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Lancaster Court 8 Barnes Wallis Road Fareham PO15 5TU	PLOT 8-10 SIDE INFILTRATION ONLY INFILTRATION CRATES	
Date 09.07.2021 File 108.5009 - PLOT 8,9&10.SRCX	Designed by RD Checked by RW	
XP Solutions	Source Control 2014.1	

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

Half Drain Time : 506 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	15.354	0.309	0.1	4.4	O K
30 min Summer	15.462	0.417	0.1	5.9	O K
60 min Summer	15.576	0.531	0.2	7.6	O K
120 min Summer	15.685	0.640	0.2	9.1	O K
180 min Summer	15.734	0.689	0.2	9.8	O K
240 min Summer	15.758	0.713	0.2	10.2	O K
360 min Summer	15.781	0.736	0.2	10.5	O K
480 min Summer	15.795	0.750	0.2	10.7	O K
600 min Summer	15.804	0.759	0.3	10.8	O K
720 min Summer	15.808	0.763	0.3	10.9	O K
960 min Summer	15.809	0.764	0.3	10.9	O K
1440 min Summer	15.792	0.747	0.2	10.6	O K
2160 min Summer	15.753	0.708	0.2	10.1	O K
2880 min Summer	15.711	0.666	0.2	9.5	O K
4320 min Summer	15.637	0.592	0.2	8.4	O K
5760 min Summer	15.578	0.533	0.2	7.6	O K
7200 min Summer	15.532	0.487	0.2	6.9	O K
8640 min Summer	15.494	0.449	0.1	6.4	O K
10080 min Summer	15.463	0.418	0.1	6.0	O K
15 min Winter	15.391	0.346	0.1	4.9	O K
30 min Winter	15.512	0.467	0.2	6.7	O K
60 min Winter	15.641	0.596	0.2	8.5	O K
120 min Winter	15.763	0.718	0.2	10.2	O K
180 min Winter	15.820	0.775	0.3	11.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	125.250	0.0	19
30 min Summer	85.368	0.0	34
60 min Summer	55.544	0.0	64
120 min Summer	34.816	0.0	122
180 min Summer	26.038	0.0	182
240 min Summer	21.042	0.0	240
360 min Summer	15.601	0.0	312
480 min Summer	12.593	0.0	372
600 min Summer	10.656	0.0	434
720 min Summer	9.290	0.0	500
960 min Summer	7.475	0.0	636
1440 min Summer	5.489	0.0	910
2160 min Summer	4.021	0.0	1316
2880 min Summer	3.220	0.0	1704
4320 min Summer	2.348	0.0	2468
5760 min Summer	1.878	0.0	3232
7200 min Summer	1.581	0.0	3968
8640 min Summer	1.373	0.0	4680
10080 min Summer	1.219	0.0	5448
15 min Winter	125.250	0.0	19
30 min Winter	85.368	0.0	33
60 min Winter	55.544	0.0	62
120 min Winter	34.816	0.0	120
180 min Winter	26.038	0.0	176

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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	15.889	0.844	0.3	11.4	O K
360 min Winter	16.307	1.262	0.3	11.9	O K
480 min Winter	16.462	1.417	0.3	12.0	O K
600 min Winter	16.563	1.518	0.3	12.1	O K
720 min Winter	16.575	1.530	0.3	12.1	O K
960 min Winter	16.432	1.387	0.3	12.0	O K
1440 min Winter	15.858	0.813	0.3	11.4	O K
2160 min Winter	15.781	0.736	0.2	10.5	O K
2880 min Winter	15.720	0.675	0.2	9.6	O K
4320 min Winter	15.620	0.575	0.2	8.2	O K
5760 min Winter	15.546	0.501	0.2	7.1	O K
7200 min Winter	15.490	0.445	0.1	6.3	O K
8640 min Winter	15.446	0.401	0.1	5.7	O K
10080 min Winter	15.410	0.365	0.1	5.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
240 min Winter	21.042	0.0	232
360 min Winter	15.601	0.0	340
480 min Winter	12.593	0.0	388
600 min Winter	10.656	0.0	462
720 min Winter	9.290	0.0	540
960 min Winter	7.475	0.0	692
1440 min Winter	5.489	0.0	980
2160 min Winter	4.021	0.0	1404
2880 min Winter	3.220	0.0	1812
4320 min Winter	2.348	0.0	2592
5760 min Winter	1.878	0.0	3352
7200 min Winter	1.581	0.0	4112
8640 min Winter	1.373	0.0	4848
10080 min Winter	1.219	0.0	5552

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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) 0.019

Time (mins)		Area
From:	To:	(ha)
0	4	0.019

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Model Details

Storage is Online Cover Level (m) 16.900

Cellular Storage Structure

Invert Level (m) 15.045 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.30852

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	15.0	15.0	0.800	15.0	27.4	0.801	0.0	27.4