

Paul Basham Associates					Page 1																																																																																																																																																																																																																			
Lancaster Court Fareham Hampshire, PO15 5TU			108.5009 EASTERGATE PERMEABLE PAVING 1:100+40%CC																																																																																																																																																																																																																					
Date 29/10/2021 13:27 File PERMEABLE PAVING SIZING...			Designed by RD Checked by AJS																																																																																																																																																																																																																					
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<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 9 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>16.803</td><td>0.219</td><td>3.2</td><td>2.5</td><td>O K</td></tr><tr><td>30 min Summer</td><td>16.825</td><td>0.241</td><td>3.6</td><td>3.0</td><td>O K</td></tr><tr><td>60 min Summer</td><td>16.827</td><td>0.243</td><td>3.6</td><td>3.0</td><td>O K</td></tr><tr><td>120 min Summer</td><td>16.803</td><td>0.219</td><td>3.2</td><td>2.5</td><td>O K</td></tr><tr><td>180 min Summer</td><td>16.778</td><td>0.194</td><td>2.9</td><td>2.0</td><td>O K</td></tr><tr><td>240 min Summer</td><td>16.758</td><td>0.174</td><td>2.6</td><td>1.6</td><td>O K</td></tr><tr><td>360 min Summer</td><td>16.728</td><td>0.144</td><td>2.1</td><td>1.1</td><td>O K</td></tr><tr><td>480 min Summer</td><td>16.707</td><td>0.123</td><td>1.8</td><td>0.8</td><td>O K</td></tr><tr><td>600 min Summer</td><td>16.691</td><td>0.107</td><td>1.6</td><td>0.6</td><td>O K</td></tr><tr><td>720 min Summer</td><td>16.680</td><td>0.096</td><td>1.4</td><td>0.5</td><td>O K</td></tr><tr><td>960 min Summer</td><td>16.663</td><td>0.079</td><td>1.2</td><td>0.3</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>16.642</td><td>0.058</td><td>0.9</td><td>0.2</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>16.630</td><td>0.046</td><td>0.6</td><td>0.1</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>16.625</td><td>0.041</td><td>0.5</td><td>0.1</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>16.619</td><td>0.035</td><td>0.4</td><td>0.1</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>16.615</td><td>0.031</td><td>0.3</td><td>0.1</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>16.613</td><td>0.029</td><td>0.2</td><td>0.0</td><td>O K</td></tr><tr><td>8640 min 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Summer	16.825	0.241	3.6	3.0	O K	60 min Summer	16.827	0.243	3.6	3.0	O K	120 min Summer	16.803	0.219	3.2	2.5	O K	180 min Summer	16.778	0.194	2.9	2.0	O K	240 min Summer	16.758	0.174	2.6	1.6	O K	360 min Summer	16.728	0.144	2.1	1.1	O K	480 min Summer	16.707	0.123	1.8	0.8	O K	600 min Summer	16.691	0.107	1.6	0.6	O K	720 min Summer	16.680	0.096	1.4	0.5	O K	960 min Summer	16.663	0.079	1.2	0.3	O K	1440 min Summer	16.642	0.058	0.9	0.2	O K	2160 min Summer	16.630	0.046	0.6	0.1	O K	2880 min Summer	16.625	0.041	0.5	0.1	O K	4320 min Summer	16.619	0.035	0.4	0.1	O K	5760 min Summer	16.615	0.031	0.3	0.1	O K	7200 min Summer	16.613	0.029	0.2	0.0	O K	8640 min Summer	16.611	0.027	0.2	0.0	O K	10080 min Summer	16.609	0.025	0.2	0.0	O K	15 min Winter	16.820	0.236	3.5	2.9	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	124.633	0.0	13	30 min Summer	83.789	0.0	22	60 min Summer	53.779	0.0	38	120 min Summer	33.337	0.0	70	180 min Summer	24.832	0.0	100	240 min Summer	20.006	0.0	132	360 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Innovyze		Source Control 2020.1.3				
Summary of Results for 100 year Return Period (+40%)						
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	
30 min Winter	16.839	0.255	3.8	3.4	O K	
60 min Winter	16.831	0.247	3.6	3.1	O K	
120 min Winter	16.793	0.209	3.1	2.3	O K	
180 min Winter	16.761	0.177	2.6	1.6	O K	
240 min Winter	16.736	0.152	2.2	1.2	O K	
360 min Winter	16.702	0.118	1.7	0.7	O K	
480 min Winter	16.681	0.097	1.4	0.5	O K	
600 min Winter	16.666	0.082	1.2	0.3	O K	
720 min Winter	16.656	0.072	1.1	0.3	O K	
960 min Winter	16.642	0.058	0.9	0.2	O K	
1440 min Winter	16.630	0.046	0.6	0.1	O K	
2160 min Winter	16.623	0.039	0.5	0.1	O K	
2880 min Winter	16.619	0.035	0.4	0.1	O K	
4320 min Winter	16.614	0.030	0.3	0.0	O K	
5760 min Winter	16.610	0.026	0.2	0.0	O K	
7200 min Winter	16.608	0.024	0.2	0.0	O K	
8640 min Winter	16.607	0.023	0.2	0.0	O K	
10080 min Winter	16.605	0.021	0.1	0.0	O K	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)			
30 min Winter	83.789	0.0	23			
60 min Winter	53.779	0.0	40			
120 min Winter	33.337	0.0	74			
180 min Winter	24.832	0.0	104			
240 min Winter	20.006	0.0	134			
360 min Winter	14.706	0.0	192			
480 min Winter	11.818	0.0	252			
600 min Winter	9.966	0.0	308			
720 min Winter	8.665	0.0	368			
960 min Winter	6.943	0.0	484			
1440 min Winter	5.071	0.0	726			
2160 min Winter	3.696	0.0	1080			
2880 min Winter	2.949	0.0	1432			
4320 min Winter	2.142	0.0	2184			
5760 min Winter	1.705	0.0	2936			
7200 min Winter	1.427	0.0	3680			
8640 min Winter	1.235	0.0	4344			
10080 min Winter	1.093	0.0	4984			
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<u>Model Details</u> Storage is Online Cover Level (m) 17.294 <u>Porous Car Park Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.30852</td> <td>Width (m)</td> <td>11.5</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>18.0</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>57.5</td> <td>Slope (1:X)</td> <td>30.0</td> </tr> <tr> <td>Safety Factor</td> <td>2.0</td> <td>Depression Storage (mm)</td> <td>5</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Invert Level (m)</td> <td>16.584</td> <td>Membrane Depth (m)</td> <td>190</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.30852	Width (m)	11.5	Membrane Percolation (mm/hr)	1000	Length (m)	18.0	Max Percolation (l/s)	57.5	Slope (1:X)	30.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.30	Evaporation (mm/day)	3	Invert Level (m)	16.584	Membrane Depth (m)	190
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