

MTC Engineering (Cambridge) Ltd				Page 1																																																																																																																																																																																																																			
Ground Floor, 24 High Street Whittlesford Cambs, CB22 4LT		LAND ON RAVENS BANK WHAPLODE ST CATHERINES REAR SOAKAWAY - REV A																																																																																																																																																																																																																					
Date 17/04/2024 14:47 File 3234-REAR SOAKAWAY.SRCX		Designed by JTC Checked by																																																																																																																																																																																																																					
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<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 2185 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>1.189</td><td>0.389</td><td>0.0</td><td>4.4</td><td>O K</td></tr><tr><td>30 min Summer</td><td>1.307</td><td>0.507</td><td>0.0</td><td>5.8</td><td>O K</td></tr><tr><td>60 min Summer</td><td>1.427</td><td>0.627</td><td>0.0</td><td>7.1</td><td>O K</td></tr><tr><td>120 min Summer</td><td>1.545</td><td>0.745</td><td>0.0</td><td>8.5</td><td>O K</td></tr><tr><td>180 min Summer</td><td>1.611</td><td>0.811</td><td>0.0</td><td>9.2</td><td>O K</td></tr><tr><td>240 min Summer</td><td>1.654</td><td>0.854</td><td>0.0</td><td>9.7</td><td>O K</td></tr><tr><td>360 min Summer</td><td>1.707</td><td>0.907</td><td>0.1</td><td>10.3</td><td>O K</td></tr><tr><td>480 min Summer</td><td>1.741</td><td>0.941</td><td>0.1</td><td>10.7</td><td>O K</td></tr><tr><td>600 min Summer</td><td>1.764</td><td>0.964</td><td>0.1</td><td>11.0</td><td>O K</td></tr><tr><td>720 min Summer</td><td>1.779</td><td>0.979</td><td>0.1</td><td>11.2</td><td>O K</td></tr><tr><td>960 min Summer</td><td>1.795</td><td>0.995</td><td>0.1</td><td>11.3</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>1.793</td><td>0.993</td><td>0.1</td><td>11.3</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>1.767</td><td>0.967</td><td>0.1</td><td>11.0</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>1.740</td><td>0.940</td><td>0.1</td><td>10.7</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>1.683</td><td>0.883</td><td>0.1</td><td>10.1</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>1.629</td><td>0.829</td><td>0.0</td><td>9.4</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>1.580</td><td>0.780</td><td>0.0</td><td>8.9</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>1.535</td><td>0.735</td><td>0.0</td><td>8.4</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>1.493</td><td>0.693</td><td>0.0</td><td>7.9</td><td>O K</td></tr><tr><td>15 min Winter</td><td>1.236</td><td>0.436</td><td>0.0</td><td>5.0</td><td>O 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>132.402</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>86.432</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>53.779</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>32.379</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>23.772</td><td>0.0</td><td>184</td></tr><tr><td>240 min Summer</td><td>18.994</td><td>0.0</td><td>244</td></tr><tr><td>360 min Summer</td><td>13.738</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>10.928</td><td>0.0</td><td>482</td></tr><tr><td>600 min 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Summer	1.307	0.507	0.0	5.8	O K	60 min Summer	1.427	0.627	0.0	7.1	O K	120 min Summer	1.545	0.745	0.0	8.5	O K	180 min Summer	1.611	0.811	0.0	9.2	O K	240 min Summer	1.654	0.854	0.0	9.7	O K	360 min Summer	1.707	0.907	0.1	10.3	O K	480 min Summer	1.741	0.941	0.1	10.7	O K	600 min Summer	1.764	0.964	0.1	11.0	O K	720 min Summer	1.779	0.979	0.1	11.2	O K	960 min Summer	1.795	0.995	0.1	11.3	O K	1440 min Summer	1.793	0.993	0.1	11.3	O K	2160 min Summer	1.767	0.967	0.1	11.0	O K	2880 min Summer	1.740	0.940	0.1	10.7	O K	4320 min Summer	1.683	0.883	0.1	10.1	O K	5760 min Summer	1.629	0.829	0.0	9.4	O K	7200 min Summer	1.580	0.780	0.0	8.9	O K	8640 min Summer	1.535	0.735	0.0	8.4	O K	10080 min Summer	1.493	0.693	0.0	7.9	O K	15 min Winter	1.236	0.436	0.0	5.0	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	132.402	0.0	19	30 min Summer	86.432	0.0	34	60 min Summer	53.779	0.0	64	120 min Summer	32.379	0.0	124	180 min Summer	23.772	0.0	184	240 min Summer	18.994	0.0	244	360 min Summer	13.738	0.0	362	480 min Summer	10.928	0.0	482	600 min Summer	9.143	0.0	602	720 min Summer	7.900	0.0	722	960 min Summer	6.269	0.0	962	1440 min Summer	4.519	0.0	1440	2160 min Summer	3.253	0.0	1776	2880 min Summer	2.574	0.0	2136	4320 min Summer	1.848	0.0	2944	5760 min Summer	1.459	0.0	3800	7200 min Summer	1.215	0.0	4616	8640 min Summer	1.045	0.0	5448	10080 min Summer	0.920	0.0	6256	15 min Winter	132.402	0.0	19
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MTC Engineering (Cambridge) Ltd				Page 2	
Ground Floor, 24 High Street Whittlesford Cambs, CB22 4LT		LAND ON RAVENS BANK WHAPLODE ST CATHERINES REAR SOAKAWAY - REV A			
Date 17/04/2024 14:47 File 3234-REAR SOAKAWAY.SRCX		Designed by JTC Checked by			
Innovyze		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	1.368	0.568	0.0	6.5	O K
60 min Winter	1.503	0.703	0.0	8.0	O K
120 min Winter	1.637	0.837	0.0	9.5	O K
180 min Winter	1.712	0.912	0.1	10.4	O K
240 min Winter	1.761	0.961	0.1	11.0	O K
360 min Winter	1.822	1.022	0.1	11.7	O K
480 min Winter	1.863	1.063	0.1	12.1	O K
600 min Winter	1.891	1.091	0.1	12.4	O K
720 min Winter	1.910	1.110	0.1	12.7	O K
960 min Winter	1.932	1.132	0.1	12.9	O K
1440 min Winter	1.940	1.140	0.1	13.0	O K
2160 min Winter	1.912	1.112	0.1	12.7	O K
2880 min Winter	1.879	1.079	0.1	12.3	O K
4320 min Winter	1.809	1.009	0.1	11.5	O K
5760 min Winter	1.734	0.934	0.1	10.7	O K
7200 min Winter	1.665	0.865	0.0	9.9	O K
8640 min Winter	1.601	0.801	0.0	9.1	O K
10080 min Winter	1.542	0.742	0.0	8.5	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	86.432	0.0	34		
60 min Winter	53.779	0.0	64		
120 min Winter	32.379	0.0	122		
180 min Winter	23.772	0.0	182		
240 min Winter	18.994	0.0	240		
360 min Winter	13.738	0.0	358		
480 min Winter	10.928	0.0	476		
600 min Winter	9.143	0.0	592		
720 min Winter	7.900	0.0	708		
960 min Winter	6.269	0.0	934		
1440 min Winter	4.519	0.0	1384		
2160 min Winter	3.253	0.0	1992		
2880 min Winter	2.574	0.0	2248		
4320 min Winter	1.848	0.0	3196		
5760 min Winter	1.459	0.0	4096		
7200 min Winter	1.215	0.0	4976		
8640 min Winter	1.045	0.0	5872		
10080 min Winter	0.920	0.0	6664		
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Model Details Storage is Online Cover Level (m) 2.300 Cellular Storage Structure Invert Level (m) 0.800 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.01500 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.01500 <table><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>12.0</td><td>12.0</td><td>1.201</td><td>0.0</td><td>28.6</td></tr><tr><td>1.200</td><td>12.0</td><td>28.6</td><td></td><td></td><td></td></tr></tbody></table>			Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	0.000	12.0	12.0	1.201	0.0	28.6	1.200	12.0	28.6			
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