

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	100	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	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	4.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
MH1	0.026	4.00	10.000	100.000	100.000	0.361

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	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	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 %)
100	45	0	0

Node MH1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00396	Safety Factor	2.0	Invert Level (m)	9.639
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	1439

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	78.0	78.0	0.360	78.0	78.0	0.361	0.0	78.0

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	MH1	19	9.733	0.094	17.9	6.9343	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
15 minute summer	MH1	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	MH1	19	9.744	0.105	17.9	7.7669	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
15 minute winter	MH1	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	MH1	34	9.762	0.123	15.7	9.0936	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
30 minute summer	MH1	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	MH1	34	9.777	0.138	13.6	10.2070	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
30 minute winter	MH1	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	MH1	64	9.792	0.153	11.2	11.3262	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
60 minute summer	MH1	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	MH1	64	9.811	0.172	8.8	12.7314	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
60 minute winter	MH1	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	MH1	124	9.822	0.183	7.3	13.5657	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
120 minute summer	MH1	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 (m ³)	Flood (m ³)	Status
120 minute winter	MH1	124	9.845	0.206	5.4	15.2487	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
120 minute winter	MH1	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 (m ³)	Flood (m ³)	Status
180 minute summer	MH1	184	9.840	0.201	5.5	14.8828	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
180 minute summer	MH1	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 (m ³)	Flood (m ³)	Status
180 minute winter	MH1	184	9.864	0.225	4.0	16.6694	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
180 minute winter	MH1	Infiltration	0.0

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	MH1	244	9.852	0.213	4.3	15.7587	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
240 minute summer	MH1	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	MH1	244	9.880	0.241	3.2	17.8394	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
240 minute winter	MH1	Infiltration	0.0

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	MH1	368	9.866	0.227	3.2	16.7873	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
360 minute summer	MH1	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 (m ³)	Flood (m ³)	Status
360 minute winter	MH1	368	9.896	0.257	2.3	19.0687	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
360 minute winter	MH1	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	MH1	488	9.880	0.241	2.5	17.8215	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
480 minute summer	MH1	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 (m ³)	Flood (m ³)	Status
480 minute winter	MH1	488	9.908	0.269	1.8	19.9208	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
480 minute winter	MH1	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	MH1	615	9.889	0.250	2.0	18.5063	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
600 minute summer	MH1	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	MH1	615	9.920	0.281	1.5	20.8404	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
600 minute winter	MH1	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	MH1	735	9.897	0.258	1.8	19.1375	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
720 minute summer	MH1	Infiltration	0.0					

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 (m ³)	Flood (m ³)	Status
720 minute winter	MH1	720	9.926	0.287	1.3	21.2402	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
720 minute winter	MH1	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	MH1	975	9.902	0.263	1.4	19.4542	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
960 minute summer	MH1	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	MH1	960	9.943	0.304	1.1	22.5005	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
960 minute winter	MH1	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	MH1	1470	9.909	0.270	1.0	20.0301	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
1440 minute summer	MH1	Infiltration	0.0

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	MH1	1440	9.940	0.301	0.8	22.3069	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
1440 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC 2160 minute summer. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2160 minute summer	MH1	2220	9.924	0.285	0.7	21.1004	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2160 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 2160 minute winter. 2400 minute analysis at 60 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
2160 minute winter	MH1	2160	9.957	0.318	0.5	23.5999	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
2160 minute winter	MH1	Infiltration	0.0					

Results for 100 year +45% CC 2880 minute summer. 3120 minute analysis at 60 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
2880 minute summer	MH1	2940	9.957	0.318	0.6	23.5739	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2880 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 2880 minute winter. 3120 minute analysis at 60 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
2880 minute winter	MH1	2820	9.977	0.338	0.4	25.0088	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2880 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC 4320 minute summer. 4560 minute analysis at 60 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
4320 minute summer	MH1	3540	9.918	0.279	0.4	20.6953	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
4320 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 4320 minute winter. 4560 minute analysis at 60 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
4320 minute winter	MH1	4080	9.997	0.358	0.3	26.5488	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
4320 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC 5760 minute summer. 6000 minute analysis at 60 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
5760 minute summer	MH1	4260	9.899	0.260	0.3	19.2542	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
5760 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 5760 minute winter. 6000 minute analysis at 60 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
5760 minute winter	MH1	4620	9.932	0.293	0.2	21.7177	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
5760 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC 7200 minute summer. 7440 minute analysis at 60 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
7200 minute summer	MH1	5040	9.885	0.246	0.3	18.2257	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
7200 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 7200 minute winter. 7440 minute analysis at 60 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
7200 minute winter	MH1	5460	9.933	0.294	0.2	21.8185	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
7200 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC 8640 minute summer. 8880 minute analysis at 60 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
8640 minute summer	MH1	5880	9.877	0.238	0.2	17.6065	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
8640 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 8640 minute winter. 8880 minute analysis at 60 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
8640 minute winter	MH1	6420	9.936	0.297	0.2	22.0200	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
8640 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC 10080 minute summer. 10320 minute analysis at 60 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
10080 minute summer	MH1	6720	9.878	0.239	0.2	17.7073	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
10080 minute summer	MH1	Infiltration	0.0					

Results for 100 year +45% CC 10080 minute winter. 10320 minute analysis at 60 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
10080 minute winter	MH1	7320	9.904	0.265	0.2	19.6513	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
10080 minute winter	MH1	Infiltration	0.0



- Notes:**
1. Discharge of surface water via cellular storage soakaways. Preliminary calculations indicate that sufficient storage required to attenuate runoff arising from the areas of the site being attenuated in impermeable areas, during the critical 1 in 100 year + 45% Climate Change event, can be provided within cellular storage soakawys with dimensions ranging from 45m² x 0.36m deep x 0.95 (voids) to 107m² x 0.36m deep x 0.95 (voids).
 2. All levels are in metres above ordnance datum

- Legend**
- Proposed Cellular Storage Soakaway
 - Proposed Surface Water Downpipe
 - Proposed Surface Water Pipework
 - Design Exceedance Route

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Site Address: Land west of Allington Business Centre Allington Lane West End SO50 7DE		
Job Reference: 93307-WhitePlanning-AllingtonLane	Date: 7-Feb-24	
Drawing Number: 93307-01	Revision: v1	
Designed by: AR	Drawn by: AR	Checked by: AR
Scale: 1:500@A2	Disclaimer: The drawings provided are for planning purposes only.	