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Lancaster Court 8 Barnes Wallis Road Fareham PO15 5TU	020.5360 CATCHMENT A Fontwell Avenue, Eastergate Infil. Trench Rear Garden	
Date 07.08.2020 File catchment A.SRCX	Designed by SH Checked by RW	
XP Solutions	Source Control 2014.1	

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

Half Drain Time : 57 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	17.191	0.907	1.5	6.5	O K
30 min Summer	17.419	1.135	1.7	8.2	O K
60 min Summer	17.564	1.280	1.9	9.2	O K
120 min Summer	17.614	1.330	1.9	9.6	O K
180 min Summer	17.571	1.287	1.9	9.3	O K
240 min Summer	17.506	1.222	1.8	8.8	O K
360 min Summer	17.389	1.105	1.7	8.0	O K
480 min Summer	17.285	1.001	1.6	7.2	O K
600 min Summer	17.195	0.911	1.5	6.6	O K
720 min Summer	17.116	0.832	1.4	6.0	O K
960 min Summer	16.984	0.700	1.3	5.0	O K
1440 min Summer	16.793	0.509	1.1	3.7	O K
2160 min Summer	16.609	0.325	0.9	2.3	O K
2880 min Summer	16.490	0.206	0.7	1.5	O K
4320 min Summer	16.356	0.072	0.6	0.5	O K
5760 min Summer	16.327	0.043	0.5	0.3	O K
7200 min Summer	16.321	0.037	0.4	0.3	O K
8640 min Summer	16.316	0.032	0.4	0.2	O K
10080 min Summer	16.312	0.028	0.3	0.2	O K
15 min Winter	17.309	1.025	1.6	7.4	O K
30 min Winter	17.575	1.291	1.9	9.3	O K
60 min Winter	17.738	1.454	2.1	10.5	O K
120 min Winter	17.774	1.490	2.1	10.7	O K
180 min Winter	17.698	1.414	2.0	10.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	125.250	0.0	17
30 min Summer	85.368	0.0	31
60 min Summer	55.544	0.0	48
120 min Summer	34.816	0.0	82
180 min Summer	26.038	0.0	116
240 min Summer	21.042	0.0	150
360 min Summer	15.601	0.0	218
480 min Summer	12.593	0.0	282
600 min Summer	10.656	0.0	346
720 min Summer	9.290	0.0	410
960 min Summer	7.475	0.0	532
1440 min Summer	5.489	0.0	780
2160 min Summer	4.021	0.0	1144
2880 min Summer	3.220	0.0	1500
4320 min Summer	2.348	0.0	2204
5760 min Summer	1.878	0.0	2920
7200 min Summer	1.581	0.0	3664
8640 min Summer	1.373	0.0	4296
10080 min Summer	1.219	0.0	5016
15 min Winter	125.250	0.0	17
30 min Winter	85.368	0.0	30
60 min Winter	55.544	0.0	50
120 min Winter	34.816	0.0	88
180 min Winter	26.038	0.0	126

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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 (m ³)	Status
240 min Winter	17.598	1.314	1.9	9.5	O K
360 min Winter	17.421	1.137	1.7	8.2	O K
480 min Winter	17.275	0.991	1.6	7.1	O K
600 min Winter	17.153	0.869	1.4	6.3	O K
720 min Winter	17.049	0.765	1.3	5.5	O K
960 min Winter	16.885	0.601	1.2	4.3	O K
1440 min Winter	16.664	0.380	0.9	2.7	O K
2160 min Winter	16.470	0.186	0.7	1.3	O K
2880 min Winter	16.357	0.073	0.6	0.5	O K
4320 min Winter	16.323	0.039	0.4	0.3	O K
5760 min Winter	16.315	0.031	0.4	0.2	O K
7200 min Winter	16.311	0.027	0.3	0.2	O K
8640 min Winter	16.307	0.023	0.3	0.2	O K
10080 min Winter	16.304	0.020	0.2	0.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
240 min Winter	21.042	0.0	160
360 min Winter	15.601	0.0	230
480 min Winter	12.593	0.0	298
600 min Winter	10.656	0.0	362
720 min Winter	9.290	0.0	426
960 min Winter	7.475	0.0	552
1440 min Winter	5.489	0.0	796
2160 min Winter	4.021	0.0	1164
2880 min Winter	3.220	0.0	1500
4320 min Winter	2.348	0.0	2184
5760 min Winter	1.878	0.0	2840
7200 min Winter	1.581	0.0	3632
8640 min Winter	1.373	0.0	4320
10080 min Winter	1.219	0.0	5136

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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)	19.600	Shortest Storm (mins)	15
Ratio R	0.322	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.032

Time (mins)	Area
From:	To: (ha)

0	4	0.032
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Model Details

Storage is Online Cover Level (m) 18.230

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.30852	Trench Width (m)	1.0
Infiltration Coefficient Side (m/hr)	0.30852	Trench Length (m)	24.0
Safety Factor	4.0	Slope (1:X)	0.0
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	16.284	Cap Infiltration Depth (m)	0.000