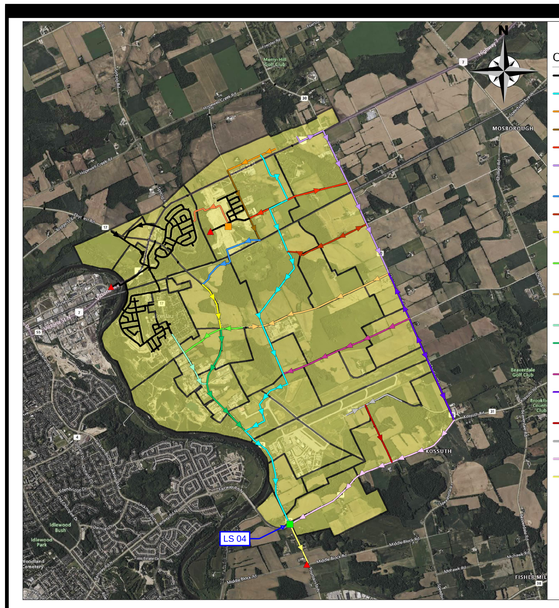
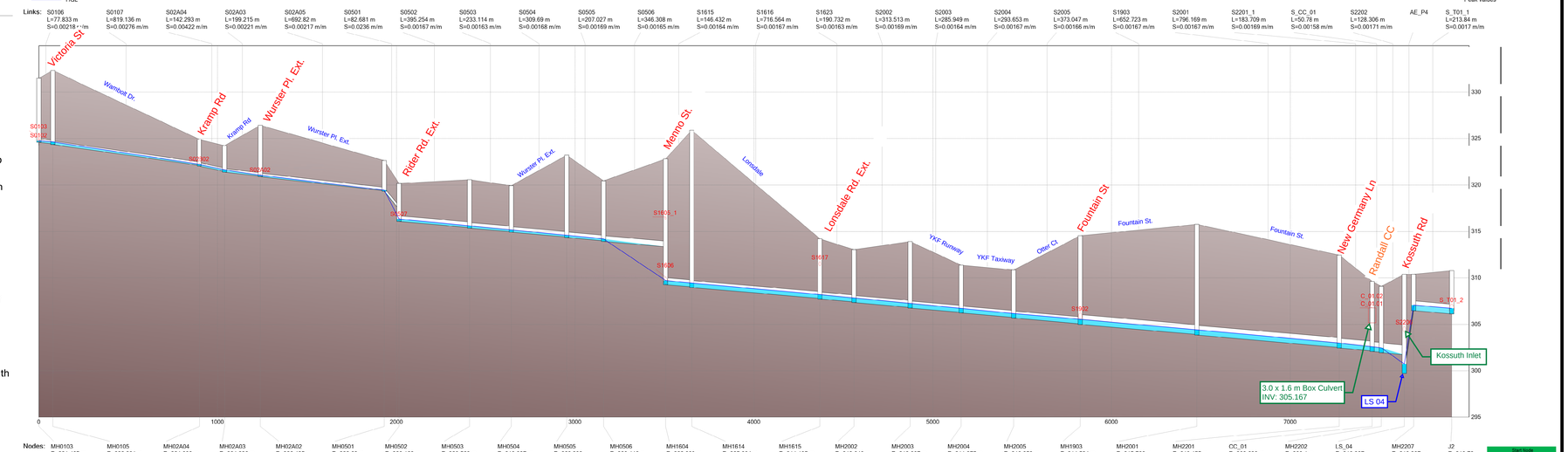


Legend

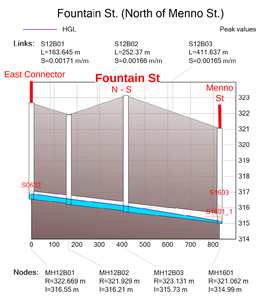
Conduits

- Other
- Trunk 03B
- North Dev Rd.
- Greenhouse Rd.
- Kramp Rd.
- Shantz Station Rd. (North of Menno St.)
- East Connector
- Rider Rd. Ext.
- Fountain St. (North of Menno St.)
- Menno St. (West of Fountain St.)
- Menno St. (East of Fountain St.)
- Woolwich St.
- Fountain St. (Menno St. to Otter St.)
- Lonsdale Rd Ext.
- Shantz Station Rd. (South of Menno St.)
- Cober Rd.
- New Germany Ln.
- Kossuth Rd.
- Fountain St. (South of Kossuth Rd.)

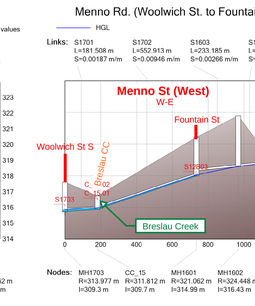
Trunk 03B



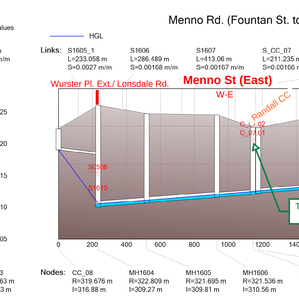
North Dev. Rd.



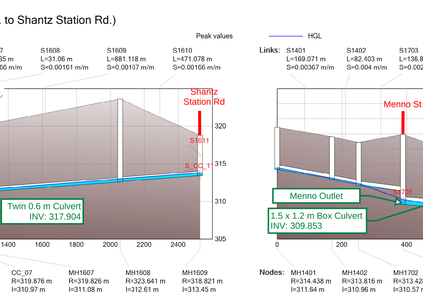
Greenhouse Rd.



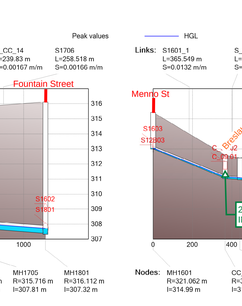
Kramp Rd.



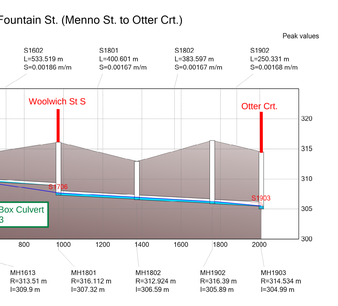
Shantz Station Rd. (North of Menno St.)



East Connector



Rider Rd. Ext.



Trunk 03B

Name	Road Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	QFSF	Shape [1]	SHS Mid Fill	CHS Mid Fill	SHS Mid Depth	CHS Mid Depth
S0106	Wambolt Dr.	MH0401	MH0105	77.833	324.965	324.420	675	0.72	358.5	0.26	0.750	350.895	332.256	0.9	0.9
S0107	Wambolt Dr.	MH0105	MH02A04	819.136	324.360	322.100	675	0.97	79.26	0.76	0.750	350.895	324.195	0.9	0.9
S02A04	Kramp Rd.	MH02A04	MH02A03	142.293	322.040	321.840	675	1.03	56.71	0.66	0.750	350.895	324.236	0.9	0.9
S02A03	Kramp Rd.	MH02A03	MH02A02	199.215	321.380	320.940	675	0.88	38.73	0.66	0.750	350.895	324.236	0.9	0.9
S02A05	Wurster Pl. Ext.	MH02A02	MH0501	692.82	320.880	318.280	675	0.75	28.96	0.63	0.750	350.895	324.425	0.9	0.9
S0501	Wurster Pl. Ext.	MH0501	MH0502	82.681	319.320	318.370	675	0.75	28.96	0.63	0.750	350.895	322.630	0.9	0.9
S0502	Wurster Pl. Ext.	MH0502	MH0504	395.254	316.070	314.410	600	0.88	52.49	0.63	0.900	452.389	324.168	0.9	0.9
S0503	Wurster Pl. Ext.	MH0504	MH0505	233.114	314.350	313.970	600	0.88	52.49	0.63	0.900	452.389	322.569	0.9	0.9
S0504	Wurster Pl. Ext.	MH0505	MH0506	309.69	314.330	313.810	600	0.88	52.49	0.63	0.900	452.389	323.208	0.9	0.9
S0505	Wurster Pl. Ext.	MH0506	MH0506	207.027	314.120	313.360	600	0.88	52.49	0.63	0.900	452.389	320.446	0.9	0.9
S0506	Wurster Pl. Ext.	MH0506	MH1604	346.308	313.920	312.350	600	0.88	52.49	0.63	0.900	452.389	322.809	0.9	0.9
S1615	Lonsdale Rd.	MH1604	MH1614	146.432	309.270	309.030	750	1.45	306.41	0.65	0.844	522.656	325.894	0.9	0.9
S1616	Lonsdale Rd.	MH1614	MH1615	716.564	308.970	307.770	750	1.45	306.41	0.65	0.844	522.656	314.195	0.9	0.9
S1623	Lonsdale Rd.	MH1615	MH2002	190.732	307.710	307.370	750	1.45	306.41	0.65	0.844	522.656	313.049	0.9	0.9
S2002	Airport Crossing	MH2002	MH2003	313.513	307.340	306.690	750	1.07	225.81	0.75	0.900	552.845	313.907	0.9	0.9
S2003	Airport Crossing	MH2003	MH2004	285.949	306.750	306.220	750	1.07	225.81	0.75	0.900	552.845	311.375	0.9	0.9
S2004	Airport Crossing	MH2004	MH2005	293.653	306.220	305.730	750	1.06	223.70	0.75	0.900	552.845	310.859	0.9	0.9
S2005	Airport Crossing	MH2005	MH1903	373.047	305.650	305.050	750	1.06	223.70	0.75	0.900	552.845	314.534	0.9	0.9
S1903	Fountain St.	MH1903	MH2001	652.723	304.990	303.900	900	1.52	972.61	0.81	0.907	784.934	315.766	0.9	0.9
S2001	Fountain St.	MH2001	CC_01	796.169	303.840	302.510	900	1.46	934.22	0.81	0.907	784.934	312.455	0.9	0.9
S_CC_01	Fountain St.	CC_01	MH2200	50.78	302.480	302.390	900	1.46	934.22	0.81	0.907	784.934	309.638	0.9	0.9
S2201_1	Fountain St.	MH2200	LS_04	183.709	302.340	301.940	900	1.46	934.22	0.81	0.907	784.934	309.1	0.9	0.9
S2202	Fountain St.	MH2202	LS_04	128.306	329.620	329.940	300	1.76	695.52	0.94	0.785	70.686	310.387	0.9	0.9

North Dev Rd.

Name	Road Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	QFSF	Shape [1]	SHS Mid Fill	CHS Mid Fill	SHS Mid Depth	CHS Mid Depth
S0102	North Dev Rd.	MH0102	MH0103	619.266	329.270	329.040	675	0.71	353.1	0.26	0.750	350.895	327.845	0.9	0.9
S0302	North Dev Rd.	MH0303	MH0402	699.298	324.936	322.340	300	0.99	70.39	0.52	0.363	113.435	325.944	0.9	0.9

Greenhouse Rd.

Name	Road Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	QFSF	Shape [1]	SHS Mid Fill	CHS Mid Fill	SHS Mid Depth	CHS Mid Depth
S0105	Greenhouse Rd.	MH0104	MH0303	881.553	327.230	324.820	675	0.71	353.1	0.26	0.750	350.895	329.032	0.9	0.9
S02A01	Greenhouse Rd.	MH02A01	MH0301	407.211	319.881	319.550	525	0.97	93.74	0.56	0.817	222.695	322.665	0.9	0.9

Kramp Rd. (Greenhouse Rd. to Wurster Pl.)

Name	Road Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	QFSF	Shape [1]	SHS Mid Fill	CHS Mid Fill	SHS Mid Depth	CHS Mid Depth
S02A02	Kramp Rd.	MH02A02	MH02A01	372.005	320.880	319.870	300	0.90	19.76	0.56	0.272	126.429	322.665	0.9	0.9

Kramp Rd. (Shantz Station Rd. to Wambolt Dr.)

Name	Road Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	QFSF	Shape [1]	SHS Mid Fill	CHS Mid Fill	SHS Mid Depth	CHS Mid Depth
S02B02	Kramp Rd.	MH02B02	MH02B01	1042.604	321.598	318.740	900	1.52	972.61	0.81	0.907	784.934	321.598	0.9	0.9

Shantz Station Rd. (North of Menno St.)

Name	Road Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	QFSF	Shape [1]	SHS Mid Fill	CHS Mid Fill	SHS Mid Depth	CHS Mid Depth
S0108	Shantz Station Rd.	MH0106	MH0107	433.028	326.343	326.637	750	1.45	306.41	0.65	0.844	522.656	326.343	0.9	0.9
S0109	Shantz Station Rd.	MH0107	MH0108	293.814	326.637	326.409	750	1.45	306.41	0.65	0.844	522.656	326.637	0.9	0.9
S0110	Shantz Station Rd.	MH0108	MH02B01	671.713	326.409	324.590	750	1.45	306.41	0.65	0.844	522.656	326.409	0.9	0.9
S02B01	Shantz Station Rd.	MH02B01	MH02B02	164.059	321.598	321.390	750	1.45	306.41	0.65	0.844	522.656	321.598	0.9	0.9
S0302	Shantz Station Rd.	MH0302	MH0303	594.759	321.390	321.390	750	1.45	306.41	0.65	0.844	522.656	321.390	0.9	0.9
S0402	Shantz Station Rd.	MH0402	MH0403	245.339	321.390	323.537	750	1.45	306.41	0.65	0.844	522.656	321.390	0.9	0.9
S0403	Shantz Station Rd.	MH0403	MH0404	519.152	326.720	318.163	750	1.45	306.41	0.65	0.844	522.656	326.720	0.9	0.9
S0404_1	Shantz Station Rd.	MH0404	CC_11	60.446	318.164	313.650	750	1.45	306.41	0.65	0.844	522.656	318.164	0.9	0.9
S_CC_11	Shantz Station Rd.	CC_11	MH1609	82.229	313.650	313.450	750	1.45	306.41	0.65	0.844	522.656	313.650	0.9	0.9

East Connector

Name	Road Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	QFSF	Shape [1]	SHS Mid Fill	CHS Mid Fill	SHS Mid Depth	CHS Mid Depth
S0602	East Connector	MH0602	MH12B01	1002.357	322.669	316.550	525	0.97	93.74	0.56	0.817	222.695	322.669	0.9	0.9
S0301	East Connector	MH0301	MH0602	438.423	321.969	318.280	525	0.97	93.74	0.56	0.817	222.695	321.969	0.9	0.9

Rider Rd. Ext.

Name	Road Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	QFSF	Shape [1]	SHS Mid Fill	CHS Mid Fill	SHS Mid Depth	CHS Mid Depth
S0507	Rider Rd. Ext.	MH0507	MH0502	382.512	317.850	316.070	300	0.99	70.39	0.52	0.363	113.435	323.590	0.9	0.9
S0407	Rider Rd. Ext.	MH0407	MH0507	393.505	323.590	321.150	300	0.99	70.39	0.52	0.363	113.435	323.590	0.9	0.9
S0406	Rider Rd. Ext.	MH0406	MH0407	421.817	326.375	323.590	300	0.99	70.39	0.52	0.363	113.435	326.375	0.9	0.9
S0401	Rider Rd. Ext.	MH0401	MH0406	254.982	326.375	326.375	300	0.99	70.39	0.52	0.363	113.435	326.375	0.9	0.9

Fountain St. (Menno St. to Otter Crt.)

Name	Road Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	QFSF	Shape [1]	SHS Mid Fill	CHS Mid Fill	SHS Mid Depth	CHS Mid Depth
S1601_1	Fountain St.	MH1601	CC_09	365.549	321.062	319.972	450	0.90	89.57	0.27	1.335	353.862	321.062	0.9	0.9
S_CC_09	Fountain St.	CC_09	MH1602	75.046	319.972	319.910	450	0.90	89.57	0.27	1.335	353.862	319.972	0.9	0.9
S1602	Fountain St.	MH1602	MH1603	533.519	319.910	317.240	450	0.90	89.57	0.27	1.335	353.862	319.910	0.9	0.9
S1603	Fountain St.	MH1603	MH1604	400.601	317.240	316.112	450	0.90	89.57	0.27	1.335	353.862	317.240	0.9	0.9
S1802	Fountain St.	MH1802	MH1803	383.597	312.924	310.387	450	0.90	89.57	0.27	1.335	353.862	312.924	0.9	0.9
S1902	Fountain St.	MH1902	MH1903	250.331	310.387	310.387	450	0.90	89.57	0.27	1.335	353.862	310.387	0.9	0.9

East Connector

Name	Road Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	QFSF	Shape [1]	SHS Mid Fill	CHS Mid Fill	SHS Mid Depth	CHS Mid Depth
S0301	East Connector	MH0303	MH0301	438.423	321.969	318.280	525	0.97	93.74	0.56	0.817	222.695	321.969	0.9	0.9
S0602	East Connector	MH0602	MH12B01	1002.357	322.669	316.550	525	0.97	93.74	0.56	0.817	222.695	322.669	0.9	0.9

Rider Rd. Ext.

Name	Road Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	QFSF	Shape [1]	SHS Mid Fill	CHS Mid Fill	SHS Mid Depth	CHS Mid Depth
S0507	Rider Rd. Ext.	MH0507	MH0502	382.512	317.850	316.070	300	0.99	70.39	0.52	0.363	113.435	323.590	0.9	0.9
S0407	Rider Rd. Ext.	MH0407	MH0507	393.505	323.590	321.150	300	0.99	70.39	0.52	0.363	113.435	323.590	0.9	0.9
S0406	Rider Rd. Ext.	MH0406	MH0407	421.817	326.375	323.590	300	0.99	70.39	0.52	0.363	113.435	326.375	0.9	0.9
S0401	Rider Rd. Ext.	MH0401	MH0406	254.982	326.375	326.375	300	0.99	70.39	0.52	0.363	113.435	326.375	0.9	0.9

Fountain St. (Kossuth Rd. to Middle Block Rd.)

Name	Road Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	QFSF	Shape [1]	SHS Mid Fill	CHS Mid Fill	SHS Mid Depth	CHS Mid Depth
AE_P4	Fountain St.	LS_04	MH2207												
S_T01_1	Fountain St.	MH2207	JJ	213.84	308.470	308.106	900	2.86	679.91	0.62	0.970	785.397	785.790	0.9	0.9
S_T01_2	Fountain St.	JJ	MH_T01	472.841	308.106	305.350	900	1.90	679.91	0.62	0.970	785.397	784.955	0.9	0.9
S_T02	Fountain St.	MH_T01	MH_T02	43.2	305.302	305.220	900	1.90	679.91	0.62	0.970	785.397	785.790	0.9	0.9

Fountain St. (North of Menno St.)

Menno Rd. (Woolwich St. to Fountain St.)

Menno Rd. (Fountain St. to Shantz Station Rd.)

Woolwich St.

Fountain St. (Menno St. to Otter Crt.)

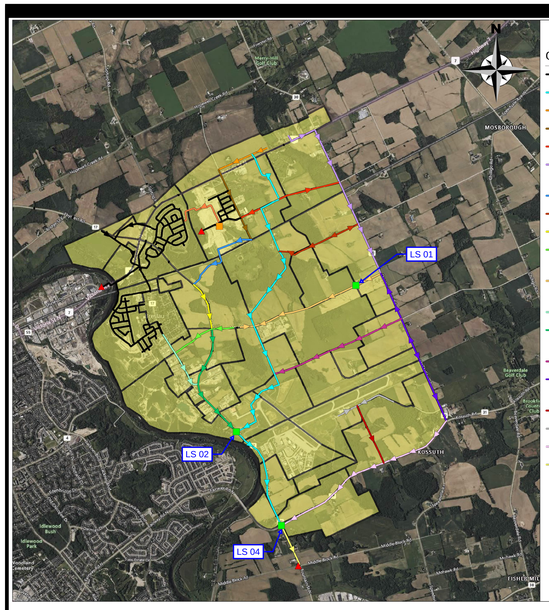
Lonsdale Rd. Ext.

Shantz Station Rd. (Menno Rd. to Kossuth Rd.)

Cober Rd.

New Germany Ln.

Kossuth Rd.

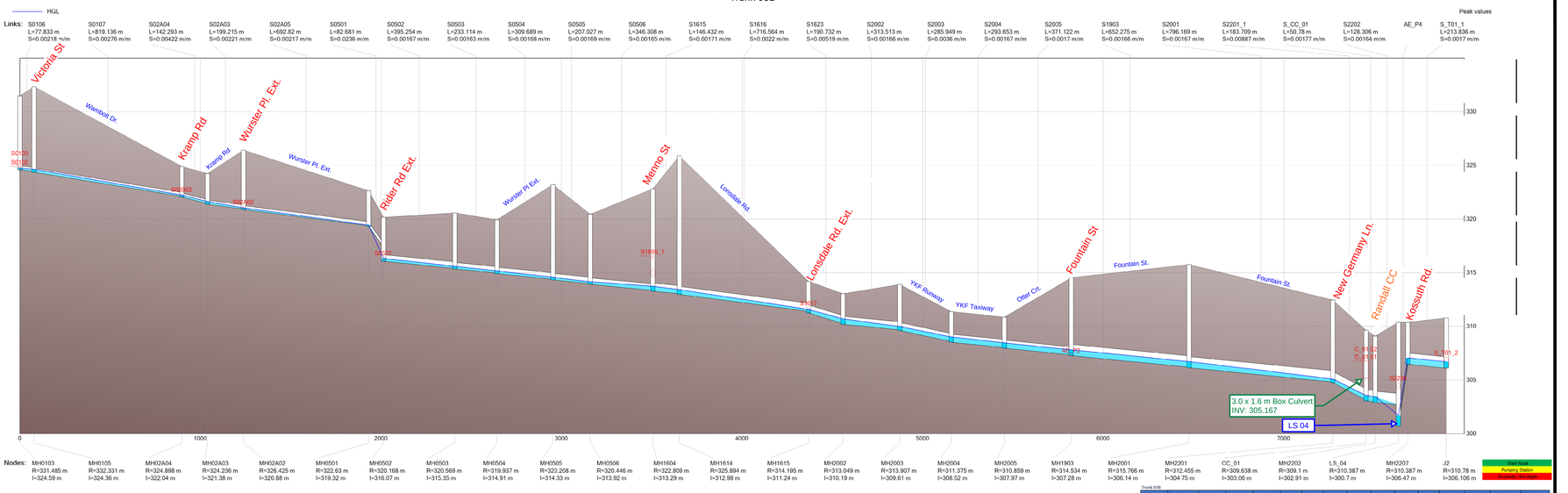


Legend

Conduits

- Other
- Trunk03b
- North Dev Rd.
- Greenhouse Rd.
- Kramp Rd.
- Shantz Station Rd. (N. of Menno St.)
- East Connector
- Rider Rd. Ext.
- Fountain St. (N of Menno St.)
- Menno St. (Woolwich St. to Fountain St.)
- Menno St. (Fountain St. to Shantz Station Rd.)
- Woolwich St.
- Fountain St. (Menno St. to Otter Crt.)
- Lonsdale Rd. Ext.
- Shantz Station Rd. (Menno St. to Kossuth Rd.)
- Cober Rd.
- New Germany Ln.
- Kossuth Rd.
- Fountain St. (Kossuth Rd. to Middle Block Rd.)

Trunk 03B



Links:

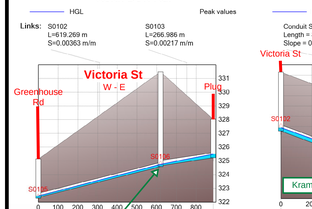
S0106	S0107	S02A04	S02A03	S02A05	S0501	S0502	S0503	S0504	S0505	S0506	S1615	S1616	S1623	S2002	S2003	S2004	S2005	S1903	S2001	S2201_1	S_CC_01	S2202	AE_P4	S_T01_1
L=77.833 m	L=819.136 m	L=142.293 m	L=199.215 m	L=692.82 m	L=82.681 m	L=395.254 m	L=233.114 m	L=309.689 m	L=207.027 m	L=345.308 m	L=148.432 m	L=716.564 m	L=190.732 m	L=313.513 m	L=285.949 m	L=293.653 m	L=371.122 m	L=652.275 m	L=796.169 m	L=183.709 m	L=50.78 m	L=128.306 m		L=213.836 m
S=0.00218 m/m	S=0.00276 m/m	S=0.00422 m/m	S=0.00221 m/m	S=0.00217 m/m	S=0.0236 m/m	S=0.00167 m/m	S=0.00163 m/m	S=0.00168 m/m	S=0.00169 m/m	S=0.00165 m/m	S=0.00171 m/m	S=0.0022 m/m	S=0.00519 m/m	S=0.00166 m/m	S=0.0036 m/m	S=0.00167 m/m	S=0.0017 m/m	S=0.00166 m/m	S=0.00167 m/m	S=0.00887 m/m	S=0.00177 m/m	S=0.00164 m/m		S=0.0017 m/m

Nodes:

MH0103	MH0105	MH02A04	MH02A03	MH02A02	MH0501	MH0502	MH0503	MH0504	MH0505	MH0506	MH1604	MH1614	MH1615	MH2002	MH2003	MH2004	MH2005	MH1903	MH2001	MH2201	CC_01	MH2202	LS_04	MH2207	J2
R=331.485 m	R=332.331 m	R=324.898 m	R=324.236 m	R=326.425 m	R=322.63 m	R=320.168 m	R=320.569 m	R=319.937 m	R=323.208 m	R=320.446 m	R=322.809 m	R=325.894 m	R=314.195 m	R=313.049 m	R=313.907 m	R=311.375 m	R=310.859 m	R=314.534 m	R=315.766 m	R=304.175 m	R=309.638 m	R=309.1 m	R=310.387 m	R=310.387 m	R=310.78 m
I=324.59 m	I=324.36 m	I=322.04 m	I=321.38 m	I=320.88 m	I=319.32 m	I=316.07 m	I=315.35 m	I=314.91 m	I=314.33 m	I=313.92 m	I=313.29 m	I=312.98 m	I=311.24 m	I=310.19 m	I=309.61 m	I=308.52 m	I=307.97 m	I=307.28 m	I=306.14 m	I=304.75 m	I=303.06 m	I=302.91 m	I=300.7 m	I=306.47 m	I=306.106 m

Peak Node
Pumping Station
Exceeds 10m Depth

North Dev. Rd.



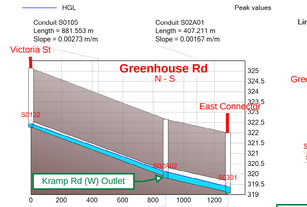
Links:

S0102	S0103
L=619.269 m	L=266.986 m
S=0.00363 m/m	S=0.00217 m/m

Nodes:

MH0102	MH0103	MH0104
R=325.144 m	R=331.485 m	R=328.032 m
I=322.28 m	I=324.59 m	I=325.23 m

Greenhouse Rd.



Conduit S0105
Length = 881.553 m
Slope = 0.00273 m/m

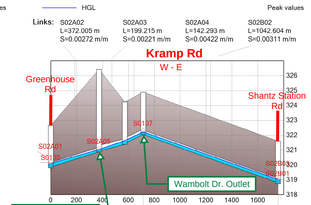
Conduit S02A01
Length = 407.211 m
Slope = 0.00167 m/m

Junction MH0102
Rim Elev. = 325.144 m
Invert Elev. = 322.28 m

Junction MH02A01
Rim Elev. = 322.665 m
Invert Elev. = 319.81 m

Junction MH0301
Rim Elev. = 322.001 m
Invert Elev. = 319.07 m

Kramp Rd.



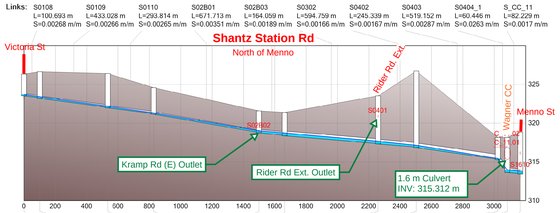
Links:

S02A02	S02A03	S02A04	S02B02
L=372.005 m	L=199.215 m	L=142.293 m	L=1042.604 m
S=0.00272 m/m	S=0.00221 m/m	S=0.00422 m/m	S=0.00311 m/m

Nodes:

MH02A02	MH02A03	MH02A04	MH02B02
R=322.665 m	R=326.425 m	R=324.236 m	R=324.898 m
I=319.81 m	I=320.88 m	I=321.38 m	I=322.04 m

Shantz Station Rd. (North of Menno St.)



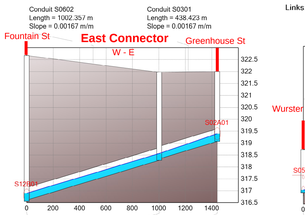
Links:

S0108	S0109	S0110	S02B01	S02B03	S0302	S0402	S0403	S0404_1	S_CC_11
L=100.693 m	L=433.028 m	L=293.814 m	L=671.713 m	L=164.059 m	L=594.759 m	L=245.339 m	L=519.152 m	L=60.446 m	L=82.229 m
S=0.00268 m/m	S=0.00266 m/m	S=0.00265 m/m	S=0.00351 m/m	S=0.00189 m/m	S=0.00166 m/m	S=0.00167 m/m	S=0.00287 m/m	S=0.0263 m/m	S=0.0017 m/m

Nodes:

MH0106	MH0107	MH0108	MH02B01	MH02B02	MH0302	MH0402	MH0403	MH0404	CC_11	MH1609
R=326.343 m	R=326.637 m	R=326.409 m	R=324.59 m	R=321.598 m	R=321.39 m	R=323.537 m	R=323.537 m	R=318.163 m	R=318.164 m	R=318.821 m
I=323.54 m	I=323.21 m	I=322 m	I=321.16 m	I=318.74 m	I=318.37 m	I=317.32 m	I=316.85 m	I=315.3 m	I=313.65 m	I=313.45 m

East Connector



Conduit S0602
Length = 1002.357 m
Slope = 0.00167 m/m

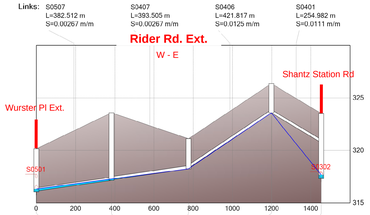
Conduit S0301
Length = 438.423 m
Slope = 0.00167 m/m

Junction MH12B01
Rim Elev. = 322.669 m
Invert Elev. = 316.55 m

Junction MH0602
Rim Elev. = 318.28 m

Junction MH0301
Rim Elev. = 322.001 m
Invert Elev. = 319.07 m

New Road 2 / Rider Rd. Ext.



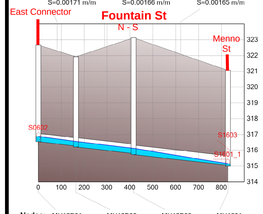
Links:

S0507	S0407	S0406	S0401
L=382.512 m	L=393.505 m	L=421.817 m	L=254.982 m
S=0.00267 m/m	S=0.00267 m/m	S=0.0125 m/m	S=0.0111 m/m

Nodes:

MH0502	MH0507	MH0405	MH0401	MH0402
R=320.168 m	R=323.59 m	R=321.122 m	R=326.375 m	R=323.537 m
I=316.07 m	I=317.15 m	I=318.26 m	I=323.58 m	I=317.32 m

Fountain St. (North of Menno St.)



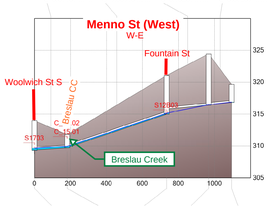
Links:

S12B01	S12B02	S12B03
L=163.645 m	L=252.37 m	L=411.637 m
S=0.00171 m/m	S=0.00166 m/m	S=0.00165 m/m

Nodes:

MH12B01	MH12B02	MH12B03	MH1601
R=322.669 m	R=321.929 m	R=323.131 m	R=321.062 m
I=316.55 m	I=316.21 m	I=315.73 m	I=314.99 m

Menno Rd. (Woolwich St. to Fountain St.)



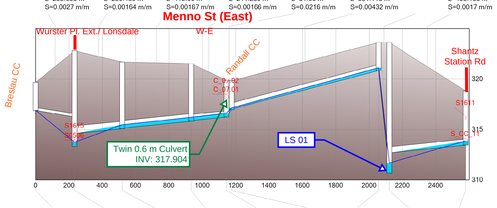
Links:

S1701	S1702	S1603	S1604
L=181.508 m	L=552.913 m	L=233.185 m	L=127.248 m
S=0.00187 m/m	S=0.00946 m/m	S=0.00266 m/m	S=0.00267 m/m

Nodes:

MH1703	CC_15	MH1601	MH1602	MH1603
R=313.977 m	R=311.812 m	R=321.062 m	R=324.448 m	R=319.63 m
I=309.3 m	I=305.7 m	I=314.99 m	I=316.43 m	I=316.83 m

Menno St. (Fountain St. to Shantz Station Rd.)



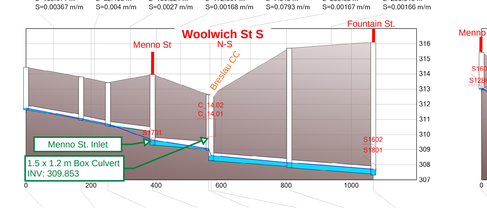
Links:

S1605_1	S1606	S1607	S_CC_07	S1608	S1609	AE_P1	S1610
L=233.058 m	L=286.489 m	L=413.06 m	L=211.235 m	L=31.06 m	L=881.118 m		L=458.133 m
S=0.0027 m/m	S=0.00164 m/m	S=0.00167 m/m	S=0.00166 m/m	S=0.0216 m/m	S=0.00432 m/m		S=0.0017 m/m

Nodes:

CC_08	MH1604	MH1605	MH1606	CC_07	MH1607	MH1608	LS_01	MH1609
R=319.676 m	R=322.809 m	R=321.695 m	R=321.536 m	R=319.876 m	R=319.826 m	R=323.641 m	R=323.641 m	R=318.821 m
I=316.88 m	I=313.29 m	I=315.08 m	I=315.83 m	I=316.24 m	I=316.97 m	I=320.84 m	I=310.67 m	I=313.45 m

Woolwich St.



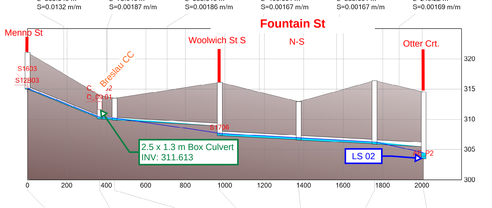
Links:

S1401	S1402	S1703	S1704	S1705_1	S_CC_14	S1706
L=169.071 m	L=82.403 m	L=136.821 m	L=172.807 m	L=7.843 m	L=239.83 m	L=258.518 m
S=0.00367 m/m	S=0.004 m/m	S=0.0027 m/m	S=0.00168 m/m	S=0.0793 m/m	S=0.00167 m/m	S=0.00166 m/m

Nodes:

MH1401	MH1402	MH1702	MH1703	MH1704	CC_14	MH1705	MH1801
R=314.438 m	R=313.816 m	R=313.428 m	R=313.977 m	R=312.63 m	R=312.62 m	R=315.716 m	R=316.112 m
I=311.64 m	I=310.96 m	I=310.57 m	I=309.3 m	I=308.95 m	I=308.27 m	I=307.81 m	I=307.32 m

Fountain St. (Menno St. to Otter Crt.)



Links:

S1601_1	S_CC_09	S1602	S1801	S1802	S1902
L=365.549 m	L=75.046 m	L=533.519 m	L=400.601 m	L=383.601 m	L=249.22 m
S=0.0132 m/m	S=0.00187 m/m	S=0.00186 m/m	S=0.00167 m/m	S=0.00167 m/m	S=0.00169 m/m

Nodes:

MH1601	CC_09	MH1613	MH1801	MH1802	MH1902	LS_02
R=321.062 m	R=313.972 m	R=313.51 m	R=316.112 m	R=312.924 m	R=316.39 m	R=314.534 m
I=314.99 m	I=310.1 m	I=309.9 m	I=307.32 m	I=306.59 m	I=305.89 m	I=303.47 m

Lonsdale Rd. Ext.

Links:

S1617	S1618	S1619_1	S_CC_06	S1620	S1621	S1622
L=223.968 m	L=185.08 m	L=69.009 m	L=513.644 m	L=432.51 m	L=237.539 m	L=676.401 m
S=0.00188 m/m	S=0.00189 m/m	S=0.00348 m/m	S=0.00664 m/m	S=0.00266 m/m	S=0.00265 m/m	S=0.00551 m/m

Nodes:

MH1615	MH1616	MH1617	CC_06	MH1618	MH1619	MH1620	MH1621
R=314.195 m	R=315.871 m	R=314.985 m	R=315.299 m	R=321.335 m	R=323.909 m	R=320.582 m	R=324.365 m
I=311.24 m	I=311.72 m	I=312.13 m	I=312.45 m	I=315.9 m	I=317.03 m	I=317.72 m	I=321.51 m

Shantz Station Rd. (Menno Rd. to Kossuth Rd.)

Links:

S1611	S1612	S1613_2	S1613_1	S1614	S2011	S2012	S2106	S2107	S2109
L=183.464 m	L=250.419 m	L=392.125 m	L=212.627 m	L=320.974 m	L=305.796 m	L=203.111 m	L=181.767 m	L=415.205 m	L=216.766 m
S=0.00267 m/m	S=0.00268 m/m	S=0.0108 m/m	S=0.0047 m/m	S=0.00626 m/m	S=0.0156 m/m	S=0.00266 m/m	S=0.0022 m/m	S=0.00867 m/m	S=0.0112 m/m

Nodes:

MH1609	MH1610	MH1611	MH1621	MH1612	MH2011	MH2012	MH2106	MH2107	MH2108	MH2109
R=318.821 m	R=322.874 m	R=320.086 m	R=324.365 m	R=325.427 m	R=327.438 m	R=322.667 m	R=325.209 m	R=322.433 m	R=317.95 m	R=315.461 m
I=313.45 m	I=316.5 m	I=317.23 m	I=321.51 m	I=322.57 m	I=324.64 m	I=319.81 m	I=319.21 m	I=318.75 m	I=315.09 m	I=312.6 m

Cober Rd.

Conduit S2115
Length = 215.557 m
Slope = 0.00213 m/m

Conduit S_CC_05
Length = 165.799 m
Slope = 0.00217 m/m

Conduit S_CC_04
Length = 480.887 m
Slope = 0.00216 m/m

Conduit S2116
Length = 184.979 m
Slope = 0.00189 m/m

Junction MH2006
Rim Elev. = 314.864 m
Invert Elev. = 310.73 m

Junction CC_05
Rim Elev. = 314.319 m
Invert Elev. = 310.21 m

Junction CC_04
Rim Elev. = 313.937 m
Invert Elev. = 309.79 m

Junction MH2114
Rim Elev. = 316.366 m
Invert Elev. = 308.69 m

Junction MH2112
Rim Elev. = 315.303 m
Invert Elev. = 308.28 m

New Germany Ln.

Conduit S2006
Length = 356.812 m
Slope = 0.00266 m/m

Conduit S2101
Length = 229.358 m
Slope = 0.0027 m/m

Conduit S_CC_10
Length = 176.702 m
Slope = 0.00266 m/m

Conduit S2102_1
Length = 134.346 m
Slope = 0.00268 m/m

Conduit S2103
Length = 129.358 m
Slope = 0.00263 m/m

Junction MH2007
Rim Elev. = 314.57 m
Invert Elev. = 311.77 m

Junction MH2006
Rim Elev. = 314.864 m
Invert Elev. = 310.73 m

Junction MH2101
Rim Elev. = 315.004 m
Invert Elev. = 311.41 m

Junction CC_10
Rim Elev. = 315.174 m
Invert Elev. = 311.94 m

Junction MH2102
Rim Elev. = 315.929 m
Invert Elev. = 312.36 m

Junction MH2103
Rim Elev. = 315.56 m
Invert Elev. = 312.76 m

Kossuth Rd.

Links:

S2206	S2205	S2204	S_CC_02	S_CC_03	S2203_3	S2114	S2113	S2112	S2111	S2110
L=452.11 m	L=192.205 m	L=179.961 m	L=186.007 m	L=290.539 m	L=15.587 m	L=321.616 m	L=388.508 m	L=326.078 m	L=378.54 m	L=601.026 m
S=0.00166 m/m	S=0.00187 m/m	S=0.00189 m/m	S=0.00183 m/m	S=0.00189 m/m	S=0.00128 m/m	S=0.0019 m/m	S=0.00185 m/m	S=0.00268 m/m	S=0.00267 m/m	S=0.00266 m/m

Nodes:

LS_04	MH2206	MH2205	MH2204	CC_02	CC_03	MH2203	MH2113	MH2112	MH2111	MH2110	MH2109
R=310.387 m	R=313.514 m	R=311.751 m	R=313.541 m	R=311.947 m	R=312.784 m	R=312.843 m	R=315.402 m	R=317.15 m	R=317.15 m	R=316.766 m	R=315.461 m
I=300.7 m	I=304.92 m	I=305.34 m	I=305.74 m	I=306.14 m	I=306.75 m	I=306.83 m	I=307.5 m	I=308.28 m	I=309.87 m	I=310.94 m	I=312.6 m

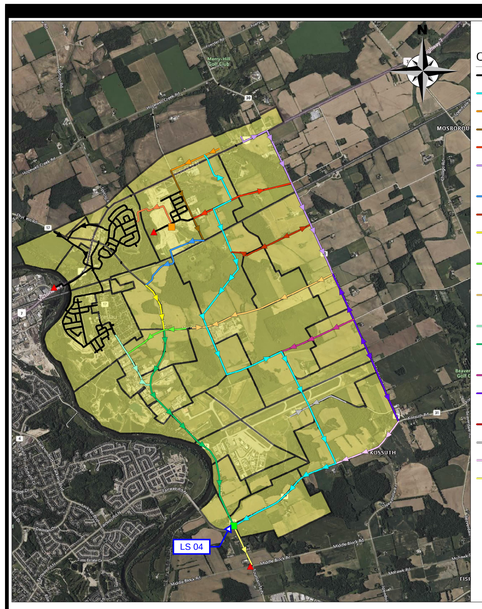
Fountain St. (Kossuth Rd. to MiddleBlock Rd.)

Links:

S_T01_1	S_T01_2	S_T02
L=213.836 m	L=472.841 m	L=43.2 m
S=0.0017 m/m	S=0.0017 m/m	S=0.00171 m/m

Nodes:

MH2207	J2	MH_T01	MH_T02
R=310.387 m	R=310.78 m	R=311.65 m	R=311.5 m
I=306.47 m	I=306.106 m	I=305.302 m	I=305.228 m

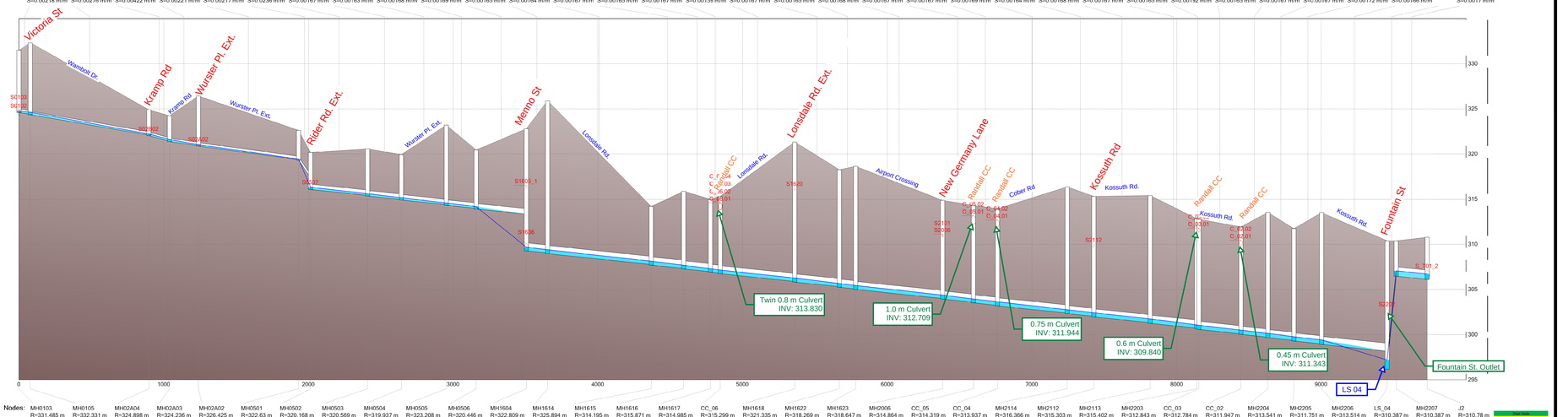


Legend

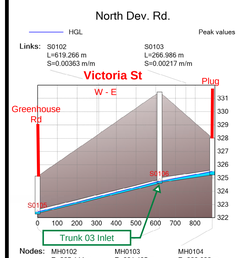
Conduits

- Other
- Trunk 03D
- North Dev Rd.
- Greenhouse Rd.
- Kramp Rd.
- Shantz Station Rd, (North of Menno St.)
- East Connector
- Rider Rd. Ext.
- Fountain St. (North of Menno St.)
- Menno St. (West of Fountain St.)
- Menno St. (East of Fountain St.)
- Woolwich St.
- Fountain St. (Menno St. to Otter St.)
- Lonsdale Rd Ext.
- Shantz Station Rd. (South of Menno St.)
- Cober Rd.
- New Germany Ln.
- Kossuth Rd.
- Fountain St. (South of Kossuth Rd.)

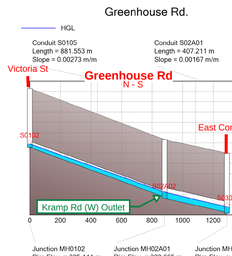
Trunk 03D



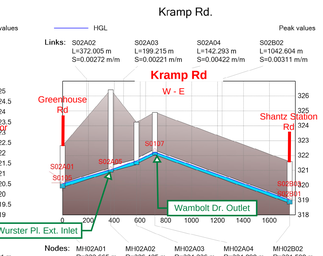
North Dev. Rd.



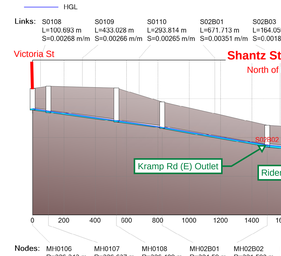
Greenhouse Rd.



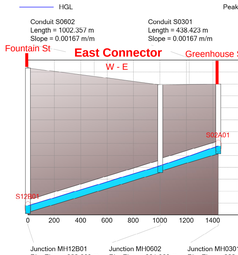
Kramp Rd.



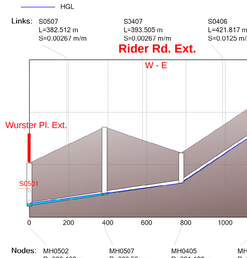
Shantz Station Rd. (North of Menno St.)



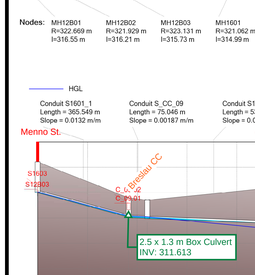
East Connector



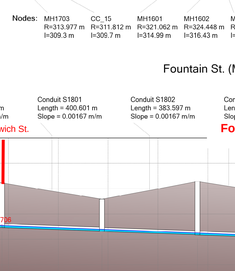
Rider Rd. Ext.



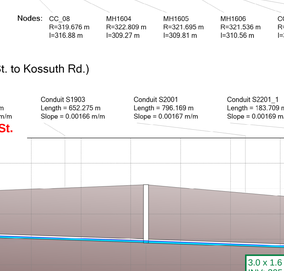
Fountain St. (North of Menno St.)



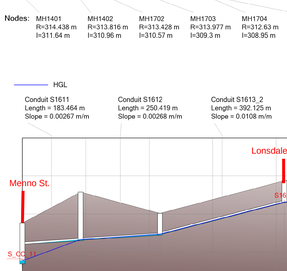
Menno Rd. (Woolwich St. to Fountain St.)



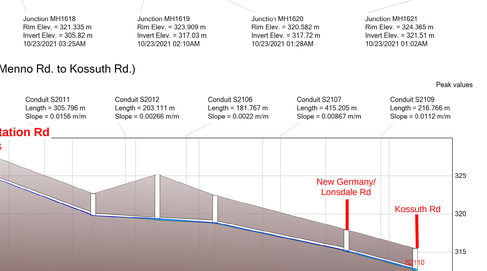
Menno Rd. (Fountan St. to Shantz Station Rd.)



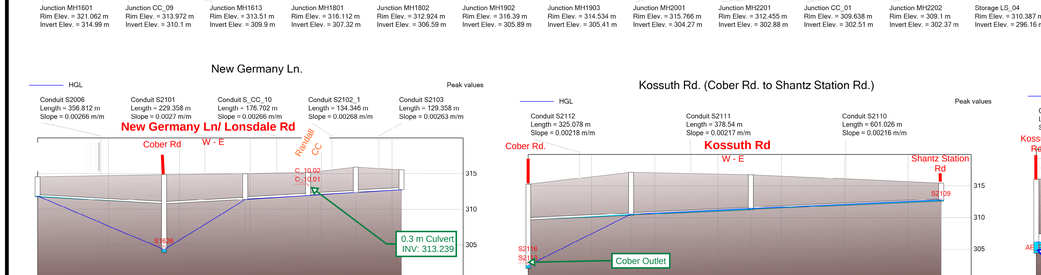
Woolwich St.



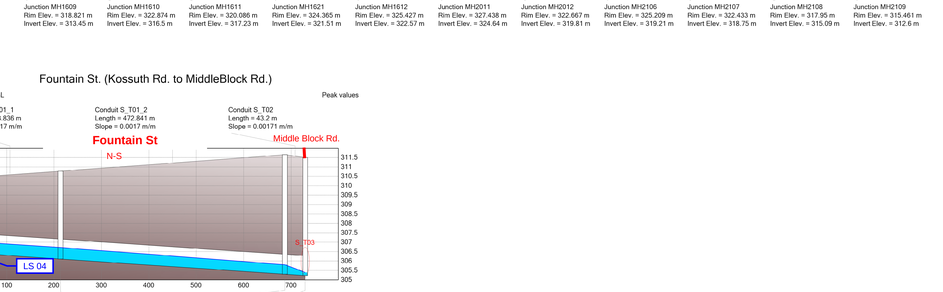
Lonsdale Rd. Ext.



Fountain St. (Menno St. to Kossuth Rd.)



Shantz Station Rd. (Menno Rd. to Kossuth Rd.)

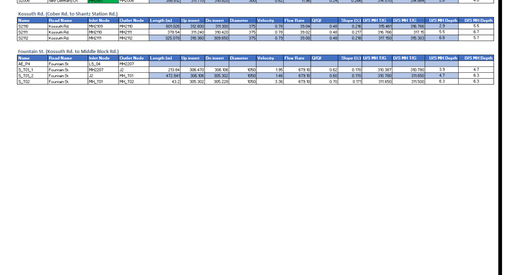


New Germany Ln.

Kossuth Rd. (Cober Rd. to Shantz Station Rd.)

Fountain St. (Kossuth Rd. to MiddleBlock Rd.)

Lonsdale Rd. Ext.



Trunk 03D

Name	Start Node	Stop Node	Length (m)	Up Invert	Dn Invert	Diameter (m)	Velocity (m/s)	Flow Rate (m³/s)	Q/Q0	Shape (U/S)	U/S HGL (m)	U/S Depth (m)	U/S Rim Elev (m)
S0106	Wambolt Dr.	MH0102	77.833	327.903	324.590	0.375	0.78	0.086	0.17%	CIRC	331.485	3.582	335.067
S0107	Victoria St	MH0103	819.136	324.590	322.954	0.375	0.78	0.086	0.17%	CIRC	332.331	3.741	336.072
S02A02	Kramp Rd	MH02A02	142.293	321.380	320.940	0.375	0.86	98.77	0.93%	0.300	324.898	3.518	328.416
S02A03	Kramp Rd	MH02A03	199.215	320.940	320.502	0.375	0.86	98.77	0.93%	0.300	324.236	3.296	327.532
S02A05	Wurster Pl. Ext.	MH02A04	692.82	320.502	319.980	0.375	0.77	26.94	0.25%	0.225	326.425	5.923	332.348
S0501	Wurster Pl. Ext.	MH02A02	82.681	320.502	319.980	0.375	0.77	26.94	0.25%	0.225	326.425	5.923	332.348
S0502	Wurster Pl. Ext.	MH0501	395.254	319.980	318.328	0.375	0.77	26.94	0.25%	0.225	326.425	7.445	333.870
S0503	Wurster Pl. Ext.	MH0502	233.114	318.328	317.955	0.375	0.77	26.94	0.25%	0.225	326.425	8.097	334.522
S0504	Wurster Pl. Ext.	MH0503	309.689	317.955	317.333	0.375	0.77	26.94	0.25%	0.225	326.425	8.470	334.895
S0505	Wurster Pl. Ext.	MH0504	207.027	317.333	317.000	0.375	0.77	26.94	0.25%	0.225	326.425	8.692	335.117
S0506	Wurster Pl. Ext.	MH0505	346.308	317.000	316.428	0.375	0.77	26.94	0.25%	0.225	326.425	9.025	335.450
S1615	Wurster Pl. Ext.	MH0506	146.432	316.428	316.188	0.375	0.77	26.94	0.25%	0.225	326.425	9.237	335.662
S1616	Lonsdale Rd.	MH1604	716.564	316.188	315.871	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S1617	Lonsdale Rd.	MH1614	223.968	315.871	315.185	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S1618	Lonsdale Rd.	MH1615	185.08	315.185	314.985	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S1619_1	Lonsdale Rd.	MH1616	69.009	314.985	314.195	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S_CC_06	Lonsdale Rd.	CC_06	513.644	314.195	312.809	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S1624	Airport Crossing	MH1618	308.743	312.809	312.269	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S1625	Airport Crossing	MH1622	112.805	312.269	312.043	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S1626	Fountain St.	MH1623	599.183	312.043	310.647	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S2115	Fountain St.	MH2006	215.557	310.647	310.431	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S_CC_05	Fountain St.	CC_05	165.799	310.431	310.266	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S_CC_04	Fountain St.	CC_04	480.887	310.266	309.786	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S2116	Fountain St.	MH2114	184.979	309.786	309.600	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S2113	Fountain St.	MH2112	388.508	309.600	309.211	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S2114	Fountain St.	MH2113	321.616	309.211	308.890	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S2203_3	Fountain St.	MH2203	15.587	308.890	308.875	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S_CC_03	Fountain St.	CC_03	290.539	308.875	308.584	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S_CC_02	Fountain St.	CC_02	186.007	308.584	308.398	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S2204	Fountain St.	MH2204	179.961	308.398	308.219	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S2205	Fountain St.	MH2205	192.205	308.219	308.027	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S2206	Fountain St.	MH2206	451.988	308.027	307.572	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
AE_P4	Fountain St.	LS_04	213.836	307.572	306.106	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S_T01_1	Fountain St.	MH2207	213.836	310.387	310.078	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S_T01_2	Fountain St.	J2	472.841	309.780	309.302	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979
S_T02	Fountain St.	MH_T01	43.2	309.302	309.228	0.375	0.77	26.94	0.25%	0.225	326.425	9.554	335.979

North Dev Rd.

Name	Head Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (U/S)	U/S HGL (m)	U/S Depth	U/S Rim Elev
S0102	North Dev Rd.	MH0102	MH0103	325.144	324.590	322.954	0.375	0.78	0.086	0.17%	CIRC	331.485	3.582	335.067
S0103	North Dev Rd.	MH0103	MH0104	327.037	322.954	321.766	0.375	0.78	0.086	0.17%	CIRC	332.331	3.741	336.072

Greenhouse Rd.

Name	Head Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (U/S)	U/S HGL (m)	U/S Depth	U/S Rim Elev
S0105	Greenhouse Rd.	MH0102	MH02A01	881.553	324.590	320.940	0.375	0.86	98.77	0.93%	0.300	324.898	3.518	328.416
S02A01	Kramp Rd.	MH02A01	MH0301	407.211	320.940	319.981	0.375	0.86	98.77	0.93%	0.300	324.236	3.296	327.532

Kramp Rd. (Greenhouse Rd. to Wurster Pl.)

Name	Head Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (U/S)	U/S HGL (m)	U/S Depth	U/S Rim Elev
S02A02	Kramp Rd.	MH02A02	MH02A03	372.005	320.940	319.970	0.375	0.86	98.77	0.93%	0.300	324.236	3.296	327.532

Kramp Rd. (Wambolt Dr. to Shantz Station Rd.)

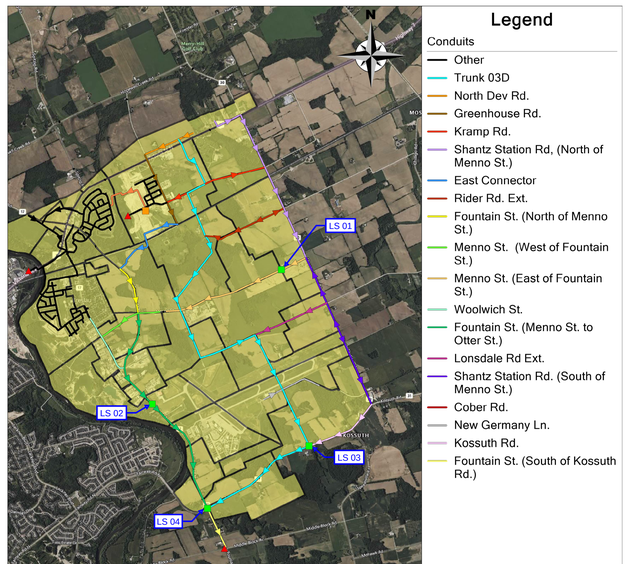
Name	Head Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (U/S)	U/S HGL (m)	U/S Depth	U/S Rim Elev
S02B02	Kramp Rd.	MH02A04	MH02B02	642.604	322.040	318.800	300	0.80	39.35	0.7%	324.898	321.598	2.9	2.9

Shantz Station Rd. (North of Menno St.)

Name	Head Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (U/S)	U/S HGL (m)	U/S Depth	U/S Rim Elev
S0108	Shantz Station Rd.	MH0106	MH0107	100.693	323.540	323.270	300	0.89	24.77	0.6%	0.200	326.343	2.8	3.4
S0109	Shantz Station Rd.	MH0107	MH0108	433.028	323.270	322.060	300	0.89	24.77	0.6%	0.200	326.637	3.367	3.967
S0110	Shantz Station Rd.	MH0108	MH02B01	293.814	322.060	321.598	300	0.89	24.77	0.6%	0.200	326.409	3.349	3.949
S02B01	Shantz Station Rd.	MH02B01	MH02B02	671.713	321.598	318.800	300	0.89	24.77	0.6%	0.200	324.59	2.992	3.592
S02B02	Shantz Station Rd.	MH02B02	MH0302	164.009	318.740	318.437	450	0.97	88.44	0.7%	0.300	321.590	2.850	3.300
S0302	Shantz Station Rd.	MH0302	MH0402	994.759	318.437	317.320	450	0.97	88.44	0.7%	0.300	321.390	2.953	3.403
S0402	Shantz Station Rd.	MH0402	MH0403	245.339	317.320	316.821	450	0.97	88.44	0.7%	0.300	323.537	6.217	6.667
S0403	Shantz Station Rd.	MH0403	MH0404	519.152	316.821	316.726	450	0.97	88.44	0.7%	0.300	326.72	9.899	10.349
S0404_1	Shantz Station Rd.	MH0404	CC_11	60.446	316.726	316.165	450	0.97	88.44	0.7%	0.300	318.163	1.437	1.887
S_CC_11	Shantz Station Rd.	CC_11	MH1609	82.229	316.165	315.766	450	0.97	88.44	0.7%	0.300	318.164	1.999	2.449

Fountain St. (Menno St. to Kossuth Rd.)

Name	Head Name	Inlet Node	Outlet Node	Length (m)	Up Invert	Dn Invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (U/S)	U/S HGL (m)	U/S Depth	U/S Rim Elev
S1601_1	Fountain St.	CC_09	MH1613	365.549	314.990	310.460	450	1.04	89.94	0.6%	0.300	320.913	5.923	326.836
S_CC_09	Fountain St.	MH1613	MH1801	75.046	310.460	310.310	450	0.86	89.94	0.6%	0.300	320.913	5.923	326.836
S1602	Fountain St.	MH1801	MH1802	533.519	309.900	308.993	450	0.86	89.94	0.6%	0.300	320.143	5.923	326.066
S1801	Fountain St.	MH1802	MH1902	400.601	308.993	308.660	750	1.03	239.74	0.6%	0.675	320.143	5.923	326.066
S1802	Fountain St.	MH1902	MH1903	383.597	308.660	308.277	750	1.03	239.74	0.6%	0.675	320.524	6.304	326.828
S1902	Fountain St.	MH1903	MH2001	652.275	308.277	307.589	750	1.03	239.74	0.6%	0.675	321.095	6.875	327.970
S1903	Fountain St.	MH2001	MH2201	796.169	307.589	306.589	750	1.03	239.74	0.6%	0

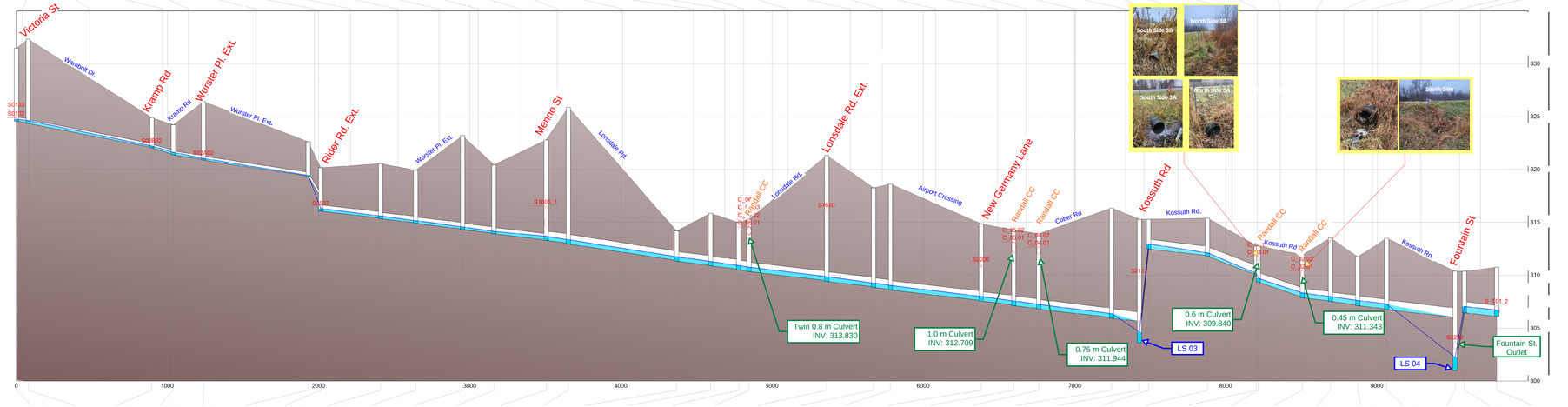


Legend

Conduits

- Other
- Trunk 03D
- North Dev Rd.
- Greenhouse Rd.
- Kramp Rd.
- Shantz Station Rd, (North of Menno St.)
- East Connector
- Rider Rd. Ext.
- Fountain St. (North of Menno St.)
- Menno St. (West of Fountain St.)
- Menno St. (East of Fountain St.)
- Woolwich St.
- Fountain St. (Menno St. to Otter St.)
- Lonsdale Rd Ext.
- Shantz Station Rd. (South of Menno St.)
- Cober Rd.
- New Germany Ln.
- Kossuth Rd.
- Fountain St. (South of Kossuth Rd.)

Trunk 03D



Links: S0106 L=77.833 m S=0.00218 m/m; S0107 L=819.136 m S=0.00276 m/m; S02A04 L=142.293 m S=0.00422 m/m; S02A03 L=199.215 m S=0.00221 m/m; S02A05 L=692.82 m S=0.00217 m/m; S0501 L=82.681 m S=0.0236 m/m; S0502 L=395.254 m S=0.00167 m/m; S0503 L=233.114 m S=0.00163 m/m; S0504 L=309.689 m S=0.00168 m/m; S0505 L=207.027 m S=0.00169 m/m; S0506 L=346.308 m S=0.00165 m/m; S1615 L=146.432 m S=0.00171 m/m; S1616 L=716.564 m S=0.0022 m/m; S1617 L=223.968 m S=0.0017 m/m; S1618 L=185.08 m S=0.00167 m/m; S1619_1 L=69.009 m S=0.00159 m/m; S_CC_06 L=513.644 m S=0.00167 m/m; S1624 L=308.742 m S=0.00165 m/m; S1625 L=112.805 m S=0.00168 m/m; S1626 L=599.183 m S=0.00167 m/m; S2115 L=215.557 m S=0.00167 m/m; S_CC_05 L=165.799 m S=0.00163 m/m; S_CC_04 L=480.887 m S=0.00166 m/m; S2116 L=185.094 m S=0.00167 m/m; AE_P3 S2113 L=388.508 m S=0.00165 m/m; S2114 L=321.616 m S=0.00547 m/m; S2203_3 L=15.587 m S=0.0347 m/m; S_CC_03 L=290.539 m S=0.00496 m/m; S_CC_02 L=186.007 m S=0.00167 m/m; S2204 L=179.961 m S=0.00167 m/m; S2205 L=192.205 m S=0.00166 m/m; S2206 L=451.988 m S=0.00166 m/m; AE_P4 S_T01_1 L=213.836 m S=0.0017 m/m

Nodes: MH0103 R=331.485 m I=324.59 m; MH0105 R=332.331 m I=324.36 m; MH02A04 R=324.898 m I=322.04 m; MH02A03 R=324.236 m I=321.38 m; MH02A02 R=326.425 m I=320.88 m; MH0501 R=322.63 m I=319.32 m; MH0502 R=320.168 m I=316.07 m; MH0503 R=320.569 m I=315.35 m; MH0504 R=319.937 m I=314.91 m; MH0505 R=323.208 m I=314.33 m; MH0506 R=320.446 m I=313.92 m; MH1604 R=322.809 m I=313.29 m; MH1614 R=325.894 m I=312.98 m; MH1615 R=314.195 m I=311.34 m; MH1616 R=315.871 m I=310.9 m; MH1617 R=314.985 m I=310.53 m; CC_06 R=315.299 m I=310.36 m; MH1618 R=321.335 m I=309.44 m; MH1622 R=318.269 m I=308.87 m; MH1623 R=318.647 m I=308.62 m; MH2006 R=314.864 m I=307.56 m; CC_05 R=314.319 m I=307.14 m; CC_04 R=313.937 m I=306.81 m; MH2114 R=316.366 m I=305.95 m; LS_03 R=315.303 m I=303.64 m; MH2112 R=315.303 m I=312.5 m; MH2113 R=315.402 m I=311.8 m; MH2203 R=312.843 m I=309.98 m; CC_03 R=312.784 m I=309.38 m; CC_02 R=311.947 m I=307.88 m; MH2204 R=313.541 m I=307.51 m; MH2205 R=311.751 m I=307.15 m; MH2206 R=313.514 m I=306.77 m; LS_04 R=310.387 m I=301 m; MH2207 R=310.387 m I=306.47 m; J2 R=310.78 m I=306.106 m

Trunk 03D

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S0106	Trunk 03D	MH0103	MH0105	77.833	324.590	324.420	375	0.98	108.2	0.83	0.375	0.83	0.83	2.8
S0107	Trunk 03D	MH0105	MH02A04	819.136	324.420	322.660	375	0.98	108.2	0.83	0.375	0.83	0.83	2.8
S02A03	Kramp Rd.	MH02A04	MH02A03	142.293	323.380	323.080	375	0.98	58.71	0.836	0.375	0.836	0.836	2.8
S02A04	Kramp Rd.	MH02A03	MH02A02	199.215	322.040	321.600	375	0.98	58.71	0.836	0.375	0.836	0.836	2.8
S02A05	Wurster Pl. Ext.	MH02A02	MH0501	692.82	320.880	299.380	375	0.71	26.94	0.33	0.375	326.425	322.63	5.5
S0501	Wurster Pl. Ext.	MH0501	MH0502	82.681	299.320	297.370	375	1.96	81.95	0.33	0.375	320.168	322.63	5.3
S0502	Wurster Pl. Ext.	MH0502	MH0503	395.254	296.370	296.470	600	0.85	82.95	0.33	0.45	320.569	320.569	4.1
S0503	Wurster Pl. Ext.	MH0503	MH0504	233.114	296.470	294.750	600	0.85	82.95	0.33	0.45	319.937	320.569	4.1
S0504	Wurster Pl. Ext.	MH0504	MH0505	309.689	294.750	293.960	600	0.85	82.95	0.33	0.45	323.208	320.569	4.1
S0505	Wurster Pl. Ext.	MH0505	MH0506	207.027	294.510	293.960	600	0.85	82.95	0.33	0.45	320.446	320.446	3.9
S0506	Wurster Pl. Ext.	MH0506	MH1604	346.308	293.910	293.350	600	0.85	82.95	0.33	0.45	322.809	320.446	4.5
S1615	Lonsdale Rd.	MH1604	MH1614	146.432	311.290	310.940	900	1.25	308.43	0.49	0.675	322.809	325.894	5.5
S1616	Lonsdale Rd.	MH1614	MH1615	716.564	310.940	309.480	900	1.25	308.43	0.49	0.675	325.894	314.195	4.8
S1617	Lonsdale Rd Ext.	MH1615	MH1616	223.968	309.480	309.110	900	1.25	308.43	0.49	0.675	314.195	315.871	4.9
S1618	Lonsdale Rd Ext.	MH1616	MH1617	185.08	309.110	308.800	900	1.25	308.43	0.49	0.675	315.871	314.985	4.9
S1619_1	Lonsdale Rd Ext.	MH1617	CC_06	69.009	308.800	308.680	900	1.25	308.43	0.49	0.675	314.985	315.299	4.9
S_CC_06	Lonsdale Rd Ext.	CC_06	MH1618	513.644	306.360	305.500	900	1.9	359.91	0.49	0.675	315.299	321.335	4.9
S1624	Airport Crossing	MH1618	MH1622	308.742	305.440	304.930	900	1.9	359.91	0.49	0.675	321.335	318.269	5.9
S1625	Airport Crossing	MH1622	MH1623	112.805	304.870	304.680	900	1.9	359.91	0.49	0.675	318.269	318.647	6.3
S1626	Airport Crossing	MH1623	MH2006	599.183	304.630	303.630	900	1.9	359.91	0.49	0.675	318.647	314.864	7.2
S2115	Cober Rd.	MH2006	CC_05	215.557	303.530	303.170	900	1.9	359.91	0.49	0.675	314.864	314.319	7.1
S_CC_05	Cober Rd.	CC_05	MH2114	165.799	303.170	302.900	900	1.9	359.91	0.49	0.675	314.319	316.366	6.9
S2116	Cober Rd.	MH2114	LS_03	185.094	302.900	302.530	900	1.9	359.91	0.49	0.675	316.366	315.303	6.4
AE_P3	Kossuth Rd.	LS_03	MH2112									315.303	315.303	6.4
S2113	Kossuth Rd.	MH2112	MH2113	388.508	302.530	301.910	900	1.9	359.91	0.49	0.675	315.303	315.402	6.4
S2114	Kossuth Rd.	MH2113	MH2203	321.616	301.910	301.750	900	1.9	359.91	0.49	0.675	315.402	312.843	6.4
S2203_3	Kossuth Rd.	MH2203	CC_03	15.587	301.750	301.700	900	1.9	359.91	0.49	0.675	312.843	312.784	6.4
S_CC_03	Kossuth Rd.	CC_03	MH2204	290.539	301.700	301.130	900	1.9	359.91	0.49	0.675	312.784	313.541	6.4
S_CC_02	Kossuth Rd.	CC_02	MH2205	186.007	301.130	300.820	900	1.9	359.91	0.49	0.675	313.541	311.751	6.4
S2204	Kossuth Rd.	MH2204	MH2205	179.961	300.820	300.520	900	1.9	359.91	0.49	0.675	311.751	313.514	6.4
S2205	Kossuth Rd.	MH2205	MH2206	192.205	300.520	300.200	900	1.9	359.91	0.49	0.675	313.514	310.387	6.4
S2206	Kossuth Rd.	MH2206	LS_04	451.988	300.770	300.020	900	1.9	359.91	0.49	0.675	310.387	310.387	6.4
AE_P4	Kossuth Rd.	LS_04	MH2207									310.387	310.387	6.4
S_T01_1	North Dev Rd.	MH2207	J2	213.836	300.020	299.660	900	1.9	359.91	0.49	0.675	310.387	310.78	6.4

Greenhouse Rd.

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S0105	Greenhouse Rd.	MH0102	MH02A01	325.144	322.665	319.810	375	0.98	58.71	0.836	0.375	0.836	0.836	2.8
S02A01	Greenhouse Rd.	MH02A01	MH0301	407.232	319.810	319.142	525	0.97	163.74	0.59	0.97	322.665	322.009	2.9

Kramp Rd. (Wambolt Dr. to Shantz Station Rd.)

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S02B02	Kramp Rd.	MH02A04	MH0301	355.295	322.040	319.142	525	0.97	163.74	0.59	0.97	324.236	322.009	4.5

Shantz Station Rd. (North of Menno St.)

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S0108	Shantz Station Rd.	MH0106	MH0107	326.343	326.637	326.409	300	0.85	36.77	0.66	0.295	326.343	326.637	2.8
S0109	Shantz Station Rd.	MH0107	MH0108	433.028	322.760	322.860	300	0.85	36.77	0.66	0.295	326.637	326.409	3.4
S0110	Shantz Station Rd.	MH0108	MH02B01	293.814	322.860	322.590	300	0.85	36.77	0.66	0.295	326.409	324.59	4.3
S02B01	Shantz Station Rd.	MH02B01	MH02B02	671.713	322.590	321.598	300	0.85	36.77	0.66	0.295	324.59	321.598	4.3
S02B02	Shantz Station Rd.	MH02B02	MH0301	164.059	321.598	321.390	300	0.85	36.77	0.66	0.295	321.598	321.39	4.3
S0302	Shantz Station Rd.	MH0301	MH0302	594.759	321.390	323.537	300	0.85	36.77	0.66	0.295	321.39	323.537	4.3
S0402	Shantz Station Rd.	MH0302	MH0402	245.339	323.537	323.893	300	0.85	36.77	0.66	0.295	323.537	323.893	4.3
S0403	Shantz Station Rd.	MH0402	MH0403	519.152	323.893	325.720	300	0.85	36.77	0.66	0.295	323.893	326.72	4.3
S0404_1	Shantz Station Rd.	MH0403	MH0404	460.446	325.720	326.409	300	0.85	36.77	0.66	0.295	325.72	326.409	4.3
S_CC_11	Shantz Station Rd.	MH0404	CC_11	82.229	326.409	326.590	300	0.85	36.77	0.66	0.295	326.409	326.343	4.3
S0404_1	Shantz Station Rd.	MH0403	MH0404	460.446	325.720	326.409	300	0.85	36.77	0.66	0.295	325.72	326.409	4.3
S_CC_11	Shantz Station Rd.	MH0404	CC_11	82.229	326.409	326.590	300	0.85	36.77	0.66	0.295	326.409	326.343	4.3

East Connector

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S0602	East Connector	MH0602	MH0603	513.644	307.180	306.320	900	1.9	359.91	0.49	0.675	316.366	315.303	6.9
S0603	East Connector	MH0603	MH0301	592.057	306.280	318.640	525	0.94	160.38	0.58	0.97	315.303	322.669	3.7

Rider Rd. Ext.

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S0401	Rider Rd. Ext.	MH0401	MH0402	254.982	319.111	319.111	300	0.85	36.77	0.66	0.295	326.375	323.537	4.4

Fountain St. (North of Menno St.)

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S12B01	Fountain St.	MH12B01	MH12B02	163.945	317.370	317.120	300	0.85	36.77	0.66	0.295	326.343	326.637	2.8	3.4
S12B02	Fountain St.	MH12B02	MH12B03	252.37	317.120	316.370	300	0.85	36.77	0.66	0.295	326.637	326.409	3.4	4.3
S12B03	Fountain St.	MH12B03	MH1601	324.032	316.370	314.990	300	0.85	36.77	0.66	0.295	326.409	326.343	4.4	5.3

Menno Rd. (Woolwich St. to Fountain St.)

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S1701	Menno Rd.	MH1703	CC_15	181.508	315.812	315.185	300	0.85	36.77	0.66	0.295	326.343	326.637	2.8	3.4
S1702	Menno Rd.	CC_15	MH1601	413.185	315.185	314.990	300	0.85	36.77	0.66	0.295	326.637	326.409	3.4	4.3
S1603	Menno Rd.	MH1601	MH1602	326.275	314.990	316.430	300	0.85	36.77	0.66	0.295	326.409	326.343	4.4	5.3
S1604	Menno Rd.	MH1602	MH1603	127.248	316.430	316.830	300	0.85	36.77	0.66	0.295	326.343	326.343	4.4	5.3

Menno St. (Fountain St. to Shantz Station Rd.)

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S1605_1	Menno St.	CC_08	MH1604	233.058	316.880	316.750	300	0.85	36.77	0.66	0.295	326.343	326.637	2.8	3.4
S1606	Menno St.	MH1604	MH1605	286.489	316.750	316.695	300	0.85	36.77	0.66	0.295	326.637	326.409	3.4	4.3
S1607	Menno St.	MH1605	MH1606	413.06	316.695	316.546	300	0.85	36.77	0.66	0.295	326.409	326.343	4.4	5.3
S_CC_07	Menno St.	MH1606	CC_07	211.235	316.546	316.246	300	0.85	36.77	0.66	0.295	326.343	326.343	4.4	5.3
S1608	Menno St.	CC_07	MH1607	31.06	316.246	316.216	300	0.85	36.77	0.66	0.295	326.343	326.343	4.4	5.3
S1609	Menno St.	MH1607	MH1608	881.118	316.216	320.840	300	0.85	36.77	0.66	0.295	326.343	326.343	4.4	5.3
AE_P1	Menno St.	MH1608	LS_01	0.0432	320.840	320.840	300	0.85	36.77	0.66	0.295	326.343	326.343	4.4	5.3
S1610	Menno St.	LS_01	MH1609	458.133	320.840	324.620	300	0.85	36.77	0.66	0.295	326.343	318.821	4.4	5.3

Woolwich St.

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S1401	Woolwich St.	MH1401	MH1402	169.071	314.438	314.100	300	0.85	36.77	0.66	0.295	326.343	326.637	2.8	3.4
S1402	Woolwich St.	MH1402	MH1702	136.821	314.100	313.428	300	0.85	36.77	0.66	0.295	326.637	326.409	3.4	4.3
S1703	Woolwich St.	MH1702	MH1703	172.807	313.428	313.977	300	0.85	36.77	0.66	0.295	326.409	326.343	4.4	5.3
S1704	Woolwich St.	MH1703	MH1704	87.843	313.977	312.630	300	0.85	36.77	0.66	0.295	326.343	326.343	4.4	5.3
S1705_1	Woolwich St.	MH1704	CC_14	87.093	312.630	312.562	300	0.85	36.77	0.66	0.295	326.343	326.343	4.4	5.3
S_CC_14	Woolwich St.	CC_14	MH1705	93.167	312.562	315.716	300	0.85	36.77	0.66	0.295	326.343	316.112	4.4	5.3
S1706	Woolwich St.	MH1705	MH1801	258.518	315.716	307.320	300	0.85	36.77	0.66	0.295	316.112	307.32	4.4	5.3

Lonsdale Rd. Ext.

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S1620	Lonsdale Rd. Ext.	MH1618	MH1619	402.51	309.440	309.120	300	0.85	36.77	0.66	0.295	326.343	326.637	2.8	3.4
S1621	Lonsdale Rd. Ext.	MH1619	MH1620	237.539	309.120	308.320	300	0.85	36.77	0.66	0.295	326.637	326.409	3.4	4.3
S1622	Lonsdale Rd. Ext.	MH1620	MH1621	676.401	308.320	307.530	300	0.85	36.77	0.66	0.295	326.409	326.343	4.4	5.3

Fountain St. (Menno St. to Kossuth Rd.)

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S1601_1	Fountain St.	MH1601	CC_09	365.045	314.990	313.972	300	0.85	36.77	0.66	0.295	326.343	326.637	2.8	3.4
S_CC_09	Fountain St.	CC_09	MH1613	95.060	313.930	313.900	300	0.85	36.77	0.66	0.295	326.637	326.409	3.4	4.3
S1613	Fountain St.	MH1613	MH1801	316.112	313.900	307.320	300	0.85	36.77	0.66	0.295	326.409	326.343	4.4	5.3
S1801	Fountain St.	MH1801	MH1802	601.601	307.320	301.750	525	1.04	322.75	0.83	0.97	326.343	326.343	4.4	5.3
S1802	Fountain St.	MH1802	LS_02	218.672	301.750	301.310	525	1.04	322.75	0.83	0.97	326.343	326.343	4.4	5.3
AE_P2	Fountain St.	LS_02	MH1902									326.343	326.343	4.4	5.3
S1902	Fountain St.	MH1902	MH1903	249.196	301.530	301.730	750	1.81	238.56	0.25	0.746	326.343	316.534	2.8	2.8
S1903	Fountain St.	MH1903	MH2201	662.276	301.730	298.540	750	1.81	240.01	0.34	0.96	326.343	315.766	2.8	3.1
S2201	Fountain St.	MH2201	MH2202	196.906	298.540	305.200	750	1.81	240.01	0.33	0.971	326.343	312.455	5.2	5.3
S2202	Fountain St.	MH2202	CC_01	309.638	305.200	303.360	750	1.81	240.01	0.33	0.971	326.343	309.14	5.2	5.3
S_CC_01	Fountain St.	CC_01	MH2202	0.1	303.360	303.360	750	1.81	240.01	0.33	0.971	326.343	309.638	5.2	5.3
S2202	Fountain St.	MH2202	LS_04	309.638	303.270	303.000	750	1.81	240.01	0.33	0.971	326.343	310.387	5.3	5.4

Shantz Station Rd. (Menno St. to Kossuth Rd.)

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S1614	Shantz Station Rd.	MH1610	MH1611	320.974	324.840	323.630	300	0.85	36.77	0.66	0.295	326.343	326.637	2.8	3.4
S1611_2	Shantz Station Rd.	MH1611	MH1621	212.627	323.630	324.365	300	0.85	36.77	0.66	0.295	326.637	326.409	3.4	4.3
S1614	Shantz Station Rd.	MH1621	MH1612	320.974	324.365	325.427	300	0.85	36.77	0.66	0.295	326.409	326.343	4.4	5.3
S2011	Shantz Station Rd.	MH1612	MH2011	305.796	325.427	327.438	300	0.85	36.77	0.66	0.295	326.343	322.667	2.8	2.8
S2012	Shantz Station Rd.	MH2011	MH2012	203.111	327.438	324.640	300	0.85	36.77	0.66	0.295	322.667	319.81	2.8	2.8
S2106	Shantz Station Rd.	MH2012	MH2106	181.767	324.640	325.209	300	0.85	36.77	0.66	0.295	319.81	325.209	2.8	3.5
S2107	Shantz Station Rd.	MH2106	MH2107	415.205	325.209	322.433	300	0.85	36.77	0.66	0.295	325.209	318.75	2.8	3.5
S2109	Shantz Station Rd.	MH2107	MH2108	216.766	322.433	317.950	300	0.85	36.77	0.66	0.295	318.75	315.461	2.8	3.4
S2110	Shantz Station Rd.	MH2108	MH2109	317.95	317.950	315.461	300	0.85	36.77	0.66	0.295	315.461	312.6	2.8	3.4

New Germany Ln.

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S2006	New Germany Ln.	MH2006	MH2007	356.812	311.770	310.920	300	0.62	16.96	0.24	1.066	314.572	314.864	2.8	4.3
S2101_1	New Germany Ln.	MH2101	CC_10	134.346	312.380	312.430	300	0.85	36.77	0.66	0.295	326.343	326.343	4.4	5.3
S_CC_10	New Germany Ln.	CC_10	MH2101	176.702	312.430	312.380	300	0.85	36.77	0.66	0.295	326.343	326.343	4.4	5.3
S2101	New Germany Ln.	MH2101	MH2102	229.358	312.380	311.930	300	0.85	36.77	0.66	0.295	326.343	326.343	4.4	5.3
S2102_1	New Germany Ln.	MH2102	MH2103	129.358	311.930	311.770	300	0.85	36.77	0.66	0.295	326.343	326.343	4.4	5.3

Kossuth Rd. (Cober Rd. to Shantz Station Rd.)

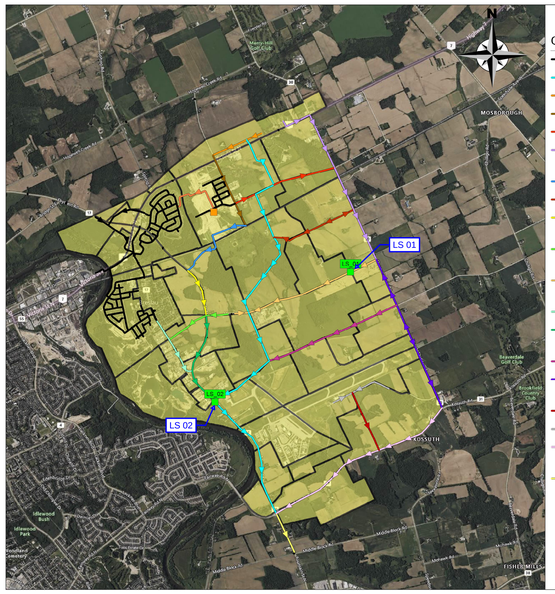
Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S2110	Kossuth Rd.	MH2109	MH2110	601.026	312.600	311.300	375	0.78	39.54	0.48	0.242	315.461	316.766	2.9	5.5
S2109	Kossuth Rd.	MH2110	MH2111	378.541	311.240	310.420	375	0.78	39.54	0.48	0.242	316.766	317.15	3.5	6.1
S2111	Kossuth Rd.	MH2111	LS_03	329.076	310.360	309.850	375	0.78	39.54	0.48	0.242	317.15	315.461	4.8	5.7

Fountain St. (Kossuth Rd. to MiddleBlock Rd.)

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
AE_P4	Fountain St.	LS_04	MH2207									310.387	310.387	6.4
S_T01_1	Fountain St.	MH2207	J2	213.84	306.470	306.106	900	1.9	359.91	0.49	0.675	310.387	310.78	3.9	4.7
S_T01_2	Fountain St.	J2	MH_T01	472.841	306.106	305.302	900	1.9	359.91	0.49	0.675	310.78	311.053	4.4	4.3
S_T02	Fountain St.	MH_T01	MH_T02	43.2	305.302	305.220	900	1.9	359.91	0.49	0.675	311.053	311.500	4.3	4.3

Kossuth Rd. to Middle Block Rd.)

Name	Shape	Inlet Node	Outlet Node	Length (m)	Up invert	Dn invert	Diameter	Velocity	Flow Rate	Q/Q0	Shape (S)	Q/Q (MH)	Q/Q (MH)	Depth
S2202	Kossuth Rd.	MH2202	MH2203	309.638	303.360	303.270	750	1.81	240.01	0.33	0.971	326.343	312.843	5.2	5.3
S2203	Kossuth Rd.	MH2203	MH2204	192.843	303.270	303.130	750	1.81	240.01	0.33	0.971	312.843	313.541	5.2	5.3
S2204	Kossuth Rd.	MH2204	MH2205	179.961	303.130	302.820	750	1.81	240.01	0.33	0.971	313.541	311.751	5.2	5.3
S2205	Kossuth Rd.	MH2205	MH2206	192.205	302.820	302.500	750	1.81	240.01	0.33	0.971	311.751	313.514	5.2	5.3
S2206	Kossuth Rd.	MH2206	LS_04	451.988	302.770	302.020	750	1.81	240.01	0.33	0.971	313.514	310.387	5.3	5.4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LS 01
LS 02
Mossrodough
Kossuth
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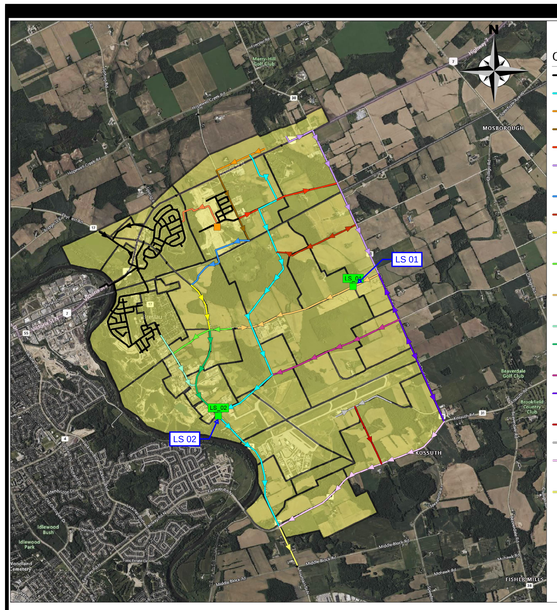
Mossrodough Cemetery
Mossrodough Bush

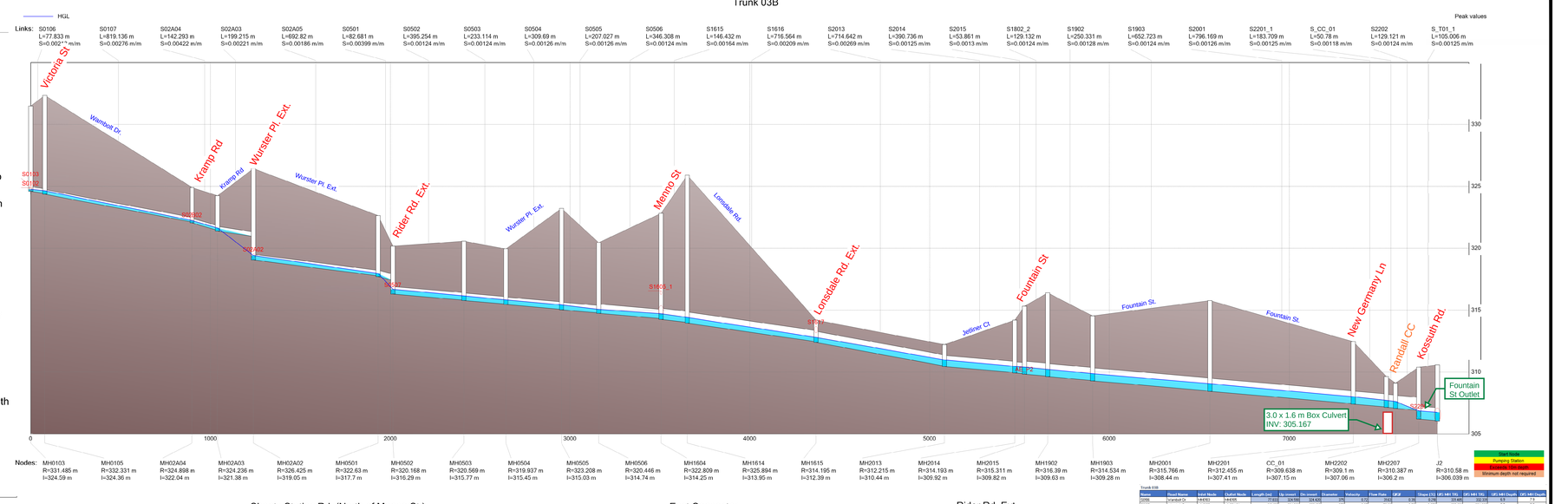


Legend

Conduits

- Other
- Trunk 03B
- North Dev. Rd.
- Greenhouse Rd.
- Kramp Rd.
- Shantz Station Rd, (North of Menno St.)
- East Connector
- Rider Rd. Ext.
- Fountain St. (North of Menno St.)
- Menno St. (West of Fountain St.)
- Menno St. (East of Fountain St.)
- Woolwich St.
- Fountain St. (Menno St. to Otter St.)
- Lonsdale Rd Ext.
- Shantz Station Rd. (South of Menno St.)
- Cober Rd.
- New Germany Ln.
- Kossuth Rd. (Cober Rd. to Shantz Station Rd.)
- Fountain St. (South of Kossuth Rd.)

Trunk 03B



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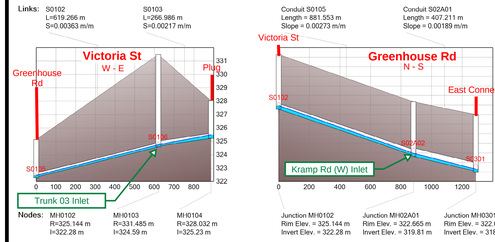
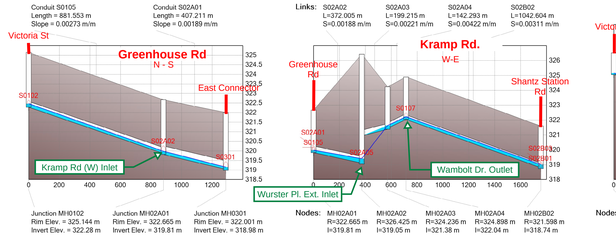


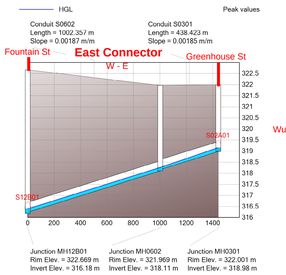
Greenhouse Rd.



Kramp Rd.

Shantz Station Rd. (North of Menno St.)

East Connector



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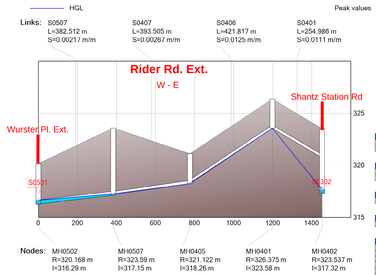
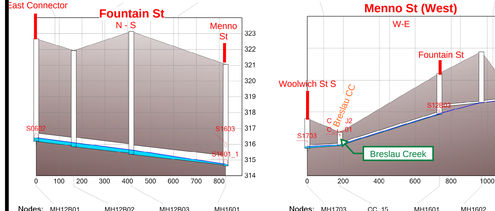
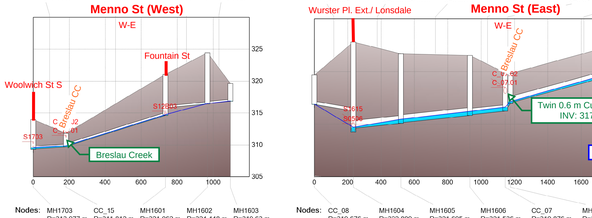


Fountain St. (North of Menno St.)

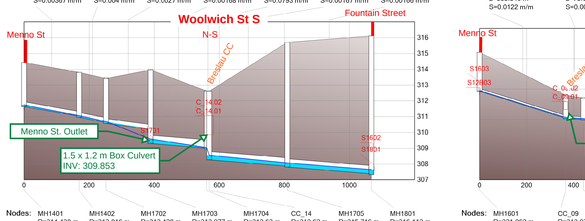


Menno Rd. (Woolwich St. to Fountain St.)

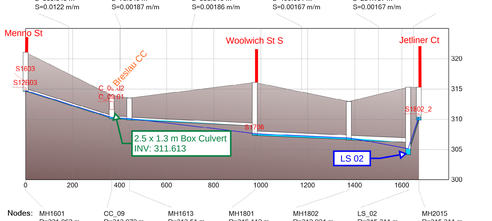


Menno St. (Fountain St. to Shantz Station Rd.)

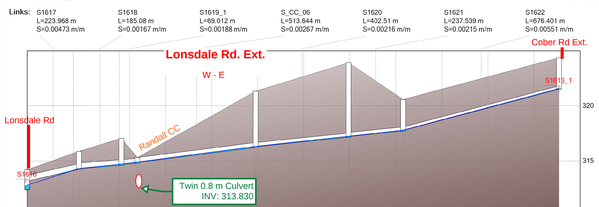
Woolwich St.



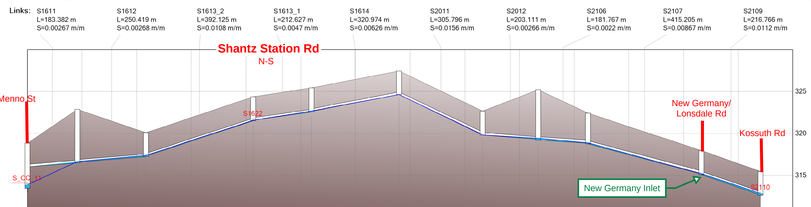
Fountain St. (Menno St. to Jetliner Crt.)



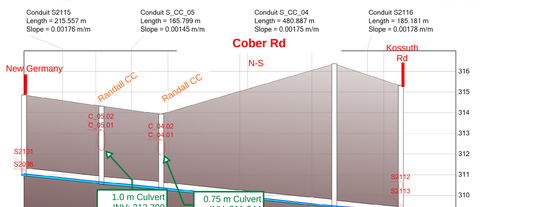
Lonsdale Rd. Ext.



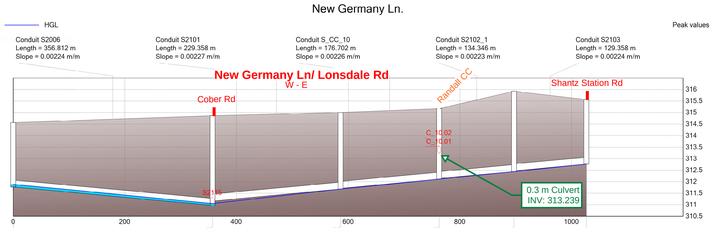
Shantz Station Rd. (Menno Rd. to Kossuth Rd.)



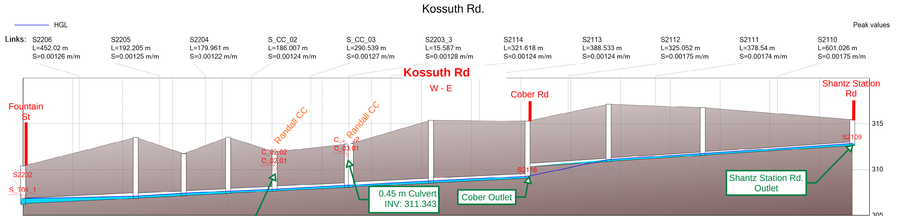
Cober Rd.



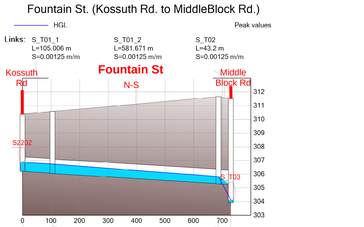
New Germany Ln.



Kossuth Rd.



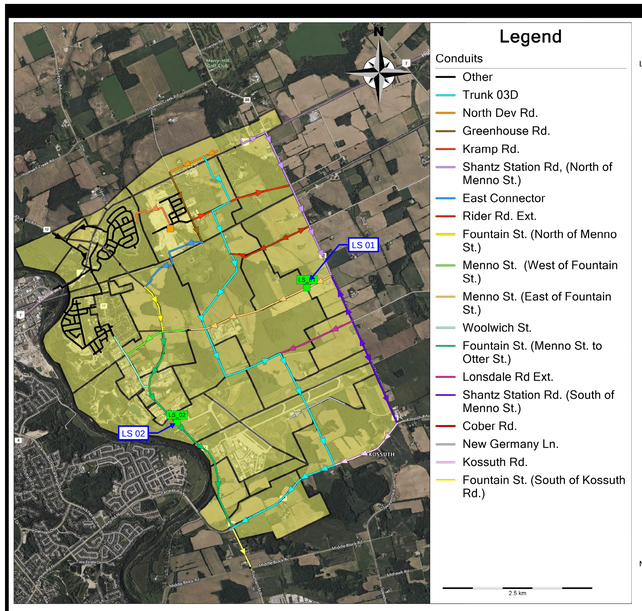
Fountain St. (Kossuth Rd. to MiddleBlock Rd.)



Associated Engineering — GLOBAL PERSPECTIVE. LOCAL FOCUS.

WOOLWICH TOWNSHIP

East Side Lands (Woolwich) Sanitary Servicing EA
Appendix # - 5
PCSWMM Modeling Summary - Alternative #5
Not to Scale



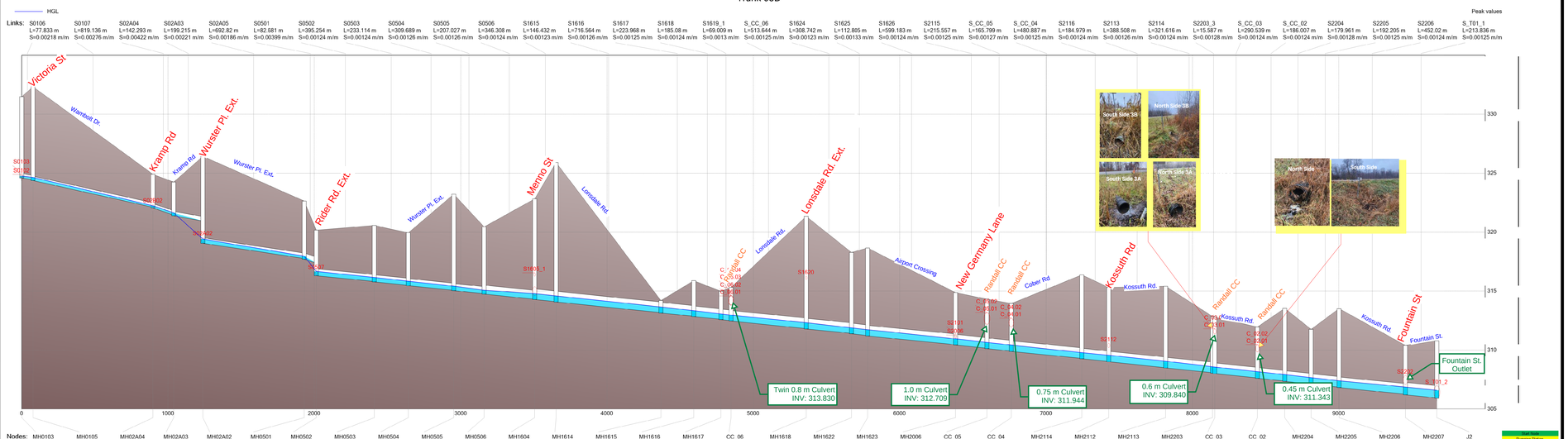
Legend

Conduits

- Other
- Trunk 03D
- North Dev Rd.
- Greenhouse Rd.
- Kramp Rd.
- Shantz Station Rd, (North of Menno St.)
- East Connector
- Rider Rd. Ext.
- Fountain St. (North of Menno St.)
- Menno St. (West of Fountain St.)
- Menno St. (East of Fountain St.)
- Woolwich St.
- Fountain St. (Menno St. to Otter St.)
- Lonsdale Rd Ext.
- Shantz Station Rd. (South of Menno St.)
- Cober Rd.
- New Germany Ln.
- Kossuth Rd.
- Fountain St. (South of Kossuth Rd.)

2.5 km

Trunk 03D

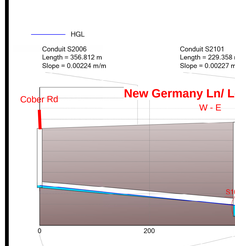


Links: S0106 L=77.833 m S=0.00218 m/m; S0107 L=819.136 m S=0.00276 m/m; S02A04 L=142.293 m S=0.00422 m/m; S02A03 L=199.215 m S=0.00321 m/m; S02A05 L=692.82 m S=0.00186 m/m; S0501 L=82.581 m S=0.00399 m/m; S0502 L=395.254 m S=0.00124 m/m; S0503 L=233.114 m S=0.00124 m/m; S0504 L=309.689 m S=0.00126 m/m; S0505 L=207.027 m S=0.00126 m/m; S0506 L=346.308 m S=0.00124 m/m; S1615 L=146.432 m S=0.00123 m/m; S1616 L=716.564 m S=0.00126 m/m; S1617 L=223.968 m S=0.00125 m/m; S1618 L=185.08 m S=0.00124 m/m; S1619_1 L=69.009 m S=0.0013 m/m; S_CC_06 L=513.644 m S=0.00125 m/m; S1624 L=308.742 m S=0.00123 m/m; S1625 L=112.805 m S=0.00133 m/m; S1626 L=599.183 m S=0.00124 m/m; S2115 L=215.557 m S=0.00125 m/m; S_CC_05 L=165.799 m S=0.00127 m/m; S_CC_04 L=480.887 m S=0.00125 m/m; S2116 L=184.979 m S=0.00124 m/m; S2113 L=388.508 m S=0.00126 m/m; S2114 L=321.616 m S=0.00124 m/m; S2203_3 L=15.587 m S=0.00128 m/m; S_CC_03 L=290.539 m S=0.00124 m/m; S_CC_02 L=186.007 m S=0.00124 m/m; S2204 L=179.961 m S=0.00128 m/m; S2205 L=192.205 m S=0.00125 m/m; S2206 L=452.02 m S=0.00124 m/m; S_T01_1 L=213.836 m S=0.00125 m/m

Nodes: MH0103 I=324.59 m; MH0105 I=332.331 m; MH02A04 I=324.898 m; MH02A03 I=324.236 m; MH02A02 I=319.05 m; MH0501 I=322.63 m; MH0502 I=320.168 m; MH0503 I=320.569 m; MH0504 I=319.937 m; MH0505 I=323.208 m; MH0506 I=320.446 m; MH1604 I=322.809 m; MH1614 I=325.894 m; MH1615 I=314.195 m; MH1616 I=315.871 m; MH1617 I=314.985 m; CC_06 I=315.299 m; MH1618 I=321.395 m; MH1622 I=318.269 m; MH1623 I=318.647 m; MH2006 I=310.42 m; CC_05 I=310.12 m; CC_04 I=313.937 m; MH2114 I=316.366 m; MH2112 I=315.303 m; MH2113 I=315.402 m; MH2203 I=312.843 m; CC_03 I=312.784 m; CC_02 I=311.947 m; MH2204 I=313.541 m; MH2205 I=311.751 m; MH2206 I=313.514 m; MH2207 I=310.387 m; J2 I=310.78 m

Node Key: Pumping Station; Minimum depth not required

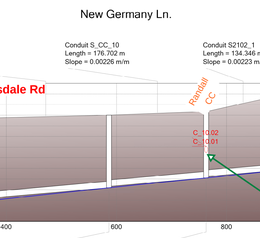
North Dev. Rd.



Links: S0102 L=619.266 m S=0.00363 m/m; S0103 L=266.986 m S=0.00217 m/m

Nodes: MH0102 I=322.28 m; MH0103 I=324.59 m; MH0104 I=325.23 m

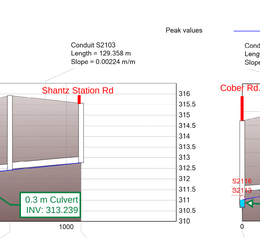
Greenhouse Rd.



Conduit S0105 Length = 881.553 m Slope = 0.00273 m/m; Conduit S02A01 Length = 407.211 m Slope = 0.00189 m/m

Nodes: Junction MH0102 Rim Elev. = 322.28 m Invert Elev. = 322.28 m; Junction MH02A01 Rim Elev. = 322.665 m Invert Elev. = 319.81 m; Junction MH0301 Rim Elev. = 322.001 m Invert Elev. = 318.98 m

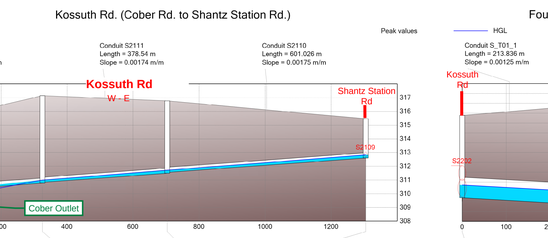
Kramp Rd.



Links: S02A02 L=372.005 m S=0.00188 m/m; S02A03 L=199.215 m S=0.00321 m/m; S02A04 L=142.293 m S=0.00422 m/m; S02B02 L=1042.604 m S=0.00311 m/m

Nodes: MH02A01 I=319.81 m; MH02A02 I=319.05 m; MH02A03 I=321.38 m; MH02A04 I=324.898 m; MH02B02 I=318.74 m

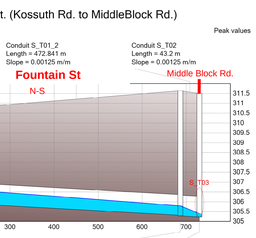
Shantz Station Rd. (North of Menno St.)



Links: S0108 L=100.693 m S=0.00268 m/m; S0109 L=433.028 m S=0.00265 m/m; S0110 L=293.814 m S=0.00351 m/m; S02B01 L=671.713 m S=0.00189 m/m; S02B03 L=164.059 m S=0.00166 m/m; S0302 L=594.759 m S=0.00167 m/m; S0402 L=245.339 m S=0.00087 m/m; S0403 L=519.152 m S=0.0263 m/m; S0404_1 L=40.446 m S=0.0017 m/m; S_CC_11 L=82.229 m

Nodes: MH0106 I=323.54 m; MH0107 I=323.21 m; MH0108 I=322 m; MH02B01 I=321.16 m; MH02B02 I=318.74 m; MH0302 I=318.37 m; MH0402 I=317.32 m; MH0403 I=316.85 m; MH0404 I=315.3 m; CC_11 I=313.65 m; MH1609 I=313.45 m

East Connector



Conduit S0602 Length = 1002.357 m Slope = 0.00187 m/m; Conduit S0301 Length = 438.423 m Slope = 0.00185 m/m

Nodes: Junction MH12B01 Rim Elev. = 322.669 m Invert Elev. = 316.18 m; Junction MH0602 Rim Elev. = 321.969 m Invert Elev. = 318.11 m; Junction MH0301 Rim Elev. = 322.001 m Invert Elev. = 318.98 m

Rider Rd. Ext.

Links: S0507 L=382.512 m S=0.00217 m/m; S0407 L=393.505 m S=0.00267 m/m; S0406 L=421.817 m S=0.0125 m/m; S0401 L=294.982 m S=0.0111 m/m

Nodes: MH0502 I=320.168 m I=316.29 m; MH0507 I=323.59 m I=317.15 m; MH0405 I=321.122 m I=318.26 m; MH0401 I=326.375 m I=323.58 m; MH0402 I=323.537 m I=317.32 m

Fountain St. (North of Menno St.)

Links: S12B01 L=163.645 m S=0.00171 m/m; S12B02 L=252.37 m S=0.00166 m/m; S12B03 L=411.637 m S=0.00165 m/m

Nodes: MH12B01 I=316.18 m; MH12B02 I=315.84 m; MH12B03 I=315.36 m; MH1601 I=321.062 m I=314.62 m

Menno Rd. (Woolwich St. to Fountain St.)

Links: S1701 L=181.508 m S=0.00187 m/m; S1702 L=552.913 m S=0.00879 m/m; S1603 L=233.185 m S=0.00266 m/m; S1604 L=127.248 m S=0.00267 m/m

Nodes: MH1703 I=309.3 m; CC_15 I=311.812 m; MH1601 I=321.062 m; MH1602 I=324.448 m; MH1603 I=323.63 m; MH1604 I=316.43 m

Menno St. (Fountain St. to Shantz Station Rd.)

Links: S1605_1 L=233.058 m S=0.0027 m/m; S1606 L=286.489 m S=0.00164 m/m; S1607 L=413.06 m S=0.00167 m/m; S_CC_07 L=211.235 m S=0.00166 m/m; S1608 L=31.06 m S=0.0216 m/m; S1609 L=831.118 m S=0.00432 m/m; AE_P1; S1610 L=458.133 m S=0.0017 m/m

Nodes: CC_08 I=316.68 m; MH1604 I=314.28 m; MH1605 I=315.08 m; MH1606 I=315.83 m; CC_07 I=316.24 m; MH1607 I=316.97 m; MH1608 I=320.84 m; LS_01 I=310.67 m; MH1609 I=313.45 m

Woolwich St.

Links: S1401 L=169.071 m S=0.00367 m/m; S1402 L=82.403 m S=0.004 m/m; S1703 L=136.821 m S=0.0027 m/m; S1704 L=172.807 m S=0.00168 m/m; S1705_1 L=7.843 m S=0.0793 m/m; S_CC_14 L=239.83 m S=0.00167 m/m; S1706 L=258.518 m S=0.00166 m/m

Nodes: MH1401 I=311.64 m; MH1402 I=310.96 m; MH1702 I=310.57 m; MH1703 I=309.977 m; MH1704 I=308.95 m; CC_14 I=308.27 m; MH1705 I=307.81 m; MH1801 I=307.32 m

Lonsdale Rd. Ext.

Conduit S1620 Length = 402.51 m Slope = 0.00266 m/m; Conduit S1621 Length = 237.539 m Slope = 0.00265 m/m; Conduit S1622 Length = 676.401 m Slope = 0.00051 m/m

Nodes: Junction MH1618 Rim Elev = 321.335 m Invert Elev. = 311.78 m; Junction MH1619 Rim Elev. = 323.909 m Invert Elev. = 317.03 m; Junction MH1620 Rim Elev. = 320.582 m Invert Elev. = 317.72 m; Junction MH1621 Rim Elev. = 324.365 m Invert Elev. = 321.51 m

Fountain St. (Menno St. to Kossuth Rd.)

Links: S1601_1 L=365.549 m S=0.0122 m/m; S_CC_09 L=75.046 m S=0.00187 m/m; S1602 L=333.519 m S=0.00186 m/m; S1801 L=400.601 m S=0.00167 m/m; S1802 L=378.672 m S=0.00169 m/m; AE_P2; S1902 L=250.71 m S=0.00742 m/m; S1903 L=652.275 m S=0.00166 m/m; S2001 L=796.169 m S=0.00167 m/m; S2201_1 L=183.709 m S=0.0068 m/m; S_CC_01 L=50.78 m S=0.00945 m/m; S2202 L=129.121 m S=0.00163 m/m

Nodes: MH1601 I=321.062 m I=314.62 m; CC_09 I=313.972 m I=310.1 m; MH1613 I=313.51 m I=309.9 m; MH1801 I=316.112 m I=307.32 m; MH1802 I=312.824 m I=306.59 m; LS_02 I=316.39 m I=303.95 m; MH1902 I=316.39 m I=313.59 m; MH1903 I=314.534 m I=311.67 m; MH2001 I=315.766 m I=310.53 m; MH2201 I=312.455 m I=309.14 m; CC_01 I=309.638 m I=307.83 m; MH2202 I=309.1 m I=307.29 m; MH2207 I=310.387 m I=306.2 m

Shantz Station Rd. (Menno Rd. to Kossuth Rd.)

Conduit S1611 Length = 183.464 m Slope = 0.00267 m/m; Conduit S1612 Length = 250.419 m Slope = 0.00268 m/m; Conduit S1613_2 Length = 392.125 m Slope = 0.0108 m/m; Conduit S1613_1 Length = 212.627 m Slope = 0.0047 m/m; Conduit S1614 Length = 320.974 m Slope = 0.00626 m/m; Conduit S2011 Length = 305.796 m Slope = 0.0156 m/m; Conduit S2012 Length = 203.111 m Slope = 0.00266 m/m; Conduit S2106 Length = 181.767 m Slope = 0.0022 m/m; Conduit S2107 Length = 415.205 m Slope = 0.00887 m/m; Conduit S2109 Length = 216.766 m Slope = 0.0112 m/m

Nodes: Junction MH1609 Rim Elev. = 318.821 m Invert Elev. = 313.45 m; Junction MH1610 Rim Elev. = 322.874 m Invert Elev. = 316.5 m; Junction MH1611 Rim Elev. = 320.086 m Invert Elev. = 317.23 m; Junction MH1621 Rim Elev. = 324.365 m Invert Elev. = 321.51 m; Junction MH11612 Rim Elev. = 325.427 m Invert Elev. = 322.57 m; Junction MH2011 Rim Elev. = 327.438 m Invert Elev. = 324.64 m; Junction MH2012 Rim Elev. = 322.667 m Invert Elev. = 319.81 m; Junction MH2106 Rim Elev. = 325.209 m Invert Elev. = 319.21 m; Junction MH2107 Rim Elev. = 322.433 m Invert Elev. = 318.75 m; Junction MH2108 Rim Elev. = 317.95 m Invert Elev. = 315.09 m; Junction MH2109 Rim Elev. = 315.461 m Invert Elev. = 312.6 m

New Germany Ln.

Conduit S2006 Length = 356.812 m Slope = 0.00224 m/m; Conduit S2101 Length = 229.358 m Slope = 0.00227 m/m; Conduit S_CC_10 Length = 176.702 m Slope = 0.00226 m/m; Conduit S2102_1 Length = 134.346 m Slope = 0.00223 m/m; Conduit S2103 Length = 129.358 m Slope = 0.00224 m/m

Nodes: Junction MH2007 Rim Elev. = 314.57 m Invert Elev. = 311.77 m; Junction MH2006 Rim Elev. = 314.864 m Invert Elev. = 310.42 m; Junction MH2101 Rim Elev. = 315.004 m Invert Elev. = 311.59 m; Junction CC_10 Rim Elev. = 315.174 m Invert Elev. = 312.05 m; Junction MH2102 Rim Elev. = 310.929 m Invert Elev. = 312.41 m; Junction MH2103 Rim Elev. = 315.56 m Invert Elev. = 312.76 m

Kossuth Rd. (Cober Rd. to Shantz Station Rd.)

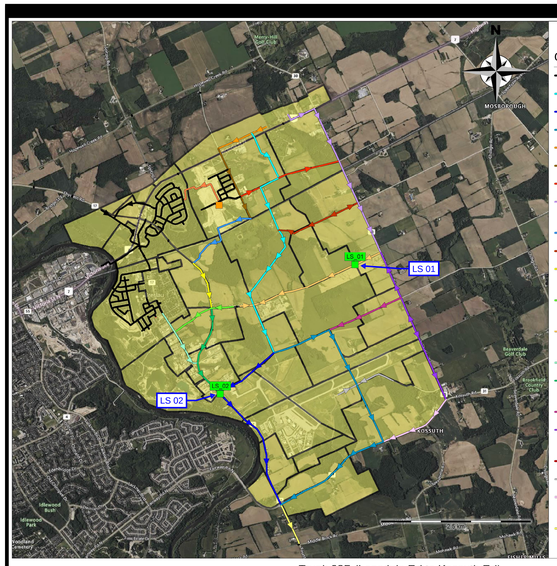
Conduit S2112 Length = 325.078 m Slope = 0.00175 m/m; Conduit S2111 Length = 378.54 m Slope = 0.00174 m/m; Conduit S2110 Length = 601.026 m Slope = 0.00175 m/m

Nodes: Junction MH2112 Rim Elev. = 315.303 m Invert Elev. = 308.99 m; Junction MH2111 Rim Elev. = 317.15 m Invert Elev. = 310.77 m; Junction MH2110 Rim Elev. = 316.766 m Invert Elev. = 311.49 m; Junction MH2109 Rim Elev. = 315.461 m Invert Elev. = 312.6 m

Fountain St. (Kossuth Rd. to MiddleBlock Rd.)

Conduit S_T01_1 Length = 213.836 m Slope = 0.00125 m/m; Conduit S_T01_2 Length = 472.841 m Slope = 0.00125 m/m; Conduit S_T02 Length = 43.2 m Slope = 0.00125 m/m

Nodes: Junction MH2207 Rim Elev. = 310.387 m Invert Elev. = 306.2 m; Junction J2 Rim Elev. = 310.78 m Invert Elev. = 305.903 m; Junction MH_T01 Rim Elev. = 311.65 m Invert Elev. = 305.282 m; Junction MH_T02 Rim Elev. = 311.5 m Invert Elev. = 305.228 m

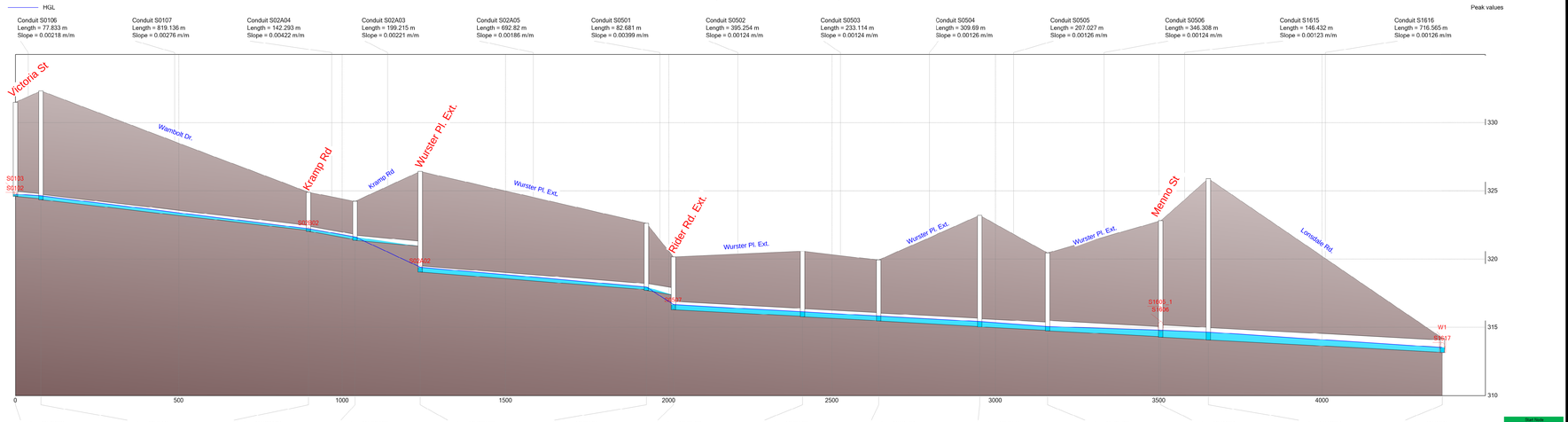


Legend

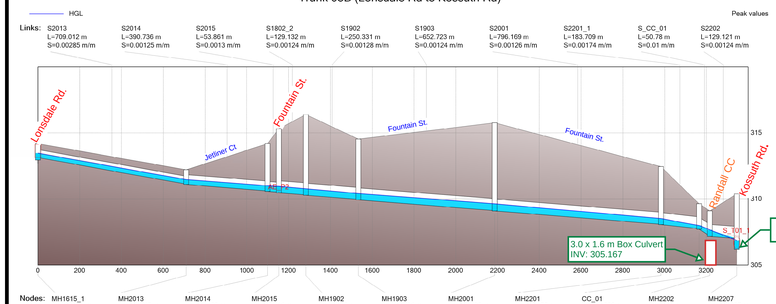
Conduits

- Other
- Trunk 03
- Trunk 03B
- Trunk 03D
- North Dev. Rd.
- Greenhouse Rd.
- Kramp Rd.
- Shantz Station Rd, (North of Menno St.)
- East Connector
- Rider Rd. Ext.
- Fountain St. (North of Menno St.)
- Menno St. (West of Fountain St.)
- Menno St. (East of Fountain St.)
- Woolwich St.
- Fountain St. (Menno St. to Otter St.)
- Lonsdale Rd Ext.
- Shantz Station Rd. (South of Menno St.)
- Cober Rd.
- New Germany Ln.
- Kossuth Rd. (Cober Rd. to Shantz Station Rd.)
- Fountain St. (South of Kossuth Rd.)

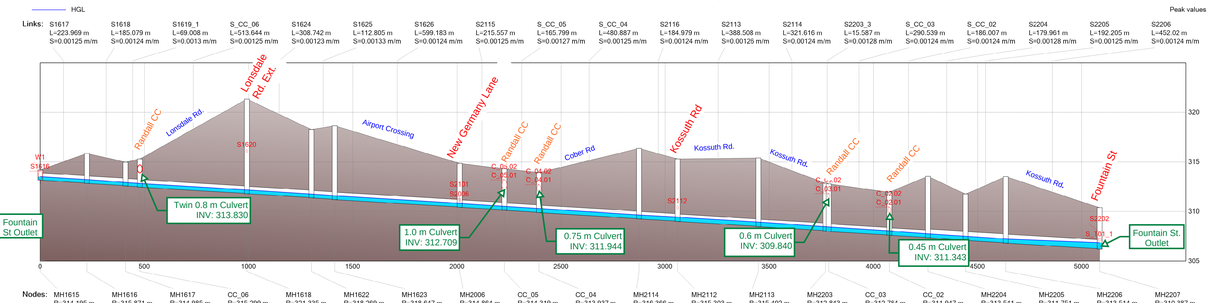
Trunk 03 (Victoria Rd to Lonsdale Rd)



Trunk 03B (Lonsdale Rd to Kossuth Rd)



Trunk 03D (Lonsdale Rd to Kossuth Rd)



Trunk 03

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S0106	Vanbelt Dr.	MH0103	MH0105	77.833	324.550	324.420	375	0.70	31.83	0.39	0.278	330.685	329.350	6.3	7.5
S0107	Vanbelt Dr.	MH0105	MH02A04	819.136	324.360	322.900	375	0.97	70.36	0.78	0.278	332.329	329.350	8.0	2.8
S02A03	Kramp Rd.	MH02A04	MH02A03	142.293	323.060	320.940	375	0.88	58.79	0.69	0.309	324.898	324.236	3.5	3.3
S02A04	Kramp Rd.	MH02A03	MH02A02	199.215	322.040	321.640	375	1.03	56.19	0.92	0.309	324.236	326.425	2.2	5.0
S02A05	Wurster Pl. Ext.	MH02A02	MH0501	692.82	319.050	317.760	450	0.90	90.96	0.79	0.190	326.425	322.63	7.4	4.5
S0501	Wurster Pl. Ext.	MH0501	MH0502	82.681	317.700	317.370	525	1.28	150.91	0.40	0.399	322.630	320.168	4.9	2.8
S0502	Wurster Pl. Ext.	MH0502	MH0503	395.254	316.290	315.800	600	0.84	151.87	0.70	0.124	320.168	320.569	3.9	4.8
S0503	Wurster Pl. Ext.	MH0503	MH0504	233.114	315.770	315.480	600	0.86	151.87	0.70	0.124	320.569	319.937	4.8	4.5
S0504	Wurster Pl. Ext.	MH0504	MH0505	309.69	315.450	315.060	600	0.84	151.87	0.70	0.124	319.937	323.208	4.5	8.1
S0505	Wurster Pl. Ext.	MH0505	MH0506	207.027	315.030	314.770	600	0.53	151.87	0.70	0.124	323.208	320.446	8.2	5.7
S0506	Wurster Pl. Ext.	MH0506	MH1604	346.308	314.740	314.310	750	0.72	151.87	0.39	0.124	320.446	322.809	5.7	8.5
S1615	Lonsdale Rd.	MH1614	MH1615	146.432	314.070	313.950	900	1.04	377.45	0.55	0.123	322.809	325.894	8.7	11.8
S1616	Lonsdale Rd.	MH1614	MH1615	716.564	314.070	313.170	900	1.92	388.94	0.60	0.126	325.894	314.195	11.8	1.0

Trunk 03B

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S2013	Airport Crossing	MH1615	MH2013	709.012	316.950	315.780	375	1.17	163.97	0.93	0.270	314.195	312.215	1.7	4.1
S2014	Jetlerer Cir.	MH2013	MH2014	390.736	315.090	314.000	750	0.88	351.05	0.63	0.107	312.215	314.193	11	3.8
S2015	Jetlerer Cir.	MH2014	MH2015	53.861	313.950	313.880	750	0.88	351.05	0.63	0.107	314.193	315.311	3.8	4.6
S1802_2	Jetlerer Cir.	MH2015	MH1902	129.132	310.470	310.340	900	1.03	363.78	0.57	0.124	315.311	316.39	4.8	6.1
S1902	Fountain St.	MH1902	MH1903	250.331	310.280	309.960	900	1.03	363.78	0.56	0.124	316.390	314.534	6.1	4.6
S1903	Fountain St.	MH1903	MH2001	652.723	309.930	309.120	900	1.01	363.78	0.57	0.124	314.534	315.766	4.6	6.6
S2001	Fountain St.	MH2001	MH2201	796.169	309.090	308.090	900	1.10	385.90	0.62	0.124	315.766	312.455	6.7	4.4
S2201_1	Fountain St.	MH2201	CC_01	183.709	308.060	307.760	900	1.36	385.90	0.59	0.174	312.455	309.638	4.4	1.9
S_CC_01	Fountain St.	CC_01	MH2202	50.78	307.730	307.230	900	1.55	385.90	0.23	1.000	309.638	309.1	1.9	1.9
S2202	Fountain St.	MH2202	MH2207	129.121	307.170	**307.030**	900	1.55	396.90	0.62	0.124	309.100	310.387	1.9	**3.4**

Trunk 03D

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S1617	Lonsdale Rd. Ext.	MH1616	MH1617	223.969	315.780	314.880	750	0.84	194.00	0.49	0.124	315.871	314.985	3.0	2.4
S1618	Lonsdale Rd. Ext.	MH1616	MH1617	185.09	312.930	312.600	750	0.94	194.00	0.49	0.124	315.871	314.985	3.0	2.4
S1619_1	Lonsdale Rd. Ext.	MH1617	CC_06	69.008	312.450	312.360	750	0.88	194.00	0.49	0.124	314.985	315.299	2.6	2.9
S_CC_06	Lonsdale Rd. Ext.	CC_06	MH1618	513.644	312.450	311.810	750	0.90	194.00	0.49	0.107	315.299	321.335	2.8	9.5
S1624	Airport Crossing	MH1618	MH1622	308.742	311.760	311.380	750	0.88	194.00	0.49	0.124	321.335	318.269	9.5	6.9
S1625	Airport Crossing	MH1622	MH1623	112.805	311.350	311.190	750	0.88	194.00	0.49	0.124	318.269	318.647	6.9	7.5
S1626	Airport Crossing	MH1623	MH2006	599.183	311.150	310.450	750	0.88	200.07	0.53	0.124	318.647	314.864	7.5	4.4
S2115	Cober Rd.	MH2006	CC_05	215.557	310.420	310.150	750	0.88	200.07	0.53	0.124	314.864	314.319	4.4	4.2
S_CC_05	Cober Rd.	CC_05	CC_04	165.799	310.120	309.740	750	0.94	220.00	0.58	0.107	314.319	313.937	4.2	4.0
S_CC_04	Cober Rd.	CC_04	MH2114	477.842	309.880	309.200	750	0.94	220.00	0.58	0.124	313.937	316.366	4.1	7.2
S2116	Cober Rd.	MH2114	MH2112	184.979	309.250	309.020	750	0.88	220.00	0.58	0.124	316.366	315.303	7.1	6.3
S2113	Kossuth Rd.	MH2112	MH2113	388.508	308.990	308.510	750	0.91	253.92	0.66	0.124	315.303	315.402	6.3	6.9
S2114	Kossuth Rd.	MH2113	MH2203	321.616	308.470	308.070	750	0.91	253.92	0.66	0.124	315.402	312.843	6.9	4.8
S2203_3	Kossuth Rd.	MH2203	CC_03	15.587	308.040	308.000	750	0.91	253.92	0.66	0.124	312.843	312.784	4.8	4.8
S_CC_03	Kossuth Rd.	CC_03	CC_02	290.539	307.990	307.630	750	0.91	261.90	0.67	0.124	312.784	311.947	4.8	4.3
S_CC_02	Kossuth Rd.	CC_02	MH2204	186.007	307.600	307.370	750	0.91	261.90	0.67	0.124	311.947	313.541	4.3	6.2
S2204	Kossuth Rd.	MH2204	MH2205	179.961	307.340	307.080	900	1.02	282.01	0.44	0.124	313.541	311.751	6.2	4.7
S2205	Kossuth Rd.	MH2205	MH2206	192.205	307.080	306.810	900	1.02	282.01	0.44	0.124	311.751	313.514	4.7	6.7
S2206	Kossuth Rd.	MH2206	MH2207	452.1	306.810	**306.250**	900	0.75	282.01	0.44	0.124	313.514	310.387	6.7	4.1

North Dev Rd.

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S0102	North Dev Rd.	MH0102	MH0103	619.266	326.144	325.294	375	0.63	31.74	0.70	0.312	331.485	331.485	5.3	6.2
S0103	North Dev Rd.	MH0103	MH0104	69.258	324.550	322.340	300	0.88	30.30	0.52	0.363	331.485	328.344	6.9	2.8

Greenhouse Rd.

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S0105	Greenhouse Rd.	MH0102	MH02A01	881.553	322.260	319.870	300	0.79	30.30	0.60	0.272	326.144	322.695	2.9	2.8
S02A01	Greenhouse Rd.	MH02A01	MH0301	407.211	319.690	319.050	450	0.76	70.96	0.56	0.190	322.695	322.001	2.9	2.9

Kramp Rd. (Greenhouse Rd. to Wurster Pl.)

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S02A02	Kramp Rd.	MH02A02	MH02A03	372.005	319.950	319.160	450	0.66	59.26	0.52	0.190	322.695	326.425	2.9	3.3

Kramp Rd. (Wambolt Dr. to Shantz Station Rd.)

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S02B02	Kramp Rd.	MH02A04	MH02B02	1042.604	322.040	318.800	300	0.90	38.39	0.76	0.315	324.898	321.598	2.9	2.8

Shantz Station Rd. (North of Menno St.)

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S0108	Shantz Station Rd.	MH0107	MH0108	100.694	323.590	323.270	300	0.89	34.21	0.69	0.266	326.637	326.637	2.8	3.4
S0109	Shantz Station Rd.	MH0108	MH02B01	433.028	323.230	322.800	300	0.89	34.21	0.69	0.266	326.637	324.598	3.4	1.8
S0110	Shantz Station Rd.	MH02B01	MH02B02	293.814	322.760	321.520	300	0.89	34.21	0.69	0.266	324.598	321.598	1.8	2.8
S02B01	Shantz Station Rd.	MH02B02	MH0302	671.213	321.160	318.800	300	0.77	34.76	0.69	0.315	324.598	323.598	3.4	2.8
S02B03	Shantz Station Rd.	MH0302	MH0402	164.059	318.700	318.410	300	0.77	34.76	0.70	0.315	323.598	323.598	4.9	5.2
S0302	Shantz Station Rd.	MH0302	MH0402	594.759	319.370	317.390	600	0.96	154.33	0.62	0.190	323.598	323.523	3.0	6.2
S0402	Shantz Station Rd.	MH0402	MH0403	245.028	317.320	316.910	600	0.96	154.33	0.62	0.190	323.523	326.112	6.2	9.9
S0403	Shantz Station Rd.	MH0403	MH0404	519.152	316.850	315.300	600	1.25	154.33	0.47	0.207	326.112	318.163	9.9	2.8
S0404_1	Shantz Station Rd.	MH0404	CC_11	82.441	315.300	315.710	600	0.96	154.33	0.62	0.124	318.163	318.163	2.8	4.5
S_CC_11	Shantz Station Rd.	CC_11	MH1609	82.228	313.650	313.510	600	0.96	154.33	0.65	0.170	318.164	318.621	4.5	5.3

East Connector

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S0301	East Connector	MH0301	MH0302	438.423	319.360	318.120	450	0.72	71.36	0.29	0.190	322.001	321.598	2.6	3.4
S0302	East Connector	MH0302	MH1609	550.218	318.120	316.260	450	0.72	71.36	0.29	0.190	321.598	318.621	3.4	2.4

Rider Rd. Ext.

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S0401	Rider Rd. Ext.	MH0401	MH0402	254.362	323.590	320.740	300	0.00	0.00	0.00	1.196	326.375	323.523	2.8	2.8
S0406	Rider Rd. Ext.	MH0402	MH0405	621.877	323.500	319.320	300	0.00	0.00	0.00	1.241	326.375	321.922	2.8	2.6
S0407	Rider Rd. Ext.	MH0405	MH0407	393.506	318.260	317.210	300	0.00	0.00	0.00	0.267	321.922	323.919	3.7	6.7
S0408	Rider Rd. Ext.	MH0407	MH0502	392.532	317.900	316.320	375	0.55	25.90	0.60	0.252	323.919	320.168	6.4	3.8

Fountain St. (North of Menno St.)

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S12B01	Fountain St.	MH2001	MH2002	163.645	316.150	315.510	600	0.72	151.87	0.39	0.124	323.370	322.809	5.7	6.8
S12B02	Fountain St.	MH2002	MH2003	252.37	315.460	315.420	600	0.88	151.52	0.39	0.189	323.370	323.919	6.1	7.7
S12B03	Fountain St.	MH2003	MH1601	410.67	315.360	314.680	600	0.85	151.52	0.37	0.185	323.919	321.982	7.8	6.4

Menno St. (Woolwich St. to Fountain St)

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S1604	Menno St.	MH1602	MH1603	127.327	316.120	315.980	600	1.04	377.45	0.55	0.123	321.809	319.516	5.7	3.5
S1603	Menno St.	MH1603	MH1601	233.185	316.430	315.970	900	1.13	388.94	0.60	0.126	319.516	321.982	3.5	6.0
S1601	Menno St.	CC_15	MH1601	182.193	316.000	315.970	900	1.13	388.94	0.60	0.126	319.516	321.982	2.5	6.0
S1701	Menno St.	MH1703	CC_15	101.598	309.790	309.360	450	0.62	43.38	0.35	0.107	319.852	319.977	2.1	4.6

Menno St. (Fountain St. to Shantz Station Rd.)

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S1605_1	Menno St.	CC_08	MH1604	233.058	316.880	316.250	300	0.00	0.70	0.01	0.270	319.676	322.809	2.8	6.6
S1610	Menno St.	LS_01	MH1609	473.078	310.450	312.670	600	1.04	174.93	0.70	0.166	316.380	319.609	5.9	6.9
AE_P1	Menno St.	LS_01	MH1609												
S1609	Menno St.	MH1609	MH1607	885.788	320.940	317.030	600	1.09	174.93	0.43	0.422	323.647	319.826	2.8	2.8
S1608	Menno St.	MH1607	CC_07	31.08	316.970	316.390	525	1.73	174.93	0.29	1.000	319.826	319.876	2.9	3.5
S_CC_07	Menno St.	CC_07	MH1606	211.235	316.320	315.970	600	1.05	174.93	0.70	0.166	319.876	321.536	3.6	5.6
S1607	Menno St.	MH1606	MH1605	413.06	315.590	315.220	750	1.66	224.01	0.45	0.107	321.536	323.639	5.6	8.5
S1606	Menno St.	MH1605	MH0804	288.405	315.160	314.660	750	1.92	224.01	0.45	0.166	323.639	322.809	8.5	8.1

Woolwich St.

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S1601	Woolwich St.	MH1602	MH1601	93.121	315.640	315.520	300	0.74	45.37	0.29	0.367	316.982	321.982	2.8	6.5
S1602	Woolwich St.	MH1602	MH1702	82.401	315.980	315.630	300	0.76	45.37	0.29	0.400	319.516	319.426	2.5	2.8
S1603	Woolwich St.	MH1603	MH1703	126.525	315.170	315.000	300	0.66	45.37	0.43	0.276	321.982	321.426	6.5	6.4
S1704	Woolwich St.	MH1703	MH1704	172.007	309.390	309.090	525	0.93	96.95	0.53	0.190	319.977	317.426	4.7	3.5
S1705_1	Woolwich St.	MH1704	CC_14	7.842	309.990	309.920	525	1.28	96.95	0.01	1.000	317.426	317.426	3.5	4.3
S_CC_14	Woolwich St.	CC_14	MH1705	239.61	309.270	307.870	525	0.89	96.95	0.52	0.167	317.426	315.776	4.4	7.6
S1706	Woolwich St.	MH1705	MH1801	258.536	307.870	307.300	525	0.92	96.95	0.52	0.166	315.776	316.152	7.9	8.7

Shantz Station Rd. (Menno St. to Kossuth Rd.)

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S1611	Shantz Station Rd.	MH1609	MH1610	183.382	313.650	313.560	300	0.00	0.00	0.00	1.626	321.478	325.427	2.8	2.8
S1612	Shantz Station Rd.	MH1610	MH1611	250.419	313.560	313.310	300	0.00	0.00	0.00	1.626	325.427	324.385	2.9	2.8
S1613_2	Shantz Station Rd.	MH1611	MH1612	212.827	313.310	313.210	300	0.00	0.00	0.00	1.626	324.385	322.667	2.8	2.8
S1613_1	Shantz Station Rd.	MH1612	MH1614	1305.796	313.210	311.850	300	0.00	0.00	0.00	1.626	322.667	325.894	2.8	2.8
S1614	Shantz Station Rd.	MH1614	MH1615	203.111	311.850	311.750	300	0.00	0.00	0.00	1.626	325.894	325.894	2.8	2.8
S2011	Shantz Station Rd.	MH2011	MH2012	305.796	311.750	311.410	300	0.00	0.00	0.00	1.626	325.894	325.427	2.8	2.8
S2012	Shantz Station Rd.	MH2012	MH2106	111.99	311.410	311.410	300	0.00	0.00	0.00	1.626	325.427	325.209	2.8	2.8
S2106	Shantz Station Rd.	MH2106	MH2107	181.767	311.410	311.410	300	0.00	0.00	0.00	1.626	325.209	324.438	2.8	2.8
S2107	Shantz Station Rd.	MH2107	MH2108	415.205	311.410	310.980	300	0.00	0.00	0.00	1.626	324.438	322.667	2.8	2.8
S2109	Shantz Station Rd.	MH2108	MH2109	216.766	310.980	310.870	300	0.00	0.00	0.00	1.626	322.667	315.461	2.8	2.8

Fountain St. (Menno St. to Jetliner Crt.)

Name	Head Name	Inlet Node	Outlet Node	Length [m]	Up invert	Dn invert	Diameter	Velocity	Flow Rate	QdQP	Shape [-]	GPS MH T/G	GPS MH T/C	GPS MH Depth	GPS MH Depth
S1601_1	Fountain St.	MH1601	CC_09	365.549	314.980	313.760	450	0.70	51.15	0.58	0.190	321.982	322.062	6.5	8.3
S_CC_09	Fountain St.	CC_09	MH1613	176.042	313.760	313.960	450	0.83	51.15	0.42	0.167	322.062	321.513	8.3	7.6
S1602	Fountain St.	MH1613	MH1801	533.518	313.960	313.210	450	0.70	51.15	0.42	0.190	321.513	316.152	7.6	2.9
S1801	Fountain St.	MH1801	MH1802	400.601	307.320	306.850	750	0.93	462.00	0.36	0.167