968	2160 min Summer	2.374	0.0	1380	2880 min Summer	1.907	0.0	1784	4320 min Summer	1.430	0.0	2552	5760 min Summer	1.183	0.0	3288	7200 min Summer	1.034	0.0	4032	8640 min Summer	0.933	0.0	4760	10080 min Summer	0.861	0.0	5544	15 min Winter	87.620	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
15 min Summer	0.188	0.188	0.0	0.5	O K																																																																																																																																																																																																																		
30 min Summer	0.220	0.220	0.0	0.7	Flood Risk																																																																																																																																																																																																																		
60 min Summer	0.250	0.250	0.0	0.9	Flood Risk																																																																																																																																																																																																																		
120 min Summer	0.281	0.281	0.0	1.1	Flood Risk																																																																																																																																																																																																																		
180 min Summer	0.297	0.297	0.0	1.3	Flood Risk																																																																																																																																																																																																																		
240 min Summer	0.307	0.307	0.0	1.3	Flood Risk																																																																																																																																																																																																																		
360 min Summer	0.315	0.315	0.0	1.4	Flood Risk																																																																																																																																																																																																																		
480 min Summer	0.316	0.316	0.0	1.4	Flood Risk																																																																																																																																																																																																																		
600 min Summer	0.314	0.314	0.0	1.4	Flood Risk																																																																																																																																																																																																																		
720 min Summer	0.312	0.312	0.0	1.4	Flood Risk																																																																																																																																																																																																																		
960 min Summer	0.307	0.307	0.0	1.3	Flood Risk																																																																																																																																																																																																																		
1440 min Summer	0.297	0.297	0.0	1.3	Flood Risk																																																																																																																																																																																																																		
2160 min Summer	0.281	0.281	0.0	1.1	Flood Risk																																																																																																																																																																																																																		
2880 min Summer	0.268	0.268	0.0	1.1	Flood Risk																																																																																																																																																																																																																		
4320 min Summer	0.247	0.247	0.0	0.9	Flood Risk																																																																																																																																																																																																																		
5760 min Summer	0.232	0.232	0.0	0.8	Flood Risk																																																																																																																																																																																																																		
7200 min Summer	0.223	0.223	0.0	0.7	Flood Risk																																																																																																																																																																																																																		
8640 min Summer	0.215	0.215	0.0	0.7	Flood Risk																																																																																																																																																																																																																		
10080 min Summer	0.209	0.209	0.0	0.7	O K																																																																																																																																																																																																																		
15 min Winter	0.202	0.202	0.0	0.6	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	33																																																																																																																																																																																																																				
60 min Summer	36.448	0.0	64																																																																																																																																																																																																																				
120 min Summer	22.639	0.0	122																																																																																																																																																																																																																				
180 min Summer	16.928	0.0	182																																																																																																																																																																																																																				
240 min Summer	13.676	0.0	242																																																																																																																																																																																																																				
360 min Summer	10.003	0.0	360																																																																																																																																																																																																																				
480 min Summer	7.960	0.0	478																																																																																																																																																																																																																				
600 min Summer	6.652	0.0	522																																																																																																																																																																																																																				
720 min Summer	5.738	0.0	582																																																																																																																																																																																																																				
960 min Summer	4.539	0.0	704																																																																																																																																																																																																																				
1440 min Summer	3.269	0.0	968																																																																																																																																																																																																																				
2160 min Summer	2.374	0.0	1380																																																																																																																																																																																																																				
2880 min Summer	1.907	0.0	1784																																																																																																																																																																																																																				
4320 min Summer	1.430	0.0	2552																																																																																																																																																																																																																				
5760 min Summer	1.183	0.0	3288																																																																																																																																																																																																																				
7200 min Summer	1.034	0.0	4032																																																																																																																																																																																																																				
8640 min Summer	0.933	0.0	4760																																																																																																																																																																																																																				
10080 min Summer	0.861	0.0	5544																																																																																																																																																																																																																				
15 min Winter	87.620	0.0	19																																																																																																																																																																																																																				
©1982-2020 Innovyze																																																																																																																																																																																																																							

Odyssey				Page 2	
Tuscany House		Stakers Farm, Yapton			
White Hart Lane		19-156			
Baskingstoke RG21 4AF		Road 1_S278 End_every 4.6m			
Date 10/12/2020 12:10		Designed by AK			
File Road 1_S278 end.SRCX		Checked by			
XP Solutions		Source Control 2020.1			
<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	0.235	0.235	0.0	0.8	Flood Risk
60 min Winter	0.269	0.269	0.0	1.1	Flood Risk
120 min Winter	0.304	0.304	0.0	1.3	Flood Risk
180 min Winter	0.323	0.323	0.0	1.4	Flood Risk
240 min Winter	0.335	0.335	0.0	1.5	Flood Risk
360 min Winter	0.345	0.345	0.0	1.6	Flood Risk
480 min Winter	0.348	0.348	0.0	1.6	Flood Risk
600 min Winter	0.347	0.347	0.0	1.6	Flood Risk
720 min Winter	0.343	0.343	0.0	1.6	Flood Risk
960 min Winter	0.336	0.336	0.0	1.5	Flood Risk
1440 min Winter	0.321	0.321	0.0	1.4	Flood Risk
2160 min Winter	0.297	0.297	0.0	1.3	Flood Risk
2880 min Winter	0.276	0.276	0.0	1.1	Flood Risk
4320 min Winter	0.243	0.243	0.0	0.9	Flood Risk
5760 min Winter	0.222	0.222	0.0	0.7	Flood Risk
7200 min Winter	0.208	0.208	0.0	0.6	O K
8640 min Winter	0.197	0.197	0.0	0.6	O K
10080 min Winter	0.187	0.187	0.0	0.5	O K
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	120		
180 min Winter	16.928	0.0	180		
240 min Winter	13.676	0.0	238		
360 min Winter	10.003	0.0	352		
480 min Winter	7.960	0.0	464		
600 min Winter	6.652	0.0	572		
720 min Winter	5.738	0.0	672		
960 min Winter	4.539	0.0	758		
1440 min Winter	3.269	0.0	1056		
2160 min Winter	2.374	0.0	1496		
2880 min Winter	1.907	0.0	1908		
4320 min Winter	1.430	0.0	2680		
5760 min Winter	1.183	0.0	3408		
7200 min Winter	1.034	0.0	4176		
8640 min Winter	0.933	0.0	4928		
10080 min Winter	0.861	0.0	5648		
©1982-2020 Innovyze					

Odyssey		Page 3
Tuscany House White Hart Lane Basingstoke RG21 4AF	Stakers Farm, Yapton 19-156 Road 1_S278 End_every 4.6m	
Date 10/12/2020 12:10 File Road 1_S278 end.SRCX	Designed by AK Checked by	
XP Solutions 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 %	+40

Time Area Diagram

Total Area (ha) 0.004

	Time (mins)	Area
From:	To:	(ha)
	0	4 0.004

©1982-2020 Innovyze

Odyssey		Page 4																								
Tuscany House White Hart Lane Basingstoke RG21 4AF	Stakers Farm, Yapton 19-156 Road 1_S278 End_every 4.6m																									
Date 10/12/2020 12:10 File Road 1_S278 end.SRCX	Designed by AK Checked by																									
XP Solutions Source Control 2020.1																										
<u>Model Details</u> Storage is Online Cover Level (m) 0.510 <u>Complex Structure</u> <u>Porous Car Park</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00648</td> <td>Width (m)</td> <td>5.0</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>4.6</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>6.4</td> <td>Slope (1:X)</td> <td>20.0</td> </tr> <tr> <td>Safety Factor</td> <td>2.0</td> <td>Depression Storage (mm)</td> <td>5</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Invert Level (m)</td> <td>0.000</td> <td>Membrane Depth (m)</td> <td>0</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00648	Width (m)	5.0	Membrane Percolation (mm/hr)	1000	Length (m)	4.6	Max Percolation (l/s)	6.4	Slope (1:X)	20.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.30	Evaporation (mm/day)	3	Invert Level (m)	0.000	Membrane Depth (m)	0
Infiltration Coefficient Base (m/hr)	0.00648	Width (m)	5.0																							
Membrane Percolation (mm/hr)	1000	Length (m)	4.6																							
Max Percolation (l/s)	6.4	Slope (1:X)	20.0																							
Safety Factor	2.0	Depression Storage (mm)	5																							
Porosity	0.30	Evaporation (mm/day)	3																							
Invert Level (m)	0.000	Membrane Depth (m)	0																							
©1982-2020 Innovyze																										