

The Civil Engineering Practice					Page 1																																																																																																																																																																																																																			
11 Tungsten Building George Street Fishersgate BN41 1RA			Manor Nursery Angmering West Sussex																																																																																																																																																																																																																					
Date 27/06/2019 File Soakaway 5.SRCX			Designed by S Burgess Checked by SRD																																																																																																																																																																																																																					
Innovyze			Source Control 2017.1.2																																																																																																																																																																																																																					
Summary of Results for 100 year Return Period (+40%) Half Drain Time : 76 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>14.288</td><td>0.838</td><td>2.1</td><td>10.3</td><td>O K</td></tr><tr><td>30 min Summer</td><td>14.524</td><td>1.074</td><td>2.1</td><td>13.3</td><td>O K</td></tr><tr><td>60 min Summer</td><td>14.691</td><td>1.241</td><td>2.1</td><td>15.3</td><td>O K</td></tr><tr><td>120 min Summer</td><td>14.765</td><td>1.315</td><td>2.1</td><td>16.2</td><td>O K</td></tr><tr><td>180 min Summer</td><td>14.745</td><td>1.295</td><td>2.1</td><td>16.0</td><td>O K</td></tr><tr><td>240 min Summer</td><td>14.691</td><td>1.241</td><td>2.1</td><td>15.3</td><td>O K</td></tr><tr><td>360 min Summer</td><td>14.567</td><td>1.117</td><td>2.1</td><td>13.8</td><td>O K</td></tr><tr><td>480 min Summer</td><td>14.445</td><td>0.995</td><td>2.1</td><td>12.3</td><td>O K</td></tr><tr><td>600 min Summer</td><td>14.334</td><td>0.884</td><td>2.1</td><td>10.9</td><td>O K</td></tr><tr><td>720 min Summer</td><td>14.239</td><td>0.789</td><td>2.1</td><td>9.7</td><td>O K</td></tr><tr><td>960 min Summer</td><td>14.102</td><td>0.652</td><td>2.1</td><td>8.1</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>13.974</td><td>0.524</td><td>1.7</td><td>6.5</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>13.860</td><td>0.410</td><td>1.3</td><td>5.1</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>13.789</td><td>0.339</td><td>1.1</td><td>4.2</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>13.707</td><td>0.257</td><td>0.8</td><td>3.2</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>13.658</td><td>0.208</td><td>0.7</td><td>2.6</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>13.627</td><td>0.177</td><td>0.6</td><td>2.2</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>13.604</td><td>0.154</td><td>0.5</td><td>1.9</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>13.586</td><td>0.136</td><td>0.4</td><td>1.7</td><td>O K</td></tr><tr><td>15 min Winter</td><td>14.396</td><td>0.946</td><td>2.1</td><td>11.7</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>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>56</td></tr><tr><td>120 min Summer</td><td>34.177</td><td>0.0</td><td>90</td></tr><tr><td>180 min Summer</td><td>25.410</td><td>0.0</td><td>124</td></tr><tr><td>240 min Summer</td><td>20.436</td><td>0.0</td><td>158</td></tr><tr><td>360 min Summer</td><td>15.037</td><td>0.0</td><td>224</td></tr><tr><td>480 min Summer</td><td>12.081</td><td>0.0</td><td>288</td></tr><tr><td>600 min Summer</td><td>10.185</td><td>0.0</td><td>350</td></tr><tr><td>720 min Summer</td><td>8.854</td><td>0.0</td><td>408</td></tr><tr><td>960 min Summer</td><td>7.093</td><td>0.0</td><td>520</td></tr><tr><td>1440 min Summer</td><td>5.178</td><td>0.0</td><td>764</td></tr><tr><td>2160 min Summer</td><td>3.772</td><td>0.0</td><td>1124</td></tr><tr><td>2880 min Summer</td><td>3.009</td><td>0.0</td><td>1476</td></tr><tr><td>4320 min Summer</td><td>2.184</td><td>0.0</td><td>2208</td></tr><tr><td>5760 min Summer</td><td>1.738</td><td>0.0</td><td>2936</td></tr><tr><td>7200 min Summer</td><td>1.455</td><td>0.0</td><td>3672</td></tr><tr><td>8640 min Summer</td><td>1.260</td><td>0.0</td><td>4400</td></tr><tr><td>10080 min Summer</td><td>1.115</td><td>0.0</td><td>5136</td></tr><tr><td>15 min Winter</td><td>128.238</td><td>0.0</td><td>19</td></tr></tbody></table>							Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	14.288	0.838	2.1	10.3	O K	30 min Summer	14.524	1.074	2.1	13.3	O K	60 min Summer	14.691	1.241	2.1	15.3	O K	120 min Summer	14.765	1.315	2.1	16.2	O K	180 min Summer	14.745	1.295	2.1	16.0	O K	240 min Summer	14.691	1.241	2.1	15.3	O K	360 min Summer	14.567	1.117	2.1	13.8	O K	480 min Summer	14.445	0.995	2.1	12.3	O K	600 min Summer	14.334	0.884	2.1	10.9	O K	720 min Summer	14.239	0.789	2.1	9.7	O K	960 min Summer	14.102	0.652	2.1	8.1	O K	1440 min Summer	13.974	0.524	1.7	6.5	O K	2160 min Summer	13.860	0.410	1.3	5.1	O K	2880 min Summer	13.789	0.339	1.1	4.2	O K	4320 min Summer	13.707	0.257	0.8	3.2	O K	5760 min Summer	13.658	0.208	0.7	2.6	O K	7200 min Summer	13.627	0.177	0.6	2.2	O K	8640 min Summer	13.604	0.154	0.5	1.9	O K	10080 min Summer	13.586	0.136	0.4	1.7	O K	15 min Winter	14.396	0.946	2.1	11.7	O 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	56	120 min Summer	34.177	0.0	90	180 min Summer	25.410	0.0	124	240 min Summer	20.436	0.0	158	360 min Summer	15.037	0.0	224	480 min Summer	12.081	0.0	288	600 min Summer	10.185	0.0	350	720 min Summer	8.854	0.0	408	960 min Summer	7.093	0.0	520	1440 min Summer	5.178	0.0	764	2160 min Summer	3.772	0.0	1124	2880 min Summer	3.009	0.0	1476	4320 min Summer	2.184	0.0	2208	5760 min Summer	1.738	0.0	2936	7200 min Summer	1.455	0.0	3672	8640 min Summer	1.260	0.0	4400	10080 min Summer	1.115	0.0	5136	15 min Winter	128.238	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																			
15 min Summer	14.288	0.838	2.1	10.3	O K																																																																																																																																																																																																																			
30 min Summer	14.524	1.074	2.1	13.3	O K																																																																																																																																																																																																																			
60 min Summer	14.691	1.241	2.1	15.3	O K																																																																																																																																																																																																																			
120 min Summer	14.765	1.315	2.1	16.2	O K																																																																																																																																																																																																																			
180 min Summer	14.745	1.295	2.1	16.0	O K																																																																																																																																																																																																																			
240 min Summer	14.691	1.241	2.1	15.3	O K																																																																																																																																																																																																																			
360 min Summer	14.567	1.117	2.1	13.8	O K																																																																																																																																																																																																																			
480 min Summer	14.445	0.995	2.1	12.3	O K																																																																																																																																																																																																																			
600 min Summer	14.334	0.884	2.1	10.9	O K																																																																																																																																																																																																																			
720 min Summer	14.239	0.789	2.1	9.7	O K																																																																																																																																																																																																																			
960 min Summer	14.102	0.652	2.1	8.1	O K																																																																																																																																																																																																																			
1440 min Summer	13.974	0.524	1.7	6.5	O K																																																																																																																																																																																																																			
2160 min Summer	13.860	0.410	1.3	5.1	O K																																																																																																																																																																																																																			
2880 min Summer	13.789	0.339	1.1	4.2	O K																																																																																																																																																																																																																			
4320 min Summer	13.707	0.257	0.8	3.2	O K																																																																																																																																																																																																																			
5760 min Summer	13.658	0.208	0.7	2.6	O K																																																																																																																																																																																																																			
7200 min Summer	13.627	0.177	0.6	2.2	O K																																																																																																																																																																																																																			
8640 min Summer	13.604	0.154	0.5	1.9	O K																																																																																																																																																																																																																			
10080 min Summer	13.586	0.136	0.4	1.7	O K																																																																																																																																																																																																																			
15 min Winter	14.396	0.946	2.1	11.7	O 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	56																																																																																																																																																																																																																					
120 min Summer	34.177	0.0	90																																																																																																																																																																																																																					
180 min Summer	25.410	0.0	124																																																																																																																																																																																																																					
240 min Summer	20.436	0.0	158																																																																																																																																																																																																																					
360 min Summer	15.037	0.0	224																																																																																																																																																																																																																					
480 min Summer	12.081	0.0	288																																																																																																																																																																																																																					
600 min Summer	10.185	0.0	350																																																																																																																																																																																																																					
720 min Summer	8.854	0.0	408																																																																																																																																																																																																																					
960 min Summer	7.093	0.0	520																																																																																																																																																																																																																					
1440 min Summer	5.178	0.0	764																																																																																																																																																																																																																					
2160 min Summer	3.772	0.0	1124																																																																																																																																																																																																																					
2880 min Summer	3.009	0.0	1476																																																																																																																																																																																																																					
4320 min Summer	2.184	0.0	2208																																																																																																																																																																																																																					
5760 min Summer	1.738	0.0	2936																																																																																																																																																																																																																					
7200 min Summer	1.455	0.0	3672																																																																																																																																																																																																																					
8640 min Summer	1.260	0.0	4400																																																																																																																																																																																																																					
10080 min Summer	1.115	0.0	5136																																																																																																																																																																																																																					
15 min Winter	128.238	0.0	19																																																																																																																																																																																																																					
©1982-2017 XP Solutions																																																																																																																																																																																																																								

The Civil Engineering Practice					Page 2
11 Tungsten Building George Street Fishersgate BN41 1RA		Manor Nursery Angmering West Sussex			
Date 27/06/2019 File Soakaway 5.SRCX		Designed by S Burgess Checked by SRD			
Innovyze		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	14.671	1.221	2.1	15.1	O K
60 min Winter	14.875	1.425	2.1	17.6	O K
120 min Winter	14.939	1.489	2.1	18.4	O K
180 min Winter	14.894	1.444	2.1	17.8	O K
240 min Winter	14.803	1.353	2.1	16.7	O K
360 min Winter	14.604	1.154	2.1	14.3	O K
480 min Winter	14.414	0.964	2.1	11.9	O K
600 min Winter	14.252	0.802	2.1	9.9	O K
720 min Winter	14.130	0.680	2.1	8.4	O K
960 min Winter	14.016	0.566	1.8	7.0	O K
1440 min Winter	13.883	0.433	1.4	5.3	O K
2160 min Winter	13.774	0.324	1.1	4.0	O K
2880 min Winter	13.712	0.262	0.9	3.2	O K
4320 min Winter	13.642	0.192	0.6	2.4	O K
5760 min Winter	13.604	0.154	0.5	1.9	O K
7200 min Winter	13.579	0.129	0.4	1.6	O K
8640 min Winter	13.562	0.112	0.4	1.4	O K
10080 min Winter	13.549	0.099	0.3	1.2	O 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	96		
180 min Winter	25.410	0.0	134		
240 min Winter	20.436	0.0	172		
360 min Winter	15.037	0.0	242		
480 min Winter	12.081	0.0	306		
600 min Winter	10.185	0.0	364		
720 min Winter	8.854	0.0	416		
960 min Winter	7.093	0.0	532		
1440 min Winter	5.178	0.0	778		
2160 min Winter	3.772	0.0	1132		
2880 min Winter	3.009	0.0	1500		
4320 min Winter	2.184	0.0	2208		
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	5120		
©1982-2017 XP Solutions					

The Civil Engineering Practice		Page 4																				
11 Tungsten Building George Street Fishersgate BN41 1RA	Manor Nursery Angmering West Sussex																					
Date 27/06/2019 File Soakaway 5.SRCX	Designed by S Burgess Checked by SRD																					
Innovyze Source Control 2017.1.2																						
<u>Model Details</u> Storage is Online Cover Level (m) 16.250 <u>Infiltration Trench Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00000</td> <td>Trench Width (m)</td> <td>2.0</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>1.37880</td> <td>Trench Length (m)</td> <td>6.5</td> </tr> <tr> <td>Safety Factor</td> <td>2.0</td> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Porosity</td> <td>0.95</td> <td>Cap Volume Depth (m)</td> <td>1.600</td> </tr> <tr> <td>Invert Level (m)</td> <td>13.450</td> <td>Cap Infiltration Depth (m)</td> <td>0.650</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00000	Trench Width (m)	2.0	Infiltration Coefficient Side (m/hr)	1.37880	Trench Length (m)	6.5	Safety Factor	2.0	Slope (1:X)	0.0	Porosity	0.95	Cap Volume Depth (m)	1.600	Invert Level (m)	13.450	Cap Infiltration Depth (m)	0.650
Infiltration Coefficient Base (m/hr)	0.00000	Trench Width (m)	2.0																			
Infiltration Coefficient Side (m/hr)	1.37880	Trench Length (m)	6.5																			
Safety Factor	2.0	Slope (1:X)	0.0																			
Porosity	0.95	Cap Volume Depth (m)	1.600																			
Invert Level (m)	13.450	Cap Infiltration Depth (m)	0.650																			
©1982-2017 XP Solutions																						