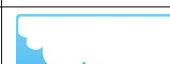


Calibro Consultants Ltd		Page 1
Whitefriars	Stericycle Bradman Road	
Bristol	Knowsley	
BS1 2NT	Area 2 SW Drainage Network	
Date 23/12/2022 12:41	Designed by WW	
File 21-305 EAST SW DRAINAGE N...	Checked by TP	
XP Solutions	Network 2020.1	

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for 21-305 SW Drainage Network vC

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
S1.000	19.370	1.000	19.4	0.094	5.00	0.0	0.600	o	225	Pipe/Conduit	
S2.000	40.333	0.300	134.4	0.034	5.00	0.0	0.600	o	225	Pipe/Conduit	
S2.001	20.899	0.650	32.2	0.053	0.00	0.0	0.600	o	225	Pipe/Conduit	
S2.002	33.919	0.225	150.8	0.020	0.00	0.0	0.600	o	225	Pipe/Conduit	
S3.000	12.719	0.100	127.2	0.047	5.00	0.0	0.600	o	225	Pipe/Conduit	
S3.001	15.317	0.150	102.1	0.070	0.00	0.0	0.600	o	225	Pipe/Conduit	
S3.002	10.200	0.100	102.0	0.070	0.00	0.0	0.600	o	225	Pipe/Conduit	
S3.003	20.642	0.775	26.6	0.039	0.00	0.0	0.600	o	225	Pipe/Conduit	
S2.003	30.981	0.420	73.8	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.001	10.835	0.200	54.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S1.000	50.00	5.11	38.400	0.094	0.0	0.0	0.0	2.99	118.8	17.0
S2.000	50.00	5.60	39.000	0.034	0.0	0.0	0.0	1.13	44.8	6.1
S2.001	50.00	5.75	38.700	0.087	0.0	0.0	0.0	2.32	92.1	15.7
S2.002	50.00	6.28	38.050	0.107	0.0	0.0	0.0	1.06	42.2	19.3
S3.000	50.00	5.18	38.950	0.047	0.0	0.0	0.0	1.16	46.0	8.5
S3.001	50.00	5.38	38.850	0.117	0.0	0.0	0.0	1.29	51.4	21.1
S3.002	50.00	5.51	38.700	0.187	0.0	0.0	0.0	1.29	51.5	33.8
S3.003	50.00	5.65	38.600	0.226	0.0	0.0	0.0	2.55	101.2	40.8
S2.003	50.00	6.56	37.750	0.333	0.0	0.0	0.0	1.83	129.5	60.1
S1.001	50.00	6.65	37.330	0.427	0.0	0.0	0.0	2.14	151.3	77.1

Stericycle Bradman Road
Knowsley
Area 2 SW Drainage Network



Designed by WW

Checked by TP

Network 2020.1

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)	Backdrop (mm)
S1	39.770	1.370	Open Manhole	1200	S1.000	38.400	225				
S2	40.350	1.350	Open Manhole	600	S2.000	39.000	225				
S3	40.300	1.600	Open Manhole	600	S2.001	38.700	225	S2.000	38.700	225	
S4 CP	39.900	1.850	Open Manhole	1500	S2.002	38.050	225	S2.001	38.050	225	
S5	40.350	1.400	Open Manhole	1200	S3.000	38.950	225				
S6	40.350	1.500	Open Manhole	1200	S3.001	38.850	225	S3.000	38.850	225	
S7	40.350	1.650	Open Manhole	1200	S3.002	38.700	225	S3.001	38.700	225	
S8	40.350	1.750	Open Manhole	1200	S3.003	38.600	225	S3.002	38.600	225	
S9 CP	39.900	2.150	Open Manhole	1500	S2.003	37.750	300	S2.002	37.825	225	
								S3.003	37.825	225	
S10 HB	40.033	2.703	Open Manhole	1800	S1.001	37.330	300	S1.000	37.400	225	
								S2.003	37.330	300	
SMH55	39.652	2.522	Open Manhole	1200		OUTFALL		S1.001	37.130	300	

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S1	343791.040	399262.109	343791.040	399262.109	Required	
S2	343721.565	399234.524	343721.565	399234.524	Required	
S3	343730.110	399273.940	343730.110	399273.940	Required	
S4 CP	343736.870	399293.716	343736.870	399293.716	Required	
S5	343758.366	399228.650	343758.366	399228.650	Required	
S6	343760.870	399241.120	343760.870	399241.120	Required	
S7	343763.885	399256.137	343763.885	399256.137	Required	
S8	343765.894	399266.137	343765.894	399266.137	Required	
S9 CP	343769.984	399286.370	343769.984	399286.370	Required	

Calibro Consultants Ltd		Page 3
Whitefriars Bristol BS1 2NT	Stericycle Bradman Road Knowsley Area 2 SW Drainage Network	
Date 23/12/2022 12:41	Designed by WW	
File 21-305 EAST SW DRAINAGE N...	Checked by TP	
XP Solutions	Network 2020.1	

Manhole Schedules for 21-305 SW Drainage Network vC

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S10 HB	343800.127	399279.215	343800.127	399279.215	Required	
SMH55	343810.703	399276.857			No Entry	

Calibro Consultants Ltd		Page 4
Whitefriars Bristol BS1 2NT	Stericycle Bradman Road Knowsley Area 2 SW Drainage Network	
Date 23/12/2022 12:41 File 21-305 EAST SW DRAINAGE N...	Designed by WW Checked by TP	
XP Solutions		Network 2020.1

PIPELINE SCHEDULES for 21-305 SW Drainage Network vC

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1.000	o	225	S1	39.770	38.400	1.145	Open Manhole	1200
S2.000	o	225	S2	40.350	39.000	1.125	Open Manhole	600
S2.001	o	225	S3	40.300	38.700	1.375	Open Manhole	600
S2.002	o	225	S4 CP	39.900	38.050	1.625	Open Manhole	1500
S3.000	o	225	S5	40.350	38.950	1.175	Open Manhole	1200
S3.001	o	225	S6	40.350	38.850	1.275	Open Manhole	1200
S3.002	o	225	S7	40.350	38.700	1.425	Open Manhole	1200
S3.003	o	225	S8	40.350	38.600	1.525	Open Manhole	1200
S2.003	o	300	S9 CP	39.900	37.750	1.850	Open Manhole	1500
S1.001	o	300	S10 HB	40.033	37.330	2.403	Open Manhole	1800

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1.000	19.370	19.4	S10 HB	40.033	37.400	2.408	Open Manhole	1800
S2.000	40.333	134.4	S3	40.300	38.700	1.375	Open Manhole	600
S2.001	20.899	32.2	S4 CP	39.900	38.050	1.625	Open Manhole	1500
S2.002	33.919	150.8	S9 CP	39.900	37.825	1.850	Open Manhole	1500
S3.000	12.719	127.2	S6	40.350	38.850	1.275	Open Manhole	1200
S3.001	15.317	102.1	S7	40.350	38.700	1.425	Open Manhole	1200
S3.002	10.200	102.0	S8	40.350	38.600	1.525	Open Manhole	1200
S3.003	20.642	26.6	S9 CP	39.900	37.825	1.850	Open Manhole	1500
S2.003	30.981	73.8	S10 HB	40.033	37.330	2.403	Open Manhole	1800
S1.001	10.835	54.2	SMH55	39.652	37.130	2.222	Open Manhole	1200

Calibro Consultants Ltd		Page 5
Whitefriars Bristol BS1 2NT	Stericycle Bradman Road Knowsley Area 2 SW Drainage Network	
Date 23/12/2022 12:41 File 21-305 EAST SW DRAINAGE N...	Designed by WW Checked by TP	
XP Solutions		Network 2020.1

Online Controls for 21-305 SW Drainage Network vC

Crown Vortex Valve® Manhole: S10 HB, DS/PN: S1.001, Volume (m³): 9.7

Design Head (m) 1.950 Vortex Valve® Type R1 SW Only Invert Level (m) 37.330
Design Flow (l/s) 73.0 Diameter (mm) 297

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	5.5	1.200	57.1	3.000	90.4	7.000	138.0
0.200	14.9	1.400	61.7	3.500	97.6	7.500	142.9
0.300	25.4	1.600	66.0	4.000	104.3	8.000	147.6
0.400	35.1	1.800	70.0	4.500	110.7	8.500	152.1
0.500	42.3	2.000	73.8	5.000	116.7	9.000	156.5
0.600	45.7	2.200	77.4	5.500	122.3	9.500	160.8
0.800	46.7	2.400	80.8	6.000	127.8		
1.000	52.2	2.600	84.1	6.500	133.0		

Calibro Consultants Ltd		Page 6
Whitefriars Bristol BS1 2NT	Stericycle Bradman Road Knowsley Area 2 SW Drainage Network	
Date 23/12/2022 12:41 File 21-305 EAST SW DRAINAGE N...	Designed by WW Checked by TP	
XP Solutions	Network 2020.1	

Storage Structures for 21-305 SW Drainage Network vC

Filter Drain Manhole: S4 CP, DS/PN: S2.002

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.225
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	180.0
Invert Level (m)	38.050	Cap Volume Depth (m)	0.800
Trench Width (m)	0.5	Cap Infiltration Depth (m)	0.000
Trench Length (m)	6.0		

Cellular Storage Manhole: S9 CP, DS/PN: S2.003

Invert Level (m)	37.850	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	18.0	0.0	0.801	0.1	0.0
0.800	18.0	0.0	2.050	0.1	0.0

Volume Summary (Static)

Length Calculations based on Centre-Centre

Pipe Number	USMH Name	Manhole Volume (m ³)	Pipe Volume (m ³)	Storage Structure Volume (m ³)	Total Volume (m ³)
S1.000	S1	1.549	0.770	0.000	2.320
S2.000	S2	0.382	1.604	0.000	1.985
S2.001	S3	0.452	0.831	0.000	1.283
S2.002	S4 CP	3.269	1.349	0.887	5.505
S3.000	S5	1.583	0.506	0.000	2.089
S3.001	S6	1.696	0.609	0.000	2.305
S3.002	S7	1.866	0.406	0.000	2.272
S3.003	S8	1.979	0.821	0.000	2.800
S2.003	S9 CP	3.799	2.190	13.805	19.794
S1.001	S10 HB	6.878	0.766	0.000	7.644
Total		23.456	9.850	14.692	47.998

Calibro Consultants Ltd				Page 7				
Whitefriars Bristol BS1 2NT		Stericycle Bradman Road Knowsley Area 2 SW Drainage Network						
Date 23/12/2022 12:41		Designed by WW						
File 21-305 EAST SW DRAINAGE N...		Checked by TP						
XP Solutions		Network 2020.1						
1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for 21-305 SW Drainage Network vC								
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 1		Number of Storage Structures 2		Number of Real Time Controls 0				
Synthetic Rainfall Details								
Rainfall Model		FSR		Ratio R 0.381				
Region England and Wales Cv		(Summer)		0.750				
M5-60 (mm)		19.700 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, 180, 240, 360, 480, 600						
Return Period(s) (years)		1, 30, 100						
Climate Change (%)		0, 0, 0						
US/MH		US/CL		Water Surcharged Flooded				
PN	Name	Event	(m)	Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap.	(l/s)
S1.000	S1	15 minute 1 year Winter I+0%	39.770	38.451	-0.174	0.000	0.12	
S2.000	S2	15 minute 1 year Winter I+0%	40.350	39.049	-0.176	0.000	0.11	
S2.001	S3	15 minute 1 year Winter I+0%	40.300	38.753	-0.172	0.000	0.13	
S2.002	S4	CP 15 minute 1 year Winter I+0%	39.900	38.138	-0.137	0.000	0.32	
S3.000	S5	15 minute 1 year Winter I+0%	40.350	39.010	-0.165	0.000	0.16	
S3.001	S6	15 minute 1 year Winter I+0%	40.350	38.937	-0.138	0.000	0.31	
S3.002	S7	15 minute 1 year Winter I+0%	40.350	38.816	-0.109	0.000	0.52	
S3.003	S8	15 minute 1 year Winter I+0%	40.350	38.683	-0.142	0.000	0.29	
S2.003	S9	CP 15 minute 1 year Winter I+0%	39.900	37.889	-0.161	0.000	0.30	
S1.001	S10	HB 15 minute 1 year Winter I+0%	40.033	37.848	0.218	0.000	0.39	
US/MH		Maximum Infil.		Half Drain		Pipe		
PN	Name	Flow (l/s)	Velocity (m/s)	Time (mins)	Flow (l/s)	Status		
S1.000	S1		1.9		12.7	OK		
S2.000	S2		0.7		4.5	OK		
S2.001	S3		1.5		10.5	OK		
S2.002	S4	CP 0.0	0.9	7	12.6	OK		
S3.000	S5		0.8		6.3	OK		
S3.001	S6		1.0		14.2	OK		
S3.002	S7		1.1		22.3	OK		
©1982-2020 Innovvze								

Calibro Consultants Ltd		Page 8
Whitefriars Bristol BS1 2NT	Stericycle Bradman Road Knowsley Area 2 SW Drainage Network	
Date 23/12/2022 12:41 File 21-305 EAST SW DRAINAGE N...	Designed by WW Checked by TP	
XP Solutions		Network 2020.1

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for
21-305 SW Drainage Network vC

PN	US/MH Name	Infil. Flow (l/s)	Maximum Velocity (m/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
S3.003	S8		2.0		26.8	OK
S2.003	S9 CP	0.0	1.5	4	35.4	OK
S1.001	S10 HB		1.9		43.2	SURCHARGED

Stericycle Bradman Road
Knowsley
Area 2 SW Drainage Network



Designed by WW

Checked by TP

Network 2020.1

21-305 SW Drainage Network vC

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m ³ /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	1	Number of Storage Structures	2	Number of Real Time Controls	0

Rainfall Model	FSR	Ratio R	0.381
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.700	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

Summer and Winter

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 0

							Water	Surcharged	Flooded		
	US/MH						US/CL	Level	Depth	Volume	Flow / Overflow
PN	Name	Event					(m)	(m)	(m)	(m³)	Cap. (l/s)
S1.000	S1	15 minute	30 year	Winter	I+0%	39.770	38.728	0.103	0.000	0.29	
S2.000	S2	15 minute	30 year	Winter	I+0%	40.350	39.079	-0.146	0.000	0.26	
S2.001	S3	15 minute	30 year	Winter	I+0%	40.300	38.884	-0.041	0.000	0.35	
S2.002	S4	CP 15 minute	30 year	Winter	I+0%	39.900	38.851	0.576	0.000	0.71	
S3.000	S5	15 minute	30 year	Winter	I+0%	40.350	39.163	-0.012	0.000	0.39	
S3.001	S6	15 minute	30 year	Winter	I+0%	40.350	39.134	0.059	0.000	0.83	
S3.002	S7	15 minute	30 year	Winter	I+0%	40.350	39.034	0.109	0.000	1.38	
S3.003	S8	15 minute	30 year	Winter	I+0%	40.350	38.935	0.110	0.000	0.76	
S2.003	S9	CP 15 minute	30 year	Winter	I+0%	39.900	38.828	0.778	0.000	0.42	
S1.001	S10	HB 15 minute	30 year	Winter	I+0%	40.033	38.676	1.046	0.000	0.54	

PN	US/MH Name	Infil. Flow (l/s)	Maximum Velocity (m/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
S1.000	S1		2.4		31.1	SURCHARGED
S2.000	S2		0.9		11.0	OK
S2.001	S3		1.9		29.4	OK
S2.002	S4 CP	0.0	1.1	7	28.2	SURCHARGED
S3.000	S5		0.9		15.3	OK
S3.001	S6		1.1		37.4	SURCHARGED
S3.002	S7		1.5		59.2	SURCHARGED

Calibro Consultants Ltd		Page 10
Whitefriars Bristol BS1 2NT	Stericycle Bradman Road Knowsley Area 2 SW Drainage Network	
Date 23/12/2022 12:41 File 21-305 EAST SW DRAINAGE N...	Designed by WW Checked by TP	
XP Solutions		Network 2020.1

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for
21-305 SW Drainage Network vC

PN	US/MH Name	Infil. Flow (l/s)	Maximum Velocity (m/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
S3.003	S8		2.5		69.6	SURCHARGED
S2.003	S9 CP	0.0	1.5	10	49.5	SURCHARGED
S1.001	S10 HB		2.0		60.4	SURCHARGED

Calibro Consultants Ltd

Whitefriars
Bristol
BS1 2NT

Date 23/12/2022 12:41
File 21-305 EAST SW DRAINAGE N...

XP Solutions

Stericycle Bradman Road
Knowsley
Area 2 SW Drainage Network

Designed by WW
Checked by TP

Network 2020.1

Page 11



100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for
21-305 SW Drainage Network vC

Simulation Criteria

Areal Reduction Factor 1.000

Hot Start (mins) 0

Hot Start Level (mm) 0

Manhole Headloss Coeff (Global) 0.500

Foul Sewage per hectare (l/s) 0.000

Additional Flow - % of Total Flow 0.000

MADD Factor * 10m³/ha Storage 2.000

Inlet Coefficient 0.800

Flow per Person per Day (l/per/day) 0.000

Number of Input Hydrographs 0

Number of Offline Controls 0

Number of Time/Area Diagrams 0

Number of Online Controls 1

Number of Storage Structures 2

Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR

Region England and Wales Cv (Summer) 0.750

M5-60 (mm) 19.700 Cv (Winter) 0.840

Ratio R 0.381

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, 180, 240, 360, 480, 600

Return Period(s) (years) 1, 30, 100

Climate Change (%) 0, 0, 0

PN	US/MH Name	Event	US/CL (m)	Water Surcharged Flooded				
				Level (m)	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)
S1.000	S1	15 minute 100 year Winter I+0%	39.770	39.283	0.658	0.000	0.35	
S2.000	S2	15 minute 100 year Winter I+0%	40.350	39.497	0.272	0.000	0.34	
S2.001	S3	15 minute 100 year Winter I+0%	40.300	39.477	0.552	0.000	0.45	
S2.002	S4	CP 15 minute 100 year Winter I+0%	39.900	39.447	1.172	0.000	0.74	
S3.000	S5	15 minute 100 year Winter I+0%	40.350	39.697	0.522	0.000	0.38	
S3.001	S6	15 minute 100 year Winter I+0%	40.350	39.681	0.606	0.000	0.90	
S3.002	S7	15 minute 100 year Winter I+0%	40.350	39.628	0.703	0.000	1.53	
S3.003	S8	15 minute 100 year Winter I+0%	40.350	39.539	0.714	0.000	0.83	
S2.003	S9	CP 15 minute 100 year Winter I+0%	39.900	39.401	1.351	0.000	0.51	
S1.001	S10	HB 15 minute 100 year Winter I+0%	40.033	39.238	1.608	0.000	0.64	

PN	US/MH Name	Infil. Flow (l/s)	Maximum Half Drain Pipe			Status
			Velocity (m/s)	Time (mins)	Flow (l/s)	
S1.000	S1		2.5		37.0	SURCHARGED
S2.000	S2		1.0		14.2	SURCHARGED
S2.001	S3		2.0		37.9	SURCHARGED
S2.002	S4	CP 0.0	1.0	9	29.4	SURCHARGED
S3.000	S5		0.9		15.1	SURCHARGED
S3.001	S6		1.2		41.0	SURCHARGED
S3.002	S7		1.7		65.9	SURCHARGED

©1982-2020 Innovvze

Calibro Consultants Ltd		Page 12
Whitefriars Bristol BS1 2NT	Stericycle Bradman Road Knowsley Area 2 SW Drainage Network	
Date 23/12/2022 12:41 File 21-305 EAST SW DRAINAGE N...	Designed by WW Checked by TP	
XP Solutions		Network 2020.1

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for
21-305 SW Drainage Network vC

PN	US/MH Name	Infil. Flow (l/s)	Maximum Velocity (m/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
S3.003	S8		2.5		75.9	SURCHARGED
S2.003	S9 CP	0.0	1.5	12	60.0	SURCHARGED
S1.001	S10 HB		2.1		72.2	SURCHARGED