

Stephen Daykin Consulting Ltd		Page 0
33 Beaumaris Drive Gedling Nottingham NG4 2RA		
Date 01/01/0001	Designed by JoWard	
File E970 - FOUL NETWORK 2 (V...	Checked by	
Innovyze	Network 2018.1.1	

FOUL SEWERAGE DESIGN

Design Criteria for NETWORK 2 FOUL.FWS

Pipe Sizes E970 - FOUL NETWORK 2 (V2) Manhole Sizes E970 - FOUL NETWORK 2 (V2)

Industrial Flow (l/s/ha)	0.00	Add Flow / Climate Change (%)	10
Industrial Peak Flow Factor	0.00	Minimum Backdrop Height (m)	0.200
Flow Per Person (l/per/day)	225.00	Maximum Backdrop Height (m)	0.000
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)	0.75
Domestic Peak Flow Factor	6.00	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Network Design Table for NETWORK 2 FOUL.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
1.000	31.365	0.800	39.2	0.000	8	0.0	1.500	o	150	Pipe/Conduit	
1.001	25.838	0.725	35.6	0.000	5	0.0	1.500	o	150	Pipe/Conduit	
1.002	33.392	1.750	19.1	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
1.003	68.538	4.700	14.6	0.000	6	0.0	1.500	o	150	Pipe/Conduit	
2.000	26.693	1.200	22.2	0.000	4	0.0	1.500	o	150	Pipe/Conduit	
1.004	41.652	2.100	19.8	0.000	5	0.0	1.500	o	150	Pipe/Conduit	
1.005	6.873	0.100	68.7	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
1.006	64.607	0.425	152.0	0.000	3	0.0	1.500	o	150	Pipe/Conduit	
1.007	36.109	0.325	111.1	0.000	4	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)
1.000	117.175	0.000	0.0	8	0.0	14	0.51	1.40	24.8	0.4
1.001	116.375	0.000	0.0	13	0.1	17	0.61	1.47	26.0	0.7
1.002	115.650	0.000	0.0	13	0.1	15	0.76	2.01	35.6	0.7
1.003	113.900	0.000	0.0	19	0.1	16	0.94	2.30	40.7	1.0
2.000	110.400	0.000	0.0	4	0.0	9	0.49	1.86	32.9	0.2
1.004	109.200	0.000	0.0	28	0.1	21	0.96	1.97	34.9	1.4
1.005	107.100	0.000	0.0	28	0.1	28	0.62	1.06	18.7	1.4
1.006	107.000	0.000	0.0	31	0.1	36	0.48	0.71	12.5	1.6
1.007	106.575	0.000	0.0	35	0.2	36	0.56	0.83	14.7	1.8

Stephen Daykin Consulting Ltd		Page 1
33 Beaumaris Drive Gedling Nottingham NG4 2RA		
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Network Design Table for NETWORK 2 FOUL.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
1.008	54.564	0.400	136.4	0.000	4	0.0	1.500	o	150	Pipe/Conduit	
1.009	11.804	0.100	118.0	0.000	21	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)
1.008	106.250	0.000	0.0	39	0.2	40	0.54	0.75	13.2	2.0
1.009	105.850	0.000	0.0	60	0.3	48	0.64	0.81	14.2	3.1

Stephen Daykin Consulting Ltd		Page 2
33 Beaumaris Drive Gedling Nottingham NG4 2RA		
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Network Classifications for NETWORK 2 FOUL.FWS

PN	USMH Name	Pipe Dia (mm)	Min Cover Depth (m)	Max Cover Depth (m)	Pipe Type	MH Dia (mm)	MH Width (mm)	MH Ring Depth (m)	MH Type
1.000	200	150	1.603	1.790	Unclassified	1200	0	1.603	Unclassified
1.001	201	150	1.332	1.812	Unclassified	1200	0	1.790	Unclassified
1.002	202	150	1.267	1.800	Unclassified	1200	0	1.800	Unclassified
1.003	203	150	1.517	1.800	Unclassified	1200	0	1.800	Unclassified
2.000	213	150	1.635	1.748	Unclassified	1200	0	1.635	Unclassified
1.004	204	150	1.343	1.748	Unclassified	1200	0	1.748	Unclassified
1.005	205	150	1.234	1.373	Unclassified	1200	0	1.373	Unclassified
1.006	206	150	1.234	2.723	Unclassified	1200	0	1.234	Unclassified
1.007	207	150	2.119	2.800	Unclassified	1200	0	2.723	Unclassified
1.008	209	150	2.630	3.242	Unclassified	1200	0	2.800	Unclassified
1.009	210	150	3.181	3.501	Unclassified	1200	0	3.242	Unclassified

Free Flowing Outfall Details for NETWORK 2 FOUL.FWS

Outfall Pipe Number	Outfall C. Name	Level I. (m)	Level I. (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.009	211	109.400	105.750	0.000	0	0

Simulation Criteria for NETWORK 2 FOUL.FWS

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 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	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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