

The Civil Engineering Practice					Page 1																																																																																																																																																																																																																			
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Summary of Results for 100 year Return Period (+40%) Half Drain Time : 127 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>14.394</td><td>1.394</td><td>0.3</td><td>2.6</td><td>0 K</td></tr><tr><td>30 min Summer</td><td>14.829</td><td>1.829</td><td>0.3</td><td>3.4</td><td>0 K</td></tr><tr><td>60 min Summer</td><td>15.184</td><td>2.184</td><td>0.3</td><td>4.0</td><td>0 K</td></tr><tr><td>120 min Summer</td><td>15.340</td><td>2.340</td><td>0.3</td><td>4.3</td><td>0 K</td></tr><tr><td>180 min Summer</td><td>15.324</td><td>2.324</td><td>0.3</td><td>4.3</td><td>0 K</td></tr><tr><td>240 min Summer</td><td>15.256</td><td>2.256</td><td>0.3</td><td>4.2</td><td>0 K</td></tr><tr><td>360 min Summer</td><td>15.094</td><td>2.094</td><td>0.3</td><td>3.9</td><td>0 K</td></tr><tr><td>480 min Summer</td><td>14.919</td><td>1.919</td><td>0.3</td><td>3.6</td><td>0 K</td></tr><tr><td>600 min Summer</td><td>14.746</td><td>1.746</td><td>0.3</td><td>3.3</td><td>0 K</td></tr><tr><td>720 min Summer</td><td>14.579</td><td>1.579</td><td>0.3</td><td>3.0</td><td>0 K</td></tr><tr><td>960 min Summer</td><td>14.272</td><td>1.272</td><td>0.3</td><td>2.4</td><td>0 K</td></tr><tr><td>1440 min Summer</td><td>13.795</td><td>0.795</td><td>0.3</td><td>1.6</td><td>0 K</td></tr><tr><td>2160 min Summer</td><td>13.417</td><td>0.417</td><td>0.3</td><td>0.9</td><td>0 K</td></tr><tr><td>2880 min Summer</td><td>13.337</td><td>0.337</td><td>0.3</td><td>0.7</td><td>0 K</td></tr><tr><td>4320 min Summer</td><td>13.251</td><td>0.251</td><td>0.2</td><td>0.6</td><td>0 K</td></tr><tr><td>5760 min Summer</td><td>13.202</td><td>0.202</td><td>0.2</td><td>0.4</td><td>0 K</td></tr><tr><td>7200 min Summer</td><td>13.170</td><td>0.170</td><td>0.1</td><td>0.4</td><td>0 K</td></tr><tr><td>8640 min Summer</td><td>13.147</td><td>0.147</td><td>0.1</td><td>0.3</td><td>0 K</td></tr><tr><td>10080 min Summer</td><td>13.131</td><td>0.131</td><td>0.1</td><td>0.3</td><td>0 K</td></tr><tr><td>15 min Winter</td><td>14.586</td><td>1.586</td><td>0.3</td><td>3.0</td><td>0 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>128.238</td><td>0.0</td><td>18</td></tr><tr><td>30 min Summer</td><td>86.178</td><td>0.0</td><td>32</td></tr><tr><td>60 min Summer</td><td>55.250</td><td>0.0</td><td>62</td></tr><tr><td>120 min Summer</td><td>34.177</td><td>0.0</td><td>106</td></tr><tr><td>180 min Summer</td><td>25.410</td><td>0.0</td><td>138</td></tr><tr><td>240 min Summer</td><td>20.436</td><td>0.0</td><td>170</td></tr><tr><td>360 min Summer</td><td>15.037</td><td>0.0</td><td>238</td></tr><tr><td>480 min Summer</td><td>12.081</td><td>0.0</td><td>306</td></tr><tr><td>600 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Summer	14.829	1.829	0.3	3.4	0 K	60 min Summer	15.184	2.184	0.3	4.0	0 K	120 min Summer	15.340	2.340	0.3	4.3	0 K	180 min Summer	15.324	2.324	0.3	4.3	0 K	240 min Summer	15.256	2.256	0.3	4.2	0 K	360 min Summer	15.094	2.094	0.3	3.9	0 K	480 min Summer	14.919	1.919	0.3	3.6	0 K	600 min Summer	14.746	1.746	0.3	3.3	0 K	720 min Summer	14.579	1.579	0.3	3.0	0 K	960 min Summer	14.272	1.272	0.3	2.4	0 K	1440 min Summer	13.795	0.795	0.3	1.6	0 K	2160 min Summer	13.417	0.417	0.3	0.9	0 K	2880 min Summer	13.337	0.337	0.3	0.7	0 K	4320 min Summer	13.251	0.251	0.2	0.6	0 K	5760 min Summer	13.202	0.202	0.2	0.4	0 K	7200 min Summer	13.170	0.170	0.1	0.4	0 K	8640 min Summer	13.147	0.147	0.1	0.3	0 K	10080 min Summer	13.131	0.131	0.1	0.3	0 K	15 min Winter	14.586	1.586	0.3	3.0	0 K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	128.238	0.0	18	30 min Summer	86.178	0.0	32	60 min Summer	55.250	0.0	62	120 min Summer	34.177	0.0	106	180 min Summer	25.410	0.0	138	240 min Summer	20.436	0.0	170	360 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Date 23/09/2020 File Soakaway 9.1 Factor Saf...			Designed by S Burgess Checked by SRD		
Innovyze			Source Control 2020.1		
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	15.088	2.088	0.3	3.9	0 K
60 min Winter	15.517	2.517	0.3	4.6	Flood Risk
120 min Winter	15.737	2.737	0.3	5.0	Flood Risk
180 min Winter	15.694	2.694	0.3	4.9	Flood Risk
240 min Winter	15.600	2.600	0.3	4.8	Flood Risk
360 min Winter	15.355	2.355	0.3	4.3	0 K
480 min Winter	15.083	2.083	0.3	3.9	0 K
600 min Winter	14.811	1.811	0.3	3.4	0 K
720 min Winter	14.551	1.551	0.3	2.9	0 K
960 min Winter	14.087	1.087	0.3	2.1	0 K
1440 min Winter	13.466	0.466	0.3	1.0	0 K
2160 min Winter	13.314	0.314	0.3	0.7	0 K
2880 min Winter	13.252	0.252	0.2	0.6	0 K
4320 min Winter	13.184	0.184	0.2	0.4	0 K
5760 min Winter	13.147	0.147	0.1	0.3	0 K
7200 min Winter	13.123	0.123	0.1	0.3	0 K
8640 min Winter	13.107	0.107	0.1	0.2	0 K
10080 min Winter	13.095	0.095	0.1	0.2	0 K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	86.178	0.0	32		
60 min Winter	55.250	0.0	60		
120 min Winter	34.177	0.0	116		
180 min Winter	25.410	0.0	148		
240 min Winter	20.436	0.0	184		
360 min Winter	15.037	0.0	260		
480 min Winter	12.081	0.0	334		
600 min Winter	10.185	0.0	404		
720 min Winter	8.854	0.0	470		
960 min Winter	7.093	0.0	590		
1440 min Winter	5.178	0.0	792		
2160 min Winter	3.772	0.0	1124		
2880 min Winter	3.009	0.0	1472		
4320 min Winter	2.184	0.0	2204		
5760 min Winter	1.738	0.0	2936		
7200 min Winter	1.455	0.0	3672		
8640 min Winter	1.260	0.0	4400		
10080 min Winter	1.115	0.0	5096		
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<u>Model Details</u> Storage is Online Cover Level (m) 15.750 <u>Lined Soakaway Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00000</td> <td>Ring Diameter (m)</td> <td>1.50</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>1.67040</td> <td>Pit Multiplier</td> <td>1.2</td> </tr> <tr> <td>Safety Factor</td> <td>4.0</td> <td>Number Required</td> <td>1</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>2.750</td> </tr> <tr> <td>Invert Level (m)</td> <td>13.000</td> <td>Cap Infiltration Depth (m)</td> <td>0.400</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00000	Ring Diameter (m)	1.50	Infiltration Coefficient Side (m/hr)	1.67040	Pit Multiplier	1.2	Safety Factor	4.0	Number Required	1	Porosity	0.30	Cap Volume Depth (m)	2.750	Invert Level (m)	13.000	Cap Infiltration Depth (m)	0.400
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