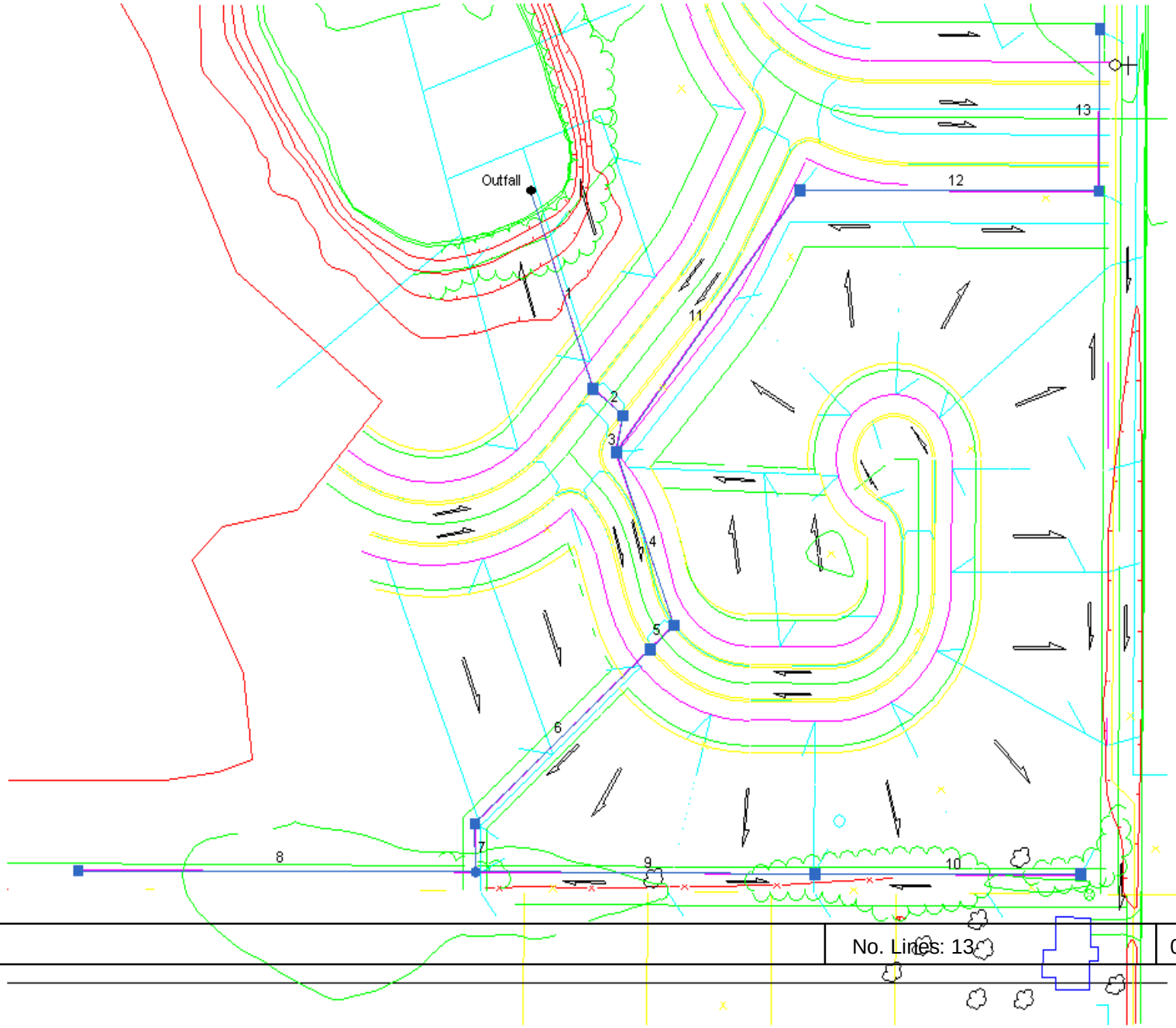
Hydraflow Plan View



sws2_RW	No. Lines: 13	04-23-2007

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1		17.40	36 c	164.6	1250.00	1250.49	0.298	1251.88	1252.06	n/a	1252.15 i	End
2		15.90	36 c	33.1	1250.49	1250.59	0.302	1252.15	1252.18	0.37	1252.55	1
3		14.40	36 c	29.4	1250.59	1250.68	0.307	1252.68	1252.69	0.19	1252.88	2
4		9.90	24 c	144.3	1251.68	1252.11	0.298	1253.04	1253.47	n/a	1253.56 i	3
5		8.25	24 c	27.9	1252.11	1252.20	0.322	1253.56	1253.60	0.10	1253.69	4
6		6.60	24 c	203.6	1252.20	1252.81	0.300	1253.82	1254.01	0.21	1254.22	5
7		4.40	18 c	37.7	1253.31	1253.42	0.291	1254.30	1254.41	n/a	1254.43 i	6
8		2.30	15 c	342.9	1253.67	1254.79	0.327	1254.43	1255.48	n/a	1255.57 i	7
9		2.10	15 c	292.9	1253.67	1254.62	0.324	1254.43	1255.27	n/a	1255.38 i	7
10		1.30	15 c	229.6	1254.62	1255.37	0.327	1255.38	1255.85	n/a	1255.97 i	9
11		3.60	18 c	259.1	1252.18	1252.96	0.301	1253.04	1253.82	n/a	1253.87 i	3
12		3.00	15 c	258.4	1253.21	1254.05	0.325	1254.07	1254.91	n/a	1254.93 i	11
13		1.90	15 c	126.8	1254.05	1254.46	0.323	1254.93	1255.12	n/a	1255.13 i	12

sws2_RW | Number of lines: 13 | Run Date: 04-23-2007

NOTES: c = cir; e = ellip; b = box; Return period = 2 Yrs. ; i - Inlet control.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q byp (cfs)	Junc type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp line No
							Ht (in)	L (ft)	area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1		1.50*	0.00	1.50	0.00	Curb	6.0	10.00	0.00	0.00	0.00	Sag	2.00	0.080	0.030	0.000	0.23	4.36	0.30	4.36	2.00	Off
2		1.50*	0.00	1.50	0.00	Curb	6.0	10.00	0.00	0.00	0.00	Sag	2.00	0.080	0.030	0.000	0.23	4.36	0.30	4.36	2.00	Off
3		0.90*	0.00	0.90	0.00	DrGrt	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.030	0.030	0.000	0.09	7.69	0.09	7.69	0.00	Off
4		1.65*	0.00	1.65	0.00	Curb	6.0	10.00	0.00	0.00	0.00	Sag	2.00	0.080	0.030	0.000	0.24	4.64	0.31	4.64	2.00	Off
5		1.65*	0.00	1.65	0.00	Curb	6.0	10.00	0.00	0.00	0.00	Sag	2.00	0.080	0.030	0.000	0.24	4.64	0.31	4.64	2.00	Off
6		2.20*	0.00	2.20	0.00	DrGrt	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.030	0.030	0.000	0.16	12.33	0.16	12.33	0.00	Off
7		0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.00	Off
8		2.30*	0.00	2.30	0.00	DrGrt	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.030	0.030	0.000	0.16	12.64	0.16	12.64	0.00	Off
9		0.80*	0.00	0.80	0.00	DrGrt	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.030	0.030	0.000	0.08	7.26	0.08	7.26	0.00	Off
10		1.30*	0.00	1.30	0.00	DrGrt	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.030	0.030	0.000	0.11	9.28	0.11	9.28	0.00	Off
11		0.60*	0.00	0.60	0.00	DrGrt	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.030	0.030	0.000	0.07	6.34	0.07	6.34	0.00	Off
12		1.10*	0.00	1.10	0.00	DrGrt	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.030	0.030	0.000	0.10	8.51	0.10	8.51	0.00	Off
13		1.90*	0.00	1.90	0.00	DrGrt	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.030	0.030	0.000	0.14	11.37	0.14	11.37	0.00	Off

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NOTES: Inlet N-Values = 0.016 ; Intensity = 69.87 / (Inlet time + 13.10) ^ 0.87; Return period = 2 Yrs. ; * Indicates Known Q added

Hydraulic Grade Line Computations

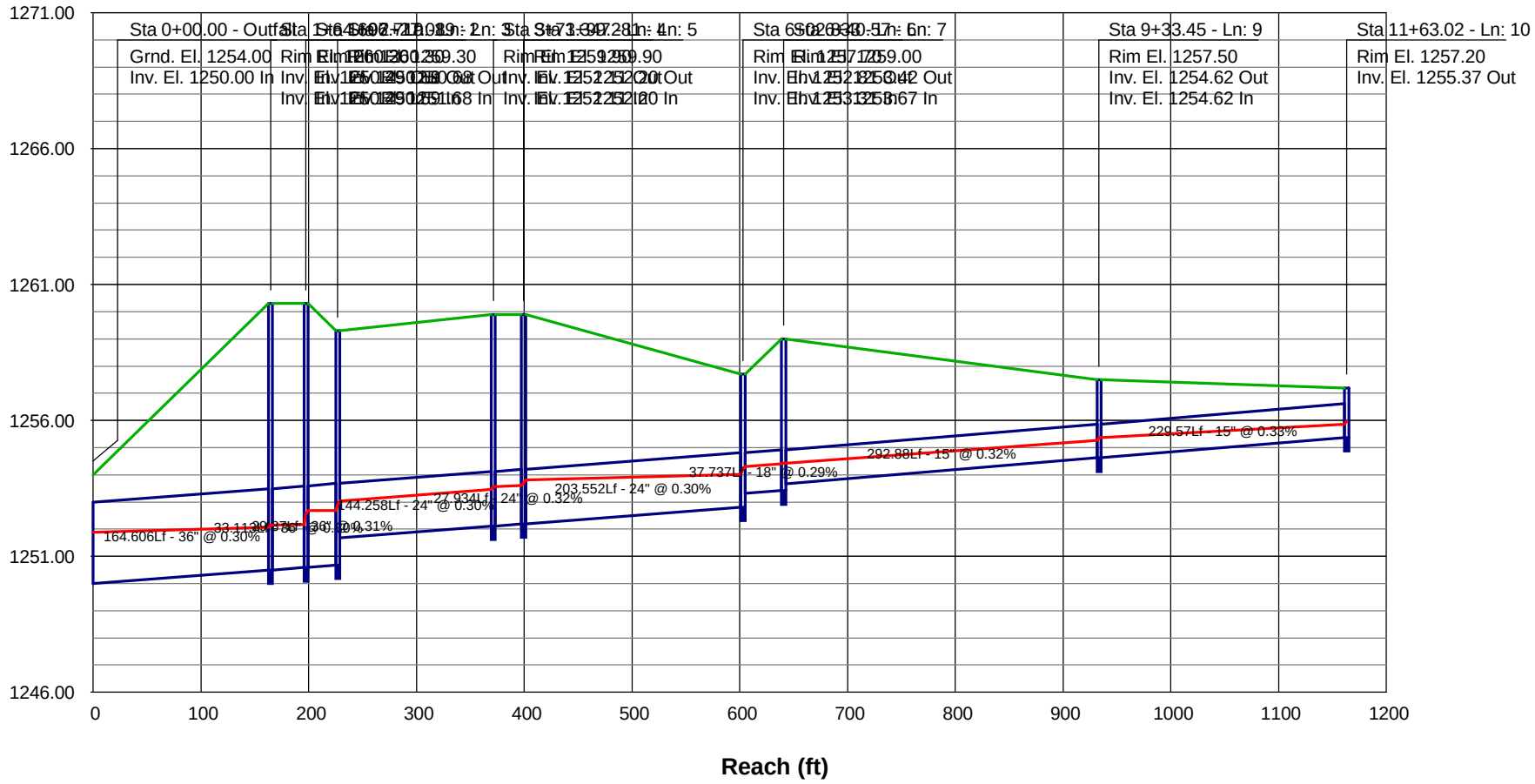
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	36	17.40	1250.00	1251.88	1.88	4.66	3.73	0.22	1252.10	n/a	165	1250.49	1252.06	1.57	3.74	4.65	0.34	1252.40i	n/a	n/a	-0.037	0.89	n/a
2	36	15.90	1250.49	1252.15	1.66	4.01	3.96	0.24	1252.39	0.163	33.1	1250.59	1252.18	1.59	3.81	4.17	0.27	1252.45	0.186	0.174	0.058	1.35	0.37
3	36	14.40	1250.59	1252.68	2.09	5.26	2.74	0.12	1252.80	0.067	29.4	1250.68	1252.69	2.01	5.03	2.86	0.13	1252.82	0.075	0.071	0.021	1.50	0.19
4	24	9.90	1251.68	1253.04	1.36*	2.27	4.37	0.30	1253.33	n/a	144	1252.11	1253.47	1.36	2.27	4.36	0.30	1253.76i	n/a	n/a	0.134	1.41	n/a
5	24	8.25	1252.11	1253.56	1.45	2.44	3.39	0.18	1253.74	0.174	27.9	1252.20	1253.60	1.40	2.34	3.52	0.19	1253.79	0.191	0.183	0.051	0.50	0.10
6	24	6.60	1252.20	1253.82	1.62	2.72	2.43	0.09	1253.91	0.087	204	1252.81	1254.01	1.20	1.97	3.34	0.17	1254.19	0.187	0.137	0.279	1.19	0.21
7	18	4.40	1253.31	1254.30	0.99*	1.24	3.54	0.20	1254.50	n/a	37.7	1253.42	1254.41	0.99	1.24	3.55	0.20	1254.61i	n/a	n/a	-0.087	1.00	n/a
8	15	2.30	1253.67	1254.43	0.76	0.78	2.97	0.14	1254.56	n/a	343	1254.79	1255.48	0.69	0.70	3.29	0.17	1255.65i	n/a	n/a	0.922	1.00	n/a
9	15	2.10	1253.67	1254.43	0.76	0.78	2.71	0.11	1254.54	n/a	293	1254.62	1255.27	0.65	0.64	3.28	0.17	1255.43i	n/a	n/a	0.726	0.50	n/a
10	15	1.30	1254.62	1255.38	0.76	0.78	1.67	0.04	1255.42	n/a	230	1255.37	1255.85	0.48	0.44	2.97	0.14	1255.99i	n/a	n/a	0.431	1.00	n/a
11	18	3.60	1252.18	1253.04	0.86*	1.05	3.44	0.18	1253.22	n/a	259	1252.96	1253.82	0.86	1.05	3.44	0.18	1254.00i	n/a	n/a	0.596	1.24	n/a
12	15	3.00	1253.21	1254.07	0.86*	0.90	3.34	0.17	1254.24	n/a	258	1254.05	1254.91	0.86	0.90	3.35	0.17	1255.08i	n/a	n/a	0.665	1.50	n/a
13	15	1.90	1254.05	1254.93	0.88	0.92	2.05	0.07	1255.00	n/a	127	1254.46	1255.12	0.66	0.66	2.87	0.13	1255.25i	n/a	n/a	0.127	1.00	n/a

sws2_RW | Number of lines: 13 | Run Date: 04-23-2007

Notes: * Normal depth assumed.

Storm Sewer Profile

Proj. file: sws2_2.stm



Storm Sewer Profile

Proj. file: sws2_2.stm