

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)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	0.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Depth (m)
S1	0.043	5.00	38.950	1200	1.500
S2	0.010	5.00	38.840	1200	1.490
SOAKAWAY			38.900	300	1.600

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	S2	28.000	0.600	37.450	37.350	0.100	280.0	300	5.50	0.0
1.001	S2	SOAKAWAY	14.000	0.600	37.350	37.300	0.050	280.0	300	5.75	0.0

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	0.934	66.0	0.0	1.200	1.190	0.043	0.0	0	0.000
1.001	0.934	66.0	0.0	1.190	1.300	0.053	0.0	0	0.000

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	28.000	280.0	300	Circular	38.950	37.450	1.200	38.840	37.350	1.190
1.001	14.000	280.0	300	Circular	38.840	37.350	1.190	38.900	37.300	1.300

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	S1	1200	Manhole	Adoptable	S2	1200	Manhole	Adoptable
1.001	S2	1200	Manhole	Adoptable	SOAKAWAY	300	Manhole	Adoptable

Manhole Schedule

Node	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S1	38.950	1.500	1200	0	1.000	37.450	300
S2	38.840	1.490	1200	1 0	1.000	37.350	300
					1.001	37.350	300

Manhole Schedule

Node	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
SOAKAWAY	38.900	1.600	300	1	1.001	37.300	300

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Additional Storage (m³/ha)	0.0
Summer CV	0.750	Skip Steady State	x	Check Discharge Rate(s)	x
Winter CV	0.840	Drain Down Time (mins)	10080	Check Discharge Volume	x

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
30	35	0	0
100	40	0	0

Node SOAKAWAY Online Head/Flow Control

Flap Valve x Replaces Downstream Link ✓ Invert Level (m) 37.300

Head (m) 0.001
Flow (l/s) 0.000

Node SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00650	Invert Level (m)	36.700	Depth (m)	1.500
Side Inf Coefficient (m/hr)	0.00650	Time to half empty (mins)	10080	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	4.000	Number Required	1
Porosity	0.95	Pit Length (m)	8.000		

Other (defaults)

Entry Loss (manhole)	0.250	Entry Loss (junction)	0.000	Apply Recommended Losses	x
Exit Loss (manhole)	0.250	Exit Loss (junction)	0.000	Flood Risk (m)	0.300

Approval Settings

Node Size	✓	Minimum Cover Depth (m)	
Node Losses	✓	Maximum Cover Depth (m)	3.000
Link Size	✓	Backdrops	✓
Minimum Diameter (mm)	150	Minimum Backdrop Height (m)	
Link Length	✓	Maximum Backdrop Height (m)	1.500
Maximum Length (m)	100.000	Full Bore Velocity	✓
Coordinates	✓	Minimum Full Bore Velocity (m/s)	
Accuracy (m)	1.000	Maximum Full Bore Velocity (m/s)	3.000
Crossings	✓	Proportional Velocity	✓
Cover Depth	✓	Return Period (years)	



RCD CONSULTANTS LTD
9 BIRCH TREE WAY
MAIDSTONE
KENT

File: 1111-2530-sa1-cellular.pfr
Network: Storm Network
RAY CLARK
24/06/2025

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SCHOOL ROAD
HURST

Approval Settings

Minimum Proportional Velocity (m/s)	0.750	Return Period (years)	30
Maximum Proportional Velocity (m/s)	3.000	Time to Half Empty	x
Surcharged Depth	✓	Discharge Rates	✓
Return Period (years)		Discharge Volume	✓
Maximum Surcharged Depth (m)	0.100	100 year 360 minute (m³)	
Flooding	✓		

Results for 2 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
15 minute winter	S1	10	37.508	0.058	5.6	0.0658	0.0000	OK
15 minute winter	S2	11	37.416	0.066	6.8	0.0752	0.0000	OK
1440 minute winter	SOAKAWAY	1410	37.128	-0.172	0.5	13.0254	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)
15 minute winter	S1	1.000	S2	5.5	0.532	0.084	0.2933	
15 minute winter	S2	1.001	SOAKAWAY	6.7	0.614	0.101	0.1529	
1440 minute winter	SOAKAWAY	Head/Flow		0.0				0.0
1440 minute winter	SOAKAWAY	Infiltration		0.0				

Results for 30 year +35% 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
5760 minute winter	S1	5340	37.947	0.497	0.3	0.5616	0.0000	SURCHARGED
5760 minute winter	S2	5340	37.947	0.597	0.4	0.6747	0.0000	SURCHARGED
5760 minute winter	SOAKAWAY	5340	37.947	0.647	0.4	37.9416	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)
5760 minute winter	S1	1.000	S2	0.3	0.215	0.005	1.9717	
5760 minute winter	S2	1.001	SOAKAWAY	0.4	0.279	0.006	0.9859	
5760 minute winter	SOAKAWAY	Head/Flow		0.0				0.0
5760 minute winter	SOAKAWAY	Infiltration		0.1				

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
7200 minute winter	S1	6720	38.838	1.388	0.3	1.5700	0.0000	FLOOD RISK
7200 minute winter	S2	6720	38.838	1.488	0.4	1.6831	0.0000	FLOOD RISK
7200 minute winter	SOAKAWAY	6720	38.838	1.538	0.4	45.7244	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)
7200 minute winter	S1	1.000	S2	0.3	0.215	0.005	1.9717	
7200 minute winter	S2	1.001	SOAKAWAY	0.4	0.279	0.006	0.9859	
7200 minute winter	SOAKAWAY	Head/Flow		0.0				0.0
7200 minute winter	SOAKAWAY	Infiltration		0.1				