

Jubb Consulting Engineers Limited		Page 1
Unit 1, Ensign House Parkway Court, Longbridge Road Plymouth, PL6 8LR	VICTORIA ROAD WARMINSTER FWS NETWORK 2	
Date 17/02/2026	Designed by EPH	
File FWS NETWORK 2 - 130226.MDX	Checked by	
Innovyze	Network 2019.1	

FOUL SEWERAGE DESIGN

Design Criteria for Foul - Main

Pipe Sizes STANDARD Manhole Sizes STANDARD

Industrial Flow (l/s/ha)	0.00	Add Flow / Climate Change (%)	0
Industrial Peak Flow Factor	0.00	Minimum Backdrop Height (m)	0.200
Flow Per Person (l/per/day)	222.00	Maximum Backdrop Height (m)	1.500
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 Foul - Main

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	28.616	0.800	35.8	0.000	6	0.0	1.500	o	100	Pipe/Conduit	
1.001	40.577	1.130	35.9	0.000	8	0.0	1.500	o	150	Pipe/Conduit	
1.002	12.470	0.405	30.8	0.000	3	0.0	1.500	o	150	Pipe/Conduit	
2.000	15.548	0.195	79.7	0.000	8	0.0	1.500	o	100	Pipe/Conduit	
2.001	6.401	0.080	80.0	0.000	0	0.0	1.500	o	100	Pipe/Conduit	
1.003	24.480	0.165	148.4	0.000	3	0.0	1.500	o	150	Pipe/Conduit	
1.004	9.284	0.112	82.9	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
1.005	22.022	0.231	95.3	0.000	5	0.0	1.500	o	150	Pipe/Conduit	
1.006	31.628	0.357	88.6	0.000	9	0.0	1.500	o	150	Pipe/Conduit	
3.000	39.180	0.490	80.0	0.000	6	0.0	1.500	o	100	Pipe/Conduit	
3.001	23.926	0.300	79.8	0.000	3	0.0	1.500	o	100	Pipe/Conduit	

Network Results Table

PN	US/IL (m)	E Area (ha)	E Base Flow (l/s)	E Hse	Add Flow (l/s)	P.Dep (mm)	P.Vel (m/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	135.760	0.000	0.0	6	0.0	13	0.49	1.12	8.8	0.3
1.001	134.910	0.000	0.0	14	0.0	17	0.61	1.47	25.9	0.6
1.002	133.780	0.000	0.0	17	0.0	18	0.68	1.58	28.0	0.8
2.000	133.700	0.000	0.0	8	0.0	17	0.41	0.75	5.9	0.4
2.001	133.505	0.000	0.0	8	0.0	17	0.41	0.74	5.8	0.4
1.003	133.375	0.000	0.0	28	0.0	33	0.46	0.72	12.7	1.3
1.004	133.210	0.000	0.0	28	0.0	28	0.56	0.96	17.0	1.3
1.005	133.098	0.000	0.0	33	0.0	32	0.56	0.90	15.9	1.5
1.006	132.867	0.000	0.0	42	0.0	35	0.62	0.93	16.4	1.9
3.000	133.570	0.000	0.0	6	0.0	15	0.37	0.74	5.8	0.3
3.001	133.080	0.000	0.0	9	0.0	18	0.42	0.74	5.9	0.4

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Network Design Table for Foul - Main

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
3.002	32.874	0.220	149.4	0.000	7	0.0	1.500	o	150	Pipe/Conduit	
1.007	31.414	0.210	149.6	0.000	6	0.0	1.500	o	150	Pipe/Conduit	
1.008	36.822	0.250	147.3	0.000	9	0.0	1.500	o	150	Pipe/Conduit	
1.009	6.164	0.265	23.3	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
4.000	62.253	0.930	66.9	0.000	8	0.0	1.500	o	100	Pipe/Conduit	
4.001	10.877	0.140	77.7	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
4.002	8.024	0.110	72.9	0.000	0	0.0	1.500	o	100	Pipe/Conduit	
4.003	15.222	0.190	80.0	0.000	0	0.0	1.500	o	100	Pipe/Conduit	
4.004	7.415	0.050	148.3	0.000	1	0.0	1.500	o	150	Pipe/Conduit	
1.010	51.635	0.345	149.7	0.000	5	0.0	1.500	o	150	Pipe/Conduit	
1.011	12.310	0.085	144.8	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)
3.002	132.730	0.000	0.0	16	0.0	25	0.38	0.72	12.6	0.7
1.007	132.510	0.000	0.0	64	0.0	49	0.58	0.72	12.6	3.0
1.008	132.300	0.000	0.0	73	0.0	53	0.61	0.72	12.7	3.4
1.009	132.050	0.000	0.0	73	0.0	33	1.17	1.82	32.2	3.4
4.000	133.255	0.000	0.0	8	0.0	17	0.43	0.81	6.4	0.4
4.001	132.325	0.000	0.0	9	0.0	18	0.43	0.75	5.9	0.4
4.002	132.185	0.000	0.0	9	0.0	18	0.44	0.78	6.1	0.4
4.003	132.075	0.000	0.0	9	0.0	18	0.42	0.74	5.8	0.4
4.004	131.835	0.000	0.0	10	0.0	20	0.33	0.72	12.7	0.5
1.010	131.785	0.000	0.0	88	0.0	59	0.64	0.71	12.6	4.1
1.011	131.440	0.000	0.0	88	0.0	58	0.64	0.73	12.8	4.1

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Manhole Schedules for Foul - Main

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)
52	137.732	1.972	Open Manhole	1200	1.000	135.760	100				
53	136.700	1.790	Open Manhole	1200	1.001	134.910	150	1.000	134.960	100	
54	136.450	2.670	Open Manhole	1200	1.002	133.780	150	1.001	133.780	150	
55	135.615	1.915	Open Manhole	1200	2.000	133.700	100				
56	135.980	2.475	Open Manhole	1200	2.001	133.505	100	2.000	133.505	100	
55	135.615	2.240	Open Manhole	1200	1.003	133.375	150	1.002	133.375	150	
								2.001	133.425	100	
58	135.825	2.615	Open Manhole	1200	1.004	133.210	150	1.003	133.210	150	
59	135.660	2.562	Open Manhole	1200	1.005	133.098	150	1.004	133.098	150	
60	135.213	2.346	Open Manhole	1200	1.006	132.867	150	1.005	132.867	150	
61	134.870	1.300	Open Manhole	1200	3.000	133.570	100				
62	134.445	1.365	Open Manhole	1200	3.001	133.080	100	3.000	133.080	100	
63	134.690	1.960	Open Manhole	1200	3.002	132.730	150	3.001	132.780	100	
61	134.850	2.340	Open Manhole	1200	1.007	132.510	150	1.006	132.510	150	
								3.002	132.510	150	
65	134.850	2.550	Open Manhole	1200	1.008	132.300	150	1.007	132.300	150	
66	133.910	1.860	Open Manhole	1200	1.009	132.050	150	1.008	132.050	150	
67	135.150	1.895	Open Manhole	1200	4.000	133.255	100				
68	133.925	1.600	Open Manhole	1200	4.001	132.325	100	4.000	132.325	100	
69	133.800	1.615	Open Manhole	1200	4.002	132.185	100	4.001	132.185	100	
70	133.675	1.600	Open Manhole	1200	4.003	132.075	100	4.002	132.075	100	
71	133.800	1.965	Open Manhole	1200	4.004	131.835	150	4.003	131.885	100	
67	133.910	2.125	Open Manhole	1200	1.010	131.785	150	1.009	131.785	150	
								4.004	131.785	150	
68	133.810	2.370	Open Manhole	1200	1.011	131.440	150	1.010	131.440	150	
PUMP STN	133.350	1.995	Open Manhole	0		OUTFALL		1.011	131.355	150	

No coordinates have been specified, layout information cannot be produced.

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PIPELINE SCHEDULES for Foul - Main

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)
1.000	o	100	52	137.732	135.760	1.872	Open Manhole	1200
1.001	o	150	53	136.700	134.910	1.640	Open Manhole	1200
1.002	o	150	54	136.450	133.780	2.520	Open Manhole	1200
2.000	o	100	55	135.615	133.700	1.815	Open Manhole	1200
2.001	o	100	56	135.980	133.505	2.375	Open Manhole	1200
1.003	o	150	55	135.615	133.375	2.090	Open Manhole	1200
1.004	o	150	58	135.825	133.210	2.465	Open Manhole	1200
1.005	o	150	59	135.660	133.098	2.412	Open Manhole	1200
1.006	o	150	60	135.213	132.867	2.196	Open Manhole	1200
3.000	o	100	61	134.870	133.570	1.200	Open Manhole	1200
3.001	o	100	62	134.445	133.080	1.265	Open Manhole	1200
3.002	o	150	63	134.690	132.730	1.810	Open Manhole	1200
1.007	o	150	61	134.850	132.510	2.190	Open Manhole	1200
1.008	o	150	65	134.850	132.300	2.400	Open Manhole	1200
1.009	o	150	66	133.910	132.050	1.710	Open Manhole	1200
4.000	o	100	67	135.150	133.255	1.795	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)
1.000	28.616	35.8	53	136.700	134.960	1.640	Open Manhole	1200
1.001	40.577	35.9	54	136.450	133.780	2.520	Open Manhole	1200
1.002	12.470	30.8	55	135.615	133.375	2.090	Open Manhole	1200
2.000	15.548	79.7	56	135.980	133.505	2.375	Open Manhole	1200
2.001	6.401	80.0	55	135.615	133.425	2.090	Open Manhole	1200
1.003	24.480	148.4	58	135.825	133.210	2.465	Open Manhole	1200
1.004	9.284	82.9	59	135.660	133.098	2.412	Open Manhole	1200
1.005	22.022	95.3	60	135.213	132.867	2.196	Open Manhole	1200
1.006	31.628	88.6	61	134.850	132.510	2.190	Open Manhole	1200
3.000	39.180	80.0	62	134.445	133.080	1.265	Open Manhole	1200
3.001	23.926	79.8	63	134.690	132.780	1.810	Open Manhole	1200
3.002	32.874	149.4	61	134.850	132.510	2.190	Open Manhole	1200
1.007	31.414	149.6	65	134.850	132.300	2.400	Open Manhole	1200
1.008	36.822	147.3	66	133.910	132.050	1.710	Open Manhole	1200
1.009	6.164	23.3	67	133.910	131.785	1.975	Open Manhole	1200
4.000	62.253	66.9	68	133.925	132.325	1.500	Open Manhole	1200

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PIPELINE SCHEDULES for Foul - Main

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)
4.001	o	100	68	133.925	132.325	1.500	Open Manhole	1200
4.002	o	100	69	133.800	132.185	1.515	Open Manhole	1200
4.003	o	100	70	133.675	132.075	1.500	Open Manhole	1200
4.004	o	150	71	133.800	131.835	1.815	Open Manhole	1200
1.010	o	150	67	133.910	131.785	1.975	Open Manhole	1200
1.011	o	150	68	133.810	131.440	2.220	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)
4.001	10.877	77.7	69	133.800	132.185	1.515	Open Manhole	1200
4.002	8.024	72.9	70	133.675	132.075	1.500	Open Manhole	1200
4.003	15.222	80.0	71	133.800	131.885	1.815	Open Manhole	1200
4.004	7.415	148.3	67	133.910	131.785	1.975	Open Manhole	1200
1.010	51.635	149.7	68	133.810	131.440	2.220	Open Manhole	1200
1.011	12.310	144.8	PUMP STN	133.350	131.355	1.845	Open Manhole	0

Free Flowing Outfall Details for Foul - Main

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.011	PUMP STN	133.350	131.355	0.000	0	0