

Paul Basham Associates				Page 1																																																																																																																																																																																																																			
Lancaster Court Fareham Hampshire, PO15 5TU		08																																																																																																																																																																																																																					
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<p>Summary of Results for 30 year Return Period (+30%)</p> <p>Half Drain Time : 128 minutes.</p> <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>-1.052</td><td>0.448</td><td>0.4</td><td>4.0</td><td>O K</td></tr><tr><td>30 min Summer</td><td>-0.930</td><td>0.570</td><td>0.5</td><td>5.1</td><td>O K</td></tr><tr><td>60 min Summer</td><td>-0.832</td><td>0.668</td><td>0.5</td><td>6.0</td><td>O K</td></tr><tr><td>120 min Summer</td><td>-0.787</td><td>0.713</td><td>0.6</td><td>6.4</td><td>O K</td></tr><tr><td>180 min Summer</td><td>-0.784</td><td>0.716</td><td>0.6</td><td>6.4</td><td>O K</td></tr><tr><td>240 min Summer</td><td>-0.795</td><td>0.705</td><td>0.5</td><td>6.3</td><td>O K</td></tr><tr><td>360 min Summer</td><td>-0.829</td><td>0.671</td><td>0.5</td><td>6.0</td><td>O K</td></tr><tr><td>480 min Summer</td><td>-0.864</td><td>0.636</td><td>0.5</td><td>5.7</td><td>O K</td></tr><tr><td>600 min Summer</td><td>-0.899</td><td>0.601</td><td>0.5</td><td>5.4</td><td>O K</td></tr><tr><td>720 min Summer</td><td>-0.932</td><td>0.568</td><td>0.5</td><td>5.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>-0.995</td><td>0.505</td><td>0.5</td><td>4.5</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>-1.102</td><td>0.398</td><td>0.4</td><td>3.6</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>-1.224</td><td>0.276</td><td>0.4</td><td>2.5</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>-1.311</td><td>0.189</td><td>0.3</td><td>1.7</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>-1.418</td><td>0.082</td><td>0.3</td><td>0.7</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>-1.453</td><td>0.047</td><td>0.3</td><td>0.4</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>-1.460</td><td>0.040</td><td>0.2</td><td>0.4</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>-1.465</td><td>0.035</td><td>0.2</td><td>0.3</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>-1.469</td><td>0.031</td><td>0.2</td><td>0.3</td><td>O K</td></tr><tr><td>15 min Winter</td><td>-0.995</td><td>0.505</td><td>0.5</td><td>4.5</td><td>O K</td></tr></tbody></table> <table><thead><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr></thead><tbody><tr><td>15 min Summer</td><td>89.487</td><td>0.0</td><td>18</td></tr><tr><td>30 min Summer</td><td>59.577</td><td>0.0</td><td>32</td></tr><tr><td>60 min Summer</td><td>38.009</td><td>0.0</td><td>60</td></tr><tr><td>120 min Summer</td><td>23.546</td><td>0.0</td><td>100</td></tr><tr><td>180 min Summer</td><td>17.594</td><td>0.0</td><td>132</td></tr><tr><td>240 min Summer</td><td>14.237</td><td>0.0</td><td>168</td></tr><tr><td>360 min Summer</td><td>10.537</td><td>0.0</td><td>236</td></tr><tr><td>480 min Summer</td><td>8.507</td><td>0.0</td><td>306</td></tr><tr><td>600 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Summer	-0.930	0.570	0.5	5.1	O K	60 min Summer	-0.832	0.668	0.5	6.0	O K	120 min Summer	-0.787	0.713	0.6	6.4	O K	180 min Summer	-0.784	0.716	0.6	6.4	O K	240 min Summer	-0.795	0.705	0.5	6.3	O K	360 min Summer	-0.829	0.671	0.5	6.0	O K	480 min Summer	-0.864	0.636	0.5	5.7	O K	600 min Summer	-0.899	0.601	0.5	5.4	O K	720 min Summer	-0.932	0.568	0.5	5.1	O K	960 min Summer	-0.995	0.505	0.5	4.5	O K	1440 min Summer	-1.102	0.398	0.4	3.6	O K	2160 min Summer	-1.224	0.276	0.4	2.5	O K	2880 min Summer	-1.311	0.189	0.3	1.7	O K	4320 min Summer	-1.418	0.082	0.3	0.7	O K	5760 min Summer	-1.453	0.047	0.3	0.4	O K	7200 min Summer	-1.460	0.040	0.2	0.4	O K	8640 min Summer	-1.465	0.035	0.2	0.3	O K	10080 min Summer	-1.469	0.031	0.2	0.3	O K	15 min Winter	-0.995	0.505	0.5	4.5	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	89.487	0.0	18	30 min Summer	59.577	0.0	32	60 min Summer	38.009	0.0	60	120 min Summer	23.546	0.0	100	180 min Summer	17.594	0.0	132	240 min Summer	14.237	0.0	168	360 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Paul Basham Associates				Page 2	
Lancaster Court Fareham Hampshire, PO15 5TU		08			
Date 29/04/2019		Designed by JB			
File 08. Plots 58-62. lin30 ...		Checked by AS			
Innovyze		Source Control 2018.1.1			
Summary of Results for 30 year Return Period (+30%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	-0.854	0.646	0.5	5.8	O K
60 min Winter	-0.737	0.763	0.6	6.9	O K
120 min Winter	-0.681	0.819	0.6	7.4	O K
180 min Winter	-0.679	0.821	0.6	7.4	O K
240 min Winter	-0.696	0.804	0.6	7.2	O K
360 min Winter	-0.748	0.752	0.6	6.8	O K
480 min Winter	-0.803	0.697	0.5	6.3	O K
600 min Winter	-0.856	0.644	0.5	5.8	O K
720 min Winter	-0.907	0.593	0.5	5.3	O K
960 min Winter	-0.999	0.501	0.5	4.5	O K
1440 min Winter	-1.147	0.353	0.4	3.2	O K
2160 min Winter	-1.304	0.196	0.3	1.8	O K
2880 min Winter	-1.406	0.094	0.3	0.8	O K
4320 min Winter	-1.458	0.042	0.2	0.4	O K
5760 min Winter	-1.466	0.034	0.2	0.3	O K
7200 min Winter	-1.471	0.029	0.2	0.3	O K
8640 min Winter	-1.475	0.025	0.1	0.2	O K
10080 min Winter	-1.478	0.022	0.1	0.2	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	59.577	0.0	32		
60 min Winter	38.009	0.0	60		
120 min Winter	23.546	0.0	112		
180 min Winter	17.594	0.0	140		
240 min Winter	14.237	0.0	180		
360 min Winter	10.537	0.0	256		
480 min Winter	8.507	0.0	330		
600 min Winter	7.201	0.0	400		
720 min Winter	6.281	0.0	470		
960 min Winter	5.060	0.0	606		
1440 min Winter	3.726	0.0	866		
2160 min Winter	2.740	0.0	1236		
2880 min Winter	2.201	0.0	1560		
4320 min Winter	1.614	0.0	2204		
5760 min Winter	1.295	0.0	2928		
7200 min Winter	1.091	0.0	3632		
8640 min Winter	0.948	0.0	4352		
10080 min Winter	0.843	0.0	5000		
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Paul Basham Associates		Page 3
Lancaster Court Fareham Hampshire, PO15 5TU	08	
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File 08. Plots 58-62. 1in30 ...	Checked by AS	
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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.026

Time (mins)	Area
From:	To: (ha)
0	4 0.026

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Paul Basham Associates		Page 4																				
Lancaster Court Fareham Hampshire, PO15 5TU	08																					
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<p style="text-align: center;"><u>Model Details</u></p> <p style="text-align: center;">Storage is Online Cover Level (m) 0.000</p> <p style="text-align: center;"><u>Trench Soakaway Structure</u></p> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.13104</td> <td>Trench Width (m)</td> <td>1.5</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>0.13104</td> <td>Trench Length (m)</td> <td>20.0</td> </tr> <tr> <td>Safety Factor</td> <td>4.0</td> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>1.200</td> </tr> <tr> <td>Invert Level (m)</td> <td>-1.500</td> <td>Cap Infiltration Depth (m)</td> <td>1.200</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.13104	Trench Width (m)	1.5	Infiltration Coefficient Side (m/hr)	0.13104	Trench Length (m)	20.0	Safety Factor	4.0	Slope (1:X)	0.0	Porosity	0.30	Cap Volume Depth (m)	1.200	Invert Level (m)	-1.500	Cap Infiltration Depth (m)	1.200
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