

Curtins		Page 2
Merchant Exchange 17-19 Whitworth Street West Manchester, M1 5WG		
Date 19/05/2022 20:10 File 079809-CUR-XX-XX-M-C-92...	Designed by losty_a Checked by	
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Manhole Schedules for Area C

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam., L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	Diameter (mm)	Backdr (mm)
CSW22	134.470	1.570	Open Manhole	1200	1.000	132.900	225				
CBEND	134.470	1.588	Junction		1.001	132.882	225	1.000	132.882	225	
CSW13	134.350	1.730	Open Manhole	1200	2.000	132.620	150				
CSW12	134.320	1.770	Open Manhole	1200	1.002	132.550	225	1.001	132.550	225	
								2.000	132.550	150	
CSW11	134.330	1.840	Open Manhole	1200	1.003	132.490	225	1.002	132.490	225	
CSW15	134.440	1.820	Open Manhole	1200	3.000	132.620	225				
CSW26	134.910	2.580	Open Manhole	1200	1.004	132.330	225	1.003	132.330	225	
								3.000	132.330	225	
CRW TANK	135.180	2.957	Open Manhole	1200	1.005	132.223	225	1.004	132.223	225	
COVERFLOW	135.111	2.944	Open Manhole	0		OUTFALL		1.005	132.167	225	

Curtins		Page 3
Merchant Exchange 17-19 Whitworth Street West Manchester, M1 5WG		
Date 19/05/2022 20:10 File 079809-CUR-XX-XX-M-C-92...	Designed by losty_a Checked by	
Innovyze	Network 2018.1.1	

Area Summary for Area C

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.178	0.178	0.178
1.001	-	-	100	0.000	0.000	0.000
2.000	-	-	100	0.025	0.025	0.025
1.002	-	-	100	0.000	0.000	0.000
1.003	-	-	100	0.000	0.000	0.000
3.000	-	-	100	0.043	0.043	0.043
1.004	-	-	100	0.000	0.000	0.000
1.005	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				0.246	0.246	0.246

Simulation Criteria for Area C

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m ³ /ha Storage	2.000
Hot Start (mins)	0	Inlet Coefficient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1
Number of Input Hydrographs 0			
Number of Storage Structures 0			
Number of Online Controls 0			
Number of Time/Area Diagrams 0			
Number of Offline Controls 0			
Number of Real Time Controls 0			

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	1	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Storm Duration (mins)	30
Ratio R	0.294		

Curtins		Page 1
Merchant Exchange 17-19 Whitworth Street West Manchester, M1 5WG		
Date 21/07/2022 10:32 File 079809-CUR-XX-XX-M-C-925...		
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Innovyze		Network 2018.1.1

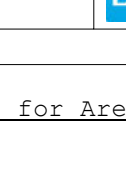
Surcharged Outfall Details for Area C

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.005	COVERFLOW	135.111	132.167	131.340	0	0

Datum (m) 0.000 Offset (mins) 0

Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)
60	131.083	300	131.083	540	131.083	780	131.083	1020	131.083	1260	131.083
120	131.083	360	131.083	600	131.083	840	131.083	1080	131.083	1320	131.083
180	131.083	420	131.083	660	131.083	900	131.083	1140	131.083	1380	131.083
240	131.083	480	131.083	720	131.083	960	131.083	1200	131.083	1440	131.083

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Curtins		Page 2
Merchant Exchange 17-19 Whitworth Street West Manchester, M1 5WG		
Date 21/07/2022 10:32 File 079809-CUR-XX-XX-M-C-925...		
Designed by losty_a Checked by		
Innovyze		Network 2018.1.1

Summary of Critical Results by Maximum Outflow (Rank 1) for Area C

Simulation Criteria

Areal Reduction Factor 1.000	Additional Flow - % of Total Flow 0.000
Hot Start (mins) 0	MADD Factor * 10m³/ha Storage 2.000
Hot Start Level (mm) 0	Inlet Coeffiecient 0.800
Manhole Headloss Coeff (Global) 0.500	Flow per Person per Day (l/per/day) 0.000
Foul Sewage per hectare (l/s) 0.000	

Number of Input Hydrographs 0
 Number of Offline Controls 0
 Number of Time/Area Diagrams 0
 Number of Online Controls 0
 Number of Storage Structures 0
 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R 0.294
Region England and Wales Cv (Summer)		0.750
M5-60 (mm)	19.000 Cv (Winter)	0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440
 Return Period(s) (years) 1
 Climate Change (%) 0

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surchage	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.000	CSW22	15 Winter	1	+0%					133.050
1.001	CBEND	15 Winter	1	+0%					132.995
2.000	CSW13	15 Winter	1	+0%					132.691
1.002	CSW12	15 Winter	1	+0%					132.688
1.003	CSW11	15 Winter	1	+0%					132.616
3.000	CSW15	15 Winter	1	+0%					132.662
1.004	CSW26	15 Winter	1	+0%					132.473
1.005	CRW TANK	15 Winter	1	+0%					132.378

PN	US/MH Name	Depth (m)	Volume (m³)	Flow / Cap. (l/s)	Flooded Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	CSW22	-0.075	0.000	0.75		20.9	OK	
1.001	CBEND	-0.112	0.000	0.48		20.6	OK*	

Curtins		Page 1
Merchant Exchange 17-19 Whitworth Street West Manchester, M1 5WG		
Date 21/07/2022 09:30 File 079809-CUR-XX-XX-M-C-925...		
Designed by losty_a Checked by		
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Surcharged Outfall Details for Area C

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.005	COVERFLOW	135.111	132.167	131.340	0	0

Datum (m) 0.000 Offset (mins) 0

Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)
60	134.191	300	134.191	540	134.191	780	134.191	1020	134.191	1260	134.191
120	134.191	360	134.191	600	134.191	840	134.191	1080	134.191	1320	134.191
180	134.191	420	134.191	660	134.191	900	134.191	1140	134.191	1380	134.191
240	134.191	480	134.191	720	134.191	960	134.191	1200	134.191	1440	134.191

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Curtins		Page 2
Merchant Exchange 17-19 Whitworth Street West Manchester, M1 5WG		
Date 21/07/2022 09:30 File 079809-CUR-XX-XX-M-C-925...		
Designed by losty_a Checked by		
Innovyze		Network 2018.1.1

Summary of Critical Results by Maximum Outflow (Rank 1) for Area C

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coefficient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Offline Controls	0	Number of Time/Area Diagrams	0
Number of Online Controls	0	Number of Storage Structures	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.294
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	30
Climate Change (%)	0

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.
1.000	CSW22	15 Winter	30	+0%	30/15 Summer			
1.001	CBEND	15 Winter	30	+0%				
2.000	CSW13	960 Summer	30	+0%	30/15 Summer			
1.002	CSW12	1440 Summer	30	+0%	30/15 Summer	30/240 Summer		
1.003	CSW11	1440 Summer	30	+0%	30/15 Summer			
3.000	CSW15	1440 Winter	30	+0%	30/120 Summer			
1.004	CSW26	960 Summer	30	+0%	30/15 Summer			
1.005	CRW TANK	1440 Summer	30	+0%	30/15 Summer			

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	CSW22	133.400	0.275	0.000	1.66	46.1	SURCHARGED	
1.001	CBEND	133.107	0.000	0.000	1.04	44.4	SURCHARGED*	

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Curtins		Page 1																																																												
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Date 21/07/2022 09:36 File 079809-CUR-XX-XX-M-C-925...	Designed by losty_a Checked by																																																													
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<u>Surcharged Outfall Details for Area C</u> <table border="0"> <thead> <tr> <th>Outfall Pipe Number</th> <th>Outfall Name</th> <th>C. Level (m)</th> <th>I. Level (m)</th> <th>Min I. Level (m)</th> <th>D,L (mm)</th> <th>W (mm)</th> </tr> </thead> <tbody> <tr> <td>1.005</td> <td>COVERFLOW</td> <td>135.111</td> <td>132.167</td> <td>131.340</td> <td>0</td> <td>0</td> </tr> </tbody> </table> Datum (m) 0.000 Offset (mins) 0			Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)	1.005	COVERFLOW	135.111	132.167	131.340	0	0																																														
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Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)																																																			
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Curtins		Page 2
Merchant Exchange 17-19 Whitworth Street West Manchester, M1 5WG		
Date 21/07/2022 09:36 File 079809-CUR-XX-XX-M-C-925...		
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Summary of Critical Results by Maximum Outflow (Rank 1) for Area C

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coefficient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Offline Controls	0	Number of Time/Area Diagrams	0
Number of Online Controls	0	Number of Storage Structures	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.294
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	100
Climate Change (%)	0

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.
1.000	CSW22	15 Winter	100	+0%	100/15 Summer			
1.001	CBEND	15 Winter	100	+0%				
2.000	CSW13	1440 Winter	100	+0%	100/15 Summer	100/240 Summer		
1.002	CSW12	1440 Winter	100	+0%	100/15 Summer	100/120 Summer		
1.003	CSW11	1440 Winter	100	+0%	100/15 Summer	100/120 Summer		
3.000	CSW15	1440 Winter	100	+0%	100/15 Winter			
1.004	CSW26	1440 Winter	100	+0%	100/15 Summer			
1.005	CRW TANK	1440 Winter	100	+0%	100/15 Summer			

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	CSW22	133.855	0.730	0.000	1.97	54.5	SURCHARGED	
1.001	CBEND	133.107	0.000	0.000	1.19	51.1	SURCHARGED*	

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