
Hartfield Place SHD
Foul & Surface Water Manhole/Longsection Booklet
for
Strategic Housing Development Application
at Swords Road, Whitehall.

Doc No. HARTPL-JOR-SM-ZZ-RP-C-9002_C01

Prepared by:



March 2022

Foul Manhole Schedule and Longsections

Design Settings

Frequency of use (kDU)	0.50	Minimum Velocity (m/s)	0.75
Flow per dwelling per day (l/day)	2916	Connection Type	Level Soffits
Domestic Flow (l/s/ha)	0.0	Minimum Backdrop Height (m)	0.200
Industrial Flow (l/s/ha)	0.0	Preferred Cover Depth (m)	1.200
Additional Flow (%)	0	Include Intermediate Ground	x

Nodes

Name	Dwellings	Cover Level (m)	Manhole Type	Easting (m)	Northing (m)	Depth (m)
F-01	70	43.150	Adoptable	716743.723	738169.396	1.430
F-02	39	42.600	Adoptable	716726.584	738135.070	1.444
F-04		40.550	Adoptable	716687.646	738056.980	1.291
F-06	27	40.500	Adoptable	716727.237	738033.589	1.473
F-07		40.099	Adoptable	716792.865	737998.991	1.505
F-08		39.848	Adoptable	716823.620	737982.761	1.428
F-09	74	40.139	Adoptable	716839.252	738016.286	1.904
F-10		40.032	Adoptable	716854.823	738049.793	1.982
F-11	38	40.157	Adoptable	716867.559	738077.073	2.258
F-12	38	40.011	Adoptable	716877.330	738097.990	2.227
F-16	25	41.547	Adoptable	716796.434	738107.527	1.425
F-18	26	41.225	Adoptable	716795.561	738076.090	1.569
F-21	29	40.243	Adoptable	716793.762	738023.585	1.425
F-20	29	40.816	Adoptable	716794.605	738051.256	1.491
F-03	39	41.450	Adoptable	716705.431	738092.642	1.717
F13_EX		39.928	Adoptable	716885.124	738115.725	2.241
F14_EX		40.300	Adoptable	716896.647	738110.548	2.676
F15_EX		39.351	Adoptable	716927.401	738087.592	1.919
F_Out_EX		38.660	Adoptable	716944.918	738071.325	1.348
F-17	25	41.498	Adoptable	716795.992	738093.634	1.608
F-05	27	40.653	Adoptable	716693.058	738051.122	1.434

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)
1.000	F-01	F-02	38.367	0.600	41.720	41.156	0.564	68.0	225
1.001	F-02	F-03	47.409	0.600	41.156	39.733	1.423	33.3	225
1.003	F-03	F-04	39.851	0.600	39.733	39.259	0.474	84.0	225
1.004	F-04	F-05	7.975	0.600	39.259	39.219	0.040	200.0	225
1.005	F-06	F-07	74.189	0.600	39.027	38.656	0.371	200.0	225
1.006	F-07	F-08	34.775	0.600	38.594	38.420	0.174	200.0	225
1.007	F-08	F-09	36.990	0.600	38.420	38.235	0.185	200.0	225

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Dwellings (ha)	Σ Add Inflow (ha)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	F-01	F-02	1.588	63.1	2.4	1.205	1.219	70	0.0	29	0.762
1.001	F-02	F-03	2.274	90.4	3.7	1.219	1.492	109	0.0	31	1.134
1.003	F-03	F-04	1.427	56.8	5.0	1.492	1.066	148	0.0	45	0.890
1.004	F-04	F-05	0.921	36.6	5.0	1.066	1.209	148	0.0	56	0.647
1.005	F-06	F-07	0.921	36.6	6.8	1.248	1.218	202	0.0	65	0.707
1.006	F-07	F-08	0.921	36.6	11.3	1.280	1.203	336	0.0	86	0.813
1.007	F-08	F-09	0.921	36.6	11.3	1.203	1.679	336	0.0	86	0.813

Links

	Name	US	DS	Length	ks (mm) /	US IL	DS IL	Fall	Slope	Dia			
	Node	Node	(m)	n	(m)	(m)	(m)	(1:X)	(mm)				
	1.008	F-09	F-10	36.948	0.600	38.235	38.050	0.185	200.0	225			
	1.009	F-10	F-11	30.107	0.600	38.050	37.899	0.151	200.0	225			
	1.010	F-11	F-12	23.087	0.600	37.899	37.784	0.115	200.0	225			
	3.000	F-16	F-17	13.900	0.600	40.122	39.890	0.232	60.0	225			
	2.000	F-20	F-21	27.684	0.600	39.325	38.818	0.507	54.6	225			
	3.002	F-18	F-20	24.852	0.600	39.656	39.325	0.331	75.0	225			
	2.001	F-21	F-07	24.610	0.600	38.818	38.594	0.224	110.0	225			
	1.011	F-12	F13_EX	19.372	0.600	37.784	37.687	0.097	200.0	225			
	1.012	F13_EX	F14_EX	12.633	0.600	37.687	37.624	0.063	200.0	225			
	1.013	F14_EX	F15_EX	38.377	0.600	37.624	37.432	0.192	200.0	225			
	1.014	F15_EX	F_Out_EX	23.905	0.600	37.432	37.312	0.120	200.0	225			
	3.001	F-17	F-18	17.549	0.600	39.890	39.656	0.234	75.0	225			
	1.004_1	F-05	F-06	38.414	0.600	39.219	39.027	0.192	200.0	225			
	Name	US	DS	Vel	Cap	Flow	US	DS	Σ Dwellings	Σ Add	Pro	Pro	
		Node	Node	(m/s)	(l/s)	(l/s)	Depth	Depth	(ha)	Inflow	Depth	Velocity	
							(m)	(m)		(ha)	(mm)	(m/s)	
		1.008	F-09	F-10	0.921	36.6	13.8	1.679	1.757	410	0.0	95	0.856
		1.009	F-10	F-11	0.921	36.6	13.8	1.757	2.033	410	0.0	95	0.856
		1.010	F-11	F-12	0.921	36.6	15.1	2.033	2.002	448	0.0	101	0.877
3.000		F-16	F-17	1.691	67.2	0.8	1.200	1.383	25	0.0	18	0.591	
2.000		F-20	F-21	1.773	70.5	3.5	1.266	1.200	105	0.0	34	0.928	
3.002		F-18	F-20	1.511	60.1	2.6	1.344	1.266	76	0.0	31	0.752	
2.001		F-21	F-07	1.246	49.5	4.5	1.200	1.280	134	0.0	46	0.785	
1.011		F-12	F13_EX	0.921	36.6	16.4	2.002	2.016	486	0.0	106	0.897	
1.012		F13_EX	F14_EX	0.921	36.6	16.4	2.016	2.451	486	0.0	106	0.897	
1.013		F14_EX	F15_EX	0.921	36.6	16.4	2.451	1.694	486	0.0	106	0.897	
	1.014	F15_EX	F_Out_EX	0.921	36.6	16.4	1.694	1.123	486	0.0	106	0.897	
	3.001	F-17	F-18	1.511	60.1	1.7	1.383	1.344	50	0.0	26	0.669	
	1.004_1	F-05	F-06	0.921	36.6	5.9	1.209	1.248	175	0.0	61	0.680	

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	38.367	68.0	225	Circular	43.150	41.720	1.205	42.600	41.156	1.219
1.001	47.409	33.3	225	Circular	42.600	41.156	1.219	41.450	39.733	1.492
1.003	39.851	84.0	225	Circular	41.450	39.733	1.492	40.550	39.259	1.066
1.004	7.975	200.0	225	Circular	40.550	39.259	1.066	40.653	39.219	1.209
1.005	74.189	200.0	225	Circular	40.500	39.027	1.248	40.099	38.656	1.218
	Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type	
	1.000	F-01	1200	Manhole	Adoptable	F-02	1200	Manhole	Adoptable	
	1.001	F-02	1200	Manhole	Adoptable	F-03	1200	Manhole	Adoptable	
	1.003	F-03	1200	Manhole	Adoptable	F-04	1200	Manhole	Adoptable	
	1.004	F-04	1200	Manhole	Adoptable	F-05	1200	Manhole	Adoptable	
	1.005	F-06	1200	Manhole	Adoptable	F-07	1200	Manhole	Adoptable	

Pipeline Schedule

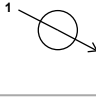
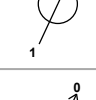
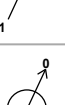
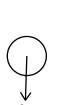
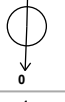
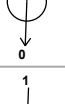
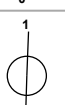
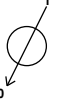
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.006	34.775	200.0	225	Circular	40.099	38.594	1.280	39.848	38.420	1.203
1.007	36.990	200.0	225	Circular	39.848	38.420	1.203	40.139	38.235	1.679
1.008	36.948	200.0	225	Circular	40.139	38.235	1.679	40.032	38.050	1.757
1.009	30.107	200.0	225	Circular	40.032	38.050	1.757	40.157	37.899	2.033
1.010	23.087	200.0	225	Circular	40.157	37.899	2.033	40.011	37.784	2.002
3.000	13.900	60.0	225	Circular	41.547	40.122	1.200	41.498	39.890	1.383
2.000	27.684	54.6	225	Circular	40.816	39.325	1.266	40.243	38.818	1.200
3.002	24.852	75.0	225	Circular	41.225	39.656	1.344	40.816	39.325	1.266
2.001	24.610	110.0	225	Circular	40.243	38.818	1.200	40.099	38.594	1.280
1.011	19.372	200.0	225	Circular	40.011	37.784	2.002	39.928	37.687	2.016
1.012	12.633	200.0	225	Circular	39.928	37.687	2.016	40.300	37.624	2.451
1.013	38.377	200.0	225	Circular	40.300	37.624	2.451	39.351	37.432	1.694
1.014	23.905	200.0	225	Circular	39.351	37.432	1.694	38.660	37.312	1.123
3.001	17.549	75.0	225	Circular	41.498	39.890	1.383	41.225	39.656	1.344
1.004_1	38.414	200.0	225	Circular	40.653	39.219	1.209	40.500	39.027	1.248

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.006	F-07	1200	Manhole	Adoptable	F-08	1200	Manhole	Adoptable
1.007	F-08	1200	Manhole	Adoptable	F-09	1200	Manhole	Adoptable
1.008	F-09	1200	Manhole	Adoptable	F-10	1200	Manhole	Adoptable
1.009	F-10	1200	Manhole	Adoptable	F-11	1200	Manhole	Adoptable
1.010	F-11	1200	Manhole	Adoptable	F-12	1200	Manhole	Adoptable
3.000	F-16	1200	Manhole	Adoptable	F-17	1200	Manhole	Adoptable
2.000	F-20	1200	Manhole	Adoptable	F-21	1200	Manhole	Adoptable
3.002	F-18	1200	Manhole	Adoptable	F-20	1200	Manhole	Adoptable
2.001	F-21	1200	Manhole	Adoptable	F-07	1200	Manhole	Adoptable
1.011	F-12	1200	Manhole	Adoptable	F13_EX	1200	Manhole	Adoptable
1.012	F13_EX	1200	Manhole	Adoptable	F14_EX	1200	Manhole	Adoptable
1.013	F14_EX	1200	Manhole	Adoptable	F15_EX	1200	Manhole	Adoptable
1.014	F15_EX	1200	Manhole	Adoptable	F_Out_EX	1200	Manhole	Adoptable
3.001	F-17	1200	Manhole	Adoptable	F-18	1200	Manhole	Adoptable
1.004_1	F-05	1200	Manhole	Adoptable	F-06	1200	Manhole	Adoptable

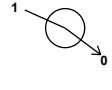
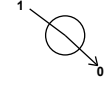
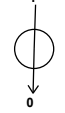
Manhole Schedule

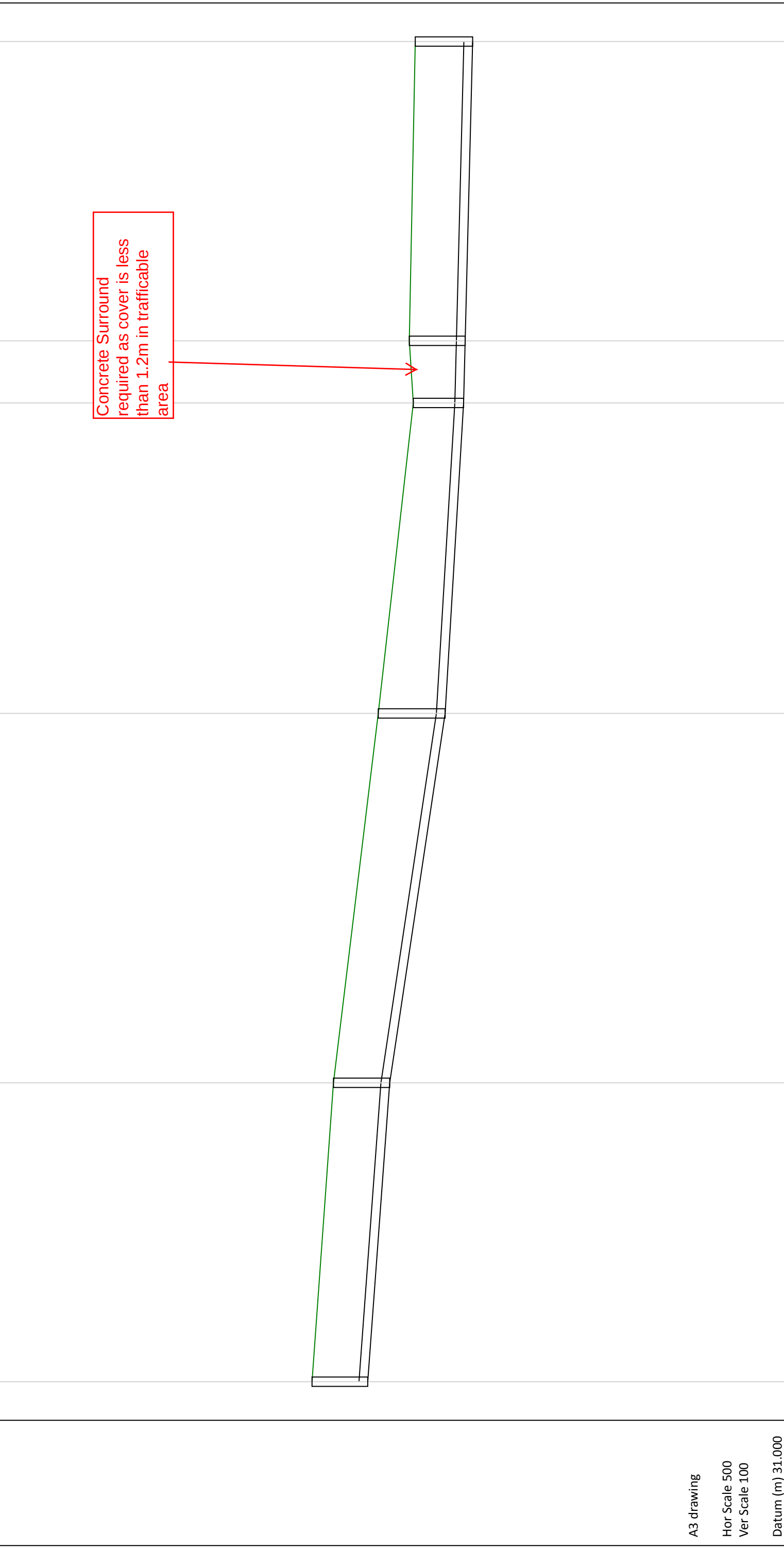
Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)	
F-01	716743.723	738169.396	43.150	1.430	1200	Adoptable					
							0	1.000	41.720	225	
F-02	716726.584	738135.070	42.600	1.444	1200	Adoptable		1	1.000	41.156	225
							0	1.001	41.156	225	

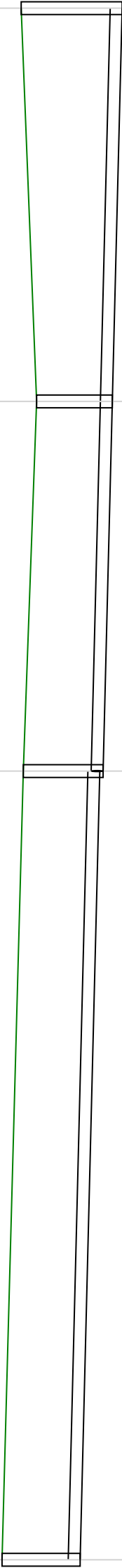
Manhole Schedule

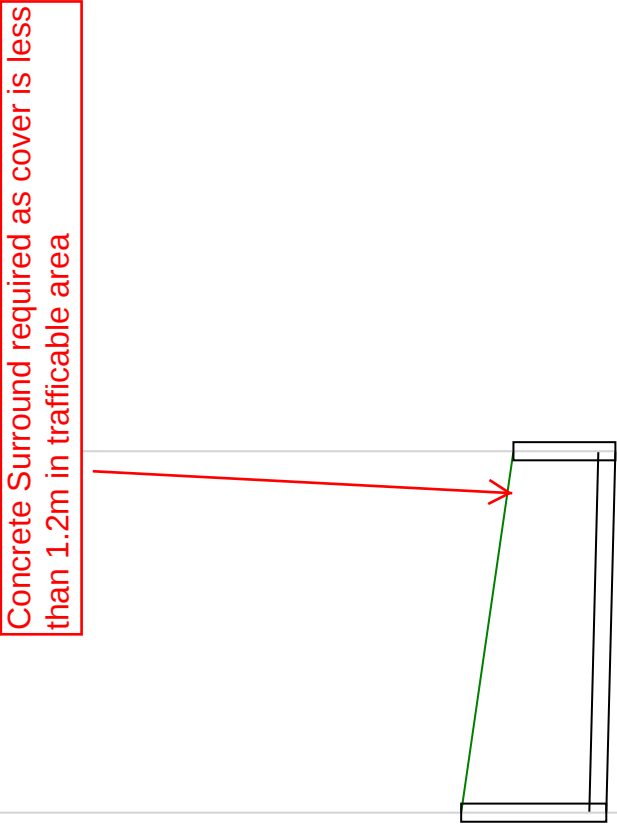
Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections		Link	IL (m)	Dia (mm)
F-04	716687.646	738056.980	40.550	1.291	1200	Adoptable		1	1.003	39.259	225
								0	1.004	39.259	225
F-06	716727.237	738033.589	40.500	1.473	1200	Adoptable		1	1.004_1	39.027	225
								0	1.005	39.027	225
F-07	716792.865	737998.991	40.099	1.505	1200	Adoptable		1	2.001	38.594	225
								2	1.005	38.656	225
								0	1.006	38.594	225
F-08	716823.620	737982.761	39.848	1.428	1200	Adoptable		1	1.006	38.420	225
								0	1.007	38.420	225
F-09	716839.252	738016.286	40.139	1.904	1200	Adoptable		1	1.007	38.235	225
								0	1.008	38.235	225
F-10	716854.823	738049.793	40.032	1.982	1200	Adoptable		1	1.008	38.050	225
								0	1.009	38.050	225
F-11	716867.559	738077.073	40.157	2.258	1200	Adoptable		1	1.009	37.899	225
								0	1.010	37.899	225
F-12	716877.330	738097.990	40.011	2.227	1200	Adoptable		1	1.010	37.784	225
								0	1.011	37.784	225
F-16	716796.434	738107.527	41.547	1.425	1200	Adoptable		0	3.000	40.122	225
F-18	716795.561	738076.090	41.225	1.569	1200	Adoptable		1	3.001	39.656	225
								0	3.002	39.656	225
F-21	716793.762	738023.585	40.243	1.425	1200	Adoptable		1	2.000	38.818	225
								0	2.001	38.818	225
F-20	716794.605	738051.256	40.816	1.491	1200	Adoptable		1	3.002	39.325	225
								0	2.000	39.325	225
F-03	716705.431	738092.642	41.450	1.717	1200	Adoptable		1	1.001	39.733	225
								0	1.003	39.733	225

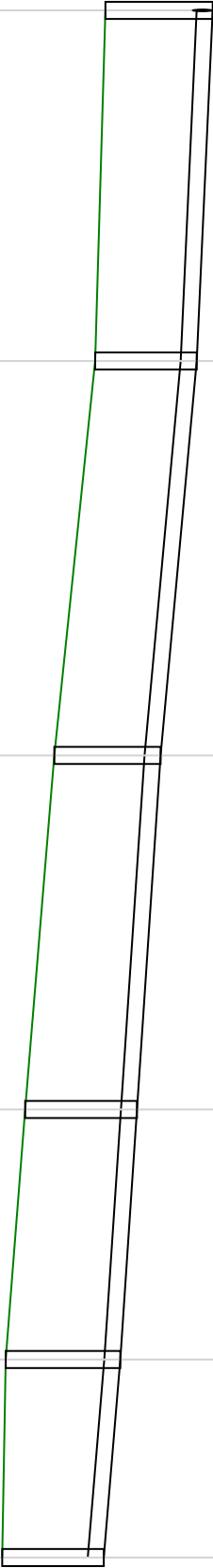
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)	
F13_EX	716885.124	738115.725	39.928	2.241	1200	Adoptable		1	1.011	37.687	225
F14_EX	716896.647	738110.548	40.300	2.676	1200	Adoptable		1	1.012	37.624	225
F15_EX	716927.401	738087.592	39.351	1.919	1200	Adoptable		1	1.013	37.432	225
F_Out_EX	716944.918	738071.325	38.660	1.348	1200	Adoptable		1	1.014	37.312	225
F-17	716795.992	738093.634	41.498	1.608	1200	Adoptable		1	3.000	39.890	225
F-05	716693.058	738051.122	40.653	1.434	1200	Adoptable		1	1.004	39.219	225
								0	1.004_1	39.219	225

Node Name		F-01	F-02	F-03	F-04	F-05	F-06
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 31.000							
		Link Name					
		Section Type					
		Slope (1:X)					
		Cover Level (m)					
Invert Level (m)	41.720	41.156	41.156	39.733	39.259	39.219	39.027
Length (m)		38.367	47.409	39.851	7.975	38.414	

Node Name		F-06	F-07	F-08	F-09
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 29.000					
		Link Name			
		Section Type			
		Slope (1:X)			
		Cover Level (m)			
Invert Level (m)		39.027	38.656	38.420	38.235
Length (m)		74.189	34.775	36.990	

Node Name		F15_EX	F_Out_EX
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 28.000		 Concrete Surround required as cover is less than 1.2m in trafficable area	
		1.014	
		225mm	
		200.0	
		38.660	
Invert Level (m)		37.432	37.312
Length (m)		23.905	

Node Name		F-16	F-17	F-18	F-20	F-21	F-07
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 30.000 Link Name Section Type Slope (1:X) Cover Level (m)							
		3.000	3.001	3.002	2.000	2.001	
		225mm	225mm	225mm	225mm	225mm	
		60.0	75.0	75.0	54.6	110.0	
		41.547	41.498	41.225	40.816	40.243	40.099
Invert Level (m)		39.890	39.890	39.656	39.325	38.818	38.594
Length (m)		13.900	17.549	24.852	27.684	24.610	

Surface Water Manhole Schedule and Longsections

East Outfall (High Park)

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	20.921	225.0	225	Circular	40.950	40.125	0.600	41.350	40.032	1.093
1.001	20.471	243.7	300	Circular	41.350	39.700	1.350	42.150	39.616	2.234
2.000	33.992	225.0	225	Circular	41.750	40.815	0.710	42.150	40.664	1.261
1.002	26.699	242.7	300	Circular	42.150	39.616	2.234	42.000	39.506	2.194
3.000_1	29.919	82.0	225	Circular	40.950	39.945	0.780	42.000	39.580	2.195
1.003	18.222	319.7	375	Circular	42.000	39.280	2.345	41.150	39.223	1.552
4.000	29.998	225.0	225	Circular	41.750	39.435	2.090	41.150	39.302	1.623
1.004	62.436	200.0	375	Circular	41.150	38.462	2.313	40.004	38.150	1.479
5.000	34.095	225.0	225	Circular	40.050	39.225	0.600	40.390	39.073	1.092
5.001	19.997	150.0	225	Circular	40.390	38.542	1.623	40.300	38.409	1.666
5.002	10.499	90.0	225	Circular	40.300	38.409	1.666	40.004	38.292	1.487
1.005_1	36.168	201.0	375	Circular	40.004	38.150	1.479	39.814	37.970	1.469
1.006	2.884	144.2	375	Circular	39.814	37.970	1.469	39.752	37.950	1.427
1.005	1.698	31.4	375	Circular	39.752	37.950	1.427	39.847	37.896	1.576
1.010	53.994	999.9	6300	Tank 2	39.870	37.803	0.617	39.848	37.749	0.649
1.008	70.776	996.9	6300	Tank 2	39.847	37.896	0.501	39.826	37.825	0.551
1.009	13.179	600.0	750	Circular	39.826	37.825	1.251	39.870	37.803	1.317
10.006	3.145	200.0	300	Circular	39.925	38.186	1.439	39.848	38.170	1.378
3.000	29.103	169.2	225	Circular	39.920	38.495	1.200	40.120	38.323	1.572
3.001	29.102	244.6	300	Circular	40.120	38.323	1.497	39.802	38.204	1.298
6.002	10.848	46.4	300	Circular	39.802	38.204	1.298	39.814	37.970	1.544
7.000	38.300	200.0	300	Circular	40.150	39.000	0.850	40.250	38.809	1.141

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	SP-3	1200	Manhole	Adoptable	S2-01	1200	Manhole	Adoptable
1.001	S2-01	1200	Manhole	Adoptable	S2-02	1200	Manhole	Adoptable
2.000	SP-4		Junction		S2-02	1200	Manhole	Adoptable
1.002	S2-02	1200	Manhole	Adoptable	S2-03	1350	Manhole	Adoptable
3.000_1	SP-5		Junction		S2-03	1350	Manhole	Adoptable
1.003	S2-03	1350	Manhole	Adoptable	S2-04	1350	Manhole	Adoptable
4.000	SP-6		Junction		S2-04	1350	Manhole	Adoptable
1.004	S2-04	1350	Manhole	Adoptable	S2-05	1350	Manhole	Adoptable
5.000	SP-8		Junction		S2-08	1200	Manhole	Adoptable
5.001	S2-08	1200	Manhole	Adoptable	S2-09	1200	Manhole	Adoptable
5.002	S2-09	1200	Manhole	Adoptable	S2-05	1350	Manhole	Adoptable
1.005_1	S2-05	1350	Manhole	Adoptable	S2-09-1	1350	Manhole	Adoptable
1.006	S2-09-1	1350	Manhole	Adoptable	S2-10	1350	Manhole	Adoptable
1.005	S2-10	1350	Manhole	Adoptable	T2 - L1		Junction	
1.010	T3 - L1		Junction		T3 - L3		Junction	
1.008	T2 - L1		Junction		T2 - L2		Junction	
1.009	T2 - L2		Junction		T3 - L1		Junction	
10.006	S2-35	1200	Manhole	Adoptable	T3 - L3		Junction	
3.000	S2-13	1200	Manhole	Adoptable	S2-12	1200	Manhole	Adoptable
3.001	S2-12	1200	Manhole	Adoptable	S2-11	1200	Manhole	Adoptable
6.002	S2-11	1200	Manhole	Adoptable	S2-09-1	1350	Manhole	Adoptable
7.000	S2-14	1200	Manhole	Adoptable	S2-16	1200	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
8.000	24.988	60.0	300	Circular	40.250	39.146	0.804	40.250	38.730	1.220
7.001	26.328	120.5	300	Circular	40.250	38.730	1.220	39.873	38.512	1.061
9.000	30.219	169.8	225	Circular	39.974	38.549	1.200	40.059	38.371	1.463
9.001	16.152	168.3	225	Circular	40.059	38.371	1.463	39.946	38.275	1.446
7.002	11.463	173.7	300	Circular	39.873	38.512	1.061	39.946	38.446	1.200
7.003	2.986	300.0	300	Circular	39.946	37.830	1.816	39.870	37.820	1.750
10.000	31.921	58.5	225	Circular	43.137	41.731	1.181	42.575	41.185	1.165
10.001	33.648	41.0	225	Circular	42.575	41.185	1.165	41.688	40.364	1.099
11.000	53.942	61.8	225	Circular	43.352	41.500	1.627	41.800	40.627	0.948
12.000	17.139	225.0	150	Circular	42.950	41.875	0.925	42.950	41.799	1.001
12.001	11.915	220.6	150	Circular	42.950	41.799	1.001	42.950	41.745	1.055
12.002	3.520	220.0	150	Circular	42.950	41.745	1.055	42.350	41.729	0.471
12.003	6.765	18.1	225	Circular	42.350	41.000	1.125	41.800	40.627	0.948
11.001	9.097	22.0	225	Circular	41.800	40.627	0.948	41.688	40.213	1.250
10.002	51.132	28.2	225	Circular	41.688	40.213	1.250	40.410	38.400	1.785
13.000	35.331	225.0	225	Circular	40.150	38.825	1.100	40.150	38.668	1.257
10.003	26.952	200.5	300	Circular	40.410	38.400	1.710	40.040	38.266	1.474
10.004	7.798	188.0	300	Circular	40.040	38.266	1.474	39.952	38.225	1.427
10.005	9.337	239.4	300	Circular	39.952	38.225	1.427	39.925	38.186	1.439
13.001	10.469	168.9	225	Circular	40.150	38.668	1.257	40.150	38.606	1.319
13.002	6.472	31.4	225	Circular	40.150	38.606	1.319	40.410	38.400	1.785
1.011	1.398	27.5	450	Circular	39.848	37.749	1.649	39.839	37.698	1.691
1.012	1.689	16.9	225	Circular	39.839	37.698	1.916	39.960	37.598	2.137

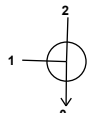
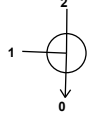
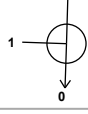
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
8.000	S2-15	1200	Manhole	Adoptable	S2-16	1200	Manhole	Adoptable
7.001	S2-16	1200	Manhole	Adoptable	S2-17	1200	Manhole	Adoptable
9.000	S2-18	1200	Manhole	Adoptable	S2-19	1200	Manhole	Adoptable
9.001	S2-19	1200	Manhole	Adoptable	S2-20	1200	Manhole	Adoptable
7.002	S2-17	1200	Manhole	Adoptable	S2-20	1200	Manhole	Adoptable
7.003	S2-20	1200	Manhole	Adoptable	T3 - L1		Junction	
10.000	S2_01	1200	Manhole	Adoptable	S2-22	1200	Manhole	Adoptable
10.001	S2-22	1200	Manhole	Adoptable	S2-23	1200	Manhole	Adoptable
11.000	S2-24	1200	Manhole	Adoptable	S2-26	1200	Manhole	Adoptable
12.000	SP-9		Junction		SP-9-1		Junction	
12.001	SP-9-1		Junction		SP-9-2		Junction	
12.002	SP-9-2		Junction		S2-25	1200	Manhole	Adoptable
12.003	S2-25	1200	Manhole	Adoptable	S2-26	1200	Manhole	Adoptable
11.001	S2-26	1200	Manhole	Adoptable	S2-23	1200	Manhole	Adoptable
10.002	S2-23	1200	Manhole	Adoptable	S2-32	1200	Manhole	Adoptable
13.000	S2-27	1200	Manhole	Adoptable	S2-28	1200	Manhole	Adoptable
10.003	S2-32	1200	Manhole	Adoptable	S2-33	1200	Manhole	Adoptable
10.004	S2-33	1200	Manhole	Adoptable	S2-34	1200	Manhole	Adoptable
10.005	S2-34	1200	Manhole	Adoptable	S2-35	1200	Manhole	Adoptable
13.001	S2-28	1200	Manhole	Adoptable	S2-29	1200	Manhole	Adoptable
13.002	S2-29	1200	Manhole	Adoptable	S2-32	1200	Manhole	Adoptable
1.011	T3 - L3		Junction		S2-36	1350	Manhole	Adoptable
1.012	S2-36	1350	Manhole	Adoptable	S2-Intercept	1200	Manhole	Adoptable

Pipeline Schedule

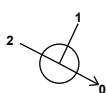
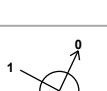
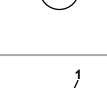
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.013	4.485	86.0	225	Circular	39.960	37.598	2.137	39.960	37.546	2.189
1.014	21.067	224.0	225	Circular	39.960	37.546	2.189	40.900	37.452	3.223
1.015	31.087	30.5	225	Circular	40.900	37.452	3.223	38.620	36.433	1.962

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.013	S2-Intercept	1200	Manhole	Adoptable	S2-37	1200	Manhole	Adoptable
1.014	S2-37	1200	Manhole	Adoptable	S2-38	1200	Manhole	Adoptable
1.015	S2-38	1200	Manhole	Adoptable	S2-39	1200	Manhole	Adoptable

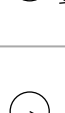
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)	
SP-3	716774.225	738126.358	40.950	0.825	1200	Adoptable		0	1.000	40.125	225
S2-01	716795.124	738125.388	41.350	1.650	1200	Adoptable		1 0	1.000 1.001	40.032 39.700	225 300
SP-4	716760.487	738106.017	41.750	0.935				0	2.000	40.815	225
S2-02	716794.462	738104.928	42.150	2.534	1200	Adoptable		1 2 0	2.000 1.001 1.002	40.664 39.616 39.616	225 300 300
SP-5	716764.313	738079.436	40.950	1.005				0	3.000_1	39.945	225
S2-03	716794.208	738078.230	42.000	2.720	1350	Adoptable		1 2 0	3.000_1 1.002 1.003	39.580 39.506 39.280	225 300 375
SP-6	716763.700	738061.029	41.750	2.315				0	4.000	39.435	225
S2-04	716793.681	738060.016	41.150	2.688	1350	Adoptable		1 2 0	4.000 1.003 1.004	39.302 39.223 38.462	225 375 375
S2-05	716791.600	737997.615	40.004	1.854	1350	Adoptable		1 2 0	5.002 1.004 1.005_1	38.292 38.150 38.150	225 375 375

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)	
SP-8	716770.719	738050.299	40.050	0.825				0	5.000	39.225	225
S2-08	716769.090	738016.243	40.390	1.848	1200	Adoptable		1	5.000	39.073	225
S2-09	716786.798	738006.952	40.300	1.891	1200	Adoptable		1	5.001	38.409	225
S2-09-1	716823.745	737981.037	39.814	1.844	1350	Adoptable		1	6.002	37.970	300
								2	1.005_1	37.970	375
								0	1.006	37.970	375
S2-10	716826.290	737979.681	39.752	1.802	1350	Adoptable		1	1.006	37.950	375
								0	1.005	37.950	375
S2-11	716828.352	737990.858	39.802	1.598	1200	Adoptable		1	3.001	38.204	300
								0	6.002	38.204	300
S2-12	716840.713	738017.206	40.120	1.797	1200	Adoptable		1	3.000	38.323	225
								0	3.001	38.323	300
S2-13	716853.073	738043.553	39.920	1.425	1200	Adoptable		0	3.000	38.495	225
T2 - L1	716827.012	737981.218	39.847	1.951				1	1.005	37.896	375
								0	1.008	37.896	6300
T2 - L2	716857.116	738045.273	39.826	2.001				1	1.008	37.825	6300
								0	1.009	37.825	750
T3 - L1	716862.714	738057.204	39.870	2.067				1	7.003	37.820	300
								2	1.009	37.803	750
								0	1.010	37.803	6300
T3 - L2	716865.409	738052.322	39.878								
T3 - L3	716885.670	738106.075	39.848	2.099				1	10.006	38.170	300
								2	1.010	37.749	6300
								0	1.011	37.749	450

Manhole Schedule

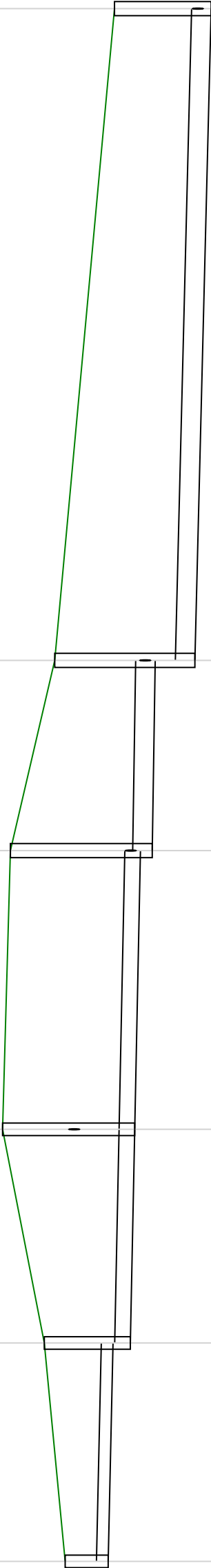
Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)	
S2-14	716815.127	738024.923	40.150	1.150	1200	Adoptable		0	7.000	39.000	300
S2-16	716831.480	738059.556	40.250	1.520	1200	Adoptable		1 2	8.000 7.000	38.730 38.809	300 300
S2-15	716841.893	738082.271	40.250	1.104	1200	Adoptable		0	7.001	38.730	300
S2-17	716855.211	738048.154	39.873	1.361	1200	Adoptable		1	7.001	38.512	300
S2-18	716879.668	738100.562	39.974	1.425	1200	Adoptable		0	7.002	38.512	300
S2-19	716866.894	738073.176	40.059	1.688	1200	Adoptable		1	9.000	38.549	225
S2-20	716860.047	738058.547	39.946	2.116	1200	Adoptable		1 2	9.001 7.002	38.371 38.446	225 300
S2_01	716755.594	738190.646	43.137	1.406	1200	Adoptable		0	10.000	41.731	225
S2-22	716784.279	738176.642	42.575	1.390	1200	Adoptable		1	10.000	41.185	225
S2-23	716813.440	738159.854	41.688	1.475	1200	Adoptable		1 2	11.001 10.001	40.213 40.364	225 225
S2-24	716757.220	738180.414	43.352	1.852	1200	Adoptable		0	11.000	41.500	225
S2-25	716798.714	738154.163	42.350	1.350	1200	Adoptable		1	12.002	41.729	150
SP-9	716774.878	738152.870	42.950	1.075				0	12.000	41.875	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)	
SP-9-1	716790.155	738145.102	42.950	1.151				1	12.000	41.799	150
								0	12.001	41.799	150
SP-9-2	716795.558	738155.721	42.950	1.205				1	12.001	41.745	150
								0	12.002	41.745	150
S2-26	716805.258	738155.877	41.800	1.173	1200	Adoptable		1	12.003	40.627	225
								2	11.000	40.627	225
								0	11.001	40.627	225
S2-27	716844.775	738088.429	40.150	1.325	1200	Adoptable					
								0	13.000	38.825	225
S2-32	716858.399	738135.498	40.410	2.010	1200	Adoptable		1	13.002	38.400	225
								2	10.002	38.400	225
								0	10.003	38.400	300
S2-33	716881.938	738122.371	40.040	1.774	1200	Adoptable		1	10.003	38.266	300
								0	10.004	38.266	300
S2-34	716887.025	738116.461	39.952	1.727	1200	Adoptable		1	10.004	38.225	300
								0	10.005	38.225	300
S2-35	716883.155	738107.964	39.925	1.739	1200	Adoptable		1	10.005	38.186	300
								0	10.006	38.186	300
S2-36	716886.269	738107.338	39.839	2.141	1350	Adoptable		1	1.011	37.698	450
								0	1.012	37.698	225
S2-Intercept	716887.541	738108.449	39.960	2.362	1200	Adoptable		1	1.012	37.598	225
								0	1.013	37.598	225
S2-37	716890.918	738111.400	39.960	2.414	1200	Adoptable		1	1.013	37.546	225
								0	1.014	37.546	225
S2-38	716908.017	738099.094	40.900	3.448	1200	Adoptable		1	1.014	37.452	225
								0	1.015	37.452	225
S2-39	716931.489	738078.711	38.620	2.187	1200	Adoptable		1	1.015	36.433	225

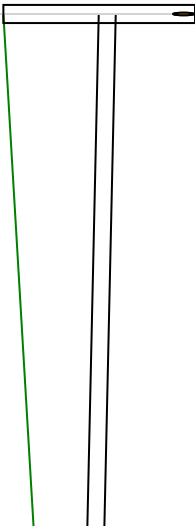
Manhole Schedule

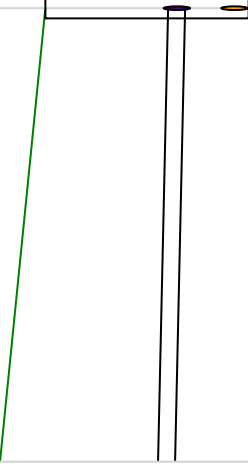
Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections		Link	IL (m)	Dia (mm)
S2-28	716859.956	738120.332	40.150	1.482	1200	Adoptable		1	13.000	38.668	225
								0	13.001	38.668	225
S2-29	716855.405	738129.760	40.150	1.544	1200	Adoptable		1	13.001	38.606	225
								0	13.002	38.606	225

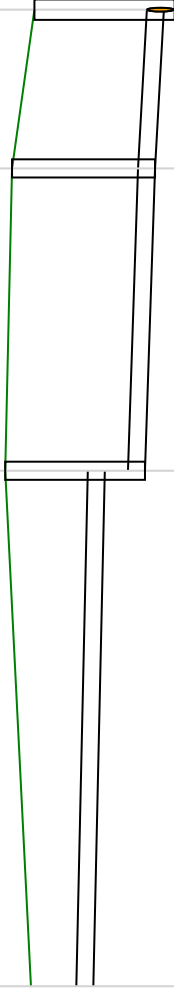
Node Name		SP-3	S2-01	S2-02	S2-03	S2-04	S2-05
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 30.000							
		Link Name	1.000	1.001	1.002	1.003	1.004
		Section Type	225mm	300mm	300mm	375mm	375mm
		Slope (1:X)	225.0	243.7	242.7	319.7	200.0
		Cover Level (m)	40.125	41.350	42.150	42.000	41.150
Invert Level (m)		40.032	39.700	39.616	39.506	39.223	38.150
Length (m)		20.921	20.471	26.699	18.222	62.436	40.004

Node Name		S2-05		S2-02-T20- L1		T2 - L2		T3 - L1	
A3 drawing Hor Scale 500 Ver Scale 100	Datum (m) 29.000								
	Link Name	1.005_1		1.001.0		1.008		1.009	
	Section Type	375mm		375.37		[] 6300x1450mm		750mm	
	Slope (1:X)	201.0		144.31		996.9		600.0	
	Cover Level (m)	40.004		39.814		39.752		39.847	
Invert Level (m)		38.150		37.970	37.825		37.825		37.803
Length (m)			36.168		2.831.0		70.776		13.179

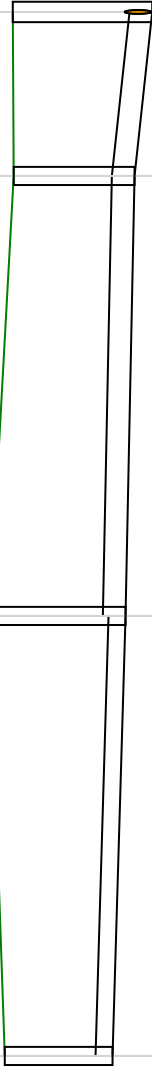
Node Name		T3 - L1	T3-S2-38	T3-S2-39
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 29.000	Link Name	1.010	1.014	1.015
	Section Type	[] 6300x1450mm	225mm	225mm
	Slope (1:X)	999.9	224.0	30.5
	Cover Level (m)	39.870	40.900	38.620
	Invert Level (m)	37.803	37.452	36.433
Length (m)		53.994	21.067	31.087

Node Name		SP-4		S2-02	
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 31.000 Link Name Section Type Slope (1:X) Cover Level (m)					
			2.000		
			225mm		
			225.0		
			41.750	42.150	
Invert Level (m)		40.815	40.664		
Length (m)		33.992			

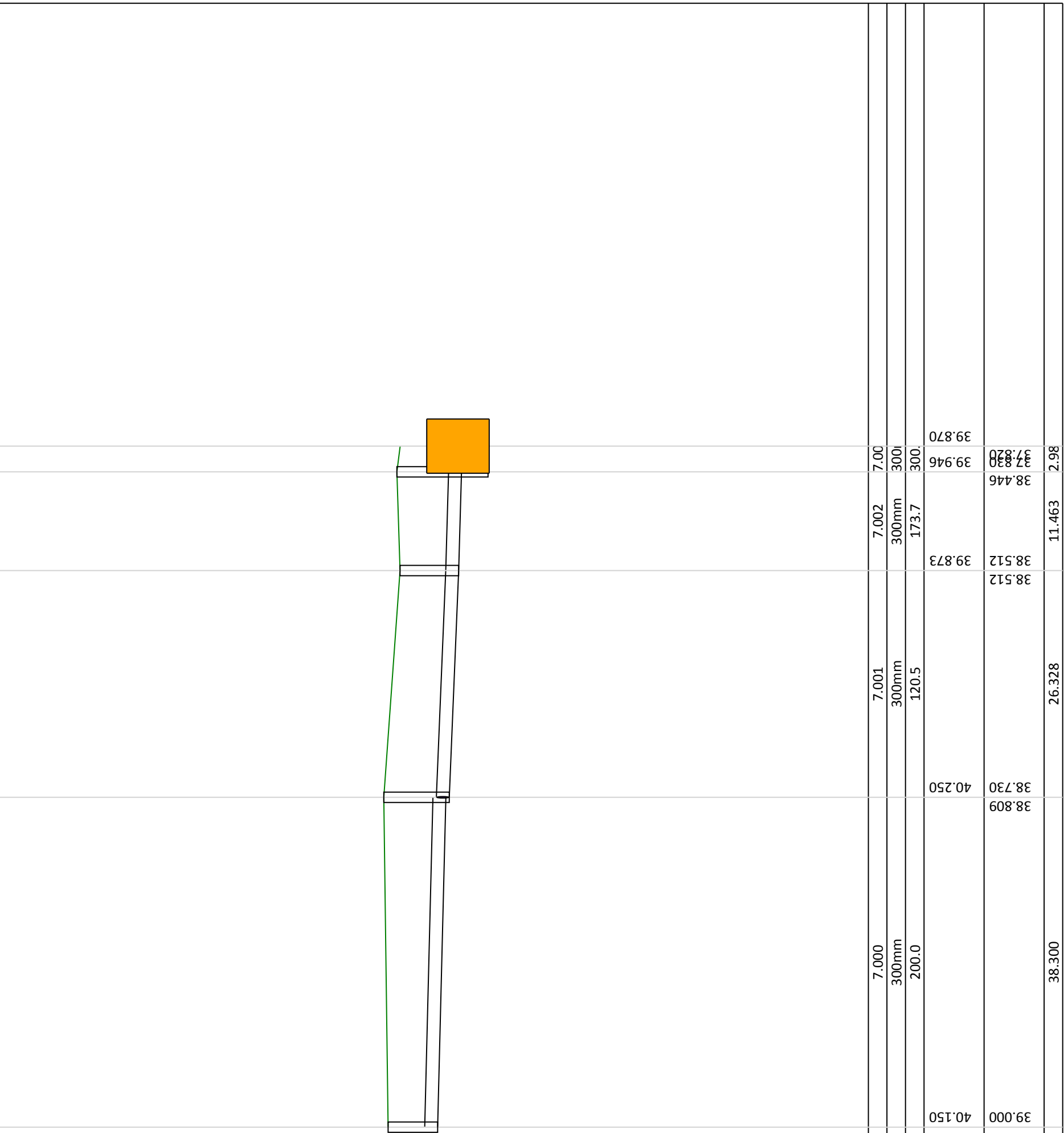
Node Name		SP-6	S2-04
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 30.000 Link Name Section Type Slope (1:X) Cover Level (m)			
Invert Level (m)	39.435	41.750	39.302
Length (m)	29.998		

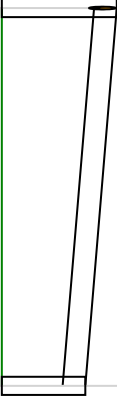
Node Name		SP-8	S2-08	S2-09	S2-05
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 29.000					
		5.000	5.001	5.002	
		225mm	225mm	225mm	
		225.0	150.0	90.0	
		40.050	40.390	40.300	40.004
Invert Level (m)		39.225	38.542	38.409	38.292
Length (m)			34.095	19.997	10.499

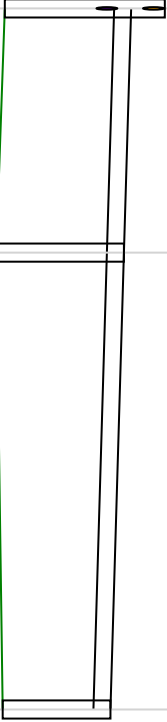
Node Name		S2-13	S2-12	S2-11	S2-09-1
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 29.000	Link Name	3.000	3.001	6.002	
	Section Type	225mm	300mm	300mm	
	Slope (1:X)	169.2	244.6	46.4	
	Cover Level (m)	39.920	40.120	39.802	39.814
	Invert Level (m)	38.495	38.323	38.204	37.970
Length (m)		29.103	29.102	10.848	
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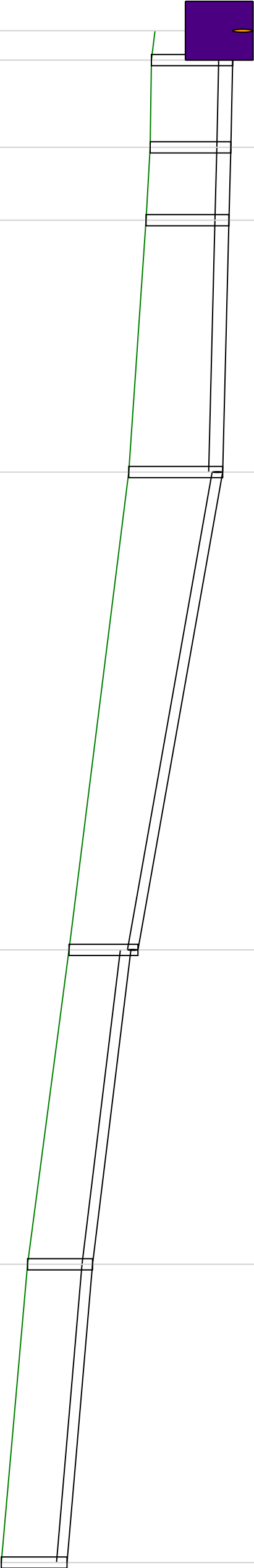


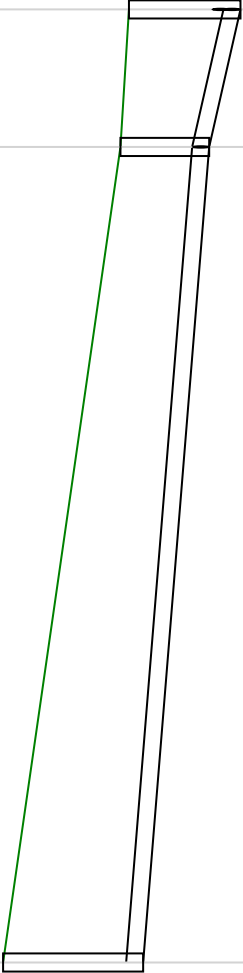
Node Name		S2-14	S2-16	S2-17	S2-203 - L1
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 29.000	Link Name	7.000	7.001	7.002	7.00
	Section Type	300mm	300mm	300mm	300
	Slope (1:X)	200.0	120.5	173.7	300
	Cover Level (m)	40.150	40.250	39.873	39.946
	Invert Level (m)	39.000	38.809	38.512	38.446
Length (m)		38.300	26.328	11.463	2.98



Node Name		S2-15	S2-16
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 29.000			
		8.000	
		300mm	
		60.0	
		40.250	
Cover Level (m)		40.250	
Invert Level (m)		39.146	38.730
Length (m)		24.988	

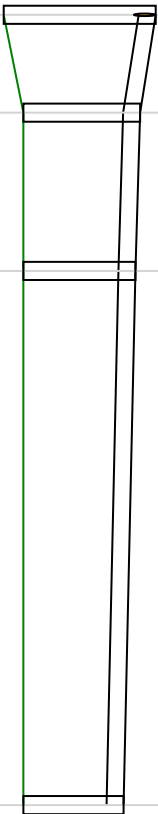
Node Name		S2-18	S2-19	S2-20
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 29.000				
Link Name		9.000	9.001	
Section Type		225mm	225mm	
Slope (1:X)		169.8	168.3	
Cover Level (m)		39.974	40.059	39.946
Invert Level (m)		38.549	38.371	38.275
Length (m)		30.219		
		16.152		

Node Name		S2_01	S2-22	S2-23	S2-32	S2-33	S2-34	S2-353 - L3
A3 drawing Hor Scale 500 Ver Scale 100								
		Datum (m) 30.000						
		Link Name	10.000	10.001	10.002			
		Section Type	225mm	225mm	225mm			
		Slope (1:X)	58.5	41.0	28.2			
Cover Level (m)		43.137	42.575	41.688	40.410	40.040	39.952	39.925
Invert Level (m)		41.731	41.185	40.364	38.400	38.266	38.225	38.186
Length (m)			31.921	33.648		26.952	9.337	3.14

Node Name		S2-24	S2-26	S2-23
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 32.000				
Link Name		11.000	11.001	
Section Type		225mm	225mm	
Slope (1:X)		61.8	22.0	
Cover Level (m)		43.352	41.800	41.688
Invert Level (m)		41.500	40.627	40.213
Length (m)		53.942		9.097

Node Name		SP-9	SP-9-1	SP-9-2-25	S2-26
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 32.000	Link Name	12.000	12.001	12.0012.003	
	Section Type	150mm	150mm	150n 225mm	
	Slope (1:X)	225.0	220.6	220.618.1	
	Cover Level (m)	42.950	42.950	42.95042.350	41.800
	Invert Level (m)	41.875	41.79941.799	41.74541.72941.000	40.627
Length (m)		17.139	11.915	3.526.765	

Node Name		S2-27	S2-28	S2-29	S2-32
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 29.000	Link Name		13.000	13.001	13.002
	Section Type		225mm	225mm	225mm
	Slope (1:X)		225.0	168.9	31.4
	Cover Level (m)	40.150		40.150	40.410
	Invert Level (m)	38.825	38.668	38.606	38.400
Length (m)			35.331	10.469	6.472
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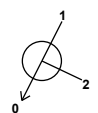
Surface Water Manhole Schedule and Longsections West Outfall (Swords Road)

Pipeline Schedule

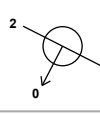
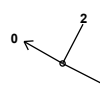
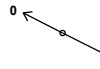
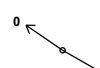
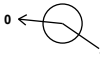
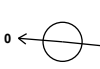
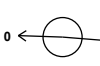
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
2.000	18.927	225.0	225	Circular	43.150	41.000	1.925	43.050	40.916	1.909
1.001	38.304	65.0	225	Circular	43.050	40.700	2.125	41.360	40.111	1.024
1.000	27.624	225.0	225	Circular	42.050	41.225	0.600	43.050	41.102	1.723
1.002	33.643	50.1	225	Circular	41.360	40.111	1.024	40.840	39.440	1.175
3.000	33.025	225.0	225	Circular	40.050	39.225	0.600	40.840	39.078	1.537
1.003	30.654	150.0	375	Circular	40.840	38.700	1.765	40.200	38.496	1.329
1.004	39.517	225.0	375	Circular	40.200	38.496	1.329	40.560	38.320	1.865
1.005	7.705	225.0	375	Circular	40.560	37.500	2.685	40.425	37.466	2.584
5.000	47.297	1000.0	2900	Tank 1	40.085	37.500	1.135	40.275	37.453	1.372
5.001	25.992	1000.0	2900	Tank 1	40.275	37.453	1.372	40.425	37.427	1.548
1.006	28.779	1000.0	2900	Tank 1	40.425	37.427	1.548	40.175	37.398	1.327
1.007	2.573	300.0	375	Circular	40.175	37.398	2.402	40.100	37.389	2.336
1.008	5.857	225.0	225	Circular	40.100	37.389	2.486	40.050	37.363	2.462
1.009	4.792	225.0	225	Circular	40.050	37.363	2.462	39.970	37.342	2.403
1.010	19.131	248.5	225	Circular	39.970	37.243	2.502	39.452	37.166	2.061
4.001	25.860	169.0	225	Circular	40.525	38.500	1.800	40.560	38.347	1.988
4.000	24.670	225.0	225	Circular	40.050	39.120	0.705	40.525	39.010	1.290

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
2.000	S1-01	1200	Manhole	Adoptable	S1-02	1200	Manhole	Adoptable
1.001	S1-02	1200	Manhole	Adoptable	S1-03	1200	Manhole	Adoptable
1.000	SP-1	1200	Manhole	Adoptable	S1-02	1200	Manhole	Adoptable
1.002	S1-03	1200	Manhole	Adoptable	S1-04	1350	Manhole	Adoptable
3.000	SP-2	1200	Manhole	Adoptable	S1-04	1350	Manhole	Adoptable
1.003	S1-04	1350	Manhole	Adoptable	S1-05	1350	Manhole	Adoptable
1.004	S1-05	1350	Manhole	Adoptable	S1-06	1350	Manhole	Adoptable
1.005	S1-06	1350	Manhole	Adoptable	Tank 1 - L3		Junction	
5.000	Tank 1 - L1		Junction		Tank 1 - L2		Junction	
5.001	Tank 1 - L2		Junction		Tank 1 - L3		Junction	
1.006	Tank 1 - L3		Junction		Tank 1 - L4		Junction	
1.007	Tank 1 - L4		Junction		S1-11	1350	Manhole	Adoptable
1.008	S1-11	1350	Manhole	Adoptable	S1-12	1200	Manhole	Adoptable
1.009	S1-12	1200	Manhole	Adoptable	S1-13	1200	Manhole	Adoptable
1.010	S1-13	1200	Manhole	Adoptable	S1-14	1200	Manhole	Adoptable
4.001	S1-16	1200	Manhole	Adoptable	S1-06	1350	Manhole	Adoptable
4.000	SP-7		Junction		S1-16	1200	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)	
S1-01	716743.850	738165.731	43.150	2.150	1200	Adoptable		0	2.000	41.000	225
S1-02	716735.272	738148.859	43.050	2.350	1200	Adoptable		1	2.000	40.916	225
								2	1.000	41.102	225
								0	1.001	40.700	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)	
SP-1	716760.232	738137.023	42.050	0.825	1200	Adoptable		0	1.000	41.225	225
S1-03	716717.958	738114.691	41.360	1.249	1200	Adoptable		1	1.001	40.111	225
S1-04	716702.727	738084.693	40.840	2.140	1350	Adoptable		1	3.000	39.078	225
								2	1.002	39.440	225
								0	1.003	38.700	375
SP-2	716732.241	738069.876	40.050	0.825	1200	Adoptable		0	3.000	39.225	225
S1-05	716688.898	738057.336	40.200	1.704	1350	Adoptable		1	1.003	38.496	375
								0	1.004	38.496	375
S1-06	716724.133	738039.446	40.560	3.060	1350	Adoptable		1	4.001	38.347	225
								2	1.004	38.320	375
								0	1.005	37.500	375
Tank 1 - L3	716720.578	738032.610	40.425	2.998				1	5.001	37.427	2900
								2	1.005	37.466	375
								0	1.006	37.427	2900
Tank 1 - L1	716786.012	737999.601	40.085	2.585				0	5.000	37.500	2900
Tank 1 - L2	716743.718	738020.773	40.275	2.822				1	5.000	37.453	2900
								0	5.001	37.453	2900
Tank 1 - L4	716695.575	738046.861	40.175	2.777				1	1.006	37.398	2900
								0	1.007	37.398	375
S1-11	716693.453	738048.316	40.100	2.711	1350	Adoptable		1	1.007	37.389	375
								0	1.008	37.389	225
S1-12	716687.626	738048.904	40.050	2.687	1200	Adoptable		1	1.008	37.363	225
								0	1.009	37.363	225
S1-13	716682.849	738049.288	39.970	2.727	1200	Adoptable		1	1.009	37.342	225
								0	1.010	37.243	225

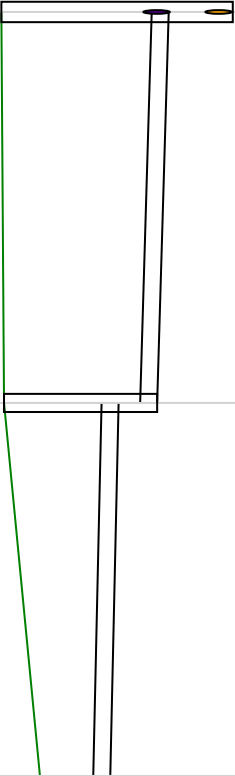
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)	
S1-14	716663.729	738049.930	39.452	2.286	1200	Adoptable		1	1.010	37.166	225
SP-7	716758.413	738049.678	40.050	0.930				0	4.000	39.120	225
S1-16	716747.179	738027.714	40.525	2.025	1200	Adoptable		1	4.000	39.010	225
								0	4.001	38.500	225

Node Name		SP-1	S1-02	S1-03	S1-04	S1-05	S1-06
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 30.000 Link Name Section Type Slope (1:X) Cover Level (m)							
			1.000	1.001	1.002	1.003	1.004
			225mm	225mm	225mm	375mm	375mm
			225.0	65.0	50.1	150.0	225.0
		42.050	43.050	41.360	40.840	40.200	40.560
Invert Level (m)		41.225	41.102	40.111	39.440	38.496	38.320
Length (m)			27.624	38.304	33.643	30.654	39.517

Node Name		S1-01	S1-02
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 32.000 Link Name Section Type Slope (1:X) Cover Level (m)			
Invert Level (m)		43.150	43.050
Length (m)			

Node Name		SP-2	S1-04
A3 drawing Hor Scale 500 Ver Scale 100	Datum (m)	30.000	
	Link Name	3.000	
	Section Type	225mm	
	Slope (1:X)	225.0	
	Cover Level (m)	40.050	40.840
Invert Level (m)		39.225	39.078
Length (m)			33.025

Node Name		SP-7	S1-16	S1-06
A3 drawing Hor Scale 500 Ver Scale 100 Datum (m) 29.000 Link Name Section Type Slope (1:X) Cover Level (m)				
		4.000	4.001	
		225mm	225mm	
		225.0	169.0	
		40.050	40.525	40.560
Invert Level (m)		39.120	39.010	38.347
Length (m)			24.670	25.860

Node Name		Tank 1 - L1	Tank 1 - L2	Tank 1 - L3
A3 drawing Hor Scale 500 Ver Scale 100	Datum (m)	29.000		
	Link Name	5.000	5.001	
	Section Type	[] 2900x1450mm	[] 2900x1450mm	
	Slope (1:X)	1000.0	1000.0	
	Cover Level (m)	40.085	40.275	40.425
Invert Level (m)		37.500	37.453	37.427
Length (m)			47.297	25.992