

STORM SEWER CALCULATIONS BASED ON 100YR EVENT																											
STORM	RUNOFF COLLECTION			Distance	Area	Drainage	Run-off	Accumulated	Design Storm	Intensity	Storm Water	Pipe Capacity	Pipe	Conveyance	Hydraulic	Selected	Flowline	Flowline	HGL	HGL	Ground	Ground	Pipe	Pipe	Velocity	Head Loss	Velocity Head Loss
SEWER	Downstream	Upstream	Between	No.	Area	coefficient	"CA"	Frequency	"I"	Runoff	Q(cap)	Slope S	K	Slope SF	Pipe Size	Elevation	Elevation	Elevation	Elevation	Elevation	Elevation	Elevation	Cover	Cover	In Sewer	Coefficient	(Upstream)
NUMBER	Station	Station	Points	"A" (Acres)	"C"	(years)	(in/hr)	Q(des)-Q (cfs)	cfs	(ft/ft)			(ft/ft)	(in)	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	(fps)	Kj	√2g
Line A	2+50.94	3+00.00	49.06	DA-2	0.58	0.90	0.52	100	9.80	5.12	30.63	0.085	105.043	0.0024	18	516.08	525.78	502.76	503.04	522.00	530.00	4.42	2.72	2.89	1.25	0.13	
	0+00.00	2+50.94	250.94	DA-2, DA-4, DA-7, DA-6, DA-5, DA-3	3.26	0.90	2.93	100	9.80	28.75	63.99	0.080	226.224	0.0162	24	495.50	515.58	497.50	501.55	499.00	522.00	1.50	4.42	9.15	0.75	1.30	

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NUMBER	Station	Station	Points	"A" (Acres)	"C"	(years)	(in/hr)	Q(des)-Q (cfs)	cfs	(ft/ft)			(ft/ft)	(in)	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	(fps)	Kj	√2g
Line B	4+46.65	5+17.58	70.93	DA-3	0.48	0.90	0.43	100	9.80	4.23	26.99	0.066	105.043	0.0016	18	531.98	536.67	539.91	531.03	531.56	536.28	-1.92	-1.89	2.40	0.75	0.09	
	0+00.00	0+19.19	19.19	DA-6	0.24	0.90	0.22	100	9.80	2.12	19.38	0.140	105.043	0.0004	18	532.48	535.10	539.91	531.56	536.60	538.60	2.34	2.00	1.20	0.35	0.02	
	3+31.55	4+46.65	115.1	DA-3, DA-5	0.72	0.90	0.65	100	9.80	6.35	34.71	0.048	158.450	0.0016	21	526.46	531.98	539.68	530.71	531.56	536.60	2.50	2.17	2.64	0.35	0.11	
	2+55.07	3+31.55	76.48	DA-3, DA-5	0.72	0.90	0.65	100	9.80	6.35	34.71	0.048	158.450	0.0016	21	526.46	531.98	539.68	530.71	531.56	536.60	2.50	2.17	2.64	0.35	0.11	
	1+82.62	2+55.07	72.45	DA-3, DA-5	0.72	0.90	0.65	100	9.80	6.35	34.71	0.048	158.450	0.0016	21	526.46	531.98	539.68	530.71	531.56	536.60	2.50	2.17	2.64	0.35	0.11	
	1+12.76	1+82.62	69.86	DA-3, DA-5	0.72	0.90	0.65	100	9.80	6.35	34.71	0.048	158.450	0.0016	21	526.46	531.98	539.68	530.71	531.56	536.60	2.50	2.17	2.64	0.35	0.11	
	0+00.00	0+08.66	8.66	DA-6	0.24	0.90	0.22	100	9.80	2.12	19.38	0.140	105.043	0.0004	18	532.48	535.10	539.91	531.56	536.60	538.60	2.34	2.00	1.20	0.35	0.02	
	1+09.75	1+12.76	3.01	DA-3, DA-5, DA-6	1.40	0.90	1.26	100	9.80	12.35	27.71	0.015	226.224	0.0030	24	523.32	523.37	529.26	529.26	529.90	529.90	2.58	3.96	3.93	0.75	0.24	
	0+00.00	0+20.21	20.21	DA-7	0.15	0.90	0.14	100	9.80	1.32	21.42	0.042	105.043	0.0002	18	523.26	524.10	529.26	529.26	529.90	529.90	3.14	2.00	0.75	1.25	0.01	
	0+73.29	1+09.75	36.46	DA-3, DA-5, DA-6, DA-7	1.55	0.90	1.40	100	9.80	13.67	60.36	0.037	226.224	0.0037	24	520.56	523.15	529.01	529.01	529.90	529.90	3.74	2.75	4.35	0.75	0.29	
	0+00.00	0+14.93	14.93	DA-4	1.13	0.90	1.02	100	9.80	9.97	44.32	0.178	105.043	0.0090	18	520.81	523.20	529.01	529.01	529.90	529.90	3.99	2.00	5.64	1.25	0.49	
	0+00.00	0+73.29	73.29	DA-3, DA-4, DA-5, DA-6, DA-7	2.68	0.90	2.41	100	9.80	23.64	60.36	0.071	226.224	0.0109	24	515.34	520.56	518.55	519.35	522.00	526.30	4.66	3.74	7.52	0.75	0.88	

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SEWER	Downstream	Upstream	Between	No.	Area	coefficient	"CA"	Frequency	"I"	Runoff	Q(cap)	Slope S	K	Slope SF	Pipe Size	Elevation	Elevation	Elevation	Elevation	Elevation	Elevation	Elevation	Cover	Cover	In Sewer	Coefficient	(Upstream)
NUMBER	Station	Station	Points	"A" (Acres)	"C"	(years)	(in/hr)	Q(des)-Q (cfs)	cfs	(ft/ft)			(ft/ft)	(in)	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	(fps)	Kj	√2g
Line C	9+70.28	11+20.95	150.67	DA-12	0.45	0.90	0.41	100	9.8	3.97	22.89	0.0475	105.043	0.0014	18	527.42	534.58	488.51	488.83	532.22	540.30	3.30	4.22	2.25	1.25	0.08	
	0+00.00	0+20.05	20.05	DA-14	0.80	0.90	0.72	100	9.8	7.06	34.55	0.082	105.043	0.0045	18	527.42	529.59	488.51	490.99	532.22	533.30	3.30	2.21	3.99	1.25	0.25	
	9+67.28	9+70.28	3	DA-12, DA-14	1.25	0.90	1.13	100	9.80	11.03	22.89	0.048	105.043	0.0110	18	527.34	527.42	487.18	487.97	532.18	532.22	3.34	3.30	6.24	0.75	0.60	
	0+00.00	0+28.87	28.87	DA-24	0.21	0.90	0.19	100	9.80	1.85	7.97	0.050	35.628	0.0027	12	527.34	528.78	487.18	487.61	532.18	533.30	3.84	3.52	2.36	1.25	0.09	
	9+22.99	9+67.28	44.29	DA-12, DA-14, DA-24	1.46	0.90	1.31	100	9.80	12.88	25.29	0.013	226.224	0.0032	24	526.29	526.84	487.23	487.37	531.27	532.18	2.98	3.34	4.10	0.75	0.26	
	7+40.00	9+22.99	182.99	DA-12, DA-14, DA-24	1.46	0.90	1.31	100	9.80	12.88	25.29	0.013	226.224	0.0032	24	524.00	526.29	486.31	486.90	528.65	531.27	2.65	2.98	4.10	1.25	0.26	
	6+80.00	7+40.00	60	DA-12, DA-14, DA-24	1.46	0.90	1.31	100	9.80	12.88	25.29	0.013	226.224	0.0032	24	521.00	524.00	486.02	486.22	525.87	528.65	2.87	2.65	4.10	0.35	0.26	
	6+43.71	6+80.00	36.29	DA-12, DA-14, DA-24	1.46	0.90	1.31	100	9.80	12.88	25.29	0.013	226.224	0.0032	24	517.05	521.00	485.82	485.93	522.89	525.87	3.84	2.87	4.10	0.35	0.26	
	0+00.00	0+20.21	20.21	DA-15	1.20	0.90	1.08	100	9.80	10.58	63.93	0.163	158.450	0.0045	21	517.18	520.47	485.82	486.28	522.89	524.47	3.96	2.25	4.40	1.25	0.30	
	5+35.98	6+43.71	107.73	DA-12, DA-14, DA-24, DA-15	2.66	0.90	2.39	100	9.80	23.46	74.59	0.109	226.224	0.0108	24	505.30	517.05	483.99	485.15	512.00	522.89	4.70	3.84	7.47	0.75	0.87	
	0+00.00	0+19.38	19.38	DA-17	0.51	0.90	0.46	100	9.80	4.50	71.57	0.204	158.450	0.0008	21	505.67	509.62	483.99	484.07	512.00	513.63	4.58	2.26	1.87	1.25	0.05	
	5+00.97	5+35.98	35.01	DA-12, DA-14, DA-24, DA-15, DA-17	3.17	0.90	2.85	100	9.80	27.96	61.79	0.040	309.703	0.0082	27	503.91	505.30	483.58	483.87	508.40	512.00	2.24	4.45	7.03	0.75	0.77	
	0+00.00	0+06.97	6.97	DA-16	0.40	0.90	0.36	100	9.80	3.53	506.23	0.179	105.043	0.0011	18	504.98	506.23	483.58	483.67	508.40	510.49	1.92	2.76	2.00	1.25	0.06	
	4+40.00	5+00.97	60.97	DA-12, DA-14, DA-24, DA-15, DA-17, DA-16	3.57	0.90	3.21	100	9.80	31.49	61.79	0.040	309.703	0.0103	27	501.48	503.91	482.55	483.19	507.10	508.40	3.37	2.24	7.92	0.75	0.97	
	0+60.00	4+40.00	380	DA-12, DA-14, DA-24, DA-15, DA-17, DA-16	3.57	0.90	3.21	100	9.80	31.49	61.79	0.040	309.703	0.0103	27	476.78	501.48	482.55	482.80	507.10	507.10	3.77	3.37	7.92	0.35	0.97	
	0+46.12	0+60.00	13.88	DA-12, DA-14, DA-24, DA-15, DA-17, DA-16	3.57	0.90	3.21	100	9.80	31.49	69.25	0.050	309.703	0.0103	27	476.09	476.78	477.80	477.95	480.64	482.80	2.30	3.77	7.92	0.35	0.97	
	0+18.09	0+46.12	28.03	DA-12, DA-14, DA-24, DA-15, DA-17, DA-16	3.57	0.90	3.21	100	9.80	31.49	69.25	0.050	309.703	0.0103	27	474.68	476.09	477.17	477.46	479.50	480.64	2.57	2.30	7.92	0.35	0.97	
	0+00.00	0+18.09	18.09	DA-12, DA-14, DA-24, DA-15, DA-17, DA-16	3.57	0.90	3.21	100	9.80	31.49	69.25	0.050	309.703	0.0103	27	473.78	474.68	476.64	476.83	479.50	479.50	3.47	2.57	7.92	0.75	0.97	

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NUMBER	Station	Station	Points	"A" (Acres)	"C"	(years)	(in/hr)	Q(des)-Q (cfs)	cfs	(