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St Andrew's House 23 Kingfield Road Sheffield S11 9AS	Miller Homes Cross Lane Scholes FW design	
Date Jan 2018 File net1.mdx	Designed by CH Checked by	
Micro Drainage		Network 2016.1

FOUL SEWERAGE DESIGN

Network Design Table for NET1 JAN.FWS

PN	Length (m)	Fall (m)	Slope (1:X)	Area (ha)	Houses	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
F1.000	22.474	0.283	79.5	0.000	6	0.0	1.500	o	150	Pipe/Conduit	
F1.001	14.833	0.199	74.6	0.000	5	0.0	1.500	o	150	Pipe/Conduit	
F1.002	31.562	0.905	34.9	0.000	5	0.0	1.500	o	150	Pipe/Conduit	
F1.003	15.184	0.535	28.4	0.000	2	0.0	1.500	o	150	Pipe/Conduit	
F1.004	24.693	0.916	27.0	0.000	1	0.0	1.500	o	150	Pipe/Conduit	
F1.005	36.075	1.449	24.9	0.000	9	0.0	1.500	o	150	Pipe/Conduit	
F1.006	52.265	0.540	96.8	0.000	11	0.0	1.500	o	150	Pipe/Conduit	
F1.007	86.768	0.909	95.5	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
F1.008	84.407	3.696	22.8	0.000	0	0.0	1.500	o	150	Pipe/Conduit	

Network Results Table

PN	US/IL (m)	Σ Area (ha)	Σ Base Flow (l/s)	Σ Hse	Add Flow (l/s)	P.Dep (mm)	P.Vel (m/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
F1.000	270.671	0.000	0.0	6	0.0	14	0.35	0.98	17.4	0.3
F1.001	270.388	0.000	0.0	11	0.0	18	0.44	1.02	17.9	0.5
F1.002	270.189	0.000	0.0	16	0.0	18	0.64	1.49	26.3	0.8
F1.003	269.284	0.000	0.0	18	0.0	18	0.71	1.65	29.1	0.8
F1.004	268.749	0.000	0.0	19	0.0	18	0.74	1.69	29.9	0.9
F1.005	267.833	0.000	0.0	28	0.0	21	0.86	1.76	31.1	1.3
F1.006	266.384	0.000	0.0	39	0.0	35	0.59	0.89	15.7	1.8
F1.007	265.844	0.000	0.0	39	0.0	35	0.59	0.90	15.8	1.8
F1.008	264.935	0.000	0.0	39	0.0	24	0.98	1.84	32.5	1.8

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Manhole Schedules for NET1 JAN.FWS

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)
F1	272.541	1.870	Open Manhole	1200	F1.000	270.671	150				
F2	272.588	2.200	Open Manhole	1200	F1.001	270.388	150	F1.000	270.388	150	
F3	272.098	1.908	Open Manhole	1200	F1.002	270.189	150	F1.001	270.190	150	
F4	270.985	1.701	Open Manhole	1200	F1.003	269.284	150	F1.002	269.284	150	
F5	270.451	1.701	Open Manhole	1200	F1.004	268.749	150	F1.003	268.749	150	
F6	269.525	1.692	Open Manhole	1200	F1.005	267.833	150	F1.004	267.833	150	
F7	268.017	1.633	Open Manhole	1200	F1.006	266.384	150	F1.005	266.384	150	
F8	269.118	3.274	Open Manhole	1200	F1.007	265.844	150	F1.006	265.844	150	
F9	266.285	1.350	Open Manhole	1200	F1.008	264.935	150	F1.007	264.935	150	
F10	262.589	1.350	Open Manhole	1200		OUTFALL		F1.008	261.239	150	

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PIPELINE SCHEDULES for NET1 JAN.FWS

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)
F1.000	o	150	F1	272.541	270.671	1.720	Open Manhole	1200
F1.001	o	150	F2	272.588	270.388	2.050	Open Manhole	1200
F1.002	o	150	F3	272.098	270.189	1.758	Open Manhole	1200
F1.003	o	150	F4	270.985	269.284	1.551	Open Manhole	1200
F1.004	o	150	F5	270.451	268.749	1.551	Open Manhole	1200
F1.005	o	150	F6	269.525	267.833	1.542	Open Manhole	1200
F1.006	o	150	F7	268.017	266.384	1.482	Open Manhole	1200
F1.007	o	150	F8	269.118	265.844	3.124	Open Manhole	1200
F1.008	o	150	F9	266.285	264.935	1.200	Open Manhole	1200

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)
F1.000	22.474	79.5	F2	272.588	270.388	2.050	Open Manhole	1200
F1.001	14.833	74.6	F3	272.098	270.190	1.758	Open Manhole	1200
F1.002	31.562	34.9	F4	270.985	269.284	1.551	Open Manhole	1200
F1.003	15.184	28.4	F5	270.451	268.749	1.551	Open Manhole	1200
F1.004	24.693	27.0	F6	269.525	267.833	1.542	Open Manhole	1200
F1.005	36.075	24.9	F7	268.017	266.384	1.483	Open Manhole	1200
F1.006	52.265	96.8	F8	269.118	265.844	3.124	Open Manhole	1200
F1.007	86.768	95.5	F9	266.285	264.935	1.200	Open Manhole	1200
F1.008	84.407	22.8	F10	262.589	261.239	1.200	Open Manhole	1200

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<u>Setting Out Information - True Coordinates (NET1 JAN.FWS)</u>						
PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Layout (North)
F1.000	F1	1200		415188.769	407036.657	
F1.001	F2	1200		415167.788	407044.714	
F1.002	F3	1200		415161.505	407058.150	
F1.003	F4	1200		415171.868	407087.962	
F1.004	F5	1200		415185.563	407094.521	
F1.005	F6	1200		415209.192	407087.352	
F1.006	F7	1200		415221.002	407121.438	
F1.007	F8	1200		415176.256	407148.446	
F1.008	F9	1200		415220.462	407223.109	
PN	DSMH Name	Dia/Len (mm)	Width (mm)	DS Easting (m)	DS Northing (m)	Layout (North)
F1.008	F10	1200		415263.747	407295.573	
<u>Simulation Criteria for NET1 JAN.FWS</u>						
Volumetric Runoff Coeff		0.750	Additional Flow - % of Total Flow		0.000	
Areal Reduction Factor		1.000	MADD Factor * 10m³/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	
<u>Synthetic Rainfall Details</u>						
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Simulation Criteria for NET1 JAN.FWS

Rainfall Model	FSR	Profile Type Summer
Return Period (years)	0	Cv (Summer) 0.750
Region England and Wales		Cv (Winter) 0.840
M5-60 (mm)	0.000	Storm Duration (mins) 30
Ratio R	0.000	

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