

Paul Basham Associates				Page 1																																																																																																																																																																																																																			
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Summary of Results for 100 year Return Period (+40%) Half Drain Time : 49 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>16.093</td><td>0.078</td><td>4.5</td><td>15.3</td><td>O K</td></tr><tr><td>30 min Summer</td><td>16.113</td><td>0.098</td><td>4.6</td><td>19.2</td><td>O K</td></tr><tr><td>60 min Summer</td><td>16.126</td><td>0.111</td><td>4.6</td><td>21.8</td><td>O K</td></tr><tr><td>120 min Summer</td><td>16.129</td><td>0.114</td><td>4.6</td><td>22.5</td><td>O K</td></tr><tr><td>180 min Summer</td><td>16.123</td><td>0.108</td><td>4.6</td><td>21.3</td><td>O K</td></tr><tr><td>240 min Summer</td><td>16.115</td><td>0.100</td><td>4.6</td><td>19.7</td><td>O K</td></tr><tr><td>360 min Summer</td><td>16.100</td><td>0.085</td><td>4.6</td><td>16.7</td><td>O K</td></tr><tr><td>480 min Summer</td><td>16.086</td><td>0.071</td><td>4.5</td><td>14.0</td><td>O K</td></tr><tr><td>600 min Summer</td><td>16.075</td><td>0.060</td><td>4.5</td><td>11.9</td><td>O K</td></tr><tr><td>720 min Summer</td><td>16.067</td><td>0.052</td><td>4.5</td><td>10.3</td><td>O K</td></tr><tr><td>960 min Summer</td><td>16.059</td><td>0.044</td><td>4.0</td><td>8.7</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>16.050</td><td>0.035</td><td>3.1</td><td>6.8</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>16.042</td><td>0.027</td><td>2.4</td><td>5.2</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>16.037</td><td>0.022</td><td>2.0</td><td>4.3</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>16.031</td><td>0.016</td><td>1.5</td><td>3.2</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>16.028</td><td>0.013</td><td>1.2</td><td>2.6</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>16.026</td><td>0.011</td><td>1.0</td><td>2.2</td><td>O K</td></tr><tr><td>8640 min 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Summer</td><td>10.656</td><td>0.0</td><td>332</td></tr><tr><td>720 min Summer</td><td>9.290</td><td>0.0</td><td>386</td></tr><tr><td>960 min Summer</td><td>7.475</td><td>0.0</td><td>504</td></tr><tr><td>1440 min Summer</td><td>5.489</td><td>0.0</td><td>748</td></tr><tr><td>2160 min Summer</td><td>4.021</td><td>0.0</td><td>1104</td></tr><tr><td>2880 min Summer</td><td>3.220</td><td>0.0</td><td>1468</td></tr><tr><td>4320 min Summer</td><td>2.348</td><td>0.0</td><td>2200</td></tr><tr><td>5760 min Summer</td><td>1.878</td><td>0.0</td><td>2928</td></tr><tr><td>7200 min Summer</td><td>1.581</td><td>0.0</td><td>3632</td></tr><tr><td>8640 min Summer</td><td>1.373</td><td>0.0</td><td>4328</td></tr><tr><td>10080 min Summer</td><td>1.219</td><td>0.0</td><td>5088</td></tr><tr><td>15 min Winter</td><td>125.250</td><td>0.0</td><td>17</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	16.093	0.078	4.5	15.3	O K	30 min Summer	16.113	0.098	4.6	19.2	O K	60 min Summer	16.126	0.111	4.6	21.8	O K	120 min Summer	16.129	0.114	4.6	22.5	O K	180 min Summer	16.123	0.108	4.6	21.3	O K	240 min Summer	16.115	0.100	4.6	19.7	O K	360 min Summer	16.100	0.085	4.6	16.7	O K	480 min Summer	16.086	0.071	4.5	14.0	O K	600 min Summer	16.075	0.060	4.5	11.9	O K	720 min Summer	16.067	0.052	4.5	10.3	O K	960 min Summer	16.059	0.044	4.0	8.7	O K	1440 min Summer	16.050	0.035	3.1	6.8	O K	2160 min Summer	16.042	0.027	2.4	5.2	O K	2880 min Summer	16.037	0.022	2.0	4.3	O K	4320 min Summer	16.031	0.016	1.5	3.2	O K	5760 min Summer	16.028	0.013	1.2	2.6	O K	7200 min Summer	16.026	0.011	1.0	2.2	O K	8640 min Summer	16.025	0.010	0.9	1.9	O K	10080 min Summer	16.024	0.009	0.8	1.7	O K	15 min Winter	16.103	0.088	4.6	17.4	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	125.250	0.0	17	30 min Summer	85.368	0.0	30	60 min Summer	55.544	0.0	48	120 min Summer	34.816	0.0	82	180 min Summer	26.038	0.0	116	240 min 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8 Barnes Wallis Road		0.077Ha			
Fareham PO15 5TU		INFILTRATION CRATES			
Date 07.08.2020		Designed by RW			
File catchment B.SRCX		Checked by AS			
XP Solutions		Source Control 2014.1			
<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	16.127	0.112	4.6	22.0	O K
60 min Winter	16.141	0.126	4.6	24.8	O K
120 min Winter	16.142	0.127	4.6	25.1	O K
180 min Winter	16.132	0.117	4.6	23.0	O K
240 min Winter	16.119	0.104	4.6	20.4	O K
360 min Winter	16.094	0.079	4.5	15.6	O K
480 min Winter	16.075	0.060	4.5	11.8	O K
600 min Winter	16.064	0.049	4.4	9.6	O K
720 min Winter	16.059	0.044	3.9	8.6	O K
960 min Winter	16.051	0.036	3.2	7.1	O K
1440 min Winter	16.042	0.027	2.5	5.3	O K
2160 min Winter	16.035	0.020	1.8	3.9	O K
2880 min Winter	16.031	0.016	1.5	3.1	O K
4320 min Winter	16.027	0.012	1.1	2.3	O K
5760 min Winter	16.025	0.010	0.9	1.9	O K
7200 min Winter	16.023	0.008	0.7	1.6	O K
8640 min Winter	16.022	0.007	0.7	1.4	O K
10080 min Winter	16.021	0.006	0.6	1.2	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.368	0.0	30		
60 min Winter	55.544	0.0	52		
120 min Winter	34.816	0.0	90		
180 min Winter	26.038	0.0	126		
240 min Winter	21.042	0.0	162		
360 min Winter	15.601	0.0	226		
480 min Winter	12.593	0.0	282		
600 min Winter	10.656	0.0	332		
720 min Winter	9.290	0.0	392		
960 min Winter	7.475	0.0	512		
1440 min Winter	5.489	0.0	748		
2160 min Winter	4.021	0.0	1100		
2880 min Winter	3.220	0.0	1476		
4320 min Winter	2.348	0.0	2204		
5760 min Winter	1.878	0.0	2880		
7200 min Winter	1.581	0.0	3696		
8640 min Winter	1.373	0.0	4344		
10080 min Winter	1.219	0.0	5024		
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<u>Rainfall Details</u> <table> <tr> <td>Rainfall Model</td> <td>FSR</td> <td>Winter Storms</td> <td>Yes</td> </tr> <tr> <td>Return Period (years)</td> <td>100</td> <td>Cv (Summer)</td> <td>0.750</td> </tr> <tr> <td>Region</td> <td>England and Wales</td> <td>Cv (Winter)</td> <td>0.840</td> </tr> <tr> <td>M5-60 (mm)</td> <td>19.600</td> <td>Shortest Storm (mins)</td> <td>15</td> </tr> <tr> <td>Ratio R</td> <td>0.322</td> <td>Longest Storm (mins)</td> <td>10080</td> </tr> <tr> <td>Summer Storms</td> <td>Yes</td> <td>Climate Change %</td> <td>+40</td> </tr> </table> <u>Time Area Diagram</u> Total Area (ha) 0.077 <table> <tr> <th>Time (mins)</th> <th>Area</th> </tr> <tr> <th>From:</th> <th>To: (ha)</th> </tr> <tr> <td>0</td> <td>4 0.077</td> </tr> </table>			Rainfall Model	FSR	Winter Storms	Yes	Return Period (years)	100	Cv (Summer)	0.750	Region	England and Wales	Cv (Winter)	0.840	M5-60 (mm)	19.600	Shortest Storm (mins)	15	Ratio R	0.322	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+40	Time (mins)	Area	From:	To: (ha)	0	4 0.077
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<u>Model Details</u> Storage is Online Cover Level (m) 17.500 <u>Cellular Storage Structure</u> Invert Level (m) 16.015 Safety Factor 4.0 Infiltration Coefficient Base (m/hr) 0.30852 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.30852 <table border="1"> <thead> <tr> <th>Depth (m)</th> <th>Area (m²)</th> <th>Inf. Area (m²)</th> <th>Depth (m)</th> <th>Area (m²)</th> <th>Inf. Area (m²)</th> </tr> </thead> <tbody> <tr> <td>0.000</td> <td>207.0</td> <td>207.0</td> <td>1.000</td> <td>207.0</td> <td>272.2</td> </tr> <tr> <td>0.500</td> <td>207.0</td> <td>239.6</td> <td>1.500</td> <td>207.0</td> <td>304.8</td> </tr> </tbody> </table>			Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)	0.000	207.0	207.0	1.000	207.0	272.2	0.500	207.0	239.6	1.500	207.0	304.8
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