

Simpson Associates				Page 1																																																																																																																																																																																																																			
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<u>Summary of Results for 30 year Return Period</u> Half Drain Time : 1428 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>3.807</td><td>0.093</td><td>0.7</td><td>38.1</td><td>O K</td></tr><tr><td>30 min Summer</td><td>3.837</td><td>0.123</td><td>0.7</td><td>50.4</td><td>O K</td></tr><tr><td>60 min Summer</td><td>3.869</td><td>0.155</td><td>0.7</td><td>63.7</td><td>O K</td></tr><tr><td>120 min Summer</td><td>3.902</td><td>0.188</td><td>0.7</td><td>77.4</td><td>O K</td></tr><tr><td>180 min Summer</td><td>3.922</td><td>0.208</td><td>0.7</td><td>85.2</td><td>O K</td></tr><tr><td>240 min Summer</td><td>3.934</td><td>0.220</td><td>0.7</td><td>90.4</td><td>O K</td></tr><tr><td>360 min Summer</td><td>3.951</td><td>0.237</td><td>0.7</td><td>97.2</td><td>O K</td></tr><tr><td>480 min Summer</td><td>3.961</td><td>0.247</td><td>0.7</td><td>101.4</td><td>O K</td></tr><tr><td>600 min Summer</td><td>3.967</td><td>0.253</td><td>0.7</td><td>104.1</td><td>O K</td></tr><tr><td>720 min Summer</td><td>3.971</td><td>0.257</td><td>0.7</td><td>105.7</td><td>O K</td></tr><tr><td>960 min Summer</td><td>3.975</td><td>0.261</td><td>0.7</td><td>107.1</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>3.974</td><td>0.260</td><td>0.7</td><td>106.7</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>3.968</td><td>0.254</td><td>0.7</td><td>104.2</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>3.960</td><td>0.246</td><td>0.7</td><td>100.9</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>3.941</td><td>0.227</td><td>0.7</td><td>93.1</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>3.921</td><td>0.207</td><td>0.7</td><td>85.1</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>3.902</td><td>0.188</td><td>0.7</td><td>77.4</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>3.885</td><td>0.171</td><td>0.7</td><td>70.2</td><td>O 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Summer	3.902	0.188	0.7	77.4	O K	180 min Summer	3.922	0.208	0.7	85.2	O K	240 min Summer	3.934	0.220	0.7	90.4	O K	360 min Summer	3.951	0.237	0.7	97.2	O K	480 min Summer	3.961	0.247	0.7	101.4	O K	600 min Summer	3.967	0.253	0.7	104.1	O K	720 min Summer	3.971	0.257	0.7	105.7	O K	960 min Summer	3.975	0.261	0.7	107.1	O K	1440 min Summer	3.974	0.260	0.7	106.7	O K	2160 min Summer	3.968	0.254	0.7	104.2	O K	2880 min Summer	3.960	0.246	0.7	100.9	O K	4320 min Summer	3.941	0.227	0.7	93.1	O K	5760 min Summer	3.921	0.207	0.7	85.1	O K	7200 min Summer	3.902	0.188	0.7	77.4	O K	8640 min Summer	3.885	0.171	0.7	70.2	O K	10080 min Summer	3.868	0.154	0.7	63.4	O K	15 min Winter	3.818	0.104	0.7	42.7	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	68.836	0.0	19	30 min Summer	45.828	0.0	34	60 min Summer	29.238	0.0	64	120 min Summer	18.112	0.0	124	180 min Summer	13.534	0.0	182	240 min Summer	10.952	0.0	242	360 min Summer	8.106	0.0	362	480 min Summer	6.544	0.0	482	600 min Summer	5.539	0.0	602	720 min Summer	4.832	0.0	720	960 min Summer	3.892	0.0	960	1440 min Summer	2.866	0.0	1214	2160 min Summer	2.108	0.0	1596	2880 min Summer	1.693	0.0	1992	4320 min Summer	1.242	0.0	2812	5760 min Summer	0.996	0.0	3632	7200 min Summer	0.839	0.0	4400	8640 min Summer	0.730	0.0	5192	10080 min Summer	0.648	0.0	5952	15 min Winter	68.836	0.0	19
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1 Market Place Mews Henley-on-Thames RG9 2AH		LINESIDE INDUSTRIAL ESTATE SOAKAWAY DESIGN			
Date 01/04/2020 File 1 in 100yr +40% Soakawa...		Designed by JDC Checked by AR			
Micro Drainage		Source Control 2019.1			
<u>Summary of Results for 30 year Return Period</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	3.852	0.138	0.7	56.6	O K
60 min Winter	3.888	0.174	0.7	71.5	O K
120 min Winter	3.926	0.212	0.7	87.1	O K
180 min Winter	3.948	0.234	0.7	96.0	O K
240 min Winter	3.962	0.248	0.7	102.0	O K
360 min Winter	3.982	0.268	0.7	110.0	O K
480 min Winter	3.995	0.281	0.7	115.2	O K
600 min Winter	4.003	0.289	0.7	118.7	O K
720 min Winter	4.009	0.295	0.7	121.0	O K
960 min Winter	4.015	0.301	0.7	123.6	O K
1440 min Winter	4.015	0.301	0.7	123.8	O K
2160 min Winter	4.006	0.292	0.7	119.9	O K
2880 min Winter	3.995	0.281	0.7	115.3	O K
4320 min Winter	3.966	0.252	0.7	103.6	O K
5760 min Winter	3.936	0.222	0.7	91.2	O K
7200 min Winter	3.907	0.193	0.7	79.2	O K
8640 min Winter	3.880	0.166	0.7	68.0	O K
10080 min Winter	3.855	0.141	0.7	57.8	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	45.828	0.0	33		
60 min Winter	29.238	0.0	62		
120 min Winter	18.112	0.0	122		
180 min Winter	13.534	0.0	180		
240 min Winter	10.952	0.0	240		
360 min Winter	8.106	0.0	356		
480 min Winter	6.544	0.0	472		
600 min Winter	5.539	0.0	588		
720 min Winter	4.832	0.0	702		
960 min Winter	3.892	0.0	926		
1440 min Winter	2.866	0.0	1356		
2160 min Winter	2.108	0.0	1708		
2880 min Winter	1.693	0.0	2164		
4320 min Winter	1.242	0.0	3068		
5760 min Winter	0.996	0.0	3928		
7200 min Winter	0.839	0.0	4760		
8640 min Winter	0.730	0.0	5536		
10080 min Winter	0.648	0.0	6344		
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Date 01/04/2020 File 1 in 100yr +40% Soakawa...	Designed by JDC Checked by AR	
Micro Drainage Source Control 2019.1		

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 %	+0

Time Area Diagram

Total Area (ha) 0.299

Time (mins)	Area
From:	To: (ha)
0	4 0.299

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Date 01/04/2020 File 1 in 100yr +40% Soakawa...	Designed by JDC Checked by AR	
Micro Drainage Source Control 2019.1		

Model Details

Storage is Online Cover Level (m) 5.350

Complex Structure

Tank or Pond

Invert Level (m) 3.714

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	1.1	1.000	1.1	1.001	0.0

Tank or Pond

Invert Level (m) 3.714

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	1.1	1.000	1.1	1.001	0.0

Cellular Storage

Invert Level (m) 3.714 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.01150 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.01150

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	430.0	430.0	0.751	0.0	514.8
0.750	430.0	514.8			

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