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The Stables High Cogges, Witney Oxfordshire	Branch Hill Green roof South West	
Date 19/07/2017 09:27 File Greenroof SW lin30+CC.srcx	Designed by david Checked by	
Micro Drainage	Source Control 2015.1	

Summary of Results for 30 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m ³)	Status
15 min Summer	115.031	0.031	0.6	0.0	O K
30 min Summer	115.033	0.033	0.7	0.0	O K
60 min Summer	115.033	0.033	0.6	0.0	O K
120 min Summer	115.030	0.030	0.5	0.0	O K
180 min Summer	115.028	0.028	0.5	0.0	O K
240 min Summer	115.026	0.026	0.4	0.0	O K
360 min Summer	115.024	0.024	0.3	0.0	O K
480 min Summer	115.022	0.022	0.3	0.0	O K
600 min Summer	115.020	0.020	0.2	0.0	O K
720 min Summer	115.018	0.018	0.2	0.0	O K
960 min Summer	115.016	0.016	0.2	0.0	O K
1440 min Summer	115.014	0.014	0.1	0.0	O K
2160 min Summer	115.012	0.012	0.1	0.0	O K
2880 min Summer	115.011	0.011	0.1	0.0	O K
4320 min Summer	115.010	0.010	0.1	0.0	O K
5760 min Summer	115.009	0.009	0.0	0.0	O K
7200 min Summer	115.008	0.008	0.0	0.0	O K
8640 min Summer	115.007	0.007	0.0	0.0	O K
10080 min Summer	115.007	0.007	0.0	0.0	O K
15 min Winter	115.033	0.033	0.7	0.0	O K
30 min Winter	115.035	0.035	0.7	0.0	O K


Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Discharge Volume (m ³)	Time-Peak (mins)
15 min Summer	115.658	0.0	0.8	16
30 min Summer	74.099	0.0	1.0	21
60 min Summer	45.320	0.0	1.3	38
120 min Summer	26.893	0.0	1.6	70
180 min Summer	19.614	0.0	1.8	100
240 min Summer	15.614	0.0	1.9	132
360 min Summer	11.313	0.0	2.1	194
480 min Summer	8.994	0.0	2.2	250
600 min Summer	7.524	0.0	2.3	308
720 min Summer	6.501	0.0	2.4	380
960 min Summer	5.159	0.0	2.5	490
1440 min Summer	3.721	0.0	2.7	732
2160 min Summer	2.681	0.0	2.9	1108
2880 min Summer	2.124	0.0	3.0	1424
4320 min Summer	1.528	0.0	3.1	2132
5760 min Summer	1.209	0.0	3.2	2864
7200 min Summer	1.008	0.0	3.3	3648
8640 min Summer	0.868	0.0	3.3	4264
10080 min Summer	0.766	0.0	3.2	5024
15 min Winter	115.658	0.0	0.9	15
30 min Winter	74.099	0.0	1.2	22

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Summary of Results for 30 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m ³)	Status
60 min Winter	115.034	0.034	0.7	0.0	O K
120 min Winter	115.030	0.030	0.5	0.0	O K
180 min Winter	115.027	0.027	0.4	0.0	O K
240 min Winter	115.025	0.025	0.4	0.0	O K
360 min Winter	115.022	0.022	0.3	0.0	O K
480 min Winter	115.019	0.019	0.2	0.0	O K
600 min Winter	115.017	0.017	0.2	0.0	O K
720 min Winter	115.016	0.016	0.2	0.0	O K
960 min Winter	115.014	0.014	0.1	0.0	O K
1440 min Winter	115.012	0.012	0.1	0.0	O K
2160 min Winter	115.011	0.011	0.1	0.0	O K
2880 min Winter	115.010	0.010	0.1	0.0	O K
4320 min Winter	115.008	0.008	0.0	0.0	O K
5760 min Winter	115.007	0.007	0.0	0.0	O K
7200 min Winter	115.007	0.007	0.0	0.0	O K
8640 min Winter	115.006	0.006	0.0	0.0	O K
10080 min Winter	115.006	0.006	0.0	0.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Discharge Volume (m ³)	Time-Peak (mins)
60 min Winter	45.320	0.0	1.5	40
120 min Winter	26.893	0.0	1.8	72
180 min Winter	19.614	0.0	2.0	110
240 min Winter	15.614	0.0	2.2	136
360 min Winter	11.313	0.0	2.4	192
480 min Winter	8.994	0.0	2.5	254
600 min Winter	7.524	0.0	2.6	316
720 min Winter	6.501	0.0	2.7	364
960 min Winter	5.159	0.0	2.9	498
1440 min Winter	3.721	0.0	3.1	746
2160 min Winter	2.681	0.0	3.3	1048
2880 min Winter	2.124	0.0	3.4	1356
4320 min Winter	1.528	0.0	3.6	2252
5760 min Winter	1.209	0.0	3.7	2976
7200 min Winter	1.008	0.0	3.8	3568
8640 min Winter	0.868	0.0	3.8	4488
10080 min Winter	0.766	0.0	3.8	5088

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	21.000	Shortest Storm (mins)	15
Ratio R	0.439	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Green Roof

Area (m ³)	46	Evaporation (mm/day)	3
Depression Storage (mm)	5	Decay Coefficient	0.050

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
From:	To:	From:	To:	From:	To:	From:	To:
0	4	32	36	64	68	96	100
4	8	36	40	68	72	100	104
8	12	40	44	72	76	104	108
12	16	44	48	76	80	108	112
16	20	48	52	80	84	112	116
20	24	52	56	84	88	116	120
24	28	56	60	88	92		
28	32	60	64	92	96		