

Campbell Reith Hill LLP				Page 1																																																																																																																																																																																																																			
Raven House 29 Linkfield Lane Surrey RH1 1SS		11557: Station Road, Barnsley Pelim SW Strategy Plot 19-21 Soakaway																																																																																																																																																																																																																					
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<u>Summary of Results for 100 year Return Period (+30%)</u> Half Drain Time : 66 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>64.798</td><td>0.798</td><td>1.6</td><td>7.9</td><td>O K</td></tr><tr><td>30 min Summer</td><td>65.020</td><td>1.020</td><td>1.8</td><td>10.1</td><td>O K</td></tr><tr><td>60 min Summer</td><td>65.166</td><td>1.166</td><td>2.0</td><td>11.5</td><td>O K</td></tr><tr><td>120 min Summer</td><td>65.216</td><td>1.216</td><td>2.0</td><td>12.0</td><td>O K</td></tr><tr><td>180 min Summer</td><td>65.179</td><td>1.179</td><td>2.0</td><td>11.7</td><td>O K</td></tr><tr><td>240 min Summer</td><td>65.131</td><td>1.131</td><td>1.9</td><td>11.2</td><td>O K</td></tr><tr><td>360 min Summer</td><td>65.032</td><td>1.032</td><td>1.8</td><td>10.2</td><td>O K</td></tr><tr><td>480 min Summer</td><td>64.935</td><td>0.935</td><td>1.8</td><td>9.3</td><td>O K</td></tr><tr><td>600 min Summer</td><td>64.844</td><td>0.844</td><td>1.7</td><td>8.4</td><td>O K</td></tr><tr><td>720 min Summer</td><td>64.760</td><td>0.760</td><td>1.6</td><td>7.5</td><td>O K</td></tr><tr><td>960 min Summer</td><td>64.615</td><td>0.615</td><td>1.5</td><td>6.1</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>64.394</td><td>0.394</td><td>1.3</td><td>3.9</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>64.183</td><td>0.183</td><td>1.1</td><td>1.8</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>64.072</td><td>0.072</td><td>1.0</td><td>0.7</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>64.040</td><td>0.040</td><td>0.8</td><td>0.4</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>64.032</td><td>0.032</td><td>0.6</td><td>0.3</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>64.027</td><td>0.027</td><td>0.5</td><td>0.3</td><td>O K</td></tr><tr><td>8640 min 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Micro Drainage		Source Control 2014.1.1			
<u>Summary of Results for 100 year Return Period (+30%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	65.166	1.166	2.0	11.5	O K
60 min Winter	65.345	1.345	2.1	13.3	O K
120 min Winter	65.396	1.396	2.1	13.8	O K
180 min Winter	65.332	1.332	2.1	13.2	O K
240 min Winter	65.251	1.251	2.0	12.4	O K
360 min Winter	65.093	1.093	1.9	10.8	O K
480 min Winter	64.946	0.946	1.8	9.4	O K
600 min Winter	64.815	0.815	1.7	8.1	O K
720 min Winter	64.699	0.699	1.6	6.9	O K
960 min Winter	64.506	0.506	1.4	5.0	O K
1440 min Winter	64.234	0.234	1.2	2.3	O K
2160 min Winter	64.048	0.048	1.0	0.5	O K
2880 min Winter	64.039	0.039	0.8	0.4	O K
4320 min Winter	64.029	0.029	0.6	0.3	O K
5760 min Winter	64.023	0.023	0.5	0.2	O K
7200 min Winter	64.020	0.020	0.4	0.2	O K
8640 min Winter	64.017	0.017	0.4	0.2	O K
10080 min Winter	64.015	0.015	0.3	0.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	79.998	0.0	31		
60 min Winter	52.662	0.0	58		
120 min Winter	33.322	0.0	92		
180 min Winter	24.998	0.0	130		
240 min Winter	20.313	0.0	168		
360 min Winter	15.144	0.0	238		
480 min Winter	12.271	0.0	308		
600 min Winter	10.413	0.0	374		
720 min Winter	9.099	0.0	440		
960 min Winter	7.345	0.0	568		
1440 min Winter	5.419	0.0	808		
2160 min Winter	3.986	0.0	1100		
2880 min Winter	3.200	0.0	1468		
4320 min Winter	2.349	0.0	2144		
5760 min Winter	1.888	0.0	2896		
7200 min Winter	1.594	0.0	3576		
8640 min Winter	1.389	0.0	4344		
10080 min Winter	1.237	0.0	4912		
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Rainfall Details

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)	20.000	Shortest Storm (mins)	15
Ratio R	0.300	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.042

Time (mins)	Area
From:	To: (ha)
0	4 0.042

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Model Details

Storage is Online Cover Level (m) 66.500

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.21400	Trench Width (m)	3.0
Infiltration Coefficient Side (m/hr)	0.21400	Trench Length (m)	11.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	64.000	Cap Infiltration Depth (m)	1.500

Raven House
29 Linkfield Lane
Surrey RH1 1SS

11557: Station Road, Barnsley
Pelim SW Strategy
Plot 19-21 Soakaway

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Designed by TF
Checked by



Micro Drainage

Source Control 2014.1.1

Event: 120 min Winter