

Robert Clark Associates					Page 1																																																																																																																																																																																																																			
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Summary of Results for 100 year Return Period (+40%) Half Drain Time : 489 minutes. <table><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><tr><td>15 min Summer</td><td>10.379</td><td>0.169</td><td>0.0</td><td>0.5</td><td>0 K</td></tr><tr><td>30 min Summer</td><td>10.435</td><td>0.225</td><td>0.0</td><td>0.6</td><td>0 K</td></tr><tr><td>60 min Summer</td><td>10.491</td><td>0.281</td><td>0.0</td><td>0.8</td><td>0 K</td></tr><tr><td>120 min Summer</td><td>10.541</td><td>0.331</td><td>0.0</td><td>0.9</td><td>0 K</td></tr><tr><td>180 min Summer</td><td>10.562</td><td>0.352</td><td>0.0</td><td>1.0</td><td>0 K</td></tr><tr><td>240 min Summer</td><td>10.571</td><td>0.361</td><td>0.0</td><td>1.0</td><td>0 K</td></tr><tr><td>360 min Summer</td><td>10.576</td><td>0.366</td><td>0.0</td><td>1.0</td><td>0 K</td></tr><tr><td>480 min Summer</td><td>10.576</td><td>0.366</td><td>0.0</td><td>1.0</td><td>0 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Summer</td><td>9.042</td><td>0.0</td><td>520</td></tr><tr><td>960 min Summer</td><td>7.241</td><td>0.0</td><td>656</td></tr><tr><td>1440 min Summer</td><td>5.284</td><td>0.0</td><td>936</td></tr><tr><td>2160 min Summer</td><td>3.848</td><td>0.0</td><td>1340</td></tr><tr><td>2880 min Summer</td><td>3.068</td><td>0.0</td><td>1732</td></tr><tr><td>4320 min Summer</td><td>2.226</td><td>0.0</td><td>2508</td></tr><tr><td>5760 min Summer</td><td>1.771</td><td>0.0</td><td>3240</td></tr><tr><td>7200 min Summer</td><td>1.483</td><td>0.0</td><td>3968</td></tr><tr><td>8640 min Summer</td><td>1.284</td><td>0.0</td><td>4672</td></tr><tr><td>10080 min Summer</td><td>1.137</td><td>0.0</td><td>5352</td></tr><tr><td>15 min Winter</td><td>131.851</td><td>0.0</td><td>19</td></tr></table>							Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	10.379	0.169	0.0	0.5	0 K	30 min Summer	10.435	0.225	0.0	0.6	0 K	60 min Summer	10.491	0.281	0.0	0.8	0 K	120 min Summer	10.541	0.331	0.0	0.9	0 K	180 min Summer	10.562	0.352	0.0	1.0	0 K	240 min Summer	10.571	0.361	0.0	1.0	0 K	360 min Summer	10.576	0.366	0.0	1.0	0 K	480 min Summer	10.576	0.366	0.0	1.0	0 K	600 min Summer	10.574	0.364	0.0	1.0	0 K	720 min Summer	10.571	0.361	0.0	1.0	0 K	960 min Summer	10.562	0.352	0.0	1.0	0 K	1440 min Summer	10.539	0.329	0.0	0.9	0 K	2160 min Summer	10.506	0.296	0.0	0.8	0 K	2880 min Summer	10.475	0.265	0.0	0.8	0 K	4320 min Summer	10.423	0.213	0.0	0.6	0 K	5760 min Summer	10.381	0.171	0.0	0.5	0 K	7200 min Summer	10.348	0.138	0.0	0.4	0 K	8640 min Summer	10.321	0.111	0.0	0.3	0 K	10080 min Summer	10.300	0.090	0.0	0.3	0 K	15 min Winter	10.400	0.190	0.0	0.5	0 K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	131.851	0.0	19	30 min Summer	88.566	0.0	33	60 min Summer	56.713	0.0	62	120 min Summer	35.004	0.0	122	180 min Summer	25.973	0.0	182	240 min Summer	20.877	0.0	240	360 min Summer	15.365	0.0	336	480 min Summer	12.341	0.0	390	600 min Summer	10.402	0.0	452	720 min Summer	9.042	0.0	520	960 min Summer	7.241	0.0	656	1440 min Summer	5.284	0.0	936	2160 min Summer	3.848	0.0	1340	2880 min Summer	3.068	0.0	1732	4320 min Summer	2.226	0.0	2508	5760 min Summer	1.771	0.0	3240	7200 min Summer	1.483	0.0	3968	8640 min Summer	1.284	0.0	4672	10080 min Summer	1.137	0.0	5352	15 min Winter	131.851	0.0	19
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Date 25.5.19 File Geocell G1-2.SRCX		Designed by rca-l Checked by			
Micro Drainage		Source Control 2016.1			
Summary of Results for 100 year Return Period (+40%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	10.462	0.252	0.0	0.7	0 K
60 min Winter	10.526	0.316	0.0	0.9	0 K
120 min Winter	10.584	0.374	0.0	1.1	0 K
180 min Winter	10.609	0.399	0.0	1.1	0 K
240 min Winter	10.623	0.413	0.0	1.2	0 K
360 min Winter	10.638	0.428	0.0	1.2	0 K
480 min Winter	10.636	0.426	0.0	1.2	0 K
600 min Winter	10.629	0.419	0.0	1.2	0 K
720 min Winter	10.623	0.413	0.0	1.2	0 K
960 min Winter	10.608	0.398	0.0	1.1	0 K
1440 min Winter	10.575	0.365	0.0	1.0	0 K
2160 min Winter	10.525	0.315	0.0	0.9	0 K
2880 min Winter	10.481	0.271	0.0	0.8	0 K
4320 min Winter	10.408	0.198	0.0	0.6	0 K
5760 min Winter	10.353	0.143	0.0	0.4	0 K
7200 min Winter	10.311	0.101	0.0	0.3	0 K
8640 min Winter	10.280	0.070	0.0	0.2	0 K
10080 min Winter	10.261	0.051	0.0	0.1	0 K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	88.566	0.0	33		
60 min Winter	56.713	0.0	62		
120 min Winter	35.004	0.0	120		
180 min Winter	25.973	0.0	178		
240 min Winter	20.877	0.0	234		
360 min Winter	15.365	0.0	344		
480 min Winter	12.341	0.0	446		
600 min Winter	10.402	0.0	478		
720 min Winter	9.042	0.0	554		
960 min Winter	7.241	0.0	704		
1440 min Winter	5.284	0.0	1010		
2160 min Winter	3.848	0.0	1448		
2880 min Winter	3.068	0.0	1848		
4320 min Winter	2.226	0.0	2640		
5760 min Winter	1.771	0.0	3400		
7200 min Winter	1.483	0.0	4104		
8640 min Winter	1.284	0.0	4752		
10080 min Winter	1.137	0.0	5240		
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<u>Rainfall Details</u> <table> <tr> <td>Rainfall Model</td> <td>FSR</td> <td>Winter Storms</td> <td>Yes</td> </tr> <tr> <td>Return Period (years)</td> <td>100</td> <td>Cv (Summer)</td> <td>0.750</td> </tr> <tr> <td>Region</td> <td>England and Wales</td> <td>Cv (Winter)</td> <td>0.840</td> </tr> <tr> <td>M5-60 (mm)</td> <td>20.000</td> <td>Shortest Storm (mins)</td> <td>15</td> </tr> <tr> <td>Ratio R</td> <td>0.350</td> <td>Longest Storm (mins)</td> <td>10080</td> </tr> <tr> <td>Summer Storms</td> <td>Yes</td> <td>Climate Change %</td> <td>+40</td> </tr> </table> <u>Time Area Diagram</u> Total Area (ha) 0.002 <table> <tr> <th colspan="2">Time (mins)</th> <th>Area</th> </tr> <tr> <th>From:</th> <th>To:</th> <th>(ha)</th> </tr> <tr> <td>0</td> <td>4</td> <td>0.002</td> </tr> </table>			Rainfall Model	FSR	Winter Storms	Yes	Return Period (years)	100	Cv (Summer)	0.750	Region	England and Wales	Cv (Winter)	0.840	M5-60 (mm)	20.000	Shortest Storm (mins)	15	Ratio R	0.350	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+40	Time (mins)		Area	From:	To:	(ha)	0	4	0.002
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<u>Model Details</u> Storage is Online Cover Level (m) 11.010 <u>Cellular Storage Structure</u> Invert Level (m) 10.210 Infiltration Coefficient Base (m/hr) 0.04165 Infiltration Coefficient Side (m/hr) 0.04165 Safety Factor 3.0 Porosity 0.95 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Depth (m)</th> <th>Area (m²)</th> <th>Inf. Area (m²)</th> <th>Depth (m)</th> <th>Area (m²)</th> <th>Inf. Area (m²)</th> </tr> </thead> <tbody> <tr> <td>0.000</td> <td>3.0</td> <td>3.0</td> <td>0.500</td> <td>0.0</td> <td>6.2</td> </tr> <tr> <td>0.400</td> <td>3.0</td> <td>6.2</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)	0.000	3.0	3.0	0.500	0.0	6.2	0.400	3.0	6.2			
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