

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	2	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	4.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	75.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
Infiltration Basin	0.008		7.500	450	10435.933	8493.074	0.600
B Planter 1	0.008	4.00	7.600	150	10440.850	8502.941	0.450
S1	0.008	4.00	7.600	450	10438.389	8500.204	0.460
B Planter 2	0.016	4.00	7.600	450	10435.473	8480.296	0.500
1			7.600	450	10438.850	8492.878	0.650
RE1		4.00	7.650	150	10443.785	8506.257	0.450
S2			7.600	450	10435.658	8482.672	0.570

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
2.001	B Planter 1	S1	1.000	0.600	7.150	7.140	0.010	100.0	100	4.04	57.3
2.002	S1	1	3.000	0.600	7.140	6.950	0.190	15.8	100	4.06	57.3
1.002	1	Infiltration Basin	1.000	0.600	6.950	6.900	0.050	20.0	100	4.14	57.3
2.000	RE1	B Planter 1	1.000	0.600	7.200	7.180	0.020	50.0	100	4.02	57.3
1.000	B Planter 2	S2	2.384	0.600	7.100	7.030	0.070	34.1	100	4.03	57.3
1.001	S2	1	5.700	0.600	7.030	6.950	0.080	71.3	100	4.13	57.3

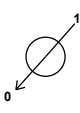
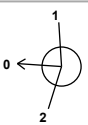
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
2.001	0.769	6.0	1.7	0.350	0.360	0.008	0.0	36	0.653
2.002	1.953	15.3	3.3	0.360	0.550	0.016	0.0	32	1.562
1.002	1.734	13.6	6.6	0.550	0.500	0.032	0.0	49	1.717
2.000	1.092	8.6	0.0	0.350	0.320	0.000	0.0	0	0.000
1.000	1.326	10.4	3.3	0.400	0.470	0.016	0.0	39	1.177
1.001	0.913	7.2	3.3	0.470	0.550	0.016	0.0	48	0.897

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
2.001	1.000	100.0	100	Circular	7.600	7.150	0.350	7.600	7.140	0.360
2.002	3.000	15.8	100	Circular	7.600	7.140	0.360	7.600	6.950	0.550
1.002	1.000	20.0	100	Circular	7.600	6.950	0.550	7.500	6.900	0.500
2.000	1.000	50.0	100	Circular	7.650	7.200	0.350	7.600	7.180	0.320
1.000	2.384	34.1	100	Circular	7.600	7.100	0.400	7.600	7.030	0.470
1.001	5.700	71.3	100	Circular	7.600	7.030	0.470	7.600	6.950	0.550

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
2.001	B Planter 1	150	Manhole	Adoptable	S1	450	Manhole	Adoptable
2.002	S1	450	Manhole	Adoptable	1	450	Manhole	Adoptable
1.002	1	450	Manhole	Adoptable	Infiltration Basin	450	Manhole	Adoptable
2.000	RE1	150	Manhole	Adoptable	B Planter 1	150	Manhole	Adoptable
1.000	B Planter 2	450	Manhole	Adoptable	S2	450	Manhole	Adoptable
1.001	S2	450	Manhole	Adoptable	1	450	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
Infiltration Basin	10435.933	8493.074	7.500	0.600	450	 1	1.002	6.900	100
B Planter 1	10440.850	8502.941	7.600	0.450	150	 1 0	2.000	7.180	100
S1	10438.389	8500.204	7.600	0.460	450	 1 0	2.001	7.150	100
B Planter 2	10435.473	8480.296	7.600	0.500	450	 0	2.002	7.140	100
1	10438.850	8492.878	7.600	0.650	450	 1 0 2	1.000	7.100	100
RE1	10443.785	8506.257	7.650	0.450	150	 0	2.001	6.950	100
S2	10435.658	8482.672	7.600	0.570	450	 0 1	2.000	7.200	100
							1.000	7.030	100

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
10	0	0	0
30	0	0	0
30	45	0	0
100	45	10	0

Node Infiltration Basin Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.07920	Safety Factor	3.0	Invert Level (m)	6.900
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	430

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	43.0	43.0	0.200	58.1	58.1	0.400	75.4	75.4	0.600	95.0	95.0
0.100	50.3	50.3	0.300	66.5	66.5	0.500	84.9	84.9			

Node B Planter 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	3.0	Invert Level (m)	7.150
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	6

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	6.1	0.0	0.200	6.1	0.0	0.400	6.1	0.0
0.100	6.1	0.0	0.300	6.1	0.0	0.450	6.1	0.0

Node B Planter 2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	3.0	Invert Level (m)	7.100
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	8

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	13.0	0.0	0.200	13.0	0.0	0.400	13.0	0.0
0.100	13.0	0.0	0.300	13.0	0.0	0.500	13.0	0.0

Results for 1 year 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
180 minute winter	Infiltration Basin	164	7.000	0.100	2.9	4.6779	0.0000	OK
15 minute summer	B Planter 1	10	7.182	0.032	1.1	0.0583	0.0000	OK
15 minute summer	S1	10	7.166	0.026	2.2	0.0041	0.0000	OK
15 minute summer	B Planter 2	10	7.134	0.034	2.2	0.1369	0.0000	OK
15 minute summer	1	9	7.007	0.057	4.3	0.0090	0.0000	OK
15 minute summer	RE1	1	7.200	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S2	10	7.068	0.038	2.1	0.0061	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
180 minute winter	Infiltration Basin	Infiltration		0.3			
15 minute summer	B Planter 1	2.001	S1	1.1	0.591	0.180	0.0018
15 minute summer	S1	2.002	1	2.2	0.742	0.142	0.0091
15 minute summer	B Planter 2	1.000	S2	2.1	0.842	0.205	0.0061
15 minute summer	1	1.002	Infiltration Basin	4.3	1.609	0.317	0.0028
15 minute summer	RE1	2.000	B Planter 1	0.0	0.000	0.000	0.0000
15 minute summer	S2	1.001	1	2.1	0.621	0.291	0.0204

Results for 10 year Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	Infiltration Basin	360	7.133	0.233	3.5	12.0860	0.0000	OK
15 minute summer	B Planter 1	10	7.209	0.059	3.2	0.1096	0.0000	OK
15 minute summer	S1	10	7.192	0.052	6.3	0.0082	0.0000	OK
15 minute summer	B Planter 2	11	7.176	0.076	6.5	0.3090	0.0000	OK
360 minute summer	1	360	7.133	0.183	2.5	0.0291	0.0000	SURCHARGED
15 minute summer	RE1	10	7.207	0.007	0.1	0.0001	0.0000	OK
15 minute summer	S2	11	7.150	0.120	5.9	0.0191	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
360 minute summer	Infiltration Basin	Infiltration		0.3			
15 minute summer	B Planter 1	2.001	S1	3.1	0.732	0.509	0.0045
15 minute summer	S1	2.002	1	6.2	0.920	0.407	0.0178
15 minute summer	B Planter 2	1.000	S2	5.9	0.979	0.569	0.0169
360 minute summer	1	1.002	Infiltration Basin	3.1	0.943	0.228	0.0078
15 minute summer	RE1	2.000	B Planter 1	-0.1	0.153	-0.010	0.0011
15 minute summer	S2	1.001	1	5.7	0.734	0.801	0.0446

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.20%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	Infiltration Basin	360	7.197	0.297	3.9	16.1957	0.0000	OK
15 minute summer	B Planter 1	10	7.227	0.077	4.2	0.1420	0.0000	OK
15 minute summer	S1	10	7.210	0.070	8.1	0.0111	0.0000	OK
15 minute summer	B Planter 2	11	7.245	0.145	8.4	0.5876	0.0000	SURCHARGED
360 minute summer	1	360	7.198	0.248	3.2	0.0394	0.0000	SURCHARGED
15 minute summer	RE1	10	7.227	0.027	0.3	0.0005	0.0000	OK
15 minute summer	S2	11	7.202	0.172	6.1	0.0274	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
360 minute summer	Infiltration Basin	Infiltration		0.3			
15 minute summer	B Planter 1	2.001	S1	3.9	0.701	0.644	0.0062
15 minute summer	S1	2.002	1	8.0	1.076	0.520	0.0205
15 minute summer	B Planter 2	1.000	S2	6.1	1.002	0.590	0.0187
360 minute summer	1	1.002	Infiltration Basin	3.1	0.943	0.226	0.0078
15 minute summer	RE1	2.000	B Planter 1	-0.3	0.213	-0.034	0.0026
15 minute summer	S2	1.001	1	6.1	0.784	0.856	0.0446

Results for 30 year +45% CC Critical Storm Duration. Lowest mass balance: 98.38%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	Infiltration Basin	585	7.307	0.407	2.5	24.0385	0.0000	OK
15 minute summer	B Planter 1	11	7.328	0.178	6.1	0.3291	0.0000	FLOOD RISK
15 minute summer	S1	11	7.315	0.175	10.1	0.0278	0.0000	FLOOD RISK
15 minute summer	B Planter 2	12	7.396	0.296	12.2	1.2026	0.0000	FLOOD RISK
600 minute winter	1	585	7.308	0.358	1.9	0.0568	0.0000	FLOOD RISK
15 minute summer	RE1	11	7.328	0.128	0.8	0.0023	0.0000	SURCHARGED
15 minute summer	S2	12	7.336	0.306	7.8	0.0486	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
600 minute winter	Infiltration Basin	Infiltration		0.3			
15 minute summer	B Planter 1	2.001	S1	4.5	0.690	0.753	0.0078
15 minute summer	S1	2.002	1	9.4	1.198	0.611	0.0235
15 minute summer	B Planter 2	1.000	S2	7.8	1.001	0.752	0.0187
600 minute winter	1	1.002	Infiltration Basin	2.0	0.913	0.146	0.0078
15 minute summer	RE1	2.000	B Planter 1	0.8	0.255	0.098	0.0078
15 minute summer	S2	1.001	1	7.4	0.945	1.031	0.0446

Results for 100 year +45% CC +10% A Critical Storm Duration. Lowest mass balance: 97.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	Infiltration Basin	720	7.439	0.539	3.9	34.9136	0.0000	OK
15 minute summer	B Planter 1	12	7.504	0.354	8.4	0.6544	0.0000	FLOOD RISK
15 minute summer	S1	12	7.482	0.342	12.6	0.0544	0.0000	FLOOD RISK
15 minute summer	B Planter 2	12	7.597	0.497	16.8	2.0183	0.0000	FLOOD RISK
720 minute summer	1	720	7.439	0.489	3.0	0.0778	0.0000	FLOOD RISK
15 minute summer	RE1	12	7.504	0.304	1.6	0.0055	0.0000	FLOOD RISK
30 minute summer	S2	20	7.512	0.482	9.0	0.0767	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
720 minute summer	Infiltration Basin	Infiltration		0.3			
15 minute summer	B Planter 1	2.001	S1	5.6	0.712	0.923	0.0078
15 minute summer	S1	2.002	1	11.3	1.440	0.734	0.0235
15 minute summer	B Planter 2	1.000	S2	9.6	1.223	0.919	0.0187
720 minute summer	1	1.002	Infiltration Basin	3.0	0.919	0.220	0.0078
15 minute summer	RE1	2.000	B Planter 1	-1.6	-0.288	-0.190	0.0078
30 minute summer	S2	1.001	1	8.4	1.079	1.177	0.0446