

Escher Silverman		Page 1
Lone Barn Studios Stanbridge Lane Romsey SO51 0HE	Hook Lane Aldingbourne Pumped Attenuation	
Date September 2019 File Attenuation Tank.SRC	Designed By KN Checked By	
Micro Drainage	Source Control W.11.2	

Summary of Results for 100 year Return Period (+40%)

Storm Duration (mins)	Maximum Control (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
15 Summer	2.0	2.0	10.7613	0.7613	48.7	O K
30 Summer	2.0	2.0	11.0083	1.0083	64.5	O K
60 Summer	2.0	2.0	11.2558	1.2558	80.4	O K
120 Summer	2.0	2.0	11.4767	1.4767	94.5	O K
180 Summer	2.0	2.0	11.5677	1.5677	100.3	O K
240 Summer	2.0	2.0	11.6012	1.6012	102.5	O K
360 Summer	2.0	2.0	11.6082	1.6082	102.9	O K
480 Summer	2.0	2.0	11.5772	1.5772	100.9	O K
600 Summer	2.0	2.0	11.5427	1.5427	98.7	O K
720 Summer	2.0	2.0	11.5082	1.5082	96.5	O K
960 Summer	2.0	2.0	11.4412	1.4412	92.2	O K
1440 Summer	2.0	2.0	11.3088	1.3087	83.7	O K
15 Winter	2.0	2.0	10.8558	0.8558	54.8	O K
30 Winter	2.0	2.0	11.1358	1.1358	72.7	O K
60 Winter	2.0	2.0	11.4207	1.4207	90.9	O K
120 Winter	2.0	2.0	11.6812	1.6812	107.6	O K
180 Winter	2.0	2.0	11.7972	1.7972	115.0	O K
240 Winter	2.0	2.0	11.8487	1.8487	118.3	O K
360 Winter	2.0	2.0	11.8837	1.8837	120.6	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	128.24	23
30 Summer	86.18	37
60 Summer	55.25	66
120 Summer	34.18	126
180 Summer	25.41	186
240 Summer	20.44	246
360 Summer	15.04	364
480 Summer	12.08	432
600 Summer	10.18	490
720 Summer	8.85	552
960 Summer	7.09	680
1440 Summer	5.18	956
15 Winter	128.24	22
30 Winter	86.18	37
60 Winter	55.25	66
120 Winter	34.18	124
180 Winter	25.41	182
240 Winter	20.44	240
360 Winter	15.04	354

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480 Winter	2.0	2.0	11.8662	1.8662	119.4	0 K
600 Winter	2.0	2.0	11.8222	1.8222	116.6	0 K
720 Winter	2.0	2.0	11.7707	1.7707	113.3	0 K
960 Winter	2.0	2.0	11.6807	1.6807	107.6	0 K
1440 Winter	2.0	2.0	11.4832	1.4832	94.9	0 K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
480 Winter	12.08	462
600 Winter	10.18	564
720 Winter	8.85	592
960 Winter	7.09	736
1440 Winter	5.18	1042

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Rainfall Details

Region	ENG+WAL	Cv (Summer)	0.750	Summer Storms	Yes
Return Period (years)	100	Cv (Winter)	0.840	Winter Storms	Yes
M5-60 (mm)	19.500	Shortest Storm (mins)	15	Climate Change %	+40
Ratio-R	0.350	Longest Storm (mins)	1440		

Time / Area Diagram

Total Area (ha) = 0.210

Time from:	(mins) to:	Area (ha)	Time from:	(mins) to:	Area (ha)
0	4	0.000	4	8	0.210

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Tank/Pond Details

Invert Level (m) 10.000 Ground Level (m) 12.000

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.00	64.0	1.00	64.0	2.00	64.0	3.00	64.0	4.00	64.0	5.00	64.0
0.20	64.0	1.20	64.0	2.20	64.0	3.20	64.0	4.20	64.0		
0.40	64.0	1.40	64.0	2.40	64.0	3.40	64.0	4.40	64.0		
0.60	64.0	1.60	64.0	2.60	64.0	3.60	64.0	4.60	64.0		
0.80	64.0	1.80	64.0	2.80	64.0	3.80	64.0	4.80	64.0		

Pump Outflow Control

Invert Level of Control 10.000

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.10	2.0	0.60	2.0	1.60	2.0	2.60	2.0	5.00	2.0	7.50	2.0
0.20	2.0	0.80	2.0	1.80	2.0	3.00	2.0	5.50	2.0	8.00	2.0
0.30	2.0	1.00	2.0	2.00	2.0	3.50	2.0	6.00	2.0	8.50	2.0
0.40	2.0	1.20	2.0	2.20	2.0	4.00	2.0	6.50	2.0	9.00	2.0
0.50	2.0	1.40	2.0	2.40	2.0	4.50	2.0	7.00	2.0	9.50	2.0