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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank A - 1:30+20%	
Date 29/08/2023 11:59 File 114290 - PoE - Tank A_1-30+20.SRCX	Designed by GEB Checked by GEB	
XP Solutions		
Source Control 2020.1		

Summary of Results for 30 year Return Period (+20%)

Half Drain Time : 2778 minutes.

Outflow is too low. Design is unsatisfactory.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	38.376	0.176	0.2	23.5	O K
30 min Summer	38.435	0.235	0.2	31.3	O K
60 min Summer	38.496	0.296	0.2	39.4	O K
120 min Summer	38.545	0.345	0.2	45.9	O K
180 min Summer	38.574	0.374	0.2	49.7	O K
240 min Summer	38.595	0.395	0.2	52.5	O K
360 min Summer	38.625	0.425	0.2	56.5	O K
480 min Summer	38.646	0.446	0.2	59.3	O K
600 min Summer	38.661	0.461	0.2	61.3	O K
720 min Summer	38.673	0.473	0.2	62.9	O K
960 min Summer	38.691	0.491	0.2	65.3	O K
1440 min Summer	38.711	0.511	0.2	67.9	O K
2160 min Summer	38.720	0.520	0.2	69.2	O K
2880 min Summer	38.724	0.524	0.2	69.7	O K
4320 min Summer	38.732	0.532	0.2	70.8	O K
5760 min Summer	38.741	0.541	0.2	71.9	O K
7200 min Summer	38.751	0.551	0.2	73.3	O K
8640 min Summer	38.763	0.563	0.2	74.8	O K
10080 min Summer	38.775	0.575	0.2	76.5	O K
15 min Winter	38.376	0.176	0.2	23.5	O K
30 min Winter	38.435	0.235	0.2	31.3	O K
60 min Winter	38.496	0.296	0.2	39.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	89.167	0.0	19
30 min Summer	59.579	0.0	34
60 min Summer	37.766	0.0	64
120 min Summer	22.241	0.0	124
180 min Summer	16.259	0.0	184
240 min Summer	13.013	0.0	244
360 min Summer	9.518	0.0	362
480 min Summer	7.625	0.0	482
600 min Summer	6.425	0.0	602
720 min Summer	5.589	0.0	722
960 min Summer	4.496	0.0	962
1440 min Summer	3.323	0.0	1440
2160 min Summer	2.470	0.0	2140
2880 min Summer	2.015	0.0	2476
4320 min Summer	1.532	0.0	3244
5760 min Summer	1.277	0.0	4088
7200 min Summer	1.120	0.0	4904
8640 min Summer	1.012	0.0	5792
10080 min Summer	0.935	0.0	6656
15 min Winter	89.167	0.0	19
30 min Winter	59.579	0.0	34
60 min Winter	37.766	0.0	64

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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank A - 1:30+20%	
Date 29/08/2023 11:59 File 114290 - PoE - Tank A_1-30+20.SRCX	Designed by GEB Checked by GEB	
XP Solutions	Source Control 2020.1	

Summary of Results for 30 year Return Period (+20%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
120 min Winter	38.545	0.345	0.2	45.9	O K
180 min Winter	38.574	0.374	0.2	49.8	O K
240 min Winter	38.595	0.395	0.2	52.6	O K
360 min Winter	38.625	0.425	0.2	56.6	O K
480 min Winter	38.646	0.446	0.2	59.4	O K
600 min Winter	38.662	0.462	0.2	61.4	O K
720 min Winter	38.674	0.474	0.2	63.1	O K
960 min Winter	38.692	0.492	0.2	65.5	O K
1440 min Winter	38.713	0.513	0.2	68.3	O K
2160 min Winter	38.726	0.526	0.2	69.9	O K
2880 min Winter	38.728	0.528	0.2	70.3	O K
4320 min Winter	38.731	0.531	0.2	70.6	O K
5760 min Winter	38.734	0.534	0.2	71.0	O K
7200 min Winter	38.737	0.537	0.2	71.4	O K
8640 min Winter	38.741	0.541	0.2	71.9	O K
10080 min Winter	38.745	0.545	0.2	72.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
120 min Winter	22.241	0.0	122
180 min Winter	16.259	0.0	182
240 min Winter	13.013	0.0	240
360 min Winter	9.518	0.0	358
480 min Winter	7.625	0.0	476
600 min Winter	6.425	0.0	594
720 min Winter	5.589	0.0	710
960 min Winter	4.496	0.0	942
1440 min Winter	3.323	0.0	1398
2160 min Winter	2.470	0.0	2056
2880 min Winter	2.015	0.0	2684
4320 min Winter	1.532	0.0	3372
5760 min Winter	1.277	0.0	4320
7200 min Winter	1.120	0.0	5264
8640 min Winter	1.012	0.0	6224
10080 min Winter	0.935	0.0	7160

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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank A - 1:30+20%	
Date 29/08/2023 11:59	Designed by GEB	
File 114290 - PoE - Tank A_1-30+20.SRCX	Checked by GEB	
XP Solutions	Source Control 2020.1	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	1.000
FEH Rainfall Version	2013	Cv (Winter)	1.000
Site Location	GB 441283 106591 SU 41283 06591	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+20

Time Area Diagram

Total Area (ha) 0.106

Time (mins)		Area
From:	To:	(ha)
0	4	0.106

Model Details

Storage is Online Cover Level (m) 40.000

Cellular Storage Structure

Invert Level (m) 38.200 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.01548 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.01548

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	140.0	140.0	0.800	140.0	177.9	0.801	0.0	177.9

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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank A - 1:100+40%	
Date 29/08/2023 12:08 File 114290 - PoE - Tank A_1-100+40.SRCX	Designed by GEB Checked by GEB	
XP Solutions	Source Control 2020.1	

Source Control 2020.1

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

Half Drain Time : 4001 minutes.

Outflow is too low. Design is unsatisfactory.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	38.458	0.258	0.2	34.3	O K
30 min Summer	38.546	0.346	0.2	46.0	O K
60 min Summer	38.642	0.442	0.2	58.7	O K
120 min Summer	38.705	0.505	0.2	67.2	O K
180 min Summer	38.745	0.545	0.2	72.5	O K
240 min Summer	38.775	0.575	0.2	76.4	O K
360 min Summer	38.818	0.618	0.2	82.2	O K
480 min Summer	38.849	0.649	0.2	86.3	O K
600 min Summer	38.873	0.673	0.2	89.5	O K
720 min Summer	38.892	0.692	0.2	92.1	O K
960 min Summer	38.923	0.723	0.2	96.1	O K
1440 min Summer	38.960	0.760	0.3	101.1	O K
2160 min Summer	38.986	0.786	0.3	104.5	O K
2880 min Summer	38.995	0.795	0.3	105.8	O K
4320 min Summer	39.275	1.075	0.3	106.7	O K
5760 min Summer	40.001	1.801	0.3	108.0	FLOOD
7200 min Summer	40.003	1.803	0.3	110.0	FLOOD
8640 min Summer	40.005	1.805	0.3	112.5	FLOOD
10080 min Summer	40.008	1.808	0.3	115.3	FLOOD
15 min Winter	38.458	0.258	0.2	34.3	O K
30 min Winter	38.546	0.346	0.2	46.0	O K
60 min Winter	38.642	0.442	0.2	58.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	130.140	0.0	19
30 min Summer	87.360	0.0	34
60 min Summer	56.055	0.0	64
120 min Summer	32.360	0.0	124
180 min Summer	23.471	0.0	184
240 min Summer	18.702	0.0	244
360 min Summer	13.604	0.0	364
480 min Summer	10.865	0.0	484
600 min Summer	9.135	0.0	602
720 min Summer	7.935	0.0	722
960 min Summer	6.367	0.0	962
1440 min Summer	4.682	0.0	1442
2160 min Summer	3.453	0.0	2160
2880 min Summer	2.795	0.0	2880
4320 min Summer	2.098	0.0	3632
5760 min Summer	1.730	1.6	4440
7200 min Summer	1.507	3.6	5256
8640 min Summer	1.356	6.1	6128
10080 min Summer	1.248	8.9	6960
15 min Winter	130.140	0.0	19
30 min Winter	87.360	0.0	34
60 min Winter	56.055	0.0	64

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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank A - 1:100+40%	
Date 29/08/2023 12:08 File 114290 - PoE - Tank A_1-100+40.SRCX	Designed by GEB Checked by GEB	
XP Solutions	Source Control 2020.1	

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
120 min Winter	38.705	0.505	0.2	67.2	O K
180 min Winter	38.745	0.545	0.2	72.5	O K
240 min Winter	38.775	0.575	0.2	76.5	O K
360 min Winter	38.819	0.619	0.2	82.3	O K
480 min Winter	38.850	0.650	0.2	86.4	O K
600 min Winter	38.874	0.674	0.2	89.6	O K
720 min Winter	38.894	0.694	0.2	92.3	O K
960 min Winter	38.924	0.724	0.2	96.3	O K
1440 min Winter	38.963	0.763	0.3	101.5	O K
2160 min Winter	38.991	0.791	0.3	105.2	O K
2880 min Winter	39.439	1.239	0.3	106.9	O K
4320 min Winter	40.000	1.800	0.3	107.6	FLOOD
5760 min Winter	40.001	1.801	0.3	108.2	FLOOD
7200 min Winter	40.002	1.802	0.3	109.6	FLOOD
8640 min Winter	40.004	1.804	0.3	111.3	FLOOD
10080 min Winter	40.006	1.806	0.3	113.1	FLOOD

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
120 min Winter	32.360	0.0	122
180 min Winter	23.471	0.0	182
240 min Winter	18.702	0.0	242
360 min Winter	13.604	0.0	360
480 min Winter	10.865	0.0	478
600 min Winter	9.135	0.0	596
720 min Winter	7.935	0.0	714
960 min Winter	6.367	0.0	946
1440 min Winter	4.682	0.0	1412
2160 min Winter	3.453	0.0	2096
2880 min Winter	2.795	0.0	2764
4320 min Winter	2.098	1.1	4016
5760 min Winter	1.730	1.7	4552
7200 min Winter	1.507	3.2	5480
8640 min Winter	1.356	4.8	6480
10080 min Winter	1.248	6.6	7456

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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank A - 1:100+40%	
Date 29/08/2023 12:08	Designed by GEB	
File 114290 - PoE - Tank A_1-100+40.SRCX	Checked by GEB	
XP Solutions	Source Control 2020.1	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	1.000
FEH Rainfall Version	2013	Cv (Winter)	1.000
Site Location	GB 441283 106591 SU 41283 06591	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.106

Time (mins)		Area
From:	To:	(ha)
0	4	0.106

Model Details

Storage is Online Cover Level (m) 40.000

Cellular Storage Structure

Invert Level (m) 38.200 Safety Factor 3.0

Infiltration Coefficient Base (m/hr) 0.01548 Porosity 0.95

Infiltration Coefficient Side (m/hr) 0.01548

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	140.0	140.0	0.800	140.0	177.9	0.801	0.0	177.9

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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank B - 1:30+20%	
Date 29/08/2023 12:25 File 114290 - PoE - Tank B_1-30+20.SRCX	Designed by GEB Checked by GEB	
XP Solutions		
Source Control 2020.1		

Summary of Results for 30 year Return Period (+20%)

Half Drain Time : 2719 minutes.

Outflow is too low. Design is unsatisfactory.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	38.377	0.177	0.2	16.8	O K
30 min Summer	38.436	0.236	0.2	22.4	O K
60 min Summer	38.497	0.297	0.2	28.2	O K
120 min Summer	38.546	0.346	0.2	32.9	O K
180 min Summer	38.575	0.375	0.2	35.6	O K
240 min Summer	38.596	0.396	0.2	37.6	O K
360 min Summer	38.626	0.426	0.2	40.5	O K
480 min Summer	38.647	0.447	0.2	42.5	O K
600 min Summer	38.662	0.462	0.2	43.9	O K
720 min Summer	38.674	0.474	0.2	45.0	O K
960 min Summer	38.691	0.491	0.2	46.7	O K
1440 min Summer	38.711	0.511	0.2	48.5	O K
2160 min Summer	38.720	0.520	0.2	49.4	O K
2880 min Summer	38.724	0.524	0.2	49.7	O K
4320 min Summer	38.731	0.531	0.2	50.5	O K
5760 min Summer	38.740	0.540	0.2	51.3	O K
7200 min Summer	38.750	0.550	0.2	52.2	O K
8640 min Summer	38.761	0.561	0.2	53.3	O K
10080 min Summer	38.773	0.573	0.2	54.4	O K
15 min Winter	38.377	0.177	0.2	16.8	O K
30 min Winter	38.436	0.236	0.2	22.4	O K
60 min Winter	38.497	0.297	0.2	28.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	89.167	0.0	19
30 min Summer	59.579	0.0	34
60 min Summer	37.766	0.0	64
120 min Summer	22.241	0.0	124
180 min Summer	16.259	0.0	184
240 min Summer	13.013	0.0	244
360 min Summer	9.518	0.0	362
480 min Summer	7.625	0.0	482
600 min Summer	6.425	0.0	602
720 min Summer	5.589	0.0	722
960 min Summer	4.496	0.0	962
1440 min Summer	3.323	0.0	1440
2160 min Summer	2.470	0.0	2100
2880 min Summer	2.015	0.0	2448
4320 min Summer	1.532	0.0	3240
5760 min Summer	1.277	0.0	4040
7200 min Summer	1.120	0.0	4904
8640 min Summer	1.012	0.0	5792
10080 min Summer	0.935	0.0	6656
15 min Winter	89.167	0.0	19
30 min Winter	59.579	0.0	34
60 min Winter	37.766	0.0	64

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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank B - 1:30+20%	
Date 29/08/2023 12:25 File 114290 - PoE - Tank B_1-30+20.SRCX	Designed by GEB Checked by GEB	
XP Solutions	Source Control 2020.1	

Summary of Results for 30 year Return Period (+20%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
120 min Winter	38.546	0.346	0.2	32.9	O K
180 min Winter	38.575	0.375	0.2	35.7	O K
240 min Winter	38.597	0.397	0.2	37.7	O K
360 min Winter	38.627	0.427	0.2	40.5	O K
480 min Winter	38.648	0.448	0.2	42.5	O K
600 min Winter	38.663	0.463	0.2	44.0	O K
720 min Winter	38.675	0.475	0.2	45.1	O K
960 min Winter	38.693	0.493	0.2	46.8	O K
1440 min Winter	38.714	0.514	0.2	48.8	O K
2160 min Winter	38.725	0.525	0.2	49.9	O K
2880 min Winter	38.727	0.527	0.2	50.1	O K
4320 min Winter	38.730	0.530	0.2	50.3	O K
5760 min Winter	38.732	0.532	0.2	50.6	O K
7200 min Winter	38.735	0.535	0.2	50.8	O K
8640 min Winter	38.738	0.538	0.2	51.1	O K
10080 min Winter	38.741	0.541	0.2	51.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
120 min Winter	22.241	0.0	122
180 min Winter	16.259	0.0	182
240 min Winter	13.013	0.0	240
360 min Winter	9.518	0.0	358
480 min Winter	7.625	0.0	476
600 min Winter	6.425	0.0	594
720 min Winter	5.589	0.0	708
960 min Winter	4.496	0.0	942
1440 min Winter	3.323	0.0	1398
2160 min Winter	2.470	0.0	2056
2880 min Winter	2.015	0.0	2680
4320 min Winter	1.532	0.0	3332
5760 min Winter	1.277	0.0	4320
7200 min Winter	1.120	0.0	5256
8640 min Winter	1.012	0.0	6144
10080 min Winter	0.935	0.0	7064

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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank B - 1:30+20%	
Date 29/08/2023 12:25	Designed by GEB	
File 114290 - PoE - Tank B_1-30+20.SRCX	Checked by GEB	
XP Solutions	Source Control 2020.1	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	1.000
FEH Rainfall Version	2013	Cv (Winter)	1.000
Site Location	GB 441283 106591 SU 41283 06591	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+20

Time Area Diagram

Total Area (ha) 0.076

Time (mins)		Area
From:	To:	(ha)
0	4	0.076

Model Details

Storage is Online Cover Level (m) 40.000

Cellular Storage Structure

Invert Level (m) 38.200 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.01548 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.01548

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	100.0	100.0	0.800	100.0	132.0	0.801	0.0	132.0

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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank B - 1:100+40%	
Date 29/08/2023 12:35 File 114290 - PoE - Tank B_1-100+40.SRCX	Designed by GEB Checked by GEB	
XP Solutions		
Source Control 2020.1		

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

Half Drain Time : 3828 minutes.

Outflow is too low. Design is unsatisfactory.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	38.459	0.259	0.2	24.6	O K
30 min Summer	38.547	0.347	0.2	32.9	O K
60 min Summer	38.643	0.443	0.2	42.1	O K
120 min Summer	38.707	0.507	0.2	48.2	O K
180 min Summer	38.747	0.547	0.2	52.0	O K
240 min Summer	38.777	0.577	0.2	54.8	O K
360 min Summer	38.820	0.620	0.2	58.9	O K
480 min Summer	38.851	0.651	0.2	61.8	O K
600 min Summer	38.874	0.674	0.2	64.1	O K
720 min Summer	38.894	0.694	0.2	65.9	O K
960 min Summer	38.924	0.724	0.2	68.7	O K
1440 min Summer	38.960	0.760	0.2	72.2	O K
2160 min Summer	38.984	0.784	0.2	74.5	O K
2880 min Summer	38.992	0.792	0.2	75.3	O K
4320 min Summer	38.999	0.799	0.2	75.9	O K
5760 min Summer	39.793	1.593	0.2	76.8	Flood Risk
7200 min Summer	40.001	1.801	0.2	78.3	FLOOD
8640 min Summer	40.003	1.803	0.2	80.0	FLOOD
10080 min Summer	40.005	1.805	0.2	81.9	FLOOD
15 min Winter	38.459	0.259	0.2	24.6	O K
30 min Winter	38.547	0.347	0.2	32.9	O K
60 min Winter	38.643	0.443	0.2	42.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	130.140	0.0	19
30 min Summer	87.360	0.0	34
60 min Summer	56.055	0.0	64
120 min Summer	32.360	0.0	124
180 min Summer	23.471	0.0	184
240 min Summer	18.702	0.0	244
360 min Summer	13.604	0.0	364
480 min Summer	10.865	0.0	484
600 min Summer	9.135	0.0	602
720 min Summer	7.935	0.0	722
960 min Summer	6.367	0.0	962
1440 min Summer	4.682	0.0	1442
2160 min Summer	3.453	0.0	2160
2880 min Summer	2.795	0.0	2880
4320 min Summer	2.098	0.0	3584
5760 min Summer	1.730	0.0	4376
7200 min Summer	1.507	2.2	5192
8640 min Summer	1.356	3.9	6048
10080 min Summer	1.248	5.8	6952
15 min Winter	130.140	0.0	19
30 min Winter	87.360	0.0	34
60 min Winter	56.055	0.0	64

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
120 min Winter	38.707	0.507	0.2	48.2	O K
180 min Winter	38.747	0.547	0.2	52.0	O K
240 min Winter	38.777	0.577	0.2	54.8	O K
360 min Winter	38.820	0.620	0.2	58.9	O K
480 min Winter	38.851	0.651	0.2	61.9	O K
600 min Winter	38.876	0.676	0.2	64.2	O K
720 min Winter	38.895	0.695	0.2	66.0	O K
960 min Winter	38.925	0.725	0.2	68.9	O K
1440 min Winter	38.963	0.763	0.2	72.5	O K
2160 min Winter	38.990	0.790	0.2	75.1	O K
2880 min Winter	39.095	0.895	0.2	76.1	O K
4320 min Winter	39.396	1.196	0.2	76.4	O K
5760 min Winter	39.870	1.670	0.2	76.9	Flood Risk
7200 min Winter	40.001	1.801	0.2	77.8	FLOOD
8640 min Winter	40.002	1.802	0.2	78.9	FLOOD
10080 min Winter	40.003	1.803	0.2	80.1	FLOOD

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
120 min Winter	32.360	0.0	122
180 min Winter	23.471	0.0	182
240 min Winter	18.702	0.0	240
360 min Winter	13.604	0.0	360
480 min Winter	10.865	0.0	478
600 min Winter	9.135	0.0	596
720 min Winter	7.935	0.0	714
960 min Winter	6.367	0.0	944
1440 min Winter	4.682	0.0	1412
2160 min Winter	3.453	0.0	2096
2880 min Winter	2.795	0.0	2764
4320 min Winter	2.098	0.0	3972
5760 min Winter	1.730	0.0	4496
7200 min Winter	1.507	1.8	5472
8640 min Winter	1.356	2.9	6400
10080 min Winter	1.248	4.1	7368

Calcinotto		Page 3
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank B - 1:100+40%	
Date 29/08/2023 12:35	Designed by GEB	
File 114290 - PoE - Tank B_1-100+40.SRCX	Checked by GEB	
XP Solutions	Source Control 2020.1	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	1.000
FEH Rainfall Version	2013	Cv (Winter)	1.000
Site Location	GB 441283 106591 SU 41283 06591	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.076

Time (mins)		Area
From:	To:	(ha)
0	4	0.076

Model Details

Storage is Online Cover Level (m) 40.000

Cellular Storage Structure

Invert Level (m) 38.200 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.01548 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.01548

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	100.0	100.0	0.800	100.0	132.0	0.801	0.0	132.0

Calcinotto		Page 1
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank C - 1:30+20%	
Date 29/08/2023 12:50 File 114290 - PoE - Tank C_1-30+20.SRCX	Designed by GEB Checked by GEB	
XP Solutions		
Source Control 2020.1		

Summary of Results for 30 year Return Period (+20%)

Half Drain Time : 2511 minutes.

Outflow is too low. Design is unsatisfactory.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	38.372	0.172	0.1	10.6	O K
30 min Summer	38.429	0.229	0.1	14.1	O K
60 min Summer	38.489	0.289	0.1	17.8	O K
120 min Summer	38.536	0.336	0.1	20.7	O K
180 min Summer	38.564	0.364	0.1	22.5	O K
240 min Summer	38.584	0.384	0.1	23.7	O K
360 min Summer	38.613	0.413	0.1	25.5	O K
480 min Summer	38.632	0.432	0.1	26.7	O K
600 min Summer	38.647	0.447	0.1	27.6	O K
720 min Summer	38.658	0.458	0.1	28.3	O K
960 min Summer	38.674	0.474	0.1	29.3	O K
1440 min Summer	38.690	0.490	0.1	30.3	O K
2160 min Summer	38.697	0.497	0.1	30.7	O K
2880 min Summer	38.700	0.500	0.1	30.9	O K
4320 min Summer	38.707	0.507	0.1	31.3	O K
5760 min Summer	38.713	0.513	0.1	31.7	O K
7200 min Summer	38.722	0.522	0.1	32.2	O K
8640 min Summer	38.731	0.531	0.1	32.8	O K
10080 min Summer	38.741	0.541	0.1	33.4	O K
15 min Winter	38.372	0.172	0.1	10.6	O K
30 min Winter	38.429	0.229	0.1	14.1	O K
60 min Winter	38.489	0.289	0.1	17.8	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	89.167	0.0	19
30 min Summer	59.579	0.0	34
60 min Summer	37.766	0.0	64
120 min Summer	22.241	0.0	124
180 min Summer	16.259	0.0	184
240 min Summer	13.013	0.0	244
360 min Summer	9.518	0.0	362
480 min Summer	7.625	0.0	482
600 min Summer	6.425	0.0	602
720 min Summer	5.589	0.0	722
960 min Summer	4.496	0.0	962
1440 min Summer	3.323	0.0	1440
2160 min Summer	2.470	0.0	2012
2880 min Summer	2.015	0.0	2364
4320 min Summer	1.532	0.0	3156
5760 min Summer	1.277	0.0	3984
7200 min Summer	1.120	0.0	4832
8640 min Summer	1.012	0.0	5704
10080 min Summer	0.935	0.0	6560
15 min Winter	89.167	0.0	19
30 min Winter	59.579	0.0	34
60 min Winter	37.766	0.0	64

Summary of Results for 30 year Return Period (+20%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
120 min Winter	38.536	0.336	0.1	20.7	O K
180 min Winter	38.564	0.364	0.1	22.5	O K
240 min Winter	38.585	0.385	0.1	23.7	O K
360 min Winter	38.613	0.413	0.1	25.5	O K
480 min Winter	38.633	0.433	0.1	26.7	O K
600 min Winter	38.648	0.448	0.1	27.6	O K
720 min Winter	38.659	0.459	0.1	28.3	O K
960 min Winter	38.675	0.475	0.1	29.4	O K
1440 min Winter	38.694	0.494	0.1	30.5	O K
2160 min Winter	38.702	0.502	0.1	31.0	O K
2880 min Winter	38.702	0.502	0.1	31.0	O K
4320 min Winter	38.704	0.504	0.1	31.1	O K
5760 min Winter	38.704	0.504	0.1	31.1	O K
7200 min Winter	38.705	0.505	0.1	31.2	O K
8640 min Winter	38.706	0.506	0.1	31.2	O K
10080 min Winter	38.707	0.507	0.1	31.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
120 min Winter	22.241	0.0	122
180 min Winter	16.259	0.0	182
240 min Winter	13.013	0.0	240
360 min Winter	9.518	0.0	358
480 min Winter	7.625	0.0	476
600 min Winter	6.425	0.0	592
720 min Winter	5.589	0.0	708
960 min Winter	4.496	0.0	942
1440 min Winter	3.323	0.0	1398
2160 min Winter	2.470	0.0	2052
2880 min Winter	2.015	0.0	2624
4320 min Winter	1.532	0.0	3288
5760 min Winter	1.277	0.0	4264
7200 min Winter	1.120	0.0	5192
8640 min Winter	1.012	0.0	6136
10080 min Winter	0.935	0.0	7056

Calcinotto		Page 3
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank C - 1:30+20%	
Date 29/08/2023 12:50 File 114290 - PoE - Tank C_1-30+20.SRCX	Designed by GEB Checked by GEB	
XP Solutions	Source Control 2020.1	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	1.000
FEH Rainfall Version	2013	Cv (Winter)	1.000
Site Location	GB 441283 106591 SU 41283 06591	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+20

Time Area Diagram

Total Area (ha) 0.048

Time (mins)		Area
From:	To:	(ha)
0	4	0.048

Model Details

Storage is Online Cover Level (m) 40.000

Cellular Storage Structure

Invert Level (m) 38.200 Safety Factor 3.0

Infiltration Coefficient Base (m/hr) 0.01548 Porosity 0.95

Infiltration Coefficient Side (m/hr) 0.01548

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	65.0	65.0	0.800	65.0	90.8	0.801	0.0	90.8

Calcinotto		Page 1
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank C - 1:100+40%	
Date 29/08/2023 12:50 File 114290 - PoE - Tank C_1-100+40.SRCX	Designed by GEB Checked by GEB	
XP Solutions		
Source Control 2020.1		

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

Half Drain Time : 3462 minutes.

Outflow is too low. Design is unsatisfactory.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	38.452	0.252	0.1	15.5	O K
30 min Summer	38.537	0.337	0.1	20.8	O K
60 min Summer	38.630	0.430	0.1	26.6	O K
120 min Summer	38.692	0.492	0.1	30.4	O K
180 min Summer	38.731	0.531	0.1	32.8	O K
240 min Summer	38.759	0.559	0.1	34.5	O K
360 min Summer	38.801	0.601	0.1	37.1	O K
480 min Summer	38.830	0.630	0.1	38.9	O K
600 min Summer	38.852	0.652	0.1	40.3	O K
720 min Summer	38.871	0.671	0.1	41.4	O K
960 min Summer	38.898	0.698	0.1	43.1	O K
1440 min Summer	38.931	0.731	0.1	45.1	O K
2160 min Summer	38.951	0.751	0.1	46.4	O K
2880 min Summer	38.955	0.755	0.1	46.6	O K
4320 min Summer	38.961	0.761	0.1	47.0	O K
5760 min Summer	38.968	0.768	0.1	47.5	O K
7200 min Summer	38.981	0.781	0.1	48.2	O K
8640 min Summer	38.996	0.796	0.1	49.2	O K
10080 min Summer	39.822	1.622	0.1	50.2	Flood Risk
15 min Winter	38.452	0.252	0.1	15.5	O K
30 min Winter	38.537	0.337	0.1	20.8	O K
60 min Winter	38.630	0.430	0.1	26.6	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	130.140	0.0	19
30 min Summer	87.360	0.0	34
60 min Summer	56.055	0.0	64
120 min Summer	32.360	0.0	124
180 min Summer	23.471	0.0	184
240 min Summer	18.702	0.0	244
360 min Summer	13.604	0.0	364
480 min Summer	10.865	0.0	482
600 min Summer	9.135	0.0	602
720 min Summer	7.935	0.0	722
960 min Summer	6.367	0.0	962
1440 min Summer	4.682	0.0	1442
2160 min Summer	3.453	0.0	2160
2880 min Summer	2.795	0.0	2740
4320 min Summer	2.098	0.0	3456
5760 min Summer	1.730	0.0	4264
7200 min Summer	1.507	0.0	5048
8640 min Summer	1.356	0.0	5960
10080 min Summer	1.248	0.0	6768
15 min Winter	130.140	0.0	19
30 min Winter	87.360	0.0	34
60 min Winter	56.055	0.0	64

Calcinotto		Page 2
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank C - 1:100+40%	
Date 29/08/2023 12:50 File 114290 - PoE - Tank C_1-100+40.SRCX	Designed by GEB Checked by GEB	
XP Solutions	Source Control 2020.1	

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
120 min Winter	38.692	0.492	0.1	30.4	O K
180 min Winter	38.731	0.531	0.1	32.8	O K
240 min Winter	38.760	0.560	0.1	34.6	O K
360 min Winter	38.801	0.601	0.1	37.1	O K
480 min Winter	38.831	0.631	0.1	38.9	O K
600 min Winter	38.854	0.654	0.1	40.4	O K
720 min Winter	38.872	0.672	0.1	41.5	O K
960 min Winter	38.900	0.700	0.1	43.2	O K
1440 min Winter	38.934	0.734	0.1	45.4	O K
2160 min Winter	38.957	0.757	0.1	46.7	O K
2880 min Winter	38.964	0.764	0.1	47.2	O K
4320 min Winter	38.964	0.764	0.1	47.1	O K
5760 min Winter	38.968	0.768	0.1	47.4	O K
7200 min Winter	38.974	0.774	0.1	47.8	O K
8640 min Winter	38.982	0.782	0.1	48.3	O K
10080 min Winter	38.991	0.791	0.1	48.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
120 min Winter	32.360	0.0	122
180 min Winter	23.471	0.0	182
240 min Winter	18.702	0.0	240
360 min Winter	13.604	0.0	358
480 min Winter	10.865	0.0	478
600 min Winter	9.135	0.0	596
720 min Winter	7.935	0.0	712
960 min Winter	6.367	0.0	944
1440 min Winter	4.682	0.0	1410
2160 min Winter	3.453	0.0	2080
2880 min Winter	2.795	0.0	2736
4320 min Winter	2.098	0.0	3540
5760 min Winter	1.730	0.0	4440
7200 min Winter	1.507	0.0	5400
8640 min Winter	1.356	0.0	6312
10080 min Winter	1.248	0.0	7264

Calcinotto		Page 3
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank C - 1:100+40%	
Date 29/08/2023 12:50	Designed by GEB	
File 114290 - PoE - Tank C_1-100+40.SRCX	Checked by GEB	
XP Solutions	Source Control 2020.1	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	1.000
FEH Rainfall Version	2013	Cv (Winter)	1.000
Site Location	GB 441283 106591 SU 41283 06591	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.048

Time (mins)		Area
From:	To:	(ha)
0	4	0.048

Model Details

Storage is Online Cover Level (m) 40.000

Cellular Storage Structure

Invert Level (m) 38.200 Safety Factor 3.0

Infiltration Coefficient Base (m/hr) 0.01548 Porosity 0.95

Infiltration Coefficient Side (m/hr) 0.01548

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	65.0	65.0	0.800	65.0	90.8	0.801	0.0	90.8

Calcinotto		Page 1
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank D - 1:30+20%	
Date 29/08/2023 12:49 File 114290 - PoE - Tank D_1-30+20.SRCX	Designed by GEB Checked by GEB	
XP Solutions		
Source Control 2020.1		

Summary of Results for 30 year Return Period (+20%)

Half Drain Time : 2885 minutes.

Outflow is too low. Design is unsatisfactory.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	38.376	0.176	0.3	36.7	O K
30 min Summer	38.434	0.234	0.3	49.0	O K
60 min Summer	38.495	0.295	0.3	61.7	O K
120 min Summer	38.544	0.344	0.3	71.8	O K
180 min Summer	38.573	0.373	0.3	77.9	O K
240 min Summer	38.594	0.394	0.3	82.3	O K
360 min Summer	38.624	0.424	0.4	88.6	O K
480 min Summer	38.645	0.445	0.4	92.9	O K
600 min Summer	38.660	0.460	0.4	96.2	O K
720 min Summer	38.672	0.472	0.4	98.7	O K
960 min Summer	38.690	0.490	0.4	102.5	O K
1440 min Summer	38.711	0.511	0.4	106.7	O K
2160 min Summer	38.722	0.522	0.4	109.0	O K
2880 min Summer	38.725	0.525	0.4	109.8	O K
4320 min Summer	38.734	0.534	0.4	111.5	O K
5760 min Summer	38.743	0.543	0.4	113.4	O K
7200 min Summer	38.754	0.554	0.4	115.7	O K
8640 min Summer	38.766	0.566	0.4	118.2	O K
10080 min Summer	38.778	0.578	0.4	120.9	O K
15 min Winter	38.376	0.176	0.3	36.7	O K
30 min Winter	38.434	0.234	0.3	49.0	O K
60 min Winter	38.495	0.295	0.3	61.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	89.167	0.0	19
30 min Summer	59.579	0.0	34
60 min Summer	37.766	0.0	64
120 min Summer	22.241	0.0	124
180 min Summer	16.259	0.0	184
240 min Summer	13.013	0.0	244
360 min Summer	9.518	0.0	362
480 min Summer	7.625	0.0	482
600 min Summer	6.425	0.0	602
720 min Summer	5.589	0.0	722
960 min Summer	4.496	0.0	962
1440 min Summer	3.323	0.0	1442
2160 min Summer	2.470	0.0	2160
2880 min Summer	2.015	0.0	2504
4320 min Summer	1.532	0.0	3288
5760 min Summer	1.277	0.0	4096
7200 min Summer	1.120	0.0	4968
8640 min Summer	1.012	0.0	5872
10080 min Summer	0.935	0.0	6664
15 min Winter	89.167	0.0	19
30 min Winter	59.579	0.0	34
60 min Winter	37.766	0.0	64

Calcinotto		Page 2
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank D - 1:30+20%	
Date 29/08/2023 12:49 File 114290 - PoE - Tank D_1-30+20.SRCX	Designed by GEB Checked by GEB	
XP Solutions	Source Control 2020.1	

Summary of Results for 30 year Return Period (+20%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
120 min Winter	38.544	0.344	0.3	71.9	O K
180 min Winter	38.573	0.373	0.3	78.0	O K
240 min Winter	38.594	0.394	0.3	82.4	O K
360 min Winter	38.624	0.424	0.4	88.7	O K
480 min Winter	38.645	0.445	0.4	93.1	O K
600 min Winter	38.661	0.461	0.4	96.4	O K
720 min Winter	38.673	0.473	0.4	98.9	O K
960 min Winter	38.692	0.492	0.4	102.8	O K
1440 min Winter	38.714	0.514	0.4	107.3	O K
2160 min Winter	38.727	0.527	0.4	110.1	O K
2880 min Winter	38.730	0.530	0.4	110.8	O K
4320 min Winter	38.733	0.533	0.4	111.3	O K
5760 min Winter	38.736	0.536	0.4	112.1	O K
7200 min Winter	38.740	0.540	0.4	112.9	O K
8640 min Winter	38.745	0.545	0.4	113.8	O K
10080 min Winter	38.750	0.550	0.4	114.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
120 min Winter	22.241	0.0	122
180 min Winter	16.259	0.0	182
240 min Winter	13.013	0.0	240
360 min Winter	9.518	0.0	358
480 min Winter	7.625	0.0	476
600 min Winter	6.425	0.0	594
720 min Winter	5.589	0.0	710
960 min Winter	4.496	0.0	942
1440 min Winter	3.323	0.0	1400
2160 min Winter	2.470	0.0	2072
2880 min Winter	2.015	0.0	2708
4320 min Winter	1.532	0.0	3376
5760 min Winter	1.277	0.0	4328
7200 min Winter	1.120	0.0	5264
8640 min Winter	1.012	0.0	6224
10080 min Winter	0.935	0.0	7160

Calcinotto		Page 3
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank D - 1:30+20%	
Date 29/08/2023 12:49 File 114290 - PoE - Tank D_1-30+20.SRCX	Designed by GEB Checked by GEB	
XP Solutions	Source Control 2020.1	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	1.000
FEH Rainfall Version	2013	Cv (Winter)	1.000
Site Location	GB 441283 106591 SU 41283 06591	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+20

Time Area Diagram

Total Area (ha) 0.166

Time (mins)		Area
From:	To:	(ha)
0	4	0.166

Model Details

Storage is Online Cover Level (m) 40.000

Cellular Storage Structure

Invert Level (m) 38.200 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.01548 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.01548

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	220.0	220.0	0.800	220.0	267.5	0.801	0.0	267.5

Calcinotto		Page 1
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank D - 1:100+40%	
Date 29/08/2023 12:52 File 114290 - PoE - Tank D_1-100+40.SRCX	Designed by GEB Checked by GEB	
XP Solutions		
Source Control 2020.1		

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

Half Drain Time : 4167 minutes.

Outflow is too low. Design is unsatisfactory.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	38.457	0.257	0.3	53.7	O K
30 min Summer	38.544	0.344	0.3	72.0	O K
60 min Summer	38.640	0.440	0.4	92.0	O K
120 min Summer	38.704	0.504	0.4	105.3	O K
180 min Summer	38.744	0.544	0.4	113.6	O K
240 min Summer	38.773	0.573	0.4	119.8	O K
360 min Summer	38.816	0.616	0.4	128.8	O K
480 min Summer	38.848	0.648	0.4	135.3	O K
600 min Summer	38.872	0.672	0.4	140.4	O K
720 min Summer	38.891	0.691	0.4	144.5	O K
960 min Summer	38.922	0.722	0.4	150.9	O K
1440 min Summer	38.960	0.760	0.4	158.9	O K
2160 min Summer	38.988	0.788	0.4	164.7	O K
2880 min Summer	38.999	0.799	0.4	167.0	O K
4320 min Summer	40.000	1.800	0.4	168.6	FLOOD
5760 min Summer	40.002	1.802	0.4	170.7	FLOOD
7200 min Summer	40.006	1.806	0.4	174.0	FLOOD
8640 min Summer	40.010	1.810	0.4	178.1	FLOOD
10080 min Summer	40.014	1.814	0.4	182.6	FLOOD
15 min Winter	38.457	0.257	0.3	53.7	O K
30 min Winter	38.544	0.344	0.3	72.0	O K
60 min Winter	38.640	0.440	0.4	92.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	130.140	0.0	19
30 min Summer	87.360	0.0	34
60 min Summer	56.055	0.0	64
120 min Summer	32.360	0.0	124
180 min Summer	23.471	0.0	184
240 min Summer	18.702	0.0	244
360 min Summer	13.604	0.0	364
480 min Summer	10.865	0.0	484
600 min Summer	9.135	0.0	602
720 min Summer	7.935	0.0	722
960 min Summer	6.367	0.0	962
1440 min Summer	4.682	0.0	1442
2160 min Summer	3.453	0.0	2160
2880 min Summer	2.795	0.0	2880
4320 min Summer	2.098	1.3	3716
5760 min Summer	1.730	3.4	4504
7200 min Summer	1.507	6.8	5328
8640 min Summer	1.356	10.8	6144
10080 min Summer	1.248	15.4	7056
15 min Winter	130.140	0.0	19
30 min Winter	87.360	0.0	34
60 min Winter	56.055	0.0	64

Calcinotto		Page 2
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank D - 1:100+40%	
Date 29/08/2023 12:52	Designed by GEB	
File 114290 - PoE - Tank D_1-100+40.SRCX	Checked by GEB	
XP Solutions	Source Control 2020.1	

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
120 min Winter	38.704	0.504	0.4	105.3	O K
180 min Winter	38.744	0.544	0.4	113.7	O K
240 min Winter	38.773	0.573	0.4	119.9	O K
360 min Winter	38.817	0.617	0.4	129.0	O K
480 min Winter	38.848	0.648	0.4	135.5	O K
600 min Winter	38.873	0.673	0.4	140.6	O K
720 min Winter	38.893	0.693	0.4	144.8	O K
960 min Winter	38.924	0.724	0.4	151.3	O K
1440 min Winter	38.963	0.763	0.4	159.6	O K
2160 min Winter	38.993	0.793	0.4	165.7	O K
2880 min Winter	40.000	1.800	0.4	168.6	FLOOD
4320 min Winter	40.002	1.802	0.4	170.3	FLOOD
5760 min Winter	40.003	1.803	0.4	171.1	FLOOD
7200 min Winter	40.005	1.805	0.4	173.6	FLOOD
8640 min Winter	40.008	1.808	0.4	176.4	FLOOD
10080 min Winter	40.011	1.811	0.4	179.6	FLOOD

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
120 min Winter	32.360	0.0	122
180 min Winter	23.471	0.0	182
240 min Winter	18.702	0.0	242
360 min Winter	13.604	0.0	360
480 min Winter	10.865	0.0	478
600 min Winter	9.135	0.0	596
720 min Winter	7.935	0.0	714
960 min Winter	6.367	0.0	950
1440 min Winter	4.682	0.0	1412
2160 min Winter	3.453	0.0	2096
2880 min Winter	2.795	1.4	2768
4320 min Winter	2.098	3.0	4024
5760 min Winter	1.730	3.8	4608
7200 min Winter	1.507	6.3	5544
8640 min Winter	1.356	9.2	6488
10080 min Winter	1.248	12.3	7464

Calcinotto		Page 3
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank D - 1:100+40%	
Date 29/08/2023 12:52	Designed by GEB	
File 114290 - PoE - Tank D_1-100+40.SRCX	Checked by GEB	
XP Solutions	Source Control 2020.1	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	1.000
FEH Rainfall Version	2013	Cv (Winter)	1.000
Site Location	GB 441283 106591 SU 41283 06591	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.166

Time (mins)		Area
From:	To:	(ha)
0	4	0.166

Model Details

Storage is Online Cover Level (m) 40.000

Cellular Storage Structure

Invert Level (m) 38.200 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.01548 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.01548

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	220.0	220.0	0.800	220.0	267.5	0.801	0.0	267.5

Calcinotto		Page 1
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank E - 1:30+20%	
Date 29/08/2023 12:59 File 114290 - PoE - Tank E_1-30+20.SRCX	Designed by GEB Checked by GEB	
XP Solutions		
Source Control 2020.1		

Summary of Results for 30 year Return Period (+20%)

Half Drain Time : 2233 minutes.

Outflow is too low. Design is unsatisfactory.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	38.373	0.173	0.0	4.4	O K
30 min Summer	38.430	0.230	0.0	5.9	O K
60 min Summer	38.489	0.289	0.0	7.4	O K
120 min Summer	38.536	0.336	0.0	8.6	O K
180 min Summer	38.564	0.364	0.0	9.3	O K
240 min Summer	38.584	0.384	0.1	9.9	O K
360 min Summer	38.612	0.412	0.1	10.6	O K
480 min Summer	38.631	0.431	0.1	11.1	O K
600 min Summer	38.645	0.445	0.1	11.4	O K
720 min Summer	38.655	0.455	0.1	11.7	O K
960 min Summer	38.670	0.470	0.1	12.0	O K
1440 min Summer	38.683	0.483	0.1	12.4	O K
2160 min Summer	38.688	0.488	0.1	12.5	O K
2880 min Summer	38.691	0.491	0.1	12.6	O K
4320 min Summer	38.696	0.496	0.1	12.7	O K
5760 min Summer	38.701	0.501	0.1	12.8	O K
7200 min Summer	38.707	0.507	0.1	13.0	O K
8640 min Summer	38.715	0.515	0.1	13.2	O K
10080 min Summer	38.723	0.523	0.1	13.4	O K
15 min Winter	38.373	0.173	0.0	4.4	O K
30 min Winter	38.430	0.230	0.0	5.9	O K
60 min Winter	38.489	0.289	0.0	7.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	89.167	0.0	19
30 min Summer	59.579	0.0	34
60 min Summer	37.766	0.0	64
120 min Summer	22.241	0.0	124
180 min Summer	16.259	0.0	184
240 min Summer	13.013	0.0	244
360 min Summer	9.518	0.0	362
480 min Summer	7.625	0.0	482
600 min Summer	6.425	0.0	602
720 min Summer	5.589	0.0	722
960 min Summer	4.496	0.0	962
1440 min Summer	3.323	0.0	1440
2160 min Summer	2.470	0.0	1880
2880 min Summer	2.015	0.0	2276
4320 min Summer	1.532	0.0	3068
5760 min Summer	1.277	0.0	3920
7200 min Summer	1.120	0.0	4760
8640 min Summer	1.012	0.0	5616
10080 min Summer	0.935	0.0	6456
15 min Winter	89.167	0.0	19
30 min Winter	59.579	0.0	34
60 min Winter	37.766	0.0	64

Calcinotto		Page 2
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank E - 1:30+20%	
Date 29/08/2023 12:59 File 114290 - PoE - Tank E_1-30+20.SRCX	Designed by GEB Checked by GEB	
XP Solutions	Source Control 2020.1	

Summary of Results for 30 year Return Period (+20%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
120 min Winter	38.536	0.336	0.0	8.6	O K
180 min Winter	38.565	0.365	0.0	9.4	O K
240 min Winter	38.585	0.385	0.1	9.9	O K
360 min Winter	38.613	0.413	0.1	10.6	O K
480 min Winter	38.632	0.432	0.1	11.1	O K
600 min Winter	38.646	0.446	0.1	11.4	O K
720 min Winter	38.657	0.457	0.1	11.7	O K
960 min Winter	38.672	0.472	0.1	12.1	O K
1440 min Winter	38.687	0.487	0.1	12.5	O K
2160 min Winter	38.692	0.492	0.1	12.6	O K
2880 min Winter	38.691	0.491	0.1	12.6	O K
4320 min Winter	38.691	0.491	0.1	12.6	O K
5760 min Winter	38.689	0.489	0.1	12.5	O K
7200 min Winter	38.687	0.487	0.1	12.5	O K
8640 min Winter	38.685	0.485	0.1	12.4	O K
10080 min Winter	38.684	0.484	0.1	12.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
120 min Winter	22.241	0.0	122
180 min Winter	16.259	0.0	182
240 min Winter	13.013	0.0	240
360 min Winter	9.518	0.0	358
480 min Winter	7.625	0.0	476
600 min Winter	6.425	0.0	592
720 min Winter	5.589	0.0	708
960 min Winter	4.496	0.0	936
1440 min Winter	3.323	0.0	1386
2160 min Winter	2.470	0.0	2028
2880 min Winter	2.015	0.0	2308
4320 min Winter	1.532	0.0	3244
5760 min Winter	1.277	0.0	4200
7200 min Winter	1.120	0.0	5112
8640 min Winter	1.012	0.0	6048
10080 min Winter	0.935	0.0	6952

Calcinotto		Page 3
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank E - 1:30+20%	
Date 29/08/2023 12:59	Designed by GEB	
File 114290 - PoE - Tank E_1-30+20.SRCX	Checked by GEB	
XP Solutions	Source Control 2020.1	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	1.000
FEH Rainfall Version	2013	Cv (Winter)	1.000
Site Location	GB 441283 106591 SU 41283 06591	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+20

Time Area Diagram

Total Area (ha) 0.020

Time (mins)		Area
From:	To:	(ha)
0	4	0.020

Model Details

Storage is Online Cover Level (m) 40.000

Cellular Storage Structure

Invert Level (m) 38.200 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.01548 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.01548

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	27.0	27.0	0.800	27.0	43.6	0.801	0.0	43.6

Calcinotto		Page 1
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank E - 1:100+40%	
Date 29/08/2023 12:56 File 114290 - PoE - Tank E_1-100+40.SRCX	Designed by GEB Checked by GEB	
XP Solutions	Source Control 2020.1	

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

Half Drain Time : 2989 minutes.

Outflow is too low. Design is unsatisfactory.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	38.452	0.252	0.0	6.5	O K
30 min Summer	38.538	0.338	0.0	8.7	O K
60 min Summer	38.631	0.431	0.1	11.1	O K
120 min Summer	38.693	0.493	0.1	12.6	O K
180 min Summer	38.731	0.531	0.1	13.6	O K
240 min Summer	38.759	0.559	0.1	14.3	O K
360 min Summer	38.800	0.600	0.1	15.4	O K
480 min Summer	38.828	0.628	0.1	16.1	O K
600 min Summer	38.850	0.650	0.1	16.7	O K
720 min Summer	38.867	0.667	0.1	17.1	O K
960 min Summer	38.892	0.692	0.1	17.8	O K
1440 min Summer	38.921	0.721	0.1	18.5	O K
2160 min Summer	38.933	0.733	0.1	18.8	O K
2880 min Summer	38.936	0.736	0.1	18.9	O K
4320 min Summer	38.940	0.740	0.1	19.0	O K
5760 min Summer	38.946	0.746	0.1	19.1	O K
7200 min Summer	38.956	0.756	0.1	19.4	O K
8640 min Summer	38.968	0.768	0.1	19.7	O K
10080 min Summer	38.982	0.782	0.1	20.1	O K
15 min Winter	38.452	0.252	0.0	6.5	O K
30 min Winter	38.538	0.338	0.0	8.7	O K
60 min Winter	38.631	0.431	0.1	11.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	130.140	0.0	19
30 min Summer	87.360	0.0	34
60 min Summer	56.055	0.0	64
120 min Summer	32.360	0.0	124
180 min Summer	23.471	0.0	184
240 min Summer	18.702	0.0	244
360 min Summer	13.604	0.0	364
480 min Summer	10.865	0.0	482
600 min Summer	9.135	0.0	602
720 min Summer	7.935	0.0	722
960 min Summer	6.367	0.0	962
1440 min Summer	4.682	0.0	1442
2160 min Summer	3.453	0.0	2160
2880 min Summer	2.795	0.0	2484
4320 min Summer	2.098	0.0	3244
5760 min Summer	1.730	0.0	4088
7200 min Summer	1.507	0.0	4904
8640 min Summer	1.356	0.0	5792
10080 min Summer	1.248	0.0	6656
15 min Winter	130.140	0.0	19
30 min Winter	87.360	0.0	34
60 min Winter	56.055	0.0	64

Calcinotto		Page 2
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank E - 1:100+40%	
Date 29/08/2023 12:56 File 114290 - PoE - Tank E_1-100+40.SRCX	Designed by GEB Checked by GEB	
XP Solutions	Source Control 2020.1	

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
120 min Winter	38.693	0.493	0.1	12.6	O K
180 min Winter	38.732	0.532	0.1	13.6	O K
240 min Winter	38.760	0.560	0.1	14.4	O K
360 min Winter	38.800	0.600	0.1	15.4	O K
480 min Winter	38.829	0.629	0.1	16.1	O K
600 min Winter	38.851	0.651	0.1	16.7	O K
720 min Winter	38.868	0.668	0.1	17.1	O K
960 min Winter	38.894	0.694	0.1	17.8	O K
1440 min Winter	38.925	0.725	0.1	18.6	O K
2160 min Winter	38.941	0.741	0.1	19.0	O K
2880 min Winter	38.943	0.743	0.1	19.1	O K
4320 min Winter	38.941	0.741	0.1	19.0	O K
5760 min Winter	38.941	0.741	0.1	19.0	O K
7200 min Winter	38.944	0.744	0.1	19.1	O K
8640 min Winter	38.947	0.747	0.1	19.2	O K
10080 min Winter	38.952	0.752	0.1	19.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
120 min Winter	32.360	0.0	122
180 min Winter	23.471	0.0	182
240 min Winter	18.702	0.0	240
360 min Winter	13.604	0.0	358
480 min Winter	10.865	0.0	476
600 min Winter	9.135	0.0	594
720 min Winter	7.935	0.0	710
960 min Winter	6.367	0.0	942
1440 min Winter	4.682	0.0	1400
2160 min Winter	3.453	0.0	2072
2880 min Winter	2.795	0.0	2704
4320 min Winter	2.098	0.0	3372
5760 min Winter	1.730	0.0	4320
7200 min Winter	1.507	0.0	5256
8640 min Winter	1.356	0.0	6216
10080 min Winter	1.248	0.0	7064

Calcinotto		Page 3
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank E - 1:100+40%	
Date 29/08/2023 12:56	Designed by GEB	
File 114290 - PoE - Tank E_1-100+40.SRCX	Checked by GEB	
XP Solutions	Source Control 2020.1	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	1.000
FEH Rainfall Version	2013	Cv (Winter)	1.000
Site Location	GB 441283 106591 SU 41283 06591	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.020

Time (mins)		Area
From:	To:	(ha)
0	4	0.020

Model Details

Storage is Online Cover Level (m) 40.000

Cellular Storage Structure

Invert Level (m) 38.200 Safety Factor 3.0

Infiltration Coefficient Base (m/hr) 0.01548 Porosity 0.95

Infiltration Coefficient Side (m/hr) 0.01548

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	27.0	27.0	0.800	27.0	43.6	0.801	0.0	43.6

Calcinotto		Page 1
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank F - 1:30+20%	
Date 29/08/2023 13:02 File 114290 - PoE - Tank F_1-30+20.SRCX	Designed by GEB Checked by GEB	
XP Solutions		
Source Control 2020.1		

Source Control 2020.1

Summary of Results for 30 year Return Period (+20%)

Half Drain Time : 2367 minutes.

Outflow is too low. Design is unsatisfactory.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	38.379	0.179	0.0	5.1	O K
30 min Summer	38.438	0.238	0.1	6.8	O K
60 min Summer	38.500	0.300	0.1	8.5	O K
120 min Summer	38.548	0.348	0.1	9.9	O K
180 min Summer	38.578	0.378	0.1	10.8	O K
240 min Summer	38.598	0.398	0.1	11.4	O K
360 min Summer	38.628	0.428	0.1	12.2	O K
480 min Summer	38.648	0.448	0.1	12.8	O K
600 min Summer	38.662	0.462	0.1	13.2	O K
720 min Summer	38.673	0.473	0.1	13.5	O K
960 min Summer	38.689	0.489	0.1	13.9	O K
1440 min Summer	38.705	0.505	0.1	14.4	O K
2160 min Summer	38.710	0.510	0.1	14.5	O K
2880 min Summer	38.714	0.514	0.1	14.6	O K
4320 min Summer	38.720	0.520	0.1	14.8	O K
5760 min Summer	38.726	0.526	0.1	15.0	O K
7200 min Summer	38.734	0.534	0.1	15.2	O K
8640 min Summer	38.743	0.543	0.1	15.5	O K
10080 min Summer	38.752	0.552	0.1	15.7	O K
15 min Winter	38.379	0.179	0.0	5.1	O K
30 min Winter	38.438	0.238	0.1	6.8	O K
60 min Winter	38.500	0.300	0.1	8.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	89.167	0.0	19
30 min Summer	59.579	0.0	34
60 min Summer	37.766	0.0	64
120 min Summer	22.241	0.0	124
180 min Summer	16.259	0.0	184
240 min Summer	13.013	0.0	244
360 min Summer	9.518	0.0	362
480 min Summer	7.625	0.0	482
600 min Summer	6.425	0.0	602
720 min Summer	5.589	0.0	722
960 min Summer	4.496	0.0	962
1440 min Summer	3.323	0.0	1440
2160 min Summer	2.470	0.0	1924
2880 min Summer	2.015	0.0	2304
4320 min Summer	1.532	0.0	3108
5760 min Summer	1.277	0.0	3928
7200 min Summer	1.120	0.0	4824
8640 min Summer	1.012	0.0	5624
10080 min Summer	0.935	0.0	6464
15 min Winter	89.167	0.0	19
30 min Winter	59.579	0.0	34
60 min Winter	37.766	0.0	64

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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank F - 1:30+20%	
Date 29/08/2023 13:02 File 114290 - PoE - Tank F_1-30+20.SRCX	Designed by GEB Checked by GEB	
XP Solutions	Source Control 2020.1	

Summary of Results for 30 year Return Period (+20%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
120 min Winter	38.549	0.349	0.1	9.9	O K
180 min Winter	38.578	0.378	0.1	10.8	O K
240 min Winter	38.599	0.399	0.1	11.4	O K
360 min Winter	38.628	0.428	0.1	12.2	O K
480 min Winter	38.649	0.449	0.1	12.8	O K
600 min Winter	38.663	0.463	0.1	13.2	O K
720 min Winter	38.675	0.475	0.1	13.5	O K
960 min Winter	38.691	0.491	0.1	14.0	O K
1440 min Winter	38.709	0.509	0.1	14.5	O K
2160 min Winter	38.716	0.516	0.1	14.7	O K
2880 min Winter	38.715	0.515	0.1	14.7	O K
4320 min Winter	38.717	0.517	0.1	14.7	O K
5760 min Winter	38.716	0.516	0.1	14.7	O K
7200 min Winter	38.715	0.515	0.1	14.7	O K
8640 min Winter	38.715	0.515	0.1	14.7	O K
10080 min Winter	38.715	0.515	0.1	14.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
120 min Winter	22.241	0.0	122
180 min Winter	16.259	0.0	182
240 min Winter	13.013	0.0	240
360 min Winter	9.518	0.0	358
480 min Winter	7.625	0.0	476
600 min Winter	6.425	0.0	592
720 min Winter	5.589	0.0	708
960 min Winter	4.496	0.0	940
1440 min Winter	3.323	0.0	1386
2160 min Winter	2.470	0.0	2032
2880 min Winter	2.015	0.0	2360
4320 min Winter	1.532	0.0	3244
5760 min Winter	1.277	0.0	4208
7200 min Winter	1.120	0.0	5120
8640 min Winter	1.012	0.0	6056
10080 min Winter	0.935	0.0	6960

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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank F - 1:30+20%	
Date 29/08/2023 13:02	Designed by GEB	
File 114290 - PoE - Tank F_1-30+20.SRCX	Checked by GEB	
XP Solutions	Source Control 2020.1	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	1.000
FEH Rainfall Version	2013	Cv (Winter)	1.000
Site Location	GB 441283 106591 SU 41283 06591	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+20

Time Area Diagram

Total Area (ha) 0.023

Time (mins)		Area
From:	To:	(ha)
0	4	0.023

Model Details

Storage is Online Cover Level (m) 40.000

Cellular Storage Structure

Invert Level (m) 38.200 Safety Factor 3.0

Infiltration Coefficient Base (m/hr) 0.01548 Porosity 0.95

Infiltration Coefficient Side (m/hr) 0.01548

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	30.0	30.0	0.800	30.0	47.5	0.801	0.0	47.5

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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank F - 1:100+40%	
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XP Solutions		
Source Control 2020.1		

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

Half Drain Time : 3183 minutes.

Outflow is too low. Design is unsatisfactory.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	38.461	0.261	0.1	7.4	O K
30 min Summer	38.550	0.350	0.1	10.0	O K
60 min Summer	38.647	0.447	0.1	12.7	O K
120 min Summer	38.711	0.511	0.1	14.6	O K
180 min Summer	38.750	0.550	0.1	15.7	O K
240 min Summer	38.780	0.580	0.1	16.5	O K
360 min Summer	38.822	0.622	0.1	17.7	O K
480 min Summer	38.852	0.652	0.1	18.6	O K
600 min Summer	38.875	0.675	0.1	19.2	O K
720 min Summer	38.893	0.693	0.1	19.7	O K
960 min Summer	38.920	0.720	0.1	20.5	O K
1440 min Summer	38.951	0.751	0.1	21.4	O K
2160 min Summer	38.967	0.767	0.1	21.9	O K
2880 min Summer	38.970	0.770	0.1	22.0	O K
4320 min Summer	38.976	0.776	0.1	22.1	O K
5760 min Summer	38.983	0.783	0.1	22.3	O K
7200 min Summer	38.995	0.795	0.1	22.7	O K
8640 min Summer	39.238	1.038	0.1	23.0	O K
10080 min Summer	39.695	1.495	0.1	23.5	O K
15 min Winter	38.461	0.261	0.1	7.4	O K
30 min Winter	38.550	0.350	0.1	10.0	O K
60 min Winter	38.647	0.447	0.1	12.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	130.140	0.0	19
30 min Summer	87.360	0.0	34
60 min Summer	56.055	0.0	64
120 min Summer	32.360	0.0	124
180 min Summer	23.471	0.0	184
240 min Summer	18.702	0.0	244
360 min Summer	13.604	0.0	364
480 min Summer	10.865	0.0	482
600 min Summer	9.135	0.0	602
720 min Summer	7.935	0.0	722
960 min Summer	6.367	0.0	962
1440 min Summer	4.682	0.0	1442
2160 min Summer	3.453	0.0	2160
2880 min Summer	2.795	0.0	2564
4320 min Summer	2.098	0.0	3328
5760 min Summer	1.730	0.0	4104
7200 min Summer	1.507	0.0	4968
8640 min Summer	1.356	0.0	5800
10080 min Summer	1.248	0.0	6664
15 min Winter	130.140	0.0	19
30 min Winter	87.360	0.0	34
60 min Winter	56.055	0.0	64

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Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank F - 1:100+40%	
Date 29/08/2023 13:06 File 114290 - PoE - Tank F_1-100+40.SRCX	Designed by GEB Checked by GEB	
XP Solutions	Source Control 2020.1	

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
120 min Winter	38.711	0.511	0.1	14.6	O K
180 min Winter	38.751	0.551	0.1	15.7	O K
240 min Winter	38.780	0.580	0.1	16.5	O K
360 min Winter	38.823	0.623	0.1	17.7	O K
480 min Winter	38.853	0.653	0.1	18.6	O K
600 min Winter	38.876	0.676	0.1	19.3	O K
720 min Winter	38.894	0.694	0.1	19.8	O K
960 min Winter	38.922	0.722	0.1	20.6	O K
1440 min Winter	38.955	0.755	0.1	21.5	O K
2160 min Winter	38.975	0.775	0.1	22.1	O K
2880 min Winter	38.979	0.779	0.1	22.2	O K
4320 min Winter	38.978	0.778	0.1	22.2	O K
5760 min Winter	38.980	0.780	0.1	22.2	O K
7200 min Winter	38.984	0.784	0.1	22.4	O K
8640 min Winter	38.990	0.790	0.1	22.5	O K
10080 min Winter	38.996	0.796	0.1	22.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
120 min Winter	32.360	0.0	122
180 min Winter	23.471	0.0	182
240 min Winter	18.702	0.0	240
360 min Winter	13.604	0.0	358
480 min Winter	10.865	0.0	476
600 min Winter	9.135	0.0	594
720 min Winter	7.935	0.0	712
960 min Winter	6.367	0.0	944
1440 min Winter	4.682	0.0	1400
2160 min Winter	3.453	0.0	2076
2880 min Winter	2.795	0.0	2708
4320 min Winter	2.098	0.0	3412
5760 min Winter	1.730	0.0	4328
7200 min Winter	1.507	0.0	5264
8640 min Winter	1.356	0.0	6224
10080 min Winter	1.248	0.0	7160

Calcinotto		Page 3
Jonsen House 43 Commercial Road Poole BH14 0HU	11-4290 - Orchard Gate Proof of Evidance Calc Tank F - 1:100+40%	
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File 114290 - PoE - Tank F_1-100+40.SRCX	Checked by GEB	
XP Solutions	Source Control 2020.1	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	1.000
FEH Rainfall Version	2013	Cv (Winter)	1.000
Site Location	GB 441283 106591 SU 41283 06591	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.023

Time (mins)		Area
From:	To:	(ha)
0	4	0.023

Model Details

Storage is Online Cover Level (m) 40.000

Cellular Storage Structure

Invert Level (m) 38.200 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.01548 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.01548

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	30.0	30.0	0.800	30.0	47.5	0.801	0.0	47.5