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104 Yorkshire St Rochdale Lancashire OL16 1JY	SUDS basin & control B&L Homes Schofield St Heywood	
Date may 2026 - revision 1 File CALC-T~1.SRC	Designed By DS Checked By	
Micro Drainage	Source Control W.10.4	

Summary of Results for 30 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	5.0	5.0	125.0068	0.3567	10.8	O K
30 Summer	5.0	5.0	125.0508	0.4007	12.9	O K
60 Summer	5.0	5.0	125.0667	0.4167	13.7	O K
120 Summer	5.0	5.0	125.0542	0.4042	13.1	O K
180 Summer	5.0	5.0	125.0197	0.3697	11.5	O K
240 Summer	5.0	5.0	124.9757	0.3257	9.5	O K
360 Summer	5.0	5.0	124.8857	0.2357	5.8	O K
480 Summer	5.0	5.0	124.8073	0.1572	3.1	O K
600 Summer	5.0	5.0	124.7473	0.0973	1.3	O K
720 Summer	5.0	5.0	124.6973	0.0473	0.3	O K
960 Summer	4.4	4.4	124.6500	0.0000	0.0	O K
1440 Summer	3.3	3.3	124.6500	0.0000	0.0	O K
2160 Summer	2.5	2.5	124.6500	0.0000	0.0	O K
2880 Summer	2.0	2.0	124.6500	0.0000	0.0	O K
4320 Summer	1.5	1.5	124.6500	0.0000	0.0	O K
5760 Summer	1.2	1.2	124.6500	0.0000	0.0	O K
7200 Summer	1.1	1.1	124.6500	0.0000	0.0	O K
8640 Summer	0.9	0.9	124.6500	0.0000	0.0	O K
10080 Summer	0.8	0.8	124.6500	0.0000	0.0	O K
15 Winter	5.0	5.0	125.0457	0.3957	12.7	O K
30 Winter	5.0	5.0	125.1003	0.4502	15.4	O K
60 Winter	5.0	5.0	125.1152	0.4652	16.2	O K
120 Winter	5.0	5.0	125.0877	0.4377	14.8	O K
180 Winter	5.0	5.0	125.0313	0.3812	12.0	O K
240 Winter	5.0	5.0	124.9557	0.3057	8.6	O K
360 Winter	5.0	5.0	124.8073	0.1572	3.1	O K
480 Winter	5.0	5.0	124.6898	0.0397	0.2	O K
600 Winter	4.5	4.5	124.6500	0.0000	0.0	O K
720 Winter	3.9	3.9	124.6500	0.0000	0.0	O K
960 Winter	3.2	3.2	124.6500	0.0000	0.0	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	68.99	17
30 Summer	47.08	30
60 Summer	30.81	48
120 Summer	19.53	82
180 Summer	14.75	116
240 Summer	12.05	150
360 Summer	9.05	210
480 Summer	7.38	266
600 Summer	6.29	320
720 Summer	5.52	372
960 Summer	4.49	0
1440 Summer	3.35	0
2160 Summer	2.49	0
2880 Summer	2.02	0
4320 Summer	1.50	0
5760 Summer	1.21	0
7200 Summer	1.03	0
8640 Summer	0.90	0
10080 Summer	0.81	0
15 Winter	68.99	17
30 Winter	47.08	31
60 Winter	30.81	50
120 Winter	19.53	90
180 Winter	14.75	126
240 Winter	12.05	158
360 Winter	9.05	214
480 Winter	7.38	254
600 Winter	6.29	0
720 Winter	5.52	0
960 Winter	4.49	0

Summary of Results for 30 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	
1440 Winter	2.4	2.4	124.6500	0.0000	0.0	O	K
2160 Winter	1.8	1.8	124.6500	0.0000	0.0	O	K
2880 Winter	1.4	1.4	124.6500	0.0000	0.0	O	K
4320 Winter	1.1	1.1	124.6500	0.0000	0.0	O	K
5760 Winter	0.9	0.9	124.6500	0.0000	0.0	O	K
7200 Winter	0.7	0.7	124.6500	0.0000	0.0	O	K
8640 Winter	0.7	0.7	124.6500	0.0000	0.0	O	K
10080 Winter	0.6	0.6	124.6500	0.0000	0.0	O	K
Storm Duration (mins)	Rain (mm/hr)		Time-Peak (mins)				
1440 Winter	3.35		0				
2160 Winter	2.49		0				
2880 Winter	2.02		0				
4320 Winter	1.50		0				
5760 Winter	1.21		0				
7200 Winter	1.03		0				
8640 Winter	0.90		0				
10080 Winter	0.81		0				

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Rainfall Details

Region	ENG+WAL	Cv (Summer)	0.750	Summer Storms	Yes
Return Period (years)	30	Cv (Winter)	0.840	Winter Storms	Yes
M5-60 (mm)	20.000	Shortest Storm (mins)	15	Climate Change %	+40
Ratio-R	0.300	Longest Storm (mins)	10080		

Pipe Network

Volume in Pipe Network (m³)	2	Dia of Outfall Pipe (m)	0.200
Slope of Outfall Pipe (1:x)	150.0	Roughness of Outfall Pipe	0.060

Time / Area Diagram

Total Area (ha) = 0.085

Time	(mins)	Area
from:	to:	(ha)
0	4	0.085

Tank/Pond Details

Invert Level (m) 124.650 Ground Level (m) 125.350

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)	Depth (m)	Area (m ²)
0.00	0.0	0.50	55.8	1.00	500.0	1.50	500.0	2.00	500.0	2.50	500.0
0.10	28.3	0.60	63.2	1.10	500.0	1.60	500.0	2.10	500.0		
0.20	34.8	0.70	71.0	1.20	500.0	1.70	500.0	2.20	500.0		
0.30	41.5	0.80	500.0	1.30	500.0	1.80	500.0	2.30	500.0		
0.40	48.5	0.90	500.0	1.40	500.0	1.90	500.0	2.40	500.0		

Depth / Flow Outflow Control

Invert Level of Control 124.410

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	3.5	0.60	4.2	1.60	5.9	2.60	7.6	5.00	10.5	7.50	12.9
0.20	4.9	0.80	4.6	1.80	6.3	3.00	8.1	5.50	11.0	8.00	13.3
0.30	5.0	1.00	5.1	2.00	6.6	3.50	8.8	6.00	11.5	8.50	13.7
0.40	4.9	1.20	5.1	2.20	7.0	4.00	9.4	6.50	12.0	9.00	14.1
0.50	4.7	1.40	5.7	2.40	7.3	4.50	10.0	7.00	12.4	9.50	14.5