

BV Consulting			Page 1		
8 Westleigh House Denby Dale Huddersfield		Station Road Meltham			
Date 19/01/2023 16:15 File 1309 SOAKAWAY PLOT 1.SRCX		Designed by Sarah Griggs Checked by			
Micro Drainage		Source Control 2020.1.3			
Summary of Results for 100 year Return Period (+30%)					
Half Drain Time : 2 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	147.150	0.550	5.7	0.7	0 K
30 min Summer	147.120	0.520	5.4	0.6	0 K
60 min Summer	147.020	0.420	4.4	0.5	0 K
120 min Summer	146.901	0.301	3.1	0.4	0 K
180 min Summer	146.836	0.236	2.5	0.3	0 K
240 min Summer	146.796	0.196	2.0	0.2	0 K
360 min Summer	146.749	0.149	1.5	0.2	0 K
480 min Summer	146.722	0.122	1.3	0.1	0 K
600 min Summer	146.704	0.104	1.1	0.1	0 K
720 min Summer	146.691	0.091	0.9	0.1	0 K
960 min Summer	146.674	0.074	0.8	0.1	0 K
1440 min Summer	146.655	0.055	0.6	0.1	0 K
2160 min Summer	146.640	0.040	0.4	0.0	0 K
2880 min Summer	146.632	0.032	0.3	0.0	0 K
4320 min Summer	146.624	0.024	0.2	0.0	0 K
5760 min Summer	146.619	0.019	0.2	0.0	0 K
7200 min Summer	146.616	0.016	0.2	0.0	0 K
8640 min Summer	146.614	0.014	0.1	0.0	0 K
10080 min Summer	146.613	0.013	0.1	0.0	0 K
15 min Winter	147.166	0.566	5.9	0.7	0 K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	109.243	0.0	11		
30 min Summer	75.735	0.0	18		
60 min Summer	50.211	0.0	34		
120 min Summer	32.061	0.0	64		
180 min Summer	24.204	0.0	94		
240 min Summer	19.683	0.0	124		
360 min Summer	14.719	0.0	184		
480 min Summer	11.952	0.0	244		
600 min Summer	10.158	0.0	304		
720 min Summer	8.888	0.0	364		
960 min Summer	7.190	0.0	486		
1440 min Summer	5.319	0.0	730		
2160 min Summer	3.923	0.0	1084		
2880 min Summer	3.156	0.0	1452		
4320 min Summer	2.320	0.0	2152		
5760 min Summer	1.868	0.0	2880		
7200 min Summer	1.579	0.0	3632		
8640 min Summer	1.377	0.0	4328		
10080 min Summer	1.227	0.0	5016		
15 min Winter	109.243	0.0	11		
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BV Consulting			Page 2		
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Summary of Results for 100 year Return Period (+30%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	147.082	0.482	5.0	0.6	0 K
60 min Winter	146.951	0.351	3.7	0.4	0 K
120 min Winter	146.832	0.232	2.4	0.3	0 K
180 min Winter	146.777	0.177	1.8	0.2	0 K
240 min Winter	146.744	0.144	1.5	0.2	0 K
360 min Winter	146.708	0.108	1.1	0.1	0 K
480 min Winter	146.688	0.088	0.9	0.1	0 K
600 min Winter	146.675	0.075	0.8	0.1	0 K
720 min Winter	146.666	0.066	0.7	0.1	0 K
960 min Winter	146.653	0.053	0.6	0.1	0 K
1440 min Winter	146.639	0.039	0.4	0.0	0 K
2160 min Winter	146.629	0.029	0.3	0.0	0 K
2880 min Winter	146.624	0.024	0.2	0.0	0 K
4320 min Winter	146.617	0.017	0.2	0.0	0 K
5760 min Winter	146.614	0.014	0.1	0.0	0 K
7200 min Winter	146.612	0.012	0.1	0.0	0 K
8640 min Winter	146.610	0.010	0.1	0.0	0 K
10080 min Winter	146.609	0.009	0.1	0.0	0 K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	75.735	0.0	19		
60 min Winter	50.211	0.0	34		
120 min Winter	32.061	0.0	64		
180 min Winter	24.204	0.0	94		
240 min Winter	19.683	0.0	124		
360 min Winter	14.719	0.0	184		
480 min Winter	11.952	0.0	244		
600 min Winter	10.158	0.0	302		
720 min Winter	8.888	0.0	366		
960 min Winter	7.190	0.0	490		
1440 min Winter	5.319	0.0	712		
2160 min Winter	3.923	0.0	1084		
2880 min Winter	3.156	0.0	1460		
4320 min Winter	2.320	0.0	2128		
5760 min Winter	1.868	0.0	2936		
7200 min Winter	1.579	0.0	3680		
8640 min Winter	1.377	0.0	4288		
10080 min Winter	1.227	0.0	5088		
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BV Consulting		Page 3
8 Westleigh House Denby Dale Huddersfield	Station Road Meltham	
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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)	19.100	Shortest Storm (mins)	15
Ratio R	0.292	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.013

Time (mins)	Area
From:	To: (ha)
0	4 0.013

BV Consulting		Page 4
8 Westleigh House Denby Dale Huddersfield	Station Road Meltham	
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Model Details

Storage is Online Cover Level (m) 147.800

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr) 0.00000	Trench Width (m) 1.0
Infiltration Coefficient Side (m/hr) 3.74400	Trench Length (m) 4.0
Safety Factor 1.0	Slope (1:X) 0.0
Porosity 0.30	Cap Volume Depth (m) 0.000
Invert Level (m) 146.600	Cap Infiltration Depth (m) 0.000

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