

The Stilwell Partnership					Page 1																																																																																																																																																																																																																			
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Summary of Results for 100 year Return Period (+40%) Half Drain Time : 1051 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>4.516</td><td>0.146</td><td>0.1</td><td>4.0</td><td>O K</td></tr><tr><td>30 min Summer</td><td>4.560</td><td>0.190</td><td>0.1</td><td>5.2</td><td>Flood Risk</td></tr><tr><td>60 min Summer</td><td>4.602</td><td>0.232</td><td>0.1</td><td>6.5</td><td>Flood Risk</td></tr><tr><td>120 min Summer</td><td>4.640</td><td>0.270</td><td>0.1</td><td>7.6</td><td>Flood Risk</td></tr><tr><td>180 min Summer</td><td>4.659</td><td>0.289</td><td>0.1</td><td>8.1</td><td>Flood Risk</td></tr><tr><td>240 min Summer</td><td>4.670</td><td>0.300</td><td>0.1</td><td>8.4</td><td>Flood Risk</td></tr><tr><td>360 min Summer</td><td>4.680</td><td>0.310</td><td>0.1</td><td>8.7</td><td>Flood Risk</td></tr><tr><td>480 min Summer</td><td>4.683</td><td>0.313</td><td>0.1</td><td>8.8</td><td>Flood Risk</td></tr><tr><td>600 min Summer</td><td>4.683</td><td>0.313</td><td>0.1</td><td>8.8</td><td>Flood Risk</td></tr><tr><td>720 min Summer</td><td>4.681</td><td>0.311</td><td>0.1</td><td>8.8</td><td>Flood Risk</td></tr><tr><td>960 min Summer</td><td>4.672</td><td>0.302</td><td>0.1</td><td>8.5</td><td>Flood Risk</td></tr><tr><td>1440 min Summer</td><td>4.655</td><td>0.285</td><td>0.1</td><td>8.0</td><td>Flood Risk</td></tr><tr><td>2160 min Summer</td><td>4.630</td><td>0.260</td><td>0.1</td><td>7.3</td><td>Flood Risk</td></tr><tr><td>2880 min Summer</td><td>4.607</td><td>0.237</td><td>0.1</td><td>6.6</td><td>Flood Risk</td></tr><tr><td>4320 min Summer</td><td>4.565</td><td>0.195</td><td>0.1</td><td>5.4</td><td>Flood Risk</td></tr><tr><td>5760 min Summer</td><td>4.528</td><td>0.158</td><td>0.1</td><td>4.3</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>4.497</td><td>0.127</td><td>0.1</td><td>3.4</td><td>O 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Summer</td><td>11.018</td><td>0.0</td><td>484</td></tr><tr><td>600 min Summer</td><td>9.182</td><td>0.0</td><td>602</td></tr><tr><td>720 min Summer</td><td>7.908</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>6.245</td><td>0.0</td><td>842</td></tr><tr><td>1440 min Summer</td><td>4.471</td><td>0.0</td><td>1082</td></tr><tr><td>2160 min Summer</td><td>3.197</td><td>0.0</td><td>1476</td></tr><tr><td>2880 min Summer</td><td>2.518</td><td>0.0</td><td>1876</td></tr><tr><td>4320 min Summer</td><td>1.796</td><td>0.0</td><td>2680</td></tr><tr><td>5760 min Summer</td><td>1.413</td><td>0.0</td><td>3424</td></tr><tr><td>7200 min Summer</td><td>1.172</td><td>0.0</td><td>4176</td></tr><tr><td>8640 min Summer</td><td>1.006</td><td>0.0</td><td>4848</td></tr><tr><td>10080 min Summer</td><td>0.884</td><td>0.0</td><td>5544</td></tr><tr><td>15 min Winter</td><td>143.954</td><td>0.0</td><td>33</td></tr></tbody></table>							Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration 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Satelliet House 2 Nexus Park Ash Vale GU12 5QE		Kings Beach Hotel Porous Surfacing Eastern Catchment			
Date 08/01/2019 12:17 File POROUS SURFACE CALC WIT...		Designed by A Johnson Checked by D Brooke			
Micro Drainage		Source Control 2017.1.2			
<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	4.584	0.214	0.1	6.0	Flood Risk
60 min Winter	4.632	0.262	0.1	7.3	Flood Risk
120 min Winter	4.675	0.305	0.1	8.6	Flood Risk
180 min Winter	4.697	0.327	0.1	9.2	Flood Risk
240 min Winter	4.710	0.340	0.1	9.6	Flood Risk
360 min Winter	4.723	0.353	0.1	10.0	Flood Risk
480 min Winter	4.733	0.363	0.1	10.2	Flood Risk
600 min Winter	4.752	0.382	0.1	10.2	Flood Risk
720 min Winter	4.735	0.365	0.1	10.2	Flood Risk
960 min Winter	4.722	0.352	0.1	10.0	Flood Risk
1440 min Winter	4.699	0.329	0.1	9.3	Flood Risk
2160 min Winter	4.666	0.296	0.1	8.3	Flood Risk
2880 min Winter	4.633	0.263	0.1	7.4	Flood Risk
4320 min Winter	4.570	0.200	0.1	5.5	Flood Risk
5760 min Winter	4.516	0.146	0.1	4.0	O K
7200 min Winter	4.472	0.102	0.1	2.7	O K
8640 min Winter	4.439	0.069	0.1	1.7	O K
10080 min Winter	4.420	0.050	0.1	1.2	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	92.629	0.0	47		
60 min Winter	56.713	0.0	76		
120 min Winter	33.583	0.0	132		
180 min Winter	24.424	0.0	190		
240 min Winter	19.389	0.0	246		
360 min Winter	13.924	0.0	362		
480 min Winter	11.018	0.0	476		
600 min Winter	9.182	0.0	590		
720 min Winter	7.908	0.0	702		
960 min Winter	6.245	0.0	920		
1440 min Winter	4.471	0.0	1158		
2160 min Winter	3.197	0.0	1604		
2880 min Winter	2.518	0.0	2052		
4320 min Winter	1.796	0.0	2892		
5760 min Winter	1.413	0.0	3640		
7200 min Winter	1.172	0.0	4328		
8640 min Winter	1.006	0.0	4928		
10080 min Winter	0.884	0.0	5344		
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<u>Model Details</u> Storage is Online Cover Level (m) 4.850 <u>Porous Car Park Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00608</td> <td>Width (m)</td> <td>10.0</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>9.7</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>26.9</td> <td>Slope (1:X)</td> <td>500.0</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>4.370</td> <td>Cap Volume Depth (m)</td> <td>0.350</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00608	Width (m)	10.0	Membrane Percolation (mm/hr)	1000	Length (m)	9.7	Max Percolation (l/s)	26.9	Slope (1:X)	500.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.30	Evaporation (mm/day)	3	Invert Level (m)	4.370	Cap Volume Depth (m)	0.350
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