

full site attenuation
sohail
43 bamford way



Designed By ds

Checked By

Source Control W.10.4

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

Storm Duration (mins)	Maximum Control (l/s)	Maximum Overflow (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Overflow Volume (m³)	Maximum Volume (m³)	Status
15 Summer	5.4	0.0	5.4	139.7567	0.4867	0.0	49.7	O K
30 Summer	5.4	0.0	5.4	139.9263	0.6563	0.0	66.9	O K
60 Summer	5.4	0.0	5.4	140.0843	0.8143	0.0	83.1	O K
120 Summer	5.4	0.0	5.4	140.1738	0.9038	0.0	92.2	FLOOD RISK
180 Summer	5.4	0.0	5.4	140.1663	0.8963	0.0	91.4	FLOOD RISK
240 Summer	5.4	0.0	5.4	140.1523	0.8823	0.0	90.0	FLOOD RISK
360 Summer	5.4	0.0	5.4	140.1248	0.8548	0.0	87.2	O K
480 Summer	5.4	0.0	5.4	140.0913	0.8213	0.0	83.8	O K
600 Summer	5.4	0.0	5.4	140.0538	0.7838	0.0	79.9	O K
720 Summer	5.4	0.0	5.4	140.0138	0.7438	0.0	75.9	O K
960 Summer	5.4	0.0	5.4	139.9293	0.6593	0.0	67.2	O K
1440 Summer	5.4	0.0	5.4	139.7292	0.4592	0.0	46.8	O K
2160 Summer	5.4	0.0	5.4	139.4987	0.2287	0.0	23.3	O K
2880 Summer	5.3	0.0	5.3	139.3658	0.0958	0.0	9.8	O K
4320 Summer	5.0	0.0	5.0	139.2700	0.0000	0.0	0.0	O K
5760 Summer	4.0	0.0	4.0	139.2700	0.0000	0.0	0.0	O K
7200 Summer	3.4	0.0	3.4	139.2700	0.0000	0.0	0.0	O K
8640 Summer	2.9	0.0	2.9	139.2700	0.0000	0.0	0.0	O K
10080 Summer	2.6	0.0	2.6	139.2700	0.0000	0.0	0.0	O K
15 Winter	5.4	0.0	5.4	139.8233	0.5532	0.0	56.4	O K
30 Winter	5.4	0.0	5.4	140.0193	0.7493	0.0	76.4	O K
60 Winter	5.4	0.0	5.4	140.2013	0.9313	0.0	95.0	FLOOD RISK
120 Winter	5.4	0.0	5.4	140.3308	1.0608	0.0	108.2	FLOOD RISK
180 Winter	5.4	0.0	5.4	140.3398	1.0698	0.0	109.1	FLOOD RISK
240 Winter	5.4	0.0	5.4	140.3123	1.0423	0.0	106.3	FLOOD RISK

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	89.23	18
30 Summer	61.54	33
60 Summer	40.51	62
120 Summer	25.63	120
180 Summer	19.23	162
240 Summer	15.63	194
360 Summer	11.65	260
480 Summer	9.44	328
600 Summer	8.01	398
720 Summer	7.00	470
960 Summer	5.65	608
1440 Summer	4.17	864
2160 Summer	3.07	1208
2880 Summer	2.46	1528
4320 Summer	1.81	0
5760 Summer	1.45	0
7200 Summer	1.23	0
8640 Summer	1.07	0
10080 Summer	0.95	0
15 Winter	89.23	18
30 Winter	61.54	32
60 Winter	40.51	60
120 Winter	25.63	118
180 Winter	19.23	172
240 Winter	15.63	220

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Micro Drainage	Source Control W.10.4	

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

Storm Duration (mins)	Maximum Control (l/s)	Maximum Overflow (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Overflow Volume (m ³)	Maximum Volume (m ³)	Status
360 Winter	5.4	0.0	5.4	140.2703	1.0003	0.0	102.0	FLOOD RISK
480 Winter	5.4	0.0	5.4	140.2183	0.9483	0.0	96.7	FLOOD RISK
600 Winter	5.4	0.0	5.4	140.1583	0.8883	0.0	90.6	FLOOD RISK
720 Winter	5.4	0.0	5.4	140.0938	0.8238	0.0	84.0	O K
960 Winter	5.4	0.0	5.4	139.9588	0.6888	0.0	70.2	O K
1440 Winter	5.4	0.0	5.4	139.6357	0.3657	0.0	37.3	O K
2160 Winter	5.3	0.0	5.3	139.3553	0.0853	0.0	8.7	O K
2880 Winter	4.9	0.0	4.9	139.2700	0.0000	0.0	0.0	O K
4320 Winter	3.6	0.0	3.6	139.2700	0.0000	0.0	0.0	O K
5760 Winter	2.9	0.0	2.9	139.2700	0.0000	0.0	0.0	O K
7200 Winter	2.5	0.0	2.5	139.2700	0.0000	0.0	0.0	O K
8640 Winter	2.2	0.0	2.2	139.2700	0.0000	0.0	0.0	O K
10080 Winter	1.9	0.0	1.9	139.2700	0.0000	0.0	0.0	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
360 Winter	11.65	276
480 Winter	9.44	354
600 Winter	8.01	432
720 Winter	7.00	508
960 Winter	5.65	656
1440 Winter	4.17	896
2160 Winter	3.07	1212
2880 Winter	2.46	0
4320 Winter	1.81	0
5760 Winter	1.45	0
7200 Winter	1.23	0
8640 Winter	1.07	0
10080 Winter	0.95	0

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Rainfall Details

Region	ENG+WAL	Shortest Storm (mins)	15
Return Period (years)	100	Longest Storm (mins)	10080
M5-60 (mm)	20.000	Summer Storms	Yes
Ratio-R	0.300	Winter Storms	Yes
Cv (Summer)	0.750	Climate Change %	+40
Cv (Winter)	0.840		

Pipe Network

Volume in Pipe Network (m ³)	1	Dia of Outfall Pipe (m)	0.100
Slope of Outfall Pipe (1:x)	100.0	Roughness of Outfall Pipe	0.600

Time / Area Diagram

Total Area (ha) = 0.240

Time	(mins)	Area
from:	to:	(ha)
0	4	0.240

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Tank/Pond Details

Invert Level (m) 139.270 Ground Level (m) 140.350

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	102.0	0.60	102.0	1.20	102.0	1.80	102.0	2.40	102.0
0.10	102.0	0.70	102.0	1.30	102.0	1.90	102.0	2.50	102.0
0.20	102.0	0.80	102.0	1.40	102.0	2.00	102.0		
0.30	102.0	0.90	102.0	1.50	102.0	2.10	102.0		
0.40	102.0	1.00	102.0	1.60	102.0	2.20	102.0		
0.50	102.0	1.10	102.0	1.70	102.0	2.30	102.0		

Depth / Flow Outflow Control

Invert Level of Control 139.040

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	3.5	0.80	4.4	2.00	7.0	4.00	10.0	7.00	13.2
0.20	5.0	1.00	4.8	2.20	7.4	4.50	10.6	7.50	13.6
0.30	5.3	1.20	5.2	2.40	7.7	5.00	11.1	8.00	14.1
0.40	5.4	1.40	5.6	2.60	8.0	5.50	11.7	8.50	14.5
0.50	5.3	1.60	6.3	3.00	8.6	6.00	12.2	9.00	14.9
0.60	5.2	1.80	6.7	3.50	9.3	6.50	12.7	9.50	15.4

Pipe Overflow Control

Pipe Diameter (m)	0.150	Entry Loss Coef	0.500
Slope (1:x)	100.0	Coef of Contraction	0.600
Length (m)	4.000	Invert Level (m)	140.350
Roughness (mm)	0.600		