



.	Grey Inn Road	
.	Basement Attenuation Tank	
.	1:30 year	
Date 12/07/2023	Designed by JST	
File Source Control - Attenuation li...	Checked by JST	
XP Solutions	Source Control 2019.1	

Summary of Results for 30 year Return Period

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m ³)	Status
15 min Summer	7.143	0.643	2.0	119.2	O K
30 min Summer	7.315	0.815	2.0	151.1	O K
60 min Summer	7.479	0.979	2.0	181.5	O K
120 min Summer	7.723	1.223	2.0	226.8	O K
180 min Summer	7.851	1.351	2.0	250.6	O K
240 min Summer	7.926	1.426	2.0	264.5	O K
360 min Summer	7.996	1.496	2.0	277.3	O K
480 min Summer	8.016	1.516	2.0	281.1	O K
600 min Summer	8.013	1.513	2.0	280.5	O K
720 min Summer	7.997	1.497	2.0	277.6	O K
960 min Summer	7.943	1.443	2.0	267.6	O K
1440 min Summer	7.832	1.332	2.0	246.9	O K
2160 min Summer	7.705	1.205	2.0	223.4	O K
2880 min Summer	7.603	1.103	2.0	204.4	O K
4320 min Summer	7.441	0.941	2.0	174.4	O K
5760 min Summer	7.311	0.811	2.0	150.4	O K
7200 min Summer	7.204	0.704	2.0	130.5	O K
8640 min Summer	7.115	0.615	2.0	114.0	O K
10080 min Summer	7.039	0.539	2.0	100.0	O K
15 min Winter	7.143	0.643	2.0	119.2	O K
30 min Winter	7.315	0.815	2.0	151.1	O K
60 min Winter	7.479	0.979	2.0	181.4	O K
120 min Winter	7.724	1.224	2.0	227.0	O K
180 min Winter	7.853	1.353	2.0	250.8	O K
240 min Winter	7.928	1.428	2.0	264.8	O K
360 min Winter	7.999	1.499	2.0	277.9	O K
480 min Winter	8.020	1.520	2.0	281.8	O K


Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Discharge Volume (m ³)	Time-Peak (mins)
15 min Summer	95.572	0.0	117.3	19
30 min Summer	60.936	0.0	145.5	34
60 min Summer	37.050	0.0	187.0	64
120 min Summer	23.605	0.0	237.8	124
180 min Summer	17.703	0.0	266.5	182
240 min Summer	14.264	0.0	285.0	242
360 min Summer	10.332	0.0	306.3	362
480 min Summer	8.139	0.0	317.7	482
600 min Summer	6.737	0.0	324.0	602
720 min Summer	5.761	0.0	326.9	720
960 min Summer	4.485	0.0	325.4	960
1440 min Summer	3.145	0.0	313.0	1154
2160 min Summer	2.212	0.0	402.4	1516
2880 min Summer	1.731	0.0	419.9	1928
4320 min Summer	1.239	0.0	450.0	2724
5760 min Summer	0.986	0.0	478.5	3520
7200 min Summer	0.833	0.0	505.1	4256
8640 min Summer	0.730	0.0	530.9	5016
10080 min Summer	0.655	0.0	556.3	5752
15 min Winter	95.572	0.0	117.3	19
30 min Winter	60.936	0.0	145.5	33
60 min Winter	37.050	0.0	187.0	62
120 min Winter	23.605	0.0	237.8	122
180 min Winter	17.703	0.0	266.5	180
240 min Winter	14.264	0.0	285.0	240
360 min Winter	10.332	0.0	306.3	356
480 min Winter	8.139	0.0	317.7	472

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Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
600 min Winter	8.019	1.519	2.0	281.6	O K
720 min Winter	8.005	1.505	2.0	278.9	O K
960 min Winter	7.955	1.455	2.0	269.7	O K
1440 min Winter	7.827	1.327	2.0	246.1	O K
2160 min Winter	7.676	1.176	2.0	218.1	O K
2880 min Winter	7.541	1.041	2.0	193.0	O K
4320 min Winter	7.311	0.811	2.0	150.4	O K
5760 min Winter	7.125	0.625	2.0	115.8	O K
7200 min Winter	6.975	0.475	2.0	88.0	O K
8640 min Winter	6.857	0.357	2.0	66.2	O K
10080 min Winter	6.770	0.270	2.0	50.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
600 min Winter	6.737	0.0	323.9	586
720 min Winter	5.761	0.0	326.9	700
960 min Winter	4.485	0.0	325.6	922
1440 min Winter	3.145	0.0	314.1	1184
2160 min Winter	2.212	0.0	402.4	1620
2880 min Winter	1.731	0.0	419.9	2048
4320 min Winter	1.239	0.0	450.2	2896
5760 min Winter	0.986	0.0	478.5	3688
7200 min Winter	0.833	0.0	505.2	4400
8640 min Winter	0.730	0.0	530.9	5096
10080 min Winter	0.655	0.0	556.3	5656

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Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	0.950
FEH Rainfall Version	2013	Cv (Winter)	0.950
Site Location	GB 530591 182813	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.532

Time (mins)	Area
From:	To: (ha)

0	4 0.532
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Model Details

Storage is Online Cover Level (m) 10.000

Tank or Pond Structure

Invert Level (m) 6.500

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	185.4	3.300	185.4

Pump Outflow Control

Invert Level (m) 6.500

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)
0.200	2.0000	1.400	2.0000	2.600	2.0000	3.800	2.0000	5.000	2.0000
0.400	2.0000	1.600	2.0000	2.800	2.0000	4.000	2.0000	5.200	2.0000
0.600	2.0000	1.800	2.0000	3.000	2.0000	4.200	2.0000	5.400	2.0000
0.800	2.0000	2.000	2.0000	3.200	2.0000	4.400	2.0000	5.600	2.0000
1.000	2.0000	2.200	2.0000	3.400	2.0000	4.600	2.0000	5.800	2.0000
1.200	2.0000	2.400	2.0000	3.600	2.0000	4.800	2.0000	6.000	2.0000