Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	1	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	1.000	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Depth (m)
1	0.025	5.00	100.000	1200	2.000

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
FSR Region	England and Wales	Skip Steady State	x
M5-60 (mm)	20.000	Drain Down Time (mins)	240
Ratio-R	0.400	Additional Storage (m³/ha)	0.0
Summer CV	1.000	Check Discharge Rate(s)	x
Winter CV	1.000	Check Discharge Volume	x

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 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.15000	Safety Factor	2.0	Invert Level (m)	98.000
Side Inf Coefficient (m/hr)	0.15000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	20.0	0.0	1.600	20.0	0.0	1.601	0.0	0.0

Results for 100 year +45% 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
1440 minute winter	1	1440	99.520	1.520	0.9	30.5998	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)
1440 minute winter	1	Infiltration	0.0

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 100.00%

Results for 100 year +45% CC 15 minute summer. 255 minute analysis at 1 minute timestep. 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 summer	1	21	98.443	0.443	20.6	8.9204	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
15 minute summer	1	Infiltration	0.0

Results for 100 year +45% CC 15 minute winter. 255 minute analysis at 1 minute timestep. 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	1	21	98.443	0.443	19.4	8.9140	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
15 minute winter	1	Infiltration	0.0

Results for 100 year +45% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	36	98.582	0.582	18.6	11.7247	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
30 minute summer	1	Infiltration	0.0

Results for 100 year +45% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	36	98.584	0.584	15.0	11.7543	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
30 minute winter	1	Infiltration	0.0

Results for 100 year +45% CC 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	66	98.729	0.729	13.9	14.6795	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
60 minute summer	1	Infiltration	0.0

Results for 100 year +45% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	1	66	98.730	0.730	10.0	14.6971	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
60 minute winter	1	Infiltration	0.0

Results for 100 year +45% CC 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	1	128	98.880	0.880	8.9	17.7185	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
120 minute summer	1	Infiltration	0.0

Results for 100 year +45% CC 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	1	126	98.881	0.881	6.1	17.7301	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
120 minute winter	1	Infiltration	0.0

Results for 100 year +45% CC 180 minute summer. 420 minute analysis at 4 minute timestep. 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 summer	1	192	98.964	0.964	6.6	19.4045	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
180 minute summer	1	Infiltration	0.0

Results for 100 year +45% CC 180 minute winter. 420 minute analysis at 4 minute timestep. 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	1	188	98.970	0.970	4.5	19.5241	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
180 minute winter	1	Infiltration	0.0

Results for 100 year +45% CC 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Results for 100 year +45% CC 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	1	248	99.030	1.030	5.5	20.7363	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
240 minute summer	1	Infiltration	0.0

Results for 100 year +45% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	1	248	99.032	1.032	3.6	20.7721	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
240 minute winter	1	Infiltration	0.0

Results for 100 year +45% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Results for 100 year +45% CC 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	1	368	99.129	1.129	4.1	22.7285	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
360 minute summer	1	Infiltration	0.0

Results for 100 year +45% CC 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	1	376	99.129	1.129	2.6	22.7281	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
360 minute winter	1	Infiltration	0.0

Results for 100 year +45% CC 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	1	496	99.193	1.193	3.2	24.0245	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
480 minute summer	1	Infiltration	0.0

Results for 100 year +45% CC 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	1	488	99.196	1.196	2.1	24.0721	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
480 minute winter	1	Infiltration	0.0

Results for 100 year +45% CC 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	1	615	99.256	1.256	2.6	25.2903	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
600 minute summer	1	Infiltration	0.0

Results for 100 year +45% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	1	615	99.259	1.259	1.7	25.3351	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
600 minute winter	1	Infiltration	0.0

Results for 100 year +45% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	1	735	99.292	1.292	2.3	26.0103	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
720 minute summer	1	Infiltration	0.0

Results for 100 year +45% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Results for 100 year +45% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	1	735	99.330	1.330	1.5	26.7751	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
720 minute winter	1	Infiltration	0.0

Results for 100 year +45% CC 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	1	975	99.381	1.381	1.8	27.8103	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
960 minute summer	1	Infiltration	0.0

Results for 100 year +45% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	1	960	99.368	1.368	1.2	27.5399	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
960 minute winter	1	Infiltration	0.0

Results for 100 year +45% CC 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	1	1470	99.480	1.480	1.3	29.7900	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
1440 minute summer	1	Infiltration	0.0

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Results for 100 year +45% CC 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	1	1440	99.520	1.520	0.9	30.5998	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
1440 minute winter	1	Infiltration	0.0