

Reuby & Stagg Ltd		Page 1
Dewey House 55 High Street Ringwood BH24 1AE	Rustington Convalescent... Block E1-E2 Reuby & Stagg 10379	
Date 01/10/2018 File 10379 Block E1-E2...	Designed By PJ Checked By	
Micro Drainage	Source Control W.12.4	

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

Half Drain Time : 372 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	3.073	0.173	0.1	3.0	O K
30 min Summer	3.130	0.230	0.1	3.9	O K
60 min Summer	3.187	0.287	0.2	4.9	O K
120 min Summer	3.236	0.336	0.2	5.7	O K
180 min Summer	3.256	0.356	0.2	6.1	O K
240 min Summer	3.262	0.362	0.2	6.2	O K
360 min Summer	3.267	0.367	0.2	6.3	O K
480 min Summer	3.268	0.368	0.2	6.3	O K
600 min Summer	3.267	0.367	0.2	6.3	O K
720 min Summer	3.264	0.364	0.2	6.2	O K
960 min Summer	3.255	0.355	0.2	6.1	O K
1440 min Summer	3.232	0.332	0.2	5.7	O K
2160 min Summer	3.199	0.299	0.2	5.1	O K
2880 min Summer	3.170	0.270	0.1	4.6	O K
4320 min Summer	3.124	0.224	0.1	3.8	O K
5760 min Summer	3.089	0.189	0.1	3.2	O K
7200 min Summer	3.062	0.162	0.1	2.8	O K
8640 min Summer	3.040	0.140	0.1	2.4	O K

Storm Event	Rain (mm/hr)	Time-Peak (mins)
15 min Summer	124.633	19
30 min Summer	83.789	33
60 min Summer	53.779	62
120 min Summer	33.337	122
180 min Summer	24.832	180
240 min Summer	20.006	232
360 min Summer	14.706	288
480 min Summer	11.818	350
600 min Summer	9.966	418
720 min Summer	8.665	486
960 min Summer	6.943	626
1440 min Summer	5.071	896
2160 min Summer	3.696	1300
2880 min Summer	2.949	1700
4320 min Summer	2.142	2464
5760 min Summer	1.705	3176
7200 min Summer	1.427	3960
8640 min Summer	1.235	4672

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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
10080 min Summer	3.022	0.122	0.1	2.1	O K
15 min Winter	3.094	0.194	0.1	3.3	O K
30 min Winter	3.158	0.258	0.1	4.4	O K
60 min Winter	3.222	0.322	0.2	5.5	O K
120 min Winter	3.279	0.379	0.2	6.5	O K
180 min Winter	3.303	0.403	0.2	6.9	O K
240 min Winter	3.314	0.414	0.2	7.0	O K
360 min Winter	3.318	0.418	0.2	7.1	O K
480 min Winter	3.318	0.418	0.2	7.1	O K
600 min Winter	3.314	0.414	0.2	7.0	O K
720 min Winter	3.306	0.406	0.2	6.9	O K
960 min Winter	3.290	0.390	0.2	6.7	O K
1440 min Winter	3.256	0.356	0.2	6.1	O K
2160 min Winter	3.208	0.308	0.2	5.3	O K
2880 min Winter	3.169	0.269	0.1	4.6	O K
4320 min Winter	3.109	0.209	0.1	3.6	O K
5760 min Winter	3.066	0.166	0.1	2.8	O K
7200 min Winter	3.033	0.133	0.1	2.3	O K
8640 min Winter	3.009	0.109	0.1	1.9	O K
Storm Event	Rain (mm/hr)		Time-Peak (mins)		
10080 min Summer	1.093		5352		
15 min Winter	124.633		18		
30 min Winter	83.789		33		
60 min Winter	53.779		62		
120 min Winter	33.337		120		
180 min Winter	24.832		176		
240 min Winter	20.006		230		
360 min Winter	14.706		300		
480 min Winter	11.818		370		
600 min Winter	9.966		446		
720 min Winter	8.665		522		
960 min Winter	6.943		674		
1440 min Winter	5.071		966		
2160 min Winter	3.696		1384		
2880 min Winter	2.949		1788		
4320 min Winter	2.142		2552		
5760 min Winter	1.705		3336		
7200 min Winter	1.427		4040		
8640 min Winter	1.235		4760		
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<u>Summary of Results for 100 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Winter	2.989	0.089	0.1	1.5	O K
Storm Event		Rain (mm/hr)	Time-Peak (mins)		
10080 min Winter		1.093	5544		
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Rainfall Details

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

Time / Area Diagram

Total Area (ha) 0.000

Time (mins)	Area (ha)
0-4	0.000

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Model Details

Storage is Online Cover Level (m) 3.750

Cellular Storage Structure

Invert Level (m) 2.900 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.01662 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.16620

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	18.0	18.0	1.300	0.0	25.6
0.100	18.0	19.7	1.400	0.0	25.6
0.200	18.0	21.4	1.500	0.0	25.6
0.300	18.0	23.1	1.600	0.0	25.6
0.400	18.0	24.8	1.700	0.0	25.6
0.500	0.0	25.6	1.800	0.0	25.6
0.600	0.0	25.6	1.900	0.0	25.6
0.700	0.0	25.6	2.000	0.0	25.6
0.800	0.0	25.6	2.100	0.0	25.6
0.900	0.0	25.6	2.200	0.0	25.6
1.000	0.0	25.6	2.300	0.0	25.6
1.100	0.0	25.6	2.400	0.0	25.6
1.200	0.0	25.6	2.500	0.0	25.6

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