

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	1	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	0.600
Time of Entry (mins)	5.00	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)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
Depth/Area 1	0.048	5.00	30.675		7.032	57.598	0.750
1			30.675	450	9.485	57.627	0.775

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)
1.000	Depth/Area 1	1	1.000	0.600	29.925	29.900	0.025	40.0	100	5.01	38.4

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)
1.000	1.223	9.6	6.7	0.650	0.675	0.048	0.0	61	1.320

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)
1.000	1.000	40.0	100	Circular	30.675	29.925	0.650	30.675	29.900	0.675

Link	US Node	Node Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	Depth/Area 1	Junction	1	450	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
Depth/Area 1	7.032	57.598	30.675	0.750					
									
						0	1.000	29.925	100
1	9.485	57.627	30.675	0.775	450	1	1.000	29.900	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)	1440	Check Discharge Volume	x
Winter CV	0.840	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 %)		Return Period (years)	Climate Change (CC %)		Additional Area (A %)		Additional Flow (Q %)	
2	0		0		0		100	45		0		0	
30	0		0		0								

Node Depth/Area 1 Online Orifice Control

Flap Valve	x	Invert Level (m)	29.925	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.035		

Node Depth/Area 1 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	30.025	Slope (1:X)	1000.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.520
Safety Factor	2.0	Width (m)	9.215	Inf Depth (m)	
Porosity	0.30	Length (m)	21.907		

Node Depth/Area 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)			0.00000		Safety Factor		2.0		Invert Level (m)			29.925	
Side Inf Coefficient (m/hr)			0.00000		Porosity		0.70		Time to half empty (mins)				
Depth	Area	Inf Area	Depth	Area	Inf Area	Depth	Area	Inf Area	Depth	Area	Inf Area		
(m)	(m²)	(m²)	(m)	(m²)	(m²)	(m)	(m²)	(m²)	(m)	(m²)	(m²)		
0.000	201.9	201.9	0.100	201.9	206.9	0.101	0.0	206.9	0.750	0.0	206.9		

Results for 2 year Critical Storm Duration. Lowest mass balance: 98.98%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	Depth/Area 1	1470	30.135	0.210	0.9	20.2197	0.0000	SURCHARGED
15 minute summer	1	1	30.280	0.380	0.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	Depth/Area 1	1.000	1	0.0	0.000	0.000	0.0078	0.0

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.78%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	Depth/Area 1	960	30.306	0.381	1.7	30.5620	0.0000	SURCHARGED
15 minute summer	1	1	30.280	0.380	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	Depth/Area 1	1.000	1	0.4	0.053	0.043	0.0078	10.2

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 98.72%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	Depth/Area 1	480	30.519	0.594	5.3	43.4444	0.0000	FLOOD RISK
15 minute summer	1	1	30.280	0.380	0.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	Depth/Area 1	1.000	1	1.2	0.159	0.130	0.0078	31.5