

Polypipe Civils				Page 1																																																																																																																																																																																																																			
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<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 471 minutes. <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>15 min Summer</td><td>98.737</td><td>0.137</td><td>0.0</td><td>1.0</td><td>O K</td></tr><tr><td>30 min Summer</td><td>98.778</td><td>0.178</td><td>0.0</td><td>1.3</td><td>O K</td></tr><tr><td>60 min Summer</td><td>98.820</td><td>0.220</td><td>0.0</td><td>1.6</td><td>O K</td></tr><tr><td>120 min Summer</td><td>98.859</td><td>0.259</td><td>0.0</td><td>1.8</td><td>O K</td></tr><tr><td>180 min Summer</td><td>98.879</td><td>0.279</td><td>0.0</td><td>2.0</td><td>O K</td></tr><tr><td>240 min Summer</td><td>98.889</td><td>0.289</td><td>0.0</td><td>2.1</td><td>O K</td></tr><tr><td>360 min Summer</td><td>98.896</td><td>0.296</td><td>0.0</td><td>2.1</td><td>O K</td></tr><tr><td>480 min Summer</td><td>98.899</td><td>0.299</td><td>0.0</td><td>2.1</td><td>O K</td></tr><tr><td>600 min Summer</td><td>98.899</td><td>0.299</td><td>0.0</td><td>2.1</td><td>O K</td></tr><tr><td>720 min Summer</td><td>98.898</td><td>0.298</td><td>0.0</td><td>2.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>98.893</td><td>0.293</td><td>0.0</td><td>2.1</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>98.878</td><td>0.278</td><td>0.0</td><td>2.0</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>98.853</td><td>0.253</td><td>0.0</td><td>1.8</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>98.829</td><td>0.229</td><td>0.0</td><td>1.6</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>98.785</td><td>0.185</td><td>0.0</td><td>1.3</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>98.747</td><td>0.147</td><td>0.0</td><td>1.1</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>98.717</td><td>0.117</td><td>0.0</td><td>0.8</td><td>O K</td></tr><tr><td>8640 min 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Summer	98.778	0.178	0.0	1.3	O K	60 min Summer	98.820	0.220	0.0	1.6	O K	120 min Summer	98.859	0.259	0.0	1.8	O K	180 min Summer	98.879	0.279	0.0	2.0	O K	240 min Summer	98.889	0.289	0.0	2.1	O K	360 min Summer	98.896	0.296	0.0	2.1	O K	480 min Summer	98.899	0.299	0.0	2.1	O K	600 min Summer	98.899	0.299	0.0	2.1	O K	720 min Summer	98.898	0.298	0.0	2.1	O K	960 min Summer	98.893	0.293	0.0	2.1	O K	1440 min Summer	98.878	0.278	0.0	2.0	O K	2160 min Summer	98.853	0.253	0.0	1.8	O K	2880 min Summer	98.829	0.229	0.0	1.6	O K	4320 min Summer	98.785	0.185	0.0	1.3	O K	5760 min Summer	98.747	0.147	0.0	1.1	O K	7200 min Summer	98.717	0.117	0.0	0.8	O K	8640 min Summer	98.693	0.093	0.0	0.7	O K	10080 min Summer	98.675	0.075	0.0	0.5	O K	15 min Winter	98.753	0.153	0.0	1.1	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	76.214	0.0	19	30 min Summer	50.290	0.0	33	60 min Summer	31.908	0.0	62	120 min Summer	19.755	0.0	122	180 min Summer	14.804	0.0	182	240 min Summer	12.028	0.0	240	360 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Charnwood Business Park		44977			
Loughborough		Middleton Road, Felpham			
Leicestershire LE11 1LE		3m x 2.5m x 0.4m			
Date 01/12/20		Designed by TR			
File T-MD-44977_TR_MD8 (67m²...		Checked by			
Micro Drainage		Source Control 2016.1			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	98.800	0.200	0.0	1.4	O K
60 min Winter	98.848	0.248	0.0	1.8	O K
120 min Winter	98.894	0.294	0.0	2.1	O K
180 min Winter	98.917	0.317	0.0	2.3	O K
240 min Winter	98.930	0.330	0.0	2.3	O K
360 min Winter	98.942	0.342	0.0	2.4	O K
480 min Winter	98.944	0.344	0.0	2.4	O K
600 min Winter	98.942	0.342	0.0	2.4	O K
720 min Winter	98.941	0.341	0.0	2.4	O K
960 min Winter	98.933	0.333	0.0	2.4	O K
1440 min Winter	98.910	0.310	0.0	2.2	O K
2160 min Winter	98.870	0.270	0.0	1.9	O K
2880 min Winter	98.833	0.233	0.0	1.7	O K
4320 min Winter	98.767	0.167	0.0	1.2	O K
5760 min Winter	98.715	0.115	0.0	0.8	O K
7200 min Winter	98.677	0.077	0.0	0.5	O K
8640 min Winter	98.652	0.052	0.0	0.4	O K
10080 min Winter	98.646	0.046	0.0	0.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	50.290	0.0	33		
60 min Winter	31.908	0.0	62		
120 min Winter	19.755	0.0	120		
180 min Winter	14.804	0.0	178		
240 min Winter	12.028	0.0	234		
360 min Winter	8.957	0.0	346		
480 min Winter	7.262	0.0	448		
600 min Winter	6.168	0.0	484		
720 min Winter	5.396	0.0	558		
960 min Winter	4.369	0.0	714		
1440 min Winter	3.241	0.0	1022		
2160 min Winter	2.402	0.0	1452		
2880 min Winter	1.942	0.0	1872		
4320 min Winter	1.437	0.0	2676		
5760 min Winter	1.161	0.0	3400		
7200 min Winter	0.983	0.0	4040		
8640 min Winter	0.859	0.0	4576		
10080 min Winter	0.766	0.0	5240		
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Charnwood Business Park Loughborough Leicestershire LE11 1LE	44977 Middleton Road, Felpham 3m x 2.5m x 0.4m	
Date 01/12/20 File T-MD-44977_TR_MD8 (67m²...	Designed by TR Checked by	
Micro Drainage Source Control 2016.1		

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	10	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.007

Time (mins)	Area
From:	To: (ha)
0	4 0.007

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Model Details

Storage is Online Cover Level (m) 100.000

Cellular Storage Structure

Invert Level (m) 98.600 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.04561 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.04561

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	7.5	7.5	0.500	0.0	11.9
0.400	7.5	11.9			

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