

Odyssey		Page 1																																																																																																																																																																																																																			
Tuscany House White Hart Lane Basingstoke RG21 4AF	Stakers Farm, Yapton 1 in 100 excl basin area																																																																																																																																																																																																																				
Date 26/07/2020 22:23 File Infiltration Basin_70	Designed by AK Checked by																																																																																																																																																																																																																				
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Summary of Results for 100 year Return Period (+40%) Half Drain Time : 3013 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>0.124</td><td>0.124</td><td>1.1</td><td>145.5</td><td>O K</td></tr><tr><td>30 min Summer</td><td>0.165</td><td>0.165</td><td>1.2</td><td>194.8</td><td>O K</td></tr><tr><td>60 min Summer</td><td>0.210</td><td>0.210</td><td>1.2</td><td>249.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>0.245</td><td>0.245</td><td>1.2</td><td>293.1</td><td>O K</td></tr><tr><td>180 min Summer</td><td>0.266</td><td>0.266</td><td>1.2</td><td>319.3</td><td>O K</td></tr><tr><td>240 min Summer</td><td>0.280</td><td>0.280</td><td>1.3</td><td>336.9</td><td>O K</td></tr><tr><td>360 min Summer</td><td>0.296</td><td>0.296</td><td>1.3</td><td>357.9</td><td>O K</td></tr><tr><td>480 min Summer</td><td>0.306</td><td>0.306</td><td>1.3</td><td>370.9</td><td>Flood Risk</td></tr><tr><td>600 min Summer</td><td>0.313</td><td>0.313</td><td>1.3</td><td>379.6</td><td>Flood Risk</td></tr><tr><td>720 min Summer</td><td>0.318</td><td>0.318</td><td>1.3</td><td>385.5</td><td>Flood Risk</td></tr><tr><td>960 min Summer</td><td>0.323</td><td>0.323</td><td>1.3</td><td>391.9</td><td>Flood Risk</td></tr><tr><td>1440 min Summer</td><td>0.325</td><td>0.325</td><td>1.3</td><td>395.1</td><td>Flood Risk</td></tr><tr><td>2160 min Summer</td><td>0.321</td><td>0.321</td><td>1.3</td><td>389.4</td><td>Flood Risk</td></tr><tr><td>2880 min Summer</td><td>0.315</td><td>0.315</td><td>1.3</td><td>382.5</td><td>Flood Risk</td></tr><tr><td>4320 min Summer</td><td>0.309</td><td>0.309</td><td>1.3</td><td>374.8</td><td>Flood Risk</td></tr><tr><td>5760 min Summer</td><td>0.306</td><td>0.306</td><td>1.3</td><td>370.3</td><td>Flood Risk</td></tr><tr><td>7200 min 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Summer</td><td>15.214</td><td>0.0</td><td>364</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>1442</td></tr><tr><td>2160 min Summer</td><td>3.462</td><td>0.0</td><td>2144</td></tr><tr><td>2880 min Summer</td><td>2.754</td><td>0.0</td><td>2452</td></tr><tr><td>4320 min Summer</td><td>2.025</td><td>0.0</td><td>3200</td></tr><tr><td>5760 min Summer</td><td>1.648</td><td>0.0</td><td>4032</td></tr><tr><td>7200 min Summer</td><td>1.419</td><td>0.0</td><td>4896</td></tr><tr><td>8640 min Summer</td><td>1.264</td><td>0.0</td><td>5704</td></tr><tr><td>10080 min Summer</td><td>1.153</td><td>0.0</td><td>6552</td></tr><tr><td>15 min 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Odyssey				Page 2	
Tuscany House		Stakers Farm, Yapton			
White Hart Lane		1 in 100			
Basingstoke RG21 4AF		excl basin area			
Date 26/07/2020 22:23		Designed by AK			
File Infiltration Basin_70		Checked by			
Micro Drainage		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	0.184	0.184	1.2	218.3	O K
60 min Winter	0.234	0.234	1.2	279.6	O K
120 min Winter	0.273	0.273	1.2	328.9	O K
180 min Winter	0.297	0.297	1.3	358.6	O K
240 min Winter	0.312	0.312	1.3	378.7	Flood Risk
360 min Winter	0.331	0.331	1.3	402.9	Flood Risk
480 min Winter	0.343	0.343	1.3	418.2	Flood Risk
600 min Winter	0.351	0.351	1.3	428.6	Flood Risk
720 min Winter	0.357	0.357	1.3	435.9	Flood Risk
960 min Winter	0.363	0.363	1.3	444.7	Flood Risk
1440 min Winter	0.369	0.369	1.3	451.4	Flood Risk
2160 min Winter	0.368	0.368	1.3	450.1	Flood Risk
2880 min Winter	0.363	0.363	1.3	443.6	Flood Risk
4320 min Winter	0.353	0.353	1.3	431.5	Flood Risk
5760 min Winter	0.348	0.348	1.3	424.3	Flood Risk
7200 min Winter	0.343	0.343	1.3	418.4	Flood Risk
8640 min Winter	0.339	0.339	1.3	413.6	Flood Risk
10080 min Winter	0.337	0.337	1.3	409.9	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	360		
480 min Winter	12.016	0.0	478		
600 min Winter	9.993	0.0	596		
720 min Winter	8.590	0.0	712		
960 min Winter	6.756	0.0	944		
1440 min Winter	4.823	0.0	1402		
2160 min Winter	3.462	0.0	2076		
2880 min Winter	2.754	0.0	2712		
4320 min Winter	2.025	0.0	3412		
5760 min Winter	1.648	0.0	4328		
7200 min Winter	1.419	0.0	5264		
8640 min Winter	1.264	0.0	6224		
10080 min Winter	1.153	0.0	7152		
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Tuscany House White Hart Lane Basingstoke RG21 4AF	Stakers Farm, Yapton 1 in 100 excl basin area	
Date 26/07/2020 22:23 File Infiltration Basin_70	Designed by AK Checked by	
Micro Drainage 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) 0.553

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

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Odyssey		Page 4
Tuscany House White Hart Lane Basingstoke RG21 4AF	Stakers Farm, Yapton 1 in 100 excl basin area	
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Model Details

Storage is Online Cover Level (m) 0.600

Infiltration Basin Structure

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

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	1146.0	0.600	1410.0

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