

Design Settings

Frequency of use (kDU)	0.00	Minimum Velocity (m/s)	1.00
Flow per dwelling per day (l/day)	4000	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	✓

Nodes

Name	Dwellings	Cover Level (m)	Manhole Type	Easting (m)	Northing (m)	Depth (m)
1	10	21.991	1 surface	471310.201	379637.131	1.691
2		22.034	1 surface	471315.979	379634.690	1.814
3	8	22.215	1 surface	471354.231	379610.393	1.665
4	6	22.149	1 surface	471324.289	379602.635	2.259
5	8	22.071	1 surface	471336.093	379557.096	3.621
6	5	22.570	1 surface	471381.868	379556.047	4.459
7	14	22.370	1 surface	471420.559	379555.142	4.546
8	10	21.704	1 surface	471473.826	379553.897	4.275
9	2	22.454	1 surface	471384.443	379493.460	1.954
10	9	22.301	1 surface	471434.940	379492.809	2.432
11	9	22.117	1 surface	471471.870	379492.354	2.524
12	11	22.900	1 surface	471451.121	379432.716	2.000
13	5	22.456	1 surface	471491.336	379429.648	1.956
14		22.136	1 surface	471494.268	379480.421	2.336
15	4	22.147	1 surface	471495.215	379489.436	2.729
16		22.018	1 surface	471505.685	379488.037	2.679
17	4	21.268	1 surface	471510.302	379548.846	4.115
18		20.541	1 surface	471567.746	379541.408	3.821
19	14	19.780	1 surface	471629.106	379533.653	3.520
21	4	19.895	1 surface	471681.176	379538.932	4.035
22	0	19.501	1 surface	471736.090	379543.235	4.059
23	0	19.773	1 surface	471753.977	379528.146	4.495
24	0	19.684	1 surface	471760.085	379518.925	4.488
25	16	19.521	1 surface	471760.278	379504.893	4.407
26		18.058	1 surface	471772.212	379504.612	3.060
28	4	21.358	1 surface	471555.202	379483.540	2.208
29	15	20.561	1 surface	471619.970	379475.414	2.391
30	14	20.797	1 surface	471619.711	379420.400	3.050
31	0	19.983	1 surface	471682.847	379418.720	2.722
32	8	20.033	1 surface	471717.280	379419.766	3.037
33	11	19.750	1 surface	471763.464	379422.711	3.110
34	0	19.298	1 surface	471759.812	379485.087	3.139
35	21	19.198	1 surface	471732.981	379480.434	2.530

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	1	2	6.273	1.500	20.300	20.220	0.080	78.4	150
1.001	2	4	33.115	1.500	20.220	19.890	0.330	100.3	150
2.000	3	4	30.931	1.500	20.550	19.890	0.660	46.9	150
1.002	4	5	47.044	1.500	19.890	18.451	1.439	32.7	150
1.003	5	6	45.787	1.500	18.450	18.111	0.339	135.1	150
1.004	6	7	38.702	1.500	18.111	17.824	0.287	134.9	150
1.005	7	8	53.282	1.500	17.824	17.429	0.395	134.9	150
1.006	8	17	36.824	1.500	17.429	17.156	0.273	134.9	150
3.000	9	10	50.501	1.500	20.500	19.869	0.631	80.0	150
3.001	10	11	36.933	1.500	19.869	19.593	0.276	133.8	150
3.002	11	15	23.527	1.500	19.593	19.418	0.175	134.4	150
4.000	12	13	40.332	1.500	20.900	20.500	0.400	100.8	150
4.001	13	14	50.858	1.500	20.500	19.800	0.700	72.7	150
4.002	14	15	9.065	1.500	19.800	19.418	0.382	23.7	150
3.003	15	16	10.563	1.500	19.418	19.339	0.079	133.7	150
3.004	16	17	60.984	1.500	19.339	17.153	2.186	27.9	150
1.007	17	18	57.974	1.500	17.153	16.720	0.433	133.9	150
1.008	18	19	61.652	1.500	16.720	16.260	0.460	134.0	150
1.009	19	21	53.600	1.500	16.260	15.860	0.400	134.0	150
1.010	21	22	55.918	1.500	15.860	15.442	0.418	133.8	150
1.011	22	23	21.927	1.500	15.442	15.278	0.164	133.7	150
1.012	23	24	10.958	1.500	15.278	15.196	0.082	133.6	150
1.013	24	25	11.008	1.500	15.196	15.114	0.082	134.2	150
1.014	25	26	13.098	1.500	15.114	14.998	0.116	112.9	150

Name	Pro Vel @ 1/3 Q (m/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Dwellings (ha)	Σ Units (ha)	Σ Add Inflow (ha)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	0.290	0.990	17.5	0.5	1.541	1.664	0.000	10	0.0	0.0	17	0.419
1.001	0.266	0.874	15.5	0.5	1.664	2.109	0.000	10	0.0	0.0	18	0.378
2.000	0.328	1.281	22.6	0.4	1.515	2.109	0.000	8	0.0	0.0	14	0.464
1.002	0.524	1.535	27.1	1.1	2.109	3.470	0.000	24	0.0	0.0	21	0.737
1.003	0.353	0.753	13.3	1.5	3.471	4.309	0.000	32	0.0	0.0	34	0.495
1.004	0.367	0.753	13.3	1.7	4.309	4.396	0.000	37	0.0	0.0	37	0.516
1.005	0.406	0.753	13.3	2.4	4.396	4.125	0.000	51	0.0	0.0	43	0.567
1.006	0.430	0.753	13.3	2.8	4.125	3.962	0.000	61	0.0	0.0	47	0.597
3.000	0.166	0.980	17.3	0.1	1.804	2.282	0.000	2	0.0	0.0	8	0.250
3.001	0.248	0.756	13.4	0.5	2.282	2.374	0.000	11	0.0	0.0	20	0.355
3.002	0.304	0.755	13.3	0.9	2.374	2.579	0.000	20	0.0	0.0	27	0.431
4.000	0.276	0.872	15.4	0.5	1.850	1.806	0.000	11	0.0	0.0	19	0.394
4.001	0.349	1.028	18.2	0.7	1.806	2.186	0.000	16	0.0	0.0	21	0.493
4.002	0.510	1.804	31.9	0.7	2.186	2.579	0.000	16	0.0	0.0	16	0.731
3.003	0.376	0.757	13.4	1.9	2.579	2.529	0.000	40	0.0	0.0	38	0.528
3.004	0.656	1.663	29.4	1.9	2.529	3.965	0.000	40	0.0	0.0	25	0.912
1.007	0.508	0.756	13.4	4.9	3.965	3.671	0.000	105	0.0	0.0	62	0.695
1.008	0.508	0.756	13.4	4.9	3.671	3.370	0.000	105	0.0	0.0	62	0.694
1.009	0.527	0.756	13.4	5.5	3.370	3.885	0.000	119	0.0	0.0	67	0.719
1.010	0.533	0.756	13.4	5.7	3.885	3.909	0.000	123	0.0	0.0	68	0.725
1.011	0.533	0.757	13.4	5.7	3.909	4.345	0.000	123	0.0	0.0	68	0.725
1.012	0.533	0.757	13.4	5.7	4.345	4.338	0.000	123	0.0	0.0	68	0.726
1.013	0.532	0.755	13.3	5.7	4.338	4.257	0.000	123	0.0	0.0	68	0.724
1.014	0.662	0.824	14.6	9.8	4.257	2.910	0.000	212	0.0	0.0	90	0.884

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)
5.000	28	29	65.276	1.500	19.150	18.170	0.980	66.6	150
5.001	29	30	55.015	1.500	18.170	17.747	0.423	130.0	150
5.002	30	31	63.158	1.500	17.747	17.261	0.486	130.0	150
5.003	31	32	34.449	1.500	17.261	16.996	0.265	130.0	150
5.004	32	33	46.278	1.500	16.996	16.640	0.356	130.0	150
5.005	33	34	62.483	1.500	16.640	16.159	0.481	130.0	150
5.006	34	25	19.811	1.500	16.159	15.114	1.045	19.0	150
6.000	35	34	27.231	1.500	16.668	16.159	0.509	53.5	150

Name	Pro Vel @ 1/3 Q (m/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Dwellings (ha)	Σ Units (ha)	Σ Add Inflow (ha)	Pro Depth (mm)	Pro Velocity (m/s)
5.000	0.231	1.074	19.0	0.2	2.058	2.241	0.000	4	0.0	0.0	11	0.328
5.001	0.301	0.767	13.6	0.9	2.241	2.900	0.000	19	0.0	0.0	26	0.426
5.002	0.360	0.767	13.6	1.5	2.900	2.572	0.000	33	0.0	0.0	34	0.505
5.003	0.360	0.767	13.6	1.5	2.572	2.887	0.000	33	0.0	0.0	34	0.505
5.004	0.388	0.767	13.6	1.9	2.887	2.960	0.000	41	0.0	0.0	38	0.536
5.005	0.413	0.767	13.6	2.4	2.960	2.989	0.000	52	0.0	0.0	43	0.578
5.006	0.896	2.018	35.7	3.4	2.989	4.257	0.000	73	0.0	0.0	31	1.260
6.000	0.422	1.199	21.2	1.0	2.380	2.989	0.000	21	0.0	0.0	22	0.597

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	6.273	78.4	150	1 surface	21.991	20.300	1.541	22.034	20.220	1.664
1.001	33.115	100.3	150	1 surface	22.034	20.220	1.664	22.149	19.890	2.109
2.000	30.931	46.9	150	1 surface	22.215	20.550	1.515	22.149	19.890	2.109
1.002	47.044	32.7	150	1 surface	22.149	19.890	2.109	22.071	18.451	3.470
1.003	45.787	135.1	150	1 surface	22.071	18.450	3.471	22.570	18.111	4.309
1.004	38.702	134.9	150	1 surface	22.570	18.111	4.309	22.370	17.824	4.396
1.005	53.282	134.9	150	1 surface	22.370	17.824	4.396	21.704	17.429	4.125
1.006	36.824	134.9	150	1 surface	21.704	17.429	4.125	21.268	17.156	3.962
3.000	50.501	80.0	150	1 surface	22.454	20.500	1.804	22.301	19.869	2.282
3.001	36.933	133.8	150	1 surface	22.301	19.869	2.282	22.117	19.593	2.374
3.002	23.527	134.4	150	1 surface	22.117	19.593	2.374	22.147	19.418	2.579

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	1	1200	Manhole	1 surface	2	1200	Manhole	1 surface
1.001	2	1200	Manhole	1 surface	4	1500	Manhole	1 surface
2.000	3	1200	Manhole	1 surface	4	1500	Manhole	1 surface
1.002	4	1500	Manhole	1 surface	5	1500	Manhole	1 surface
1.003	5	1500	Manhole	1 surface	6	1200	Manhole	1 surface
1.004	6	1200	Manhole	1 surface	7	1500	Manhole	1 surface
1.005	7	1500	Manhole	1 surface	8	1500	Manhole	1 surface
1.006	8	1500	Manhole	1 surface	17	1200	Manhole	1 surface
3.000	9	1200	Manhole	1 surface	10	1200	Manhole	1 surface
3.001	10	1200	Manhole	1 surface	11	1200	Manhole	1 surface
3.002	11	1200	Manhole	1 surface	15	1200	Manhole	1 surface

Pipeline Schedule


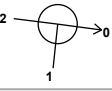

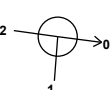










Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
4.000	40.332	100.8	150	1 surface	22.900	20.900	1.850	22.456	20.500	1.806
4.001	50.858	72.7	150	1 surface	22.456	20.500	1.806	22.136	19.800	2.186
4.002	9.065	23.7	150	1 surface	22.136	19.800	2.186	22.147	19.418	2.579
3.003	10.563	133.7	150	1 surface	22.147	19.418	2.579	22.018	19.339	2.529
3.004	60.984	27.9	150	1 surface	22.018	19.339	2.529	21.268	17.153	3.965
1.007	57.974	133.9	150	1 surface	21.268	17.153	3.965	20.541	16.720	3.671
1.008	61.652	134.0	150	1 surface	20.541	16.720	3.671	19.780	16.260	3.370
1.009	53.600	134.0	150	1 surface	19.780	16.260	3.370	19.895	15.860	3.885
1.010	55.918	133.8	150	1 surface	19.895	15.860	3.885	19.501	15.442	3.909
1.011	21.927	133.7	150	1 surface	19.501	15.442	3.909	19.773	15.278	4.345
1.012	10.958	133.6	150	1 surface	19.773	15.278	4.345	19.684	15.196	4.338
1.013	11.008	134.2	150	1 surface	19.684	15.196	4.338	19.521	15.114	4.257
1.014	13.098	112.9	150	1 surface	19.521	15.114	4.257	18.058	14.998	2.910
5.000	65.276	66.6	150	1 surface	21.358	19.150	2.058	20.561	18.170	2.241
5.001	55.015	130.0	150	1 surface	20.561	18.170	2.241	20.797	17.747	2.900
5.002	63.158	130.0	150	1 surface	20.797	17.747	2.900	19.983	17.261	2.572
5.003	34.449	130.0	150	1 surface	19.983	17.261	2.572	20.033	16.996	2.887
5.004	46.278	130.0	150	1 surface	20.033	16.996	2.887	19.750	16.640	2.960
5.005	62.483	130.0	150	1 surface	19.750	16.640	2.960	19.298	16.159	2.989
5.006	19.811	19.0	150	1 surface	19.298	16.159	2.989	19.521	15.114	4.257
6.000	27.231	53.5	150	1 surface	19.198	16.668	2.380	19.298	16.159	2.989

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
4.000	12	1200	Manhole	1 surface	13	1200	Manhole	1 surface
4.001	13	1200	Manhole	1 surface	14	1200	Manhole	1 surface
4.002	14	1200	Manhole	1 surface	15	1200	Manhole	1 surface
3.003	15	1200	Manhole	1 surface	16	1200	Manhole	1 surface
3.004	16	1200	Manhole	1 surface	17	1200	Manhole	1 surface
1.007	17	1200	Manhole	1 surface	18	1500	Manhole	1 surface
1.008	18	1500	Manhole	1 surface	19	1200	Manhole	1 surface
1.009	19	1200	Manhole	1 surface	21	1200	Manhole	1 surface
1.010	21	1200	Manhole	1 surface	22	1200	Manhole	1 surface
1.011	22	1200	Manhole	1 surface	23	1200	Manhole	1 surface
1.012	23	1200	Manhole	1 surface	24	1500	Manhole	1 surface
1.013	24	1500	Manhole	1 surface	25	1500	Manhole	1 surface
1.014	25	1500	Manhole	1 surface	26	1200	Manhole	1 surface
5.000	28	1200	Manhole	1 surface	29	1200	Manhole	1 surface
5.001	29	1200	Manhole	1 surface	30	1200	Manhole	1 surface
5.002	30	1200	Manhole	1 surface	31	1200	Manhole	1 surface
5.003	31	1200	Manhole	1 surface	32	1200	Manhole	1 surface
5.004	32	1200	Manhole	1 surface	33	1200	Manhole	1 surface
5.005	33	1200	Manhole	1 surface	34	1200	Manhole	1 surface
5.006	34	1200	Manhole	1 surface	25	1500	Manhole	1 surface
6.000	35	1200	Manhole	1 surface	34	1200	Manhole	1 surface






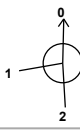

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
1	471310.201	379637.131	21.991	1.691	1200		0	1.000	20.300	150
2	471315.979	379634.690	22.034	1.814	1200		1	1.000	20.220	150
							0	1.001	20.220	150
3	471354.231	379610.393	22.215	1.665	1200		0	2.000	20.550	150
4	471324.289	379602.635	22.149	2.259	1500		1	2.000	19.890	150
							2	1.001	19.890	150
							0	1.002	19.890	150
5	471336.093	379557.096	22.071	3.621	1500		1	1.002	18.451	150
							0	1.003	18.450	150
6	471381.868	379556.047	22.570	4.459	1200		1	1.003	18.111	150
							0	1.004	18.111	150
7	471420.559	379555.142	22.370	4.546	1500		1	1.004	17.824	150
							0	1.005	17.824	150
8	471473.826	379553.897	21.704	4.275	1500		1	1.005	17.429	150
							0	1.006	17.429	150
9	471384.443	379493.460	22.454	1.954	1200		0	3.000	20.500	150
10	471434.940	379492.809	22.301	2.432	1200		1	3.000	19.869	150
							0	3.001	19.869	150
11	471471.870	379492.354	22.117	2.524	1200		1	3.001	19.593	150
							0	3.002	19.593	150
12	471451.121	379432.716	22.900	2.000	1200		0	4.000	20.900	150
13	471491.336	379429.648	22.456	1.956	1200		1	4.000	20.500	150
							0	4.001	20.500	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
14	471494.268	379480.421	22.136	2.336	1200		1	4.001	19.800	150
15	471495.215	379489.436	22.147	2.729	1200		0	4.002	19.800	150
							1	4.002	19.418	150
16	471505.685	379488.037	22.018	2.679	1200		2	3.002	19.418	150
							0	3.003	19.418	150
17	471510.302	379548.846	21.268	4.115	1200		1	3.003	19.339	150
							0	3.004	19.339	150
18	471567.746	379541.408	20.541	3.821	1500		1	3.004	17.153	150
							2	1.006	17.156	150
19	471629.106	379533.653	19.780	3.520	1200		0	1.007	17.153	150
							1	1.007	16.720	150
21	471681.176	379538.932	19.895	4.035	1200		0	1.008	16.720	150
							1	1.008	16.260	150
22	471736.090	379543.235	19.501	4.059	1200		0	1.009	16.260	150
							1	1.009	15.860	150
23	471753.977	379528.146	19.773	4.495	1200		0	1.010	15.860	150
							1	1.010	15.442	150
24	471760.085	379518.925	19.684	4.488	1500		0	1.011	15.442	150
							1	1.011	15.278	150
25	471760.278	379504.893	19.521	4.407	1500		0	1.012	15.278	150
							1	1.012	15.196	150
26	471772.212	379504.612	18.058	3.060	1200		1	5.006	15.114	150
							2	1.013	15.114	150
28	471555.202	379483.540	21.358	2.208	1200		0	1.014	15.114	150
							1	1.014	14.998	150
							0	5.000	19.150	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
29	471619.970	379475.414	20.561	2.391	1200		1	5.000	18.170	150
30	471619.711	379420.400	20.797	3.050	1200		1	5.001	17.747	150
31	471682.847	379418.720	19.983	2.722	1200		1	5.002	17.261	150
32	471717.280	379419.766	20.033	3.037	1200		1	5.003	16.996	150
33	471763.464	379422.711	19.750	3.110	1200		1	5.004	16.640	150
34	471759.812	379485.087	19.298	3.139	1200		1	6.000	16.159	150
							2	5.005	16.159	150
							0	5.006	16.159	150
35	471732.981	379480.434	19.198	2.530	1200		0	6.000	16.668	150