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Cavendish House 10-11 Birmingham Street Halesowen W.Midlands B63 3HN	Pennycroft Lane FWS network 2	
Date 12-12-2014 File PENNYCROFT FWS NETWORK ...	Designed by scm Checked by	
XP Solutions		Network 2015.1







FOUL SEWERAGE DESIGNDesign Criteria for FOUL WATER NETWORK 1 15.02.16.FWS

Pipe Sizes FOUL WATER NETWORK 2 15.02.16 EXP
Manhole Sizes FOUL WATER NETWORK 2 15.02.16 EXP

Industrial Flow (l/s/ha)	0.00	Add Flow / Climate Change (%)	10
Industrial Peak Flow Factor	0.00	Minimum Backdrop Height (m)	5.000
Flow Per Person (l/per/day)	225.00	Maximum Backdrop Height (m)	10.000
Persons per House	3.00	Min Design Depth for Optimisation (m)	1.200
Domestic (l/s/ha)	0.00	Min Vel for Auto Design only (m/s)	1.00
Domestic Peak Flow Factor	6.00	Min Slope for Optimisation (1:X)	500


Designed with Level Soffits

Network Design Table for FOUL WATER NETWORK 1 15.02.16.FWS

PN	Length (m)	Fall (m)	Slope (1:X)	Area (ha)	Houses	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
F1.000	12.830	0.086	149.2	0.000	10	0.0	1.500	o	150	
F1.001	24.218	0.764	31.7	0.000	0	0.0	1.500	o	150	
F2.000	15.086	0.250	60.3	0.000	4	0.0	1.500	o	150	
F1.002	23.866	0.146	163.5	0.000	2	0.0	1.500	o	150	
F1.003	6.456	0.043	150.1	0.000	3	0.0	1.500	o	150	
F1.004	9.932	0.100	99.3	0.000	0	0.0	1.500	o	150	

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	83.300	0.000	0.0	10	0.0	21	0.34	0.72	12.7	0.5
F1.001	83.214	0.000	0.0	10	0.0	15	0.59	1.56	27.6	0.5
F2.000	82.700	0.000	0.0	4	0.0	11	0.35	1.13	20.0	0.2
F1.002	82.450	0.000	0.0	16	0.1	27	0.39	0.68	12.1	0.8
F1.003	82.304	0.000	0.0	19	0.1	29	0.42	0.71	12.6	1.0
F1.004	82.261	0.000	0.0	19	0.1	26	0.48	0.88	15.5	1.0

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Manhole Schedules for FOUL WATER NETWORK 1 15.02.16.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	85.362	2.062	Open Manhole	1200	F1.000	83.300	150				
F2	85.100	1.886	Open Manhole	1200	F1.001	83.214	150	F1.000	83.214	150	
F4	84.632	1.932	Open Manhole	1200	F2.000	82.700	150				
F3	84.535	2.085	Open Manhole	1200	F1.002	82.450	150	F1.001	82.450	150	
								F2.000	82.450	150	
F5	84.425	2.121	Open Manhole	1200	F1.003	82.304	150	F1.002	82.304	150	
F6	84.368	2.107	Open Manhole	1200	F1.004	82.261	150	F1.003	82.261	150	
F7	84.210	2.049	Open Manhole	0		OUTFALL		F1.004	82.161	150	

Free Flowing Outfall Details for FOUL WATER NETWORK 1 15.02.16.FWS

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
F1.004	F7	84.210	82.161	80.100	0	0