Project:	Date: 17/06/2025		
	Designed by: Ethan.Worrall	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase	Company Address:		

Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
SWMH04	Manhole	384237.183	397476.996	31.900	1.208	30.692	Circular	0.450
SWIC02	Manhole	384235.304	397480.720	31.900	1.250	30.650	Circular	0.450
31.56	Manhole	384231.810	397487.186	31.900	1.195	30.705	Circular	0.450
SWIC05 CONTROL	Manhole	384232.629	397477.240	31.450	0.844	30.606	Circular	0.600
SWIC03	Manhole	384242.487	397480.483	31.900	1.188	30.712	Circular	0.450
LAMPHOLE OUTFALL	Manhole	384231.078	397475.079	31.490	0.911	30.579	Circular	1.050

Name	Lock
SWMH04	None
SWIC02	None
31.56	None
SWIC05 CONTROL	None
SWIC03	None
LAMPHOLE OUTFALL	None

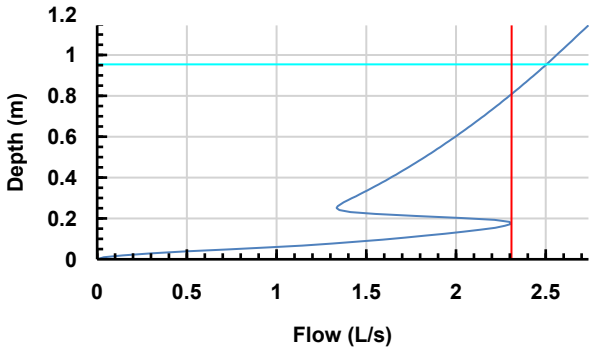
Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
SWMH04	Inlet (1)	1st Floor Flat Roof	(None)	No Restriction
SWIC02	Inlet	SW1.003	(None)	No Restriction
	Inlet (1)	SW1.002	(None)	No Restriction
	Inlet (2)	SW1.000	(None)	No Restriction
31.56	Inlet (1)	Blue Roof Outlet	(None)	No Restriction
SWIC05 CONTROL	Inlet	SW1.001	(None)	No Restriction
SWIC03	Inlet	9th Floor Flat Roof	(None)	No Restriction
LAMPHOLE OUTFALL	Inlet	SW1.004	(None)	No Restriction

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
SWMH04	Outlet	SW1.003	Free Discharge
SWIC02	Outlet	SW1.001	Free Discharge
31.56	Outlet	SW1.000	Free Discharge
SWIC05 CONTROL	Outlet	SW1.004	Hydro-Brake®

Invert Level (m)	30.606
Design Depth (m)	0.954
Design Flow (L/s)	2.5
Objective	Minimise Upstream Storage Requirements
Application	Surface Water Only
Sump Available	☐
Unit Reference	CHE-0073-2500-0954-2500



SWIC03	Outlet	SW1.002	Free Discharge

Project:	Date: 17/06/2025		
	Designed by: Ethan.Worrall	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:		



Cellular Storage

Type : Cellular Storage

Dimensions

Exceedance Level (m)	76.500
Depth (m)	0.085
Base Level (m)	76.380
Number of Crates Long	12
Number of Crates Wide	12
Number of Crates High	1
Porosity (%)	100
Crate Length (m)	1
Crate Width (m)	1
Crate Height (m)	0.085
Total Volume (m³)	12.275

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	15th Floor Blue Roof
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	Blue Roof Outlet
Outlet Type	Orifice

Diameter (m)	0.052
Coefficient of Discharge	0.600
Invert Level (m)	76.380

Project:	Date: 17/06/2025		
	Designed by: Ethan.Worrall	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase	Company Address:		

Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)
SW1.003	4.171	Pipe	99.302		0.6	150	31.900	30.692
SW1.002	7.186	Pipe	115.911		0.6	150	31.900	30.712
SW1.001	4.389	Pipe	99.751		0.6	150	31.900	30.650
SW1.000	7.350	Pipe	133.638		0.6	150	31.900	30.705
SW1.004	2.660	Pipe	98.529		0.6	150	31.450	30.606
Blue Roof Outlet	1.035	Pipe	0.023		0.6	150	76.500	76.380

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Part Family	Lock	Flow Restriction (L/s)	Culvert Type	Culvert Entrance
SW1.003	31.900	30.650		All		(None)	(None)
SW1.002	31.900	30.650		All		(None)	(None)
SW1.001	31.450	30.606		All		(None)	(None)
SW1.000	31.900	30.650		All		(None)	(None)
SW1.004	31.490	30.579		All	2.4	(None)	(None)
Blue Roof Outlet	31.900	30.705		None	1.7	(None)	(None)

Project:	Date: 17/06/2025		
	Designed by: Ethan.Worrall	Checked by:	Approved By:
Report Details: Type: Inflow Summary Storm Phase: Phase	Company Address:		

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
1st Floor Flat Roof	SWMH04		Time of Concentration	0.004	100	0	100	0.004
9th Floor Flat Roof	SWIC03		Time of Concentration	0.006	100	0	100	0.006
15th Floor Blue Roof	Cellular Storage		Time of Concentration	0.025	100	0	100	0.025
TOTAL		**0.0**		**0.035**				**0.035**

Project:	Date: 17/06/2025		
	Designed by: Ethan.Worrall	Checked by:	Approved By:
Report Details: Type: Outfall Details Storm Phase: Phase	Company Address:		

Outfalls

Outfall	Outfall Type	Gated	Fixed Surcharged Level (m)	Level Curve
LAMPHOLE OUTFALL	Free Discharge			

Project:	Date: 17/06/2025		
	Designed by: Ethan.Worrall	Checked by:	Approved By:
Report Title: Rainfall Analysis Criteria	Company Address:		

Runoff Type	Dynamic
Output Interval (mins)	1
Time Step	Shortest
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Project:	Date: 17/06/2025		
	Designed by: Ethan.Worrall	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		

Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SWMH04	FSR 1: 100 years: +45 %: 60 mins: Summer	31.900	30.692	31.067	0.375	1.8	0.060	0.000	1.2	1.862	Surcharged
SWIC02	FSR 1: 100 years: +45 %: 60 mins: Summer	31.900	30.650	31.067	0.417	3.4	0.066	0.000	2.8	9.969	Surcharged
31.56	FSR 1: 100 years: +45 %: 60 mins: Summer	31.900	30.705	31.067	0.362	1.1	0.058	0.000	1.2	5.384	Surcharged
SWIC05 CONTROL	FSR 1: 100 years: +45 %: 60 mins: Summer	31.450	30.606	31.066	0.460	2.8	0.130	0.000	2.3	9.852	Surcharged
SWIC03	FSR 1: 100 years: +45 %: 60 mins: Summer	31.900	30.712	31.067	0.355	2.6	0.056	0.000	2.1	2.791	Surcharged
LAMPHOLE OUTFALL	FSR 1: 100 years: +45 %: 240 mins: Summer	31.490	30.579	30.615	0.036	2.3	0.000	0.000	2.3	22.264	OK

Project:	Date: 17/06/2025		
	Designed by: Ethan.Worrall	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		

Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	FSR 1: 100 years: +45 %: 240 mins: Summer	76.456	76.456	0.076	0.076	4.8	10.879	0.000	0.000	1.3	15.385	11.372	OK

Project:	Date: 17/06/2025		
	Designed by: Ethan.Worrall	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		

Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
SW1.003	FSR 1: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH04	SWIC02	31.900	30.974	0.150	0.860	0.3	0.09	1.6	Surcharged
SW1.002	FSR 1: 100 years: +45 %: 15 mins: Summer	Pipe	SWIC03	SWIC02	31.900	30.974	0.150	1.425	0.4	0.18	3.0	Surcharged
SW1.001	FSR 1: 100 years: +45 %: 15 mins: Summer	Pipe	SWIC02	SWIC05 CONTROL	31.900	30.974	0.150	2.552	0.6	0.18	3.2	Surcharged
SW1.000	FSR 1: 100 years: +45 %: 240 mins: Summer	Pipe	31.56	SWIC02	31.900	30.837	0.150	15.371	0.4	0.09	1.3	OK
SW1.004	FSR 1: 100 years: +45 %: 240 mins: Summer	Pipe	SWIC05 CONTROL	LAMPHOLE OUTFALL	31.450	30.835	0.038	22.264	0.7	0.13	2.3	Surcharged
Blue Roof Outlet	FSR 1: 100 years: +45 %: 240 mins: Summer	Pipe	Cellular Storage	31.56	76.500	76.456	0.067	15.384	1.2	0	1.3	OK