

MJA Consulting			Page 1																																																																																																																																																																																																																			
Monarch House Barton Lane OX14 3NB		Westergate & Eastergate Double Permeable Driveway 1:100+40%cc																																																																																																																																																																																																																				
Date 07/03/2018 File Typical Double Permeabl...		Designed by C.Pendle Checked by																																																																																																																																																																																																																				
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<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 107 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>99.292</td><td>0.292</td><td>0.8</td><td>5.7</td><td>O K</td></tr><tr><td>30 min Summer</td><td>99.356</td><td>0.356</td><td>0.8</td><td>7.4</td><td>O K</td></tr><tr><td>60 min Summer</td><td>99.405</td><td>0.405</td><td>0.8</td><td>8.6</td><td>O K</td></tr><tr><td>120 min Summer</td><td>99.420</td><td>0.420</td><td>0.8</td><td>9.0</td><td>O K</td></tr><tr><td>180 min Summer</td><td>99.413</td><td>0.413</td><td>0.8</td><td>8.8</td><td>O K</td></tr><tr><td>240 min Summer</td><td>99.398</td><td>0.398</td><td>0.8</td><td>8.4</td><td>O K</td></tr><tr><td>360 min Summer</td><td>99.369</td><td>0.369</td><td>0.8</td><td>7.7</td><td>O K</td></tr><tr><td>480 min Summer</td><td>99.339</td><td>0.339</td><td>0.8</td><td>6.9</td><td>O K</td></tr><tr><td>600 min Summer</td><td>99.310</td><td>0.310</td><td>0.8</td><td>6.2</td><td>O K</td></tr><tr><td>720 min Summer</td><td>99.282</td><td>0.282</td><td>0.8</td><td>5.5</td><td>O K</td></tr><tr><td>960 min Summer</td><td>99.233</td><td>0.233</td><td>0.8</td><td>4.3</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>99.162</td><td>0.162</td><td>0.8</td><td>2.5</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>99.118</td><td>0.118</td><td>0.8</td><td>1.4</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>99.099</td><td>0.099</td><td>0.6</td><td>1.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>99.075</td><td>0.075</td><td>0.5</td><td>0.5</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>99.060</td><td>0.060</td><td>0.4</td><td>0.4</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>99.051</td><td>0.051</td><td>0.3</td><td>0.2</td><td>O K</td></tr><tr><td>8640 min 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Summer</td><td>10.302</td><td>0.0</td><td>368</td></tr><tr><td>720 min Summer</td><td>8.963</td><td>0.0</td><td>432</td></tr><tr><td>960 min Summer</td><td>7.189</td><td>0.0</td><td>552</td></tr><tr><td>1440 min Summer</td><td>5.257</td><td>0.0</td><td>780</td></tr><tr><td>2160 min Summer</td><td>3.836</td><td>0.0</td><td>1120</td></tr><tr><td>2880 min Summer</td><td>3.063</td><td>0.0</td><td>1472</td></tr><tr><td>4320 min Summer</td><td>2.226</td><td>0.0</td><td>2204</td></tr><tr><td>5760 min Summer</td><td>1.773</td><td>0.0</td><td>2928</td></tr><tr><td>7200 min Summer</td><td>1.487</td><td>0.0</td><td>3664</td></tr><tr><td>8640 min Summer</td><td>1.289</td><td>0.0</td><td>4400</td></tr><tr><td>10080 min Summer</td><td>1.142</td><td>0.0</td><td>5136</td></tr><tr><td>15 min Winter</td><td>127.204</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	99.292	0.292	0.8	5.7	O K	30 min Summer	99.356	0.356	0.8	7.4	O K	60 min Summer	99.405	0.405	0.8	8.6	O K	120 min Summer	99.420	0.420	0.8	9.0	O K	180 min Summer	99.413	0.413	0.8	8.8	O K	240 min Summer	99.398	0.398	0.8	8.4	O K	360 min Summer	99.369	0.369	0.8	7.7	O K	480 min Summer	99.339	0.339	0.8	6.9	O K	600 min Summer	99.310	0.310	0.8	6.2	O K	720 min Summer	99.282	0.282	0.8	5.5	O K	960 min Summer	99.233	0.233	0.8	4.3	O K	1440 min Summer	99.162	0.162	0.8	2.5	O K	2160 min Summer	99.118	0.118	0.8	1.4	O K	2880 min Summer	99.099	0.099	0.6	1.0	O K	4320 min Summer	99.075	0.075	0.5	0.5	O K	5760 min Summer	99.060	0.060	0.4	0.4	O K	7200 min Summer	99.051	0.051	0.3	0.2	O K	8640 min Summer	99.047	0.047	0.3	0.2	O K	10080 min Summer	99.044	0.044	0.3	0.2	O K	15 min Winter	99.322	0.322	0.8	6.5	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	127.204	0.0	18	30 min Summer	85.821	0.0	32	60 min Summer	55.250	0.0	60	120 min Summer	34.307	0.0	100	180 min Summer	25.552	0.0	132	240 min Summer	20.570	0.0	166	360 min Summer	15.173	0.0	234	480 min Summer	12.206	0.0	302	600 min Summer	10.302	0.0	368	720 min Summer	8.963	0.0	432	960 min Summer	7.189	0.0	552	1440 min Summer	5.257	0.0	780	2160 min Summer	3.836	0.0	1120	2880 min Summer	3.063	0.0	1472	4320 min Summer	2.226	0.0	2204	5760 min Summer	1.773	0.0	2928	7200 min Summer	1.487	0.0	3664	8640 min Summer	1.289	0.0	4400	10080 min Summer	1.142	0.0	5136	15 min Winter	127.204	0.0	18
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Monarch House Barton Lane OX14 3NB		Westergate & Eastergate Double Permeable Driveway 1:100+40%cc			
Date 07/03/2018 File Typical Double Permeabl...		Designed by C.Pendle 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	99.397	0.397	0.8	8.4	O K
60 min Winter	99.458	0.458	0.8	10.0	O K
120 min Winter	99.481	0.481	0.8	10.5	O K
180 min Winter	99.469	0.469	0.8	10.2	O K
240 min Winter	99.448	0.448	0.8	9.7	O K
360 min Winter	99.403	0.403	0.8	8.6	O K
480 min Winter	99.355	0.355	0.8	7.4	O K
600 min Winter	99.310	0.310	0.8	6.2	O K
720 min Winter	99.267	0.267	0.8	5.1	O K
960 min Winter	99.195	0.195	0.8	3.3	O K
1440 min Winter	99.123	0.123	0.8	1.5	O K
2160 min Winter	99.092	0.092	0.6	0.8	O K
2880 min Winter	99.075	0.075	0.5	0.5	O K
4320 min Winter	99.055	0.055	0.4	0.3	O K
5760 min Winter	99.047	0.047	0.3	0.2	O K
7200 min Winter	99.043	0.043	0.2	0.2	O K
8640 min Winter	99.040	0.040	0.2	0.2	O K
10080 min Winter	99.038	0.038	0.2	0.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.821	0.0	32		
60 min Winter	55.250	0.0	60		
120 min Winter	34.307	0.0	114		
180 min Winter	25.552	0.0	142		
240 min Winter	20.570	0.0	180		
360 min Winter	15.173	0.0	256		
480 min Winter	12.206	0.0	326		
600 min Winter	10.302	0.0	394		
720 min Winter	8.963	0.0	458		
960 min Winter	7.189	0.0	576		
1440 min Winter	5.257	0.0	766		
2160 min Winter	3.836	0.0	1124		
2880 min Winter	3.063	0.0	1468		
4320 min Winter	2.226	0.0	2188		
5760 min Winter	1.773	0.0	2872		
7200 min Winter	1.487	0.0	3568		
8640 min Winter	1.289	0.0	4320		
10080 min Winter	1.142	0.0	5096		
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Date 07/03/2018 File Typical Double Permeabl...	Designed by C.Pendle Checked by	
Innovyze	Source Control 2017.1.2	

Model Details

Storage is Online Cover Level (m) 100.000

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.07200	Width (m)	6.5
Membrane Percolation (mm/hr)	1000	Length (m)	13.0
Max Percolation (l/s)	23.5	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	0
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	99.000	Cap Volume Depth (m)	0.500

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