

The Civil Engineering Practice					Page 1																																																																																																																																																																																																																			
11 Tungsten Building George Street Fishersgate BN41 1RA			Manor Nursery Angmering West Sussex																																																																																																																																																																																																																					
Date 23/09/2020 File Soakaway 2 Factor Safet...			Designed by S Burgess Checked by SRD																																																																																																																																																																																																																					
Innovyze			Source Control 2020.1																																																																																																																																																																																																																					
Summary of Results for 100 year Return Period (+40%) Half Drain Time : 110 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>13.738</td><td>0.838</td><td>2.5</td><td>19.1</td><td>O K</td></tr><tr><td>30 min Summer</td><td>13.975</td><td>1.075</td><td>3.2</td><td>24.5</td><td>O K</td></tr><tr><td>60 min Summer</td><td>14.163</td><td>1.263</td><td>3.3</td><td>28.8</td><td>O K</td></tr><tr><td>120 min Summer</td><td>14.275</td><td>1.375</td><td>3.3</td><td>31.4</td><td>O K</td></tr><tr><td>180 min Summer</td><td>14.297</td><td>1.397</td><td>3.3</td><td>31.8</td><td>O K</td></tr><tr><td>240 min Summer</td><td>14.279</td><td>1.379</td><td>3.3</td><td>31.4</td><td>O K</td></tr><tr><td>360 min Summer</td><td>14.216</td><td>1.316</td><td>3.3</td><td>30.0</td><td>O K</td></tr><tr><td>480 min Summer</td><td>14.138</td><td>1.238</td><td>3.3</td><td>28.2</td><td>O K</td></tr><tr><td>600 min Summer</td><td>14.060</td><td>1.160</td><td>3.3</td><td>26.4</td><td>O K</td></tr><tr><td>720 min Summer</td><td>13.993</td><td>1.093</td><td>3.2</td><td>24.9</td><td>O K</td></tr><tr><td>960 min Summer</td><td>13.891</td><td>0.991</td><td>2.9</td><td>22.6</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>13.739</td><td>0.839</td><td>2.5</td><td>19.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>13.586</td><td>0.686</td><td>2.0</td><td>15.6</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>13.485</td><td>0.585</td><td>1.7</td><td>13.3</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>13.357</td><td>0.457</td><td>1.4</td><td>10.4</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>13.277</td><td>0.377</td><td>1.1</td><td>8.6</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>13.224</td><td>0.324</td><td>1.0</td><td>7.4</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>13.185</td><td>0.285</td><td>0.8</td><td>6.5</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>13.156</td><td>0.256</td><td>0.8</td><td>5.8</td><td>O K</td></tr><tr><td>15 min Winter</td><td>13.839</td><td>0.939</td><td>2.8</td><td>21.4</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>128.238</td><td>0.0</td><td>19</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>60</td></tr><tr><td>120 min Summer</td><td>34.177</td><td>0.0</td><td>92</td></tr><tr><td>180 min Summer</td><td>25.410</td><td>0.0</td><td>126</td></tr><tr><td>240 min Summer</td><td>20.436</td><td>0.0</td><td>160</td></tr><tr><td>360 min Summer</td><td>15.037</td><td>0.0</td><td>228</td></tr><tr><td>480 min Summer</td><td>12.081</td><td>0.0</td><td>294</td></tr><tr><td>600 min Summer</td><td>10.185</td><td>0.0</td><td>356</td></tr><tr><td>720 min Summer</td><td>8.854</td><td>0.0</td><td>418</td></tr><tr><td>960 min Summer</td><td>7.093</td><td>0.0</td><td>542</td></tr><tr><td>1440 min Summer</td><td>5.178</td><td>0.0</td><td>794</td></tr><tr><td>2160 min Summer</td><td>3.772</td><td>0.0</td><td>1152</td></tr><tr><td>2880 min Summer</td><td>3.009</td><td>0.0</td><td>1528</td></tr><tr><td>4320 min Summer</td><td>2.184</td><td>0.0</td><td>2248</td></tr><tr><td>5760 min Summer</td><td>1.738</td><td>0.0</td><td>2952</td></tr><tr><td>7200 min Summer</td><td>1.455</td><td>0.0</td><td>3680</td></tr><tr><td>8640 min Summer</td><td>1.260</td><td>0.0</td><td>4408</td></tr><tr><td>10080 min Summer</td><td>1.115</td><td>0.0</td><td>5144</td></tr><tr><td>15 min Winter</td><td>128.238</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	13.738	0.838	2.5	19.1	O K	30 min Summer	13.975	1.075	3.2	24.5	O K	60 min Summer	14.163	1.263	3.3	28.8	O K	120 min Summer	14.275	1.375	3.3	31.4	O K	180 min Summer	14.297	1.397	3.3	31.8	O K	240 min Summer	14.279	1.379	3.3	31.4	O K	360 min Summer	14.216	1.316	3.3	30.0	O K	480 min Summer	14.138	1.238	3.3	28.2	O K	600 min Summer	14.060	1.160	3.3	26.4	O K	720 min Summer	13.993	1.093	3.2	24.9	O K	960 min Summer	13.891	0.991	2.9	22.6	O K	1440 min Summer	13.739	0.839	2.5	19.1	O K	2160 min Summer	13.586	0.686	2.0	15.6	O K	2880 min Summer	13.485	0.585	1.7	13.3	O K	4320 min Summer	13.357	0.457	1.4	10.4	O K	5760 min Summer	13.277	0.377	1.1	8.6	O K	7200 min Summer	13.224	0.324	1.0	7.4	O K	8640 min Summer	13.185	0.285	0.8	6.5	O K	10080 min Summer	13.156	0.256	0.8	5.8	O K	15 min Winter	13.839	0.939	2.8	21.4	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	128.238	0.0	19	30 min Summer	86.178	0.0	32	60 min Summer	55.250	0.0	60	120 min Summer	34.177	0.0	92	180 min Summer	25.410	0.0	126	240 min Summer	20.436	0.0	160	360 min Summer	15.037	0.0	228	480 min Summer	12.081	0.0	294	600 min Summer	10.185	0.0	356	720 min Summer	8.854	0.0	418	960 min Summer	7.093	0.0	542	1440 min Summer	5.178	0.0	794	2160 min Summer	3.772	0.0	1152	2880 min Summer	3.009	0.0	1528	4320 min Summer	2.184	0.0	2248	5760 min Summer	1.738	0.0	2952	7200 min Summer	1.455	0.0	3680	8640 min Summer	1.260	0.0	4408	10080 min Summer	1.115	0.0	5144	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	13.738	0.838	2.5	19.1	O K																																																																																																																																																																																																																			
30 min Summer	13.975	1.075	3.2	24.5	O K																																																																																																																																																																																																																			
60 min Summer	14.163	1.263	3.3	28.8	O K																																																																																																																																																																																																																			
120 min Summer	14.275	1.375	3.3	31.4	O K																																																																																																																																																																																																																			
180 min Summer	14.297	1.397	3.3	31.8	O K																																																																																																																																																																																																																			
240 min Summer	14.279	1.379	3.3	31.4	O K																																																																																																																																																																																																																			
360 min Summer	14.216	1.316	3.3	30.0	O K																																																																																																																																																																																																																			
480 min Summer	14.138	1.238	3.3	28.2	O K																																																																																																																																																																																																																			
600 min Summer	14.060	1.160	3.3	26.4	O K																																																																																																																																																																																																																			
720 min Summer	13.993	1.093	3.2	24.9	O K																																																																																																																																																																																																																			
960 min Summer	13.891	0.991	2.9	22.6	O K																																																																																																																																																																																																																			
1440 min Summer	13.739	0.839	2.5	19.1	O K																																																																																																																																																																																																																			
2160 min Summer	13.586	0.686	2.0	15.6	O K																																																																																																																																																																																																																			
2880 min Summer	13.485	0.585	1.7	13.3	O K																																																																																																																																																																																																																			
4320 min Summer	13.357	0.457	1.4	10.4	O K																																																																																																																																																																																																																			
5760 min Summer	13.277	0.377	1.1	8.6	O K																																																																																																																																																																																																																			
7200 min Summer	13.224	0.324	1.0	7.4	O K																																																																																																																																																																																																																			
8640 min Summer	13.185	0.285	0.8	6.5	O K																																																																																																																																																																																																																			
10080 min Summer	13.156	0.256	0.8	5.8	O K																																																																																																																																																																																																																			
15 min Winter	13.839	0.939	2.8	21.4	O K																																																																																																																																																																																																																			
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																					
15 min Summer	128.238	0.0	19																																																																																																																																																																																																																					
30 min Summer	86.178	0.0	32																																																																																																																																																																																																																					
60 min Summer	55.250	0.0	60																																																																																																																																																																																																																					
120 min Summer	34.177	0.0	92																																																																																																																																																																																																																					
180 min Summer	25.410	0.0	126																																																																																																																																																																																																																					
240 min Summer	20.436	0.0	160																																																																																																																																																																																																																					
360 min Summer	15.037	0.0	228																																																																																																																																																																																																																					
480 min Summer	12.081	0.0	294																																																																																																																																																																																																																					
600 min Summer	10.185	0.0	356																																																																																																																																																																																																																					
720 min Summer	8.854	0.0	418																																																																																																																																																																																																																					
960 min Summer	7.093	0.0	542																																																																																																																																																																																																																					
1440 min Summer	5.178	0.0	794																																																																																																																																																																																																																					
2160 min Summer	3.772	0.0	1152																																																																																																																																																																																																																					
2880 min Summer	3.009	0.0	1528																																																																																																																																																																																																																					
4320 min Summer	2.184	0.0	2248																																																																																																																																																																																																																					
5760 min Summer	1.738	0.0	2952																																																																																																																																																																																																																					
7200 min Summer	1.455	0.0	3680																																																																																																																																																																																																																					
8640 min Summer	1.260	0.0	4408																																																																																																																																																																																																																					
10080 min Summer	1.115	0.0	5144																																																																																																																																																																																																																					
15 min Winter	128.238	0.0	19																																																																																																																																																																																																																					
©1982-2020 Innovyze																																																																																																																																																																																																																								

The Civil Engineering Practice					Page 2
11 Tungsten Building George Street Fishersgate BN41 1RA		Manor Nursery Angmering West Sussex			
Date 23/09/2020 File Soakaway 2 Factor Safet...		Designed by S Burgess Checked by SRD			
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	14.112	1.212	3.3	27.6	O K
60 min Winter	14.343	1.443	3.3	32.9	O K
120 min Winter	14.460	1.560	3.3	35.6	O K
180 min Winter	14.467	1.567	3.3	35.7	O K
240 min Winter	14.426	1.526	3.3	34.8	O K
360 min Winter	14.309	1.409	3.3	32.1	O K
480 min Winter	14.179	1.279	3.3	29.2	O K
600 min Winter	14.061	1.161	3.3	26.5	O K
720 min Winter	13.971	1.071	3.2	24.4	O K
960 min Winter	13.840	0.940	2.8	21.4	O K
1440 min Winter	13.656	0.756	2.2	17.2	O K
2160 min Winter	13.488	0.588	1.7	13.4	O K
2880 min Winter	13.384	0.484	1.4	11.0	O K
4320 min Winter	13.261	0.361	1.1	8.2	O K
5760 min Winter	13.191	0.291	0.9	6.6	O K
7200 min Winter	13.145	0.245	0.7	5.6	O K
8640 min Winter	13.113	0.213	0.6	4.9	O K
10080 min Winter	13.089	0.189	0.6	4.3	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	100		
180 min Winter	25.410	0.0	138		
240 min Winter	20.436	0.0	176		
360 min Winter	15.037	0.0	248		
480 min Winter	12.081	0.0	314		
600 min Winter	10.185	0.0	376		
720 min Winter	8.854	0.0	438		
960 min Winter	7.093	0.0	568		
1440 min Winter	5.178	0.0	816		
2160 min Winter	3.772	0.0	1188		
2880 min Winter	3.009	0.0	1556		
4320 min Winter	2.184	0.0	2288		
5760 min Winter	1.738	0.0	3000		
7200 min Winter	1.455	0.0	3744		
8640 min Winter	1.260	0.0	4416		
10080 min Winter	1.115	0.0	5144		
©1982-2020 Innovyze					

The Civil Engineering Practice		Page 4																				
11 Tungsten Building George Street Fishersgate BN41 1RA	Manor Nursery Angmering West Sussex																					
Date 23/09/2020 File Soakaway 2 Factor Safet...	Designed by S Burgess Checked by SRD																					
Innovyze Source Control 2020.1																						
<u>Model Details</u> Storage is Online Cover Level (m) 15.700 <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>1.52640</td> <td>Trench Length (m)</td> <td>12.0</td> </tr> <tr> <td>Safety Factor</td> <td>4.0</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>12.900</td> <td>Cap Infiltration Depth (m)</td> <td>1.100</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00000	Trench Width (m)	2.0	Infiltration Coefficient Side (m/hr)	1.52640	Trench Length (m)	12.0	Safety Factor	4.0	Slope (1:X)	0.0	Porosity	0.95	Cap Volume Depth (m)	1.600	Invert Level (m)	12.900	Cap Infiltration Depth (m)	1.100
Infiltration Coefficient Base (m/hr)	0.00000	Trench Width (m)	2.0																			
Infiltration Coefficient Side (m/hr)	1.52640	Trench Length (m)	12.0																			
Safety Factor	4.0	Slope (1:X)	0.0																			
Porosity	0.95	Cap Volume Depth (m)	1.600																			
Invert Level (m)	12.900	Cap Infiltration Depth (m)	1.100																			
©1982-2020 Innovyze																						