

Shaun Tonge Engineering				Page 1																																																																																																																																																																																																																			
11 Broomhead Road Wombell Barnsley S73 0SA																																																																																																																																																																																																																							
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<u>Summary of Results for 30 year Return Period</u> Half Drain Time : 111 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>53.555</td><td>0.505</td><td>0.2</td><td>1.9</td><td>O K</td></tr><tr><td>30 min Summer</td><td>53.686</td><td>0.636</td><td>0.3</td><td>2.4</td><td>O K</td></tr><tr><td>60 min Summer</td><td>53.782</td><td>0.732</td><td>0.3</td><td>2.8</td><td>O K</td></tr><tr><td>120 min Summer</td><td>53.821</td><td>0.771</td><td>0.3</td><td>2.9</td><td>O K</td></tr><tr><td>180 min Summer</td><td>53.819</td><td>0.769</td><td>0.3</td><td>2.9</td><td>O K</td></tr><tr><td>240 min Summer</td><td>53.803</td><td>0.753</td><td>0.3</td><td>2.9</td><td>O K</td></tr><tr><td>360 min Summer</td><td>53.758</td><td>0.708</td><td>0.3</td><td>2.7</td><td>O K</td></tr><tr><td>480 min Summer</td><td>53.715</td><td>0.665</td><td>0.3</td><td>2.5</td><td>O K</td></tr><tr><td>600 min Summer</td><td>53.674</td><td>0.624</td><td>0.3</td><td>2.4</td><td>O K</td></tr><tr><td>720 min Summer</td><td>53.635</td><td>0.585</td><td>0.3</td><td>2.2</td><td>O K</td></tr><tr><td>960 min Summer</td><td>53.565</td><td>0.515</td><td>0.2</td><td>2.0</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>53.452</td><td>0.402</td><td>0.2</td><td>1.5</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>53.330</td><td>0.280</td><td>0.2</td><td>1.1</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>53.244</td><td>0.194</td><td>0.2</td><td>0.7</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>53.139</td><td>0.089</td><td>0.1</td><td>0.3</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>53.098</td><td>0.048</td><td>0.1</td><td>0.2</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>53.091</td><td>0.041</td><td>0.1</td><td>0.2</td><td>O K</td></tr><tr><td>8640 min 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Shaun Tonge Engineering					Page 2
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Date 04/07/2019 10:33 File Plots 39-40.SRCX		Designed by Shaun Checked by			
CADS			Source Control 2018.1		
Summary of Results for 30 year Return Period					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	53.770	0.720	0.3	2.7	O K
60 min Winter	53.963	0.913	0.3	3.2	O K
120 min Winter	54.143	1.093	0.3	3.4	O K
180 min Winter	54.124	1.074	0.3	3.3	O K
240 min Winter	54.019	0.969	0.3	3.2	O K
360 min Winter	53.830	0.780	0.3	3.0	O K
480 min Winter	53.764	0.714	0.3	2.7	O K
600 min Winter	53.703	0.653	0.3	2.5	O K
720 min Winter	53.647	0.597	0.3	2.3	O K
960 min Winter	53.549	0.499	0.2	1.9	O K
1440 min Winter	53.400	0.350	0.2	1.3	O K
2160 min Winter	53.249	0.199	0.2	0.8	O K
2880 min Winter	53.153	0.103	0.1	0.4	O K
4320 min Winter	53.093	0.043	0.1	0.2	O K
5760 min Winter	53.085	0.035	0.1	0.1	O K
7200 min Winter	53.079	0.029	0.1	0.1	O K
8640 min Winter	53.076	0.026	0.1	0.1	O K
10080 min Winter	53.073	0.023	0.1	0.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	46.099	0.0	32		
60 min Winter	29.238	0.0	60		
120 min Winter	18.009	0.0	100		
180 min Winter	13.416	0.0	138		
240 min Winter	10.836	0.0	176		
360 min Winter	7.992	0.0	250		
480 min Winter	6.438	0.0	322		
600 min Winter	5.441	0.0	392		
720 min Winter	4.740	0.0	460		
960 min Winter	3.810	0.0	596		
1440 min Winter	2.797	0.0	852		
2160 min Winter	2.051	0.0	1216		
2880 min Winter	1.644	0.0	1560		
4320 min Winter	1.203	0.0	2204		
5760 min Winter	0.963	0.0	2936		
7200 min Winter	0.810	0.0	3552		
8640 min Winter	0.703	0.0	4376		
10080 min Winter	0.624	0.0	5136		
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<u>Model Details</u> Storage is Online Cover Level (m) 55.000 <u>Cellular Storage Structure</u> Invert Level (m) 53.050 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.21400 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.21400 <table border="1"> <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>4.0</td> <td>4.0</td> <td>0.900</td> <td>0.0</td> <td>10.4</td> </tr> <tr> <td>0.800</td> <td>4.0</td> <td>10.4</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	4.0	4.0	0.900	0.0	10.4	0.800	4.0	10.4			
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