

MJA Consulting		Page 1																																																																																																																																																																																																																		
Monarch House Barton Lane OX14 3NB	Plots 204 - 206 Westergate & Eastergate																																																																																																																																																																																																																			
Date 05/04/2018 File Trench SA Plots 204 - 2...	Designed by S.Smith Checked by																																																																																																																																																																																																																			
Innovyze	Source Control 2017.1.2																																																																																																																																																																																																																			
<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 106 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>99.279</td><td>0.279</td><td>0.5</td><td>3.4</td><td>O K</td></tr><tr><td>30 min Summer</td><td>99.355</td><td>0.355</td><td>0.5</td><td>4.3</td><td>O K</td></tr><tr><td>60 min Summer</td><td>99.410</td><td>0.410</td><td>0.5</td><td>5.0</td><td>O K</td></tr><tr><td>120 min Summer</td><td>99.425</td><td>0.425</td><td>0.5</td><td>5.2</td><td>O K</td></tr><tr><td>180 min Summer</td><td>99.414</td><td>0.414</td><td>0.5</td><td>5.1</td><td>O K</td></tr><tr><td>240 min Summer</td><td>99.398</td><td>0.398</td><td>0.5</td><td>4.9</td><td>O K</td></tr><tr><td>360 min Summer</td><td>99.364</td><td>0.364</td><td>0.5</td><td>4.5</td><td>O K</td></tr><tr><td>480 min Summer</td><td>99.330</td><td>0.330</td><td>0.5</td><td>4.0</td><td>O K</td></tr><tr><td>600 min Summer</td><td>99.298</td><td>0.298</td><td>0.5</td><td>3.6</td><td>O K</td></tr><tr><td>720 min Summer</td><td>99.267</td><td>0.267</td><td>0.5</td><td>3.3</td><td>O K</td></tr><tr><td>960 min Summer</td><td>99.213</td><td>0.213</td><td>0.5</td><td>2.6</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>99.130</td><td>0.130</td><td>0.4</td><td>1.6</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>99.061</td><td>0.061</td><td>0.4</td><td>0.8</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>99.045</td><td>0.045</td><td>0.4</td><td>0.5</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>99.033</td><td>0.033</td><td>0.3</td><td>0.4</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>99.026</td><td>0.026</td><td>0.2</td><td>0.3</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>99.022</td><td>0.022</td><td>0.2</td><td>0.3</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>99.019</td><td>0.019</td><td>0.2</td><td>0.2</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>99.017</td><td>0.017</td><td>0.1</td><td>0.2</td><td>O K</td></tr><tr><td>15 min Winter</td><td>99.315</td><td>0.315</td><td>0.5</td><td>3.9</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>96</td></tr><tr><td>180 min Summer</td><td>26.413</td><td>0.0</td><td>128</td></tr><tr><td>240 min Summer</td><td>21.237</td><td>0.0</td><td>164</td></tr><tr><td>360 min Summer</td><td>15.626</td><td>0.0</td><td>232</td></tr><tr><td>480 min Summer</td><td>12.548</td><td>0.0</td><td>300</td></tr><tr><td>600 min Summer</td><td>10.575</td><td>0.0</td><td>366</td></tr><tr><td>720 min Summer</td><td>9.191</td><td>0.0</td><td>430</td></tr><tr><td>960 min Summer</td><td>7.358</td><td>0.0</td><td>556</td></tr><tr><td>1440 min Summer</td><td>5.368</td><td>0.0</td><td>794</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>1468</td></tr><tr><td>4320 min Summer</td><td>2.259</td><td>0.0</td><td>2200</td></tr><tr><td>5760 min Summer</td><td>1.796</td><td>0.0</td><td>2904</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>4392</td></tr><tr><td>10080 min Summer</td><td>1.154</td><td>0.0</td><td>5000</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	99.279	0.279	0.5	3.4	O K	30 min Summer	99.355	0.355	0.5	4.3	O K	60 min Summer	99.410	0.410	0.5	5.0	O K	120 min Summer	99.425	0.425	0.5	5.2	O K	180 min Summer	99.414	0.414	0.5	5.1	O K	240 min Summer	99.398	0.398	0.5	4.9	O K	360 min Summer	99.364	0.364	0.5	4.5	O K	480 min Summer	99.330	0.330	0.5	4.0	O K	600 min Summer	99.298	0.298	0.5	3.6	O K	720 min Summer	99.267	0.267	0.5	3.3	O K	960 min Summer	99.213	0.213	0.5	2.6	O K	1440 min Summer	99.130	0.130	0.4	1.6	O K	2160 min Summer	99.061	0.061	0.4	0.8	O K	2880 min Summer	99.045	0.045	0.4	0.5	O K	4320 min Summer	99.033	0.033	0.3	0.4	O K	5760 min Summer	99.026	0.026	0.2	0.3	O K	7200 min Summer	99.022	0.022	0.2	0.3	O K	8640 min Summer	99.019	0.019	0.2	0.2	O K	10080 min Summer	99.017	0.017	0.1	0.2	O K	15 min Winter	99.315	0.315	0.5	3.9	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	96	180 min Summer	26.413	0.0	128	240 min Summer	21.237	0.0	164	360 min Summer	15.626	0.0	232	480 min Summer	12.548	0.0	300	600 min Summer	10.575	0.0	366	720 min Summer	9.191	0.0	430	960 min Summer	7.358	0.0	556	1440 min Summer	5.368	0.0	794	2160 min Summer	3.907	0.0	1124	2880 min Summer	3.115	0.0	1468	4320 min Summer	2.259	0.0	2200	5760 min Summer	1.796	0.0	2904	7200 min Summer	1.506	0.0	3672	8640 min Summer	1.304	0.0	4392	10080 min Summer	1.154	0.0	5000	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	99.279	0.279	0.5	3.4	O K																																																																																																																																																																																																															
30 min Summer	99.355	0.355	0.5	4.3	O K																																																																																																																																																																																																															
60 min Summer	99.410	0.410	0.5	5.0	O K																																																																																																																																																																																																															
120 min Summer	99.425	0.425	0.5	5.2	O K																																																																																																																																																																																																															
180 min Summer	99.414	0.414	0.5	5.1	O K																																																																																																																																																																																																															
240 min Summer	99.398	0.398	0.5	4.9	O K																																																																																																																																																																																																															
360 min Summer	99.364	0.364	0.5	4.5	O K																																																																																																																																																																																																															
480 min Summer	99.330	0.330	0.5	4.0	O K																																																																																																																																																																																																															
600 min Summer	99.298	0.298	0.5	3.6	O K																																																																																																																																																																																																															
720 min Summer	99.267	0.267	0.5	3.3	O K																																																																																																																																																																																																															
960 min Summer	99.213	0.213	0.5	2.6	O K																																																																																																																																																																																																															
1440 min Summer	99.130	0.130	0.4	1.6	O K																																																																																																																																																																																																															
2160 min Summer	99.061	0.061	0.4	0.8	O K																																																																																																																																																																																																															
2880 min Summer	99.045	0.045	0.4	0.5	O K																																																																																																																																																																																																															
4320 min Summer	99.033	0.033	0.3	0.4	O K																																																																																																																																																																																																															
5760 min Summer	99.026	0.026	0.2	0.3	O K																																																																																																																																																																																																															
7200 min Summer	99.022	0.022	0.2	0.3	O K																																																																																																																																																																																																															
8640 min Summer	99.019	0.019	0.2	0.2	O K																																																																																																																																																																																																															
10080 min Summer	99.017	0.017	0.1	0.2	O K																																																																																																																																																																																																															
15 min Winter	99.315	0.315	0.5	3.9	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	96																																																																																																																																																																																																																	
180 min Summer	26.413	0.0	128																																																																																																																																																																																																																	
240 min Summer	21.237	0.0	164																																																																																																																																																																																																																	
360 min Summer	15.626	0.0	232																																																																																																																																																																																																																	
480 min Summer	12.548	0.0	300																																																																																																																																																																																																																	
600 min Summer	10.575	0.0	366																																																																																																																																																																																																																	
720 min Summer	9.191	0.0	430																																																																																																																																																																																																																	
960 min Summer	7.358	0.0	556																																																																																																																																																																																																																	
1440 min Summer	5.368	0.0	794																																																																																																																																																																																																																	
2160 min Summer	3.907	0.0	1124																																																																																																																																																																																																																	
2880 min Summer	3.115	0.0	1468																																																																																																																																																																																																																	
4320 min Summer	2.259	0.0	2200																																																																																																																																																																																																																	
5760 min Summer	1.796	0.0	2904																																																																																																																																																																																																																	
7200 min Summer	1.506	0.0	3672																																																																																																																																																																																																																	
8640 min Summer	1.304	0.0	4392																																																																																																																																																																																																																	
10080 min Summer	1.154	0.0	5000																																																																																																																																																																																																																	
15 min Winter	134.746	0.0	18																																																																																																																																																																																																																	
©1982-2017 XP Solutions																																																																																																																																																																																																																				

MJA Consulting			Page 2		
Monarch House Barton Lane OX14 3NB		Plots 204 - 206 Westergate & Eastergate			
Date 05/04/2018 File Trench SA Plots 204 - 2...		Designed by S.Smith 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	99.404	0.404	0.5	4.9	O K
60 min Winter	99.472	0.472	0.6	5.8	O K
120 min Winter	99.490	0.490	0.6	6.0	O K
180 min Winter	99.476	0.476	0.6	5.8	O K
240 min Winter	99.452	0.452	0.5	5.5	O K
360 min Winter	99.400	0.400	0.5	4.9	O K
480 min Winter	99.348	0.348	0.5	4.3	O K
600 min Winter	99.299	0.299	0.5	3.7	O K
720 min Winter	99.254	0.254	0.5	3.1	O K
960 min Winter	99.176	0.176	0.5	2.2	O K
1440 min Winter	99.070	0.070	0.4	0.9	O K
2160 min Winter	99.041	0.041	0.3	0.5	O K
2880 min Winter	99.033	0.033	0.3	0.4	O K
4320 min Winter	99.024	0.024	0.2	0.3	O K
5760 min Winter	99.019	0.019	0.2	0.2	O K
7200 min Winter	99.016	0.016	0.1	0.2	O K
8640 min Winter	99.014	0.014	0.1	0.2	O K
10080 min Winter	99.012	0.012	0.1	0.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	90.474	0.0	32		
60 min Winter	57.877	0.0	60		
120 min Winter	35.655	0.0	102		
180 min Winter	26.413	0.0	138		
240 min Winter	21.237	0.0	176		
360 min Winter	15.626	0.0	252		
480 min Winter	12.548	0.0	322		
600 min Winter	10.575	0.0	392		
720 min Winter	9.191	0.0	456		
960 min Winter	7.358	0.0	580		
1440 min Winter	5.368	0.0	794		
2160 min Winter	3.907	0.0	1100		
2880 min Winter	3.115	0.0	1468		
4320 min Winter	2.259	0.0	2196		
5760 min Winter	1.796	0.0	2936		
7200 min Winter	1.506	0.0	3544		
8640 min Winter	1.304	0.0	4352		
10080 min Winter	1.154	0.0	5112		
©1982-2017 XP Solutions					

MJA Consulting		Page 4
Monarch House Barton Lane OX14 3NB	Plots 204 - 206 Westergate & Eastergate	
Date 05/04/2018 File Trench SA Plots 204 - 2...	Designed by S.Smith Checked by	
Innovyze	Source Control 2017.1.2	

Model Details

Storage is Online Cover Level (m) 100.000

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.07200	Trench Width (m)	3.4
Infiltration Coefficient Side (m/hr)	0.07200	Trench Length (m)	12.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	99.000	Cap Infiltration Depth (m)	0.000

©1982-2017 XP Solutions