

Paul Basham Associates		Page 1
Lancaster Court Fareham Hampshire, PO15 5TU	ROAD CATCHMENT 4 INFILTRATION CRATES	
Date 09/07/2021 15:03 File 108.5009 - ROAD CATCHMENT 4.SRCX	Designed by RD Checked by RW	
Innovyze	Source Control 2020.1.3	

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

Half Drain Time : 86 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (mE)	Status
15 min Summer	15.572	0.560	1.0	5.5	O K
30 min Summer	15.738	0.726	1.1	7.2	O K
60 min Summer	15.858	0.846	1.1	8.4	Flood Risk
120 min Summer	15.889	0.877	1.1	8.7	Flood Risk
180 min Summer	15.866	0.854	1.1	8.5	Flood Risk
240 min Summer	15.831	0.819	1.1	8.1	Flood Risk
360 min Summer	15.763	0.751	1.1	7.4	O K
480 min Summer	15.694	0.682	1.1	6.7	O K
600 min Summer	15.628	0.616	1.0	6.1	O K
720 min Summer	15.566	0.554	1.0	5.4	O K
960 min Summer	15.456	0.444	0.9	4.3	O K
1440 min Summer	15.286	0.274	0.8	2.6	O K
2160 min Summer	15.127	0.115	0.8	1.0	O K
2880 min Summer	15.062	0.050	0.7	0.4	O K
4320 min Summer	15.049	0.037	0.5	0.2	O K
5760 min Summer	15.041	0.029	0.4	0.2	O K
7200 min Summer	15.039	0.027	0.4	0.1	O K
8640 min Summer	15.037	0.025	0.3	0.1	O K
10080 min Summer	15.036	0.024	0.3	0.1	O K
15 min Winter	15.646	0.634	1.0	6.3	O K
30 min Winter	15.840	0.828	1.1	8.2	Flood Risk
60 min Winter	15.987	0.975	1.2	9.7	Flood Risk
120 min Winter	16.028	1.016	1.2	10.1	Flood Risk
180 min Winter	15.992	0.980	1.2	9.7	Flood Risk

Storm Event	Rain (mm/hr)	Flooded Volume (mE)	Time- Peak (mins)
15 min Summer	125.250	0.0	23
30 min Summer	85.368	0.0	35
60 min Summer	55.544	0.0	60
120 min Summer	34.816	0.0	94
180 min Summer	26.038	0.0	130
240 min Summer	21.042	0.0	164
360 min Summer	15.601	0.0	232
480 min Summer	12.593	0.0	300
600 min Summer	10.656	0.0	366
720 min Summer	9.290	0.0	430
960 min Summer	7.475	0.0	556
1440 min Summer	5.489	0.0	796
2160 min Summer	4.021	0.0	1136
2880 min Summer	3.220	0.0	1468
4320 min Summer	2.348	0.0	2164
5760 min Summer	1.878	0.0	2936
7200 min Summer	1.581	0.0	3664
8640 min Summer	1.373	0.0	4256
10080 min Summer	1.219	0.0	5104
15 min Winter	125.250	0.0	24
30 min Winter	85.368	0.0	36
60 min Winter	55.544	0.0	62
120 min Winter	34.816	0.0	100
180 min Winter	26.038	0.0	138

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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	15.937	0.925	1.2	9.2	Flood Risk
360 min Winter	15.828	0.816	1.1	8.1	Flood Risk
480 min Winter	15.722	0.710	1.1	7.0	OK
600 min Winter	15.624	0.612	1.0	6.0	OK
720 min Winter	15.534	0.522	1.0	5.1	OK
960 min Winter	15.381	0.369	0.9	3.6	OK
1440 min Winter	15.162	0.150	0.8	1.4	OK
2160 min Winter	15.057	0.045	0.7	0.3	OK
2880 min Winter	15.048	0.036	0.5	0.2	OK
4320 min Winter	15.040	0.028	0.4	0.1	OK
5760 min Winter	15.037	0.025	0.3	0.1	OK
7200 min Winter	15.035	0.023	0.3	0.1	OK
8640 min Winter	15.033	0.021	0.2	0.1	OK
10080 min Winter	15.032	0.020	0.2	0.1	OK

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
240 min Winter	21.042	0.0	176
360 min Winter	15.601	0.0	250
480 min Winter	12.593	0.0	320
600 min Winter	10.656	0.0	388
720 min Winter	9.290	0.0	454
960 min Winter	7.475	0.0	582
1440 min Winter	5.489	0.0	812
2160 min Winter	4.021	0.0	1100
2880 min Winter	3.220	0.0	1444
4320 min Winter	2.348	0.0	2204
5760 min Winter	1.878	0.0	2992
7200 min Winter	1.581	0.0	3624
8640 min Winter	1.373	0.0	4296
10080 min Winter	1.219	0.0	5240

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Model Details

Storage is Online Cover Level (m) 16.112

Infiltration Trench Structure

Infiltration Coefficient Base (m/hr)	0.30852	Trench Width (m)	5.8
Infiltration Coefficient Side (m/hr)	0.30852	Trench Length (m)	5.8
Safety Factor	4.0	Slope (1:X)	200.0
Porosity	0.30	Cap Volume	0.000
Invert Level (m)	15.012	Cap Infiltration Depth (m)	0.000