

Design Settings

Rainfall Methodology	FEH-13	Minimum Velocity (m/s)	1.00
Return Period (years)	2	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	0.850	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	2.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	Cover Level (m)	Depth (m)
Crate Soakaway	0.025	4.000	1.800

Simulation Settings

Rainfall Methodology	FEH-13	Analysis Speed	Normal	Additional Storage (m³/ha)	20.0
Summer CV	0.850	Skip Steady State	x	Check Discharge Rate(s)	x
Winter CV	0.900	Drain Down Time (mins)	240	Check Discharge Volume	x

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440
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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
100	40	0	0

Node Crate Soakaway Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	2.200	Depth (m)	1.200
Side Inf Coefficient (m/hr)	0.19944	Time to half empty (mins)	514	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	4.500	Number Required	1
Porosity	0.95	Pit Length (m)	3.000		

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +40% CC 15 minute summer	506.780	143.401	100 year +40% CC 360 minute summer	58.760	15.121
100 year +40% CC 15 minute winter	355.635	143.401	100 year +40% CC 360 minute winter	38.195	15.121
100 year +40% CC 30 minute summer	340.488	96.346	100 year +40% CC 480 minute summer	45.196	11.944
100 year +40% CC 30 minute winter	238.939	96.346	100 year +40% CC 480 minute winter	30.027	11.944
100 year +40% CC 60 minute summer	234.226	61.899	100 year +40% CC 600 minute summer	36.365	9.947
100 year +40% CC 60 minute winter	155.614	61.899	100 year +40% CC 600 minute winter	24.847	9.947
100 year +40% CC 120 minute summer	137.232	36.266	100 year +40% CC 720 minute summer	31.953	8.564
100 year +40% CC 120 minute winter	91.174	36.266	100 year +40% CC 720 minute winter	21.475	8.564
100 year +40% CC 180 minute summer	102.979	26.500	100 year +40% CC 960 minute summer	25.650	6.754
100 year +40% CC 180 minute winter	66.939	26.500	100 year +40% CC 960 minute winter	16.991	6.754
100 year +40% CC 240 minute summer	79.862	21.105	100 year +40% CC 1440 minute summer	18.068	4.842
100 year +40% CC 240 minute winter	53.059	21.105	100 year +40% CC 1440 minute winter	12.143	4.842

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	Crate Soakaway	228	3.373	1.173	3.3	15.3725	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)
240 minute winter	Crate Soakaway	Infiltration	0.5

Results for 100 year +40% CC 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	Crate Soakaway	17	2.768	0.568	24.5	7.4481	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
15 minute summer	Crate Soakaway	Infiltration	0.2

Results for 100 year +40% CC 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	Crate Soakaway	17	2.804	0.604	20.7	7.9167	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
15 minute winter	Crate Soakaway	Infiltration	0.3

Results for 100 year +40% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	Crate Soakaway	32	2.954	0.754	20.1	9.8767	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
30 minute summer	Crate Soakaway	Infiltration	0.3

Results for 100 year +40% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	Crate Soakaway	31	3.001	0.801	14.9	10.4916	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
30 minute winter	Crate Soakaway	Infiltration	0.3

Results for 100 year +40% CC 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
60 minute summer	Crate Soakaway	61	3.145	0.945	13.8	12.3804	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
60 minute summer	Crate Soakaway	Infiltration	0.4

Results for 100 year +40% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	Crate Soakaway	60	3.204	1.004	9.7	13.1576	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
60 minute winter	Crate Soakaway	Infiltration	0.4

Results for 100 year +40% CC 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	Crate Soakaway	120	3.246	1.046	8.1	13.7090	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
120 minute summer	Crate Soakaway	Infiltration	0.4

Results for 100 year +40% CC 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	Crate Soakaway	118	3.309	1.109	5.7	14.5278	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
120 minute winter	Crate Soakaway	Infiltration	0.5

Results for 100 year +40% CC 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	Crate Soakaway	180	3.280	1.080	6.1	14.1560	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
180 minute summer	Crate Soakaway	Infiltration	0.4

Results for 100 year +40% CC 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	Crate Soakaway	176	3.352	1.152	4.2	15.0955	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
180 minute winter	Crate Soakaway	Infiltration	0.5

Results for 100 year +40% CC 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	Crate Soakaway	220	3.294	1.094	4.7	14.3293	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
240 minute summer	Crate Soakaway	Infiltration	0.5

Results for 100 year +40% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	Crate Soakaway	228	3.373	1.173	3.3	15.3725	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
240 minute winter	Crate Soakaway	Infiltration	0.5					

Results for 100 year +40% CC 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	Crate Soakaway	280	3.293	1.093	3.5	14.3188	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
360 minute summer	Crate Soakaway	Infiltration	0.5

Results for 100 year +40% CC 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	Crate Soakaway	288	3.339	1.139	2.4	14.9283	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
360 minute winter	Crate Soakaway	Infiltration	0.5

Results for 100 year +40% CC 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	Crate Soakaway	344	3.274	1.074	2.7	14.0735	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
480 minute summer	Crate Soakaway	Infiltration	0.4

Results for 100 year +40% CC 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	Crate Soakaway	360	3.329	1.129	1.9	14.7920	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
480 minute winter	Crate Soakaway	Infiltration	0.5

Results for 100 year +40% CC 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	Crate Soakaway	420	3.256	1.056	2.1	13.8345	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
600 minute summer	Crate Soakaway	Infiltration	0.4

Results for 100 year +40% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	Crate Soakaway	435	3.337	1.137	1.6	14.8987	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
600 minute winter	Crate Soakaway	Infiltration	0.5

Results for 100 year +40% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	Crate Soakaway	495	3.277	1.077	1.9	14.1135	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
720 minute summer	Crate Soakaway	Infiltration	0.4

Results for 100 year +40% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	Crate Soakaway	510	3.286	1.086	1.3	14.2265	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
720 minute winter	Crate Soakaway	Infiltration	0.5					

Results for 100 year +40% CC 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	Crate Soakaway	630	3.217	1.017	1.5	13.3297	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
960 minute summer	Crate Soakaway	Infiltration	0.4

Results for 100 year +40% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	Crate Soakaway	675	3.247	1.047	1.1	13.7132	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
960 minute winter	Crate Soakaway	Infiltration	0.4					

Results for 100 year +40% CC 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	Crate Soakaway	900	3.155	0.955	1.1	12.5160	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
1440 minute summer	Crate Soakaway	Infiltration	0.4

Results for 100 year +40% CC 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	Crate Soakaway	960	3.134	0.934	0.8	12.2328	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
1440 minute winter	Crate Soakaway	Infiltration	0.4