

Aire House  
12 Victoria Avenue  
Harrogate, HG1 1ED

Limefield Farm, Scoreby



Date 24/11/2021  
File Storage Check 24.11.21....

Designed by TM  
Checked by

Innovyze Source Control 2019.1

Summary of Results for 100 year Return Period (+30%)

Half Drain Time : 21 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	13.362	0.362	0.0	0.4	0.4	0.7	O K
30 min Summer	13.443	0.443	0.0	0.4	0.4	0.8	O K
60 min Summer	13.501	0.501	0.0	0.5	0.5	0.8	O K
120 min Summer	13.390	0.390	0.0	0.4	0.4	0.7	O K
180 min Summer	13.338	0.338	0.0	0.4	0.4	0.6	O K
240 min Summer	13.292	0.292	0.0	0.4	0.4	0.6	O K
360 min Summer	13.224	0.224	0.0	0.3	0.3	0.4	O K
480 min Summer	13.178	0.178	0.0	0.3	0.3	0.3	O K
600 min Summer	13.145	0.145	0.0	0.2	0.2	0.3	O K
720 min Summer	13.121	0.121	0.0	0.2	0.2	0.2	O K
960 min Summer	13.089	0.089	0.0	0.2	0.2	0.2	O K
1440 min Summer	13.056	0.056	0.0	0.1	0.1	0.1	O K
2160 min Summer	13.035	0.035	0.0	0.1	0.1	0.1	O K
2880 min Summer	13.026	0.026	0.0	0.1	0.1	0.0	O K
4320 min Summer	13.021	0.021	0.0	0.1	0.1	0.0	O K
5760 min Summer	13.018	0.018	0.0	0.1	0.1	0.0	O K
7200 min Summer	13.016	0.016	0.0	0.0	0.0	0.0	O K
8640 min Summer	13.015	0.015	0.0	0.0	0.0	0.0	O K
10080 min Summer	13.013	0.013	0.0	0.0	0.0	0.0	O K
15 min Winter	13.410	0.410	0.0	0.4	0.4	0.8	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	121.269	0.0	1.0	20
30 min Summer	79.695	0.0	1.3	29
60 min Summer	49.937	0.0	1.6	46
120 min Summer	30.267	0.0	2.0	78
180 min Summer	22.297	0.0	2.2	110
240 min Summer	17.851	0.0	2.3	142
360 min Summer	12.957	0.0	2.5	202
480 min Summer	10.330	0.0	2.7	262
600 min Summer	8.659	0.0	2.8	322
720 min Summer	7.492	0.0	2.9	382
960 min Summer	5.959	0.0	3.1	500
1440 min Summer	4.309	0.0	3.4	740
2160 min Summer	3.110	0.0	3.6	1100
2880 min Summer	2.466	0.0	3.8	1448
4320 min Summer	1.775	0.0	4.2	2156
5760 min Summer	1.405	0.0	4.4	2888
7200 min Summer	1.171	0.0	4.6	3672
8640 min Summer	1.008	0.0	4.7	4264
10080 min Summer	0.889	0.0	4.9	4968
15 min Winter	121.269	0.0	1.1	20

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Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	13.584	0.584	0.0	0.5	0.5	0.9	O K
60 min Winter	13.579	0.579	0.0	0.5	0.5	0.9	O K
120 min Winter	13.406	0.406	0.0	0.4	0.4	0.8	O K
180 min Winter	13.329	0.329	0.0	0.4	0.4	0.6	O K
240 min Winter	13.268	0.268	0.0	0.3	0.3	0.5	O K
360 min Winter	13.185	0.185	0.0	0.3	0.3	0.4	O K
480 min Winter	13.136	0.136	0.0	0.2	0.2	0.3	O K
600 min Winter	13.104	0.104	0.0	0.2	0.2	0.2	O K
720 min Winter	13.083	0.083	0.0	0.2	0.2	0.2	O K
960 min Winter	13.058	0.058	0.0	0.1	0.1	0.1	O K
1440 min Winter	13.035	0.035	0.0	0.1	0.1	0.1	O K
2160 min Winter	13.024	0.024	0.0	0.1	0.1	0.0	O K
2880 min Winter	13.021	0.021	0.0	0.1	0.1	0.0	O K
4320 min Winter	13.017	0.017	0.0	0.0	0.0	0.0	O K
5760 min Winter	13.015	0.015	0.0	0.0	0.0	0.0	O K
7200 min Winter	13.013	0.013	0.0	0.0	0.0	0.0	O K
8640 min Winter	13.012	0.012	0.0	0.0	0.0	0.0	O K
10080 min Winter	13.011	0.011	0.0	0.0	0.0	0.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
30 min Winter	79.695	0.0	1.4	30
60 min Winter	49.937	0.0	1.8	48
120 min Winter	30.267	0.0	2.2	82
180 min Winter	22.297	0.0	2.4	116
240 min Winter	17.851	0.0	2.6	148
360 min Winter	12.957	0.0	2.8	208
480 min Winter	10.330	0.0	3.0	268
600 min Winter	8.659	0.0	3.2	326
720 min Winter	7.492	0.0	3.3	384
960 min Winter	5.959	0.0	3.5	502
1440 min Winter	4.309	0.0	3.8	738
2160 min Winter	3.110	0.0	4.1	1096
2880 min Winter	2.466	0.0	4.3	1476
4320 min Winter	1.775	0.0	4.7	2128
5760 min Winter	1.405	0.0	4.9	2888
7200 min Winter	1.171	0.0	5.1	3744
8640 min Winter	1.008	0.0	5.3	4400
10080 min Winter	0.889	0.0	5.4	5120

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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)	19.000	Shortest Storm (mins)	15
Ratio R	0.400	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.004

Time (mins)	Area	Time (mins)	Area	Time (mins)	Area
From:	To:	From:	To:	From:	To:
0	4	0.002	4	8	0.002
				8	12
					0.001

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Model Details

Storage is Online Cover Level (m) 14.000

Cellular Storage Structure

Invert Level (m) 13.000 Safety Factor 2.0  
 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95  
 Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )
0.000	2.0	2.0	0.500	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.018 Discharge Coefficient 0.600 Invert Level (m) 13.000