

Design Settings

Rainfall Methodology	FEH-13	Minimum Velocity (m/s)	1.00
Return Period (years)	100	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)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Depth (m)
S1	0.050	5.00	64.000	450	1.250
S2	0.035	5.00	64.000	450	1.250
S3			64.000	450	1.500
ATT	0.020	5.00	64.000	450	1.550

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	S3	25.000	0.600	62.750	62.500	0.250	100.0	150	5.41	50.0
2.000	S2	S3	25.000	0.600	62.750	62.500	0.250	100.0	150	5.41	50.0
1.001	S3	ATT	5.000	0.600	62.500	62.450	0.050	100.0	150	5.50	50.0

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	1.005	17.8	6.8	1.100	1.350	0.050	0.0	64	0.937
2.000	1.005	17.8	4.7	1.100	1.350	0.035	0.0	53	0.853
1.001	1.005	17.8	11.5	1.350	1.400	0.085	0.0	88	1.069

Simulation Settings

Rainfall Methodology	FEH-13	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

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 %)
2	35	0	0
30	35	0	0
100	0	0	0
100	40	0	0

Node ATT Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.03800	Safety Factor	2.0	Invert Level (m)	61.150
Side Inf Coefficient (m/hr)	0.03800	Porosity	1.00	Time to half empty (mins)	478



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Hevercourt
Goodwood Crescent
Gravesend DA12 5EY

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	40.0	75.0	1.600	40.0	302.0	1.601	0.0	302.0

Results for 2 year +35% CC Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	62.827	0.077	9.5	0.0740	0.0000	OK
15 minute winter	S2	10	62.813	0.063	6.6	0.0450	0.0000	OK
15 minute winter	S3	11	62.625	0.125	15.9	0.0199	0.0000	OK
360 minute winter	ATT	288	61.631	-0.819	3.4	19.2285	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
15 minute winter	S1	1.000	S3	9.4	0.764	0.527	0.3073
15 minute winter	S2	2.000	S3	6.5	0.583	0.366	0.2813
15 minute winter	S3	1.001	ATT	15.6	1.058	0.877	0.0733
360 minute winter	ATT	Infiltration		0.7			

Results for 30 year +35% CC Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	11	63.566	0.816	26.2	0.7825	0.0000	SURCHARGED
15 minute winter	S2	11	63.279	0.529	18.4	0.3801	0.0000	SURCHARGED
15 minute winter	S3	11	63.011	0.511	41.3	0.0813	0.0000	SURCHARGED
360 minute winter	ATT	336	62.385	-0.065	7.8	49.4160	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
15 minute winter	S1	1.000	S3	24.4	1.384	1.372	0.4401
15 minute winter	S2	2.000	S3	16.9	0.961	0.953	0.4401
15 minute winter	S3	1.001	ATT	40.9	2.325	2.306	0.0871
360 minute winter	ATT	Infiltration		1.3			

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	11	63.498	0.748	25.3	0.7172	0.0000	SURCHARGED
15 minute winter	S2	11	63.233	0.483	17.7	0.3473	0.0000	SURCHARGED
15 minute winter	S3	11	62.983	0.483	39.8	0.0768	0.0000	SURCHARGED
360 minute winter	ATT	336	62.411	-0.039	7.9	50.4229	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
15 minute winter	S1	1.000	S3	23.5	1.334	1.322	0.4401
15 minute winter	S2	2.000	S3	16.4	0.929	0.921	0.4401
15 minute winter	S3	1.001	ATT	39.5	2.245	2.226	0.0871
360 minute winter	ATT	Infiltration		1.3			

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	S1	336	64.000	1.250	4.2	1.1988	1.8990	FLOOD
480 minute winter	S2	336	64.000	1.250	3.0	0.8988	0.9057	FLOOD
480 minute winter	S3	336	64.000	1.500	7.2	0.2385	0.1904	FLOOD
240 minute winter	ATT	232	64.000	1.550	14.8	64.6665	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
15 minute winter	S1	1.000	S3	29.5	1.674	1.660	0.4401
15 minute winter	S2	2.000	S3	22.9	1.299	1.288	0.4401
15 minute winter	S3	1.001	ATT	51.1	2.900	2.876	0.0871
180 minute winter	ATT	Infiltration		1.6			