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1 The Grove Felpham West Sussex PO22 7EY	MIDDLETON HOUSE SAT1 - Opton 2 Blanket Soakaway - main	
Date 17/10/2018 16:52 File FC2780 MIDDLETON house-...	Designed by MH Checked by	
Micro Drainage Source Control 2017.1.2		

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

Half Drain Time : 463 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	4.432	0.172	0.6	12.4	O K
30 min Summer	4.489	0.229	0.6	16.5	O K
60 min Summer	4.545	0.285	0.6	20.5	Flood Risk
120 min Summer	4.596	0.336	0.6	24.2	Flood Risk
180 min Summer	4.617	0.357	0.6	25.7	Flood Risk
240 min Summer	4.625	0.365	0.6	26.3	Flood Risk
360 min Summer	4.627	0.367	0.6	26.4	Flood Risk
480 min Summer	4.622	0.362	0.6	26.0	Flood Risk
600 min Summer	4.615	0.355	0.6	25.6	Flood Risk
720 min Summer	4.608	0.348	0.6	25.1	Flood Risk
960 min Summer	4.593	0.333	0.6	24.0	Flood Risk
1440 min Summer	4.561	0.301	0.6	21.7	Flood Risk
2160 min Summer	4.514	0.254	0.6	18.3	Flood Risk
2880 min Summer	4.471	0.211	0.6	15.2	O K
4320 min Summer	4.399	0.139	0.6	10.0	O K
5760 min Summer	4.349	0.089	0.6	6.4	O K
7200 min Summer	4.319	0.059	0.6	4.3	O K
8640 min Summer	4.308	0.048	0.5	3.5	O K
10080 min Summer	4.303	0.043	0.5	3.1	O K
15 min Winter	4.454	0.194	0.6	13.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	124.633	0.0	19
30 min Summer	83.789	0.0	33
60 min Summer	53.779	0.0	62
120 min Summer	33.337	0.0	122
180 min Summer	24.832	0.0	182
240 min Summer	20.006	0.0	240
360 min Summer	14.706	0.0	352
480 min Summer	11.818	0.0	406
600 min Summer	9.966	0.0	466
720 min Summer	8.665	0.0	528
960 min Summer	6.943	0.0	664
1440 min Summer	5.071	0.0	938
2160 min Summer	3.696	0.0	1340
2880 min Summer	2.949	0.0	1728
4320 min Summer	2.142	0.0	2424
5760 min Summer	1.705	0.0	3112
7200 min Summer	1.427	0.0	3752
8640 min Summer	1.235	0.0	4408
10080 min Summer	1.093	0.0	5144
15 min Winter	124.633	0.0	18

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Date 17/10/2018 16:52	Designed by MH	
File FC2780 MIDDLETON house-...	Checked by	
Micro Drainage		Source Control 2017.1.2

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

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	4.517	0.257	0.6	18.5	Flood Risk
60 min Winter	4.582	0.322	0.6	23.2	Flood Risk
120 min Winter	4.641	0.381	0.6	27.5	Flood Risk
180 min Winter	4.668	0.408	0.6	29.4	Flood Risk
240 min Winter	4.681	0.421	0.6	30.3	Flood Risk
360 min Winter	4.687	0.427	0.6	30.8	Flood Risk
480 min Winter	4.683	0.423	0.6	30.5	Flood Risk
600 min Winter	4.673	0.413	0.6	29.8	Flood Risk
720 min Winter	4.664	0.404	0.6	29.1	Flood Risk
960 min Winter	4.643	0.383	0.6	27.6	Flood Risk
1440 min Winter	4.594	0.334	0.6	24.1	Flood Risk
2160 min Winter	4.522	0.262	0.6	18.8	Flood Risk
2880 min Winter	4.455	0.195	0.6	14.1	O K
4320 min Winter	4.353	0.093	0.6	6.7	O K
5760 min Winter	4.309	0.049	0.5	3.5	O K
7200 min Winter	4.301	0.041	0.5	2.9	O K
8640 min Winter	4.296	0.036	0.4	2.6	O K
10080 min Winter	4.292	0.032	0.4	2.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
30 min Winter	83.789	0.0	33
60 min Winter	53.779	0.0	62
120 min Winter	33.337	0.0	120
180 min Winter	24.832	0.0	178
240 min Winter	20.006	0.0	236
360 min Winter	14.706	0.0	348
480 min Winter	11.818	0.0	454
600 min Winter	9.966	0.0	546
720 min Winter	8.665	0.0	570
960 min Winter	6.943	0.0	722
1440 min Winter	5.071	0.0	1024
2160 min Winter	3.696	0.0	1448
2880 min Winter	2.949	0.0	1840
4320 min Winter	2.142	0.0	2508
5760 min Winter	1.705	0.0	2952
7200 min Winter	1.427	0.0	3744
8640 min Winter	1.235	0.0	4400
10080 min Winter	1.093	0.0	5096

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1 The Grove	MIDDLETON HOUSE							
Felpham	SAT1 - Option 2							
West Sussex PO22 7EY	Blanket Soakaway - main							
Date 17/10/2018 16:52	Designed by MH							
File FC2780 MIDDLETON house-...	Checked by							
Micro Drainage		Source Control 2017.1.2						
<u>Rainfall Details</u>								
Rainfall Model	FSR	Winter Storms Yes						
Return Period (years)	100	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						
<u>Time Area Diagram</u>								
Total Area (ha) 0.055								
<table border="0"> <thead> <tr> <th>Time (mins)</th> <th>Area</th> </tr> <tr> <th>From: To:</th> <th>(ha)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>4 0.055</td> </tr> </tbody> </table>			Time (mins)	Area	From: To:	(ha)	0	4 0.055
Time (mins)	Area							
From: To:	(ha)							
0	4 0.055							
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Micro Drainage		Source Control 2017.1.2																
<u>Model Details</u> Storage is Online Cover Level (m) 4.800 <u>Infiltration Blanket Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.02520</td> <td>Diameter/Width (m)</td> <td>10.0</td> </tr> <tr> <td>Safety Factor</td> <td>3.0</td> <td>Length (m)</td> <td>24.0</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>0.430</td> </tr> <tr> <td>Invert Level (m)</td> <td>4.260</td> <td></td> <td></td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.02520	Diameter/Width (m)	10.0	Safety Factor	3.0	Length (m)	24.0	Porosity	0.30	Cap Volume Depth (m)	0.430	Invert Level (m)	4.260		
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