

Saxon Fields, Havant Road, Emsworth

Adoptable Drainage Schedules

Barratt Homes

Job No: 1012052
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Project title	Fields, Havant Road, Emsworth	Job Number
Report title	Adoptable Drainage Schedules	1012052

Document Revision History

Revision Ref	Issue Date	Purpose of issue / description of revision
—	13 April 2018	Issued for tender

Document Validation (latest issue)

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Cundall, Johnston & Partners		Page 1
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
Date 13/04/2018 18:27	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface A & B

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	10.039	0.067	149.8	0.026	5.00	0.0	0.600	o	150	Pipe/Conduit	
S1.001	29.951	0.100	299.5	0.028	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.002	10.325	0.028	375.0	0.000	0.00	0.0	0.600	o	375	Pipe/Conduit	
S1.003	24.365	0.061	399.4	0.032	0.00	0.0	0.600	o	450	Pipe/Conduit	
S2.000	6.910	0.391	17.7	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S1.004	32.207	0.081	397.6	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
S3.000	52.572	0.175	300.4	0.082	5.00	0.0	0.600	o	300	Pipe/Conduit	
S4.000	25.700	0.086	300.0	0.047	5.00	0.0	0.600	o	300	Pipe/Conduit	
S3.001	64.862	0.216	300.3	0.102	0.00	0.0	0.600	o	300	Pipe/Conduit	
S3.002	9.004	0.030	300.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.005	33.870	0.085	400.0	0.028	0.00	0.0	0.600	o	450	Pipe/Conduit	
S5.000	7.745	0.052	148.9	0.050	5.00	0.0	0.600	o	150	Pipe/Conduit	
S1.006	19.736	0.049	400.0	0.028	0.00	0.0	0.600	o	450	Pipe/Conduit	
S1.007	10.613	0.027	400.0	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
S6.000	5.636	0.019	296.6	0.000	5.00	0.0	0.600	o	300	Pipe/Conduit	
S1.008	27.919	0.070	400.0	0.030	0.00	0.0	0.600	o	450	Pipe/Conduit	
S1.009	10.316	0.026	400.0	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
S7.000	8.626	0.516	16.7	0.008	5.00	0.0	0.600	o	150	Pipe/Conduit	
S1.010	15.869	0.040	400.0	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
S8.000	18.464	0.062	297.8	0.000	5.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	E I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S1.000	0.00	5.20	9.397	0.026	0.0	0.0	0.0	0.82	14.5	0.0
S1.001	0.00	5.76	9.180	0.054	0.0	0.0	0.0	0.90	63.8	0.0
S1.002	0.00	5.94	9.005	0.054	0.0	0.0	0.0	0.93	102.7	0.0
S1.003	0.00	6.34	8.902	0.086	0.0	0.0	0.0	1.01	160.8	0.0
S2.000	0.00	5.05	9.733	0.000	0.0	0.0	0.0	2.41	42.5	0.0
S1.004	0.00	6.87	8.841	0.086	0.0	0.0	0.0	1.01	161.2	0.0
S3.000	0.00	5.97	9.200	0.082	0.0	0.0	0.0	0.90	63.8	0.0
S4.000	0.00	5.47	9.210	0.047	0.0	0.0	0.0	0.90	63.8	0.0
S3.001	0.00	7.17	9.025	0.231	0.0	0.0	0.0	0.90	63.8	0.0
S3.002	0.00	7.34	8.809	0.231	0.0	0.0	0.0	0.90	63.8	0.0
S1.005	0.00	7.89	8.629	0.345	0.0	0.0	0.0	1.01	160.7	0.0
S5.000	0.00	5.16	9.184	0.050	0.0	0.0	0.0	0.82	14.5	0.0
S1.006	0.00	8.22	8.544	0.423	0.0	0.0	0.0	1.01	160.7	0.0
S1.007	0.00	8.40	8.495	0.423	0.0	0.0	0.0	1.01	160.7	0.0
S6.000	0.00	5.10	9.210	0.000	0.0	0.0	0.0	0.91	64.2	0.0
S1.008	0.00	8.86	8.468	0.453	0.0	0.0	0.0	1.01	160.7	0.0
S1.009	0.00	9.03	8.399	0.453	0.0	0.0	0.0	1.01	160.7	0.0
S7.000	0.00	5.06	9.840	0.008	0.0	0.0	0.0	2.48	43.8	0.0
S1.010	0.00	9.29	8.373	0.461	0.0	0.0	0.0	1.01	160.7	0.0
S8.000	0.00	5.34	9.335	0.000	0.0	0.0	0.0	0.91	64.0	0.0

Cundall, Johnston & Partners		Page 2
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
Date 13/04/2018 18:27 File DRAINAGE ZONES A & B SURFACE WA...	Designed by AJWC Checked by SP	
Micro Drainage	Network 2017.1.2	

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface A & B

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
S8.001	5.329	0.018	296.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.011	22.134	0.055	402.4	0.034	0.00	0.0	0.600	o	450	Pipe/Conduit	
S9.000	9.678	0.032	302.4	0.000	5.00	0.0	0.600	o	300	Pipe/Conduit	
S1.012	16.470	0.041	401.7	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
S1.013	5.881	0.015	392.1	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
S10.000	6.309	0.042	150.2	0.009	5.00	0.0	0.600	o	150	Pipe/Conduit	
S10.001	6.637	0.044	150.8	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
S1.014	10.067	0.025	402.7	0.067	0.00	0.0	0.600	o	600	Pipe/Conduit	
S1.015	8.070	0.020	400.0	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
S11.000	7.145	0.397	18.0	0.010	5.00	0.0	0.600	o	150	Pipe/Conduit	
S1.016	12.683	0.032	400.0	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
S12.000	7.150	0.706	10.1	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S1.017	13.394	0.033	400.0	0.030	0.00	0.0	0.600	o	600	Pipe/Conduit	
S13.000	36.878	0.123	299.8	0.040	5.00	0.0	0.600	o	300	Pipe/Conduit	
S14.000	7.503	0.050	150.1	0.037	5.00	0.0	0.600	o	150	Pipe/Conduit	
S13.001	10.214	0.034	300.4	0.012	0.00	0.0	0.600	o	300	Pipe/Conduit	
S13.002	15.351	0.051	301.0	0.033	0.00	0.0	0.600	o	300	Pipe/Conduit	
S15.000	6.407	0.043	149.0	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S13.003	10.370	0.035	296.3	0.010	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	E I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S8.001	0.00	5.44	9.273	0.000	0.0	0.0	0.0	0.91	64.2	0.0
S1.011	0.00	9.65	8.333	0.495	0.0	0.0	0.0	1.01	160.2	0.0
S9.000	0.00	5.18	9.234	0.000	0.0	0.0	0.0	0.90	63.5	0.0
S1.012	0.00	9.93	8.278	0.495	0.0	0.0	0.0	1.01	160.3	0.0
S1.013	0.00	10.01	8.087	0.495	0.0	0.0	0.0	1.22	346.0	0.0
S10.000	0.00	5.13	9.366	0.009	0.0	0.0	0.0	0.82	14.4	0.0
S10.001	0.00	5.26	9.324	0.009	0.0	0.0	0.0	0.82	14.4	0.0
S1.014	0.00	10.15	8.072	0.571	0.0	0.0	0.0	1.21	341.4	0.0
S1.015	0.00	10.26	8.047	0.571	0.0	0.0	0.0	1.21	342.5	0.0
S11.000	0.00	5.05	9.545	0.010	0.0	0.0	0.0	2.39	42.2	0.0
S1.016	0.00	10.43	8.027	0.581	0.0	0.0	0.0	1.21	342.5	0.0
S12.000	0.00	5.04	9.955	0.000	0.0	0.0	0.0	3.18	56.3	0.0
S1.017	0.00	10.62	7.995	0.611	0.0	0.0	0.0	1.21	342.5	0.0
S13.000	0.00	5.68	9.365	0.040	0.0	0.0	0.0	0.90	63.8	0.0
S14.000	0.00	5.15	9.600	0.037	0.0	0.0	0.0	0.82	14.5	0.0
S13.001	0.00	5.87	9.242	0.089	0.0	0.0	0.0	0.90	63.8	0.0
S13.002	0.00	6.15	9.208	0.122	0.0	0.0	0.0	0.90	63.7	0.0
S15.000	0.00	5.13	10.202	0.000	0.0	0.0	0.0	0.82	14.5	0.0
S13.003	0.00	6.34	9.157	0.132	0.0	0.0	0.0	0.91	64.2	0.0

Cundall, Johnston & Partners		Page 3
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
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Micro Drainage		Network 2017.1.2

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface A & B

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
S16.000	18.435	0.024	784.5	0.050	5.00	0.0	0.600	o	300	Pipe/Conduit	
S16.001	14.191	0.024	591.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S16.002	11.034	0.037	298.2	0.014	0.00	0.0	0.600	o	300	Pipe/Conduit	
S13.004	32.753	0.109	300.5	0.038	0.00	0.0	0.600	o	300	Pipe/Conduit	
S17.000	7.003	0.670	10.5	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S13.005	10.547	0.035	301.3	0.098	0.00	0.0	0.600	o	300	Pipe/Conduit	
S18.000	5.127	0.597	8.6	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S13.006	1.857	0.006	309.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S19.000	6.634	0.578	11.5	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S13.007	10.556	0.035	301.6	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S20.000	6.634	0.426	15.6	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S13.008	4.833	0.016	302.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S21.000	5.248	0.548	9.6	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S13.009	12.539	0.042	298.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S13.010	13.590	0.045	302.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.018	15.710	0.039	402.8	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
S22.000	5.088	0.256	19.9	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S22.001	18.033	0.060	300.6	0.079	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	E I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S16.000	0.00	5.55	10.000	0.050	0.0	0.0	0.0	0.55	39.1	0.0
S16.001	0.00	5.92	9.977	0.050	0.0	0.0	0.0	0.64	45.2	0.0
S16.002	0.00	6.13	9.953	0.064	0.0	0.0	0.0	0.91	64.0	0.0
S13.004	0.00	6.95	9.122	0.234	0.0	0.0	0.0	0.90	63.7	0.0
S17.000	0.00	5.04	10.505	0.000	0.0	0.0	0.0	3.13	55.4	0.0
S13.005	0.00	7.14	9.013	0.332	0.0	0.0	0.0	0.90	63.7	0.0
S18.000	0.00	5.02	10.388	0.000	0.0	0.0	0.0	3.46	61.1	0.0
S13.006	0.00	7.18	8.978	0.332	0.0	0.0	0.0	0.89	62.8	0.0
S19.000	0.00	5.04	10.361	0.000	0.0	0.0	0.0	2.99	52.9	0.0
S13.007	0.00	7.37	8.972	0.332	0.0	0.0	0.0	0.90	63.6	0.0
S20.000	0.00	5.04	10.165	0.000	0.0	0.0	0.0	2.57	45.3	0.0
S13.008	0.00	7.46	8.937	0.332	0.0	0.0	0.0	0.90	63.6	0.0
S21.000	0.00	5.03	10.267	0.000	0.0	0.0	0.0	3.28	57.9	0.0
S13.009	0.00	7.70	8.921	0.332	0.0	0.0	0.0	0.90	64.0	0.0
S13.010	0.00	7.95	8.879	0.332	0.0	0.0	0.0	0.90	63.6	0.0
S1.018	0.00	10.83	7.962	0.943	0.0	0.0	0.0	1.21	341.3	0.0
S22.000	0.00	5.04	9.799	0.000	0.0	0.0	0.0	2.27	40.1	0.0
S22.001	0.00	5.37	9.093	0.079	0.0	0.0	0.0	0.90	63.7	0.0

Cundall, Johnston & Partners		Page 4
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
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STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface A & B

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
S23.000	5.875	0.176	33.4	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S22.002	11.199	0.037	302.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S24.000	4.388	0.193	22.7	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S22.003	10.023	0.033	303.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S25.000	4.531	0.035	129.5	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S25.001	17.269	0.058	297.7	0.043	0.00	0.0	0.600	o	300	Pipe/Conduit	
S22.004	27.636	0.092	300.4	0.066	0.00	0.0	0.600	o	300	Pipe/Conduit	
S26.000	5.248	0.240	21.9	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S22.005	1.525	0.005	305.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S27.000	6.351	0.214	29.7	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S22.006	9.655	0.032	301.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S28.000	6.671	0.082	81.4	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S22.007	4.150	0.014	296.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S22.008	5.990	0.020	299.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S29.000	5.150	0.017	300.0	0.048	5.00	0.0	0.600	o	300	Pipe/Conduit	
S22.009	16.069	0.054	297.6	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S30.000	7.066	0.712	9.9	0.170	5.00	0.0	0.600	o	150	Pipe/Conduit	
S1.019	9.675	0.024	400.0	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	E I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S23.000	0.00	5.06	9.717	0.000	0.0	0.0	0.0	1.75	30.9	0.0
S22.002	0.00	5.58	9.033	0.079	0.0	0.0	0.0	0.90	63.5	0.0
S24.000	0.00	5.03	9.733	0.000	0.0	0.0	0.0	2.12	37.5	0.0
S22.003	0.00	5.76	8.996	0.079	0.0	0.0	0.0	0.90	63.4	0.0
S25.000	0.00	5.09	9.716	0.000	0.0	0.0	0.0	0.88	15.6	0.0
S25.001	0.00	5.40	9.090	0.043	0.0	0.0	0.0	0.91	64.0	0.0
S22.004	0.00	6.28	8.963	0.188	0.0	0.0	0.0	0.90	63.8	0.0
S26.000	0.00	5.04	9.780	0.000	0.0	0.0	0.0	2.16	38.2	0.0
S22.005	0.00	6.30	8.871	0.188	0.0	0.0	0.0	0.89	63.3	0.0
S27.000	0.00	5.06	9.754	0.000	0.0	0.0	0.0	1.85	32.8	0.0
S22.006	0.00	6.48	8.866	0.188	0.0	0.0	0.0	0.90	63.6	0.0
S28.000	0.00	5.10	9.617	0.000	0.0	0.0	0.0	1.12	19.7	0.0
S22.007	0.00	6.56	8.834	0.188	0.0	0.0	0.0	0.91	64.2	0.0
S22.008	0.00	6.67	8.820	0.188	0.0	0.0	0.0	0.90	63.8	0.0
S29.000	0.00	5.10	9.102	0.048	0.0	0.0	0.0	0.90	63.8	0.0
S22.009	0.00	6.96	8.800	0.236	0.0	0.0	0.0	0.91	64.1	0.0
S30.000	0.00	5.04	10.159	0.170	0.0	0.0	0.0	3.22	56.9	0.0
S1.019	0.00	10.97	7.923	1.349	0.0	0.0	0.0	1.21	342.5	0.0

Cundall, Johnston & Partners		Page 5
19 - 21 Silvermills Court	1012052 - WARBLINGTON MEADOWS	
Henderson Place Lane	DRAINAGE ZONES A & B	
Edinburgh EH3 5DG	SURFACE	
Date 13/04/2018 18:27	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface A & B

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
S31.000	6.645	0.754	8.8	0.010	5.00	0.0	0.600	o	150	Pipe/Conduit	
S1.020	47.571	0.119	400.0	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
S32.000	10.218	0.026	393.0	0.043	5.00	0.0	0.600	o	300	Pipe/Conduit	
S32.001	5.304	0.013	408.0	0.150	0.00	0.0	0.600	o	600	Pipe/Conduit	
S33.000	4.590	0.031	148.1	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S32.002	14.536	0.036	403.8	0.029	0.00	0.0	0.600	o	600	Pipe/Conduit	
S32.003	13.322	0.033	403.7	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
S1.021	14.971	0.037	400.0	0.057	0.00	0.0	0.600	o	600	Pipe/Conduit	
S1.022	5.693	0.014	400.0	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
S1.023	3.021	0.001	3021.0	0.000	0.00	0.0	0.600	o	2200	Pipe/Conduit	
S34.000	3.923	0.026	150.9	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S34.001	19.287	0.086	224.3	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
S35.000	6.365	0.042	151.5	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S34.002	14.663	0.065	225.6	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
S36.000	5.697	0.245	23.3	0.027	5.00	0.0	0.600	o	150	Pipe/Conduit	
S36.001	19.801	0.066	300.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S37.000	7.270	0.255	28.5	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit	
S37.001	6.862	0.128	53.6	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
S34.003	13.362	0.045	300.0	0.038	0.00	0.0	0.600	o	300	Pipe/Conduit	
S34.004	19.779	0.001	19779.0	0.000	0.00	0.0	0.600	o	2200	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	E I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S31.000	0.00	5.03	10.168	0.010	0.0	0.0	0.0	3.41	60.3	0.0
S1.020	0.00	11.62	7.899	1.359	0.0	0.0	0.0	1.21	342.5	0.0
S32.000	0.00	5.22	8.708	0.043	0.0	0.0	0.0	0.79	55.6	0.0
S32.001	0.00	5.29	8.382	0.193	0.0	0.0	0.0	1.20	339.1	0.0
S33.000	0.00	5.09	9.565	0.000	0.0	0.0	0.0	0.82	14.6	0.0
S32.002	0.00	5.49	8.369	0.222	0.0	0.0	0.0	1.21	340.9	0.0
S32.003	0.00	5.68	8.333	0.222	0.0	0.0	0.0	1.21	340.9	0.0
S1.021	0.00	11.83	7.780	1.638	0.0	0.0	0.0	1.21	342.5	0.0
S1.022	0.00	11.90	7.742	1.638	0.0	0.0	0.0	1.21	342.5	0.0
S1.023	0.00	11.96	7.728	1.638	0.0	0.0	0.0	0.98	3707.4	0.0
S34.000	0.00	5.08	10.559	0.000	0.0	0.0	0.0	0.82	14.4	0.0
S34.001	0.00	5.45	9.904	0.000	0.0	0.0	0.0	0.87	34.6	0.0
S35.000	0.00	5.13	10.362	0.000	0.0	0.0	0.0	0.81	14.4	0.0
S34.002	0.00	5.73	9.818	0.000	0.0	0.0	0.0	0.87	34.4	0.0
S36.000	0.00	5.05	10.099	0.027	0.0	0.0	0.0	2.10	37.1	0.0
S36.001	0.00	5.41	9.704	0.027	0.0	0.0	0.0	0.90	63.8	0.0
S37.000	0.00	5.06	10.543	0.000	0.0	0.0	0.0	1.89	33.4	0.0
S37.001	0.00	5.13	10.213	0.000	0.0	0.0	0.0	1.79	71.2	0.0
S34.003	0.00	5.98	9.638	0.065	0.0	0.0	0.0	0.90	63.8	0.0
S34.004	0.00	6.86	7.728	0.065	0.0	0.0	0.0	0.37	1423.5	0.0

Cundall, Johnston & Partners		Page 6
19 - 21 Silvermills Court	1012052 - WARBLINGTON MEADOWS	
Henderson Place Lane	DRAINAGE ZONES A & B	
Edinburgh EH3 5DG	SURFACE	
Date 13/04/2018 18:27	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface A & B

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
S1.024	2.905	0.001	2905.0	0.000	0.00	0.0	0.600	o	2200	Pipe/Conduit	
S1.025	1.875	0.013	150.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL E (m)	I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S1.024	0.00	12.00	7.727	1.703	0.0	0.0	0.0	0.99	3781.6	0.0
S1.025	0.00	12.04	7.726	1.703	0.0	0.0	0.0	0.82	14.5	0.0

Cundall, Johnston & Partners		Page 7
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
Date 13/04/2018 18:27	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

Manhole Schedules for Surface A & B

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)
S100	10.858	1.461	Open Manhole	600 x 450	S1.000	9.397	150				
S101	10.678	1.498	Open Manhole	1200	S1.001	9.180	300	S1.000	9.330	150	
S102	10.677	1.672	Open Manhole	1800	S1.002	9.005	375	S1.001	9.080	300	
S103	10.693	1.790	Open Manhole		S1.003	8.902	450	S1.002	8.977	375	
S200	10.929	1.196	Open Manhole		S2.000	9.733	150				
S104	10.692	1.851	Junction	0	S1.004	8.841	450	S1.003	8.841	450	
								S2.000	9.342	150	201
S300	10.700	1.500	Open Manhole	1200	S3.000	9.200	300				
S400	10.710	1.500	Open Manhole	1200	S4.000	9.210	300				
S301	10.700	1.675	Open Manhole	1200	S3.001	9.025	300	S3.000	9.025	300	
								S4.000	9.124	300	99
S302	10.837	2.028	Open Manhole	1200	S3.002	8.809	300	S3.001	8.809	300	
S105	10.687	2.058	Open Manhole		S1.005	8.629	450	S1.004	8.760	450	131
								S3.002	8.779	300	
S500	10.837	1.653	Open Manhole		S5.000	9.184	150				
S106	10.688	2.143	Junction	0	S1.006	8.544	450	S1.005	8.544	450	
								S5.000	9.132	150	288
S107	10.689	2.194	Open Manhole	1800	S1.007	8.495	450	S1.006	8.495	450	
S600	10.750	1.540	Open Manhole	600 x 450	S6.000	9.210	300				
S108	10.699	2.230	Open Manhole	1800	S1.008	8.468	450	S1.007	8.468	450	
								S6.000	9.191	300	573
S109	10.699	2.300	Open Manhole	1800	S1.009	8.399	450	S1.008	8.399	450	
S700	10.840	1.000	Open Manhole	600 x 450	S7.000	9.840	150				
S110	10.674	2.301	Open Manhole	1800	S1.010	8.373	450	S1.009	8.373	450	
								S7.000	9.324	150	651
S800	10.879	1.544	Open Manhole	1200	S8.000	9.335	300				
S801	10.909	1.636	Open Manhole	1200	S8.001	9.273	300	S8.000	9.273	300	
S111	10.724	2.391	Open Manhole	1800	S1.011	8.333	450	S1.010	8.333	450	
								S8.001	9.255	300	772
S900	10.936	1.702	Open Manhole	1200	S9.000	9.234	300				
S112	10.756	2.477	Open Manhole	1800	S1.012	8.278	450	S1.011	8.278	450	
								S9.000	9.202	300	774
S113	10.604	2.517	Open Manhole		S1.013	8.087	600	S1.012	8.237	450	
S1000	10.798	1.432	Open Manhole	1200	S10.000	9.366	150				
S1001	10.661	1.337	Open Manhole		S10.001	9.324	150	S10.000	9.324	150	
S114	10.499	2.427	Junction	0	S1.014	8.072	600	S1.013	8.072	600	
								S10.001	9.280	150	758
S115	10.458	2.411	Open Manhole		S1.015	8.047	600	S1.014	8.047	600	
S1100	10.735	1.190	Open Manhole		S11.000	9.545	150				
S116	10.498	2.471	Junction		S1.016	8.027	600	S1.015	8.027	600	
								S11.000	9.148	150	671
S1200	10.855	0.900	Open Manhole		S12.000	9.955	150				
S117	10.599	2.604	Junction	0	S1.017	7.995	600	S1.016	7.995	600	
								S12.000	9.249	150	804
S1300	10.905	1.540	Open Manhole		S13.000	9.365	300				
S1400	11.143	1.543	Open Manhole		S14.000	9.600	150				
S1301	11.113	1.871	Junction	0	S13.001	9.242	300	S13.000	9.242	300	
								S14.000	9.550	150	158
S1302	11.171	1.963	Open Manhole	1200	S13.002	9.208	300	S13.001	9.208	300	
S1500	11.252	1.050	Open Manhole	600 x 450	S15.000	10.202	150				
S1303	11.257	2.100	Open Manhole	1200	S13.003	9.157	300	S13.002	9.157	300	
								S15.000	10.159	150	852
S1600	11.503	1.503	Open Manhole	1200	S16.000	10.000	300				
S1601	11.500	1.524	Open Manhole	1200	S16.001	9.977	300	S16.000	9.977	300	
S1602	11.410	1.457	Open Manhole	1200	S16.002	9.953	300	S16.001	9.953	300	

Cundall, Johnston & Partners		Page 8
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
Date 13/04/2018 18:27	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

Manhole Schedules for Surface A & B

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)
S1304	11.319	2.197	Open Manhole	1200	S13.004	9.122	300	S13.003	9.122	300	794
								S16.002	9.916	300	
S1700	11.292	0.787	Open Manhole	600 x 450	S17.000	10.505	150				672
S1305	11.185	2.172	Open Manhole		S13.005	9.013	300	S13.004	9.013	300	
								S17.000	9.835	150	663
S1800	11.212	0.824	Open Manhole		S18.000	10.388	150				
S1306	11.141	2.163	Junction		S13.006	8.978	300	S13.005	8.978	300	661
								S18.000	9.791	150	
S1900	11.238	0.877	Open Manhole		S19.000	10.361	150				652
S1307	11.133	2.161	Junction		S13.007	8.972	300	S13.006	8.972	300	
								S19.000	9.783	150	648
S2000	11.190	1.025	Open Manhole		S20.000	10.165	150				
S1308	11.089	2.152	Junction		S13.008	8.937	300	S13.007	8.937	300	648
								S20.000	9.739	150	
S2100	11.140	0.873	Open Manhole		S21.000	10.267	150				572
S1309	11.069	2.148	Junction	0	S13.009	8.921	300	S13.008	8.921	300	
								S21.000	9.719	150	300
S1310	11.016	2.137	Open Manhole	1200	S13.010	8.879	300	S13.009	8.879	300	
S118	10.706	2.745	Open Manhole	1800	S1.018	7.962	600	S1.017	7.962	600	358
								S13.010	8.834	300	
S2200	10.605	0.806	Open Manhole	600 x 450	S22.000	9.799	150				394
S2201	10.593	1.500	Open Manhole		S22.001	9.093	300	S22.000	9.543	150	
S2300	10.604	0.887	Open Manhole		S23.000	9.717	150				441
S2202	10.591	1.558	Junction		S22.002	9.033	300	S22.001	9.033	300	
								S23.000	9.541	150	69
S2400	10.635	0.902	Open Manhole		S24.000	9.733	150				
S2203	10.590	1.594	Junction	0	S22.003	8.996	300	S22.002	8.996	300	519
								S24.000	9.540	150	
S2500	10.625	0.909	Open Manhole	1200	S25.000	9.716	150				524
S2501	10.590	1.500	Open Manhole	1200	S25.001	9.090	300	S25.000	9.681	150	
S2204	10.590	1.627	Open Manhole		S22.004	8.963	300	S22.003	8.963	300	285
								S25.001	9.032	300	
S2600	10.632	0.852	Open Manhole		S26.000	9.780	150				1074
S2205	10.590	1.719	Junction		S22.005	8.871	300	S22.004	8.871	300	
								S26.000	9.540	150	1065
S2700	10.646	0.892	Open Manhole		S27.000	9.754	150				
S2206	10.590	1.724	Junction		S22.006	8.866	300	S22.005	8.866	300	551
								S27.000	9.540	150	
S2800	10.654	1.037	Open Manhole		S28.000	9.617	150				285
S2207	10.585	1.751	Junction	0	S22.007	8.834	300	S22.006	8.834	300	
								S28.000	9.535	150	1065
S2208	10.579	1.759	Open Manhole	1200	S22.008	8.820	300	S22.007	8.820	300	
S2900	10.687	1.585	Open Manhole	1200	S29.000	9.102	300				1074
S2209	10.598	1.798	Open Manhole	1200	S22.009	8.800	300	S22.008	8.800	300	
								S29.000	9.085	300	1065
S3000	11.039	0.880	Open Manhole	600 x 450	S30.000	10.159	150				
S119	10.797	2.874	Open Manhole		S1.019	7.923	600	S1.018	7.923	600	1065
								S22.009	8.746	300	
								S30.000	9.447	150	1065
S3100	11.026	0.858	Open Manhole		S31.000	10.168	150				
S120	10.764	2.865	Junction	0	S1.020	7.899	600	S1.019	7.899	600	1065
								S31.000	9.414	150	
S3200	10.492	1.784	Open Manhole	600 x 450	S32.000	8.708	300				1065
S3201	10.612	2.230	Open Manhole		S32.001	8.382	600	S32.000	8.682	300	
S3300	10.675	1.110	Open Manhole		S33.000	9.565	150				

Cundall, Johnston & Partners		Page 9
19 - 21 Silvermills Court	1012052 - WARBLINGTON MEADOWS	
Henderson Place Lane	DRAINAGE ZONES A & B	
Edinburgh EH3 5DG	SURFACE	
Date 13/04/2018 18:27	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

Manhole Schedules for Surface A & B

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)
S3202	10.567	2.198	Junction	0	S32.002	8.369	600	S32.001	8.369	600	715
								S33.000	9.534	150	
S3203	10.440	2.107	Open Manhole	1800	S32.003	8.333	600	S32.002	8.333	600	520
S121	10.358	2.578	Open Manhole	1800	S1.021	7.780	600	S1.020	7.780	600	
								S32.003	8.300	600	
S122	10.816	3.074	Open Manhole		S1.022	7.742	600	S1.021	7.742	600	
S123	10.868	3.140	Junction		S1.023	7.728	2200	S1.022	7.728	600	554
S3400	11.415	0.856	Open Manhole	600 x 450	S34.000	10.559	150				
S3401	11.404	1.500	Open Manhole	1200	S34.001	9.904	225	S34.000	10.533	150	
S3500	11.412	1.050	Open Manhole	600 x 450	S35.000	10.362	150				
S3402	11.403	1.585	Open Manhole	1200	S34.002	9.818	225	S34.001	9.818	225	427
								S35.000	10.320	150	
S3600	11.033	0.934	Open Manhole	600 x 450	S36.000	10.099	150				40
S3601	10.904	1.200	Open Manhole	1200	S36.001	9.704	300	S36.000	9.854	150	
S3700	11.434	0.891	Open Manhole	600 x 450	S37.000	10.543	150				
S3701	11.338	1.125	Open Manhole	1200	S37.001	10.213	225	S37.000	10.288	150	
S3403	11.210	1.572	Open Manhole		S34.003	9.638	300	S34.002	9.753	225	372
								S36.001	9.638	300	
								S37.001	10.085	225	
S3404	10.929	3.201	Junction		S34.004	7.728	2200	S34.003	9.593	300	
S124	10.901	3.174	Junction	0	S1.024	7.727	2200	S1.023	7.727	2200	
								S34.004	7.727	2200	
S125	10.915	3.189	Open Manhole	1800	S1.025	7.726	150	S1.024	7.726	2200	
S	10.982	3.269	Open Manhole	0		OUTFALL		S1.025	7.714	150	

Cundall, Johnston & Partners		Page 10
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
Date 13/04/2018 18:27 File DRAINAGE ZONES A & B SURFACE WA...	Designed by AJWC Checked by SP	
Micro Drainage	Network 2017.1.2	

PIPELINE SCHEDULES for Surface A & B

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	150	S100	10.858	9.397	1.311	Open Manhole	600 x 450
S1.001	o	300	S101	10.678	9.180	1.198	Open Manhole	1200
S1.002	o	375	S102	10.677	9.005	1.297	Open Manhole	1800
S1.003	o	450	S103	10.693	8.902	1.340	Open Manhole	1800
S2.000	o	150	S200	10.929	9.733	1.046	Open Manhole	600 x 450
S1.004	o	450	S104	10.692	8.841	1.401	Junction	
S3.000	o	300	S300	10.700	9.200	1.200	Open Manhole	1200
S4.000	o	300	S400	10.710	9.210	1.200	Open Manhole	1200
S3.001	o	300	S301	10.700	9.025	1.375	Open Manhole	1200
S3.002	o	300	S302	10.837	8.809	1.728	Open Manhole	1200
S1.005	o	450	S105	10.687	8.629	1.608	Open Manhole	1800
S5.000	o	150	S500	10.837	9.184	1.503	Open Manhole	600 x 450
S1.006	o	450	S106	10.688	8.544	1.693	Junction	
S1.007	o	450	S107	10.689	8.495	1.744	Open Manhole	1800
S6.000	o	300	S600	10.750	9.210	1.240	Open Manhole	600 x 450
S1.008	o	450	S108	10.699	8.468	1.780	Open Manhole	1800
S1.009	o	450	S109	10.699	8.399	1.850	Open Manhole	1800
S7.000	o	150	S700	10.840	9.840	0.850	Open Manhole	600 x 450
S1.010	o	450	S110	10.674	8.373	1.851	Open Manhole	1800
S8.000	o	300	S800	10.879	9.335	1.244	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)
S1.000	10.039	149.8	S101	10.678	9.330	1.198	Open Manhole	1200
S1.001	29.951	299.5	S102	10.677	9.080	1.297	Open Manhole	1800
S1.002	10.325	375.0	S103	10.693	8.977	1.340	Open Manhole	1800
S1.003	24.365	399.4	S104	10.692	8.841	1.401	Junction	
S2.000	6.910	17.7	S104	10.692	9.342	1.200	Junction	
S1.004	32.207	397.6	S105	10.687	8.760	1.477	Open Manhole	1800
S3.000	52.572	300.4	S301	10.700	9.025	1.375	Open Manhole	1200
S4.000	25.700	300.0	S301	10.700	9.124	1.276	Open Manhole	1200
S3.001	64.862	300.3	S302	10.837	8.809	1.728	Open Manhole	1200
S3.002	9.004	300.0	S105	10.687	8.779	1.608	Open Manhole	1800
S1.005	33.870	400.0	S106	10.688	8.544	1.693	Junction	
S5.000	7.745	148.9	S106	10.688	9.132	1.406	Junction	
S1.006	19.736	400.0	S107	10.689	8.495	1.744	Open Manhole	1800
S1.007	10.613	400.0	S108	10.699	8.468	1.780	Open Manhole	1800
S6.000	5.636	296.6	S108	10.699	9.191	1.208	Open Manhole	1800
S1.008	27.919	400.0	S109	10.699	8.399	1.850	Open Manhole	1800
S1.009	10.316	400.0	S110	10.674	8.373	1.851	Open Manhole	1800
S7.000	8.626	16.7	S110	10.674	9.324	1.200	Open Manhole	1800
S1.010	15.869	400.0	S111	10.724	8.333	1.941	Open Manhole	1800
S8.000	18.464	297.8	S801	10.909	9.273	1.336	Open Manhole	1200

Cundall, Johnston & Partners		Page 11
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
Date 13/04/2018 18:27 File DRAINAGE ZONES A & B SURFACE WA...	Designed by AJWC Checked by SP	
Micro Drainage	Network 2017.1.2	

PIPELINE SCHEDULES for Surface A & B

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)
S8.001	o	300	S801	10.909	9.273	1.336	Open Manhole	1200
S1.011	o	450	S111	10.724	8.333	1.941	Open Manhole	1800
S9.000	o	300	S900	10.936	9.234	1.402	Open Manhole	1200
S1.012	o	450	S112	10.756	8.278	2.027	Open Manhole	1800
S1.013	o	600	S113	10.604	8.087	1.917	Open Manhole	1800
S10.000	o	150	S1000	10.798	9.366	1.282	Open Manhole	1200
S10.001	o	150	S1001	10.661	9.324	1.187	Open Manhole	600 x 450
S1.014	o	600	S114	10.499	8.072	1.827	Junction	
S1.015	o	600	S115	10.458	8.047	1.811	Open Manhole	1800
S11.000	o	150	S1100	10.735	9.545	1.040	Open Manhole	600 x 450
S1.016	o	600	S116	10.498	8.027	1.871	Junction	
S12.000	o	150	S1200	10.855	9.955	0.750	Open Manhole	600 x 450
S1.017	o	600	S117	10.599	7.995	2.004	Junction	
S13.000	o	300	S1300	10.905	9.365	1.240	Open Manhole	1200
S14.000	o	150	S1400	11.143	9.600	1.393	Open Manhole	600 x 450
S13.001	o	300	S1301	11.113	9.242	1.571	Junction	
S13.002	o	300	S1302	11.171	9.208	1.663	Open Manhole	1200
S15.000	o	150	S1500	11.252	10.202	0.900	Open Manhole	600 x 450
S13.003	o	300	S1303	11.257	9.157	1.800	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)
S8.001	5.329	296.1	S111	10.724	9.255	1.169	Open Manhole	1800
S1.011	22.134	402.4	S112	10.756	8.278	2.027	Open Manhole	1800
S9.000	9.678	302.4	S112	10.756	9.202	1.254	Open Manhole	1800
S1.012	16.470	401.7	S113	10.604	8.237	1.917	Open Manhole	1800
S1.013	5.881	392.1	S114	10.499	8.072	1.827	Junction	
S10.000	6.309	150.2	S1001	10.661	9.324	1.187	Open Manhole	600 x 450
S10.001	6.637	150.8	S114	10.499	9.280	1.069	Junction	
S1.014	10.067	402.7	S115	10.458	8.047	1.811	Open Manhole	1800
S1.015	8.070	400.0	S116	10.498	8.027	1.871	Junction	
S11.000	7.145	18.0	S116	10.498	9.148	1.200	Junction	
S1.016	12.683	400.0	S117	10.599	7.995	2.004	Junction	
S12.000	7.150	10.1	S117	10.599	9.249	1.200	Junction	
S1.017	13.394	400.0	S118	10.706	7.962	2.145	Open Manhole	1800
S13.000	36.878	299.8	S1301	11.113	9.242	1.571	Junction	
S14.000	7.503	150.1	S1301	11.113	9.550	1.413	Junction	
S13.001	10.214	300.4	S1302	11.171	9.208	1.663	Open Manhole	1200
S13.002	15.351	301.0	S1303	11.257	9.157	1.800	Open Manhole	1200
S15.000	6.407	149.0	S1303	11.257	10.159	0.948	Open Manhole	1200
S13.003	10.370	296.3	S1304	11.319	9.122	1.897	Open Manhole	1200

Cundall, Johnston & Partners		Page 12
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
Date 13/04/2018 18:27 File DRAINAGE ZONES A & B SURFACE WA...	Designed by AJWC Checked by SP	
Micro Drainage	Network 2017.1.2	

PIPELINE SCHEDULES for Surface A & B

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)
S16.000	o	300	S1600	11.503	10.000	1.203	Open Manhole	1200
S16.001	o	300	S1601	11.500	9.977	1.224	Open Manhole	1200
S16.002	o	300	S1602	11.410	9.953	1.157	Open Manhole	1200
S13.004	o	300	S1304	11.319	9.122	1.897	Open Manhole	1200
S17.000	o	150	S1700	11.292	10.505	0.637	Open Manhole	600 x 450
S13.005	o	300	S1305	11.185	9.013	1.872	Open Manhole	1200
S18.000	o	150	S1800	11.212	10.388	0.674	Open Manhole	600 x 450
S13.006	o	300	S1306	11.141	8.978	1.863	Junction	
S19.000	o	150	S1900	11.238	10.361	0.727	Open Manhole	600 x 450
S13.007	o	300	S1307	11.133	8.972	1.861	Junction	
S20.000	o	150	S2000	11.190	10.165	0.875	Open Manhole	600 x 450
S13.008	o	300	S1308	11.089	8.937	1.852	Junction	
S21.000	o	150	S2100	11.140	10.267	0.723	Open Manhole	600 x 450
S13.009	o	300	S1309	11.069	8.921	1.848	Junction	
S13.010	o	300	S1310	11.016	8.879	1.837	Open Manhole	1200
S1.018	o	600	S118	10.706	7.962	2.145	Open Manhole	1800
S22.000	o	150	S2200	10.605	9.799	0.656	Open Manhole	600 x 450
S22.001	o	300	S2201	10.593	9.093	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)
S16.000	18.435	784.5	S1601	11.500	9.977	1.224	Open Manhole	1200
S16.001	14.191	591.3	S1602	11.410	9.953	1.157	Open Manhole	1200
S16.002	11.034	298.2	S1304	11.319	9.916	1.103	Open Manhole	1200
S13.004	32.753	300.5	S1305	11.185	9.013	1.872	Open Manhole	1200
S17.000	7.003	10.5	S1305	11.185	9.835	1.200	Open Manhole	1200
S13.005	10.547	301.3	S1306	11.141	8.978	1.863	Junction	
S18.000	5.127	8.6	S1306	11.141	9.791	1.200	Junction	
S13.006	1.857	309.5	S1307	11.133	8.972	1.861	Junction	
S19.000	6.634	11.5	S1307	11.133	9.783	1.200	Junction	
S13.007	10.556	301.6	S1308	11.089	8.937	1.852	Junction	
S20.000	6.634	15.6	S1308	11.089	9.739	1.200	Junction	
S13.008	4.833	302.1	S1309	11.069	8.921	1.848	Junction	
S21.000	5.248	9.6	S1309	11.069	9.719	1.200	Junction	
S13.009	12.539	298.5	S1310	11.016	8.879	1.837	Open Manhole	1200
S13.010	13.590	302.0	S118	10.706	8.834	1.572	Open Manhole	1800
S1.018	15.710	402.8	S119	10.797	7.923	2.274	Open Manhole	1800
S22.000	5.088	19.9	S2201	10.593	9.543	0.900	Open Manhole	1200
S22.001	18.033	300.6	S2202	10.591	9.033	1.258	Junction	

Cundall, Johnston & Partners		Page 13
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
Date 13/04/2018 18:27 File DRAINAGE ZONES A & B SURFACE WA...	Designed by AJWC Checked by SP	
Micro Drainage	Network 2017.1.2	

PIPELINE SCHEDULES for Surface A & B

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)
S23.000	o	150	S2300	10.604	9.717	0.737	Open Manhole	600 x 450
S22.002	o	300	S2202	10.591	9.033	1.258	Junction	
S24.000	o	150	S2400	10.635	9.733	0.752	Open Manhole	600 x 450
S22.003	o	300	S2203	10.590	8.996	1.294	Junction	
S25.000	o	150	S2500	10.625	9.716	0.759	Open Manhole	1200
S25.001	o	300	S2501	10.590	9.090	1.200	Open Manhole	1200
S22.004	o	300	S2204	10.590	8.963	1.327	Open Manhole	1200
S26.000	o	150	S2600	10.632	9.780	0.702	Open Manhole	600 x 450
S22.005	o	300	S2205	10.590	8.871	1.419	Junction	
S27.000	o	150	S2700	10.646	9.754	0.742	Open Manhole	600 x 450
S22.006	o	300	S2206	10.590	8.866	1.424	Junction	
S28.000	o	150	S2800	10.654	9.617	0.887	Open Manhole	600 x 450
S22.007	o	300	S2207	10.585	8.834	1.451	Junction	
S22.008	o	300	S2208	10.579	8.820	1.459	Open Manhole	1200
S29.000	o	300	S2900	10.687	9.102	1.285	Open Manhole	1200
S22.009	o	300	S2209	10.598	8.800	1.498	Open Manhole	1200
S30.000	o	150	S3000	11.039	10.159	0.730	Open Manhole	600 x 450
S1.019	o	600	S119	10.797	7.923	2.274	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)
S23.000	5.875	33.4	S2202	10.591	9.541	0.900	Junction	
S22.002	11.199	302.7	S2203	10.590	8.996	1.294	Junction	
S24.000	4.388	22.7	S2203	10.590	9.540	0.900	Junction	
S22.003	10.023	303.7	S2204	10.590	8.963	1.327	Open Manhole	1200
S25.000	4.531	129.5	S2501	10.590	9.681	0.759	Open Manhole	1200
S25.001	17.269	297.7	S2204	10.590	9.032	1.258	Open Manhole	1200
S22.004	27.636	300.4	S2205	10.590	8.871	1.419	Junction	
S26.000	5.248	21.9	S2205	10.590	9.540	0.900	Junction	
S22.005	1.525	305.0	S2206	10.590	8.866	1.424	Junction	
S27.000	6.351	29.7	S2206	10.590	9.540	0.900	Junction	
S22.006	9.655	301.7	S2207	10.585	8.834	1.451	Junction	
S28.000	6.671	81.4	S2207	10.585	9.535	0.900	Junction	
S22.007	4.150	296.4	S2208	10.579	8.820	1.459	Open Manhole	1200
S22.008	5.990	299.5	S2209	10.598	8.800	1.498	Open Manhole	1200
S29.000	5.150	300.0	S2209	10.598	9.085	1.213	Open Manhole	1200
S22.009	16.069	297.6	S119	10.797	8.746	1.751	Open Manhole	1800
S30.000	7.066	9.9	S119	10.797	9.447	1.200	Open Manhole	1800
S1.019	9.675	400.0	S120	10.764	7.899	2.265	Junction	

Cundall, Johnston & Partners		Page 14
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
Date 13/04/2018 18:27	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

PIPELINE SCHEDULES for Surface A & B

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)
S31.000	o	150	S3100	11.026	10.168	0.708	Open Manhole	600 x 450
S1.020	o	600	S120	10.764	7.899	2.265	Junction	
S32.000	o	300	S3200	10.492	8.708	1.484	Open Manhole	600 x 450
S32.001	o	600	S3201	10.612	8.382	1.630	Open Manhole	1800
S33.000	o	150	S3300	10.675	9.565	0.960	Open Manhole	1200
S32.002	o	600	S3202	10.567	8.369	1.598	Junction	
S32.003	o	600	S3203	10.440	8.333	1.507	Open Manhole	1800
S1.021	o	600	S121	10.358	7.780	1.978	Open Manhole	1800
S1.022	o	600	S122	10.816	7.742	2.474	Open Manhole	1800
S1.023	o	2200	S123	10.868	7.728	0.940	Junction	
S34.000	o	150	S3400	11.415	10.559	0.706	Open Manhole	600 x 450
S34.001	o	225	S3401	11.404	9.904	1.275	Open Manhole	1200
S35.000	o	150	S3500	11.412	10.362	0.900	Open Manhole	600 x 450
S34.002	o	225	S3402	11.403	9.818	1.360	Open Manhole	1200
S36.000	o	150	S3600	11.033	10.099	0.784	Open Manhole	600 x 450
S36.001	o	300	S3601	10.904	9.704	0.900	Open Manhole	1200
S37.000	o	150	S3700	11.434	10.543	0.741	Open Manhole	600 x 450
S37.001	o	225	S3701	11.338	10.213	0.900	Open Manhole	1200
S34.003	o	300	S3403	11.210	9.638	1.272	Open Manhole	1200
S34.004	o	2200	S3404	10.929	7.728	1.001	Junction	

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)
S31.000	6.645	8.8	S120	10.764	9.414	1.200	Junction	
S1.020	47.571	400.0	S121	10.358	7.780	1.978	Open Manhole	1800
S32.000	10.218	393.0	S3201	10.612	8.682	1.630	Open Manhole	1800
S32.001	5.304	408.0	S3202	10.567	8.369	1.598	Junction	
S33.000	4.590	148.1	S3202	10.567	9.534	0.883	Junction	
S32.002	14.536	403.8	S3203	10.440	8.333	1.507	Open Manhole	1800
S32.003	13.322	403.7	S121	10.358	8.300	1.458	Open Manhole	1800
S1.021	14.971	400.0	S122	10.816	7.742	2.474	Open Manhole	1800
S1.022	5.693	400.0	S123	10.868	7.728	2.540	Junction	
S1.023	3.021	3021.0	S124	10.901	7.727	0.974	Junction	
S34.000	3.923	150.9	S3401	11.404	10.533	0.721	Open Manhole	1200
S34.001	19.287	224.3	S3402	11.403	9.818	1.360	Open Manhole	1200
S35.000	6.365	151.5	S3402	11.403	10.320	0.933	Open Manhole	1200
S34.002	14.663	225.6	S3403	11.210	9.753	1.232	Open Manhole	1200
S36.000	5.697	23.3	S3601	10.904	9.854	0.900	Open Manhole	1200
S36.001	19.801	300.0	S3403	11.210	9.638	1.272	Open Manhole	1200
S37.000	7.270	28.5	S3701	11.338	10.288	0.900	Open Manhole	1200
S37.001	6.862	53.6	S3403	11.210	10.085	0.900	Open Manhole	1200
S34.003	13.362	300.0	S3404	10.929	9.593	1.035	Junction	
S34.004	19.779	19779.0	S124	10.901	7.727	0.974	Junction	

PIPELINE SCHEDULES for Surface A & B

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)
S1.024	o	2200	S124	10.901	7.727	0.974	Junction	
S1.025	o	150	S125	10.915	7.726	3.039	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)
S1.024	2.905	2905.0	S125	10.915	7.726	0.989	Open Manhole	1800
S1.025	1.875	150.0	S	10.982	7.714	3.119	Open Manhole	0

Cundall, Johnston & Partners		Page 16
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
Date 13/04/2018 18:27	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

Network Classifications for Surface A & B

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
S1.000	S100	150	1.198	1.398	PVC	600	450	1.311	TYPE 3 [REC CONC]
S1.001	S101	300	1.198	1.297	PVC	1200	0	1.198	TYPE 2 [CONC]
S1.002	S102	375	1.297	1.377	PRE-CAST CONC	1800	0	1.297	TYPE 2 [CONC]
S1.003	S103	450	1.340	1.401	PRE-CAST CONC	1800	0	1.340	TYPE 2 [CONC]
S2.000	S200	150	1.046	1.200	PVC	600	450	1.046	TYPE 3 [REC CONC]
S1.004	S104	450	1.401	1.477	PRE-CAST CONC				Junction
S3.000	S300	300	1.200	1.375	PVC	1200	0	1.200	TYPE 2 [CONC]
S4.000	S400	300	1.200	1.276	PVC	1200	0	1.200	TYPE 2 [CONC]
S3.001	S301	300	1.375	1.728	PVC	1200	0	1.375	TYPE 2 [CONC]
S3.002	S302	300	1.608	1.728	PVC	1200	0	1.728	TYPE 2 [CONC]
S1.005	S105	450	1.608	1.693	PRE-CAST CONC	1800	0	1.608	TYPE 2 [CONC]
S5.000	S500	150	1.406	1.505	PVC	600	450	1.503	TYPE 3 [REC CONC]
S1.006	S106	450	1.693	1.744	PRE-CAST CONC				Junction
S1.007	S107	450	1.744	1.825	PRE-CAST CONC	1800	0	1.744	TYPE 2 [CONC]
S6.000	S600	300	1.156	1.240	PVC	600	450	1.240	TYPE 3 [REC CONC]
S1.008	S108	450	1.780	1.850	PRE-CAST CONC	1800	0	1.780	TYPE 2 [CONC]
S1.009	S109	450	1.830	1.851	PRE-CAST CONC	1800	0	1.850	TYPE 2 [CONC]
S7.000	S700	150	0.850	1.200	PVC	600	450	0.850	TYPE 3 [REC CONC]
S1.010	S110	450	1.851	1.941	PRE-CAST CONC	1800	0	1.851	TYPE 2 [CONC]
S8.000	S800	300	1.244	1.336	PVC	1200	0	1.244	TYPE 2 [CONC]
S8.001	S801	300	1.169	1.336	PVC	1200	0	1.336	TYPE 2 [CONC]
S1.011	S111	450	1.906	2.027	PRE-CAST CONC	1800	0	1.941	TYPE 2 [CONC]
S9.000	S900	300	1.254	1.412	PVC	1200	0	1.402	TYPE 2 [CONC]
S1.012	S112	450	1.917	2.027	PRE-CAST CONC	1800	0	2.027	TYPE 2 [CONC]
S1.013	S113	600	1.827	1.917	PRE-CAST CONC	1800	0	1.917	TYPE 2 [CONC]
S10.000	S1000	150	1.187	1.282	PVC	1200	0	1.282	TYPE 2 [CONC]
S10.001	S1001	150	1.069	1.187	PVC	600	450	1.187	TYPE 3 [REC CONC]
S1.014	S114	600	1.811	1.827	PRE-CAST CONC				Junction
S1.015	S115	600	1.811	1.871	PRE-CAST CONC	1800	0	1.811	TYPE 2 [CONC]
S11.000	S1100	150	1.040	1.200	PVC	600	450	1.040	TYPE 3 [REC CONC]
S1.016	S116	600	1.871	2.004	PRE-CAST CONC				Junction
S12.000	S1200	150	0.750	1.200	PVC	600	450	0.750	TYPE 3 [REC CONC]
S1.017	S117	600	2.004	2.145	PRE-CAST CONC				Junction
S13.000	S1300	300	1.240	1.571	PVC	1200	0	1.240	TYPE 2 [CONC]
S14.000	S1400	150	1.393	1.435	PVC	600	450	1.393	TYPE 3 [REC CONC]
S13.001	S1301	300	1.571	1.663	PVC				Junction
S13.002	S1302	300	1.663	1.800	PVC	1200	0	1.663	TYPE 2 [CONC]
S15.000	S1500	150	0.900	0.948	PVC	600	450	0.900	TYPE 3 [REC CONC]
S13.003	S1303	300	1.800	1.897	PVC	1200	0	1.800	TYPE 2 [CONC]
S16.000	S1600	300	1.203	1.240	PVC	1200	0	1.203	TYPE 2 [CONC]
S16.001	S1601	300	1.157	1.224	PVC	1200	0	1.224	TYPE 2 [CONC]
S16.002	S1602	300	1.103	1.157	PVC	1200	0	1.157	TYPE 2 [CONC]
S13.004	S1304	300	1.872	1.897	PVC	1200	0	1.897	TYPE 2 [CONC]
S17.000	S1700	150	0.637	1.200	PVC	600	450	0.637	TYPE 3 [REC CONC]
S13.005	S1305	300	1.863	1.872	PVC	1200	0	1.872	TYPE 2 [CONC]
S18.000	S1800	150	0.674	1.200	PVC	600	450	0.674	TYPE 3 [REC CONC]
S13.006	S1306	300	1.861	1.863	PVC				Junction
S19.000	S1900	150	0.727	1.200	PVC	600	450	0.727	TYPE 3 [REC CONC]
S13.007	S1307	300	1.852	1.861	PVC				Junction
S20.000	S2000	150	0.875	1.200	PVC	600	450	0.875	TYPE 3 [REC CONC]
S13.008	S1308	300	1.848	1.852	PVC				Junction
S21.000	S2100	150	0.723	1.200	PVC	600	450	0.723	TYPE 3 [REC CONC]
S13.009	S1309	300	1.837	1.848	PVC				Junction
S13.010	S1310	300	1.572	1.837	PVC	1200	0	1.837	TYPE 2 [CONC]
S1.018	S118	600	2.145	2.274	PRE-CAST CONC	1800	0	2.145	TYPE 2 [CONC]
S22.000	S2200	150	0.656	0.900	PVC	600	450	0.656	TYPE 3 [REC CONC]
S22.001	S2201	300	1.200	1.258	PVC	1200	0	1.200	TYPE 2 [CONC]
S23.000	S2300	150	0.737	0.900	PVC	600	450	0.737	TYPE 3 [REC CONC]
S22.002	S2202	300	1.258	1.294	PVC				Junction
S24.000	S2400	150	0.752	0.900	PVC	600	450	0.752	TYPE 3 [REC CONC]
S22.003	S2203	300	1.294	1.327	PVC				Junction
S25.000	S2500	150	0.747	0.779	PVC	1200	0	0.759	TYPE 2 [CONC]
S25.001	S2501	300	1.200	1.258	PVC	1200	0	1.200	TYPE 2 [CONC]
S22.004	S2204	300	1.327	1.419	PVC	1200	0	1.327	TYPE 2 [CONC]
S26.000	S2600	150	0.702	0.900	PVC	600	450	0.702	TYPE 3 [REC CONC]
S22.005	S2205	300	1.419	1.424	PVC				Junction
S27.000	S2700	150	0.742	0.900	PVC	600	450	0.742	TYPE 3 [REC CONC]
S22.006	S2206	300	1.424	1.451	PVC				Junction
S28.000	S2800	150	0.873	0.900	PVC	600	450	0.887	TYPE 3 [REC CONC]
S22.007	S2207	300	1.451	1.459	PVC				Junction
S22.008	S2208	300	1.459	1.498	PVC	1200	0	1.459	TYPE 2 [CONC]
S29.000	S2900	300	1.164	1.296	PVC	1200	0	1.285	TYPE 2 [CONC]
S22.009	S2209	300	1.498	1.751	PVC	1200	0	1.498	TYPE 2 [CONC]
S30.000	S3000	150	0.730	1.200	PVC	600	450	0.730	TYPE 3 [REC CONC]
S1.019	S119	600	2.265	2.279	PRE-CAST CONC	1800	0	2.274	TYPE 2 [CONC]

Cundall, Johnston & Partners		Page 17
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
Date 13/04/2018 18:27	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage		Network 2017.1.2

Network Classifications for Surface A & B

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
S31.000	S3100	150	0.708	1.200	PVC	600	450	0.708	TYPE 3 [REC CONC]
S1.020	S120	600	1.978	2.265	PRE-CAST CONC				Junction
S32.000	S3200	300	1.457	1.630	PVC	600	450	1.484	TYPE 3 [REC CONC]
S32.001	S3201	600	1.598	1.630	PRE-CAST CONC	1800	0	1.630	TYPE 2 [CONC]
S33.000	S3300	150	0.883	0.960	PVC	1200	0	0.960	TYPE 2 [CONC]
S32.002	S3202	600	1.507	1.598	PRE-CAST CONC				Junction
S32.003	S3203	600	1.457	1.507	PRE-CAST CONC	1800	0	1.507	TYPE 2 [CONC]
S1.021	S121	600	1.978	2.474	PRE-CAST CONC	1800	0	1.978	TYPE 2 [CONC]
S1.022	S122	600	2.474	2.540	PRE-CAST CONC	1800	0	2.474	TYPE 2 [CONC]
S1.023	S123	2200	0.940	0.974	CONC ATT TANK				Junction
S34.000	S3400	150	0.706	0.721	PVC	600	450	0.706	TYPE 3 [REC CONC]
S34.001	S3401	225	1.275	1.360	PVC	1200	0	1.275	TYPE 2 [CONC]
S35.000	S3500	150	0.900	0.933	PVC	600	450	0.900	TYPE 3 [REC CONC]
S34.002	S3402	225	1.232	1.360	PVC	1200	0	1.360	TYPE 2 [CONC]
S36.000	S3600	150	0.784	0.900	PVC	600	450	0.784	TYPE 3 [REC CONC]
S36.001	S3601	300	0.900	1.272	PVC	1200	0	0.900	TYPE 2 [CONC]
S37.000	S3700	150	0.741	0.900	PVC	600	450	0.741	TYPE 3 [REC CONC]
S37.001	S3701	225	0.900	0.915	PVC	1200	0	0.900	TYPE 2 [CONC]
S34.003	S3403	300	1.035	1.272	PVC	1200	0	1.272	TYPE 2 [CONC]
S34.004	S3404	2200	0.974	1.002	CONC ATT TANK				Junction
S1.024	S124	2200	0.974	0.989	CONC ATT TANK				Junction
S1.025	S125	150	3.035	3.119	PVC	1800	0	3.039	TYPE 1A [CONC]

Free Flowing Outfall Details for Surface A & B

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
S1.025	S	10.982	7.714	0.000	0	0

Cundall, Johnston & Partners		Page 18
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
Date 13/04/2018 18:27	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

Volume Summary (Static)

Length Calculations based on True Length

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Total Volume (m³)
S1.000	S100	0.394	0.161	0.556
S1.001	S101	1.694	2.011	3.705
S1.002	S102	4.256	0.942	5.198
S1.003	S103	4.555	3.732	8.287
S2.000	S200	0.323	0.117	0.440
S1.004	S104	0.000	4.979	4.979
S3.000	S300	1.696	3.631	5.328
S4.000	S400	1.697	1.732	3.428
S3.001	S301	1.894	4.500	6.394
S3.002	S302	2.294	0.530	2.824
S1.005	S105	5.238	5.244	10.481
S5.000	S500	0.446	0.132	0.578
S1.006	S106	0.000	2.996	2.996
S1.007	S107	5.582	1.402	6.984
S6.000	S600	0.416	0.314	0.729
S1.008	S108	5.675	4.154	9.830
S1.009	S109	5.853	1.354	7.207
S7.000	S700	0.270	0.131	0.401
S1.010	S110	5.856	2.238	8.094
S8.000	S800	1.746	1.220	2.966
S8.001	S801	1.850	0.271	2.121
S1.011	S111	6.084	3.234	9.318
S9.000	S900	1.925	0.578	2.503
S1.012	S112	6.304	2.333	8.637
S1.013	S113	6.405	1.408	7.813
S10.000	S1000	1.619	0.096	1.715
S10.001	S1001	0.361	0.112	0.473
S1.014	S114	0.000	2.592	2.592
S1.015	S115	6.134	2.027	8.162
S11.000	S1100	0.321	0.121	0.442
S1.016	S116	0.000	3.586	3.586
S12.000	S1200	0.243	0.121	0.364
S1.017	S117	0.000	3.533	3.533
S13.000	S1300	1.741	2.564	4.306
S14.000	S1400	0.417	0.127	0.544
S13.001	S1301	0.000	0.680	0.680
S13.002	S1302	2.220	1.000	3.220
S15.000	S1500	0.283	0.097	0.381
S13.003	S1303	2.375	0.648	3.023
S16.000	S1600	1.700	1.218	2.918
S16.001	S1601	1.723	0.918	2.641
S16.002	S1602	1.648	0.695	2.343
S13.004	S1304	2.485	2.230	4.715
S17.000	S1700	0.213	0.108	0.320
S13.005	S1305	2.457	0.703	3.160
S18.000	S1800	0.222	0.085	0.308
S13.006	S1306	0.000	0.131	0.131
S19.000	S1900	0.237	0.112	0.349
S13.007	S1307	0.000	0.746	0.746
S20.000	S2000	0.277	0.112	0.389
S13.008	S1308	0.000	0.342	0.342
S21.000	S2100	0.236	0.087	0.323
S13.009	S1309	0.000	0.844	0.844
S13.010	S1310	2.417	0.855	3.271
S1.018	S118	6.984	3.933	10.917
S22.000	S2200	0.218	0.074	0.292
S22.001	S2201	1.697	1.232	2.929
S23.000	S2300	0.240	0.099	0.338
S22.002	S2202	0.000	0.792	0.792
S24.000	S2400	0.244	0.072	0.316
S22.003	S2203	0.000	0.666	0.666
S25.000	S2500	1.028	0.059	1.087
S25.001	S2501	1.696	1.136	2.832
S22.004	S2204	1.840	1.911	3.751
S26.000	S2600	0.230	0.087	0.317
S22.005	S2205	0.000	0.108	0.108
S27.000	S2700	0.241	0.107	0.348
S22.006	S2206	0.000	0.682	0.682
S28.000	S2800	0.280	0.113	0.393
S22.007	S2207	0.000	0.251	0.251
S22.008	S2208	1.989	0.339	2.328
S29.000	S2900	1.793	0.279	2.072
S22.009	S2209	2.033	1.030	3.063
S30.000	S3000	0.238	0.104	0.341
S1.019	S119	7.313	2.481	9.794

Cundall, Johnston & Partners		Page 19
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B SURFACE	
Date 13/04/2018 18:27	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

Volume Summary (Static)

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Total Volume (m³)
S31.000	S3100	0.232	0.112	0.344
S1.020	S120	0.000	13.196	13.196
S32.000	S3200	0.482	0.637	1.119
S32.001	S3201	5.674	1.245	6.919
S33.000	S3300	1.256	0.071	1.326
S32.002	S3202	0.000	3.855	3.855
S32.003	S3203	5.361	3.258	8.619
S1.021	S121	6.561	3.724	10.285
S1.022	S122	7.821	1.355	9.177
S1.023	S123	0.000	11.484	11.484
S34.000	S3400	0.231	0.053	0.285
S34.001	S3401	1.697	0.719	2.416
S35.000	S3500	0.283	0.097	0.380
S34.002	S3402	1.793	0.535	2.328
S36.000	S3600	0.252	0.085	0.337
S36.001	S3601	1.357	1.315	2.672
S37.000	S3700	0.241	0.113	0.353
S37.001	S3701	1.273	0.225	1.498
S34.003	S3403	1.778	0.902	2.680
S34.004	S3404	0.000	75.186	75.186
S1.024	S124	0.000	7.622	7.622
S1.025	S125	8.115	0.017	8.132
Total		174.252	217.196	391.448

Cundall, Johnston & Partners		Page 20
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

FOUL SEWERAGE DESIGN

Network Design Table for Foul - Pumped

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
Fp1.000	6.129	0.079	77.6	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp1.001	7.968	0.097	82.1	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
Fp2.000	6.340	0.079	80.3	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp2.001	5.935	0.074	80.2	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
Fp2.002	7.599	0.095	80.0	0.000	0	0.0	1.500	o	100	Pipe/Conduit	
Fp1.002	13.197	0.165	80.0	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp3.000	21.165	0.265	79.9	0.000	5	0.0	1.500	o	100	Pipe/Conduit	
Fp1.003	7.480	0.050	149.6	0.000	1	0.0	1.500	o	150	Pipe/Conduit	
Fp1.004	17.468	0.116	150.6	0.000	3	0.0	1.500	o	150	Pipe/Conduit	
Fp1.005	14.221	0.095	149.7	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.006	8.822	0.059	149.5	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.007	11.341	0.076	149.2	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.008	17.981	0.120	149.8	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp4.000	4.753	0.059	80.6	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
Fp1.009	57.893	0.489	118.4	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp5.000	3.800	0.048	79.2	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
Fp1.010	11.052	0.074	149.4	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp6.000	4.388	0.055	79.8	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
Fp1.011	6.320	0.042	150.5	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.012	7.175	0.048	149.5	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.013	5.371	0.036	149.2	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp7.000	7.497	0.094	79.8	0.000	2	0.0	1.500	o	100	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)
Fp1.000	9.938	0.000	0.0	2	0.0	9	0.26	0.76	5.9	0.1
Fp1.001	9.859	0.000	0.0	3	0.0	11	0.29	0.73	5.8	0.1
Fp2.000	10.012	0.000	0.0	2	0.0	9	0.26	0.74	5.8	0.1
Fp2.001	9.933	0.000	0.0	3	0.0	11	0.30	0.74	5.8	0.1
Fp2.002	9.859	0.000	0.0	3	0.0	11	0.30	0.74	5.8	0.1
Fp1.002	9.762	0.000	0.0	8	0.0	17	0.41	0.74	5.8	0.4
Fp3.000	9.879	0.000	0.0	5	0.0	14	0.35	0.74	5.8	0.2
Fp1.003	9.547	0.000	0.0	14	0.0	23	0.37	0.72	12.6	0.6
Fp1.004	9.497	0.000	0.0	17	0.0	26	0.39	0.71	12.6	0.8
Fp1.005	9.381	0.000	0.0	17	0.0	26	0.39	0.71	12.6	0.8
Fp1.006	9.286	0.000	0.0	17	0.0	26	0.39	0.72	12.6	0.8
Fp1.007	9.227	0.000	0.0	17	0.0	26	0.39	0.72	12.7	0.8
Fp1.008	9.151	0.000	0.0	17	0.0	26	0.39	0.71	12.6	0.8
Fp4.000	10.000	0.000	0.0	1	0.0	7	0.21	0.74	5.8	0.0
Fp1.009	9.031	0.000	0.0	18	0.0	25	0.43	0.80	14.2	0.8
Fp5.000	9.928	0.000	0.0	1	0.0	7	0.21	0.75	5.9	0.0
Fp1.010	8.542	0.000	0.0	19	0.0	27	0.41	0.72	12.6	0.9
Fp6.000	9.935	0.000	0.0	1	0.0	7	0.21	0.74	5.9	0.0
Fp1.011	8.468	0.000	0.0	20	0.0	28	0.41	0.71	12.6	0.9
Fp1.012	8.426	0.000	0.0	20	0.0	28	0.41	0.72	12.6	0.9
Fp1.013	8.378	0.000	0.0	20	0.0	28	0.41	0.72	12.7	0.9
Fp7.000	9.948	0.000	0.0	2	0.0	9	0.26	0.75	5.9	0.1

Cundall, Johnston & Partners		Page 21
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

FOUL SEWERAGE DESIGN

Network Design Table for Foul - Pumped

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
Fp1.014	46.036	0.307	150.0	0.000	1	0.0	1.500	o	150	Pipe/Conduit	
Fp8.000	5.798	0.072	80.5	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp8.001	14.606	0.183	79.8	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp9.000	3.722	0.047	79.2	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp8.002	8.276	0.103	80.3	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
Fp8.003	11.944	0.110	108.6	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
Fp8.004	5.679	0.110	51.6	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
Fp8.005	28.366	0.355	79.9	0.000	4	0.0	1.500	o	100	Pipe/Conduit	
Fp8.006	4.350	0.029	150.0	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp8.007	18.511	0.123	150.5	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.015	7.833	0.052	150.6	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.016	18.354	0.122	150.4	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp10.000	8.928	0.112	79.7	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp1.017	8.726	0.058	150.4	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp11.000	4.283	0.054	79.3	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp1.018	27.654	0.184	150.3	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp12.000	4.643	0.058	80.1	0.000	3	0.0	1.500	o	100	Pipe/Conduit	
Fp1.019	8.722	0.058	150.4	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.020	25.436	0.170	149.6	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp13.000	5.692	0.071	80.2	0.000	3	0.0	1.500	o	100	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)
Fp1.014	8.342	0.000	0.0	23	0.0	30	0.43	0.71	12.6	1.1
Fp8.000	9.775	0.000	0.0	2	0.0	9	0.26	0.74	5.8	0.1
Fp8.001	9.703	0.000	0.0	4	0.0	13	0.33	0.74	5.8	0.2
Fp9.000	9.691	0.000	0.0	2	0.0	9	0.26	0.75	5.9	0.1
Fp8.002	9.520	0.000	0.0	7	0.0	16	0.39	0.74	5.8	0.3
Fp8.003	9.417	0.000	0.0	8	0.0	19	0.37	0.64	5.0	0.4
Fp8.004	9.307	0.000	0.0	9	0.0	17	0.49	0.93	7.3	0.4
Fp8.005	9.197	0.000	0.0	13	0.0	22	0.47	0.74	5.8	0.6
Fp8.006	8.792	0.000	0.0	13	0.0	23	0.36	0.71	12.6	0.6
Fp8.007	8.763	0.000	0.0	13	0.0	23	0.36	0.71	12.6	0.6
Fp1.015	8.035	0.000	0.0	36	0.0	37	0.49	0.71	12.6	1.7
Fp1.016	7.983	0.000	0.0	36	0.0	37	0.49	0.71	12.6	1.7
Fp10.000	9.659	0.000	0.0	2	0.0	9	0.26	0.75	5.9	0.1
Fp1.017	7.861	0.000	0.0	38	0.0	38	0.50	0.71	12.6	1.8
Fp11.000	10.040	0.000	0.0	2	0.0	9	0.26	0.75	5.9	0.1
Fp1.018	7.803	0.000	0.0	40	0.0	39	0.51	0.71	12.6	1.9
Fp12.000	9.528	0.000	0.0	3	0.0	11	0.30	0.74	5.8	0.1
Fp1.019	7.619	0.000	0.0	43	0.0	40	0.52	0.71	12.6	2.0
Fp1.020	7.561	0.000	0.0	43	0.0	40	0.52	0.72	12.6	2.0
Fp13.000	10.034	0.000	0.0	3	0.0	11	0.30	0.74	5.8	0.1

Cundall, Johnston & Partners		Page 22
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

FOUL SEWERAGE DESIGN

Network Design Table for Foul - Pumped

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
Fp1.021	26.456	0.176	150.3	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp14.000	21.304	0.266	80.1	0.000	4	0.0	1.500	o	100	Pipe/Conduit	
Fp14.001	6.815	0.085	80.2	0.000	0	0.0	1.500	o	100	Pipe/Conduit	
Fp14.002	9.472	0.118	80.3	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp14.003	12.630	0.158	79.9	0.000	0	0.0	1.500	o	100	Pipe/Conduit	
Fp14.004	9.128	0.114	80.1	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
Fp1.022	62.981	0.420	150.0	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.023	22.908	0.113	202.7	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp15.000	4.374	0.055	79.5	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp1.024	10.834	0.113	95.9	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.025	10.952	0.073	150.0	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.026	10.943	0.073	149.9	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp16.000	23.204	0.290	80.0	0.000	4	0.0	1.500	o	100	Pipe/Conduit	
Fp16.001	7.999	0.100	80.0	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp16.002	14.109	0.176	80.2	0.000	0	0.0	1.500	o	100	Pipe/Conduit	
Fp17.000	8.676	0.108	80.3	0.000	3	0.0	1.500	o	100	Pipe/Conduit	
Fp17.001	11.483	0.144	79.7	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
Fp17.002	4.715	0.059	79.9	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
Fp17.003	12.700	0.159	79.9	0.000	0	0.0	1.500	o	100	Pipe/Conduit	
Fp16.003	6.266	0.042	149.2	0.000	1	0.0	1.500	o	150	Pipe/Conduit	
Fp16.004	13.957	0.093	150.1	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp18.000	2.327	0.029	80.2	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
Fp18.001	9.984	0.125	79.9	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp16.005	13.016	0.087	149.6	0.000	2	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)
Fp1.021	7.391	0.000	0.0	46	0.0	42	0.53	0.71	12.6	2.1
Fp14.000	9.410	0.000	0.0	4	0.0	13	0.33	0.74	5.8	0.2
Fp14.001	9.144	0.000	0.0	4	0.0	13	0.33	0.74	5.8	0.2
Fp14.002	9.059	0.000	0.0	6	0.0	15	0.37	0.74	5.8	0.3
Fp14.003	8.941	0.000	0.0	6	0.0	15	0.37	0.74	5.8	0.3
Fp14.004	8.783	0.000	0.0	7	0.0	16	0.39	0.74	5.8	0.3
Fp1.022	7.215	0.000	0.0	53	0.0	45	0.55	0.71	12.6	2.5
Fp1.023	6.795	0.000	0.0	53	0.0	49	0.49	0.61	10.8	2.5
Fp15.000	9.472	0.000	0.0	2	0.0	9	0.26	0.75	5.9	0.1
Fp1.024	6.682	0.000	0.0	55	0.0	41	0.65	0.89	15.8	2.5
Fp1.025	6.569	0.000	0.0	55	0.0	46	0.56	0.71	12.6	2.5
Fp1.026	6.496	0.000	0.0	55	0.0	46	0.56	0.71	12.6	2.5
Fp16.000	9.566	0.000	0.0	4	0.0	13	0.33	0.74	5.8	0.2
Fp16.001	9.276	0.000	0.0	6	0.0	15	0.37	0.74	5.8	0.3
Fp16.002	9.176	0.000	0.0	6	0.0	15	0.37	0.74	5.8	0.3
Fp17.000	9.383	0.000	0.0	3	0.0	11	0.30	0.74	5.8	0.1
Fp17.001	9.275	0.000	0.0	4	0.0	13	0.33	0.75	5.9	0.2
Fp17.002	9.131	0.000	0.0	5	0.0	14	0.35	0.74	5.8	0.2
Fp17.003	9.072	0.000	0.0	5	0.0	14	0.35	0.74	5.8	0.2
Fp16.003	8.863	0.000	0.0	12	0.0	22	0.35	0.72	12.7	0.6
Fp16.004	8.821	0.000	0.0	12	0.0	22	0.35	0.71	12.6	0.6
Fp18.000	9.926	0.000	0.0	1	0.0	7	0.21	0.74	5.8	0.0
Fp18.001	9.897	0.000	0.0	3	0.0	11	0.30	0.74	5.8	0.1
Fp16.005	8.728	0.000	0.0	17	0.0	26	0.39	0.72	12.6	0.8

Cundall, Johnston & Partners		Page 23
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
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FOUL SEWERAGE DESIGN

Network Design Table for Foul - Pumped

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
Fp16.006	5.584	0.037	150.9	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.027	9.679	0.065	148.9	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp19.000	3.294	0.041	80.3	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp19.001	10.475	0.131	80.0	0.000	0	0.0	1.500	o	100	Pipe/Conduit	
Fp1.028	21.777	0.145	150.2	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.029	12.567	0.084	149.6	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp20.000	11.123	0.139	80.0	0.000	6	0.0	1.500	o	100	Pipe/Conduit	
Fp20.001	4.635	0.058	79.9	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp20.002	11.744	0.078	150.6	0.000	4	0.0	1.500	o	150	Pipe/Conduit	
Fp1.030	16.826	0.112	150.2	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.031	50.308	0.335	150.2	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.032	50.308	0.335	150.2	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.033	11.000	0.073	150.7	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.034	18.296	0.122	150.0	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.035	8.423	0.056	150.4	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp21.000	10.321	0.128	80.6	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp21.001	22.180	0.278	79.8	0.000	6	0.0	1.500	o	100	Pipe/Conduit	
Fp21.002	2.794	0.035	79.8	0.000	0	0.0	1.500	o	100	Pipe/Conduit	
Fp22.000	6.485	0.081	80.1	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fp21.003	12.369	0.082	150.8	0.000	2	0.0	1.500	o	150	Pipe/Conduit	
Fp21.004	13.210	0.088	150.1	0.000	1	0.0	1.500	o	150	Pipe/Conduit	
Fp21.005	19.607	0.131	149.7	0.000	1	0.0	1.500	o	150	Pipe/Conduit	
Fp23.000	7.509	0.094	79.9	0.000	2	0.0	1.500	o	100	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)
Fp16.006	8.641	0.000	0.0	17	0.0	26	0.39	0.71	12.6	0.8
Fp1.027	6.423	0.000	0.0	72	0.0	53	0.60	0.72	12.7	3.3
Fp19.000	9.848	0.000	0.0	2	0.0	9	0.26	0.74	5.8	0.1
Fp19.001	9.807	0.000	0.0	2	0.0	9	0.26	0.74	5.8	0.1
Fp1.028	6.358	0.000	0.0	74	0.0	53	0.61	0.71	12.6	3.4
Fp1.029	6.213	0.000	0.0	74	0.0	53	0.61	0.72	12.6	3.4
Fp20.000	9.860	0.000	0.0	6	0.0	15	0.37	0.74	5.8	0.3
Fp20.001	9.721	0.000	0.0	8	0.0	17	0.41	0.74	5.8	0.4
Fp20.002	9.613	0.000	0.0	12	0.0	22	0.35	0.71	12.6	0.6
Fp1.030	6.129	0.000	0.0	86	0.0	58	0.63	0.71	12.6	4.0
Fp1.031	6.017	0.000	0.0	86	0.0	58	0.63	0.71	12.6	4.0
Fp1.032	5.682	0.000	0.0	86	0.0	58	0.63	0.71	12.6	4.0
Fp1.033	5.347	0.000	0.0	86	0.0	58	0.63	0.71	12.6	4.0
Fp1.034	5.274	0.000	0.0	86	0.0	58	0.63	0.71	12.6	4.0
Fp1.035	5.152	0.000	0.0	86	0.0	58	0.63	0.71	12.6	4.0
Fp21.000	9.740	0.000	0.0	2	0.0	9	0.26	0.74	5.8	0.1
Fp21.001	9.612	0.000	0.0	8	0.0	17	0.41	0.74	5.9	0.4
Fp21.002	9.334	0.000	0.0	8	0.0	17	0.41	0.74	5.8	0.4
Fp22.000	9.617	0.000	0.0	2	0.0	9	0.26	0.74	5.8	0.1
Fp21.003	9.249	0.000	0.0	12	0.0	22	0.35	0.71	12.6	0.6
Fp21.004	9.167	0.000	0.0	13	0.0	23	0.36	0.71	12.6	0.6
Fp21.005	9.079	0.000	0.0	14	0.0	23	0.37	0.71	12.6	0.6
Fp23.000	9.178	0.000	0.0	2	0.0	9	0.26	0.74	5.8	0.1

Cundall, Johnston & Partners		Page 24
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29 File DRAINAGE ZONES A & B SURFACE WA...	Designed by AJWC Checked by SP	
Micro Drainage	Network 2017.1.2	

FOUL SEWERAGE DESIGN

Network Design Table for Foul - Pumped

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
Fp21.006	6.668	0.044	151.5	0.000	2	0.0	1.500	o	150	Pipe/Conduit	
Fp24.000	13.780	0.172	80.1	0.000	3	0.0	1.500	o	100	Pipe/Conduit	
Fp21.007	2.271	0.015	151.4	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp25.000	13.694	0.171	80.1	0.000	4	0.0	1.500	o	100	Pipe/Conduit	
Fp21.008	19.043	0.127	149.9	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp21.009	7.846	0.052	150.9	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.036	8.941	0.060	149.0	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fp1.037	2.890	0.019	152.1	0.000	0	0.0	1.500	o	150	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)
Fp21.006	8.948	0.000	0.0	18	0.0	26	0.40	0.71	12.6	0.8
Fp24.000	9.406	0.000	0.0	3	0.0	11	0.30	0.74	5.8	0.1
Fp21.007	8.904	0.000	0.0	21	0.0	29	0.42	0.71	12.6	1.0
Fp25.000	9.338	0.000	0.0	4	0.0	13	0.33	0.74	5.8	0.2
Fp21.008	8.889	0.000	0.0	25	0.0	31	0.44	0.71	12.6	1.2
Fp21.009	8.762	0.000	0.0	25	0.0	31	0.44	0.71	12.6	1.2
Fp1.036	5.096	0.000	0.0	111	0.0	66	0.68	0.72	12.7	5.1
Fp1.037	5.036	0.000	0.0	111	0.0	67	0.67	0.71	12.5	5.1

Cundall, Johnston & Partners				Page 25			
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG				1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL			
Date 13/04/2018 18:29				Designed by AJWC			
File DRAINAGE ZONES A & B SURFACE WA...				Checked by SP			
Micro Drainage				Network 2017.1.2			



Manhole Schedules for Foul - Pumped

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)
Fp100	10.849	0.911	Open Manhole	450	Fp1.000	9.938	100				
Fp101	10.919	1.060	Open Manhole	450	Fp1.001	9.859	100	Fp1.000	9.859	100	
Fp200	10.974	0.962	Open Manhole	450	Fp2.000	10.012	100				
Fp201	10.992	1.059	Open Manhole	450	Fp2.001	9.933	100	Fp2.000	9.933	100	
Fp202	10.986	1.127	Open Manhole	450	Fp2.002	9.859	100	Fp2.001	9.859	100	
Fp102	10.984	1.222	Open Manhole	450	Fp1.002	9.762	100	Fp1.001	9.762	100	
								Fp2.002	9.764	100	2
Fp300	10.779	0.900	Open Manhole	450	Fp3.000	9.879	100				
Fp103	10.913	1.366	Open Manhole	450	Fp1.003	9.547	150	Fp1.002	9.597	100	
								Fp3.000	9.614	100	17
Fp104	10.960	1.463	Open Manhole	450	Fp1.004	9.497	150	Fp1.003	9.497	150	
Fp105	10.813	1.432	Open Manhole	1200	Fp1.005	9.381	150	Fp1.004	9.381	150	
Fp106	10.907	1.621	Open Manhole	1200	Fp1.006	9.286	150	Fp1.005	9.286	150	
Fp107	10.930	1.703	Open Manhole	1200	Fp1.007	9.227	150	Fp1.006	9.227	150	
Fp108	10.927	1.776	Open Manhole		Fp1.008	9.151	150	Fp1.007	9.151	150	
Fp400	11.040	1.040	Open Manhole		Fp4.000	10.000	100				
Fp109	10.930	1.899	Junction	0	Fp1.009	9.031	150	Fp1.008	9.031	150	
								Fp4.000	9.941	100	860
Fp500	11.000	1.072	Open Manhole	450	Fp5.000	9.928	100				
Fp110	10.930	2.388	Open Manhole	1200	Fp1.010	8.542	150	Fp1.009	8.542	150	
								Fp5.000	9.880	100	1288
Fp600	11.040	1.105	Open Manhole	450	Fp6.000	9.935	100				
Fp111	10.930	2.462	Open Manhole	1200	Fp1.011	8.468	150	Fp1.010	8.468	150	
								Fp6.000	9.880	100	1362
Fp112	10.928	2.502	Open Manhole	1200	Fp1.012	8.426	150	Fp1.011	8.426	150	
Fp113	10.914	2.536	Open Manhole	1200	Fp1.013	8.378	150	Fp1.012	8.378	150	
Fp700	11.020	1.072	Open Manhole	450	Fp7.000	9.948	100				
Fp114	10.903	2.561	Open Manhole	1200	Fp1.014	8.342	150	Fp1.013	8.342	150	
								Fp7.000	9.854	100	1462
Fp800	10.975	1.200	Open Manhole	450	Fp8.000	9.775	100				
Fp801	10.975	1.272	Open Manhole	450	Fp8.001	9.703	100	Fp8.000	9.703	100	
Fp900	10.900	1.209	Open Manhole	450	Fp9.000	9.691	100				
Fp802	10.911	1.391	Open Manhole	450	Fp8.002	9.520	100	Fp8.001	9.520	100	
								Fp9.000	9.644	100	124
Fp803	10.900	1.483	Open Manhole	450	Fp8.003	9.417	100	Fp8.002	9.417	100	
Fp804	10.944	1.637	Open Manhole	450	Fp8.004	9.307	100	Fp8.003	9.307	100	
Fp805	10.935	1.738	Open Manhole	450	Fp8.005	9.197	100	Fp8.004	9.197	100	
Fp806	10.817	2.025	Open Manhole	450	Fp8.006	8.792	150	Fp8.005	8.842	100	
Fp807	10.862	2.099	Open Manhole	450	Fp8.007	8.763	150	Fp8.006	8.763	150	
Fp115	10.730	2.695	Open Manhole	1200	Fp1.015	8.035	150	Fp1.014	8.035	150	
								Fp8.007	8.640	150	605
Fp116	10.723	2.740	Open Manhole	1200	Fp1.016	7.983	150	Fp1.015	7.983	150	
Fp1000	10.919	1.260	Open Manhole	450	Fp10.000	9.659	100				
Fp117	10.733	2.872	Open Manhole	1200	Fp1.017	7.861	150	Fp1.016	7.861	150	
								Fp10.000	9.547	100	1636
Fp1100	10.903	0.863	Open Manhole	450	Fp11.000	10.040	100				
Fp118	10.730	2.927	Open Manhole	1200	Fp1.018	7.803	150	Fp1.017	7.803	150	
								Fp11.000	9.986	100	2133
Fp1200	10.930	1.402	Open Manhole	450	Fp12.000	9.528	100				
Fp119	10.730	3.111	Open Manhole	1200	Fp1.019	7.619	150	Fp1.018	7.619	150	
								Fp12.000	9.470	100	1801
Fp120	10.730	3.169	Open Manhole	1200	Fp1.020	7.561	150	Fp1.019	7.561	150	
Fp1300	10.982	0.948	Open Manhole	450	Fp13.000	10.034	100				
Fp121	10.730	3.339	Open Manhole	1200	Fp1.021	7.391	150	Fp1.020	7.391	150	
								Fp13.000	9.963	100	2522

Cundall, Johnston & Partners		Page 26
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

Manhole Schedules for Foul - Pumped

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam., L*W (mm)	PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
Fp1400	10.811	1.401	Open Manhole	450	Fp14.000	9.410	100				
Fp1401	10.871	1.727	Open Manhole	450	Fp14.001	9.144	100	Fp14.000	9.144	100	
Fp1402	10.861	1.802	Open Manhole	450	Fp14.002	9.059	100	Fp14.001	9.059	100	
Fp1403	10.823	1.882	Open Manhole	450	Fp14.003	8.941	100	Fp14.002	8.941	100	
Fp1404	10.862	2.079	Open Manhole	450	Fp14.004	8.783	100	Fp14.003	8.783	100	
Fp122	10.730	3.515	Open Manhole	1200	Fp1.022	7.215	150	Fp1.021	7.215	150	
								Fp14.004	8.669	100	1404
Fp123	10.690	3.895	Open Manhole		Fp1.023	6.795	150	Fp1.022	6.795	150	
Fp1500	10.794	1.322	Open Manhole		Fp15.000	9.472	100				
Fp124	10.739	4.057	Junction	0	Fp1.024	6.682	150	Fp1.023	6.682	150	
								Fp15.000	9.417	100	2685
Fp125	10.739	4.170	Open Manhole	1200	Fp1.025	6.569	150	Fp1.024	6.569	150	
Fp126	10.715	4.219	Open Manhole	1200	Fp1.026	6.496	150	Fp1.025	6.496	150	
Fp1600	10.835	1.269	Open Manhole	450	Fp16.000	9.566	100				
Fp1601	10.850	1.574	Open Manhole	450	Fp16.001	9.276	100	Fp16.000	9.276	100	
Fp1602	10.830	1.654	Open Manhole	450	Fp16.002	9.176	100	Fp16.001	9.176	100	
Fp1700	10.950	1.567	Open Manhole	450	Fp17.000	9.383	100				
Fp1701	10.850	1.575	Open Manhole	450	Fp17.001	9.275	100	Fp17.000	9.275	100	
Fp1702	10.680	1.549	Open Manhole	450	Fp17.002	9.131	100	Fp17.001	9.131	100	
Fp1703	10.700	1.628	Open Manhole	450	Fp17.003	9.072	100	Fp17.002	9.072	100	
Fp1603	10.720	1.857	Open Manhole	450	Fp16.003	8.863	150	Fp16.002	9.000	100	87
								Fp17.003	8.913	100	
Fp1604	10.700	1.879	Open Manhole	450	Fp16.004	8.821	150	Fp16.003	8.821	150	
Fp1800	10.970	1.044	Open Manhole	450	Fp18.000	9.926	100				
Fp1801	10.968	1.071	Open Manhole	450	Fp18.001	9.897	100	Fp18.000	9.897	100	
Fp1605	10.830	2.102	Open Manhole	450	Fp16.005	8.728	150	Fp16.004	8.728	150	
								Fp18.001	9.772	100	994
Fp1606	10.900	2.259	Open Manhole	450	Fp16.006	8.641	150	Fp16.005	8.641	150	
Fp127	10.711	4.288	Open Manhole	1200	Fp1.027	6.423	150	Fp1.026	6.423	150	
								Fp16.006	8.604	150	2181
Fp1900	10.814	0.966	Open Manhole	450	Fp19.000	9.848	100				
Fp1901	10.845	1.038	Open Manhole	450	Fp19.001	9.807	100	Fp19.000	9.807	100	
Fp128	10.711	4.353	Open Manhole	1200	Fp1.028	6.358	150	Fp1.027	6.358	150	
								Fp19.001	9.676	100	3268
Fp129	10.737	4.524	Open Manhole	1200	Fp1.029	6.213	150	Fp1.028	6.213	150	
Fp2000	10.813	0.953	Open Manhole	450	Fp20.000	9.860	100				
Fp2001	10.824	1.103	Open Manhole	450	Fp20.001	9.721	100	Fp20.000	9.721	100	
Fp2002	10.814	1.201	Open Manhole	450	Fp20.002	9.613	150	Fp20.001	9.663	100	
Fp130	10.652	4.523	Open Manhole	1200	Fp1.030	6.129	150	Fp1.029	6.129	150	
								Fp20.002	9.535	150	3406
Fp131	10.497	4.480	Open Manhole	1200	Fp1.031	6.017	150	Fp1.030	6.017	150	
Fp132	10.836	5.154	Open Manhole	1200	Fp1.032	5.682	150	Fp1.031	5.682	150	
Fp133	10.474	5.127	Open Manhole	1200	Fp1.033	5.347	150	Fp1.032	5.347	150	
Fp134	10.353	5.079	Open Manhole	1200	Fp1.034	5.274	150	Fp1.033	5.274	150	
Fp135	10.575	5.423	Open Manhole	1200	Fp1.035	5.152	150	Fp1.034	5.152	150	
Fp2100	10.786	1.046	Open Manhole	450	Fp21.000	9.740	100				
Fp2101	10.680	1.068	Open Manhole	450	Fp21.001	9.612	100	Fp21.000	9.612	100	
Fp2102	10.636	1.302	Open Manhole	450	Fp21.002	9.334	100	Fp21.001	9.334	100	
Fp2200	10.645	1.028	Open Manhole	450	Fp22.000	9.617	100				
Fp2103	10.605	1.356	Open Manhole	450	Fp21.003	9.249	150	Fp21.002	9.299	100	
								Fp22.000	9.536	100	237
Fp2104	10.604	1.437	Open Manhole	450	Fp21.004	9.167	150	Fp21.003	9.167	150	
Fp2105	10.603	1.524	Open Manhole	450	Fp21.005	9.079	150	Fp21.004	9.079	150	
Fp2300	10.597	1.419	Open Manhole	450	Fp23.000	9.178	100				
Fp2106	10.594	1.646	Open Manhole	450	Fp21.006	8.948	150	Fp21.005	8.948	150	

Cundall, Johnston & Partners				Page 27			
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG				1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL			
Date 13/04/2018 18:29				Designed by AJWC			
File DRAINAGE ZONES A & B SURFACE WA...				Checked by SP			
Micro Drainage				Network 2017.1.2			



Manhole Schedules for Foul - Pumped

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)
Fp2400	10.561	1.155	Open Manhole	450	Fp24.000	9.406	100	Fp23.000	9.084	100	86
Fp2107	10.568	1.664	Open Manhole	450	Fp21.007	8.904	150	Fp21.006	8.904	150	
Fp2500	10.498	1.160	Open Manhole	450	Fp25.000	9.338	100	Fp24.000	9.234	100	280
Fp2108	10.559	1.670	Open Manhole	450	Fp21.008	8.889	150	Fp21.007	8.889	150	
Fp2109	10.531	1.769	Open Manhole	1200	Fp21.009	8.762	150	Fp25.000	9.167	100	228
Fp136	10.496	5.400	Open Manhole	1200	Fp1.036	5.096	150	Fp21.008	8.762	150	
Fp137	10.338	5.302	Open Manhole	1200	Fp1.037	5.036	150	Fp1.035	5.096	150	
FpPS	10.328	5.311	Open Manhole	0		OUTFALL		Fp21.009	8.710	150	3614
								Fp1.036	5.036	150	
								Fp1.037	5.017	150	

Cundall, Johnston & Partners		Page 28
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

PIPELINE SCHEDULES for Foul - Pumped

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)
Fp1.000	o	100	Fp100	10.849	9.938	0.811	Open Manhole	450
Fp1.001	o	100	Fp101	10.919	9.859	0.960	Open Manhole	450
Fp2.000	o	100	Fp200	10.974	10.012	0.862	Open Manhole	450
Fp2.001	o	100	Fp201	10.992	9.933	0.959	Open Manhole	450
Fp2.002	o	100	Fp202	10.986	9.859	1.027	Open Manhole	450
Fp1.002	o	100	Fp102	10.984	9.762	1.122	Open Manhole	450
Fp3.000	o	100	Fp300	10.779	9.879	0.800	Open Manhole	450
Fp1.003	o	150	Fp103	10.913	9.547	1.216	Open Manhole	450
Fp1.004	o	150	Fp104	10.960	9.497	1.313	Open Manhole	450
Fp1.005	o	150	Fp105	10.813	9.381	1.282	Open Manhole	1200
Fp1.006	o	150	Fp106	10.907	9.286	1.471	Open Manhole	1200
Fp1.007	o	150	Fp107	10.930	9.227	1.553	Open Manhole	1200
Fp1.008	o	150	Fp108	10.927	9.151	1.626	Open Manhole	1200
Fp4.000	o	100	Fp400	11.040	10.000	0.940	Open Manhole	450
Fp1.009	o	150	Fp109	10.930	9.031	1.749	Junction	
Fp5.000	o	100	Fp500	11.000	9.928	0.972	Open Manhole	450
Fp1.010	o	150	Fp110	10.930	8.542	2.238	Open Manhole	1200
Fp6.000	o	100	Fp600	11.040	9.935	1.005	Open Manhole	450
Fp1.011	o	150	Fp111	10.930	8.468	2.312	Open Manhole	1200
Fp1.012	o	150	Fp112	10.928	8.426	2.352	Open Manhole	1200
Fp1.013	o	150	Fp113	10.914	8.378	2.386	Open Manhole	1200
Fp7.000	o	100	Fp700	11.020	9.948	0.972	Open Manhole	450

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)
Fp1.000	6.129	77.6	Fp101	10.919	9.859	0.960	Open Manhole	450
Fp1.001	7.968	82.1	Fp102	10.984	9.762	1.122	Open Manhole	450
Fp2.000	6.340	80.3	Fp201	10.992	9.933	0.959	Open Manhole	450
Fp2.001	5.935	80.2	Fp202	10.986	9.859	1.027	Open Manhole	450
Fp2.002	7.599	80.0	Fp102	10.984	9.764	1.120	Open Manhole	450
Fp1.002	13.197	80.0	Fp103	10.913	9.597	1.216	Open Manhole	450
Fp3.000	21.165	79.9	Fp103	10.913	9.614	1.199	Open Manhole	450
Fp1.003	7.480	149.6	Fp104	10.960	9.497	1.313	Open Manhole	450
Fp1.004	17.468	150.6	Fp105	10.813	9.381	1.282	Open Manhole	1200
Fp1.005	14.221	149.7	Fp106	10.907	9.286	1.471	Open Manhole	1200
Fp1.006	8.822	149.5	Fp107	10.930	9.227	1.553	Open Manhole	1200
Fp1.007	11.341	149.2	Fp108	10.927	9.151	1.626	Open Manhole	1200
Fp1.008	17.981	149.8	Fp109	10.930	9.031	1.749	Junction	
Fp4.000	4.753	80.6	Fp109	10.930	9.941	0.889	Junction	
Fp1.009	57.893	118.4	Fp110	10.930	8.542	2.238	Open Manhole	1200
Fp5.000	3.800	79.2	Fp110	10.930	9.880	0.950	Open Manhole	1200
Fp1.010	11.052	149.4	Fp111	10.930	8.468	2.312	Open Manhole	1200
Fp6.000	4.388	79.8	Fp111	10.930	9.880	0.950	Open Manhole	1200
Fp1.011	6.320	150.5	Fp112	10.928	8.426	2.352	Open Manhole	1200
Fp1.012	7.175	149.5	Fp113	10.914	8.378	2.386	Open Manhole	1200
Fp1.013	5.371	149.2	Fp114	10.903	8.342	2.411	Open Manhole	1200
Fp7.000	7.497	79.8	Fp114	10.903	9.854	0.949	Open Manhole	1200

Cundall, Johnston & Partners		Page 29
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

PIPELINE SCHEDULES for Foul - Pumped

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)
Fp1.014	o	150	Fp114	10.903	8.342	2.411	Open Manhole	1200
Fp8.000	o	100	Fp800	10.975	9.775	1.100	Open Manhole	450
Fp8.001	o	100	Fp801	10.975	9.703	1.172	Open Manhole	450
Fp9.000	o	100	Fp900	10.900	9.691	1.109	Open Manhole	450
Fp8.002	o	100	Fp802	10.911	9.520	1.291	Open Manhole	450
Fp8.003	o	100	Fp803	10.900	9.417	1.383	Open Manhole	450
Fp8.004	o	100	Fp804	10.944	9.307	1.537	Open Manhole	450
Fp8.005	o	100	Fp805	10.935	9.197	1.638	Open Manhole	450
Fp8.006	o	150	Fp806	10.817	8.792	1.875	Open Manhole	450
Fp8.007	o	150	Fp807	10.862	8.763	1.949	Open Manhole	450
Fp1.015	o	150	Fp115	10.730	8.035	2.545	Open Manhole	1200
Fp1.016	o	150	Fp116	10.723	7.983	2.590	Open Manhole	1200
Fp10.000	o	100	Fp1000	10.919	9.659	1.160	Open Manhole	450
Fp1.017	o	150	Fp117	10.733	7.861	2.722	Open Manhole	1200
Fp11.000	o	100	Fp1100	10.903	10.040	0.763	Open Manhole	450
Fp1.018	o	150	Fp118	10.730	7.803	2.777	Open Manhole	1200
Fp12.000	o	100	Fp1200	10.930	9.528	1.302	Open Manhole	450
Fp1.019	o	150	Fp119	10.730	7.619	2.961	Open Manhole	1200
Fp1.020	o	150	Fp120	10.730	7.561	3.019	Open Manhole	1200
Fp13.000	o	100	Fp1300	10.982	10.034	0.848	Open Manhole	450

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)
Fp1.014	46.036	150.0	Fp115	10.730	8.035	2.545	Open Manhole	1200
Fp8.000	5.798	80.5	Fp801	10.975	9.703	1.172	Open Manhole	450
Fp8.001	14.606	79.8	Fp802	10.911	9.520	1.291	Open Manhole	450
Fp9.000	3.722	79.2	Fp802	10.911	9.644	1.167	Open Manhole	450
Fp8.002	8.276	80.3	Fp803	10.900	9.417	1.383	Open Manhole	450
Fp8.003	11.944	108.6	Fp804	10.944	9.307	1.537	Open Manhole	450
Fp8.004	5.679	51.6	Fp805	10.935	9.197	1.638	Open Manhole	450
Fp8.005	28.366	79.9	Fp806	10.817	8.842	1.875	Open Manhole	450
Fp8.006	4.350	150.0	Fp807	10.862	8.763	1.949	Open Manhole	450
Fp8.007	18.511	150.5	Fp115	10.730	8.640	1.940	Open Manhole	1200
Fp1.015	7.833	150.6	Fp116	10.723	7.983	2.590	Open Manhole	1200
Fp1.016	18.354	150.4	Fp117	10.733	7.861	2.722	Open Manhole	1200
Fp10.000	8.928	79.7	Fp117	10.733	9.547	1.086	Open Manhole	1200
Fp1.017	8.726	150.4	Fp118	10.730	7.803	2.777	Open Manhole	1200
Fp11.000	4.283	79.3	Fp118	10.730	9.986	0.644	Open Manhole	1200
Fp1.018	27.654	150.3	Fp119	10.730	7.619	2.961	Open Manhole	1200
Fp12.000	4.643	80.1	Fp119	10.730	9.470	1.160	Open Manhole	1200
Fp1.019	8.722	150.4	Fp120	10.730	7.561	3.019	Open Manhole	1200
Fp1.020	25.436	149.6	Fp121	10.730	7.391	3.189	Open Manhole	1200
Fp13.000	5.692	80.2	Fp121	10.730	9.963	0.667	Open Manhole	1200

Cundall, Johnston & Partners		Page 30
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29 File DRAINAGE ZONES A & B SURFACE WA...	Designed by AJWC Checked by SP	
Micro Drainage	Network 2017.1.2	

PIPELINE SCHEDULES for Foul - Pumped

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)
Fp1.021	o	150	Fp121	10.730	7.391	3.189	Open Manhole	1200
Fp14.000	o	100	Fp1400	10.811	9.410	1.301	Open Manhole	450
Fp14.001	o	100	Fp1401	10.871	9.144	1.627	Open Manhole	450
Fp14.002	o	100	Fp1402	10.861	9.059	1.702	Open Manhole	450
Fp14.003	o	100	Fp1403	10.823	8.941	1.782	Open Manhole	450
Fp14.004	o	100	Fp1404	10.862	8.783	1.979	Open Manhole	450
Fp1.022	o	150	Fp122	10.730	7.215	3.365	Open Manhole	1200
Fp1.023	o	150	Fp123	10.690	6.795	3.745	Open Manhole	1200
Fp15.000	o	100	Fp1500	10.794	9.472	1.222	Open Manhole	450
Fp1.024	o	150	Fp124	10.739	6.682	3.907	Junction	
Fp1.025	o	150	Fp125	10.739	6.569	4.020	Open Manhole	1200
Fp1.026	o	150	Fp126	10.715	6.496	4.069	Open Manhole	1200
Fp16.000	o	100	Fp1600	10.835	9.566	1.169	Open Manhole	450
Fp16.001	o	100	Fp1601	10.850	9.276	1.474	Open Manhole	450
Fp16.002	o	100	Fp1602	10.830	9.176	1.554	Open Manhole	450
Fp17.000	o	100	Fp1700	10.950	9.383	1.467	Open Manhole	450
Fp17.001	o	100	Fp1701	10.850	9.275	1.475	Open Manhole	450
Fp17.002	o	100	Fp1702	10.680	9.131	1.449	Open Manhole	450
Fp17.003	o	100	Fp1703	10.700	9.072	1.528	Open Manhole	450
Fp16.003	o	150	Fp1603	10.720	8.863	1.707	Open Manhole	450
Fp16.004	o	150	Fp1604	10.700	8.821	1.729	Open Manhole	450
Fp18.000	o	100	Fp1800	10.970	9.926	0.944	Open Manhole	450
Fp18.001	o	100	Fp1801	10.968	9.897	0.971	Open Manhole	450
Fp16.005	o	150	Fp1605	10.830	8.728	1.952	Open Manhole	450

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)
Fp1.021	26.456	150.3	Fp122	10.730	7.215	3.365	Open Manhole	1200
Fp14.000	21.304	80.1	Fp1401	10.871	9.144	1.627	Open Manhole	450
Fp14.001	6.815	80.2	Fp1402	10.861	9.059	1.702	Open Manhole	450
Fp14.002	9.472	80.3	Fp1403	10.823	8.941	1.782	Open Manhole	450
Fp14.003	12.630	79.9	Fp1404	10.862	8.783	1.979	Open Manhole	450
Fp14.004	9.128	80.1	Fp122	10.730	8.669	1.961	Open Manhole	1200
Fp1.022	62.981	150.0	Fp123	10.690	6.795	3.745	Open Manhole	1200
Fp1.023	22.908	202.7	Fp124	10.739	6.682	3.907	Junction	
Fp15.000	4.374	79.5	Fp124	10.739	9.417	1.222	Junction	
Fp1.024	10.834	95.9	Fp125	10.739	6.569	4.020	Open Manhole	1200
Fp1.025	10.952	150.0	Fp126	10.715	6.496	4.069	Open Manhole	1200
Fp1.026	10.943	149.9	Fp127	10.711	6.423	4.138	Open Manhole	1200
Fp16.000	23.204	80.0	Fp1601	10.850	9.276	1.474	Open Manhole	450
Fp16.001	7.999	80.0	Fp1602	10.830	9.176	1.554	Open Manhole	450
Fp16.002	14.109	80.2	Fp1603	10.720	9.000	1.620	Open Manhole	450
Fp17.000	8.676	80.3	Fp1701	10.850	9.275	1.475	Open Manhole	450
Fp17.001	11.483	79.7	Fp1702	10.680	9.131	1.449	Open Manhole	450
Fp17.002	4.715	79.9	Fp1703	10.700	9.072	1.528	Open Manhole	450
Fp17.003	12.700	79.9	Fp1603	10.720	8.913	1.707	Open Manhole	450
Fp16.003	6.266	149.2	Fp1604	10.700	8.821	1.729	Open Manhole	450
Fp16.004	13.957	150.1	Fp1605	10.830	8.728	1.952	Open Manhole	450
Fp18.000	2.327	80.2	Fp1801	10.968	9.897	0.971	Open Manhole	450
Fp18.001	9.984	79.9	Fp1605	10.830	9.772	0.958	Open Manhole	450
Fp16.005	13.016	149.6	Fp1606	10.900	8.641	2.109	Open Manhole	450

Cundall, Johnston & Partners		Page 31
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

PIPELINE SCHEDULES for Foul - Pumped

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)
Fp16.006	o	150	Fp1606	10.900	8.641	2.109	Open Manhole	450
Fp1.027	o	150	Fp127	10.711	6.423	4.138	Open Manhole	1200
Fp19.000	o	100	Fp1900	10.814	9.848	0.866	Open Manhole	450
Fp19.001	o	100	Fp1901	10.845	9.807	0.938	Open Manhole	450
Fp1.028	o	150	Fp128	10.711	6.358	4.203	Open Manhole	1200
Fp1.029	o	150	Fp129	10.737	6.213	4.374	Open Manhole	1200
Fp20.000	o	100	Fp2000	10.813	9.860	0.853	Open Manhole	450
Fp20.001	o	100	Fp2001	10.824	9.721	1.003	Open Manhole	450
Fp20.002	o	150	Fp2002	10.814	9.613	1.051	Open Manhole	450
Fp1.030	o	150	Fp130	10.652	6.129	4.373	Open Manhole	1200
Fp1.031	o	150	Fp131	10.497	6.017	4.330	Open Manhole	1200
Fp1.032	o	150	Fp132	10.836	5.682	5.004	Open Manhole	1200
Fp1.033	o	150	Fp133	10.474	5.347	4.977	Open Manhole	1200
Fp1.034	o	150	Fp134	10.353	5.274	4.929	Open Manhole	1200
Fp1.035	o	150	Fp135	10.575	5.152	5.273	Open Manhole	1200
Fp21.000	o	100	Fp2100	10.786	9.740	0.946	Open Manhole	450
Fp21.001	o	100	Fp2101	10.680	9.612	0.968	Open Manhole	450
Fp21.002	o	100	Fp2102	10.636	9.334	1.202	Open Manhole	450
Fp22.000	o	100	Fp2200	10.645	9.617	0.928	Open Manhole	450
Fp21.003	o	150	Fp2103	10.605	9.249	1.206	Open Manhole	450
Fp21.004	o	150	Fp2104	10.604	9.167	1.287	Open Manhole	450
Fp21.005	o	150	Fp2105	10.603	9.079	1.374	Open Manhole	450
Fp23.000	o	100	Fp2300	10.597	9.178	1.319	Open Manhole	450

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)
Fp16.006	5.584	150.9	Fp127	10.711	8.604	1.957	Open Manhole	1200
Fp1.027	9.679	148.9	Fp128	10.711	6.358	4.203	Open Manhole	1200
Fp19.000	3.294	80.3	Fp1901	10.845	9.807	0.938	Open Manhole	450
Fp19.001	10.475	80.0	Fp128	10.711	9.676	0.935	Open Manhole	1200
Fp1.028	21.777	150.2	Fp129	10.737	6.213	4.374	Open Manhole	1200
Fp1.029	12.567	149.6	Fp130	10.652	6.129	4.373	Open Manhole	1200
Fp20.000	11.123	80.0	Fp2001	10.824	9.721	1.003	Open Manhole	450
Fp20.001	4.635	79.9	Fp2002	10.814	9.663	1.051	Open Manhole	450
Fp20.002	11.744	150.6	Fp130	10.652	9.535	0.967	Open Manhole	1200
Fp1.030	16.826	150.2	Fp131	10.497	6.017	4.330	Open Manhole	1200
Fp1.031	50.308	150.2	Fp132	10.836	5.682	5.004	Open Manhole	1200
Fp1.032	50.308	150.2	Fp133	10.474	5.347	4.977	Open Manhole	1200
Fp1.033	11.000	150.7	Fp134	10.353	5.274	4.929	Open Manhole	1200
Fp1.034	18.296	150.0	Fp135	10.575	5.152	5.273	Open Manhole	1200
Fp1.035	8.423	150.4	Fp136	10.496	5.096	5.250	Open Manhole	1200
Fp21.000	10.321	80.6	Fp2101	10.680	9.612	0.968	Open Manhole	450
Fp21.001	22.180	79.8	Fp2102	10.636	9.334	1.202	Open Manhole	450
Fp21.002	2.794	79.8	Fp2103	10.605	9.299	1.206	Open Manhole	450
Fp22.000	6.485	80.1	Fp2103	10.605	9.536	0.969	Open Manhole	450
Fp21.003	12.369	150.8	Fp2104	10.604	9.167	1.287	Open Manhole	450
Fp21.004	13.210	150.1	Fp2105	10.603	9.079	1.374	Open Manhole	450
Fp21.005	19.607	149.7	Fp2106	10.594	8.948	1.496	Open Manhole	450
Fp23.000	7.509	79.9	Fp2106	10.594	9.084	1.410	Open Manhole	450

Cundall, Johnston & Partners		Page 32
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29 File DRAINAGE ZONES A & B SURFACE WA...	Designed by AJWC Checked by SP	
Micro Drainage	Network 2017.1.2	

PIPELINE SCHEDULES for Foul - Pumped

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)
Fp21.006	o	150	Fp2106	10.594	8.948	1.496	Open Manhole	450
Fp24.000	o	100	Fp2400	10.561	9.406	1.055	Open Manhole	450
Fp21.007	o	150	Fp2107	10.568	8.904	1.514	Open Manhole	450
Fp25.000	o	100	Fp2500	10.498	9.338	1.060	Open Manhole	450
Fp21.008	o	150	Fp2108	10.559	8.889	1.520	Open Manhole	450
Fp21.009	o	150	Fp2109	10.531	8.762	1.619	Open Manhole	1200
Fp1.036	o	150	Fp136	10.496	5.096	5.250	Open Manhole	1200
Fp1.037	o	150	Fp137	10.338	5.036	5.152	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)
Fp21.006	6.668	151.5	Fp2107	10.568	8.904	1.514	Open Manhole	450
Fp24.000	13.780	80.1	Fp2107	10.568	9.234	1.234	Open Manhole	450
Fp21.007	2.271	151.4	Fp2108	10.559	8.889	1.520	Open Manhole	450
Fp25.000	13.694	80.1	Fp2108	10.559	9.167	1.292	Open Manhole	450
Fp21.008	19.043	149.9	Fp2109	10.531	8.762	1.619	Open Manhole	1200
Fp21.009	7.846	150.9	Fp136	10.496	8.710	1.636	Open Manhole	1200
Fp1.036	8.941	149.0	Fp137	10.338	5.036	5.152	Open Manhole	1200
Fp1.037	2.890	152.1	FpPS	10.328	5.017	5.161	Open Manhole	0

Cundall, Johnston & Partners		Page 33
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

Network Classifications for Foul - Pumped

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
Fp1.000	Fp100	100	0.811	0.960	PVC	450	0	0.811	TYPE 3 [PPIC]
Fp1.001	Fp101	100	0.960	1.122	PVC	450	0	0.960	TYPE 3 [PPIC]
Fp2.000	Fp200	100	0.862	0.959	PVC	450	0	0.862	TYPE 3 [PPIC]
Fp2.001	Fp201	100	0.959	1.027	PVC	450	0	0.959	TYPE 3 [PPIC]
Fp2.002	Fp202	100	1.027	1.120	PVC	450	0	1.027	TYPE 3 [PPIC]
Fp1.002	Fp102	100	1.122	1.216	PVC	450	0	1.122	TYPE 3 [PPIC]
Fp3.000	Fp300	100	0.800	1.199	PVC	450	0	0.800	TYPE 3 [PPIC]
Fp1.003	Fp103	150	1.216	1.313	PVC	450	0	1.216	TYPE 3 [PPIC]
Fp1.004	Fp104	150	1.282	1.327	PVC	450	0	1.313	TYPE 3 [PPIC]
Fp1.005	Fp105	150	1.282	1.471	PVC	1200	0	1.282	TYPE 2 [PRE-CAST CONC]
Fp1.006	Fp106	150	1.471	1.581	PVC	1200	0	1.471	TYPE 2 [PRE-CAST CONC]
Fp1.007	Fp107	150	1.553	1.626	PVC	1200	0	1.553	TYPE 2 [PRE-CAST CONC]
Fp1.008	Fp108	150	1.626	1.749	PVC	1200	0	1.626	TYPE 2 [PRE-CAST CONC]
Fp4.000	Fp400	100	0.889	0.940	PVC	450	0	0.940	TYPE 3 [PPIC]
Fp1.009	Fp109	150	1.749	2.238	PVC				Junction
Fp5.000	Fp500	100	0.950	0.979	PVC	450	0	0.972	TYPE 3 [PPIC]
Fp1.010	Fp110	150	2.238	2.312	PVC	1200	0	2.238	TYPE 2 [PRE-CAST CONC]
Fp6.000	Fp600	100	0.949	1.005	PVC	450	0	1.005	TYPE 3 [PPIC]
Fp1.011	Fp111	150	2.312	2.352	PVC	1200	0	2.312	TYPE 2 [PRE-CAST CONC]
Fp1.012	Fp112	150	2.352	2.387	PVC	1200	0	2.352	TYPE 2 [PRE-CAST CONC]
Fp1.013	Fp113	150	2.386	2.411	PVC	1200	0	2.386	TYPE 2 [PRE-CAST CONC]
Fp7.000	Fp700	100	0.949	1.033	PVC	450	0	0.972	TYPE 3 [PPIC]
Fp1.014	Fp114	150	2.411	2.545	PVC	1200	0	2.411	TYPE 2 [PRE-CAST CONC]
Fp8.000	Fp800	100	1.100	1.172	PVC	450	0	1.100	TYPE 3 [PPIC]
Fp8.001	Fp801	100	1.172	1.294	PVC	450	0	1.172	TYPE 3 [PPIC]
Fp9.000	Fp900	100	1.109	1.167	PVC	450	0	1.109	TYPE 3 [PPIC]
Fp8.002	Fp802	100	1.291	1.383	PVC	450	0	1.291	TYPE 3 [PPIC]
Fp8.003	Fp803	100	1.383	1.537	PVC	450	0	1.383	TYPE 3 [PPIC]
Fp8.004	Fp804	100	1.537	1.638	PVC	450	0	1.537	TYPE 3 [PPIC]
Fp8.005	Fp805	100	1.638	1.875	PVC	450	0	1.638	TYPE 3 [PPIC]
Fp8.006	Fp806	150	1.875	1.949	PVC	450	0	1.875	TYPE 3 [PPIC]
Fp8.007	Fp807	150	1.940	2.066	PVC	450	0	1.949	TYPE 3 [PPIC]
Fp1.015	Fp115	150	2.535	2.590	PVC	1200	0	2.545	TYPE 2 [PRE-CAST CONC]
Fp1.016	Fp116	150	2.590	2.722	PVC	1200	0	2.590	TYPE 2 [PRE-CAST CONC]
Fp10.000	Fp1000	100	1.086	1.231	PVC	450	0	1.160	TYPE 3 [PPIC]
Fp1.017	Fp117	150	2.712	2.777	PVC	1200	0	2.722	TYPE 2 [PRE-CAST CONC]
Fp11.000	Fp1100	100	0.644	0.779	PVC	450	0	0.763	TYPE 3 [PPIC]
Fp1.018	Fp118	150	2.777	2.961	PVC	1200	0	2.777	TYPE 2 [PRE-CAST CONC]
Fp12.000	Fp1200	100	1.160	1.302	PVC	450	0	1.302	TYPE 3 [PPIC]
Fp1.019	Fp119	150	2.961	3.047	PVC	1200	0	2.961	TYPE 2 [PRE-CAST CONC]
Fp1.020	Fp120	150	3.019	3.189	PVC	1200	0	3.019	TYPE 1A [PRE-CAST CONC]
Fp13.000	Fp1300	100	0.667	0.848	PVC	450	0	0.848	TYPE 3 [PPIC]
Fp1.021	Fp121	150	3.189	3.365	PVC	1200	0	3.189	TYPE 1A [PRE-CAST CONC]
Fp14.000	Fp1400	100	1.301	1.627	PVC	450	0	1.301	TYPE 3 [PPIC]
Fp14.001	Fp1401	100	1.627	1.702	PVC	450	0	1.627	TYPE 3 [PPIC]
Fp14.002	Fp1402	100	1.702	1.782	PVC	450	0	1.702	TYPE 3 [PPIC]
Fp14.003	Fp1403	100	1.782	2.007	PVC	450	0	1.782	TYPE 3 [PPIC]
Fp14.004	Fp1404	100	1.961	1.993	PVC	450	0	1.979	TYPE 3 [PPIC]
Fp1.022	Fp122	150	3.365	3.745	PVC	1200	0	3.365	TYPE 1A [PRE-CAST CONC]
Fp1.023	Fp123	150	3.745	3.907	PVC	1200	0	3.745	TYPE 1A [PRE-CAST CONC]
Fp15.000	Fp1500	100	1.222	1.234	PVC	450	0	1.222	TYPE 3 [PPIC]
Fp1.024	Fp124	150	3.907	4.020	PVC				Junction
Fp1.025	Fp125	150	4.015	4.069	PVC	1200	0	4.020	TYPE 1A [PRE-CAST CONC]
Fp1.026	Fp126	150	4.069	4.138	PVC	1200	0	4.069	TYPE 1A [PRE-CAST CONC]
Fp16.000	Fp1600	100	1.169	1.474	PVC	450	0	1.169	TYPE 3 [PPIC]
Fp16.001	Fp1601	100	1.474	1.554	PVC	450	0	1.474	TYPE 3 [PPIC]
Fp16.002	Fp1602	100	1.554	1.620	PVC	450	0	1.554	TYPE 3 [PPIC]
Fp17.000	Fp1700	100	1.467	1.532	PVC	450	0	1.467	TYPE 3 [PPIC]
Fp17.001	Fp1701	100	1.449	1.494	PVC	450	0	1.475	TYPE 3 [PPIC]
Fp17.002	Fp1702	100	1.449	1.528	PVC	450	0	1.449	TYPE 3 [PPIC]
Fp17.003	Fp1703	100	1.528	1.707	PVC	450	0	1.528	TYPE 3 [PPIC]
Fp16.003	Fp1603	150	1.707	1.746	PVC	450	0	1.707	TYPE 3 [PPIC]
Fp16.004	Fp1604	150	1.729	1.952	PVC	450	0	1.729	TYPE 3 [PPIC]
Fp18.000	Fp1800	100	0.944	0.971	PVC	450	0	0.944	TYPE 3 [PPIC]
Fp18.001	Fp1801	100	0.958	1.029	PVC	450	0	0.971	TYPE 3 [PPIC]
Fp16.005	Fp1605	150	1.895	2.109	PVC	450	0	1.952	TYPE 3 [PPIC]
Fp16.006	Fp1606	150	1.957	2.109	PVC	450	0	2.109	TYPE 3 [PPIC]
Fp1.027	Fp127	150	4.115	4.203	PVC	1200	0	4.138	TYPE 1A [PRE-CAST CONC]
Fp19.000	Fp1900	100	0.866	0.938	PVC	450	0	0.866	TYPE 3 [PPIC]
Fp19.001	Fp1901	100	0.935	1.047	PVC	450	0	0.938	TYPE 3 [PPIC]
Fp1.028	Fp128	150	4.203	4.381	PVC	1200	0	4.203	TYPE 1A [PRE-CAST CONC]
Fp1.029	Fp129	150	4.349	4.374	PVC	1200	0	4.374	TYPE 1A [PRE-CAST CONC]
Fp20.000	Fp2000	100	0.853	1.003	PVC	450	0	0.853	TYPE 3 [PPIC]
Fp20.001	Fp2001	100	1.003	1.051	PVC	450	0	1.003	TYPE 3 [PPIC]
Fp20.002	Fp2002	150	0.967	1.067	PVC	450	0	1.051	TYPE 3 [PPIC]

Cundall, Johnston & Partners		Page 34
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

Network Classifications for Foul - Pumped

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	
Fp1.030	Fp130	150	4.309	4.373	PVC 1200	1200	0	4.373	TYPE 1A	[PRE-CAST CONC]
Fp1.031	Fp131	150	4.330	5.004	PVC 1200	1200	0	4.330	TYPE 1A	[PRE-CAST CONC]
Fp1.032	Fp132	150	4.977	5.022	PVC 1200	1200	0	5.004	TYPE 1A	[PRE-CAST CONC]
Fp1.033	Fp133	150	4.903	4.977	PVC 1200	1200	0	4.977	TYPE 1A	[PRE-CAST CONC]
Fp1.034	Fp134	150	4.929	5.273	PVC 1200	1200	0	4.929	TYPE 1A	[PRE-CAST CONC]
Fp1.035	Fp135	150	5.236	5.273	PVC 1200	1200	0	5.273	TYPE 1A	[PRE-CAST CONC]
Fp21.000	Fp2100	100	0.942	0.968	PVC 450	450	0	0.946	TYPE 3	[PPIC]
Fp21.001	Fp2101	100	0.968	1.202	PVC 450	450	0	0.968	TYPE 3	[PPIC]
Fp21.002	Fp2102	100	1.194	1.206	PVC 450	450	0	1.202	TYPE 3	[PPIC]
Fp22.000	Fp2200	100	0.928	0.978	PVC 450	450	0	0.928	TYPE 3	[PPIC]
Fp21.003	Fp2103	150	1.206	1.287	PVC 450	450	0	1.206	TYPE 3	[PPIC]
Fp21.004	Fp2104	150	1.287	1.374	PVC 450	450	0	1.287	TYPE 3	[PPIC]
Fp21.005	Fp2105	150	1.374	1.496	PVC 450	450	0	1.374	TYPE 3	[PPIC]
Fp23.000	Fp2300	100	1.319	1.410	PVC 450	450	0	1.319	TYPE 3	[PPIC]
Fp21.006	Fp2106	150	1.496	1.514	PVC 450	450	0	1.496	TYPE 3	[PPIC]
Fp24.000	Fp2400	100	1.055	1.234	PVC 450	450	0	1.055	TYPE 3	[PPIC]
Fp21.007	Fp2107	150	1.514	1.520	PVC 450	450	0	1.514	TYPE 3	[PPIC]
Fp25.000	Fp2500	100	1.060	1.292	PVC 450	450	0	1.060	TYPE 3	[PPIC]
Fp21.008	Fp2108	150	1.520	1.671	PVC 450	450	0	1.520	TYPE 3	[PPIC]
Fp21.009	Fp2109	150	1.608	1.636	PVC 1200	1200	0	1.619	TYPE 2	[PRE-CAST CONC]
Fp1.036	Fp136	150	5.152	5.250	PVC 1200	1200	0	5.250	TYPE 1A	[PRE-CAST CONC]
Fp1.037	Fp137	150	5.152	5.161	PVC 1200	1200	0	5.152	TYPE 1A	[PRE-CAST CONC]

Free Flowing Outfall Details for Foul - Pumped

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
Fp1.037	FpPS	10.328	5.017	0.000	0	0

Cundall, Johnston & Partners		Page 35
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29 File DRAINAGE ZONES A & B SURFACE WA...	Designed by AJWC Checked by SP	
Micro Drainage	Network 2017.1.2	

Volume Summary (Static)

Length Calculations based on True Length

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Total Volume (m³)
Fp1.000	Fp100	0.145	0.045	0.190
Fp1.001	Fp101	0.169	0.059	0.228
Fp2.000	Fp200	0.153	0.046	0.199
Fp2.001	Fp201	0.168	0.043	0.212
Fp2.002	Fp202	0.179	0.056	0.235
Fp1.002	Fp102	0.194	0.100	0.294
Fp3.000	Fp300	0.143	0.163	0.306
Fp1.003	Fp103	0.217	0.124	0.341
Fp1.004	Fp104	0.233	0.294	0.527
Fp1.005	Fp105	1.619	0.230	1.849
Fp1.006	Fp106	1.833	0.135	1.968
Fp1.007	Fp107	1.926	0.179	2.105
Fp1.008	Fp108	2.008	0.307	2.315
Fp4.000	Fp400	0.165	0.036	0.201
Fp1.009	Fp109	0.000	1.012	1.012
Fp5.000	Fp500	0.170	0.023	0.194
Fp1.010	Fp110	2.701	0.174	2.875
Fp6.000	Fp600	0.176	0.028	0.204
Fp1.011	Fp111	2.784	0.090	2.875
Fp1.012	Fp112	2.829	0.106	2.935
Fp1.013	Fp113	2.869	0.074	2.942
Fp7.000	Fp700	0.170	0.052	0.223
Fp1.014	Fp114	2.896	0.792	3.689
Fp8.000	Fp800	0.191	0.042	0.233
Fp8.001	Fp801	0.202	0.111	0.313
Fp9.000	Fp900	0.192	0.026	0.218
Fp8.002	Fp802	0.221	0.061	0.283
Fp8.003	Fp803	0.236	0.090	0.326
Fp8.004	Fp804	0.260	0.041	0.301
Fp8.005	Fp805	0.276	0.219	0.496
Fp8.006	Fp806	0.322	0.069	0.391
Fp8.007	Fp807	0.334	0.313	0.646
Fp1.015	Fp115	3.048	0.117	3.165
Fp1.016	Fp116	3.099	0.303	3.402
Fp10.000	Fp1000	0.200	0.064	0.264
Fp1.017	Fp117	3.249	0.133	3.382
Fp11.000	Fp1100	0.137	0.027	0.164
Fp1.018	Fp118	3.310	0.467	3.778
Fp12.000	Fp1200	0.223	0.030	0.253
Fp1.019	Fp119	3.518	0.133	3.651
Fp1.020	Fp120	3.584	0.428	4.012
Fp13.000	Fp1300	0.151	0.038	0.189
Fp1.021	Fp121	3.776	0.446	4.223
Fp14.000	Fp1400	0.223	0.164	0.387
Fp14.001	Fp1401	0.275	0.050	0.325
Fp14.002	Fp1402	0.287	0.071	0.358
Fp14.003	Fp1403	0.299	0.096	0.395
Fp14.004	Fp1404	0.331	0.065	0.396
Fp1.022	Fp122	3.975	1.092	5.067
Fp1.023	Fp123	4.405	0.394	4.799
Fp15.000	Fp1500	0.210	0.033	0.243
Fp1.024	Fp124	0.000	0.181	0.181
Fp1.025	Fp125	4.716	0.172	4.888
Fp1.026	Fp126	4.771	0.172	4.944
Fp16.000	Fp1600	0.202	0.179	0.381
Fp16.001	Fp1601	0.250	0.059	0.310
Fp16.002	Fp1602	0.263	0.107	0.370
Fp17.000	Fp1700	0.249	0.065	0.314
Fp17.001	Fp1701	0.250	0.087	0.337
Fp17.002	Fp1702	0.246	0.033	0.280
Fp17.003	Fp1703	0.259	0.096	0.355
Fp16.003	Fp1603	0.295	0.103	0.398
Fp16.004	Fp1604	0.299	0.239	0.538
Fp18.000	Fp1800	0.166	0.015	0.181
Fp18.001	Fp1801	0.170	0.075	0.245
Fp16.005	Fp1605	0.334	0.222	0.556
Fp16.006	Fp1606	0.359	0.084	0.443
Fp1.027	Fp127	4.850	0.150	5.000
Fp19.000	Fp1900	0.154	0.022	0.176
Fp19.001	Fp1901	0.165	0.076	0.241
Fp1.028	Fp128	4.923	0.364	5.287
Fp1.029	Fp129	5.117	0.201	5.318
Fp20.000	Fp2000	0.152	0.084	0.235
Fp20.001	Fp2001	0.175	0.033	0.208
Fp20.002	Fp2002	0.191	0.193	0.384

Cundall, Johnston & Partners		Page 36
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B PUMPED FOUL	
Date 13/04/2018 18:29 File DRAINAGE ZONES A & B SURFACE WA...	Designed by AJWC Checked by SP	
Micro Drainage	Network 2017.1.2	

Volume Summary (Static)

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Total Volume (m³)
Fp1.030	Fp130	5.115	0.276	5.391
Fp1.031	Fp131	5.067	0.868	5.935
Fp1.032	Fp132	5.829	0.868	6.697
Fp1.033	Fp133	5.798	0.173	5.971
Fp1.034	Fp134	5.744	0.302	6.046
Fp1.035	Fp135	6.133	0.128	6.261
Fp21.000	Fp2100	0.166	0.078	0.244
Fp21.001	Fp2101	0.170	0.171	0.341
Fp21.002	Fp2102	0.207	0.018	0.226
Fp22.000	Fp2200	0.163	0.047	0.211
Fp21.003	Fp2103	0.216	0.211	0.426
Fp21.004	Fp2104	0.229	0.225	0.454
Fp21.005	Fp2105	0.242	0.339	0.581
Fp23.000	Fp2300	0.226	0.055	0.281
Fp21.006	Fp2106	0.262	0.110	0.372
Fp24.000	Fp2400	0.184	0.105	0.288
Fp21.007	Fp2107	0.265	0.032	0.297
Fp25.000	Fp2500	0.184	0.104	0.288
Fp21.008	Fp2108	0.266	0.322	0.588
Fp21.009	Fp2109	2.001	0.117	2.119
Fp1.036	Fp136	6.107	0.137	6.244
Fp1.037	Fp137	5.996	0.040	6.037
Total		139.413	17.030	156.444

Cundall, Johnston & Partners		Page 37
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B GRAVITY FOUL	
Date 13/04/2018 18:31 File DRAINAGE ZONES A & B SURFACE WA...	Designed by AJWC Checked by SP	
Micro Drainage	Network 2017.1.2	

FOUL SEWERAGE DESIGN

Network Design Table for Foul - Gravity

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
Fg1.000	19.494	0.244	79.9	0.000	5	0.0	1.500	o	100	Pipe/Conduit	
Fg2.000	23.443	0.293	80.0	0.000	5	0.0	1.500	o	100	Pipe/Conduit	
Fg1.001	6.827	0.046	148.4	0.000	1	0.0	1.500	o	150	Pipe/Conduit	
Fg3.000	4.386	0.055	79.7	0.000	2	0.0	1.500	o	100	Pipe/Conduit	
Fg1.002	26.136	0.174	150.2	0.000	1	0.0	1.500	o	150	Pipe/Conduit	
Fg1.003	4.049	0.027	150.0	0.000	1	0.0	1.500	o	150	Pipe/Conduit	
Fg1.004	57.028	0.380	150.1	0.000	3	0.0	1.500	o	150	Pipe/Conduit	
Fg4.000	8.567	0.107	80.1	0.000	3	0.0	1.500	o	100	Pipe/Conduit	
Fg4.001	7.736	0.097	79.8	0.000	1	0.0	1.500	o	100	Pipe/Conduit	
Fg5.000	4.525	0.057	79.4	0.000	3	0.0	1.500	o	100	Pipe/Conduit	
Fg4.002	32.870	0.219	150.1	0.000	5	0.0	1.500	o	150	Pipe/Conduit	
Fg4.003	3.335	0.022	151.6	0.000	2	0.0	1.500	o	150	Pipe/Conduit	
Fg4.004	22.367	0.149	150.1	0.000	2	0.0	1.500	o	150	Pipe/Conduit	
Fg1.005	50.953	0.340	149.9	0.000	2	0.0	1.500	o	150	Pipe/Conduit	
Fg6.000	4.119	0.027	152.6	0.000	111	0.0	1.500	o	150	Pipe/Conduit	
Fg1.006	14.321	0.095	150.7	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
Fg1.007	13.675	0.101	135.4	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)
Fg1.000	9.551	0.000	0.0	5	0.0	14	0.35	0.74	5.8	0.2
Fg2.000	9.881	0.000	0.0	5	0.0	14	0.35	0.74	5.8	0.2
Fg1.001	9.257	0.000	0.0	11	0.0	21	0.34	0.72	12.7	0.5
Fg3.000	9.710	0.000	0.0	2	0.0	9	0.26	0.75	5.9	0.1
Fg1.002	9.211	0.000	0.0	14	0.0	23	0.37	0.71	12.6	0.6
Fg1.003	9.037	0.000	0.0	15	0.0	24	0.38	0.71	12.6	0.7
Fg1.004	9.010	0.000	0.0	18	0.0	26	0.40	0.71	12.6	0.8
Fg4.000	10.082	0.000	0.0	3	0.0	11	0.30	0.74	5.8	0.1
Fg4.001	9.975	0.000	0.0	4	0.0	13	0.33	0.75	5.9	0.2
Fg5.000	10.068	0.000	0.0	3	0.0	11	0.30	0.75	5.9	0.1
Fg4.002	9.828	0.000	0.0	12	0.0	22	0.35	0.71	12.6	0.6
Fg4.003	9.609	0.000	0.0	14	0.0	23	0.37	0.71	12.6	0.6
Fg4.004	9.587	0.000	0.0	16	0.0	25	0.38	0.71	12.6	0.7
Fg1.005	8.630	0.000	0.0	36	0.0	37	0.49	0.71	12.6	1.7
Fg6.000	8.947	0.000	0.0	111	0.0	67	0.67	0.71	12.5	5.1
Fg1.006	8.290	0.000	0.0	147	0.0	79	0.73	0.71	12.6	6.8
Fg1.007	8.195	0.000	0.0	147	0.0	76	0.76	0.75	13.3	6.8

Cundall, Johnston & Partners				Page 38			
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG				1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B GRAVITY FOUL			
Date 13/04/2018 18:31				Designed by AJWC			
File DRAINAGE ZONES A & B SURFACE WA...				Checked by SP			
Micro Drainage				Network 2017.1.2			



Manhole Schedules for Foul - Gravity

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)
Fg100	10.803	1.252	Open Manhole	450	Fg1.000	9.551	100				
Fg200	11.212	1.331	Open Manhole	450	Fg2.000	9.881	100				
Fg101	10.886	1.629	Open Manhole	450	Fg1.001	9.257	150	Fg1.000	9.307	100	281
								Fg2.000	9.588	100	
Fg300	10.947	1.237	Open Manhole	450	Fg3.000	9.710	100				
Fg102	10.799	1.588	Open Manhole	450	Fg1.002	9.211	150	Fg1.001	9.211	150	394
								Fg3.000	9.655	100	
Fg103	10.699	1.662	Open Manhole	450	Fg1.003	9.037	150	Fg1.002	9.037	150	
Fg104	10.545	1.535	Open Manhole	1200	Fg1.004	9.010	150	Fg1.003	9.010	150	
Fg400	11.403	1.321	Open Manhole	450	Fg4.000	10.082	100				
Fg401	11.435	1.460	Open Manhole	450	Fg4.001	9.975	100	Fg4.000	9.975	100	
Fg500	11.458	1.390	Open Manhole	450	Fg5.000	10.068	100				
Fg402	11.406	1.578	Open Manhole	450	Fg4.002	9.828	150	Fg4.001	9.878	100	133
								Fg5.000	10.011	100	
Fg403	11.067	1.458	Open Manhole	450	Fg4.003	9.609	150	Fg4.002	9.609	150	
Fg404	11.017	1.430	Open Manhole	450	Fg4.004	9.587	150	Fg4.003	9.587	150	
Fg105	10.810	2.180	Open Manhole	1200	Fg1.005	8.630	150	Fg1.004	8.630	150	808
								Fg4.004	9.438	150	
Fg600	10.297	1.350	Open Manhole	1200	Fg6.000	8.947	150				
Fg106	10.326	2.036	Open Manhole	1200	Fg1.006	8.290	150	Fg1.005	8.290	150	630
								Fg6.000	8.920	150	
Fg107	10.034	1.839	Open Manhole	1200	Fg1.007	8.195	150	Fg1.006	8.195	150	
FgTW 3001	9.860	1.766	Open Manhole	0		OUTFALL		Fg1.007	8.094	150	

Cundall, Johnston & Partners		Page 39
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B GRAVITY FOUL	
Date 13/04/2018 18:31 File DRAINAGE ZONES A & B SURFACE WA...	Designed by AJWC Checked by SP	
Micro Drainage	Network 2017.1.2	

PIPELINE SCHEDULES for Foul - Gravity

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)
Fg1.000	o	100	Fg100	10.803	9.551	1.152	Open Manhole	450
Fg2.000	o	100	Fg200	11.212	9.881	1.231	Open Manhole	450
Fg1.001	o	150	Fg101	10.886	9.257	1.479	Open Manhole	450
Fg3.000	o	100	Fg300	10.947	9.710	1.137	Open Manhole	450
Fg1.002	o	150	Fg102	10.799	9.211	1.438	Open Manhole	450
Fg1.003	o	150	Fg103	10.699	9.037	1.512	Open Manhole	450
Fg1.004	o	150	Fg104	10.545	9.010	1.385	Open Manhole	1200
Fg4.000	o	100	Fg400	11.403	10.082	1.221	Open Manhole	450
Fg4.001	o	100	Fg401	11.435	9.975	1.360	Open Manhole	450
Fg5.000	o	100	Fg500	11.458	10.068	1.290	Open Manhole	450
Fg4.002	o	150	Fg402	11.406	9.828	1.428	Open Manhole	450
Fg4.003	o	150	Fg403	11.067	9.609	1.308	Open Manhole	450
Fg4.004	o	150	Fg404	11.017	9.587	1.280	Open Manhole	450
Fg1.005	o	150	Fg105	10.810	8.630	2.030	Open Manhole	1200
Fg6.000	o	150	Fg600	10.297	8.947	1.200	Open Manhole	1200
Fg1.006	o	150	Fg106	10.326	8.290	1.886	Open Manhole	1200
Fg1.007	o	150	Fg107	10.034	8.195	1.689	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)
Fg1.000	19.494	79.9	Fg101	10.886	9.307	1.479	Open Manhole	450
Fg2.000	23.443	80.0	Fg101	10.886	9.588	1.198	Open Manhole	450
Fg1.001	6.827	148.4	Fg102	10.799	9.211	1.438	Open Manhole	450
Fg3.000	4.386	79.7	Fg102	10.799	9.655	1.044	Open Manhole	450
Fg1.002	26.136	150.2	Fg103	10.699	9.037	1.512	Open Manhole	450
Fg1.003	4.049	150.0	Fg104	10.545	9.010	1.385	Open Manhole	1200
Fg1.004	57.028	150.1	Fg105	10.810	8.630	2.030	Open Manhole	1200
Fg4.000	8.567	80.1	Fg401	11.435	9.975	1.360	Open Manhole	450
Fg4.001	7.736	79.8	Fg402	11.406	9.878	1.428	Open Manhole	450
Fg5.000	4.525	79.4	Fg402	11.406	10.011	1.295	Open Manhole	450
Fg4.002	32.870	150.1	Fg403	11.067	9.609	1.308	Open Manhole	450
Fg4.003	3.335	151.6	Fg404	11.017	9.587	1.280	Open Manhole	450
Fg4.004	22.367	150.1	Fg105	10.810	9.438	1.222	Open Manhole	1200
Fg1.005	50.953	149.9	Fg106	10.326	8.290	1.886	Open Manhole	1200
Fg6.000	4.119	152.6	Fg106	10.326	8.920	1.256	Open Manhole	1200
Fg1.006	14.321	150.7	Fg107	10.034	8.195	1.689	Open Manhole	1200
Fg1.007	13.675	135.4	FgTW 3001	9.860	8.094	1.616	Open Manhole	0

Cundall, Johnston & Partners		Page 40
19 - 21 Silvermills Court Henderson Place Lane Edinburgh EH3 5DG	1012052 - WARBLINGTON MEADOWS DRAINAGE ZONES A & B GRAVITY FOUL	
Date 13/04/2018 18:31	Designed by AJWC	
File DRAINAGE ZONES A & B SURFACE WA...	Checked by SP	
Micro Drainage	Network 2017.1.2	

Network Classifications for Foul - Gravity

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
Fg1.000	Fg100	100	1.152	1.479	PVC	450	0	1.152	TYPE 3 [PPIC]
Fg2.000	Fg200	100	1.197	1.238	PVC	450	0	1.231	TYPE 3 [PPIC]
Fg1.001	Fg101	150	1.438	1.479	PVC	450	0	1.479	TYPE 3 [PPIC]
Fg3.000	Fg300	100	1.044	1.137	PVC	450	0	1.137	TYPE 3 [PPIC]
Fg1.002	Fg102	150	1.399	1.512	PVC	450	0	1.438	TYPE 3 [PPIC]
Fg1.003	Fg103	150	1.385	1.512	PVC	450	0	1.512	TYPE 3 [PPIC]
Fg1.004	Fg104	150	1.385	2.030	PVC	1200	0	1.385	TYPE 2 [PRE-CAST CONC]
Fg4.000	Fg400	100	1.221	1.360	PVC	450	0	1.221	TYPE 3 [PPIC]
Fg4.001	Fg401	100	1.360	1.428	PVC	450	0	1.360	TYPE 3 [PPIC]
Fg5.000	Fg500	100	1.290	1.299	PVC	450	0	1.290	TYPE 3 [PPIC]
Fg4.002	Fg402	150	1.308	1.428	PVC	450	0	1.428	TYPE 3 [PPIC]
Fg4.003	Fg403	150	1.280	1.308	PVC	450	0	1.308	TYPE 3 [PPIC]
Fg4.004	Fg404	150	1.222	1.369	PVC	450	0	1.280	TYPE 3 [PPIC]
Fg1.005	Fg105	150	1.886	2.030	PVC	1200	0	2.030	TYPE 2 [PRE-CAST CONC]
Fg6.000	Fg600	150	1.200	1.256	PVC	1200	0	1.200	TYPE 2 [PRE-CAST CONC]
Fg1.006	Fg106	150	1.689	1.886	PVC	1200	0	1.886	TYPE 2 [PRE-CAST CONC]
Fg1.007	Fg107	150	1.571	1.689	PVC	1200	0	1.689	TYPE 2 [PRE-CAST CONC]

Free Flowing Outfall Details for Foul - Gravity

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
Fg1.007	FgTW 3001	9.860	8.094	6.250	0	0

Volume Summary (Static)

Length Calculations based on True Length

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Total Volume (m³)
Fg1.000	Fg100	0.199	0.150	0.349
Fg2.000	Fg200	0.212	0.181	0.392
Fg1.001	Fg101	0.259	0.113	0.372
Fg3.000	Fg300	0.197	0.031	0.228
Fg1.002	Fg102	0.253	0.454	0.707
Fg1.003	Fg103	0.264	0.057	0.321
Fg1.004	Fg104	1.736	0.987	2.723
Fg4.000	Fg400	0.210	0.064	0.274
Fg4.001	Fg401	0.232	0.057	0.289
Fg5.000	Fg500	0.221	0.032	0.253
Fg4.002	Fg402	0.251	0.573	0.824
Fg4.003	Fg403	0.232	0.051	0.283
Fg4.004	Fg404	0.227	0.381	0.608
Fg1.005	Fg105	2.465	0.879	3.344
Fg6.000	Fg600	1.527	0.052	1.578
Fg1.006	Fg106	2.302	0.232	2.534
Fg1.007	Fg107	2.080	0.231	2.311
Total		12.868	4.522	17.390

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