

Heywood Civic Square:	Date: 07/03/2025		
	Designed by: MB	Checked by: SB	Approved By: SB
Report Details: Type: Junctions Storm Phase: Phase	18-20 Harrington Street: Liverpool L29QA		



Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
SW02 (SW SEWERS)	Manhole	385711.816	410675.508	119.075	0.800	118.275	Circular	0.450
SW03 (SW SEWERS)	Manhole	385702.509	410671.851	118.800	1.212	117.588	Circular	0.450
SW04 (SW SEWERS)	Manhole	385694.312	410673.083	118.800	1.316	117.484	Circular	0.450
SW01 (SW SEWERS)	Manhole	385703.935	410656.932	118.575	0.800	117.775	Circular	0.450
SW09 (SW SEWERS)	Manhole	385674.299	410672.533	118.450	2.952	115.498	Circular	1.800
SW08 (SW SEWERS)	Manhole	385670.101	410675.248	118.430	2.580	115.850	Circular	1.500
SW06 (SW SEWERS)	Manhole	385666.842	410670.209	118.250	2.300	115.950	Circular	0.450
SW05 (SW SEWERS)	Manhole	385674.820	410665.051	117.586	1.086	116.500	Circular	0.450

Name	Lock
SW02 (SW SEWERS)	Levels
SW03 (SW SEWERS)	Levels
SW04 (SW SEWERS)	Levels
SW01 (SW SEWERS)	Levels
SW09 (SW SEWERS)	Levels
SW08 (SW SEWERS)	Levels
SW06 (SW SEWERS)	Levels
SW05 (SW SEWERS)	Levels

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Cellular Storage

Type : Cellular Storage

Dimensions	
Exceedance Level (m)	118.350
Depth (m)	1.200
Base Level (m)	115.900
Number of Crates Long	1
Number of Crates Wide	1
Number of Crates High	1
Porosity (%)	95
Crate Length (m)	5.5
Crate Width (m)	5.5
Crate Height (m)	1.2
Total Volume (m³)	35.735

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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)
Pipe1 (SW SEWERS)	21.083	Pipe	21.424		0.6	150	118.800	117.484
Pipe2 (SW SEWERS)	9.500	Pipe	17.273		0.6	150	117.586	116.500
Pipe4 (SW SEWERS)	5.000	Pipe	14.205		0.6	150	118.430	115.850
Pipe5 (SW SEWERS)	14.987	Pipe	80.000		0.6	150	118.575	117.775
Pipe6 (SW SEWERS)	8.288	Pipe	80.000		0.6	150	118.800	117.588
Pipe7 (SW SEWERS)	10.000	Pipe	14.549		0.6	150	119.075	118.275
Pipe (1)	1.985	Pipe	39.709		0.6	150	118.350	115.900
Pipe	1.402	Pipe	28.048		0.6	150	118.250	115.950

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Part Family	Lock	Flow Restriction (L/s)	Culvert Type	Culvert Entrance
Pipe1 (SW SEWERS)	117.586	116.500		Levels		(None)	(None)
Pipe2 (SW SEWERS)	118.250	115.950		Levels		(None)	(None)
Pipe4 (SW SEWERS)	118.450	115.498		Levels	8.6	(None)	(None)
Pipe5 (SW SEWERS)	118.800	117.588		Levels		(None)	(None)
Pipe6 (SW SEWERS)	118.800	117.484		Levels		(None)	(None)
Pipe7 (SW SEWERS)	118.800	117.588		Levels		(None)	(None)
Pipe (1)	118.430	115.850		None		(None)	(None)
Pipe	118.350	115.900		None		(None)	(None)

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Report Details: Type: Inflow Summary Storm Phase: Phase	18-20 Harrington Street: Liverpool L29QA		



Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	SW01 (SW SEWERS)		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (1)	SW02 (SW SEWERS)		Time of Concentration	0.007	100	0	100	0.007
Catchment Area (2)	SW06 (SW SEWERS)		Time of Concentration	0.047	100	0	100	0.047
Catchment Area (3)	SW05 (SW SEWERS)		Time of Concentration	0.006	100	0	100	0.006
Catchment Area (4)	SW04 (SW SEWERS)		Time of Concentration	0.029	100	0	100	0.029
TOTAL		0.0		0.098				0.098

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FEH: 2 years: Increase Rainfall (%): +0: 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
SW02 (SW SEWERS)	FEH: 2 years: +0 %: 15 mins: Summer	119.075	118.275	118.292	0.017	1.3	0.003	0.000	1.3	0.563	OK
SW03 (SW SEWERS)	FEH: 2 years: +0 %: 15 mins: Summer	118.800	117.588	117.626	0.038	2.8	0.006	0.000	2.7	1.237	OK
SW04 (SW SEWERS)	FEH: 2 years: +0 %: 15 mins: Summer	118.800	117.484	117.531	0.047	8.0	0.007	0.000	7.9	3.572	OK
SW01 (SW SEWERS)	FEH: 2 years: +0 %: 15 mins: Summer	118.575	117.775	117.803	0.028	1.6	0.004	0.000	1.5	0.676	OK
SW09 (SW SEWERS)	FEH: 2 years: +0 %: 30 mins: Summer	118.450	115.498	115.537	0.039	7.0	0.000	0.000	7.0	10.238	OK
SW08 (SW SEWERS)	FEH: 2 years: +0 %: 30 mins: Summer	118.430	115.850	116.041	0.191	7.0	0.337	0.000	7.0	10.247	Surcharged
SW06 (SW SEWERS)	FEH: 2 years: +0 %: 15 mins: Summer	118.250	115.950	116.056	0.106	17.7	0.017	0.000	17.3	7.870	OK
SW05 (SW SEWERS)	FEH: 2 years: +0 %: 15 mins: Summer	117.586	116.500	116.546	0.046	9.0	0.007	0.000	8.9	4.063	OK

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FEH: 30 years: Increase Rainfall (%): +0: 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
SW02 (SW SEWERS)	FEH: 30 years: +0 %: 15 mins: Summer	119.075	118.275	118.300	0.025	2.8	0.004	0.000	2.8	1.236	OK
SW03 (SW SEWERS)	FEH: 30 years: +0 %: 15 mins: Summer	118.800	117.588	117.649	0.061	6.2	0.010	0.000	5.9	2.720	OK
SW04 (SW SEWERS)	FEH: 30 years: +0 %: 15 mins: Summer	118.800	117.484	117.558	0.074	17.7	0.012	0.000	17.4	7.856	OK
SW01 (SW SEWERS)	FEH: 30 years: +0 %: 15 mins: Summer	118.575	117.775	117.817	0.042	3.4	0.007	0.000	3.4	1.487	OK
SW09 (SW SEWERS)	FEH: 30 years: +0 %: 30 mins: Summer	118.450	115.498	115.539	0.041	7.9	0.000	0.000	7.9	21.600	OK
SW08 (SW SEWERS)	FEH: 30 years: +0 %: 60 mins: Summer	118.430	115.850	116.365	0.515	8.8	0.910	0.000	7.9	30.924	Surcharged
SW06 (SW SEWERS)	FEH: 30 years: +0 %: 60 mins: Summer	118.250	115.950	116.382	0.432	24.9	0.069	0.000	24.3	31.099	Surcharged
SW05 (SW SEWERS)	FEH: 30 years: +0 %: 15 mins: Summer	117.586	116.500	116.571	0.071	19.9	0.011	0.000	19.7	8.926	OK

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FEH: 100 years: Increase Rainfall (%): +0: 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
SW02 (SW SEWERS)	FEH: 100 years: +0 %: 15 mins: Summer	119.075	118.275	118.303	0.028	3.6	0.004	0.000	3.5	1.557	OK
SW03 (SW SEWERS)	FEH: 100 years: +0 %: 15 mins: Summer	118.800	117.588	117.658	0.070	7.8	0.011	0.000	7.4	3.425	OK
SW04 (SW SEWERS)	FEH: 100 years: +0 %: 15 mins: Summer	118.800	117.484	117.569	0.085	22.2	0.014	0.000	21.9	9.871	OK
SW01 (SW SEWERS)	FEH: 100 years: +0 %: 15 mins: Summer	118.575	117.775	117.822	0.047	4.3	0.007	0.000	4.2	1.871	OK
SW09 (SW SEWERS)	FEH: 100 years: +0 %: 30 mins: Summer	118.450	115.498	115.539	0.041	7.9	0.000	0.000	7.9	23.173	OK
SW08 (SW SEWERS)	FEH: 100 years: +0 %: 60 mins: Summer	118.430	115.850	116.581	0.731	9.1	1.292	0.000	7.9	39.622	Surcharged
SW06 (SW SEWERS)	FEH: 100 years: +0 %: 60 mins: Summer	118.250	115.950	116.595	0.645	31.4	0.103	0.000	30.3	40.003	Surcharged
SW05 (SW SEWERS)	FEH: 100 years: +0 %: 60 mins: Summer	117.586	116.500	116.601	0.101	16.7	0.016	0.000	16.0	20.652	OK

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FEH: 100 years: Increase Rainfall (%): +40: 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
SW02 (SW SEWERS)	FEH: 100 years: +40 %: 15 mins: Summer	119.075	118.275	118.308	0.033	5.0	0.005	0.000	5.0	2.178	OK
SW03 (SW SEWERS)	FEH: 100 years: +40 %: 15 mins: Summer	118.800	117.588	117.676	0.088	10.9	0.014	0.000	10.5	4.793	OK
SW04 (SW SEWERS)	FEH: 100 years: +40 %: 15 mins: Summer	118.800	117.484	117.588	0.104	31.2	0.017	0.000	30.5	13.794	OK
SW01 (SW SEWERS)	FEH: 100 years: +40 %: 15 mins: Summer	118.575	117.775	117.831	0.056	6.0	0.009	0.000	5.9	2.618	OK
SW09 (SW SEWERS)	FEH: 100 years: +40 %: 15 mins: Winter	118.450	115.498	115.539	0.041	7.9	0.000	0.000	7.9	10.544	OK
SW08 (SW SEWERS)	FEH: 100 years: +40 %: 60 mins: Summer	118.430	115.850	116.977	1.127	9.7	1.992	0.000	7.9	47.029	Surcharged
SW06 (SW SEWERS)	FEH: 100 years: +40 %: 60 mins: Summer	118.250	115.950	116.990	1.040	43.6	0.165	0.000	42.2	55.702	Surcharged
SW05 (SW SEWERS)	FEH: 100 years: +40 %: 30 mins: Summer	117.586	116.500	117.016	0.516	25.2	0.082	0.000	23.8	21.691	Surcharged

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FEH: 2 years: Increase Rainfall (%): +0: 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. Residual Volume (m³)	Total Lost Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	FEH: 2 years: +0 %: 30 mins: Summer	116.047	116.047	0.147	0.147	12.1	4.227	0.000	0.000	7.0	10.291	88.172	OK

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FEH: 30 years: Increase Rainfall (%): +0: 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. Residual Volume (m³)	Total Lost Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	FEH: 30 years: +0 %: 60 mins: Summer	116.373	116.373	0.473	0.473	24.3	13.609	0.000	0.000	8.8	30.952	61.916	OK

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FEH: 100 years: Increase Rainfall (%): +0: 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. Residual Volume (m³)	Total Lost Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	FEH: 100 years: +0 %: 60 mins: Summer	116.588	116.588	0.688	0.688	30.3	19.773	0.000	0.000	9.1	39.685	44.667	OK

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**FEH: 100 years: Increase Rainfall (%): +40: 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. Residual Volume (m³)	Total Lost Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Cellular Storage	FEH: 100 years: +40 %: 60 mins: Summer	116.984	116.984	1.084	1.084	42.2	31.158	0.000	0.000	9.7	47.620	12.808	OK