

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	0.750	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)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Depth (m)
S1.1	0.005	5.00	10.000	450	1.000
ST1			10.000	600	1.120
S1.2	0.017	5.00	10.000	450	1.000
ST2			10.000	600	1.120
S2.1	0.005	5.00	10.000	450	1.000
ST3			10.000	600	1.120
TANK	0.048	4.00	10.000	600	1.170
FC			10.000	600	1.403
EX			10.000	450	1.570

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)
1.000	S1.1	ST1	12.000	0.600	9.000	8.880	0.120	100.0	150	5.20	50.0
2.000	S1.2	ST2	12.000	0.600	9.000	8.880	0.120	100.0	150	5.20	50.0
3.00	S2.1	ST3	12.000	0.600	9.000	8.880	0.120	100.0	150	5.20	50.0
1.001	ST1	TANK	5.000	0.600	8.880	8.830	0.050	100.0	150	5.28	50.0
2.001	ST2	TANK	5.000	0.600	8.880	8.830	0.050	100.0	150	5.28	50.0
3.001	ST3	TANK	5.000	0.600	8.880	8.830	0.050	100.0	150	5.28	50.0
1.002	TANK	FC	35.000	0.600	8.830	8.597	0.233	150.0	150	6.00	49.1
1.003	FC	EX	25.000	0.600	8.597	8.430	0.167	150.0	150	6.50	47.4

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	1.005	17.8	0.7	0.850	0.970	0.005	0.0	20	0.484
2.000	1.005	17.8	2.3	0.850	0.970	0.017	0.0	37	0.696
3.00	1.005	17.8	0.7	0.850	0.970	0.005	0.0	20	0.484
1.001	1.005	17.8	0.7	0.970	1.020	0.005	0.0	20	0.484
2.001	1.005	17.8	2.3	0.970	1.020	0.017	0.0	37	0.696
3.001	1.005	17.8	0.7	0.970	1.020	0.005	0.0	20	0.484
1.002	0.818	14.5	10.0	1.020	1.253	0.075	0.0	92	0.881
1.003	0.818	14.5	9.6	1.253	1.420	0.075	0.0	89	0.874

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Additional Storage (m³/ha)	20.0
Summer CV	0.750	Skip Steady State	x	Check Discharge Rate(s)	x
Winter CV	0.840	Drain Down Time (mins)	240	Check Discharge Volume	x



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Network: Storm Network
Andrew Bird
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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 %)
100	45	0	0

Node FC Online Orifice Control

Flap Valve	x	Design Depth (m)	0.500	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	1.2		
Invert Level (m)	8.597	Diameter (m)	0.028		

Node TANK Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	8.830	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	
Safety Factor	2.0	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	43.000		

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	S1.1	232	9.157	0.157	0.6	0.0407	0.0000	SURCHARGED
240 minute winter	ST1	232	9.157	0.277	0.6	0.0784	0.0000	SURCHARGED
240 minute winter	S1.2	232	9.157	0.157	2.2	0.0784	0.0000	SURCHARGED
240 minute winter	ST2	232	9.157	0.277	2.2	0.0784	0.0000	SURCHARGED
240 minute winter	S2.1	232	9.157	0.157	0.6	0.0407	0.0000	SURCHARGED
240 minute winter	ST3	232	9.157	0.277	0.6	0.0784	0.0000	SURCHARGED
240 minute winter	TANK	232	9.157	0.327	9.1	37.0134	0.0000	SURCHARGED
240 minute winter	FC	232	9.155	0.558	1.4	0.1580	0.0000	SURCHARGED
15 minute summer	EX	1	8.430	0.000	1.0	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1.1	1.000	ST1	3.3	0.712	0.184	0.1143	
15 minute winter	ST1	1.001	TANK	3.0	0.357	0.166	0.0873	
15 minute winter	S1.2	2.000	ST2	11.1	0.911	0.624	0.1483	
15 minute winter	ST2	2.001	TANK	10.7	0.814	0.605	0.0872	
15 minute winter	S2.1	3.00	ST3	3.3	0.712	0.184	0.1143	
15 minute winter	ST3	3.001	TANK	3.0	0.357	0.166	0.0873	
15 minute summer	TANK	1.002	FC	6.6	0.515	0.454	0.6162	
240 minute winter	FC	Orifice	EX	1.2				30.0