

Odyssey					Page 1
Tuscany House		Stakers Farm, Yapton			
White Hart Lane		19-156			
Basingstoke RG21 4AF		Plots 29-32 and road			
Date 29/07/2020 13:50		Designed by AK			
File Road 3_including Plots		Checked by			
Micro Drainage		Source Control 2020.1			
<u>Summary of Results for 100 year Return Period (+40%)</u>					
Half Drain Time : 1817 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	0.302	0.302	0.3	21.0	Flood Risk
30 min Summer	0.344	0.344	0.3	29.2	Flood Risk
60 min Summer	0.384	0.384	0.3	38.2	Flood Risk
120 min Summer	0.411	0.411	0.3	45.3	Flood Risk
180 min Summer	0.426	0.426	0.3	49.4	Flood Risk
240 min Summer	0.435	0.435	0.3	52.0	Flood Risk
360 min Summer	0.445	0.445	0.3	54.9	Flood Risk
480 min Summer	0.450	0.450	0.3	56.5	Flood Risk
600 min Summer	0.453	0.453	0.3	57.3	Flood Risk
720 min Summer	0.454	0.454	0.3	57.7	Flood Risk
960 min Summer	0.453	0.453	0.3	57.6	Flood Risk
1440 min Summer	0.448	0.448	0.3	55.8	Flood Risk
2160 min Summer	0.439	0.439	0.3	53.3	Flood Risk
2880 min Summer	0.432	0.432	0.3	51.3	Flood Risk
4320 min Summer	0.421	0.421	0.3	48.1	Flood Risk
5760 min Summer	0.411	0.411	0.3	45.5	Flood Risk
7200 min Summer	0.404	0.404	0.3	43.4	Flood Risk
8640 min Summer	0.397	0.397	0.3	41.7	Flood Risk
10080 min Summer	0.392	0.392	0.3	40.3	Flood Risk
15 min Winter	0.318	0.318	0.3	23.9	Flood Risk
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	960		
1440 min Summer	4.823	0.0	1342		
2160 min Summer	3.462	0.0	1668		
2880 min Summer	2.754	0.0	2048		
4320 min Summer	2.025	0.0	2856		
5760 min Summer	1.648	0.0	3696		
7200 min Summer	1.419	0.0	4536		
8640 min Summer	1.264	0.0	5352		
10080 min Summer	1.153	0.0	6152		
15 min Winter	141.164	0.0	19		
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File Road 3_including Plots	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	0.362	0.362	0.3	33.1	Flood Risk
60 min Winter	0.403	0.403	0.3	43.3	Flood Risk
120 min Winter	0.432	0.432	0.3	51.3	Flood Risk
180 min Winter	0.448	0.448	0.3	55.9	Flood Risk
240 min Winter	0.458	0.458	0.3	59.0	Flood Risk
360 min Winter	0.469	0.469	0.3	62.5	Flood Risk
480 min Winter	0.475	0.475	0.3	64.4	Flood Risk
600 min Winter	0.478	0.478	0.3	65.5	Flood Risk
720 min Winter	0.480	0.480	0.3	66.1	Flood Risk
960 min Winter	0.481	0.481	0.3	66.4	Flood Risk
1440 min Winter	0.477	0.477	0.3	65.2	Flood Risk
2160 min Winter	0.467	0.467	0.3	61.8	Flood Risk
2880 min Winter	0.459	0.459	0.3	59.2	Flood Risk
4320 min Winter	0.443	0.443	0.3	54.4	Flood Risk
5760 min Winter	0.428	0.428	0.3	50.1	Flood Risk
7200 min Winter	0.415	0.415	0.3	46.4	Flood Risk
8640 min Winter	0.403	0.403	0.3	43.1	Flood Risk
10080 min Winter	0.391	0.391	0.3	40.2	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	180		
240 min Winter	21.126	0.0	240		
360 min Winter	15.214	0.0	358		
480 min Winter	12.016	0.0	474		
600 min Winter	9.993	0.0	590		
720 min Winter	8.590	0.0	708		
960 min Winter	6.756	0.0	934		
1440 min Winter	4.823	0.0	1382		
2160 min Winter	3.462	0.0	1948		
2880 min Winter	2.754	0.0	2220		
4320 min Winter	2.025	0.0	3152		
5760 min Winter	1.648	0.0	4032		
7200 min Winter	1.419	0.0	4904		
8640 min Winter	1.264	0.0	5712		
10080 min Winter	1.153	0.0	6560		
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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) 0.093

	Time (mins)	Area
From:	To:	(ha)
	0	4 0.093

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<u>Model Details</u> Storage is Online Cover Level (m) 0.520 <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>5.4</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>63.0</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>94.5</td> <td>Slope (1:X)</td> <td>252.0</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>Cap Volume Depth (m)</td> <td>0.220</td> </tr> </table> <u>Porous Car Park</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00000</td> <td>Width (m)</td> <td>5.4</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>63.0</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>94.5</td> <td>Slope (1:X)</td> <td>252.0</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>0.95</td> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Invert Level (m)</td> <td>0.220</td> <td>Membrane Depth (m)</td> <td>0</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00648	Width (m)	5.4	Membrane Percolation (mm/hr)	1000	Length (m)	63.0	Max Percolation (l/s)	94.5	Slope (1:X)	252.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.30	Evaporation (mm/day)	3	Invert Level (m)	0.000	Cap Volume Depth (m)	0.220	Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.4	Membrane Percolation (mm/hr)	1000	Length (m)	63.0	Max Percolation (l/s)	94.5	Slope (1:X)	252.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.95	Evaporation (mm/day)	3	Invert Level (m)	0.220	Membrane Depth (m)	0
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