

MJA Consulting		Page 1																																																																																																																																																																																																																		
Monarch House Barton Lane OX14 3NB	Swale 2																																																																																																																																																																																																																			
Date 17/05/2018 14:41 File SWALE 2.SRCX	Designed by stewart Checked by																																																																																																																																																																																																																			
Innovyze	Source Control 2017.1.2																																																																																																																																																																																																																			
<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 96 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>99.094</td><td>0.094</td><td>1.0</td><td>6.9</td><td>O K</td></tr><tr><td>30 min Summer</td><td>99.117</td><td>0.117</td><td>1.1</td><td>8.9</td><td>O K</td></tr><tr><td>60 min Summer</td><td>99.133</td><td>0.133</td><td>1.1</td><td>10.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>99.140</td><td>0.140</td><td>1.2</td><td>11.0</td><td>O K</td></tr><tr><td>180 min Summer</td><td>99.140</td><td>0.140</td><td>1.2</td><td>11.0</td><td>O K</td></tr><tr><td>240 min Summer</td><td>99.137</td><td>0.137</td><td>1.2</td><td>10.7</td><td>O K</td></tr><tr><td>360 min Summer</td><td>99.129</td><td>0.129</td><td>1.1</td><td>10.0</td><td>O K</td></tr><tr><td>480 min Summer</td><td>99.121</td><td>0.121</td><td>1.1</td><td>9.3</td><td>O K</td></tr><tr><td>600 min Summer</td><td>99.113</td><td>0.113</td><td>1.1</td><td>8.6</td><td>O K</td></tr><tr><td>720 min Summer</td><td>99.105</td><td>0.105</td><td>1.0</td><td>7.9</td><td>O K</td></tr><tr><td>960 min Summer</td><td>99.091</td><td>0.091</td><td>1.0</td><td>6.7</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>99.069</td><td>0.069</td><td>0.9</td><td>5.0</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>99.050</td><td>0.050</td><td>0.8</td><td>3.5</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>99.042</td><td>0.042</td><td>0.7</td><td>2.9</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>99.033</td><td>0.033</td><td>0.5</td><td>2.2</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>99.027</td><td>0.027</td><td>0.4</td><td>1.8</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>99.023</td><td>0.023</td><td>0.4</td><td>1.6</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>99.020</td><td>0.020</td><td>0.3</td><td>1.4</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>99.018</td><td>0.018</td><td>0.3</td><td>1.2</td><td>O K</td></tr><tr><td>15 min Winter</td><td>99.104</td><td>0.104</td><td>1.0</td><td>7.8</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>134.746</td><td>0.0</td><td>18</td></tr><tr><td>30 min Summer</td><td>90.474</td><td>0.0</td><td>32</td></tr><tr><td>60 min Summer</td><td>57.877</td><td>0.0</td><td>60</td></tr><tr><td>120 min Summer</td><td>35.655</td><td>0.0</td><td>92</td></tr><tr><td>180 min Summer</td><td>26.413</td><td>0.0</td><td>126</td></tr><tr><td>240 min Summer</td><td>21.237</td><td>0.0</td><td>160</td></tr><tr><td>360 min Summer</td><td>15.626</td><td>0.0</td><td>228</td></tr><tr><td>480 min Summer</td><td>12.548</td><td>0.0</td><td>296</td></tr><tr><td>600 min Summer</td><td>10.575</td><td>0.0</td><td>362</td></tr><tr><td>720 min Summer</td><td>9.191</td><td>0.0</td><td>426</td></tr><tr><td>960 min Summer</td><td>7.358</td><td>0.0</td><td>550</td></tr><tr><td>1440 min Summer</td><td>5.368</td><td>0.0</td><td>792</td></tr><tr><td>2160 min Summer</td><td>3.907</td><td>0.0</td><td>1124</td></tr><tr><td>2880 min Summer</td><td>3.115</td><td>0.0</td><td>1496</td></tr><tr><td>4320 min Summer</td><td>2.259</td><td>0.0</td><td>2204</td></tr><tr><td>5760 min Summer</td><td>1.796</td><td>0.0</td><td>2936</td></tr><tr><td>7200 min Summer</td><td>1.506</td><td>0.0</td><td>3672</td></tr><tr><td>8640 min Summer</td><td>1.304</td><td>0.0</td><td>4400</td></tr><tr><td>10080 min Summer</td><td>1.154</td><td>0.0</td><td>5120</td></tr><tr><td>15 min Winter</td><td>134.746</td><td>0.0</td><td>18</td></tr></table>			Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	99.094	0.094	1.0	6.9	O K	30 min Summer	99.117	0.117	1.1	8.9	O K	60 min Summer	99.133	0.133	1.1	10.4	O K	120 min Summer	99.140	0.140	1.2	11.0	O K	180 min Summer	99.140	0.140	1.2	11.0	O K	240 min Summer	99.137	0.137	1.2	10.7	O K	360 min Summer	99.129	0.129	1.1	10.0	O K	480 min Summer	99.121	0.121	1.1	9.3	O K	600 min Summer	99.113	0.113	1.1	8.6	O K	720 min Summer	99.105	0.105	1.0	7.9	O K	960 min Summer	99.091	0.091	1.0	6.7	O K	1440 min Summer	99.069	0.069	0.9	5.0	O K	2160 min Summer	99.050	0.050	0.8	3.5	O K	2880 min Summer	99.042	0.042	0.7	2.9	O K	4320 min Summer	99.033	0.033	0.5	2.2	O K	5760 min Summer	99.027	0.027	0.4	1.8	O K	7200 min Summer	99.023	0.023	0.4	1.6	O K	8640 min Summer	99.020	0.020	0.3	1.4	O K	10080 min Summer	99.018	0.018	0.3	1.2	O K	15 min Winter	99.104	0.104	1.0	7.8	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	134.746	0.0	18	30 min Summer	90.474	0.0	32	60 min Summer	57.877	0.0	60	120 min Summer	35.655	0.0	92	180 min Summer	26.413	0.0	126	240 min Summer	21.237	0.0	160	360 min Summer	15.626	0.0	228	480 min Summer	12.548	0.0	296	600 min Summer	10.575	0.0	362	720 min Summer	9.191	0.0	426	960 min Summer	7.358	0.0	550	1440 min Summer	5.368	0.0	792	2160 min Summer	3.907	0.0	1124	2880 min Summer	3.115	0.0	1496	4320 min Summer	2.259	0.0	2204	5760 min Summer	1.796	0.0	2936	7200 min Summer	1.506	0.0	3672	8640 min Summer	1.304	0.0	4400	10080 min Summer	1.154	0.0	5120	15 min Winter	134.746	0.0	18
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																															
15 min Summer	99.094	0.094	1.0	6.9	O K																																																																																																																																																																																																															
30 min Summer	99.117	0.117	1.1	8.9	O K																																																																																																																																																																																																															
60 min Summer	99.133	0.133	1.1	10.4	O K																																																																																																																																																																																																															
120 min Summer	99.140	0.140	1.2	11.0	O K																																																																																																																																																																																																															
180 min Summer	99.140	0.140	1.2	11.0	O K																																																																																																																																																																																																															
240 min Summer	99.137	0.137	1.2	10.7	O K																																																																																																																																																																																																															
360 min Summer	99.129	0.129	1.1	10.0	O K																																																																																																																																																																																																															
480 min Summer	99.121	0.121	1.1	9.3	O K																																																																																																																																																																																																															
600 min Summer	99.113	0.113	1.1	8.6	O K																																																																																																																																																																																																															
720 min Summer	99.105	0.105	1.0	7.9	O K																																																																																																																																																																																																															
960 min Summer	99.091	0.091	1.0	6.7	O K																																																																																																																																																																																																															
1440 min Summer	99.069	0.069	0.9	5.0	O K																																																																																																																																																																																																															
2160 min Summer	99.050	0.050	0.8	3.5	O K																																																																																																																																																																																																															
2880 min Summer	99.042	0.042	0.7	2.9	O K																																																																																																																																																																																																															
4320 min Summer	99.033	0.033	0.5	2.2	O K																																																																																																																																																																																																															
5760 min Summer	99.027	0.027	0.4	1.8	O K																																																																																																																																																																																																															
7200 min Summer	99.023	0.023	0.4	1.6	O K																																																																																																																																																																																																															
8640 min Summer	99.020	0.020	0.3	1.4	O K																																																																																																																																																																																																															
10080 min Summer	99.018	0.018	0.3	1.2	O K																																																																																																																																																																																																															
15 min Winter	99.104	0.104	1.0	7.8	O K																																																																																																																																																																																																															
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																	
15 min Summer	134.746	0.0	18																																																																																																																																																																																																																	
30 min Summer	90.474	0.0	32																																																																																																																																																																																																																	
60 min Summer	57.877	0.0	60																																																																																																																																																																																																																	
120 min Summer	35.655	0.0	92																																																																																																																																																																																																																	
180 min Summer	26.413	0.0	126																																																																																																																																																																																																																	
240 min Summer	21.237	0.0	160																																																																																																																																																																																																																	
360 min Summer	15.626	0.0	228																																																																																																																																																																																																																	
480 min Summer	12.548	0.0	296																																																																																																																																																																																																																	
600 min Summer	10.575	0.0	362																																																																																																																																																																																																																	
720 min Summer	9.191	0.0	426																																																																																																																																																																																																																	
960 min Summer	7.358	0.0	550																																																																																																																																																																																																																	
1440 min Summer	5.368	0.0	792																																																																																																																																																																																																																	
2160 min Summer	3.907	0.0	1124																																																																																																																																																																																																																	
2880 min Summer	3.115	0.0	1496																																																																																																																																																																																																																	
4320 min Summer	2.259	0.0	2204																																																																																																																																																																																																																	
5760 min Summer	1.796	0.0	2936																																																																																																																																																																																																																	
7200 min Summer	1.506	0.0	3672																																																																																																																																																																																																																	
8640 min Summer	1.304	0.0	4400																																																																																																																																																																																																																	
10080 min Summer	1.154	0.0	5120																																																																																																																																																																																																																	
15 min Winter	134.746	0.0	18																																																																																																																																																																																																																	
©1982-2017 XP Solutions																																																																																																																																																																																																																				

MJA Consulting				Page 2	
Monarch House Barton Lane OX14 3NB		Swale 2			
Date 17/05/2018 14:41 File SWALE 2.SRCX		Designed by stewart Checked by			
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	99.130	0.130	1.1	10.1	O K
60 min Winter	99.149	0.149	1.2	11.8	O K
120 min Winter	99.156	0.156	1.2	12.3	O K
180 min Winter	99.154	0.154	1.2	12.3	O K
240 min Winter	99.150	0.150	1.2	11.9	O K
360 min Winter	99.138	0.138	1.2	10.8	O K
480 min Winter	99.125	0.125	1.1	9.7	O K
600 min Winter	99.113	0.113	1.1	8.6	O K
720 min Winter	99.102	0.102	1.0	7.6	O K
960 min Winter	99.082	0.082	1.0	6.0	O K
1440 min Winter	99.054	0.054	0.9	3.8	O K
2160 min Winter	99.041	0.041	0.7	2.8	O K
2880 min Winter	99.033	0.033	0.5	2.3	O K
4320 min Winter	99.025	0.025	0.4	1.7	O K
5760 min Winter	99.020	0.020	0.3	1.4	O K
7200 min Winter	99.017	0.017	0.3	1.1	O K
8640 min Winter	99.015	0.015	0.2	1.0	O K
10080 min Winter	99.013	0.013	0.2	0.9	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	90.474	0.0	31		
60 min Winter	57.877	0.0	60		
120 min Winter	35.655	0.0	98		
180 min Winter	26.413	0.0	136		
240 min Winter	21.237	0.0	174		
360 min Winter	15.626	0.0	248		
480 min Winter	12.548	0.0	318		
600 min Winter	10.575	0.0	386		
720 min Winter	9.191	0.0	450		
960 min Winter	7.358	0.0	576		
1440 min Winter	5.368	0.0	794		
2160 min Winter	3.907	0.0	1128		
2880 min Winter	3.115	0.0	1500		
4320 min Winter	2.259	0.0	2224		
5760 min Winter	1.796	0.0	2936		
7200 min Winter	1.506	0.0	3640		
8640 min Winter	1.304	0.0	4416		
10080 min Winter	1.154	0.0	5136		
©1982-2017 XP Solutions					

MJA Consulting		Page 4
Monarch House Barton Lane OX14 3NB	Swale 2	
Date 17/05/2018 14:41 File SWALE 2.SRCX	Designed by stewart Checked by	
Innovyze Source Control 2017.1.2		

Model Details

Storage is Online Cover Level (m) 99.600

Infiltration Basin Structure

Invert Level (m) 99.000 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.07200 Porosity 1.00
Infiltration Coefficient Side (m/hr) 0.07200

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	66.0	0.200	103.0	0.400	143.0	0.600	743.0
0.100	84.0	0.300	122.0	0.500	162.0		

©1982-2017 XP Solutions