

Paul Basham Associates				Page 1																																																																																																																																																																																																																			
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Summary of Results for 100 year Return Period (+40%) Half Drain Time : 246 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>14.911</td><td>0.486</td><td>1.0</td><td>15.5</td><td>O K</td></tr><tr><td>30 min Summer</td><td>15.074</td><td>0.649</td><td>1.1</td><td>20.7</td><td>O K</td></tr><tr><td>60 min Summer</td><td>15.233</td><td>0.808</td><td>1.2</td><td>25.7</td><td>O K</td></tr><tr><td>120 min Summer</td><td>15.353</td><td>0.928</td><td>1.3</td><td>29.5</td><td>O K</td></tr><tr><td>180 min Summer</td><td>15.381</td><td>0.956</td><td>1.3</td><td>30.4</td><td>O K</td></tr><tr><td>240 min Summer</td><td>15.382</td><td>0.957</td><td>1.3</td><td>30.5</td><td>O K</td></tr><tr><td>360 min Summer</td><td>15.372</td><td>0.947</td><td>1.3</td><td>30.1</td><td>O K</td></tr><tr><td>480 min Summer</td><td>15.350</td><td>0.925</td><td>1.3</td><td>29.4</td><td>O K</td></tr><tr><td>600 min Summer</td><td>15.325</td><td>0.900</td><td>1.3</td><td>28.6</td><td>O K</td></tr><tr><td>720 min Summer</td><td>15.298</td><td>0.873</td><td>1.3</td><td>27.8</td><td>O K</td></tr><tr><td>960 min Summer</td><td>15.246</td><td>0.821</td><td>1.2</td><td>26.1</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>15.145</td><td>0.720</td><td>1.2</td><td>22.9</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>15.010</td><td>0.585</td><td>1.1</td><td>18.6</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>14.897</td><td>0.472</td><td>1.0</td><td>15.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>14.724</td><td>0.299</td><td>0.9</td><td>9.5</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>14.605</td><td>0.180</td><td>0.8</td><td>5.7</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>14.528</td><td>0.103</td><td>0.8</td><td>3.3</td><td>O K</td></tr><tr><td>8640 min 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Summer	15.074	0.649	1.1	20.7	O K	60 min Summer	15.233	0.808	1.2	25.7	O K	120 min Summer	15.353	0.928	1.3	29.5	O K	180 min Summer	15.381	0.956	1.3	30.4	O K	240 min Summer	15.382	0.957	1.3	30.5	O K	360 min Summer	15.372	0.947	1.3	30.1	O K	480 min Summer	15.350	0.925	1.3	29.4	O K	600 min Summer	15.325	0.900	1.3	28.6	O K	720 min Summer	15.298	0.873	1.3	27.8	O K	960 min Summer	15.246	0.821	1.2	26.1	O K	1440 min Summer	15.145	0.720	1.2	22.9	O K	2160 min Summer	15.010	0.585	1.1	18.6	O K	2880 min Summer	14.897	0.472	1.0	15.0	O K	4320 min Summer	14.724	0.299	0.9	9.5	O K	5760 min Summer	14.605	0.180	0.8	5.7	O K	7200 min Summer	14.528	0.103	0.8	3.3	O K	8640 min Summer	14.484	0.059	0.8	1.9	O K	10080 min Summer	14.472	0.047	0.7	1.5	O K	15 min Winter	14.972	0.547	1.1	17.4	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	125.250	0.0	21	30 min Summer	85.368	0.0	35	60 min Summer	55.544	0.0	64	120 min Summer	34.816	0.0	122	180 min Summer	26.038	0.0	174	240 min 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Lancaster Court		CATCHMENT F			
8 Barnes Wallis Road		0.071Ha			
Fareham PO15 5TU		INFILTRATION CRATES			
Date 07.08.2020		Designed by RW			
File catchment F.SRCX		Checked by AS			
XP Solutions		Source Control 2014.1			
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	15.157	0.732	1.2	23.3	O K
60 min Winter	15.340	0.915	1.3	29.1	O K
120 min Winter	15.487	1.062	1.4	33.8	O K
180 min Winter	15.530	1.105	1.4	35.2	O K
240 min Winter	15.531	1.106	1.4	35.2	O K
360 min Winter	15.517	1.092	1.4	34.8	O K
480 min Winter	15.487	1.062	1.4	33.8	O K
600 min Winter	15.448	1.023	1.4	32.6	O K
720 min Winter	15.408	0.983	1.3	31.3	O K
960 min Winter	15.327	0.902	1.3	28.7	O K
1440 min Winter	15.174	0.749	1.2	23.9	O K
2160 min Winter	14.981	0.556	1.1	17.7	O K
2880 min Winter	14.827	0.402	1.0	12.8	O K
4320 min Winter	14.606	0.181	0.8	5.8	O K
5760 min Winter	14.483	0.058	0.8	1.9	O K
7200 min Winter	14.469	0.044	0.7	1.4	O K
8640 min Winter	14.463	0.038	0.6	1.2	O K
10080 min Winter	14.459	0.034	0.5	1.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.368	0.0	35		
60 min Winter	55.544	0.0	62		
120 min Winter	34.816	0.0	120		
180 min Winter	26.038	0.0	174		
240 min Winter	21.042	0.0	226		
360 min Winter	15.601	0.0	282		
480 min Winter	12.593	0.0	360		
600 min Winter	10.656	0.0	436		
720 min Winter	9.290	0.0	512		
960 min Winter	7.475	0.0	658		
1440 min Winter	5.489	0.0	940		
2160 min Winter	4.021	0.0	1344		
2880 min Winter	3.220	0.0	1732		
4320 min Winter	2.348	0.0	2428		
5760 min Winter	1.878	0.0	3000		
7200 min Winter	1.581	0.0	3632		
8640 min Winter	1.373	0.0	4408		
10080 min Winter	1.219	0.0	5112		
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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) 0.070 <table> <thead> <tr> <th>Time (mins)</th> <th>Area</th> <th>Time (mins)</th> <th>Area</th> </tr> <tr> <th>From: To:</th> <th>(ha)</th> <th>From: To:</th> <th>(ha)</th> </tr> </thead> <tbody> <tr> <td>0 4</td> <td>0.043</td> <td>4 8</td> <td>0.027</td> </tr> </tbody> </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	Time (mins)	Area	From: To:	(ha)	From: To:	(ha)	0 4	0.043	4 8	0.027
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<u>Model Details</u> Storage is Online Cover Level (m) 17.000 <u>Cellular Storage Structure</u> Invert Level (m) 14.425 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>33.5</td> <td>33.5</td> <td>1.000</td> <td>33.5</td> <td>62.5</td> </tr> <tr> <td>0.500</td> <td>33.5</td> <td>48.0</td> <td>1.500</td> <td>33.5</td> <td>77.0</td> </tr> </tbody> </table>			Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	0.000	33.5	33.5	1.000	33.5	62.5	0.500	33.5	48.0	1.500	33.5	77.0
Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)															
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