Storm Sewer Inventory Report

SCM 1A 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	52.749	-0.892	DrGrt	0.00	0.26	0.60	10.0	349.00	7.20	352.80	30	Cir	0.013	1.15	358.45	Pipe - (444)
2	1	125.000	-46.452	DrGrt	0.00	0.40	0.60	10.0	353.00	0.56	353.70	30	Cir	0.013	0.86	361.06	Pipe - (443)
3	2	177.766	31.266	DrGrt	0.00	0.33	0.60	10.0	353.90	0.51	354.80	30	Cir	0.013	0.50	362.54	Pipe - (442)
4	3	260.092	0.417	DrGrt	0.00	0.47	0.60	10.0	355.00	0.50	356.30	30	Cir	0.013	0.54	362.99	Pipe - (441)
5	4	155.941	18.185	Comb	0.00	0.11	0.60	10.0	356.50	0.50	357.28	30	Cir	0.013	2.02	362.55	Pipe - (440)
6	5	86.389	90.703	Comb	0.00	0.05	0.60	10.0	357.83	2.95	360.38	24	Cir	0.013	1.13	365.47	Pipe - (447)
7	6	43.841	45.000	Comb	0.00	0.05	0.60	10.0	360.58	0.50	360.80	24	Cir	0.013	1.13	367.61	Pipe - (446)
8	7	28.000	-45.000	Comb	0.00	0.09	0.60	10.0	361.00	0.64	361.18	24	Cir	0.013	1.13	367.61	Pipe - (453)
9	8	43.841	-45.000	Comb	0.00	0.16	0.60	10.0	361.37	0.52	361.60	24	Cir	0.013	1.62	367.82	Pipe - (452)
10	9	28.018	-47.046	Comb	0.00	0.08	0.60	10.0	362.56	0.50	362.70	18	Cir	0.013	1.11	367.79	Pipe - (24)
11	10	43.139	-43.893	Comb	0.00	0.31	0.60	10.0	362.90	0.51	363.12	18	Cir	0.013	1.61	367.57	Pipe - (15)
12	11	106.050	45.939	Comb	0.00	0.07	0.60	10.0	363.40	0.50	363.93	18	Cir	0.013	0.75	369.08	Pipe - (14)
13	12	60.787	26.463	MH	0.00	0.00	0.00	10.0	364.20	0.51	364.51	15	Cir	0.013	1.00	370.30	Pipe - (11) (1)
14	13	57.233	-1.964	Comb	0.00	0.19	0.60	10.0	366.48	1.15	367.14	15	Cir	0.013	1.41	371.16	Pipe - (11)
15	14	26.000	-63.106	Comb	0.00	0.21	0.60	10.0	367.34	0.96	367.59	15	Cir	0.013	1.00	371.41	Pipe - (67)
16	14	161.000	35.067	Comb	0.00	0.20	0.60	10.0	367.34	4.36	374.36	15	Cir	0.013	1.00	378.18	Pipe - (489)
17	9	111.287	42.545	Comb	0.00	0.26	0.60	10.0	361.80	0.50	362.36	24	Cir	0.013	1.50	372.84	Pipe - (451)
18	17	28.000	-97.237	Comb	0.00	0.11	0.60	10.0	362.56	0.50	362.70	24	Cir	0.013	0.50	372.72	Pipe - (445)
19	18	76.222	-6.841	DrGrt	0.00	1.40	0.60	10.0	363.51	0.51	363.90	15	Cir	0.013	1.00	367.36	Pipe - (476)
20	13	31.121	85.999	DrGrt	0.00	0.14	0.60	10.0	364.71	0.51	364.87	15	Cir	0.013	1.00	368.69	Pipe - (477)
21	11	26.015	-41.858	Comb	0.00	0.25	0.60	10.0	363.56	0.50	363.69	15	Cir	0.013	1.00	367.51	Pipe - (68)
22	5	28.000	0.703	Comb	0.00	0.16	0.60	10.0	358.59	0.50	358.73	15	Cir	0.013	1.00	362.55	Pipe - (439)
23	End	158.125	14.099	Comb	0.00	0.30	0.60	10.0	347.00	4.23	353.69	30	Cir	0.013	2.02	361.92	Pipe - (71)

Project File: SCM 1A Storm Network.stm

Number of lines: 47

Date: 4/11/2025

Storm Sewer Inventory Report

SCM 1A 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	102.646	78.324	Comb	0.00	0.02	0.60	10.0	354.24	0.50	354.75	24	Cir	0.013	1.68	363.01	Pipe - (77)
25	24	28.000	-90.230	Comb	0.00	0.05	0.60	10.0	358.83	1.29	359.19	18	Cir	0.013	1.13	363.01	Pipe - (115)
26	25	43.841	45.001	Comb	0.00	0.34	0.60	10.0	359.39	0.50	359.61	18	Cir	0.013	1.11	364.28	Pipe - (76)
27	26	28.006	43.837	Comb	0.00	0.40	0.60	10.0	359.81	0.50	359.95	18	Cir	0.013	1.50	364.29	Pipe - (75)
28	27	238.741	-95.835	Comb	0.00	0.41	0.60	10.0	360.15	3.41	368.30	18	Cir	0.013	1.03	372.43	Pipe - (101)
29	28	45.226	-39.872	Comb	0.00	0.27	0.60	10.0	368.57	2.83	369.85	15	Cir	0.013	1.00	373.68	Pipe - (103)
30	23	28.983	5.477	Comb	0.00	0.47	0.60	10.0	354.77	0.86	355.02	24	Cir	0.013	1.50	361.89	Pipe - (70)
31	30	81.813	-18.633	MH	0.00	0.00	0.00	10.0	355.22	0.51	355.64	24	Cir	0.013	0.43	363.66	Pipe - (510)
32	31	72.154	-22.294	DrGrt	0.00	0.59	0.60	10.0	356.18	0.51	356.55	18	Cir	0.013	0.50	360.46	Pipe - (509)
33	32	96.135	-1.660	DrGrt	0.00	0.94	0.60	10.0	356.75	1.19	357.89	18	Cir	0.013	0.50	361.60	Pipe - (508)
34	33	202.630	10.144	DrGrt	0.00	0.81	0.60	10.0	358.16	1.65	361.50	15	Cir	0.013	1.00	364.94	Pipe - (507)
35	30	88.766	-94.067	Comb	0.00	0.21	0.60	10.0	357.75	0.77	358.43	15	Cir	0.013	0.79	362.45	Pipe - (69)
36	35	121.131	28.141	Comb	0.00	0.38	0.60	10.0	358.63	0.95	359.78	15	Cir	0.013	1.21	363.80	Pipe - (61)
37	36	30.909	-46.977	Comb	0.00	0.43	0.60	10.0	359.98	0.87	360.25	15	Cir	0.013	1.00	364.07	Pipe - (72)
38	36	217.760	28.893	Comb	0.00	0.26	0.60	10.0	359.98	1.08	362.34	15	Cir	0.013	1.00	366.16	Pipe - (536)
39	24	43.841	44.771	Comb	0.00	0.02	0.60	10.0	355.57	0.50	355.79	15	Cir	0.013	1.14	363.10	Pipe - (105)
40	39	28.003	-45.813	Comb	0.00	0.14	0.60	10.0	355.99	0.50	356.13	15	Cir	0.013	1.50	363.11	Pipe - (116)
41	40	111.664	90.556	Comb	0.00	0.20	0.60	10.0	356.33	0.50	356.89	15	Cir	0.013	1.50	361.19	Pipe - (104)
42	41	28.509	88.780	Comb	0.00	0.13	0.60	10.0	357.09	0.53	357.24	15	Cir	0.013	1.00	361.06	Pipe - (79)
43	28	211.860	-2.905	MH	0.00	0.00	0.00	10.0	368.57	2.87	374.66	15	Cir	0.013	0.34	379.28	Pipe - (590)
44	43	146.606	-16.815	Comb	0.00	0.29	0.60	10.0	374.86	0.50	375.60	15	Cir	0.013	1.50	379.82	Pipe - (589)
45	44	45.582	38.390	Comb	0.00	0.05	0.60	10.0	376.00	3.42	377.56	15	Cir	0.013	1.10	381.73	Pipe - (588)
46	45	28.000	-43.358	Comb	0.00	0.16	0.60	10.0	377.76	0.50	377.90	15	Cir	0.013	1.00	381.73	Pipe - (587)

Project File: SCM 1A Storm Network.stm

Number of lines: 47

Date: 4/11/2025

Storm Sewer Inventory Report

SCM 1A 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	44	28.000	-91.856	Comb	0.00	0.05	0.60	10.0	375.80	0.71	376.00	15	Cir	0.013	1.00	379.82	Pipe - (592)

Structure Report

SCM 1A 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 121	DropGrate	358.45	Rect	3.00	3.00	30	Cir	352.80	30	Cir	353.00
2	YI 122	DropGrate	361.06	Rect	3.00	3.00	30	Cir	353.70	30	Cir	353.90
3	YI 123	DropGrate	362.54	Rect	3.00	3.00	30	Cir	354.80	30	Cir	355.00
4	YI 124	DropGrate	362.99	Rect	3.00	3.00	30	Cir	356.30	30	Cir	356.50
5	CB 125	Combination	362.55	Rect	4.00	4.00	30	Cir	357.28	24 15	Cir Cir	357.83 358.59
6	CB 126	Combination	365.47	Rect	4.00	4.00	24	Cir	360.38	24	Cir	360.58
7	CB 127	Combination	367.61	Rect	4.00	4.00	24	Cir	360.80	24	Cir	361.00
8	CB 128	Combination	367.61	Rect	4.00	4.00	24	Cir	361.18	24	Cir	361.37
9	CB 129	Combination	367.82	Rect	4.00	4.00	24	Cir	361.60	18 24	Cir Cir	362.56 361.80
10	CB 130	Combination	367.79	Rect	4.00	4.00	18	Cir	362.70	18	Cir	362.90
11	CB 131	Combination	367.57	Rect	4.00	4.00	18	Cir	363.12	18 15	Cir Cir	363.40 363.56
12	CB 132	Combination	369.08	Rect	4.00	4.00	18	Cir	363.93	15	Cir	364.20
13	JB 133	Manhole	370.30	Cir	4.00	4.00	15	Cir	364.51	15 15	Cir Cir	366.48 364.71
14	CB 134	Combination	371.16	Rect	4.00	4.00	15	Cir	367.14	15 15	Cir Cir	367.34 367.34
15	CB 134A	Combination	371.41	Rect	4.00	4.00	15	Cir	367.59			
16	CB 135	Combination	378.18	Rect	4.00	4.00	15	Cir	374.36			
17	CB 136	Combination	372.84	Rect	4.00	4.00	24	Cir	362.36	24	Cir	362.56
18	CB 136A	Combination	372.72	Rect	4.00	4.00	24	Cir	362.70	15	Cir	363.51
19	YI 136B	DropGrate	367.36	Rect	3.00	3.00	15	Cir	363.90			
20	YI 133A	DropGrate	368.69	Rect	3.00	3.00	15	Cir	364.87			

Structure Report

SCM 1A 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	CB 131A	Combination	367.51	Rect	4.00	4.00	15	Cir	363.69			
22	CB 125A	Combination	362.55	Rect	4.00	4.00	15	Cir	358.73			
23	CB 101	Combination	361.92	Rect	4.00	4.00	30	Cir	353.69	24 24	Cir Cir	354.24 354.77
24	CB 102	Combination	363.01	Rect	4.00	4.00	24	Cir	354.75	18 15	Cir Cir	358.83 355.57
25	CB 106	Combination	363.01	Rect	4.00	4.00	18	Cir	359.19	18	Cir	359.39
26	CB 107	Combination	364.28	Rect	4.00	4.00	18	Cir	359.61	18	Cir	359.81
27	CB 108	Combination	364.29	Rect	4.00	4.00	18	Cir	359.95	18	Cir	360.15
28	CB 109	Combination	372.43	Rect	4.00	4.00	18	Cir	368.30	15 15	Cir Cir	368.57 368.57
29	CB 109A	Combination	373.68	Rect	4.00	4.00	15	Cir	369.85			
30	CB 113	Combination	361.89	Cir	4.00	4.00	24	Cir	355.02	24 15	Cir Cir	355.22 357.75
31	JB 113A	Manhole	363.66	Rect	4.00	4.00	24	Cir	355.64	18	Cir	356.18
32	YI 113B	DropGrate	360.46	Rect	3.00	3.00	18	Cir	356.55	18	Cir	356.75
33	YI 113C	DropGrate	361.60	Rect	3.00	3.00	18	Cir	357.89	15	Cir	358.16
34	YI 113D	DropGrate	364.94	Rect	3.00	3.00	15	Cir	361.50			
35	CB 114	Combination	362.45	Rect	4.00	4.00	15	Cir	358.43	15	Cir	358.63
36	CB 115	Combination	363.80	Rect	4.00	4.00	15	Cir	359.78	15 15	Cir Cir	359.98 359.98
37	CB 115A	Combination	364.07	Rect	4.00	4.00	15	Cir	360.25			
38	CB 116	Combination	366.16	Rect	4.00	4.00	15	Cir	362.34			
39	CB 103	Combination	363.10	Rect	4.00	4.00	15	Cir	355.79	15	Cir	355.99
40	CB 104	Combination	363.11	Rect	4.00	4.00	15	Cir	356.13	15	Cir	356.33

Structure Report

SCM 1A 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
41	CB 105	Combination	361.19	Rect	4.00	4.00	15	Cir	356.89	15	Cir	357.09
42	CB 105A	Combination	361.06	Rect	4.00	4.00	15	Cir	357.24			
43	JB 110	Manhole	379.28	Cir	4.00	4.00	15	Cir	374.66	15	Cir	374.86
44	CB 111	Combination	379.82	Rect	4.00	4.00	15	Cir	375.60	15 15	Cir Cir	376.00 375.80
45	CB 112	Combination	381.73	Rect	4.00	4.00	15	Cir	377.56	15	Cir	377.76
46	CB 112A	Combination	381.73	Rect	4.00	4.00	15	Cir	377.90			
47	CB 111A	Combination	379.82	Rect	4.00	4.00	15	Cir	376.00			

Project File: SCM 1A Storm Network.stm | Number of Structures: 47 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 1A 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (444)	15.86	30	Cir	52.749	349.00	352.80	7.204	351.50	354.14	n/a	354.14 j	End	DropGrate
2	Pipe - (443)	15.23	30	Cir	125.000	353.00	353.70	0.560	354.24	355.02	n/a	355.02	1	DropGrate
3	Pipe - (442)	14.24	30	Cir	177.766	353.90	354.80	0.506	355.13	356.07	n/a	356.07	2	DropGrate
4	Pipe - (441)	13.54	30	Cir	260.092	355.00	356.30	0.500	356.20	357.54	0.26	357.54	3	DropGrate
5	Pipe - (440)	12.24	30	Cir	155.941	356.50	357.28	0.500	357.63	358.45	0.92	358.45	4	Combination
6	Pipe - (447)	11.44	24	Cir	86.389	357.83	360.38	2.952	358.57	361.59	n/a	361.59	5	Combination
7	Pipe - (446)	11.33	24	Cir	43.841	360.58	360.80	0.502	361.82	362.04	0.54	362.58	6	Combination
8	Pipe - (453)	11.20	24	Cir	28.000	361.00	361.18	0.643	362.58	362.38	n/a	362.38	7	Combination
9	Pipe - (452)	10.96	24	Cir	43.841	361.37	361.60	0.525	362.57	362.80	0.79	363.58	8	Combination
10	Pipe - (24)	4.72	18	Cir	28.018	362.56	362.70	0.500	363.58	363.63	0.29	363.92	9	Combination
11	Pipe - (15)	4.49	18	Cir	43.139	362.90	363.12	0.510	363.92	364.00	0.44	364.43	10	Combination
12	Pipe - (14)	2.71	18	Cir	106.050	363.40	363.93	0.500	364.43	364.58	0.16	364.74	11	Combination
13	Pipe - (11) (1)	2.49	15	Cir	60.787	364.20	364.51	0.510	364.86	365.16	0.23	365.39	12	Manhole
14	Pipe - (11)	2.04	15	Cir	57.233	366.48	367.14	1.153	366.94	367.71	0.31	367.71	13	Combination
15	Pipe - (67)	0.74	15	Cir	26.000	367.34	367.59	0.962	367.71	367.93	n/a	367.93 j	14	Combination
16	Pipe - (489)	0.70	15	Cir	161.000	367.34	374.36	4.360	367.71	374.69	n/a	374.69 j	14	Combination
17	Pipe - (451)	6.15	24	Cir	111.287	361.80	362.36	0.503	363.58	363.24	n/a	363.24	9	Combination
18	Pipe - (445)	5.26	24	Cir	28.000	362.56	362.70	0.500	363.35	363.51	n/a	363.51	17	Combination
19	Pipe - (476)	4.93	15	Cir	76.222	363.51	363.90	0.512	364.64	365.03	0.28	365.31	18	DropGrate
20	Pipe - (477)	0.49	15	Cir	31.121	364.71	364.87	0.514	365.39	365.39	0.02	365.41	13	DropGrate
21	Pipe - (68)	0.88	15	Cir	26.015	363.56	363.69	0.500	364.43	364.44	0.02	364.46	11	Combination
22	Pipe - (439)	0.56	15	Cir	28.000	358.59	358.73	0.500	358.89	359.03	0.10	359.13	5	Combination
23	Pipe - (71)	21.40	30	Cir	158.125	347.00	353.69	4.231	349.50	355.26	n/a	355.26 j	End	Combination
24	Pipe - (77)	7.91	24	Cir	102.646	354.24	354.75	0.497	355.26	355.75	n/a	355.75 j	23	Combination

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

SCM 1A 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
25	Pipe - (115)	6.33	18	Cir	28.000	358.83	359.19	1.286	359.61	360.16	n/a	360.16	24	Combination
26	Pipe - (76)	6.20	18	Cir	43.841	359.39	359.61	0.502	360.44	360.66	0.38	361.04	25	Combination
27	Pipe - (75)	5.15	18	Cir	28.006	359.81	359.95	0.500	361.04	361.08	0.30	361.38	26	Combination
28	Pipe - (101)	4.03	18	Cir	238.741	360.15	368.30	3.414	361.38	369.07	n/a	369.07 j	27	Combination
29	Pipe - (103)	0.95	15	Cir	45.226	368.57	369.85	2.830	369.07	370.23	n/a	370.23 j	28	Combination
30	Pipe - (70)	13.34	24	Cir	28.983	354.77	355.02	0.863	355.93	356.33	0.87	356.33	23	Combination
31	Pipe - (510)	7.85	24	Cir	81.813	355.22	355.64	0.513	356.33	356.64	n/a	356.64 j	30	Manhole
32	Pipe - (509)	7.92	18	Cir	72.154	356.18	356.55	0.513	357.50	357.87	0.18	358.05	31	DropGrate
33	Pipe - (508)	6.00	18	Cir	96.135	356.75	357.89	1.186	358.05	358.83	n/a	358.83 j	32	DropGrate
34	Pipe - (507)	2.85	15	Cir	202.630	358.16	361.50	1.648	358.83	362.18	n/a	362.18	33	DropGrate
35	Pipe - (69)	4.22	15	Cir	88.766	357.75	358.43	0.766	358.55	359.26	0.29	359.26	30	Combination
36	Pipe - (61)	3.57	15	Cir	121.131	358.63	359.78	0.949	359.30	360.54	0.39	360.54	35	Combination
37	Pipe - (72)	1.52	15	Cir	30.909	359.98	360.25	0.874	360.54	360.74	n/a	360.74 j	36	Combination
38	Pipe - (536)	0.92	15	Cir	217.760	359.98	362.34	1.084	360.54	362.72	n/a	362.72 j	36	Combination
39	Pipe - (105)	1.66	15	Cir	43.841	355.57	355.79	0.502	356.09	356.31	n/a	356.52 j	24	Combination
40	Pipe - (116)	1.60	15	Cir	28.003	355.99	356.13	0.500	356.52	356.63	0.28	356.91	39	Combination
41	Pipe - (104)	1.15	15	Cir	111.664	356.33	356.89	0.502	356.91	357.31	n/a	357.31 j	40	Combination
42	Pipe - (79)	0.46	15	Cir	28.509	357.09	357.24	0.526	357.35	357.51	n/a	357.60 j	41	Combination
43	Pipe - (590)	1.86	15	Cir	211.860	368.57	374.66	2.875	369.07	375.20	0.07	375.20	28	Manhole
44	Pipe - (589)	1.90	15	Cir	146.606	374.86	375.60	0.505	375.42	376.16	0.30	376.46	43	Combination
45	Pipe - (588)	0.74	15	Cir	45.582	376.00	377.56	3.422	376.46	377.90	n/a	377.90 j	44	Combination
46	Pipe - (587)	0.56	15	Cir	28.000	377.76	377.90	0.500	378.06	378.20	0.10	378.30	45	Combination
47	Pipe - (592)	0.18	15	Cir	28.000	375.80	376.00	0.714	376.46	376.16	n/a	376.16	44	Combination

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

SCM 1A 10-YEAR

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	YI 121	0.92	0.00	0.43	0.49	DrGrt	0.0	0.00	0.00	2.00	2.00	0.010	2.00	0.020	0.020	0.013	0.09	11.10	0.09	11.10	0.0	Off
2	YI 122	1.41	0.66	2.06	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.19	21.47	0.19	21.47	0.0	Off
3	YI 123	1.16	0.00	0.51	0.66	DrGrt	0.0	0.00	0.00	2.00	2.00	0.010	2.00	0.020	0.020	0.013	0.10	12.10	0.10	12.10	0.0	2
4	YI 124	1.66	0.00	1.66	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.17	18.81	0.17	18.81	0.0	3
5	CB 125	0.39	0.00	0.38	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.14	3.03	0.03	0.44	0.0	Off
6	CB 126	0.18	0.00	0.18	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.11	1.75	0.00	0.00	0.0	5
7	CB 127	0.18	0.00	0.18	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.11	1.75	0.00	0.00	0.0	6
8	CB 128	0.32	0.00	0.32	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.13	2.63	0.13	2.63	0.0	Off
9	CB 129	0.56	0.17	0.67	0.07	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.17	4.68	0.07	1.21	0.0	Off
10	CB 130	0.28	0.01	0.29	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.13	2.33	0.00	0.00	0.0	11
11	CB 131	1.09	0.00	0.92	0.18	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.20	5.84	0.11	1.75	0.0	22
12	CB 132	0.25	0.06	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.13	2.50	0.01	0.19	0.0	11
13	JB 133	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
14	CB 134	0.67	0.06	0.66	0.06	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.17	4.67	0.07	1.20	0.0	12
15	CB 134A	0.74	0.00	0.67	0.07	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.17	4.72	0.07	1.22	0.0	21
16	CB 135	0.70	0.00	0.65	0.06	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.17	4.58	0.07	1.16	0.0	14
17	CB 136	0.92	0.15	0.90	0.17	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.20	5.77	0.10	1.72	0.0	9
18	CB 136A	0.39	0.03	0.41	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.14	3.21	0.03	0.53	0.0	10
19	YI 136B	4.93	0.00	4.93	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.35	36.81	0.35	36.81	0.0	Off
20	YI 133A	0.49	0.00	0.49	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.07	9.49	0.07	9.49	0.0	Off
21	CB 131A	0.88	0.07	0.82	0.13	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.42	0.09	1.55	0.0	22
22	CB 125A	0.56	0.30	0.76	0.10	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.18	5.16	0.09	1.43	0.0	Off
23	CB 101	1.06	0.34	1.40	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.21	6.51	0.21	6.51	0.0	Off

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

SCM 1A 10-YEAR

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)	
24	CB 102	0.07	0.00	0.07	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.07	1.24	0.00	0.00	0.0	23
25	CB 106	0.18	0.26	0.43	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.15	3.34	0.04	0.60	0.0	30
26	CB 107	1.20	0.13	1.06	0.26	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.21	6.45	0.12	2.10	0.0	25
27	CB 108	1.41	0.31	1.29	0.43	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.23	7.30	0.15	3.28	0.0	40
28	CB 109	1.44	0.00	1.13	0.31	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.21	6.72	0.13	2.50	0.0	27
29	CB 109A	0.95	0.00	0.82	0.13	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.43	0.09	1.56	0.0	26
30	CB 113	1.66	0.17	1.83	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.24	7.99	0.24	7.99	0.0	Off
31	JB 113A	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
32	YI 113B	2.08	3.78	5.85	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.39	41.02	0.39	41.02	0.0	Off
33	YI 113C	3.31	1.89	1.43	3.78	DrGrt	0.0	0.00	0.00	2.00	2.00	0.010	2.00	0.020	0.020	0.013	0.19	21.10	0.19	21.10	0.0	32
34	YI 113D	2.85	0.00	0.96	1.89	DrGrt	0.0	0.00	0.00	2.00	2.00	0.010	2.00	0.020	0.020	0.013	0.15	17.10	0.15	17.10	0.0	33
35	CB 114	0.74	0.32	0.89	0.16	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.74	0.10	1.70	0.0	30
36	CB 115	1.34	0.12	1.14	0.32	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.21	6.75	0.13	2.53	0.0	35
37	CB 115A	1.52	0.00	1.18	0.34	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.22	6.88	0.13	2.71	0.0	23
38	CB 116	0.92	0.00	0.80	0.12	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.32	0.09	1.51	0.0	36
39	CB 103	0.07	0.00	0.07	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.07	1.24	0.00	0.00	0.0	42
40	CB 104	0.49	0.43	0.80	0.12	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.34	0.09	1.52	0.0	41
41	CB 105	0.70	0.12	0.73	0.09	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.18	5.02	0.08	1.36	0.0	Off
42	CB 105A	0.46	0.00	0.45	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.15	3.45	0.04	0.64	0.0	Off
43	JB 110	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
44	CB 111	1.02	0.00	0.87	0.15	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.64	0.10	1.65	0.0	17
45	CB 112	0.18	0.00	0.18	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.11	1.75	0.00	0.00	0.0	44
46	CB 112A	0.56	0.00	0.54	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.16	3.98	0.05	0.89	0.0	18

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

SCM 1A 10-YEAR

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)	
47	CB 111A	0.18	0.00	0.18	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.11	1.75	0.00	0.00	0.0	17

Project File: SCM 1A Storm Network.stm

Number of lines: 47

Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

SCM 1A 10-YEAR

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	30	15.86	349.00	351.50	2.50	2.69	3.23	0.16	351.66	0.150	52.749	352.80	354.14 j	1.34**	2.69	5.90	0.54	354.68	0.470	0.310	n/a	1.15	0.62
2	30	15.23	353.00	354.24	1.24*	2.44	6.24	0.53	354.77	0.000	125.000	353.70	355.02	1.32**	2.62	5.82	0.53	355.54	0.000	0.000	n/a	0.86	n/a
3	30	14.24	353.90	355.13	1.23*	2.41	5.90	0.50	355.64	0.000	177.766	354.80	356.07	1.27**	2.50	5.69	0.50	356.57	0.000	0.000	n/a	0.50	n/a
4	30	13.54	355.00	356.20	1.20*	2.33	5.80	0.49	356.69	0.000	260.092	356.30	357.54	1.24**	2.42	5.59	0.49	358.02	0.000	0.000	n/a	0.54	0.26
5	30	12.24	356.50	357.63	1.13*	2.16	5.66	0.46	358.09	0.000	155.941	357.28	358.45	1.17**	2.26	5.41	0.46	358.91	0.000	0.000	n/a	2.02	0.92
6	24	11.44	357.83	358.57	0.74*	1.06	10.75	0.51	359.09	0.000	86.389	360.38	361.59	1.21**	1.99	5.74	0.51	362.11	0.000	0.000	n/a	1.13	n/a
7	24	11.33	360.58	361.82	1.24*	2.05	5.53	0.48	362.30	0.501	43.841	360.80	362.04	1.24	2.05	5.53	0.48	362.52	0.502	0.502	0.220	1.13	0.54
8	24	11.20	361.00	362.58	1.58	1.97	4.21	0.50	363.08	0.000	28.000	361.18	362.38	1.20**	1.97	5.69	0.50	362.88	0.000	0.000	n/a	1.13	n/a
9	24	10.96	361.37	362.57	1.20*	1.94	5.58	0.48	363.05	0.524	43.841	361.60	362.80	1.20**	1.96	5.59	0.49	363.28	0.525	0.525	0.230	1.62	0.79
10	18	4.72	362.56	363.58	1.02	1.28	3.68	0.21	363.79	0.309	28.018	362.70	363.63	0.93	1.16	4.08	0.26	363.89	0.401	0.355	0.099	1.11	0.29
11	18	4.49	362.90	363.92	1.02	1.28	3.50	0.19	364.11	0.280	43.139	363.12	364.00	0.88	1.07	4.19	0.27	364.27	0.441	0.361	0.156	1.61	0.44
12	18	2.71	363.40	364.43	1.03	1.30	2.08	0.07	364.50	0.098	106.050	363.93	364.58	0.65	0.73	3.72	0.21	364.79	0.448	0.273	0.290	0.75	0.16
13	15	2.49	364.20	364.86	0.66*	0.65	3.83	0.23	365.08	0.510	60.787	364.51	365.16	0.65	0.65	3.84	0.23	365.39	0.513	0.511	0.311	1.00	0.23
14	15	2.04	366.48	366.94	0.46*	0.42	4.91	0.22	367.16	0.000	57.233	367.14	367.71	0.57**	0.54	3.75	0.22	367.93	0.000	0.000	n/a	1.41	0.31
15	15	0.74	367.34	367.71	0.37	0.27	2.45	0.12	367.83	0.000	26.000	367.59	367.93 j	0.34**	0.27	2.78	0.12	368.05	0.000	0.000	n/a	1.00	0.12
16	15	0.70	367.34	367.71	0.37	0.26	2.33	0.12	367.83	0.000	161.000	374.36	374.69 j	0.33**	0.26	2.74	0.12	374.81	0.000	0.000	n/a	1.00	n/a
17	24	6.15	361.80	363.58	1.78	1.32	2.08	0.34	363.92	0.000	111.287	362.36	363.24	0.88**	1.32	4.64	0.34	363.57	0.000	0.000	n/a	1.50	n/a
18	24	5.26	362.56	363.35	0.79*	1.15	4.56	0.30	363.65	0.000	28.000	362.70	363.51	0.81**	1.19	4.42	0.30	363.81	0.000	0.000	n/a	0.50	n/a
19	15	4.93	363.51	364.64	1.13*	1.17	4.22	0.28	364.92	0.512	76.222	363.90	365.03	1.13	1.17	4.22	0.28	365.31	0.511	0.512	0.390	1.00	0.28
20	15	0.49	364.71	365.39	0.68	0.69	0.72	0.01	365.40	0.017	31.121	364.87	365.39	0.52	0.49	1.01	0.02	365.41	0.043	0.030	0.009	1.00	0.02
21	15	0.88	363.56	364.43	0.87	0.92	0.96	0.01	364.45	0.027	26.015	363.69	364.44	0.75	0.76	1.15	0.02	364.46	0.042	0.034	0.009	1.00	0.02
22	15	0.56	358.59	358.89	0.30*	0.22	2.53	0.10	358.99	0.499	28.000	358.73	359.03	0.30**	0.22	2.55	0.10	359.13	0.509	0.504	0.141	1.00	0.10

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 1A 10-YEAR

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)
23	30	21.40	347.00	349.50	2.50*	3.25	4.36	0.30	349.80	0.272	158.125	353.69	355.26 j	1.57**	3.25	6.59	0.68	355.94	0.525	0.399	n/a	2.02	1.36
24	24	7.91	354.24	355.26	1.02	1.57	4.90	0.39	355.66	0.000	102.646	354.75	355.75 j	1.00**	1.57	5.04	0.39	356.14	0.000	0.000	n/a	1.68	0.66
25	18	6.33	358.83	359.61	0.78*	0.93	6.84	0.42	360.03	0.000	28.000	359.19	360.16	0.97**	1.21	5.22	0.42	360.59	0.000	0.000	n/a	1.13	n/a
26	18	6.20	359.39	360.44	1.05*	1.32	4.71	0.34	360.78	0.502	43.841	359.61	360.66	1.05	1.32	4.71	0.35	361.00	0.502	0.502	0.220	1.11	0.38
27	18	5.15	359.81	361.04	1.23	1.55	3.32	0.17	361.21	0.241	28.006	359.95	361.08	1.13	1.43	3.60	0.20	361.28	0.285	0.263	0.074	1.50	0.30
28	18	4.03	360.15	361.38	1.23	0.91	2.59	0.30	361.69	0.000	238.741	368.30	369.07 j	0.77**	0.91	4.43	0.30	369.37	0.000	0.000	n/a	1.03	n/a
29	15	0.95	368.57	369.07	0.50	0.32	2.09	0.14	369.21	0.000	45.226	369.85	370.23 j	0.38**	0.32	2.99	0.14	370.37	0.000	0.000	n/a	1.00	n/a
30	24	13.34	354.77	355.93	1.16*	1.88	7.08	0.58	356.51	0.000	28.983	355.02	356.33	1.31**	2.19	6.10	0.58	356.91	0.000	0.000	n/a	1.50	0.87
31	24	7.85	355.22	356.33	1.11	1.56	4.37	0.39	356.73	0.000	81.813	355.64	356.64 j	1.00**	1.56	5.02	0.39	357.03	0.000	0.000	n/a	0.43	0.17
32	18	7.92	356.18	357.50	1.32*	1.64	4.82	0.36	357.86	0.513	72.154	356.55	357.87	1.32	1.65	4.81	0.36	358.23	0.512	0.513	0.370	0.50	0.18
33	18	6.00	356.75	358.05	1.30	1.17	3.69	0.41	358.45	0.000	96.135	357.89	358.83 j	0.94**	1.17	5.11	0.41	359.24	0.000	0.000	n/a	0.50	n/a
34	15	2.85	358.16	358.83	0.67	0.68	4.22	0.27	359.11	0.000	202.630	361.50	362.18	0.68**	0.68	4.20	0.27	362.45	0.000	0.000	n/a	1.00	n/a
35	15	4.22	357.75	358.55	0.80*	0.84	5.05	0.37	358.92	0.000	88.766	358.43	359.26	0.83**	0.87	4.87	0.37	359.63	0.000	0.000	n/a	0.79	0.29
36	15	3.57	358.63	359.30	0.67*	0.68	5.29	0.32	359.63	0.000	121.131	359.78	360.54	0.76**	0.78	4.56	0.32	360.87	0.000	0.000	n/a	1.21	0.39
37	15	1.52	359.98	360.54	0.56	0.44	2.83	0.18	360.72	0.000	30.909	360.25	360.74 j	0.49**	0.44	3.42	0.18	360.92	0.000	0.000	n/a	1.00	0.18
38	15	0.92	359.98	360.54	0.56	0.31	1.71	0.14	360.68	0.000	217.760	362.34	362.72 j	0.38**	0.31	2.95	0.14	362.85	0.000	0.000	n/a	1.00	0.14
39	15	1.66	355.57	356.09	0.52*	0.47	3.43	0.18	356.27	0.501	43.841	355.79	356.31 j	0.52**	0.48	3.44	0.18	356.49	0.505	0.503	0.221	1.14	0.21
40	15	1.60	355.99	356.52	0.53	0.46	3.23	0.16	356.68	0.438	28.003	356.13	356.63	0.50**	0.46	3.45	0.19	356.82	0.524	0.481	0.135	1.50	0.28
41	15	1.15	356.33	356.91	0.58	0.37	2.06	0.07	356.98	0.162	111.664	356.89	357.31 j	0.42**	0.37	3.16	0.15	357.47	0.525	0.344	n/a	1.50	0.23
42	15	0.46	357.09	357.35	0.26*	0.19	2.42	0.09	357.45	0.525	28.509	357.24	357.51 j	0.27**	0.19	2.41	0.09	357.60	0.515	0.520	0.148	1.00	0.09
43	15	1.86	368.57	369.07	0.50	0.46	4.08	0.21	369.27	0.000	211.860	374.66	375.20	0.54**	0.51	3.64	0.21	375.41	0.000	0.000	n/a	0.34	0.07
44	15	1.90	374.86	375.42	0.56*	0.53	3.56	0.20	375.62	0.504	146.606	375.60	376.16	0.56	0.53	3.57	0.20	376.36	0.506	0.505	0.740	1.50	0.30

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 1A 10-YEAR

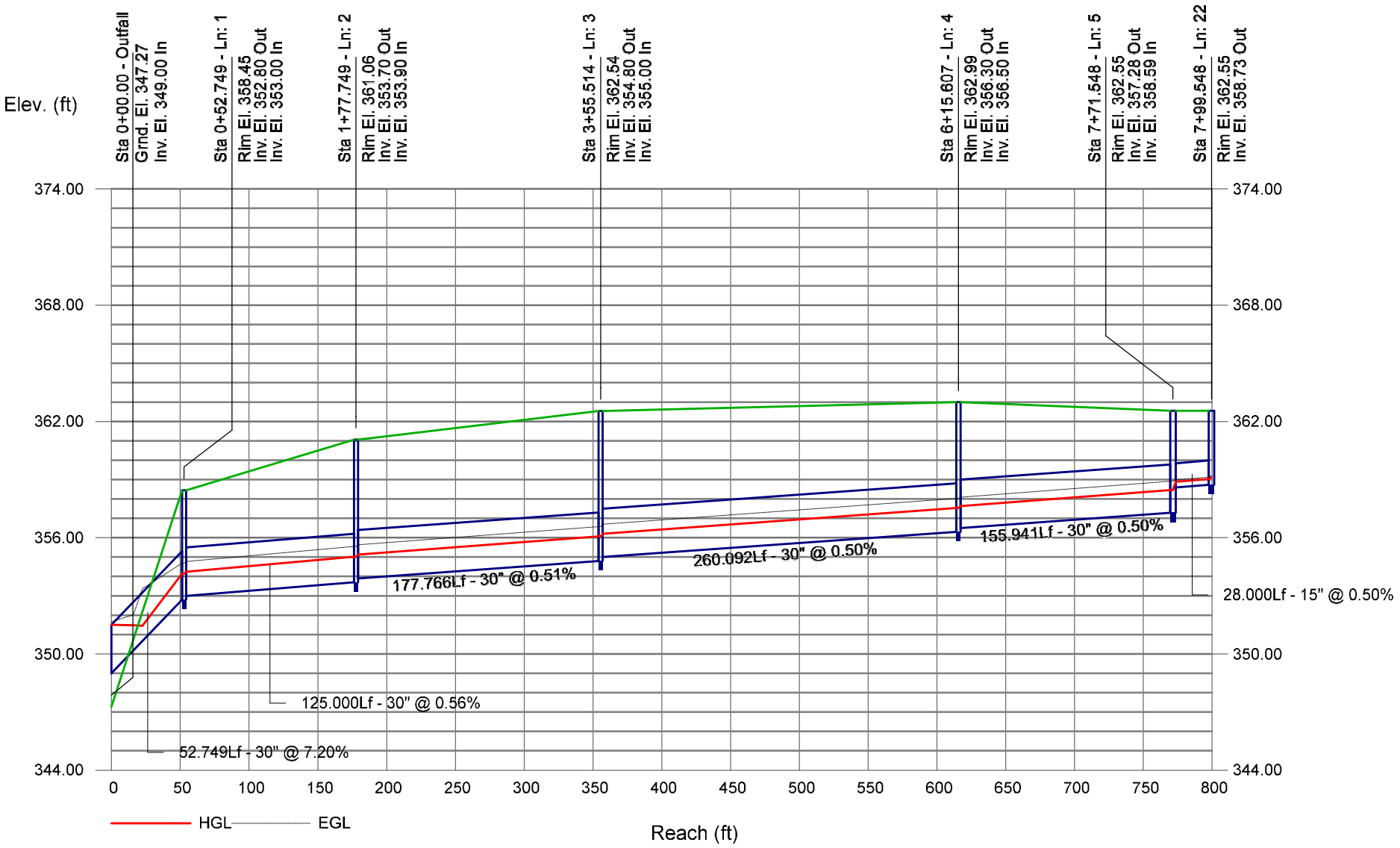
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
45	15	0.74	376.00	376.46	0.46	0.26	1.81	0.12	376.58	0.000	45.582	377.56	377.90 j	0.34**	0.26	2.78	0.12	378.02	0.000	0.000	n/a	1.10	n/a
46	15	0.56	377.76	378.06	0.30*	0.22	2.53	0.10	378.16	0.499	28.000	377.90	378.20	0.30**	0.22	2.55	0.10	378.30	0.509	0.504	0.141	1.00	0.10
47	15	0.18	375.80	376.46	0.66	0.09	0.27	0.06	376.51	0.000	28.000	376.00	376.16	0.16**	0.09	1.89	0.06	376.22	0.000	0.000	n/a	1.00	n/a

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

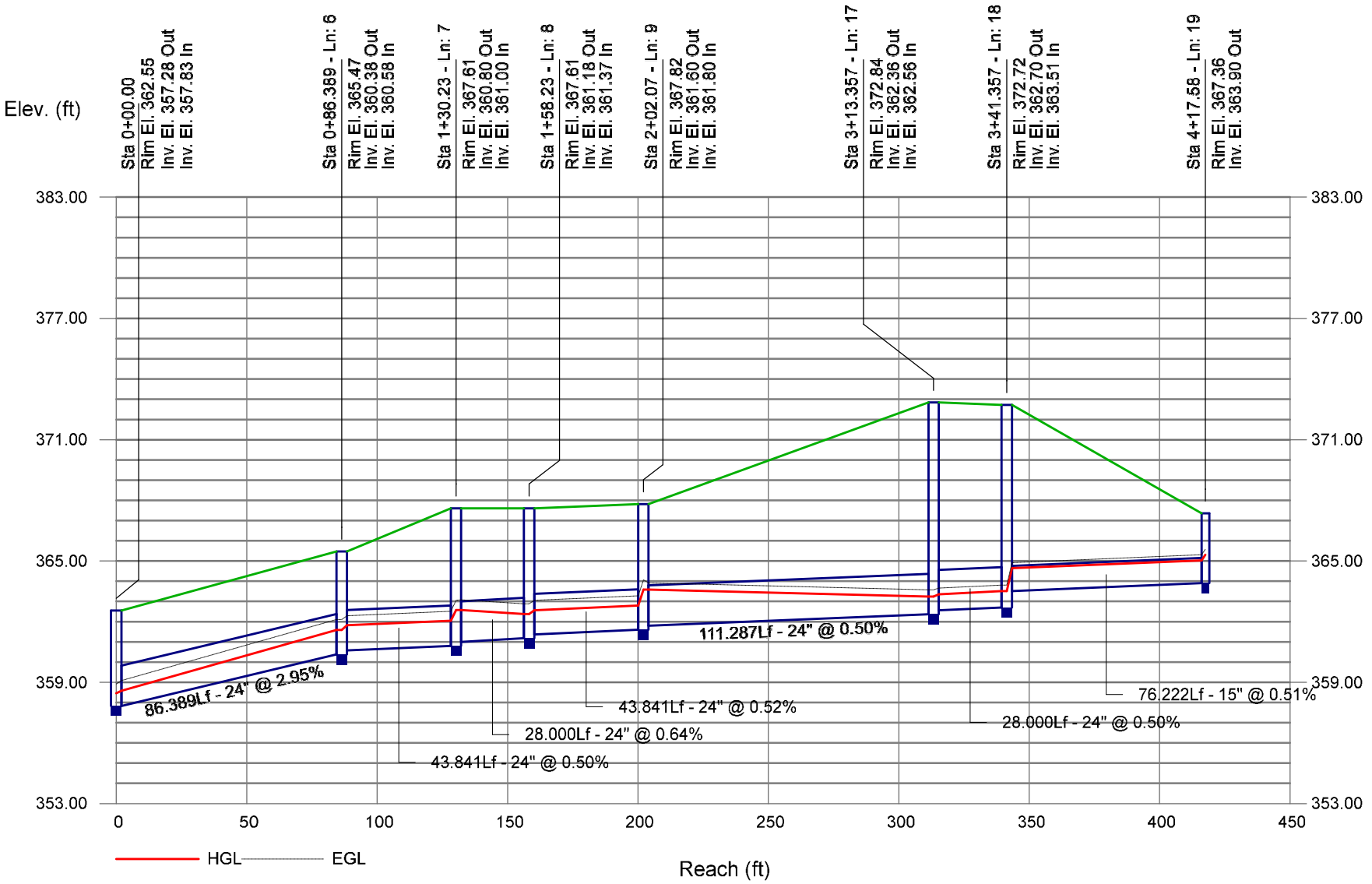
Storm Sewer Profile

SCM 1A 10-YEAR PROFILE 1-22 Proj. file: SCM 1A Storm Network.stm



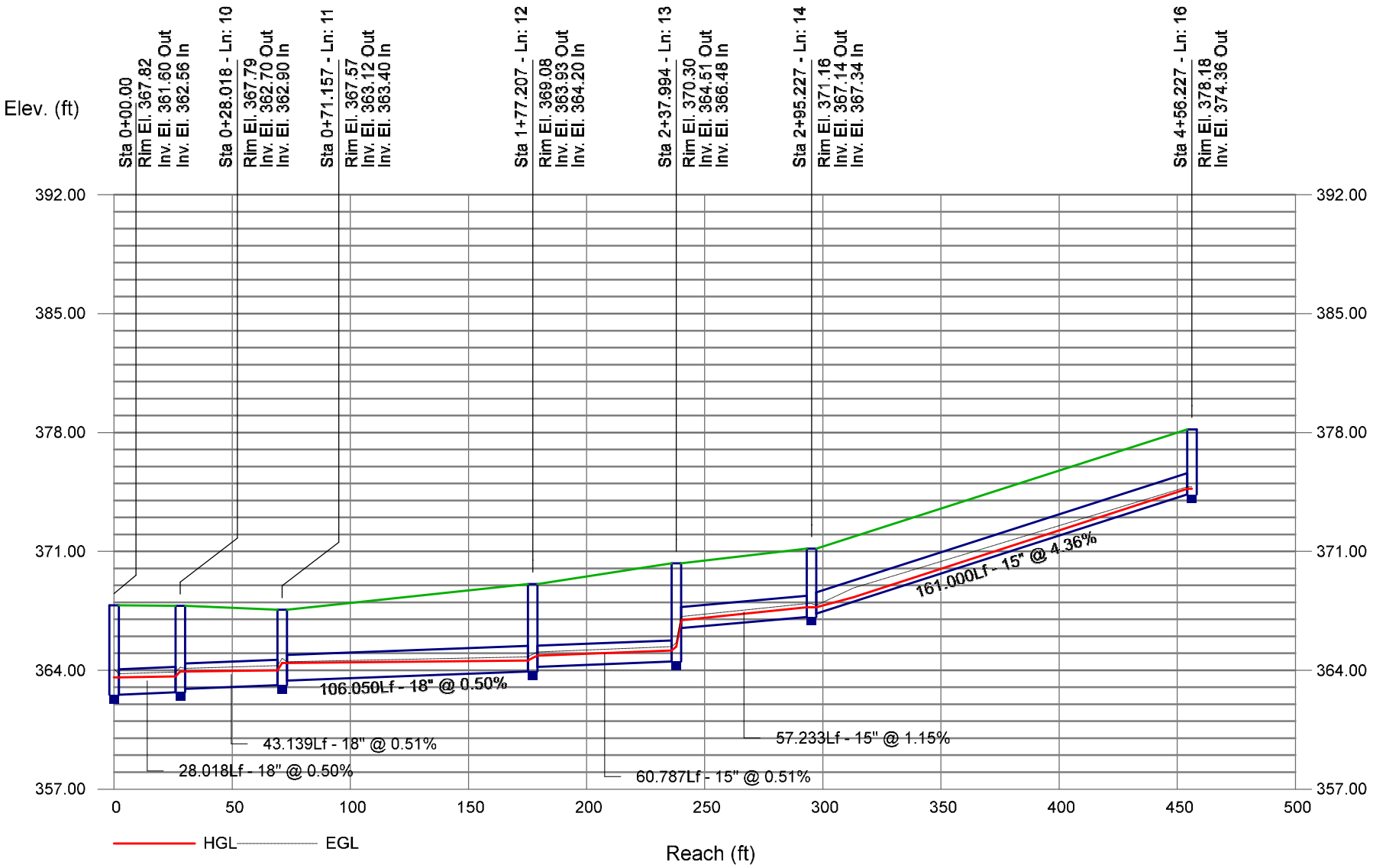
Storm Sewer Profile

SCM 1A 10-YEAR PROFILE 6-19 Proj. file: SCM 1A Storm Network.stm



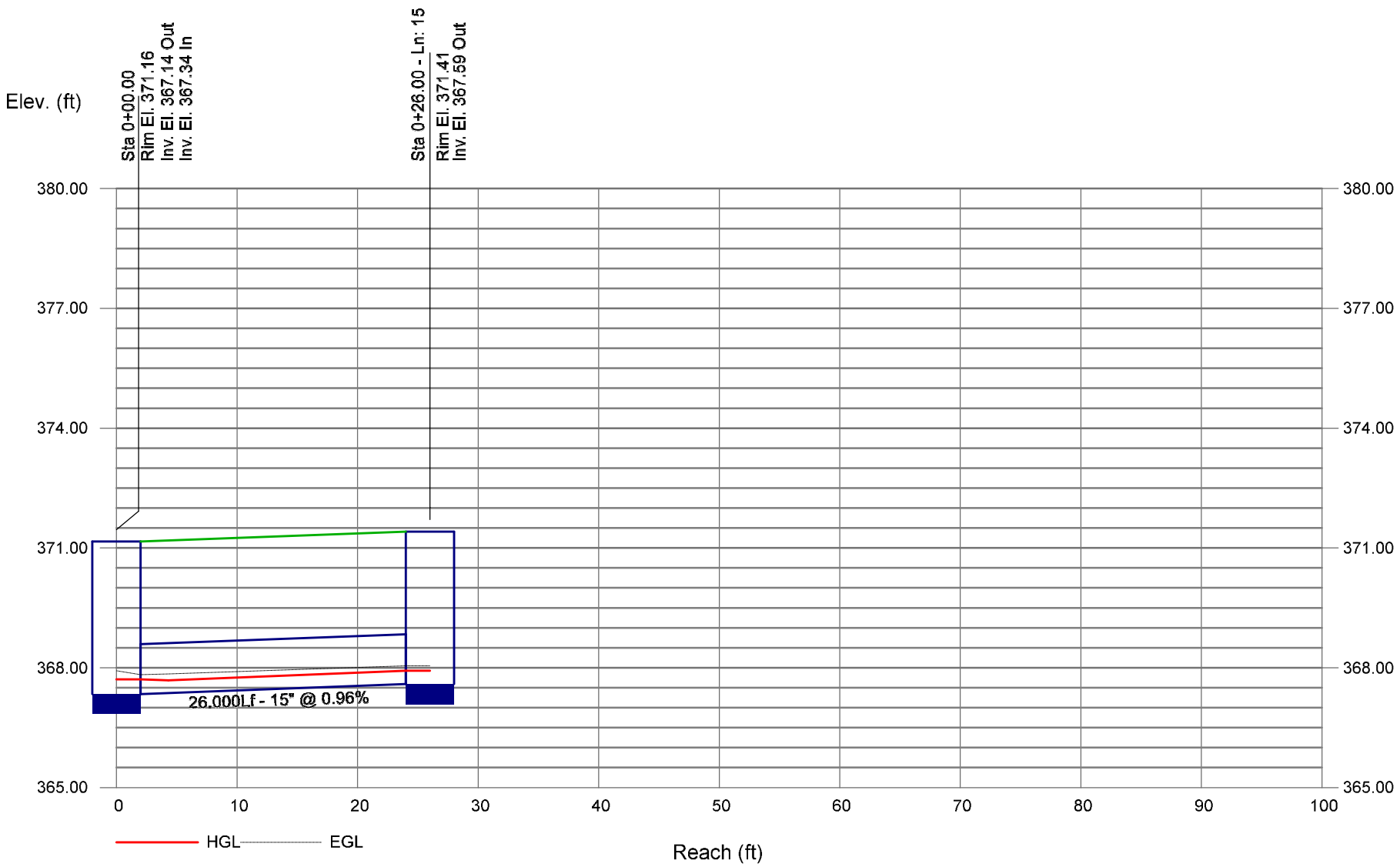
Storm Sewer Profile

SCM 1A 10-YEAR PROFILE 10-16 Proj. file: SCM 1A Storm Network.stm



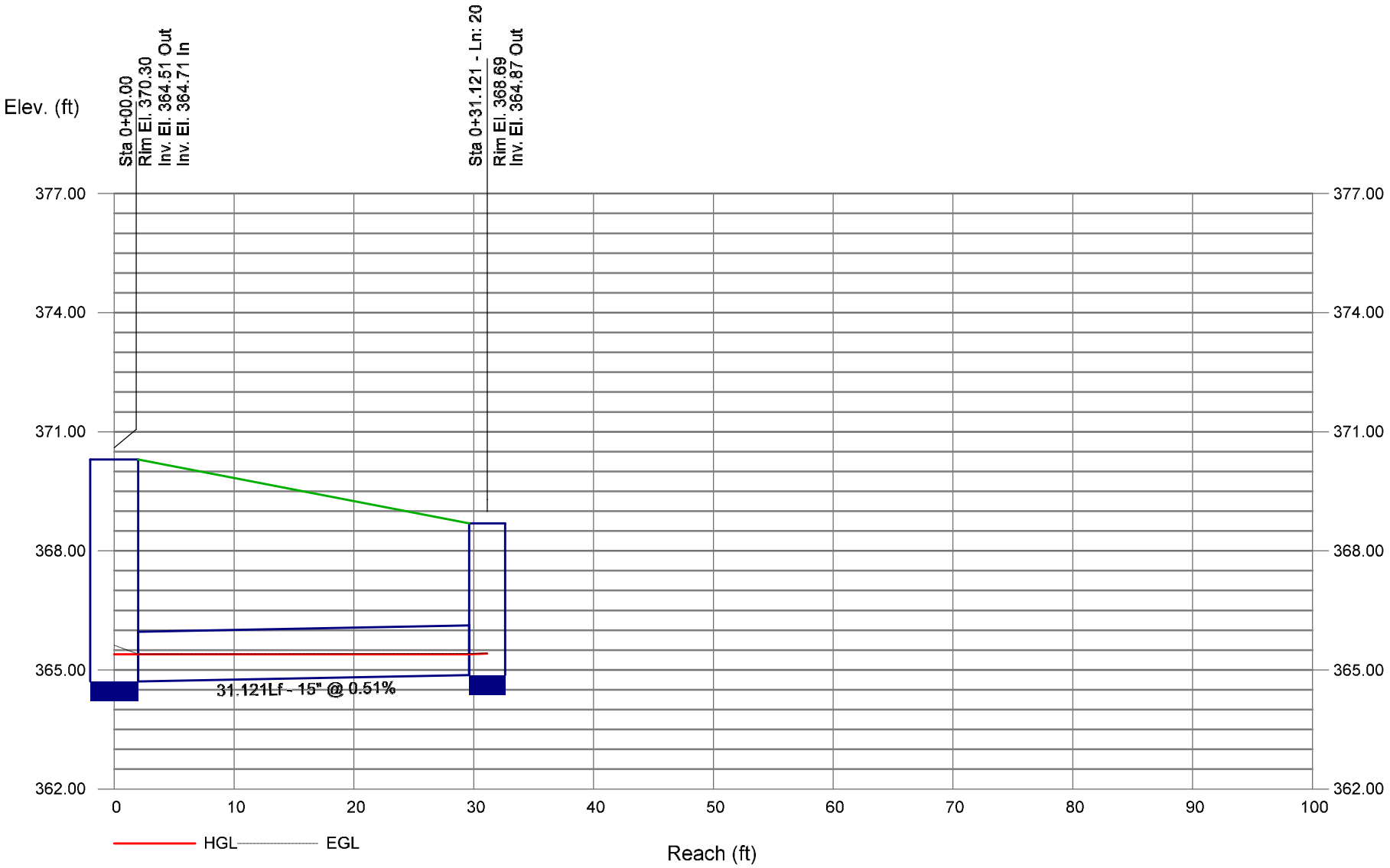
Storm Sewer Profile

SCM 1A 10-YEAR PROFILE 15-15 Proj. file: SCM 1A Storm Network.stm



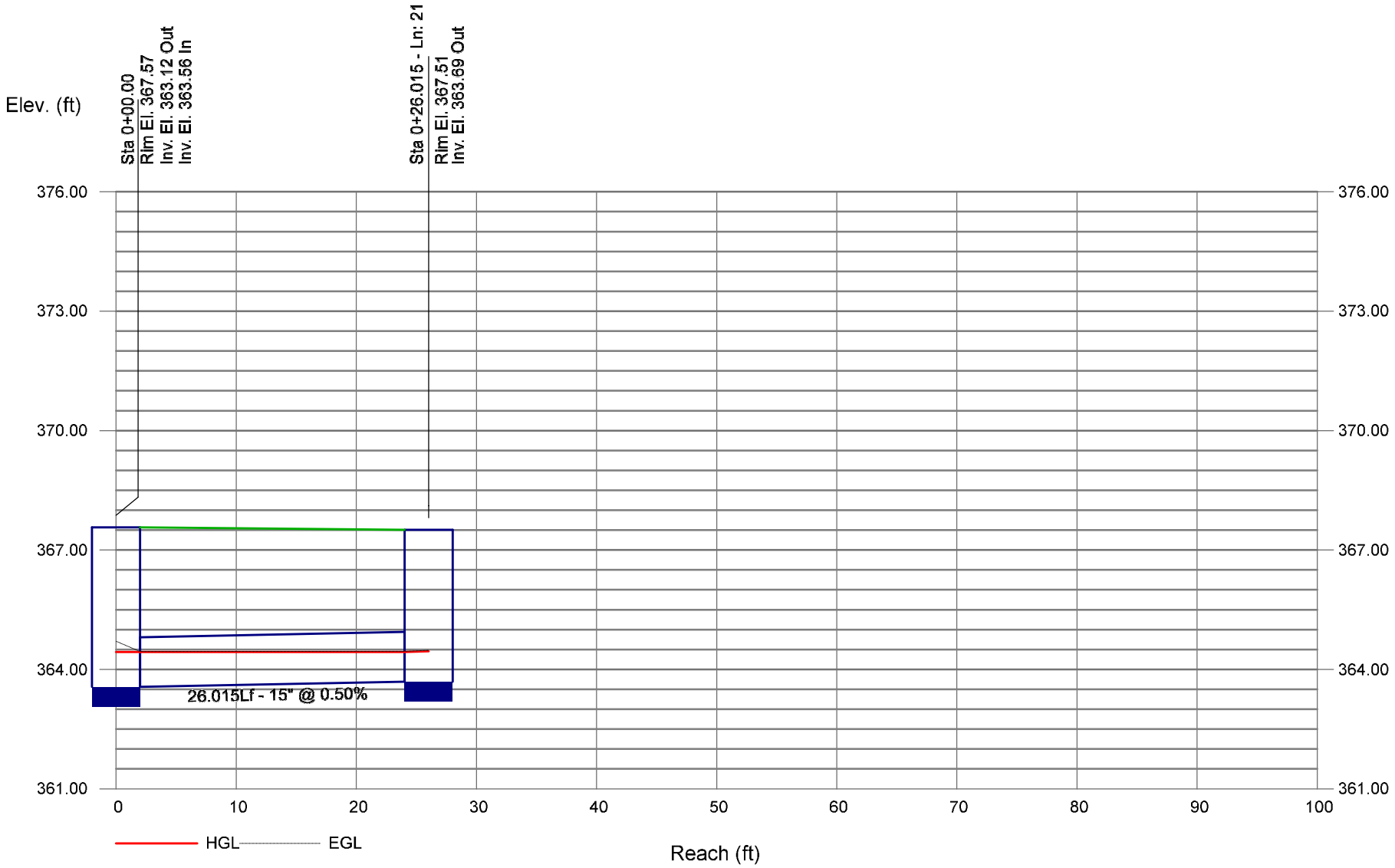
Storm Sewer Profile

SCM 1A 10-YEAR PROFILE 20-20 Proj. file: SCM 1A Storm Network.stm



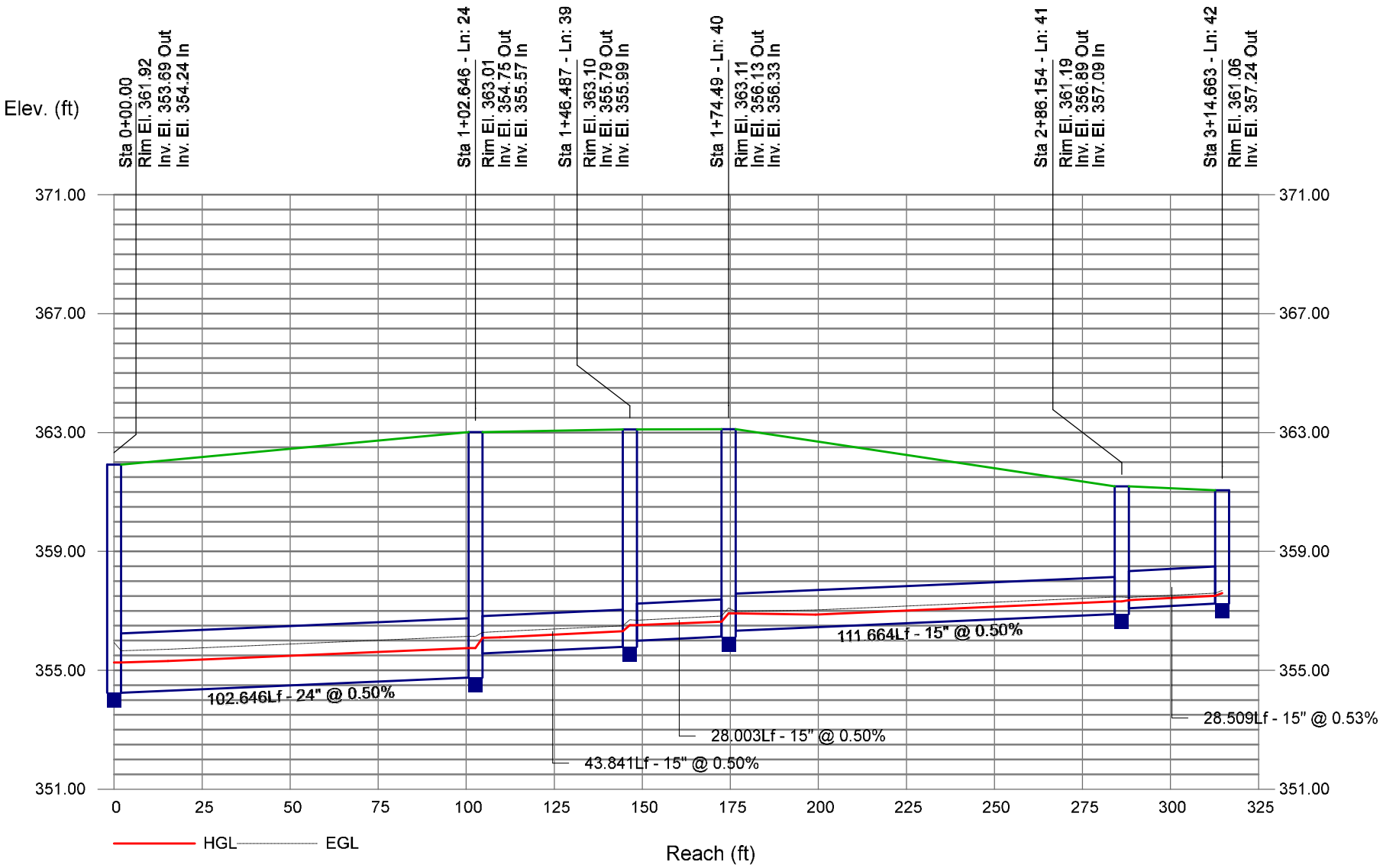
Storm Sewer Profile

SCM 1A 10-YEAR PROFILE 21-21 Proj. file: SCM 1A Storm Network.stm



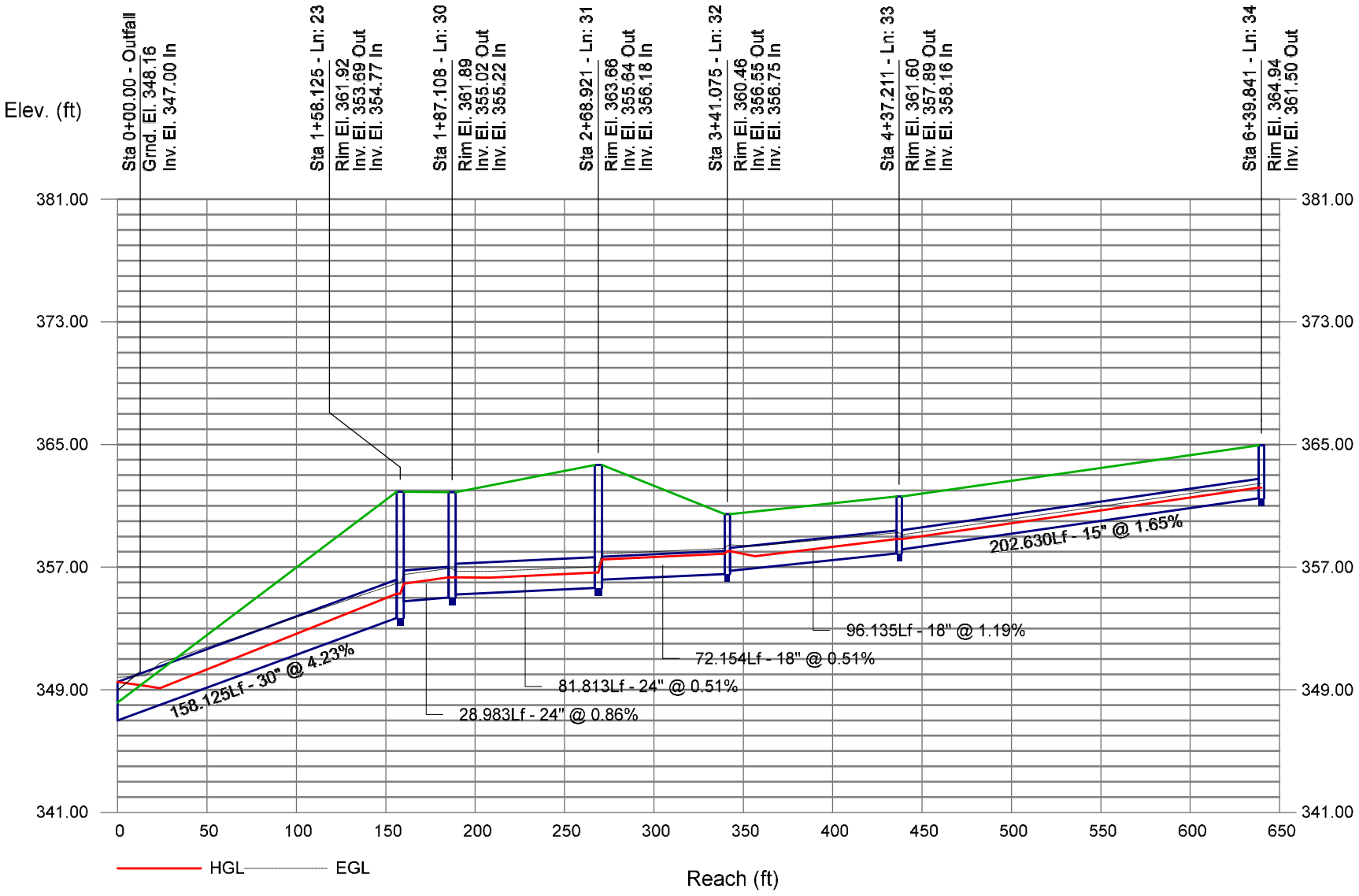
Storm Sewer Profile

SCM 1A 10-YEAR PROFILE 23-34 Proj. file: SCM 1A Storm Network.stm



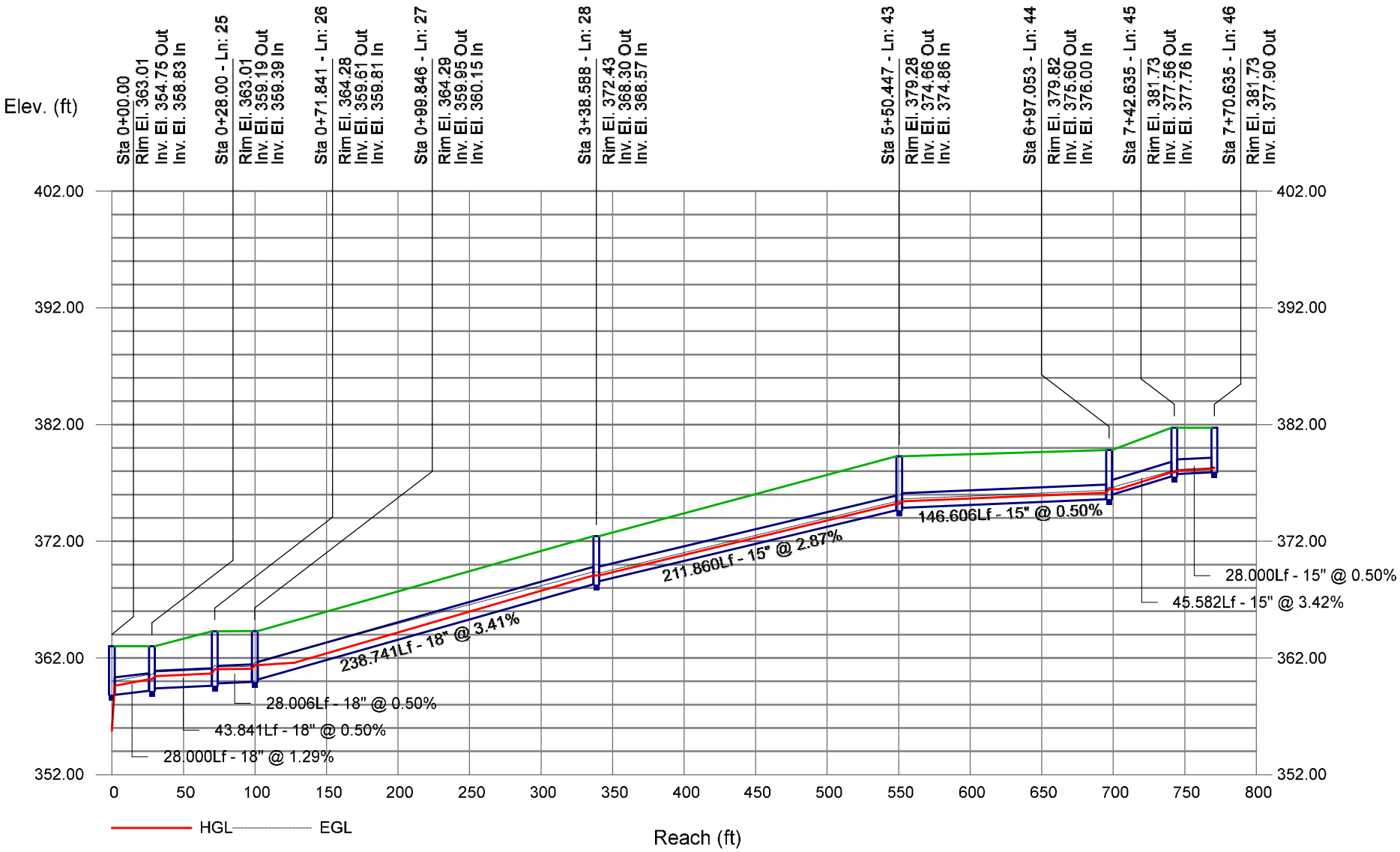
Storm Sewer Profile

SCM 1A 10-YEAR PROFILE 24-42 Proj. file: SCM 1A Storm Network.stm



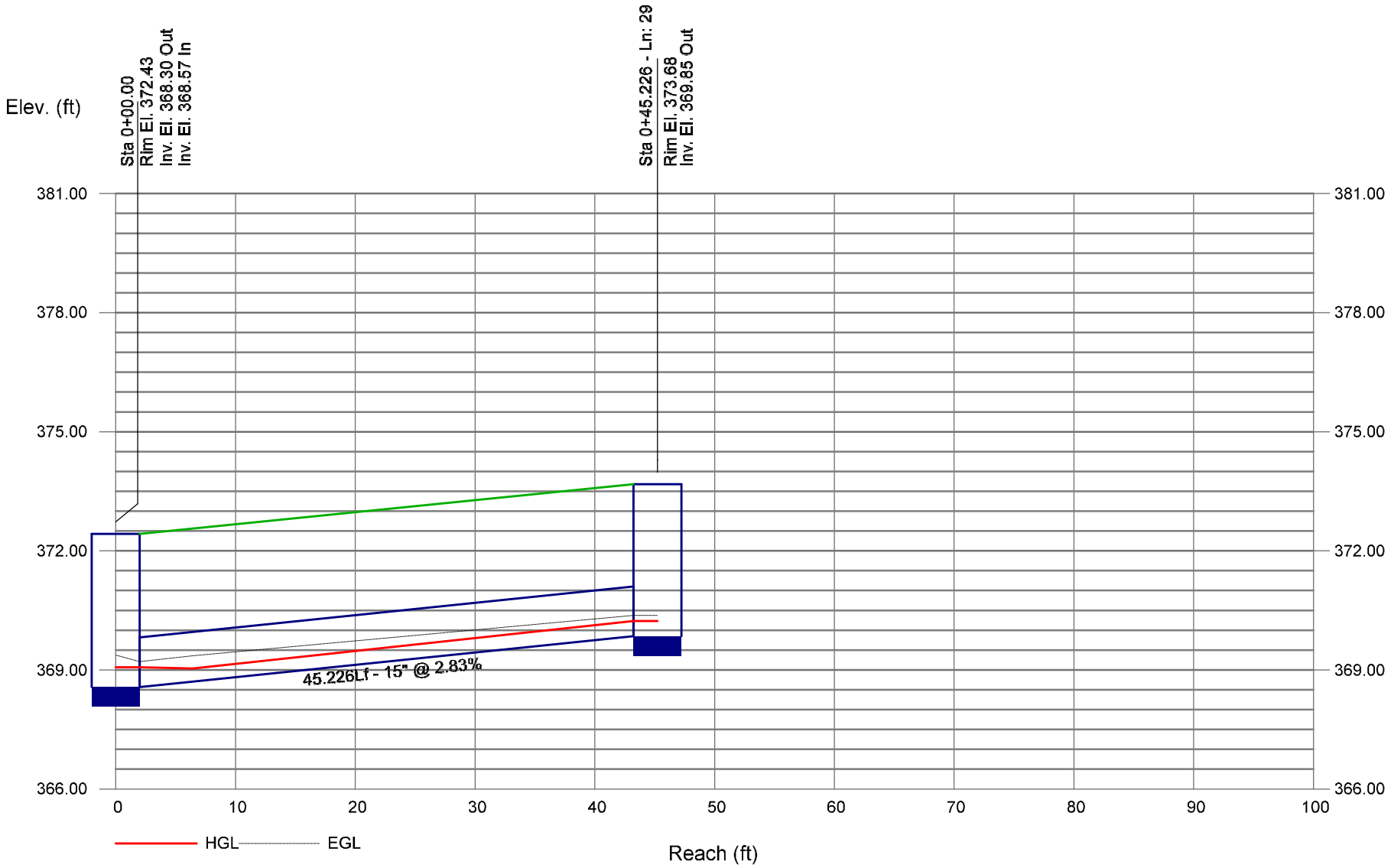
Storm Sewer Profile

SCM 1A 10-YEAR PROFILE 25-46 Proj. file: SCM 1A Storm Network.stm



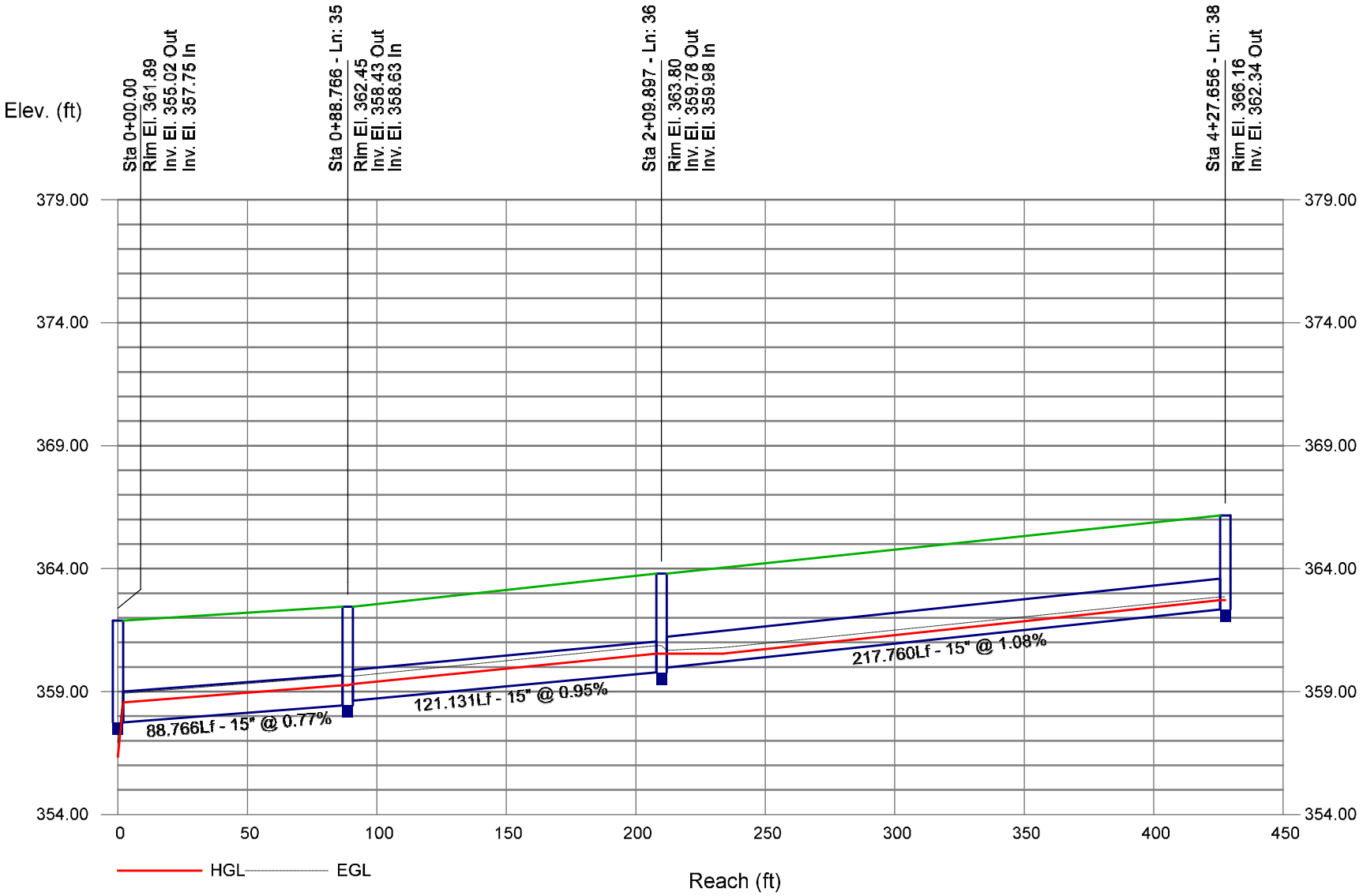
Storm Sewer Profile

SCM 1A 10-YEAR PROFILE 29-29 Proj. file: SCM 1A Storm Network.stm



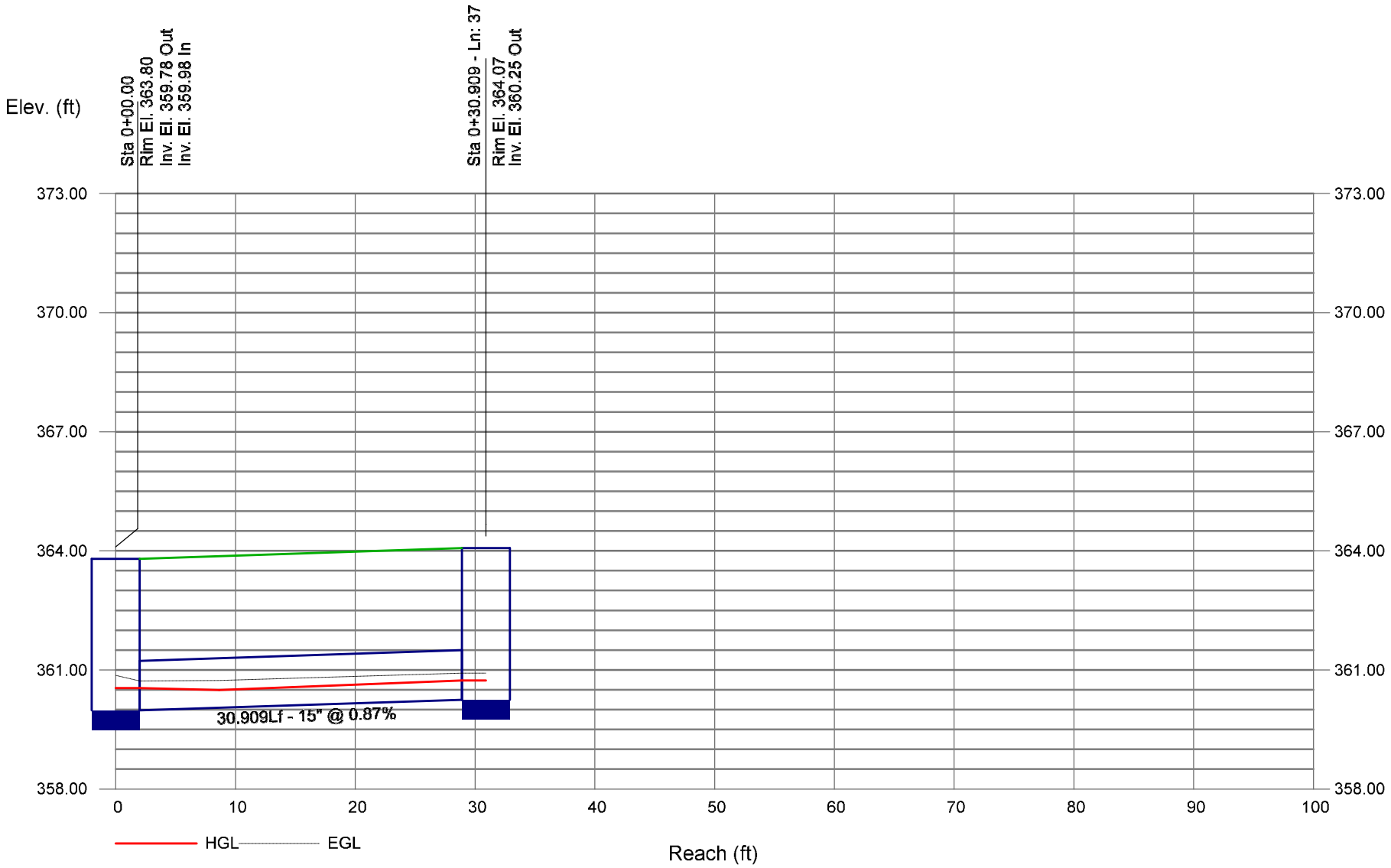
Storm Sewer Profile

SCM 1A 10-YEAR PROFILE 35-38 Proj. file: SCM 1A Storm Network.stm



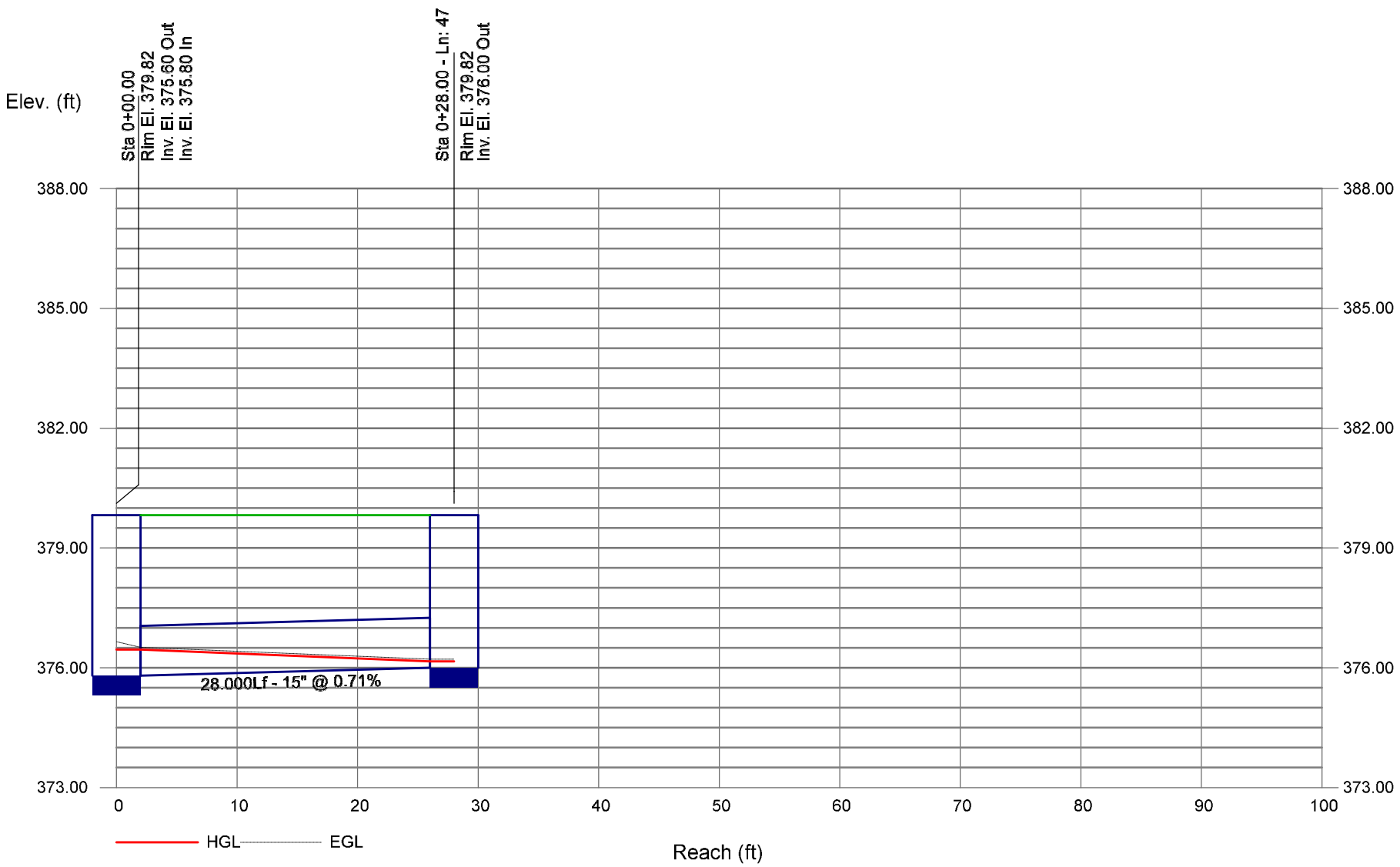
Storm Sewer Profile

SCM 1A 10-YEAR PROFILE 37-37 Proj. file: SCM 1A Storm Network.stm

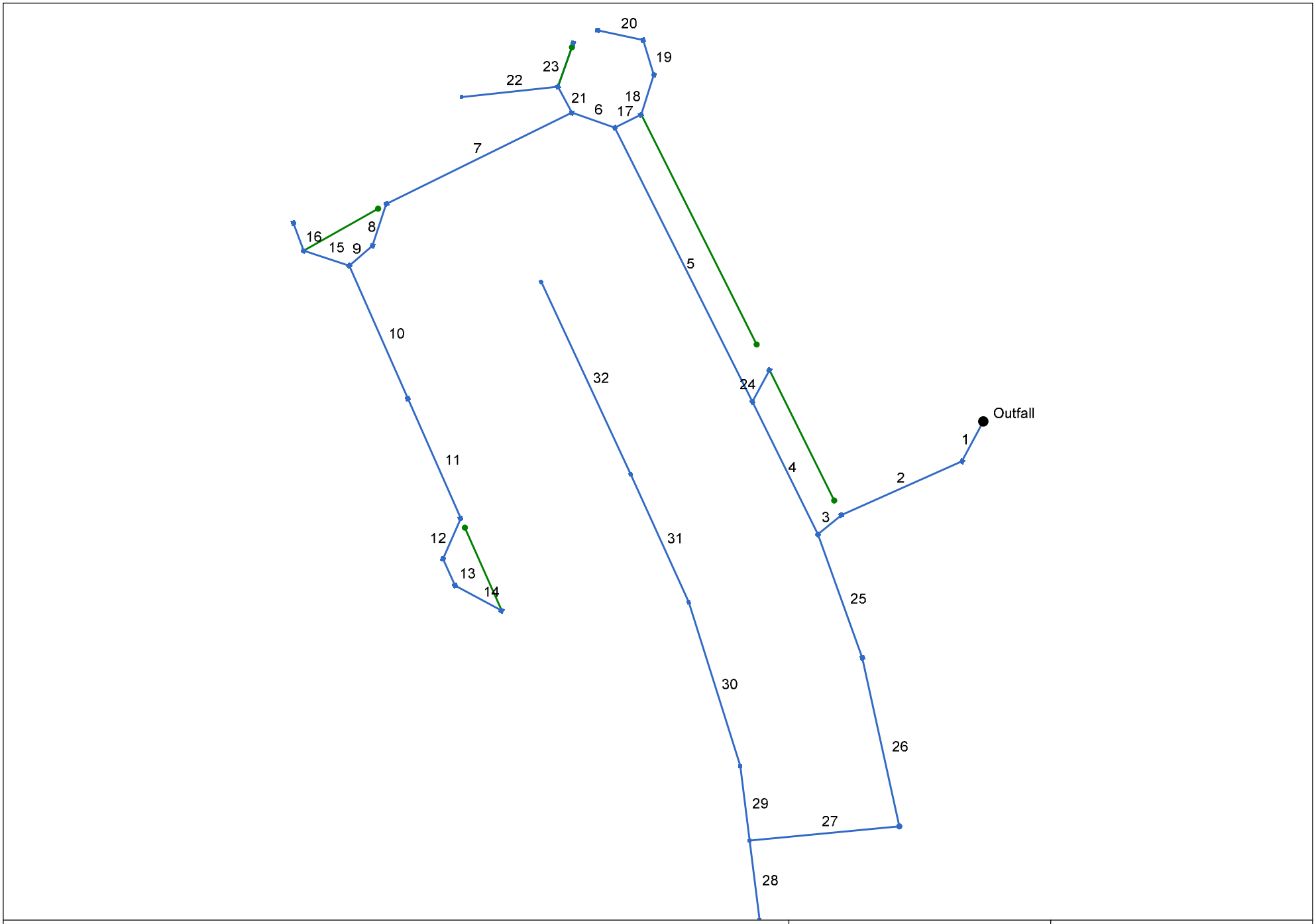


Storm Sewer Profile

SCM 1A 10-YEAR PROFILE 47-47 Proj. file: SCM 1A Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 1B 10-YEAR



Project File: SCM 1B Storm Network.stm	Number of lines: 32	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 1B 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	43.038	117.996	DrGrt	0.00	0.20	0.60	10.0	372.05	0.51	372.27	36	Cir	0.013	1.00	382.34	Pipe - (402)
2	1	125.580	37.891	Comb	0.00	0.49	0.60	10.0	372.47	0.50	373.10	36	Cir	0.013	0.50	383.51	Pipe - (401)
3	2	29.057	-15.437	Comb	0.00	0.42	0.60	10.0	373.30	0.52	373.45	36	Cir	0.013	2.14	383.49	Pipe - (400)
4	3	141.000	103.390	Comb	0.00	0.49	0.60	10.0	374.00	0.53	374.75	30	Cir	0.013	1.26	384.29	Pipe - (398)
5	4	292.665	-0.424	Comb	0.00	0.03	0.60	10.0	374.95	0.50	376.42	30	Cir	0.013	1.50	386.55	Pipe - (397)
6	5	43.286	-44.139	Comb	0.00	0.19	0.60	10.0	376.62	0.51	376.84	30	Cir	0.013	1.63	386.36	Pipe - (185)
7	6	196.769	-45.581	Comb	0.00	0.06	0.60	10.0	381.66	0.50	382.64	24	Cir	0.013	1.13	388.05	Pipe - (198)
8	7	41.948	-45.324	Comb	0.00	0.72	0.60	10.0	382.84	0.50	383.05	24	Cir	0.013	0.85	388.86	Pipe - (197)
9	8	29.270	30.927	Comb	0.00	0.27	0.60	10.0	383.25	0.51	383.40	24	Cir	0.013	1.98	388.98	Pipe - (199)
10	9	138.408	-73.063	Comb	0.00	0.13	0.60	10.0	385.13	0.69	386.08	18	Cir	0.013	0.50	390.20	Pipe - (196)
11	10	125.150	0.000	Comb	0.00	0.05	0.60	10.0	386.36	0.52	387.01	15	Cir	0.013	1.16	391.31	Pipe - (194)
12	11	42.068	47.353	Comb	0.00	0.07	0.60	10.0	387.20	0.52	387.42	15	Cir	0.013	1.17	391.78	Pipe - (193)
13	12	28.000	-47.644	Comb	0.00	0.39	0.60	10.0	387.62	0.50	387.76	15	Cir	0.013	0.99	391.78	Pipe - (526)
14	13	50.224	-37.536	Comb	0.00	0.12	0.60	10.0	387.96	0.80	388.36	15	Cir	0.013	1.00	392.18	Pipe - (527)
15	9	45.621	59.076	Comb	0.00	0.93	0.60	10.0	383.94	1.12	384.45	18	Cir	0.013	1.22	388.67	Pipe - (428)
16	15	28.355	51.210	Comb	0.00	0.18	0.60	10.0	384.65	0.53	384.80	18	Cir	0.013	1.00	388.63	Pipe - (427)
17	5	28.000	90.133	Comb	0.00	0.02	0.60	10.0	379.84	0.50	379.98	15	Cir	0.013	1.14	386.55	Pipe - (396)
18	17	39.908	-45.826	Comb	0.00	0.02	0.60	10.0	380.18	0.50	380.38	15	Cir	0.013	0.94	385.10	Pipe - (430)
19	18	34.848	-35.110	Comb	0.00	0.02	0.60	10.0	380.58	0.52	380.76	15	Cir	0.013	1.34	384.78	Pipe - (429)
20	19	44.136	-60.527	Comb	0.00	0.02	0.60	10.0	380.96	1.52	381.63	15	Cir	0.013	1.00	385.45	Pipe - (431)
21	6	28.043	42.691	Comb	0.00	0.13	0.60	10.0	378.20	0.50	378.34	15	Cir	0.013	1.74	386.37	Pipe - (184)
22	21	92.236	-68.074	DrGrt	0.00	0.34	0.60	10.0	378.54	0.50	379.00	15	Cir	0.013	1.00	382.52	Pipe - (190)
23	21	44.388	47.309	Comb	0.00	0.07	0.60	10.0	381.44	0.50	381.66	15	Cir	0.013	1.00	385.48	Pipe - (183)

Project File: SCM 1B Storm Network.stm

Number of lines: 32

Date: 4/11/2025

Storm Sewer Inventory Report

SCM 1B 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	4	34.361	54.152	Comb	0.00	0.25	0.60	10.0	380.42	0.52	380.60	15	Cir	0.013	1.00	384.45	Pipe - (399)
25	3	125.103	-70.202	Comb	0.00	0.20	0.60	10.0	374.00	0.54	374.67	30	Cir	0.013	0.50	384.63	Pipe - (208)
26	25	164.842	7.361	MH	0.00	0.00	0.60	10.0	374.87	0.50	375.69	30	Cir	0.013	1.00	385.61	Pipe - (597)
27	26	143.185	96.958	DrGrt	0.00	0.50	0.60	10.0	375.89	0.50	376.61	30	Cir	0.013	2.25	381.83	Pipe - (596)
28	27	76.394	-91.693	DrGrt	0.00	0.94	0.60	10.0	379.15	0.51	379.54	15	Cir	0.013	1.00	382.98	Pipe - (218)
29	27	71.757	88.307	DrGrt	0.00	0.58	0.60	10.0	377.15	1.37	378.13	24	Cir	0.013	0.50	384.13	Pipe - (601)
30	29	163.784	-10.225	DrGrt	0.00	0.63	0.60	10.0	378.67	0.50	379.49	18	Cir	0.013	0.50	384.33	Pipe - (600)
31	30	134.085	-7.068	DrGrt	0.00	0.56	0.60	10.0	379.76	0.50	380.43	15	Cir	0.013	0.50	384.64	Pipe - (599)
32	31	202.660	-0.446	DrGrt	0.00	0.52	0.60	10.0	380.63	0.50	381.65	15	Cir	0.013	1.00	385.09	Pipe - (598)

Project File: SCM 1B Storm Network.stm

Number of lines: 32

Date: 4/11/2025

Structure Report

SCM 1B 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 141	DropGrate	382.34	Rect	4.00	4.00	36	Cir	372.27	36	Cir	372.47
2	CB 142	Combination	383.51	Rect	4.00	4.00	36	Cir	373.10	36	Cir	373.30
3	CB 143	Combination	383.49	Rect	4.00	4.00	36	Cir	373.45	30 30	Cir Cir	374.00 374.00
4	CB 144	Combination	384.29	Rect	4.00	4.00	30	Cir	374.75	30 15	Cir Cir	374.95 380.42
5	CB 145	Combination	386.55	Rect	4.00	4.00	30	Cir	376.42	30 15	Cir Cir	376.62 379.84
6	CB 146	Combination	386.36	Rect	4.00	4.00	30	Cir	376.84	24 15	Cir Cir	381.66 378.20
7	CB 148	Combination	388.05	Rect	4.00	4.00	24	Cir	382.64	24	Cir	382.84
8	CB 149	Combination	388.86	Rect	4.00	4.00	24	Cir	383.05	24	Cir	383.25
9	CB 150	Combination	388.98	Rect	4.00	4.00	24	Cir	383.40	18 18	Cir Cir	385.13 383.94
10	CB 151	Combination	390.20	Rect	4.00	4.00	18	Cir	386.08	15	Cir	386.36
11	CB 152	Combination	391.31	Rect	4.00	4.00	15	Cir	387.01	15	Cir	387.20
12	CB 153	Combination	391.78	Rect	4.00	4.00	15	Cir	387.42	15	Cir	387.62
13	CB 154	Combination	391.78	Rect	4.00	4.00	15	Cir	387.76	15	Cir	387.96
14	CB 154A	Combination	392.18	Rect	4.00	4.00	15	Cir	388.36			
15	CB 150A	Combination	388.67	Rect	4.00	4.00	18	Cir	384.45	18	Cir	384.65
16	CB 150B	Combination	388.63	Rect	4.00	4.00	18	Cir	384.80			
17	CB 145A	Combination	386.55	Rect	4.00	4.00	15	Cir	379.98	15	Cir	380.18
18	CB 145B	Combination	385.10	Rect	4.00	4.00	15	Cir	380.38	15	Cir	380.58
19	CB 145C	Combination	384.78	Rect	4.00	4.00	15	Cir	380.76	15	Cir	380.96
20	CB 145D	Combination	385.45	Rect	4.00	4.00	15	Cir	381.63			

Project File: SCM 1B Storm Network.stm | Number of Structures: 32 | Run Date: 4/11/2025

Structure Report

SCM 1B 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	CB 146A	Combination	386.37	Rect	4.00	4.00	15	Cir	378.34	15 15	Cir Cir	378.54 381.44
22	FES 146C	DropGrate	382.52	Rect	3.00	3.00	15	Cir	379.00			
23	CB 146B	Combination	385.48	Rect	4.00	4.00	15	Cir	381.66			
24	CB 144A	Combination	384.45	Rect	4.00	4.00	15	Cir	380.60			
25	CB 143A	Combination	384.63	Rect	4.00	4.00	30	Cir	374.67	30	Cir	374.87
26	JB-147	Manhole	385.61	Cir	4.00	4.00	30	Cir	375.69	30	Cir	375.89
27	YI 158A	DropGrate	381.83	Rect	3.00	3.00	30	Cir	376.61	15 24	Cir Cir	379.15 377.15
28	YI 159	DropGrate	382.98	Rect	3.00	3.00	15	Cir	379.54			
29	YI 158	DropGrate	384.13	Rect	3.00	3.00	24	Cir	378.13	18	Cir	378.67
30	YI 157	DropGrate	384.33	Rect	3.00	3.00	18	Cir	379.49	15	Cir	379.76
31	YI 156	DropGrate	384.64	Rect	3.00	3.00	15	Cir	380.43	15	Cir	380.63
32	YI 155	DropGrate	385.09	Rect	3.00	3.00	15	Cir	381.65			

Project File: SCM 1B Storm Network.stm | Number of Structures: 32 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 1B 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (402)	28.79	36	Cir	43.038	372.05	372.27	0.511	375.05	375.12	0.27	375.38	End	DropGrate
2	Pipe - (401)	28.51	36	Cir	125.580	372.47	373.10	0.502	375.38	374.83	n/a	374.83	1	Combination
3	Pipe - (400)	27.07	36	Cir	29.057	373.30	373.45	0.516	374.91	375.13	1.47	375.13	2	Combination
4	Pipe - (398)	13.94	30	Cir	141.000	374.00	374.75	0.532	375.20	376.01	n/a	376.01	3	Combination
5	Pipe - (397)	11.97	30	Cir	292.665	374.95	376.42	0.502	376.07	377.58	0.67	377.58	4	Combination
6	Pipe - (185)	11.67	30	Cir	43.286	376.62	376.84	0.508	377.72	377.98	n/a	377.98	5	Combination
7	Pipe - (198)	9.52	24	Cir	196.769	381.66	382.64	0.498	382.77	383.75	0.49	384.25	6	Combination
8	Pipe - (197)	9.37	24	Cir	41.948	382.84	383.05	0.501	384.25	384.29	0.28	384.57	7	Combination
9	Pipe - (199)	7.04	24	Cir	29.270	383.25	383.40	0.512	384.57	384.34	0.72	384.34	8	Combination
10	Pipe - (196)	2.55	18	Cir	138.408	385.13	386.08	0.686	385.69	386.68	0.11	386.68	9	Combination
11	Pipe - (194)	2.15	15	Cir	125.150	386.36	387.01	0.519	386.96	387.61	0.25	387.86	10	Combination
12	Pipe - (193)	2.00	15	Cir	42.068	387.20	387.42	0.523	387.86	387.99	0.25	388.23	11	Combination
13	Pipe - (526)	1.76	15	Cir	28.000	387.62	387.76	0.500	388.23	388.29	n/a	388.49 j	12	Combination
14	Pipe - (527)	0.42	15	Cir	50.224	387.96	388.36	0.796	388.49	388.61	n/a	388.61 j	13	Combination
15	Pipe - (428)	3.88	18	Cir	45.621	383.94	384.45	1.118	384.55	385.20	n/a	385.20	9	Combination
16	Pipe - (427)	0.63	18	Cir	28.355	384.65	384.80	0.529	385.20	385.10	0.10	385.10	15	Combination
17	Pipe - (396)	0.27	15	Cir	28.000	379.84	379.98	0.500	380.05	380.19	n/a	380.26 j	5	Combination
18	Pipe - (430)	0.21	15	Cir	39.908	380.18	380.38	0.501	380.36	380.56	n/a	380.61 j	17	Combination
19	Pipe - (429)	0.14	15	Cir	34.848	380.58	380.76	0.517	380.73	380.91	0.06	380.97	18	Combination
20	Pipe - (431)	0.07	15	Cir	44.136	380.96	381.63	1.518	381.04	381.73	n/a	381.73	19	Combination
21	Pipe - (184)	1.86	15	Cir	28.043	378.20	378.34	0.499	378.76	378.89	0.34	379.23	6	Combination
22	Pipe - (190)	1.20	15	Cir	92.236	378.54	379.00	0.499	379.23	379.43	0.16	379.59	21	DropGrate
23	Pipe - (183)	0.25	15	Cir	44.388	381.44	381.66	0.496	381.64	381.86	0.06	381.92	21	Combination
24	Pipe - (399)	0.88	15	Cir	34.361	380.42	380.60	0.524	380.79	380.97	0.13	381.10	4	Combination

Project File: SCM 1B Storm Network.stm | Number of lines: 32 | Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

SCM 1B 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
25	Pipe - (208)	12.36	30	Cir	125.103	374.00	374.67	0.536	375.13	375.85	n/a	375.85	3	Combination
26	Pipe - (597)	11.92	30	Cir	164.842	374.87	375.69	0.497	375.99	376.85	0.45	376.85	25	Manhole
27	Pipe - (596)	12.09	30	Cir	143.185	375.89	376.61	0.503	377.01	377.78	n/a	377.78	26	DropGrate
28	Pipe - (218)	3.31	15	Cir	76.394	379.15	379.54	0.511	379.93	380.32	0.26	380.58	27	DropGrate
29	Pipe - (601)	7.47	24	Cir	71.757	377.15	378.13	1.366	377.88	379.10	n/a	379.10	27	DropGrate
30	Pipe - (600)	5.69	18	Cir	163.784	378.67	379.49	0.501	379.65	380.47	0.17	380.64	29	DropGrate
31	Pipe - (599)	3.66	15	Cir	134.085	379.76	380.43	0.500	380.64	381.26	0.14	381.40	30	DropGrate
32	Pipe - (598)	1.83	15	Cir	202.660	380.63	381.65	0.503	381.40	382.19	n/a	382.19 j	31	DropGrate

Project File: SCM 1B Storm Network.stm

Number of lines: 32

Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

SCM 1B 10-YEAR

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	YI 141	0.70	0.00	0.34	0.37	DrGrt	0.0	0.00	0.00	2.00	2.00	0.020	2.00	0.020	0.020	0.013	0.07	9.10	0.07	9.10	0.0	Off
2	CB 142	1.73	0.06	1.79	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.24	7.87	0.24	7.87	0.0	Off
3	CB 143	1.48	0.38	1.86	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.24	8.09	0.24	8.09	0.0	Off
4	CB 144	1.73	0.00	1.38	0.35	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.20	6.18	0.12	1.99	0.0	3
5	CB 145	0.11	0.14	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.10	1.75	0.00	0.00	0.0	4
6	CB 146	0.67	0.49	1.02	0.14	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.18	5.00	0.08	1.42	0.0	5
7	CB 148	0.21	1.83	1.55	0.49	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.21	6.71	0.13	2.74	0.0	6
8	CB 149	2.54	0.00	1.82	0.72	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.23	7.45	0.15	3.72	0.0	7
9	CB 150	0.95	0.00	0.87	0.08	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.17	4.46	0.07	1.16	0.0	Off
10	CB 151	0.46	0.00	0.46	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.13	2.59	0.02	0.27	0.0	9
11	CB 152	0.18	0.00	0.18	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.09	1.54	0.00	0.00	0.0	10
12	CB 153	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.10	1.75	0.00	0.00	0.0	11
13	CB 154	1.37	0.00	1.16	0.21	Comb	4.0	3.00	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.19	5.49	0.10	1.66	0.0	Off
14	CB 154A	0.42	0.00	0.42	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.13	2.40	0.01	0.17	0.0	11
15	CB 150A	3.28	0.00	2.17	1.11	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.25	8.37	0.18	4.87	0.0	7
16	CB 150B	0.63	0.00	0.62	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.15	3.39	0.04	0.65	0.0	Off
17	CB 145A	0.07	0.00	0.07	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.07	1.09	0.00	0.00	0.0	24
18	CB 145B	0.07	0.00	0.07	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.07	1.09	0.00	0.00	0.0	Off
19	CB 145C	0.07	0.00	0.07	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.07	1.09	0.00	0.00	0.0	Off
20	CB 145D	0.07	0.00	0.07	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.07	1.09	0.00	0.00	0.0	Off
21	CB 146A	0.46	0.00	0.46	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.13	2.59	0.02	0.27	0.0	23
22	FES 146C	1.20	0.00	1.20	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.14	15.54	0.14	15.54	0.0	Off
23	CB 146B	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.10	1.75	0.00	0.00	0.0	Off

Project File: SCM 1B Storm Network.stm | Number of lines: 32 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

SCM 1B 10-YEAR

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)	
24	CB 144A	0.88	0.00	0.82	0.06	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	4.25	0.06	1.06	0.0	2
25	CB 143A	0.70	0.00	0.68	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.15	3.66	0.05	0.78	0.0	3
26	JB-147	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
27	YI 158A	1.76	6.18	7.94	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.48	49.82	0.48	49.82	0.0	Off
28	YI 159	3.31	0.00	1.00	2.31	DrGrt	0.0	0.00	0.00	2.00	2.00	0.020	2.00	0.020	0.020	0.013	0.14	16.10	0.14	16.10	0.0	27
29	YI 158	2.04	3.19	1.37	3.87	DrGrt	0.0	0.00	0.00	2.00	2.00	0.020	2.00	0.020	0.020	0.013	0.17	19.10	0.17	19.10	0.0	27
30	YI 157	2.22	2.18	1.20	3.19	DrGrt	0.0	0.00	0.00	2.00	2.00	0.020	2.00	0.020	0.020	0.013	0.15	17.10	0.15	17.10	0.0	29
31	YI 156	1.97	1.16	0.96	2.18	DrGrt	0.0	0.00	0.00	2.00	2.00	0.020	2.00	0.020	0.020	0.013	0.13	15.10	0.13	15.10	0.0	30
32	YI 155	1.83	0.00	0.67	1.16	DrGrt	0.0	0.00	0.00	2.00	2.00	0.020	2.00	0.020	0.020	0.013	0.11	13.10	0.11	13.10	0.0	31

Project File: SCM 1B Storm Network.stm | Number of lines: 32 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

SCM 1B 10-YEAR

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	28.79	372.05	375.05	3.00	7.07	4.07	0.26	375.31	0.186	43.038	372.27	375.12	2.85	6.93	4.15	0.27	375.38	0.161	0.174	0.075	1.00	0.27
2	36	28.51	372.47	375.38	2.91	4.21	4.07	0.71	376.10	0.000	125.580	373.10	374.83	1.73**	4.21	6.77	0.71	375.54	0.000	0.000	n/a	0.50	n/a
3	36	27.07	373.30	374.91	1.61*	3.88	6.98	0.69	375.60	0.000	29.057	373.45	375.13	1.68**	4.07	6.64	0.69	375.82	0.000	0.000	n/a	2.14	1.47
4	30	13.94	374.00	375.20	1.20*	2.33	5.98	0.50	375.70	0.000	141.000	374.75	376.01	1.26**	2.47	5.65	0.50	376.50	0.000	0.000	n/a	1.26	n/a
5	30	11.97	374.95	376.07	1.12*	2.12	5.63	0.45	376.52	0.000	292.665	376.42	377.58	1.16**	2.23	5.37	0.45	378.03	0.000	0.000	n/a	1.50	0.67
6	30	11.67	376.62	377.72	1.10*	2.08	5.62	0.44	378.16	0.000	43.286	376.84	377.98	1.14**	2.19	5.33	0.44	378.43	0.000	0.000	n/a	1.63	n/a
7	24	9.52	381.66	382.77	1.11*	1.77	5.30	0.44	383.21	0.497	196.769	382.64	383.75	1.11**	1.79	5.31	0.44	384.19	0.499	0.498	0.980	1.13	0.49
8	24	9.37	382.84	384.25	1.41	2.36	3.97	0.25	384.49	0.242	41.948	383.05	384.29	1.24	2.04	4.60	0.33	384.61	0.348	0.295	0.124	0.85	0.28
9	24	7.04	383.25	384.57	1.32	1.45	3.21	0.37	384.93	0.000	29.270	383.40	384.34	0.94**	1.45	4.85	0.37	384.71	0.000	0.000	n/a	1.98	0.72
10	18	2.55	385.13	385.69	0.56*	0.60	4.28	0.23	385.91	0.000	138.408	386.08	386.68	0.60**	0.67	3.82	0.23	386.91	0.000	0.000	n/a	0.50	0.11
11	15	2.15	386.36	386.96	0.60*	0.58	3.72	0.21	387.17	0.519	125.150	387.01	387.61	0.60	0.58	3.72	0.21	387.82	0.519	0.519	0.649	1.16	0.25
12	15	2.00	387.20	387.86	0.66	0.54	3.06	0.15	388.00	0.324	42.068	387.42	387.99	0.57**	0.54	3.70	0.21	388.20	0.541	0.432	0.182	1.17	0.25
13	15	1.76	387.62	388.23	0.61	0.49	2.94	0.13	388.37	0.316	28.000	387.76	388.29 j	0.53**	0.50	3.56	0.20	388.49	0.531	0.423	0.119	0.99	0.19
14	15	0.42	387.96	388.49	0.53	0.18	0.86	0.09	388.57	0.000	50.224	388.36	388.61 j	0.25**	0.18	2.39	0.09	388.70	0.000	0.000	n/a	1.00	n/a
15	18	3.88	383.94	384.55	0.61*	0.68	5.72	0.30	384.85	0.000	45.621	384.45	385.20	0.75**	0.89	4.37	0.30	385.50	0.000	0.000	n/a	1.22	n/a
16	18	0.63	384.65	385.20	0.55	0.25	1.07	0.10	385.31	0.000	28.355	384.80	385.10	0.30**	0.25	2.58	0.10	385.20	0.000	0.000	n/a	1.00	0.10
17	15	0.27	379.84	380.05	0.21*	0.13	2.04	0.06	380.11	0.500	28.000	379.98	380.19 j	0.21**	0.13	2.05	0.07	380.25	0.507	0.503	0.141	1.14	0.07
18	15	0.21	380.18	380.36	0.18*	0.10	1.88	0.05	380.42	0.499	39.908	380.38	380.56 j	0.18**	0.11	1.87	0.05	380.62	0.492	0.495	0.198	0.94	0.05
19	15	0.14	380.58	380.73	0.15*	0.08	1.69	0.04	380.77	0.515	34.848	380.76	380.91	0.15**	0.08	1.71	0.05	380.95	0.533	0.524	0.182	1.34	0.06
20	15	0.07	380.96	381.04	0.08*	0.04	2.00	0.03	381.08	0.000	44.136	381.63	381.73	0.10**	0.05	1.49	0.03	381.77	0.000	0.000	n/a	1.00	n/a
21	15	1.86	378.20	378.76	0.56*	0.53	3.53	0.19	378.95	0.498	28.043	378.34	378.89	0.55	0.53	3.54	0.19	379.09	0.503	0.501	0.140	1.74	0.34
22	15	1.20	378.54	379.23	0.69	0.38	1.71	0.05	379.28	0.098	92.236	379.00	379.43	0.43**	0.38	3.16	0.16	379.59	0.513	0.305	0.281	1.00	0.16

Project File: SCM 1B Storm Network.stm | Number of lines: 32 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 1B 10-YEAR

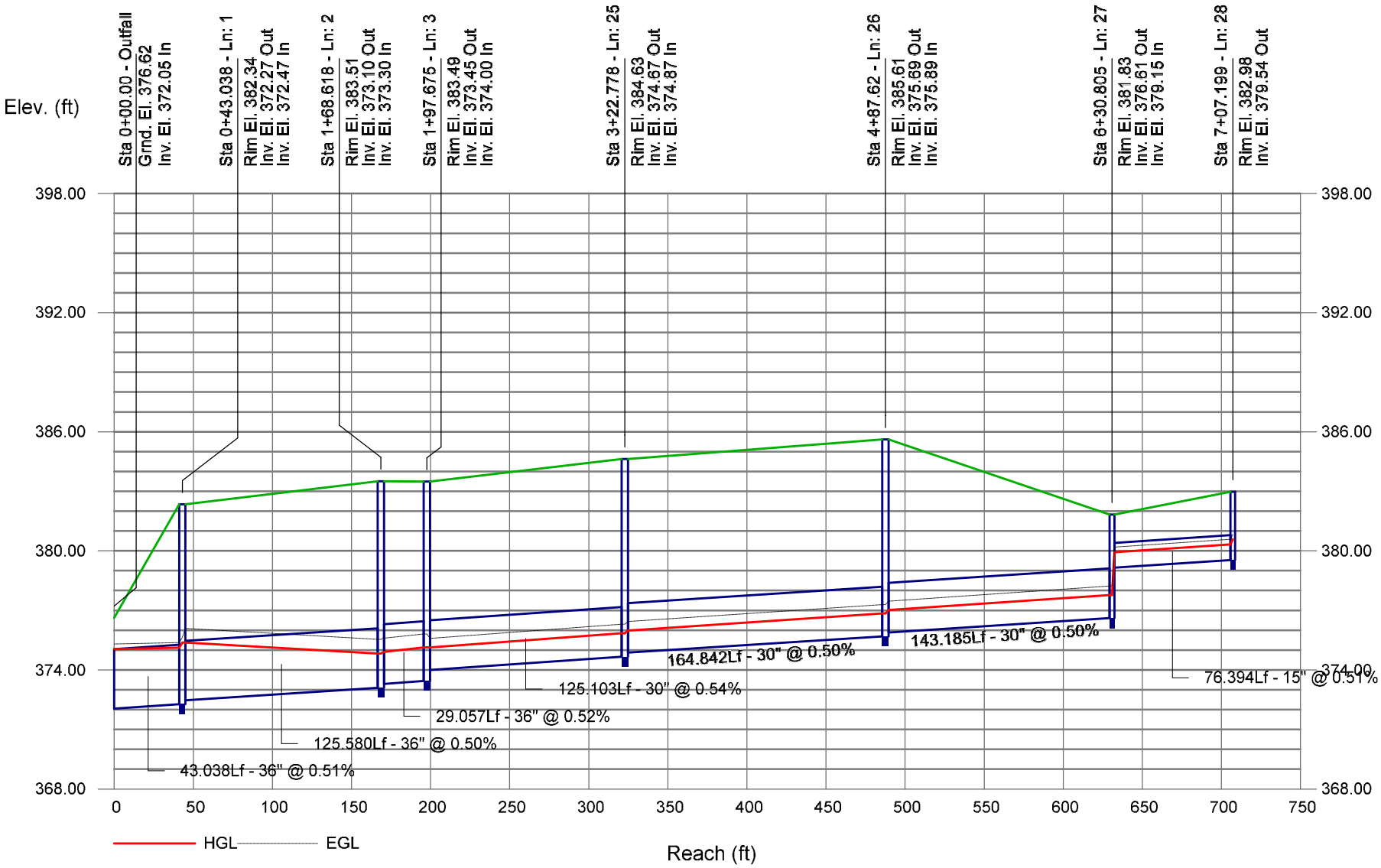
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	15	0.25	381.44	381.64	0.20*	0.12	1.98	0.06	381.70	0.494	44.388	381.66	381.86	0.20**	0.13	1.97	0.06	381.92	0.487	0.491	0.218	1.00	0.06
24	15	0.88	380.42	380.79	0.37*	0.30	2.92	0.13	380.92	0.522	34.361	380.60	380.97	0.37**	0.30	2.89	0.13	381.10	0.507	0.515	0.177	1.00	0.13
25	30	12.36	374.00	375.13	1.13	2.16	5.73	0.46	375.59	0.000	125.103	374.67	375.85	1.18**	2.28	5.43	0.46	376.31	0.000	0.000	n/a	0.50	n/a
26	30	11.92	374.87	375.99	1.12*	2.13	5.61	0.45	376.44	0.000	164.842	375.69	376.85	1.16**	2.22	5.36	0.45	377.29	0.000	0.000	n/a	1.00	0.45
27	30	12.09	375.89	377.01	1.12*	2.14	5.65	0.45	377.47	0.000	143.185	376.61	377.78	1.17**	2.24	5.39	0.45	378.23	0.000	0.000	n/a	2.25	n/a
28	15	3.31	379.15	379.93	0.78*	0.81	4.09	0.26	380.19	0.510	76.394	379.54	380.32	0.78	0.81	4.08	0.26	380.58	0.508	0.509	0.389	1.00	0.26
29	24	7.47	377.15	377.88	0.73*	1.03	7.23	0.38	378.26	0.000	71.757	378.13	379.10	0.97**	1.51	4.94	0.38	379.48	0.000	0.000	n/a	0.50	n/a
30	18	5.69	378.67	379.65	0.98*	1.23	4.63	0.33	379.99	0.500	163.784	379.49	380.47	0.98	1.23	4.63	0.33	380.81	0.499	0.500	0.818	0.50	0.17
31	15	3.66	379.76	380.64	0.88	0.92	3.96	0.24	380.88	0.450	134.085	380.43	381.26	0.83	0.87	4.22	0.28	381.54	0.525	0.488	0.654	0.50	0.14
32	15	1.83	380.63	381.40	0.77	0.51	2.31	0.08	381.48	0.165	202.660	381.65	382.19 j	0.54**	0.51	3.63	0.20	382.39	0.544	0.354	n/a	1.00	n/a

Project File: SCM 1B Storm Network.stm | Number of lines: 32 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

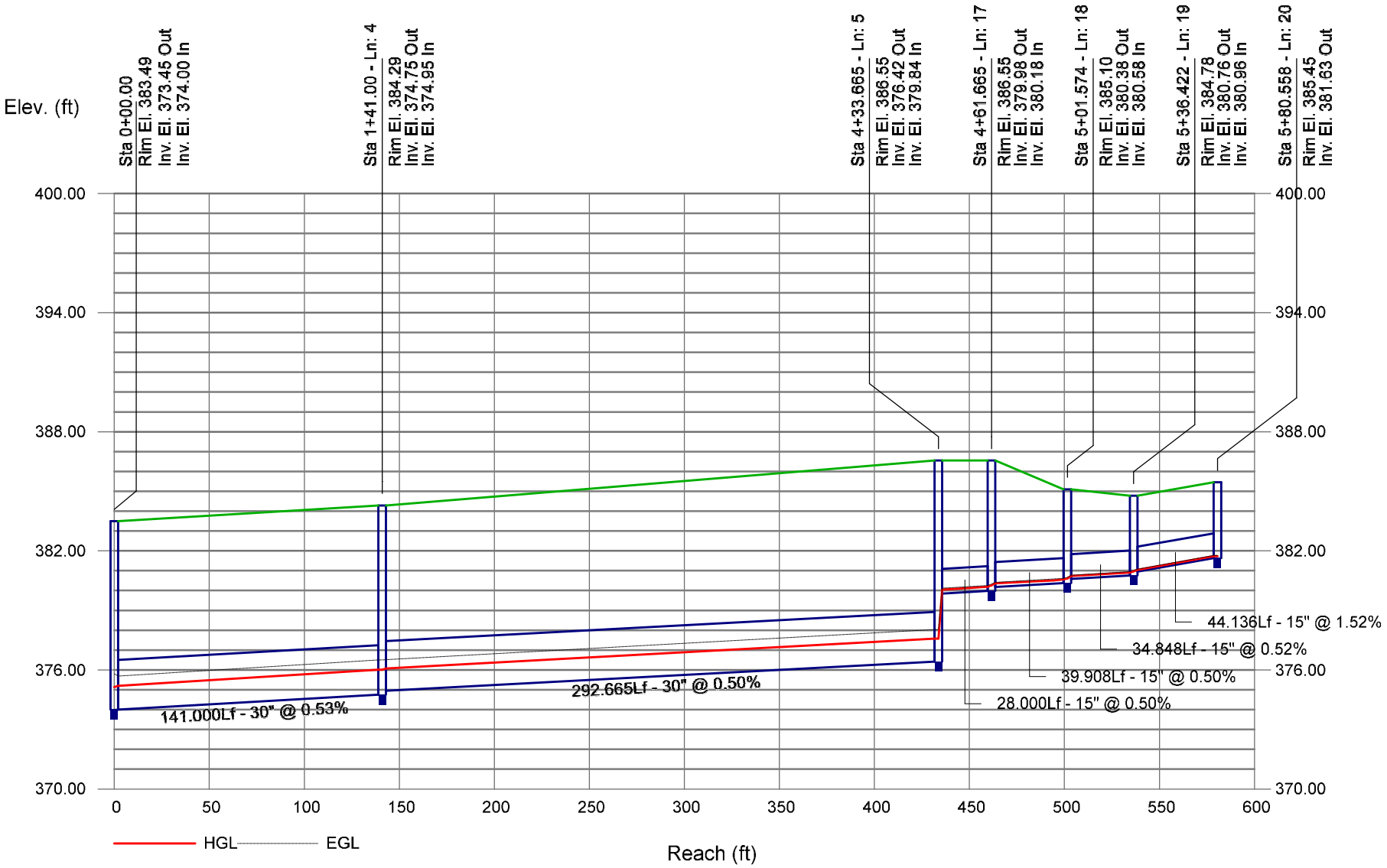
Storm Sewer Profile

SCM 1B 10-YEAR PROFILE 1-28 Proj. file: SCM 1B Storm Network.stm



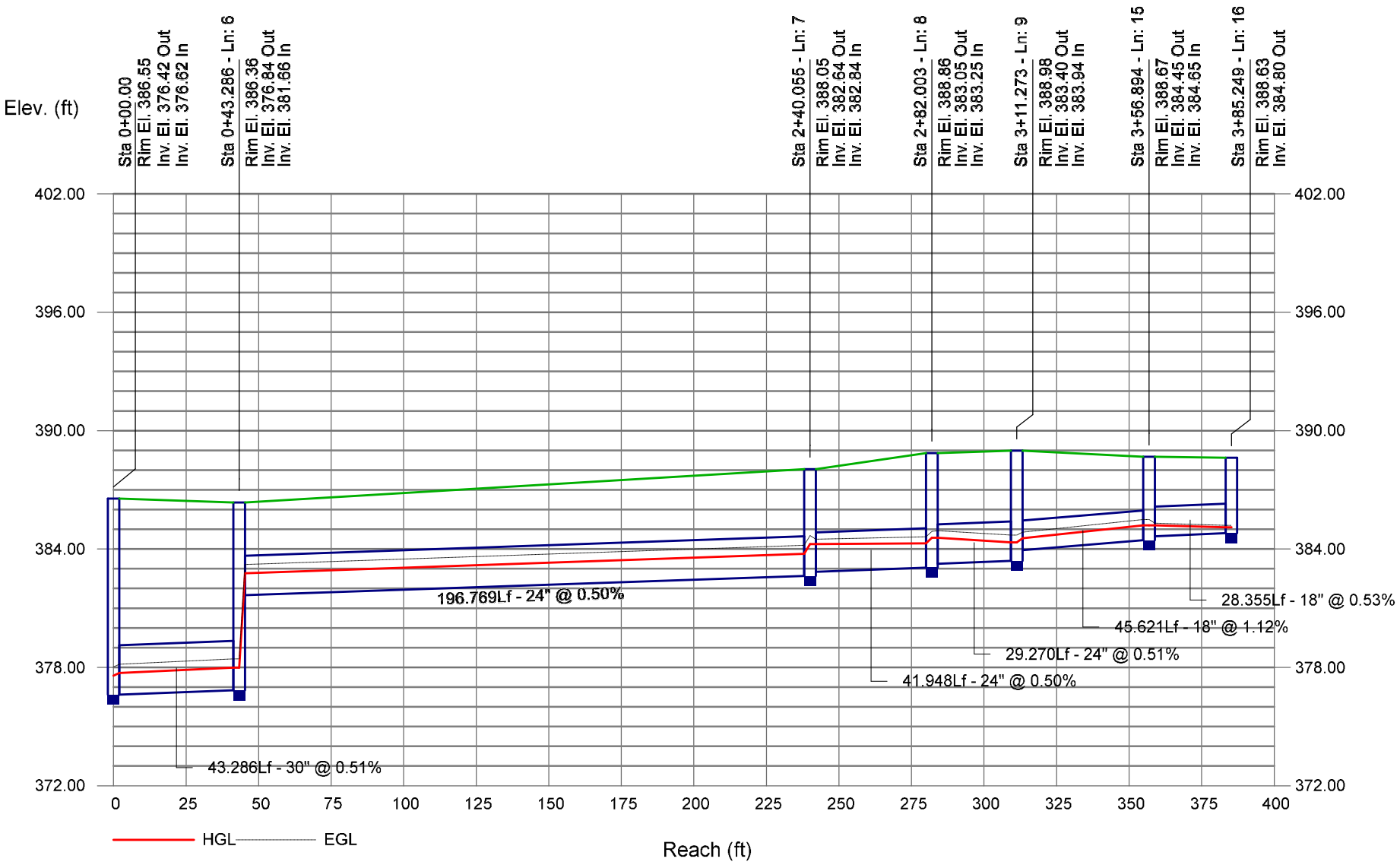
Storm Sewer Profile

SCM 1B 10-YEAR PROFILE 4-20 Proj. file: SCM 1B Storm Network.stm



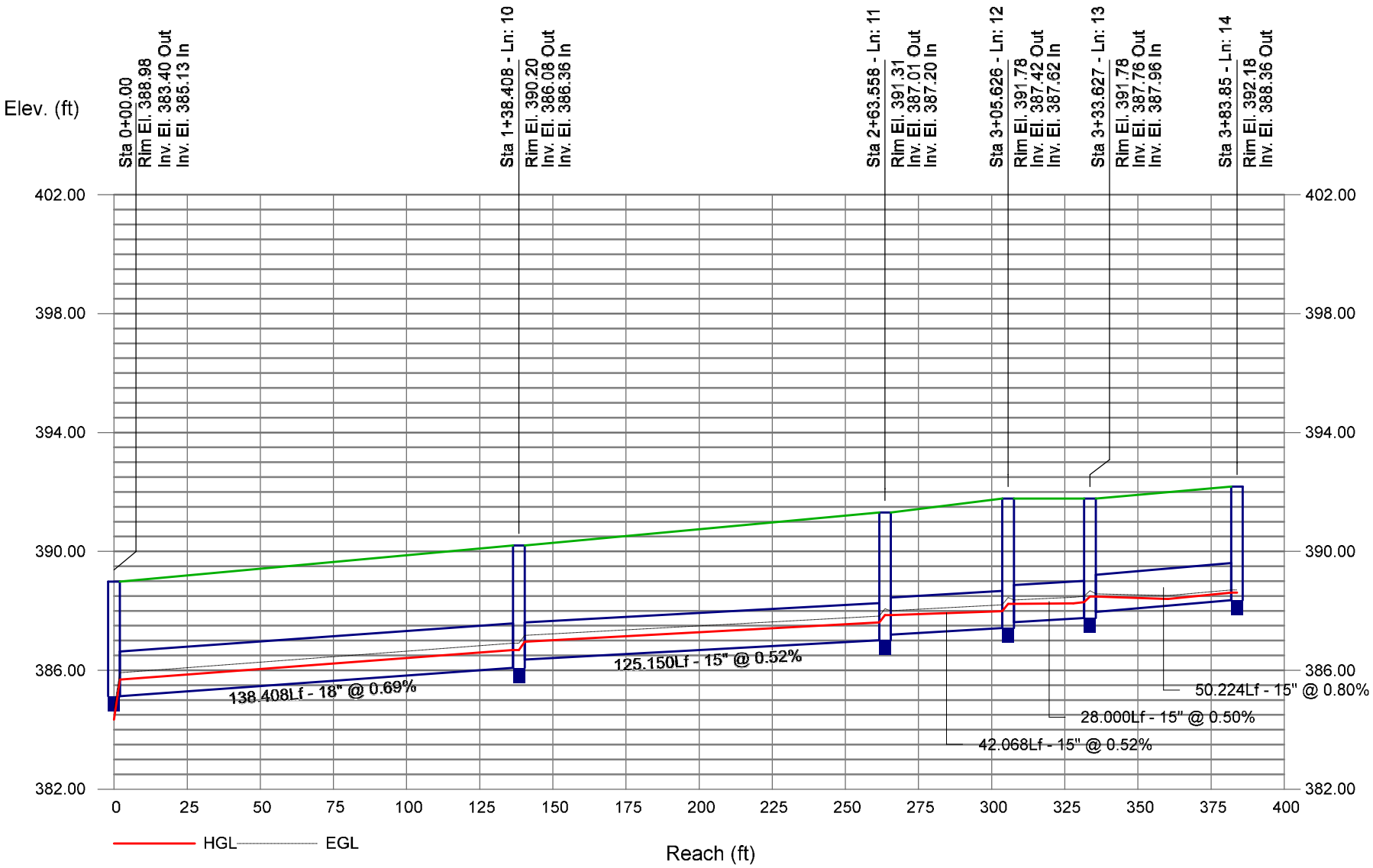
Storm Sewer Profile

SCM 1B 10-YEAR PROFILE 6-16 Proj. file: SCM 1B Storm Network.stm



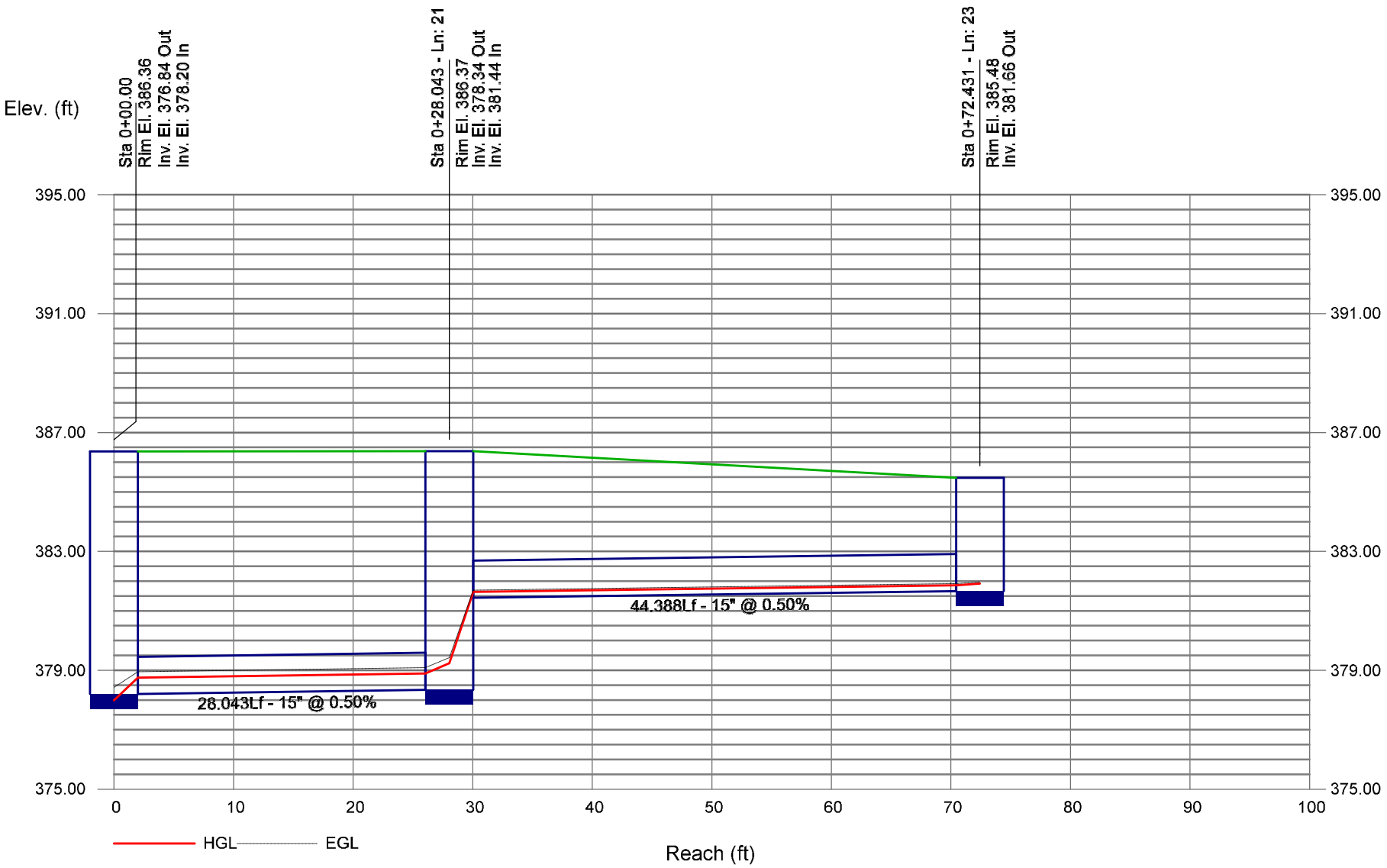
Storm Sewer Profile

SCM 1B 10-YEAR PROFILE 10-14 Proj. file: SCM 1B Storm Network.stm



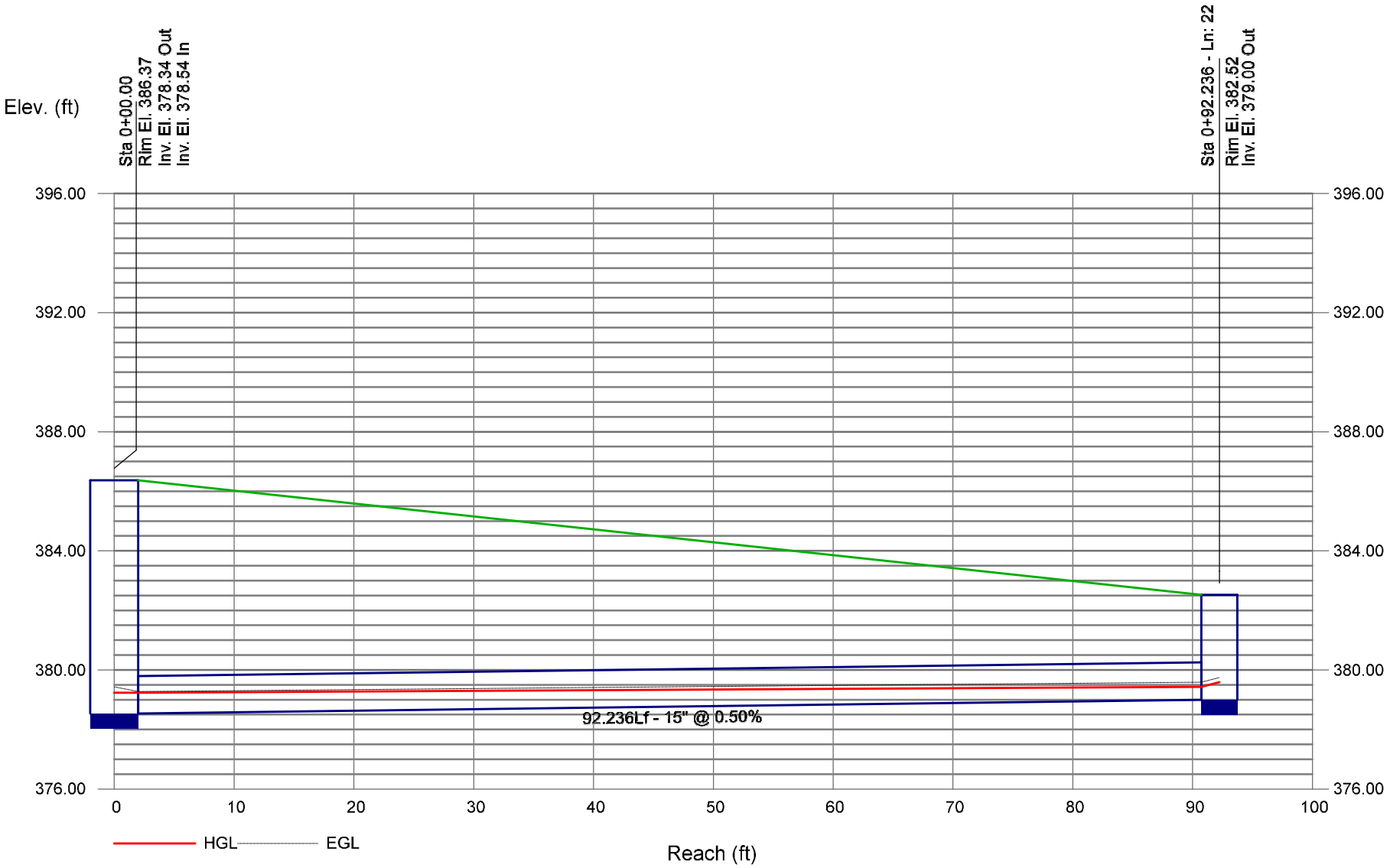
Storm Sewer Profile

SCM 1B 10-YEAR PROFILE 21-23 Proj. file: SCM 1B Storm Network.stm



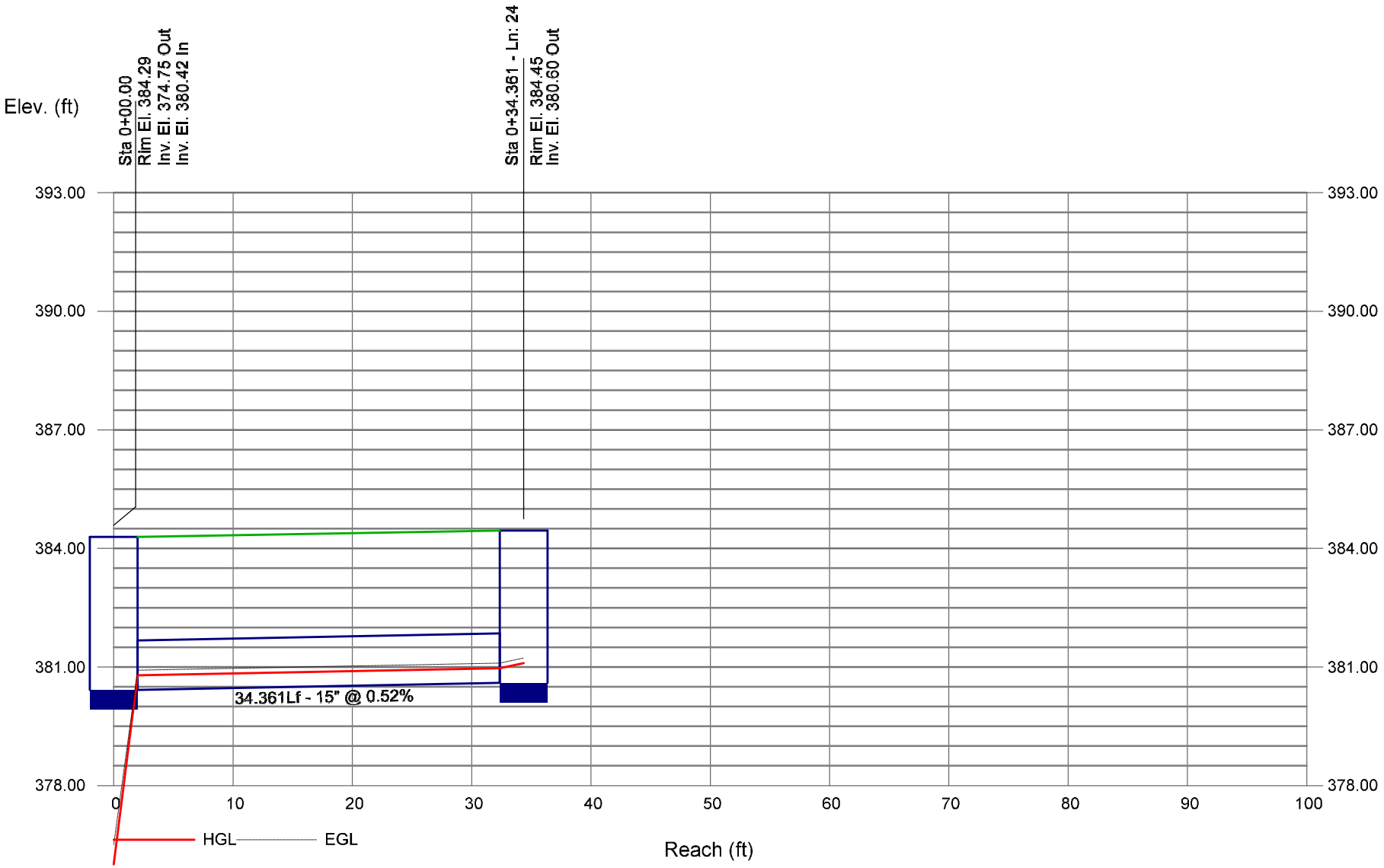
Storm Sewer Profile

SCM 1B 10-YEAR PROFILE 22-22 Proj. file: SCM 1B Storm Network.stm



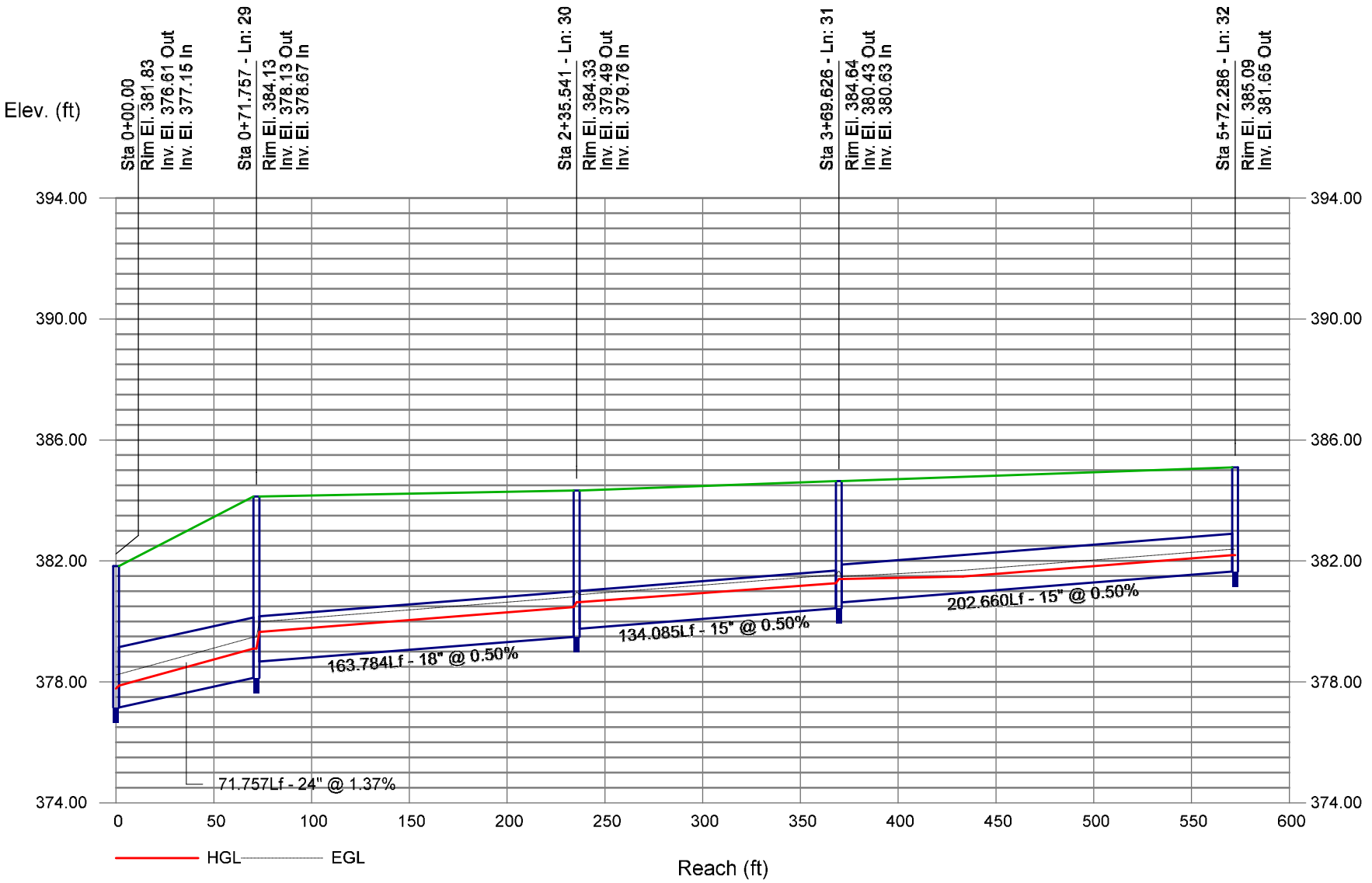
Storm Sewer Profile

SCM 1B 10-YEAR PROFILE 24-24 Proj. file: SCM 1B Storm Network.stm



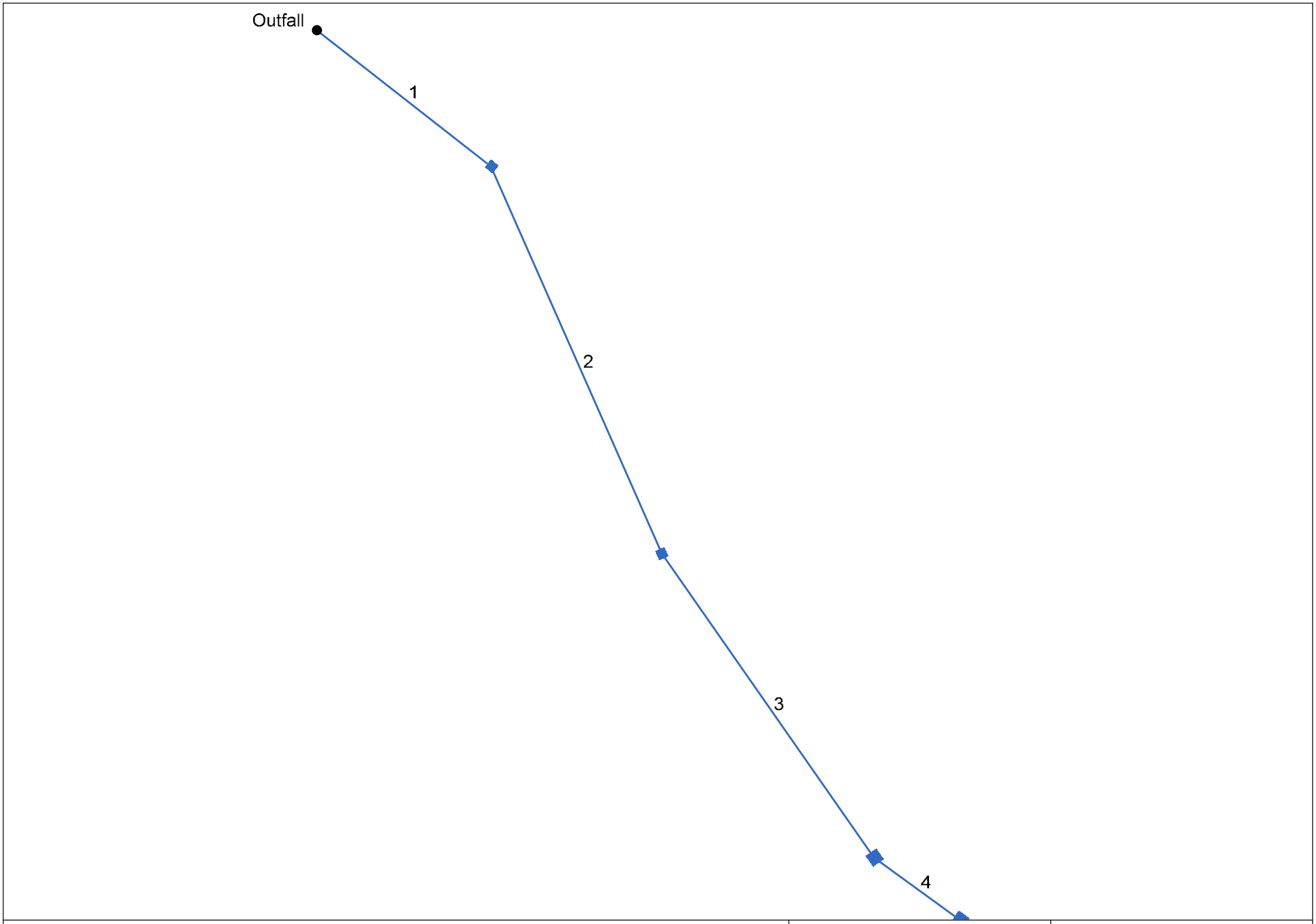
Storm Sewer Profile

SCM 1B 10-YEAR PROFILE 29-32 Proj. file: SCM 1B Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan

SCM 1C 10-YEAR



Project File: SCM 1C Storm Network.stm	Number of lines: 4	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 1C 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	70.981	38.145	DrGrt	0.00	0.39	0.60	10.0	358.50	6.68	363.24	15	Cir	0.013	0.79	371.16	Pipe - (570)
2	1	136.000	28.168	DrGrt	0.00	0.16	0.60	10.0	363.50	5.51	371.00	15	Cir	0.013	0.50	378.82	Pipe - (569)
3	2	119.127	-11.154	Comb	0.00	0.33	0.60	10.0	371.20	0.92	372.30	15	Cir	0.013	0.57	380.11	Pipe - (568)
4	3	34.000	-19.075	Comb	0.00	0.34	0.60	10.0	372.56	1.00	372.90	15	Cir	0.013	1.00	380.85	Pipe - (567)

Project File: SCM 1C Storm Network.stm

Number of lines: 4

Date: 4/11/2025

Structure Report

SCM 1C 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 161	DropGrate	371.16	Rect	3.00	3.00	15	Cir	363.24	15	Cir	363.50
2	YI 162	DropGrate	378.82	Rect	3.00	3.00	15	Cir	371.00	15	Cir	371.20
3	CB 163	Combination	380.11	Rect	4.00	4.00	15	Cir	372.30	15	Cir	372.56
4	CB 164	Combination	380.85	Rect	4.00	4.00	15	Cir	372.90			

Project File: SCM 1C Storm Network.stm | Number of Structures: 4 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 1C 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (570)	4.14	15	Cir	70.981	358.50	363.24	6.678	359.75	364.06	n/a	364.06 j	End	DropGrate
2	Pipe - (569)	2.86	15	Cir	136.000	363.50	371.00	5.515	364.06	371.68	0.14	371.68	1	DropGrate
3	Pipe - (568)	2.35	15	Cir	119.127	371.20	372.30	0.923	371.73	372.91	0.14	372.91	2	Combination
4	Pipe - (567)	1.20	15	Cir	34.000	372.56	372.90	1.000	372.92	373.33	n/a	373.33	3	Combination

Project File: SCM 1C Storm Network.stm

Number of lines: 4

Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

SCM 1C 10-YEAR

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	YI 161	1.37	0.00	1.37	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.15	16.84	0.15	16.84	0.0	Off
2	YI 162	0.56	0.00	0.56	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.08	10.19	0.08	10.19	0.0	Off
3	CB 163	1.16	0.00	1.16	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.19	5.65	0.19	5.65	0.0	Off
4	CB 164	1.20	0.00	1.20	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.20	5.78	0.20	5.78	0.0	Off

Project File: SCM 1C Storm Network.stm | Number of lines: 4 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 1C 10-YEAR

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	15	4.14	358.50	359.75	1.25	0.86	3.37	0.18	359.93	0.411	70.981	363.24	364.06 j	0.82**	0.86	4.83	0.36	364.43	0.692	0.552	n/a	0.79	n/a
2	15	2.86	363.50	364.06	0.56	0.54	5.34	0.27	364.34	0.000	136.000	371.00	371.68	0.68**	0.68	4.20	0.27	371.95	0.000	0.000	n/a	0.50	0.14
3	15	2.35	371.20	371.73	0.53*	0.50	4.70	0.24	371.97	0.000	119.127	372.30	372.91	0.61**	0.60	3.93	0.24	373.15	0.000	0.000	n/a	0.57	0.14
4	15	1.20	372.56	372.92	0.36*	0.30	4.02	0.16	373.08	0.000	34.000	372.90	373.33	0.43**	0.38	3.19	0.16	373.49	0.000	0.000	n/a	1.00	n/a

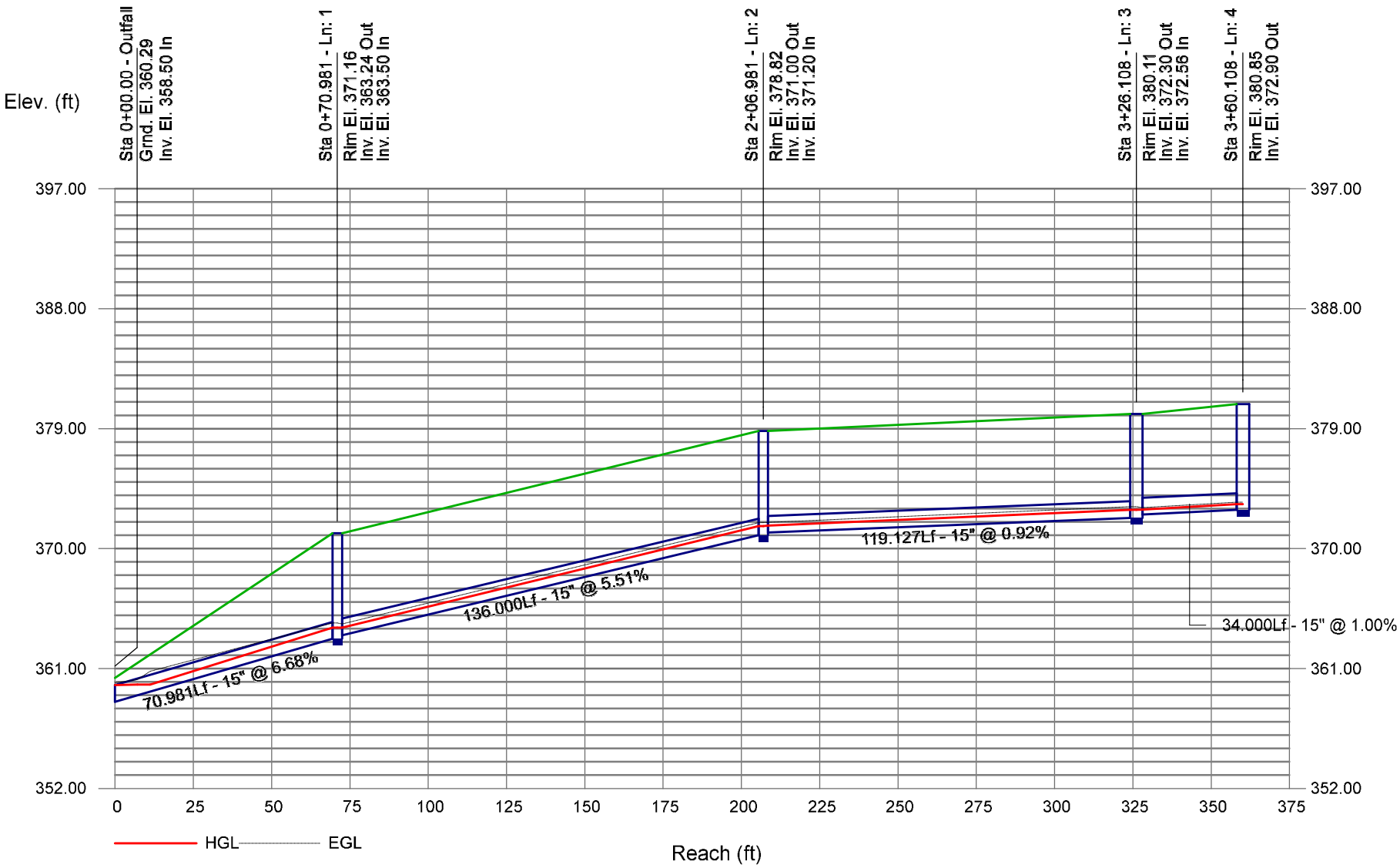
Project File: SCM 1C Storm Network.stm | Number of lines: 4 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

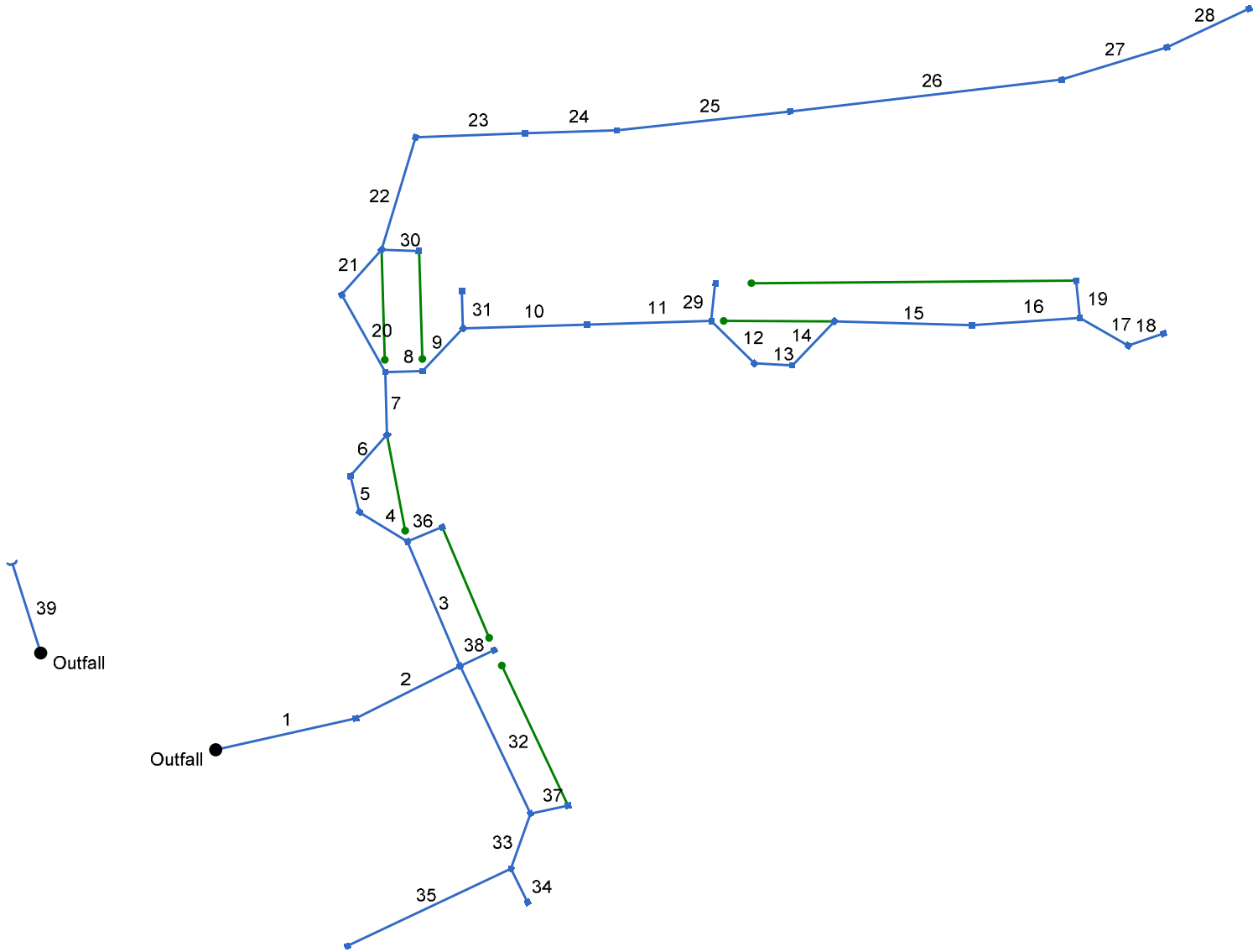
Storm Sewer Profile

SCM 1C 10-YEAR PROFILE 1-4

Proj. file: SCM 1C Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 2 10-YEAR



Project File: SCM 2 Storm Network.stm	Number of lines: 39	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 2 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	107.012	-12.687	DrGrt	0.00	0.41	0.60	10.0	349.02	0.86	349.94	30	Cir	0.013	0.50	357.33	Pipe - (137)
2	1	87.460	-14.066	Comb	0.00	0.23	0.60	10.0	350.14	0.75	350.80	30	Cir	0.013	1.50	358.63	Pipe - (135)
3	2	101.407	-86.284	Comb	0.00	0.09	0.60	10.0	351.00	1.58	352.60	30	Cir	0.013	1.50	360.21	Pipe - (131)
4	3	41.788	-35.260	Comb	0.00	0.31	0.60	10.0	352.80	1.01	353.22	30	Cir	0.013	1.11	361.27	Pipe - (172)
5	4	28.013	44.313	Comb	0.00	0.29	0.60	10.0	353.40	0.50	353.54	30	Cir	0.013	1.28	361.29	Pipe - (171)
6	5	41.080	55.403	Comb	0.00	0.03	0.60	10.0	353.64	1.00	354.05	30	Cir	0.013	1.09	361.89	Pipe - (123)
7	6	46.931	-42.881	Comb	0.00	0.14	0.60	10.0	354.25	0.60	354.53	30	Cir	0.013	1.77	362.70	Pipe - (520)
8	7	28.000	89.726	Comb	0.00	0.06	0.60	10.0	354.70	0.50	354.84	24	Cir	0.013	1.13	362.70	Pipe - (521)
9	8	43.841	-45.000	Comb	0.00	0.07	0.60	10.0	355.00	1.00	355.44	24	Cir	0.013	1.69	364.05	Pipe - (122)
10	9	92.661	45.000	Comb	0.00	0.19	0.60	10.0	355.60	4.92	360.16	18	Cir	0.013	0.50	368.49	Pipe - (157) (1)
11	10	92.660	0.008	Comb	0.00	0.04	0.60	10.0	360.40	5.84	365.81	18	Cir	0.013	1.49	373.41	Pipe - (157)
12	11	45.242	46.481	Comb	0.00	0.77	0.60	10.0	366.00	4.42	368.00	18	Cir	0.013	1.07	376.09	Pipe - (160)
13	12	28.241	-41.708	Comb	0.00	0.61	0.60	10.0	368.20	0.50	368.34	18	Cir	0.013	1.19	376.18	Pipe - (162)
14	13	45.687	-49.362	Comb	0.00	0.19	0.60	10.0	368.60	4.82	370.80	18	Cir	0.013	1.17	378.35	Pipe - (168)
15	14	102.568	47.993	Comb	0.00	0.10	0.60	10.0	371.00	3.90	375.00	15	Cir	0.013	0.50	383.79	Pipe - (156)
16	15	80.723	-5.560	Comb	0.00	0.12	0.60	10.0	375.20	4.83	379.10	15	Cir	0.013	1.50	387.61	Pipe - (143)
17	16	41.477	33.735	Comb	0.00	0.59	0.60	10.0	379.30	4.10	381.00	15	Cir	0.013	1.18	389.05	Pipe - (138)
18	17	28.000	-48.574	Comb	0.00	0.35	0.60	10.0	381.18	0.93	381.44	15	Cir	0.013	1.00	389.06	Pipe - (158)
19	16	28.132	-91.952	Comb	0.00	0.13	0.60	10.0	379.30	0.50	379.44	15	Cir	0.013	1.00	387.71	Pipe - (167)
20	7	66.604	-27.920	Comb	0.00	0.11	0.60	10.0	354.70	1.01	355.37	18	Cir	0.013	1.43	363.67	Pipe - (524)
21	20	45.065	70.943	Comb	0.00	0.07	0.60	10.0	355.60	1.00	356.05	18	Cir	0.013	1.21	364.41	Pipe - (522)
22	21	87.915	-24.725	Comb	0.00	0.08	0.60	10.0	356.25	1.00	357.13	18	Cir	0.013	1.43	364.79	Pipe - (238)
23	22	81.372	70.991	DrGrt	0.00	0.32	0.60	10.0	357.40	3.20	360.00	18	Cir	0.013	0.50	364.50	Pipe - (237)

Project File: SCM 2 Storm Network.stm

Number of lines: 39

Date: 4/11/2025

Storm Sewer Inventory Report

SCM 2 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	68.903	0.438	DrGrt	0.00	0.59	0.60	10.0	360.20	2.61	362.00	18	Cir	0.013	0.50	366.02	Pipe - (216)
25	24	130.000	-4.566	DrGrt	0.00	0.77	0.60	10.0	362.20	3.54	366.80	18	Cir	0.013	0.50	371.38	Pipe - (217)
26	25	203.727	-0.399	DrGrt	0.00	0.43	0.60	10.0	367.00	3.19	373.50	15	Cir	0.013	0.50	378.55	Pipe - (217) (1)
27	26	82.351	-10.355	DrGrt	0.00	0.11	0.60	10.0	373.70	0.97	374.50	15	Cir	0.013	0.50	380.13	Pipe - (580)
28	27	68.005	-8.335	DrGrt	0.00	0.41	0.60	10.0	374.70	1.00	375.38	15	Cir	0.013	1.00	380.18	Pipe - (579)
29	11	28.251	-82.160	Comb	0.00	0.27	0.60	10.0	366.00	0.50	366.14	15	Cir	0.013	1.00	373.62	Pipe - (161)
30	21	28.058	50.378	Comb	0.00	0.11	0.60	10.0	356.25	1.00	356.53	15	Cir	0.013	1.00	364.41	Pipe - (523)
31	9	28.000	-45.000	Comb	0.00	0.22	0.60	10.0	356.04	0.50	356.18	15	Cir	0.013	1.00	364.21	Pipe - (121)
32	2	122.425	91.449	Comb	0.00	0.23	0.60	10.0	351.00	0.98	352.20	24	Cir	0.013	1.47	359.75	Pipe - (180)
33	32	43.844	44.996	Comb	0.00	0.12	0.60	10.0	352.40	3.19	353.80	15	Cir	0.013	1.69	361.35	Pipe - (178)
34	33	28.005	-46.494	Comb	0.00	0.24	0.60	10.0	354.00	-0.54	353.85	15	Cir	0.013	1.00	361.34	Pipe - (556)
35	33	135.019	44.904	Comb	0.00	0.12	0.60	10.0	354.00	2.89	357.90	15	Cir	0.013	1.00	365.23	Pipe - (177)
36	3	28.141	90.727	Comb	0.00	0.36	0.60	10.0	353.30	0.50	353.44	15	Cir	0.013	1.00	360.26	Pipe - (173)
37	32	28.755	-76.842	Comb	0.00	0.41	0.60	10.0	352.40	1.67	352.88	15	Cir	0.013	1.00	359.93	Pipe - (179)
38	2	28.000	1.449	Comb	0.00	0.69	0.60	10.0	352.00	0.50	352.14	15	Cir	0.013	1.00	358.63	Pipe - (132)
39	End	69.863	-107.397	Hdwl	0.00	1.33	0.60	10.0	350.00	2.15	351.50	18	Cir	0.013	1.00	-2.92	Pipe - (581)

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Date: 4/11/2025

Structure Report

SCM 2 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 201	DropGrate	357.33	Rect	4.00	4.00	30	Cir	349.94	30	Cir	350.14
2	CB 202	Combination	358.63	Rect	4.00	4.00	30	Cir	350.80	30 24 15	Cir Cir Cir	351.00 351.00 352.00
3	CB 203	Combination	360.21	Rect	4.00	4.00	30	Cir	352.60	30 15	Cir Cir	352.80 353.30
4	CB 204	Combination	361.27	Rect	4.00	4.00	30	Cir	353.22	30	Cir	353.40
5	CB 205	Combination	361.29	Rect	4.00	4.00	30	Cir	353.54	30	Cir	353.64
6	CB 206	Combination	361.89	Rect	4.00	4.00	30	Cir	354.05	30	Cir	354.25
7	CB 207	Combination	362.70	Rect	4.00	4.00	30	Cir	354.53	24 18	Cir Cir	354.70 354.70
8	CB 208	Combination	362.70	Rect	4.00	4.00	24	Cir	354.84	24	Cir	355.00
9	CB 209	Combination	364.05	Rect	4.00	4.00	24	Cir	355.44	18 15	Cir Cir	355.60 356.04
10	CB 210	Combination	368.49	Rect	4.00	4.00	18	Cir	360.16	18	Cir	360.40
11	CB 211	Combination	373.41	Rect	4.00	4.00	18	Cir	365.81	18 15	Cir Cir	366.00 366.00
12	CB 212	Combination	376.09	Rect	4.00	4.00	18	Cir	368.00	18	Cir	368.20
13	CB 213	Combination	376.18	Rect	4.00	4.00	18	Cir	368.34	18	Cir	368.60
14	CB 214	Combination	378.35	Rect	4.00	4.00	18	Cir	370.80	15	Cir	371.00
15	CB 215	Combination	383.79	Rect	4.00	4.00	15	Cir	375.00	15	Cir	375.20
16	CB 216	Combination	387.61	Rect	4.00	4.00	15	Cir	379.10	15 15	Cir Cir	379.30 379.30
17	CB 217	Combination	389.05	Rect	4.00	4.00	15	Cir	381.00	15	Cir	381.18
18	CB 217A	Combination	389.06	Rect	4.00	4.00	15	Cir	381.44			
19	CB 216A	Combination	387.71	Rect	4.00	4.00	15	Cir	379.44			

Structure Report

SCM 2 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
20	CB 226	Combination	363.67	Rect	4.00	4.00	18	Cir	355.37	18	Cir	355.60
21	CB 227	Combination	364.41	Rect	4.00	4.00	18	Cir	356.05	18 15	Cir Cir	356.25 356.25
22	CB 228	Combination	364.79	Rect	4.00	4.00	18	Cir	357.13	18	Cir	357.40
23	YI 229	DropGrate	364.50	Rect	4.00	4.00	18	Cir	360.00	18	Cir	360.20
24	YI 230	DropGrate	366.02	Rect	4.00	4.00	18	Cir	362.00	18	Cir	362.20
25	YI 231	DropGrate	371.38	Rect	4.00	4.00	18	Cir	366.80	15	Cir	367.00
26	YI 232	DropGrate	378.55	Rect	4.00	4.00	15	Cir	373.50	15	Cir	373.70
27	YI 233	DropGrate	380.13	Rect	4.00	4.00	15	Cir	374.50	15	Cir	374.70
28	YI 234	DropGrate	380.18	Rect	4.00	4.00	15	Cir	375.38			
29	CB 211A	Combination	373.62	Rect	4.00	4.00	15	Cir	366.14			
30	CB 227A	Combination	364.41	Rect	4.00	4.00	15	Cir	356.53			
31	CB 209A	Combination	364.21	Rect	4.00	4.00	15	Cir	356.18			
32	CB 223	Combination	359.75	Rect	4.00	4.00	24	Cir	352.20	15 15	Cir Cir	352.40 352.40
33	CB 224	Combination	361.35	Rect	4.00	4.00	15	Cir	353.80	15 15	Cir Cir	354.00 354.00
34	CB 224A	Combination	361.34	Rect	4.00	4.00	15	Cir	353.85			
35	CB 225	Combination	365.23	Rect	4.00	4.00	15	Cir	357.90			
36	CB 203A	Combination	360.26	Rect	4.00	4.00	15	Cir	353.44			
37	CB 223A	Combination	359.93	Rect	4.00	4.00	15	Cir	352.88			
38	CB 202A	Combination	358.63	Rect	4.00	4.00	15	Cir	352.14			
39	FES 240	OpenHeadwall	-2.92	n/a	n/a	n/a	18	Cir	351.50			

Project File: SCM 2 Storm Network.stm | Number of Structures: 39 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 2 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (137)	32.44	30	Cir	107.012	349.02	349.94	0.860	351.52	351.98	0.44	352.43	End	DropGrate
2	Pipe - (135)	31.36	30	Cir	87.460	350.14	350.80	0.755	352.43	352.71	n/a	352.71 j	1	Combination
3	Pipe - (131)	25.13	30	Cir	101.407	351.00	352.60	1.578	352.71	354.31	n/a	354.31	2	Combination
4	Pipe - (172)	23.77	30	Cir	41.788	352.80	353.22	1.005	354.31	354.88	n/a	354.88	3	Combination
5	Pipe - (171)	22.84	30	Cir	28.013	353.40	353.54	0.500	355.07	355.21	0.85	356.06	4	Combination
6	Pipe - (123)	22.00	30	Cir	41.080	353.64	354.05	0.998	356.06	355.64	0.75	355.64	5	Combination
7	Pipe - (520)	21.99	30	Cir	46.931	354.25	354.53	0.597	355.78	356.12	n/a	356.12	6	Combination
8	Pipe - (521)	12.20	24	Cir	28.000	354.70	354.84	0.500	356.12	356.20	0.51	356.71	7	Combination
9	Pipe - (122)	12.06	24	Cir	43.841	355.00	355.44	1.004	356.71	356.69	n/a	356.69 j	8	Combination
10	Pipe - (157) (1)	11.18	18	Cir	92.661	355.60	360.16	4.921	356.69	361.44	0.38	361.44	9	Combination
11	Pipe - (157)	10.62	18	Cir	92.660	360.40	365.81	5.839	361.44	367.06	n/a	367.06	10	Combination
12	Pipe - (160)	9.62	18	Cir	45.242	366.00	368.00	4.421	367.06	369.20	n/a	369.20	11	Combination
13	Pipe - (162)	7.05	18	Cir	28.241	368.20	368.34	0.496	369.37	369.51	0.42	369.93	12	Combination
14	Pipe - (168)	5.03	18	Cir	45.687	368.60	370.80	4.815	369.93	371.66	n/a	371.66 j	13	Combination
15	Pipe - (156)	4.43	15	Cir	102.568	371.00	375.00	3.900	371.66	375.85	0.19	375.85	14	Combination
16	Pipe - (143)	4.12	15	Cir	80.723	375.20	379.10	4.831	375.85	379.92	n/a	379.92	15	Combination
17	Pipe - (138)	3.29	15	Cir	41.477	379.30	381.00	4.099	379.92	381.73	n/a	381.73	16	Combination
18	Pipe - (158)	1.23	15	Cir	28.000	381.18	381.44	0.929	381.73	381.88	n/a	381.88 j	17	Combination
19	Pipe - (167)	0.46	15	Cir	28.132	379.30	379.44	0.498	379.92	379.92	0.02	379.94	16	Combination
20	Pipe - (524)	9.69	18	Cir	66.604	354.70	355.37	1.006	356.12	356.57	n/a	356.57 j	7	Combination
21	Pipe - (522)	9.37	18	Cir	45.065	355.60	356.05	0.999	356.71	357.23	0.74	357.23	20	Combination
22	Pipe - (238)	8.85	18	Cir	87.915	356.25	357.13	1.001	357.30	358.28	0.82	358.28	21	Combination
23	Pipe - (237)	8.64	18	Cir	81.372	357.40	360.00	3.195	358.28	361.14	n/a	361.14	22	DropGrate
24	Pipe - (216)	7.64	18	Cir	68.903	360.20	362.00	2.612	361.14	363.07	n/a	363.07	23	DropGrate

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

SCM 2 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
25	Pipe - (217)	5.77	18	Cir	130.000	362.20	366.80	3.538	363.07	367.73	n/a	367.73	24	DropGrate
26	Pipe - (217) (1)	3.27	15	Cir	203.727	367.00	373.50	3.191	367.73	374.23	n/a	374.23	25	DropGrate
27	Pipe - (580)	1.81	15	Cir	82.351	373.70	374.50	0.971	374.23	375.03	0.10	375.03	26	DropGrate
28	Pipe - (579)	1.44	15	Cir	68.005	374.70	375.38	1.000	375.10	375.86	n/a	375.86	27	DropGrate
29	Pipe - (161)	0.95	15	Cir	28.251	366.00	366.14	0.496	367.06	367.06	0.01	367.08	11	Combination
30	Pipe - (523)	0.39	15	Cir	28.058	356.25	356.53	0.998	357.23	356.77	0.08	356.77	21	Combination
31	Pipe - (121)	0.78	15	Cir	28.000	356.04	356.18	0.500	356.69	356.69	0.04	356.73	9	Combination
32	Pipe - (180)	3.78	24	Cir	122.425	351.00	352.20	0.980	352.71	352.88	n/a	352.88 j	2	Combination
33	Pipe - (178)	1.63	15	Cir	43.844	352.40	353.80	3.193	352.88	354.31	0.32	354.31	32	Combination
34	Pipe - (556)	0.85	15	Cir	28.005	354.00	353.85	-0.536	354.36	354.55	0.02	354.57	33	Combination
35	Pipe - (177)	0.42	15	Cir	135.019	354.00	357.90	2.888	354.31	358.15	n/a	358.15 j	33	Combination
36	Pipe - (173)	1.27	15	Cir	28.141	353.30	353.44	0.498	354.31	354.31	0.03	354.34	3	Combination
37	Pipe - (179)	1.44	15	Cir	28.755	352.40	352.88	1.669	352.88	353.36	n/a	353.36 j	32	Combination
38	Pipe - (132)	2.43	15	Cir	28.000	352.00	352.14	0.500	352.71	352.79	0.23	353.01	2	Combination
39	Pipe - (581)	4.70	18	Cir	69.863	350.00	351.50	2.147	351.50	352.33	n/a	352.33 j	End	OpenHeadwall

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

SCM 2 10-YEAR

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	YI 201	1.44	0.00	1.44	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.12	14.91	0.12	14.91	0.0	Off
2	CB 202	0.81	0.04	0.75	0.10	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.18	5.09	0.08	1.40	0.0	Off
3	CB 203	0.32	0.00	0.32	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.12	1.92	0.00	0.00	0.0	2
4	CB 204	1.09	0.00	1.09	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.19	5.38	0.19	5.38	0.0	Off
5	CB 205	1.02	0.00	1.02	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.18	5.10	0.18	5.10	0.0	Off
6	CB 206	0.11	0.00	0.11	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.08	1.29	0.00	0.00	0.0	3
7	CB 207	0.49	0.01	0.50	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.14	2.85	0.02	0.37	0.0	6
8	CB 208	0.21	0.00	0.21	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.10	1.65	0.00	0.00	0.0	Off
9	CB 209	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.09	1.54	0.00	0.00	0.0	8
10	CB 210	0.67	0.03	0.70	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.14	2.78	0.02	0.35	0.0	9
11	CB 211	0.14	0.86	0.97	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.15	3.40	0.04	0.67	0.0	10
12	CB 212	2.71	0.00	1.85	0.86	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.24	8.20	0.17	4.58	0.0	11
13	CB 213	2.15	0.00	2.15	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.26	9.01	0.26	9.01	0.0	Off
14	CB 214	0.67	0.00	0.67	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.13	2.41	0.01	0.14	0.0	11
15	CB 215	0.35	0.05	0.40	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.11	1.77	0.00	0.00	0.0	14
16	CB 216	0.42	0.55	0.92	0.05	Comb	6.0	1.50	0.00	3.00	2.50	0.033	2.00	0.060	0.020	0.013	0.16	3.84	0.05	0.88	0.0	15
17	CB 217	2.08	0.00	1.53	0.55	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.23	7.26	0.15	3.39	0.0	16
18	CB 217A	1.23	0.00	1.23	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.20	5.92	0.20	5.92	0.0	Off
19	CB 216A	0.46	0.00	0.46	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.033	2.00	0.060	0.020	0.013	0.12	2.01	0.00	0.00	0.0	29
20	CB 226	0.39	0.00	0.37	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.16	3.91	0.05	0.79	0.0	7
21	CB 227	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.11	1.91	0.00	0.00	0.0	7
22	CB 228	0.28	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.14	3.10	0.03	0.45	0.0	Off
23	YI 229	1.13	0.00	1.13	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.11	13.02	0.11	13.02	0.0	Off

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Inlet Report

SCM 2 10-YEAR

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)	
24	YI 230	2.08	0.00	2.08	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.16	18.32	0.16	18.32	0.0	Off
25	YI 231	2.71	0.00	2.71	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.19	21.39	0.19	21.39	0.0	Off
26	YI 232	1.52	0.00	1.52	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.13	15.31	0.13	15.31	0.0	Off
27	YI 233	0.39	0.00	0.39	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.05	7.66	0.05	7.66	0.0	Off
28	YI 234	1.44	0.00	1.44	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.12	14.91	0.12	14.91	0.0	Off
29	CB 211A	0.95	0.00	0.93	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.15	3.26	0.04	0.61	0.0	Off
30	CB 227A	0.39	0.00	0.39	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.14	2.76	0.02	0.33	0.0	8
31	CB 209A	0.78	0.00	0.78	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.16	4.08	0.16	4.08	0.0	Off
32	CB 223	0.81	0.00	0.77	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.15	3.74	0.05	0.82	0.0	2
33	CB 224	0.42	0.00	0.42	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.12	2.14	0.00	0.00	0.0	32
34	CB 224A	0.85	0.00	0.85	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.17	4.38	0.17	4.38	0.0	Off
35	CB 225	0.42	0.00	0.42	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.12	1.98	0.00	0.00	0.0	33
36	CB 203A	1.27	0.00	1.09	0.18	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.19	5.26	0.09	1.54	0.0	38
37	CB 223A	1.44	0.00	1.23	0.21	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.19	5.31	0.10	1.59	0.0	38
38	CB 202A	2.43	0.39	1.84	0.98	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.26	9.13	0.19	5.51	0.0	Off
39	FES 240	4.70	0.00	4.70	0.00	Hdwl	6.0	1.50	0.00	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 2 10-YEAR

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	30	32.44	349.02	351.52	2.50	4.91	6.61	0.68	352.20	0.626	107.012	349.94	351.98	2.04	4.30	7.55	0.89	352.87	0.629	0.628	0.672	0.50	0.44
2	30	31.36	350.14	352.43	2.29	4.02	6.66	0.95	353.37	0.000	87.460	350.80	352.71 j	1.91**	4.02	7.81	0.95	353.65	0.000	0.000	n/a	1.50	n/a
3	30	25.13	351.00	352.71	1.71	3.57	7.04	0.77	353.48	0.000	101.407	352.60	354.31	1.71**	3.57	7.04	0.77	355.08	0.000	0.000	n/a	1.50	n/a
4	30	23.77	352.80	354.31	1.51	3.09	7.69	0.73	355.04	0.000	41.788	353.22	354.88	1.66**	3.46	6.88	0.73	355.61	0.000	0.000	n/a	1.11	n/a
5	30	22.84	353.40	355.07	1.67*	3.49	6.54	0.67	355.74	0.500	28.013	353.54	355.21	1.67	3.49	6.54	0.67	355.88	0.500	0.500	0.140	1.28	0.85
6	30	22.00	353.64	356.06	2.42	3.30	4.52	0.69	356.75	0.000	41.080	354.05	355.64	1.59**	3.30	6.66	0.69	356.33	0.000	0.000	n/a	1.09	0.75
7	30	21.99	354.25	355.78	1.53*	3.16	6.97	0.69	356.47	0.000	46.931	354.53	356.12	1.59**	3.30	6.66	0.69	356.81	0.000	0.000	n/a	1.77	n/a
8	24	12.20	354.70	356.12	1.42	2.39	5.10	0.40	356.53	0.398	28.000	354.84	356.20	1.36	2.27	5.37	0.45	356.65	0.449	0.424	0.119	1.13	0.51
9	24	12.06	355.00	356.71	1.71	2.06	4.23	0.53	357.24	0.000	43.841	355.44	356.69 j	1.25**	2.06	5.86	0.53	357.22	0.000	0.000	n/a	1.69	n/a
10	18	11.18	355.60	356.69	1.09	1.37	8.15	0.76	357.44	0.000	92.661	360.16	361.44	1.28**	1.60	6.97	0.76	362.19	0.000	0.000	n/a	0.50	0.38
11	18	10.62	360.40	361.44	1.04	1.30	8.14	0.71	362.15	0.000	92.660	365.81	367.06	1.25**	1.57	6.75	0.71	367.77	0.000	0.000	n/a	1.49	n/a
12	18	9.62	366.00	367.06	1.06	1.34	7.20	0.63	367.69	0.000	45.242	368.00	369.20	1.20**	1.51	6.36	0.63	369.83	0.000	0.000	n/a	1.07	n/a
13	18	7.05	368.20	369.37	1.17*	1.48	4.76	0.35	369.72	0.495	28.241	368.34	369.51	1.17	1.48	4.76	0.35	369.86	0.495	0.495	0.140	1.19	0.42
14	18	5.03	368.60	369.93	1.33	1.05	3.03	0.36	370.29	0.000	45.687	370.80	371.66 j	0.86**	1.05	4.78	0.36	372.02	0.000	0.000	n/a	1.17	0.42
15	15	4.43	371.00	371.66	0.66	0.66	6.71	0.38	372.05	0.000	102.568	375.00	375.85	0.85**	0.89	4.97	0.38	376.24	0.000	0.000	n/a	0.50	0.19
16	15	4.12	375.20	375.85	0.65	0.65	6.36	0.36	376.21	0.000	80.723	379.10	379.92	0.82**	0.85	4.82	0.36	380.28	0.000	0.000	n/a	1.50	n/a
17	15	3.29	379.30	379.92	0.62	0.61	5.42	0.30	380.22	0.000	41.477	381.00	381.73	0.73**	0.75	4.42	0.30	382.03	0.000	0.000	n/a	1.18	n/a
18	15	1.23	381.18	381.73	0.55	0.38	2.37	0.16	381.89	0.000	28.000	381.44	381.88 j	0.44**	0.38	3.22	0.16	382.04	0.000	0.000	n/a	1.00	0.16
19	15	0.46	379.30	379.92	0.62	0.61	0.75	0.01	379.93	0.021	28.132	379.44	379.92	0.48	0.43	1.05	0.02	379.94	0.051	0.036	0.010	1.00	0.02
20	18	9.69	354.70	356.12	1.42	1.52	5.59	0.63	356.76	0.000	66.604	355.37	356.57 j	1.20**	1.52	6.39	0.63	357.21	0.000	0.000	n/a	1.43	n/a
21	18	9.37	355.60	356.71	1.11*	1.40	6.71	0.61	357.32	0.000	45.065	356.05	357.23	1.18**	1.49	6.27	0.61	357.84	0.000	0.000	n/a	1.21	0.74
22	18	8.85	356.25	357.30	1.05*	1.33	6.66	0.58	357.88	0.000	87.915	357.13	358.28	1.15**	1.45	6.08	0.58	358.86	0.000	0.000	n/a	1.43	0.82

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 2 10-YEAR

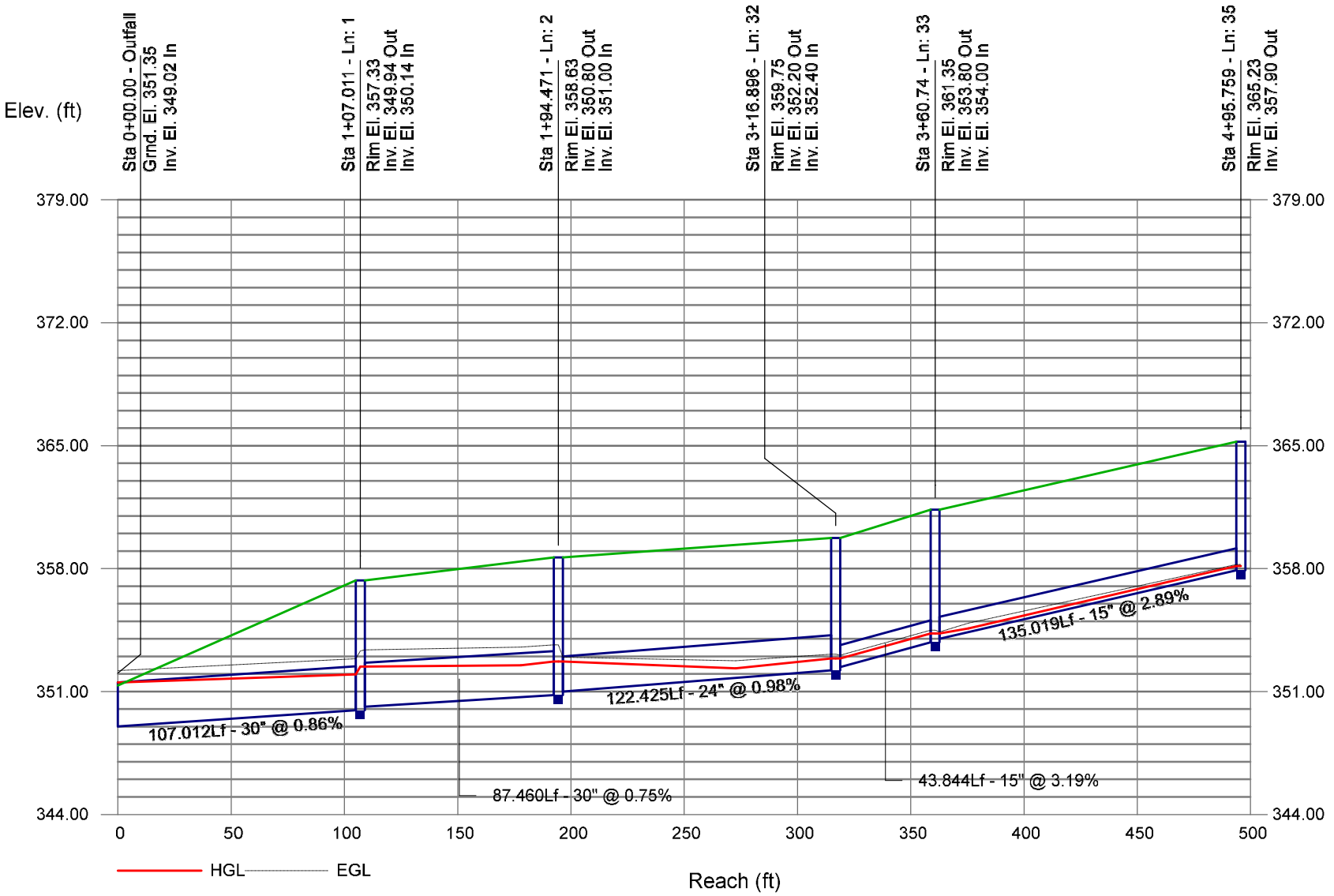
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	18	8.64	357.40	358.28	0.88	1.08	8.01	0.56	358.84	0.000	81.372	360.00	361.14	1.14**	1.44	6.01	0.56	361.70	0.000	0.000	n/a	0.50	n/a
24	18	7.64	360.20	361.14	0.94	1.16	6.57	0.50	361.64	0.000	68.903	362.00	363.07	1.07**	1.35	5.67	0.50	363.57	0.000	0.000	n/a	0.50	n/a
25	18	5.77	362.20	363.07	0.87	1.06	5.43	0.39	363.46	0.000	130.000	366.80	367.73	0.93**	1.14	5.04	0.39	368.12	0.000	0.000	n/a	0.50	n/a
26	15	3.27	367.00	367.73	0.73	0.74	4.42	0.30	368.03	0.000	203.727	373.50	374.23	0.73**	0.74	4.41	0.30	374.53	0.000	0.000	n/a	0.50	n/a
27	15	1.81	373.70	374.23	0.53	0.49	3.68	0.20	374.43	0.000	82.351	374.50	375.03	0.53**	0.50	3.62	0.20	375.24	0.000	0.000	n/a	0.50	0.10
28	15	1.44	374.70	375.10	0.40*	0.34	4.24	0.18	375.28	0.000	68.005	375.38	375.86	0.48**	0.43	3.38	0.18	376.03	0.000	0.000	n/a	1.00	n/a
29	15	0.95	366.00	367.06	1.06	1.11	0.86	0.01	367.07	0.021	28.251	366.14	367.06	0.92	0.97	0.98	0.01	367.08	0.027	0.024	0.007	1.00	0.01
30	15	0.39	356.25	357.23	0.98	0.17	0.37	0.08	357.32	0.000	28.058	356.53	356.77	0.24**	0.17	2.33	0.08	356.86	0.000	0.000	n/a	1.00	0.08
31	15	0.78	356.04	356.69	0.65	0.64	1.21	0.02	356.71	0.051	28.000	356.18	356.69	0.51	0.47	1.65	0.04	356.73	0.118	0.085	0.024	1.00	0.04
32	24	3.78	351.00	352.71	1.71	0.94	1.32	0.25	352.96	0.000	122.425	352.20	352.88 j	0.68**	0.94	4.01	0.25	353.13	0.000	0.000	n/a	1.47	0.37
33	15	1.63	352.40	352.88	0.48	0.43	3.75	0.19	353.07	0.000	43.844	353.80	354.31	0.51**	0.47	3.50	0.19	354.50	0.000	0.000	n/a	1.69	0.32
34	15	0.85	354.00	354.36	0.36*	0.29	2.89	0.13	354.49	0.522	28.005	353.85	354.55	0.70	0.71	1.20	0.02	354.57	0.048	0.285	0.080	1.00	0.02
35	15	0.42	354.00	354.31	0.31	0.18	1.82	0.09	354.39	0.000	135.019	357.90	358.15 j	0.25**	0.18	2.39	0.09	358.24	0.000	0.000	n/a	1.00	n/a
36	15	1.27	353.30	354.31	1.01	1.06	1.20	0.02	354.33	0.040	28.141	353.44	354.31	0.87	0.91	1.39	0.03	354.34	0.056	0.048	0.013	1.00	0.03
37	15	1.44	352.40	352.88	0.48	0.43	3.33	0.18	353.06	0.000	28.755	352.88	353.36 j	0.48**	0.43	3.38	0.18	353.53	0.000	0.000	n/a	1.00	n/a
38	15	2.43	352.00	352.71	0.71	0.71	3.40	0.18	352.89	0.379	28.000	352.14	352.79	0.65	0.64	3.80	0.23	353.01	0.509	0.444	0.124	1.00	0.23
39	18	4.70	350.00	351.50	1.50*	1.01	2.66	0.11	351.61	0.201	69.863	351.50	352.33 j	0.83**	1.01	4.67	0.34	352.67	0.568	0.384	n/a	1.00	n/a

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

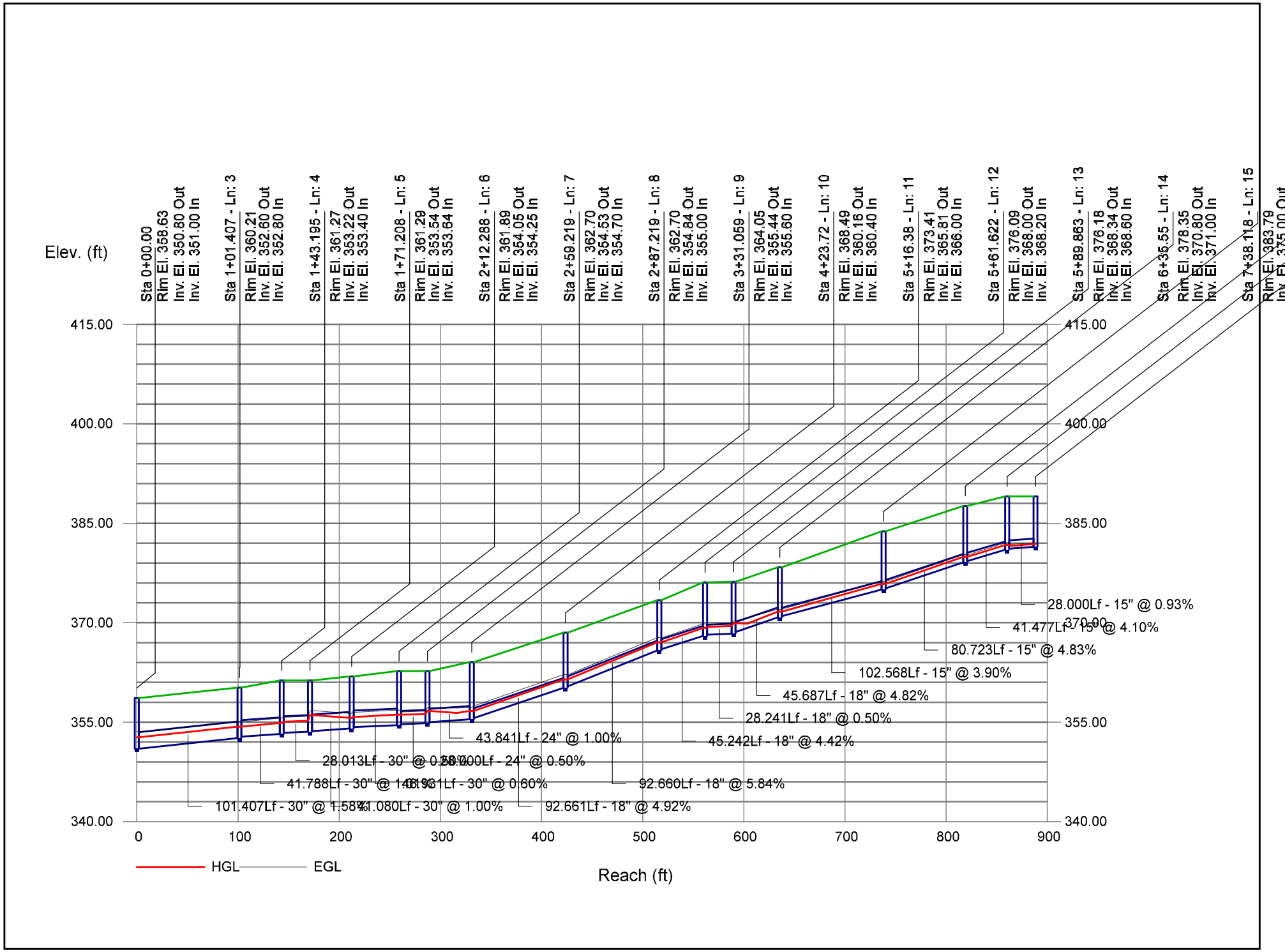
Storm Sewer Profile

SCM 2 10-YEAR PROFILE 1-35 Proj. file: SCM 2 Storm Network.stm



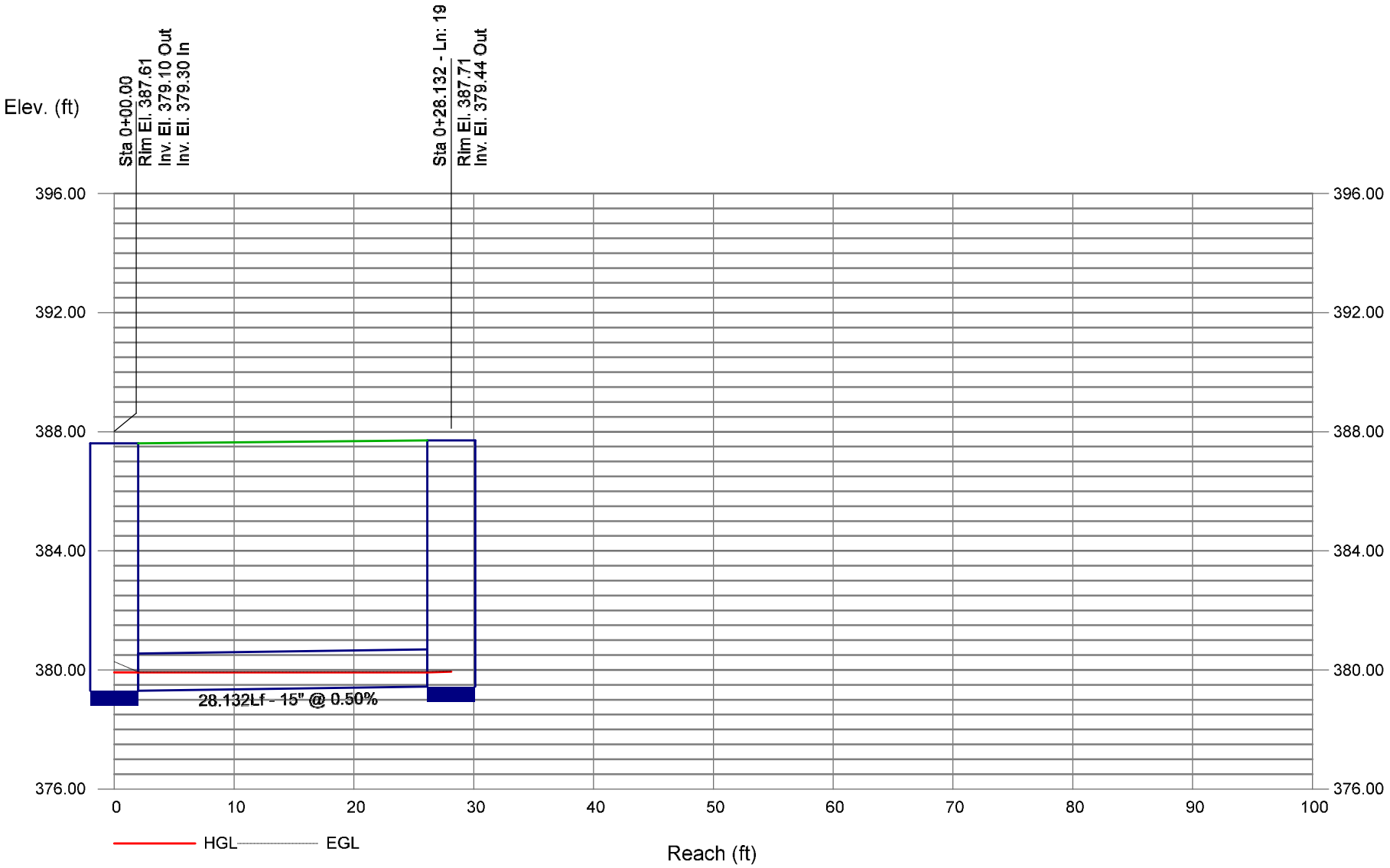
Storm Sewer Profile

SCM 2 10-YEAR PROFILE 3-18 Proj. file: SCM 2 Storm Network.stm



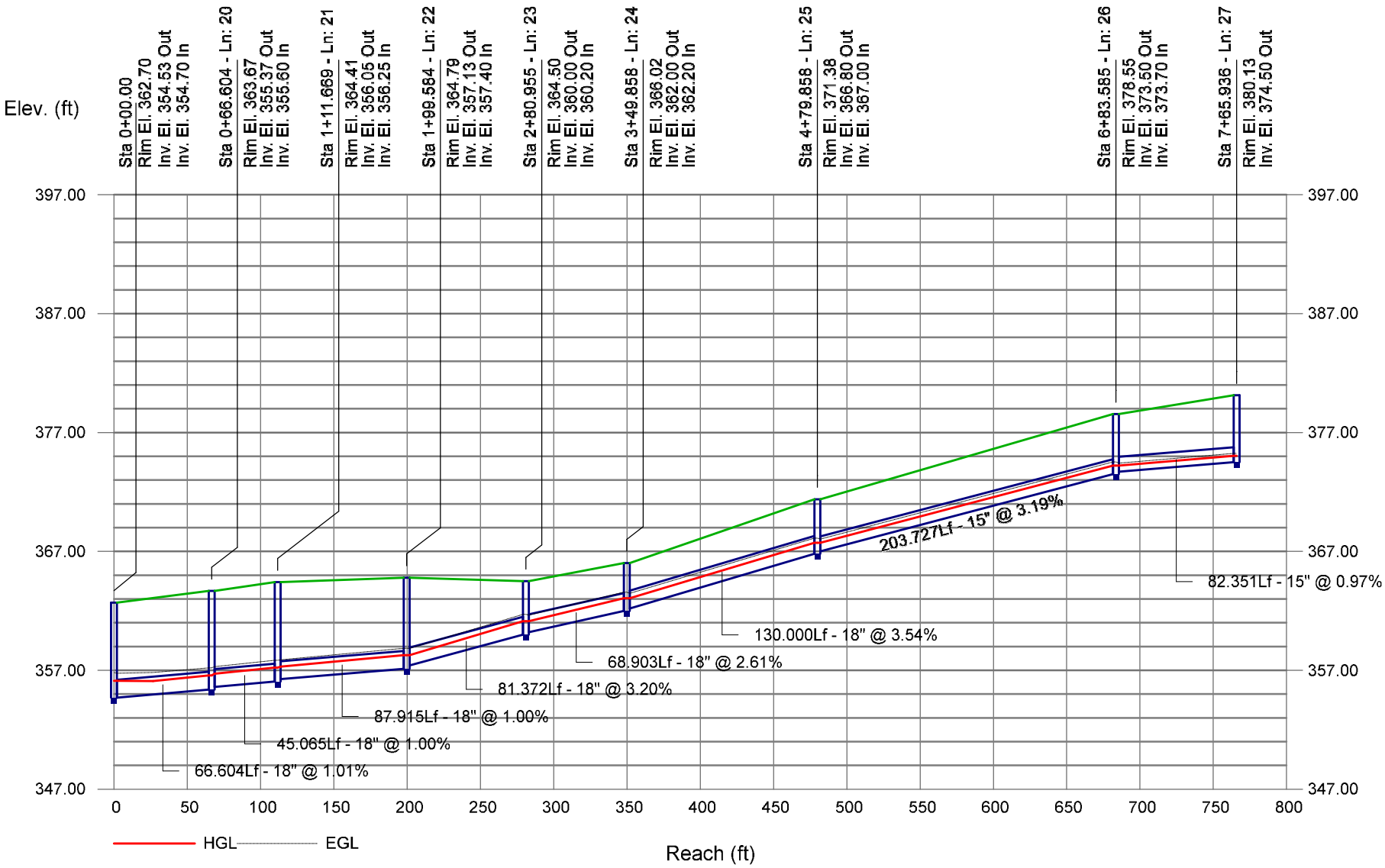
Storm Sewer Profile

SCM 2 10-YEAR PROFILE 19-19 Proj. file: SCM 2 Storm Network.stm



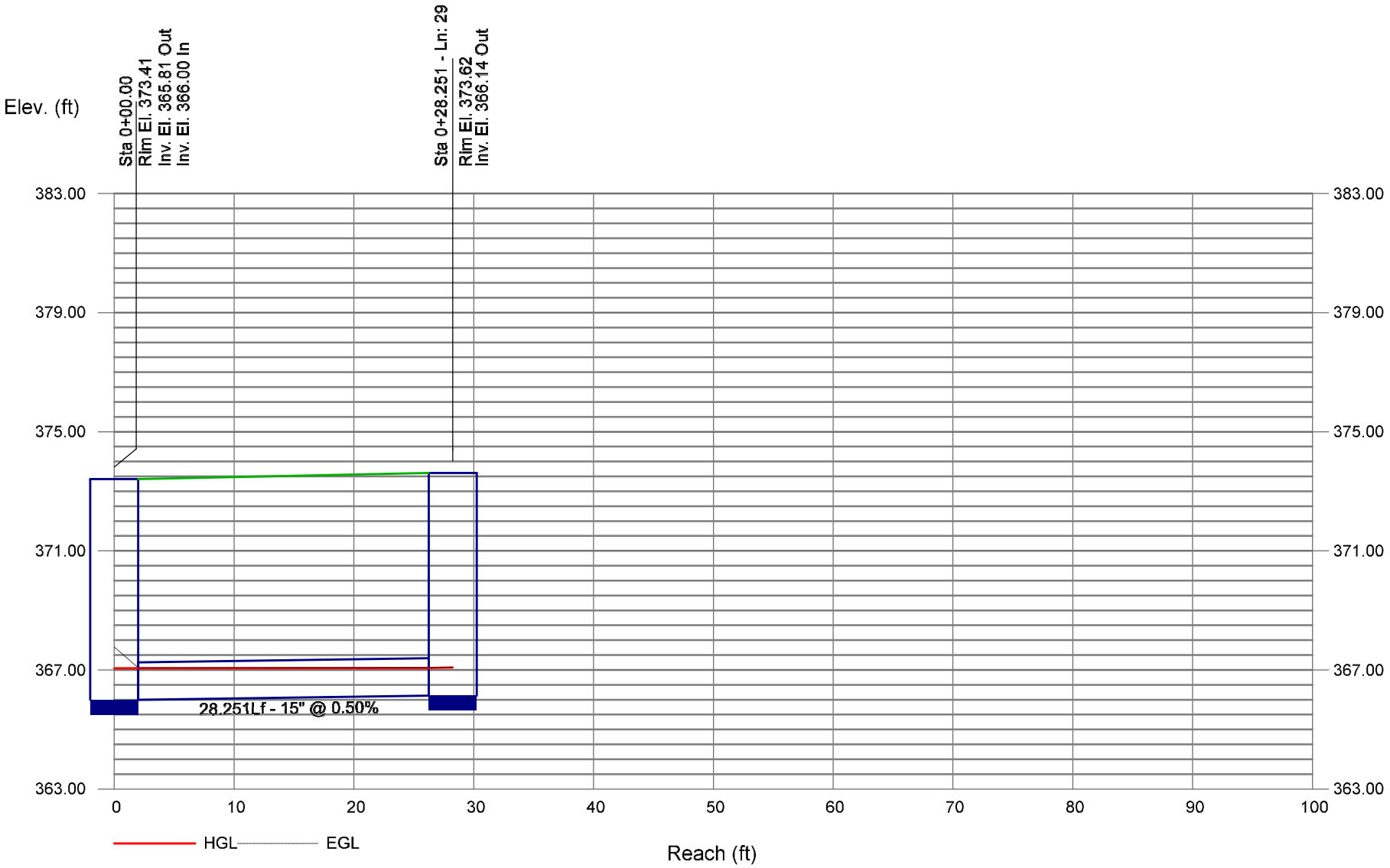
Storm Sewer Profile

SCM 2 10-YEAR PROFILE 20-28 Proj. file: SCM 2 Storm Network.stm



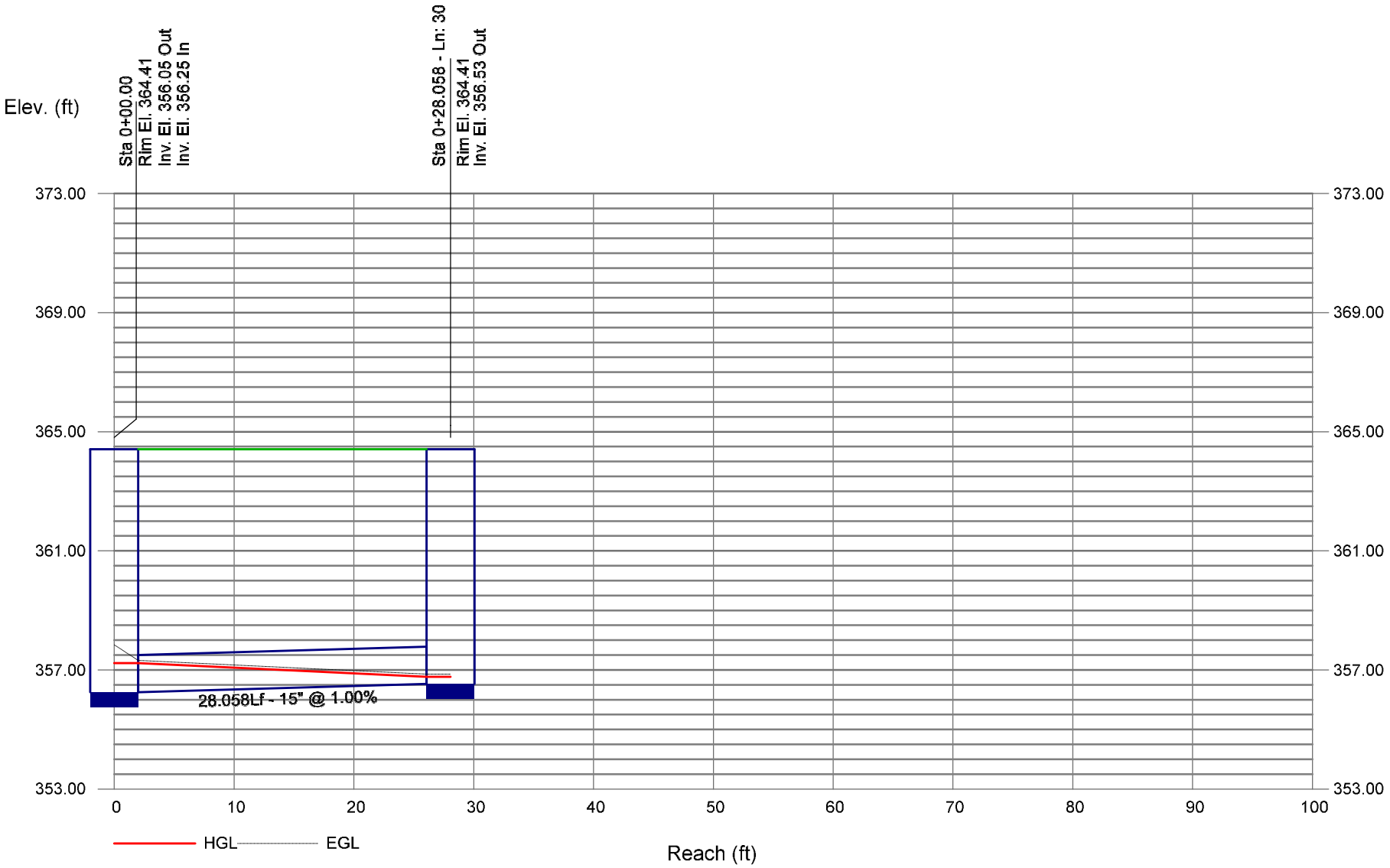
Storm Sewer Profile

SCM 2 10-YEAR PROFILE 29-29 Proj. file: SCM 2 Storm Network.stm



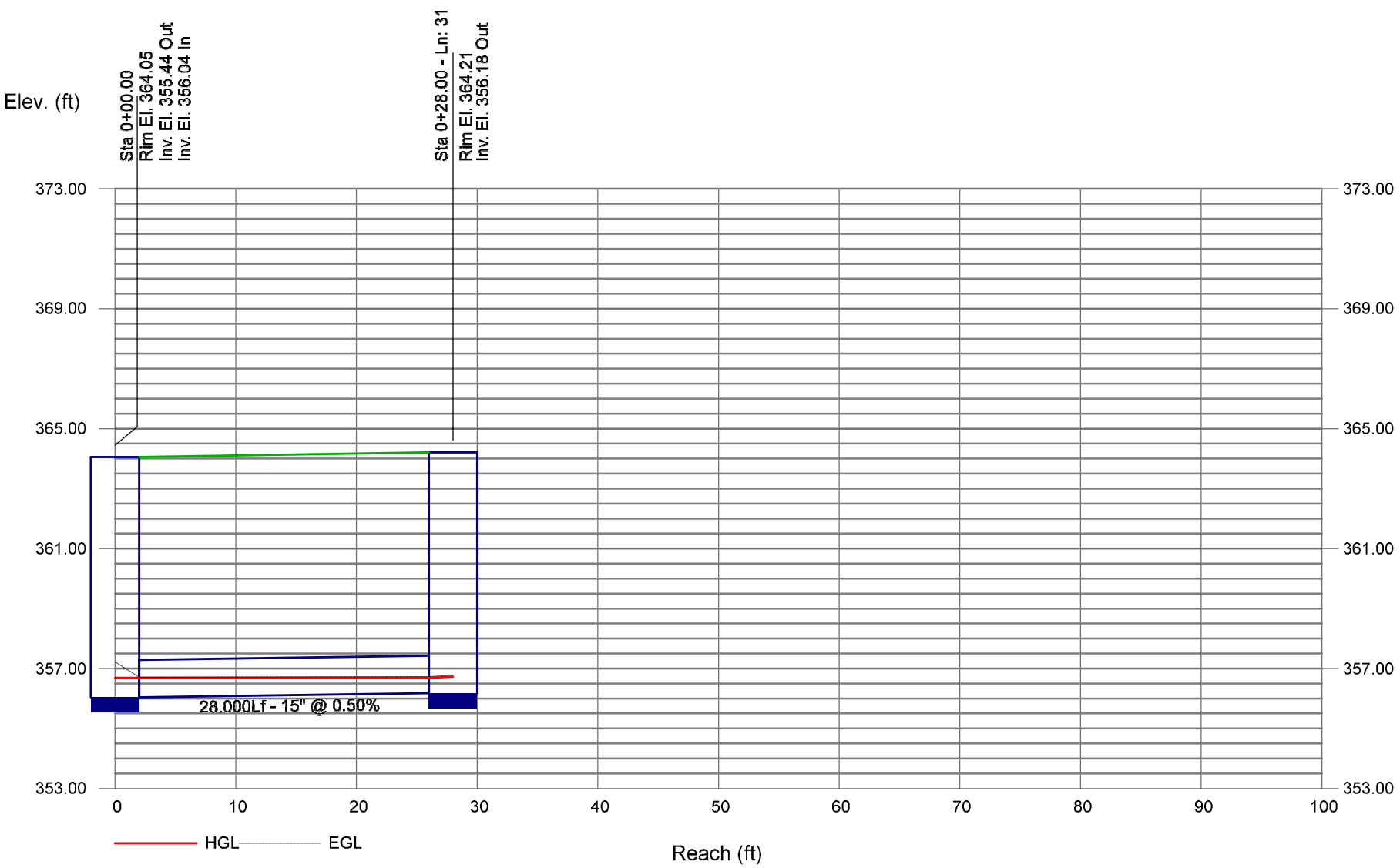
Storm Sewer Profile

SCM 2 10-YEAR PROFILE 30-30 Proj. file: SCM 2 Storm Network.stm



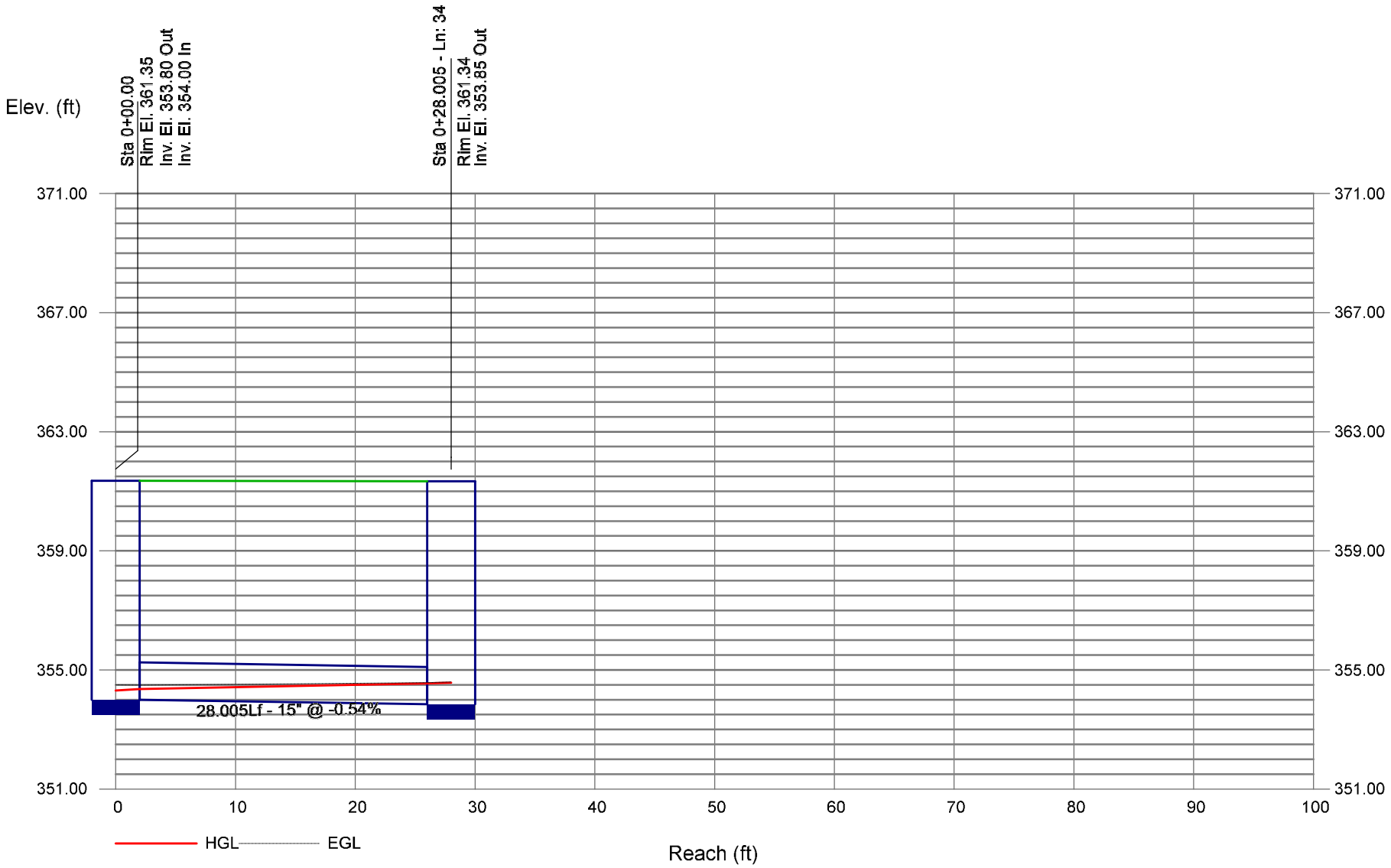
Storm Sewer Profile

SCM 2 10-YEAR PROFILE 31-31 Proj. file: SCM 2 Storm Network.stm



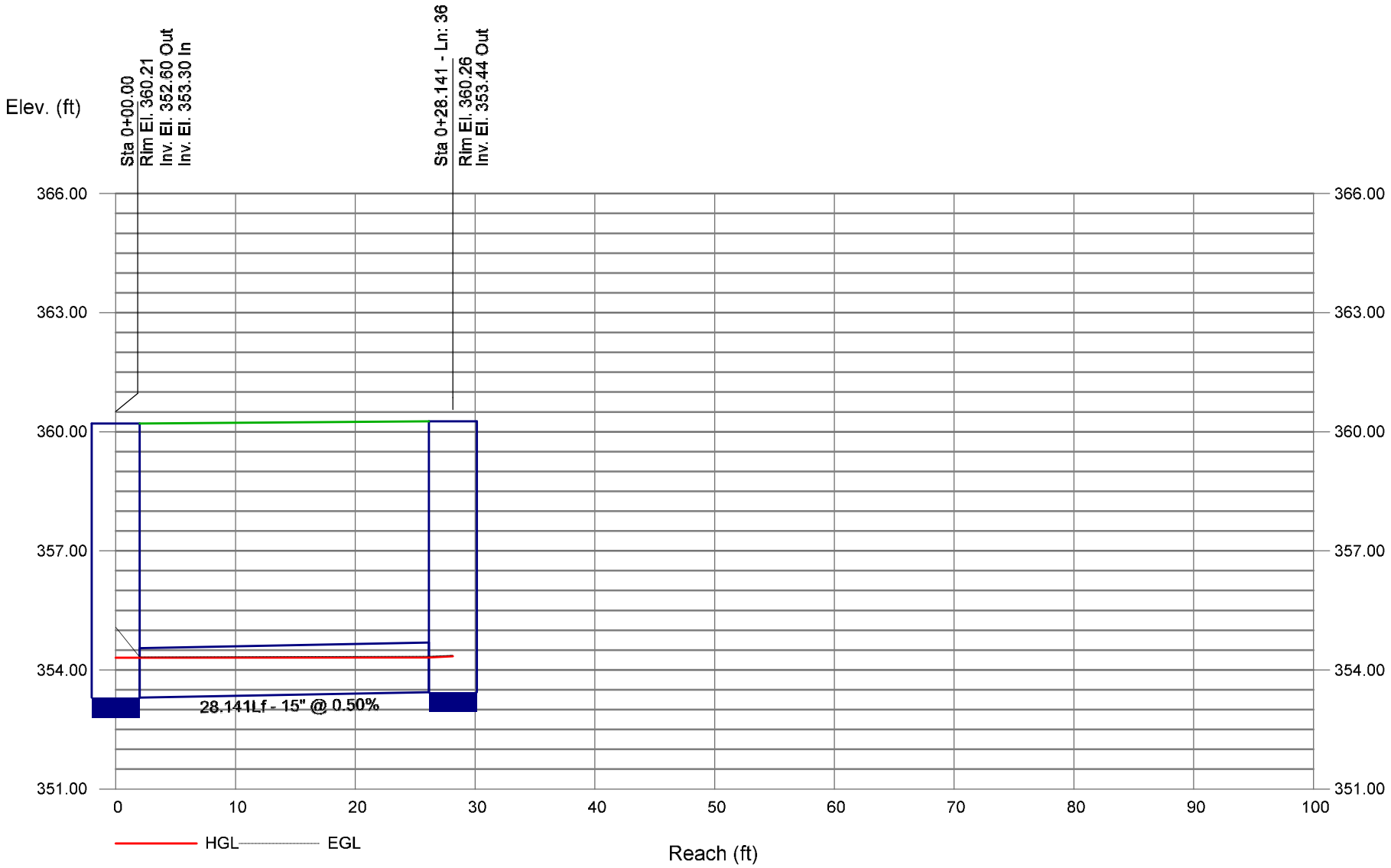
Storm Sewer Profile

SCM 2 10-YEAR PROFILE 34-34 Proj. file: SCM 2 Storm Network.stm



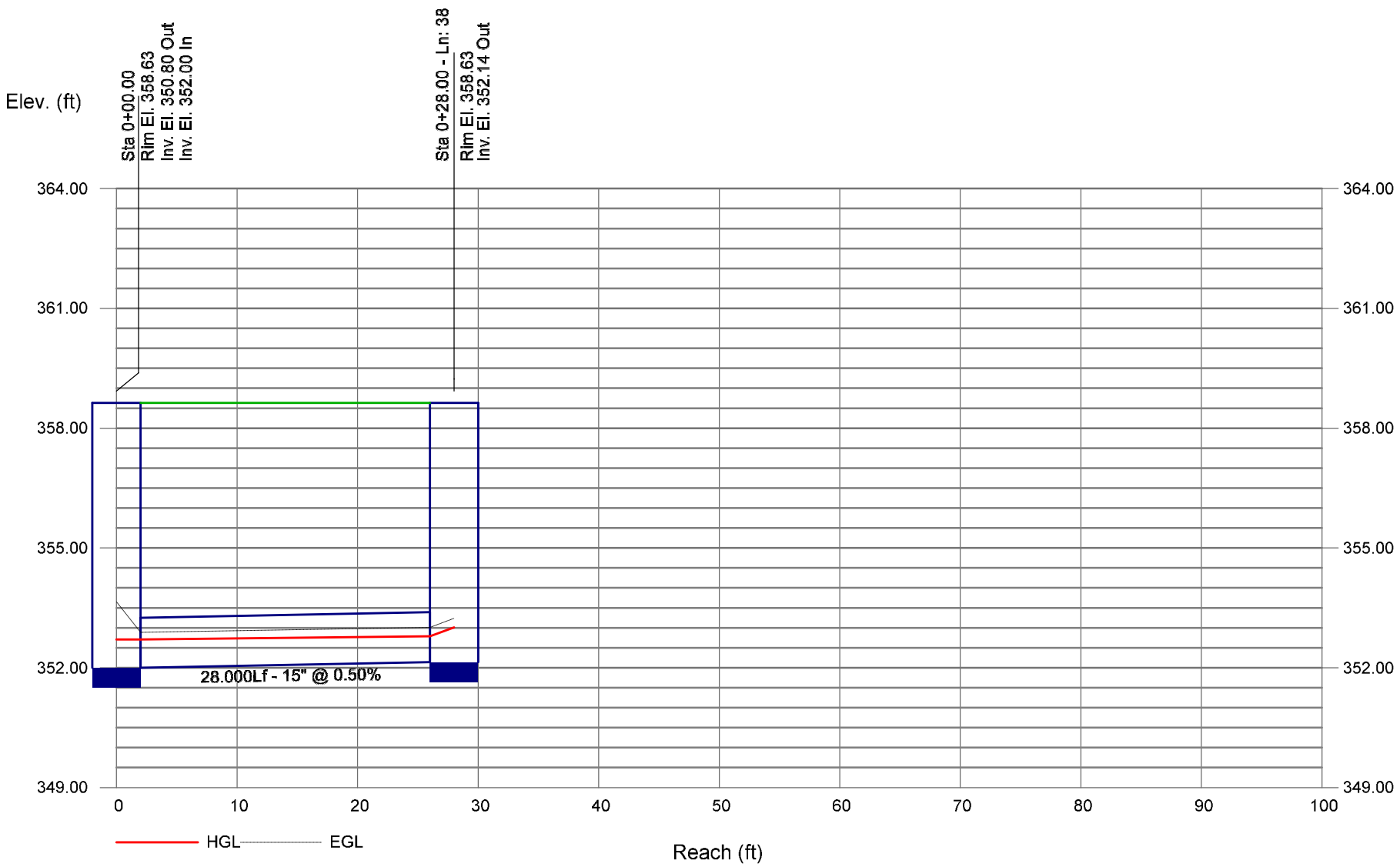
Storm Sewer Profile

SCM 2 10-YEAR PROFILE 36-36 Proj. file: SCM 2 Storm Network.stm



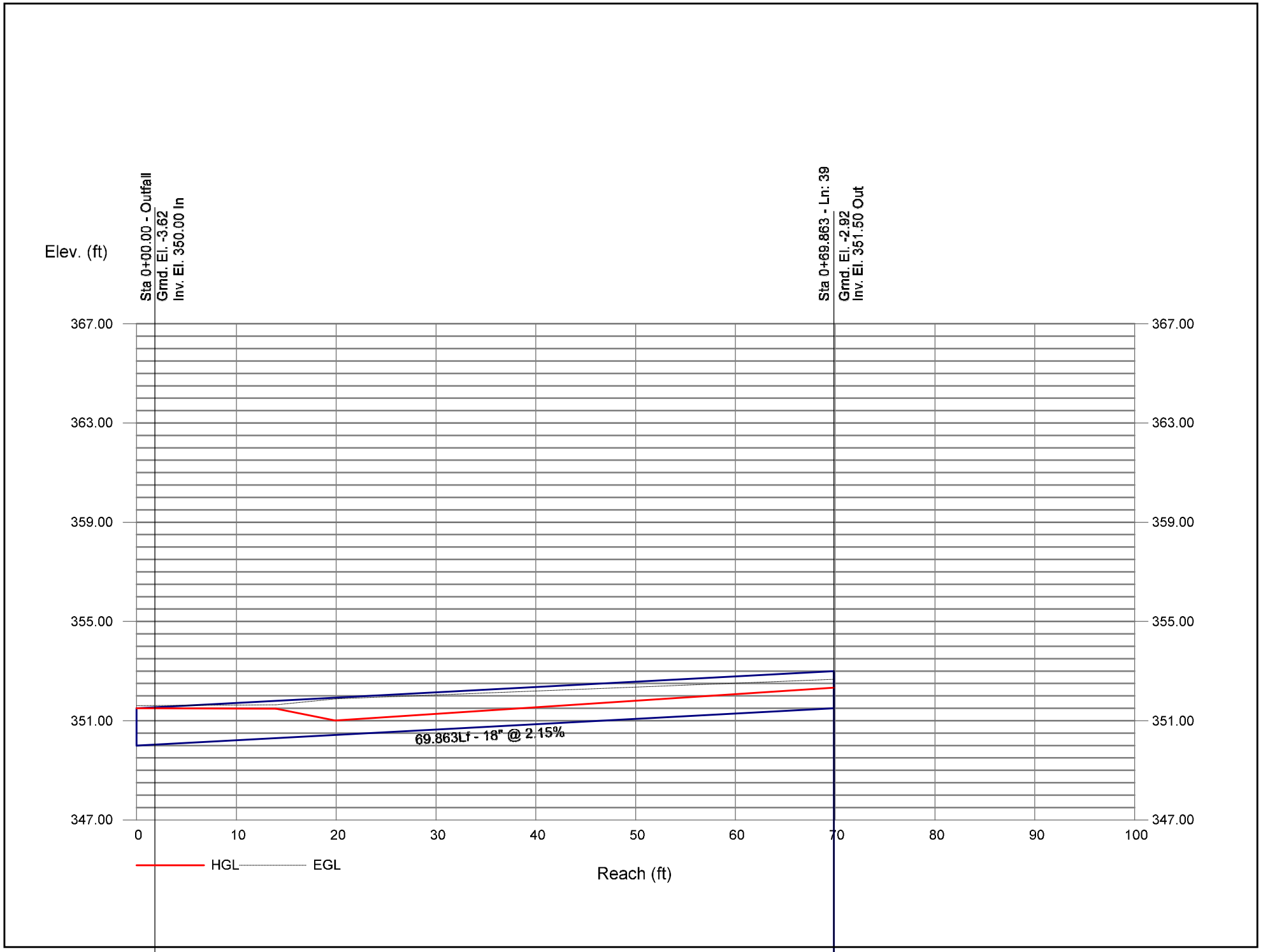
Storm Sewer Profile

SCM 2 10-YEAR PROFILE 38-38 Proj. file: SCM 2 Storm Network.stm

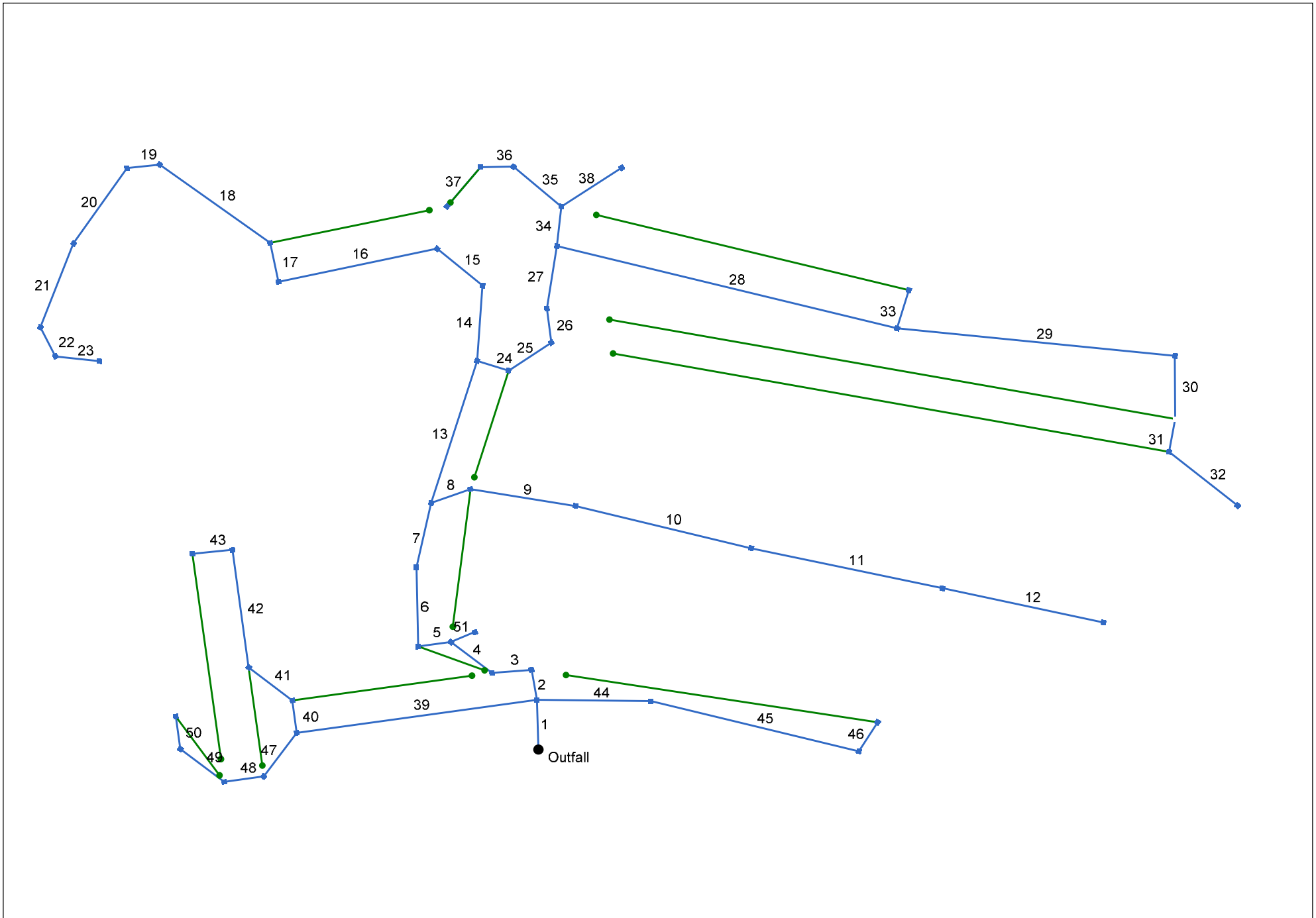


Storm Sewer Profile

SCM 2 10-YEAR PROFILE 39-39 Proj. file: SCM 2 Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 4 10-YEAR



Project File: SCM 4 Storm Network.stm	Number of lines: 51	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 4 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	42.566	-91.634	Comb	0.00	0.37	0.60	10.0	362.50	0.82	362.85	36	Cir	0.013	2.25	370.55	Pipe - (418)
2	1	26.017	-8.311	Comb	0.00	0.35	0.60	10.0	363.05	0.58	363.20	36	Cir	0.013	1.49	370.31	Pipe - (417)
3	2	33.736	-84.541	Comb	0.00	0.15	0.60	10.0	363.40	0.89	363.70	30	Cir	0.013	1.07	370.74	Pipe - (416)
4	3	43.841	41.601	Comb	0.00	0.04	0.60	10.0	363.90	1.37	364.50	30	Cir	0.013	1.50	371.99	Pipe - (368)
5	4	28.000	-45.000	Comb	0.00	1.08	0.60	10.0	364.70	1.00	364.98	30	Cir	0.013	1.50	371.99	Pipe - (380)
6	5	67.788	96.424	Comb	0.00	0.09	0.60	10.0	365.20	1.00	365.88	30	Cir	0.013	0.50	373.69	Pipe - (367) (1) (
7	6	56.317	14.470	Comb	0.00	0.22	0.60	10.0	366.10	1.95	367.20	30	Cir	0.013	1.80	375.08	Pipe - (367) (1)
8	7	35.477	57.582	Comb	0.00	0.16	0.60	10.0	367.76	0.99	368.11	18	Cir	0.013	0.80	375.64	Pipe - (374) (1)
9	8	90.608	28.606	DrGrt	0.00	0.78	0.60	10.0	368.31	6.66	374.34	18	Cir	0.013	0.50	376.04	Pipe - (374)
10	9	153.369	4.369	DrGrt	0.00	0.56	0.60	10.0	374.60	2.22	378.00	18	Cir	0.013	0.50	379.64	Pipe - (373)
11	10	166.305	-1.713	DrGrt	0.00	0.62	0.60	10.0	378.20	1.20	380.20	15	Cir	0.013	0.50	381.64	Pipe - (372)
12	11	140.121	0.243	DrGrt	0.00	0.34	0.60	10.0	380.40	2.00	383.20	15	Cir	0.013	1.00	384.64	Pipe - (490)
13	7	127.504	4.879	Comb	0.00	0.11	0.60	10.0	367.40	2.43	370.50	24	Cir	0.013	1.50	378.43	Pipe - (366)
14	13	64.616	-13.839	Comb	0.00	0.07	0.60	10.0	370.70	2.94	372.60	18	Cir	0.013	1.27	380.23	Pipe - (409)
15	14	49.983	-55.102	Comb	0.00	0.09	0.60	10.0	372.80	3.00	374.30	18	Cir	0.013	1.22	382.08	Pipe - (408)
16	15	137.706	-50.808	Comb	0.00	0.07	0.60	10.0	374.50	0.58	375.30	18	Cir	0.013	1.50	384.96	Pipe - (432)
17	16	34.000	90.000	Comb	0.00	0.07	0.60	10.0	375.50	0.59	375.70	18	Cir	0.013	1.08	384.52	Pipe - (438)
18	17	115.233	-42.654	Comb	0.00	0.41	0.60	10.0	375.90	0.61	376.60	15	Cir	0.013	1.07	384.70	Pipe - (437)
19	18	28.000	-41.665	Comb	0.00	0.85	0.60	10.0	376.80	0.71	377.00	15	Cir	0.013	1.18	384.67	Pipe - (436)
20	19	78.850	-48.424	Comb	0.00	0.10	0.60	10.0	377.20	0.60	377.67	15	Cir	0.013	0.50	384.57	Pipe - (435)
21	20	76.953	-14.049	Comb	0.00	0.03	0.60	10.0	377.90	0.60	378.36	15	Cir	0.013	1.18	385.58	Pipe - (434)
22	21	28.000	-48.252	Comb	0.00	0.04	0.60	10.0	378.60	0.61	378.77	15	Cir	0.013	1.30	385.58	Pipe - (433)
23	22	37.369	-57.113	Comb	0.00	0.07	0.60	10.0	379.00	0.59	379.22	15	Cir	0.013	1.00	386.00	Pipe - (535)

Project File: SCM 4 Storm Network.stm

Number of lines: 51

Date: 4/11/2025

Storm Sewer Inventory Report

SCM 4 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	13	28.099	89.385	Comb	0.00	0.13	0.60	10.0	370.70	0.60	370.87	24	Cir	0.013	1.21	378.40	Pipe - (367)
25	24	43.416	-50.732	Comb	0.00	0.83	0.60	10.0	371.10	0.92	371.50	24	Cir	0.013	1.38	379.57	Pipe - (379)
26	25	29.427	-64.132	Comb	0.00	0.76	0.60	10.0	371.70	0.99	371.99	18	Cir	0.013	0.51	379.48	Pipe - (364)
27	26	54.011	16.712	Comb	0.00	0.20	0.60	10.0	372.20	2.00	373.28	18	Cir	0.013	2.16	381.78	Pipe - (363)
28	27	297.666	94.522	Comb	0.00	0.15	0.60	10.0	373.50	0.60	375.29	15	Cir	0.013	1.50	385.53	Pipe - (412)
29	28	237.368	-7.963	Comb	0.00	0.02	0.60	10.0	375.50	0.60	376.92	15	Cir	0.013	1.49	387.38	Pipe - (411)
30	29	54.000	84.067	Comb	0.00	0.03	0.60	10.0	377.20	0.59	377.52	15	Cir	0.013	0.50	385.70	Pipe - (415)
31	30	28.507	10.831	Comb	0.00	0.01	0.60	10.0	377.75	0.60	377.92	15	Cir	0.013	1.36	385.54	Pipe - (414)
32	31	74.490	-62.309	Comb	0.00	0.61	0.60	10.0	378.20	0.60	378.65	15	Cir	0.013	1.00	384.81	Pipe - (413)
33	28	34.065	-86.348	Comb	0.00	0.47	0.60	10.0	375.50	1.00	375.84	18	Cir	0.013	1.00	384.81	Pipe - (534)
34	27	34.020	-2.563	Comb	0.00	0.32	0.60	10.0	373.50	0.59	373.70	18	Cir	0.013	1.82	381.93	Pipe - (362)
35	34	53.159	-56.631	Comb	0.00	0.17	0.60	10.0	373.90	0.60	374.22	15	Cir	0.013	1.05	381.95	Pipe - (371)
36	35	28.000	-40.898	Comb	0.00	0.24	0.60	10.0	374.40	0.71	374.60	15	Cir	0.013	1.18	381.69	Pipe - (394)
37	36	44.039	-48.688	Comb	0.00	0.26	0.60	10.0	374.80	4.00	376.56	15	Cir	0.013	1.00	382.03	Pipe - (410)
38	34	60.892	50.531	DrGrt	0.00	0.28	0.60	10.0	373.90	1.00	374.51	15	Cir	0.013	1.00	381.93	Pipe - (584)
39	1	206.011	-96.251	Comb	0.00	0.01	0.60	10.0	363.05	0.50	364.08	24	Cir	0.013	1.69	372.10	Pipe - (384)
40	39	28.000	90.000	Comb	0.00	0.02	0.60	10.0	364.30	0.71	364.50	15	Cir	0.013	1.13	372.42	Pipe - (386)
41	40	46.669	-45.000	Comb	0.00	0.07	0.60	10.0	364.70	5.79	367.40	15	Cir	0.013	1.13	374.82	Pipe - (421)
42	41	101.483	45.000	Comb	0.00	0.14	0.60	10.0	367.60	4.14	371.80	15	Cir	0.013	1.50	379.86	Pipe - (420)
43	42	34.024	-87.851	Comb	0.00	0.13	0.60	10.0	372.00	0.59	372.20	15	Cir	0.013	1.00	380.67	Pipe - (419)
44	1	97.083	92.316	Comb	0.00	0.19	0.60	10.0	364.00	0.52	364.50	18	Cir	0.013	0.50	371.84	Pipe - (388)
45	44	181.821	12.960	Comb	0.00	0.21	0.60	10.0	364.70	3.74	371.50	15	Cir	0.013	1.43	379.68	Pipe - (387)
46	45	29.575	-71.057	Comb	0.00	0.18	0.60	10.0	371.70	0.51	371.85	15	Cir	0.013	1.00	380.12	Pipe - (389)

Storm Sewer Inventory Report

SCM 4 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	39	46.669	-45.000	Comb	0.00	0.07	0.60	10.0	364.30	0.49	364.53	15	Cir	0.013	1.13	370.15	Pipe - (422)
48	47	34.000	45.000	Comb	0.00	0.11	0.60	10.0	364.75	0.50	364.92	15	Cir	0.013	1.13	370.89	Pipe - (383)
49	48	46.669	45.000	Comb	0.00	0.21	0.60	10.0	365.15	0.49	365.38	15	Cir	0.013	1.13	373.17	Pipe - (382)
50	49	28.000	45.000	Comb	0.00	0.31	0.60	10.0	365.60	0.50	365.74	15	Cir	0.013	1.00	373.41	Pipe - (381)
51	4	21.891	119.979	DrGrt	0.00	0.07	0.60	10.0	365.70	1.00	365.92	15	Cir	0.013	1.00	370.85	Pipe - (585)

Structure Report

SCM 4 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	CB 401	Combination	370.55	Rect	4.00	4.00	36	Cir	362.85	36 24 18	Cir Cir Cir	363.05 363.05 364.00
2	CB 402	Combination	370.31	Rect	4.00	4.00	36	Cir	363.20	30	Cir	363.40
3	CB 403	Combination	370.74	Rect	4.00	4.00	30	Cir	363.70	30	Cir	363.90
4	CB 404	Combination	371.99	Rect	4.00	4.00	30	Cir	364.50	30 15	Cir Cir	364.70 365.70
5	CB 405	Combination	371.99	Rect	4.00	4.00	30	Cir	364.98	30	Cir	365.20
6	CB 406	Combination	373.69	Rect	4.00	4.00	30	Cir	365.88	30	Cir	366.10
7	CB 407	Combination	375.08	Rect	4.00	4.00	30	Cir	367.20	18 24	Cir Cir	367.76 367.40
8	CB 407A	Combination	375.64	Rect	4.00	4.00	18	Cir	368.11	18	Cir	368.31
9	YI 407B	DropGrate	376.04	Rect	4.00	4.00	18	Cir	374.34	18	Cir	374.60
10	YI 407C	DropGrate	379.64	Rect	4.00	4.00	18	Cir	378.00	15	Cir	378.20
11	YI 407D	DropGrate	381.64	Rect	4.00	4.00	15	Cir	380.20	15	Cir	380.40
12	YI 407E	DropGrate	384.64	Rect	4.00	4.00	15	Cir	383.20			
13	CB 408	Combination	378.43	Rect	4.00	4.00	24	Cir	370.50	18 24	Cir Cir	370.70 370.70
14	CB 409	Combination	380.23	Rect	4.00	4.00	18	Cir	372.60	18	Cir	372.80
15	CB 410	Combination	382.08	Rect	4.00	4.00	18	Cir	374.30	18	Cir	374.50
16	CB 411	Combination	384.96	Rect	4.00	4.00	18	Cir	375.30	18	Cir	375.50
17	CB 412	Combination	384.52	Rect	4.00	4.00	18	Cir	375.70	15	Cir	375.90
18	CB 413	Combination	384.70	Rect	4.00	4.00	15	Cir	376.60	15	Cir	376.80
19	CB 414	Combination	384.67	Rect	4.00	4.00	15	Cir	377.00	15	Cir	377.20
20	CB 415	Combination	384.57	Rect	4.00	4.00	15	Cir	377.67	15	Cir	377.90

Structure Report

SCM 4 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	CB 416	Combination	385.58	Rect	4.00	4.00	15	Cir	378.36	15	Cir	378.60
22	CB 417	Combination	385.58	Rect	4.00	4.00	15	Cir	378.77	15	Cir	379.00
23	CB 418	Combination	386.00	Rect	4.00	4.00	15	Cir	379.22			
24	CB 419	Combination	378.40	Rect	4.00	4.00	24	Cir	370.87	24	Cir	371.10
25	CB 420	Combination	379.57	Rect	4.00	4.00	24	Cir	371.50	18	Cir	371.70
26	CB 421	Combination	379.48	Rect	4.00	4.00	18	Cir	371.99	18	Cir	372.20
27	CB 422	Combination	381.78	Rect	4.00	4.00	18	Cir	373.28	15 18	Cir Cir	373.50 373.50
28	CB 423	Combination	385.53	Rect	4.00	4.00	15	Cir	375.29	15 18	Cir Cir	375.50 375.50
29	CB 424	Combination	387.38	Rect	4.00	4.00	15	Cir	376.92	15	Cir	377.20
30	CB 425	Combination	385.70	Rect	4.00	4.00	15	Cir	377.52	15	Cir	377.75
31	CB 426	Combination	385.54	Rect	4.00	4.00	15	Cir	377.92	15	Cir	378.20
32	CB 427	Combination	384.81	Rect	4.00	4.00	15	Cir	378.65			
33	CB 423A	Combination	384.81	Rect	4.00	4.00	18	Cir	375.84			
34	CB 422A	Combination	381.93	Rect	4.00	4.00	18	Cir	373.70	15 15	Cir Cir	373.90 373.90
35	CB 422C	Combination	381.95	Rect	4.00	4.00	15	Cir	374.22	15	Cir	374.40
36	CB 422D	Combination	381.69	Rect	4.00	4.00	15	Cir	374.60	15	Cir	374.80
37	CB 422E	Combination	382.03	Rect	4.00	4.00	15	Cir	376.56			
38	YI 422B	DropGrate	381.93	Rect	4.00	4.00	15	Cir	374.51			
39	CB 430	Combination	372.10	Rect	4.00	4.00	24	Cir	364.08	15 15	Cir Cir	364.30 364.30
40	CB 431	Combination	372.42	Rect	4.00	4.00	15	Cir	364.50	15	Cir	364.70
41	CB 432	Combination	374.82	Rect	4.00	4.00	15	Cir	367.40	15	Cir	367.60

Structure Report

SCM 4 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
42	CB 433	Combination	379.86	Rect	4.00	4.00	15	Cir	371.80	15	Cir	372.00
43	CB 433A	Combination	380.67	Rect	4.00	4.00	15	Cir	372.20			
44	CB 428	Combination	371.84	Rect	4.00	4.00	18	Cir	364.50	15	Cir	364.70
45	CB 429	Combination	379.68	Rect	4.00	4.00	15	Cir	371.50	15	Cir	371.70
46	CB 429A	Combination	380.12	Rect	4.00	4.00	15	Cir	371.85			
47	CB 434	Combination	370.15	Rect	4.00	4.00	15	Cir	364.53	15	Cir	364.75
48	CB 435	Combination	370.89	Rect	4.00	4.00	15	Cir	364.92	15	Cir	365.15
49	CB 436	Combination	373.17	Rect	4.00	4.00	15	Cir	365.38	15	Cir	365.60
50	CB 436A	Combination	373.41	Rect	4.00	4.00	15	Cir	365.74			
51	YI 404A	DropGrate	370.85	Rect	4.00	4.00	15	Cir	365.92			

Storm Sewer Summary Report

SCM 4 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (418)	39.29	36	Cir	42.566	362.50	362.85	0.822	365.02	364.89	2.06	364.89	End	Combination
2	Pipe - (417)	33.18	36	Cir	26.017	363.05	363.20	0.577	364.89	365.07	1.19	365.07	1	Combination
3	Pipe - (416)	32.18	30	Cir	33.736	363.40	363.70	0.889	365.14	365.63	n/a	365.63	2	Combination
4	Pipe - (368)	31.80	30	Cir	43.841	363.90	364.50	1.369	365.63	366.42	n/a	366.42	3	Combination
5	Pipe - (380)	31.52	30	Cir	28.000	364.70	364.98	1.000	366.42	366.89	n/a	366.89	4	Combination
6	Pipe - (367) (1) (1)	28.32	30	Cir	67.788	365.20	365.88	1.003	366.89	367.69	0.43	367.69	5	Combination
7	Pipe - (367) (1)	28.14	30	Cir	56.317	366.10	367.20	1.953	367.69	369.01	1.53	369.01	6	Combination
8	Pipe - (374) (1)	8.05	18	Cir	35.477	367.76	368.11	0.986	369.01	369.21	n/a	369.21 j	7	Combination
9	Pipe - (374)	7.58	18	Cir	90.608	368.31	374.34	6.655	369.21	375.41	0.25	375.41	8	DropGrate
10	Pipe - (373)	5.10	18	Cir	153.369	374.60	378.00	2.217	375.41	378.87	0.18	378.87	9	DropGrate
11	Pipe - (372)	3.29	15	Cir	166.305	378.20	380.20	1.203	378.87	380.93	0.15	380.93	10	DropGrate
12	Pipe - (490)	1.20	15	Cir	140.121	380.40	383.20	1.998	380.93	383.63	n/a	383.63 j	11	DropGrate
13	Pipe - (366)	20.00	24	Cir	127.504	367.40	370.50	2.431	369.01	372.10	n/a	372.10 j	7	Combination
14	Pipe - (409)	5.75	18	Cir	64.616	370.70	372.60	2.940	372.10	373.52	n/a	373.52 j	13	Combination
15	Pipe - (408)	5.56	18	Cir	49.983	372.80	374.30	3.001	373.52	375.21	n/a	375.21	14	Combination
16	Pipe - (432)	5.35	18	Cir	137.706	374.50	375.30	0.581	375.40	376.20	0.55	376.75	15	Combination
17	Pipe - (438)	5.14	18	Cir	34.000	375.50	375.70	0.588	376.75	376.57	n/a	376.57	16	Combination
18	Pipe - (437)	4.98	15	Cir	115.233	375.90	376.60	0.607	376.91	377.61	0.36	377.98	17	Combination
19	Pipe - (436)	3.63	15	Cir	28.000	376.80	377.00	0.714	377.98	377.77	n/a	377.77	18	Combination
20	Pipe - (435)	0.82	15	Cir	78.850	377.20	377.67	0.596	377.77	378.02	n/a	378.02	19	Combination
21	Pipe - (434)	0.48	15	Cir	76.953	377.90	378.36	0.598	378.16	378.63	n/a	378.63	20	Combination
22	Pipe - (433)	0.38	15	Cir	28.000	378.60	378.77	0.607	378.83	379.01	n/a	379.01	21	Combination
23	Pipe - (535)	0.25	15	Cir	37.369	379.00	379.22	0.589	379.19	379.41	n/a	379.41	22	Combination
24	Pipe - (367)	14.06	24	Cir	28.099	370.70	370.87	0.605	372.10	372.22	0.73	372.95	13	Combination

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

SCM 4 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
25	Pipe - (379)	13.71	24	Cir	43.416	371.10	371.50	0.921	372.95	372.83	0.82	372.83	24	Combination
26	Pipe - (364)	11.12	18	Cir	29.427	371.70	371.99	0.985	373.05	373.34	0.35	373.69	25	Combination
27	Pipe - (363)	8.76	18	Cir	54.011	372.20	373.28	2.000	373.69	374.42	n/a	374.42 j	26	Combination
28	Pipe - (412)	4.24	15	Cir	297.666	373.50	375.29	0.601	374.42	376.14	0.53	376.67	27	Combination
29	Pipe - (411)	2.31	15	Cir	237.368	375.50	376.92	0.598	376.67	377.53	n/a	377.53	28	Combination
30	Pipe - (415)	2.25	15	Cir	54.000	377.20	377.52	0.593	377.79	378.12	n/a	378.12	29	Combination
31	Pipe - (414)	2.16	15	Cir	28.507	377.75	377.92	0.596	378.33	378.51	0.31	378.51	30	Combination
32	Pipe - (413)	2.15	15	Cir	74.490	378.20	378.65	0.604	378.77	379.23	0.23	379.23	31	Combination
33	Pipe - (534)	1.66	18	Cir	34.065	375.50	375.84	0.998	376.67	376.32	n/a	376.32	28	Combination
34	Pipe - (362)	4.39	18	Cir	34.020	373.50	373.70	0.588	374.42	374.50	n/a	374.50 j	27	Combination
35	Pipe - (371)	2.33	15	Cir	53.159	373.90	374.22	0.602	374.50	374.83	n/a	374.83	34	Combination
36	Pipe - (394)	1.75	15	Cir	28.000	374.40	374.60	0.714	374.89	375.12	0.23	375.12	35	Combination
37	Pipe - (410)	0.92	15	Cir	44.039	374.80	376.56	3.997	375.12	376.94	0.14	376.94	36	Combination
38	Pipe - (584)	0.99	15	Cir	60.892	373.90	374.51	1.002	374.50	374.90	n/a	374.90 j	34	DropGrate
39	Pipe - (384)	3.65	24	Cir	206.011	363.05	364.08	0.500	364.89	364.75	0.41	364.75	1	Combination
40	Pipe - (386)	1.24	15	Cir	28.000	364.30	364.50	0.714	364.75	364.94	n/a	364.94 j	39	Combination
41	Pipe - (421)	1.17	15	Cir	46.669	364.70	367.40	5.785	364.94	367.83	0.18	367.83	40	Combination
42	Pipe - (420)	0.94	15	Cir	101.483	367.60	371.80	4.139	367.83	372.18	0.21	372.18	41	Combination
43	Pipe - (419)	0.46	15	Cir	34.024	372.00	372.20	0.588	372.26	372.46	n/a	372.46	42	Combination
44	Pipe - (388)	1.98	18	Cir	97.083	364.00	364.50	0.515	364.89	365.03	0.10	365.03	1	Combination
45	Pipe - (387)	1.37	15	Cir	181.821	364.70	371.50	3.740	365.03	371.96	n/a	371.96	44	Combination
46	Pipe - (389)	0.63	15	Cir	29.575	371.70	371.85	0.507	372.01	372.16	0.11	372.27	45	Combination
47	Pipe - (422)	2.42	15	Cir	46.669	364.30	364.53	0.493	364.95	365.18	0.25	365.43	39	Combination
48	Pipe - (383)	2.19	15	Cir	34.000	364.75	364.92	0.500	365.43	365.52	n/a	365.77 j	47	Combination

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

SCM 4 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
49	Pipe - (382)	1.82	15	Cir	46.669	365.15	365.38	0.493	365.77	365.92	0.23	366.15	48	Combination
50	Pipe - (381)	1.09	15	Cir	28.000	365.60	365.74	0.500	366.15	366.17	0.13	366.30	49	Combination
51	Pipe - (585)	0.25	15	Cir	21.891	365.70	365.92	1.005	366.42	366.11	n/a	366.11	4	DropGrate

Project File: SCM 4 Storm Network.stm

Number of lines: 51

Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

SCM 4 10-YEAR

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	CB 401	1.30	0.01	1.31	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.20	6.20	0.20	6.20	0.0	Off
2	CB 402	1.23	0.50	1.73	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.23	7.67	0.23	7.67	0.0	Off
3	CB 403	0.53	1.34	1.37	0.50	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.23	7.59	0.15	3.66	0.0	2
4	CB 404	0.14	0.08	0.22	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.10	1.60	0.00	0.00	0.0	3
5	CB 405	3.81	0.00	2.46	1.34	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.25	8.51	0.18	5.10	0.0	3
6	CB 406	0.32	0.03	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.11	1.90	0.00	0.00	0.0	5
7	CB 407	0.78	0.00	0.75	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.15	3.62	0.05	0.76	0.0	6
8	CB 407A	0.56	0.43	0.92	0.08	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.17	4.28	0.07	1.08	0.0	4
9	YI 407B	2.75	0.00	2.75	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.19	21.56	0.19	21.56	0.0	Off
10	YI 407C	1.97	0.00	1.97	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.15	17.78	0.15	17.78	0.0	Off
11	YI 407D	2.18	0.00	2.18	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.16	18.85	0.16	18.85	0.0	Off
12	YI 407E	1.20	0.00	1.20	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.11	13.45	0.11	13.45	0.0	Off
13	CB 408	0.39	0.00	0.39	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.12	1.98	0.00	0.00	0.0	7
14	CB 409	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.10	1.67	0.00	0.00	0.0	13
15	CB 410	0.32	0.00	0.32	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.13	2.28	0.00	0.00	0.0	14
16	CB 411	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.10	1.75	0.00	0.00	0.0	15
17	CB 412	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.10	1.75	0.00	0.00	0.0	37
18	CB 413	1.44	0.00	1.44	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.21	6.69	0.21	6.69	0.0	Off
19	CB 414	3.00	0.00	3.00	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.31	11.51	0.31	11.51	0.0	Off
20	CB 415	0.35	0.00	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.14	3.15	0.03	0.48	0.0	19
21	CB 416	0.11	0.00	0.11	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.10	1.65	0.00	0.00	0.0	Off
22	CB 417	0.14	0.00	0.14	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.11	1.83	0.00	0.00	0.0	Off
23	CB 418	0.25	0.00	0.25	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.12	2.19	0.12	2.19	0.0	Off

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Inlet Report

SCM 4 10-YEAR

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)	
24	CB 419	0.46	1.55	1.57	0.43	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.21	6.30	0.12	2.20	0.0	8
25	CB 420	2.92	0.90	2.28	1.55	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.29	10.39	0.22	6.94	0.0	24
26	CB 421	2.68	0.00	1.78	0.90	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.26	8.92	0.19	5.27	0.0	25
27	CB 422	0.70	0.03	0.74	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.16	3.90	0.16	3.90	0.0	Off
28	CB 423	0.53	0.00	0.50	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.16	4.19	0.06	0.96	0.0	27
29	CB 424	0.07	0.00	0.07	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.08	1.42	0.00	0.00	0.0	28
30	CB 425	0.11	0.00	0.11	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.08	1.38	0.00	0.00	0.0	26
31	CB 426	0.04	0.00	0.04	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.05	0.91	0.00	0.00	0.0	25
32	CB 427	2.15	0.00	2.15	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.26	9.01	0.26	9.01	0.0	Off
33	CB 423A	1.66	0.00	1.23	0.42	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.23	7.67	0.15	3.61	0.0	34
34	CB 422A	1.13	0.42	1.55	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.22	7.06	0.22	7.06	0.0	Off
35	CB 422C	0.60	0.00	0.60	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.15	3.28	0.15	3.28	0.0	Off
36	CB 422D	0.85	0.00	0.85	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.17	4.38	0.17	4.38	0.0	37
37	CB 422E	0.92	0.00	0.92	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.17	4.67	0.17	4.67	0.0	Off
38	YI 422B	0.99	0.00	0.99	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.10	12.12	0.10	12.12	0.0	Off
39	CB 430	0.04	0.00	0.04	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.05	0.84	0.00	0.00	0.0	1
40	CB 431	0.07	0.00	0.07	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.07	1.09	0.00	0.00	0.0	3
41	CB 432	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.09	1.47	0.00	0.00	0.0	47
42	CB 433	0.49	0.00	0.49	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.11	1.91	0.00	0.00	0.0	41
43	CB 433A	0.46	0.00	0.46	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.11	1.85	0.00	0.00	0.0	48
44	CB 428	0.67	0.01	0.67	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.033	2.00	0.060	0.020	0.013	0.14	2.93	0.03	0.43	0.0	1
45	CB 429	0.74	0.00	0.73	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.14	2.77	0.02	0.36	0.0	44
46	CB 429A	0.63	0.00	0.63	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.13	2.40	0.01	0.18	0.0	2

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Inlet Report

SCM 4 10-YEAR

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)	
47	CB 434	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.09	1.47	0.00	0.00	0.0	Off
48	CB 435	0.39	0.16	0.54	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.12	1.98	0.00	0.00	0.0	Off
49	CB 436	0.74	0.00	0.71	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	3.79	0.05	0.84	0.0	48
50	CB 436A	1.09	0.00	0.97	0.12	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.18	4.83	0.08	1.34	0.0	48
51	YI 404A	0.25	0.00	0.25	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.04	6.32	0.04	6.32	0.0	Off

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 4 10-YEAR

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	39.29	362.50	365.02	2.52	5.11	6.20	0.92	365.94	0.000	42.566	362.85	364.89	2.04**	5.11	7.68	0.92	365.81	0.000	0.000	n/a	2.25	2.06
2	36	33.18	363.05	364.89	1.84	4.54	7.31	0.80	365.69	0.000	26.017	363.20	365.07	1.87**	4.63	7.17	0.80	365.87	0.000	0.000	n/a	1.49	1.19
3	30	32.18	363.40	365.14	1.74*	3.65	8.81	0.97	366.12	0.000	33.736	363.70	365.63	1.93**	4.07	7.91	0.97	366.60	0.000	0.000	n/a	1.07	n/a
4	30	31.80	363.90	365.63	1.73	3.62	8.78	0.96	366.59	0.000	43.841	364.50	366.42	1.92**	4.04	7.86	0.96	367.38	0.000	0.000	n/a	1.50	n/a
5	30	31.52	364.70	366.42	1.72	3.60	8.76	0.95	367.37	0.000	28.000	364.98	366.89	1.91**	4.03	7.83	0.95	367.84	0.000	0.000	n/a	1.50	n/a
6	30	28.32	365.20	366.89	1.69	3.53	8.01	0.86	367.75	0.000	67.788	365.88	367.69	1.81**	3.81	7.43	0.86	368.55	0.000	0.000	n/a	0.50	0.43
7	30	28.14	366.10	367.69	1.59	3.30	8.53	0.85	368.55	0.000	56.317	367.20	369.01	1.81**	3.80	7.41	0.85	369.86	0.000	0.000	n/a	1.80	1.53
8	18	8.05	367.76	369.01	1.25	1.39	5.12	0.52	369.53	0.000	35.477	368.11	369.21 j	1.10**	1.39	5.81	0.52	369.73	0.000	0.000	n/a	0.80	n/a
9	18	7.58	368.31	369.21	0.90	1.10	6.87	0.50	369.70	0.000	90.608	374.34	375.41	1.07**	1.34	5.65	0.50	375.90	0.000	0.000	n/a	0.50	0.25
10	18	5.10	374.60	375.41	0.81	0.97	5.27	0.36	375.77	0.000	153.369	378.00	378.87	0.87**	1.06	4.81	0.36	379.23	0.000	0.000	n/a	0.50	0.18
11	15	3.29	378.20	378.87	0.67	0.67	4.92	0.30	379.17	0.000	166.305	380.20	380.93	0.73**	0.74	4.42	0.30	381.23	0.000	0.000	n/a	0.50	0.15
12	15	1.20	380.40	380.93	0.53	0.38	2.42	0.16	381.09	0.000	140.121	383.20	383.63 j	0.43**	0.38	3.19	0.16	383.79	0.000	0.000	n/a	1.00	n/a
13	24	20.00	367.40	369.01	1.61	2.70	7.39	0.85	369.86	0.000	127.504	370.50	372.10 j	1.60**	2.70	7.40	0.85	372.96	0.000	0.000	n/a	1.50	n/a
14	18	5.75	370.70	372.10	1.40	1.14	3.34	0.39	372.50	0.000	64.616	372.60	373.52 j	0.92**	1.14	5.03	0.39	373.92	0.000	0.000	n/a	1.27	n/a
15	18	5.56	372.80	373.52	0.72	0.85	6.57	0.38	373.91	0.000	49.983	374.30	375.21	0.91**	1.12	4.96	0.38	375.59	0.000	0.000	n/a	1.22	n/a
16	18	5.35	374.50	375.40	0.90*	1.09	4.85	0.37	375.76	0.581	137.706	375.30	376.20	0.90**	1.10	4.85	0.37	376.56	0.579	0.580	0.798	1.50	0.55
17	18	5.14	375.50	376.75	1.25	1.07	3.28	0.36	377.11	0.000	34.000	375.70	376.57	0.87**	1.07	4.82	0.36	376.93	0.000	0.000	n/a	1.08	n/a
18	15	4.98	375.90	376.91	1.01*	1.07	4.68	0.34	377.25	0.607	115.233	376.60	377.61	1.01	1.06	4.68	0.34	377.95	0.608	0.608	0.700	1.07	0.36
19	15	3.63	376.80	377.98	1.18	0.79	3.03	0.33	378.30	0.000	28.000	377.00	377.77	0.77**	0.79	4.59	0.33	378.10	0.000	0.000	n/a	1.18	n/a
20	15	0.82	377.20	377.77	0.57	0.29	1.50	0.13	377.90	0.000	78.850	377.67	378.02	0.35**	0.29	2.86	0.13	378.15	0.000	0.000	n/a	0.50	n/a
21	15	0.48	377.90	378.16	0.26*	0.19	2.58	0.10	378.26	0.000	76.953	378.36	378.63	0.27**	0.20	2.48	0.10	378.73	0.000	0.000	n/a	1.18	n/a
22	15	0.38	378.60	378.83	0.23*	0.16	2.42	0.08	378.92	0.000	28.000	378.77	379.01	0.24**	0.16	2.32	0.08	379.09	0.000	0.000	n/a	1.30	n/a

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 4 10-YEAR

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)
23	15	0.25	379.00	379.19	0.19*	0.12	2.10	0.07	379.26	0.000	37.369	379.22	379.41	0.19**	0.12	2.07	0.07	379.48	0.000	0.000	n/a	1.00	n/a
24	24	14.06	370.70	372.10	1.40	2.25	5.96	0.55	372.66	0.546	28.099	370.87	372.22	1.35**	2.26	6.21	0.60	372.82	0.603	0.574	0.161	1.21	0.73
25	24	13.71	371.10	372.95	1.85	2.22	4.52	0.59	373.54	0.000	43.416	371.50	372.83	1.33**	2.22	6.17	0.59	373.42	0.000	0.000	n/a	1.38	0.82
26	18	11.12	371.70	373.05	1.35*	1.68	6.63	0.68	373.74	0.985	29.427	371.99	373.34	1.35	1.68	6.63	0.68	374.02	0.986	0.986	0.290	0.51	0.35
27	18	8.76	372.20	373.69	1.49	1.45	4.96	0.57	374.26	0.000	54.011	373.28	374.42 j	1.14**	1.45	6.05	0.57	374.99	0.000	0.000	n/a	2.16	n/a
28	15	4.24	373.50	374.42	0.92	0.97	4.36	0.30	374.72	0.536	297.666	375.29	376.14	0.85	0.89	4.75	0.35	376.49	0.657	0.596	1.775	1.50	0.53
29	15	2.31	375.50	376.67	1.17	0.59	1.93	0.24	376.91	0.000	237.368	376.92	377.53	0.61**	0.59	3.91	0.24	377.76	0.000	0.000	n/a	1.49	n/a
30	15	2.25	377.20	377.79	0.59*	0.57	3.95	0.23	378.02	0.000	54.000	377.52	378.12	0.60**	0.58	3.88	0.23	378.35	0.000	0.000	n/a	0.50	n/a
31	15	2.16	377.75	378.33	0.58*	0.55	3.92	0.23	378.55	0.000	28.507	377.92	378.51	0.59**	0.56	3.82	0.23	378.73	0.000	0.000	n/a	1.36	0.31
32	15	2.15	378.20	378.77	0.57*	0.55	3.93	0.23	379.00	0.000	74.490	378.65	379.23	0.58**	0.56	3.82	0.23	379.46	0.000	0.000	n/a	1.00	0.23
33	18	1.66	375.50	376.67	1.17	0.49	1.12	0.18	376.85	0.000	34.065	375.84	376.32	0.48**	0.49	3.37	0.18	376.50	0.000	0.000	n/a	1.00	n/a
34	18	4.39	373.50	374.42	0.92	0.96	3.84	0.32	374.75	0.000	34.020	373.70	374.50 j	0.80**	0.96	4.56	0.32	374.83	0.000	0.000	n/a	1.82	n/a
35	15	2.33	373.90	374.50	0.60	0.59	3.98	0.24	374.74	0.000	53.159	374.22	374.83	0.61**	0.59	3.92	0.24	375.07	0.000	0.000	n/a	1.05	n/a
36	15	1.75	374.40	374.89	0.49*	0.44	3.95	0.20	375.09	0.000	28.000	374.60	375.12	0.52**	0.49	3.58	0.20	375.32	0.000	0.000	n/a	1.18	0.23
37	15	0.92	374.80	375.12	0.32	0.25	3.62	0.14	375.26	0.000	44.039	376.56	376.94	0.38**	0.31	2.95	0.14	377.07	0.000	0.000	n/a	1.00	0.14
38	15	0.99	373.90	374.50	0.60	0.33	1.68	0.14	374.64	0.000	60.892	374.51	374.90 j	0.39**	0.33	3.02	0.14	375.04	0.000	0.000	n/a	1.00	n/a
39	24	3.65	363.05	364.89	1.84	0.92	1.21	0.24	365.13	0.000	206.011	364.08	364.75	0.67**	0.92	3.97	0.24	364.99	0.000	0.000	n/a	1.69	0.41
40	15	1.24	364.30	364.75	0.45	0.38	3.12	0.16	364.91	0.000	28.000	364.50	364.94 j	0.44**	0.38	3.22	0.16	365.10	0.000	0.000	n/a	1.13	n/a
41	15	1.17	364.70	364.94	0.24	0.16	7.20	0.16	365.09	0.000	46.669	367.40	367.83	0.43**	0.37	3.17	0.16	367.98	0.000	0.000	n/a	1.13	0.18
42	15	0.94	367.60	367.83	0.23*	0.15	6.20	0.14	367.97	0.000	101.483	371.80	372.18	0.38**	0.32	2.98	0.14	372.32	0.000	0.000	n/a	1.50	0.21
43	15	0.46	372.00	372.26	0.26*	0.18	2.52	0.09	372.35	0.000	34.024	372.20	372.46	0.26**	0.19	2.44	0.09	372.56	0.000	0.000	n/a	1.00	n/a
44	18	1.98	364.00	364.89	0.89	0.56	1.82	0.20	365.08	0.000	97.083	364.50	365.03	0.53**	0.56	3.54	0.20	365.23	0.000	0.000	n/a	0.50	0.10

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 4 10-YEAR

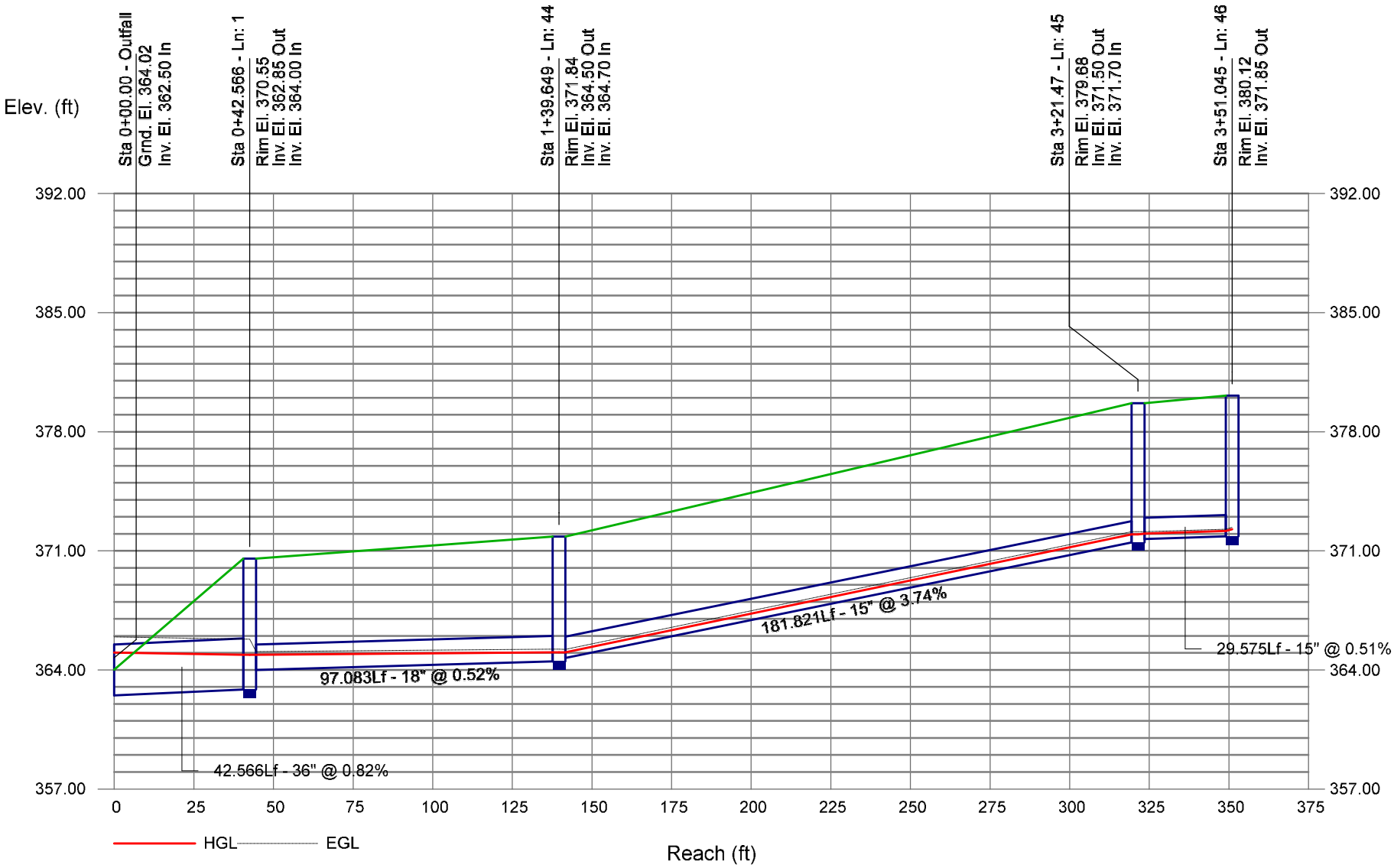
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
45	15	1.37	364.70	365.03	0.33	0.26	5.26	0.17	365.20	0.000	181.821	371.50	371.96	0.46**	0.41	3.32	0.17	372.13	0.000	0.000	n/a	1.43	n/a
46	15	0.63	371.70	372.01	0.31*	0.24	2.63	0.11	372.12	0.506	29.575	371.85	372.16	0.31**	0.24	2.63	0.11	372.27	0.508	0.507	0.150	1.00	0.11
47	15	2.42	364.30	364.95	0.65*	0.64	3.75	0.22	365.17	0.492	46.669	364.53	365.18	0.65	0.64	3.75	0.22	365.40	0.492	0.492	0.230	1.13	0.25
48	15	2.19	364.75	365.43	0.68	0.57	3.23	0.16	365.59	0.352	34.000	364.92	365.52 j	0.60**	0.58	3.76	0.22	365.74	0.530	0.441	0.150	1.13	0.25
49	15	1.82	365.15	365.77	0.62	0.50	3.01	0.14	365.91	0.331	46.669	365.38	365.92	0.54**	0.51	3.59	0.20	366.12	0.533	0.432	0.201	1.13	0.23
50	15	1.09	365.60	366.15	0.55	0.52	2.12	0.07	366.22	0.183	28.000	365.74	366.17	0.43	0.38	2.91	0.13	366.30	0.435	0.309	0.087	1.00	0.13
51	15	0.25	365.70	366.42	0.72	0.12	0.34	0.07	366.49	0.000	21.891	365.92	366.11	0.19**	0.12	2.07	0.07	366.18	0.000	0.000	n/a	1.00	n/a

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

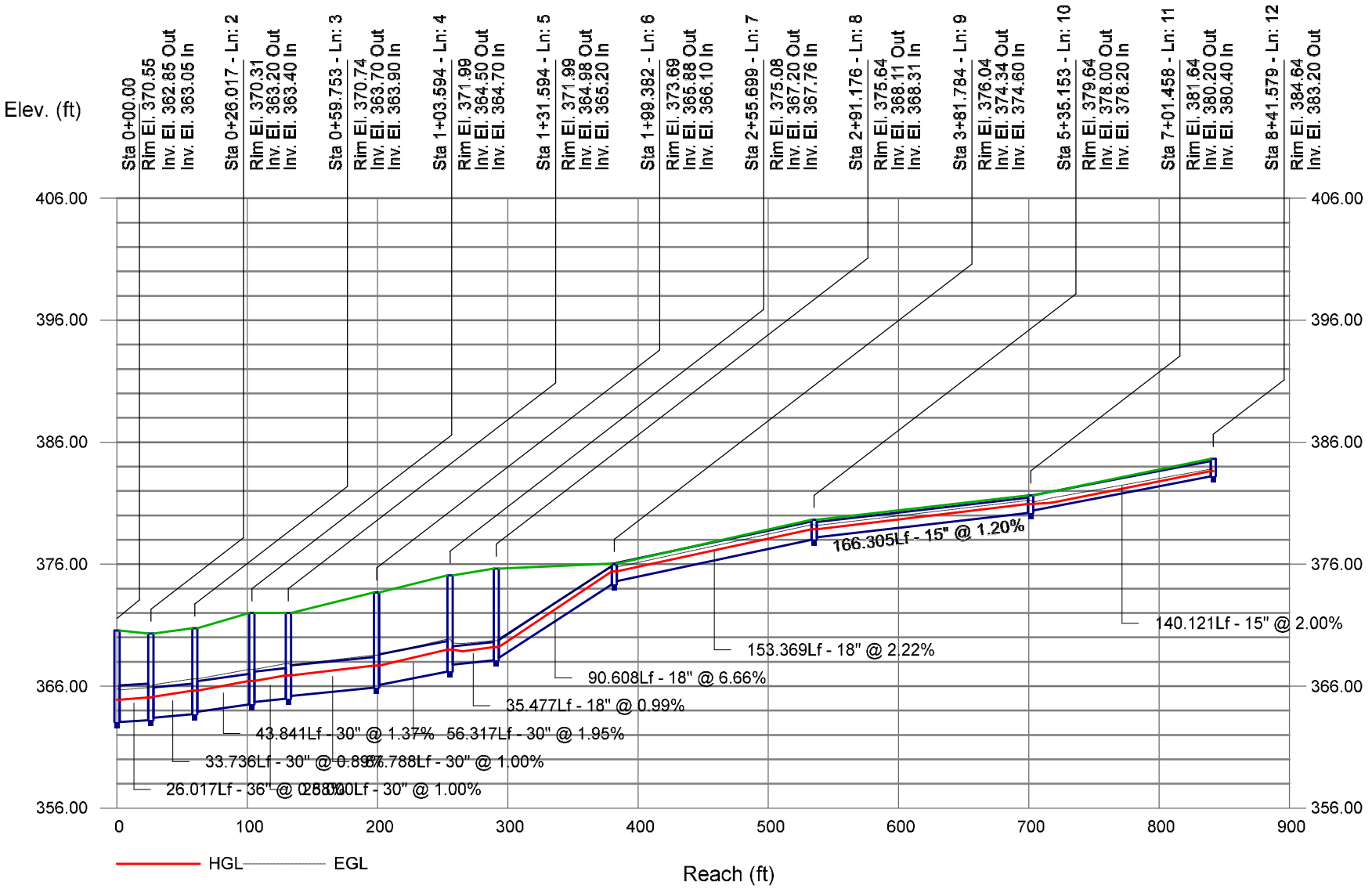
Storm Sewer Profile

SCM 4 10-YEAR PROFILE 1-46 Proj. file: SCM 4 Storm Network.stm



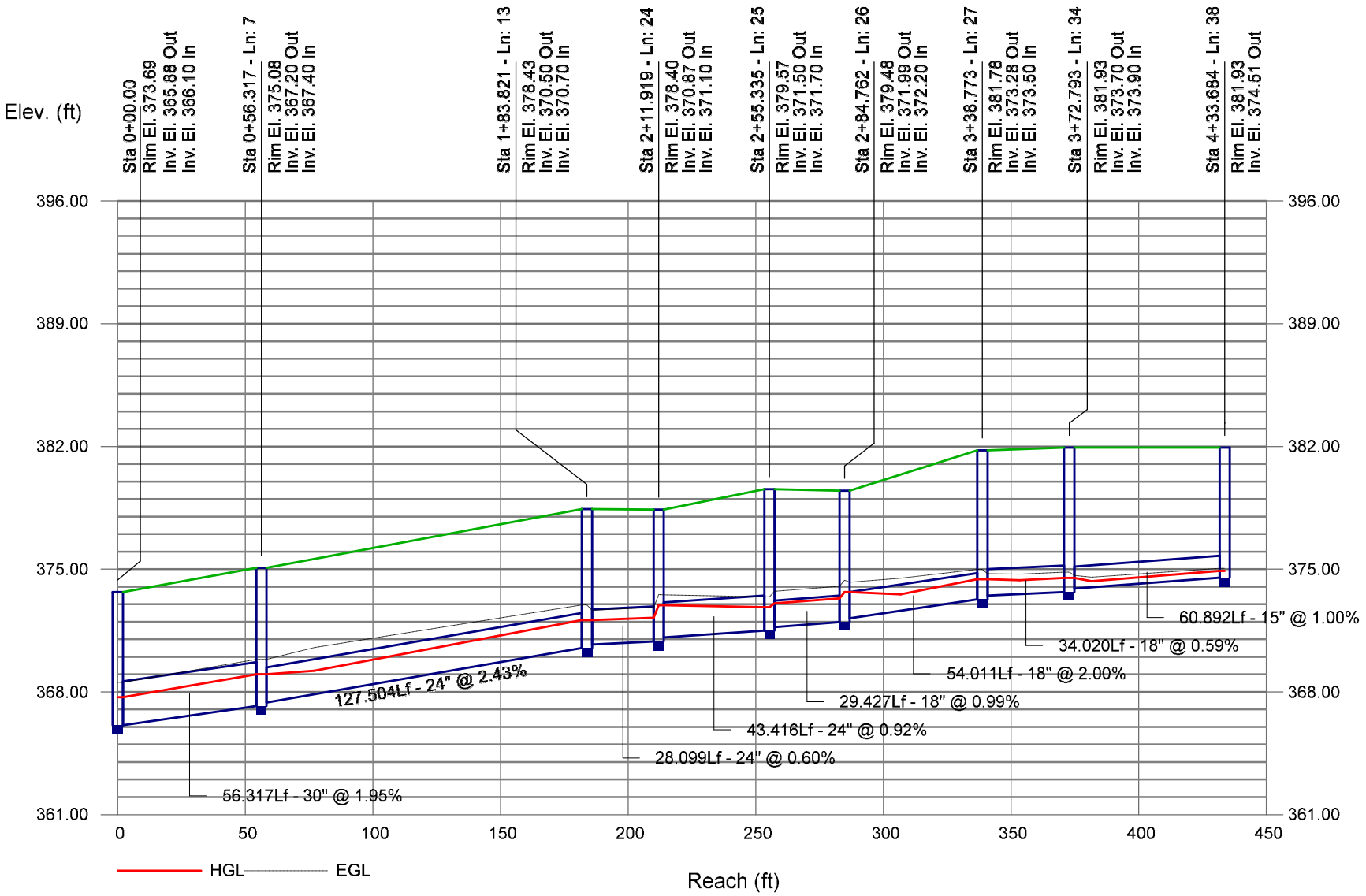
Storm Sewer Profile

SCM 4 10-YEAR PROFILE 2-12 Proj. file: SCM 4 Storm Network.stm



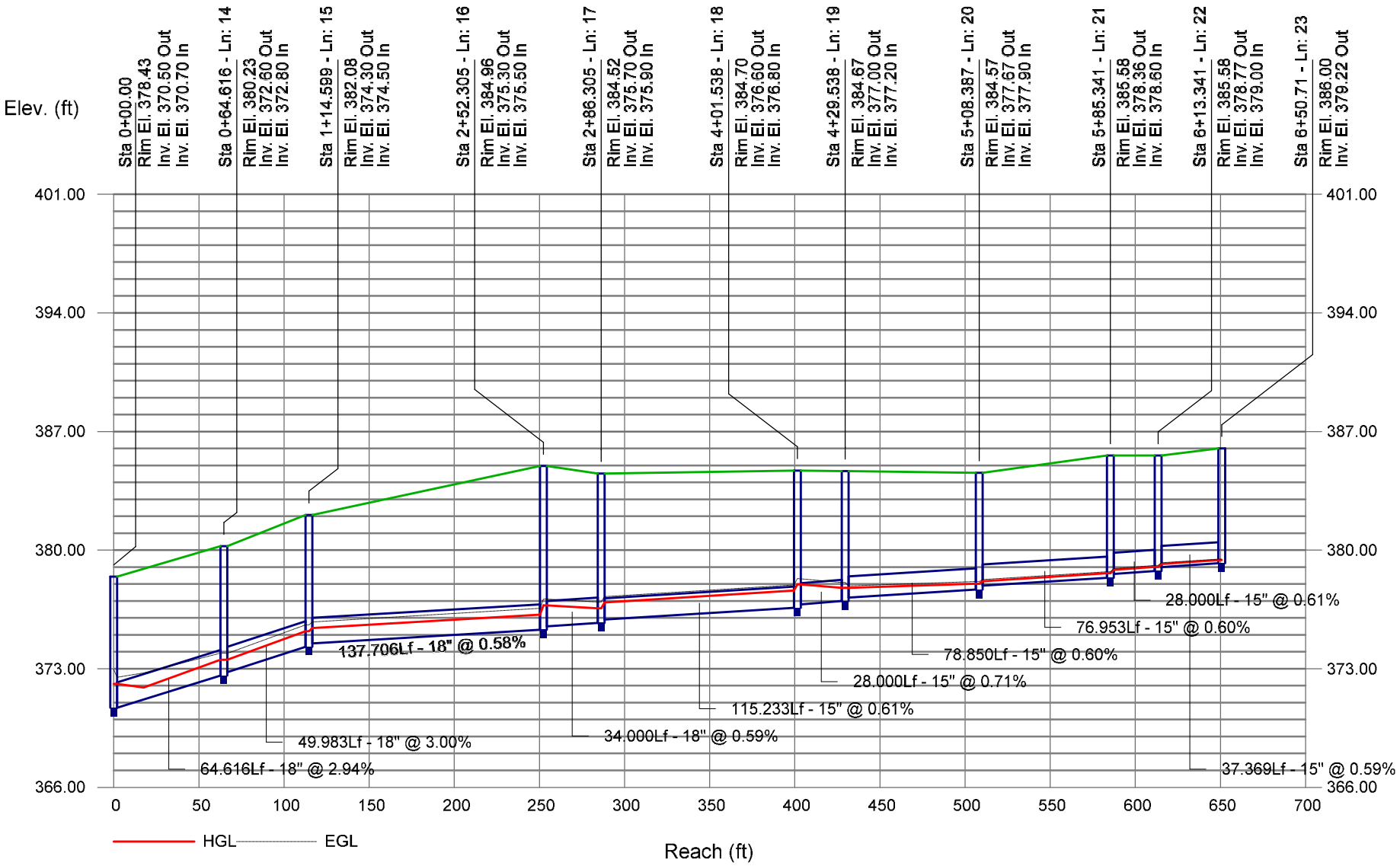
Storm Sewer Profile

SCM 4 10-YEAR PROFILE 13-38 Proj. file: SCM 4 Storm Network.stm



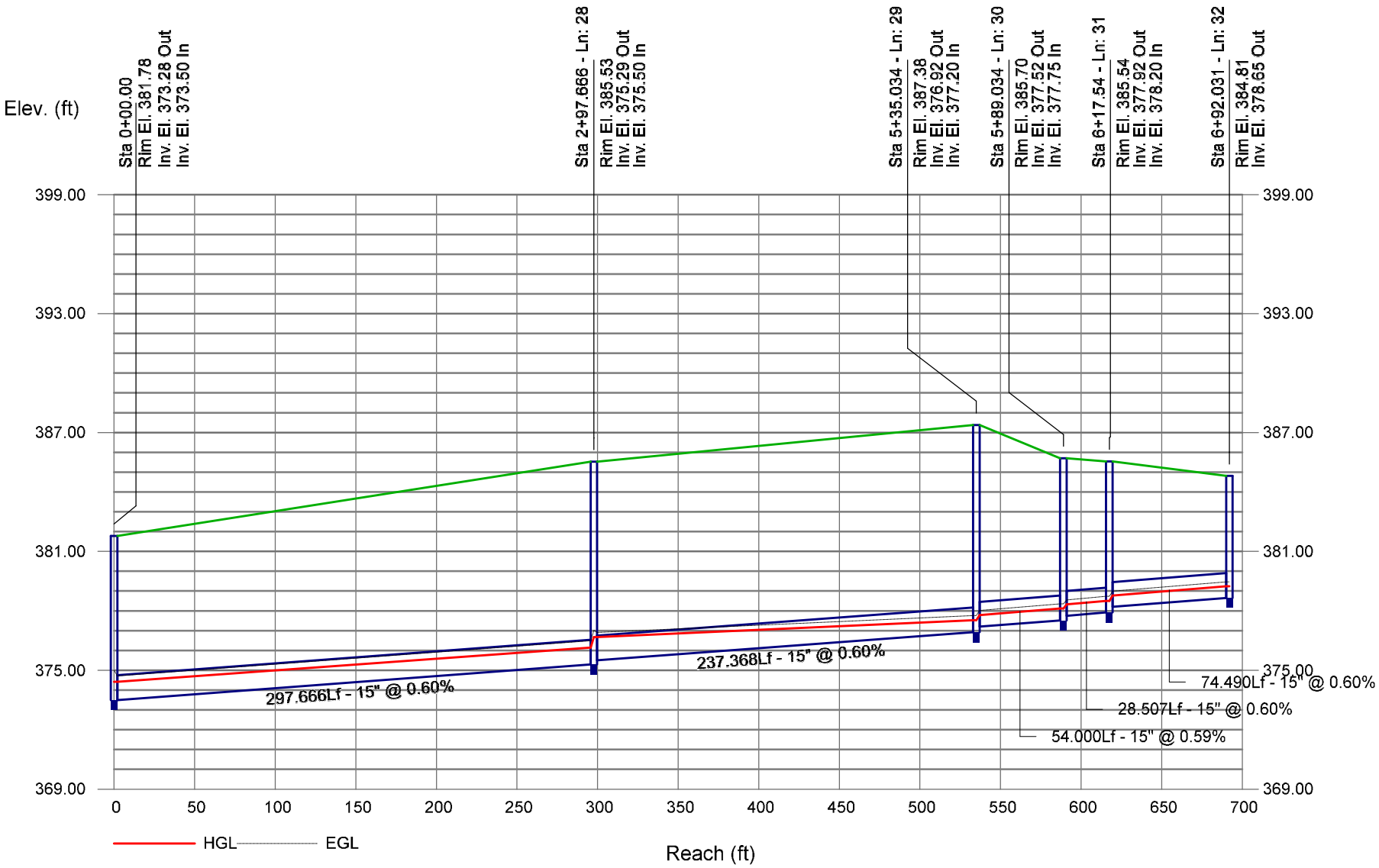
Storm Sewer Profile

SCM 4 10-YEAR PROFILE 14-23 Proj. file: SCM 4 Storm Network.stm



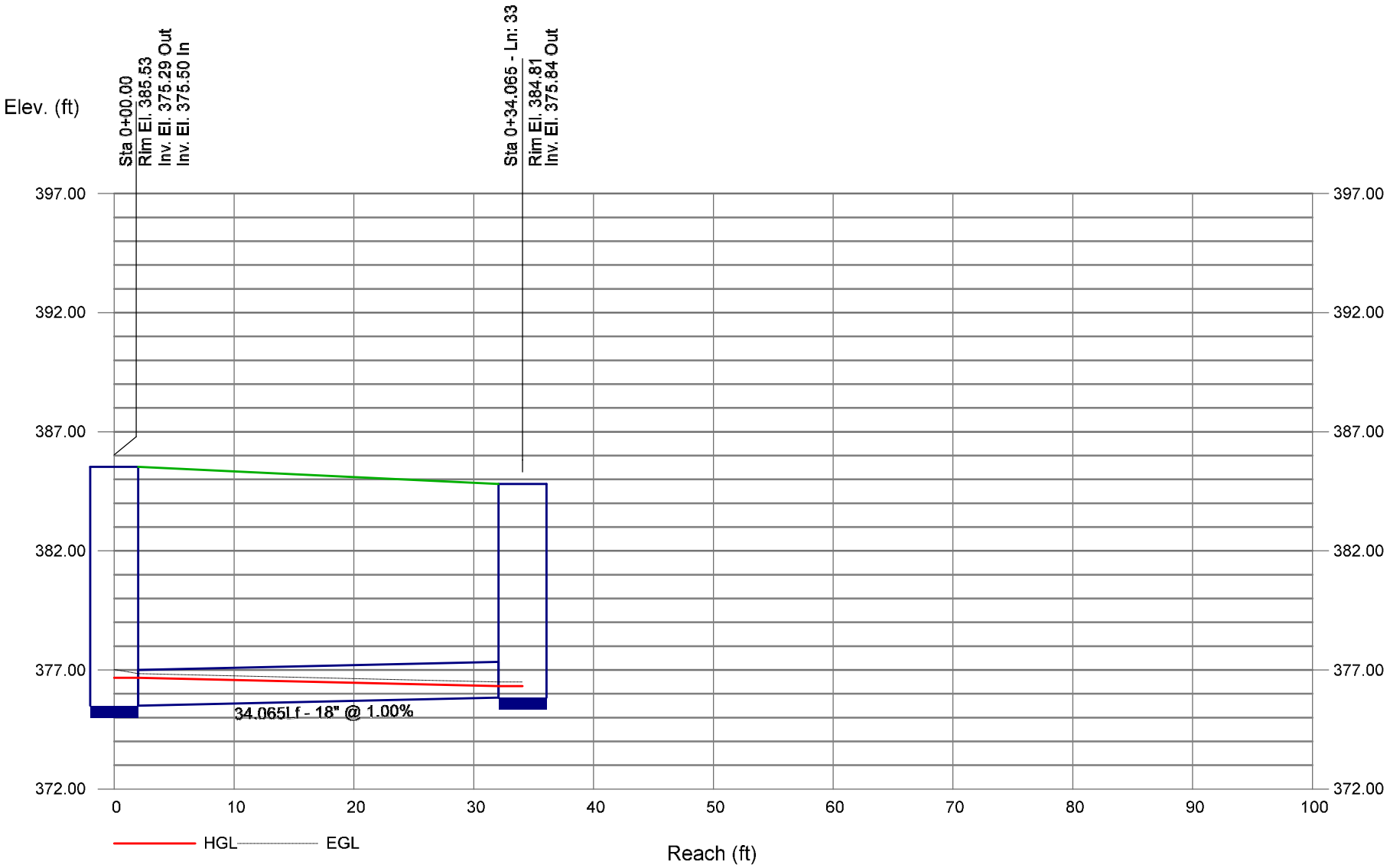
Storm Sewer Profile

SCM 4 10-YEAR PROFILE 28-32 Proj. file: SCM 4 Storm Network.stm



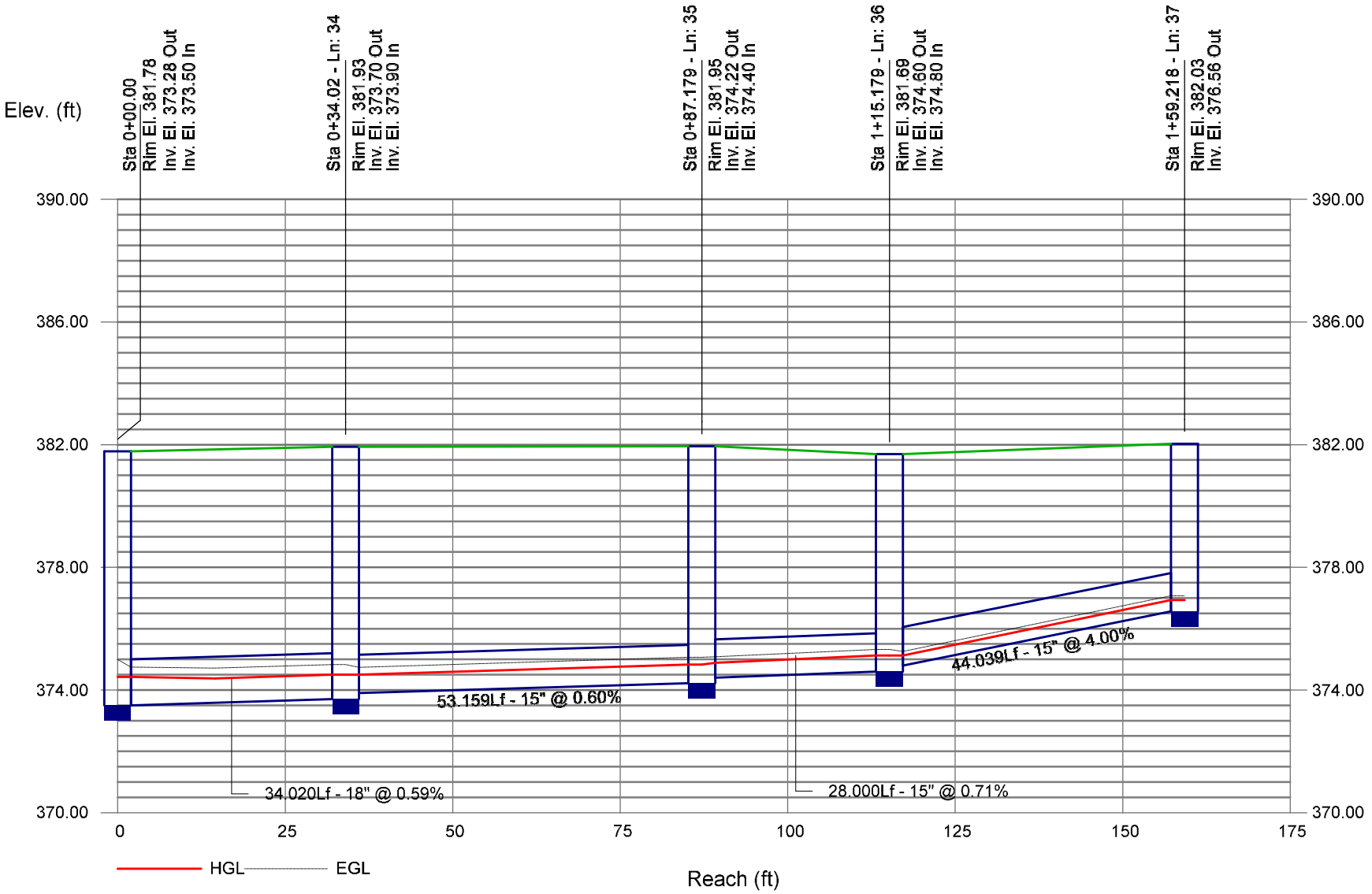
Storm Sewer Profile

SCM 4 10-YEAR PROFILE 33-33 Proj. file: SCM 4 Storm Network.stm



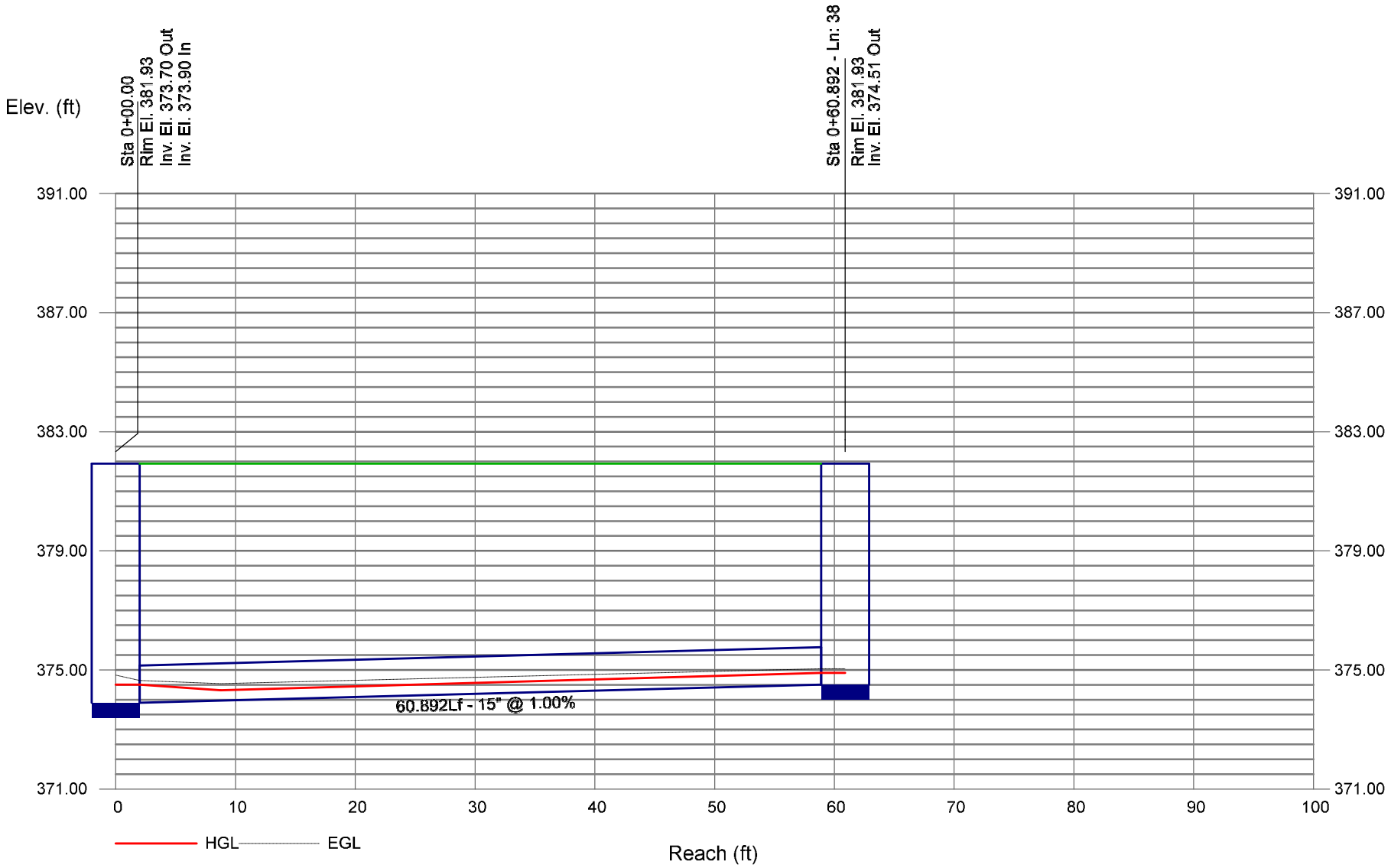
Storm Sewer Profile

SCM 4 10-YEAR PROFILE 34-37 Proj. file: SCM 4 Storm Network.stm



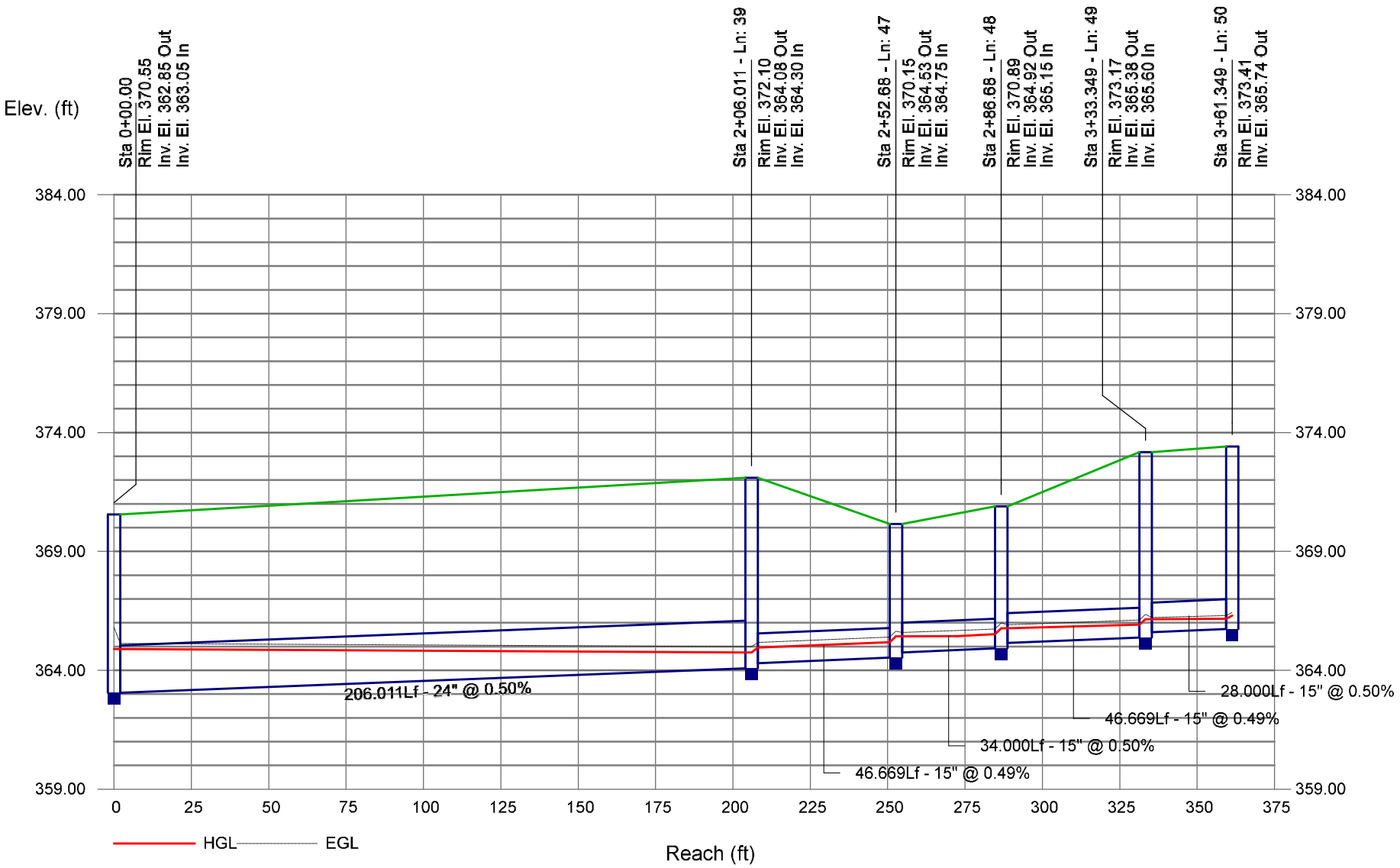
Storm Sewer Profile

SCM 4 10-YEAR PROFILE 38-38 Proj. file: SCM 4 Storm Network.stm



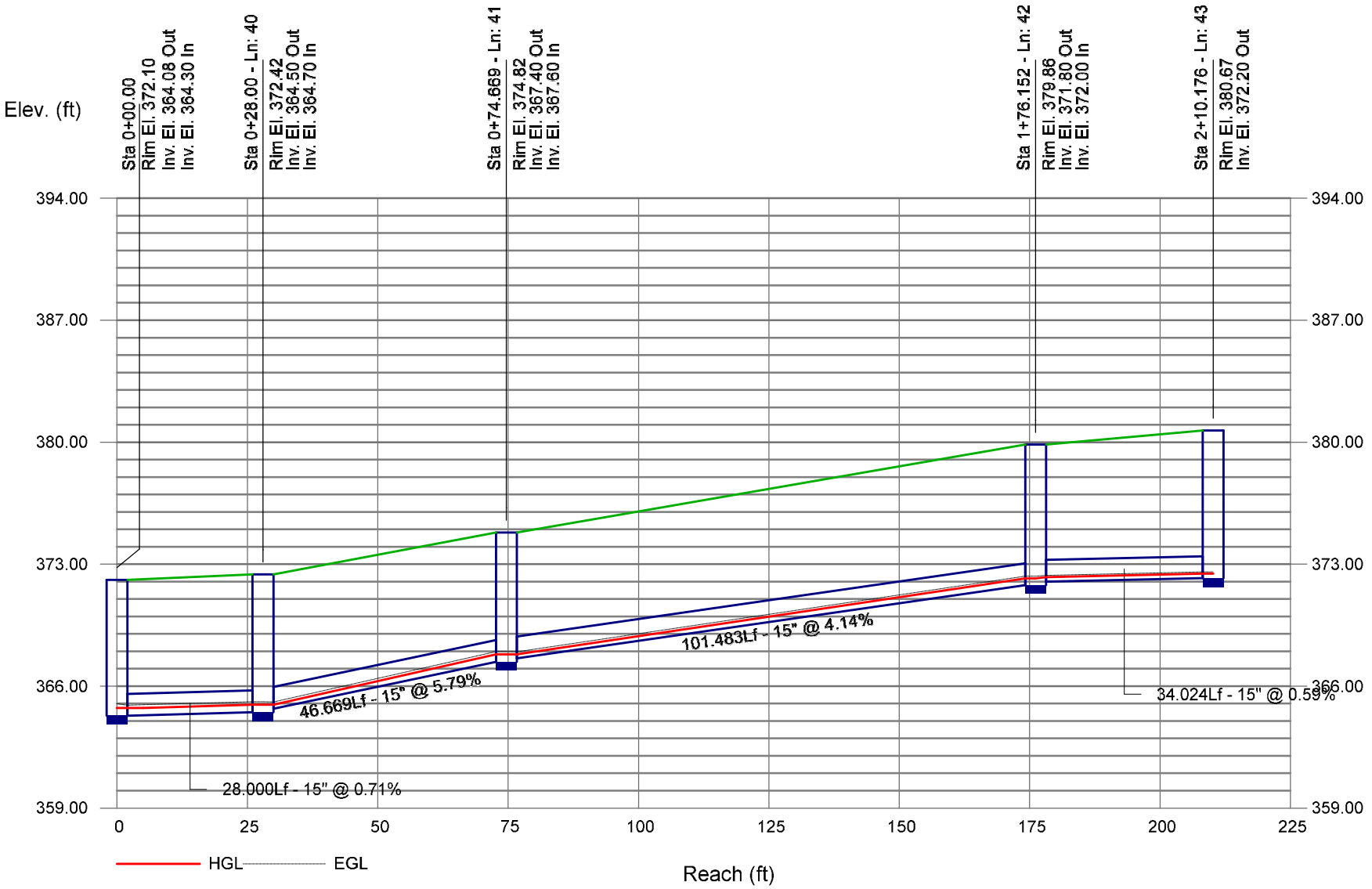
Storm Sewer Profile

SCM 4 10-YEAR PROFILE 39-50 Proj. file: SCM 4 Storm Network.stm



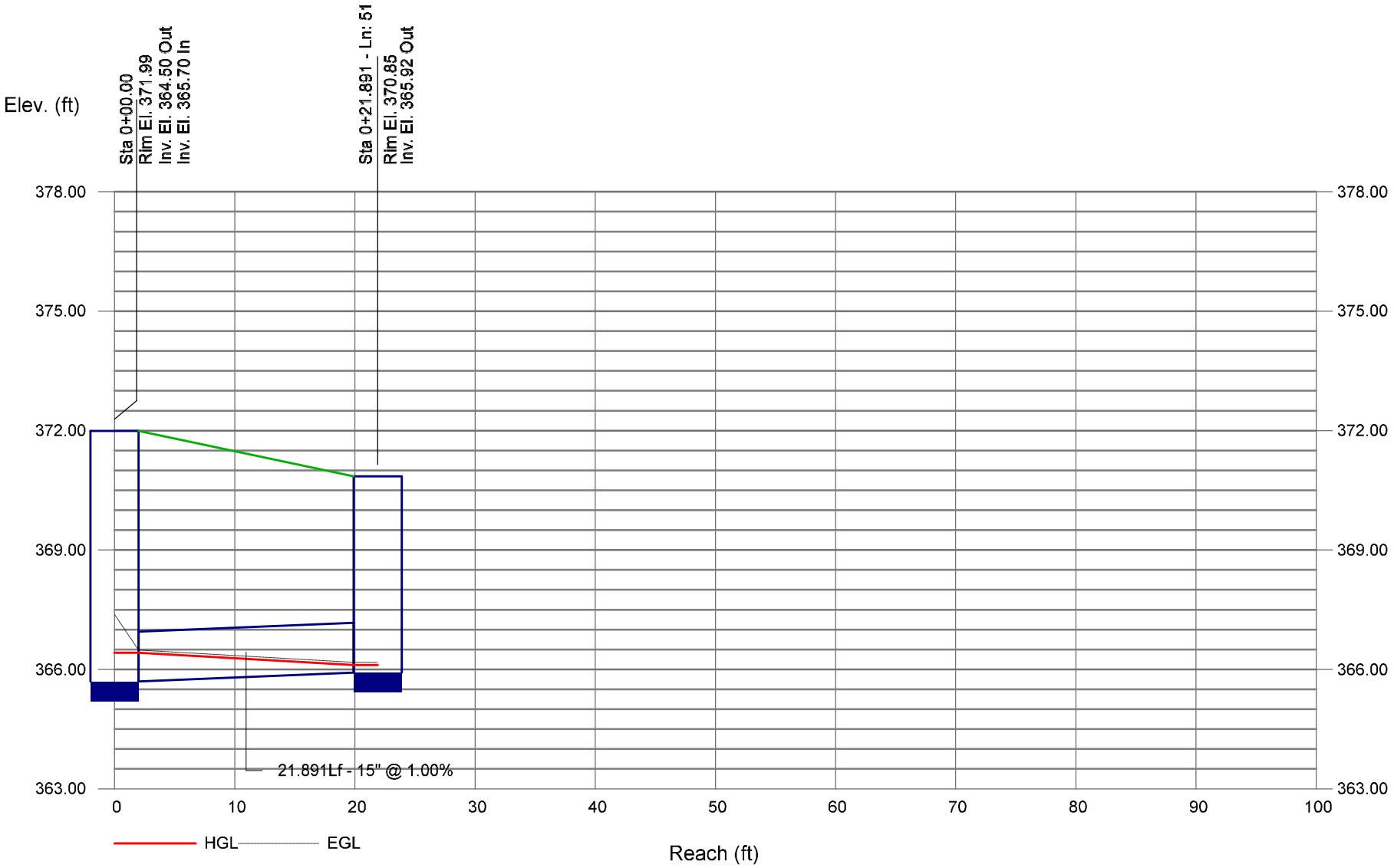
Storm Sewer Profile

SCM 4 10-YEAR PROFILE 40-43 Proj. file: SCM 4 Storm Network.stm

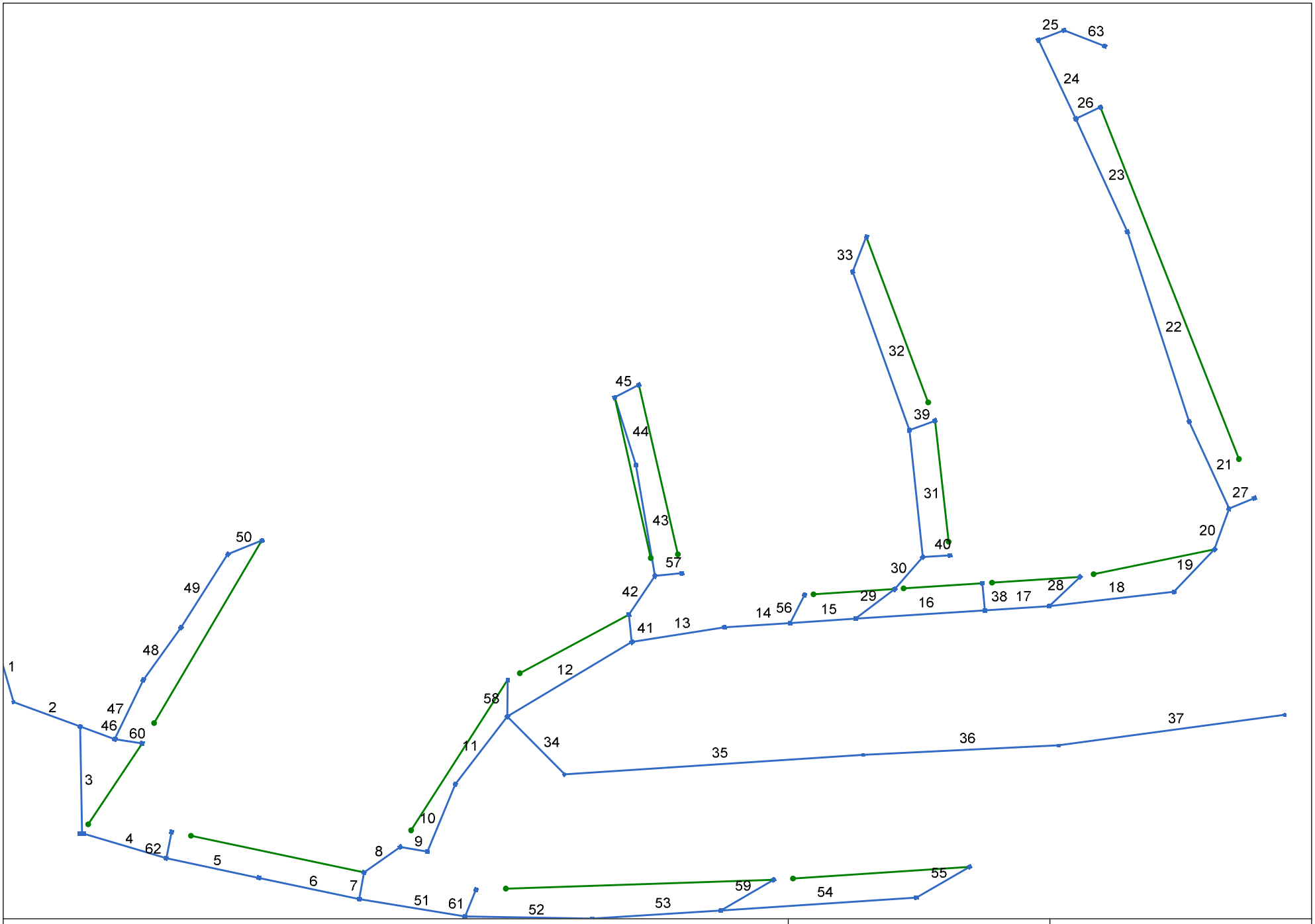


Storm Sewer Profile

SCM 4 10-YEAR PROFILE 51-51 Proj. file: SCM 4 Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 5A 10-YEAR



Project File: SCM 5A Storm Network.stm	Number of lines: 63	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 5A 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	83.000	73.899	DrGrt	0.00	0.03	0.60	10.0	321.50	0.60	322.00	48	Cir	0.013	1.26	339.40	Pipe - (292)
2	1	72.832	-53.727	MH	0.00	0.00	0.00	10.0	322.25	0.49	322.61	42	Cir	0.013	0.94	339.83	Pipe - (291) (1)
3	2	110.092	68.821	Comb	0.00	0.28	0.60	10.0	322.90	0.64	323.60	42	Cir	0.013	1.44	331.20	Pipe - (515)
4	3	90.197	-72.396	Comb	0.00	0.06	0.60	10.0	323.86	0.60	324.40	42	Cir	0.013	1.50	332.41	Pipe - (287)
5	4	96.914	-4.581	Comb	0.00	0.09	0.60	10.0	324.40	0.62	325.00	42	Cir	0.013	0.50	333.37	Pipe - (236) (1)
6	5	105.502	0.000	Comb	0.00	0.12	0.60	10.0	325.50	1.10	326.66	42	Cir	0.013	2.23	334.42	Pipe - (425)
7	6	28.011	-91.609	Comb	0.00	0.15	0.60	10.0	326.90	0.61	327.07	42	Cir	0.013	1.12	334.42	Pipe - (236)
8	7	45.483	44.496	Comb	0.00	0.80	0.60	10.0	327.30	0.59	327.57	42	Cir	0.013	1.12	335.29	Pipe - (517)
9	8	28.154	44.548	Comb	0.00	0.09	0.60	10.0	327.80	0.60	327.97	42	Cir	0.013	1.47	335.38	Pipe - (518)
10	9	75.321	-76.898	Comb	0.00	0.08	0.60	10.0	328.20	3.00	330.46	36	Cir	0.013	0.50	338.20	Pipe - (265)
11	10	87.576	14.810	Comb	0.00	0.12	0.60	10.0	330.65	4.00	334.15	36	Cir	0.013	2.19	341.67	Pipe - (266)
12	11	149.169	21.617	Comb	0.00	0.06	0.60	10.0	334.40	3.50	339.62	30	Cir	0.013	1.39	347.55	Pipe - (232)
13	12	96.000	21.905	Comb	0.00	0.04	0.60	10.0	339.80	3.99	343.63	24	Cir	0.013	0.50	351.50	Pipe - (533)
14	13	67.783	5.437	Comb	0.00	0.04	0.60	10.0	343.85	5.00	347.24	24	Cir	0.013	1.32	355.16	Pipe - (274)
15	14	67.241	-0.093	Comb	0.00	0.08	0.60	10.0	347.50	5.95	351.50	24	Cir	0.013	0.91	359.75	Pipe - (260)
16	15	133.104	0.043	Comb	0.00	0.04	0.60	10.0	351.70	6.99	361.00	24	Cir	0.013	1.50	369.34	Pipe - (532)
17	16	66.111	0.014	Comb	0.00	0.07	0.60	10.0	361.20	8.02	366.50	24	Cir	0.013	1.03	374.10	Pipe - (272)
18	17	129.000	-2.881	Comb	0.00	0.07	0.60	10.0	366.70	5.66	374.00	18	Cir	0.013	1.04	381.92	Pipe - (227)
19	18	60.236	-39.930	Comb	0.00	0.06	0.60	10.0	374.20	2.49	375.70	18	Cir	0.013	0.69	383.94	Pipe - (530)
20	19	44.832	-23.761	Comb	0.00	0.29	0.60	10.0	375.90	1.49	376.57	18	Cir	0.013	1.17	385.18	Pipe - (226)
21	20	98.443	-44.465	Comb	0.00	0.66	0.60	10.0	376.80	1.00	377.78	15	Cir	0.013	0.50	386.14	Pipe - (225) (1)
22	21	205.640	6.883	Comb	0.00	0.35	0.60	10.0	378.00	1.02	380.10	15	Cir	0.013	0.50	388.20	Pipe - (225)
23	22	128.177	-6.601	Comb	0.00	0.32	0.60	10.0	380.30	1.00	381.58	15	Cir	0.013	1.50	389.50	Pipe - (224)

Project File: SCM 5A Storm Network.stm

Number of lines: 63

Date: 4/11/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	89.745	-0.806	Comb	0.00	0.23	0.60	10.0	381.80	1.00	382.70	15	Cir	0.013	1.50	390.40	Pipe - (223) (1)
25	24	28.070	94.057	Comb	0.00	0.15	0.60	10.0	382.90	0.50	383.04	15	Cir	0.013	1.08	390.38	Pipe - (528)
26	23	28.048	89.194	Comb	0.00	0.15	0.60	10.0	381.80	1.00	382.08	15	Cir	0.013	1.00	389.54	Pipe - (245)
27	20	28.090	47.998	Comb	0.00	1.40	0.60	10.0	376.80	1.00	377.08	15	Cir	0.013	1.00	385.16	Pipe - (529)
28	17	43.790	-39.748	Comb	0.00	0.22	0.60	10.0	366.70	2.01	367.58	15	Cir	0.013	1.00	376.51	Pipe - (255)
29	15	50.671	-33.471	Comb	0.00	0.09	0.60	10.0	351.70	5.53	354.50	18	Cir	0.013	0.50	362.79	Pipe - (531)
30	29	43.841	-11.501	Comb	0.00	0.39	0.60	10.0	354.70	8.44	358.40	18	Cir	0.013	1.69	366.34	Pipe - (259)
31	30	131.638	-47.350	Comb	0.00	0.46	0.60	10.0	358.60	1.82	361.00	15	Cir	0.013	1.46	368.50	Pipe - (258)
32	31	173.316	-13.483	Comb	0.00	0.75	0.60	10.0	361.20	2.77	366.00	15	Cir	0.013	1.05	373.98	Pipe - (257)
33	32	38.552	40.848	Comb	0.00	0.67	0.60	10.0	366.20	3.53	367.56	15	Cir	0.013	1.00	375.06	Pipe - (256)
34	11	83.727	97.965	DrGrt	0.00	0.80	0.60	10.0	334.40	0.50	334.82	30	Cir	0.013	1.19	336.44	Pipe - (285)
35	34	306.989	-49.069	DrGrt	0.00	1.85	0.60	10.0	335.00	4.14	347.71	24	Cir	0.013	0.50	352.12	Pipe - (284)
36	35	200.863	0.954	DrGrt	0.00	1.37	0.60	10.0	348.00	7.97	364.00	18	Cir	0.013	0.50	367.82	Pipe - (283)
37	36	234.000	-4.972	DrGrt	0.00	1.22	0.60	10.0	364.20	1.00	366.54	15	Cir	0.013	1.00	375.19	Pipe - (282)
38	16	28.013	-91.754	Comb	0.00	0.13	0.60	10.0	361.20	1.00	361.48	15	Cir	0.013	1.00	369.28	Pipe - (273)
39	31	28.090	76.190	Comb	0.00	0.70	0.60	10.0	361.20	1.00	361.48	15	Cir	0.013	1.00	368.61	Pipe - (261)
40	30	28.000	45.000	Comb	0.00	0.47	0.60	10.0	358.60	1.00	358.88	15	Cir	0.013	1.00	366.34	Pipe - (262)
41	12	28.499	-65.141	Comb	0.00	0.26	0.60	10.0	339.80	1.05	340.10	24	Cir	0.013	1.04	347.86	Pipe - (242)
42	41	47.998	39.967	Comb	0.00	0.61	0.60	10.0	340.30	4.58	342.50	18	Cir	0.013	1.21	349.90	Pipe - (241)
43	42	115.718	-43.449	MH	0.00	0.00	0.00	10.0	342.70	5.10	348.60	15	Cir	0.013	0.16	356.76	Pipe - (240) (1)
44	43	73.254	-7.668	Comb	0.00	0.46	0.60	10.0	348.80	4.37	352.00	15	Cir	0.013	1.48	360.25	Pipe - (240)
45	44	27.894	79.953	Comb	0.00	0.43	0.60	10.0	352.20	2.40	352.87	15	Cir	0.013	1.00	360.47	Pipe - (243)
46	2	37.830	0.000	Comb	0.00	0.05	0.60	10.0	325.00	7.96	328.01	18	Cir	0.013	1.49	339.56	Pipe - (291)

Project File: SCM 5A Storm Network.stm

Number of lines: 63

Date: 4/11/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	46	67.669	-84.535	Comb	0.00	0.04	0.60	10.0	328.20	10.00	334.97	15	Cir	0.013	0.50	345.00	Pipe - (297)
48	47	66.501	9.954	Comb	0.00	0.06	0.60	10.0	335.20	10.00	341.85	15	Cir	0.013	0.50	350.54	Pipe - (299)
49	48	89.618	-3.183	Comb	0.00	0.21	0.60	10.0	342.10	10.00	351.06	15	Cir	0.013	0.95	358.40	Pipe - (296)
50	49	37.668	35.517	Comb	0.00	1.14	0.60	10.0	351.30	3.42	352.59	18	Cir	0.013	1.00	360.60	Pipe - (519)
51	6	110.218	-2.645	Comb	0.00	0.14	0.60	10.0	326.90	0.50	327.45	24	Cir	0.013	1.47	335.41	Pipe - (235)
52	51	130.561	-8.424	Comb	0.00	0.14	0.60	10.0	327.65	0.57	328.40	24	Cir	0.013	0.50	336.55	Pipe - (270)
53	52	132.413	-4.628	Comb	0.00	0.21	0.60	10.0	328.60	3.32	333.00	18	Cir	0.013	0.76	341.27	Pipe - (269)
54	53	201.000	-0.061	Comb	0.00	0.34	0.60	10.0	333.20	7.50	348.28	15	Cir	0.013	0.75	356.93	Pipe - (268)
55	54	63.000	-26.471	Comb	0.00	0.20	0.60	10.0	348.50	7.98	353.53	15	Cir	0.013	1.00	361.96	Pipe - (277)
56	14	32.603	-59.248	Comb	0.00	0.17	0.60	10.0	347.80	1.01	348.13	15	Cir	0.013	1.00	356.22	Pipe - (263)
57	42	27.998	50.565	Comb	0.00	0.62	0.60	10.0	342.70	1.00	342.98	15	Cir	0.013	1.00	350.07	Pipe - (244)
58	11	38.000	-36.753	Comb	0.00	0.42	0.60	10.0	335.40	1.00	335.78	15	Cir	0.013	1.00	342.73	Pipe - (286)
59	53	62.439	-26.705	Comb	0.00	0.11	0.60	10.0	333.20	4.96	336.30	15	Cir	0.013	1.00	344.70	Pipe - (278)
60	46	28.384	-11.463	Comb	0.00	0.73	0.60	10.0	328.20	5.67	329.81	15	Cir	0.013	1.00	339.81	Pipe - (288)
61	51	30.000	-77.524	Comb	0.00	0.17	0.60	10.0	327.85	1.00	328.15	15	Cir	0.013	1.00	335.57	Pipe - (271)
62	4	28.000	-95.287	Comb	0.00	0.49	0.60	10.0	325.60	0.93	325.86	15	Cir	0.013	1.00	332.65	Pipe - (281)
63	25	45.000	42.659	Comb	0.00	0.18	0.60	10.0	383.24	0.58	383.50	15	Cir	0.013	1.00	0.00	Pipe - (593)

Structure Report

SCM 5A 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 501	DropGrate	339.40	Rect	3.00	3.00	48	Cir	322.00	42	Cir	322.25
2	JB 502	Manhole	339.83	Rect	4.00	4.00	42	Cir	322.61	42 18	Cir Cir	322.90 325.00
3	CB 503	Combination	331.20	Rect	4.00	8.00	42	Cir	323.60	42	Cir	323.86
4	CB 504	Combination	332.41	Rect	4.00	4.00	42	Cir	324.40	42 15	Cir Cir	324.40 325.60
5	CB 505	Combination	333.37	Rect	4.00	4.00	42	Cir	325.00	42	Cir	325.50
6	CB 506	Combination	334.42	Rect	4.00	4.00	42	Cir	326.66	42 24	Cir Cir	326.90 326.90
7	CB 515	Combination	334.42	Rect	4.00	4.00	42	Cir	327.07	42	Cir	327.30
8	CB 516	Combination	335.29	Rect	4.00	4.00	42	Cir	327.57	42	Cir	327.80
9	CB 517	Combination	335.38	Rect	4.00	4.00	42	Cir	327.97	36	Cir	328.20
10	CB 518	Combination	338.20	Rect	4.00	4.00	36	Cir	330.46	36	Cir	330.65
11	CB 519	Combination	341.67	Rect	4.00	4.00	36	Cir	334.15	30 30 15	Cir Cir Cir	334.40 334.40 335.40
12	CB 520	Combination	347.55	Rect	4.00	4.00	30	Cir	339.62	24 24	Cir Cir	339.80 339.80
13	CB 521	Combination	351.50	Rect	4.00	4.00	24	Cir	343.63	24	Cir	343.85
14	CB 522	Combination	355.16	Rect	4.00	4.00	24	Cir	347.24	24 15	Cir Cir	347.50 347.80
15	CB 523	Combination	359.75	Rect	4.00	4.00	24	Cir	351.50	24 18	Cir Cir	351.70 351.70
16	CB 524	Combination	369.34	Rect	4.00	4.00	24	Cir	361.00	24 15	Cir Cir	361.20 361.20
17	CB 525	Combination	374.10	Rect	4.00	4.00	24	Cir	366.50	18 15	Cir Cir	366.70 366.70
18	CB 526	Combination	381.92	Rect	4.00	4.00	18	Cir	374.00	18	Cir	374.20

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
19	CB 527	Combination	383.94	Rect	4.00	4.00	18	Cir	375.70	18	Cir	375.90
20	CB 528	Combination	385.18	Rect	4.00	4.00	18	Cir	376.57	15 15	Cir Cir	376.80 376.80
21	CB 529	Combination	386.14	Rect	4.00	4.00	15	Cir	377.78	15	Cir	378.00
22	CB 530	Combination	388.20	Rect	4.00	4.00	15	Cir	380.10	15	Cir	380.30
23	CB 531	Combination	389.50	Rect	4.00	4.00	15	Cir	381.58	15 15	Cir Cir	381.80 381.80
24	CB 532	Combination	390.40	Rect	4.00	4.00	15	Cir	382.70	15	Cir	382.90
25	CB 532A	Combination	390.38	Rect	4.00	4.00	15	Cir	383.04	15	Cir	383.24
26	CB 531A	Combination	389.54	Rect	4.00	4.00	15	Cir	382.08			
27	CB 528A	Combination	385.16	Rect	4.00	4.00	15	Cir	377.08			
28	CB 525A	Combination	376.51	Rect	4.00	4.00	15	Cir	367.58			
29	CB 534	Combination	362.79	Rect	4.00	4.00	18	Cir	354.50	18	Cir	354.70
30	CB 535	Combination	366.34	Rect	4.00	4.00	18	Cir	358.40	15 15	Cir Cir	358.60 358.60
31	CB 536	Combination	368.50	Rect	4.00	4.00	15	Cir	361.00	15 15	Cir Cir	361.20 361.20
32	CB 537	Combination	373.98	Rect	4.00	4.00	15	Cir	366.00	15	Cir	366.20
33	CB 537A	Combination	375.06	Rect	4.00	4.00	15	Cir	367.56			
34	YI 519B	DropGrate	336.44	Rect	3.00	3.00	30	Cir	334.82	24	Cir	335.00
35	YI 519C	DropGrate	352.12	Rect	3.00	3.00	24	Cir	347.71	18	Cir	348.00
36	YI 519D	DropGrate	367.82	Rect	3.00	3.00	18	Cir	364.00	15	Cir	364.20
37	YI 519E	DropGrate	375.19	Rect	3.00	3.00	15	Cir	366.54			
38	CB 524A	Combination	369.28	Rect	4.00	4.00	15	Cir	361.48			
39	CB 536A	Combination	368.61	Rect	4.00	4.00	15	Cir	361.48			

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
40	CB 535A	Combination	366.34	Rect	4.00	4.00	15	Cir	358.88			
41	CB 538	Combination	347.86	Rect	4.00	4.00	24	Cir	340.10	18	Cir	340.30
42	CB 539	Combination	349.90	Rect	4.00	4.00	18	Cir	342.50	15 15	Cir Cir	342.70 342.70
43	JB 540	Manhole	356.76	Rect	4.00	4.00	15	Cir	348.60	15	Cir	348.80
44	CB 541	Combination	360.25	Rect	4.00	4.00	15	Cir	352.00	15	Cir	352.20
45	CB 541A	Combination	360.47	Rect	4.00	4.00	15	Cir	352.87			
46	CB 511	Combination	339.56	Rect	4.00	4.00	18	Cir	328.01	15 15	Cir Cir	328.20 328.20
47	CB 512	Combination	345.00	Rect	4.00	4.00	15	Cir	334.97	15	Cir	335.20
48	CB 513	Combination	350.54	Rect	4.00	4.00	15	Cir	341.85	15	Cir	342.10
49	CB 514	Combination	358.40	Rect	4.00	4.00	15	Cir	351.06	18	Cir	351.30
50	CB 514A	Combination	360.60	Rect	4.00	4.00	18	Cir	352.59			
51	CB 507	Combination	335.41	Rect	4.00	4.00	24	Cir	327.45	24 15	Cir Cir	327.65 327.85
52	CB 508	Combination	336.55	Rect	4.00	4.00	24	Cir	328.40	18	Cir	328.60
53	CB 509	Combination	341.27	Rect	4.00	4.00	18	Cir	333.00	15 15	Cir Cir	333.20 333.20
54	CB 510	Combination	356.93	Rect	4.00	4.00	15	Cir	348.28	15	Cir	348.50
55	CB 510A	Combination	361.96	Rect	4.00	4.00	15	Cir	353.53			
56	CB 522A	Combination	356.22	Rect	4.00	4.00	15	Cir	348.13			
57	CB 539A	Combination	350.07	Rect	4.00	4.00	15	Cir	342.98			
58	CB 519A	Combination	342.73	Rect	4.00	4.00	15	Cir	335.78			
59	CB 509A	Combination	344.70	Rect	4.00	4.00	15	Cir	336.30			
60	CB 511A	Combination	339.81	Rect	4.00	4.00	15	Cir	329.81			

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
61	CB 507A	Combination	335.57	Rect	4.00	4.00	15	Cir	328.15			
62	CB 504A	Combination	332.65	Rect	4.00	4.00	15	Cir	325.86			
63	CB 533	Combination	0.00	Rect	4.00	4.00	15	Cir	383.50			

Storm Sewer Summary Report

SCM 5A 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (292)	65.25	48	Cir	83.000	321.50	322.00	0.602	324.72	324.44	n/a	324.44	End	DropGrate
2	Pipe - (291) (1)	65.44	42	Cir	72.832	322.25	322.61	0.494	324.91	325.27	1.02	326.29	1	Manhole
3	Pipe - (515)	59.26	42	Cir	110.092	322.90	323.60	0.636	326.29	326.01	1.58	326.01	2	Combination
4	Pipe - (287)	58.73	42	Cir	90.197	323.86	324.40	0.599	326.13	326.80	1.63	326.80	3	Combination
5	Pipe - (236) (1)	57.41	42	Cir	96.914	324.40	325.00	0.619	326.80	327.37	n/a	327.37	4	Combination
6	Pipe - (425)	57.45	42	Cir	105.502	325.50	326.66	1.100	327.37	329.03	n/a	329.03	5	Combination
7	Pipe - (236)	53.20	42	Cir	28.011	326.90	327.07	0.607	329.03	329.35	n/a	329.35	6	Combination
8	Pipe - (517)	52.89	42	Cir	45.483	327.30	327.57	0.594	329.42	329.84	1.11	329.84	7	Combination
9	Pipe - (518)	50.54	42	Cir	28.154	327.80	327.97	0.604	329.85	330.19	1.41	330.19	8	Combination
10	Pipe - (265)	50.47	36	Cir	75.321	328.20	330.46	3.000	330.19	332.77	0.58	332.77	9	Combination
11	Pipe - (266)	50.47	36	Cir	87.576	330.65	334.15	3.997	332.77	336.46	2.54	336.46	10	Combination
12	Pipe - (232)	33.00	30	Cir	149.169	334.40	339.62	3.499	336.46	341.57	n/a	341.57 j	11	Combination
13	Pipe - (533)	25.56	24	Cir	96.000	339.80	343.63	3.990	341.57	345.40	0.58	345.40	12	Combination
14	Pipe - (274)	25.53	24	Cir	67.783	343.85	347.24	5.001	345.40	349.01	1.54	349.01	13	Combination
15	Pipe - (260)	24.97	24	Cir	67.241	347.50	351.50	5.949	349.01	353.26	1.03	353.26	14	Combination
16	Pipe - (532)	13.77	24	Cir	133.104	351.70	361.00	6.987	353.26	362.34	n/a	362.34 j	15	Combination
17	Pipe - (272)	13.30	24	Cir	66.111	361.20	366.50	8.017	362.34	367.81	0.59	367.81	16	Combination
18	Pipe - (227)	12.47	18	Cir	129.000	366.70	374.00	5.659	367.81	375.33	n/a	375.33	17	Combination
19	Pipe - (530)	12.29	18	Cir	60.236	374.20	375.70	2.490	375.33	377.03	n/a	377.03	18	Combination
20	Pipe - (226)	12.14	18	Cir	44.832	375.90	376.57	1.494	377.06	377.89	0.99	377.89	19	Combination
21	Pipe - (225) (1)	6.70	15	Cir	98.443	376.80	377.78	0.996	377.89	378.85	0.28	379.13	20	Combination
22	Pipe - (225)	4.65	15	Cir	205.640	378.00	380.10	1.021	379.13	380.97	n/a	380.97 j	21	Combination
23	Pipe - (224)	3.52	15	Cir	128.177	380.30	381.58	0.999	380.97	382.34	0.48	382.34	22	Combination
24	Pipe - (223) (1)	1.94	15	Cir	89.745	381.80	382.70	1.003	382.34	383.25	n/a	383.25	23	Combination

Project File: SCM 5A Storm Network.stm | Number of lines: 63 | Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
25	Pipe - (528)	1.15	15	Cir	28.070	382.90	383.04	0.499	383.33	383.47	n/a	383.63 j	24	Combination
26	Pipe - (245)	0.53	15	Cir	28.048	381.80	382.08	0.998	382.34	382.36	n/a	382.36 j	23	Combination
27	Pipe - (529)	4.93	15	Cir	28.090	376.80	377.08	0.997	377.89	377.98	n/a	377.98 j	20	Combination
28	Pipe - (255)	0.78	15	Cir	43.790	366.70	367.58	2.010	367.81	367.92	n/a	367.92 j	17	Combination
29	Pipe - (531)	11.96	18	Cir	50.671	351.70	354.50	5.526	353.26	355.81	n/a	355.81 j	15	Combination
30	Pipe - (259)	11.69	18	Cir	43.841	354.70	358.40	8.440	355.81	359.70	1.36	359.70	29	Combination
31	Pipe - (258)	8.86	15	Cir	131.638	358.60	361.00	1.823	359.70	362.15	n/a	362.15	30	Combination
32	Pipe - (257)	4.97	15	Cir	173.316	361.20	366.00	2.770	362.15	366.90	n/a	366.90 j	31	Combination
33	Pipe - (256)	2.36	15	Cir	38.552	366.20	367.56	3.528	366.90	368.17	n/a	368.17 j	32	Combination
34	Pipe - (285)	17.17	30	Cir	83.727	334.40	334.82	0.502	336.46	336.22	0.68	336.22	11	DropGrate
35	Pipe - (284)	14.91	24	Cir	306.989	335.00	347.71	4.140	336.22	349.10	n/a	349.10	34	DropGrate
36	Pipe - (283)	8.86	18	Cir	200.863	348.00	364.00	7.966	349.10	365.15	0.29	365.15	35	DropGrate
37	Pipe - (282)	4.30	15	Cir	234.000	364.20	366.54	1.000	365.15	367.38	n/a	367.38 j	36	DropGrate
38	Pipe - (273)	0.46	15	Cir	28.013	361.20	361.48	1.000	362.34	361.74	n/a	361.74	16	Combination
39	Pipe - (261)	2.47	15	Cir	28.090	361.20	361.48	0.997	362.15	362.11	n/a	362.11 j	31	Combination
40	Pipe - (262)	1.66	15	Cir	28.000	358.60	358.88	1.000	359.70	359.39	0.19	359.39	30	Combination
41	Pipe - (242)	8.10	24	Cir	28.499	339.80	340.10	1.053	341.57	341.11	n/a	341.11	12	Combination
42	Pipe - (241)	7.25	18	Cir	47.998	340.30	342.50	4.584	341.11	343.54	n/a	343.54	41	Combination
43	Pipe - (240) (1)	3.10	15	Cir	115.718	342.70	348.60	5.099	343.54	349.31	n/a	349.31 j	42	Manhole
44	Pipe - (240)	3.12	15	Cir	73.254	348.80	352.00	4.368	349.31	352.71	n/a	352.71	43	Combination
45	Pipe - (243)	1.52	15	Cir	27.894	352.20	352.87	2.402	352.71	353.36	n/a	353.36 j	44	Combination
46	Pipe - (291)	7.65	18	Cir	37.830	325.00	328.01	7.957	326.29	329.08	n/a	329.08 j	2	Combination
47	Pipe - (297)	5.01	15	Cir	67.669	328.20	334.97	10.005	329.08	335.88	n/a	335.88	46	Combination
48	Pipe - (299)	4.90	15	Cir	66.501	335.20	341.85	10.000	335.88	342.75	n/a	342.75	47	Combination

Project File: SCM 5A Storm Network.stm | Number of lines: 63 | Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
49	Pipe - (296)	4.74	15	Cir	89.618	342.10	351.06	9.998	342.75	351.94	0.39	351.94	48	Combination
50	Pipe - (519)	4.02	18	Cir	37.668	351.30	352.59	3.425	351.94	353.36	n/a	353.36	49	Combination
51	Pipe - (235)	4.25	24	Cir	110.218	326.90	327.45	0.499	329.03	329.06	0.06	329.12	6	Combination
52	Pipe - (270)	3.34	24	Cir	130.561	327.65	328.40	0.574	329.12	329.04	0.12	329.04	51	Combination
53	Pipe - (269)	2.91	18	Cir	132.413	328.60	333.00	3.323	329.04	333.65	n/a	333.65	52	Combination
54	Pipe - (268)	1.88	15	Cir	201.000	333.20	348.28	7.502	333.65	348.82	n/a	348.82	53	Combination
55	Pipe - (277)	0.70	15	Cir	63.000	348.50	353.53	7.984	348.82	353.86	n/a	353.86	54	Combination
56	Pipe - (263)	0.60	15	Cir	32.603	347.80	348.13	1.012	349.01	348.43	n/a	348.43	14	Combination
57	Pipe - (244)	2.18	15	Cir	27.998	342.70	342.98	1.000	343.54	343.57	n/a	343.57 j	42	Combination
58	Pipe - (286)	1.48	15	Cir	38.000	335.40	335.78	1.000	336.46	336.26	n/a	336.26	11	Combination
59	Pipe - (278)	0.39	15	Cir	62.439	333.20	336.30	4.965	333.65	336.54	n/a	336.54 j	53	Combination
60	Pipe - (288)	2.57	15	Cir	28.384	328.20	329.81	5.672	329.08	330.45	n/a	330.45 j	46	Combination
61	Pipe - (271)	0.60	15	Cir	30.000	327.85	328.15	1.000	329.12	329.12	0.01	329.13	51	Combination
62	Pipe - (281)	1.73	15	Cir	28.000	325.60	325.86	0.928	326.80	326.38	0.20	326.38	4	Combination
63	Pipe - (593)	0.63	15	Cir	45.000	383.24	383.50	0.578	383.63	383.81	0.11	383.81	25	Combination

Project File: SCM 5A Storm Network.stm

Number of lines: 63

Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

SCM 5A 10-YEAR

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	YI 501	0.11	0.00	0.11	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.03	4.68	0.03	4.68	0.0	Off
2	JB 502	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
3	CB 503	0.99	0.85	1.84	0.00	Comb	6.0	6.00	15.00	6.00	2.50	Sag	2.00	0.060	0.020	0.013	0.21	6.30	0.21	6.30	0.0	Off
4	CB 504	0.21	0.00	0.21	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.11	1.88	0.00	0.00	0.0	3
5	CB 505	0.32	0.01	0.32	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.13	2.60	0.01	0.24	0.0	4
6	CB 506	0.42	0.00	0.42	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.14	3.25	0.03	0.54	0.0	5
7	CB 515	0.53	0.82	1.08	0.27	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.21	6.49	0.12	2.18	0.0	62
8	CB 516	2.82	0.17	2.17	0.82	Comb	6.0	1.50	0.00	3.00	2.50	0.035	2.00	0.060	0.020	0.013	0.22	7.06	0.15	3.33	0.0	7
9	CB 517	0.32	0.00	0.32	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.13	2.63	0.13	2.63	0.0	Off
10	CB 518	0.28	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.10	1.61	0.00	0.00	0.0	9
11	CB 519	0.42	0.00	0.42	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.11	1.88	0.00	0.00	0.0	10
12	CB 520	0.21	0.00	0.21	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.09	1.45	0.00	0.00	0.0	11
13	CB 521	0.14	0.00	0.14	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.07	1.19	0.00	0.00	0.0	12
14	CB 522	0.14	0.00	0.14	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.07	1.12	0.00	0.00	0.0	13
15	CB 523	0.28	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.09	1.45	0.00	0.00	0.0	14
16	CB 524	0.14	0.00	0.14	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.07	1.12	0.00	0.00	0.0	15
17	CB 525	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.08	1.38	0.00	0.00	0.0	16
18	CB 526	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.09	1.50	0.00	0.00	0.0	17
19	CB 527	0.21	0.51	0.70	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.15	3.45	0.04	0.68	0.0	28
20	CB 528	1.02	0.88	1.39	0.51	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.23	7.65	0.15	3.74	0.0	19
21	CB 529	2.33	0.32	1.76	0.88	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.26	8.87	0.18	5.21	0.0	20
22	CB 530	1.23	0.23	1.14	0.32	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.21	6.75	0.13	2.54	0.0	21
23	CB 531	1.13	0.10	1.00	0.23	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.20	6.20	0.12	1.92	0.0	22

Project File: SCM 5A Storm Network.stm | Number of lines: 63 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

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)	
24	CB 532	0.81	0.00	0.71	0.10	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.19	5.38	0.09	1.50	0.0	23
25	CB 532A	0.53	0.00	0.53	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.93	0.14	2.93	0.0	Off
26	CB 531A	0.53	0.00	0.51	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.16	3.81	0.05	0.81	0.0	27
27	CB 528A	4.93	0.02	4.96	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.41	16.47	0.41	16.47	0.0	Off
28	CB 525A	0.78	0.02	0.80	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.13	2.42	0.01	0.16	0.0	38
29	CB 534	0.32	0.88	1.16	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.15	3.43	0.04	0.69	0.0	56
30	CB 535	1.37	1.38	1.87	0.88	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.25	8.26	0.17	4.65	0.0	29
31	CB 536	1.62	0.62	1.66	0.58	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.22	7.02	0.14	3.16	0.0	30
32	CB 537	2.64	0.00	2.02	0.62	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.21	6.43	0.13	2.49	0.0	31
33	CB 537A	2.36	0.00	1.87	0.49	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.20	6.08	0.12	1.99	0.0	39
34	YI 519B	2.82	0.00	2.82	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.24	25.97	0.24	25.97	0.0	Off
35	YI 519C	6.52	0.00	6.52	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.42	43.92	0.42	43.92	0.0	Off
36	YI 519D	4.83	0.00	4.83	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.34	36.31	0.34	36.31	0.0	Off
37	YI 519E	4.30	0.00	4.30	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.32	33.76	0.32	33.76	0.0	Off
38	CB 524A	0.46	0.00	0.46	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.10	1.74	0.00	0.00	0.0	29
39	CB 536A	2.47	0.49	2.02	0.94	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.24	7.99	0.17	4.42	0.0	40
40	CB 535A	1.66	0.94	1.79	0.80	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.24	8.04	0.17	4.38	0.0	30
41	CB 538	0.92	0.00	0.89	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.15	3.45	0.04	0.70	0.0	58
42	CB 539	2.15	0.23	2.38	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.27	9.73	0.27	9.73	0.0	Off
43	JB 540	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
44	CB 541	1.62	0.00	1.39	0.23	Comb	6.0	1.50	0.00	3.00	2.50	0.034	2.00	0.060	0.020	0.013	0.18	5.20	0.09	1.55	0.0	42
45	CB 541A	1.52	0.00	1.32	0.20	Comb	6.0	1.50	0.00	3.00	2.50	0.034	2.00	0.060	0.020	0.013	0.18	5.01	0.09	1.45	0.0	57
46	CB 511	0.18	0.00	0.18	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.07	1.19	0.00	0.00	0.0	Off

Project File: SCM 5A Storm Network.stm | Number of lines: 63 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

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)	
47	CB 512	0.14	0.00	0.14	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.07	1.09	0.00	0.00	0.0	46
48	CB 513	0.21	0.00	0.21	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.08	1.27	0.00	0.00	0.0	47
49	CB 514	0.74	0.00	0.74	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.12	2.09	0.00	0.00	0.0	48
50	CB 514A	4.02	0.00	2.98	1.04	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.21	6.66	0.14	2.90	0.0	60
51	CB 507	0.49	0.00	0.49	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.76	0.14	2.76	0.0	Off
52	CB 508	0.49	0.00	0.49	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.13	2.51	0.01	0.20	0.0	51
53	CB 509	0.74	0.02	0.76	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.13	2.32	0.01	0.13	0.0	52
54	CB 510	1.20	0.00	1.18	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.090	2.00	0.060	0.020	0.013	0.14	3.10	0.03	0.54	0.0	53
55	CB 510A	0.70	0.00	0.70	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.090	2.00	0.060	0.020	0.013	0.12	1.95	0.00	0.00	0.0	59
56	CB 522A	0.60	0.04	0.64	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.12	1.97	0.00	0.00	0.0	Off
57	CB 539A	2.18	0.20	2.38	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.27	9.73	0.27	9.73	0.0	Off
58	CB 519A	1.48	0.03	1.34	0.17	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.18	4.77	0.08	1.34	0.0	8
59	CB 509A	0.39	0.00	0.39	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.10	1.63	0.00	0.00	0.0	61
60	CB 511A	2.57	1.04	2.76	0.85	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.21	6.32	0.13	2.42	0.0	3
61	CB 507A	0.60	0.00	0.60	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.15	3.28	0.15	3.28	0.0	Off
62	CB 504A	1.73	0.27	2.00	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.25	8.54	0.25	8.54	0.0	Off
63	CB 533	0.63	0.00	0.63	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.15	3.44	0.15	3.44	0.0	Off

Project File: SCM 5A Storm Network.stm

Number of lines: 63

Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 5A 10-YEAR

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	48	65.25	321.50	324.72	3.22	8.01	6.02	1.03	325.75	0.000	83.000	322.00	324.44	2.44**	8.01	8.14	1.03	325.47	0.000	0.000	n/a	1.26	n/a
2	42	65.44	322.25	324.91	2.66*	7.84	8.35	1.08	325.99	0.494	72.832	322.61	325.27	2.66	7.83	8.35	1.08	326.35	0.495	0.495	0.360	0.94	1.02
3	42	59.26	322.90	326.29	3.39	7.06	6.22	1.09	327.38	0.000	110.092	323.60	326.01	2.41**	7.06	8.39	1.09	327.10	0.000	0.000	n/a	1.44	1.58
4	42	58.73	323.86	326.13	2.27*	6.61	8.89	1.09	327.22	0.000	90.197	324.40	326.80	2.40**	7.03	8.36	1.09	327.88	0.000	0.000	n/a	1.50	1.63
5	42	57.41	324.40	326.80	2.40	6.94	8.17	1.06	327.86	0.000	96.914	325.00	327.37	2.37**	6.94	8.28	1.06	328.44	0.000	0.000	n/a	0.50	n/a
6	42	57.45	325.50	327.37	1.87	5.23	10.98	1.07	328.44	0.000	105.502	326.66	329.03	2.37**	6.94	8.28	1.07	330.10	0.000	0.000	n/a	2.23	n/a
7	42	53.20	326.90	329.03	2.13	6.14	8.67	1.00	330.03	0.000	28.011	327.07	329.35	2.28**	6.64	8.02	1.00	330.35	0.000	0.000	n/a	1.12	n/a
8	42	52.89	327.30	329.42	2.12*	6.10	8.67	0.99	330.42	0.000	45.483	327.57	329.84	2.27**	6.61	8.00	0.99	330.84	0.000	0.000	n/a	1.12	1.11
9	42	50.54	327.80	329.85	2.05*	5.85	8.64	0.96	330.81	0.000	28.154	327.97	330.19	2.22**	6.44	7.85	0.96	331.15	0.000	0.000	n/a	1.47	1.41
10	36	50.47	328.20	330.19	1.99	4.98	10.14	1.16	331.35	0.000	75.321	330.46	332.77	2.31**	5.84	8.64	1.16	333.93	0.000	0.000	n/a	0.50	0.58
11	36	50.47	330.65	332.77	2.12	5.34	9.45	1.16	333.93	0.000	87.576	334.15	336.46	2.31**	5.84	8.64	1.16	337.62	0.000	0.000	n/a	2.19	2.54
12	30	33.00	334.40	336.46	2.06	4.11	7.63	1.00	337.46	0.000	149.169	339.62	341.57 j	1.95**	4.11	8.02	1.00	342.57	0.000	0.000	n/a	1.39	1.39
13	24	25.56	339.80	341.57	1.77	2.95	8.68	1.17	342.74	0.000	96.000	343.63	345.40	1.77**	2.95	8.67	1.17	346.57	0.000	0.000	n/a	0.50	0.58
14	24	25.53	343.85	345.40	1.55	2.62	9.74	1.17	346.57	0.000	67.783	347.24	349.01	1.77**	2.95	8.67	1.17	350.18	0.000	0.000	n/a	1.32	1.54
15	24	24.97	347.50	349.01	1.51	2.55	9.79	1.13	350.14	0.000	67.241	351.50	353.26	1.76**	2.93	8.53	1.13	354.39	0.000	0.000	n/a	0.91	1.03
16	24	13.77	351.70	353.26	1.56	2.23	5.24	0.59	353.85	0.000	133.104	361.00	362.34 j	1.34**	2.23	6.18	0.59	362.93	0.000	0.000	n/a	1.50	0.89
17	24	13.30	361.20	362.34	1.14	1.84	7.23	0.58	362.91	0.000	66.111	366.50	367.81	1.31**	2.18	6.09	0.58	368.39	0.000	0.000	n/a	1.03	0.59
18	18	12.47	366.70	367.81	1.11	1.40	8.88	0.88	368.69	0.000	129.000	374.00	375.33	1.33**	1.66	7.52	0.88	376.21	0.000	0.000	n/a	1.04	n/a
19	18	12.29	374.20	375.33	1.13	1.43	8.60	0.86	376.19	0.000	60.236	375.70	377.03	1.32**	1.65	7.44	0.86	377.89	0.000	0.000	n/a	0.69	n/a
20	18	12.14	375.90	377.06	1.16*	1.47	8.26	0.85	377.91	0.000	44.832	376.57	377.89	1.32**	1.65	7.37	0.85	378.73	0.000	0.000	n/a	1.17	0.99
21	15	6.70	376.80	377.89	1.09	1.13	5.90	0.54	378.43	0.980	98.443	377.78	378.85	1.07	1.12	5.99	0.56	379.41	1.004	0.992	0.976	0.50	0.28
22	15	4.65	378.00	379.13	1.13	0.92	3.99	0.40	379.53	0.000	205.640	380.10	380.97 j	0.87**	0.92	5.08	0.40	381.37	0.000	0.000	n/a	0.50	0.20

Project File: SCM 5A Storm Network.stm | Number of lines: 63 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
	(in)	(cfs)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	(ft)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Ave Sf (%)	Enrgy loss (ft)	(K)	(ft)
23	15	3.52	380.30	380.97	0.67	0.67	5.23	0.32	381.29	0.000	128.177	381.58	382.34	0.76**	0.78	4.53	0.32	382.66	0.000	0.000	n/a	1.50	0.48
24	15	1.94	381.80	382.34	0.54	0.50	3.85	0.21	382.55	0.000	89.745	382.70	383.25	0.55**	0.53	3.70	0.21	383.47	0.000	0.000	n/a	1.50	n/a
25	15	1.15	382.90	383.33	0.43*	0.36	3.10	0.15	383.48	0.498	28.070	383.04	383.47 j	0.43**	0.37	3.10	0.15	383.62	0.498	0.498	0.140	1.08	0.16
26	15	0.53	381.80	382.34	0.54	0.21	1.05	0.10	382.44	0.000	28.048	382.08	382.36 j	0.28**	0.21	2.54	0.10	382.46	0.000	0.000	n/a	1.00	0.10
27	15	4.93	376.80	377.89	1.09	0.95	4.35	0.42	378.31	0.000	28.090	377.08	377.98 j	0.90**	0.95	5.22	0.42	378.40	0.000	0.000	n/a	1.00	0.42
28	15	0.78	366.70	367.81	1.11	0.27	0.67	0.12	367.94	0.000	43.790	367.58	367.92 j	0.34**	0.27	2.82	0.12	368.05	0.000	0.000	n/a	1.00	0.12
29	18	11.96	351.70	353.26	1.50	1.64	6.77	0.71	353.97	1.298	50.671	354.50	355.81 j	1.31**	1.64	7.30	0.83	356.64	1.176	1.237	n/a	0.50	0.41
30	18	11.69	354.70	355.81	1.11	1.40	8.33	0.80	356.61	0.000	43.841	358.40	359.70	1.30**	1.63	7.18	0.80	360.50	0.000	0.000	n/a	1.69	1.36
31	15	8.86	358.60	359.70	1.10	1.14	7.74	0.87	360.57	0.000	131.638	361.00	362.15	1.15**	1.18	7.50	0.87	363.02	0.000	0.000	n/a	1.46	n/a
32	15	4.97	361.20	362.15	0.95	0.95	4.97	0.43	362.58	0.000	173.316	366.00	366.90 j	0.90**	0.95	5.24	0.43	367.33	0.000	0.000	n/a	1.05	n/a
33	15	2.36	366.20	366.90	0.70	0.60	3.32	0.24	367.14	0.000	38.552	367.56	368.17 j	0.61**	0.60	3.94	0.24	368.41	0.000	0.000	n/a	1.00	n/a
34	30	17.17	334.40	336.46	2.06	2.83	3.97	0.57	337.03	0.000	83.727	334.82	336.22	1.40**	2.83	6.07	0.57	336.79	0.000	0.000	n/a	1.19	0.68
35	24	14.91	335.00	336.22	1.22	2.01	7.43	0.64	336.86	0.000	306.989	347.71	349.10	1.39**	2.33	6.40	0.64	349.74	0.000	0.000	n/a	0.50	n/a
36	18	8.86	348.00	349.10	1.10	1.39	6.38	0.58	349.68	0.000	200.863	364.00	365.15	1.15**	1.46	6.09	0.58	365.73	0.000	0.000	n/a	0.50	0.29
37	15	4.30	364.20	365.15	0.95	0.88	4.29	0.37	365.53	0.000	234.000	366.54	367.38 j	0.84**	0.88	4.91	0.37	367.75	0.000	0.000	n/a	1.00	0.37
38	15	0.46	361.20	362.34	1.14	0.19	0.39	0.09	362.43	0.000	28.013	361.48	361.74	0.26**	0.19	2.44	0.09	361.84	0.000	0.000	n/a	1.00	n/a
39	15	2.47	361.20	362.15	0.95	0.62	2.47	0.25	362.40	0.000	28.090	361.48	362.11 j	0.63**	0.62	3.99	0.25	362.36	0.000	0.000	n/a	1.00	n/a
40	15	1.66	358.60	359.70	1.10	0.47	1.45	0.19	359.89	0.000	28.000	358.88	359.39	0.51**	0.47	3.52	0.19	359.58	0.000	0.000	n/a	1.00	0.19
41	24	8.10	339.80	341.57	1.77	1.60	2.75	0.40	341.97	0.000	28.499	340.10	341.11	1.01**	1.60	5.08	0.40	341.51	0.000	0.000	n/a	1.04	n/a
42	18	7.25	340.30	341.11	0.81	0.98	7.42	0.48	341.59	0.000	47.998	342.50	343.54	1.04**	1.31	5.53	0.48	344.02	0.000	0.000	n/a	1.21	n/a
43	15	3.10	342.70	343.54	0.84	0.72	3.52	0.29	343.83	0.000	115.718	348.60	349.31 j	0.71**	0.72	4.32	0.29	349.60	0.000	0.000	n/a	0.16	n/a
44	15	3.12	348.80	349.31	0.51	0.47	6.67	0.29	349.60	0.000	73.254	352.00	352.71	0.71**	0.72	4.33	0.29	353.00	0.000	0.000	n/a	1.48	n/a

Project File: SCM 5A Storm Network.stm | Number of lines: 63 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 5A 10-YEAR

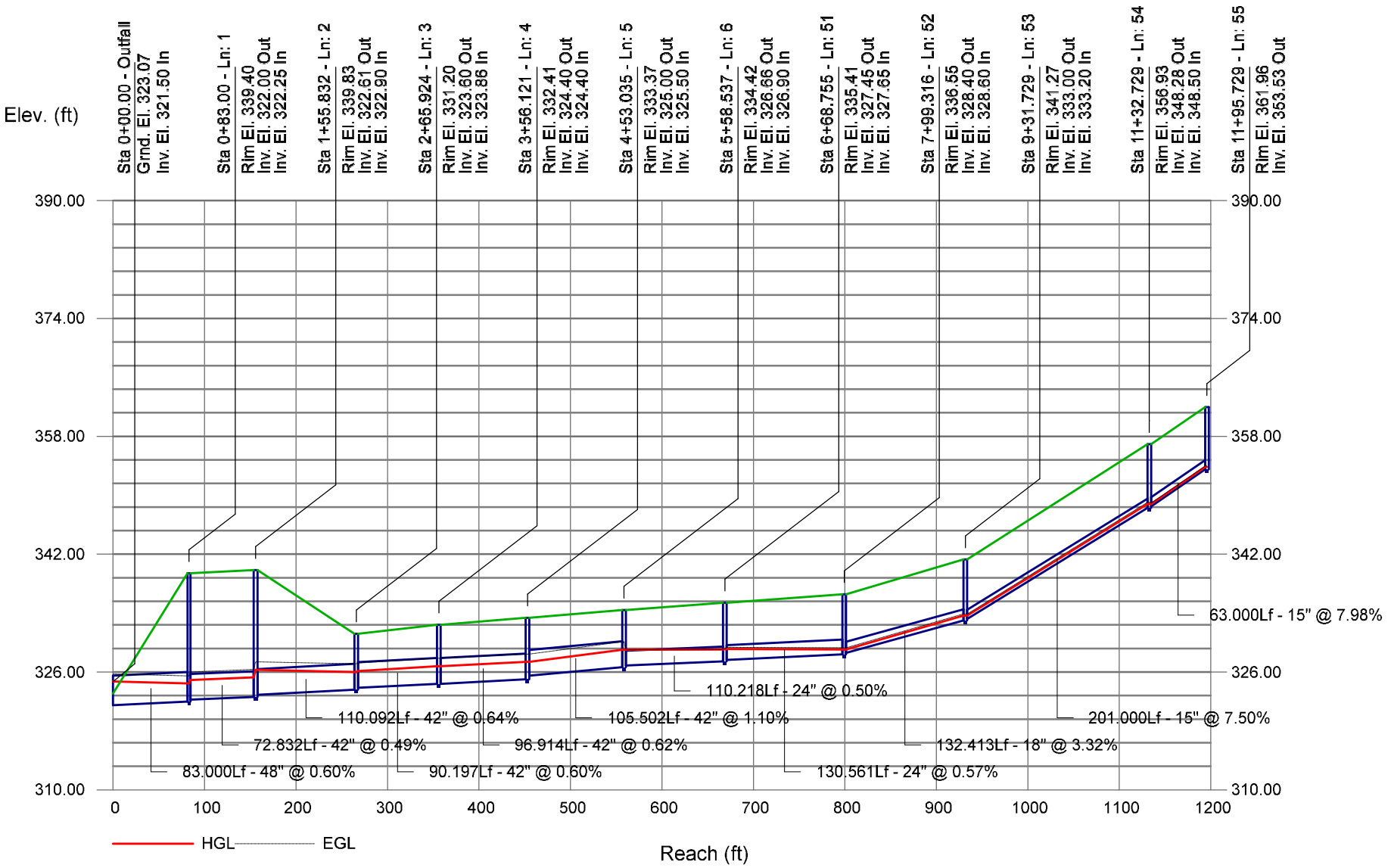
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
45	15	1.52	352.20	352.71	0.51	0.44	3.22	0.18	352.89	0.000	27.894	352.87	353.36 j	0.49**	0.44	3.42	0.18	353.54	0.000	0.000	n/a	1.00	0.18
46	18	7.65	325.00	326.29	1.29	1.35	4.75	0.50	326.79	0.000	37.830	328.01	329.08 j	1.07**	1.35	5.67	0.50	329.58	0.000	0.000	n/a	1.49	0.74
47	15	5.01	328.20	329.08	0.88	0.92	5.42	0.43	329.51	0.000	67.669	334.97	335.88	0.91**	0.95	5.26	0.43	336.31	0.000	0.000	n/a	0.50	n/a
48	15	4.90	335.20	335.88	0.68	0.68	7.23	0.42	336.30	0.000	66.501	341.85	342.75	0.90**	0.94	5.20	0.42	343.17	0.000	0.000	n/a	0.50	n/a
49	15	4.74	342.10	342.75	0.65	0.64	7.38	0.41	343.15	0.000	89.618	351.06	351.94	0.88**	0.93	5.12	0.41	352.35	0.000	0.000	n/a	0.95	0.39
50	18	4.02	351.30	351.94	0.64	0.72	5.57	0.30	352.25	0.000	37.668	352.59	353.36	0.77**	0.91	4.42	0.30	353.66	0.000	0.000	n/a	1.00	n/a
51	24	4.25	326.90	329.03	2.00	3.14	1.35	0.03	329.06	0.035	110.218	327.45	329.06	1.61	2.71	1.57	0.04	329.10	0.036	0.036	0.040	1.47	0.06
52	24	3.34	327.65	329.12	1.47	0.86	1.35	0.23	329.35	0.000	130.561	328.40	329.04	0.64**	0.86	3.86	0.23	329.27	0.000	0.000	n/a	0.50	0.12
53	18	2.91	328.60	329.04	0.44	0.43	6.77	0.25	329.28	0.000	132.413	333.00	333.65	0.65**	0.73	3.98	0.25	333.89	0.000	0.000	n/a	0.76	n/a
54	15	1.88	333.20	333.65	0.45	0.39	4.76	0.21	333.86	0.000	201.000	348.28	348.82	0.54**	0.51	3.66	0.21	349.03	0.000	0.000	n/a	0.75	n/a
55	15	0.70	348.50	348.82	0.32	0.25	2.78	0.12	348.94	0.000	63.000	353.53	353.86	0.33**	0.26	2.74	0.12	353.98	0.000	0.000	n/a	1.00	n/a
56	15	0.60	347.80	349.01	1.21	0.23	0.49	0.11	349.12	0.000	32.603	348.13	348.43	0.30**	0.23	2.62	0.11	348.54	0.000	0.000	n/a	1.00	n/a
57	15	2.18	342.70	343.54	0.84	0.57	2.49	0.23	343.77	0.000	27.998	342.98	343.57 j	0.59**	0.57	3.84	0.23	343.80	0.000	0.000	n/a	1.00	n/a
58	15	1.48	335.40	336.46	1.06	0.44	1.33	0.18	336.64	0.000	38.000	335.78	336.26	0.48**	0.44	3.40	0.18	336.44	0.000	0.000	n/a	1.00	n/a
59	15	0.39	333.20	333.65	0.45	0.17	0.98	0.08	333.73	0.000	62.439	336.30	336.54 j	0.24**	0.17	2.33	0.08	336.63	0.000	0.000	n/a	1.00	0.08
60	15	2.57	328.20	329.08	0.88	0.64	2.78	0.25	329.34	0.000	28.384	329.81	330.45 j	0.64**	0.64	4.05	0.25	330.71	0.000	0.000	n/a	1.00	0.25
61	15	0.60	327.85	329.12	1.25	1.23	0.49	0.00	329.12	0.009	30.000	328.15	329.12	0.97	1.02	0.59	0.01	329.13	0.010	0.009	0.003	1.00	0.01
62	15	1.73	325.60	326.80	1.20	0.48	1.43	0.20	327.00	0.000	28.000	325.86	326.38	0.52**	0.48	3.56	0.20	326.58	0.000	0.000	n/a	1.00	0.20
63	15	0.63	383.24	383.63	0.39	0.24	1.95	0.11	383.74	0.000	45.000	383.50	383.81	0.31**	0.24	2.66	0.11	383.92	0.000	0.000	n/a	1.00	0.11

Project File: SCM 5A Storm Network.stm | Number of lines: 63 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

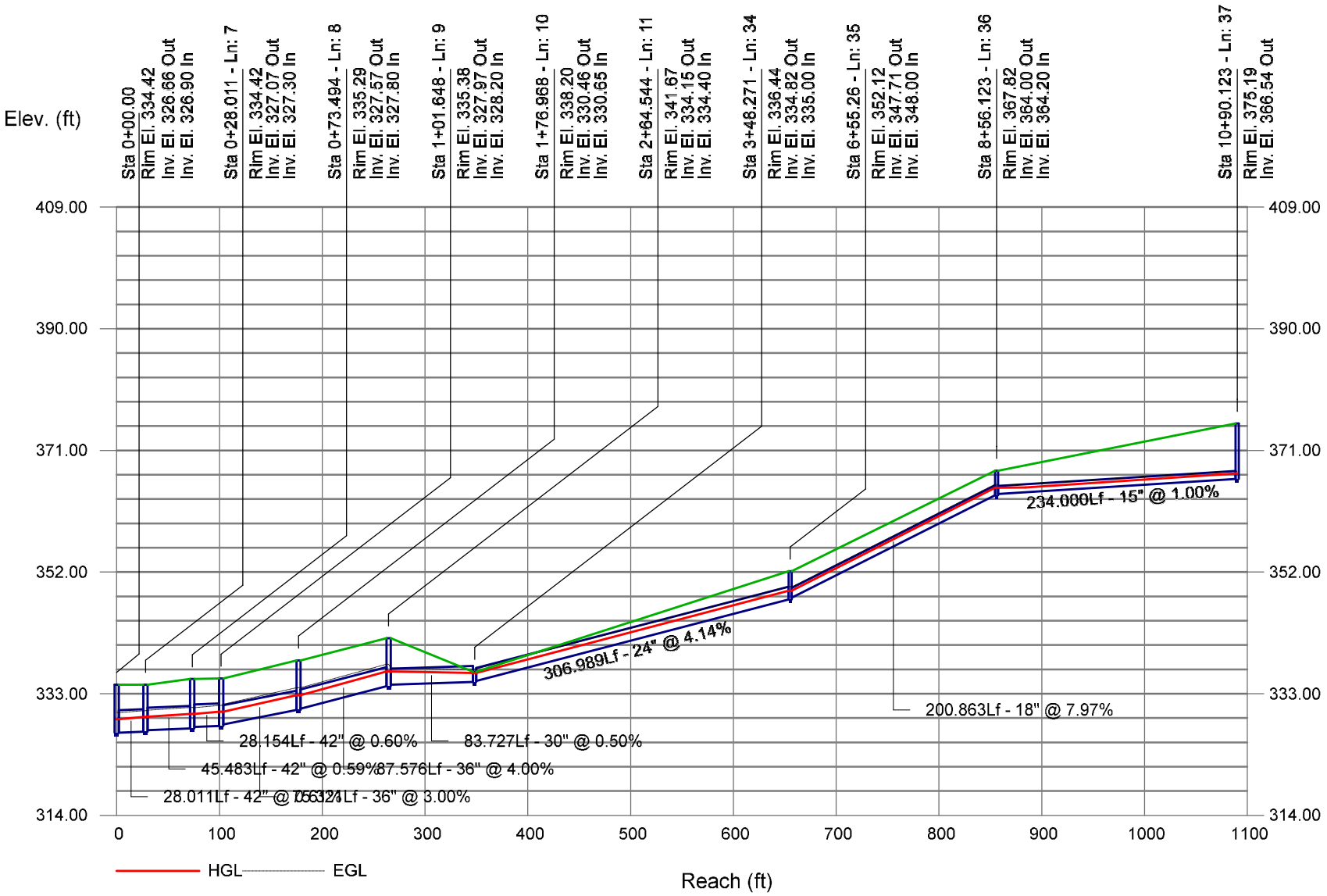
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 1-55 Proj. file: SCM 5A Storm Network.stm



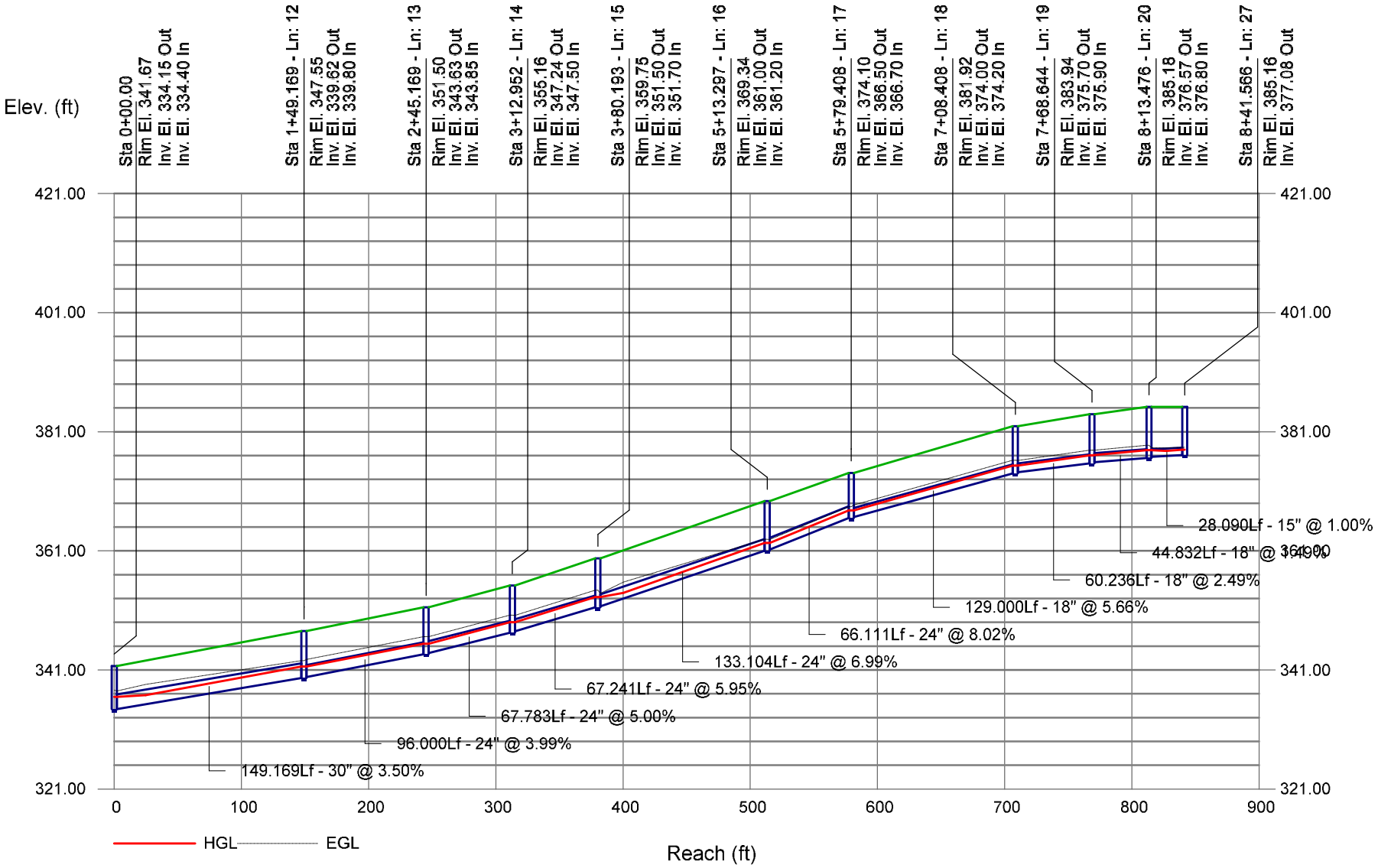
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 7-37 Proj. file: SCM 5A Storm Network.stm



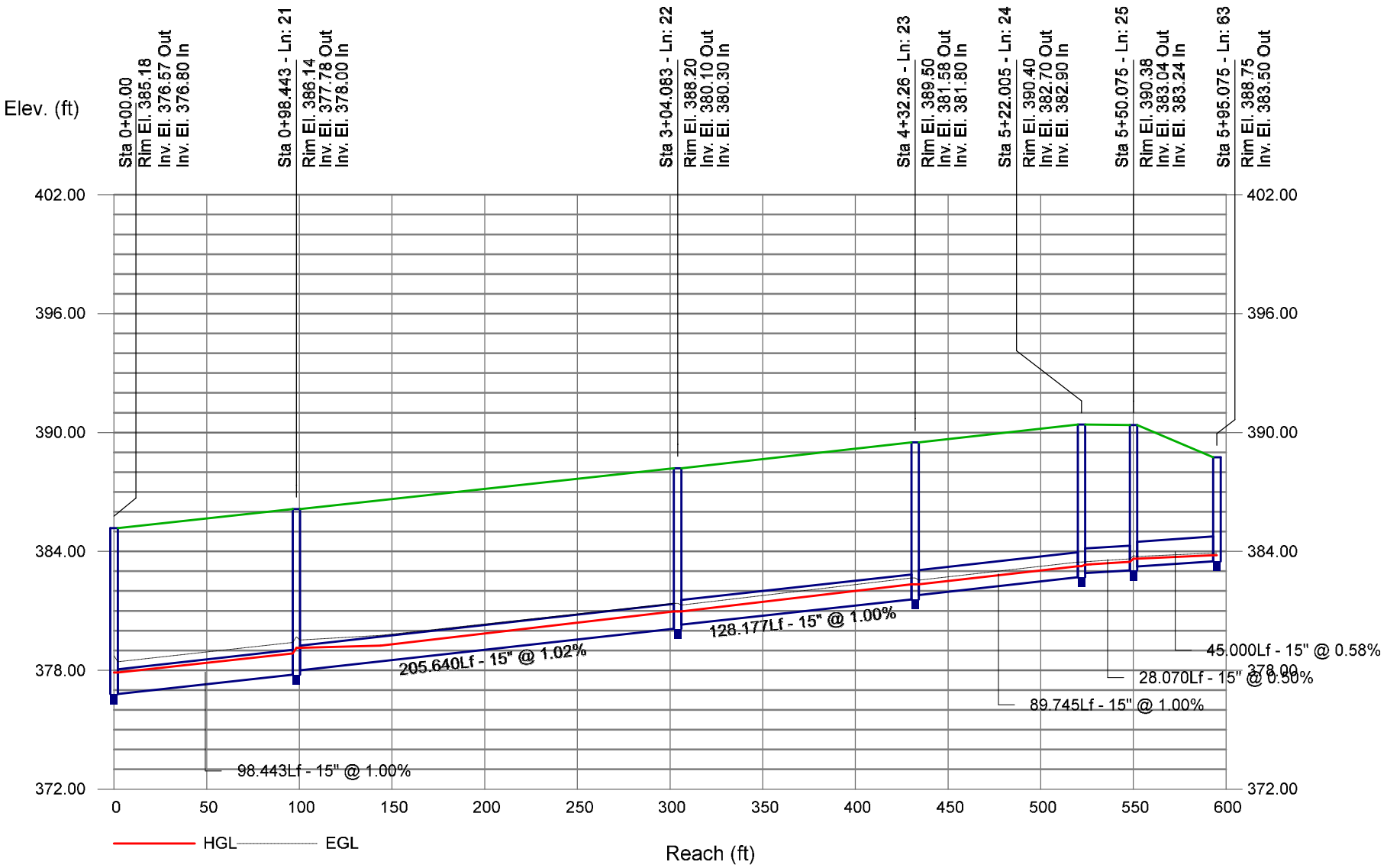
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 12-27 Proj. file: SCM 5A Storm Network.stm



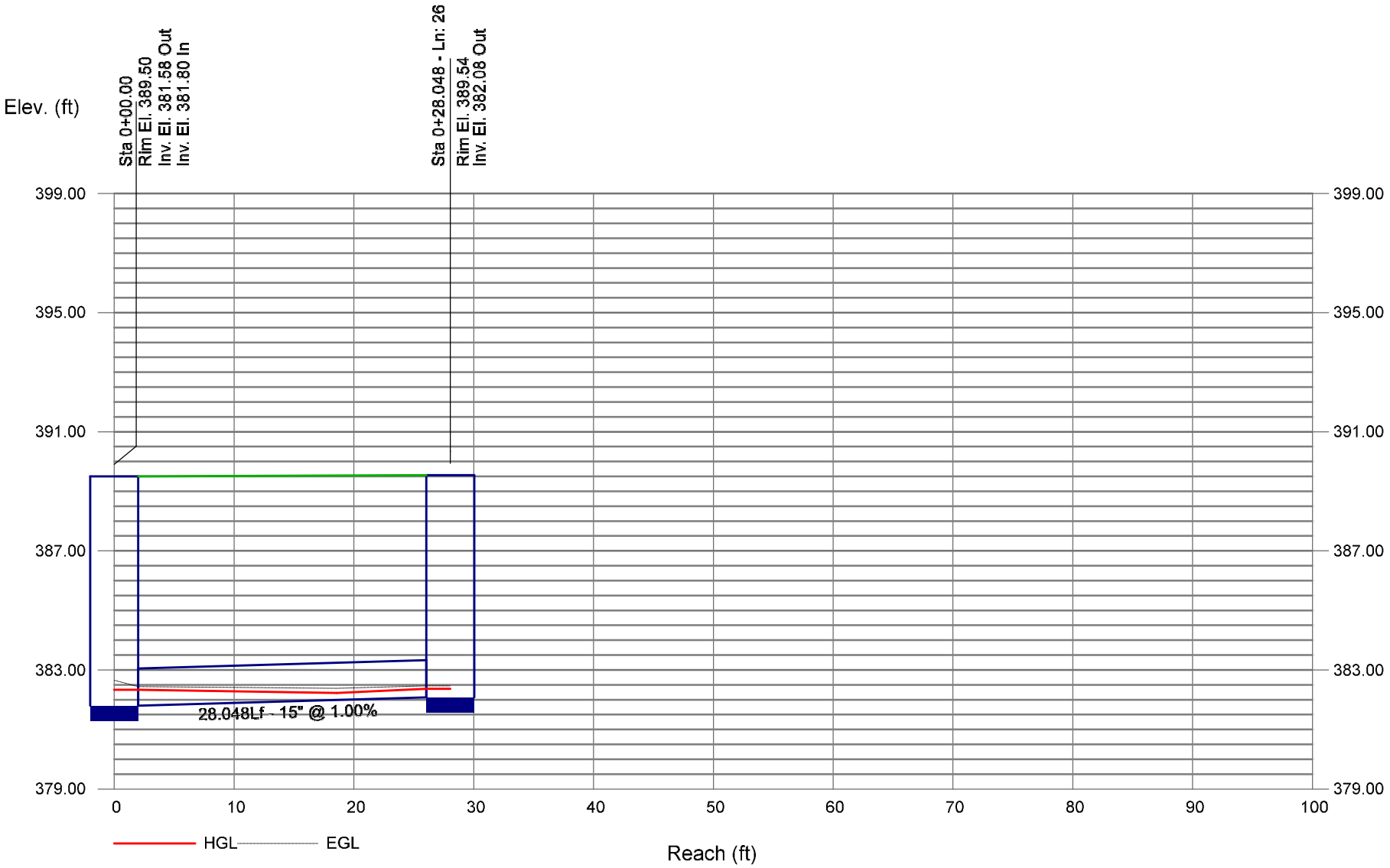
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 21-63 Proj. file: SCM 5A Storm Network.stm



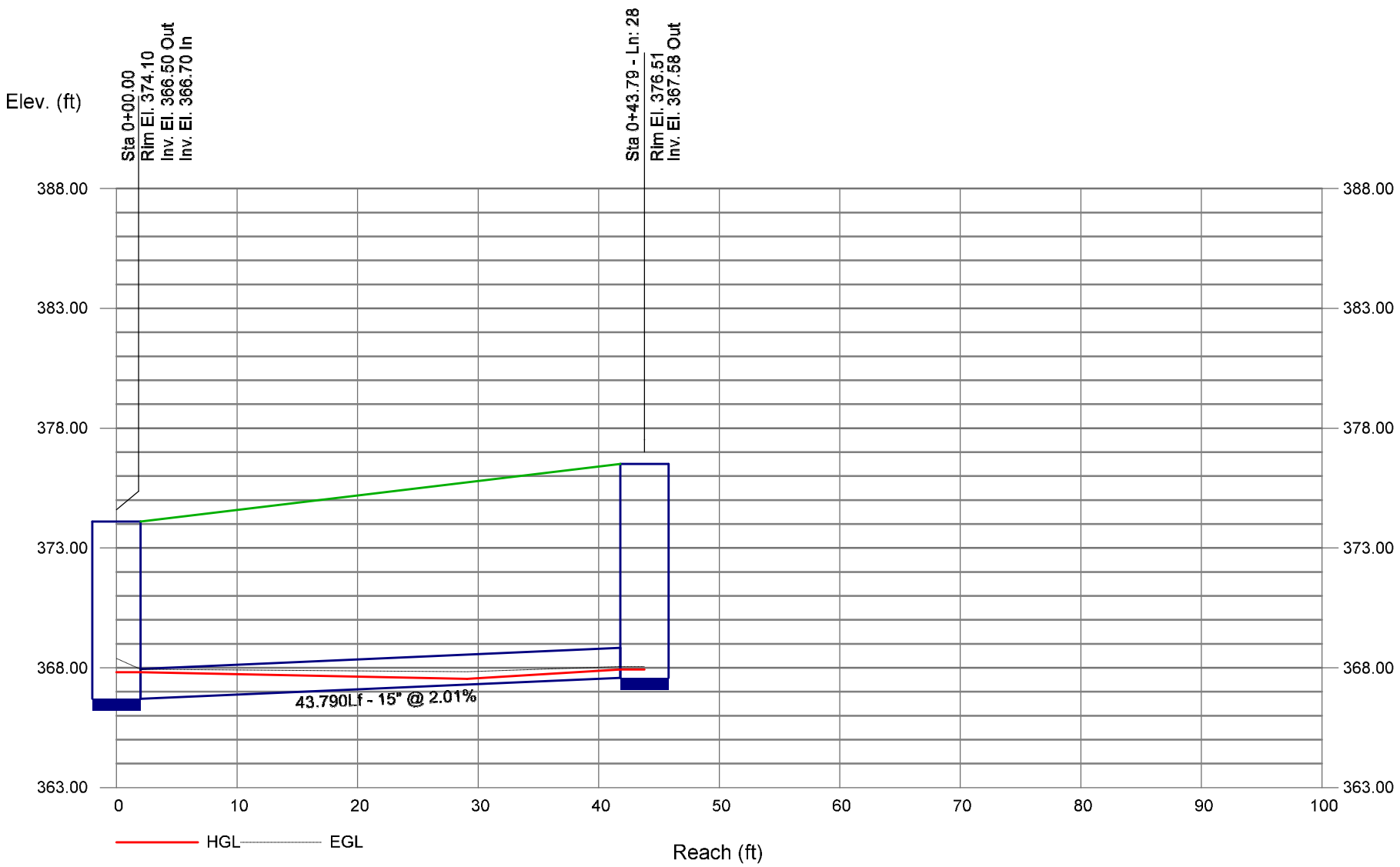
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 26-26 Proj. file: SCM 5A Storm Network.stm



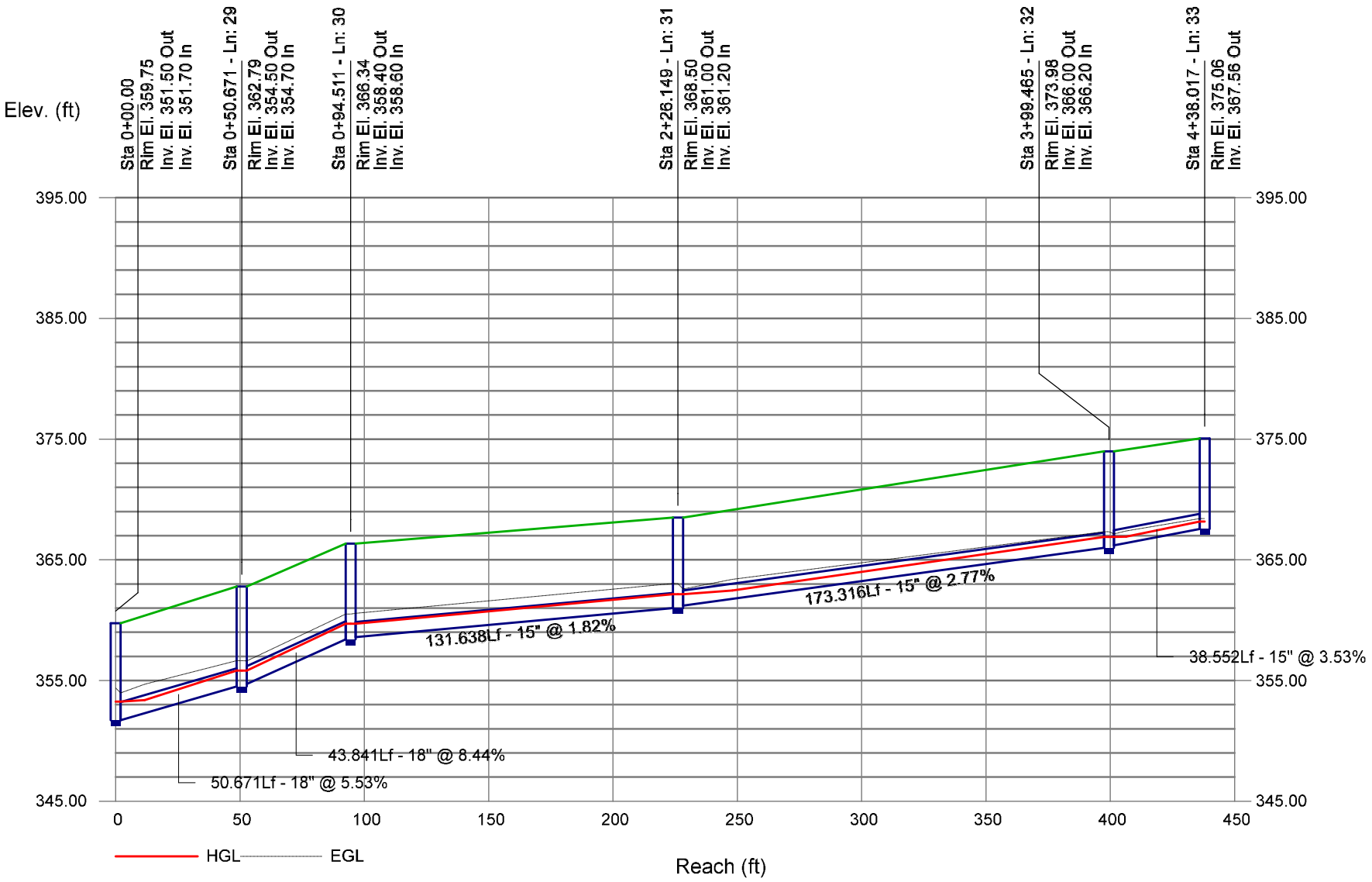
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 28-28 Proj. file: SCM 5A Storm Network.stm



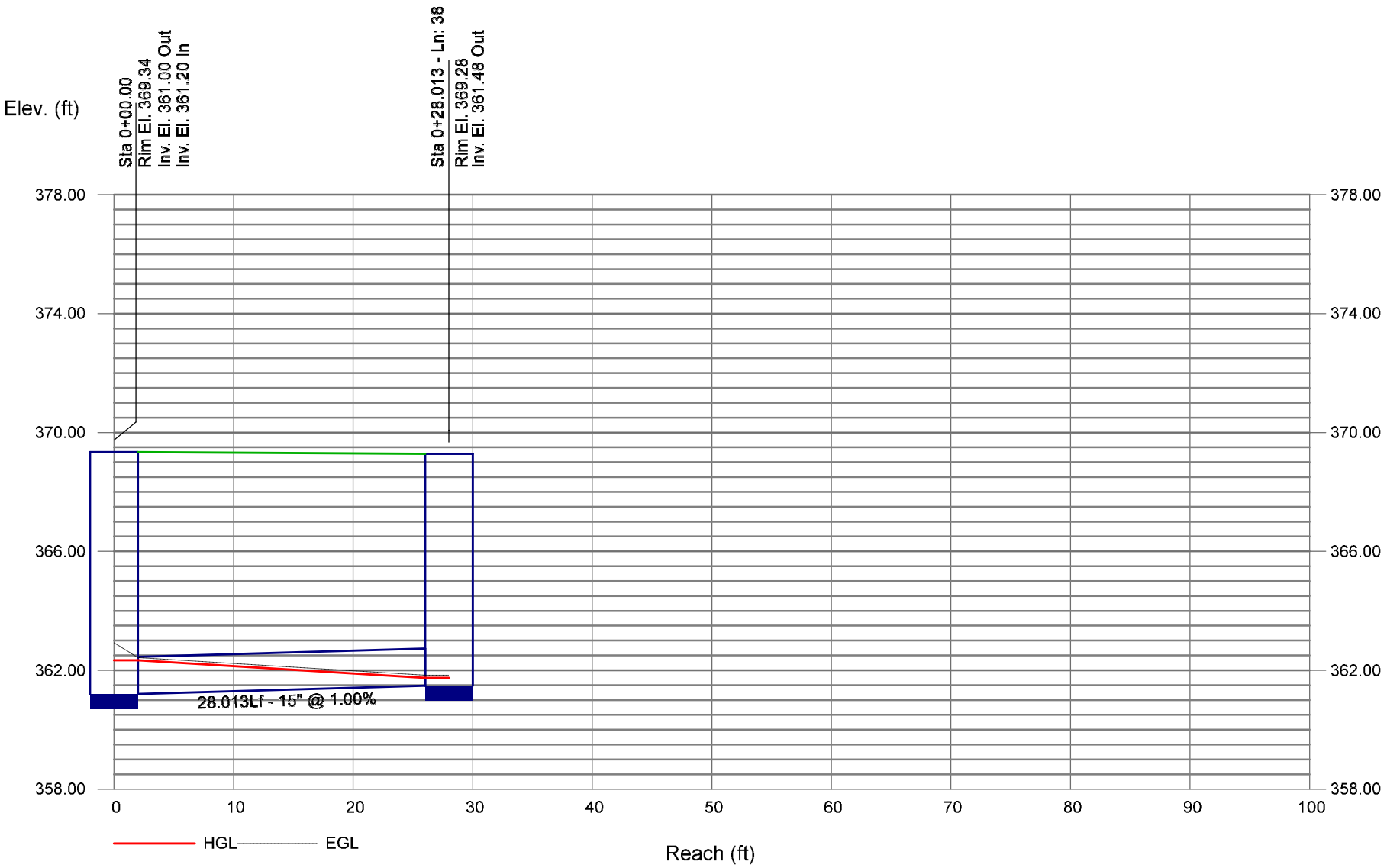
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 29-33 Proj. file: SCM 5A Storm Network.stm



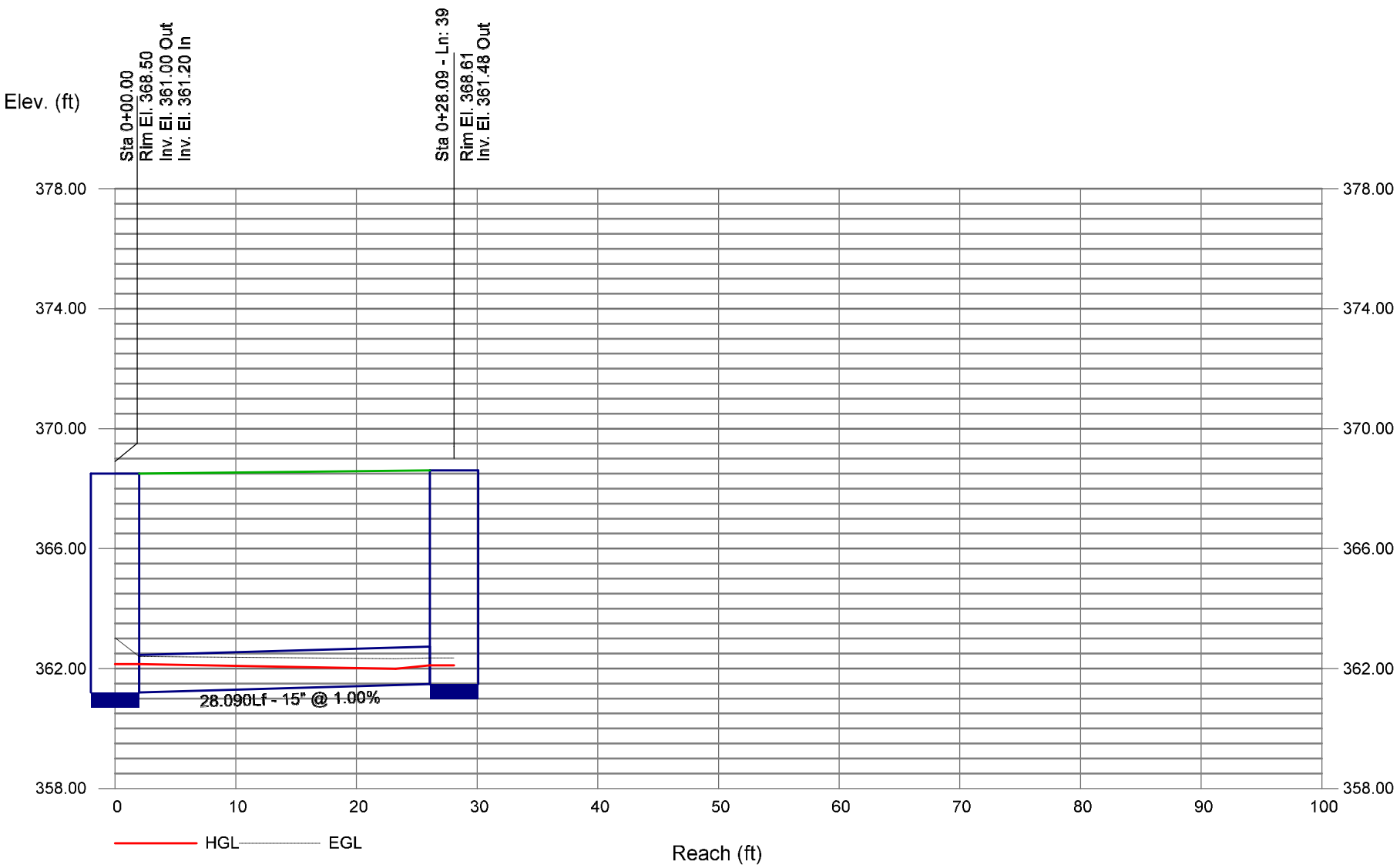
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 38-38 Proj. file: SCM 5A Storm Network.stm



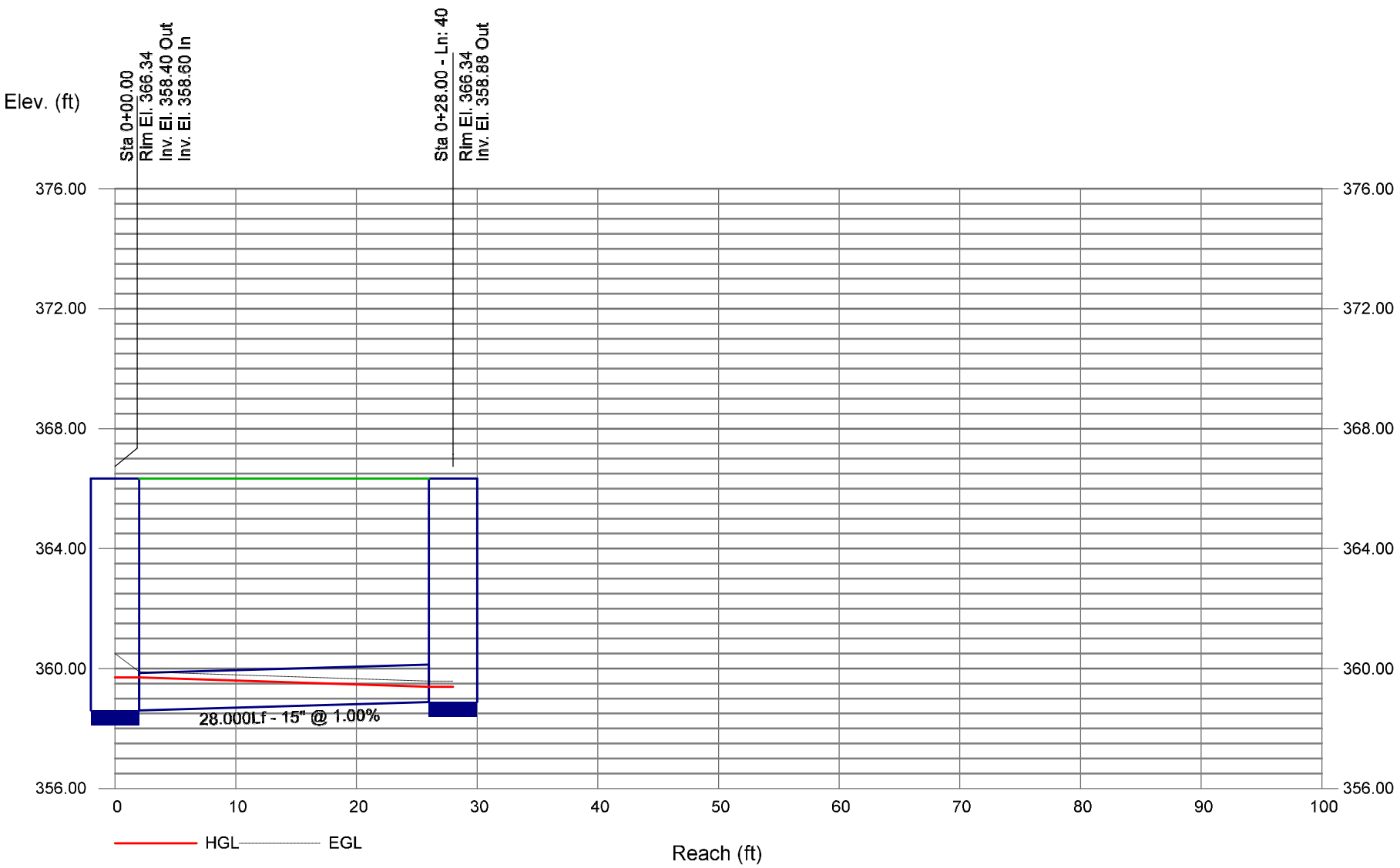
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 39-39 Proj. file: SCM 5A Storm Network.stm



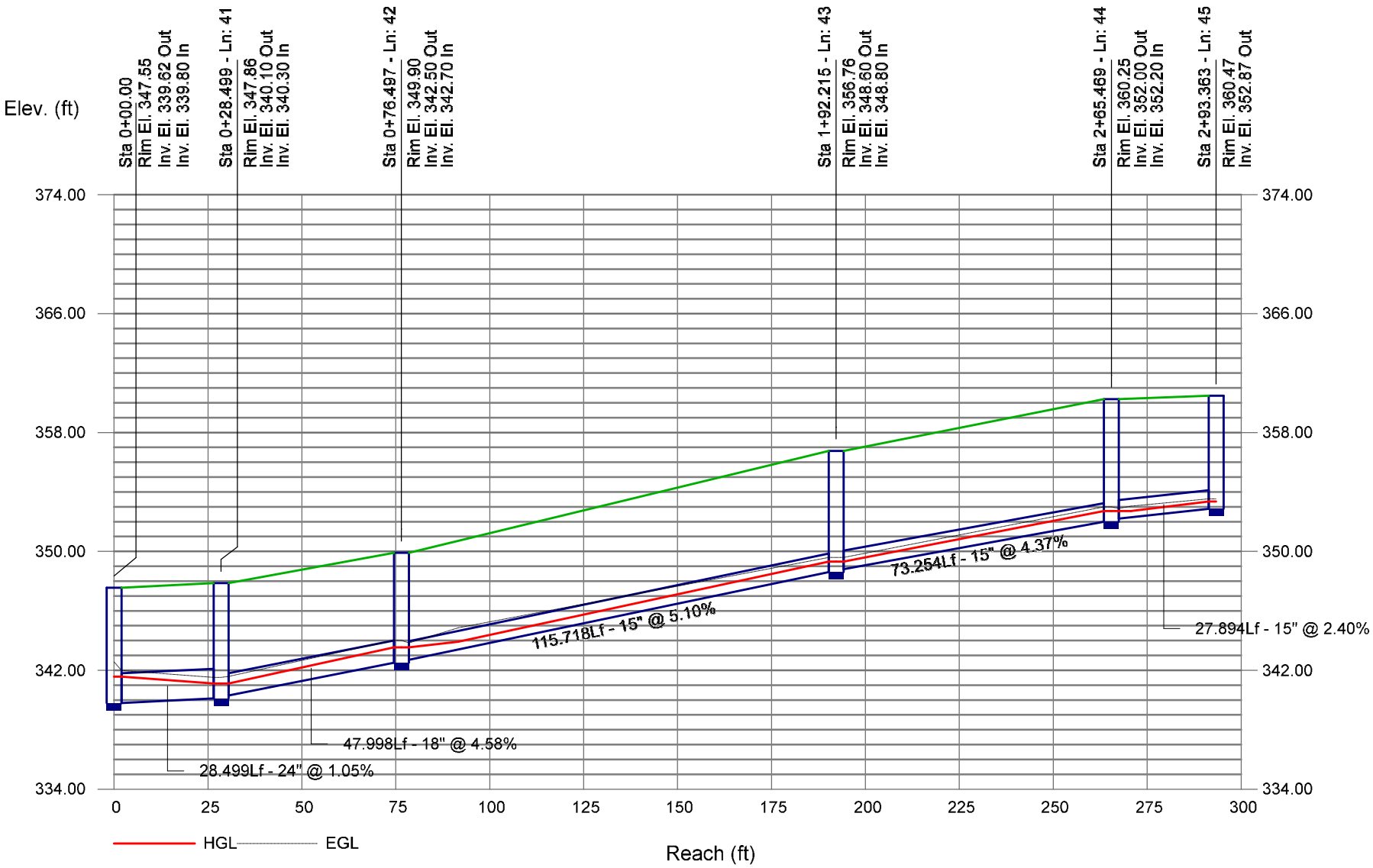
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 40-40 Proj. file: SCM 5A Storm Network.stm



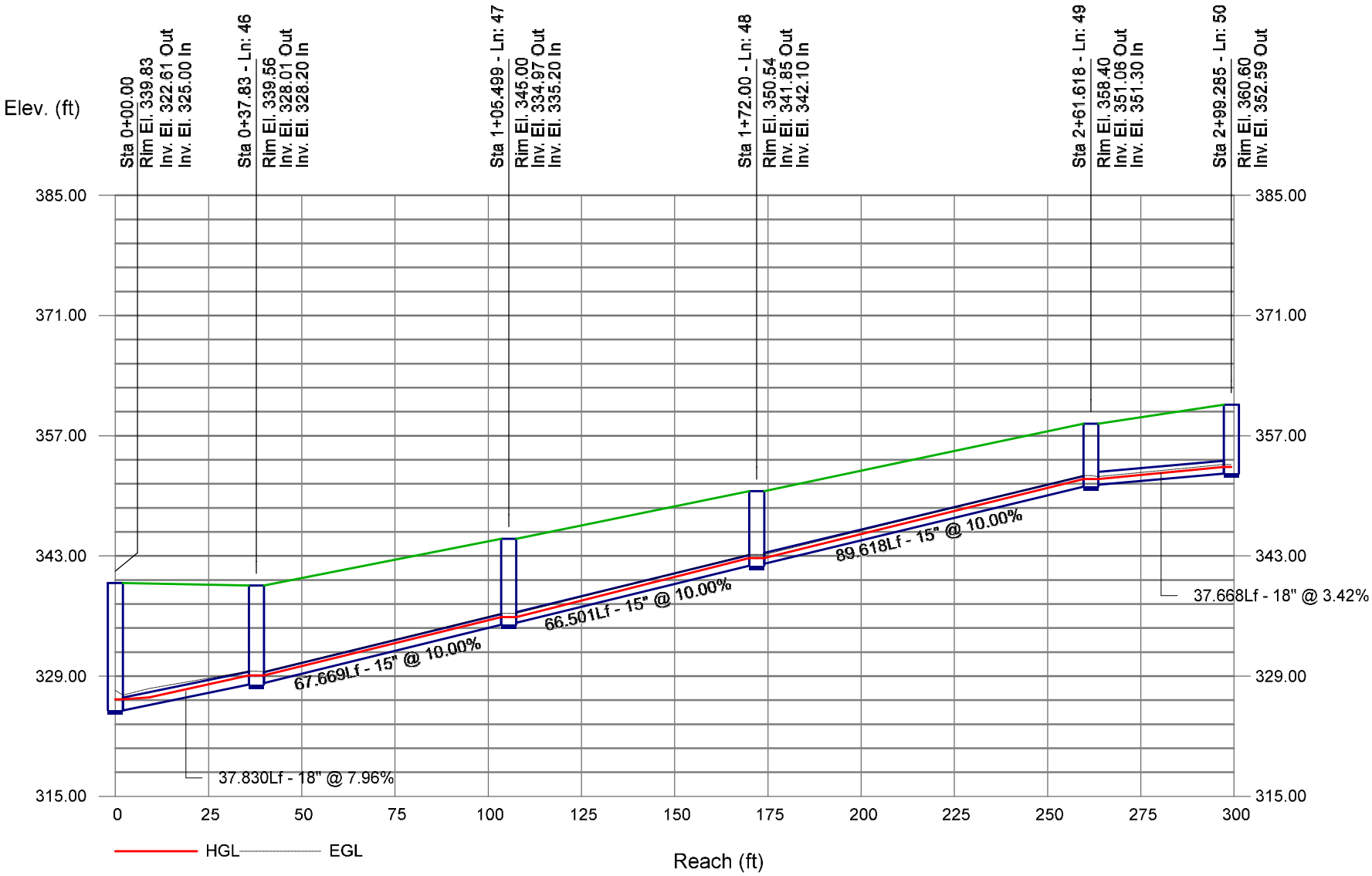
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 41-45 Proj. file: SCM 5A Storm Network.stm



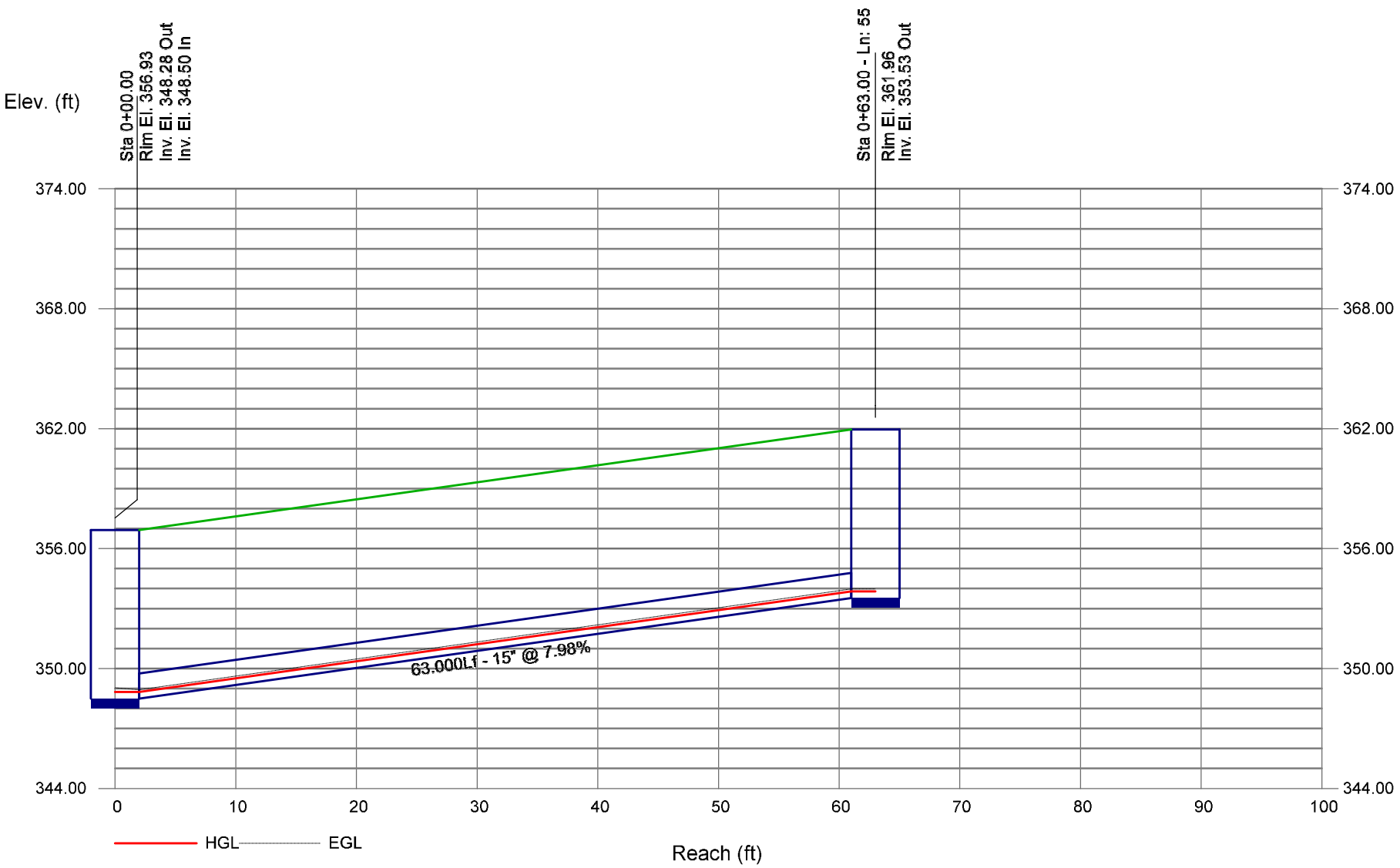
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 46-50 Proj. file: SCM 5A Storm Network.stm



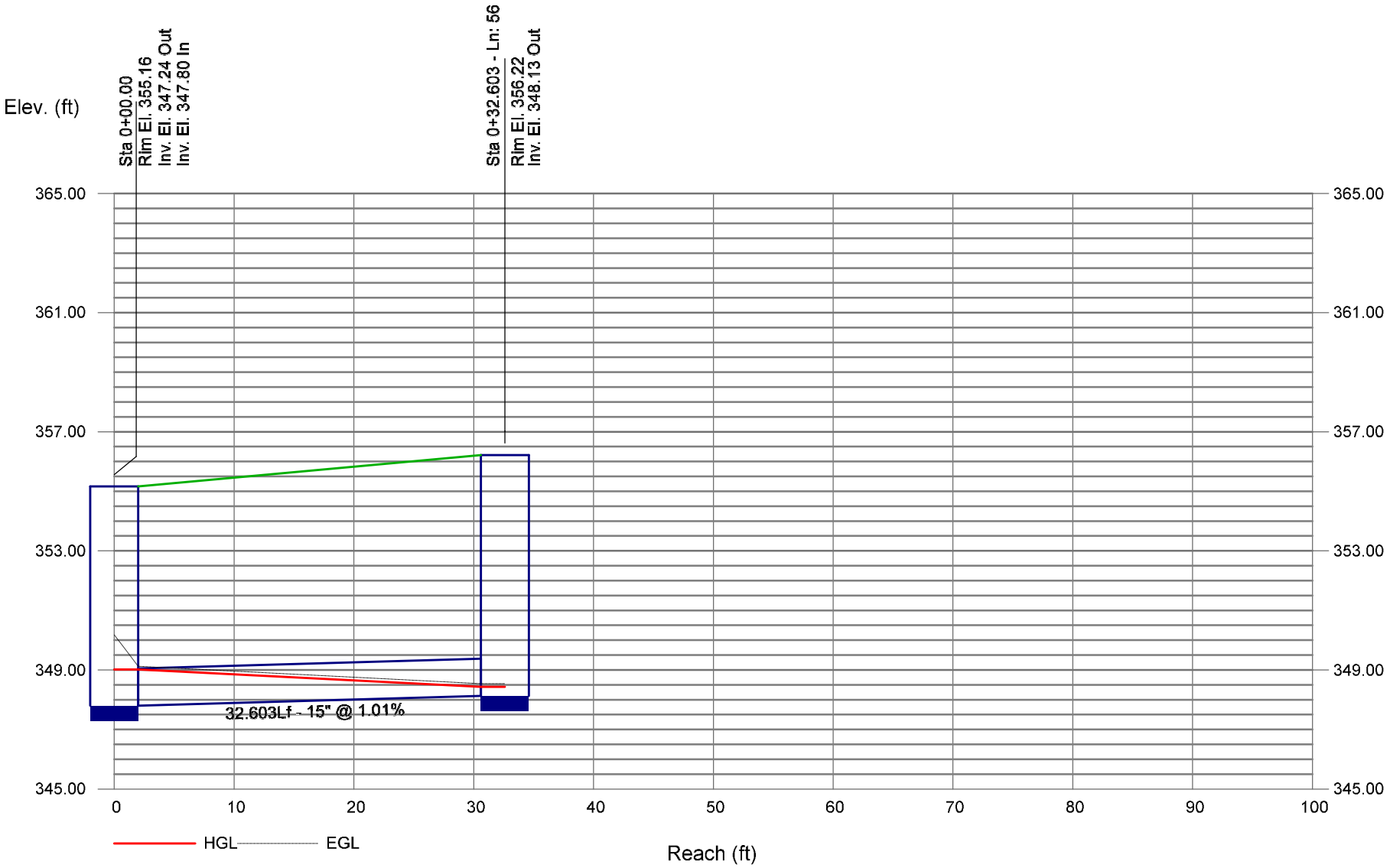
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 55-55 Proj. file: SCM 5A Storm Network.stm



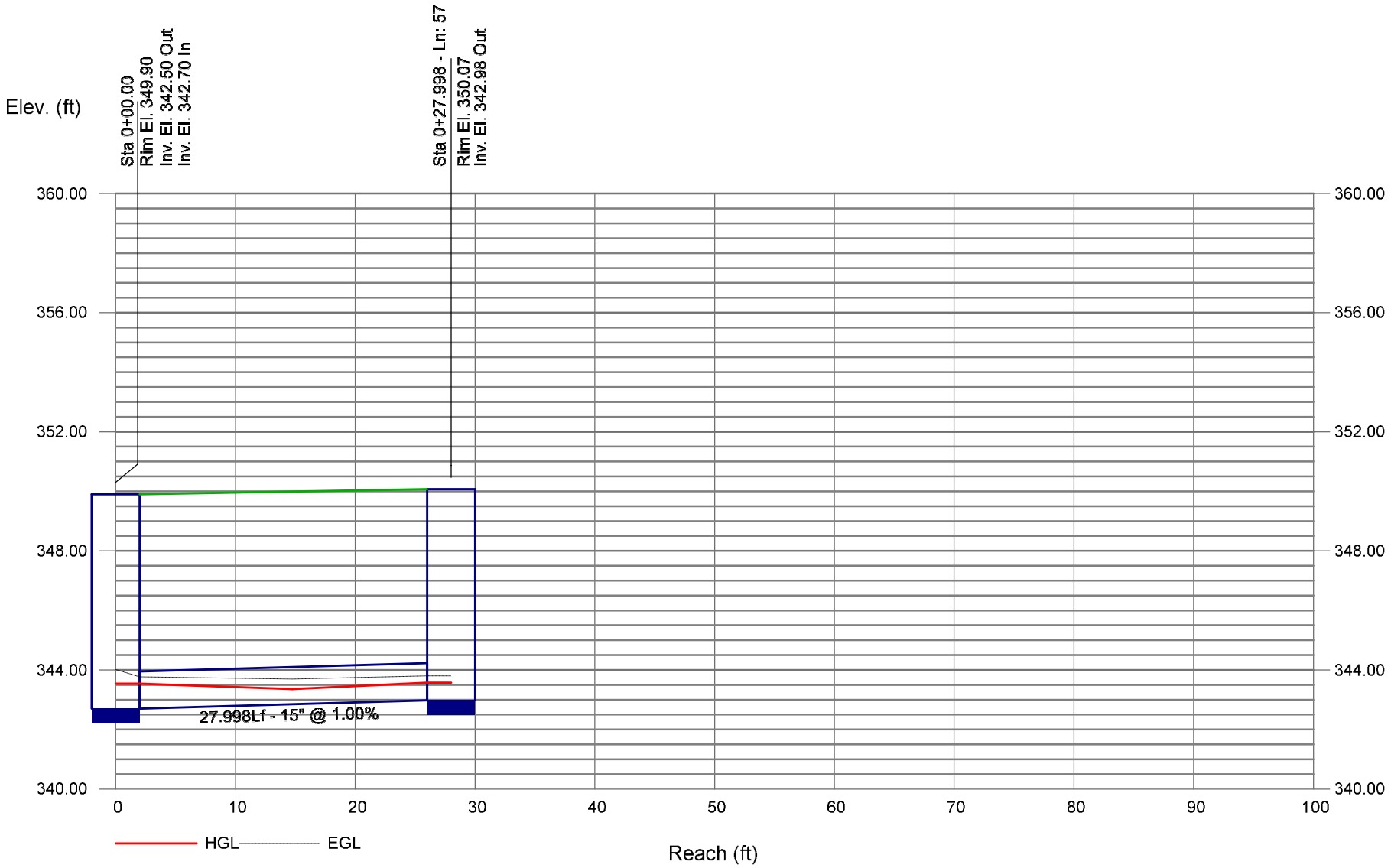
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 56-56 Proj. file: SCM 5A Storm Network.stm



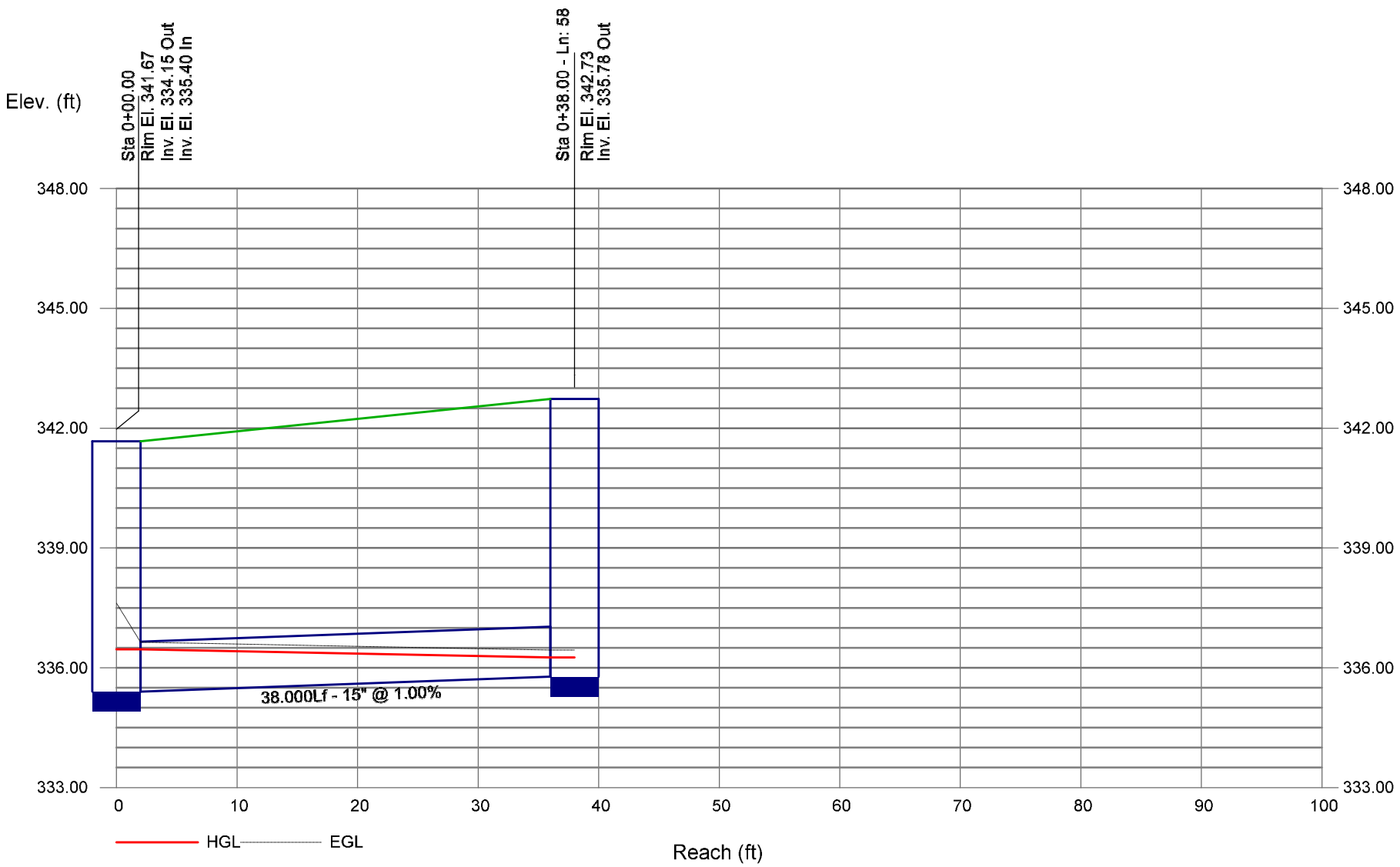
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 57-57 Proj. file: SCM 5A Storm Network.stm



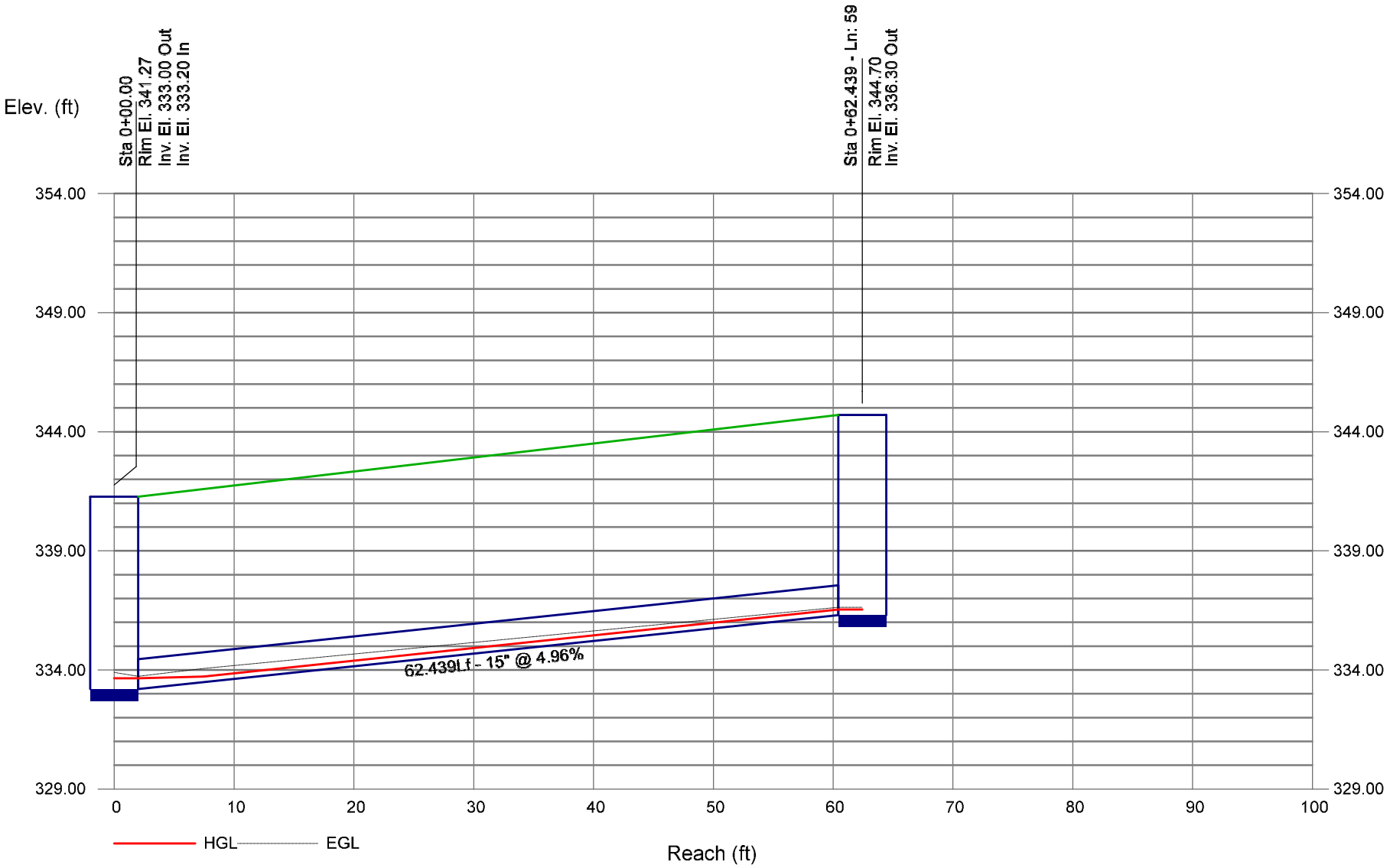
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 58-58 Proj. file: SCM 5A Storm Network.stm



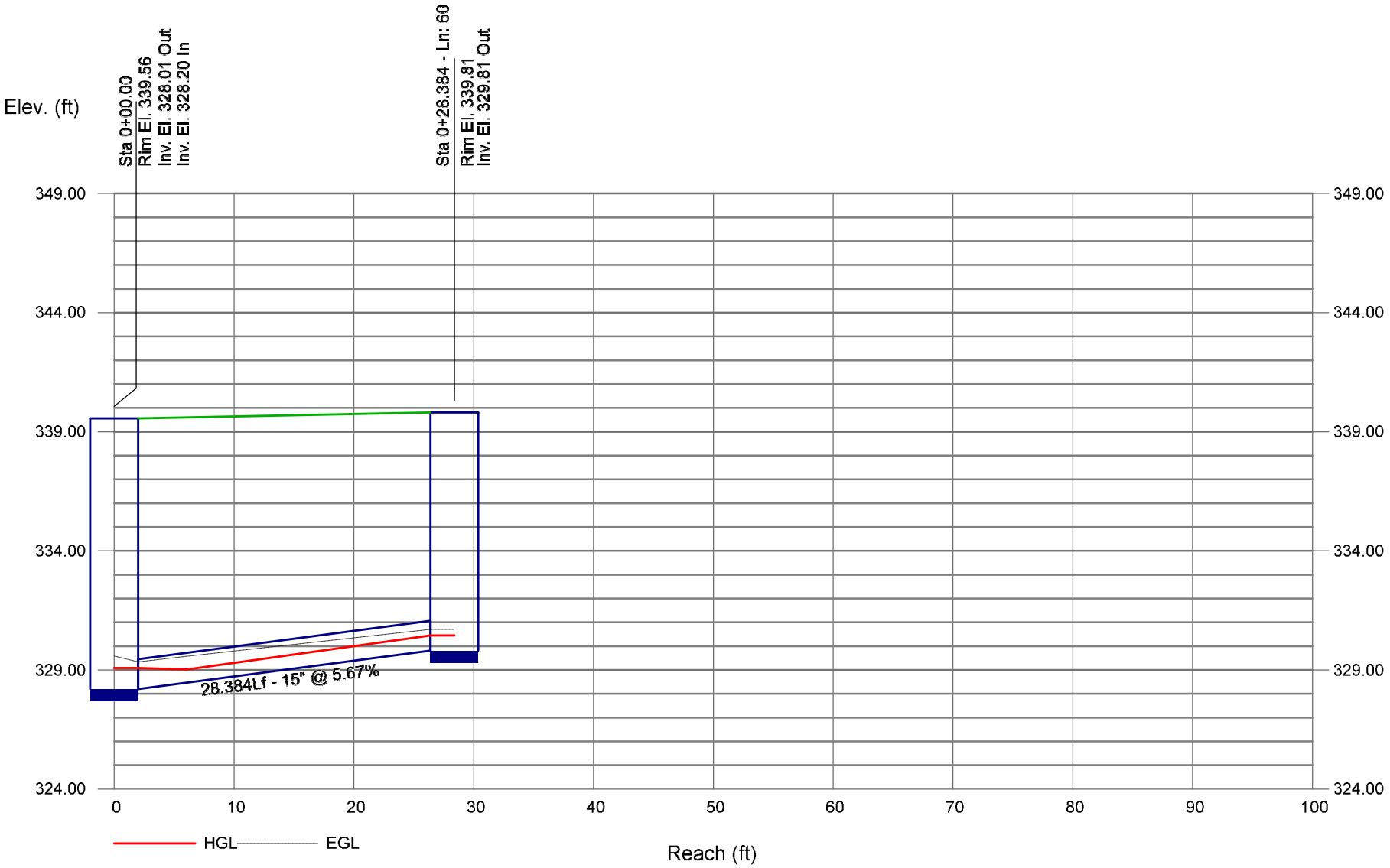
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 59-59 Proj. file: SCM 5A Storm Network.stm



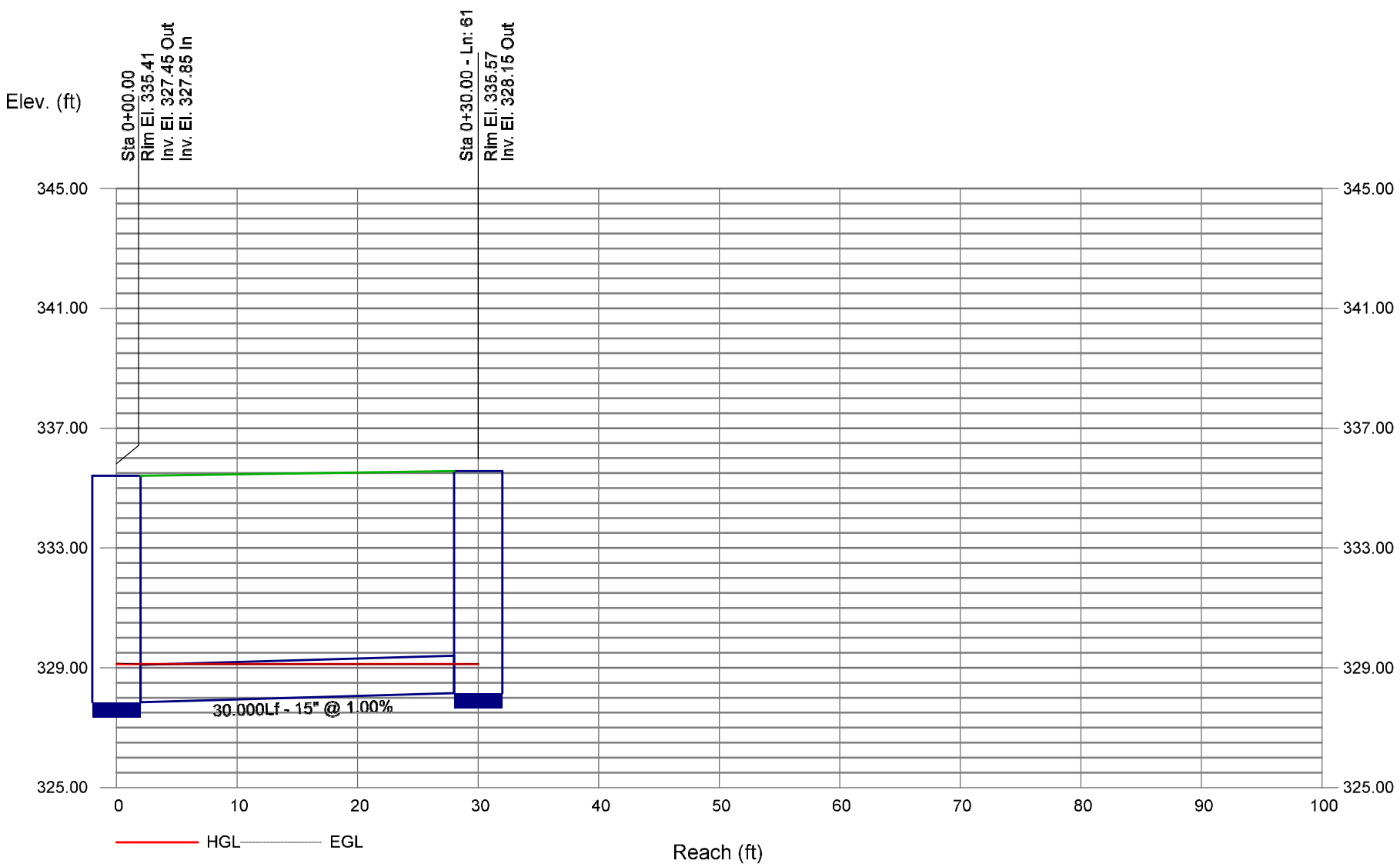
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 60-60 Proj. file: SCM 5A Storm Network.stm



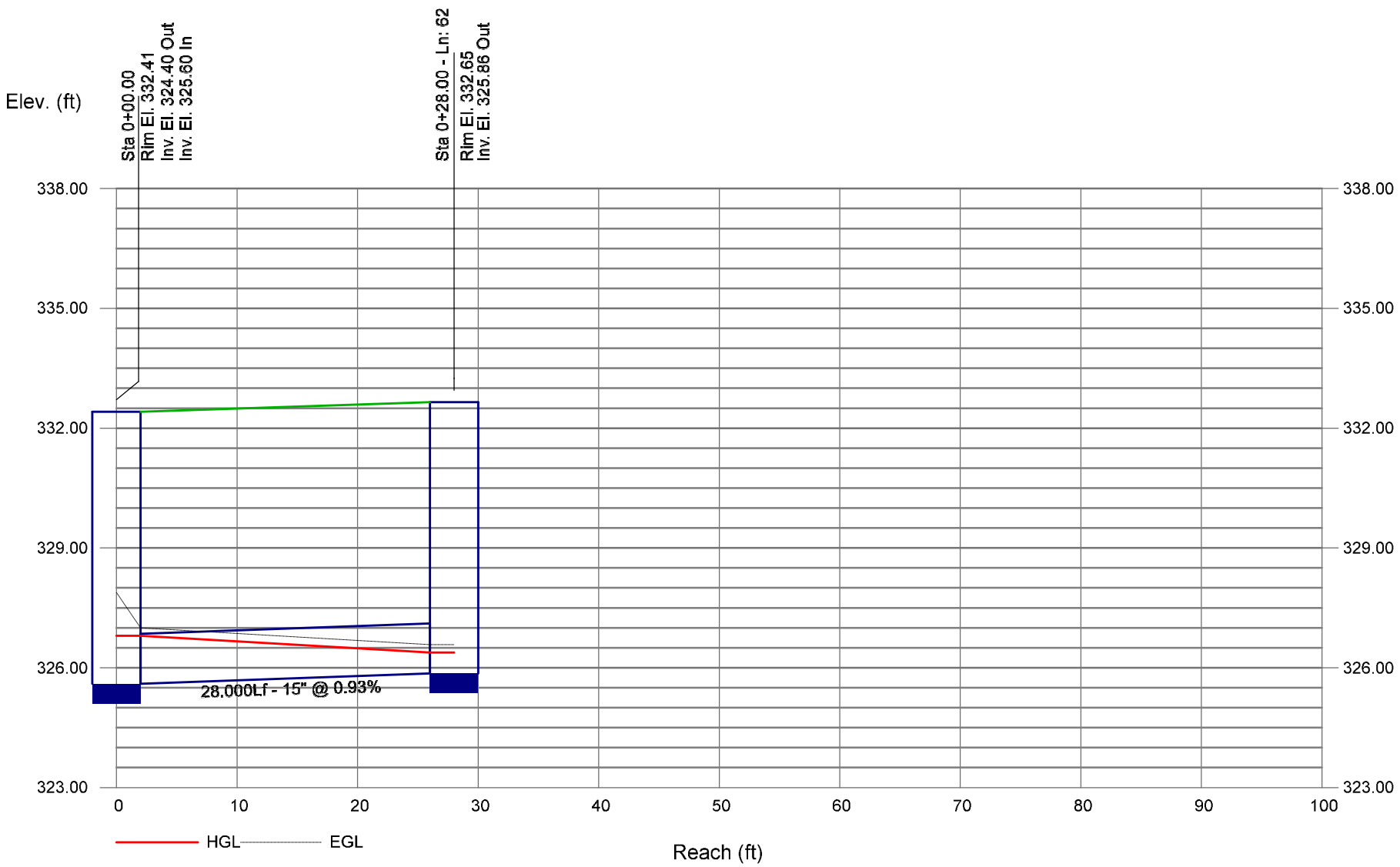
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 61-61 Proj. file: SCM 5A Storm Network.stm



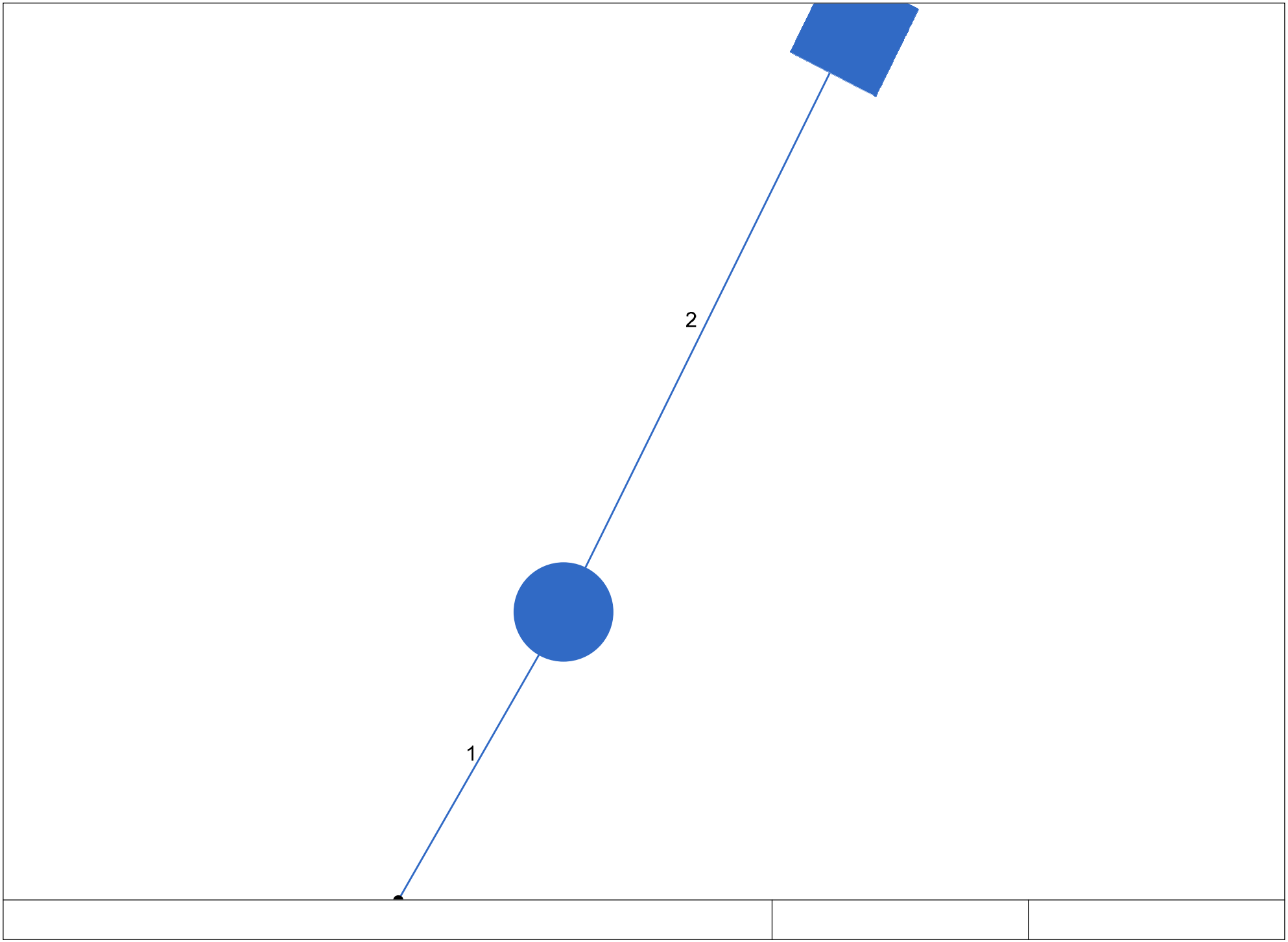
Storm Sewer Profile

SCM 5A 10-YEAR PROFILE 62-62 Proj. file: SCM 5A Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan

SCM 5B 10-YEAR



Storm Sewer Inventory Report

SCM 5B 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	13.497	-60.670	MH	0.00	0.00	0.00	0.0	315.00	7.41	316.00	18	Cir	0.013	0.15	332.61	Pipe - (595)
2	1	26.561	-2.687	Comb	20.00	0.00	0.00	0.0	322.34	10.01	325.00	18	Cir	0.013	1.00	333.37	Pipe - (594)

Project File: SCM 5B Storm Network.stm

Number of lines: 2

Date: 4/11/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	JB 551	Manhole	332.61	Cir	4.00	4.00	18	Cir	316.00	18	Cir	322.34
2	CB 505	Combination	333.37	Rect	4.00	4.00	18	Cir	325.00			

Project File: SCM 5B Storm Network.stm | Number of Structures: 2 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 5B 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (595)	20.00	18	Cir	13.497	315.00	316.00	7.409	316.47	317.47	n/a	317.47	End	Manhole
2	Pipe - (594)	20.00	18	Cir	26.561	322.34	325.00	10.015	323.18	326.47	n/a	326.47	1	Combination

Project File: SCM 5B Storm Network.stm

Number of lines: 2

Run Date: 4/11/2025

NOTES: Return period = 10 Yrs.

Inlet Report

SCM 5B 10-YEAR

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	JB 551	0.00	0.00	0.00	0.00	MH	0.0	2.00	0.00	2.00	0.00	0.000	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.0	Off
2	CB 505	20.00*	0.00	6.81	13.19	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.48	20.18	0.42	17.15	0.0	Off

Project File: SCM 5B Storm Network.stm

Number of lines: 2

Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

SCM 5B 10-YEAR

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	18	20.00	315.00	316.47	1.47	1.76	11.38	2.01	318.48	0.000	13.497	316.00	317.47	1.47**	1.76	11.38	2.01	319.48	0.000	0.000	n/a	0.15	n/a
2	18	20.00	322.34	323.18	0.84*	1.02	19.67	2.01	325.19	0.000	26.561	325.00	326.47	1.47**	1.76	11.38	2.01	328.48	0.000	0.000	n/a	1.00	n/a

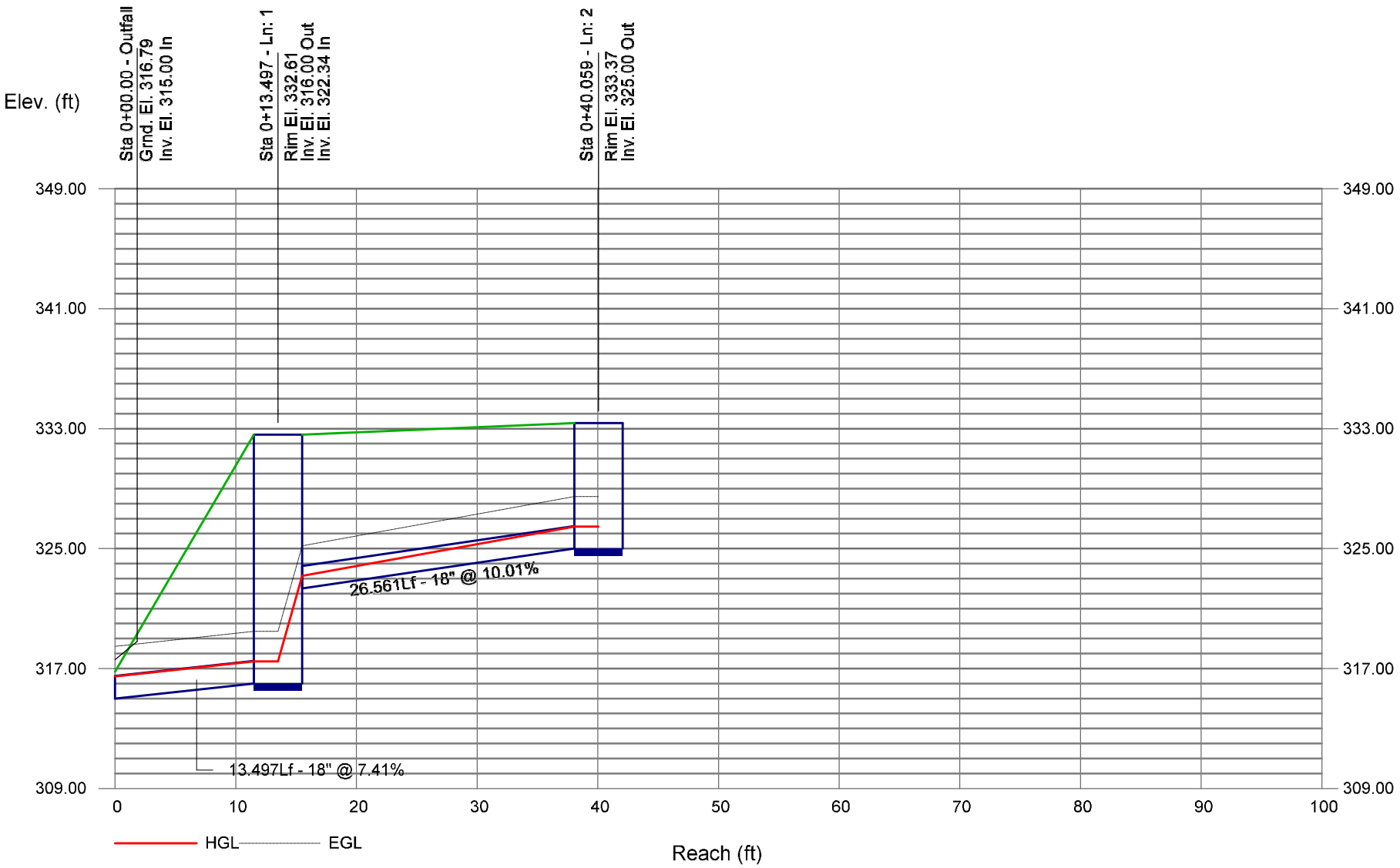
Project File: SCM 5B Storm Network.stm | Number of lines: 2 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth. ; c = cir e = ellip b = box

Storm Sewer Profile

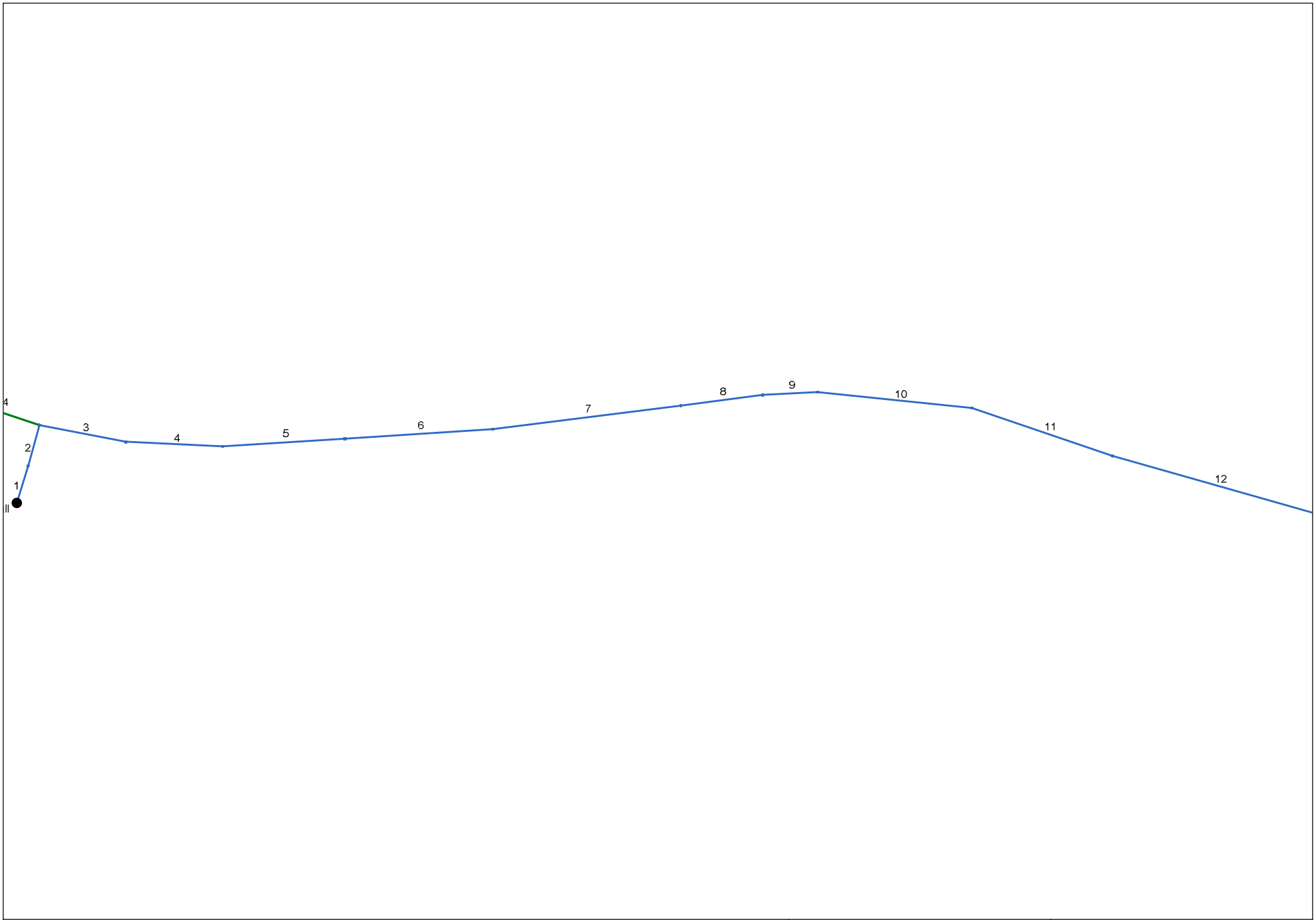
SCM 5B 10-YEAR PROFILE 1-2

Proj. file: SCM 5B Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan

SCM 5C 10-YEAR



Project File: SCM 5C Storm Network.stm	Number of lines: 14	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 5C 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	72.475	-73.012	MH	0.00	0.00	0.00	0.0	291.50	7.30	296.79	30	Cir	0.013	0.15	306.95	Pipe - (547)
2	1	79.000	-1.713	Comb	0.00	0.64	0.72	10.0	300.71	1.00	301.50	30	Cir	0.013	1.50	313.00	Pipe - (548)
3	2	163.563	85.653	Comb	0.00	0.68	0.72	10.0	301.80	4.65	309.40	24	Cir	0.013	0.50	317.91	Pipe - (550)
4	3	180.720	-8.188	Comb	0.00	1.04	0.72	10.0	309.62	4.75	318.20	24	Cir	0.013	0.50	326.00	Pipe - (551)
5	4	228.426	-6.317	Comb	0.00	1.16	0.72	10.0	318.44	5.50	331.00	24	Cir	0.013	0.50	340.00	Pipe - (552)
6	5	275.660	-0.168	Comb	0.00	1.34	0.72	10.0	332.20	5.30	346.80	24	Cir	0.013	0.50	355.00	Pipe - (553)
7	6	353.411	-3.412	Comb	0.00	0.80	0.72	10.0	347.05	2.25	355.00	18	Cir	0.013	0.50	363.95	Pipe - (554)
8	7	153.914	-0.315	Comb	0.00	0.27	0.72	10.0	355.22	2.00	358.30	15	Cir	0.013	0.50	366.74	Pipe - (562)
9	8	101.668	4.365	Comb	0.00	0.62	0.72	10.0	358.57	2.00	360.60	15	Cir	0.013	0.50	369.33	Pipe - (561)
10	9	289.580	9.059	Comb	0.00	0.70	0.72	10.0	360.86	3.50	371.00	15	Cir	0.013	0.50	379.86	Pipe - (560)
11	10	276.541	12.894	Comb	0.00	0.24	0.72	10.0	371.25	1.50	375.40	15	Cir	0.013	0.50	386.85	Pipe - (559)
12	11	389.260	-2.936	Comb	0.00	0.27	0.72	10.0	375.65	0.50	377.60	15	Cir	0.013	1.29	386.53	Pipe - (558)
13	12	86.959	56.108	Comb	0.00	0.16	0.72	10.0	377.80	2.99	380.40	15	Cir	0.013	1.00	385.00	Pipe - (557)
14	2	176.320	-86.677	Comb	0.00	0.24	0.72	10.0	301.80	1.03	303.62	18	Cir	0.013	1.00	311.00	Pipe - (549)

Project File: SCM 5C Storm Network.stm

Number of lines: 14

Date: 4/11/2025

Structure Report

SCM 5C 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	JB 561	Manhole	306.95	Rect	4.00	4.00	30	Cir	296.79	30	Cir	300.71
2	CB 562	Combination	313.00	Rect	4.00	4.00	30	Cir	301.50	24 18	Cir Cir	301.80 301.80
3	CB 563	Combination	317.91	Rect	4.00	4.00	24	Cir	309.40	24	Cir	309.62
4	CB 564	Combination	326.00	Rect	4.00	4.00	24	Cir	318.20	24	Cir	318.44
5	CB 565	Combination	340.00	Rect	4.00	4.00	24	Cir	331.00	24	Cir	332.20
6	CB 566	Combination	355.00	Rect	4.00	4.00	24	Cir	346.80	18	Cir	347.05
7	CB 567	Combination	363.95	Rect	4.00	4.00	18	Cir	355.00	15	Cir	355.22
8	CB 568	Combination	366.74	Rect	4.00	4.00	15	Cir	358.30	15	Cir	358.57
9	CB 569	Combination	369.33	Rect	4.00	4.00	15	Cir	360.60	15	Cir	360.86
10	CB 570	Combination	379.86	Rect	4.00	4.00	15	Cir	371.00	15	Cir	371.25
11	CB 571	Combination	386.85	Rect	4.00	4.00	15	Cir	375.40	15	Cir	375.65
12	CB 572	Combination	386.53	Rect	4.00	4.00	15	Cir	377.60	15	Cir	377.80
13	CB 572A	Combination	385.00	Rect	4.00	4.00	15	Cir	380.40			
14	CB 562A	Combination	311.00	Rect	4.00	4.00	18	Cir	303.62			

Project File: SCM 5C Storm Network.stm | Number of Structures: 14 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 5C 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (547)	27.15	30	Cir	72.475	291.50	296.79	7.299	294.00	298.56	n/a	298.56 j	End	Manhole
2	Pipe - (548)	27.26	30	Cir	79.000	300.71	301.50	1.000	302.20	303.28	n/a	303.28	1	Combination
3	Pipe - (550)	24.52	24	Cir	163.563	301.80	309.40	4.647	303.28	311.15	n/a	311.15	2	Combination
4	Pipe - (551)	22.45	24	Cir	180.720	309.62	318.20	4.748	311.15	319.89	0.49	319.89	3	Combination
5	Pipe - (552)	19.17	24	Cir	228.426	318.44	331.00	5.498	319.89	332.57	n/a	332.57	4	Combination
6	Pipe - (553)	15.36	24	Cir	275.660	332.20	346.80	5.296	332.94	348.21	0.33	348.21	5	Combination
7	Pipe - (554)	10.93	18	Cir	353.411	347.05	355.00	2.250	348.21	356.27	n/a	356.27	6	Combination
8	Pipe - (562)	8.16	15	Cir	153.914	355.22	358.30	2.001	356.27	359.42	n/a	359.42	7	Combination
9	Pipe - (561)	7.23	15	Cir	101.668	358.57	360.60	1.997	359.42	361.67	n/a	361.67	8	Combination
10	Pipe - (560)	5.10	15	Cir	289.580	360.86	371.00	3.502	361.67	371.92	n/a	371.92	9	Combination
11	Pipe - (559)	2.58	15	Cir	276.541	371.25	375.40	1.501	371.92	376.04	n/a	376.04 j	10	Combination
12	Pipe - (558)	1.76	15	Cir	389.260	375.65	377.60	0.500	376.19	378.14	0.24	378.38	11	Combination
13	Pipe - (557)	0.67	15	Cir	86.959	377.80	380.40	2.995	378.38	380.72	n/a	380.72 j	12	Combination
14	Pipe - (549)	1.01	18	Cir	176.320	301.80	303.62	1.032	303.28	304.00	n/a	304.00 j	2	Combination

Project File: SCM 5C Storm Network.stm | Number of lines: 14 | Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

SCM 5C 10-YEAR

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	JB 561	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
2	CB 562	2.71	2.89	3.11	2.48	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.29	10.54	0.23	7.37	0.0	14
3	CB 563	2.88	3.61	3.59	2.89	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.29	10.30	0.22	7.20	0.0	2
4	CB 564	4.40	3.43	4.21	3.61	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.29	10.49	0.23	7.47	0.0	3
5	CB 565	4.91	3.03	4.50	3.43	Comb	6.0	1.50	0.00	3.00	2.50	0.060	2.00	0.060	0.020	0.013	0.27	9.69	0.21	6.62	0.0	4
6	CB 566	5.67	1.25	3.89	3.03	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.28	9.96	0.22	6.87	0.0	5
7	CB 567	3.38	0.52	2.65	1.25	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.23	7.74	0.17	4.25	0.0	6
8	CB 568	1.14	1.13	1.75	0.52	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.21	6.41	0.13	2.41	0.0	7
9	CB 569	2.62	0.89	2.38	1.13	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.24	7.88	0.17	4.37	0.0	8
10	CB 570	2.96	0.10	2.17	0.89	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.23	7.39	0.16	3.75	0.0	9
11	CB 571	1.01	0.00	0.92	0.10	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.17	4.63	0.07	1.24	0.0	10
12	CB 572	1.13	0.00	1.00	0.13	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.18	4.94	0.08	1.39	0.0	Off
13	CB 572A	0.67	0.00	0.65	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.15	3.54	0.04	0.72	0.0	Off
14	CB 562A	1.01	2.48	3.50	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.34	12.85	0.34	12.85	0.0	Off

Project File: SCM 5C Storm Network.stm | Number of lines: 14 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 5C 10-YEAR

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	30	27.15	291.50	294.00	2.50	3.73	5.53	0.48	294.48	0.438	72.475	296.79	298.56 j	1.77**	3.73	7.28	0.83	299.39	0.603	0.521	n/a	0.15	n/a
2	30	27.26	300.71	302.20	1.49*	3.05	8.94	0.83	303.03	0.000	79.000	301.50	303.28	1.78**	3.74	7.30	0.83	304.11	0.000	0.000	n/a	1.50	n/a
3	24	24.52	301.80	303.28	1.48	2.49	9.85	1.10	304.38	0.000	163.563	309.40	311.15	1.75**	2.91	8.42	1.10	312.25	0.000	0.000	n/a	0.50	n/a
4	24	22.45	309.62	311.15	1.53	2.58	8.72	0.98	312.13	0.000	180.720	318.20	319.89	1.69**	2.83	7.94	0.98	320.87	0.000	0.000	n/a	0.50	0.49
5	24	19.17	318.44	319.89	1.45	2.44	7.87	0.81	320.70	0.000	228.426	331.00	332.57	1.57**	2.65	7.23	0.81	333.39	0.000	0.000	n/a	0.50	n/a
6	24	15.36	332.20	332.94	0.74*	1.07	14.41	0.65	333.60	0.000	275.660	346.80	348.21	1.41**	2.37	6.48	0.65	348.86	0.000	0.000	n/a	0.50	0.33
7	18	10.93	347.05	348.21	1.16	1.47	7.45	0.73	348.95	0.000	353.411	355.00	356.27	1.27**	1.59	6.87	0.73	357.00	0.000	0.000	n/a	0.50	n/a
8	15	8.16	355.22	356.27	1.05	1.10	7.44	0.77	357.03	0.000	153.914	358.30	359.42	1.12**	1.16	7.03	0.77	360.19	0.000	0.000	n/a	0.50	n/a
9	15	7.23	358.57	359.42	0.85	0.89	8.12	0.65	360.07	0.000	101.668	360.60	361.67	1.07**	1.12	6.45	0.65	362.32	0.000	0.000	n/a	0.50	n/a
10	15	5.10	360.86	361.67	0.81	0.85	6.04	0.44	362.11	0.000	289.580	371.00	371.92	0.92**	0.96	5.30	0.44	372.35	0.000	0.000	n/a	0.50	n/a
11	15	2.58	371.25	371.92	0.67	0.64	3.89	0.26	372.17	0.000	276.541	375.40	376.04 j	0.64**	0.64	4.06	0.26	376.30	0.000	0.000	n/a	0.50	n/a
12	15	1.76	375.65	376.19	0.54*	0.51	3.48	0.19	376.38	0.499	389.260	377.60	378.14	0.54	0.51	3.47	0.19	378.33	0.498	0.499	1.942	1.29	0.24
13	15	0.67	377.80	378.38	0.58	0.25	1.20	0.11	378.50	0.000	86.959	380.40	380.72 j	0.32**	0.25	2.71	0.11	380.84	0.000	0.000	n/a	1.00	n/a
14	18	1.01	301.80	303.28	1.48	0.35	0.58	0.13	303.41	0.000	176.320	303.62	304.00 j	0.38**	0.35	2.93	0.13	304.13	0.000	0.000	n/a	1.00	n/a

Project File: SCM 5C Storm Network.stm

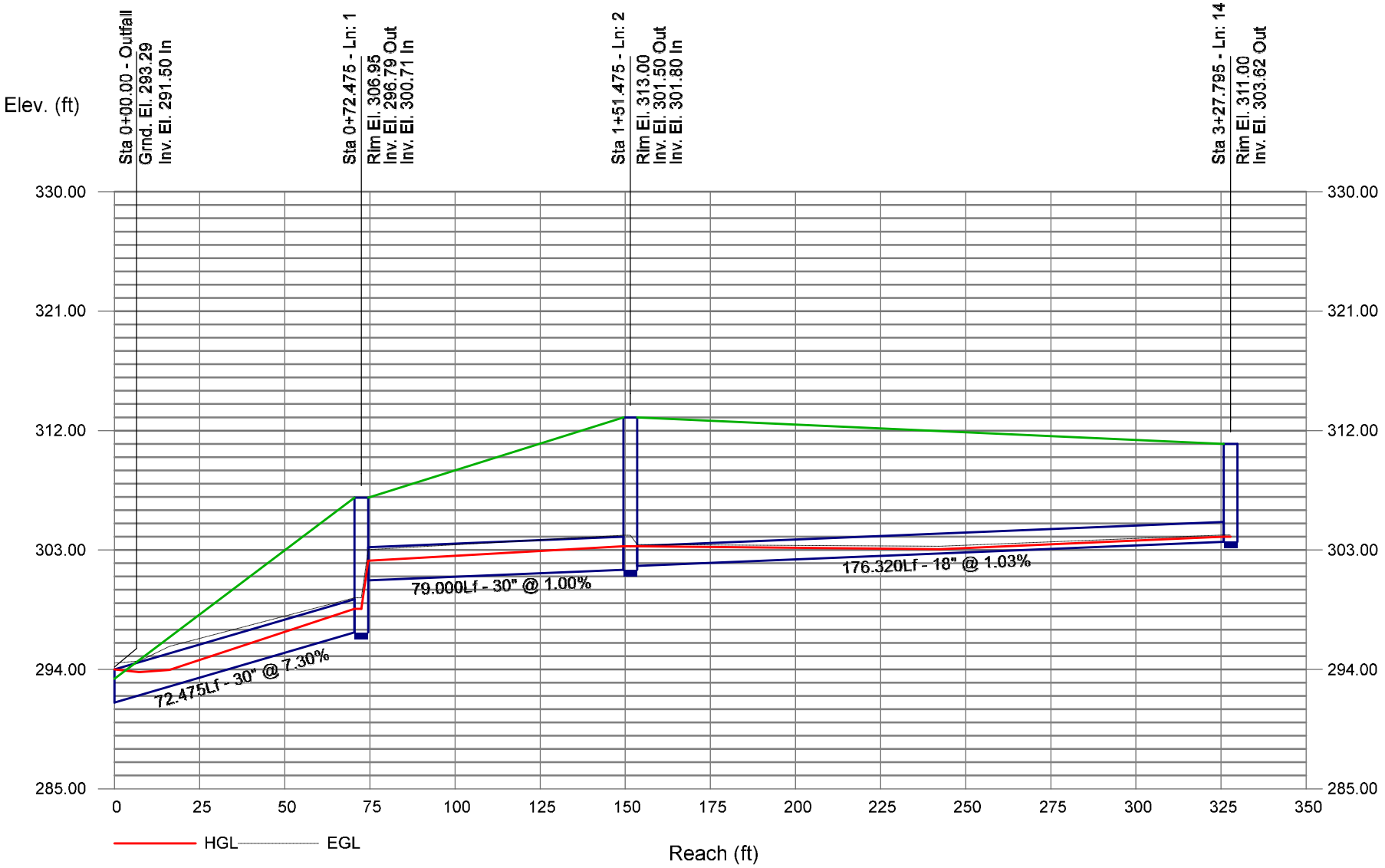
Number of lines: 14

Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

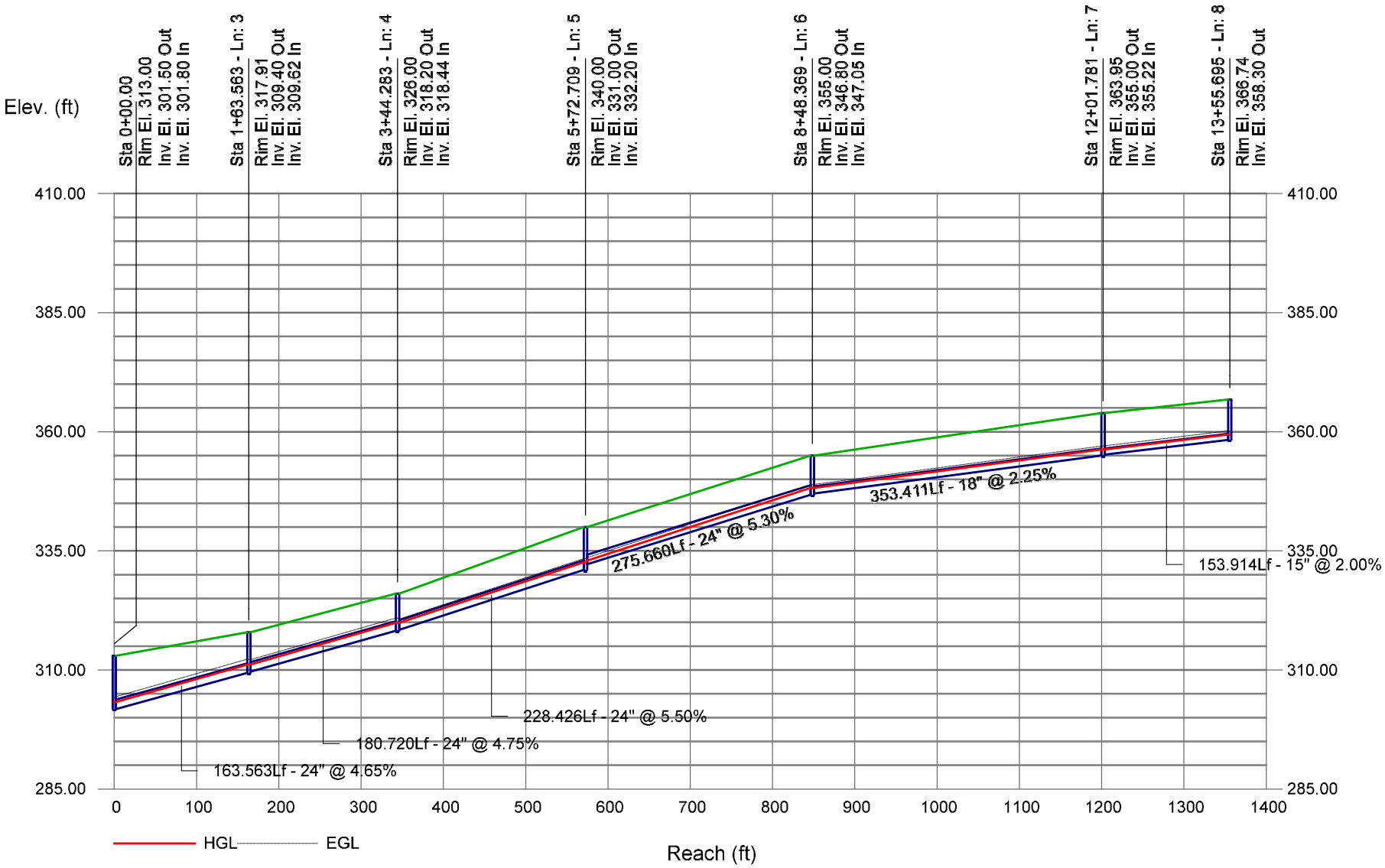
Storm Sewer Profile

SCM 5C 10-YEAR PROFILE 1-14 Proj. file: SCM 5C Storm Network.stm



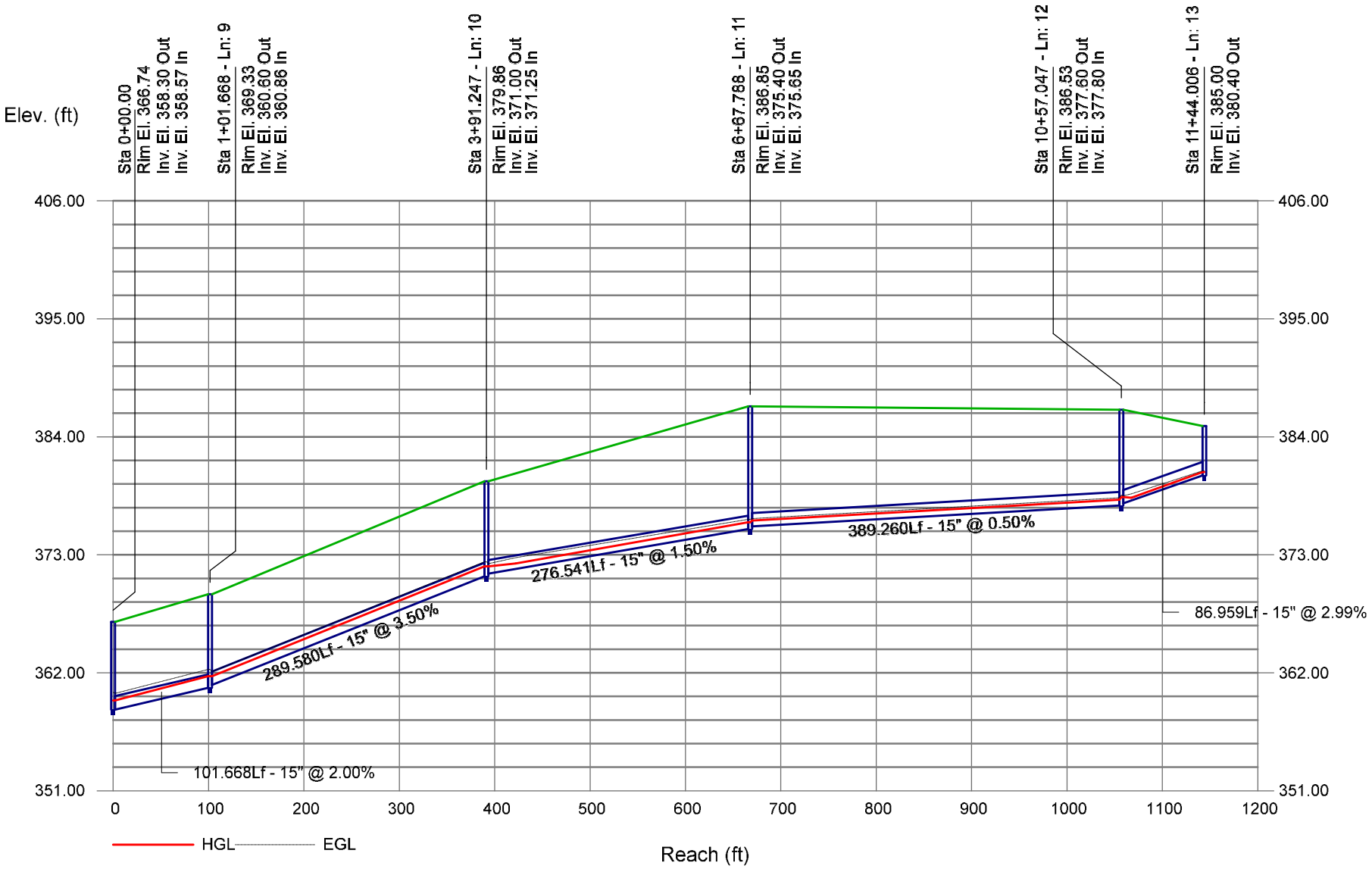
Storm Sewer Profile

SCM 5C 10-YEAR PROFILE 3-8 Proj. file: SCM 5C Storm Network.stm



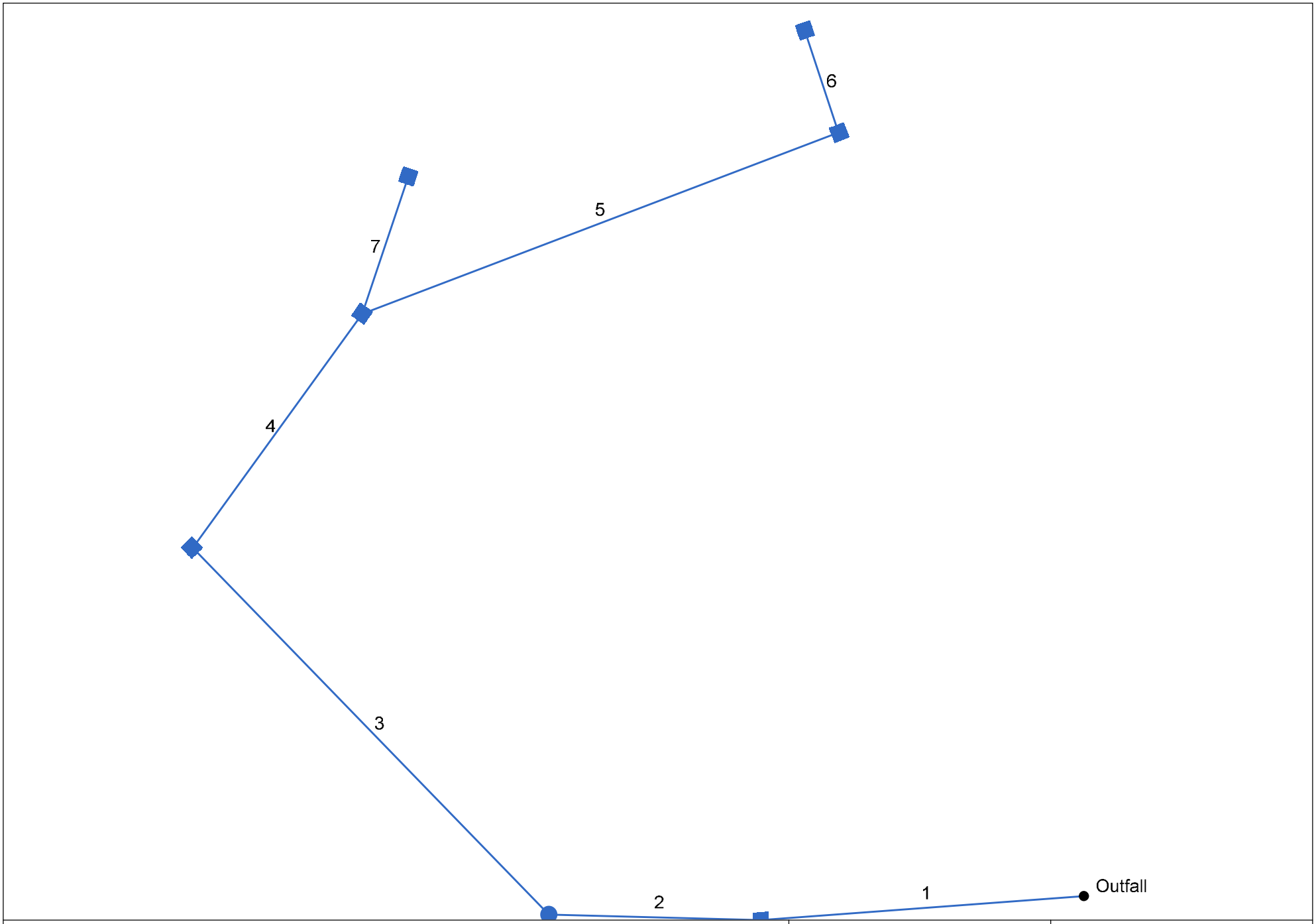
Storm Sewer Profile

SCM 5C 10-YEAR PROFILE 9-13 Proj. file: SCM 5C Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan

SCM 6A 10-YEAR



Project File: SCM 6A Storm Network.stm	Number of lines: 7	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 6A 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	84.216	175.714	DrGrt	0.00	0.44	0.60	10.0	296.61	2.84	299.00	15	Cir	0.013	0.50	303.92	Pipe - (495)
2	1	55.122	5.798	MH	0.00	0.00	0.00	0.0	299.20	3.81	301.30	15	Cir	0.013	0.74	306.41	Pipe - (494)
3	2	133.087	44.423	Comb	0.00	0.91	0.60	10.0	301.50	1.20	303.10	15	Cir	0.013	1.48	310.62	Pipe - (493)
4	3	75.218	79.870	Comb	0.00	0.10	0.60	10.0	303.30	6.91	308.50	15	Cir	0.013	0.91	316.23	Pipe - (492)
5	4	132.556	33.318	Comb	0.00	0.09	0.60	10.0	308.70	7.17	318.20	15	Cir	0.013	1.50	326.22	Pipe - (491)
6	5	28.021	-87.190	Comb	0.00	0.51	0.60	10.0	318.40	1.00	318.68	15	Cir	0.013	1.00	326.30	Pipe - (496)
7	4	37.852	-17.053	Comb	0.00	0.35	0.60	10.0	308.70	2.08	309.49	18	Cir	0.013	1.00	318.16	Pipe - (512)

Project File: SCM 6A Storm Network.stm

Number of lines: 7

Date: 4/11/2025

Structure Report

SCM 6A 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 601	DropGrate	303.92	Rect	4.00	4.00	15	Cir	299.00	15	Cir	299.20
2	JB 602	Manhole	306.41	Cir	4.00	4.00	15	Cir	301.30	15	Cir	301.50
3	CB 603	Combination	310.62	Rect	4.00	4.00	15	Cir	303.10	15	Cir	303.30
4	CB 604	Combination	316.23	Rect	4.00	4.00	15	Cir	308.50	15 18	Cir Cir	308.70 308.70
5	CB 605	Combination	326.22	Rect	4.00	4.00	15	Cir	318.20	15	Cir	318.40
6	CB 605A	Combination	326.30	Rect	4.00	4.00	15	Cir	318.68			
7	CB 604A	Combination	318.16	Rect	4.00	4.00	18	Cir	309.49			

Project File: SCM 6A Storm Network.stm | Number of Structures: 7 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 6A 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (495)	8.30	15	Cir	84.216	296.61	299.00	2.838	297.86	300.13	n/a	300.13 j	End	DropGrate
2	Pipe - (494)	6.79	15	Cir	55.122	299.20	301.30	3.810	300.13	302.35	n/a	302.35	1	Manhole
3	Pipe - (493)	6.87	15	Cir	133.087	301.50	303.10	1.202	302.49	304.15	n/a	304.15	2	Combination
4	Pipe - (492)	3.69	15	Cir	75.218	303.30	308.50	6.913	304.15	309.28	n/a	309.28 j	3	Combination
5	Pipe - (491)	2.16	15	Cir	132.556	308.70	318.20	7.167	309.28	318.79	n/a	318.79	4	Combination
6	Pipe - (496)	1.85	15	Cir	28.021	318.40	318.68	0.999	318.86	319.22	n/a	319.22	5	Combination
7	Pipe - (512)	1.26	18	Cir	37.852	308.70	309.49	2.084	309.28	309.91	n/a	309.91 j	4	Combination

Project File: SCM 6A Storm Network.stm

Number of lines: 7

Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

SCM 6A 10-YEAR

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	YI 601	1.60	0.00	1.23	0.37	DrGrt	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.13	15.10	0.13	15.10	0.0	Off
2	JB 602	0.00	0.00	0.00	0.00	MH	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
3	CB 603	3.31	0.00	2.19	1.13	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.25	8.41	0.18	4.92	0.0	Off
4	CB 604	0.35	0.00	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.12	1.98	0.00	0.00	0.0	Off
5	CB 605	0.32	0.00	0.32	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.12	1.92	0.00	0.00	0.0	Off
6	CB 605A	1.85	0.00	1.45	0.40	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.21	6.40	0.13	2.29	0.0	Off
7	CB 604A	1.26	0.00	1.09	0.17	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.18	5.24	0.09	1.53	0.0	Off

Project File: SCM 6A Storm Network.stm | Number of lines: 7 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 88.24 / (Inlet time + 15.50) ^ 0.83; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 6A 10-YEAR

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	15	8.30	296.61	297.86	1.25	1.17	6.76	0.71	298.57	1.651	84.216	299.00	300.13 j	1.13**	1.17	7.12	0.79	300.92	1.450	1.551	n/a	0.50	n/a
2	15	6.79	299.20	300.13	0.93	0.98	6.96	0.60	300.72	0.000	55.122	301.30	302.35	1.05**	1.10	6.19	0.60	302.94	0.000	0.000	n/a	0.74	n/a
3	15	6.87	301.50	302.49	0.99*	1.04	6.57	0.60	303.10	0.000	133.087	303.10	304.15	1.05**	1.10	6.24	0.60	304.76	0.000	0.000	n/a	1.48	n/a
4	15	3.69	303.30	304.15	0.85	0.80	4.15	0.33	304.48	0.000	75.218	308.50	309.28 j	0.78**	0.80	4.61	0.33	309.61	0.000	0.000	n/a	0.91	n/a
5	15	2.16	308.70	309.28	0.58	0.55	3.91	0.23	309.50	0.000	132.556	318.20	318.79	0.59**	0.56	3.82	0.23	319.01	0.000	0.000	n/a	1.50	n/a
6	15	1.85	318.40	318.86	0.46*	0.41	4.54	0.21	319.06	0.000	28.021	318.68	319.22	0.54**	0.51	3.64	0.21	319.43	0.000	0.000	n/a	1.00	n/a
7	18	1.26	308.70	309.28	0.58	0.40	2.02	0.15	309.43	0.000	37.852	309.49	309.91 j	0.42**	0.40	3.11	0.15	310.06	0.000	0.000	n/a	1.00	n/a

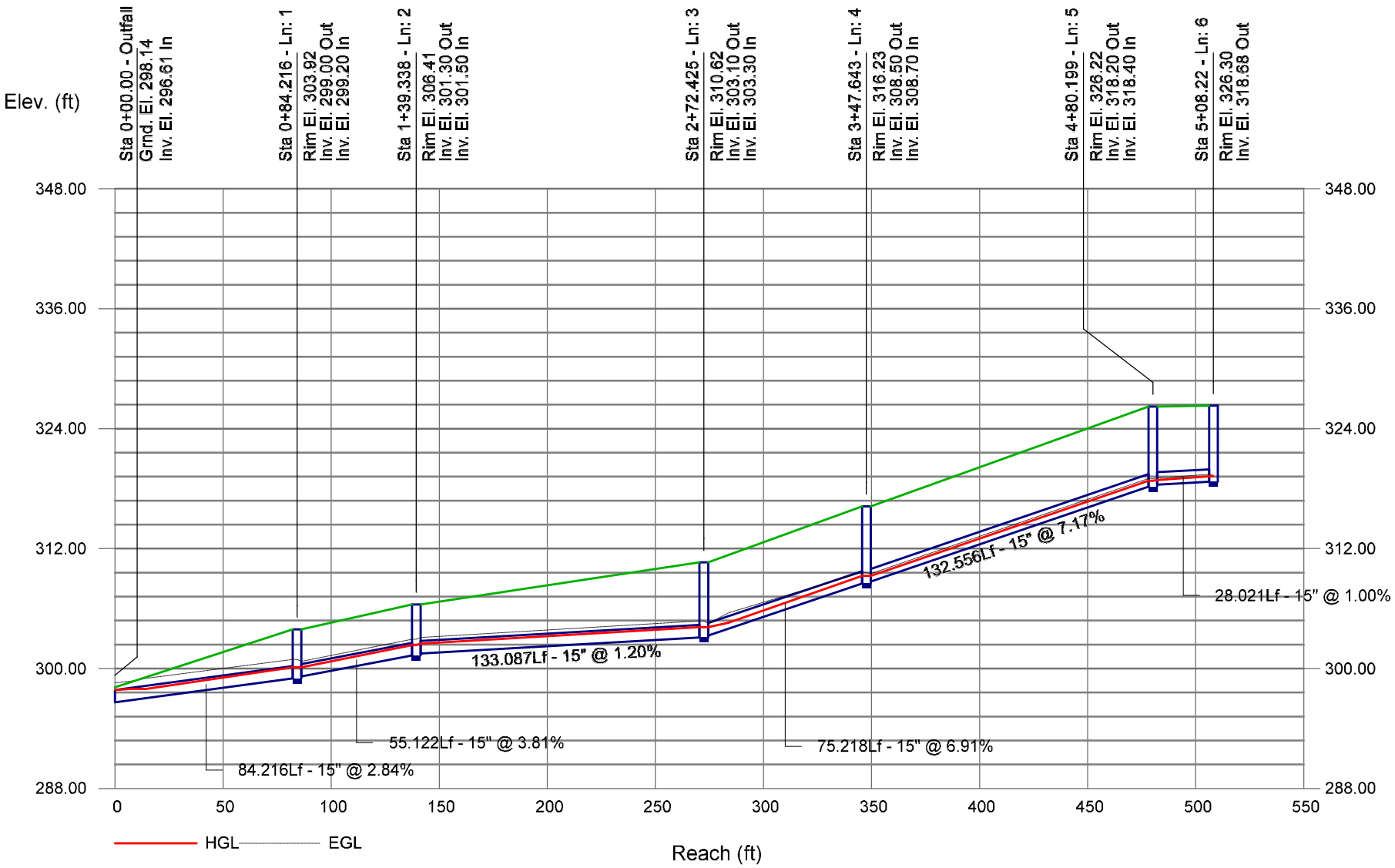
Project File: SCM 6A Storm Network.stm | Number of lines: 7 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Storm Sewer Profile

SCM 6A 10-YEAR PROFILE 1-6

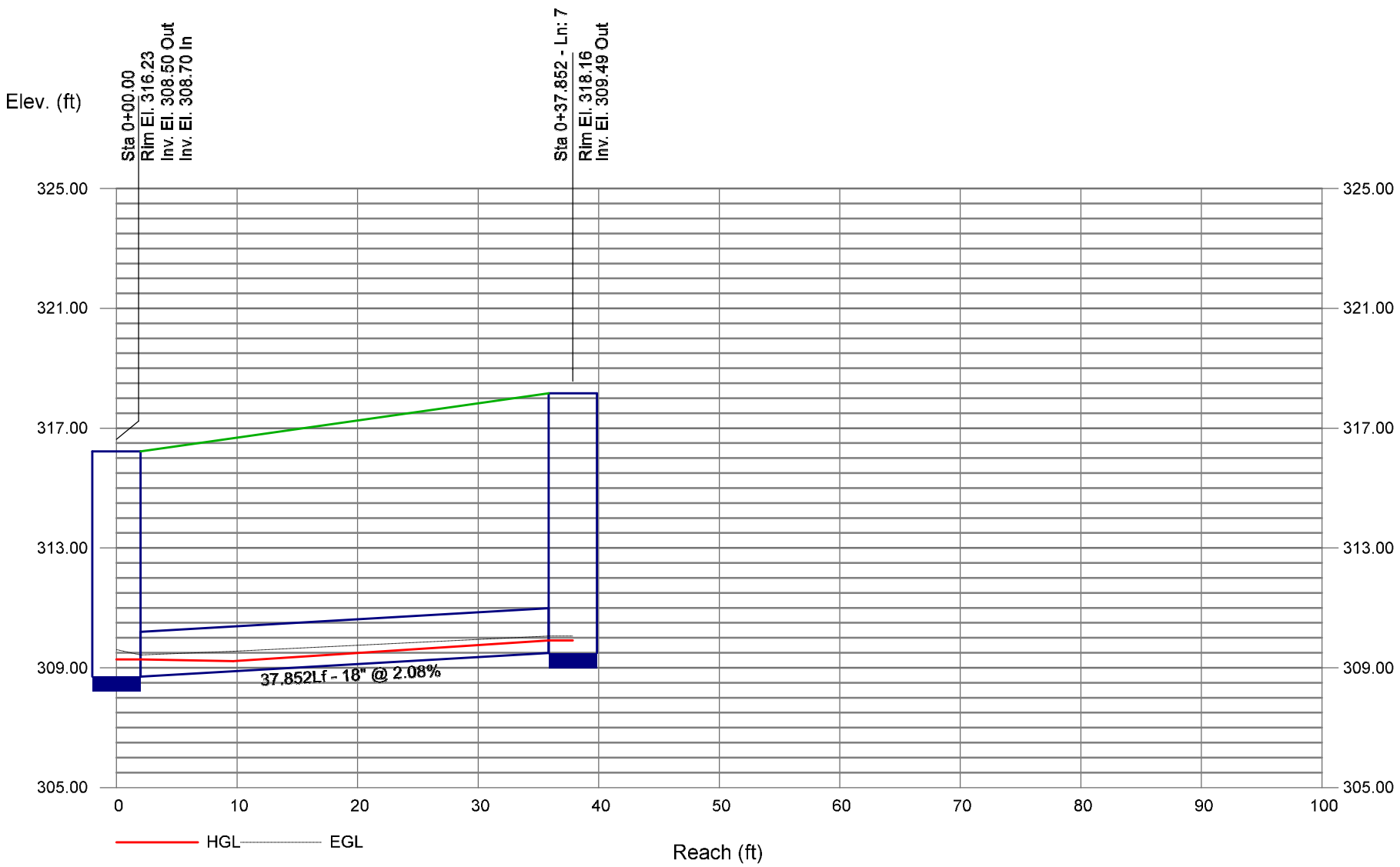
Proj. file: SCM 6A Storm Network.stm



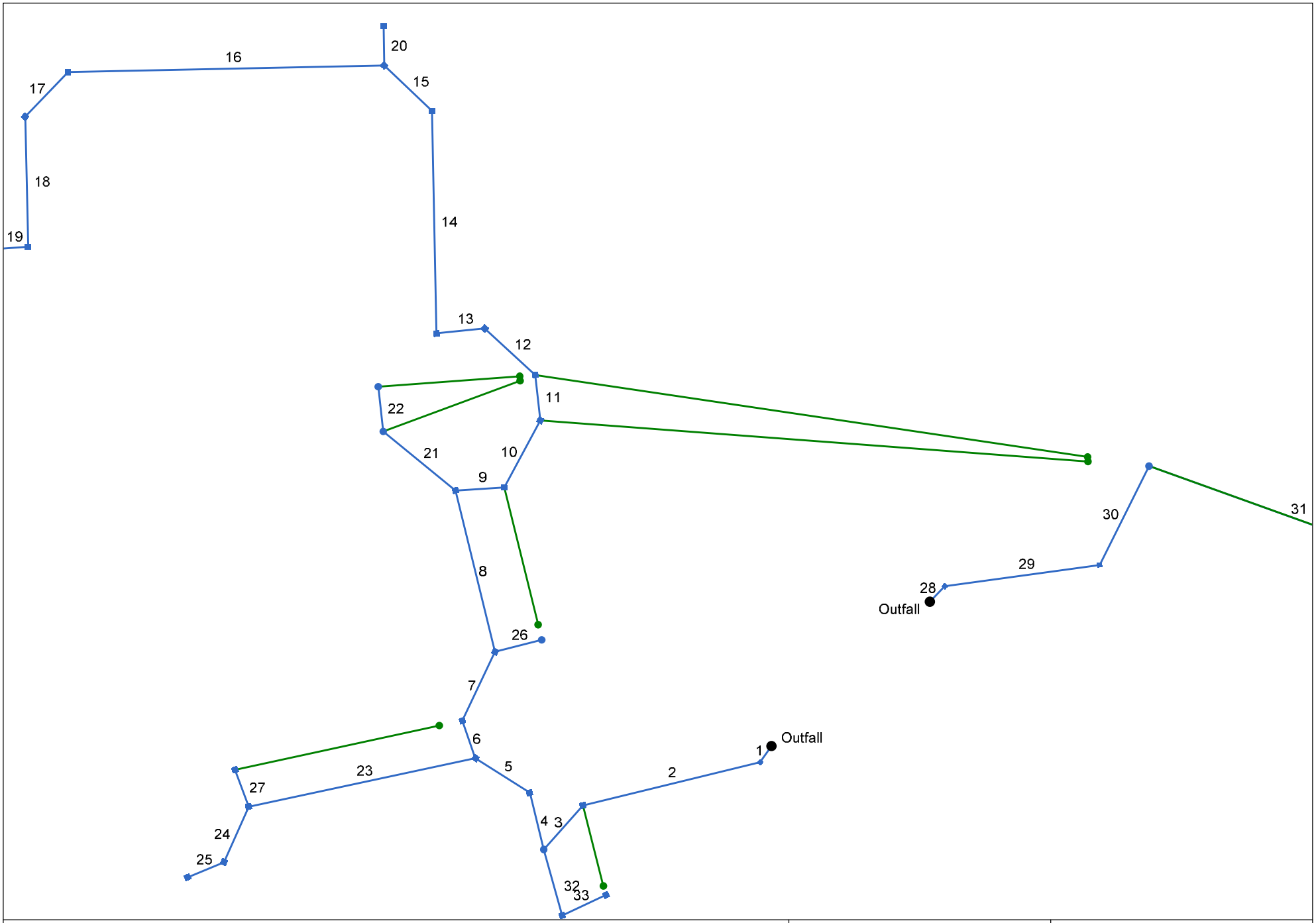
Storm Sewer Profile

SCM 6A 10-YEAR PROFILE 7-7

Proj. file: SCM 6A Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 6B 10-YEAR



Project File: SCM 6B Storm Network.stm	Number of lines: 33	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 6B 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	14.076	124.693	DrGrt	0.00	0.73	0.60	10.0	297.31	4.90	298.00	24	Cir	0.013	1.07	312.44	Pipe - (466)
2	1	129.199	41.569	Comb	0.00	0.08	0.60	10.0	298.20	2.17	301.00	24	Cir	0.013	0.93	318.02	Pipe - (465)
3	2	41.927	-34.580	Comb	0.00	0.26	0.60	10.0	301.28	1.00	301.70	24	Cir	0.013	1.95	315.00	Pipe - (546)
4	3	41.516	124.607	Comb	0.00	0.14	0.60	10.0	301.90	10.00	306.05	24	Cir	0.013	1.10	319.55	Pipe - (514)
5	4	45.778	-43.754	Comb	0.00	0.12	0.60	10.0	306.25	9.94	310.80	24	Cir	0.013	1.12	324.12	Pipe - (460)
6	5	28.278	38.229	Comb	0.00	0.54	0.60	10.0	311.00	9.90	313.80	24	Cir	0.013	1.12	324.70	Pipe - (321)
7	6	54.257	44.766	Comb	0.00	0.53	0.60	10.0	314.00	9.95	319.40	24	Cir	0.013	1.21	331.00	Pipe - (459)
8	7	118.068	-39.263	Comb	0.00	0.03	0.60	10.0	319.60	6.27	327.00	24	Cir	0.013	2.20	336.57	Pipe - (513)
9	8	34.519	99.944	Comb	0.00	0.01	0.60	10.0	327.20	0.61	327.41	18	Cir	0.013	1.31	337.18	Pipe - (463)
10	9	54.019	-58.028	Comb	0.00	0.03	0.60	10.0	327.60	0.74	328.00	18	Cir	0.013	0.92	334.59	Pipe - (310)
11	10	32.394	-34.234	Comb	0.00	0.19	0.60	10.0	328.20	0.62	328.40	18	Cir	0.013	1.06	333.35	Pipe - (309)
12	11	49.141	-41.395	Comb	0.00	0.19	0.60	10.0	328.60	1.02	329.10	18	Cir	0.013	1.18	337.00	Pipe - (308)
13	12	34.087	-48.578	Comb	0.00	0.95	0.60	10.0	329.30	0.88	329.60	18	Cir	0.013	1.50	337.00	Pipe - (307)
14	13	158.245	94.812	Comb	0.00	0.15	0.60	10.0	329.80	3.73	335.70	15	Cir	0.013	1.12	344.52	Pipe - (301)
15	14	46.667	-44.997	Comb	0.00	0.25	0.60	10.0	335.90	4.50	338.00	15	Cir	0.013	1.69	345.87	Pipe - (300)
16	15	224.015	-44.997	Comb	0.00	0.04	0.60	10.0	338.20	2.72	344.30	15	Cir	0.013	1.13	352.48	Pipe - (486)
17	16	43.823	-45.023	Comb	0.00	0.07	0.60	10.0	344.50	0.91	344.90	15	Cir	0.013	1.12	352.51	Pipe - (485)
18	17	92.623	-44.977	Comb	0.00	0.12	0.60	10.0	345.10	1.25	346.26	15	Cir	0.013	1.50	354.03	Pipe - (502)
19	18	28.029	87.415	Comb	0.00	0.07	0.60	10.0	346.50	0.61	346.67	15	Cir	0.013	1.00	354.08	Pipe - (503)
20	15	27.999	44.982	Comb	0.00	0.35	0.60	10.0	338.20	1.00	338.48	15	Cir	0.013	1.00	345.85	Pipe - (305)
21	8	66.408	-37.002	Comb	0.00	0.05	0.60	10.0	327.20	6.63	331.60	15	Cir	0.013	1.12	340.36	Pipe - (537)
22	21	32.002	44.457	Comb	0.00	0.51	0.60	10.0	331.80	0.59	331.99	15	Cir	0.013	1.00	340.43	Pipe - (538)
23	5	164.315	-44.670	Comb	0.00	0.23	0.60	10.0	311.00	4.75	318.80	18	Cir	0.013	1.49	326.34	Pipe - (315)

Project File: SCM 6B Storm Network.stm

Number of lines: 33

Date: 4/11/2025

Storm Sewer Inventory Report

SCM 6B 10-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	43.094	-54.143	Comb	0.00	0.31	0.60	10.0	319.00	1.39	319.60	15	Cir	0.013	1.10	327.22	Pipe - (499)
25	24	28.022	43.733	Comb	0.00	0.32	0.60	10.0	319.80	0.61	319.97	15	Cir	0.013	1.00	327.23	Pipe - (498)
26	7	33.996	50.101	Comb	0.00	0.08	0.60	10.0	319.60	10.00	323.00	15	Cir	0.013	1.00	331.00	Pipe - (545)
27	23	28.000	81.868	Comb	0.00	0.70	0.60	10.0	319.00	1.00	319.28	15	Cir	0.013	1.00	326.31	Pipe - (320)
28	End	15.198	-46.442	DrGrt	0.00	1.01	0.60	10.0	293.69	2.04	294.00	18	Cir	0.013	1.01	309.92	Pipe - (539)
29	28	110.638	38.584	DrGrt	0.00	0.11	0.60	10.0	294.20	6.87	301.80	15	Cir	0.013	1.28	315.26	Pipe - (540)
30	29	78.569	-55.641	Comb	0.00	0.49	0.60	10.0	302.00	0.89	302.70	15	Cir	0.013	1.49	313.86	Pipe - (541)
31	30	208.966	83.346	Comb	0.00	0.29	0.60	10.0	302.90	1.00	305.00	15	Cir	0.013	1.00	311.00	Pipe - (542)
32	3	48.735	-57.114	Comb	0.00	0.20	0.60	10.0	301.91	0.60	302.20	18	Cir	0.013	1.50	310.31	Pipe - (462)
33	32	34.300	-99.882	Comb	0.00	0.12	0.60	10.0	302.40	0.70	302.64	15	Cir	0.013	1.00	310.04	Pipe - (464)

Project File: SCM 6B Storm Network.stm

Number of lines: 33

Date: 4/11/2025

Structure Report

SCM 6B 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	CB 611	DropGrate	312.44	Rect	3.00	3.00	24	Cir	298.00	24	Cir	298.20
2	CB 612	Combination	318.02	Rect	4.00	4.00	24	Cir	301.00	24	Cir	301.28
3	CB 613	Combination	315.00	Cir	4.00	4.00	24	Cir	301.70	24 18	Cir Cir	301.90 301.91
4	CB 614	Combination	319.55	Rect	4.00	4.00	24	Cir	306.05	24	Cir	306.25
5	CB 615	Combination	324.12	Rect	4.00	4.00	24	Cir	310.80	24 18	Cir Cir	311.00 311.00
6	CB 616	Combination	324.70	Rect	4.00	4.00	24	Cir	313.80	24	Cir	314.00
7	CB 617	Combination	331.00	Rect	4.00	4.00	24	Cir	319.40	24 15	Cir Cir	319.60 319.60
8	CB 618	Combination	336.57	Rect	4.00	4.00	24	Cir	327.00	18 15	Cir Cir	327.20 327.20
9	CB 619	Combination	337.18	Rect	4.00	4.00	18	Cir	327.41	18	Cir	327.60
10	CB 620	Combination	334.59	Rect	4.00	4.00	18	Cir	328.00	18	Cir	328.20
11	CB 621	Combination	333.35	Rect	4.00	4.00	18	Cir	328.40	18	Cir	328.60
12	CB 622	Combination	337.00	Rect	4.00	4.00	18	Cir	329.10	18	Cir	329.30
13	CB 623	Combination	337.00	Rect	4.00	4.00	18	Cir	329.60	15	Cir	329.80
14	CB 624	Combination	344.52	Rect	4.00	4.00	15	Cir	335.70	15	Cir	335.90
15	CB 625	Combination	345.87	Rect	4.00	4.00	15	Cir	338.00	15 15	Cir Cir	338.20 338.20
16	CB 626	Combination	352.48	Rect	4.00	4.00	15	Cir	344.30	15	Cir	344.50
17	CB 627	Combination	352.51	Rect	4.00	4.00	15	Cir	344.90	15	Cir	345.10
18	CB 628	Combination	354.03	Rect	4.00	4.00	15	Cir	346.26	15	Cir	346.50
19	CB 628A	Combination	354.08	Rect	4.00	4.00	15	Cir	346.67			
20	CB 625A	Combination	345.85	Rect	4.00	4.00	15	Cir	338.48			

Project File: SCM 6B Storm Network.stm | Number of Structures: 33 | Run Date: 4/11/2025

Structure Report

SCM 6B 10-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	CB 618A	Combination	340.36	Cir	4.00	4.00	15	Cir	331.60	15	Cir	331.80
22	CB 618B	Combination	340.43	Cir	4.00	4.00	15	Cir	331.99			
23	CB 615A	Combination	326.34	Rect	4.00	4.00	18	Cir	318.80	15 15	Cir Cir	319.00 319.00
24	CB 615C	Combination	327.22	Rect	4.00	4.00	15	Cir	319.60	15	Cir	319.80
25	CB 615D	Combination	327.23	Rect	4.00	4.00	15	Cir	319.97			
26	CB 617A	Combination	331.00	Cir	4.00	4.00	15	Cir	323.00			
27	CB 615B	Combination	326.31	Rect	4.00	4.00	15	Cir	319.28			
28	YI 631	DropGrate	309.92	Rect	3.00	3.00	18	Cir	294.00	15	Cir	294.20
29	YI 632	DropGrate	315.26	Rect	3.00	3.00	15	Cir	301.80	15	Cir	302.00
30	CB 633	Combination	313.86	Cir	4.00	4.00	15	Cir	302.70	15	Cir	302.90
31	CB 634	Combination	311.00	Cir	4.00	4.00	15	Cir	305.00			
32	CB 613A	Combination	310.31	Rect	4.00	4.00	18	Cir	302.20	15	Cir	302.40
33	CB 613B	Combination	310.04	Rect	4.00	4.00	15	Cir	302.64			

Storm Sewer Summary Report

SCM 6B 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (466)	22.14	24	Cir	14.076	297.31	298.00	4.902	299.31	299.68	n/a	299.68 j	End	DropGrate
2	Pipe - (465)	20.11	24	Cir	129.199	298.20	301.00	2.167	299.68	302.61	n/a	302.61	1	Combination
3	Pipe - (546)	19.92	24	Cir	41.927	301.28	301.70	1.002	302.74	303.30	1.65	303.30	2	Combination
4	Pipe - (514)	18.21	24	Cir	41.516	301.90	306.05	9.996	303.30	307.59	n/a	307.59	3	Combination
5	Pipe - (460)	17.84	24	Cir	45.778	306.25	310.80	9.939	307.59	312.32	n/a	312.32	4	Combination
6	Pipe - (321)	12.74	24	Cir	28.278	311.00	313.80	9.902	312.32	315.08	n/a	315.08 j	5	Combination
7	Pipe - (459)	11.13	24	Cir	54.257	314.00	319.40	9.953	315.08	320.60	0.61	320.60	6	Combination
8	Pipe - (513)	9.36	24	Cir	118.068	319.60	327.00	6.268	320.60	328.09	n/a	328.09	7	Combination
9	Pipe - (463)	7.55	18	Cir	34.519	327.20	327.41	0.608	328.34	328.55	0.56	329.11	8	Combination
10	Pipe - (310)	7.56	18	Cir	54.019	327.60	328.00	0.740	329.11	329.34	0.30	329.63	9	Combination
11	Pipe - (309)	7.50	18	Cir	32.394	328.20	328.40	0.617	329.63	329.76	0.33	330.08	10	Combination
12	Pipe - (308)	6.94	18	Cir	49.141	328.60	329.10	1.017	330.08	330.12	n/a	330.12 j	11	Combination
13	Pipe - (307)	6.36	18	Cir	34.087	329.30	329.60	0.880	330.18	330.57	0.64	330.57	12	Combination
14	Pipe - (301)	3.40	15	Cir	158.245	329.80	335.70	3.728	330.57	336.44	n/a	336.44 j	13	Combination
15	Pipe - (300)	2.93	15	Cir	46.667	335.90	338.00	4.500	336.44	338.69	n/a	338.69	14	Combination
16	Pipe - (486)	1.02	15	Cir	224.015	338.20	344.30	2.723	338.69	344.70	n/a	344.70 j	15	Combination
17	Pipe - (485)	0.89	15	Cir	43.823	344.50	344.90	0.913	344.82	345.27	n/a	345.27	16	Combination
18	Pipe - (502)	0.66	15	Cir	92.623	345.10	346.26	1.252	345.36	346.58	0.17	346.58	17	Combination
19	Pipe - (503)	0.25	15	Cir	28.029	346.50	346.67	0.607	346.69	346.86	n/a	346.86	18	Combination
20	Pipe - (305)	1.23	15	Cir	27.999	338.20	338.48	1.000	338.69	338.92	n/a	338.92 j	15	Combination
21	Pipe - (537)	1.96	15	Cir	66.408	327.20	331.60	6.626	328.09	332.16	n/a	332.16 j	8	Combination
22	Pipe - (538)	1.80	15	Cir	32.002	331.80	331.99	0.594	332.32	332.52	0.20	332.52	21	Combination
23	Pipe - (315)	5.43	18	Cir	164.315	311.00	318.80	4.747	312.32	319.70	n/a	319.70 j	5	Combination
24	Pipe - (499)	2.21	15	Cir	43.094	319.00	319.60	1.392	319.70	320.19	n/a	320.19 j	23	Combination

Project File: SCM 6B Storm Network.stm | Number of lines: 33 | Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

SCM 6B 10-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
25	Pipe - (498)	1.13	15	Cir	28.022	319.80	319.97	0.607	320.20	320.39	0.15	320.39	24	Combination
26	Pipe - (545)	0.28	15	Cir	33.996	319.60	323.00	10.001	320.60	323.21	n/a	323.21 j	7	Combination
27	Pipe - (320)	2.47	15	Cir	28.000	319.00	319.28	1.000	319.70	319.91	n/a	319.91 j	23	Combination
28	Pipe - (539)	6.23	18	Cir	15.198	293.69	294.00	2.040	295.19	295.16	0.28	295.44	End	DropGrate
29	Pipe - (540)	2.97	15	Cir	110.638	294.20	301.80	6.869	295.44	302.49	n/a	302.49 j	28	DropGrate
30	Pipe - (541)	2.63	15	Cir	78.569	302.00	302.70	0.891	302.57	303.35	0.39	303.35	29	Combination
31	Pipe - (542)	1.02	15	Cir	208.966	302.90	305.00	1.005	303.35	305.40	n/a	305.40 j	30	Combination
32	Pipe - (462)	1.12	18	Cir	48.735	301.91	302.20	0.595	303.30	302.59	0.21	302.59	3	Combination
33	Pipe - (464)	0.42	15	Cir	34.300	302.40	302.64	0.700	302.64	302.89	n/a	302.89	32	Combination

Project File: SCM 6B Storm Network.stm | Number of lines: 33 | Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

SCM 6B 10-YEAR

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	CB 611	2.57	0.00	2.57	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.23	24.55	0.23	24.55	0.0	Off
2	CB 612	0.28	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.08	1.36	0.00	0.00	0.0	33
3	CB 613	0.92	0.00	0.92	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.13	2.33	0.01	0.16	0.0	Off
4	CB 614	0.49	0.00	0.49	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.10	1.67	0.00	0.00	0.0	3
5	CB 615	0.42	0.11	0.53	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.95	0.14	2.95	0.0	Off
6	CB 616	1.90	0.85	2.76	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.30	10.82	0.30	10.82	0.0	Off
7	CB 617	1.87	0.00	1.73	0.14	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.16	4.11	0.06	1.03	0.0	6
8	CB 618	0.11	0.00	0.11	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.022	2.00	0.060	0.020	0.013	0.07	1.25	0.00	0.00	0.0	7
9	CB 619	0.04	0.00	0.04	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.022	2.00	0.060	0.020	0.013	0.05	0.83	0.00	0.00	0.0	26
10	CB 620	0.11	0.00	0.11	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.062	2.00	0.060	0.020	0.013	0.06	1.03	0.00	0.00	0.0	30
11	CB 621	0.67	0.23	0.89	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.062	2.00	0.060	0.020	0.013	0.14	2.85	0.02	0.39	0.0	30
12	CB 622	0.67	0.00	0.67	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.15	3.60	0.15	3.60	0.0	Off
13	CB 623	3.35	0.00	3.35	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.33	12.45	0.33	12.45	0.0	Off
14	CB 624	0.53	0.05	0.57	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.13	2.31	0.01	0.14	0.0	Off
15	CB 625	0.88	0.00	0.84	0.05	Comb	6.0	1.50	0.00	3.00	2.50	0.027	2.00	0.060	0.020	0.013	0.16	3.85	0.05	0.88	0.0	14
16	CB 626	0.14	0.00	0.14	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.11	1.83	0.00	0.00	0.0	15
17	CB 627	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.016	2.00	0.060	0.020	0.013	0.11	1.83	0.00	0.00	0.0	16
18	CB 628	0.42	0.00	0.42	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.016	2.00	0.060	0.020	0.013	0.13	2.67	0.02	0.31	0.0	17
19	CB 628A	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.016	2.00	0.060	0.020	0.013	0.11	1.82	0.00	0.00	0.0	Off
20	CB 625A	1.23	0.00	1.23	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.20	5.92	0.20	5.92	0.0	Off
21	CB 618A	0.18	0.00	0.18	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.052	2.00	0.060	0.020	0.013	0.08	1.29	0.00	0.00	0.0	11
22	CB 618B	1.80	0.00	1.57	0.23	Comb	6.0	1.50	0.00	3.00	2.50	0.052	2.00	0.060	0.020	0.013	0.18	4.89	0.08	1.41	0.0	11
23	CB 615A	0.81	0.19	0.90	0.11	Comb	6.0	1.50	0.00	3.00	2.50	0.017	2.00	0.060	0.020	0.013	0.18	4.83	0.08	1.32	0.0	5

Project File: SCM 6B Storm Network.stm | Number of lines: 33 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Inlet Report

SCM 6B 10-YEAR

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)	
24	CB 615C	1.09	0.00	0.90	0.19	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.21	6.28	0.11	1.91	0.0	23
25	CB 615D	1.13	0.00	1.13	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.19	5.52	0.19	5.52	0.0	Off
26	CB 617A	0.28	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.08	1.36	0.00	0.00	0.0	Off
27	CB 615B	2.47	0.00	1.75	0.72	Comb	6.0	1.50	0.00	3.00	2.50	0.017	2.00	0.060	0.020	0.013	0.23	7.63	0.16	3.91	0.0	6
28	YI 631	3.56	0.00	3.56	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.28	30.00	0.28	30.00	0.0	Off
29	YI 632	0.39	0.00	0.39	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.06	8.38	0.06	8.38	0.0	Off
30	CB 633	1.73	0.01	1.41	0.32	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.20	5.85	0.11	1.85	0.0	31
31	CB 634	1.02	0.32	1.04	0.31	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.23	7.65	0.15	3.32	0.0	Off
32	CB 613A	0.70	0.00	0.70	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.11	1.91	0.00	0.00	0.0	Off
33	CB 613B	0.42	0.00	0.42	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.09	1.58	0.00	0.00	0.0	Off

Project File: SCM 6B Storm Network.stm | Number of lines: 33 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 6B 10-YEAR

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	24	22.14	297.31	299.31	2.00	2.81	7.05	0.77	300.08	0.958	14.076	298.00	299.68 j	1.68**	2.81	7.87	0.96	300.64	0.920	0.939	n/a	1.07	1.03
2	24	20.11	298.20	299.68	1.48	2.49	8.08	0.86	300.54	0.000	129.199	301.00	302.61	1.61**	2.71	7.42	0.86	303.47	0.000	0.000	n/a	0.93	n/a
3	24	19.92	301.28	302.74	1.46*	2.45	8.13	0.85	303.58	0.000	41.927	301.70	303.30	1.60**	2.70	7.39	0.85	304.15	0.000	0.000	n/a	1.95	1.65
4	24	18.21	301.90	303.30	1.40	2.35	7.74	0.77	304.07	0.000	41.516	306.05	307.59	1.54**	2.59	7.04	0.77	308.36	0.000	0.000	n/a	1.10	n/a
5	24	17.84	306.25	307.59	1.34	2.23	8.00	0.75	308.34	0.000	45.778	310.80	312.32	1.52**	2.56	6.96	0.75	313.07	0.000	0.000	n/a	1.12	n/a
6	24	12.74	311.00	312.32	1.32	2.13	5.79	0.56	312.88	0.000	28.278	313.80	315.08 j	1.28**	2.13	5.99	0.56	315.64	0.000	0.000	n/a	1.12	n/a
7	24	11.13	314.00	315.08	1.08	1.74	6.42	0.50	315.58	0.000	54.257	319.40	320.60	1.20**	1.96	5.68	0.50	321.10	0.000	0.000	n/a	1.21	0.61
8	24	9.36	319.60	320.60	1.00	1.56	5.99	0.44	321.04	0.000	118.068	327.00	328.09	1.09**	1.75	5.33	0.44	328.53	0.000	0.000	n/a	2.20	n/a
9	18	7.55	327.20	328.34	1.14*	1.44	5.26	0.43	328.77	0.608	34.519	327.41	328.55	1.14	1.44	5.25	0.43	328.98	0.607	0.608	0.210	1.31	0.56
10	18	7.56	327.60	329.11	1.50	1.77	4.28	0.28	329.39	0.519	54.019	328.00	329.34	1.34	1.66	4.55	0.32	329.66	0.461	0.490	0.265	0.92	0.30
11	18	7.50	328.20	329.63	1.43	1.74	4.31	0.29	329.92	0.443	32.394	328.40	329.76	1.36	1.68	4.46	0.31	330.07	0.447	0.445	0.144	1.06	0.33
12	18	6.94	328.60	330.08	1.48	1.28	3.93	0.46	330.54	0.000	49.141	329.10	330.12 j	1.02**	1.28	5.43	0.46	330.58	0.000	0.000	n/a	1.18	0.54
13	18	6.36	329.30	330.18	0.88*	1.07	5.92	0.43	330.60	0.000	34.087	329.60	330.57	0.97**	1.21	5.23	0.43	331.00	0.000	0.000	n/a	1.50	0.64
14	15	3.40	329.80	330.57	0.77	0.76	4.26	0.31	330.89	0.000	158.245	335.70	336.44 j	0.74**	0.76	4.47	0.31	336.75	0.000	0.000	n/a	1.12	n/a
15	15	2.93	335.90	336.44	0.54	0.51	5.73	0.28	336.72	0.000	46.667	338.00	338.69	0.69**	0.69	4.24	0.28	338.97	0.000	0.000	n/a	1.69	n/a
16	15	1.02	338.20	338.69	0.49	0.34	2.31	0.14	338.83	0.000	224.015	344.30	344.70 j	0.40**	0.34	3.05	0.14	344.84	0.000	0.000	n/a	1.13	0.16
17	15	0.89	344.50	344.82	0.32*	0.25	3.58	0.13	344.96	0.000	43.823	344.90	345.27	0.37**	0.30	2.93	0.13	345.40	0.000	0.000	n/a	1.12	n/a
18	15	0.66	345.10	345.36	0.26*	0.18	3.67	0.11	345.47	0.000	92.623	346.26	346.58	0.32**	0.25	2.70	0.11	346.69	0.000	0.000	n/a	1.50	0.17
19	15	0.25	346.50	346.69	0.19*	0.12	2.12	0.07	346.75	0.000	28.029	346.67	346.86	0.19**	0.12	2.07	0.07	346.93	0.000	0.000	n/a	1.00	n/a
20	15	1.23	338.20	338.69	0.49	0.38	2.78	0.16	338.85	0.000	27.999	338.48	338.92 j	0.44**	0.38	3.22	0.16	339.08	0.000	0.000	n/a	1.00	0.16
21	15	1.96	327.20	328.09	0.89	0.53	2.10	0.21	328.31	0.000	66.408	331.60	332.16 j	0.56**	0.53	3.71	0.21	332.37	0.000	0.000	n/a	1.12	n/a
22	15	1.80	331.80	332.32	0.52*	0.48	3.72	0.20	332.52	0.000	32.002	331.99	332.52	0.53**	0.50	3.61	0.20	332.72	0.000	0.000	n/a	1.00	0.20

Project File: SCM 6B Storm Network.stm | Number of lines: 33 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 6B 10-YEAR

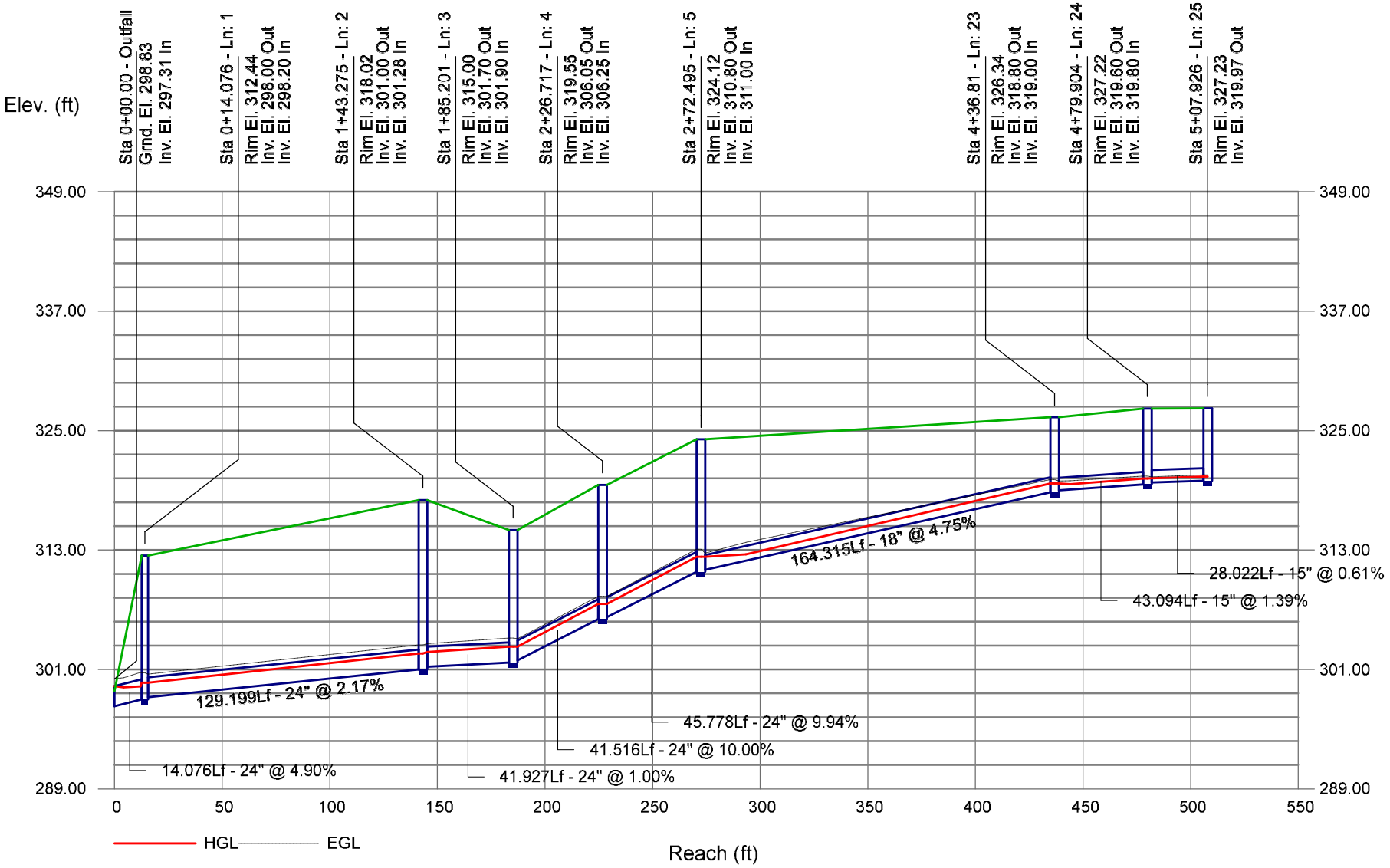
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	18	5.43	311.00	312.32	1.32	1.10	3.30	0.38	312.70	0.000	164.315	318.80	319.70 j	0.90**	1.10	4.92	0.38	320.07	0.000	0.000	n/a	1.49	n/a
24	15	2.21	319.00	319.70	0.70	0.57	3.14	0.23	319.93	0.000	43.094	319.60	320.19 j	0.59**	0.57	3.85	0.23	320.42	0.000	0.000	n/a	1.10	0.25
25	15	1.13	319.80	320.20	0.40*	0.34	3.30	0.15	320.36	0.000	28.022	319.97	320.39	0.42**	0.36	3.14	0.15	320.54	0.000	0.000	n/a	1.00	0.15
26	15	0.28	319.60	320.60	1.00	0.13	0.27	0.07	320.67	0.000	33.996	323.00	323.21 j	0.21**	0.13	2.14	0.07	323.28	0.000	0.000	n/a	1.00	0.07
27	15	2.47	319.00	319.70	0.70	0.62	3.51	0.25	319.95	0.000	28.000	319.28	319.91 j	0.63**	0.62	3.99	0.25	320.16	0.000	0.000	n/a	1.00	n/a
28	18	6.23	293.69	295.19	1.50*	1.77	3.53	0.19	295.38	0.353	15.198	294.00	295.16	1.16	1.46	4.26	0.28	295.44	0.397	0.375	0.057	1.01	0.28
29	15	2.97	294.20	295.44	1.24	0.70	2.43	0.28	295.72	0.000	110.638	301.80	302.49 j	0.69**	0.70	4.26	0.28	302.77	0.000	0.000	n/a	1.28	n/a
30	15	2.63	302.00	302.57	0.57*	0.55	4.78	0.26	302.83	0.000	78.569	302.70	303.35	0.65**	0.64	4.08	0.26	303.61	0.000	0.000	n/a	1.49	0.39
31	15	1.02	302.90	303.35	0.45	0.34	2.57	0.14	303.49	0.000	208.966	305.00	305.40 j	0.40**	0.34	3.05	0.14	305.54	0.000	0.000	n/a	1.00	n/a
32	18	1.12	301.91	303.30	1.39	0.37	0.65	0.14	303.44	0.000	48.735	302.20	302.59	0.39**	0.37	3.01	0.14	302.74	0.000	0.000	n/a	1.50	0.21
33	15	0.42	302.40	302.64	0.24*	0.16	2.62	0.09	302.73	0.000	34.300	302.64	302.89	0.25**	0.18	2.39	0.09	302.98	0.000	0.000	n/a	1.00	n/a

Project File: SCM 6B Storm Network.stm | Number of lines: 33 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

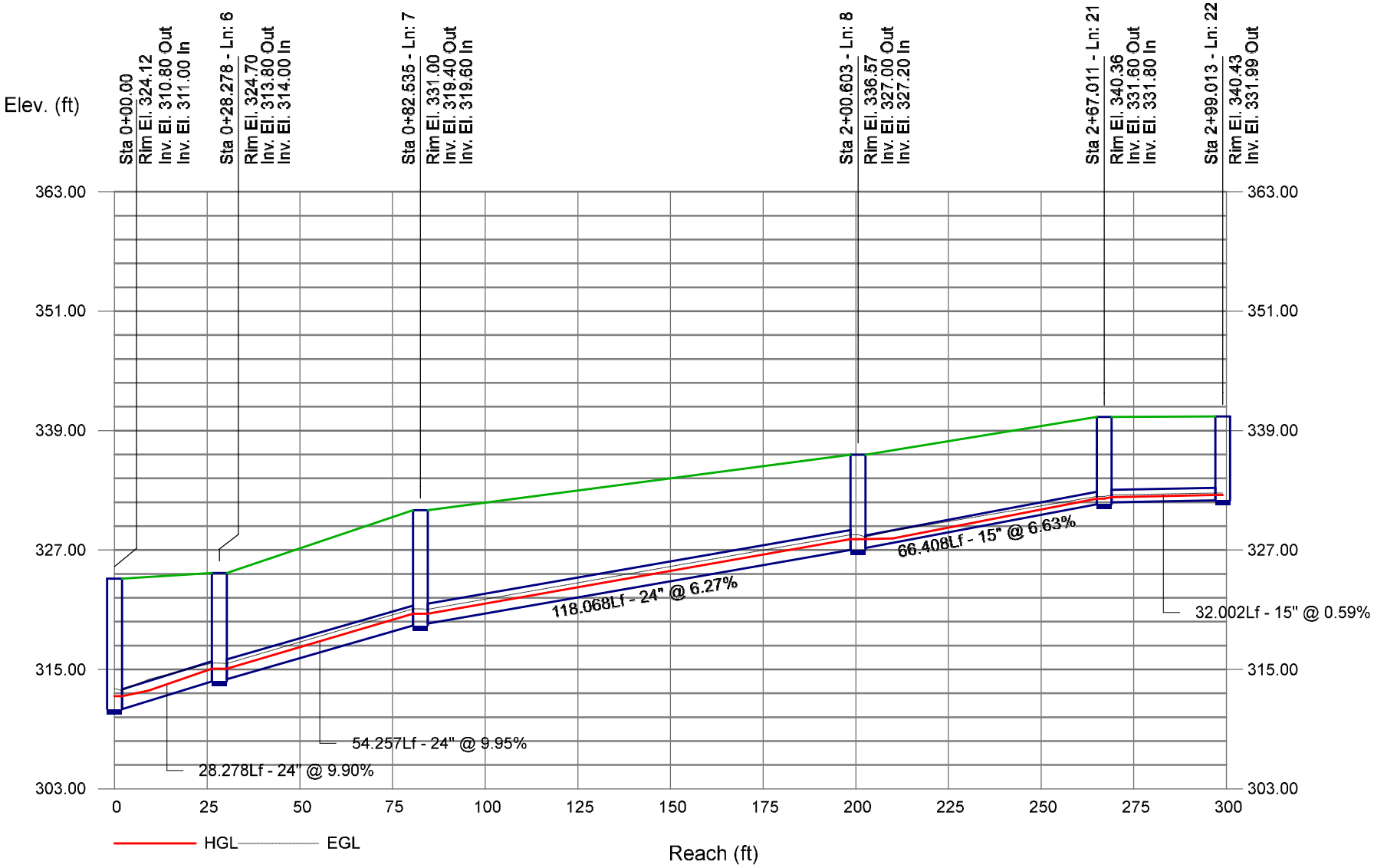
Storm Sewer Profile

SCM 6B 10-YEAR PROFILE 1-25 Proj. file: SCM 6B Storm Network.stm



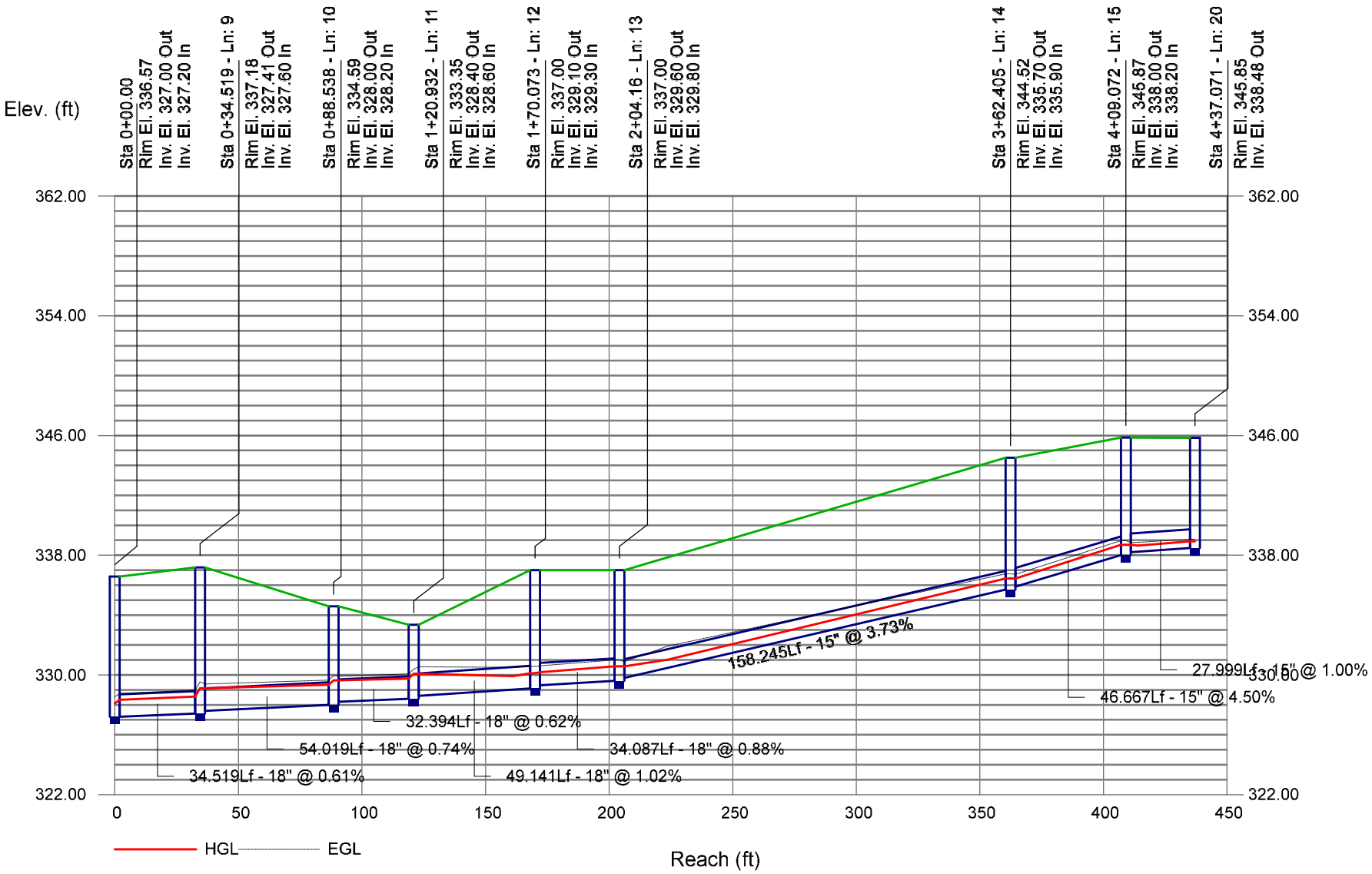
Storm Sewer Profile

SCM 6B 10-YEAR PROFILE 6-22 Proj. file: SCM 6B Storm Network.stm



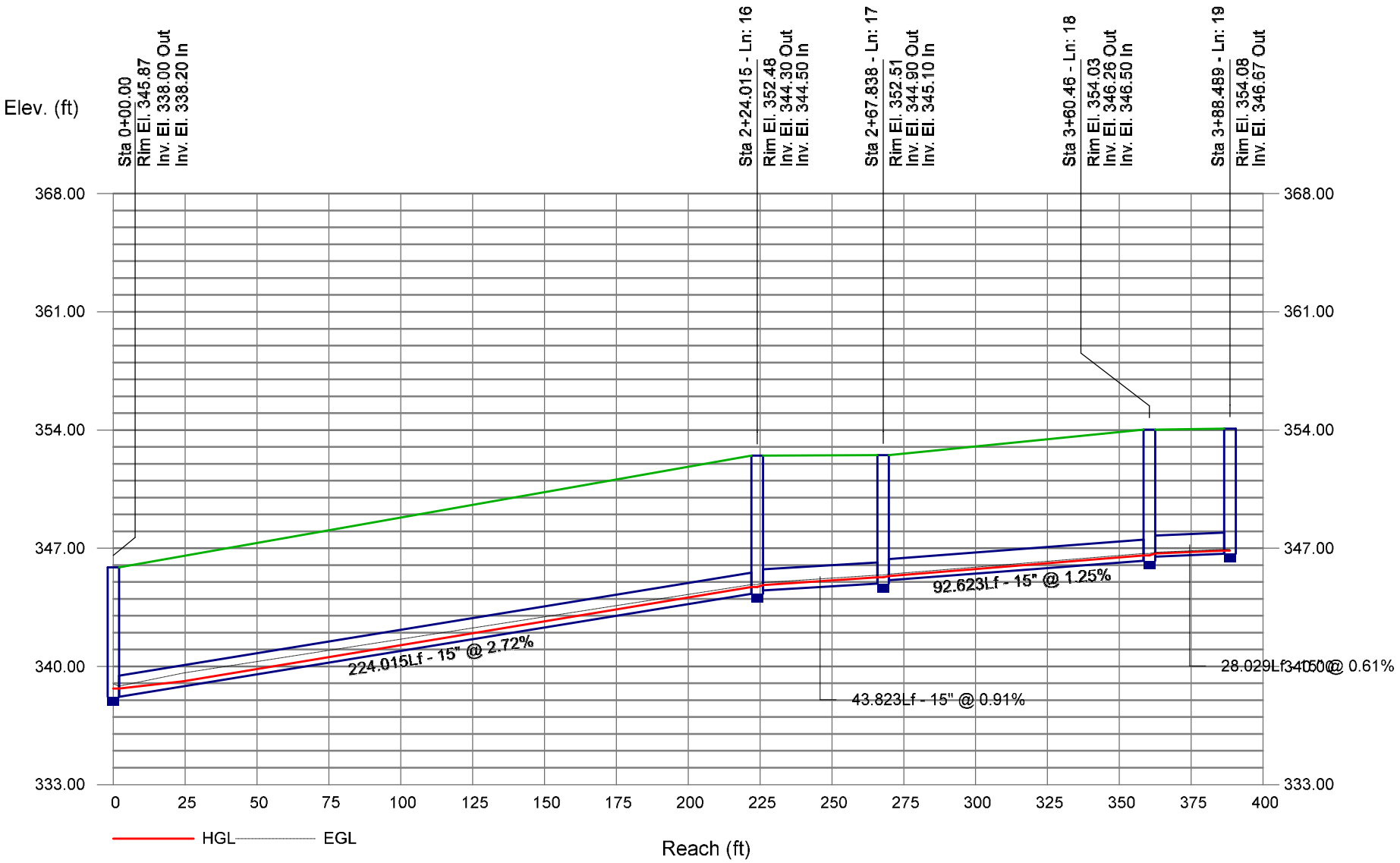
Storm Sewer Profile

SCM 6B 10-YEAR PROFILE 9-20 Proj. file: SCM 6B Storm Network.stm



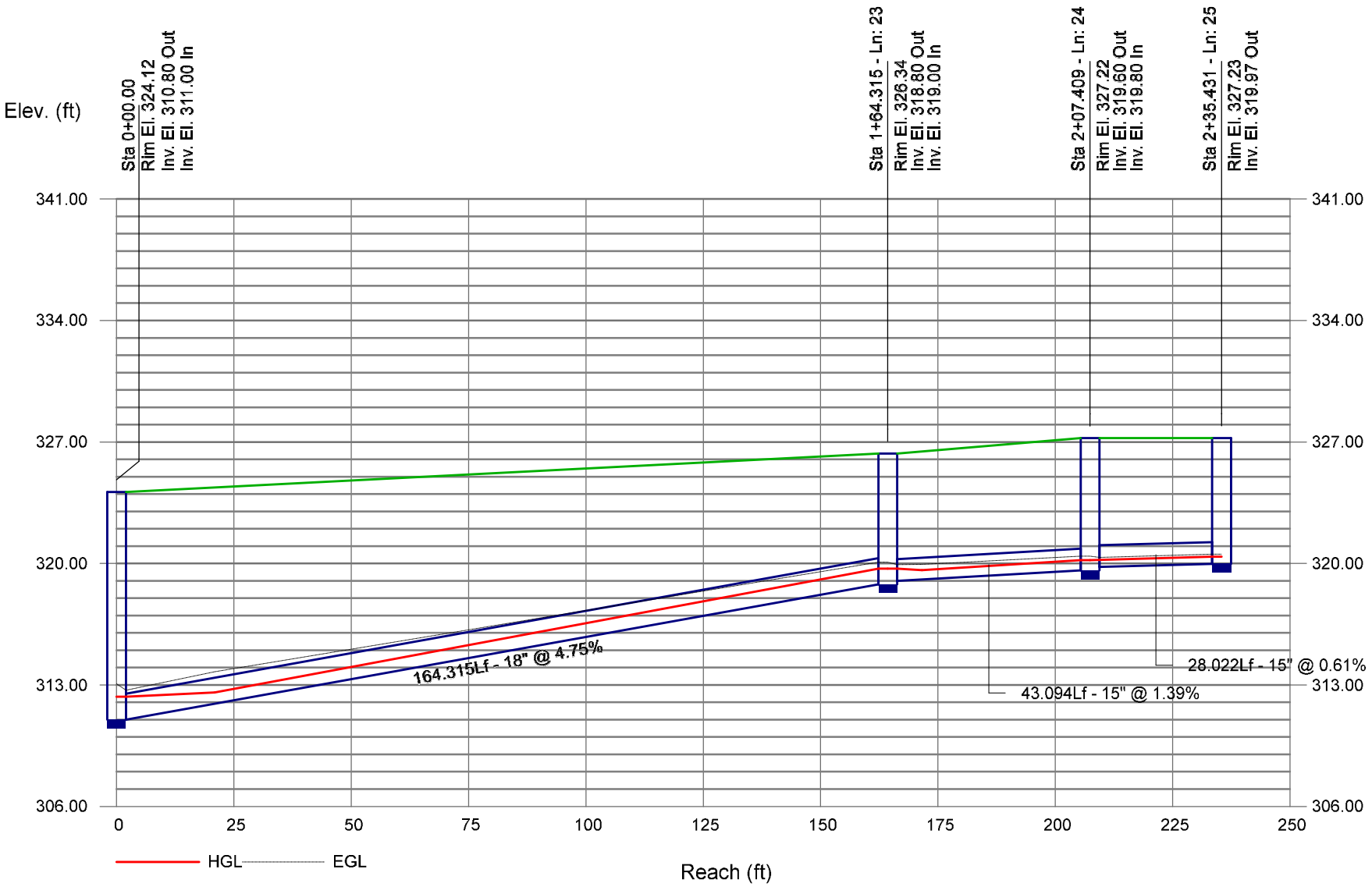
Storm Sewer Profile

SCM 6B 10-YEAR PROFILE 16-19 Proj. file: SCM 6B Storm Network.stm



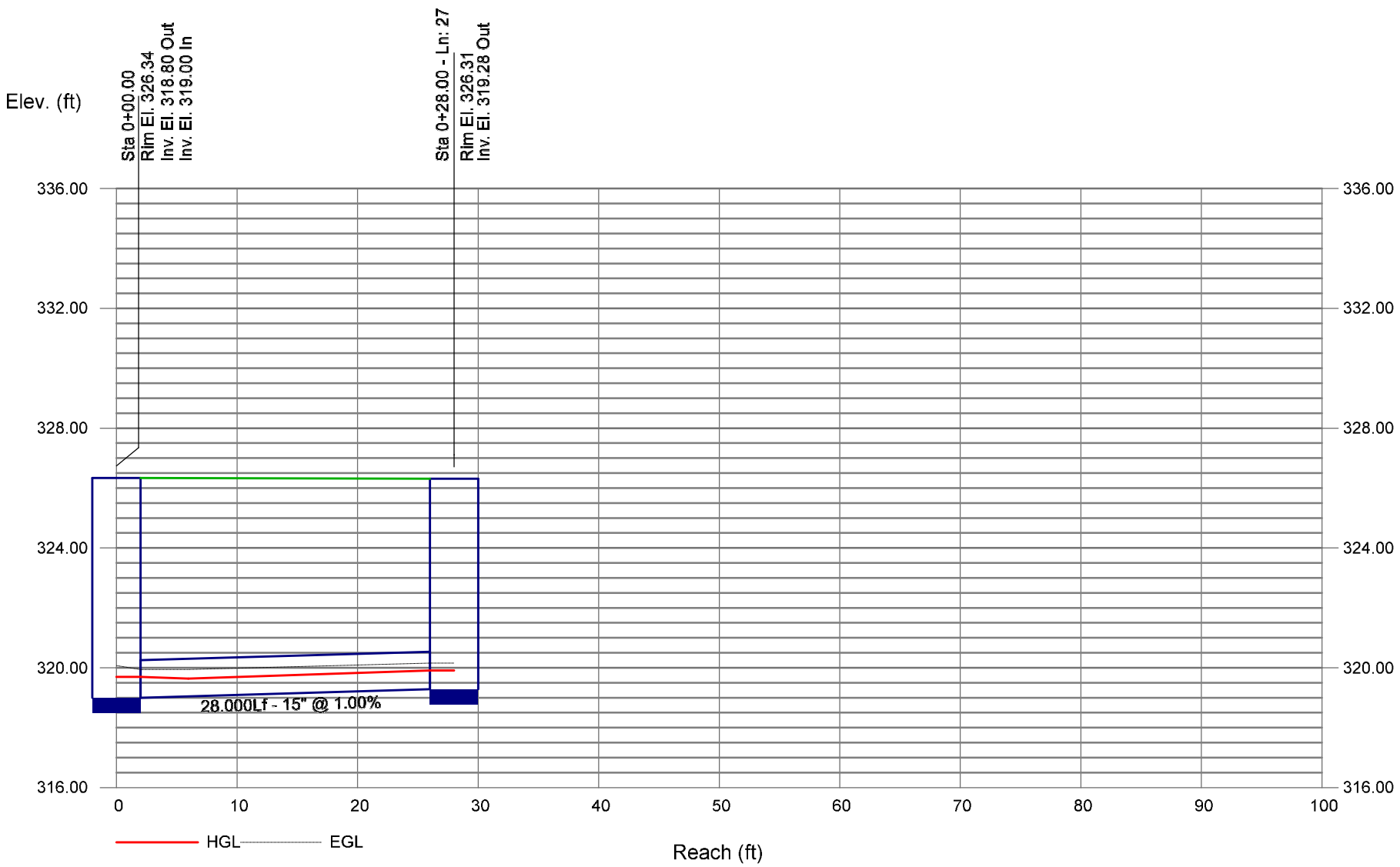
Storm Sewer Profile

SCM 6B 10-YEAR PROFILE 23-25 Proj. file: SCM 6B Storm Network.stm



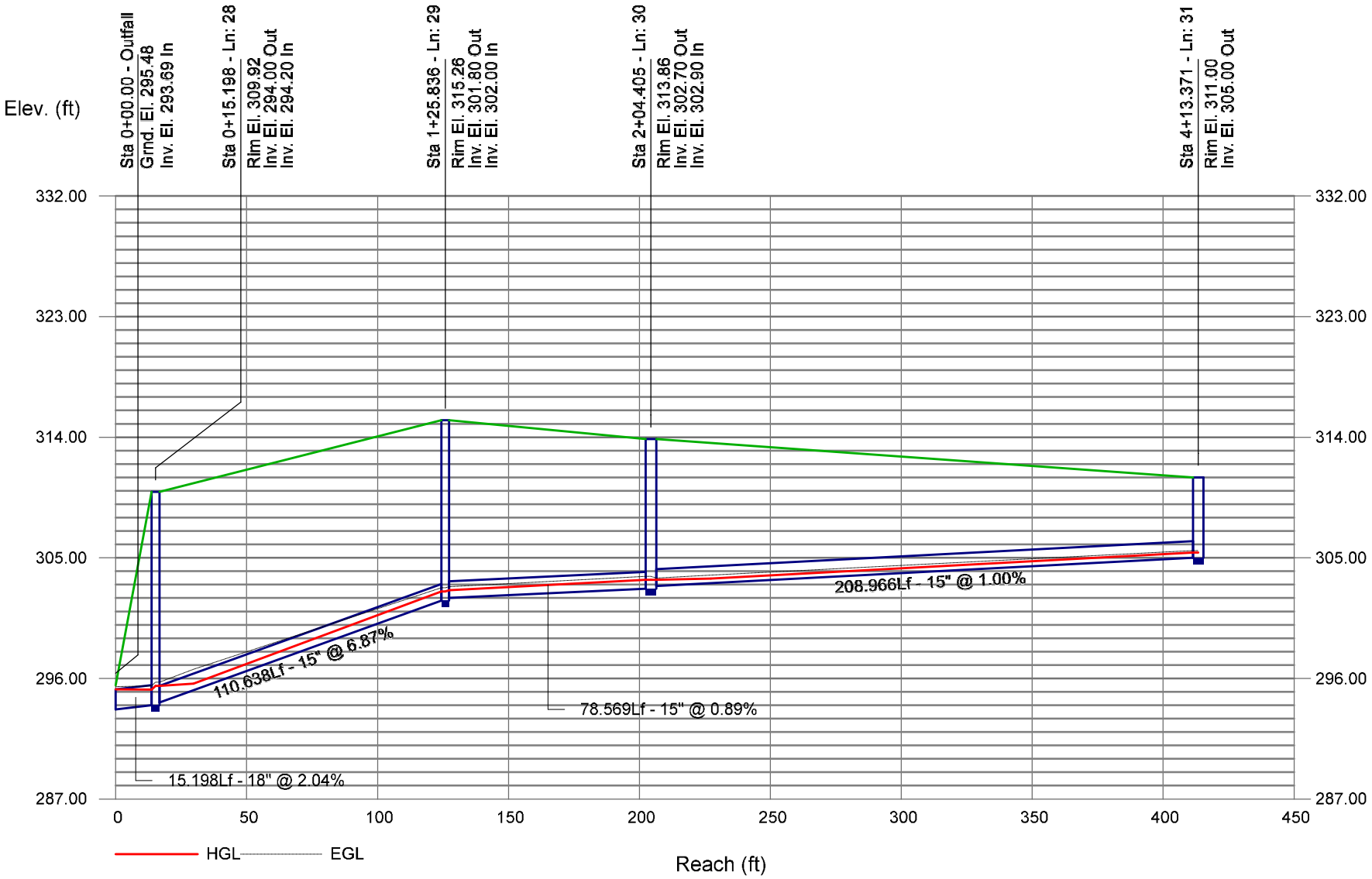
Storm Sewer Profile

SCM 6B 10-YEAR PROFILE 27-27 Proj. file: SCM 6B Storm Network.stm



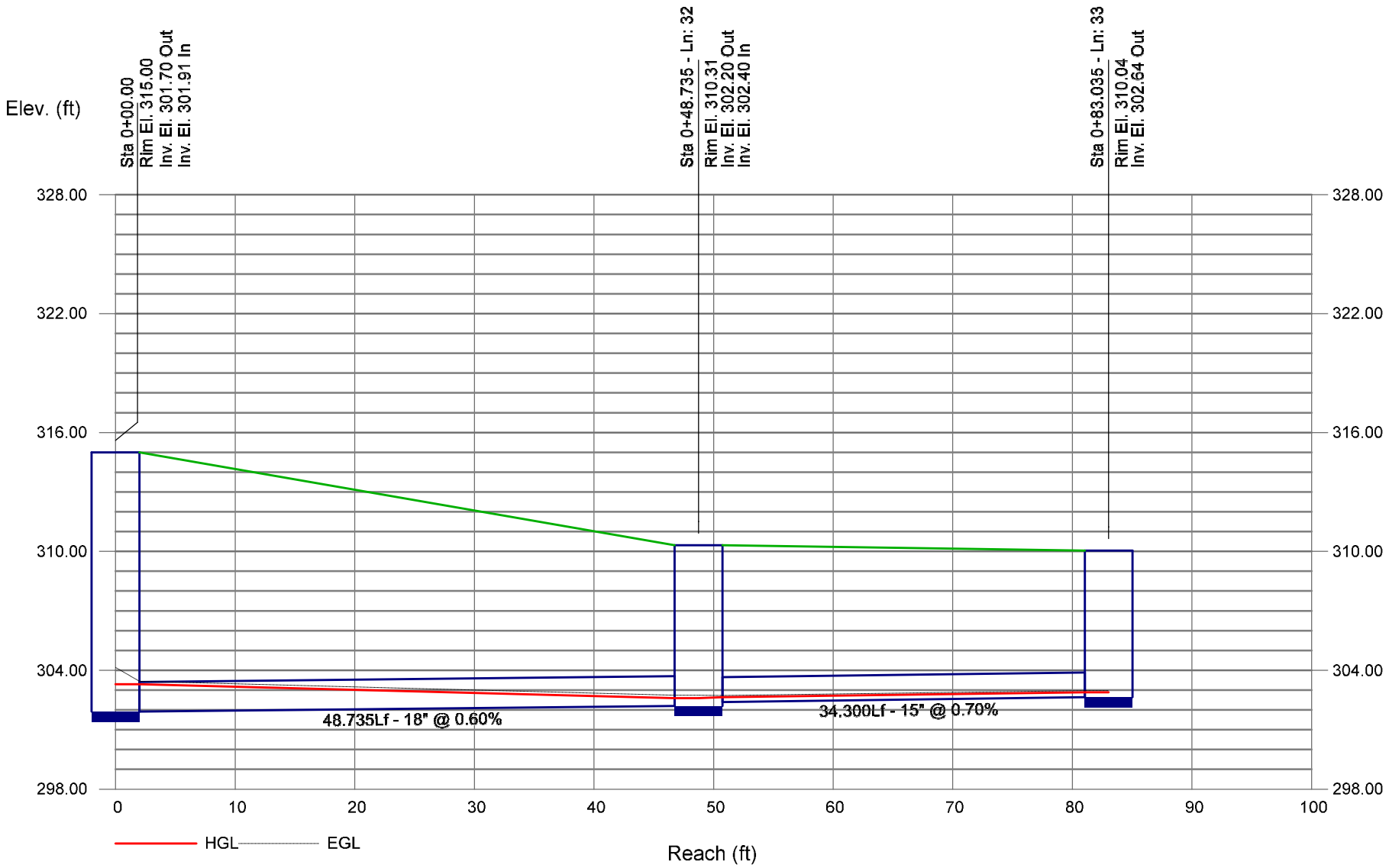
Storm Sewer Profile

SCM 6B 10-YEAR PROFILE 28-31 Proj. file: SCM 6B Storm Network.stm



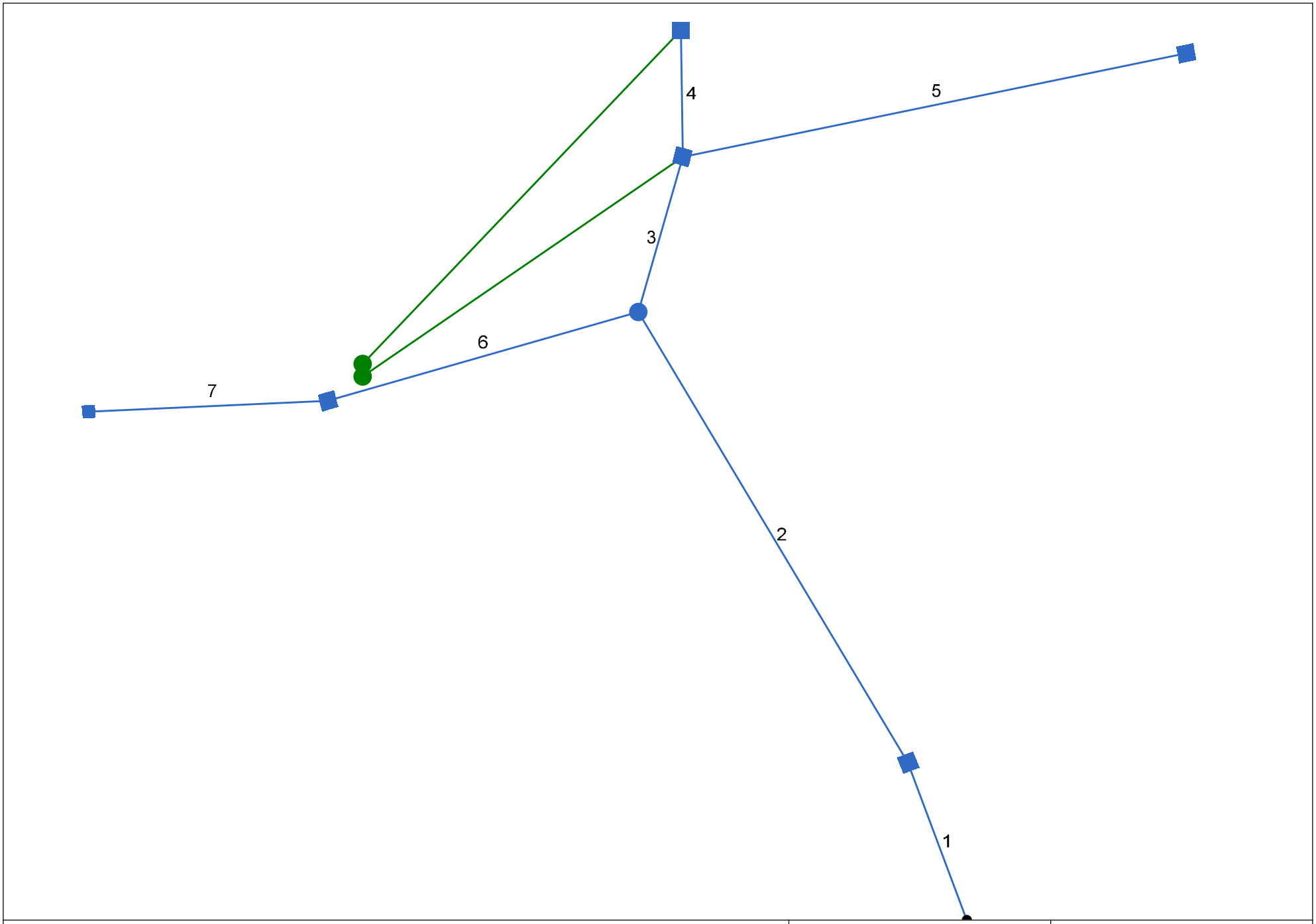
Storm Sewer Profile

SCM 6B 10-YEAR PROFILE 32-33 Proj. file: SCM 6B Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan

SCM 7 10-YEAR



Project File: SCM 7 Storm Network.stm	Number of lines: 7	Date: 4/11/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	40.704	-110.457	DrGrt	0.00	0.65	0.60	10.0	317.86	0.52	318.07	24	Cir	0.013	0.50	330.60	Pipe - (505)
2	1	126.978	-10.287	MH	0.00	0.00	0.00	10.0	318.27	0.50	318.90	24	Cir	0.013	0.97	331.65	Pipe - (504)
3	2	39.048	46.583	Comb	0.00	0.18	0.60	10.0	327.83	2.38	328.76	15	Cir	0.013	1.36	332.78	Pipe - (480)
4	3	30.684	-16.910	Comb	0.00	0.41	0.60	10.0	328.96	3.39	330.00	15	Cir	0.013	1.00	333.86	Pipe - (487)
5	3	124.068	62.476	Comb	0.00	0.26	0.60	10.0	328.96	7.49	338.25	15	Cir	0.013	1.00	342.10	Pipe - (481)
6	2	78.082	-75.262	Comb	0.00	0.31	0.60	10.0	319.45	0.50	319.84	18	Cir	0.013	0.50	328.75	Pipe - (506)
7	6	57.520	13.408	DrGrt	0.00	1.34	0.60	10.0	320.11	0.50	320.40	15	Cir	0.013	1.00	323.85	Pipe - (586)

Project File: SCM 7 Storm Network.stm | Number of lines: 7 | Date: 4/11/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 701	DropGrate	330.60	Rect	4.00	4.00	24	Cir	318.07	24	Cir	318.27
2	JB 702	Manhole	331.65	Cir	4.00	4.00	24	Cir	318.90	15 18	Cir Cir	327.83 319.45
3	CB 703	Combination	332.78	Rect	4.00	4.00	15	Cir	328.76	15 15	Cir Cir	328.96 328.96
4	CB 703A	Combination	333.86	Rect	4.00	4.00	15	Cir	330.00			
5	CB 704	Combination	342.10	Rect	4.00	4.00	15	Cir	338.25			
6	CB 702A	Combination	328.75	Rect	4.00	4.00	18	Cir	319.84	15	Cir	320.11
7	YI 702B	DropGrate	323.85	Rect	3.00	3.00	15	Cir	320.40			

Project File: SCM 7 Storm Network.stm | Number of Structures: 7 | Run Date: 4/11/2025

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (505)	10.53	24	Cir	40.704	317.86	318.07	0.516	319.86	319.93	0.09	320.02	End	DropGrate
2	Pipe - (504)	8.53	24	Cir	126.978	318.27	318.90	0.496	320.02	320.15	0.26	320.41	1	Manhole
3	Pipe - (480)	2.91	15	Cir	39.048	327.83	328.76	2.382	328.29	329.45	0.38	329.45	2	Combination
4	Pipe - (487)	1.44	15	Cir	30.684	328.96	330.00	3.389	329.45	330.48	n/a	330.48 j	3	Combination
5	Pipe - (481)	0.92	15	Cir	124.068	328.96	338.25	7.488	329.45	338.63	n/a	338.63 j	3	Combination
6	Pipe - (506)	5.77	18	Cir	78.082	319.45	319.84	0.499	320.44	320.83	0.17	321.00	2	Combination
7	Pipe - (586)	4.72	15	Cir	57.520	320.11	320.40	0.504	321.17	321.46	0.28	321.74	6	DropGrate

Project File: SCM 7 Storm Network.stm | Number of lines: 7 | Run Date: 4/11/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

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	YI 701	2.29	0.00	1.24	1.05	DrGrt	0.0	0.00	0.00	3.00	2.50	0.010	2.00	0.020	0.020	0.013	0.14	16.10	0.14	16.10	0.0	Off
2	JB 702	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
3	CB 703	0.63	0.01	0.64	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.12	1.97	0.00	0.00	0.0	6
4	CB 703A	1.44	0.00	1.36	0.09	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.16	3.90	0.06	0.93	0.0	6
5	CB 704	0.92	0.00	0.91	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.14	2.75	0.02	0.37	0.0	3
6	CB 702A	1.09	0.09	1.18	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.19	5.71	0.19	5.71	0.0	Off
7	YI 702B	4.72	0.00	1.33	3.39	DrGrt	0.0	0.00	0.00	2.00	2.00	0.010	2.00	0.020	0.020	0.013	0.18	20.10	0.18	20.10	0.0	Off

Project File: SCM 7 Storm Network.stm | Number of lines: 7 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

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	24	10.53	317.86	319.86	2.00	3.14	3.35	0.17	320.03	0.217	40.704	318.07	319.93	1.86	3.05	3.46	0.19	320.12	0.187	0.202	0.082	0.50	0.09
2	24	8.53	318.27	320.02	1.75	2.92	2.92	0.13	320.16	0.128	126.978	318.90	320.15	1.25	2.06	4.14	0.27	320.41	0.280	0.204	0.259	0.97	0.26
3	15	2.91	327.83	328.29	0.46*	0.41	7.04	0.28	328.57	0.000	39.048	328.76	329.45	0.69**	0.69	4.23	0.28	329.72	0.000	0.000	n/a	1.36	0.38
4	15	1.44	328.96	329.45	0.49	0.43	3.28	0.18	329.62	0.000	30.684	330.00	330.48 j	0.48**	0.43	3.38	0.18	330.65	0.000	0.000	n/a	1.00	n/a
5	15	0.92	328.96	329.45	0.49	0.31	2.08	0.14	329.58	0.000	124.068	338.25	338.63 j	0.38**	0.31	2.95	0.14	338.76	0.000	0.000	n/a	1.00	0.14
6	18	5.77	319.45	320.44	0.99*	1.24	4.64	0.33	320.78	0.499	78.082	319.84	320.83	0.99	1.24	4.64	0.33	321.17	0.498	0.499	0.389	0.50	0.17
7	15	4.72	320.11	321.17	1.06*	1.11	4.25	0.28	321.45	0.504	57.520	320.40	321.46	1.06	1.11	4.25	0.28	321.74	0.503	0.504	0.290	1.00	0.28

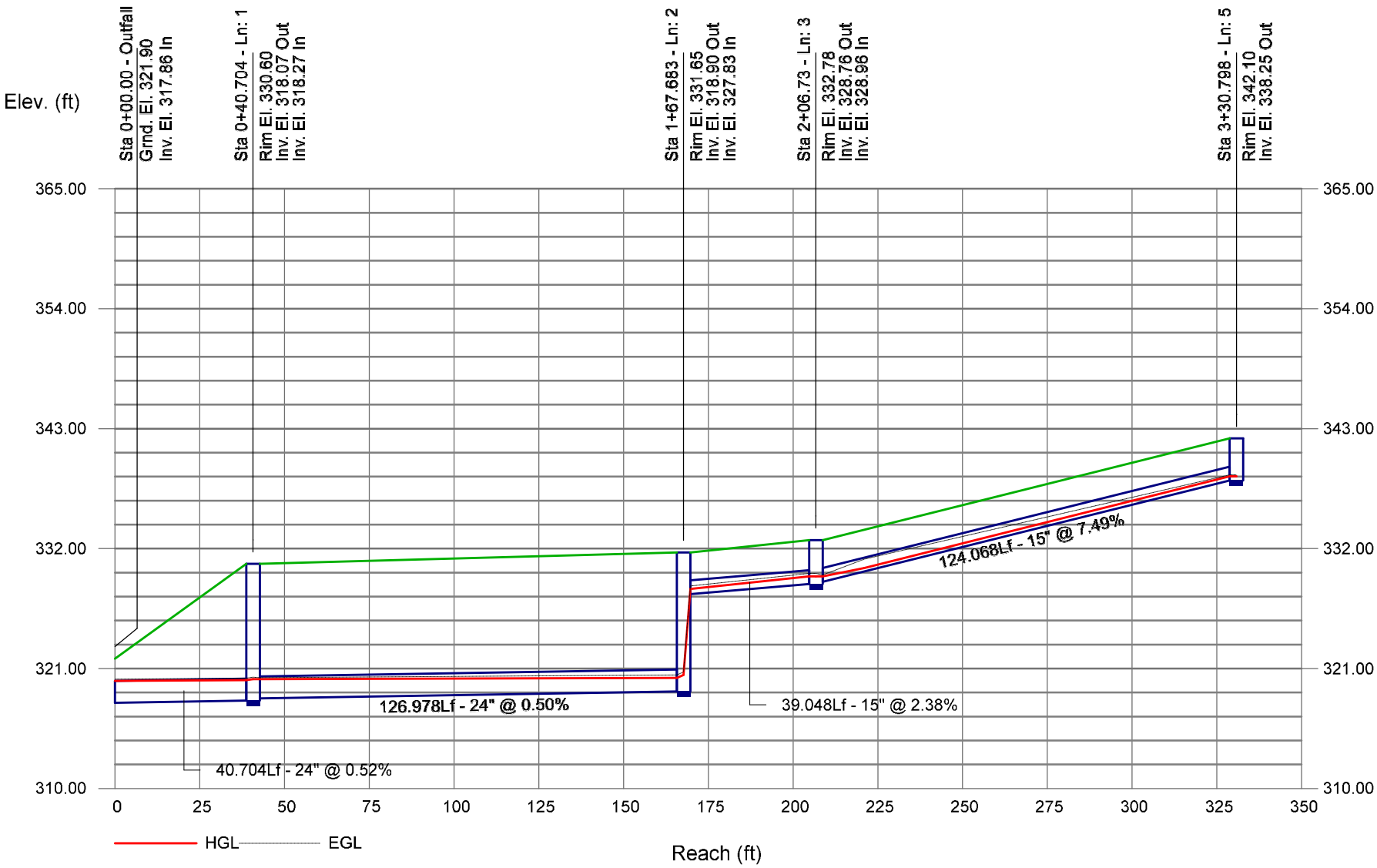
Project File: SCM 7 Storm Network.stm | Number of lines: 7 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Storm Sewer Profile

SCM 7 10-YEAR PROFILE 1-5

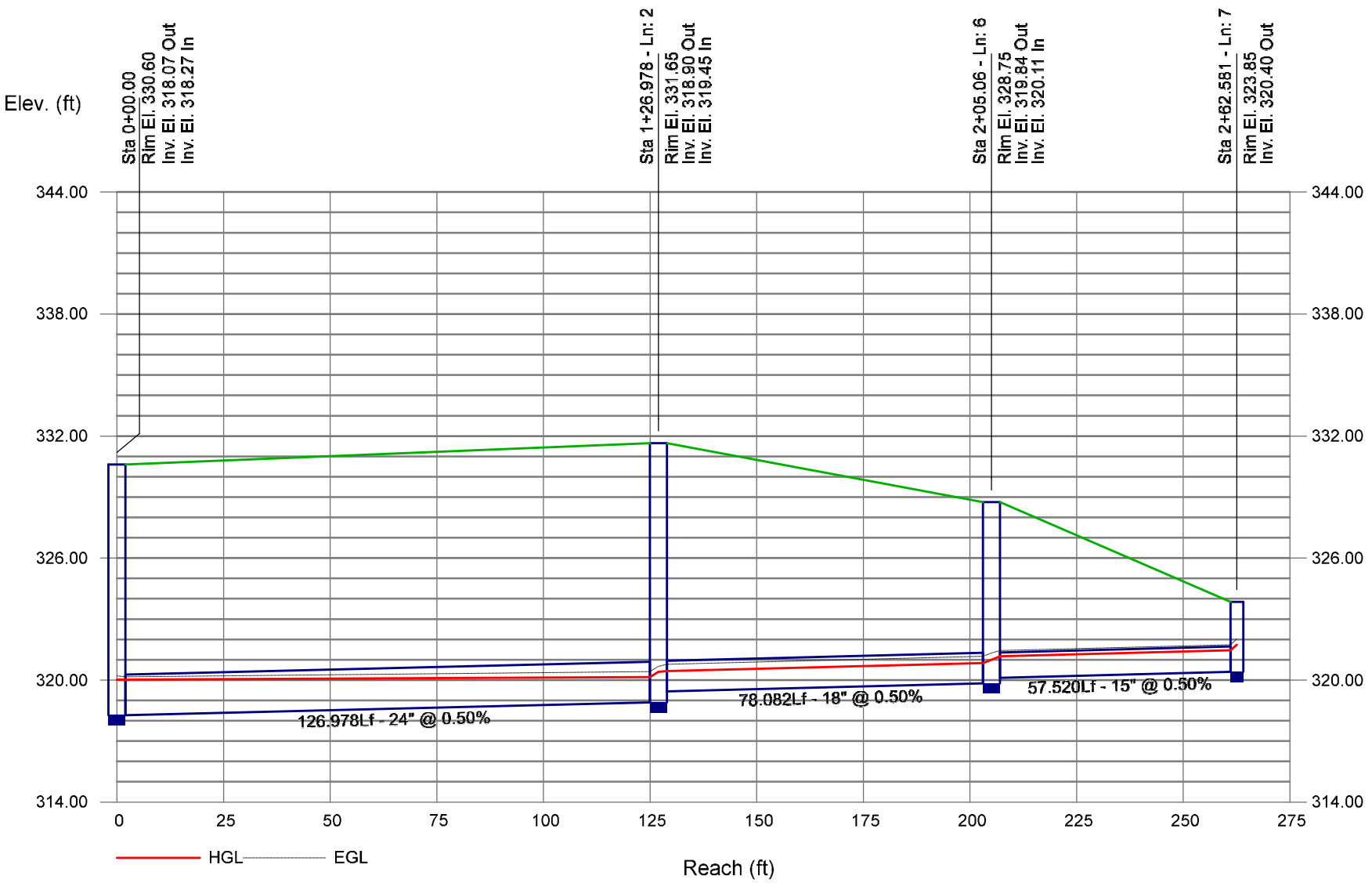
Proj. file: SCM 7 Storm Network.stm



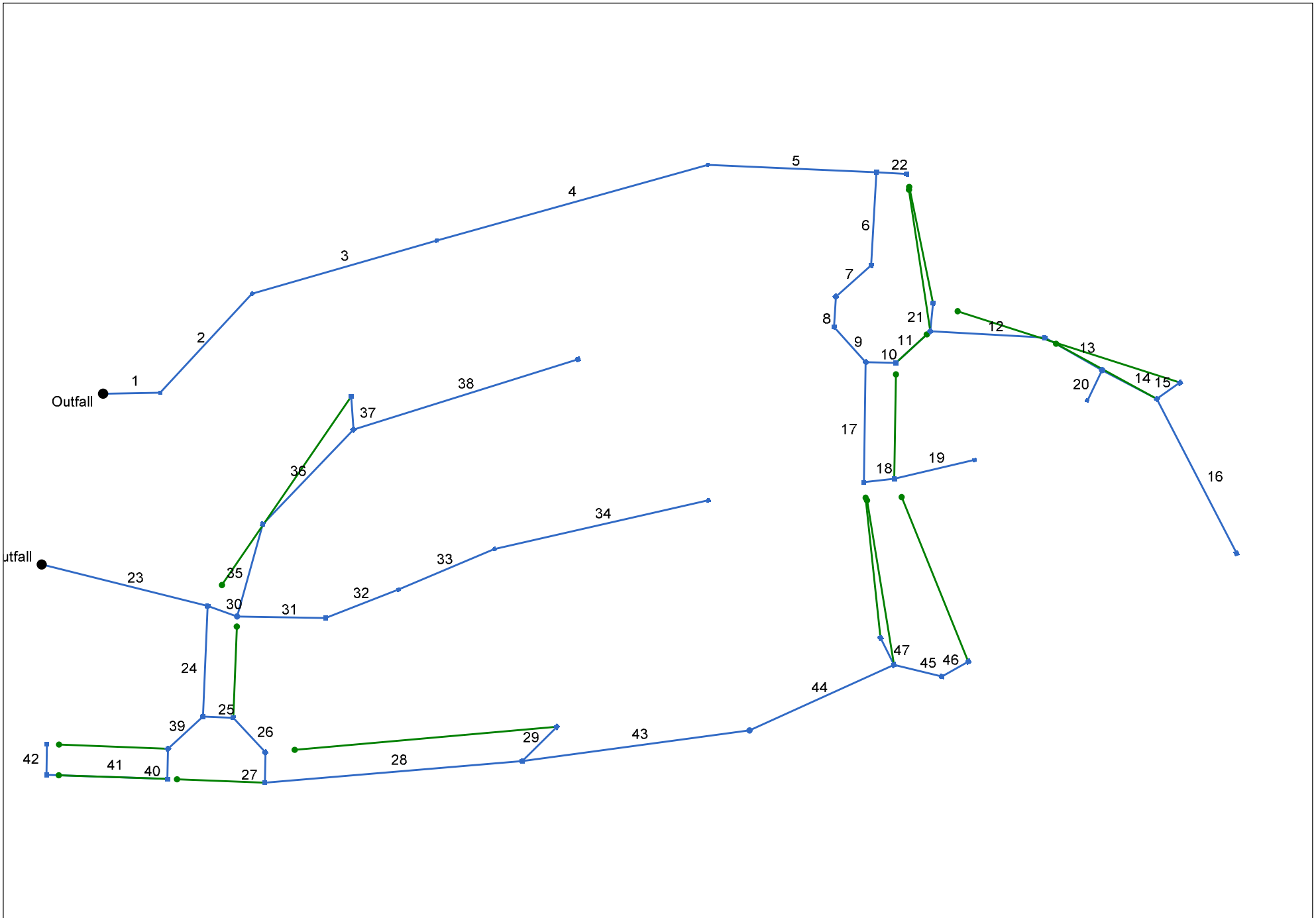
Storm Sewer Profile

SCM 7 10-YEAR PROFILE 4-7

Proj. file: SCM 7 Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 1A 25-YEAR



Project File: SCM 1A Storm Network.stm	Number of lines: 47	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 1A 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	52.749	-0.892	DrGrt	0.00	0.26	0.60	10.0	349.00	7.20	352.80	30	Cir	0.013	1.15	358.45	Pipe - (444)
2	1	125.000	-46.452	DrGrt	0.00	0.40	0.60	10.0	353.00	0.56	353.70	30	Cir	0.013	0.86	361.06	Pipe - (443)
3	2	177.766	31.266	DrGrt	0.00	0.33	0.60	10.0	353.90	0.51	354.80	30	Cir	0.013	0.50	362.54	Pipe - (442)
4	3	260.092	0.417	DrGrt	0.00	0.47	0.60	10.0	355.00	0.50	356.30	30	Cir	0.013	0.54	362.99	Pipe - (441)
5	4	155.941	18.185	Comb	0.00	0.11	0.60	10.0	356.50	0.50	357.28	30	Cir	0.013	2.02	362.55	Pipe - (440)
6	5	86.389	90.703	Comb	0.00	0.05	0.60	10.0	357.83	2.95	360.38	24	Cir	0.013	1.13	365.47	Pipe - (447)
7	6	43.841	45.000	Comb	0.00	0.05	0.60	10.0	360.58	0.50	360.80	24	Cir	0.013	1.13	367.61	Pipe - (446)
8	7	28.000	-45.000	Comb	0.00	0.09	0.60	10.0	361.00	0.64	361.18	24	Cir	0.013	1.13	367.61	Pipe - (453)
9	8	43.841	-45.000	Comb	0.00	0.16	0.60	10.0	361.37	0.52	361.60	24	Cir	0.013	1.62	367.82	Pipe - (452)
10	9	28.018	-47.046	Comb	0.00	0.08	0.60	10.0	362.56	0.50	362.70	18	Cir	0.013	1.11	367.79	Pipe - (24)
11	10	43.139	-43.893	Comb	0.00	0.31	0.60	10.0	362.90	0.51	363.12	18	Cir	0.013	1.61	367.57	Pipe - (15)
12	11	106.050	45.939	Comb	0.00	0.07	0.60	10.0	363.40	0.50	363.93	18	Cir	0.013	0.75	369.08	Pipe - (14)
13	12	60.787	26.463	MH	0.00	0.00	0.00	10.0	364.20	0.51	364.51	15	Cir	0.013	1.00	370.30	Pipe - (11) (1)
14	13	57.233	-1.964	Comb	0.00	0.19	0.60	10.0	366.48	1.15	367.14	15	Cir	0.013	1.41	371.16	Pipe - (11)
15	14	26.000	-63.106	Comb	0.00	0.21	0.60	10.0	367.34	0.96	367.59	15	Cir	0.013	1.00	371.41	Pipe - (67)
16	14	161.000	35.067	Comb	0.00	0.20	0.60	10.0	367.34	4.36	374.36	15	Cir	0.013	1.00	378.18	Pipe - (489)
17	9	111.287	42.545	Comb	0.00	0.26	0.60	10.0	361.80	0.50	362.36	24	Cir	0.013	1.50	372.84	Pipe - (451)
18	17	28.000	-97.237	Comb	0.00	0.11	0.60	10.0	362.56	0.50	362.70	24	Cir	0.013	0.50	372.72	Pipe - (445)
19	18	76.222	-6.841	DrGrt	0.00	1.40	0.60	10.0	363.51	0.51	363.90	15	Cir	0.013	1.00	367.36	Pipe - (476)
20	13	31.121	85.999	DrGrt	0.00	0.14	0.60	10.0	364.71	0.51	364.87	15	Cir	0.013	1.00	368.69	Pipe - (477)
21	11	26.015	-41.858	Comb	0.00	0.25	0.60	10.0	363.56	0.50	363.69	15	Cir	0.013	1.00	367.51	Pipe - (68)
22	5	28.000	0.703	Comb	0.00	0.16	0.60	10.0	358.59	0.50	358.73	15	Cir	0.013	1.00	362.55	Pipe - (439)
23	End	158.125	14.099	Comb	0.00	0.30	0.60	10.0	347.00	4.23	353.69	30	Cir	0.013	2.02	361.92	Pipe - (71)

Project File: SCM 1A Storm Network.stm

Number of lines: 47

Date: 4/11/2025

Storm Sewer Inventory Report

SCM 1A 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	102.646	78.324	Comb	0.00	0.02	0.60	10.0	354.24	0.50	354.75	24	Cir	0.013	1.68	363.01	Pipe - (77)
25	24	28.000	-90.230	Comb	0.00	0.05	0.60	10.0	358.83	1.29	359.19	18	Cir	0.013	1.13	363.01	Pipe - (115)
26	25	43.841	45.001	Comb	0.00	0.34	0.60	10.0	359.39	0.50	359.61	18	Cir	0.013	1.11	364.28	Pipe - (76)
27	26	28.006	43.837	Comb	0.00	0.40	0.60	10.0	359.81	0.50	359.95	18	Cir	0.013	1.50	364.29	Pipe - (75)
28	27	238.741	-95.835	Comb	0.00	0.41	0.60	10.0	360.15	3.41	368.30	18	Cir	0.013	1.03	372.43	Pipe - (101)
29	28	45.226	-39.872	Comb	0.00	0.27	0.60	10.0	368.57	2.83	369.85	15	Cir	0.013	1.00	373.68	Pipe - (103)
30	23	28.983	5.477	Comb	0.00	0.47	0.60	10.0	354.77	0.86	355.02	24	Cir	0.013	1.50	361.89	Pipe - (70)
31	30	81.813	-18.633	MH	0.00	0.00	0.00	10.0	355.22	0.51	355.64	24	Cir	0.013	0.43	363.66	Pipe - (510)
32	31	72.154	-22.294	DrGrt	0.00	0.59	0.60	10.0	356.18	0.51	356.55	18	Cir	0.013	0.50	360.46	Pipe - (509)
33	32	96.135	-1.660	DrGrt	0.00	0.94	0.60	10.0	356.75	1.19	357.89	18	Cir	0.013	0.50	361.60	Pipe - (508)
34	33	202.630	10.144	DrGrt	0.00	0.81	0.60	10.0	358.16	1.65	361.50	15	Cir	0.013	1.00	364.94	Pipe - (507)
35	30	88.766	-94.067	Comb	0.00	0.21	0.60	10.0	357.75	0.77	358.43	15	Cir	0.013	0.79	362.45	Pipe - (69)
36	35	121.131	28.141	Comb	0.00	0.38	0.60	10.0	358.63	0.95	359.78	15	Cir	0.013	1.21	363.80	Pipe - (61)
37	36	30.909	-46.977	Comb	0.00	0.43	0.60	10.0	359.98	0.87	360.25	15	Cir	0.013	1.00	364.07	Pipe - (72)
38	36	217.760	28.893	Comb	0.00	0.26	0.60	10.0	359.98	1.08	362.34	15	Cir	0.013	1.00	366.16	Pipe - (536)
39	24	43.841	44.771	Comb	0.00	0.02	0.60	10.0	355.57	0.50	355.79	15	Cir	0.013	1.14	363.10	Pipe - (105)
40	39	28.003	-45.813	Comb	0.00	0.14	0.60	10.0	355.99	0.50	356.13	15	Cir	0.013	1.50	363.11	Pipe - (116)
41	40	111.664	90.556	Comb	0.00	0.20	0.60	10.0	356.33	0.50	356.89	15	Cir	0.013	1.50	361.19	Pipe - (104)
42	41	28.509	88.780	Comb	0.00	0.13	0.60	10.0	357.09	0.53	357.24	15	Cir	0.013	1.00	361.06	Pipe - (79)
43	28	211.860	-2.905	MH	0.00	0.00	0.00	10.0	368.57	2.87	374.66	15	Cir	0.013	0.34	379.28	Pipe - (590)
44	43	146.606	-16.815	Comb	0.00	0.29	0.60	10.0	374.86	0.50	375.60	15	Cir	0.013	1.50	379.82	Pipe - (589)
45	44	45.582	38.390	Comb	0.00	0.05	0.60	10.0	376.00	3.42	377.56	15	Cir	0.013	1.10	381.73	Pipe - (588)
46	45	28.000	-43.358	Comb	0.00	0.16	0.60	10.0	377.76	0.50	377.90	15	Cir	0.013	1.00	381.73	Pipe - (587)

Project File: SCM 1A Storm Network.stm

Number of lines: 47

Date: 4/11/2025

Storm Sewer Inventory Report

SCM 1A 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	44	28.000	-91.856	Comb	0.00	0.05	0.60	10.0	375.80	0.71	376.00	15	Cir	0.013	1.00	379.82	Pipe - (592)

Structure Report

SCM 1A 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 121	DropGrate	358.45	Rect	3.00	3.00	30	Cir	352.80	30	Cir	353.00
2	YI 122	DropGrate	361.06	Rect	3.00	3.00	30	Cir	353.70	30	Cir	353.90
3	YI 123	DropGrate	362.54	Rect	3.00	3.00	30	Cir	354.80	30	Cir	355.00
4	YI 124	DropGrate	362.99	Rect	3.00	3.00	30	Cir	356.30	30	Cir	356.50
5	CB 125	Combination	362.55	Rect	4.00	4.00	30	Cir	357.28	24 15	Cir Cir	357.83 358.59
6	CB 126	Combination	365.47	Rect	4.00	4.00	24	Cir	360.38	24	Cir	360.58
7	CB 127	Combination	367.61	Rect	4.00	4.00	24	Cir	360.80	24	Cir	361.00
8	CB 128	Combination	367.61	Rect	4.00	4.00	24	Cir	361.18	24	Cir	361.37
9	CB 129	Combination	367.82	Rect	4.00	4.00	24	Cir	361.60	18 24	Cir Cir	362.56 361.80
10	CB 130	Combination	367.79	Rect	4.00	4.00	18	Cir	362.70	18	Cir	362.90
11	CB 131	Combination	367.57	Rect	4.00	4.00	18	Cir	363.12	18 15	Cir Cir	363.40 363.56
12	CB 132	Combination	369.08	Rect	4.00	4.00	18	Cir	363.93	15	Cir	364.20
13	JB 133	Manhole	370.30	Cir	4.00	4.00	15	Cir	364.51	15 15	Cir Cir	366.48 364.71
14	CB 134	Combination	371.16	Rect	4.00	4.00	15	Cir	367.14	15 15	Cir Cir	367.34 367.34
15	CB 134A	Combination	371.41	Rect	4.00	4.00	15	Cir	367.59			
16	CB 135	Combination	378.18	Rect	4.00	4.00	15	Cir	374.36			
17	CB 136	Combination	372.84	Rect	4.00	4.00	24	Cir	362.36	24	Cir	362.56
18	CB 136A	Combination	372.72	Rect	4.00	4.00	24	Cir	362.70	15	Cir	363.51
19	YI 136B	DropGrate	367.36	Rect	3.00	3.00	15	Cir	363.90			
20	YI 133A	DropGrate	368.69	Rect	3.00	3.00	15	Cir	364.87			

Structure Report

SCM 1A 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	CB 131A	Combination	367.51	Rect	4.00	4.00	15	Cir	363.69			
22	CB 125A	Combination	362.55	Rect	4.00	4.00	15	Cir	358.73			
23	CB 101	Combination	361.92	Rect	4.00	4.00	30	Cir	353.69	24 24	Cir Cir	354.24 354.77
24	CB 102	Combination	363.01	Rect	4.00	4.00	24	Cir	354.75	18 15	Cir Cir	358.83 355.57
25	CB 106	Combination	363.01	Rect	4.00	4.00	18	Cir	359.19	18	Cir	359.39
26	CB 107	Combination	364.28	Rect	4.00	4.00	18	Cir	359.61	18	Cir	359.81
27	CB 108	Combination	364.29	Rect	4.00	4.00	18	Cir	359.95	18	Cir	360.15
28	CB 109	Combination	372.43	Rect	4.00	4.00	18	Cir	368.30	15 15	Cir Cir	368.57 368.57
29	CB 109A	Combination	373.68	Rect	4.00	4.00	15	Cir	369.85			
30	CB 113	Combination	361.89	Cir	4.00	4.00	24	Cir	355.02	24 15	Cir Cir	355.22 357.75
31	JB 113A	Manhole	363.66	Rect	4.00	4.00	24	Cir	355.64	18	Cir	356.18
32	YI 113B	DropGrate	360.46	Rect	3.00	3.00	18	Cir	356.55	18	Cir	356.75
33	YI 113C	DropGrate	361.60	Rect	3.00	3.00	18	Cir	357.89	15	Cir	358.16
34	YI 113D	DropGrate	364.94	Rect	3.00	3.00	15	Cir	361.50			
35	CB 114	Combination	362.45	Rect	4.00	4.00	15	Cir	358.43	15	Cir	358.63
36	CB 115	Combination	363.80	Rect	4.00	4.00	15	Cir	359.78	15 15	Cir Cir	359.98 359.98
37	CB 115A	Combination	364.07	Rect	4.00	4.00	15	Cir	360.25			
38	CB 116	Combination	366.16	Rect	4.00	4.00	15	Cir	362.34			
39	CB 103	Combination	363.10	Rect	4.00	4.00	15	Cir	355.79	15	Cir	355.99
40	CB 104	Combination	363.11	Rect	4.00	4.00	15	Cir	356.13	15	Cir	356.33

Structure Report

SCM 1A 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
41	CB 105	Combination	361.19	Rect	4.00	4.00	15	Cir	356.89	15	Cir	357.09
42	CB 105A	Combination	361.06	Rect	4.00	4.00	15	Cir	357.24			
43	JB 110	Manhole	379.28	Cir	4.00	4.00	15	Cir	374.66	15	Cir	374.86
44	CB 111	Combination	379.82	Rect	4.00	4.00	15	Cir	375.60	15 15	Cir Cir	376.00 375.80
45	CB 112	Combination	381.73	Rect	4.00	4.00	15	Cir	377.56	15	Cir	377.76
46	CB 112A	Combination	381.73	Rect	4.00	4.00	15	Cir	377.90			
47	CB 111A	Combination	379.82	Rect	4.00	4.00	15	Cir	376.00			

Project File: SCM 1A Storm Network.stm | Number of Structures: 47 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 1A 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (444)	17.64	30	Cir	52.749	349.00	352.80	7.204	351.50	354.22	n/a	354.22 j	End	DropGrate
2	Pipe - (443)	16.94	30	Cir	125.000	353.00	353.70	0.560	354.33	355.09	n/a	355.09	1	DropGrate
3	Pipe - (442)	15.81	30	Cir	177.766	353.90	354.80	0.506	355.21	356.14	0.27	356.14	2	DropGrate
4	Pipe - (441)	15.01	30	Cir	260.092	355.00	356.30	0.500	356.28	357.61	0.28	357.61	3	DropGrate
5	Pipe - (440)	13.55	30	Cir	155.941	356.50	357.28	0.500	357.70	358.52	n/a	358.52	4	Combination
6	Pipe - (447)	12.66	24	Cir	86.389	357.83	360.38	2.952	358.62	361.66	0.63	361.66	5	Combination
7	Pipe - (446)	12.53	24	Cir	43.841	360.58	360.80	0.502	361.91	362.13	0.56	362.69	6	Combination
8	Pipe - (453)	12.39	24	Cir	28.000	361.00	361.18	0.643	362.69	362.44	n/a	362.44	7	Combination
9	Pipe - (452)	12.12	24	Cir	43.841	361.37	361.60	0.525	362.65	362.88	0.82	363.70	8	Combination
10	Pipe - (24)	5.22	18	Cir	28.018	362.56	362.70	0.500	363.70	363.75	0.27	364.02	9	Combination
11	Pipe - (15)	4.96	18	Cir	43.139	362.90	363.12	0.510	364.02	364.09	0.42	364.51	10	Combination
12	Pipe - (14)	2.99	18	Cir	106.050	363.40	363.93	0.500	364.51	364.64	0.15	364.79	11	Combination
13	Pipe - (11) (1)	2.75	15	Cir	60.787	364.20	364.51	0.510	364.90	365.21	0.24	365.45	12	Manhole
14	Pipe - (11)	2.25	15	Cir	57.233	366.48	367.14	1.153	366.97	367.74	n/a	367.74	13	Combination
15	Pipe - (67)	0.81	15	Cir	26.000	367.34	367.59	0.962	367.74	367.94	n/a	367.94 j	14	Combination
16	Pipe - (489)	0.78	15	Cir	161.000	367.34	374.36	4.360	367.74	374.70	n/a	374.70 j	14	Combination
17	Pipe - (451)	6.78	24	Cir	111.287	361.80	362.36	0.503	363.70	363.28	0.53	363.28	9	Combination
18	Pipe - (445)	5.80	24	Cir	28.000	362.56	362.70	0.500	363.39	363.55	n/a	363.55	17	Combination
19	Pipe - (476)	5.43	15	Cir	76.222	363.51	363.90	0.512	364.76*	365.30*	0.30	365.60	18	DropGrate
20	Pipe - (477)	0.54	15	Cir	31.121	364.71	364.87	0.514	365.45	365.45	0.01	365.46	13	DropGrate
21	Pipe - (68)	0.97	15	Cir	26.015	363.56	363.69	0.500	364.51	364.51	0.02	364.53	11	Combination
22	Pipe - (439)	0.62	15	Cir	28.000	358.59	358.73	0.500	358.90	359.04	0.11	359.15	5	Combination
23	Pipe - (71)	23.77	30	Cir	158.125	347.00	353.69	4.231	349.50	355.35	n/a	355.35 j	End	Combination
24	Pipe - (77)	8.78	24	Cir	102.646	354.24	354.75	0.497	355.35	355.81	0.70	356.51	23	Combination

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

SCM 1A 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
25	Pipe - (115)	7.02	18	Cir	28.000	358.83	359.19	1.286	359.66	360.22	n/a	360.22	24	Combination
26	Pipe - (76)	6.88	18	Cir	43.841	359.39	359.61	0.502	360.53	360.75	0.39	361.14	25	Combination
27	Pipe - (75)	5.71	18	Cir	28.006	359.81	359.95	0.500	361.14	361.20	0.31	361.51	26	Combination
28	Pipe - (101)	4.46	18	Cir	238.741	360.15	368.30	3.414	361.51	369.11	n/a	369.11 j	27	Combination
29	Pipe - (103)	1.05	15	Cir	45.226	368.57	369.85	2.830	369.11	370.25	n/a	370.25 j	28	Combination
30	Pipe - (70)	14.77	24	Cir	28.983	354.77	355.02	0.863	356.01	356.40	0.95	356.40	23	Combination
31	Pipe - (510)	8.67	24	Cir	81.813	355.22	355.64	0.513	356.40	356.69	0.18	356.69	30	Manhole
32	Pipe - (509)	8.74	18	Cir	72.154	356.18	356.55	0.513	357.68*	358.18*	0.19	358.37	31	DropGrate
33	Pipe - (508)	6.61	18	Cir	96.135	356.75	357.89	1.186	358.37	358.88	n/a	358.88 j	32	DropGrate
34	Pipe - (507)	3.14	15	Cir	202.630	358.16	361.50	1.648	358.88	362.21	n/a	362.21 j	33	DropGrate
35	Pipe - (69)	4.66	15	Cir	88.766	357.75	358.43	0.766	358.62	359.30	n/a	359.30	30	Combination
36	Pipe - (61)	3.95	15	Cir	121.131	358.63	359.78	0.949	359.35	360.58	0.42	360.58	35	Combination
37	Pipe - (72)	1.67	15	Cir	30.909	359.98	360.25	0.874	360.58	360.76	n/a	360.76 j	36	Combination
38	Pipe - (536)	1.01	15	Cir	217.760	359.98	362.34	1.084	360.58	362.73	n/a	362.73 j	36	Combination
39	Pipe - (105)	1.84	15	Cir	43.841	355.57	355.79	0.502	356.51	356.54	0.10	356.64	24	Combination
40	Pipe - (116)	1.77	15	Cir	28.003	355.99	356.13	0.500	356.64	356.68	0.27	356.95	39	Combination
41	Pipe - (104)	1.27	15	Cir	111.664	356.33	356.89	0.502	356.95	357.33	0.25	357.33	40	Combination
42	Pipe - (79)	0.50	15	Cir	28.509	357.09	357.24	0.526	357.37	357.52	n/a	357.61 j	41	Combination
43	Pipe - (590)	2.05	15	Cir	211.860	368.57	374.66	2.875	369.11	375.23	n/a	375.23	28	Manhole
44	Pipe - (589)	2.10	15	Cir	146.606	374.86	375.60	0.505	375.45	376.19	0.31	376.50	43	Combination
45	Pipe - (588)	0.81	15	Cir	45.582	376.00	377.56	3.422	376.50	377.91	n/a	377.91 j	44	Combination
46	Pipe - (587)	0.62	15	Cir	28.000	377.76	377.90	0.500	378.07	378.21	0.11	378.32	45	Combination
47	Pipe - (592)	0.19	15	Cir	28.000	375.80	376.00	0.714	376.50	376.17	n/a	376.17	44	Combination

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

SCM 1A 25-YEAR

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	YI 121	1.01	0.00	0.47	0.53	DrGrt	0.0	0.00	0.00	2.00	2.00	0.010	2.00	0.020	0.020	0.013	0.10	12.10	0.10	12.10	0.0	Off
2	YI 122	1.55	0.72	2.27	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.21	22.75	0.21	22.75	0.0	Off
3	YI 123	1.28	0.00	0.56	0.72	DrGrt	0.0	0.00	0.00	2.00	2.00	0.010	2.00	0.020	0.020	0.013	0.11	13.10	0.11	13.10	0.0	2
4	YI 124	1.82	0.00	1.82	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.18	19.92	0.18	19.92	0.0	3
5	CB 125	0.43	0.00	0.42	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.15	3.27	0.03	0.56	0.0	Off
6	CB 126	0.19	0.00	0.19	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.11	1.82	0.00	0.00	0.0	5
7	CB 127	0.19	0.00	0.19	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.11	1.82	0.00	0.00	0.0	6
8	CB 128	0.35	0.00	0.35	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.75	0.14	2.75	0.0	Off
9	CB 129	0.62	0.21	0.74	0.09	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.18	5.05	0.08	1.38	0.0	Off
10	CB 130	0.31	0.01	0.32	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.13	2.59	0.01	0.22	0.0	11
11	CB 131	1.20	0.00	0.99	0.22	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.20	6.14	0.11	1.89	0.0	22
12	CB 132	0.27	0.09	0.36	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.14	2.84	0.02	0.35	0.0	11
13	JB 133	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
14	CB 134	0.74	0.08	0.73	0.09	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.18	4.98	0.08	1.35	0.0	12
15	CB 134A	0.81	0.00	0.73	0.09	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.18	4.98	0.08	1.35	0.0	21
16	CB 135	0.78	0.00	0.70	0.08	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.18	4.85	0.08	1.28	0.0	14
17	CB 136	1.01	0.19	0.98	0.21	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.20	6.12	0.11	1.88	0.0	9
18	CB 136A	0.43	0.04	0.45	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.15	3.49	0.04	0.66	0.0	10
19	YI 136B	5.43	0.00	5.43	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.37	39.11	0.37	39.11	0.0	Off
20	YI 133A	0.54	0.00	0.54	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.08	9.99	0.08	9.99	0.0	Off
21	CB 131A	0.97	0.09	0.89	0.16	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.74	0.10	1.70	0.0	22
22	CB 125A	0.62	0.38	0.86	0.14	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.58	0.10	1.63	0.0	Off
23	CB 101	1.16	0.41	1.57	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.22	7.12	0.22	7.12	0.0	Off

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

SCM 1A 25-YEAR

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)	
24	CB 102	0.08	0.00	0.08	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.08	1.29	0.00	0.00	0.0	23
25	CB 106	0.19	0.32	0.50	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.16	3.76	0.05	0.79	0.0	30
26	CB 107	1.32	0.16	1.15	0.32	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.22	6.80	0.13	2.60	0.0	25
27	CB 108	1.55	0.37	1.40	0.52	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.23	7.69	0.16	3.78	0.0	40
28	CB 109	1.59	0.00	1.22	0.37	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.22	7.04	0.14	2.93	0.0	27
29	CB 109A	1.05	0.00	0.89	0.16	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.71	0.10	1.69	0.0	26
30	CB 113	1.82	0.24	2.06	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.25	8.73	0.25	8.73	0.0	Off
31	JB 113A	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
32	YI 113B	2.29	4.24	6.53	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.42	43.98	0.42	43.98	0.0	Off
33	YI 113C	3.65	2.14	1.54	4.24	DrGrt	0.0	0.00	0.00	2.00	2.00	0.010	2.00	0.020	0.020	0.013	0.20	22.10	0.20	22.10	0.0	32
34	YI 113D	3.14	0.00	1.00	2.14	DrGrt	0.0	0.00	0.00	2.00	2.00	0.010	2.00	0.020	0.020	0.013	0.15	17.10	0.15	17.10	0.0	33
35	CB 114	0.81	0.39	0.99	0.21	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.20	6.13	0.11	1.89	0.0	30
36	CB 115	1.47	0.15	1.24	0.39	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.22	7.10	0.14	3.02	0.0	35
37	CB 115A	1.67	0.00	1.26	0.41	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.22	7.20	0.14	3.14	0.0	23
38	CB 116	1.01	0.00	0.86	0.15	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.60	0.10	1.64	0.0	36
39	CB 103	0.08	0.00	0.08	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.08	1.29	0.00	0.00	0.0	42
40	CB 104	0.54	0.52	0.90	0.17	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.20	5.76	0.10	1.72	0.0	41
41	CB 105	0.78	0.17	0.82	0.13	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.40	0.09	1.54	0.0	Off
42	CB 105A	0.50	0.00	0.49	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.15	3.69	0.05	0.75	0.0	Off
43	JB 110	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
44	CB 111	1.12	0.00	0.94	0.19	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.20	5.93	0.11	1.79	0.0	17
45	CB 112	0.19	0.00	0.19	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.11	1.82	0.00	0.00	0.0	44
46	CB 112A	0.62	0.00	0.58	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.16	4.24	0.06	1.00	0.0	18

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

SCM 1A 25-YEAR

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)	
47	CB 111A	0.19	0.00	0.19	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.11	1.82	0.00	0.00	0.0	17

Project File: SCM 1A Storm Network.stm

Number of lines: 47

Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

SCM 1A 25-YEAR

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	30	17.64	349.00	351.50	2.50	2.88	3.60	0.20	351.70	0.185	52.749	352.80	354.22 j	1.42**	2.88	6.13	0.58	354.80	0.486	0.336	n/a	1.15	0.67
2	30	16.94	353.00	354.33	1.33*	2.65	6.40	0.57	354.89	0.000	125.000	353.70	355.09	1.39**	2.80	6.04	0.57	355.66	0.000	0.000	n/a	0.86	n/a
3	30	15.81	353.90	355.21	1.31*	2.61	6.06	0.54	355.75	0.000	177.766	354.80	356.14	1.34**	2.68	5.89	0.54	356.68	0.000	0.000	n/a	0.50	0.27
4	30	15.01	355.00	356.28	1.28*	2.52	5.96	0.52	356.80	0.000	260.092	356.30	357.61	1.31**	2.59	5.79	0.52	358.13	0.000	0.000	n/a	0.54	0.28
5	30	13.55	356.50	357.70	1.20*	2.33	5.81	0.49	358.19	0.000	155.941	357.28	358.52	1.24**	2.42	5.60	0.49	359.00	0.000	0.000	n/a	2.02	n/a
6	24	12.66	357.83	358.62	0.79*	1.15	11.05	0.55	359.17	0.000	86.389	360.38	361.66	1.28**	2.12	5.97	0.55	362.21	0.000	0.000	n/a	1.13	0.63
7	24	12.53	360.58	361.91	1.33*	2.22	5.64	0.49	362.41	0.501	43.841	360.80	362.13	1.33	2.23	5.63	0.49	362.63	0.500	0.501	0.219	1.13	0.56
8	24	12.39	361.00	362.69	1.69	2.09	4.37	0.54	363.24	0.000	28.000	361.18	362.44	1.26**	2.09	5.92	0.54	362.99	0.000	0.000	n/a	1.13	n/a
9	24	12.12	361.37	362.65	1.28*	2.12	5.71	0.51	363.16	0.525	43.841	361.60	362.88	1.28	2.12	5.71	0.51	363.39	0.526	0.525	0.230	1.62	0.82
10	18	5.22	362.56	363.70	1.14	1.44	3.62	0.20	363.90	0.287	28.018	362.70	363.75	1.05	1.32	3.95	0.24	363.99	0.351	0.319	0.090	1.11	0.27
11	18	4.96	362.90	364.02	1.12	1.41	3.51	0.19	364.21	0.271	43.139	363.12	364.09	0.97	1.21	4.09	0.26	364.35	0.392	0.332	0.143	1.61	0.42
12	18	2.99	363.40	364.51	1.11	1.40	2.13	0.07	364.58	0.100	106.050	363.93	364.64	0.71	0.82	3.64	0.21	364.84	0.393	0.247	0.262	0.75	0.15
13	15	2.75	364.20	364.90	0.70*	0.70	3.92	0.24	365.14	0.510	60.787	364.51	365.21	0.70	0.70	3.92	0.24	365.45	0.508	0.509	0.309	1.00	0.24
14	15	2.25	366.48	366.97	0.49*	0.45	5.04	0.23	367.20	0.000	57.233	367.14	367.74	0.60**	0.58	3.87	0.23	367.97	0.000	0.000	n/a	1.41	n/a
15	15	0.81	367.34	367.74	0.40	0.28	2.42	0.13	367.87	0.000	26.000	367.59	367.94 j	0.35**	0.28	2.86	0.13	368.07	0.000	0.000	n/a	1.00	0.13
16	15	0.78	367.34	367.74	0.40	0.28	2.31	0.12	367.86	0.000	161.000	374.36	374.70 j	0.34**	0.28	2.82	0.12	374.83	0.000	0.000	n/a	1.00	n/a
17	24	6.78	361.80	363.70	1.90	1.42	2.20	0.36	364.06	0.000	111.287	362.36	363.28	0.92**	1.42	4.79	0.36	363.64	0.000	0.000	n/a	1.50	0.53
18	24	5.80	362.56	363.39	0.83*	1.24	4.68	0.32	363.72	0.000	28.000	362.70	363.55	0.85**	1.27	4.56	0.32	363.87	0.000	0.000	n/a	0.50	n/a
19	15	5.43	363.51	364.76	1.25*	1.23	4.43	0.30	365.06	0.707	76.222	363.90	365.30	1.25	1.23	4.42	0.30	365.60	0.707	0.707	0.539	1.00	0.30
20	15	0.54	364.71	365.45	0.74	0.75	0.72	0.01	365.45	0.017	31.121	364.87	365.45	0.58	0.55	0.98	0.01	365.46	0.037	0.027	0.008	1.00	0.01
21	15	0.97	363.56	364.51	0.95	1.00	0.97	0.01	364.53	0.026	26.015	363.69	364.51	0.82	0.86	1.13	0.02	364.53	0.038	0.032	0.008	1.00	0.02
22	15	0.62	358.59	358.90	0.31*	0.23	2.60	0.11	359.01	0.500	28.000	358.73	359.04	0.31**	0.24	2.62	0.11	359.15	0.509	0.504	0.141	1.00	0.11

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 1A 25-YEAR

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)
23	30	23.77	347.00	349.50	2.50*	3.46	4.84	0.36	349.86	0.336	158.125	353.69	355.35 j	1.66**	3.46	6.87	0.73	356.08	0.554	0.445	n/a	2.02	n/a
24	24	8.78	354.24	355.35	1.11	1.68	4.91	0.37	355.72	0.428	102.646	354.75	355.81	1.06**	1.69	5.18	0.42	356.23	0.494	0.461	0.473	1.68	0.70
25	18	7.02	358.83	359.66	0.83*	1.00	7.01	0.46	360.12	0.000	28.000	359.19	360.22	1.03**	1.29	5.46	0.46	360.68	0.000	0.000	n/a	1.13	n/a
26	18	6.88	359.39	360.53	1.14*	1.44	4.78	0.35	360.88	0.502	43.841	359.61	360.75	1.14	1.44	4.78	0.36	361.10	0.502	0.502	0.220	1.11	0.39
27	18	5.71	359.81	361.14	1.33	1.66	3.44	0.18	361.33	0.264	28.006	359.95	361.20	1.25	1.57	3.63	0.20	361.41	0.288	0.276	0.077	1.50	0.31
28	18	4.46	360.15	361.51	1.36	0.97	2.65	0.33	361.83	0.000	238.741	368.30	369.11 j	0.81**	0.97	4.58	0.33	369.44	0.000	0.000	n/a	1.03	n/a
29	15	1.05	368.57	369.11	0.54	0.34	2.06	0.15	369.26	0.000	45.226	369.85	370.25 j	0.40**	0.34	3.07	0.15	370.40	0.000	0.000	n/a	1.00	n/a
30	24	14.77	354.77	356.01	1.24*	2.04	7.24	0.63	356.64	0.000	28.983	355.02	356.40	1.38**	2.32	6.37	0.63	357.03	0.000	0.000	n/a	1.50	0.95
31	24	8.67	355.22	356.40	1.18	1.67	4.48	0.42	356.82	0.000	81.813	355.64	356.69	1.05**	1.67	5.20	0.42	357.11	0.000	0.000	n/a	0.43	0.18
32	18	8.74	356.18	357.68	1.50*	1.77	4.95	0.38	358.06	0.693	72.154	356.55	358.18	1.50	1.77	4.95	0.38	358.56	0.693	0.693	0.500	0.50	0.19
33	18	6.61	356.75	358.37	1.50	1.24	3.74	0.22	358.59	0.397	96.135	357.89	358.88 j	0.99**	1.24	5.32	0.44	359.32	0.656	0.527	n/a	0.50	0.22
34	15	3.14	358.16	358.88	0.72	0.72	4.26	0.29	359.18	0.000	202.630	361.50	362.21 j	0.71**	0.72	4.34	0.29	362.51	0.000	0.000	n/a	1.00	0.29
35	15	4.66	357.75	358.62	0.87*	0.91	5.14	0.40	359.02	0.000	88.766	358.43	359.30	0.87**	0.92	5.08	0.40	359.71	0.000	0.000	n/a	0.79	n/a
36	15	3.95	358.63	359.35	0.72*	0.73	5.41	0.35	359.70	0.000	121.131	359.78	360.58	0.80**	0.83	4.74	0.35	360.93	0.000	0.000	n/a	1.21	0.42
37	15	1.67	359.98	360.58	0.60	0.47	2.85	0.19	360.78	0.000	30.909	360.25	360.76 j	0.51**	0.47	3.53	0.19	360.96	0.000	0.000	n/a	1.00	n/a
38	15	1.01	359.98	360.58	0.60	0.33	1.72	0.14	360.73	0.000	217.760	362.34	362.73 j	0.39**	0.33	3.04	0.14	362.88	0.000	0.000	n/a	1.00	0.14
39	15	1.84	355.57	356.51	0.94	0.99	1.85	0.05	356.57	0.096	43.841	355.79	356.54	0.75	0.76	2.40	0.09	356.63	0.182	0.139	0.061	1.14	0.10
40	15	1.77	355.99	356.64	0.65	0.64	2.75	0.12	356.76	0.265	28.003	356.13	356.68	0.55	0.52	3.41	0.18	356.86	0.470	0.367	0.103	1.50	0.27
41	15	1.27	356.33	356.95	0.62	0.39	2.09	0.07	357.02	0.159	111.664	356.89	357.33	0.44**	0.39	3.25	0.16	357.50	0.528	0.344	n/a	1.50	0.25
42	15	0.50	357.09	357.37	0.28*	0.20	2.49	0.10	357.46	0.525	28.509	357.24	357.52 j	0.28**	0.20	2.47	0.09	357.61	0.513	0.519	0.148	1.00	0.09
43	15	2.05	368.57	369.11	0.54	0.51	4.04	0.22	369.33	0.000	211.860	374.66	375.23	0.57**	0.55	3.76	0.22	375.45	0.000	0.000	n/a	0.34	n/a
44	15	2.10	374.86	375.45	0.59*	0.57	3.65	0.21	375.66	0.505	146.606	375.60	376.19	0.59	0.57	3.66	0.21	376.40	0.506	0.505	0.741	1.50	0.31

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 1A 25-YEAR

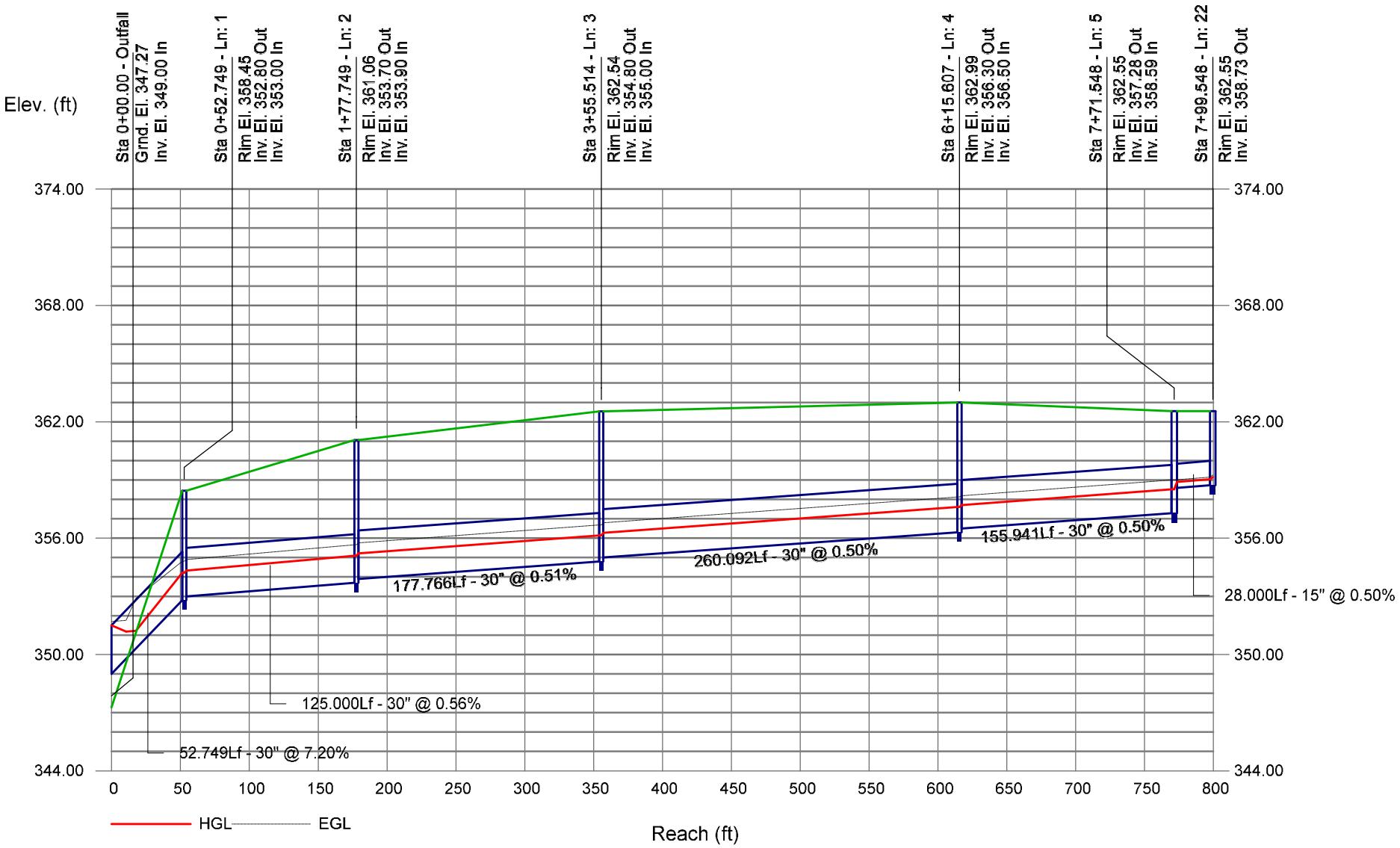
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
45	15	0.81	376.00	376.50	0.50	0.28	1.74	0.13	376.63	0.000	45.582	377.56	377.91 j	0.35**	0.28	2.85	0.13	378.04	0.000	0.000	n/a	1.10	0.14
46	15	0.62	377.76	378.07	0.31*	0.23	2.60	0.11	378.18	0.500	28.000	377.90	378.21	0.31**	0.24	2.62	0.11	378.32	0.509	0.504	0.141	1.00	0.11
47	15	0.19	375.80	376.50	0.70	0.10	0.27	0.06	376.56	0.000	28.000	376.00	376.17	0.17**	0.10	1.94	0.06	376.23	0.000	0.000	n/a	1.00	n/a

Project File: SCM 1A Storm Network.stm | Number of lines: 47 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

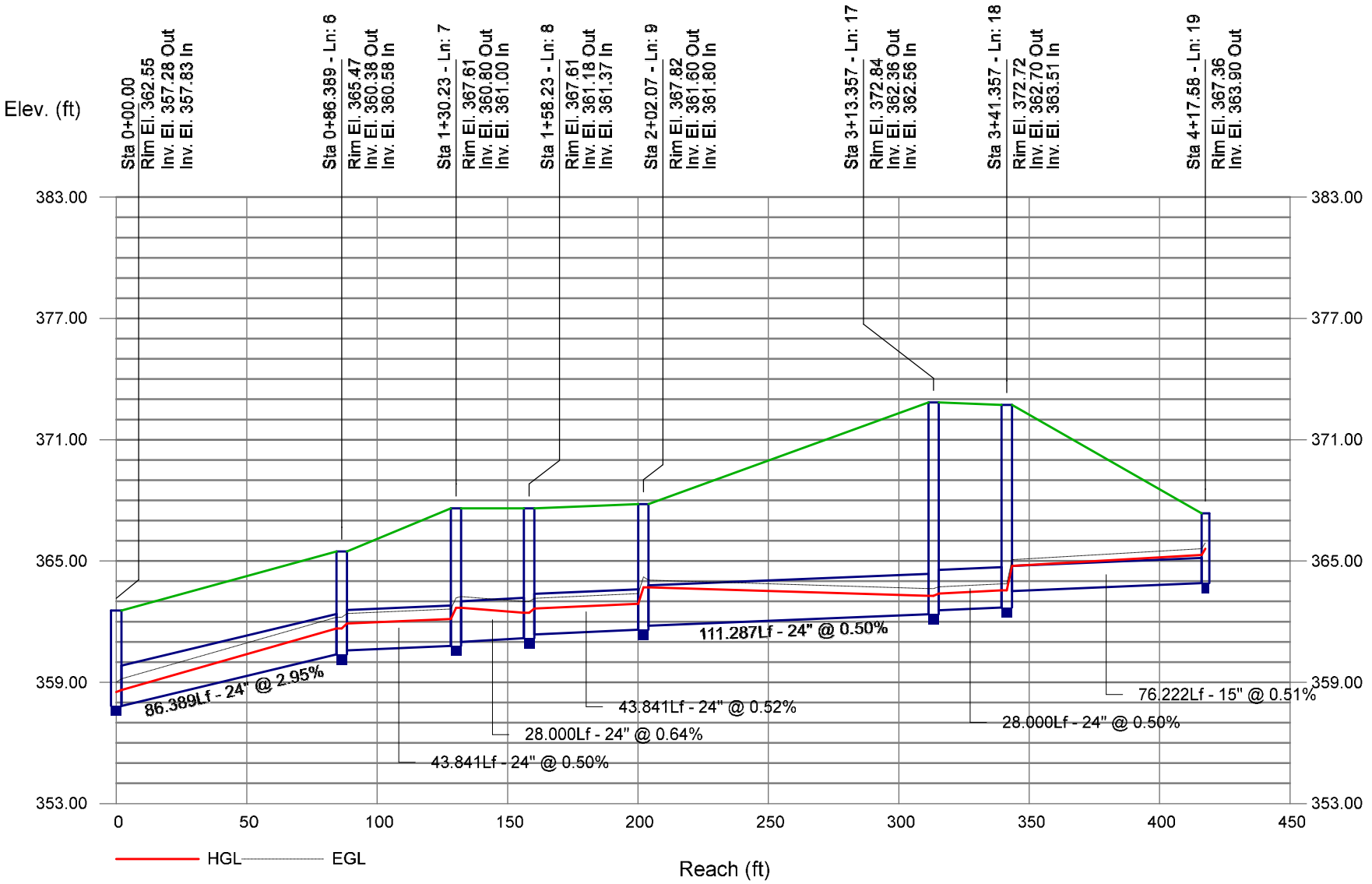
Storm Sewer Profile

SCM 1A 25-YEAR PROFILE 1-22 Proj. file: SCM 1A Storm Network.stm



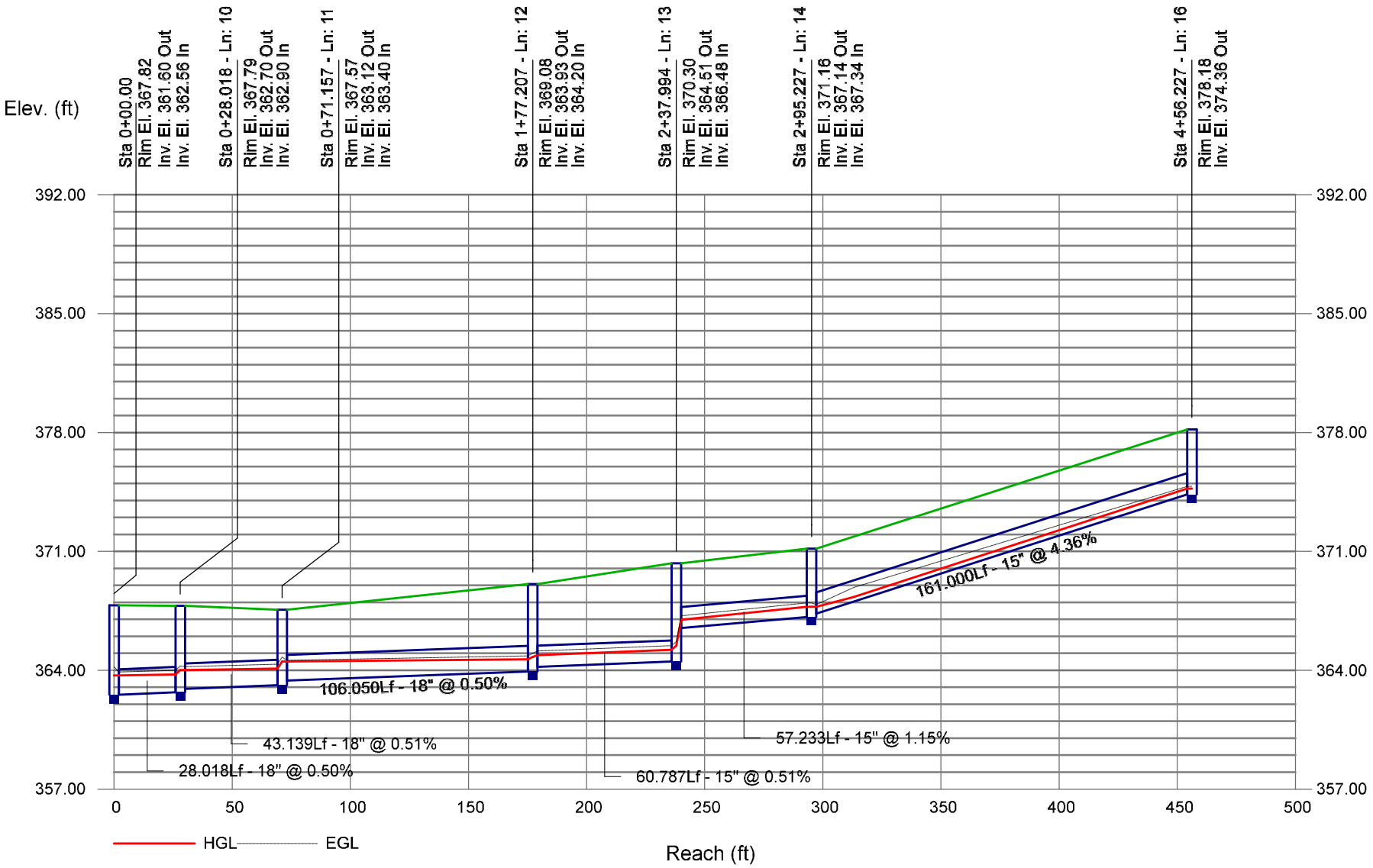
Storm Sewer Profile

SCM 1A 25-YEAR PROFILE 6-19 Proj. file: SCM 1A Storm Network.stm



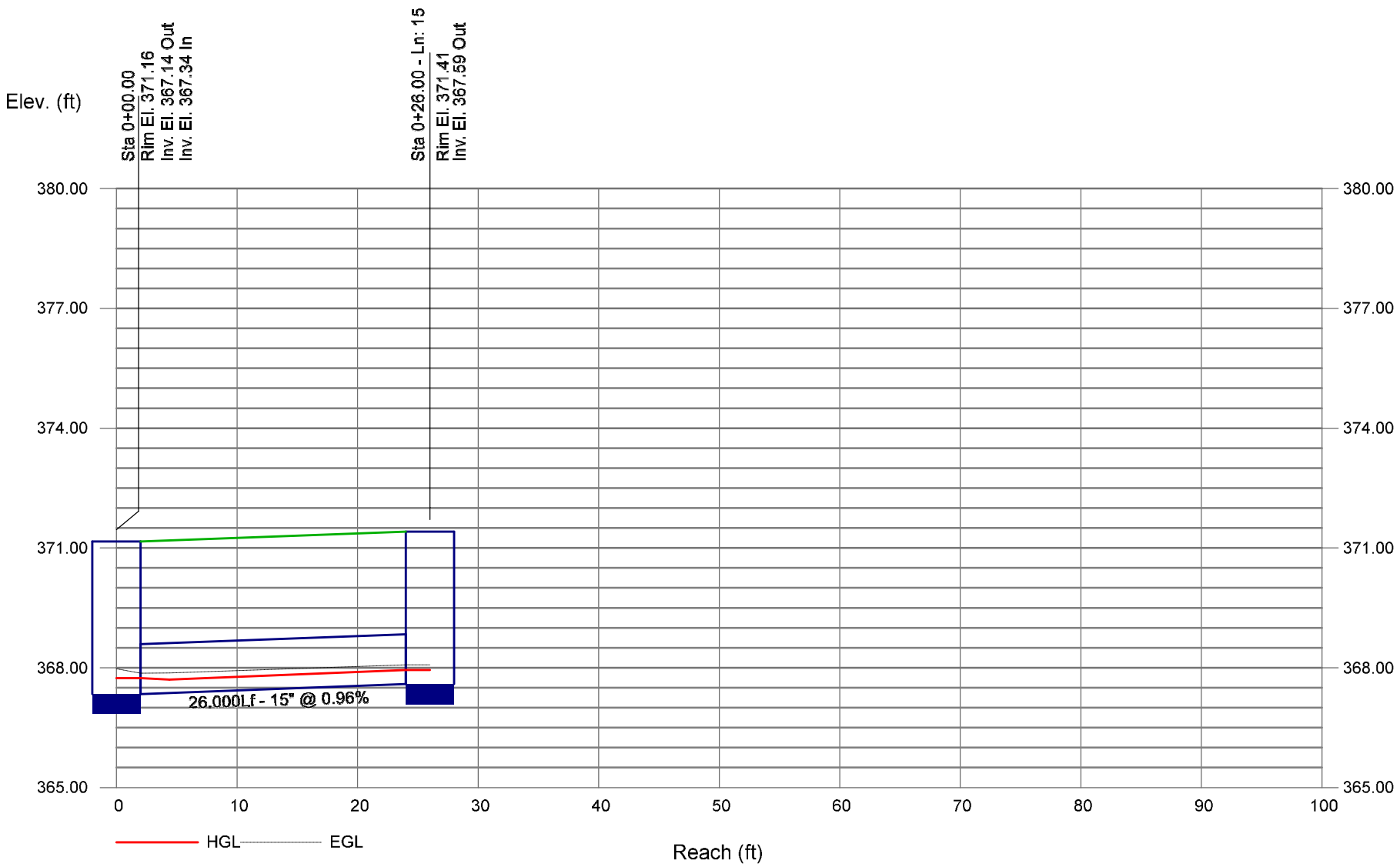
Storm Sewer Profile

SCM 1A 25-YEAR PROFILE 10-16 Proj. file: SCM 1A Storm Network.stm



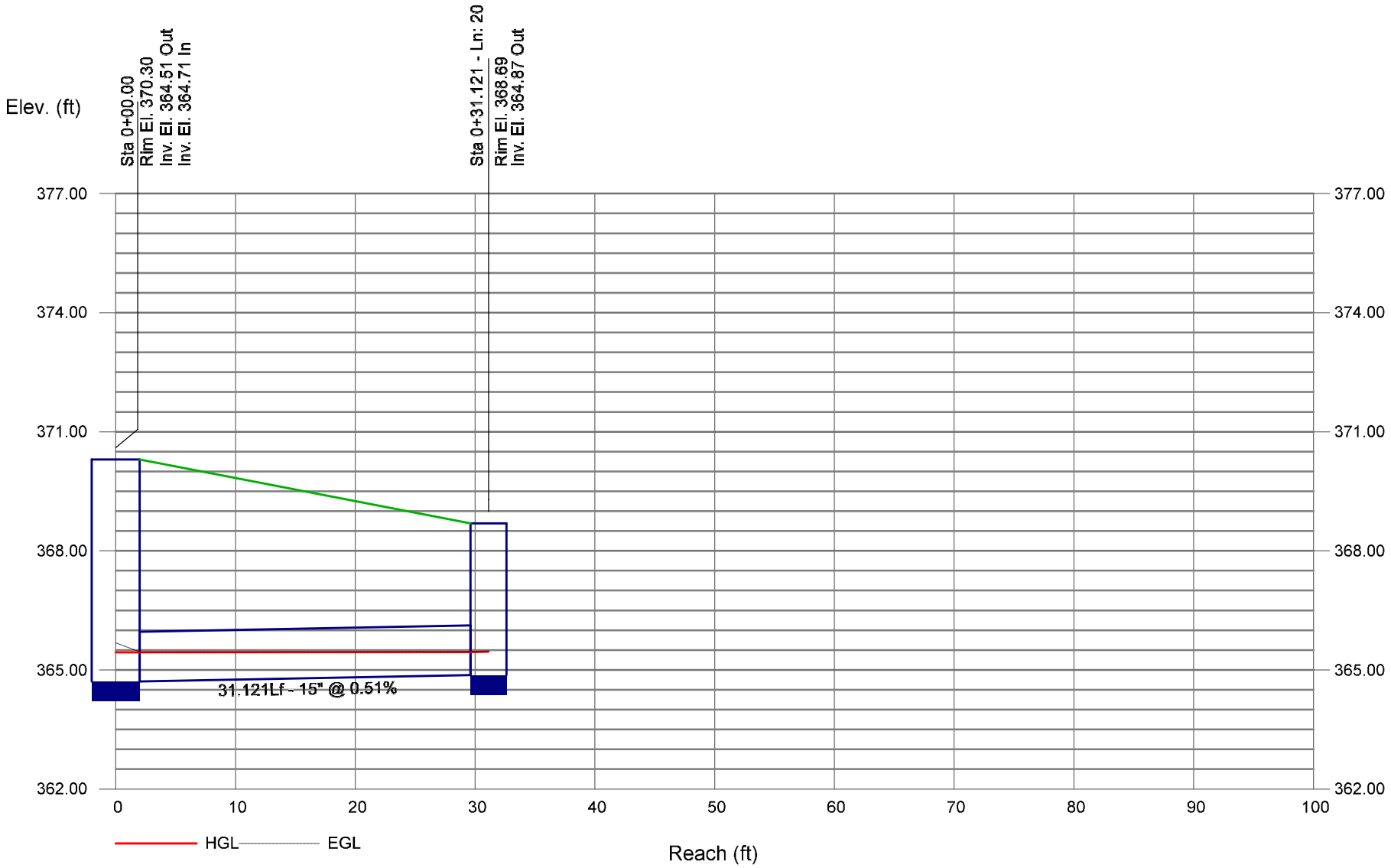
Storm Sewer Profile

SCM 1A 25-YEAR PROFILE 15-15 Proj. file: SCM 1A Storm Network.stm



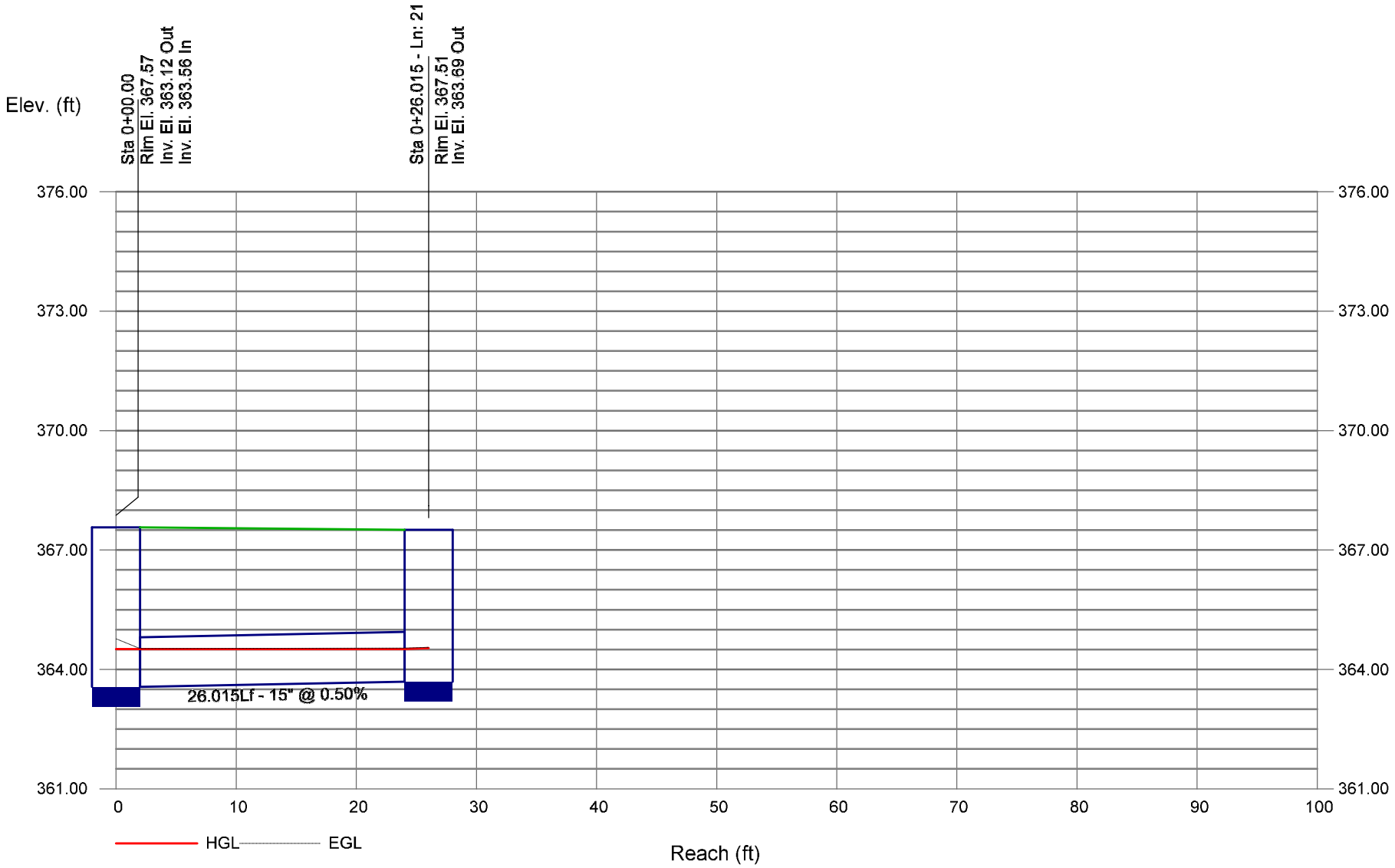
Storm Sewer Profile

SCM 1A 25-YEAR PROFILE 20-20 Proj. file: SCM 1A Storm Network.stm



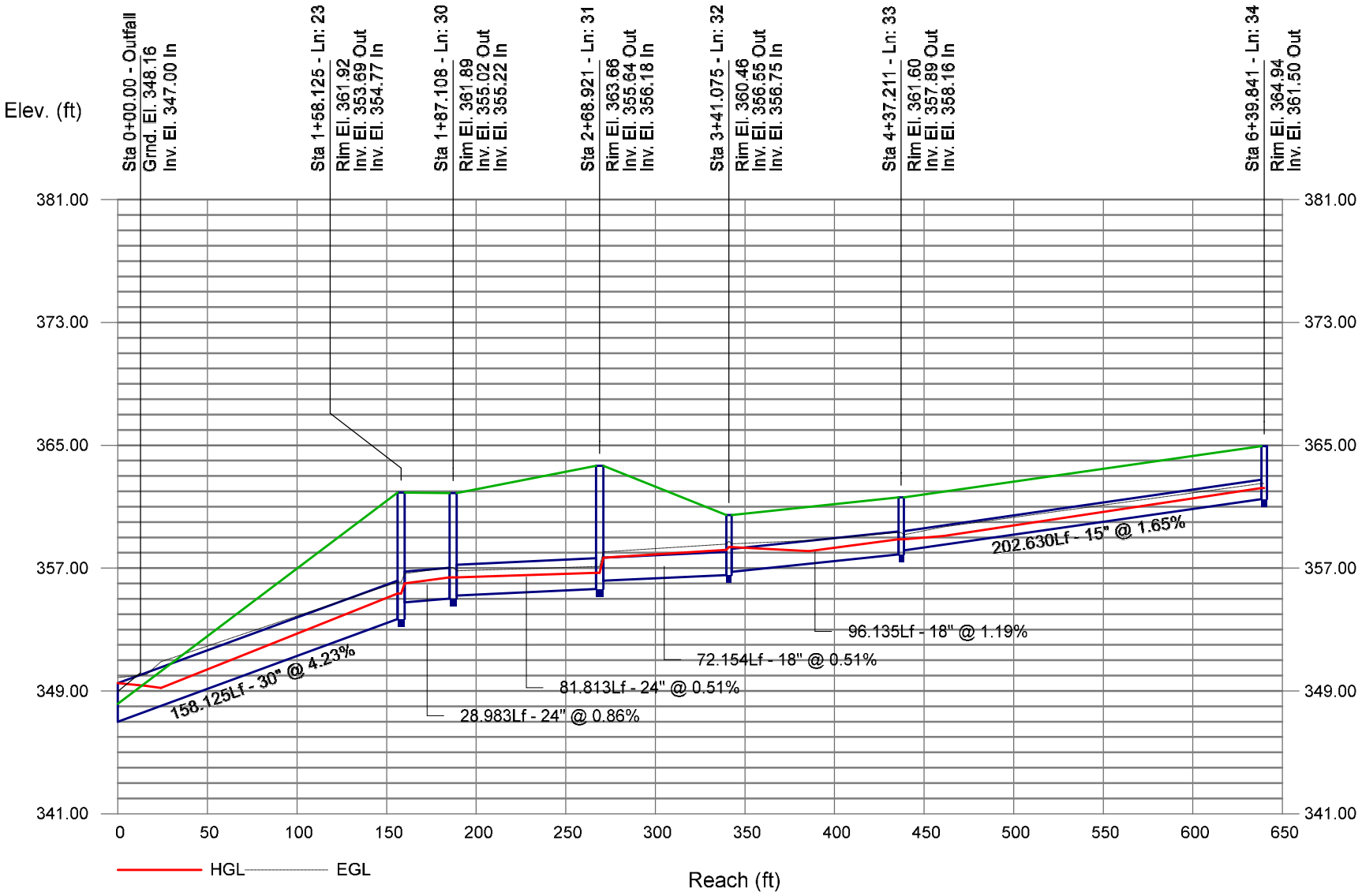
Storm Sewer Profile

SCM 1A 25-YEAR PROFILE 21-21 Proj. file: SCM 1A Storm Network.stm



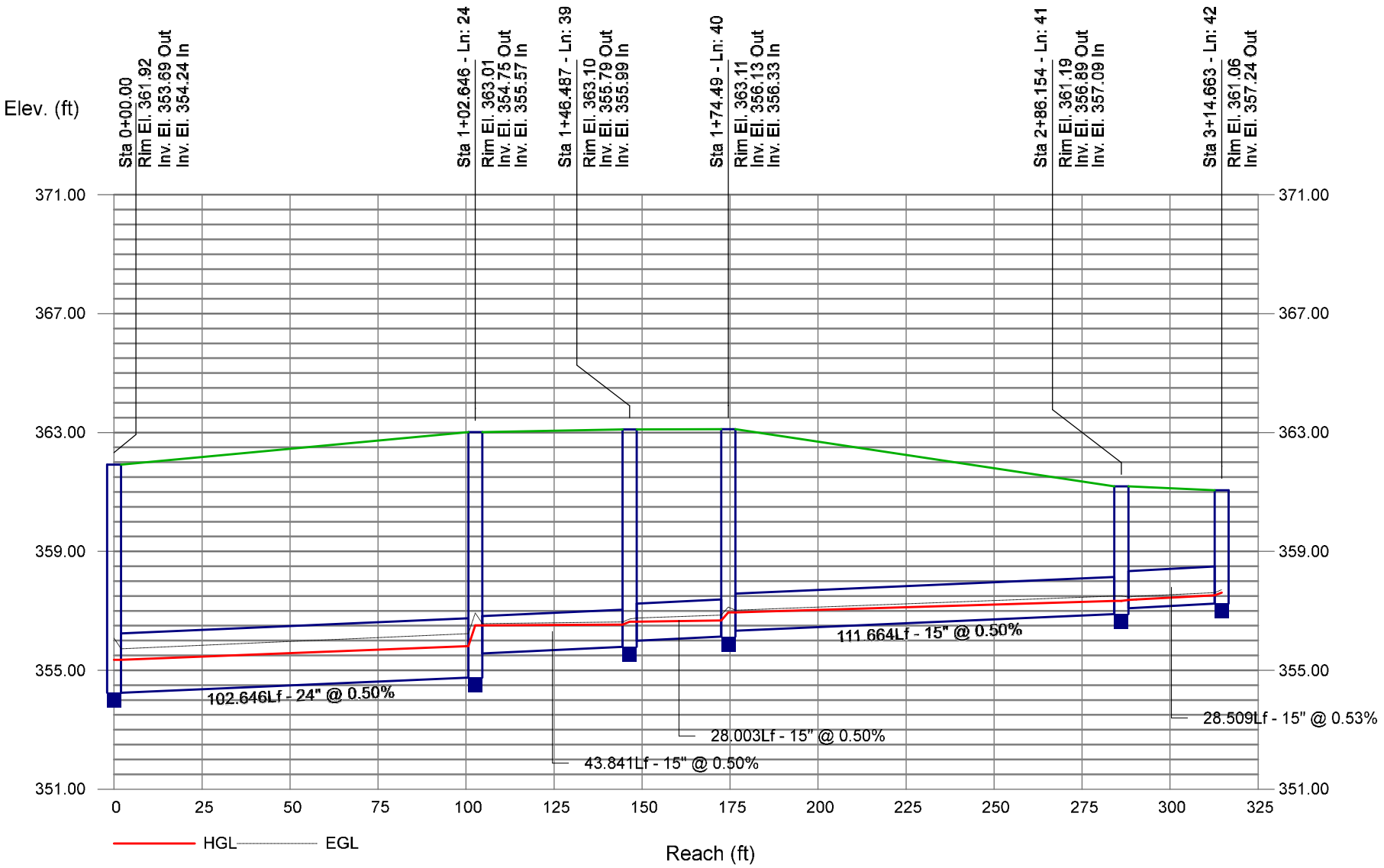
Storm Sewer Profile

SCM 1A 25-YEAR PROFILE 23-34 Proj. file: SCM 1A Storm Network.stm



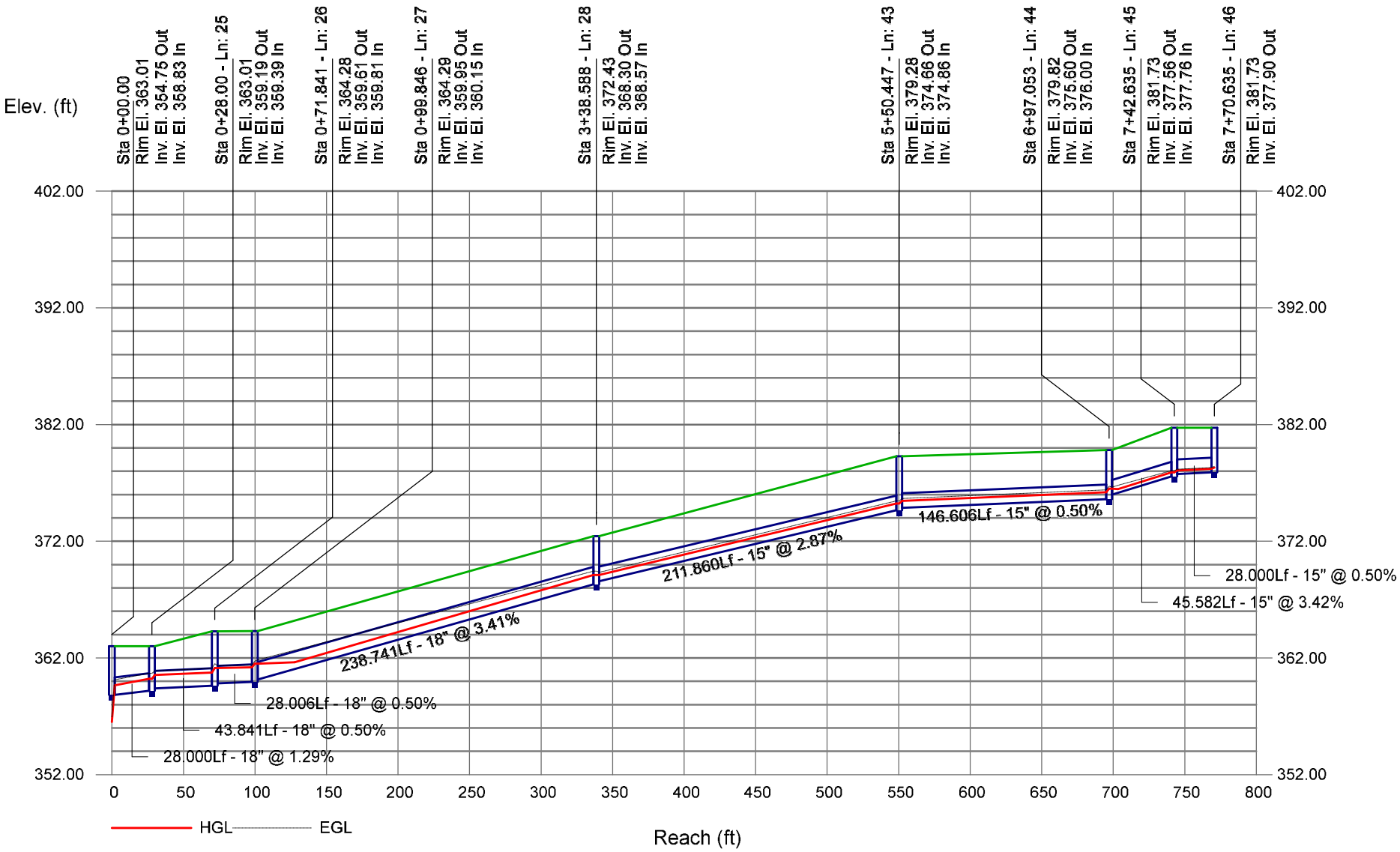
Storm Sewer Profile

SCM 1A 25-YEAR PROFILE 24-42 Proj. file: SCM 1A Storm Network.stm



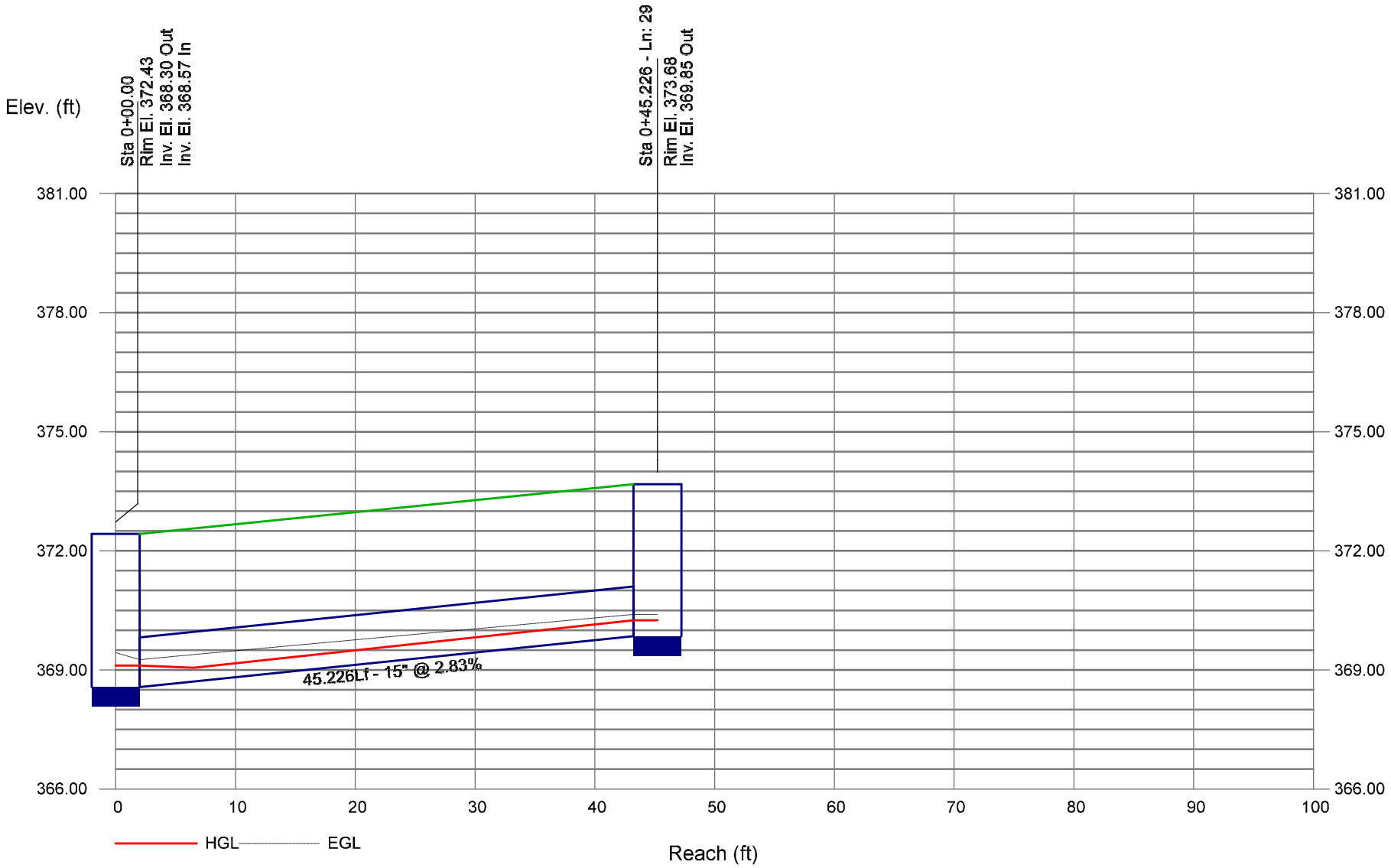
Storm Sewer Profile

SCM 1A 25-YEAR PROFILE 25-46 Proj. file: SCM 1A Storm Network.stm



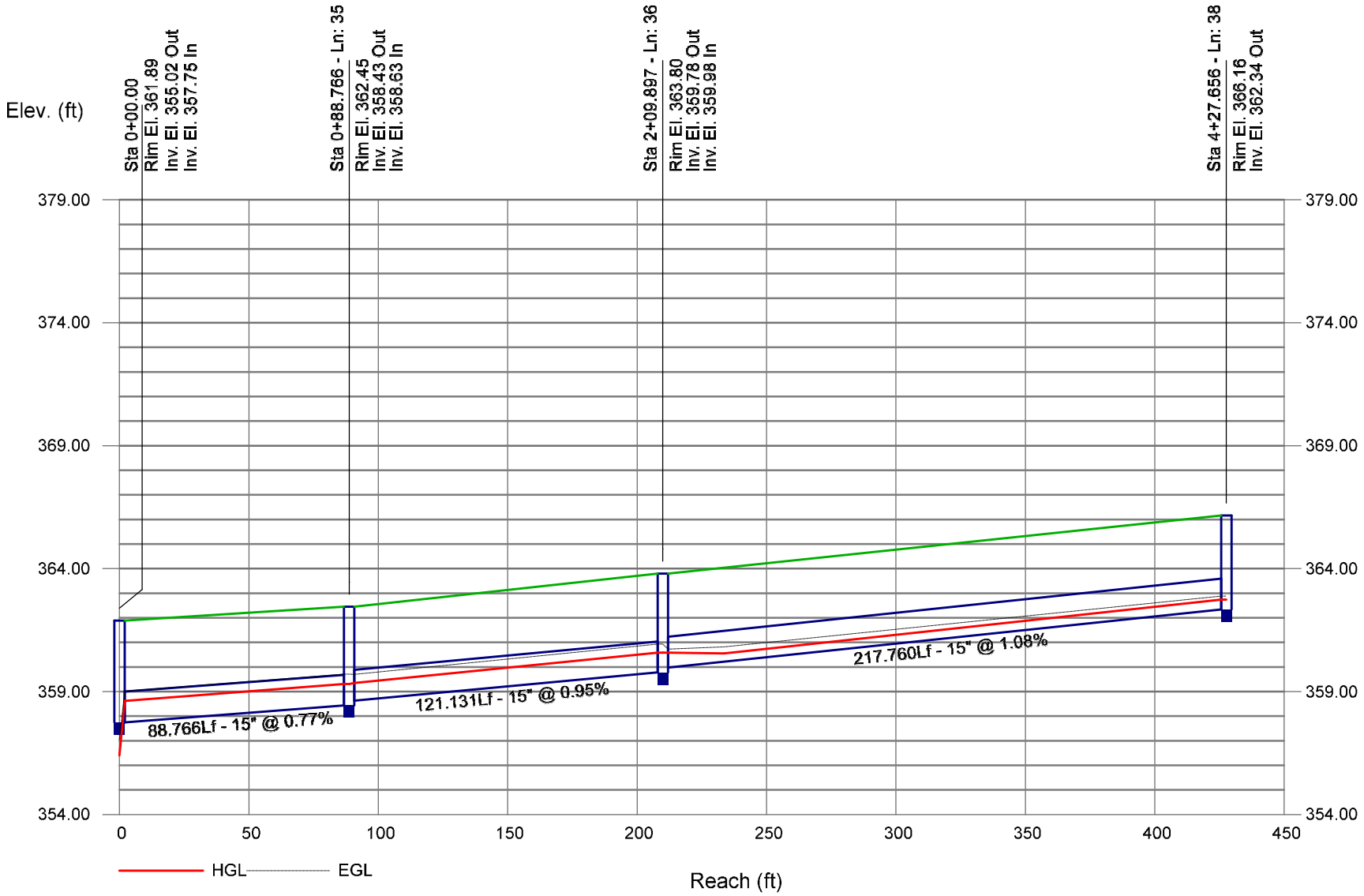
Storm Sewer Profile

SCM 1A 25-YEAR PROFILE 29-29 Proj. file: SCM 1A Storm Network.stm



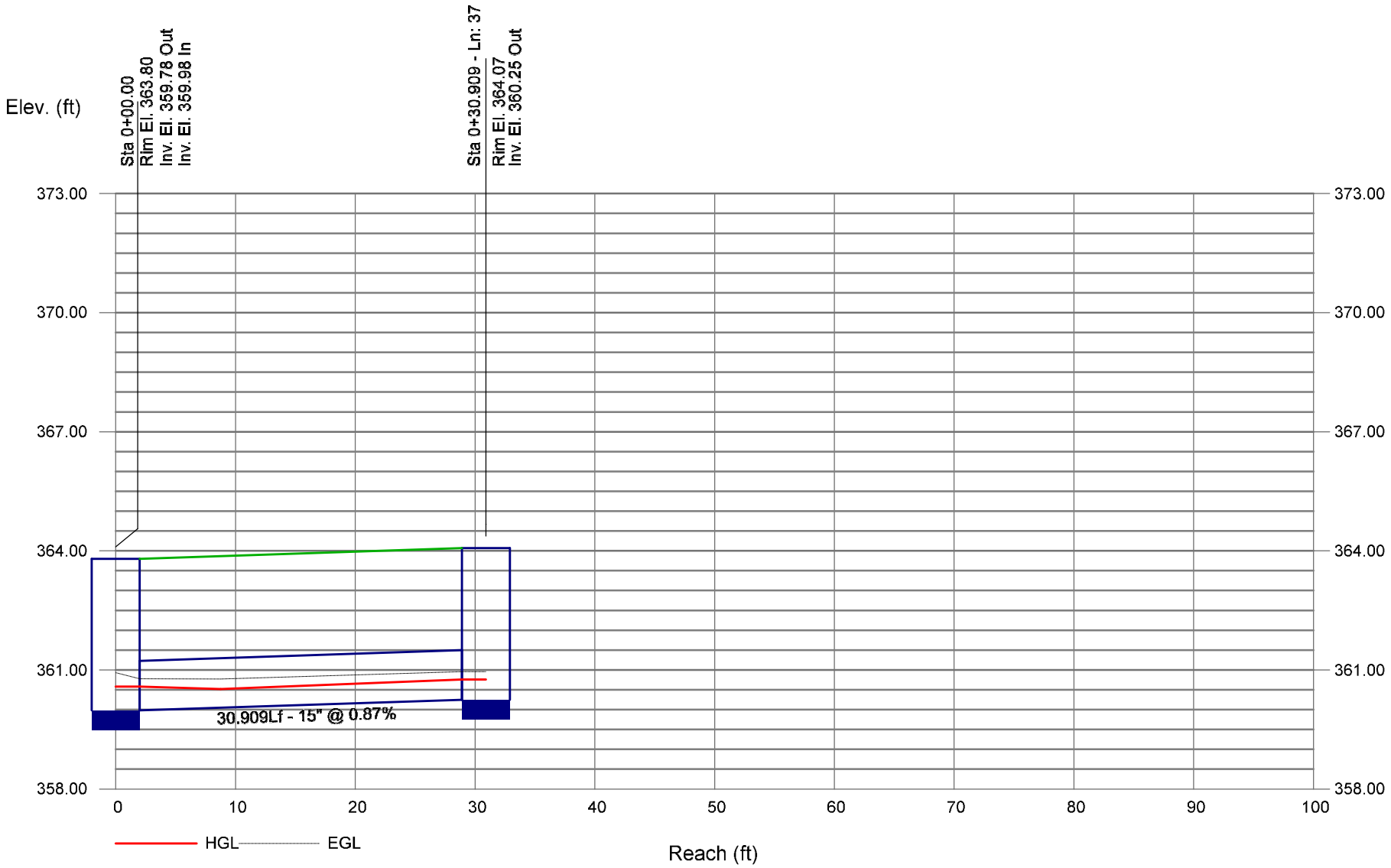
Storm Sewer Profile

SCM 1A 25-YEAR PROFILE 35-38 Proj. file: SCM 1A Storm Network.stm



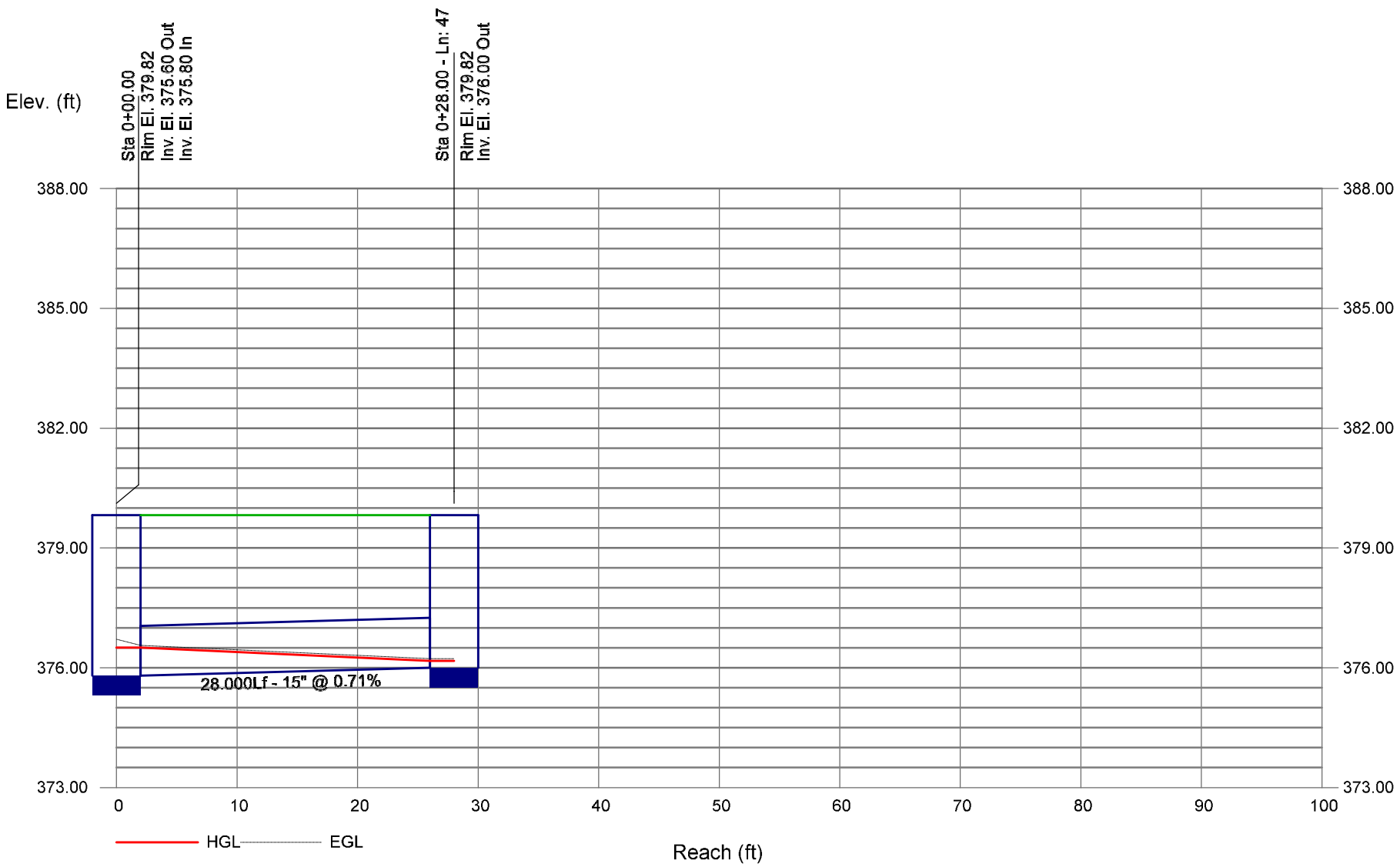
Storm Sewer Profile

SCM 1A 25-YEAR PROFILE 37-37 Proj. file: SCM 1A Storm Network.stm

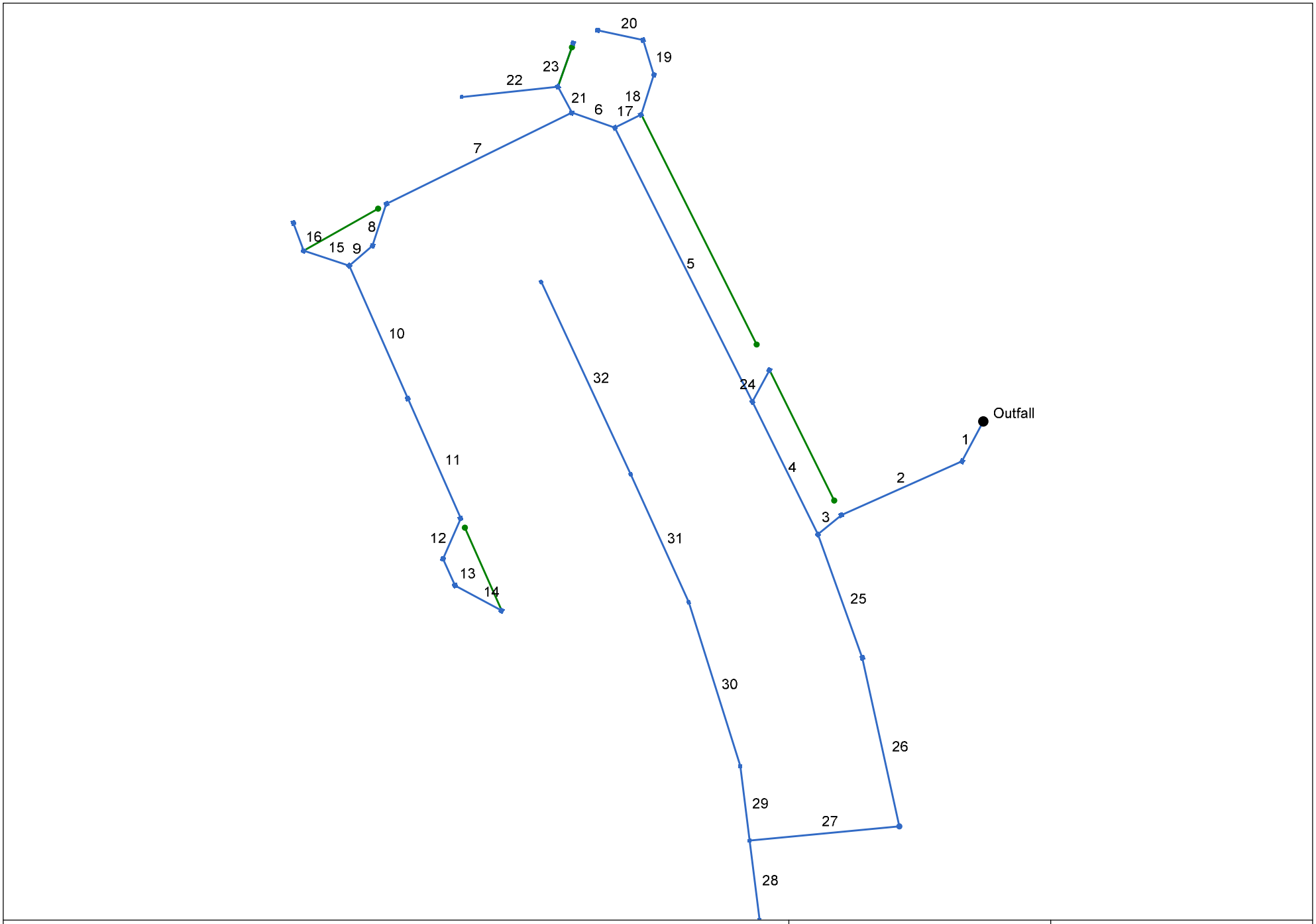


Storm Sewer Profile

SCM 1A 25-YEAR PROFILE 47-47 Proj. file: SCM 1A Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 1B 25-YEAR



Project File: SCM 1B Storm Network.stm	Number of lines: 32	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 1B 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	43.038	117.996	DrGrt	0.00	0.20	0.60	10.0	372.05	0.51	372.27	36	Cir	0.013	1.00	382.34	Pipe - (402)
2	1	125.580	37.891	Comb	0.00	0.49	0.60	10.0	372.47	0.50	373.10	36	Cir	0.013	0.50	383.51	Pipe - (401)
3	2	29.057	-15.437	Comb	0.00	0.42	0.60	10.0	373.30	0.52	373.45	36	Cir	0.013	2.14	383.49	Pipe - (400)
4	3	141.000	103.390	Comb	0.00	0.49	0.60	10.0	374.00	0.53	374.75	30	Cir	0.013	1.26	384.29	Pipe - (398)
5	4	292.665	-0.424	Comb	0.00	0.03	0.60	10.0	374.95	0.50	376.42	30	Cir	0.013	1.50	386.55	Pipe - (397)
6	5	43.286	-44.139	Comb	0.00	0.19	0.60	10.0	376.62	0.51	376.84	30	Cir	0.013	1.63	386.36	Pipe - (185)
7	6	196.769	-45.581	Comb	0.00	0.06	0.60	10.0	381.66	0.50	382.64	24	Cir	0.013	1.13	388.05	Pipe - (198)
8	7	41.948	-45.324	Comb	0.00	0.72	0.60	10.0	382.84	0.50	383.05	24	Cir	0.013	0.85	388.86	Pipe - (197)
9	8	29.270	30.927	Comb	0.00	0.27	0.60	10.0	383.25	0.51	383.40	24	Cir	0.013	1.98	388.98	Pipe - (199)
10	9	138.408	-73.063	Comb	0.00	0.13	0.60	10.0	385.13	0.69	386.08	18	Cir	0.013	0.50	390.20	Pipe - (196)
11	10	125.150	0.000	Comb	0.00	0.05	0.60	10.0	386.36	0.52	387.01	15	Cir	0.013	1.16	391.31	Pipe - (194)
12	11	42.068	47.353	Comb	0.00	0.07	0.60	10.0	387.20	0.52	387.42	15	Cir	0.013	1.17	391.78	Pipe - (193)
13	12	28.000	-47.644	Comb	0.00	0.39	0.60	10.0	387.62	0.50	387.76	15	Cir	0.013	0.99	391.78	Pipe - (526)
14	13	50.224	-37.536	Comb	0.00	0.12	0.60	10.0	387.96	0.80	388.36	15	Cir	0.013	1.00	392.18	Pipe - (527)
15	9	45.621	59.076	Comb	0.00	0.93	0.60	10.0	383.94	1.12	384.45	18	Cir	0.013	1.22	388.67	Pipe - (428)
16	15	28.355	51.210	Comb	0.00	0.18	0.60	10.0	384.65	0.53	384.80	18	Cir	0.013	1.00	388.63	Pipe - (427)
17	5	28.000	90.133	Comb	0.00	0.02	0.60	10.0	379.84	0.50	379.98	15	Cir	0.013	1.14	386.55	Pipe - (396)
18	17	39.908	-45.826	Comb	0.00	0.02	0.60	10.0	380.18	0.50	380.38	15	Cir	0.013	0.94	385.10	Pipe - (430)
19	18	34.848	-35.110	Comb	0.00	0.02	0.60	10.0	380.58	0.52	380.76	15	Cir	0.013	1.34	384.78	Pipe - (429)
20	19	44.136	-60.527	Comb	0.00	0.02	0.60	10.0	380.96	1.52	381.63	15	Cir	0.013	1.00	385.45	Pipe - (431)
21	6	28.043	42.691	Comb	0.00	0.13	0.60	10.0	378.20	0.50	378.34	15	Cir	0.013	1.74	386.37	Pipe - (184)
22	21	92.236	-68.074	DrGrt	0.00	0.34	0.60	10.0	378.54	0.50	379.00	15	Cir	0.013	1.00	382.52	Pipe - (190)
23	21	44.388	47.309	Comb	0.00	0.07	0.60	10.0	381.44	0.50	381.66	15	Cir	0.013	1.00	385.48	Pipe - (183)

Project File: SCM 1B Storm Network.stm

Number of lines: 32

Date: 4/11/2025

Storm Sewer Inventory Report

SCM 1B 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	4	34.361	54.152	Comb	0.00	0.25	0.60	10.0	380.42	0.52	380.60	15	Cir	0.013	1.00	384.45	Pipe - (399)
25	3	125.103	-70.202	Comb	0.00	0.20	0.60	10.0	374.00	0.54	374.67	30	Cir	0.013	0.50	384.63	Pipe - (208)
26	25	164.842	7.361	MH	0.00	0.00	0.60	10.0	374.87	0.50	375.69	30	Cir	0.013	1.00	385.61	Pipe - (597)
27	26	143.185	96.958	DrGrt	0.00	0.50	0.60	10.0	375.89	0.50	376.61	30	Cir	0.013	2.25	381.83	Pipe - (596)
28	27	76.394	-91.693	DrGrt	0.00	0.94	0.60	10.0	379.15	0.51	379.54	15	Cir	0.013	1.00	382.98	Pipe - (218)
29	27	71.757	88.307	DrGrt	0.00	0.58	0.60	10.0	377.15	1.37	378.13	24	Cir	0.013	0.50	384.13	Pipe - (601)
30	29	163.784	-10.225	DrGrt	0.00	0.63	0.60	10.0	378.67	0.50	379.49	18	Cir	0.013	0.50	384.33	Pipe - (600)
31	30	134.085	-7.068	DrGrt	0.00	0.56	0.60	10.0	379.76	0.50	380.43	15	Cir	0.013	0.50	384.64	Pipe - (599)
32	31	202.660	-0.446	DrGrt	0.00	0.52	0.60	10.0	380.63	0.50	381.65	15	Cir	0.013	1.00	385.09	Pipe - (598)

Project File: SCM 1B Storm Network.stm | Number of lines: 32 | Date: 4/11/2025

Structure Report

SCM 1B 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 141	DropGrate	382.34	Rect	4.00	4.00	36	Cir	372.27	36	Cir	372.47
2	CB 142	Combination	383.51	Rect	4.00	4.00	36	Cir	373.10	36	Cir	373.30
3	CB 143	Combination	383.49	Rect	4.00	4.00	36	Cir	373.45	30 30	Cir Cir	374.00 374.00
4	CB 144	Combination	384.29	Rect	4.00	4.00	30	Cir	374.75	30 15	Cir Cir	374.95 380.42
5	CB 145	Combination	386.55	Rect	4.00	4.00	30	Cir	376.42	30 15	Cir Cir	376.62 379.84
6	CB 146	Combination	386.36	Rect	4.00	4.00	30	Cir	376.84	24 15	Cir Cir	381.66 378.20
7	CB 148	Combination	388.05	Rect	4.00	4.00	24	Cir	382.64	24	Cir	382.84
8	CB 149	Combination	388.86	Rect	4.00	4.00	24	Cir	383.05	24	Cir	383.25
9	CB 150	Combination	388.98	Rect	4.00	4.00	24	Cir	383.40	18 18	Cir Cir	385.13 383.94
10	CB 151	Combination	390.20	Rect	4.00	4.00	18	Cir	386.08	15	Cir	386.36
11	CB 152	Combination	391.31	Rect	4.00	4.00	15	Cir	387.01	15	Cir	387.20
12	CB 153	Combination	391.78	Rect	4.00	4.00	15	Cir	387.42	15	Cir	387.62
13	CB 154	Combination	391.78	Rect	4.00	4.00	15	Cir	387.76	15	Cir	387.96
14	CB 154A	Combination	392.18	Rect	4.00	4.00	15	Cir	388.36			
15	CB 150A	Combination	388.67	Rect	4.00	4.00	18	Cir	384.45	18	Cir	384.65
16	CB 150B	Combination	388.63	Rect	4.00	4.00	18	Cir	384.80			
17	CB 145A	Combination	386.55	Rect	4.00	4.00	15	Cir	379.98	15	Cir	380.18
18	CB 145B	Combination	385.10	Rect	4.00	4.00	15	Cir	380.38	15	Cir	380.58
19	CB 145C	Combination	384.78	Rect	4.00	4.00	15	Cir	380.76	15	Cir	380.96
20	CB 145D	Combination	385.45	Rect	4.00	4.00	15	Cir	381.63			

Project File: SCM 1B Storm Network.stm | Number of Structures: 32 | Run Date: 4/11/2025

Structure Report

SCM 1B 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	CB 146A	Combination	386.37	Rect	4.00	4.00	15	Cir	378.34	15 15	Cir Cir	378.54 381.44
22	FES 146C	DropGrate	382.52	Rect	3.00	3.00	15	Cir	379.00			
23	CB 146B	Combination	385.48	Rect	4.00	4.00	15	Cir	381.66			
24	CB 144A	Combination	384.45	Rect	4.00	4.00	15	Cir	380.60			
25	CB 143A	Combination	384.63	Rect	4.00	4.00	30	Cir	374.67	30	Cir	374.87
26	JB-147	Manhole	385.61	Cir	4.00	4.00	30	Cir	375.69	30	Cir	375.89
27	YI 158A	DropGrate	381.83	Rect	3.00	3.00	30	Cir	376.61	15 24	Cir Cir	379.15 377.15
28	YI 159	DropGrate	382.98	Rect	3.00	3.00	15	Cir	379.54			
29	YI 158	DropGrate	384.13	Rect	3.00	3.00	24	Cir	378.13	18	Cir	378.67
30	YI 157	DropGrate	384.33	Rect	3.00	3.00	18	Cir	379.49	15	Cir	379.76
31	YI 156	DropGrate	384.64	Rect	3.00	3.00	15	Cir	380.43	15	Cir	380.63
32	YI 155	DropGrate	385.09	Rect	3.00	3.00	15	Cir	381.65			

Project File: SCM 1B Storm Network.stm | Number of Structures: 32 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 1B 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (402)	32.06	36	Cir	43.038	372.05	372.27	0.511	375.05	375.13	0.33	375.46	End	DropGrate
2	Pipe - (401)	31.71	36	Cir	125.580	372.47	373.10	0.502	375.46	374.92	n/a	374.92	1	Combination
3	Pipe - (400)	30.11	36	Cir	29.057	373.30	373.45	0.516	375.02	375.23	n/a	375.23	2	Combination
4	Pipe - (398)	15.48	30	Cir	141.000	374.00	374.75	0.532	375.28	376.08	n/a	376.08	3	Combination
5	Pipe - (397)	13.27	30	Cir	292.665	374.95	376.42	0.502	376.14	377.64	n/a	377.64	4	Combination
6	Pipe - (185)	12.93	30	Cir	43.286	376.62	376.84	0.508	377.78	378.05	0.77	378.05	5	Combination
7	Pipe - (198)	10.54	24	Cir	196.769	381.66	382.64	0.498	382.85	383.83	0.52	384.34	6	Combination
8	Pipe - (197)	10.37	24	Cir	41.948	382.84	383.05	0.501	384.34	384.40	0.28	384.68	7	Combination
9	Pipe - (199)	7.79	24	Cir	29.270	383.25	383.40	0.512	384.68	384.39	0.77	384.39	8	Combination
10	Pipe - (196)	2.82	18	Cir	138.408	385.13	386.08	0.686	385.72	386.72	n/a	386.72	9	Combination
11	Pipe - (194)	2.38	15	Cir	125.150	386.36	387.01	0.519	386.99	387.64	0.26	387.90	10	Combination
12	Pipe - (193)	2.20	15	Cir	42.068	387.20	387.42	0.523	387.90	388.02	n/a	388.28 j	11	Combination
13	Pipe - (526)	1.94	15	Cir	28.000	387.62	387.76	0.500	388.28	388.33	0.20	388.53	12	Combination
14	Pipe - (527)	0.47	15	Cir	50.224	387.96	388.36	0.796	388.53	388.63	n/a	388.63 j	13	Combination
15	Pipe - (428)	4.27	18	Cir	45.621	383.94	384.45	1.118	384.59	385.24	n/a	385.24	9	Combination
16	Pipe - (427)	0.70	18	Cir	28.355	384.65	384.80	0.529	385.24	385.11	n/a	385.11	15	Combination
17	Pipe - (396)	0.30	15	Cir	28.000	379.84	379.98	0.500	380.06	380.20	n/a	380.28 j	5	Combination
18	Pipe - (430)	0.23	15	Cir	39.908	380.18	380.38	0.501	380.37	380.57	0.06	380.62	17	Combination
19	Pipe - (429)	0.15	15	Cir	34.848	380.58	380.76	0.517	380.74	380.91	n/a	380.98 j	18	Combination
20	Pipe - (431)	0.08	15	Cir	44.136	380.96	381.63	1.518	381.05	381.74	n/a	381.74	19	Combination
21	Pipe - (184)	2.05	15	Cir	28.043	378.20	378.34	0.499	378.79	378.93	0.36	379.28	6	Combination
22	Pipe - (190)	1.32	15	Cir	92.236	378.54	379.00	0.499	379.28	379.46	0.16	379.62	21	DropGrate
23	Pipe - (183)	0.27	15	Cir	44.388	381.44	381.66	0.496	381.65	381.87	0.06	381.93	21	Combination
24	Pipe - (399)	0.97	15	Cir	34.361	380.42	380.60	0.524	380.81	380.99	0.14	381.13	4	Combination

Project File: SCM 1B Storm Network.stm | Number of lines: 32 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

SCM 1B 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
25	Pipe - (208)	13.72	30	Cir	125.103	374.00	374.67	0.536	375.23	375.92	0.25	375.92	3	Combination
26	Pipe - (597)	13.21	30	Cir	164.842	374.87	375.69	0.497	376.06	376.91	n/a	376.91	25	Manhole
27	Pipe - (596)	13.38	30	Cir	143.185	375.89	376.61	0.503	377.08	377.84	n/a	377.84	26	DropGrate
28	Pipe - (218)	3.65	15	Cir	76.394	379.15	379.54	0.511	379.99	380.38	0.27	380.65	27	DropGrate
29	Pipe - (601)	8.26	24	Cir	71.757	377.15	378.13	1.366	377.92	379.15	n/a	379.15	27	DropGrate
30	Pipe - (600)	6.28	18	Cir	163.784	378.67	379.49	0.501	379.73	380.55	0.17	380.72	29	DropGrate
31	Pipe - (599)	4.04	15	Cir	134.085	379.76	380.43	0.500	380.72	381.33	0.14	381.47	30	DropGrate
32	Pipe - (598)	2.02	15	Cir	202.660	380.63	381.65	0.503	381.47	382.22	n/a	382.22 j	31	DropGrate

Project File: SCM 1B Storm Network.stm | Number of lines: 32 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; j - Line contains hyd. jump.

Inlet Report

SCM 1B 25-YEAR

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	YI 141	0.78	0.00	0.36	0.42	DrGrt	0.0	0.00	0.00	2.00	2.00	0.020	2.00	0.020	0.020	0.013	0.07	9.10	0.07	9.10	0.0	Off
2	CB 142	1.90	0.09	1.99	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.25	8.50	0.25	8.50	0.0	Off
3	CB 143	1.63	0.47	2.09	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.26	8.84	0.26	8.84	0.0	Off
4	CB 144	1.90	0.00	1.48	0.42	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.21	6.49	0.13	2.41	0.0	3
5	CB 145	0.12	0.22	0.33	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.12	1.95	0.00	0.00	0.0	4
6	CB 146	0.74	0.64	1.16	0.22	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.19	5.50	0.10	1.66	0.0	5
7	CB 148	0.23	2.14	1.73	0.64	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.22	7.22	0.15	3.43	0.0	6
8	CB 149	2.79	0.00	1.94	0.85	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.24	7.78	0.16	4.16	0.0	7
9	CB 150	1.05	0.00	0.94	0.11	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.17	4.73	0.08	1.29	0.0	Off
10	CB 151	0.50	0.00	0.50	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.14	2.83	0.02	0.36	0.0	9
11	CB 152	0.19	0.00	0.20	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.10	1.60	0.00	0.00	0.0	10
12	CB 153	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.11	1.81	0.00	0.00	0.0	11
13	CB 154	1.51	0.00	1.25	0.27	Comb	4.0	3.00	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.20	5.78	0.11	1.79	0.0	Off
14	CB 154A	0.47	0.00	0.46	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.13	2.63	0.02	0.27	0.0	11
15	CB 150A	3.61	0.00	2.32	1.29	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.25	8.73	0.19	5.31	0.0	7
16	CB 150B	0.70	0.00	0.67	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.15	3.64	0.05	0.77	0.0	Off
17	CB 145A	0.08	0.00	0.08	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.07	1.13	0.00	0.00	0.0	24
18	CB 145B	0.08	0.00	0.08	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.07	1.13	0.00	0.00	0.0	Off
19	CB 145C	0.08	0.00	0.08	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.07	1.13	0.00	0.00	0.0	Off
20	CB 145D	0.08	0.00	0.08	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.07	1.13	0.00	0.00	0.0	Off
21	CB 146A	0.50	0.00	0.50	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.14	2.83	0.02	0.36	0.0	23
22	FES 146C	1.32	0.00	1.32	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.14	16.44	0.14	16.44	0.0	Off
23	CB 146B	0.27	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.11	1.82	0.00	0.00	0.0	Off

Project File: SCM 1B Storm Network.stm | Number of lines: 32 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

SCM 1B 25-YEAR

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)	
24	CB 144A	0.97	0.00	0.88	0.09	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.17	4.51	0.07	1.18	0.0	2
25	CB 143A	0.78	0.00	0.73	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	3.91	0.05	0.89	0.0	3
26	JB-147	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
27	YI 158A	1.94	6.97	8.91	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.52	53.64	0.52	53.64	0.0	Off
28	YI 159	3.65	0.00	1.06	2.58	DrGrt	0.0	0.00	0.00	2.00	2.00	0.020	2.00	0.020	0.020	0.013	0.14	16.10	0.14	16.10	0.0	27
29	YI 158	2.25	3.59	1.46	4.39	DrGrt	0.0	0.00	0.00	2.00	2.00	0.020	2.00	0.020	0.020	0.013	0.17	19.10	0.17	19.10	0.0	27
30	YI 157	2.44	2.45	1.30	3.59	DrGrt	0.0	0.00	0.00	2.00	2.00	0.020	2.00	0.020	0.020	0.013	0.16	18.10	0.16	18.10	0.0	29
31	YI 156	2.17	1.31	1.03	2.45	DrGrt	0.0	0.00	0.00	2.00	2.00	0.020	2.00	0.020	0.020	0.013	0.14	16.10	0.14	16.10	0.0	30
32	YI 155	2.02	0.00	0.71	1.31	DrGrt	0.0	0.00	0.00	2.00	2.00	0.020	2.00	0.020	0.020	0.013	0.11	13.10	0.11	13.10	0.0	31

Project File: SCM 1B Storm Network.stm | Number of lines: 32 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

SCM 1B 25-YEAR

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	32.06	372.05	375.05	3.00	7.07	4.54	0.32	375.37	0.231	43.038	372.27	375.13	2.86	6.95	4.61	0.33	375.46	0.201	0.216	0.093	1.00	0.33
2	36	31.71	372.47	375.46	2.99	4.50	4.49	0.77	376.24	0.000	125.580	373.10	374.92	1.82**	4.50	7.05	0.77	375.70	0.000	0.000	n/a	0.50	n/a
3	36	30.11	373.30	375.02	1.72*	4.20	7.16	0.74	375.77	0.000	29.057	373.45	375.23	1.78**	4.36	6.91	0.74	375.97	0.000	0.000	n/a	2.14	n/a
4	30	15.48	374.00	375.28	1.28*	2.52	6.14	0.53	375.81	0.000	141.000	374.75	376.08	1.33**	2.65	5.85	0.53	376.61	0.000	0.000	n/a	1.26	n/a
5	30	13.27	374.95	376.14	1.19*	2.29	5.78	0.48	376.62	0.000	292.665	376.42	377.64	1.22**	2.39	5.55	0.48	378.12	0.000	0.000	n/a	1.50	n/a
6	30	12.93	376.62	377.78	1.16*	2.24	5.77	0.47	378.26	0.000	43.286	376.84	378.05	1.21**	2.35	5.51	0.47	378.52	0.000	0.000	n/a	1.63	0.77
7	24	10.54	381.66	382.85	1.19*	1.94	5.43	0.46	383.30	0.498	196.769	382.64	383.83	1.19	1.94	5.43	0.46	384.28	0.498	0.498	0.980	1.13	0.52
8	24	10.37	382.84	384.34	1.50	2.53	4.09	0.26	384.60	0.251	41.948	383.05	384.40	1.35	2.25	4.61	0.33	384.73	0.333	0.292	0.123	0.85	0.28
9	24	7.79	383.25	384.68	1.43	1.56	3.25	0.39	385.07	0.000	29.270	383.40	384.39	0.99**	1.56	5.01	0.39	384.78	0.000	0.000	n/a	1.98	0.77
10	18	2.82	385.13	385.72	0.59*	0.64	4.39	0.24	385.96	0.000	138.408	386.08	386.72	0.64**	0.71	3.94	0.24	386.96	0.000	0.000	n/a	0.50	n/a
11	15	2.38	386.36	386.99	0.63*	0.62	3.81	0.23	387.22	0.519	125.150	387.01	387.64	0.63	0.62	3.82	0.23	387.87	0.523	0.521	0.652	1.16	0.26
12	15	2.20	387.20	387.90	0.70	0.57	3.09	0.15	388.05	0.313	42.068	387.42	388.02 j	0.60**	0.58	3.82	0.23	388.24	0.550	0.431	0.181	1.17	0.27
13	15	1.94	387.62	388.28	0.66	0.66	2.96	0.14	388.42	0.301	28.000	387.76	388.33	0.57	0.55	3.57	0.20	388.53	0.498	0.400	0.112	0.99	0.20
14	15	0.47	387.96	388.53	0.57	0.19	0.86	0.09	388.62	0.000	50.224	388.36	388.63 j	0.27**	0.19	2.45	0.09	388.72	0.000	0.000	n/a	1.00	n/a
15	18	4.27	383.94	384.59	0.65*	0.73	5.87	0.32	384.90	0.000	45.621	384.45	385.24	0.79**	0.95	4.51	0.32	385.56	0.000	0.000	n/a	1.22	n/a
16	18	0.70	384.65	385.24	0.59	0.26	1.08	0.11	385.35	0.000	28.355	384.80	385.11	0.31**	0.26	2.65	0.11	385.22	0.000	0.000	n/a	1.00	n/a
17	15	0.30	379.84	380.06	0.22*	0.14	2.10	0.07	380.13	0.499	28.000	379.98	380.20 j	0.22**	0.14	2.11	0.07	380.27	0.504	0.501	0.140	1.14	0.08
18	15	0.23	380.18	380.37	0.19*	0.11	1.94	0.06	380.43	0.500	39.908	380.38	380.57	0.19**	0.12	1.95	0.06	380.63	0.513	0.506	0.202	0.94	0.06
19	15	0.15	380.58	380.74	0.16*	0.08	1.74	0.05	380.78	0.516	34.848	380.76	380.91 j	0.15**	0.09	1.75	0.05	380.96	0.528	0.522	0.182	1.34	0.06
20	15	0.08	380.96	381.05	0.09*	0.04	2.06	0.04	381.08	0.000	44.136	381.63	381.74	0.11**	0.05	1.53	0.04	381.77	0.000	0.000	n/a	1.00	n/a
21	15	2.05	378.20	378.79	0.59*	0.57	3.62	0.20	378.99	0.498	28.043	378.34	378.93	0.59	0.56	3.63	0.21	379.13	0.504	0.501	0.141	1.74	0.36
22	15	1.32	378.54	379.28	0.74	0.40	1.74	0.05	379.33	0.095	92.236	379.00	379.46	0.46**	0.41	3.25	0.16	379.62	0.515	0.305	0.281	1.00	0.16

Project File: SCM 1B Storm Network.stm | Number of lines: 32 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 1B 25-YEAR

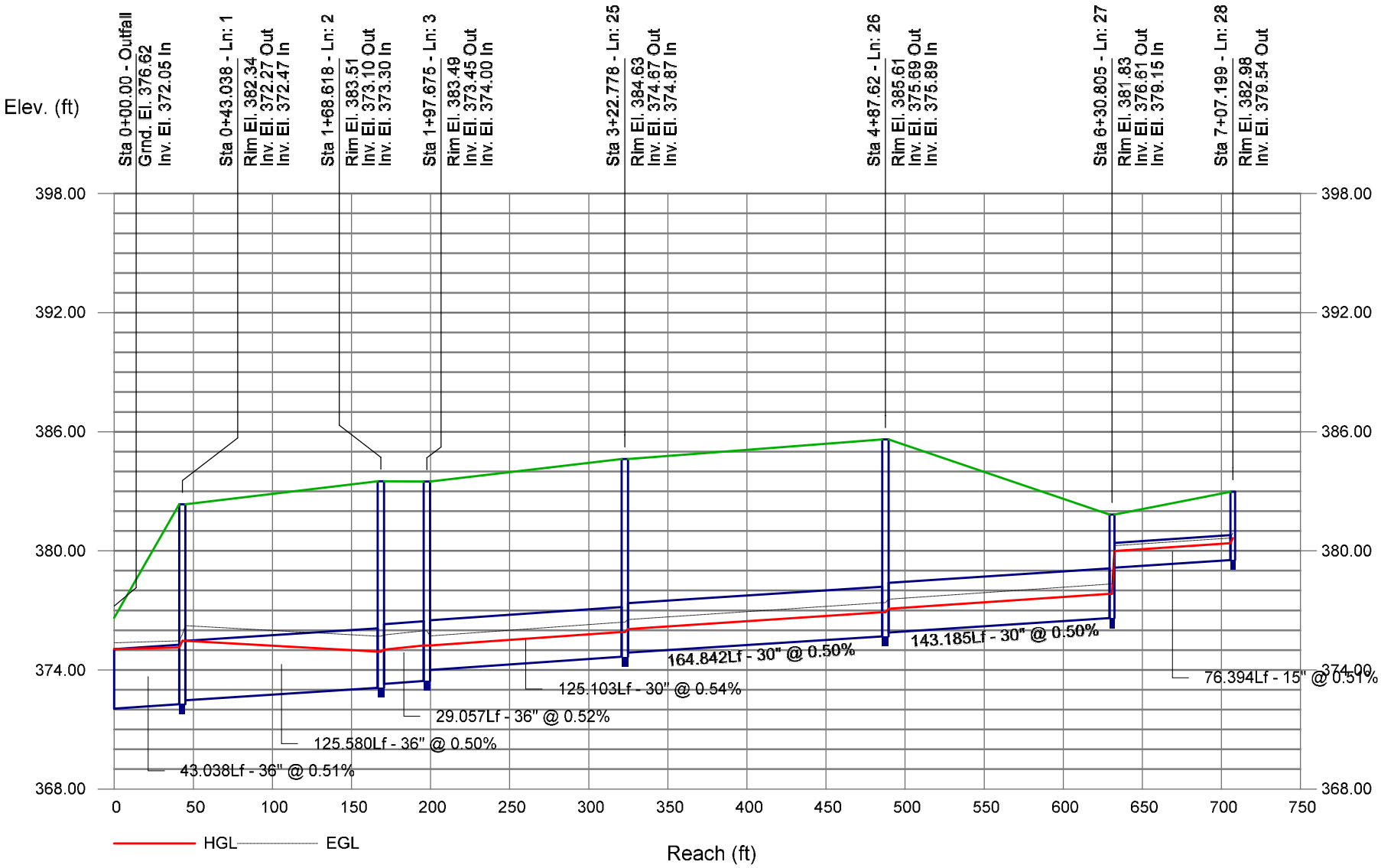
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	15	0.27	381.44	381.65	0.21*	0.13	2.03	0.06	381.71	0.495	44.388	381.66	381.87	0.21**	0.13	2.02	0.06	381.93	0.485	0.490	0.217	1.00	0.06
24	15	0.97	380.42	380.81	0.39*	0.32	3.00	0.14	380.95	0.523	34.361	380.60	380.99	0.39**	0.33	2.97	0.14	381.13	0.508	0.515	0.177	1.00	0.14
25	30	13.72	374.00	375.23	1.23	2.39	5.73	0.49	375.72	0.000	125.103	374.67	375.92	1.25**	2.44	5.62	0.49	376.41	0.000	0.000	n/a	0.50	0.25
26	30	13.21	374.87	376.06	1.19*	2.29	5.76	0.48	376.53	0.000	164.842	375.69	376.91	1.22**	2.38	5.55	0.48	377.39	0.000	0.000	n/a	1.00	n/a
27	30	13.38	375.89	377.08	1.19*	2.31	5.80	0.48	377.56	0.000	143.185	376.61	377.84	1.23**	2.40	5.57	0.48	378.32	0.000	0.000	n/a	2.25	n/a
28	15	3.65	379.15	379.99	0.84*	0.87	4.17	0.27	380.26	0.510	76.394	379.54	380.38	0.84	0.88	4.16	0.27	380.65	0.508	0.509	0.389	1.00	0.27
29	24	8.26	377.15	377.92	0.77*	1.11	7.43	0.41	378.32	0.000	71.757	378.13	379.15	1.02**	1.62	5.11	0.41	379.56	0.000	0.000	n/a	0.50	n/a
30	18	6.28	378.67	379.73	1.06*	1.33	4.72	0.35	380.07	0.500	163.784	379.49	380.55	1.06	1.33	4.71	0.34	380.89	0.499	0.500	0.819	0.50	0.17
31	15	4.04	379.76	380.72	0.96	1.01	3.99	0.25	380.97	0.444	134.085	380.43	381.33	0.90	0.94	4.27	0.28	381.61	0.520	0.482	0.646	0.50	0.14
32	15	2.02	380.63	381.47	0.84	0.54	2.30	0.08	381.55	0.155	202.660	381.65	382.22 j	0.57**	0.54	3.74	0.22	382.43	0.552	0.353	n/a	1.00	0.22

Project File: SCM 1B Storm Network.stm | Number of lines: 32 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

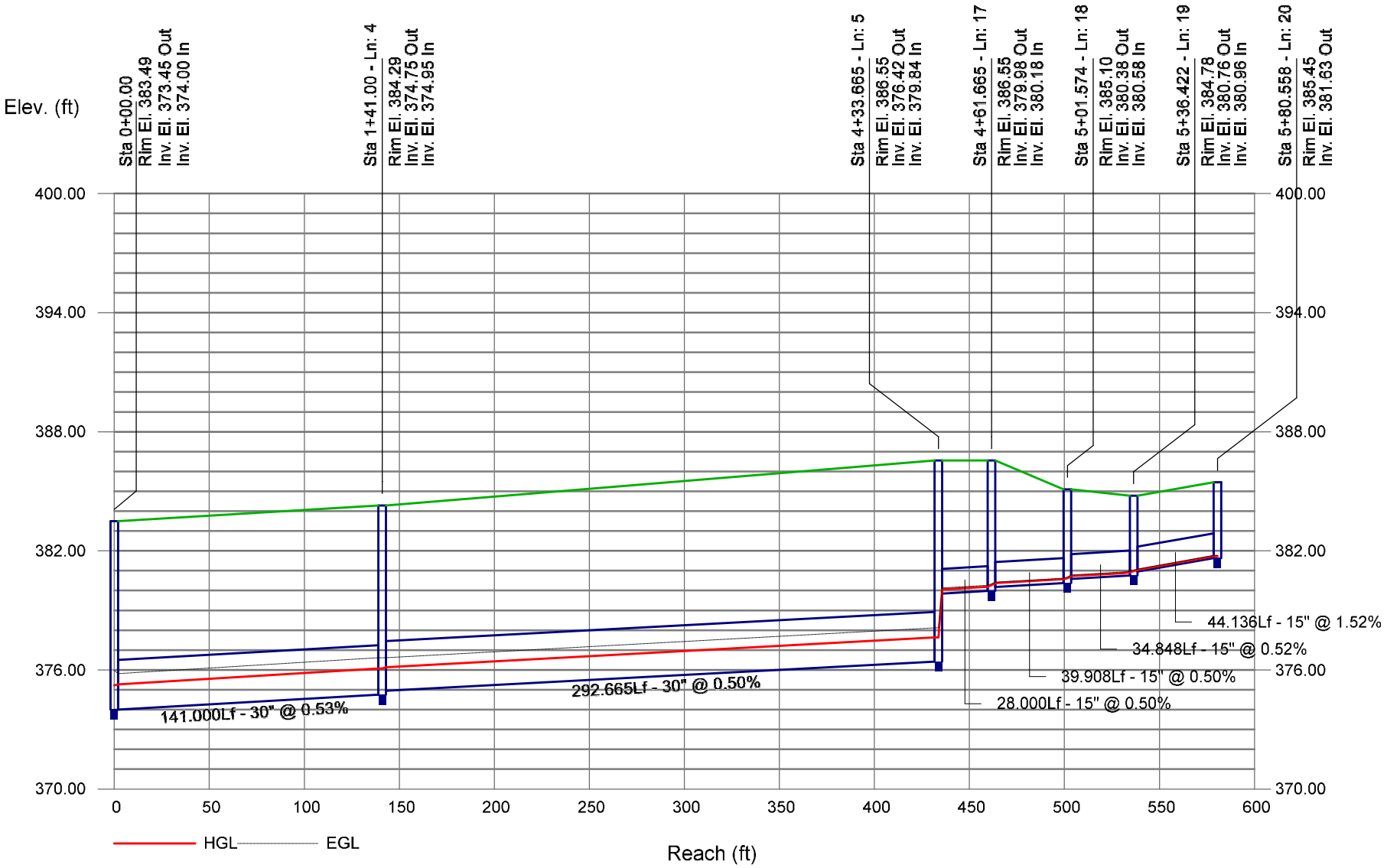
Storm Sewer Profile

SCM 1B 25-YEAR PROFILE 1-28 Proj. file: SCM 1B Storm Network.stm



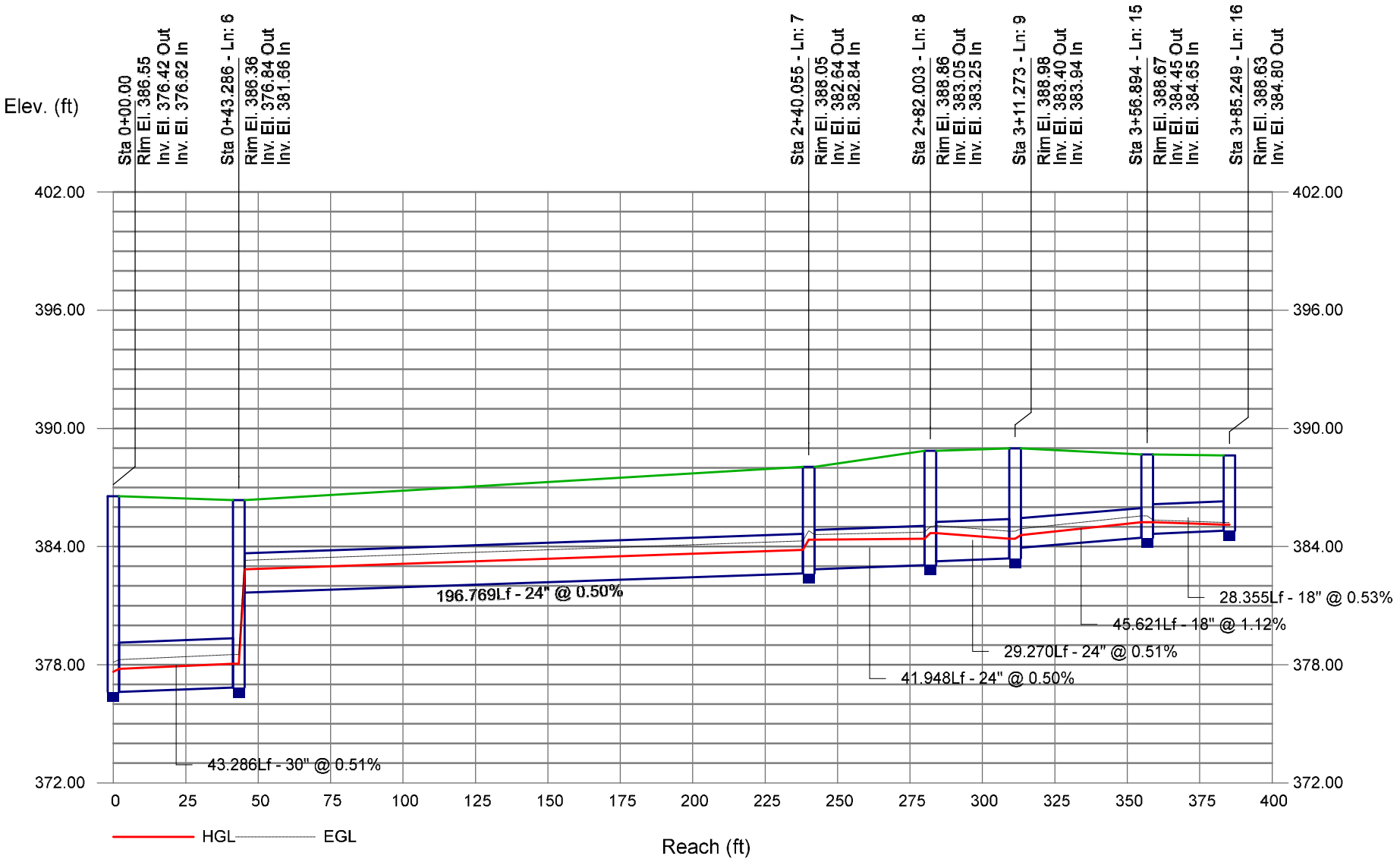
Storm Sewer Profile

SCM 1B 25-YEAR PROFILE 4-20 Proj. file: SCM 1B Storm Network.stm



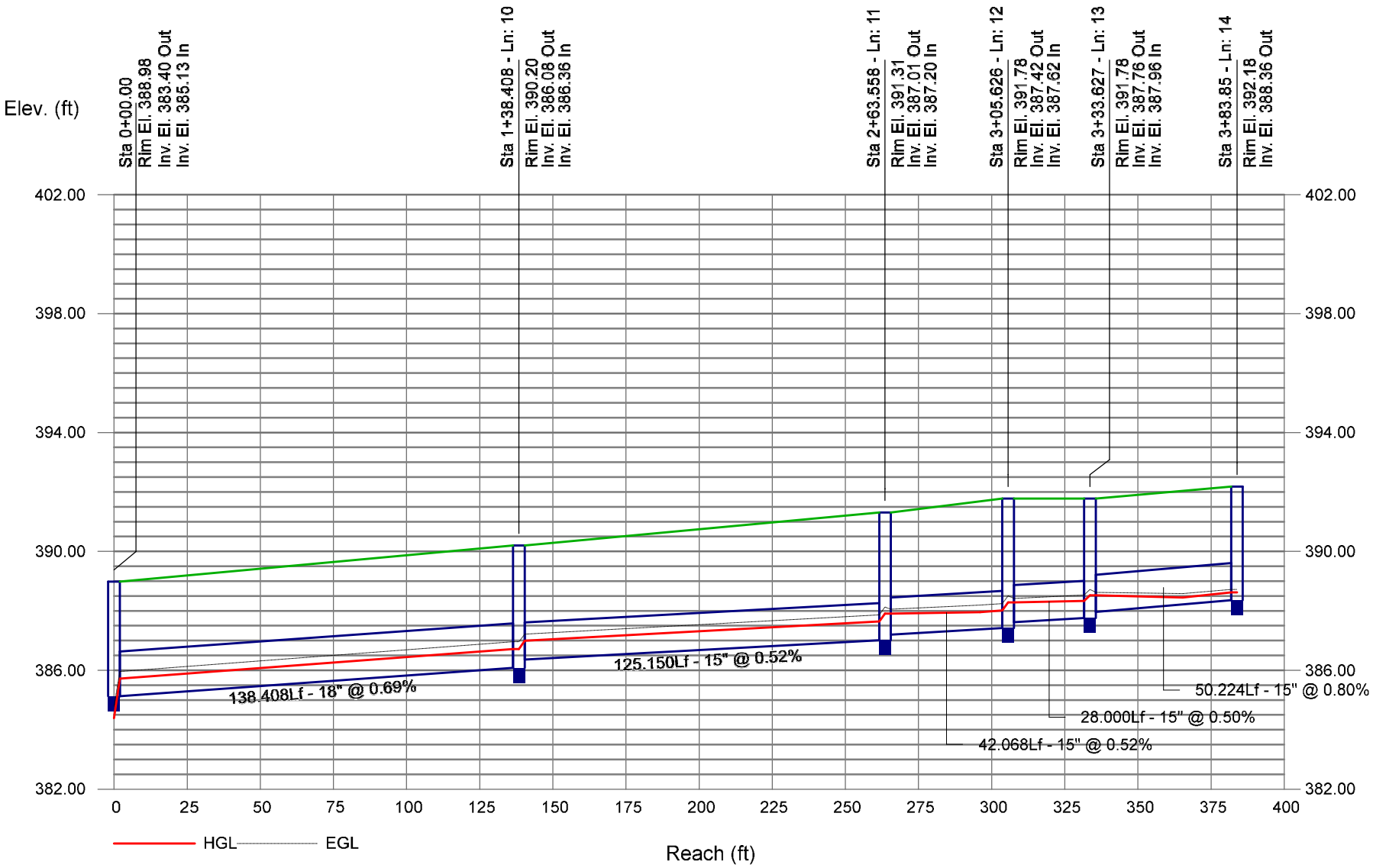
Storm Sewer Profile

SCM 1B 25-YEAR PROFILE 6-16 Proj. file: SCM 1B Storm Network.stm



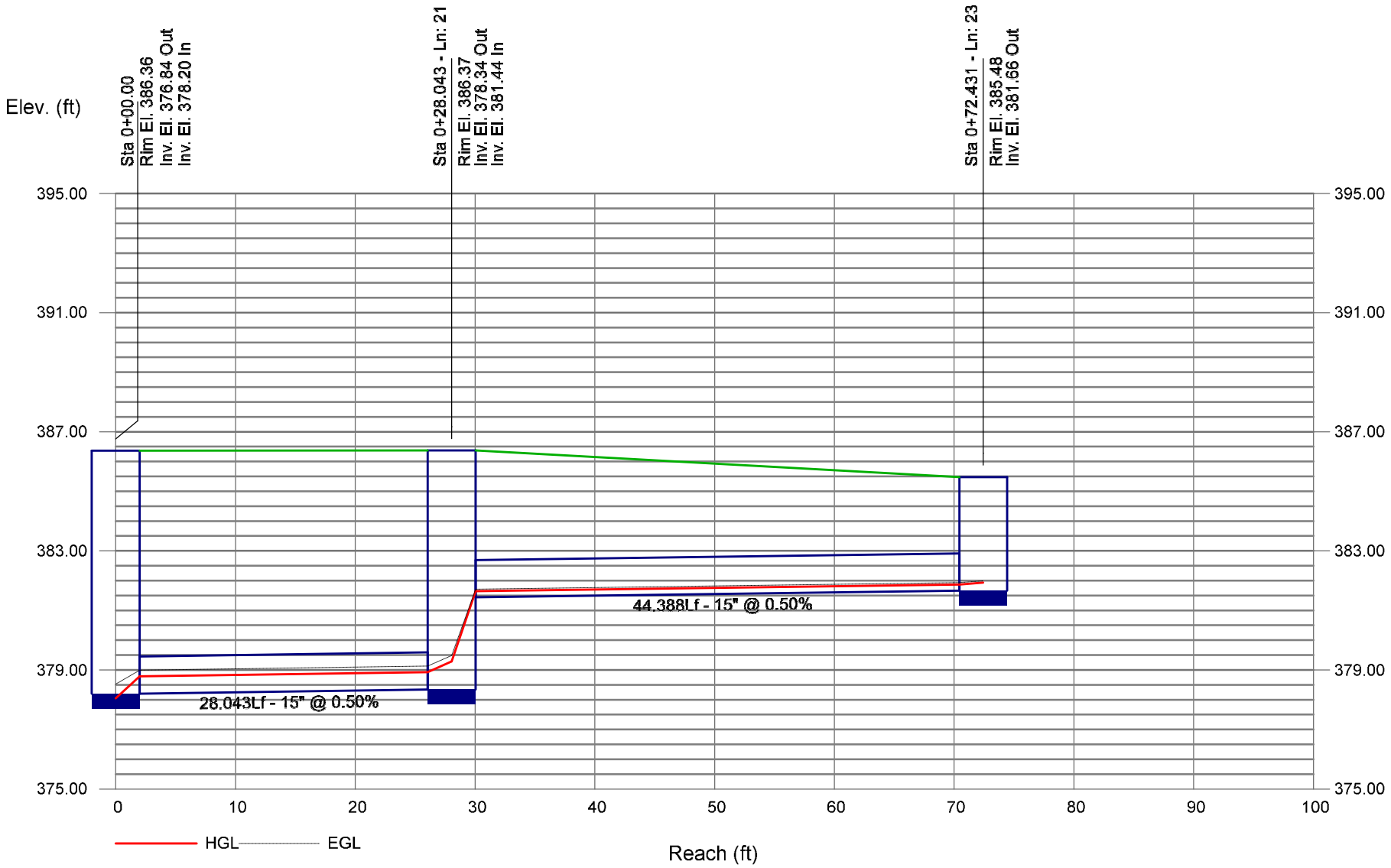
Storm Sewer Profile

SCM 1B 25-YEAR PROFILE 10-14 Proj. file: SCM 1B Storm Network.stm



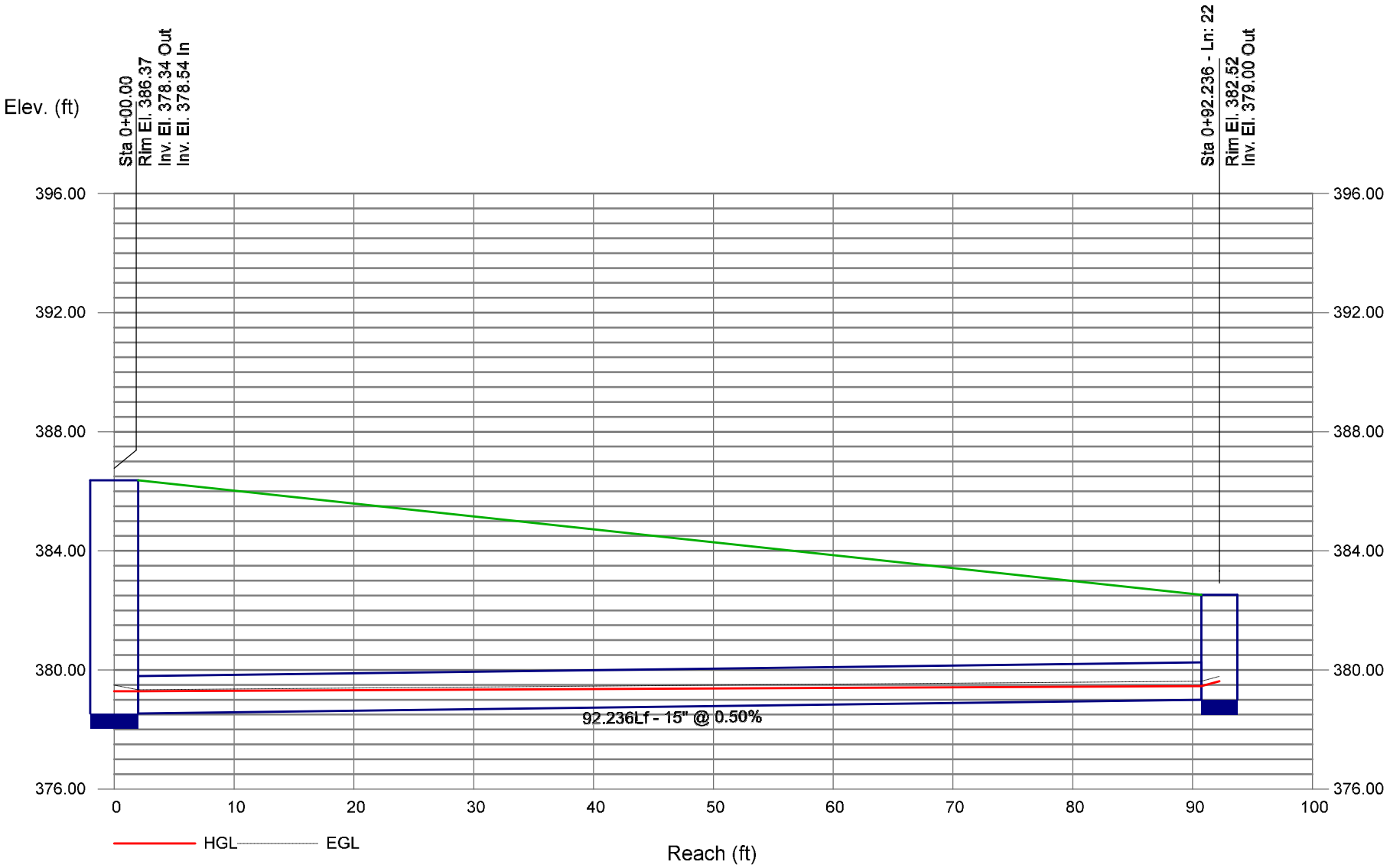
Storm Sewer Profile

SCM 1B 25-YEAR PROFILE 21-23 Proj. file: SCM 1B Storm Network.stm



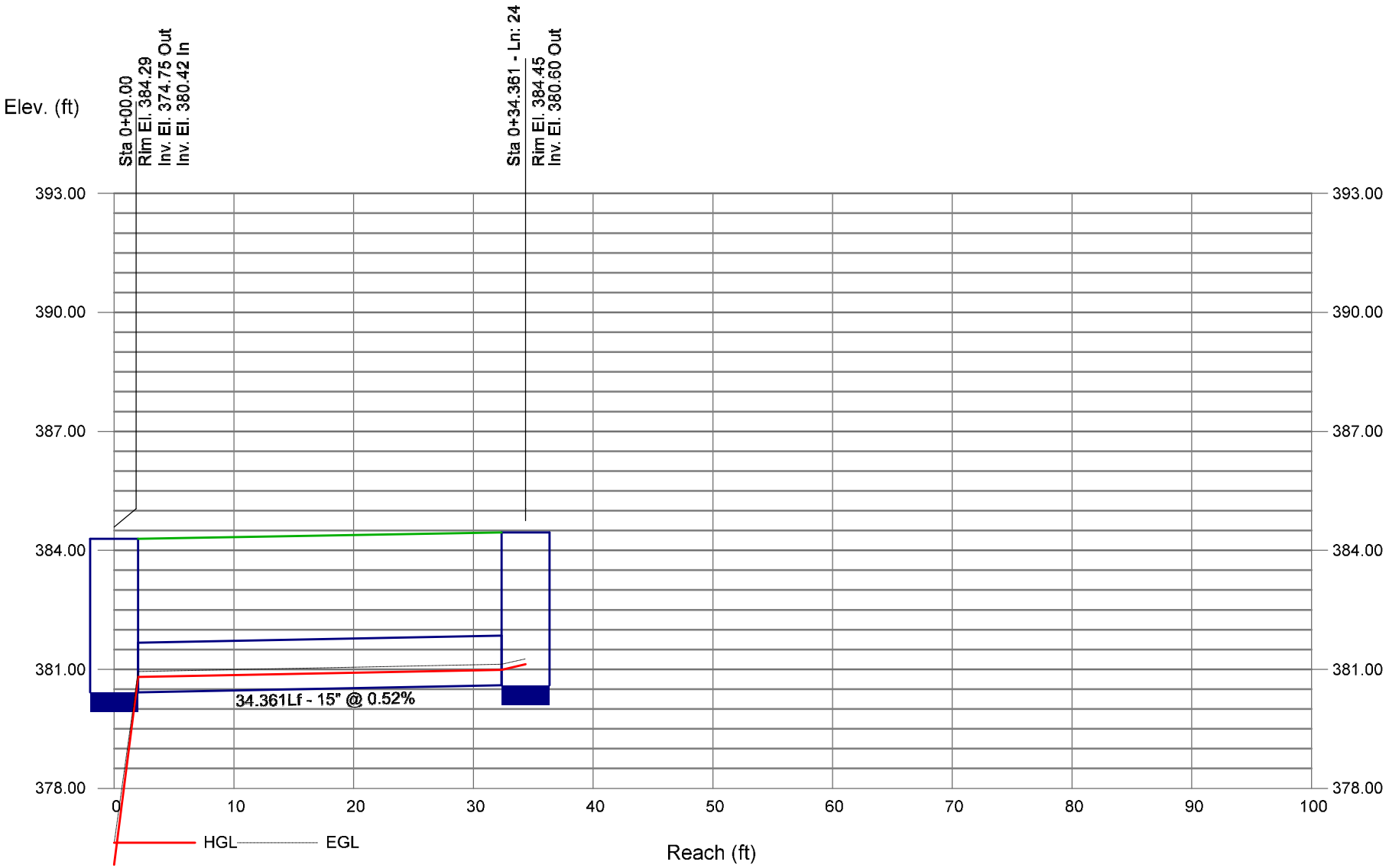
Storm Sewer Profile

SCM 1B 25-YEAR PROFILE 22-22 Proj. file: SCM 1B Storm Network.stm



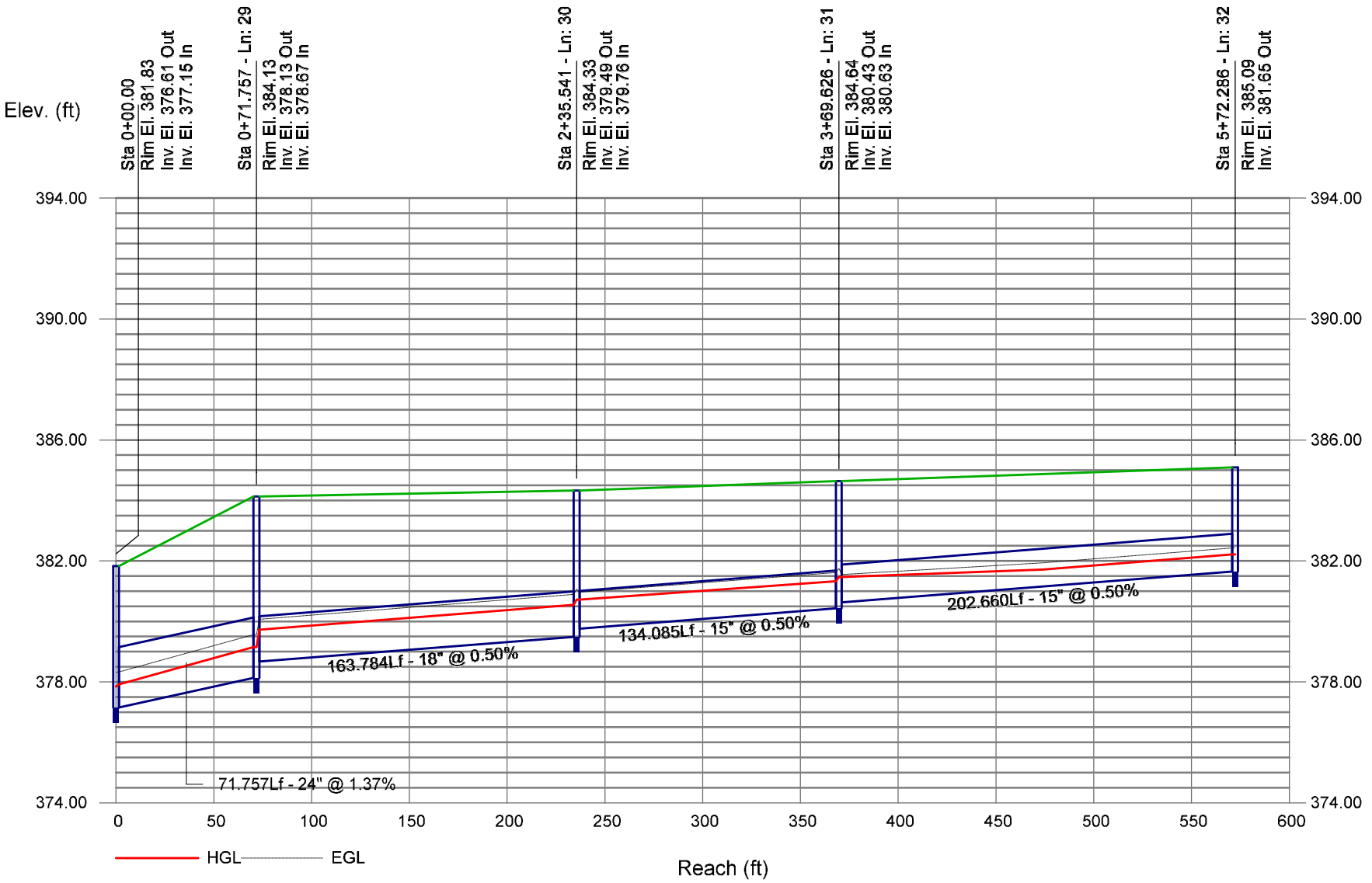
Storm Sewer Profile

SCM 1B 25-YEAR PROFILE 24-24 Proj. file: SCM 1B Storm Network.stm

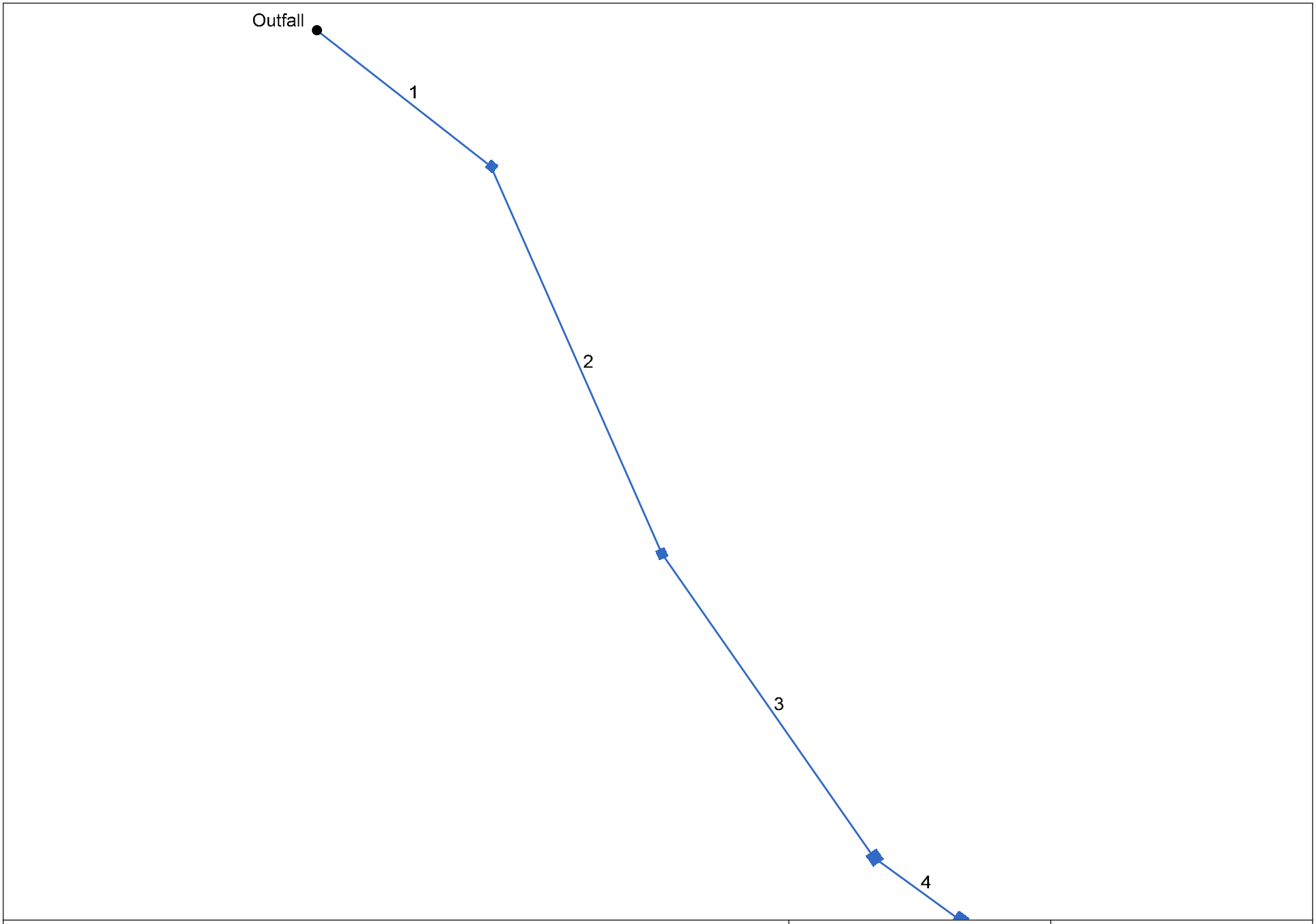


Storm Sewer Profile

SCM 1B 25-YEAR PROFILE 29-32 Proj. file: SCM 1B Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 1C 25-YEAR



Project File: SCM 1C Storm Network.stm	Number of lines: 4	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 1C 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	70.981	38.145	DrGrt	0.00	0.39	0.60	10.0	358.50	6.68	363.24	15	Cir	0.013	0.79	371.16	Pipe - (570)
2	1	136.000	28.168	DrGrt	0.00	0.16	0.60	10.0	363.50	5.51	371.00	15	Cir	0.013	0.50	378.82	Pipe - (569)
3	2	119.127	-11.154	Comb	0.00	0.33	0.60	10.0	371.20	0.92	372.30	15	Cir	0.013	0.57	380.11	Pipe - (568)
4	3	34.000	-19.075	Comb	0.00	0.34	0.60	10.0	372.56	1.00	372.90	15	Cir	0.013	1.00	380.85	Pipe - (567)

Project File: SCM 1C Storm Network.stm

Number of lines: 4

Date: 4/11/2025

Structure Report

SCM 1C 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 161	DropGrate	371.16	Rect	3.00	3.00	15	Cir	363.24	15	Cir	363.50
2	YI 162	DropGrate	378.82	Rect	3.00	3.00	15	Cir	371.00	15	Cir	371.20
3	CB 163	Combination	380.11	Rect	4.00	4.00	15	Cir	372.30	15	Cir	372.56
4	CB 164	Combination	380.85	Rect	4.00	4.00	15	Cir	372.90			

Project File: SCM 1C Storm Network.stm | Number of Structures: 4 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 1C 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (570)	4.57	15	Cir	70.981	358.50	363.24	6.678	359.75	364.11	n/a	364.11 j	End	DropGrate
2	Pipe - (569)	3.16	15	Cir	136.000	363.50	371.00	5.515	364.11	371.71	n/a	371.71	1	DropGrate
3	Pipe - (568)	2.59	15	Cir	119.127	371.20	372.30	0.923	371.76	372.94	0.15	372.94	2	Combination
4	Pipe - (567)	1.32	15	Cir	34.000	372.56	372.90	1.000	372.94	373.35	0.17	373.35	3	Combination

Project File: SCM 1C Storm Network.stm

Number of lines: 4

Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; j - Line contains hyd. jump.

Inlet Report

SCM 1C 25-YEAR

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	YI 161	1.51	0.00	1.51	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.16	17.82	0.16	17.82	0.0	Off
2	YI 162	0.62	0.00	0.62	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.09	10.73	0.09	10.73	0.0	Off
3	CB 163	1.28	0.00	1.28	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.20	6.09	0.20	6.09	0.0	Off
4	CB 164	1.32	0.00	1.32	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.20	6.23	0.20	6.23	0.0	Off

Project File: SCM 1C Storm Network.stm | Number of lines: 4 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 1C 25-YEAR

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	15	4.57	358.50	359.75	1.25	0.91	3.72	0.22	359.97	0.501	70.981	363.24	364.11 j	0.87**	0.91	5.04	0.39	364.50	0.734	0.617	n/a	0.79	0.31
2	15	3.16	363.50	364.11	0.61	0.59	5.35	0.29	364.40	0.000	136.000	371.00	371.71	0.71**	0.73	4.35	0.29	372.01	0.000	0.000	n/a	0.50	n/a
3	15	2.59	371.20	371.76	0.56*	0.54	4.82	0.26	372.02	0.000	119.127	372.30	372.94	0.64**	0.64	4.06	0.26	373.20	0.000	0.000	n/a	0.57	0.15
4	15	1.32	372.56	372.94	0.38	0.32	4.12	0.17	373.11	0.000	34.000	372.90	373.35	0.45**	0.40	3.28	0.17	373.52	0.000	0.000	n/a	1.00	0.17

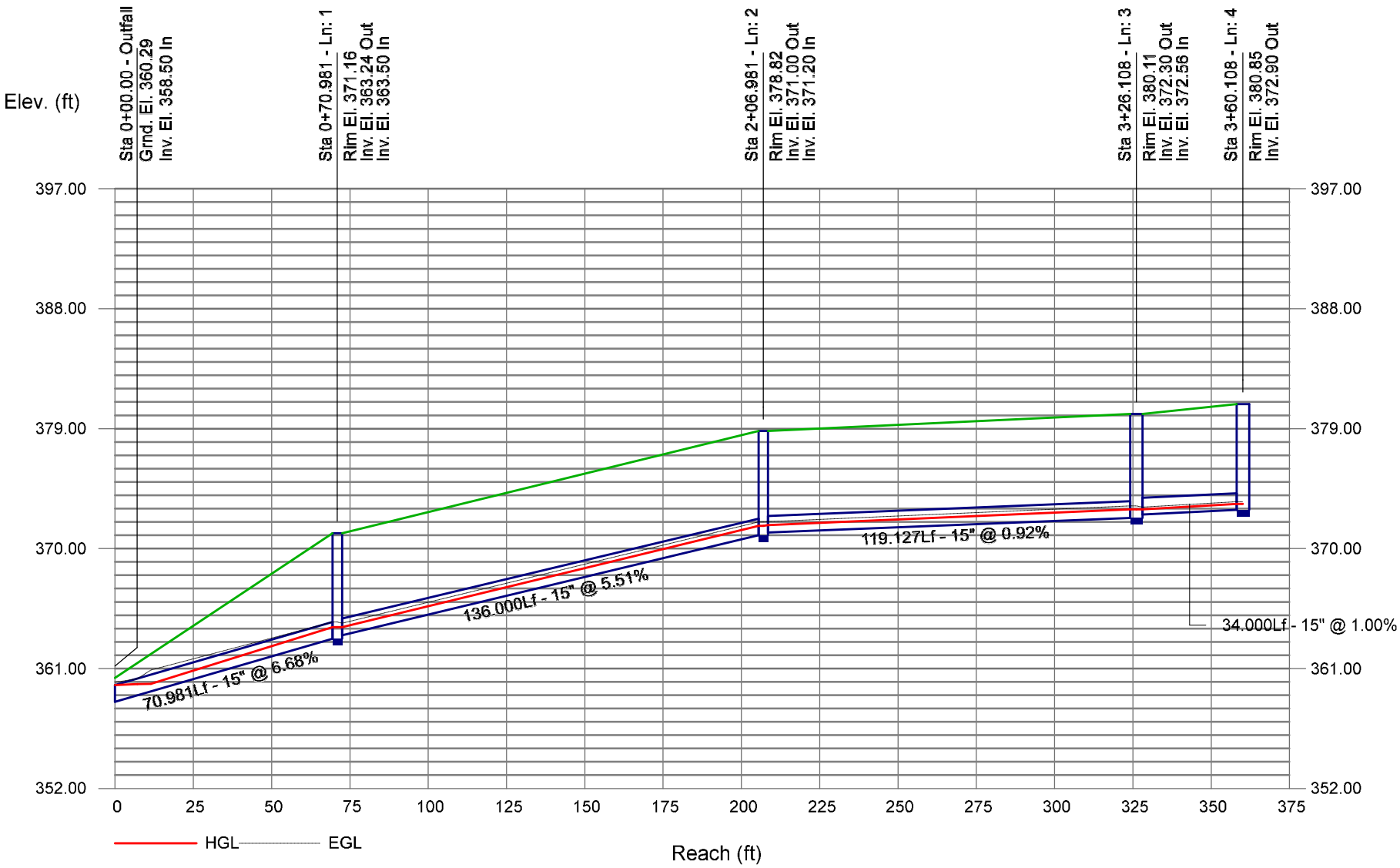
Project File: SCM 1C Storm Network.stm | Number of lines: 4 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

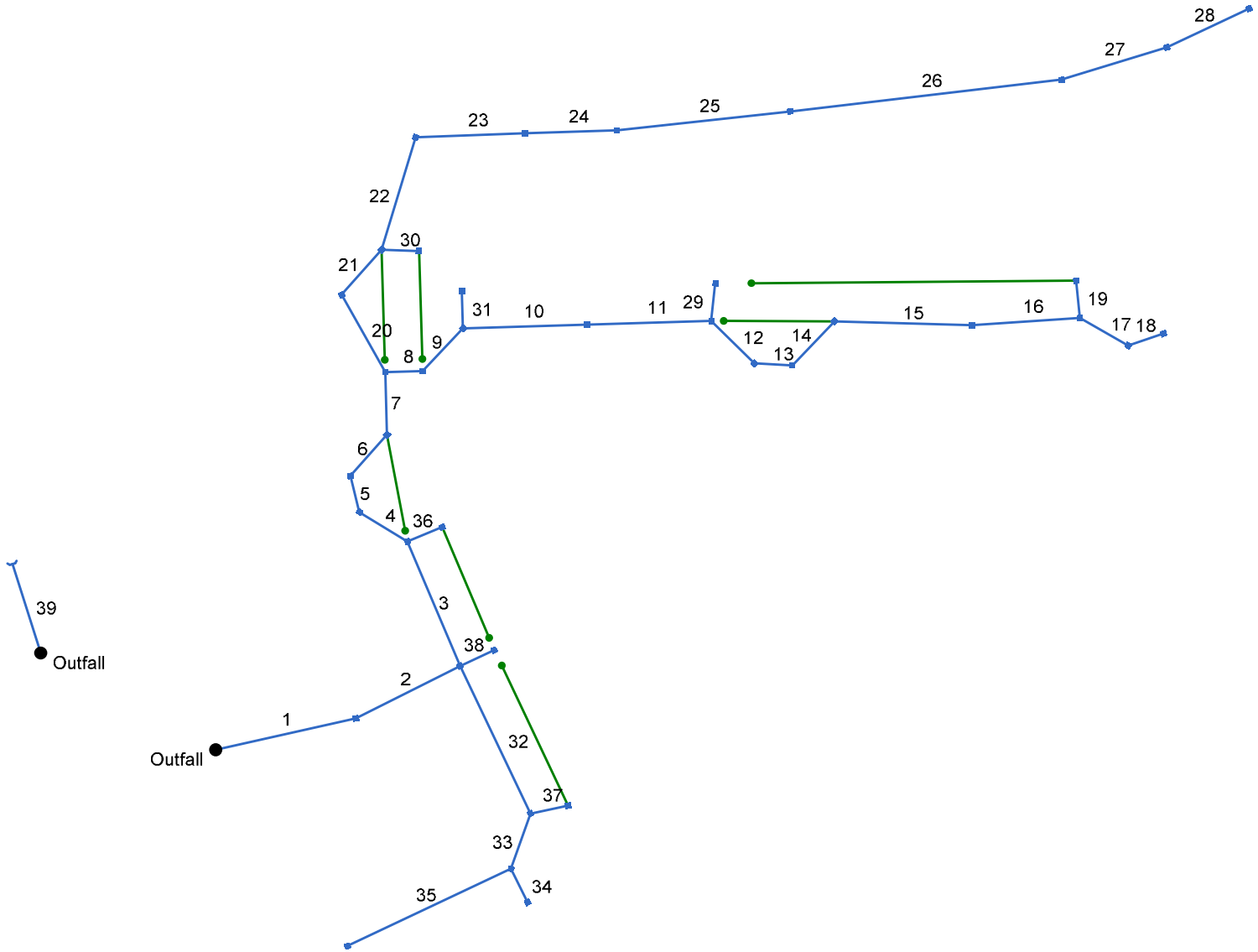
Storm Sewer Profile

SCM 1C 25-YEAR PROFILE 1-4

Proj. file: SCM 1C Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 2 25-YEAR



Project File: SCM 2 Storm Network.stm	Number of lines: 39	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 2 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	107.012	-12.687	DrGrt	0.00	0.41	0.60	10.0	349.02	0.86	349.94	30	Cir	0.013	0.50	357.33	Pipe - (137)
2	1	87.460	-14.066	Comb	0.00	0.23	0.60	10.0	350.14	0.75	350.80	30	Cir	0.013	1.50	358.63	Pipe - (135)
3	2	101.407	-86.284	Comb	0.00	0.09	0.60	10.0	351.00	1.58	352.60	30	Cir	0.013	1.50	360.21	Pipe - (131)
4	3	41.788	-35.260	Comb	0.00	0.31	0.60	10.0	352.80	1.01	353.22	30	Cir	0.013	1.11	361.27	Pipe - (172)
5	4	28.013	44.313	Comb	0.00	0.29	0.60	10.0	353.40	0.50	353.54	30	Cir	0.013	1.28	361.29	Pipe - (171)
6	5	41.080	55.403	Comb	0.00	0.03	0.60	10.0	353.64	1.00	354.05	30	Cir	0.013	1.09	361.89	Pipe - (123)
7	6	46.931	-42.881	Comb	0.00	0.14	0.60	10.0	354.25	0.60	354.53	30	Cir	0.013	1.77	362.70	Pipe - (520)
8	7	28.000	89.726	Comb	0.00	0.06	0.60	10.0	354.70	0.50	354.84	24	Cir	0.013	1.13	362.70	Pipe - (521)
9	8	43.841	-45.000	Comb	0.00	0.07	0.60	10.0	355.00	1.00	355.44	24	Cir	0.013	1.69	364.05	Pipe - (122)
10	9	92.661	45.000	Comb	0.00	0.19	0.60	10.0	355.60	4.92	360.16	18	Cir	0.013	0.50	368.49	Pipe - (157) (1)
11	10	92.660	0.008	Comb	0.00	0.04	0.60	10.0	360.40	5.84	365.81	18	Cir	0.013	1.49	373.41	Pipe - (157)
12	11	45.242	46.481	Comb	0.00	0.77	0.60	10.0	366.00	4.42	368.00	18	Cir	0.013	1.07	376.09	Pipe - (160)
13	12	28.241	-41.708	Comb	0.00	0.61	0.60	10.0	368.20	0.50	368.34	18	Cir	0.013	1.19	376.18	Pipe - (162)
14	13	45.687	-49.362	Comb	0.00	0.19	0.60	10.0	368.60	4.82	370.80	18	Cir	0.013	1.17	378.35	Pipe - (168)
15	14	102.568	47.993	Comb	0.00	0.10	0.60	10.0	371.00	3.90	375.00	15	Cir	0.013	0.50	383.79	Pipe - (156)
16	15	80.723	-5.560	Comb	0.00	0.12	0.60	10.0	375.20	4.83	379.10	15	Cir	0.013	1.50	387.61	Pipe - (143)
17	16	41.477	33.735	Comb	0.00	0.59	0.60	10.0	379.30	4.10	381.00	15	Cir	0.013	1.18	389.05	Pipe - (138)
18	17	28.000	-48.574	Comb	0.00	0.35	0.60	10.0	381.18	0.93	381.44	15	Cir	0.013	1.00	389.06	Pipe - (158)
19	16	28.132	-91.952	Comb	0.00	0.13	0.60	10.0	379.30	0.50	379.44	15	Cir	0.013	1.00	387.71	Pipe - (167)
20	7	66.604	-27.920	Comb	0.00	0.11	0.60	10.0	354.70	1.01	355.37	18	Cir	0.013	1.43	363.67	Pipe - (524)
21	20	45.065	70.943	Comb	0.00	0.07	0.60	10.0	355.60	1.00	356.05	18	Cir	0.013	1.21	364.41	Pipe - (522)
22	21	87.915	-24.725	Comb	0.00	0.08	0.60	10.0	356.25	1.00	357.13	18	Cir	0.013	1.43	364.79	Pipe - (238)
23	22	81.372	70.991	DrGrt	0.00	0.32	0.60	10.0	357.40	3.20	360.00	18	Cir	0.013	0.50	364.50	Pipe - (237)

Project File: SCM 2 Storm Network.stm

Number of lines: 39

Date: 4/11/2025

Storm Sewer Inventory Report

SCM 2 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	68.903	0.438	DrGrt	0.00	0.59	0.60	10.0	360.20	2.61	362.00	18	Cir	0.013	0.50	366.02	Pipe - (216)
25	24	130.000	-4.566	DrGrt	0.00	0.77	0.60	10.0	362.20	3.54	366.80	18	Cir	0.013	0.50	371.38	Pipe - (217)
26	25	203.727	-0.399	DrGrt	0.00	0.43	0.60	10.0	367.00	3.19	373.50	15	Cir	0.013	0.50	378.55	Pipe - (217) (1)
27	26	82.351	-10.355	DrGrt	0.00	0.11	0.60	10.0	373.70	0.97	374.50	15	Cir	0.013	0.50	380.13	Pipe - (580)
28	27	68.005	-8.335	DrGrt	0.00	0.41	0.60	10.0	374.70	1.00	375.38	15	Cir	0.013	1.00	380.18	Pipe - (579)
29	11	28.251	-82.160	Comb	0.00	0.27	0.60	10.0	366.00	0.50	366.14	15	Cir	0.013	1.00	373.62	Pipe - (161)
30	21	28.058	50.378	Comb	0.00	0.11	0.60	10.0	356.25	1.00	356.53	15	Cir	0.013	1.00	364.41	Pipe - (523)
31	9	28.000	-45.000	Comb	0.00	0.22	0.60	10.0	356.04	0.50	356.18	15	Cir	0.013	1.00	364.21	Pipe - (121)
32	2	122.425	91.449	Comb	0.00	0.23	0.60	10.0	351.00	0.98	352.20	24	Cir	0.013	1.47	359.75	Pipe - (180)
33	32	43.844	44.996	Comb	0.00	0.12	0.60	10.0	352.40	3.19	353.80	15	Cir	0.013	1.69	361.35	Pipe - (178)
34	33	28.005	-46.494	Comb	0.00	0.24	0.60	10.0	354.00	-0.54	353.85	15	Cir	0.013	1.00	361.34	Pipe - (556)
35	33	135.019	44.904	Comb	0.00	0.12	0.60	10.0	354.00	2.89	357.90	15	Cir	0.013	1.00	365.23	Pipe - (177)
36	3	28.141	90.727	Comb	0.00	0.36	0.60	10.0	353.30	0.50	353.44	15	Cir	0.013	1.00	360.26	Pipe - (173)
37	32	28.755	-76.842	Comb	0.00	0.41	0.60	10.0	352.40	1.67	352.88	15	Cir	0.013	1.00	359.93	Pipe - (179)
38	2	28.000	1.449	Comb	0.00	0.69	0.60	10.0	352.00	0.50	352.14	15	Cir	0.013	1.00	358.63	Pipe - (132)
39	End	69.863	-107.397	Hdwl	0.00	1.33	0.60	10.0	350.00	2.15	351.50	18	Cir	0.013	1.00	-2.92	Pipe - (581)

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Date: 4/11/2025

Structure Report

SCM 2 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 201	DropGrate	357.33	Rect	4.00	4.00	30	Cir	349.94	30	Cir	350.14
2	CB 202	Combination	358.63	Rect	4.00	4.00	30	Cir	350.80	30 24 15	Cir Cir Cir	351.00 351.00 352.00
3	CB 203	Combination	360.21	Rect	4.00	4.00	30	Cir	352.60	30 15	Cir Cir	352.80 353.30
4	CB 204	Combination	361.27	Rect	4.00	4.00	30	Cir	353.22	30	Cir	353.40
5	CB 205	Combination	361.29	Rect	4.00	4.00	30	Cir	353.54	30	Cir	353.64
6	CB 206	Combination	361.89	Rect	4.00	4.00	30	Cir	354.05	30	Cir	354.25
7	CB 207	Combination	362.70	Rect	4.00	4.00	30	Cir	354.53	24 18	Cir Cir	354.70 354.70
8	CB 208	Combination	362.70	Rect	4.00	4.00	24	Cir	354.84	24	Cir	355.00
9	CB 209	Combination	364.05	Rect	4.00	4.00	24	Cir	355.44	18 15	Cir Cir	355.60 356.04
10	CB 210	Combination	368.49	Rect	4.00	4.00	18	Cir	360.16	18	Cir	360.40
11	CB 211	Combination	373.41	Rect	4.00	4.00	18	Cir	365.81	18 15	Cir Cir	366.00 366.00
12	CB 212	Combination	376.09	Rect	4.00	4.00	18	Cir	368.00	18	Cir	368.20
13	CB 213	Combination	376.18	Rect	4.00	4.00	18	Cir	368.34	18	Cir	368.60
14	CB 214	Combination	378.35	Rect	4.00	4.00	18	Cir	370.80	15	Cir	371.00
15	CB 215	Combination	383.79	Rect	4.00	4.00	15	Cir	375.00	15	Cir	375.20
16	CB 216	Combination	387.61	Rect	4.00	4.00	15	Cir	379.10	15 15	Cir Cir	379.30 379.30
17	CB 217	Combination	389.05	Rect	4.00	4.00	15	Cir	381.00	15	Cir	381.18
18	CB 217A	Combination	389.06	Rect	4.00	4.00	15	Cir	381.44			
19	CB 216A	Combination	387.71	Rect	4.00	4.00	15	Cir	379.44			

Structure Report

SCM 2 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
20	CB 226	Combination	363.67	Rect	4.00	4.00	18	Cir	355.37	18	Cir	355.60
21	CB 227	Combination	364.41	Rect	4.00	4.00	18	Cir	356.05	18 15	Cir Cir	356.25 356.25
22	CB 228	Combination	364.79	Rect	4.00	4.00	18	Cir	357.13	18	Cir	357.40
23	YI 229	DropGrate	364.50	Rect	4.00	4.00	18	Cir	360.00	18	Cir	360.20
24	YI 230	DropGrate	366.02	Rect	4.00	4.00	18	Cir	362.00	18	Cir	362.20
25	YI 231	DropGrate	371.38	Rect	4.00	4.00	18	Cir	366.80	15	Cir	367.00
26	YI 232	DropGrate	378.55	Rect	4.00	4.00	15	Cir	373.50	15	Cir	373.70
27	YI 233	DropGrate	380.13	Rect	4.00	4.00	15	Cir	374.50	15	Cir	374.70
28	YI 234	DropGrate	380.18	Rect	4.00	4.00	15	Cir	375.38			
29	CB 211A	Combination	373.62	Rect	4.00	4.00	15	Cir	366.14			
30	CB 227A	Combination	364.41	Rect	4.00	4.00	15	Cir	356.53			
31	CB 209A	Combination	364.21	Rect	4.00	4.00	15	Cir	356.18			
32	CB 223	Combination	359.75	Rect	4.00	4.00	24	Cir	352.20	15 15	Cir Cir	352.40 352.40
33	CB 224	Combination	361.35	Rect	4.00	4.00	15	Cir	353.80	15 15	Cir Cir	354.00 354.00
34	CB 224A	Combination	361.34	Rect	4.00	4.00	15	Cir	353.85			
35	CB 225	Combination	365.23	Rect	4.00	4.00	15	Cir	357.90			
36	CB 203A	Combination	360.26	Rect	4.00	4.00	15	Cir	353.44			
37	CB 223A	Combination	359.93	Rect	4.00	4.00	15	Cir	352.88			
38	CB 202A	Combination	358.63	Rect	4.00	4.00	15	Cir	352.14			
39	FES 240	OpenHeadwall	-2.92	n/a	n/a	n/a	18	Cir	351.50			

Project File: SCM 2 Storm Network.stm | Number of Structures: 39 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 2 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (137)	35.56	30	Cir	107.012	349.02	349.94	0.860	351.52	352.18	0.46	352.64	End	DropGrate
2	Pipe - (135)	34.36	30	Cir	87.460	350.14	350.80	0.755	352.64	352.79	n/a	352.79	1	Combination
3	Pipe - (131)	27.56	30	Cir	101.407	351.00	352.60	1.578	352.79	354.39	n/a	354.39 j	2	Combination
4	Pipe - (172)	26.10	30	Cir	41.788	352.80	353.22	1.005	354.39	354.96	0.88	354.96	3	Combination
5	Pipe - (171)	25.08	30	Cir	28.013	353.40	353.54	0.500	355.20	355.34	0.88	356.21	4	Combination
6	Pipe - (123)	24.17	30	Cir	41.080	353.64	354.05	0.998	356.21	356.31	0.45	356.76	5	Combination
7	Pipe - (520)	24.18	30	Cir	46.931	354.25	354.53	0.597	356.76	356.90	0.69	357.59	6	Combination
8	Pipe - (521)	13.48	24	Cir	28.000	354.70	354.84	0.500	357.59*	357.69*	0.32	358.02	7	Combination
9	Pipe - (122)	13.33	24	Cir	43.841	355.00	355.44	1.004	358.02*	358.17*	0.47	358.64	8	Combination
10	Pipe - (157) (1)	12.36	18	Cir	92.661	355.60	360.16	4.921	358.64	361.49	n/a	361.49 j	9	Combination
11	Pipe - (157)	11.73	18	Cir	92.660	360.40	365.81	5.839	361.49	367.11	1.20	367.11	10	Combination
12	Pipe - (160)	10.62	18	Cir	45.242	366.00	368.00	4.421	367.11	369.25	n/a	369.25	11	Combination
13	Pipe - (162)	7.78	18	Cir	28.241	368.20	368.34	0.496	369.52	369.66	0.42	370.07	12	Combination
14	Pipe - (168)	5.55	18	Cir	45.687	368.60	370.80	4.815	370.07	371.71	n/a	371.71 j	13	Combination
15	Pipe - (156)	4.88	15	Cir	102.568	371.00	375.00	3.900	371.71	375.90	n/a	375.90	14	Combination
16	Pipe - (143)	4.54	15	Cir	80.723	375.20	379.10	4.831	375.90	379.96	0.59	379.96	15	Combination
17	Pipe - (138)	3.63	15	Cir	41.477	379.30	381.00	4.099	379.96	381.77	n/a	381.77	16	Combination
18	Pipe - (158)	1.36	15	Cir	28.000	381.18	381.44	0.929	381.77	381.90	n/a	381.90 j	17	Combination
19	Pipe - (167)	0.50	15	Cir	28.132	379.30	379.44	0.498	379.96	379.96	0.02	379.98	16	Combination
20	Pipe - (524)	10.65	18	Cir	66.604	354.70	355.37	1.006	357.59*	358.28*	0.81	359.09	7	Combination
21	Pipe - (522)	10.30	18	Cir	45.065	355.60	356.05	0.999	359.09*	359.52*	0.64	360.16	20	Combination
22	Pipe - (238)	9.73	18	Cir	87.915	356.25	357.13	1.001	360.16*	360.91*	0.67	361.59	21	Combination
23	Pipe - (237)	9.52	18	Cir	81.372	357.40	360.00	3.195	361.59*	362.26*	0.23	362.48	22	DropGrate
24	Pipe - (216)	8.42	18	Cir	68.903	360.20	362.00	2.612	362.48	363.12	n/a	363.12 j	23	DropGrate

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

SCM 2 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
25	Pipe - (217)	6.37	18	Cir	130.000	362.20	366.80	3.538	363.12	367.78	n/a	367.78	24	DropGrate
26	Pipe - (217) (1)	3.60	15	Cir	203.727	367.00	373.50	3.191	367.78	374.27	n/a	374.27 j	25	DropGrate
27	Pipe - (580)	2.00	15	Cir	82.351	373.70	374.50	0.971	374.27	375.06	n/a	375.06 j	26	DropGrate
28	Pipe - (579)	1.59	15	Cir	68.005	374.70	375.38	1.000	375.12	375.88	n/a	375.88	27	DropGrate
29	Pipe - (161)	1.05	15	Cir	28.251	366.00	366.14	0.496	367.11	367.12	0.02	367.13	11	Combination
30	Pipe - (523)	0.43	15	Cir	28.058	356.25	356.53	0.998	360.16*	360.16*	0.00	360.16	21	Combination
31	Pipe - (121)	0.85	15	Cir	28.000	356.04	356.18	0.500	358.64*	358.65*	0.01	358.66	9	Combination
32	Pipe - (180)	4.09	24	Cir	122.425	351.00	352.20	0.980	352.79	352.91	n/a	352.91 j	2	Combination
33	Pipe - (178)	1.78	15	Cir	43.844	352.40	353.80	3.193	352.91	354.33	n/a	354.33	32	Combination
34	Pipe - (556)	0.93	15	Cir	28.005	354.00	353.85	-0.536	354.38	354.57	0.03	354.60	33	Combination
35	Pipe - (177)	0.47	15	Cir	135.019	354.00	357.90	2.888	354.33	358.17	n/a	358.17 j	33	Combination
36	Pipe - (173)	1.40	15	Cir	28.141	353.30	353.44	0.498	354.39	354.40	0.03	354.43	3	Combination
37	Pipe - (179)	1.59	15	Cir	28.755	352.40	352.88	1.669	352.91	353.38	n/a	353.38 j	32	Combination
38	Pipe - (132)	2.68	15	Cir	28.000	352.00	352.14	0.500	352.79	352.85	0.21	353.07	2	Combination
39	Pipe - (581)	5.18	18	Cir	69.863	350.00	351.50	2.147	351.50	352.38	n/a	352.38 j	End	OpenHeadwall

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

SCM 2 25-YEAR

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	YI 201	1.59	0.00	1.59	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.13	15.73	0.13	15.73	0.0	Off
2	CB 202	0.89	0.05	0.82	0.13	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.41	0.09	1.55	0.0	Off
3	CB 203	0.35	0.00	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.12	1.99	0.00	0.00	0.0	2
4	CB 204	1.20	0.00	1.20	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.20	5.80	0.20	5.80	0.0	Off
5	CB 205	1.12	0.00	1.12	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.19	5.50	0.19	5.50	0.0	Off
6	CB 206	0.12	0.01	0.13	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.08	1.35	0.00	0.00	0.0	3
7	CB 207	0.54	0.02	0.56	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.14	3.10	0.03	0.50	0.0	6
8	CB 208	0.23	0.00	0.24	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.10	1.72	0.00	0.00	0.0	Off
9	CB 209	0.27	0.01	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.10	1.62	0.00	0.00	0.0	8
10	CB 210	0.74	0.06	0.78	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.14	3.10	0.03	0.51	0.0	9
11	CB 211	0.16	1.01	1.11	0.06	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.16	3.78	0.05	0.86	0.0	10
12	CB 212	2.99	0.00	1.98	1.01	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.25	8.56	0.18	5.01	0.0	11
13	CB 213	2.37	0.00	2.37	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.27	9.68	0.27	9.68	0.0	Off
14	CB 214	0.74	0.00	0.73	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.13	2.64	0.02	0.27	0.0	11
15	CB 215	0.39	0.08	0.47	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.11	1.87	0.00	0.00	0.0	14
16	CB 216	0.47	0.65	1.03	0.08	Comb	6.0	1.50	0.00	3.00	2.50	0.033	2.00	0.060	0.020	0.013	0.16	4.20	0.06	1.06	0.0	15
17	CB 217	2.29	0.00	1.64	0.65	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.23	7.59	0.16	3.82	0.0	16
18	CB 217A	1.36	0.00	1.36	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.21	6.37	0.21	6.37	0.0	Off
19	CB 216A	0.50	0.00	0.50	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.033	2.00	0.060	0.020	0.013	0.12	2.23	0.00	0.00	0.0	29
20	CB 226	0.43	0.00	0.41	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.16	4.16	0.05	0.90	0.0	7
21	CB 227	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.12	1.98	0.00	0.00	0.0	7
22	CB 228	0.31	0.00	0.30	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.15	3.34	0.03	0.55	0.0	Off
23	YI 229	1.24	0.00	1.24	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.11	13.71	0.11	13.71	0.0	Off

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Inlet Report

SCM 2 25-YEAR

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)	
24	YI 230	2.29	0.00	2.29	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.17	19.36	0.17	19.36	0.0	Off
25	YI 231	2.99	0.00	2.99	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.20	22.64	0.20	22.64	0.0	Off
26	YI 232	1.67	0.00	1.67	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.14	16.16	0.14	16.16	0.0	Off
27	YI 233	0.43	0.00	0.43	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.06	8.00	0.06	8.00	0.0	Off
28	YI 234	1.59	0.00	1.59	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.13	15.73	0.13	15.73	0.0	Off
29	CB 211A	1.05	0.00	1.01	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.15	3.50	0.04	0.73	0.0	Off
30	CB 227A	0.43	0.00	0.42	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.14	2.99	0.03	0.44	0.0	8
31	CB 209A	0.85	0.00	0.85	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.17	4.41	0.17	4.41	0.0	Off
32	CB 223	0.89	0.00	0.84	0.05	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.16	3.99	0.06	0.94	0.0	2
33	CB 224	0.47	0.00	0.47	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.13	2.37	0.01	0.09	0.0	32
34	CB 224A	0.93	0.00	0.93	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.17	4.73	0.17	4.73	0.0	Off
35	CB 225	0.47	0.00	0.47	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.12	2.16	0.00	0.00	0.0	33
36	CB 203A	1.40	0.00	1.17	0.22	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.19	5.54	0.10	1.68	0.0	38
37	CB 223A	1.59	0.00	1.32	0.27	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.19	5.59	0.10	1.72	0.0	38
38	CB 202A	2.68	0.49	2.00	1.17	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.27	9.59	0.20	6.04	0.0	Off
39	FES 240	5.18	0.00	5.18	0.00	Hdwl	6.0	1.50	0.00	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 2 25-YEAR

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	30	35.56	349.02	351.52	2.50	4.91	7.25	0.82	352.34	0.752	107.012	349.94	352.18	2.24	4.64	7.66	0.91	353.09	0.664	0.708	0.758	0.50	0.46
2	30	34.36	350.14	352.64	2.50	4.19	7.00	1.05	353.68	0.721	87.460	350.80	352.79	1.99**	4.19	8.20	1.05	353.84	0.714	0.717	n/a	1.50	n/a
3	30	27.56	351.00	352.79	1.79	3.76	7.33	0.84	353.63	0.462	101.407	352.60	354.39 j	1.79**	3.76	7.34	0.84	355.22	0.405	0.434	n/a	1.50	n/a
4	30	26.10	352.80	354.39	1.59	3.29	7.93	0.80	355.18	0.414	41.788	353.22	354.96	1.74**	3.65	7.16	0.80	355.76	0.413	0.414	n/a	1.11	0.88
5	30	25.08	353.40	355.20	1.80*	3.77	6.65	0.69	355.88	0.500	28.013	353.54	355.34	1.80	3.78	6.64	0.69	356.02	0.499	0.499	0.140	1.28	0.88
6	30	24.17	353.64	356.21	2.50	4.91	4.92	0.38	356.59	0.347	41.080	354.05	356.31	2.26	4.67	5.18	0.42	356.73	0.305	0.326	0.134	1.09	0.45
7	30	24.18	354.25	356.76	2.50	4.91	4.93	0.38	357.14	0.348	46.931	354.53	356.90	2.37	4.81	5.02	0.39	357.29	0.301	0.324	0.152	1.77	0.69
8	24	13.48	354.70	357.59	2.00	3.14	4.29	0.29	357.88	0.355	28.000	354.84	357.69	2.00	3.14	4.29	0.29	357.98	0.355	0.355	0.099	1.13	0.32
9	24	13.33	355.00	358.02	2.00	3.14	4.24	0.28	358.30	0.348	43.841	355.44	358.17	2.00	3.14	4.24	0.28	358.45	0.347	0.348	0.152	1.69	0.47
10	18	12.36	355.60	358.64	1.50	1.65	6.99	0.76	359.40	1.385	92.661	360.16	361.49 j	1.33**	1.65	7.47	0.87	362.35	1.238	1.312	n/a	0.50	n/a
11	18	11.73	360.40	361.49	1.09	1.37	8.55	0.81	362.29	0.000	92.660	365.81	367.11	1.30**	1.63	7.20	0.81	367.92	0.000	0.000	n/a	1.49	1.20
12	18	10.62	366.00	367.11	1.11	1.40	7.56	0.71	367.82	0.000	45.242	368.00	369.25	1.25**	1.57	6.75	0.71	369.96	0.000	0.000	n/a	1.07	n/a
13	18	7.78	368.20	369.52	1.32*	1.64	4.73	0.35	369.87	0.496	28.241	368.34	369.66	1.32	1.64	4.74	0.35	370.01	0.496	0.496	0.140	1.19	0.42
14	18	5.55	368.60	370.07	1.47	1.12	3.15	0.38	370.45	0.000	45.687	370.80	371.71 j	0.91**	1.12	4.96	0.38	372.09	0.000	0.000	n/a	1.17	n/a
15	15	4.88	371.00	371.71	0.71	0.72	6.81	0.42	372.13	0.000	102.568	375.00	375.90	0.89**	0.94	5.19	0.42	376.31	0.000	0.000	n/a	0.50	n/a
16	15	4.54	375.20	375.90	0.69	0.70	6.47	0.39	376.29	0.000	80.723	379.10	379.96	0.86**	0.90	5.02	0.39	380.35	0.000	0.000	n/a	1.50	0.59
17	15	3.63	379.30	379.96	0.66	0.66	5.49	0.33	380.29	0.000	41.477	381.00	381.77	0.77**	0.79	4.58	0.33	382.09	0.000	0.000	n/a	1.18	n/a
18	15	1.36	381.18	381.77	0.59	0.41	2.39	0.17	381.94	0.000	28.000	381.44	381.90 j	0.46**	0.41	3.31	0.17	382.07	0.000	0.000	n/a	1.00	0.17
19	15	0.50	379.30	379.96	0.66	0.66	0.76	0.01	379.97	0.020	28.132	379.44	379.96	0.52	0.49	1.03	0.02	379.98	0.045	0.033	0.009	1.00	0.02
20	18	10.65	354.70	357.59	1.50	1.77	6.03	0.56	358.16	1.028	66.604	355.37	358.28	1.50	1.77	6.02	0.56	358.84	1.028	1.028	0.685	1.43	0.81
21	18	10.30	355.60	359.09	1.50	1.77	5.83	0.53	359.61	0.962	45.065	356.05	359.52	1.50	1.77	5.83	0.53	360.05	0.961	0.961	0.433	1.21	0.64
22	18	9.73	356.25	360.16	1.50	1.77	5.51	0.47	360.63	0.859	87.915	357.13	360.91	1.50	1.77	5.51	0.47	361.39	0.859	0.859	0.755	1.43	0.67

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 2 25-YEAR

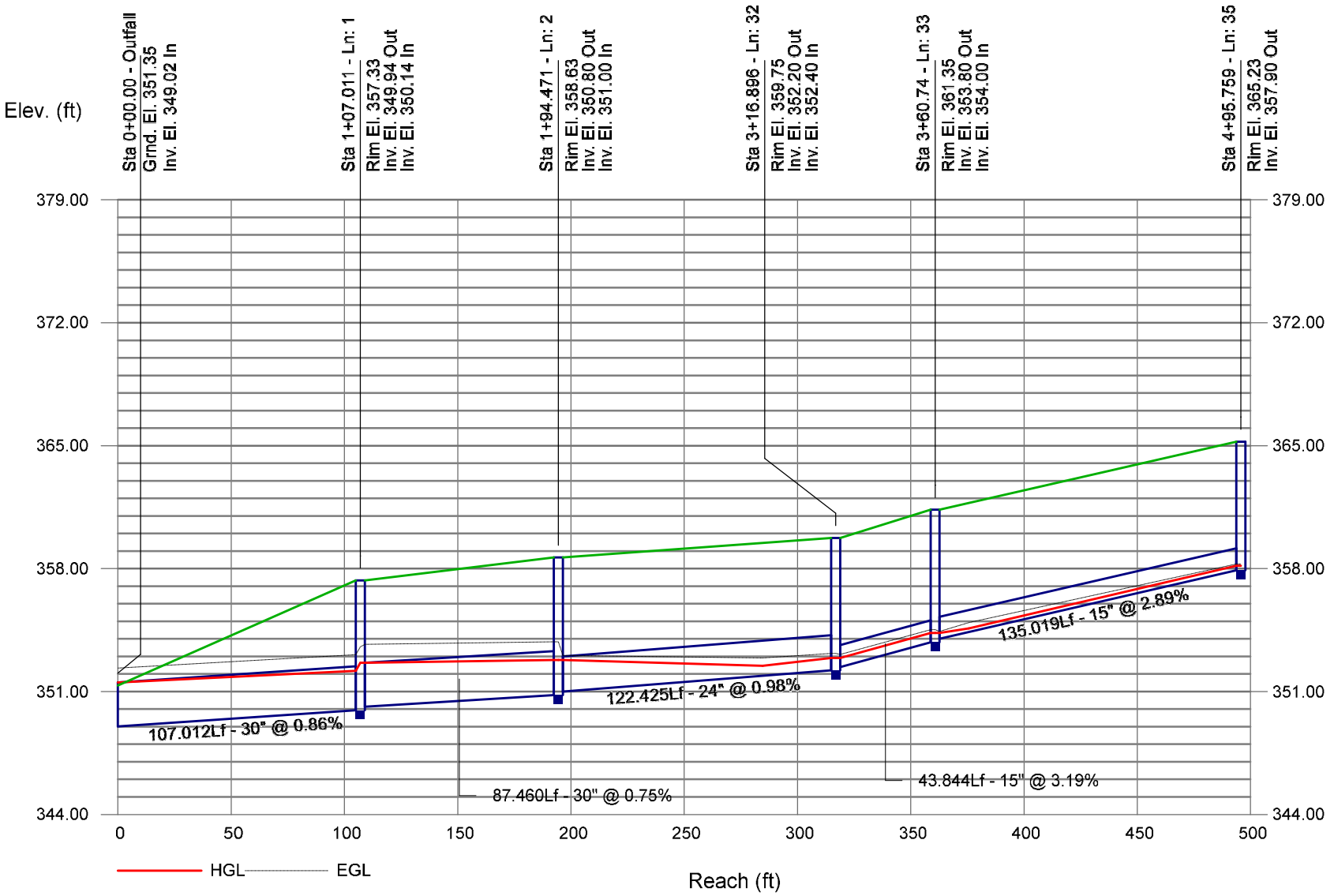
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	18	9.52	357.40	361.59	1.50	1.77	5.39	0.45	362.04	0.822	81.372	360.00	362.26	1.50	1.77	5.39	0.45	362.71	0.822	0.822	0.669	0.50	0.23
24	18	8.42	360.20	362.48	1.50	1.42	4.77	0.35	362.84	0.644	68.903	362.00	363.12 j	1.12**	1.42	5.94	0.55	363.67	0.777	0.710	n/a	0.50	n/a
25	18	6.37	362.20	363.12	0.92	1.14	5.58	0.43	363.55	0.368	130.000	366.80	367.78	0.97**	1.22	5.24	0.43	368.20	0.643	0.506	n/a	0.50	n/a
26	15	3.60	367.00	367.78	0.77	0.79	4.51	0.32	368.10	0.000	203.727	373.50	374.27 j	0.77**	0.79	4.57	0.32	374.59	0.000	0.000	n/a	0.50	n/a
27	15	2.00	373.70	374.27	0.57	0.54	3.70	0.22	374.48	0.000	82.351	374.50	375.06 j	0.56**	0.54	3.73	0.22	375.28	0.000	0.000	n/a	0.50	n/a
28	15	1.59	374.70	375.12	0.42*	0.37	4.35	0.19	375.31	0.000	68.005	375.38	375.88	0.50**	0.46	3.47	0.19	376.07	0.000	0.000	n/a	1.00	n/a
29	15	1.05	366.00	367.11	1.11	1.15	0.91	0.01	367.12	0.023	28.251	366.14	367.12	0.98	1.03	1.02	0.02	367.13	0.029	0.026	0.007	1.00	0.02
30	15	0.43	356.25	360.16	1.25	1.23	0.35	0.00	360.16	0.004	28.058	356.53	360.16	1.25	1.23	0.35	0.00	360.16	0.004	0.004	0.001	1.00	0.00
31	15	0.85	356.04	358.64	1.25	1.23	0.70	0.01	358.65	0.017	28.000	356.18	358.65	1.25	1.23	0.70	0.01	358.66	0.017	0.017	0.005	1.00	0.01
32	24	4.09	351.00	352.79	1.79	1.00	1.38	0.26	353.05	0.034	122.425	352.20	352.91 j	0.71**	1.00	4.10	0.26	353.17	0.034	0.034	n/a	1.47	0.38
33	15	1.78	352.40	352.91	0.51	0.47	3.78	0.20	353.11	0.077	43.844	353.80	354.33	0.53**	0.49	3.59	0.20	354.53	0.165	0.121	n/a	1.69	n/a
34	15	0.93	354.00	354.38	0.38*	0.31	2.97	0.14	354.52	0.523	28.005	353.85	354.57	0.72	0.73	1.27	0.03	354.60	0.052	0.287	0.080	1.00	0.03
35	15	0.47	354.00	354.33	0.33	0.19	1.81	0.09	354.42	0.000	135.019	357.90	358.17 j	0.27**	0.19	2.45	0.09	358.26	0.000	0.000	n/a	1.00	n/a
36	15	1.40	353.30	354.39	1.09	1.13	1.23	0.02	354.41	0.043	28.141	353.44	354.40	0.96	1.01	1.39	0.03	354.43	0.054	0.048	0.014	1.00	0.03
37	15	1.59	352.40	352.91	0.51	0.46	3.39	0.19	353.10	0.061	28.755	352.88	353.38 j	0.50**	0.46	3.47	0.19	353.57	0.061	0.061	n/a	1.00	n/a
38	15	2.68	352.00	352.79	0.79	0.82	3.27	0.17	352.96	0.325	28.000	352.14	352.85	0.71	0.72	3.71	0.21	353.07	0.448	0.387	0.108	1.00	0.21
39	18	5.18	350.00	351.50	1.50*	1.07	2.93	0.13	351.63	0.243	69.863	351.50	352.38 j	0.88**	1.07	4.84	0.36	352.74	0.587	0.415	n/a	1.00	n/a

Project File: SCM 2 Storm Network.stm | Number of lines: 39 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

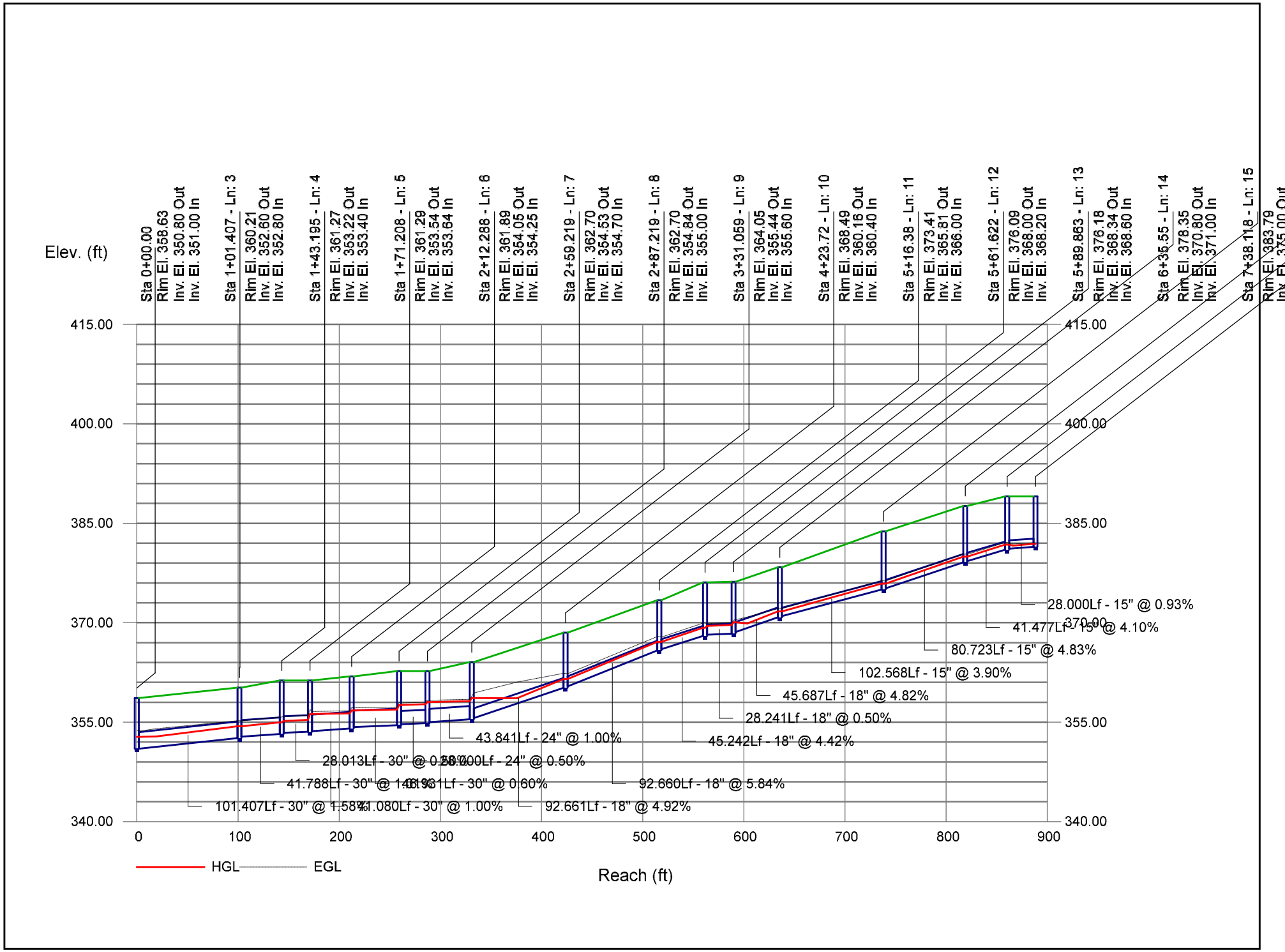
Storm Sewer Profile

SCM 2 25-YEAR PROFILE 1-35 Proj. file: SCM 2 Storm Network.stm



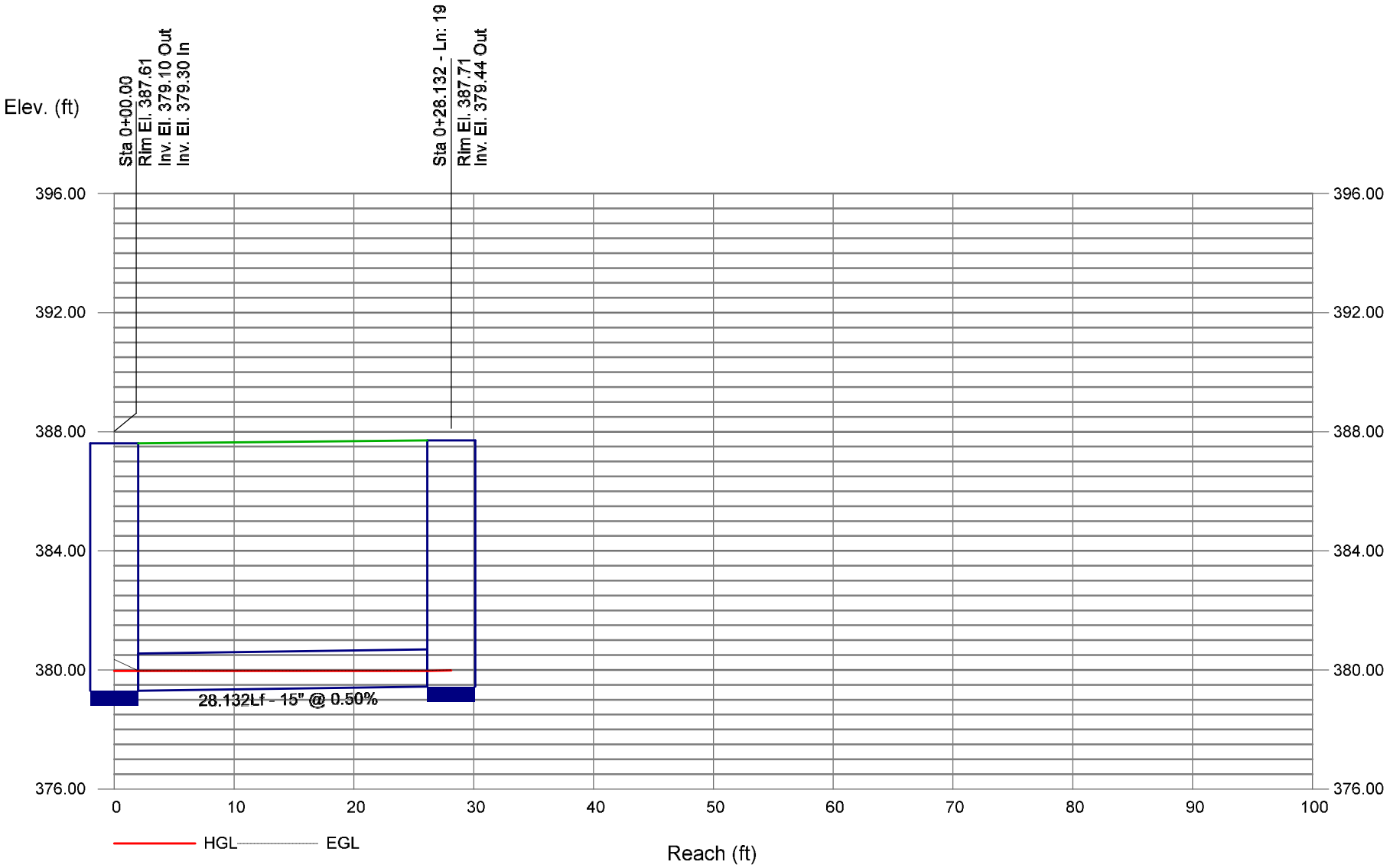
Storm Sewer Profile

SCM 2 25-YEAR PROFILE 3-18 Proj. file: SCM 2 Storm Network.stm



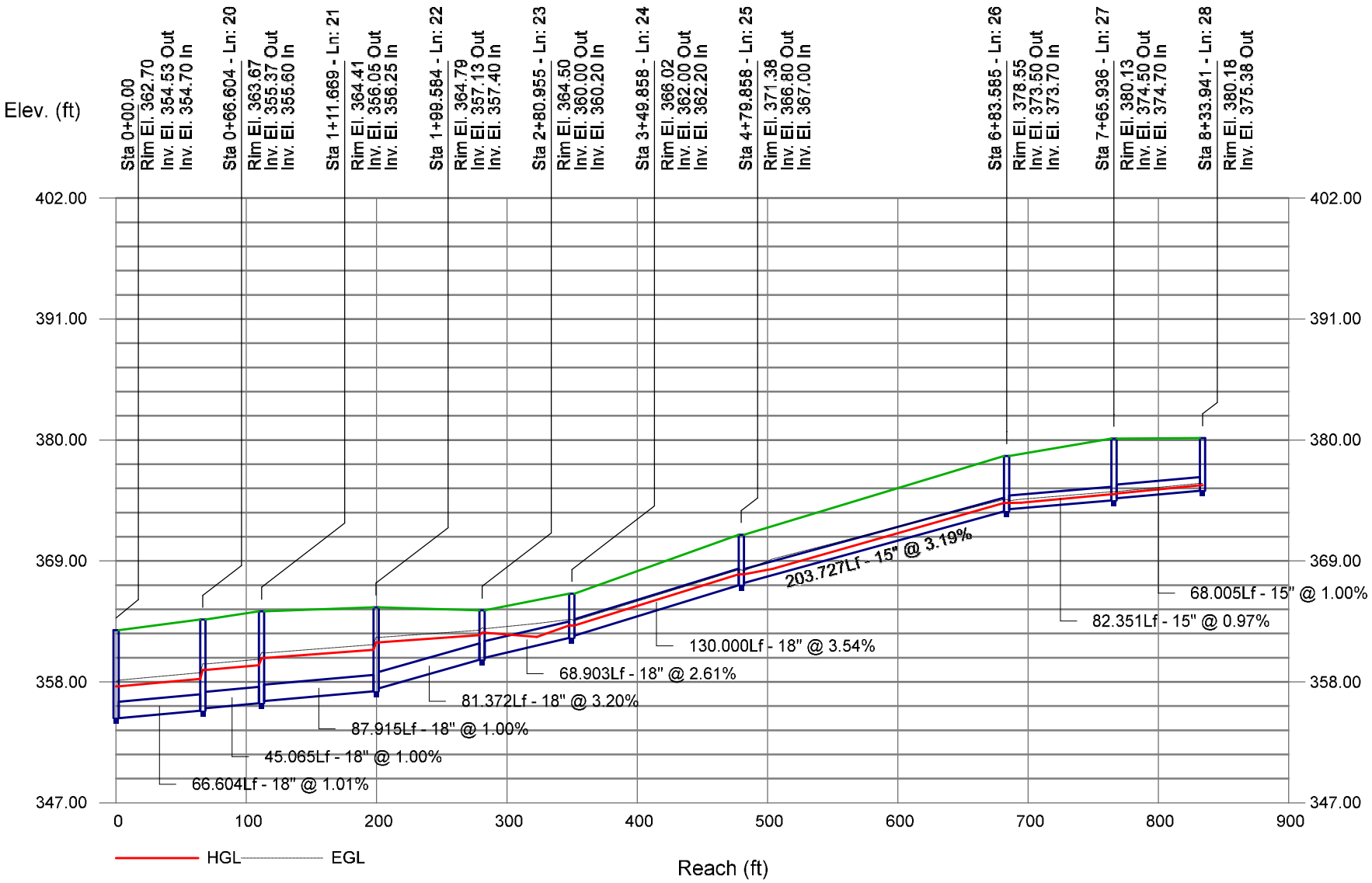
Storm Sewer Profile

SCM 2 25-YEAR PROFILE 19-19 Proj. file: SCM 2 Storm Network.stm



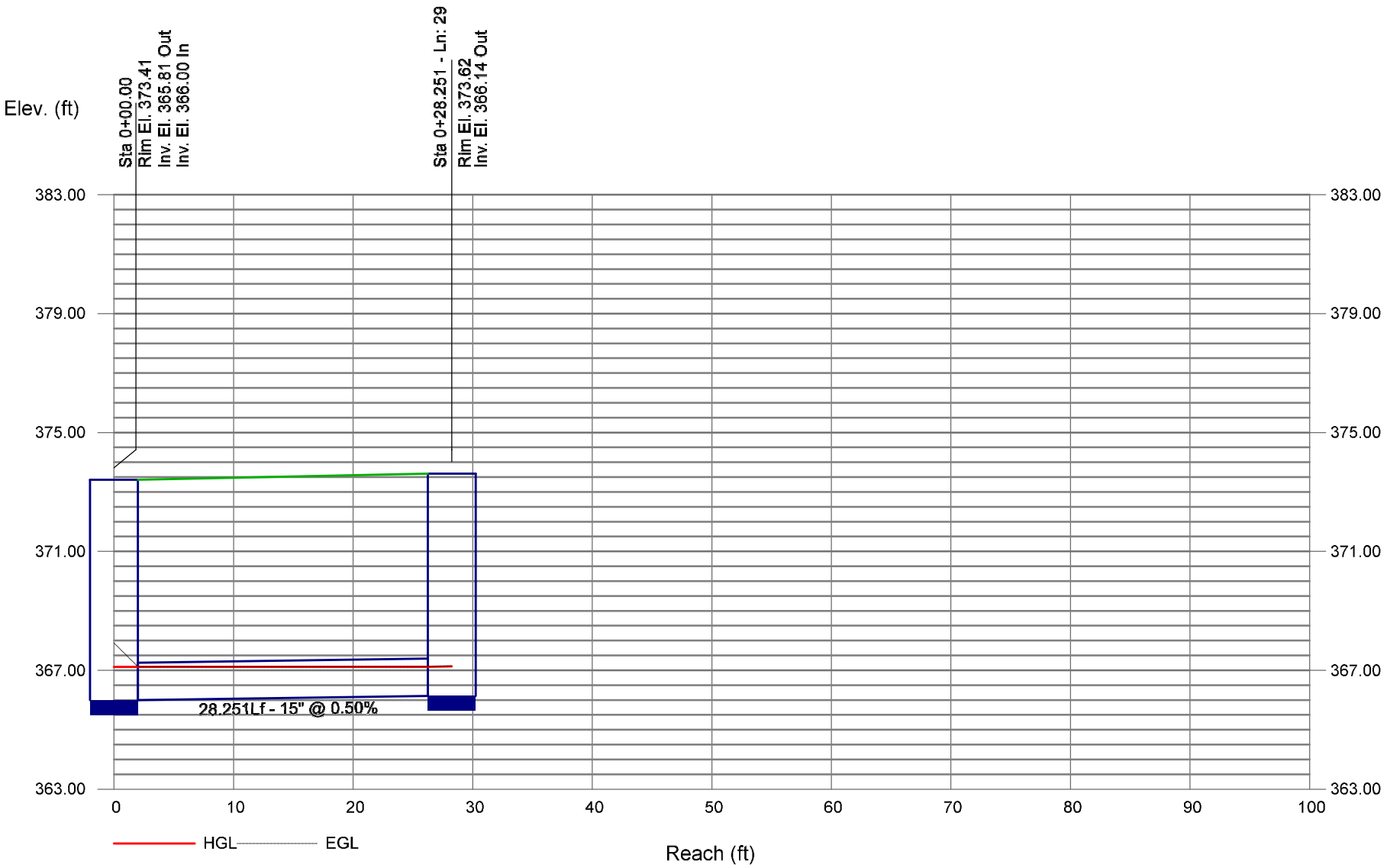
Storm Sewer Profile

SCM 2 25-YEAR PROFILE 20-28 Proj. file: SCM 2 Storm Network.stm



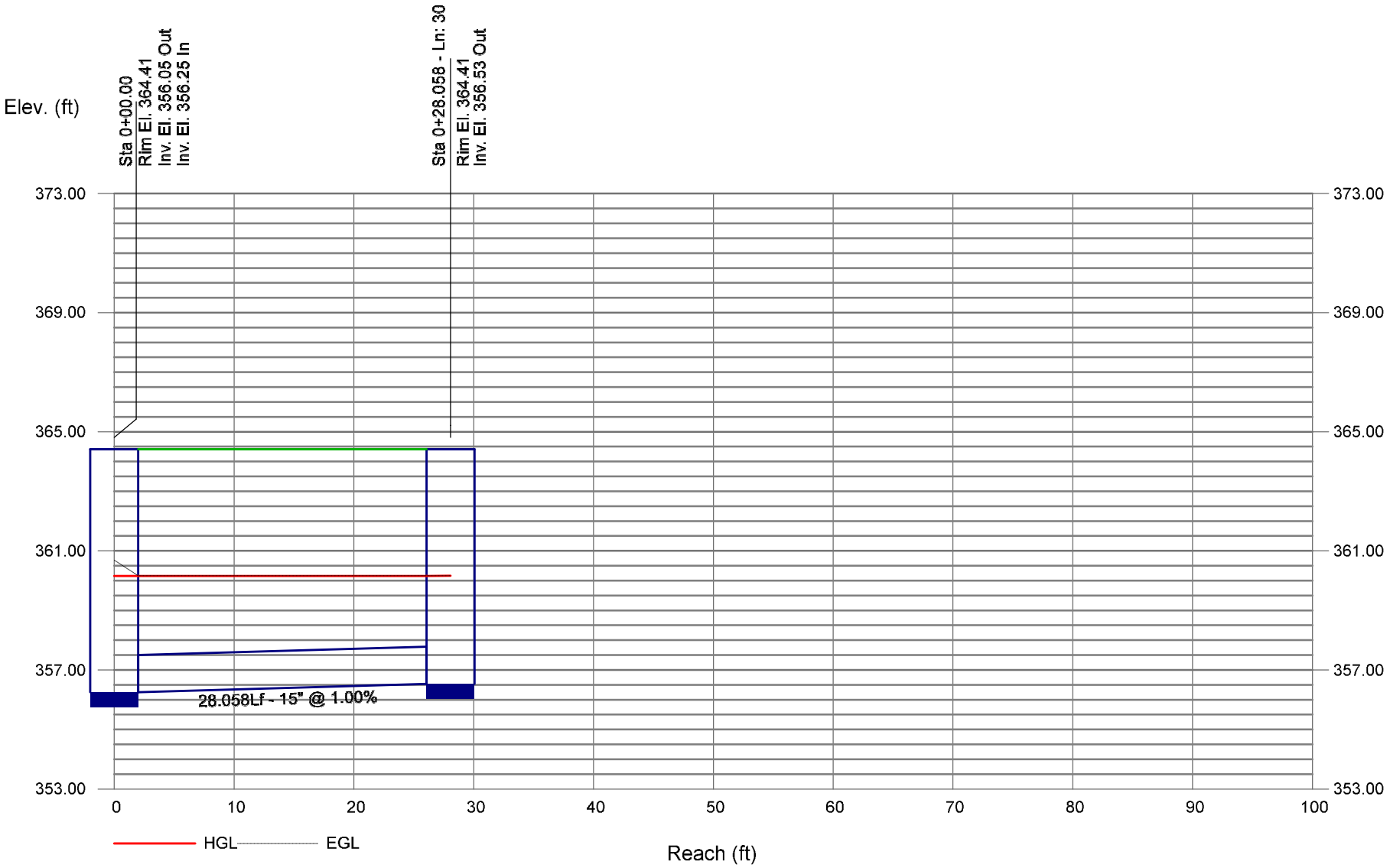
Storm Sewer Profile

SCM 2 25-YEAR PROFILE 29-29 Proj. file: SCM 2 Storm Network.stm



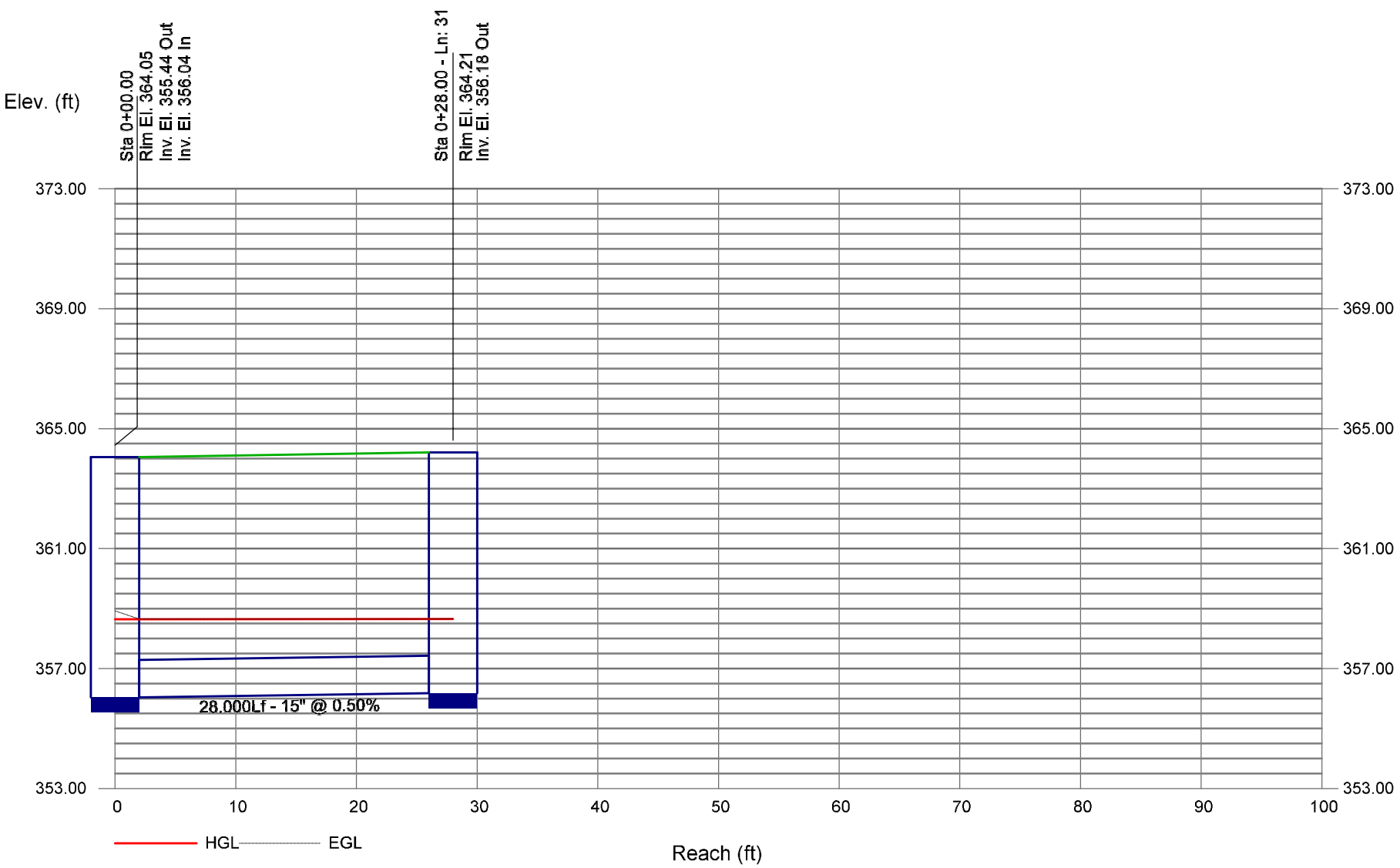
Storm Sewer Profile

SCM 2 25-YEAR PROFILE 30-30 Proj. file: SCM 2 Storm Network.stm



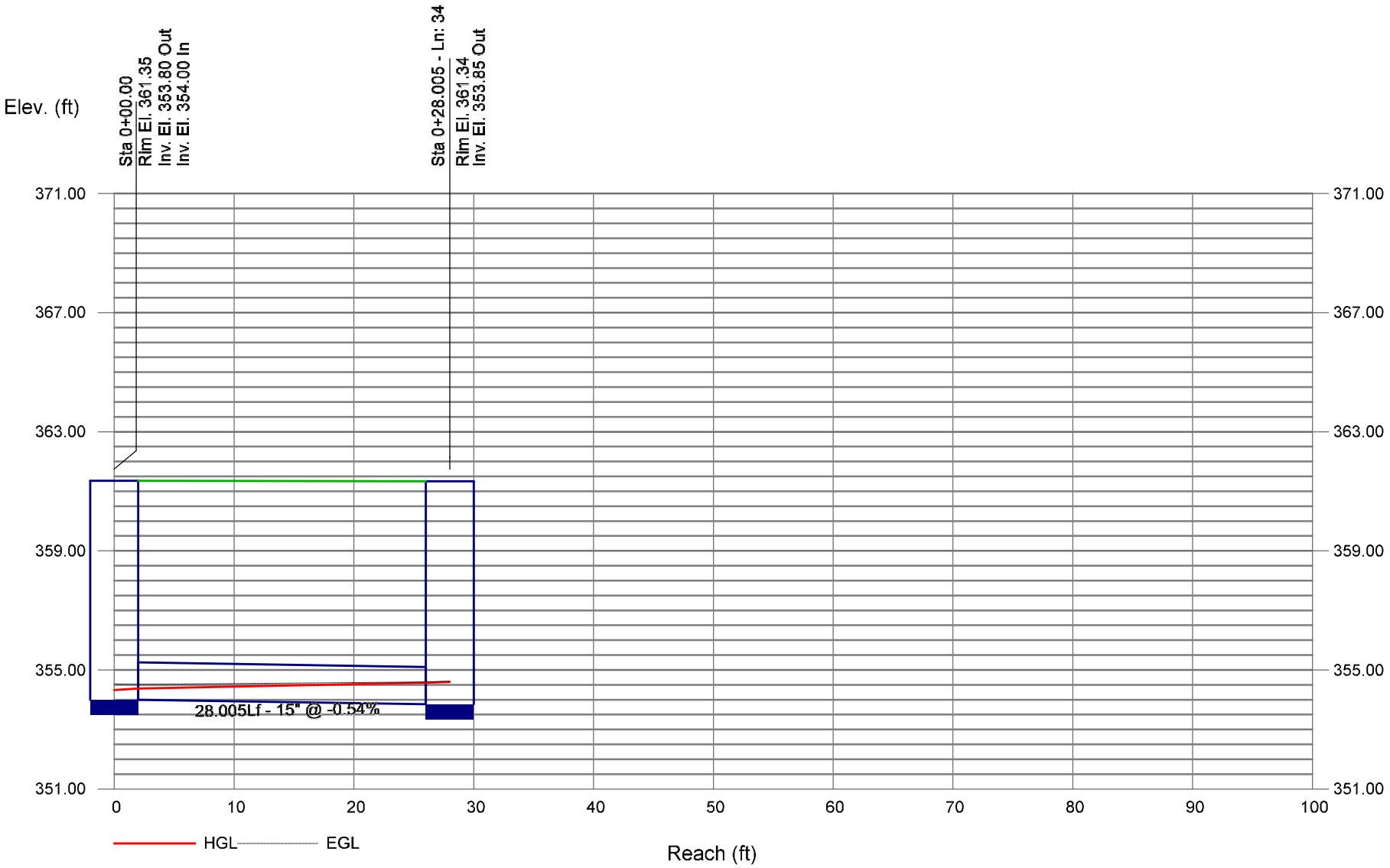
Storm Sewer Profile

SCM 2 25-YEAR PROFILE 31-31 Proj. file: SCM 2 Storm Network.stm



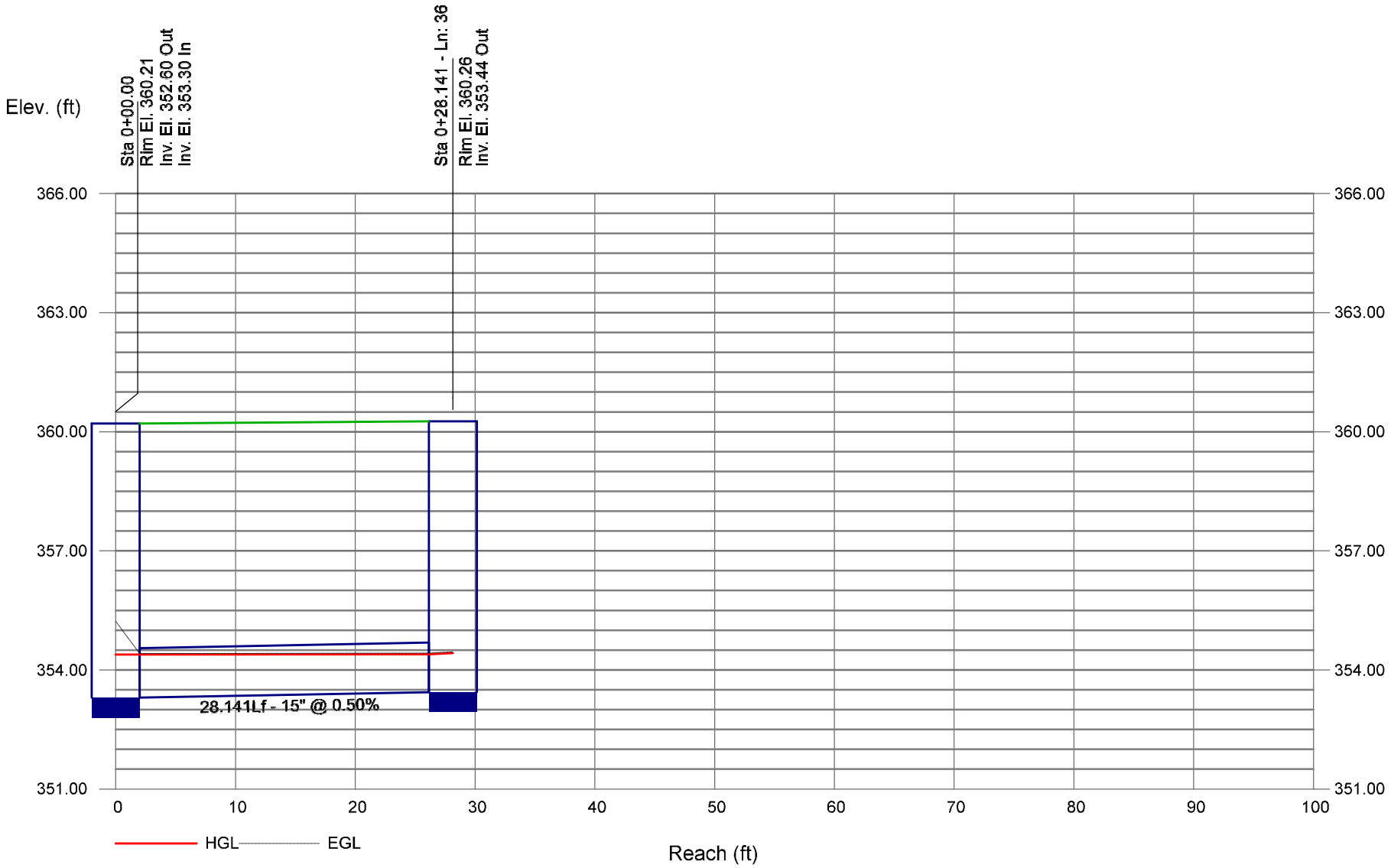
Storm Sewer Profile

SCM 2 25-YEAR PROFILE 34-34 Proj. file: SCM 2 Storm Network.stm



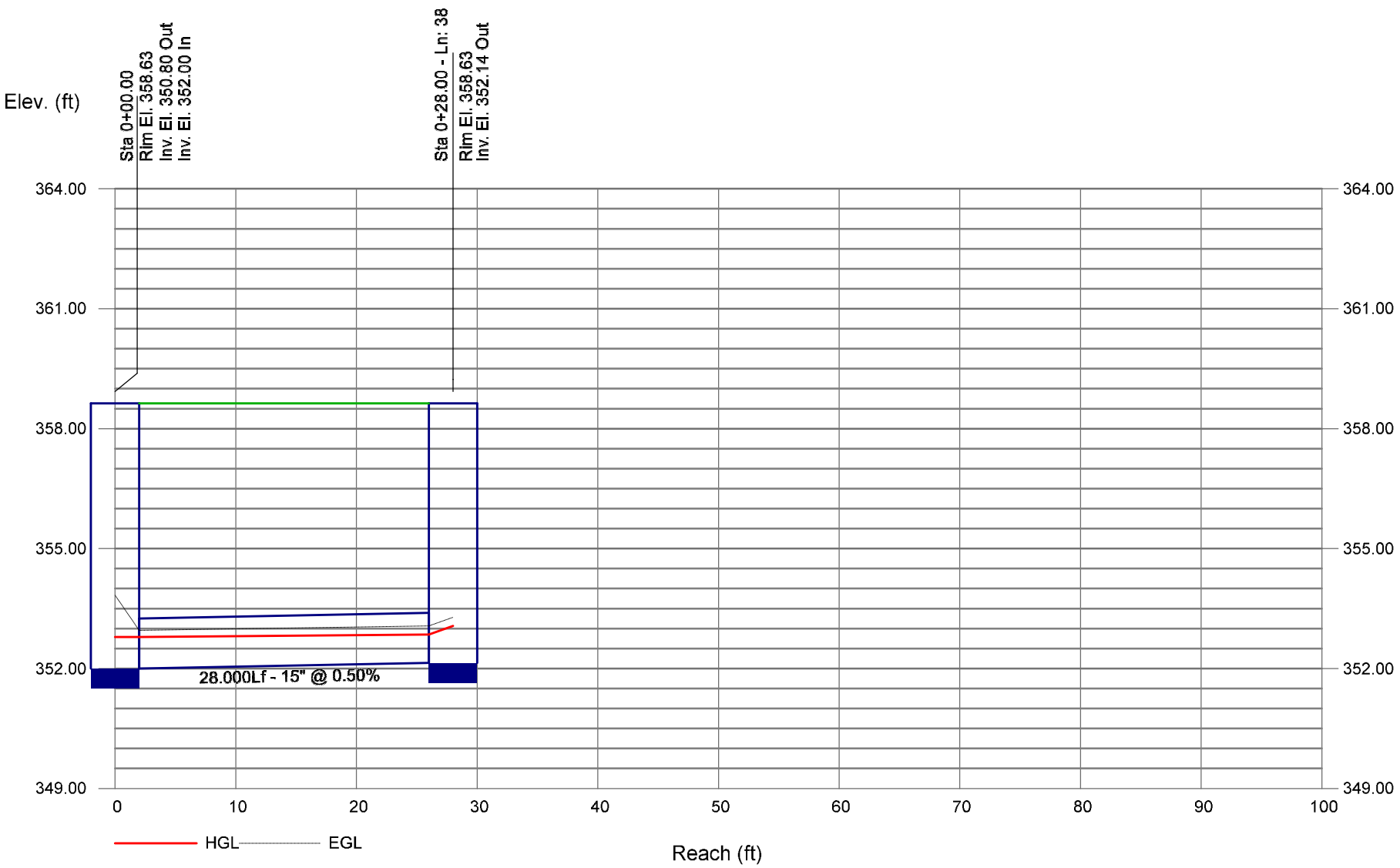
Storm Sewer Profile

SCM 2 25-YEAR PROFILE 36-36 Proj. file: SCM 2 Storm Network.stm



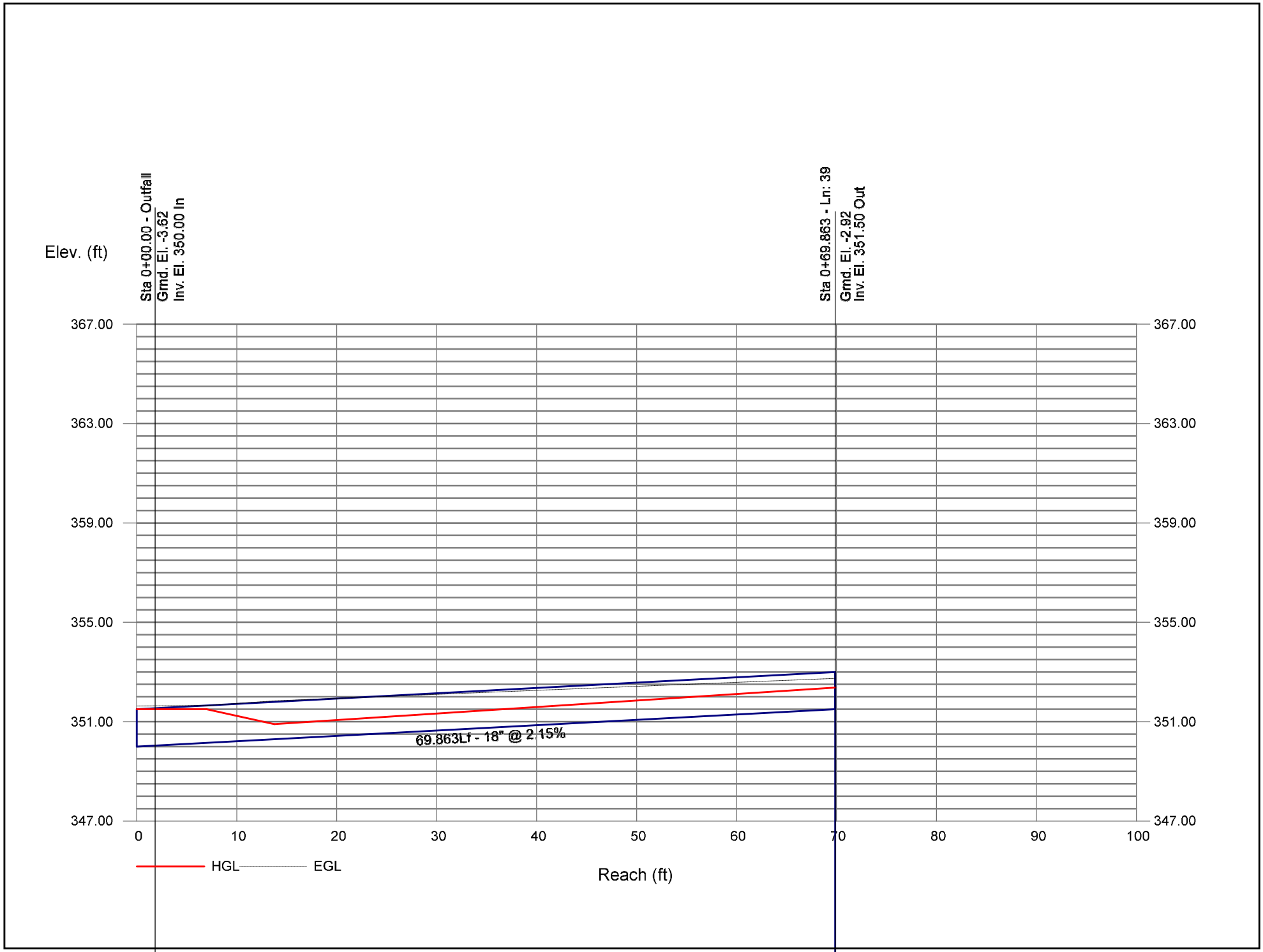
Storm Sewer Profile

SCM 2 25-YEAR PROFILE 38-38 Proj. file: SCM 2 Storm Network.stm

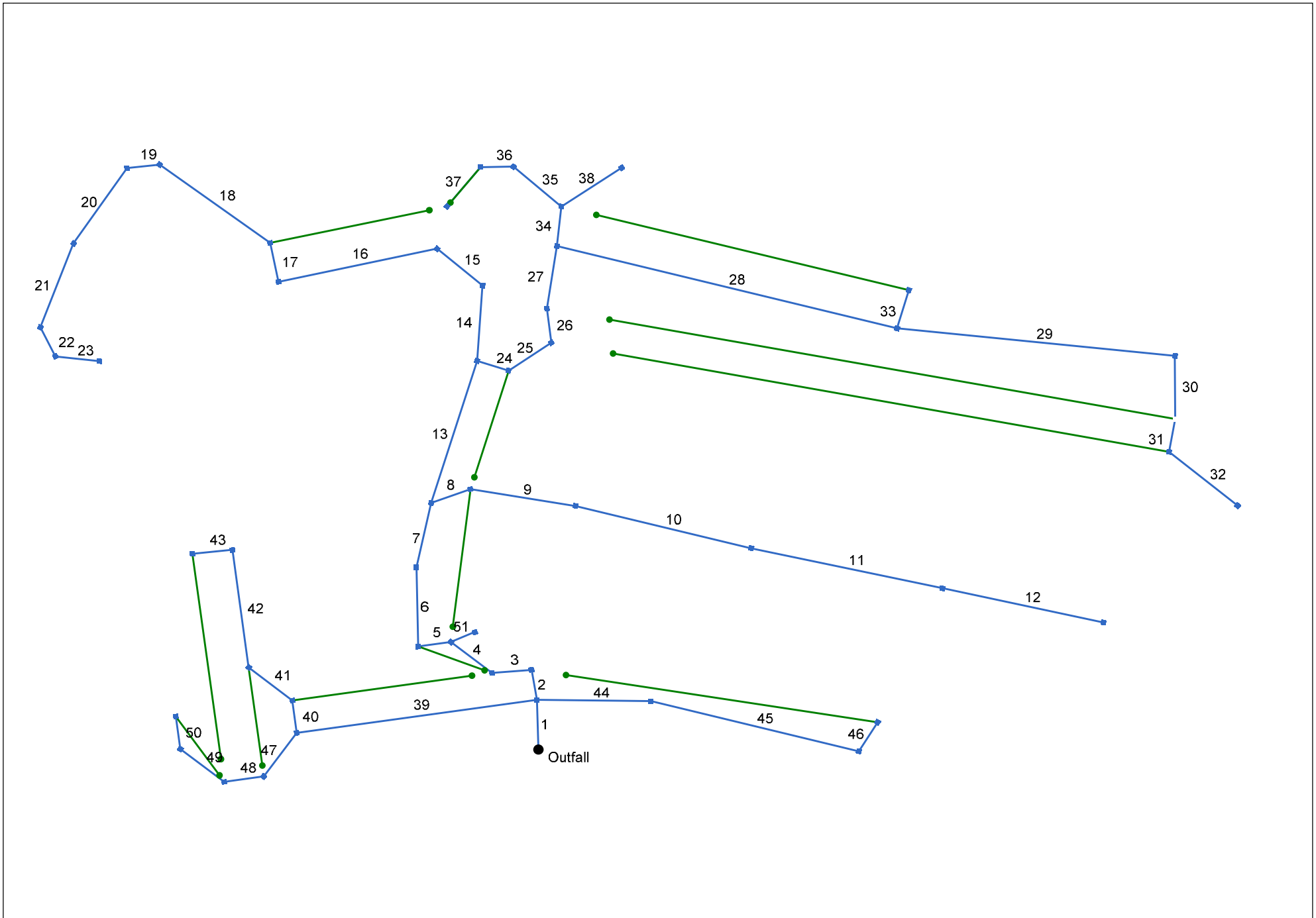


Storm Sewer Profile

SCM 2 25-YEAR PROFILE 39-39 Proj. file: SCM 2 Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 4 25-YEAR



Project File: SCM 4 Storm Network.stm	Number of lines: 51	Date: 4/11/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	42.566	-91.634	Comb	0.00	0.37	0.60	10.0	362.50	0.82	362.85	36	Cir	0.013	2.25	370.55	Pipe - (418)
2	1	26.017	-8.311	Comb	0.00	0.35	0.60	10.0	363.05	0.58	363.20	36	Cir	0.013	1.49	370.31	Pipe - (417)
3	2	33.736	-84.541	Comb	0.00	0.15	0.60	10.0	363.40	0.89	363.70	30	Cir	0.013	1.07	370.74	Pipe - (416)
4	3	43.841	41.601	Comb	0.00	0.04	0.60	10.0	363.90	1.37	364.50	30	Cir	0.013	1.50	371.99	Pipe - (368)
5	4	28.000	-45.000	Comb	0.00	1.08	0.60	10.0	364.70	1.00	364.98	30	Cir	0.013	1.50	371.99	Pipe - (380)
6	5	67.788	96.424	Comb	0.00	0.09	0.60	10.0	365.20	1.00	365.88	30	Cir	0.013	0.50	373.69	Pipe - (367) (1) (
7	6	56.317	14.470	Comb	0.00	0.22	0.60	10.0	366.10	1.95	367.20	30	Cir	0.013	1.80	375.08	Pipe - (367) (1)
8	7	35.477	57.582	Comb	0.00	0.16	0.60	10.0	367.76	0.99	368.11	18	Cir	0.013	0.80	375.64	Pipe - (374) (1)
9	8	90.608	28.606	DrGrt	0.00	0.78	0.60	10.0	368.31	6.66	374.34	18	Cir	0.013	0.50	376.04	Pipe - (374)
10	9	153.369	4.369	DrGrt	0.00	0.56	0.60	10.0	374.60	2.22	378.00	18	Cir	0.013	0.50	379.64	Pipe - (373)
11	10	166.305	-1.713	DrGrt	0.00	0.62	0.60	10.0	378.20	1.20	380.20	15	Cir	0.013	0.50	381.64	Pipe - (372)
12	11	140.121	0.243	DrGrt	0.00	0.34	0.60	10.0	380.40	2.00	383.20	15	Cir	0.013	1.00	384.64	Pipe - (490)
13	7	127.504	4.879	Comb	0.00	0.11	0.60	10.0	367.40	2.43	370.50	24	Cir	0.013	1.50	378.43	Pipe - (366)
14	13	64.616	-13.839	Comb	0.00	0.07	0.60	10.0	370.70	2.94	372.60	18	Cir	0.013	1.27	380.23	Pipe - (409)
15	14	49.983	-55.102	Comb	0.00	0.09	0.60	10.0	372.80	3.00	374.30	18	Cir	0.013	1.22	382.08	Pipe - (408)
16	15	137.706	-50.808	Comb	0.00	0.07	0.60	10.0	374.50	0.58	375.30	18	Cir	0.013	1.50	384.96	Pipe - (432)
17	16	34.000	90.000	Comb	0.00	0.07	0.60	10.0	375.50	0.59	375.70	18	Cir	0.013	1.08	384.52	Pipe - (438)
18	17	115.233	-42.654	Comb	0.00	0.41	0.60	10.0	375.90	0.61	376.60	15	Cir	0.013	1.07	384.70	Pipe - (437)
19	18	28.000	-41.665	Comb	0.00	0.85	0.60	10.0	376.80	0.71	377.00	15	Cir	0.013	1.18	384.67	Pipe - (436)
20	19	78.850	-48.424	Comb	0.00	0.10	0.60	10.0	377.20	0.60	377.67	15	Cir	0.013	0.50	384.57	Pipe - (435)
21	20	76.953	-14.049	Comb	0.00	0.03	0.60	10.0	377.90	0.60	378.36	15	Cir	0.013	1.18	385.58	Pipe - (434)
22	21	28.000	-48.252	Comb	0.00	0.04	0.60	10.0	378.60	0.61	378.77	15	Cir	0.013	1.30	385.58	Pipe - (433)
23	22	37.369	-57.113	Comb	0.00	0.07	0.60	10.0	379.00	0.59	379.22	15	Cir	0.013	1.00	386.00	Pipe - (535)

Storm Sewer Inventory Report

SCM 4 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	13	28.099	89.385	Comb	0.00	0.13	0.60	10.0	370.70	0.60	370.87	24	Cir	0.013	1.21	378.40	Pipe - (367)
25	24	43.416	-50.732	Comb	0.00	0.83	0.60	10.0	371.10	0.92	371.50	24	Cir	0.013	1.38	379.57	Pipe - (379)
26	25	29.427	-64.132	Comb	0.00	0.76	0.60	10.0	371.70	0.99	371.99	18	Cir	0.013	0.51	379.48	Pipe - (364)
27	26	54.011	16.712	Comb	0.00	0.20	0.60	10.0	372.20	2.00	373.28	18	Cir	0.013	2.16	381.78	Pipe - (363)
28	27	297.666	94.522	Comb	0.00	0.15	0.60	10.0	373.50	0.60	375.29	15	Cir	0.013	1.50	385.53	Pipe - (412)
29	28	237.368	-7.963	Comb	0.00	0.02	0.60	10.0	375.50	0.60	376.92	15	Cir	0.013	1.49	387.38	Pipe - (411)
30	29	54.000	84.067	Comb	0.00	0.03	0.60	10.0	377.20	0.59	377.52	15	Cir	0.013	0.50	385.70	Pipe - (415)
31	30	28.507	10.831	Comb	0.00	0.01	0.60	10.0	377.75	0.60	377.92	15	Cir	0.013	1.36	385.54	Pipe - (414)
32	31	74.490	-62.309	Comb	0.00	0.61	0.60	10.0	378.20	0.60	378.65	15	Cir	0.013	1.00	384.81	Pipe - (413)
33	28	34.065	-86.348	Comb	0.00	0.47	0.60	10.0	375.50	1.00	375.84	18	Cir	0.013	1.00	384.81	Pipe - (534)
34	27	34.020	-2.563	Comb	0.00	0.32	0.60	10.0	373.50	0.59	373.70	18	Cir	0.013	1.82	381.93	Pipe - (362)
35	34	53.159	-56.631	Comb	0.00	0.17	0.60	10.0	373.90	0.60	374.22	15	Cir	0.013	1.05	381.95	Pipe - (371)
36	35	28.000	-40.898	Comb	0.00	0.24	0.60	10.0	374.40	0.71	374.60	15	Cir	0.013	1.18	381.69	Pipe - (394)
37	36	44.039	-48.688	Comb	0.00	0.26	0.60	10.0	374.80	4.00	376.56	15	Cir	0.013	1.00	382.03	Pipe - (410)
38	34	60.892	50.531	DrGrt	0.00	0.28	0.60	10.0	373.90	1.00	374.51	15	Cir	0.013	1.00	381.93	Pipe - (584)
39	1	206.011	-96.251	Comb	0.00	0.01	0.60	10.0	363.05	0.50	364.08	24	Cir	0.013	1.69	372.10	Pipe - (384)
40	39	28.000	90.000	Comb	0.00	0.02	0.60	10.0	364.30	0.71	364.50	15	Cir	0.013	1.13	372.42	Pipe - (386)
41	40	46.669	-45.000	Comb	0.00	0.07	0.60	10.0	364.70	5.79	367.40	15	Cir	0.013	1.13	374.82	Pipe - (421)
42	41	101.483	45.000	Comb	0.00	0.14	0.60	10.0	367.60	4.14	371.80	15	Cir	0.013	1.50	379.86	Pipe - (420)
43	42	34.024	-87.851	Comb	0.00	0.13	0.60	10.0	372.00	0.59	372.20	15	Cir	0.013	1.00	380.67	Pipe - (419)
44	1	97.083	92.316	Comb	0.00	0.19	0.60	10.0	364.00	0.52	364.50	18	Cir	0.013	0.50	371.84	Pipe - (388)
45	44	181.821	12.960	Comb	0.00	0.21	0.60	10.0	364.70	3.74	371.50	15	Cir	0.013	1.43	379.68	Pipe - (387)
46	45	29.575	-71.057	Comb	0.00	0.18	0.60	10.0	371.70	0.51	371.85	15	Cir	0.013	1.00	380.12	Pipe - (389)

Storm Sewer Inventory Report

SCM 4 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	39	46.669	-45.000	Comb	0.00	0.07	0.60	10.0	364.30	0.49	364.53	15	Cir	0.013	1.13	370.15	Pipe - (422)
48	47	34.000	45.000	Comb	0.00	0.11	0.60	10.0	364.75	0.50	364.92	15	Cir	0.013	1.13	370.89	Pipe - (383)
49	48	46.669	45.000	Comb	0.00	0.21	0.60	10.0	365.15	0.49	365.38	15	Cir	0.013	1.13	373.17	Pipe - (382)
50	49	28.000	45.000	Comb	0.00	0.31	0.60	10.0	365.60	0.50	365.74	15	Cir	0.013	1.00	373.41	Pipe - (381)
51	4	21.891	119.979	DrGrt	0.00	0.07	0.60	10.0	365.70	1.00	365.92	15	Cir	0.013	1.00	370.85	Pipe - (585)

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	CB 401	Combination	370.55	Rect	4.00	4.00	36	Cir	362.85	36 24 18	Cir Cir Cir	363.05 363.05 364.00
2	CB 402	Combination	370.31	Rect	4.00	4.00	36	Cir	363.20	30	Cir	363.40
3	CB 403	Combination	370.74	Rect	4.00	4.00	30	Cir	363.70	30	Cir	363.90
4	CB 404	Combination	371.99	Rect	4.00	4.00	30	Cir	364.50	30 15	Cir Cir	364.70 365.70
5	CB 405	Combination	371.99	Rect	4.00	4.00	30	Cir	364.98	30	Cir	365.20
6	CB 406	Combination	373.69	Rect	4.00	4.00	30	Cir	365.88	30	Cir	366.10
7	CB 407	Combination	375.08	Rect	4.00	4.00	30	Cir	367.20	18 24	Cir Cir	367.76 367.40
8	CB 407A	Combination	375.64	Rect	4.00	4.00	18	Cir	368.11	18	Cir	368.31
9	YI 407B	DropGrate	376.04	Rect	4.00	4.00	18	Cir	374.34	18	Cir	374.60
10	YI 407C	DropGrate	379.64	Rect	4.00	4.00	18	Cir	378.00	15	Cir	378.20
11	YI 407D	DropGrate	381.64	Rect	4.00	4.00	15	Cir	380.20	15	Cir	380.40
12	YI 407E	DropGrate	384.64	Rect	4.00	4.00	15	Cir	383.20			
13	CB 408	Combination	378.43	Rect	4.00	4.00	24	Cir	370.50	18 24	Cir Cir	370.70 370.70
14	CB 409	Combination	380.23	Rect	4.00	4.00	18	Cir	372.60	18	Cir	372.80
15	CB 410	Combination	382.08	Rect	4.00	4.00	18	Cir	374.30	18	Cir	374.50
16	CB 411	Combination	384.96	Rect	4.00	4.00	18	Cir	375.30	18	Cir	375.50
17	CB 412	Combination	384.52	Rect	4.00	4.00	18	Cir	375.70	15	Cir	375.90
18	CB 413	Combination	384.70	Rect	4.00	4.00	15	Cir	376.60	15	Cir	376.80
19	CB 414	Combination	384.67	Rect	4.00	4.00	15	Cir	377.00	15	Cir	377.20
20	CB 415	Combination	384.57	Rect	4.00	4.00	15	Cir	377.67	15	Cir	377.90

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	CB 416	Combination	385.58	Rect	4.00	4.00	15	Cir	378.36	15	Cir	378.60
22	CB 417	Combination	385.58	Rect	4.00	4.00	15	Cir	378.77	15	Cir	379.00
23	CB 418	Combination	386.00	Rect	4.00	4.00	15	Cir	379.22			
24	CB 419	Combination	378.40	Rect	4.00	4.00	24	Cir	370.87	24	Cir	371.10
25	CB 420	Combination	379.57	Rect	4.00	4.00	24	Cir	371.50	18	Cir	371.70
26	CB 421	Combination	379.48	Rect	4.00	4.00	18	Cir	371.99	18	Cir	372.20
27	CB 422	Combination	381.78	Rect	4.00	4.00	18	Cir	373.28	15 18	Cir Cir	373.50 373.50
28	CB 423	Combination	385.53	Rect	4.00	4.00	15	Cir	375.29	15 18	Cir Cir	375.50 375.50
29	CB 424	Combination	387.38	Rect	4.00	4.00	15	Cir	376.92	15	Cir	377.20
30	CB 425	Combination	385.70	Rect	4.00	4.00	15	Cir	377.52	15	Cir	377.75
31	CB 426	Combination	385.54	Rect	4.00	4.00	15	Cir	377.92	15	Cir	378.20
32	CB 427	Combination	384.81	Rect	4.00	4.00	15	Cir	378.65			
33	CB 423A	Combination	384.81	Rect	4.00	4.00	18	Cir	375.84			
34	CB 422A	Combination	381.93	Rect	4.00	4.00	18	Cir	373.70	15 15	Cir Cir	373.90 373.90
35	CB 422C	Combination	381.95	Rect	4.00	4.00	15	Cir	374.22	15	Cir	374.40
36	CB 422D	Combination	381.69	Rect	4.00	4.00	15	Cir	374.60	15	Cir	374.80
37	CB 422E	Combination	382.03	Rect	4.00	4.00	15	Cir	376.56			
38	YI 422B	DropGrate	381.93	Rect	4.00	4.00	15	Cir	374.51			
39	CB 430	Combination	372.10	Rect	4.00	4.00	24	Cir	364.08	15 15	Cir Cir	364.30 364.30
40	CB 431	Combination	372.42	Rect	4.00	4.00	15	Cir	364.50	15	Cir	364.70
41	CB 432	Combination	374.82	Rect	4.00	4.00	15	Cir	367.40	15	Cir	367.60

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
42	CB 433	Combination	379.86	Rect	4.00	4.00	15	Cir	371.80	15	Cir	372.00
43	CB 433A	Combination	380.67	Rect	4.00	4.00	15	Cir	372.20			
44	CB 428	Combination	371.84	Rect	4.00	4.00	18	Cir	364.50	15	Cir	364.70
45	CB 429	Combination	379.68	Rect	4.00	4.00	15	Cir	371.50	15	Cir	371.70
46	CB 429A	Combination	380.12	Rect	4.00	4.00	15	Cir	371.85			
47	CB 434	Combination	370.15	Rect	4.00	4.00	15	Cir	364.53	15	Cir	364.75
48	CB 435	Combination	370.89	Rect	4.00	4.00	15	Cir	364.92	15	Cir	365.15
49	CB 436	Combination	373.17	Rect	4.00	4.00	15	Cir	365.38	15	Cir	365.60
50	CB 436A	Combination	373.41	Rect	4.00	4.00	15	Cir	365.74			
51	YI 404A	DropGrate	370.85	Rect	4.00	4.00	15	Cir	365.92			

Storm Sewer Summary Report

SCM 4 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (418)	43.75	36	Cir	42.566	362.50	362.85	0.822	365.08	365.00	n/a	365.00	End	Combination
2	Pipe - (417)	36.95	36	Cir	26.017	363.05	363.20	0.577	365.00	365.18	1.30	365.18	1	Combination
3	Pipe - (416)	35.82	30	Cir	33.736	363.40	363.70	0.889	365.30	365.73	n/a	365.73	2	Combination
4	Pipe - (368)	35.40	30	Cir	43.841	363.90	364.50	1.369	365.73	366.52	n/a	366.52	3	Combination
5	Pipe - (380)	35.08	30	Cir	28.000	364.70	364.98	1.000	366.52	366.99	n/a	366.99	4	Combination
6	Pipe - (367) (1) (1)	31.51	30	Cir	67.788	365.20	365.88	1.003	366.99	367.79	0.48	367.79	5	Combination
7	Pipe - (367) (1)	31.30	30	Cir	56.317	366.10	367.20	1.953	367.79	369.10	n/a	369.10	6	Combination
8	Pipe - (374) (1)	8.91	18	Cir	35.477	367.76	368.11	0.986	369.10	369.26	n/a	369.26 j	7	Combination
9	Pipe - (374)	8.39	18	Cir	90.608	368.31	374.34	6.655	369.26	375.46	n/a	375.46	8	DropGrate
10	Pipe - (373)	5.63	18	Cir	153.369	374.60	378.00	2.217	375.46	378.91	n/a	378.91	9	DropGrate
11	Pipe - (372)	3.62	15	Cir	166.305	378.20	380.20	1.203	378.91	380.97	n/a	380.97	10	DropGrate
12	Pipe - (490)	1.32	15	Cir	140.121	380.40	383.20	1.998	380.97	383.65	n/a	383.65 j	11	DropGrate
13	Pipe - (366)	22.23	24	Cir	127.504	367.40	370.50	2.431	369.10	372.18	n/a	372.18 j	7	Combination
14	Pipe - (409)	6.34	18	Cir	64.616	370.70	372.60	2.940	372.18	373.57	n/a	373.57 j	13	Combination
15	Pipe - (408)	6.12	18	Cir	49.983	372.80	374.30	3.001	373.57	375.25	0.50	375.25	14	Combination
16	Pipe - (432)	5.88	18	Cir	137.706	374.50	375.30	0.581	375.46	376.26	0.57	376.83	15	Combination
17	Pipe - (438)	5.66	18	Cir	34.000	375.50	375.70	0.588	376.83	376.88	0.24	377.12	16	Combination
18	Pipe - (437)	5.48	15	Cir	115.233	375.90	376.60	0.607	377.15*	377.98*	0.33	378.31	17	Combination
19	Pipe - (436)	4.00	15	Cir	28.000	376.80	377.00	0.714	378.31*	378.42*	0.19	378.61	18	Combination
20	Pipe - (435)	0.90	15	Cir	78.850	377.20	377.67	0.596	378.61	378.63	0.01	378.63	19	Combination
21	Pipe - (434)	0.53	15	Cir	76.953	377.90	378.36	0.598	378.63	378.64	n/a	378.64 j	20	Combination
22	Pipe - (433)	0.42	15	Cir	28.000	378.60	378.77	0.607	378.85	379.02	n/a	379.02	21	Combination
23	Pipe - (535)	0.27	15	Cir	37.369	379.00	379.22	0.589	379.20	379.42	n/a	379.42	22	Combination
24	Pipe - (367)	15.62	24	Cir	28.099	370.70	370.87	0.605	372.18	372.34	0.75	373.09	13	Combination

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
25	Pipe - (379)	15.22	24	Cir	43.416	371.10	371.50	0.921	373.09	372.91	n/a	372.91	24	Combination
26	Pipe - (364)	12.34	18	Cir	29.427	371.70	371.99	0.985	373.20*	373.61*	0.39	373.99	25	Combination
27	Pipe - (363)	9.72	18	Cir	54.011	372.20	373.28	2.000	373.99	374.48	n/a	374.48 j	26	Combination
28	Pipe - (412)	4.70	15	Cir	297.666	373.50	375.29	0.601	374.48	376.24	0.52	376.75	27	Combination
29	Pipe - (411)	2.54	15	Cir	237.368	375.50	376.92	0.598	376.75	377.56	n/a	377.56 j	28	Combination
30	Pipe - (415)	2.48	15	Cir	54.000	377.20	377.52	0.593	377.83	378.15	n/a	378.15	29	Combination
31	Pipe - (414)	2.38	15	Cir	28.507	377.75	377.92	0.596	378.36	378.54	n/a	378.54	30	Combination
32	Pipe - (413)	2.37	15	Cir	74.490	378.20	378.65	0.604	378.80	379.26	0.24	379.26	31	Combination
33	Pipe - (534)	1.82	18	Cir	34.065	375.50	375.84	0.998	376.75	376.35	n/a	376.35	28	Combination
34	Pipe - (362)	4.83	18	Cir	34.020	373.50	373.70	0.588	374.48	374.54	0.63	374.54	27	Combination
35	Pipe - (371)	2.57	15	Cir	53.159	373.90	374.22	0.602	374.54	374.86	n/a	374.86	34	Combination
36	Pipe - (394)	1.92	15	Cir	28.000	374.40	374.60	0.714	374.91	375.15	0.25	375.15	35	Combination
37	Pipe - (410)	1.01	15	Cir	44.039	374.80	376.56	3.997	375.15	376.95	0.14	376.95	36	Combination
38	Pipe - (584)	1.09	15	Cir	60.892	373.90	374.51	1.002	374.54	374.92	n/a	374.92 j	34	DropGrate
39	Pipe - (384)	4.03	24	Cir	206.011	363.05	364.08	0.500	365.00	364.78	n/a	364.78	1	Combination
40	Pipe - (386)	1.36	15	Cir	28.000	364.30	364.50	0.714	364.78	364.96	n/a	364.96 j	39	Combination
41	Pipe - (421)	1.29	15	Cir	46.669	364.70	367.40	5.785	364.96	367.85	n/a	367.85	40	Combination
42	Pipe - (420)	1.04	15	Cir	101.483	367.60	371.80	4.139	367.85	372.20	0.22	372.20	41	Combination
43	Pipe - (419)	0.50	15	Cir	34.024	372.00	372.20	0.588	372.27	372.48	0.10	372.48	42	Combination
44	Pipe - (388)	2.18	18	Cir	97.083	364.00	364.50	0.515	365.00	365.06	n/a	365.06 j	1	Combination
45	Pipe - (387)	1.50	15	Cir	181.821	364.70	371.50	3.740	365.06	371.99	0.26	371.99	44	Combination
46	Pipe - (389)	0.70	15	Cir	29.575	371.70	371.85	0.507	372.03	372.18	n/a	372.29 j	45	Combination
47	Pipe - (422)	2.66	15	Cir	46.669	364.30	364.53	0.493	364.99	365.22	0.26	365.48	39	Combination
48	Pipe - (383)	2.41	15	Cir	34.000	364.75	364.92	0.500	365.48	365.56	0.25	365.82	47	Combination

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

SCM 4 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
49	Pipe - (382)	2.00	15	Cir	46.669	365.15	365.38	0.493	365.82	365.95	0.24	366.19	48	Combination
50	Pipe - (381)	1.20	15	Cir	28.000	365.60	365.74	0.500	366.19	366.21	0.13	366.34	49	Combination
51	Pipe - (585)	0.27	15	Cir	21.891	365.70	365.92	1.005	366.52	366.12	n/a	366.12	4	DropGrate

Project File: SCM 4 Storm Network.stm

Number of lines: 51

Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

SCM 4 25-YEAR

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	CB 401	1.44	0.01	1.45	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.21	6.70	0.21	6.70	0.0	Off
2	CB 402	1.36	0.63	1.99	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.25	8.51	0.25	8.51	0.0	Off
3	CB 403	0.58	1.56	1.52	0.63	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.24	8.08	0.17	4.27	0.0	2
4	CB 404	0.16	0.13	0.29	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.11	1.77	0.00	0.00	0.0	3
5	CB 405	4.19	0.00	2.63	1.56	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.26	8.88	0.19	5.54	0.0	3
6	CB 406	0.35	0.05	0.39	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.12	2.00	0.00	0.00	0.0	5
7	CB 407	0.85	0.00	0.81	0.05	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.16	3.87	0.05	0.89	0.0	6
8	CB 407A	0.62	0.57	1.06	0.13	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.18	4.76	0.08	1.32	0.0	4
9	YI 407B	3.03	0.00	3.03	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.20	22.82	0.20	22.82	0.0	Off
10	YI 407C	2.17	0.00	2.17	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.16	18.79	0.16	18.79	0.0	Off
11	YI 407D	2.40	0.00	2.40	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.17	19.93	0.17	19.93	0.0	Off
12	YI 407E	1.32	0.00	1.32	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.12	14.18	0.12	14.18	0.0	Off
13	CB 408	0.43	0.00	0.43	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.12	2.16	0.00	0.07	0.0	7
14	CB 409	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.10	1.74	0.00	0.00	0.0	13
15	CB 410	0.35	0.00	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.13	2.51	0.01	0.18	0.0	14
16	CB 411	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.11	1.81	0.00	0.00	0.0	15
17	CB 412	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.11	1.81	0.00	0.00	0.0	37
18	CB 413	1.59	0.00	1.59	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.22	7.19	0.22	7.19	0.0	Off
19	CB 414	3.30	0.01	3.31	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.33	12.34	0.33	12.34	0.0	Off
20	CB 415	0.39	0.00	0.38	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.15	3.39	0.04	0.59	0.0	19
21	CB 416	0.12	0.00	0.12	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.10	1.71	0.00	0.00	0.0	Off
22	CB 417	0.16	0.00	0.16	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.11	1.90	0.00	0.00	0.0	Off
23	CB 418	0.27	0.00	0.27	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.13	2.35	0.13	2.35	0.0	Off

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

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)	
24	CB 419	0.50	1.81	1.74	0.57	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.22	6.76	0.14	2.86	0.0	8
25	CB 420	3.22	1.05	2.46	1.81	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.30	10.88	0.23	7.47	0.0	24
26	CB 421	2.95	0.00	1.90	1.05	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.27	9.30	0.19	5.71	0.0	25
27	CB 422	0.78	0.04	0.82	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.17	4.26	0.17	4.26	0.0	Off
28	CB 423	0.58	0.00	0.54	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.17	4.45	0.06	1.07	0.0	27
29	CB 424	0.08	0.00	0.08	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.09	1.47	0.00	0.00	0.0	28
30	CB 425	0.12	0.00	0.12	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.09	1.43	0.00	0.00	0.0	26
31	CB 426	0.04	0.00	0.04	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.06	0.95	0.00	0.00	0.0	25
32	CB 427	2.37	0.00	2.37	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.27	9.68	0.27	9.68	0.0	Off
33	CB 423A	1.82	0.00	1.32	0.50	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.24	8.01	0.16	4.04	0.0	34
34	CB 422A	1.24	0.50	1.74	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.23	7.70	0.23	7.70	0.0	Off
35	CB 422C	0.66	0.00	0.66	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.15	3.56	0.15	3.56	0.0	Off
36	CB 422D	0.93	0.00	0.93	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.17	4.73	0.17	4.73	0.0	37
37	CB 422E	1.01	0.00	1.01	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.18	5.05	0.18	5.05	0.0	Off
38	YI 422B	1.09	0.00	1.09	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.10	12.76	0.10	12.76	0.0	Off
39	CB 430	0.04	0.00	0.04	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.05	0.87	0.00	0.00	0.0	1
40	CB 431	0.08	0.00	0.08	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.07	1.13	0.00	0.00	0.0	3
41	CB 432	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.09	1.52	0.00	0.00	0.0	47
42	CB 433	0.54	0.00	0.54	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.12	1.98	0.00	0.00	0.0	41
43	CB 433A	0.50	0.00	0.50	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.12	1.92	0.00	0.00	0.0	48
44	CB 428	0.74	0.01	0.73	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.033	2.00	0.060	0.020	0.013	0.14	3.18	0.03	0.56	0.0	1
45	CB 429	0.81	0.00	0.80	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.14	3.01	0.03	0.47	0.0	44
46	CB 429A	0.70	0.00	0.70	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.13	2.63	0.02	0.28	0.0	2

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

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)	
47	CB 434	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.09	1.52	0.00	0.00	0.0	Off
48	CB 435	0.43	0.21	0.63	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.13	2.28	0.00	0.00	0.0	Off
49	CB 436	0.81	0.00	0.76	0.05	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	4.04	0.06	0.96	0.0	48
50	CB 436A	1.20	0.00	1.05	0.16	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.18	5.10	0.09	1.47	0.0	48
51	YI 404A	0.27	0.00	0.27	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.04	6.57	0.04	6.57	0.0	Off

Project File: SCM 4 Storm Network.stm

Number of lines: 51

Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 4 25-YEAR

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	43.75	362.50	365.08	2.58	5.43	6.77	1.01	366.09	0.000	42.566	362.85	365.00	2.15**	5.43	8.06	1.01	366.01	0.000	0.000	n/a	2.25	n/a
2	36	36.95	363.05	365.00	1.95	4.87	7.58	0.87	365.87	0.000	26.017	363.20	365.18	1.98**	4.94	7.48	0.87	366.05	0.000	0.000	n/a	1.49	1.30
3	30	35.82	363.40	365.30	1.90*	4.00	8.95	1.10	366.40	0.000	33.736	363.70	365.73	2.03**	4.27	8.40	1.10	366.82	0.000	0.000	n/a	1.07	n/a
4	30	35.40	363.90	365.73	1.83	3.85	9.20	1.08	366.81	0.000	43.841	364.50	366.52	2.02**	4.25	8.34	1.08	367.60	0.000	0.000	n/a	1.50	n/a
5	30	35.08	364.70	366.52	1.82	3.82	9.17	1.07	367.59	0.000	28.000	364.98	366.99	2.01**	4.23	8.29	1.07	368.06	0.000	0.000	n/a	1.50	n/a
6	30	31.51	365.20	366.99	1.79	3.76	8.38	0.95	367.94	0.000	67.788	365.88	367.79	1.91**	4.03	7.83	0.95	368.74	0.000	0.000	n/a	0.50	0.48
7	30	31.30	366.10	367.79	1.69	3.53	8.86	0.95	368.74	0.000	56.317	367.20	369.10	1.90**	4.01	7.80	0.95	370.05	0.000	0.000	n/a	1.80	n/a
8	18	8.91	367.76	369.10	1.34	1.46	5.33	0.58	369.68	0.000	35.477	368.11	369.26 j	1.15**	1.46	6.11	0.58	369.84	0.000	0.000	n/a	0.80	0.46
9	18	8.39	368.31	369.26	0.95	1.19	7.08	0.55	369.81	0.000	90.608	374.34	375.46	1.12**	1.42	5.92	0.55	376.01	0.000	0.000	n/a	0.50	n/a
10	18	5.63	374.60	375.46	0.86	1.05	5.37	0.39	375.85	0.000	153.369	378.00	378.91	0.91**	1.13	4.99	0.39	379.30	0.000	0.000	n/a	0.50	n/a
11	15	3.62	378.20	378.91	0.71	0.73	5.00	0.33	379.24	0.000	166.305	380.20	380.97	0.77**	0.79	4.58	0.33	381.29	0.000	0.000	n/a	0.50	n/a
12	15	1.32	380.40	380.97	0.57	0.40	2.43	0.17	381.14	0.000	140.121	383.20	383.65 j	0.45**	0.40	3.28	0.17	383.82	0.000	0.000	n/a	1.00	0.17
13	24	22.23	367.40	369.10	1.70	2.82	7.79	0.97	370.07	0.000	127.504	370.50	372.18 j	1.68**	2.82	7.89	0.97	373.15	0.000	0.000	n/a	1.50	1.45
14	18	6.34	370.70	372.18	1.48	1.21	3.60	0.43	372.61	0.000	64.616	372.60	373.57 j	0.97**	1.21	5.23	0.43	374.00	0.000	0.000	n/a	1.27	0.54
15	18	6.12	372.80	373.57	0.77	0.92	6.67	0.41	373.99	0.000	49.983	374.30	375.25	0.95**	1.19	5.15	0.41	375.67	0.000	0.000	n/a	1.22	0.50
16	18	5.88	374.50	375.46	0.96*	1.19	4.95	0.38	375.84	0.581	137.706	375.30	376.26	0.96	1.19	4.94	0.38	376.64	0.578	0.579	0.798	1.50	0.57
17	18	5.66	375.50	376.83	1.33	1.65	3.42	0.18	377.01	0.260	34.000	375.70	376.88	1.18	1.49	3.79	0.22	377.11	0.313	0.286	0.097	1.08	0.24
18	15	5.48	375.90	377.15	1.25*	1.23	4.47	0.31	377.46	0.720	115.233	376.60	377.98	1.25	1.23	4.47	0.31	378.29	0.720	0.720	0.830	1.07	0.33
19	15	4.00	376.80	378.31	1.25	1.23	3.26	0.17	378.48	0.384	28.000	377.00	378.42	1.25	1.23	3.26	0.17	378.58	0.384	0.384	0.107	1.18	0.19
20	15	0.90	377.20	378.61	1.25	1.23	0.73	0.01	378.62	0.019	78.850	377.67	378.63	0.96	1.01	0.89	0.01	378.64	0.022	0.021	0.017	0.50	0.01
21	15	0.53	377.90	378.63	0.73	0.21	0.71	0.10	378.73	0.000	76.953	378.36	378.64 j	0.28**	0.21	2.54	0.10	378.75	0.000	0.000	n/a	1.18	n/a
22	15	0.42	378.60	378.85	0.25*	0.17	2.49	0.09	378.93	0.000	28.000	378.77	379.02	0.25**	0.18	2.39	0.09	379.11	0.000	0.000	n/a	1.30	n/a

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 4 25-YEAR

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)
23	15	0.27	379.00	379.20	0.20*	0.13	2.16	0.07	379.27	0.000	37.369	379.22	379.42	0.20**	0.13	2.12	0.07	379.49	0.000	0.000	n/a	1.00	n/a
24	24	15.62	370.70	372.18	1.48	2.49	6.26	0.61	372.79	0.591	28.099	370.87	372.34	1.47	2.47	6.32	0.62	372.96	0.603	0.597	0.168	1.21	0.75
25	24	15.22	371.10	373.09	1.99	2.36	4.85	0.65	373.74	0.000	43.416	371.50	372.91	1.41**	2.36	6.46	0.65	373.55	0.000	0.000	n/a	1.38	n/a
26	18	12.34	371.70	373.20	1.50*	1.77	6.99	0.76	373.96	1.382	29.427	371.99	373.61	1.50	1.77	6.99	0.76	374.37	1.382	1.382	0.407	0.51	0.39
27	18	9.72	372.20	373.99	1.50	1.52	5.50	0.47	374.46	0.858	54.011	373.28	374.48 j	1.20**	1.52	6.40	0.64	375.12	0.894	0.876	n/a	2.16	1.38
28	15	4.70	373.50	374.48	0.98	1.03	4.54	0.32	374.80	0.574	297.666	375.29	376.24	0.95	1.00	4.71	0.34	376.58	0.621	0.597	1.779	1.50	0.52
29	15	2.54	375.50	376.75	1.25	0.63	2.07	0.07	376.82	0.155	237.368	376.92	377.56 j	0.64**	0.63	4.03	0.25	377.81	0.578	0.366	n/a	1.49	0.38
30	15	2.48	377.20	377.83	0.63*	0.61	4.05	0.25	378.07	0.000	54.000	377.52	378.15	0.63**	0.62	4.00	0.25	378.40	0.000	0.000	n/a	0.50	n/a
31	15	2.38	377.75	378.36	0.61*	0.59	4.02	0.24	378.60	0.000	28.507	377.92	378.54	0.62**	0.60	3.95	0.24	378.78	0.000	0.000	n/a	1.36	n/a
32	15	2.37	378.20	378.80	0.60*	0.59	4.03	0.24	379.05	0.000	74.490	378.65	379.26	0.61**	0.60	3.94	0.24	379.51	0.000	0.000	n/a	1.00	0.24
33	18	1.82	375.50	376.75	1.25	0.53	1.16	0.19	376.94	0.000	34.065	375.84	376.35	0.51**	0.53	3.46	0.19	376.53	0.000	0.000	n/a	1.00	n/a
34	18	4.83	373.50	374.48	0.98	1.02	3.94	0.35	374.83	0.000	34.020	373.70	374.54	0.84**	1.02	4.72	0.35	374.89	0.000	0.000	n/a	1.82	0.63
35	15	2.57	373.90	374.54	0.64	0.63	4.03	0.25	374.80	0.000	53.159	374.22	374.86	0.64**	0.63	4.05	0.25	375.12	0.000	0.000	n/a	1.05	n/a
36	15	1.92	374.40	374.91	0.51*	0.47	4.06	0.21	375.12	0.000	28.000	374.60	375.15	0.55**	0.52	3.68	0.21	375.36	0.000	0.000	n/a	1.18	0.25
37	15	1.01	374.80	375.15	0.35	0.28	3.56	0.14	375.30	0.000	44.039	376.56	376.95	0.39**	0.33	3.04	0.14	377.10	0.000	0.000	n/a	1.00	0.14
38	15	1.09	373.90	374.54	0.64	0.35	1.70	0.15	374.69	0.000	60.892	374.51	374.92 j	0.41**	0.35	3.10	0.15	375.07	0.000	0.000	n/a	1.00	0.15
39	24	4.03	363.05	365.00	1.95	0.99	1.29	0.26	365.26	0.000	206.011	364.08	364.78	0.70**	0.99	4.08	0.26	365.04	0.000	0.000	n/a	1.69	n/a
40	15	1.36	364.30	364.78	0.48	0.41	3.11	0.17	364.95	0.000	28.000	364.50	364.96 j	0.46**	0.41	3.32	0.17	365.13	0.000	0.000	n/a	1.13	n/a
41	15	1.29	364.70	364.96	0.26	0.19	6.96	0.17	365.13	0.000	46.669	367.40	367.85	0.45**	0.40	3.27	0.17	368.01	0.000	0.000	n/a	1.13	n/a
42	15	1.04	367.60	367.85	0.25	0.17	6.00	0.15	367.99	0.000	101.483	371.80	372.20	0.40**	0.34	3.06	0.15	372.35	0.000	0.000	n/a	1.50	0.22
43	15	0.50	372.00	372.27	0.27*	0.19	2.59	0.10	372.37	0.000	34.024	372.20	372.48	0.28**	0.20	2.50	0.10	372.57	0.000	0.000	n/a	1.00	0.10
44	18	2.18	364.00	365.00	1.00	0.60	1.74	0.21	365.21	0.000	97.083	364.50	365.06 j	0.56**	0.60	3.65	0.21	365.26	0.000	0.000	n/a	0.50	0.10

Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 4 25-YEAR

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)
45	15	1.50	364.70	365.06	0.36	0.29	5.19	0.18	365.24	0.000	181.821	371.50	371.99	0.49**	0.44	3.42	0.18	372.17	0.000	0.000	n/a	1.43	0.26
46	15	0.70	371.70	372.03	0.33*	0.25	2.70	0.11	372.14	0.507	29.575	371.85	372.18 j	0.33**	0.26	2.71	0.11	372.29	0.508	0.507	0.150	1.00	0.11
47	15	2.66	364.30	364.99	0.69*	0.69	3.84	0.23	365.22	0.493	46.669	364.53	365.22	0.69	0.69	3.85	0.23	365.45	0.494	0.494	0.230	1.13	0.26
48	15	2.41	364.75	365.48	0.73	0.74	3.25	0.16	365.64	0.338	34.000	364.92	365.56	0.64	0.64	3.79	0.22	365.79	0.508	0.423	0.144	1.13	0.25
49	15	2.00	365.15	365.82	0.67	0.54	3.02	0.14	365.96	0.313	46.669	365.38	365.95	0.57**	0.54	3.71	0.21	366.16	0.541	0.427	0.199	1.13	0.24
50	15	1.20	365.60	366.19	0.59	0.57	2.12	0.07	366.26	0.171	28.000	365.74	366.21	0.47	0.42	2.87	0.13	366.34	0.389	0.280	0.078	1.00	0.13
51	15	0.27	365.70	366.52	0.82	0.13	0.32	0.07	366.59	0.000	21.891	365.92	366.12	0.20**	0.13	2.12	0.07	366.19	0.000	0.000	n/a	1.00	n/a

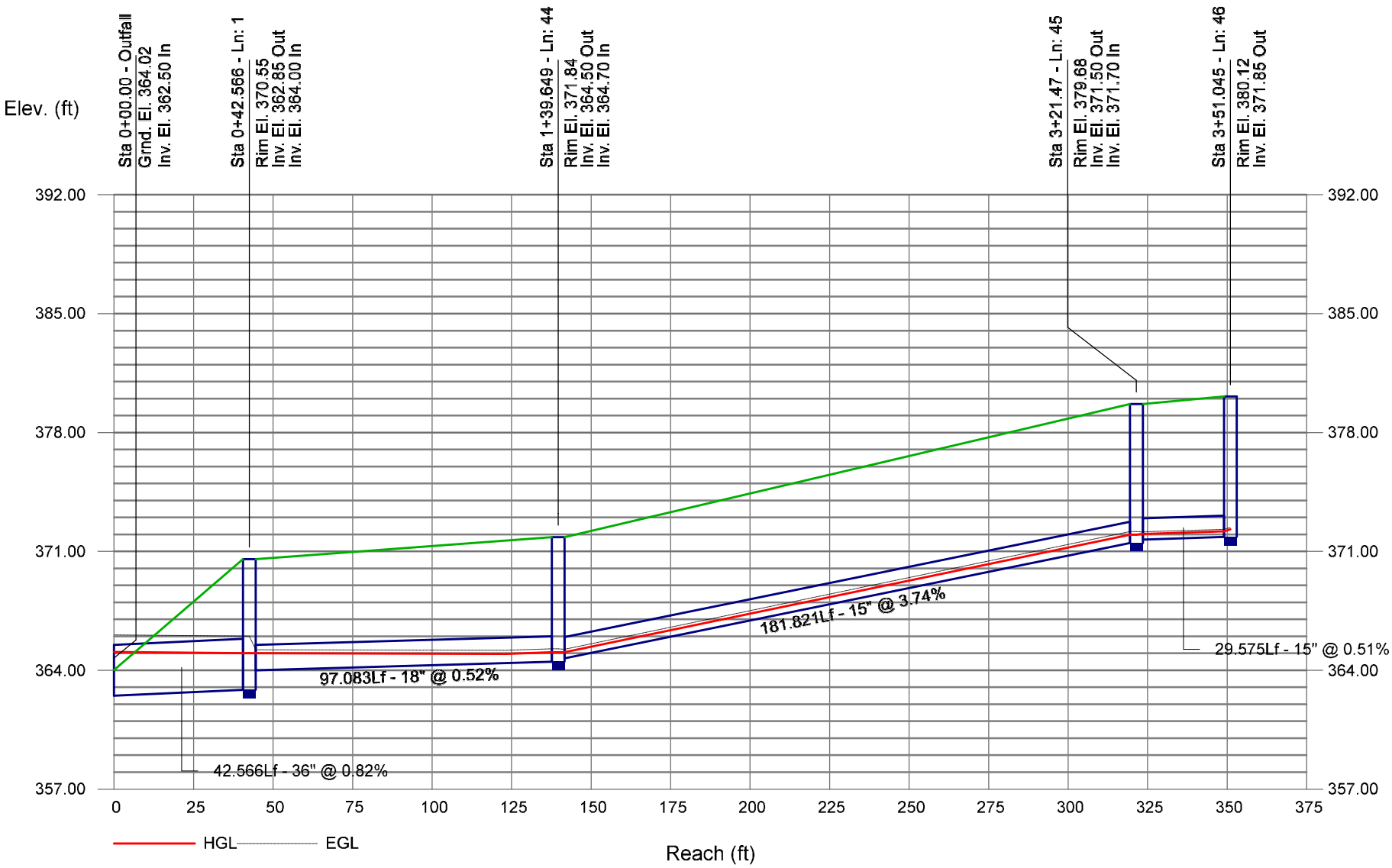
Project File: SCM 4 Storm Network.stm | Number of lines: 51 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Storm Sewer Profile

SCM 4 25-YEAR PROFILE 1-46

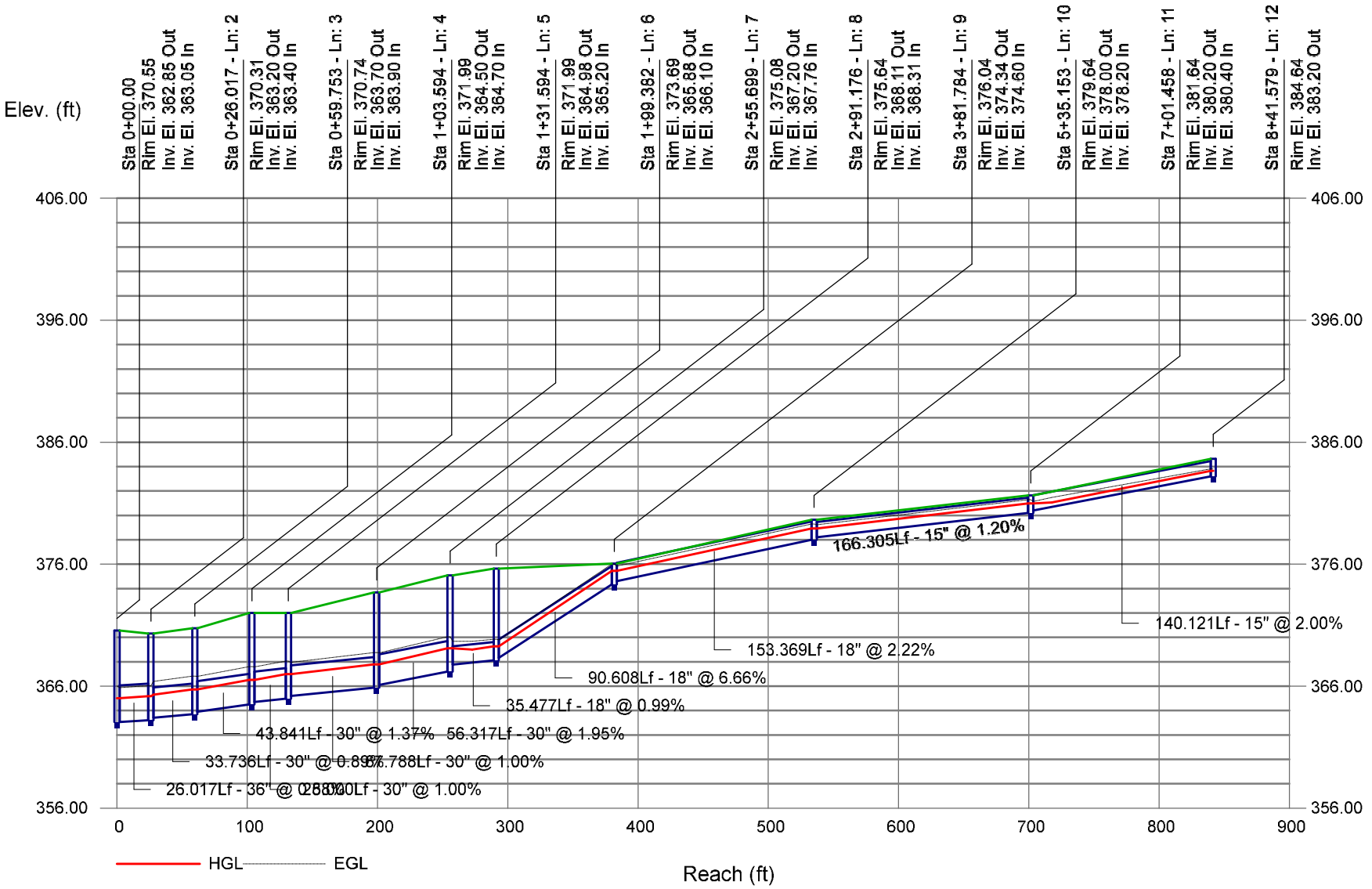
Proj. file: SCM 4 Storm Network.stm



Storm Sewer Profile

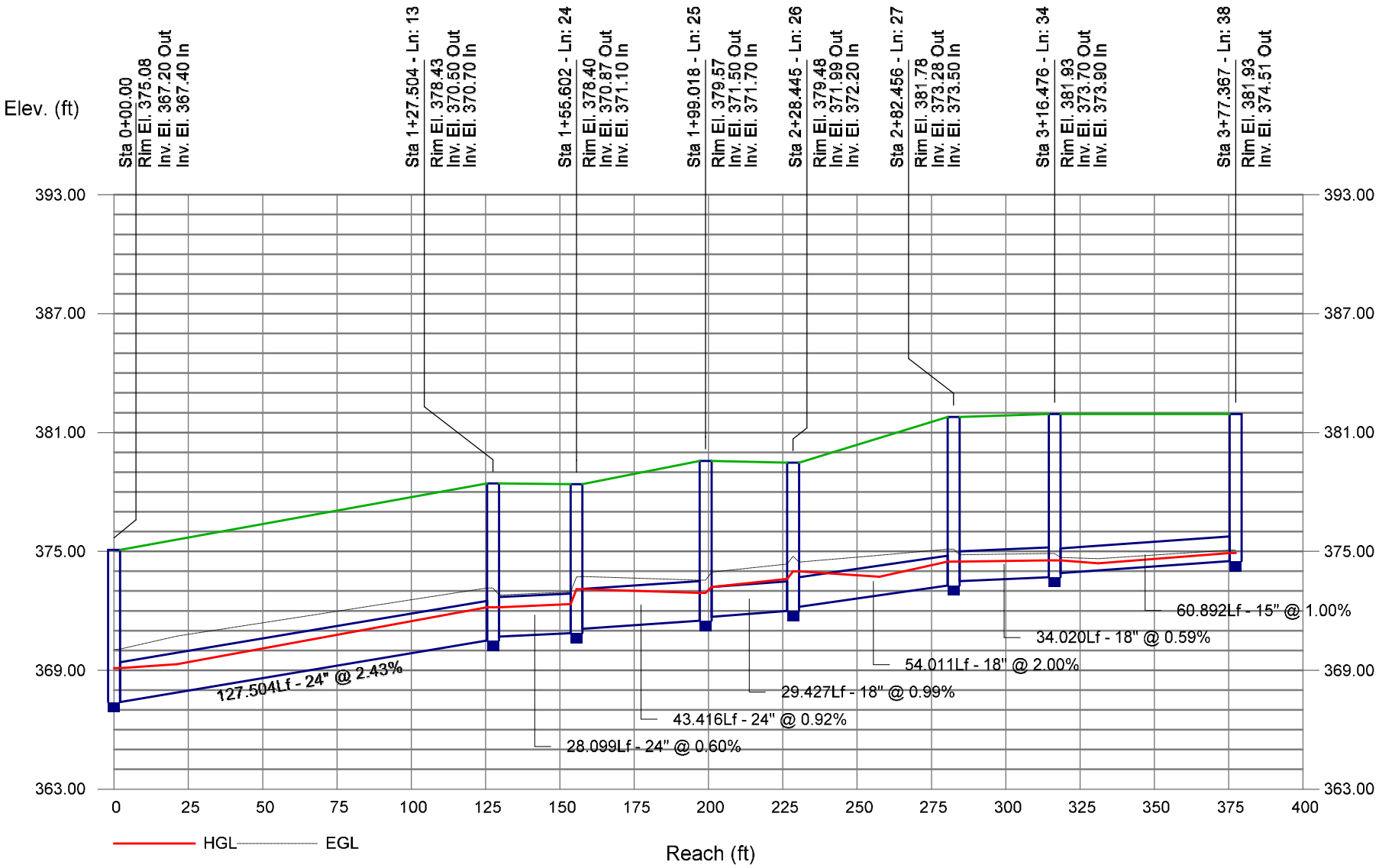
SCM 4 25-YEAR PROFILE 2-12

Proj. file: SCM 4 Storm Network.stm



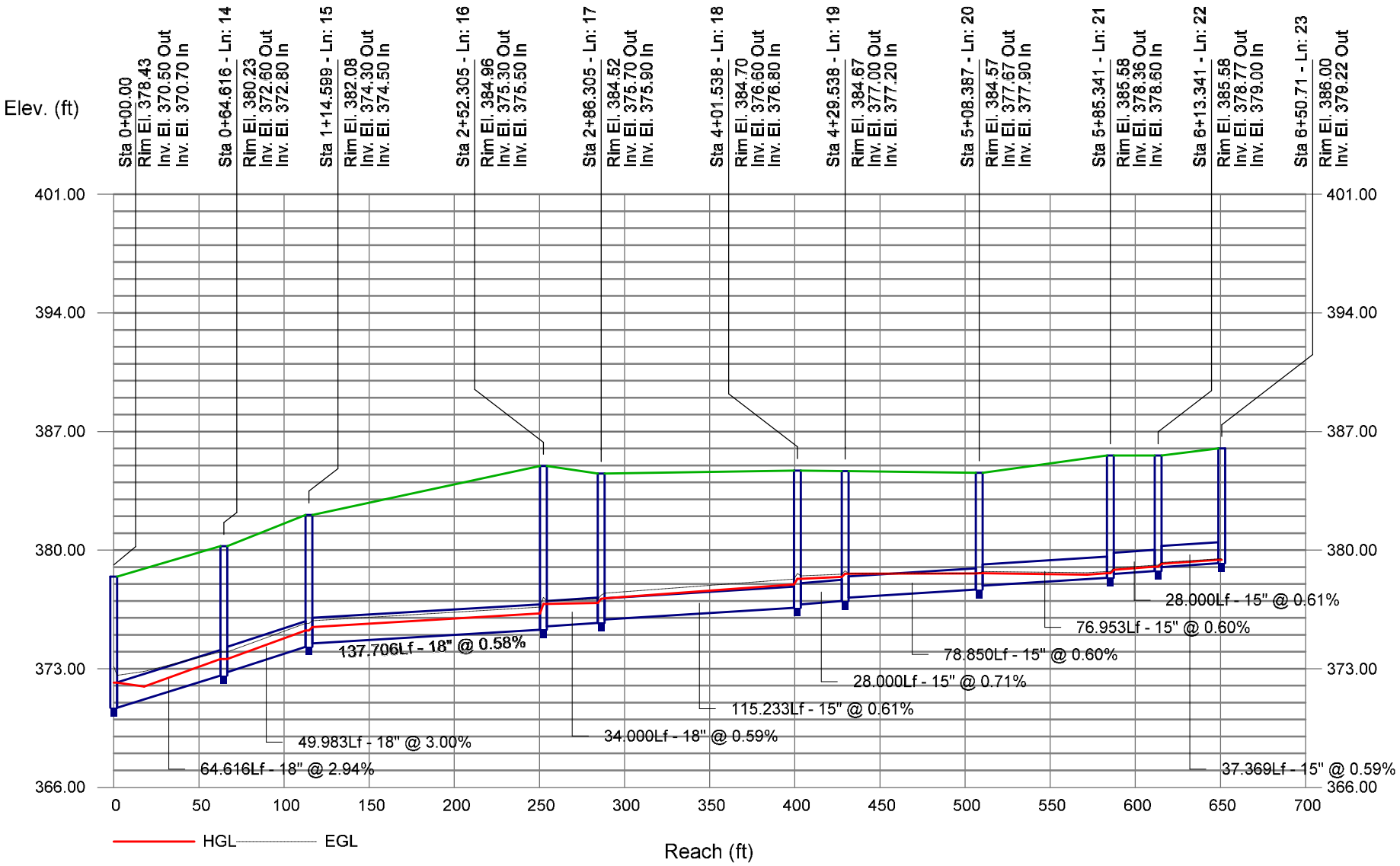
Storm Sewer Profile

SCM 4 25-YEAR PROFILE 13-38 Proj. file: SCM 4 Storm Network.stm



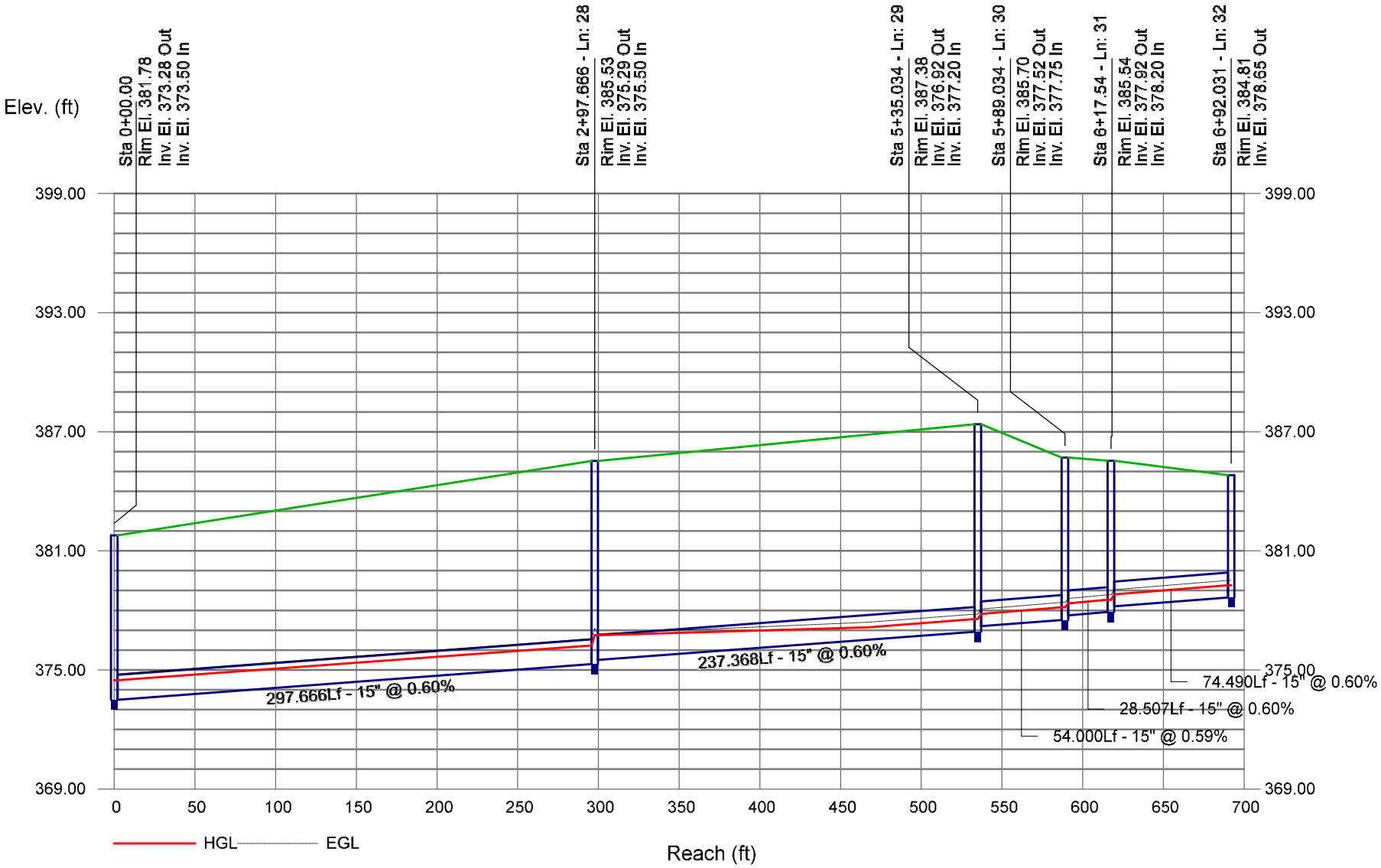
Storm Sewer Profile

SCM 4 25-YEAR PROFILE 14-23 Proj. file: SCM 4 Storm Network.stm



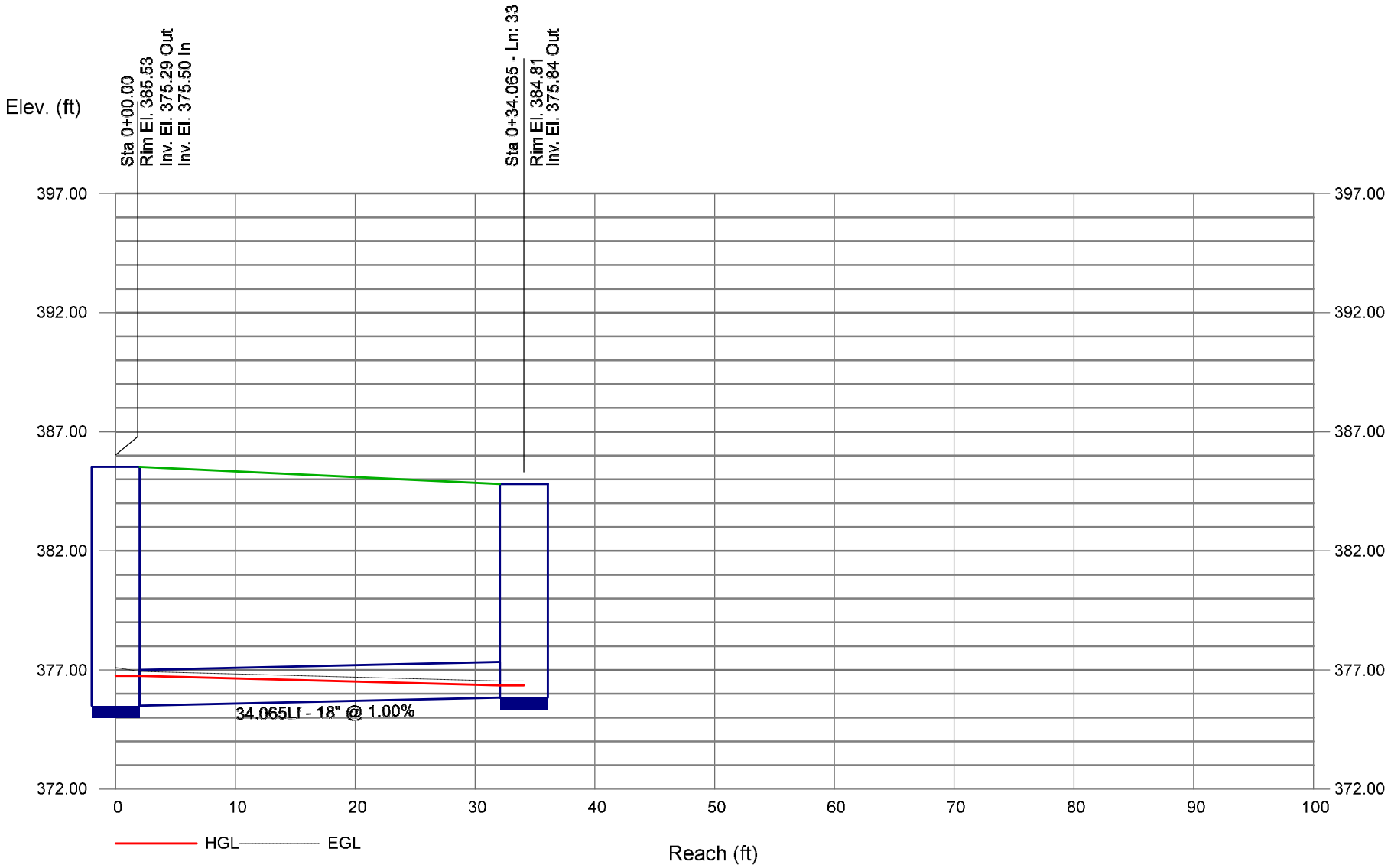
Storm Sewer Profile

SCM 4 25-YEAR PROFILE 28-32 Proj. file: SCM 4 Storm Network.stm



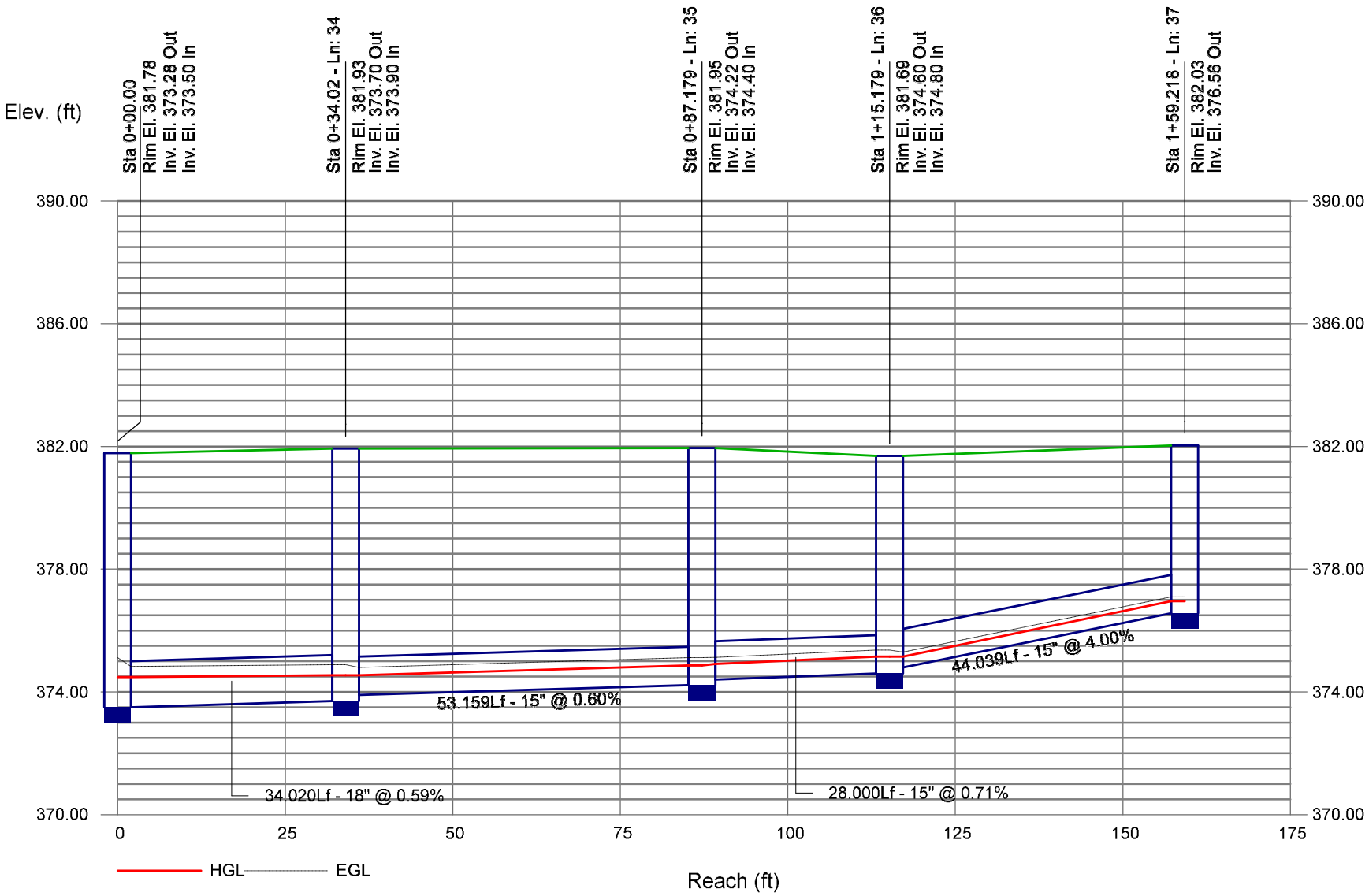
Storm Sewer Profile

SCM 4 25-YEAR PROFILE 33-33 Proj. file: SCM 4 Storm Network.stm



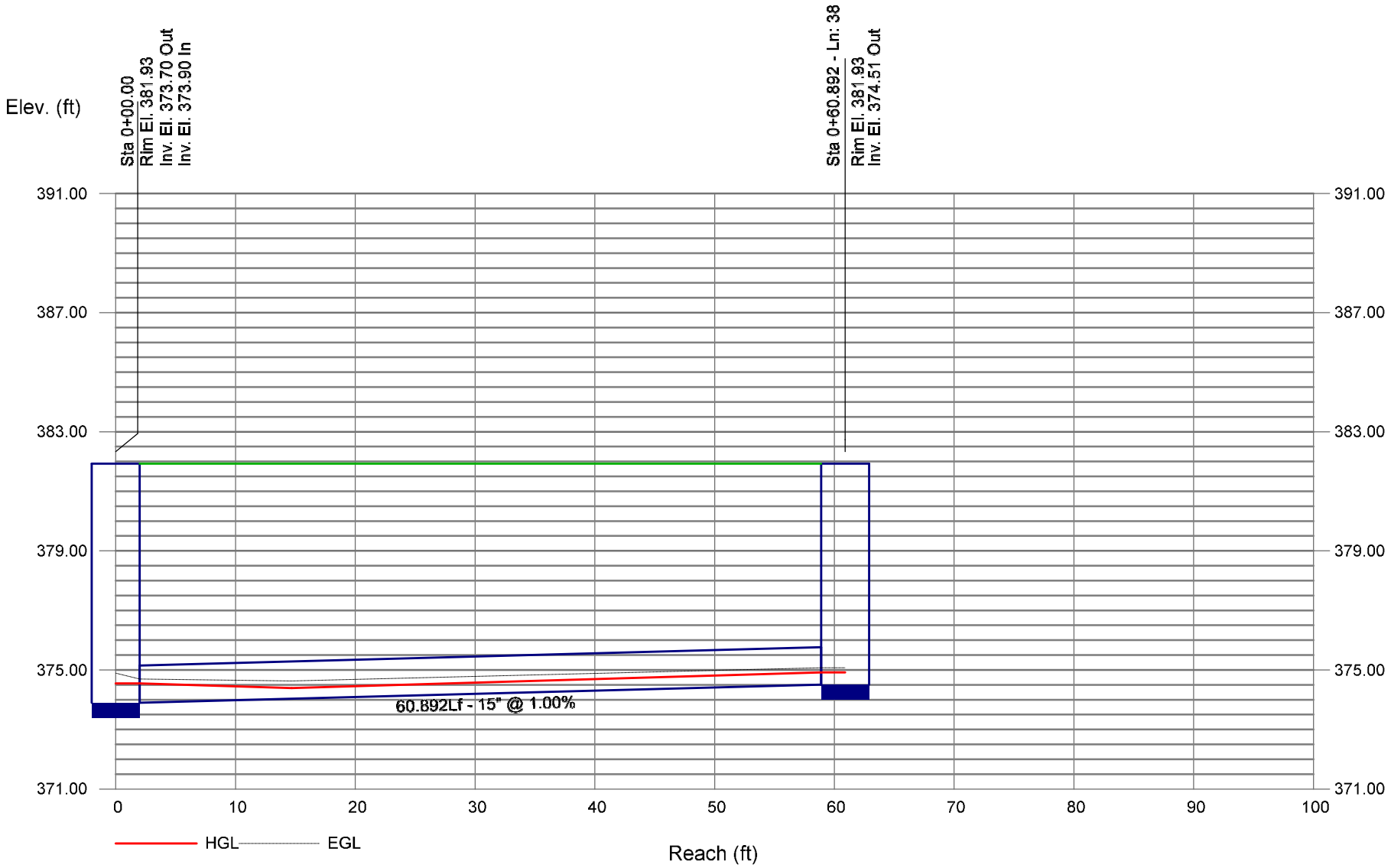
Storm Sewer Profile

SCM 4 25-YEAR PROFILE 34-37 Proj. file: SCM 4 Storm Network.stm



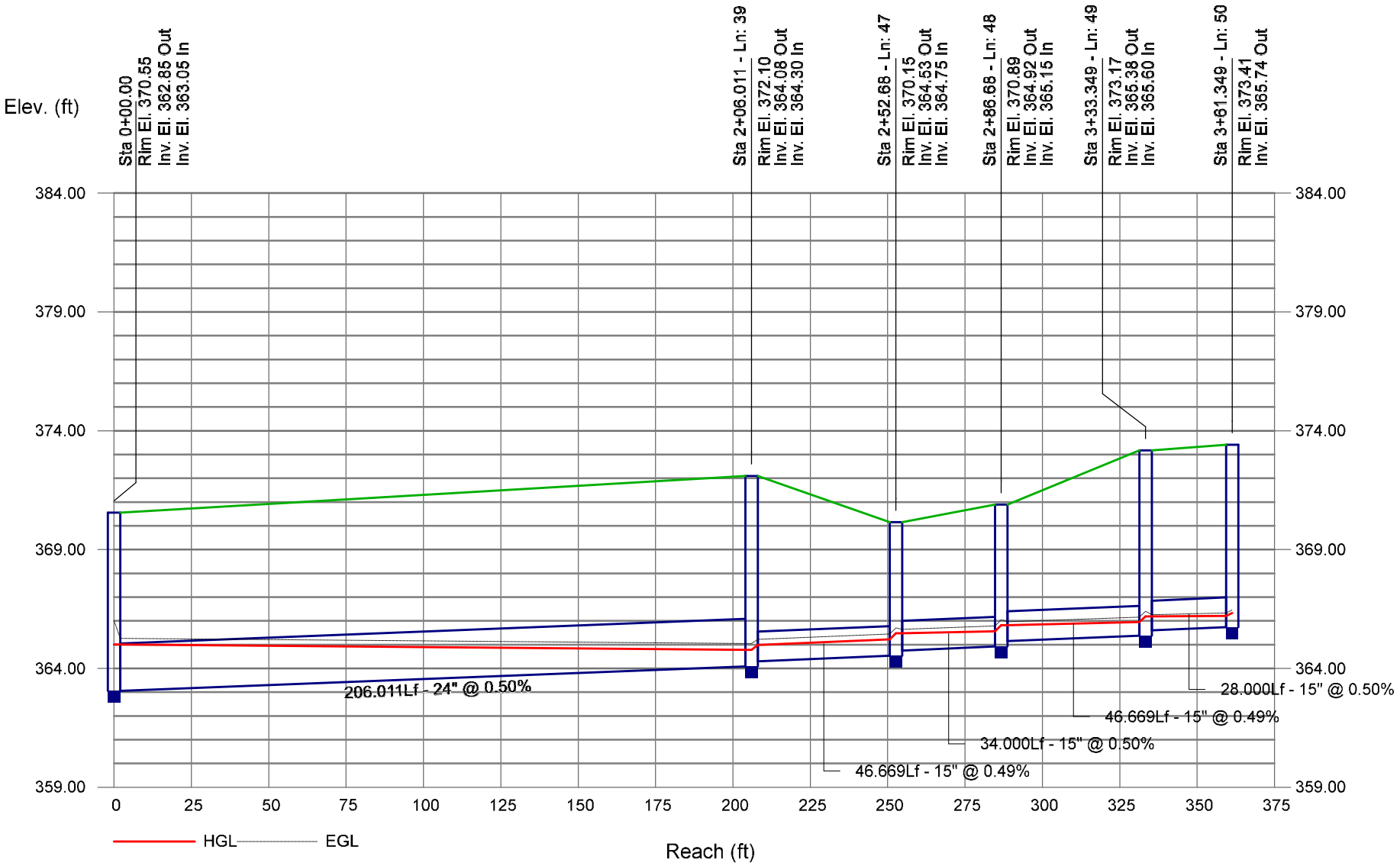
Storm Sewer Profile

SCM 4 25-YEAR PROFILE 38-38 Proj. file: SCM 4 Storm Network.stm



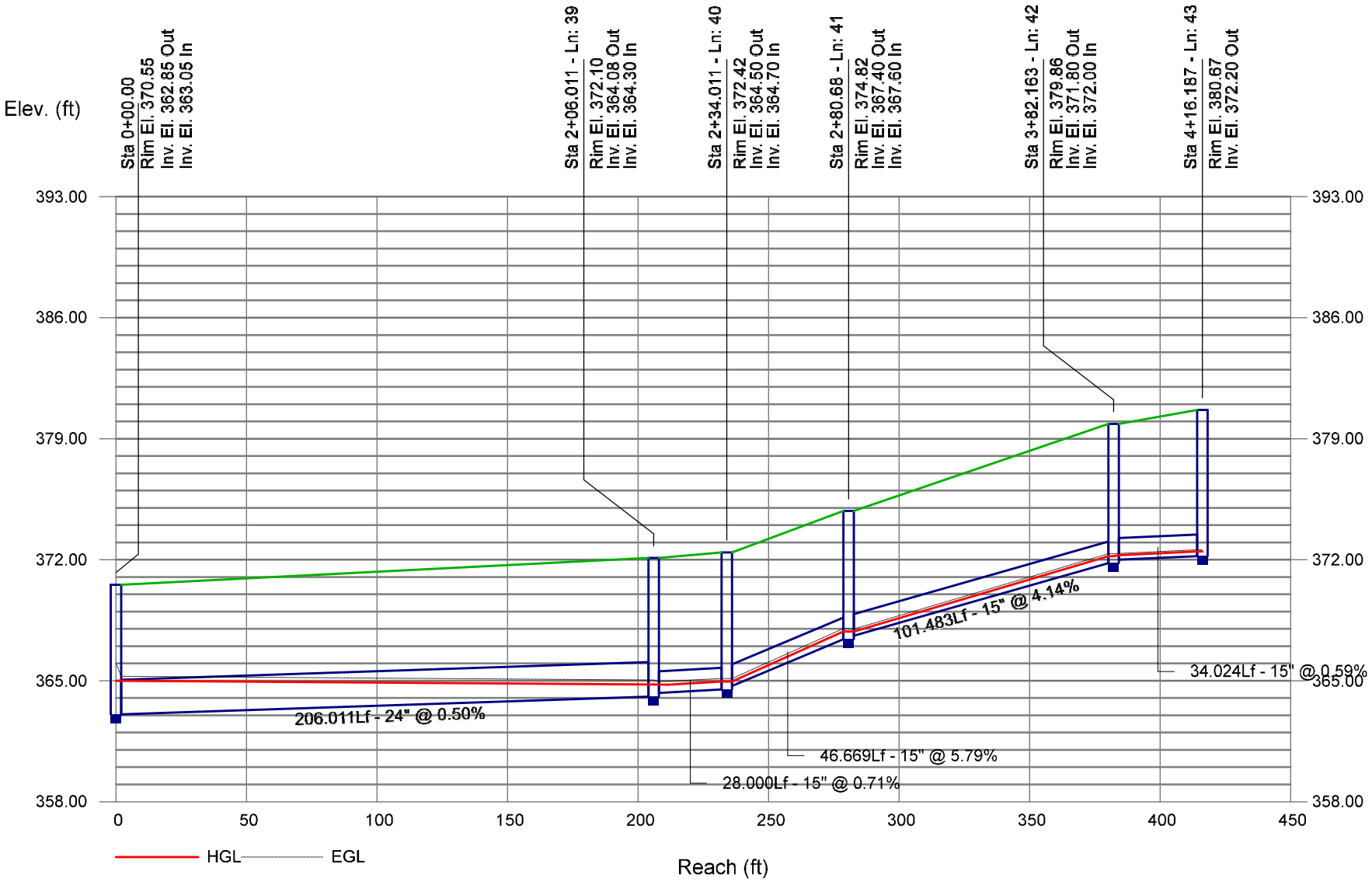
Storm Sewer Profile

SCM 4 25-YEAR PROFILE 39-50 Proj. file: SCM 4 Storm Network.stm



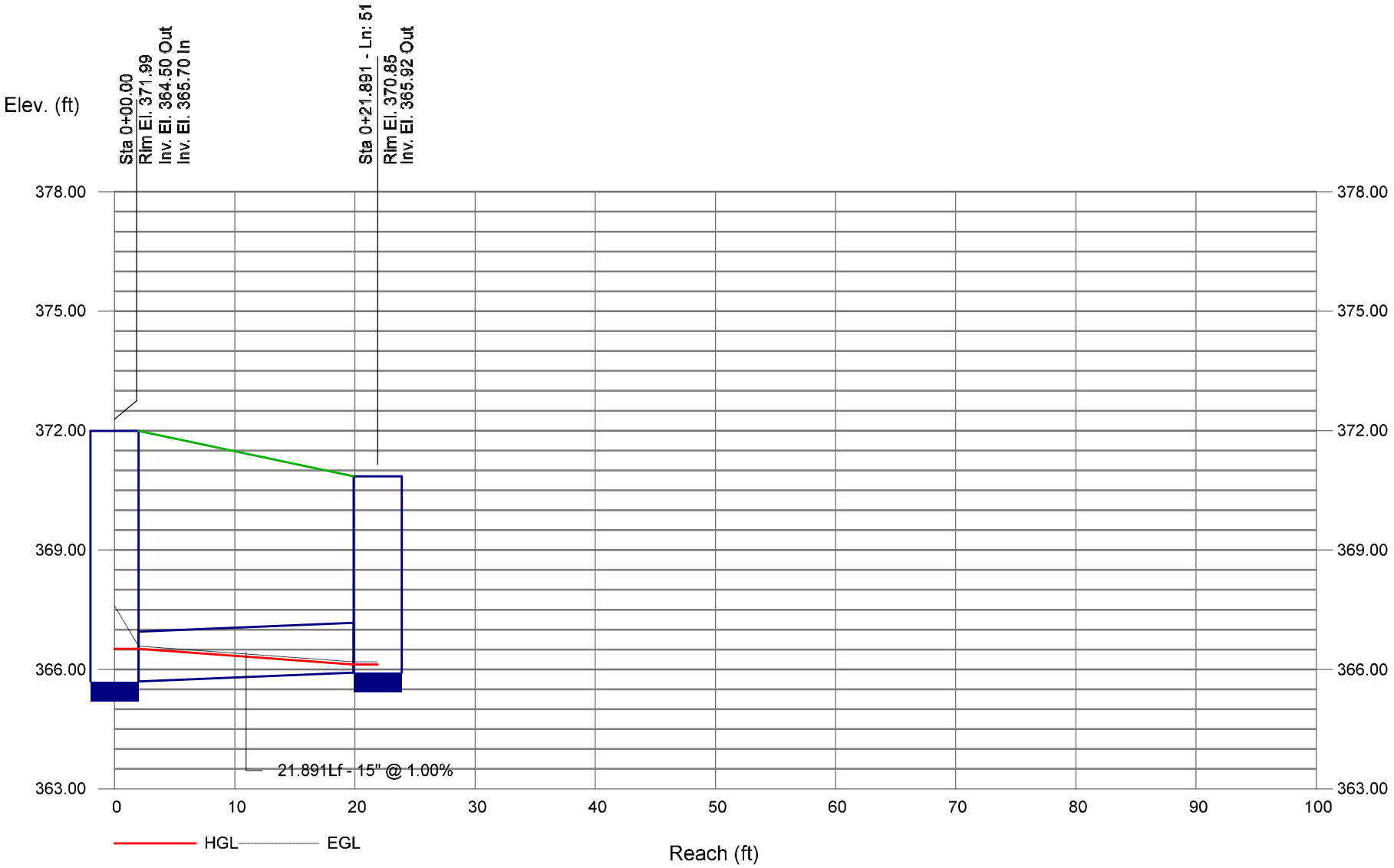
Storm Sewer Profile

SCM 4 25-YEAR PROFILE 40-43 Proj. file: SCM 4 Storm Network.stm

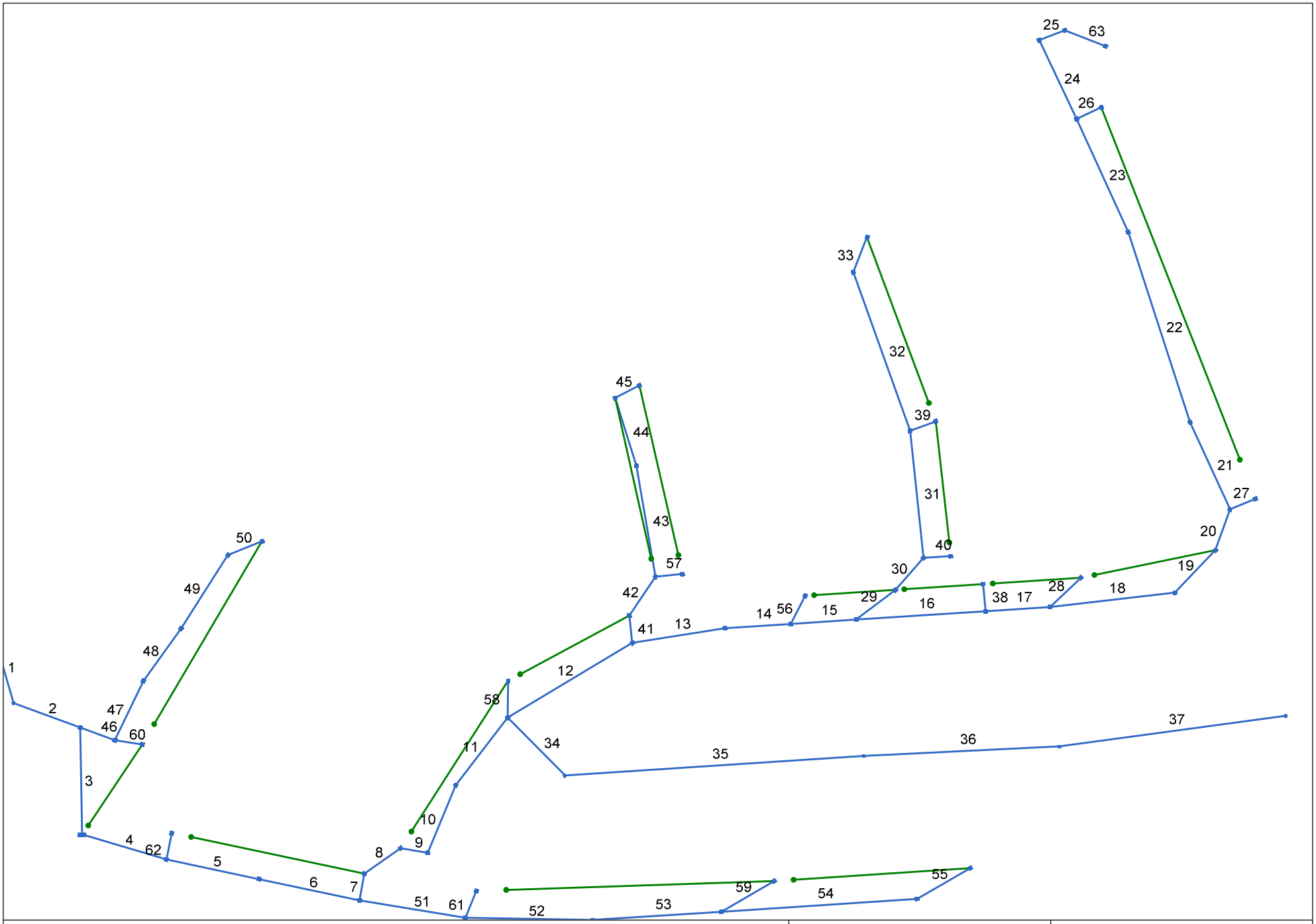


Storm Sewer Profile

SCM 4 25-YEAR PROFILE 51-51 Proj. file: SCM 4 Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 5A 25-YEAR



Project File: SCM 5A Storm Network.stm	Number of lines: 63	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 5A 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	83.000	73.899	DrGrt	0.00	0.03	0.60	10.0	321.50	0.60	322.00	48	Cir	0.013	1.26	339.40	Pipe - (292)
2	1	72.832	-53.727	MH	0.00	0.00	0.00	10.0	322.25	0.49	322.61	42	Cir	0.013	0.94	339.83	Pipe - (291) (1)
3	2	110.092	68.821	Comb	0.00	0.28	0.60	10.0	322.90	0.64	323.60	42	Cir	0.013	1.44	331.20	Pipe - (515)
4	3	90.197	-72.396	Comb	0.00	0.06	0.60	10.0	323.86	0.60	324.40	42	Cir	0.013	1.50	332.41	Pipe - (287)
5	4	96.914	-4.581	Comb	0.00	0.09	0.60	10.0	324.40	0.62	325.00	42	Cir	0.013	0.50	333.37	Pipe - (236) (1)
6	5	105.502	0.000	Comb	0.00	0.12	0.60	10.0	325.50	1.10	326.66	42	Cir	0.013	2.23	334.42	Pipe - (425)
7	6	28.011	-91.609	Comb	0.00	0.15	0.60	10.0	326.90	0.61	327.07	42	Cir	0.013	1.12	334.42	Pipe - (236)
8	7	45.483	44.496	Comb	0.00	0.80	0.60	10.0	327.30	0.59	327.57	42	Cir	0.013	1.12	335.29	Pipe - (517)
9	8	28.154	44.548	Comb	0.00	0.09	0.60	10.0	327.80	0.60	327.97	42	Cir	0.013	1.47	335.38	Pipe - (518)
10	9	75.321	-76.898	Comb	0.00	0.08	0.60	10.0	328.20	3.00	330.46	36	Cir	0.013	0.50	338.20	Pipe - (265)
11	10	87.576	14.810	Comb	0.00	0.12	0.60	10.0	330.65	4.00	334.15	36	Cir	0.013	2.19	341.67	Pipe - (266)
12	11	149.169	21.617	Comb	0.00	0.06	0.60	10.0	334.40	3.50	339.62	30	Cir	0.013	1.39	347.55	Pipe - (232)
13	12	96.000	21.905	Comb	0.00	0.04	0.60	10.0	339.80	3.99	343.63	24	Cir	0.013	0.50	351.50	Pipe - (533)
14	13	67.783	5.437	Comb	0.00	0.04	0.60	10.0	343.85	5.00	347.24	24	Cir	0.013	1.32	355.16	Pipe - (274)
15	14	67.241	-0.093	Comb	0.00	0.08	0.60	10.0	347.50	5.95	351.50	24	Cir	0.013	0.91	359.75	Pipe - (260)
16	15	133.104	0.043	Comb	0.00	0.04	0.60	10.0	351.70	6.99	361.00	24	Cir	0.013	1.50	369.34	Pipe - (532)
17	16	66.111	0.014	Comb	0.00	0.07	0.60	10.0	361.20	8.02	366.50	24	Cir	0.013	1.03	374.10	Pipe - (272)
18	17	129.000	-2.881	Comb	0.00	0.07	0.60	10.0	366.70	5.66	374.00	18	Cir	0.013	1.04	381.92	Pipe - (227)
19	18	60.236	-39.930	Comb	0.00	0.06	0.60	10.0	374.20	2.49	375.70	18	Cir	0.013	0.69	383.94	Pipe - (530)
20	19	44.832	-23.761	Comb	0.00	0.29	0.60	10.0	375.90	1.49	376.57	18	Cir	0.013	1.17	385.18	Pipe - (226)
21	20	98.443	-44.465	Comb	0.00	0.66	0.60	10.0	376.80	1.00	377.78	15	Cir	0.013	0.50	386.14	Pipe - (225) (1)
22	21	205.640	6.883	Comb	0.00	0.35	0.60	10.0	378.00	1.02	380.10	15	Cir	0.013	0.50	388.20	Pipe - (225)
23	22	128.177	-6.601	Comb	0.00	0.32	0.60	10.0	380.30	1.00	381.58	15	Cir	0.013	1.50	389.50	Pipe - (224)

Project File: SCM 5A Storm Network.stm

Number of lines: 63

Date: 4/11/2025

Storm Sewer Inventory Report

SCM 5A 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	89.745	-0.806	Comb	0.00	0.23	0.60	10.0	381.80	1.00	382.70	15	Cir	0.013	1.50	390.40	Pipe - (223) (1)
25	24	28.070	94.057	Comb	0.00	0.15	0.60	10.0	382.90	0.50	383.04	15	Cir	0.013	1.08	390.38	Pipe - (528)
26	23	28.048	89.194	Comb	0.00	0.15	0.60	10.0	381.80	1.00	382.08	15	Cir	0.013	1.00	389.54	Pipe - (245)
27	20	28.090	47.998	Comb	0.00	1.40	0.60	10.0	376.80	1.00	377.08	15	Cir	0.013	1.00	385.16	Pipe - (529)
28	17	43.790	-39.748	Comb	0.00	0.22	0.60	10.0	366.70	2.01	367.58	15	Cir	0.013	1.00	376.51	Pipe - (255)
29	15	50.671	-33.471	Comb	0.00	0.09	0.60	10.0	351.70	5.53	354.50	18	Cir	0.013	0.50	362.79	Pipe - (531)
30	29	43.841	-11.501	Comb	0.00	0.39	0.60	10.0	354.70	8.44	358.40	18	Cir	0.013	1.69	366.34	Pipe - (259)
31	30	131.638	-47.350	Comb	0.00	0.46	0.60	10.0	358.60	1.82	361.00	15	Cir	0.013	1.46	368.50	Pipe - (258)
32	31	173.316	-13.483	Comb	0.00	0.75	0.60	10.0	361.20	2.77	366.00	15	Cir	0.013	1.05	373.98	Pipe - (257)
33	32	38.552	40.848	Comb	0.00	0.67	0.60	10.0	366.20	3.53	367.56	15	Cir	0.013	1.00	375.06	Pipe - (256)
34	11	83.727	97.965	DrGrt	0.00	0.80	0.60	10.0	334.40	0.50	334.82	30	Cir	0.013	1.19	336.44	Pipe - (285)
35	34	306.989	-49.069	DrGrt	0.00	1.85	0.60	10.0	335.00	4.14	347.71	24	Cir	0.013	0.50	352.12	Pipe - (284)
36	35	200.863	0.954	DrGrt	0.00	1.37	0.60	10.0	348.00	7.97	364.00	18	Cir	0.013	0.50	367.82	Pipe - (283)
37	36	234.000	-4.972	DrGrt	0.00	1.22	0.60	10.0	364.20	1.00	366.54	15	Cir	0.013	1.00	375.19	Pipe - (282)
38	16	28.013	-91.754	Comb	0.00	0.13	0.60	10.0	361.20	1.00	361.48	15	Cir	0.013	1.00	369.28	Pipe - (273)
39	31	28.090	76.190	Comb	0.00	0.70	0.60	10.0	361.20	1.00	361.48	15	Cir	0.013	1.00	368.61	Pipe - (261)
40	30	28.000	45.000	Comb	0.00	0.47	0.60	10.0	358.60	1.00	358.88	15	Cir	0.013	1.00	366.34	Pipe - (262)
41	12	28.499	-65.141	Comb	0.00	0.26	0.60	10.0	339.80	1.05	340.10	24	Cir	0.013	1.04	347.86	Pipe - (242)
42	41	47.998	39.967	Comb	0.00	0.61	0.60	10.0	340.30	4.58	342.50	18	Cir	0.013	1.21	349.90	Pipe - (241)
43	42	115.718	-43.449	MH	0.00	0.00	0.00	10.0	342.70	5.10	348.60	15	Cir	0.013	0.16	356.76	Pipe - (240) (1)
44	43	73.254	-7.668	Comb	0.00	0.46	0.60	10.0	348.80	4.37	352.00	15	Cir	0.013	1.48	360.25	Pipe - (240)
45	44	27.894	79.953	Comb	0.00	0.43	0.60	10.0	352.20	2.40	352.87	15	Cir	0.013	1.00	360.47	Pipe - (243)
46	2	37.830	0.000	Comb	0.00	0.05	0.60	10.0	325.00	7.96	328.01	18	Cir	0.013	1.49	339.56	Pipe - (291)

Project File: SCM 5A Storm Network.stm | Number of lines: 63 | Date: 4/11/2025

Storm Sewer Inventory Report

SCM 5A 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	46	67.669	-84.535	Comb	0.00	0.04	0.60	10.0	328.20	10.00	334.97	15	Cir	0.013	0.50	345.00	Pipe - (297)
48	47	66.501	9.954	Comb	0.00	0.06	0.60	10.0	335.20	10.00	341.85	15	Cir	0.013	0.50	350.54	Pipe - (299)
49	48	89.618	-3.183	Comb	0.00	0.21	0.60	10.0	342.10	10.00	351.06	15	Cir	0.013	0.95	358.40	Pipe - (296)
50	49	37.668	35.517	Comb	0.00	1.14	0.60	10.0	351.30	3.42	352.59	18	Cir	0.013	1.00	360.60	Pipe - (519)
51	6	110.218	-2.645	Comb	0.00	0.14	0.60	10.0	326.90	0.50	327.45	24	Cir	0.013	1.47	335.41	Pipe - (235)
52	51	130.561	-8.424	Comb	0.00	0.14	0.60	10.0	327.65	0.57	328.40	24	Cir	0.013	0.50	336.55	Pipe - (270)
53	52	132.413	-4.628	Comb	0.00	0.21	0.60	10.0	328.60	3.32	333.00	18	Cir	0.013	0.76	341.27	Pipe - (269)
54	53	201.000	-0.061	Comb	0.00	0.34	0.60	10.0	333.20	7.50	348.28	15	Cir	0.013	0.75	356.93	Pipe - (268)
55	54	63.000	-26.471	Comb	0.00	0.20	0.60	10.0	348.50	7.98	353.53	15	Cir	0.013	1.00	361.96	Pipe - (277)
56	14	32.603	-59.248	Comb	0.00	0.17	0.60	10.0	347.80	1.01	348.13	15	Cir	0.013	1.00	356.22	Pipe - (263)
57	42	27.998	50.565	Comb	0.00	0.62	0.60	10.0	342.70	1.00	342.98	15	Cir	0.013	1.00	350.07	Pipe - (244)
58	11	38.000	-36.753	Comb	0.00	0.42	0.60	10.0	335.40	1.00	335.78	15	Cir	0.013	1.00	342.73	Pipe - (286)
59	53	62.439	-26.705	Comb	0.00	0.11	0.60	10.0	333.20	4.96	336.30	15	Cir	0.013	1.00	344.70	Pipe - (278)
60	46	28.384	-11.463	Comb	0.00	0.73	0.60	10.0	328.20	5.67	329.81	15	Cir	0.013	1.00	339.81	Pipe - (288)
61	51	30.000	-77.524	Comb	0.00	0.17	0.60	10.0	327.85	1.00	328.15	15	Cir	0.013	1.00	335.57	Pipe - (271)
62	4	28.000	-95.287	Comb	0.00	0.49	0.60	10.0	325.60	0.93	325.86	15	Cir	0.013	1.00	332.65	Pipe - (281)
63	25	45.000	42.659	Comb	0.00	0.18	0.60	10.0	383.24	0.58	383.50	15	Cir	0.013	1.00	0.00	Pipe - (593)

Project File: SCM 5A Storm Network.stm

Number of lines: 63

Date: 4/11/2025

Structure Report

SCM 5A 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 501	DropGrate	339.40	Rect	3.00	3.00	48	Cir	322.00	42	Cir	322.25
2	JB 502	Manhole	339.83	Rect	4.00	4.00	42	Cir	322.61	42 18	Cir Cir	322.90 325.00
3	CB 503	Combination	331.20	Rect	4.00	8.00	42	Cir	323.60	42	Cir	323.86
4	CB 504	Combination	332.41	Rect	4.00	4.00	42	Cir	324.40	42 15	Cir Cir	324.40 325.60
5	CB 505	Combination	333.37	Rect	4.00	4.00	42	Cir	325.00	42	Cir	325.50
6	CB 506	Combination	334.42	Rect	4.00	4.00	42	Cir	326.66	42 24	Cir Cir	326.90 326.90
7	CB 515	Combination	334.42	Rect	4.00	4.00	42	Cir	327.07	42	Cir	327.30
8	CB 516	Combination	335.29	Rect	4.00	4.00	42	Cir	327.57	42	Cir	327.80
9	CB 517	Combination	335.38	Rect	4.00	4.00	42	Cir	327.97	36	Cir	328.20
10	CB 518	Combination	338.20	Rect	4.00	4.00	36	Cir	330.46	36	Cir	330.65
11	CB 519	Combination	341.67	Rect	4.00	4.00	36	Cir	334.15	30 30 15	Cir Cir Cir	334.40 334.40 335.40
12	CB 520	Combination	347.55	Rect	4.00	4.00	30	Cir	339.62	24 24	Cir Cir	339.80 339.80
13	CB 521	Combination	351.50	Rect	4.00	4.00	24	Cir	343.63	24	Cir	343.85
14	CB 522	Combination	355.16	Rect	4.00	4.00	24	Cir	347.24	24 15	Cir Cir	347.50 347.80
15	CB 523	Combination	359.75	Rect	4.00	4.00	24	Cir	351.50	24 18	Cir Cir	351.70 351.70
16	CB 524	Combination	369.34	Rect	4.00	4.00	24	Cir	361.00	24 15	Cir Cir	361.20 361.20
17	CB 525	Combination	374.10	Rect	4.00	4.00	24	Cir	366.50	18 15	Cir Cir	366.70 366.70
18	CB 526	Combination	381.92	Rect	4.00	4.00	18	Cir	374.00	18	Cir	374.20

Structure Report

SCM 5A 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
19	CB 527	Combination	383.94	Rect	4.00	4.00	18	Cir	375.70	18	Cir	375.90
20	CB 528	Combination	385.18	Rect	4.00	4.00	18	Cir	376.57	15 15	Cir Cir	376.80 376.80
21	CB 529	Combination	386.14	Rect	4.00	4.00	15	Cir	377.78	15	Cir	378.00
22	CB 530	Combination	388.20	Rect	4.00	4.00	15	Cir	380.10	15	Cir	380.30
23	CB 531	Combination	389.50	Rect	4.00	4.00	15	Cir	381.58	15 15	Cir Cir	381.80 381.80
24	CB 532	Combination	390.40	Rect	4.00	4.00	15	Cir	382.70	15	Cir	382.90
25	CB 532A	Combination	390.38	Rect	4.00	4.00	15	Cir	383.04	15	Cir	383.24
26	CB 531A	Combination	389.54	Rect	4.00	4.00	15	Cir	382.08			
27	CB 528A	Combination	385.16	Rect	4.00	4.00	15	Cir	377.08			
28	CB 525A	Combination	376.51	Rect	4.00	4.00	15	Cir	367.58			
29	CB 534	Combination	362.79	Rect	4.00	4.00	18	Cir	354.50	18	Cir	354.70
30	CB 535	Combination	366.34	Rect	4.00	4.00	18	Cir	358.40	15 15	Cir Cir	358.60 358.60
31	CB 536	Combination	368.50	Rect	4.00	4.00	15	Cir	361.00	15 15	Cir Cir	361.20 361.20
32	CB 537	Combination	373.98	Rect	4.00	4.00	15	Cir	366.00	15	Cir	366.20
33	CB 537A	Combination	375.06	Rect	4.00	4.00	15	Cir	367.56			
34	YI 519B	DropGrate	336.44	Rect	3.00	3.00	30	Cir	334.82	24	Cir	335.00
35	YI 519C	DropGrate	352.12	Rect	3.00	3.00	24	Cir	347.71	18	Cir	348.00
36	YI 519D	DropGrate	367.82	Rect	3.00	3.00	18	Cir	364.00	15	Cir	364.20
37	YI 519E	DropGrate	375.19	Rect	3.00	3.00	15	Cir	366.54			
38	CB 524A	Combination	369.28	Rect	4.00	4.00	15	Cir	361.48			
39	CB 536A	Combination	368.61	Rect	4.00	4.00	15	Cir	361.48			

Structure Report

SCM 5A 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
40	CB 535A	Combination	366.34	Rect	4.00	4.00	15	Cir	358.88			
41	CB 538	Combination	347.86	Rect	4.00	4.00	24	Cir	340.10	18	Cir	340.30
42	CB 539	Combination	349.90	Rect	4.00	4.00	18	Cir	342.50	15 15	Cir Cir	342.70 342.70
43	JB 540	Manhole	356.76	Rect	4.00	4.00	15	Cir	348.60	15	Cir	348.80
44	CB 541	Combination	360.25	Rect	4.00	4.00	15	Cir	352.00	15	Cir	352.20
45	CB 541A	Combination	360.47	Rect	4.00	4.00	15	Cir	352.87			
46	CB 511	Combination	339.56	Rect	4.00	4.00	18	Cir	328.01	15 15	Cir Cir	328.20 328.20
47	CB 512	Combination	345.00	Rect	4.00	4.00	15	Cir	334.97	15	Cir	335.20
48	CB 513	Combination	350.54	Rect	4.00	4.00	15	Cir	341.85	15	Cir	342.10
49	CB 514	Combination	358.40	Rect	4.00	4.00	15	Cir	351.06	18	Cir	351.30
50	CB 514A	Combination	360.60	Rect	4.00	4.00	18	Cir	352.59			
51	CB 507	Combination	335.41	Rect	4.00	4.00	24	Cir	327.45	24 15	Cir Cir	327.65 327.85
52	CB 508	Combination	336.55	Rect	4.00	4.00	24	Cir	328.40	18	Cir	328.60
53	CB 509	Combination	341.27	Rect	4.00	4.00	18	Cir	333.00	15 15	Cir Cir	333.20 333.20
54	CB 510	Combination	356.93	Rect	4.00	4.00	15	Cir	348.28	15	Cir	348.50
55	CB 510A	Combination	361.96	Rect	4.00	4.00	15	Cir	353.53			
56	CB 522A	Combination	356.22	Rect	4.00	4.00	15	Cir	348.13			
57	CB 539A	Combination	350.07	Rect	4.00	4.00	15	Cir	342.98			
58	CB 519A	Combination	342.73	Rect	4.00	4.00	15	Cir	335.78			
59	CB 509A	Combination	344.70	Rect	4.00	4.00	15	Cir	336.30			
60	CB 511A	Combination	339.81	Rect	4.00	4.00	15	Cir	329.81			

Structure Report

SCM 5A 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
61	CB 507A	Combination	335.57	Rect	4.00	4.00	15	Cir	328.15			
62	CB 504A	Combination	332.65	Rect	4.00	4.00	15	Cir	325.86			
63	CB 533	Combination	0.00	Rect	4.00	4.00	15	Cir	383.50			

Storm Sewer Summary Report

SCM 5A 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (292)	71.41	48	Cir	83.000	321.50	322.00	0.602	324.78	324.55	n/a	324.55	End	DropGrate
2	Pipe - (291) (1)	71.59	42	Cir	72.832	322.25	322.61	0.494	325.16	325.52	1.03	326.54	1	Manhole
3	Pipe - (515)	64.83	42	Cir	110.092	322.90	323.60	0.636	326.54	326.95	1.05	328.00	2	Combination
4	Pipe - (287)	64.30	42	Cir	90.197	323.86	324.40	0.599	328.00*	328.37*	1.04	329.41	3	Combination
5	Pipe - (236) (1)	62.92	42	Cir	96.914	324.40	325.00	0.619	329.41*	329.79*	0.33	330.12	4	Combination
6	Pipe - (425)	63.08	42	Cir	105.502	325.50	326.66	1.100	330.12*	330.54*	1.49	332.03	5	Combination
7	Pipe - (236)	59.14	42	Cir	28.011	326.90	327.07	0.607	332.03*	332.12*	0.66	332.78	6	Combination
8	Pipe - (517)	58.84	42	Cir	45.483	327.30	327.57	0.594	332.78*	332.94*	0.65	333.59	7	Combination
9	Pipe - (518)	56.26	42	Cir	28.154	327.80	327.97	0.604	333.59*	333.68*	0.78	334.46	8	Combination
10	Pipe - (265)	56.20	36	Cir	75.321	328.20	330.46	3.000	334.46*	334.99*	0.49	335.49	9	Combination
11	Pipe - (266)	56.21	36	Cir	87.576	330.65	334.15	3.997	335.49	336.58	n/a	336.58	10	Combination
12	Pipe - (232)	36.72	30	Cir	149.169	334.40	339.62	3.499	336.58	341.67	n/a	341.67 j	11	Combination
13	Pipe - (533)	28.42	24	Cir	96.000	339.80	343.63	3.990	341.67	345.47	n/a	345.47 j	12	Combination
14	Pipe - (274)	28.38	24	Cir	67.783	343.85	347.24	5.001	345.47	349.07	1.81	349.07	13	Combination
15	Pipe - (260)	27.74	24	Cir	67.241	347.50	351.50	5.949	349.07	353.32	n/a	353.32	14	Combination
16	Pipe - (532)	15.28	24	Cir	133.104	351.70	361.00	6.987	353.32	362.41	n/a	362.41 j	15	Combination
17	Pipe - (272)	14.75	24	Cir	66.111	361.20	366.50	8.017	362.41	367.88	n/a	367.88	16	Combination
18	Pipe - (227)	13.82	18	Cir	129.000	366.70	374.00	5.659	367.88	375.38	n/a	375.38	17	Combination
19	Pipe - (530)	13.62	18	Cir	60.236	374.20	375.70	2.490	375.38	377.07	0.69	377.07	18	Combination
20	Pipe - (226)	13.44	18	Cir	44.832	375.90	376.57	1.494	377.21	377.93	n/a	377.93	19	Combination
21	Pipe - (225) (1)	7.41	15	Cir	98.443	376.80	377.78	0.996	378.05*	379.35*	0.28	379.63	20	Combination
22	Pipe - (225)	5.13	15	Cir	205.640	378.00	380.10	1.021	379.63	381.02	n/a	381.02 j	21	Combination
23	Pipe - (224)	3.88	15	Cir	128.177	380.30	381.58	0.999	381.02	382.38	0.52	382.38	22	Combination
24	Pipe - (223) (1)	2.14	15	Cir	89.745	381.80	382.70	1.003	382.38	383.28	n/a	383.28	23	Combination

Project File: SCM 5A Storm Network.stm

Number of lines: 63

Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

SCM 5A 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
25	Pipe - (528)	1.27	15	Cir	28.070	382.90	383.04	0.499	383.35	383.49	0.17	383.66	24	Combination
26	Pipe - (245)	0.58	15	Cir	28.048	381.80	382.08	0.998	382.38	382.38	n/a	382.38 j	23	Combination
27	Pipe - (529)	5.43	15	Cir	28.090	376.80	377.08	0.997	377.93	378.02	n/a	378.02 j	20	Combination
28	Pipe - (255)	0.85	15	Cir	43.790	366.70	367.58	2.010	367.88	367.94	n/a	367.94 j	17	Combination
29	Pipe - (531)	13.19	18	Cir	50.671	351.70	354.50	5.526	353.32	355.86	n/a	355.86 j	15	Combination
30	Pipe - (259)	12.89	18	Cir	43.841	354.70	358.40	8.440	355.86	359.75	n/a	359.75	29	Combination
31	Pipe - (258)	9.76	15	Cir	131.638	358.60	361.00	1.823	359.85*	362.86*	1.44	364.29	30	Combination
32	Pipe - (257)	5.48	15	Cir	173.316	361.20	366.00	2.770	364.29	366.95	n/a	366.95 j	31	Combination
33	Pipe - (256)	2.60	15	Cir	38.552	366.20	367.56	3.528	366.95	368.21	n/a	368.21 j	32	Combination
34	Pipe - (285)	19.02	30	Cir	83.727	334.40	334.82	0.502	336.58	336.30	0.73	336.30	11	DropGrate
35	Pipe - (284)	16.48	24	Cir	306.989	335.00	347.71	4.140	336.30	349.17	n/a	349.17	34	DropGrate
36	Pipe - (283)	9.78	18	Cir	200.863	348.00	364.00	7.966	349.17	365.21	0.32	365.21	35	DropGrate
37	Pipe - (282)	4.73	15	Cir	234.000	364.20	366.54	1.000	365.21	367.42	n/a	367.42 j	36	DropGrate
38	Pipe - (273)	0.50	15	Cir	28.013	361.20	361.48	1.000	362.41	361.76	0.10	361.76	16	Combination
39	Pipe - (261)	2.72	15	Cir	28.090	361.20	361.48	0.997	364.29*	364.34*	0.08	364.42	31	Combination
40	Pipe - (262)	1.82	15	Cir	28.000	358.60	358.88	1.000	359.75	359.42	n/a	359.42	30	Combination
41	Pipe - (242)	8.94	24	Cir	28.499	339.80	340.10	1.053	341.67	341.17	n/a	341.17	12	Combination
42	Pipe - (241)	8.00	18	Cir	47.998	340.30	342.50	4.584	341.17	343.59	n/a	343.59	41	Combination
43	Pipe - (240) (1)	3.41	15	Cir	115.718	342.70	348.60	5.099	343.59	349.34	n/a	349.34 j	42	Manhole
44	Pipe - (240)	3.44	15	Cir	73.254	348.80	352.00	4.368	349.34	352.75	0.46	352.75	43	Combination
45	Pipe - (243)	1.67	15	Cir	27.894	352.20	352.87	2.402	352.75	353.38	n/a	353.38 j	44	Combination
46	Pipe - (291)	8.44	18	Cir	37.830	325.00	328.01	7.957	326.54	329.13	n/a	329.13 j	2	Combination
47	Pipe - (297)	5.53	15	Cir	67.669	328.20	334.97	10.005	329.13	335.92	n/a	335.92	46	Combination
48	Pipe - (299)	5.40	15	Cir	66.501	335.20	341.85	10.000	335.92	342.79	0.23	342.79	47	Combination

Project File: SCM 5A Storm Network.stm

Number of lines: 63

Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

SCM 5A 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
49	Pipe - (296)	5.21	15	Cir	89.618	342.10	351.06	9.998	342.79	351.99	n/a	351.99	48	Combination
50	Pipe - (519)	4.42	18	Cir	37.668	351.30	352.59	3.425	351.99	353.40	0.32	353.40	49	Combination
51	Pipe - (235)	4.51	24	Cir	110.218	326.90	327.45	0.499	332.03*	332.07*	0.05	332.12	6	Combination
52	Pipe - (270)	3.64	24	Cir	130.561	327.65	328.40	0.574	332.12*	332.15*	0.01	332.16	51	Combination
53	Pipe - (269)	3.21	18	Cir	132.413	328.60	333.00	3.323	332.16	333.68	n/a	333.68 j	52	Combination
54	Pipe - (268)	2.07	15	Cir	201.000	333.20	348.28	7.502	333.68	348.85	0.17	348.85	53	Combination
55	Pipe - (277)	0.78	15	Cir	63.000	348.50	353.53	7.984	348.85	353.87	n/a	353.87 j	54	Combination
56	Pipe - (263)	0.66	15	Cir	32.603	347.80	348.13	1.012	349.07	349.08	0.01	349.08	14	Combination
57	Pipe - (244)	2.40	15	Cir	27.998	342.70	342.98	1.000	343.59	343.60	n/a	343.60 j	42	Combination
58	Pipe - (286)	1.63	15	Cir	38.000	335.40	335.78	1.000	336.58	336.29	0.19	336.29	11	Combination
59	Pipe - (278)	0.43	15	Cir	62.439	333.20	336.30	4.965	333.68	336.55	n/a	336.55 j	53	Combination
60	Pipe - (288)	2.83	15	Cir	28.384	328.20	329.81	5.672	329.13	330.49	n/a	330.49 j	46	Combination
61	Pipe - (271)	0.66	15	Cir	30.000	327.85	328.15	1.000	332.12*	332.12*	0.00	332.13	51	Combination
62	Pipe - (281)	1.90	15	Cir	28.000	325.60	325.86	0.928	329.41*	329.43*	0.04	329.47	4	Combination
63	Pipe - (593)	0.70	15	Cir	45.000	383.24	383.50	0.578	383.66	383.83	n/a	383.83 j	25	Combination

Project File: SCM 5A Storm Network.stm | Number of lines: 63 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

SCM 5A 25-YEAR

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	YI 501	0.12	0.00	0.12	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.03	4.86	0.03	4.86	0.0	Off
2	JB 502	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
3	CB 503	1.09	1.07	2.15	0.00	Comb	6.0	6.00	15.00	6.00	2.50	Sag	2.00	0.060	0.020	0.013	0.22	7.11	0.22	7.11	0.0	Off
4	CB 504	0.23	0.00	0.24	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.12	1.95	0.00	0.00	0.0	3
5	CB 505	0.35	0.01	0.36	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.14	2.86	0.02	0.38	0.0	4
6	CB 506	0.47	0.00	0.45	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.15	3.49	0.04	0.66	0.0	5
7	CB 515	0.58	0.99	1.21	0.36	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.22	7.00	0.14	2.88	0.0	62
8	CB 516	3.10	0.23	2.34	0.99	Comb	6.0	1.50	0.00	3.00	2.50	0.035	2.00	0.060	0.020	0.013	0.23	7.42	0.16	3.82	0.0	7
9	CB 517	0.35	0.00	0.35	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.75	0.14	2.75	0.0	Off
10	CB 518	0.31	0.00	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.10	1.67	0.00	0.00	0.0	9
11	CB 519	0.47	0.00	0.47	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.12	1.94	0.00	0.00	0.0	10
12	CB 520	0.23	0.00	0.23	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.09	1.50	0.00	0.00	0.0	11
13	CB 521	0.16	0.00	0.16	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.07	1.24	0.00	0.00	0.0	12
14	CB 522	0.16	0.00	0.16	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.07	1.16	0.00	0.00	0.0	13
15	CB 523	0.31	0.00	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.09	1.50	0.00	0.00	0.0	14
16	CB 524	0.16	0.00	0.16	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.07	1.16	0.00	0.00	0.0	15
17	CB 525	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.09	1.43	0.00	0.00	0.0	16
18	CB 526	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.09	1.55	0.00	0.00	0.0	17
19	CB 527	0.23	0.64	0.83	0.05	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.16	3.93	0.06	0.92	0.0	28
20	CB 528	1.12	1.05	1.53	0.64	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.24	8.13	0.17	4.33	0.0	19
21	CB 529	2.56	0.39	1.90	1.05	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.27	9.31	0.19	5.72	0.0	20
22	CB 530	1.36	0.28	1.24	0.39	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.22	7.13	0.14	3.06	0.0	21
23	CB 531	1.24	0.13	1.09	0.28	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.21	6.54	0.12	2.24	0.0	22

Project File: SCM 5A Storm Network.stm | Number of lines: 63 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Inlet Report

SCM 5A 25-YEAR

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)	
24	CB 532	0.89	0.00	0.77	0.13	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.19	5.66	0.10	1.63	0.0	23
25	CB 532A	0.58	0.00	0.58	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	3.19	0.14	3.19	0.0	Off
26	CB 531A	0.58	0.00	0.55	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.16	4.07	0.06	0.92	0.0	27
27	CB 528A	5.43	0.03	5.46	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.43	17.64	0.43	17.64	0.0	Off
28	CB 525A	0.85	0.05	0.90	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.13	2.72	0.02	0.32	0.0	38
29	CB 534	0.35	1.13	1.39	0.09	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.16	3.97	0.06	0.96	0.0	56
30	CB 535	1.51	1.71	2.08	1.13	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.26	8.85	0.19	5.35	0.0	29
31	CB 536	1.78	0.74	1.81	0.72	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.23	7.43	0.15	3.71	0.0	30
32	CB 537	2.91	0.00	2.17	0.74	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.21	6.74	0.14	2.92	0.0	31
33	CB 537A	2.60	0.00	2.00	0.60	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.21	6.38	0.13	2.41	0.0	39
34	YI 519B	3.10	0.00	3.10	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.26	27.55	0.26	27.55	0.0	Off
35	YI 519C	7.18	0.00	7.18	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.45	46.69	0.45	46.69	0.0	Off
36	YI 519D	5.31	0.00	5.31	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.37	38.58	0.37	38.58	0.0	Off
37	YI 519E	4.73	0.00	4.73	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.34	35.86	0.34	35.86	0.0	Off
38	CB 524A	0.50	0.01	0.51	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.11	1.81	0.00	0.00	0.0	29
39	CB 536A	2.72	0.60	2.19	1.13	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.25	8.41	0.18	4.93	0.0	40
40	CB 535A	1.82	1.13	1.96	0.99	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.25	8.52	0.18	4.96	0.0	30
41	CB 538	1.01	0.00	0.96	0.05	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.15	3.69	0.05	0.82	0.0	58
42	CB 539	2.37	0.29	2.66	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.29	10.54	0.29	10.54	0.0	Off
43	JB 540	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
44	CB 541	1.78	0.00	1.49	0.29	Comb	6.0	1.50	0.00	3.00	2.50	0.034	2.00	0.060	0.020	0.013	0.19	5.48	0.10	1.69	0.0	42
45	CB 541A	1.67	0.00	1.42	0.25	Comb	6.0	1.50	0.00	3.00	2.50	0.034	2.00	0.060	0.020	0.013	0.19	5.28	0.10	1.59	0.0	57
46	CB 511	0.19	0.00	0.19	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.07	1.23	0.00	0.00	0.0	Off

Project File: SCM 5A Storm Network.stm | Number of lines: 63 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Inlet Report

SCM 5A 25-YEAR

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)	
47	CB 512	0.16	0.00	0.16	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.07	1.13	0.00	0.00	0.0	46
48	CB 513	0.23	0.00	0.23	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.08	1.32	0.00	0.00	0.0	47
49	CB 514	0.81	0.00	0.81	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.13	2.32	0.00	0.00	0.0	48
50	CB 514A	4.42	0.00	3.18	1.24	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.22	6.98	0.15	3.34	0.0	60
51	CB 507	0.54	0.00	0.55	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	3.02	0.14	3.02	0.0	Off
52	CB 508	0.54	0.00	0.54	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.13	2.75	0.02	0.35	0.0	51
53	CB 509	0.81	0.04	0.85	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.13	2.58	0.02	0.27	0.0	52
54	CB 510	1.32	0.00	1.28	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.090	2.00	0.060	0.020	0.013	0.15	3.34	0.04	0.66	0.0	53
55	CB 510A	0.78	0.00	0.78	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.090	2.00	0.060	0.020	0.013	0.12	2.07	0.00	0.00	0.0	59
56	CB 522A	0.66	0.09	0.75	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.13	2.29	0.00	0.00	0.0	Off
57	CB 539A	2.40	0.25	2.66	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.29	10.53	0.29	10.53	0.0	Off
58	CB 519A	1.63	0.05	1.45	0.23	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.18	5.06	0.09	1.49	0.0	8
59	CB 509A	0.43	0.00	0.43	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.10	1.69	0.00	0.00	0.0	61
60	CB 511A	2.83	1.24	3.00	1.07	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.21	6.71	0.14	2.97	0.0	3
61	CB 507A	0.66	0.00	0.66	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.15	3.56	0.15	3.56	0.0	Off
62	CB 504A	1.90	0.36	2.26	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.27	9.37	0.27	9.37	0.0	Off
63	CB 533	0.70	0.00	0.70	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.15	3.73	0.15	3.73	0.0	Off

Project File: SCM 5A Storm Network.stm | Number of lines: 63 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 5A 25-YEAR

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	48	71.41	321.50	324.78	3.28	8.47	6.48	1.11	325.88	0.000	83.000	322.00	324.55	2.55**	8.47	8.43	1.11	325.66	0.000	0.000	n/a	1.26	n/a
2	42	71.59	322.25	325.16	2.91*	8.55	8.38	1.09	326.25	0.494	72.832	322.61	325.52	2.91	8.55	8.38	1.09	326.61	0.494	0.494	0.360	0.94	1.03
3	42	64.83	322.90	326.54	3.50	9.62	6.74	0.71	327.25	0.415	110.092	323.60	326.95	3.35	9.48	6.84	0.73	327.68	0.361	0.388	0.427	1.44	1.05
4	42	64.30	323.86	328.00	3.50	9.62	6.68	0.69	328.69	0.409	90.197	324.40	328.37	3.50	9.62	6.68	0.69	329.06	0.409	0.409	0.369	1.50	1.04
5	42	62.92	324.40	329.41	3.50	9.62	6.54	0.67	330.07	0.391	96.914	325.00	329.79	3.50	9.62	6.54	0.66	330.45	0.391	0.391	0.379	0.50	0.33
6	42	63.08	325.50	330.12	3.50	9.62	6.56	0.67	330.79	0.393	105.502	326.66	330.54	3.50	9.62	6.56	0.67	331.20	0.393	0.393	0.415	2.23	1.49
7	42	59.14	326.90	332.03	3.50	9.62	6.15	0.59	332.61	0.346	28.011	327.07	332.12	3.50	9.62	6.15	0.59	332.71	0.346	0.346	0.097	1.12	0.66
8	42	58.84	327.30	332.78	3.50	9.62	6.12	0.58	333.36	0.342	45.483	327.57	332.94	3.50	9.62	6.12	0.58	333.52	0.342	0.342	0.156	1.12	0.65
9	42	56.26	327.80	333.59	3.50	9.62	5.85	0.53	334.12	0.313	28.154	327.97	333.68	3.50	9.62	5.85	0.53	334.21	0.313	0.313	0.088	1.47	0.78
10	36	56.20	328.20	334.46	3.00	7.07	7.95	0.98	335.44	0.710	75.321	330.46	334.99	3.00	7.07	7.95	0.98	335.98	0.710	0.710	0.535	0.50	0.49
11	36	56.21	330.65	335.49	3.00	6.13	7.95	0.98	336.47	0.711	87.576	334.15	336.58	2.43**	6.13	9.17	1.31	337.89	0.727	0.719	n/a	2.19	n/a
12	30	36.72	334.40	336.58	2.18	4.31	8.09	1.13	337.71	0.000	149.169	339.62	341.67 j	2.05**	4.31	8.52	1.13	342.80	0.000	0.000	n/a	1.39	n/a
13	24	28.42	339.80	341.67	1.87	3.02	9.30	1.38	343.05	0.000	96.000	343.63	345.47 j	1.84**	3.02	9.42	1.38	346.84	0.000	0.000	n/a	0.50	0.69
14	24	28.38	343.85	345.47	1.62	2.72	10.44	1.37	346.84	0.000	67.783	347.24	349.07	1.83**	3.02	9.40	1.37	350.45	0.000	0.000	n/a	1.32	1.81
15	24	27.74	347.50	349.07	1.57	2.65	10.46	1.33	350.40	0.000	67.241	351.50	353.32	1.82**	3.00	9.23	1.33	354.65	0.000	0.000	n/a	0.91	n/a
16	24	15.28	351.70	353.32	1.62	2.36	5.60	0.65	353.97	0.000	133.104	361.00	362.41 j	1.41**	2.36	6.46	0.65	363.06	0.000	0.000	n/a	1.50	0.97
17	24	14.75	361.20	362.41	1.21	1.98	7.43	0.63	363.04	0.000	66.111	366.50	367.88	1.38**	2.32	6.37	0.63	368.51	0.000	0.000	n/a	1.03	n/a
18	18	13.82	366.70	367.88	1.18	1.49	9.25	1.03	368.91	0.000	129.000	374.00	375.38	1.38**	1.70	8.14	1.03	376.41	0.000	0.000	n/a	1.04	n/a
19	18	13.62	374.20	375.38	1.18	1.49	9.17	1.01	376.38	0.000	60.236	375.70	377.07	1.37**	1.69	8.05	1.01	378.08	0.000	0.000	n/a	0.69	0.69
20	18	13.44	375.90	377.21	1.31*	1.63	8.24	0.99	378.19	0.000	44.832	376.57	377.93	1.36**	1.69	7.96	0.99	378.92	0.000	0.000	n/a	1.17	n/a
21	15	7.41	376.80	378.05	1.25*	1.23	6.04	0.57	378.62	1.318	98.443	377.78	379.35	1.25	1.23	6.04	0.57	379.92	1.318	1.318	1.298	0.50	0.28
22	15	5.13	378.00	379.63	1.25	0.97	4.18	0.27	379.90	0.632	205.640	380.10	381.02 j	0.92**	0.97	5.31	0.44	381.46	0.799	0.715	n/a	0.50	0.22

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Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 5A 25-YEAR

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)
23	15	3.88	380.30	381.02	0.72	0.73	5.33	0.34	381.36	0.000	128.177	381.58	382.38	0.80**	0.82	4.71	0.34	382.72	0.000	0.000	n/a	1.50	0.52
24	15	2.14	381.80	382.38	0.58	0.55	3.87	0.23	382.60	0.000	89.745	382.70	383.28	0.58**	0.56	3.81	0.23	383.51	0.000	0.000	n/a	1.50	n/a
25	15	1.27	382.90	383.35	0.45*	0.39	3.18	0.16	383.51	0.498	28.070	383.04	383.49	0.45**	0.40	3.19	0.16	383.65	0.502	0.500	0.140	1.08	0.17
26	15	0.58	381.80	382.38	0.58	0.22	1.05	0.11	382.48	0.000	28.048	382.08	382.38 j	0.30**	0.22	2.60	0.11	382.48	0.000	0.000	n/a	1.00	0.11
27	15	5.43	376.80	377.93	1.13	0.99	4.64	0.46	378.40	0.000	28.090	377.08	378.02 j	0.94**	0.99	5.46	0.46	378.49	0.000	0.000	n/a	1.00	n/a
28	15	0.85	366.70	367.88	1.18	0.29	0.71	0.13	368.01	0.000	43.790	367.58	367.94 j	0.36**	0.29	2.90	0.13	368.07	0.000	0.000	n/a	1.00	n/a
29	18	13.19	351.70	353.32	1.50	1.68	7.47	0.87	354.19	1.579	50.671	354.50	355.86 j	1.36**	1.68	7.85	0.96	356.81	1.384	1.482	n/a	0.50	n/a
30	18	12.89	354.70	355.86	1.16	1.46	8.82	0.92	356.78	0.000	43.841	358.40	359.75	1.35**	1.67	7.71	0.92	360.67	0.000	0.000	n/a	1.69	n/a
31	15	9.76	358.60	359.85	1.25*	1.23	7.95	0.98	360.83	2.285	131.638	361.00	362.86	1.25	1.23	7.95	0.98	363.84	2.284	2.284	3.007	1.46	1.44
32	15	5.48	361.20	364.29	1.25	1.00	4.46	0.31	364.60	0.719	173.316	366.00	366.95 j	0.95**	1.00	5.49	0.47	367.42	0.844	0.782	n/a	1.05	n/a
33	15	2.60	366.20	366.95	0.75	0.64	3.39	0.26	367.20	0.000	38.552	367.56	368.21 j	0.65**	0.64	4.07	0.26	368.46	0.000	0.000	n/a	1.00	n/a
34	30	19.02	334.40	336.58	2.18	3.02	4.19	0.62	337.20	0.000	83.727	334.82	336.30	1.48**	3.02	6.30	0.62	336.91	0.000	0.000	n/a	1.19	0.73
35	24	16.48	335.00	336.30	1.30	2.16	7.64	0.70	337.00	0.000	306.989	347.71	349.17	1.46**	2.46	6.70	0.70	349.87	0.000	0.000	n/a	0.50	n/a
36	18	9.78	348.00	349.17	1.17	1.48	6.60	0.64	349.81	0.000	200.863	364.00	365.21	1.21**	1.52	6.42	0.64	365.85	0.000	0.000	n/a	0.50	0.32
37	15	4.73	364.20	365.21	1.01	0.92	4.47	0.41	365.61	0.000	234.000	366.54	367.42 j	0.88**	0.92	5.12	0.41	367.83	0.000	0.000	n/a	1.00	n/a
38	15	0.50	361.20	362.41	1.21	0.20	0.42	0.10	362.51	0.000	28.013	361.48	361.76	0.28**	0.20	2.50	0.10	361.85	0.000	0.000	n/a	1.00	0.10
39	15	2.72	361.20	364.29	1.25	1.23	2.21	0.08	364.37	0.177	28.090	361.48	364.34	1.25	1.23	2.21	0.08	364.42	0.177	0.177	0.050	1.00	0.08
40	15	1.82	358.60	359.75	1.15	0.50	1.55	0.20	359.95	0.000	28.000	358.88	359.42	0.54**	0.50	3.62	0.20	359.62	0.000	0.000	n/a	1.00	n/a
41	24	8.94	339.80	341.67	1.87	1.70	2.93	0.43	342.10	0.000	28.499	340.10	341.17	1.07**	1.70	5.25	0.43	341.60	0.000	0.000	n/a	1.04	n/a
42	18	8.00	340.30	341.17	0.87	1.06	7.56	0.52	341.69	0.000	47.998	342.50	343.59	1.09**	1.38	5.79	0.52	344.12	0.000	0.000	n/a	1.21	n/a
43	15	3.41	342.70	343.59	0.89	0.76	3.63	0.31	343.91	0.000	115.718	348.60	349.34 j	0.74**	0.76	4.48	0.31	349.66	0.000	0.000	n/a	0.16	n/a
44	15	3.44	348.80	349.34	0.54	0.51	6.70	0.31	349.66	0.000	73.254	352.00	352.75	0.75**	0.77	4.49	0.31	353.06	0.000	0.000	n/a	1.48	0.46

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Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 5A 25-YEAR

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)
45	15	1.67	352.20	352.75	0.55	0.47	3.23	0.19	352.94	0.000	27.894	352.87	353.38 j	0.51**	0.47	3.53	0.19	353.58	0.000	0.000	n/a	1.00	n/a
46	18	8.44	325.00	326.54	1.50	1.42	4.78	0.35	326.90	0.646	37.830	328.01	329.13 j	1.12**	1.42	5.94	0.55	329.68	0.778	0.712	n/a	1.49	0.82
47	15	5.53	328.20	329.13	0.93	0.98	5.62	0.47	329.61	0.000	67.669	334.97	335.92	0.95**	1.00	5.51	0.47	336.39	0.000	0.000	n/a	0.50	n/a
48	15	5.40	335.20	335.92	0.72	0.73	7.37	0.46	336.38	0.000	66.501	341.85	342.79	0.94**	0.99	5.45	0.46	343.25	0.000	0.000	n/a	0.50	0.23
49	15	5.21	342.10	342.79	0.69	0.70	7.49	0.45	343.24	0.000	89.618	351.06	351.99	0.92**	0.97	5.36	0.45	352.43	0.000	0.000	n/a	0.95	n/a
50	18	4.42	351.30	351.99	0.68	0.79	5.62	0.32	352.31	0.000	37.668	352.59	353.40	0.81**	0.97	4.57	0.32	353.72	0.000	0.000	n/a	1.00	0.32
51	24	4.51	326.90	332.03	2.00	3.14	1.44	0.03	332.06	0.040	110.218	327.45	332.07	2.00	3.14	1.44	0.03	332.10	0.040	0.040	0.044	1.47	0.05
52	24	3.64	327.65	332.12	2.00	3.14	1.16	0.02	332.14	0.026	130.561	328.40	332.15	2.00	3.14	1.16	0.02	332.17	0.026	0.026	0.034	0.50	0.01
53	18	3.21	328.60	332.16	1.50	0.78	1.82	0.05	332.21	0.093	132.413	333.00	333.68 j	0.68**	0.78	4.11	0.26	333.94	0.520	0.307	n/a	0.76	n/a
54	15	2.07	333.20	333.68	0.48	0.44	4.74	0.22	333.90	0.000	201.000	348.28	348.85	0.57**	0.55	3.77	0.22	349.07	0.000	0.000	n/a	0.75	0.17
55	15	0.78	348.50	348.85	0.35	0.28	2.73	0.12	348.98	0.000	63.000	353.53	353.87 j	0.34**	0.28	2.82	0.12	354.00	0.000	0.000	n/a	1.00	n/a
56	15	0.66	347.80	349.07	1.25	1.23	0.54	0.00	349.08	0.010	32.603	348.13	349.08	0.95	1.00	0.66	0.01	349.08	0.012	0.011	0.004	1.00	0.01
57	15	2.40	342.70	343.59	0.89	0.61	2.56	0.24	343.84	0.000	27.998	342.98	343.60 j	0.62**	0.61	3.96	0.24	343.84	0.000	0.000	n/a	1.00	0.24
58	15	1.63	335.40	336.58	1.18	0.47	1.36	0.19	336.77	0.000	38.000	335.78	336.29	0.51**	0.47	3.50	0.19	336.48	0.000	0.000	n/a	1.00	0.19
59	15	0.43	333.20	333.68	0.48	0.18	0.98	0.09	333.77	0.000	62.439	336.30	336.55 j	0.25**	0.18	2.39	0.09	336.64	0.000	0.000	n/a	1.00	0.09
60	15	2.83	328.20	329.13	0.93	0.68	2.88	0.27	329.41	0.000	28.384	329.81	330.49 j	0.68**	0.68	4.19	0.27	330.76	0.000	0.000	n/a	1.00	n/a
61	15	0.66	327.85	332.12	1.25	1.23	0.54	0.00	332.12	0.010	30.000	328.15	332.12	1.25	1.23	0.54	0.00	332.13	0.010	0.010	0.003	1.00	0.00
62	15	1.90	325.60	329.41	1.25	1.23	1.55	0.04	329.45	0.087	28.000	325.86	329.43	1.25	1.23	1.55	0.04	329.47	0.087	0.087	0.024	1.00	0.04
63	15	0.70	383.24	383.66	0.42	0.25	1.93	0.12	383.78	0.000	45.000	383.50	383.83 j	0.33**	0.25	2.74	0.12	383.94	0.000	0.000	n/a	1.00	n/a

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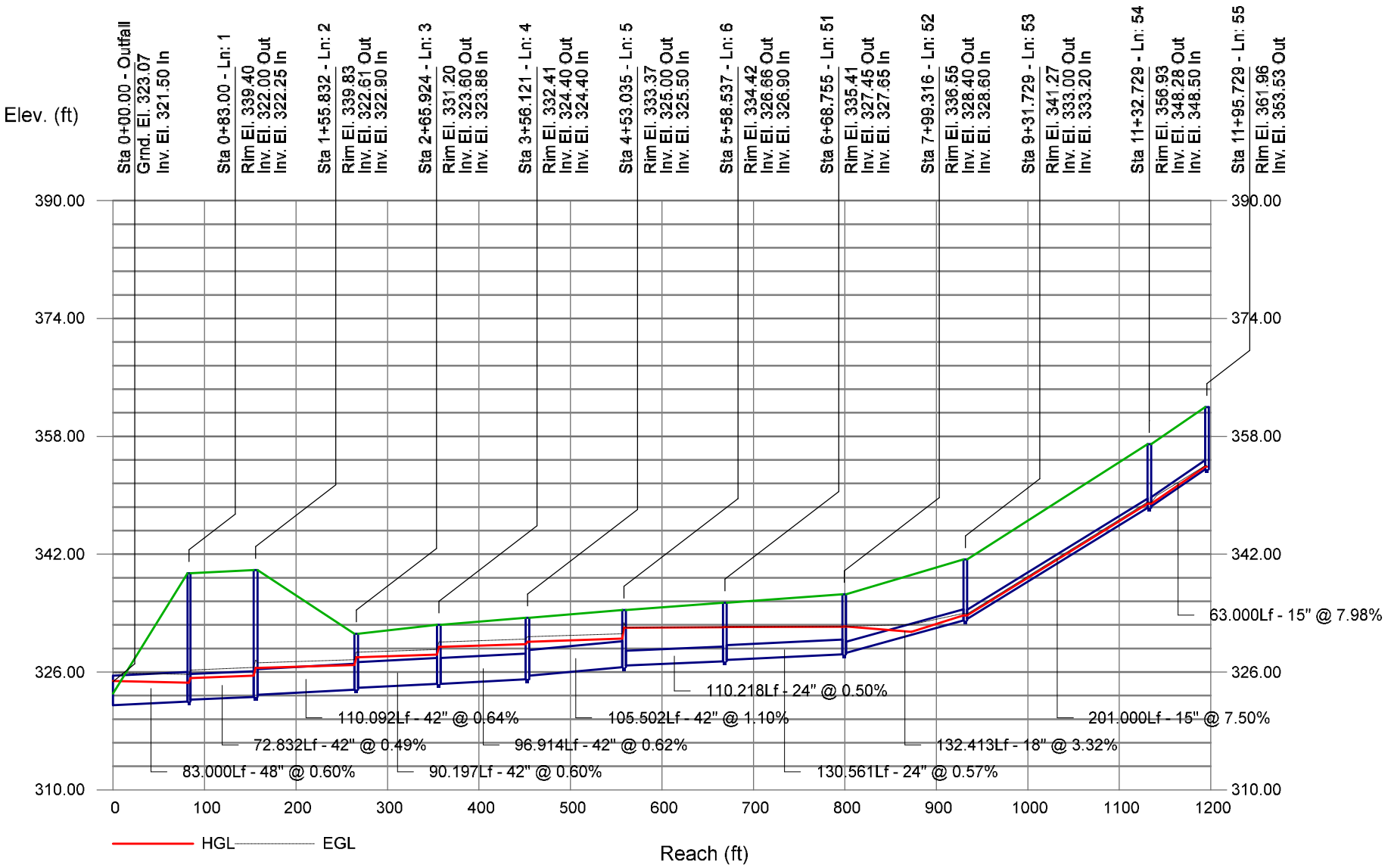
Number of lines: 63

Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

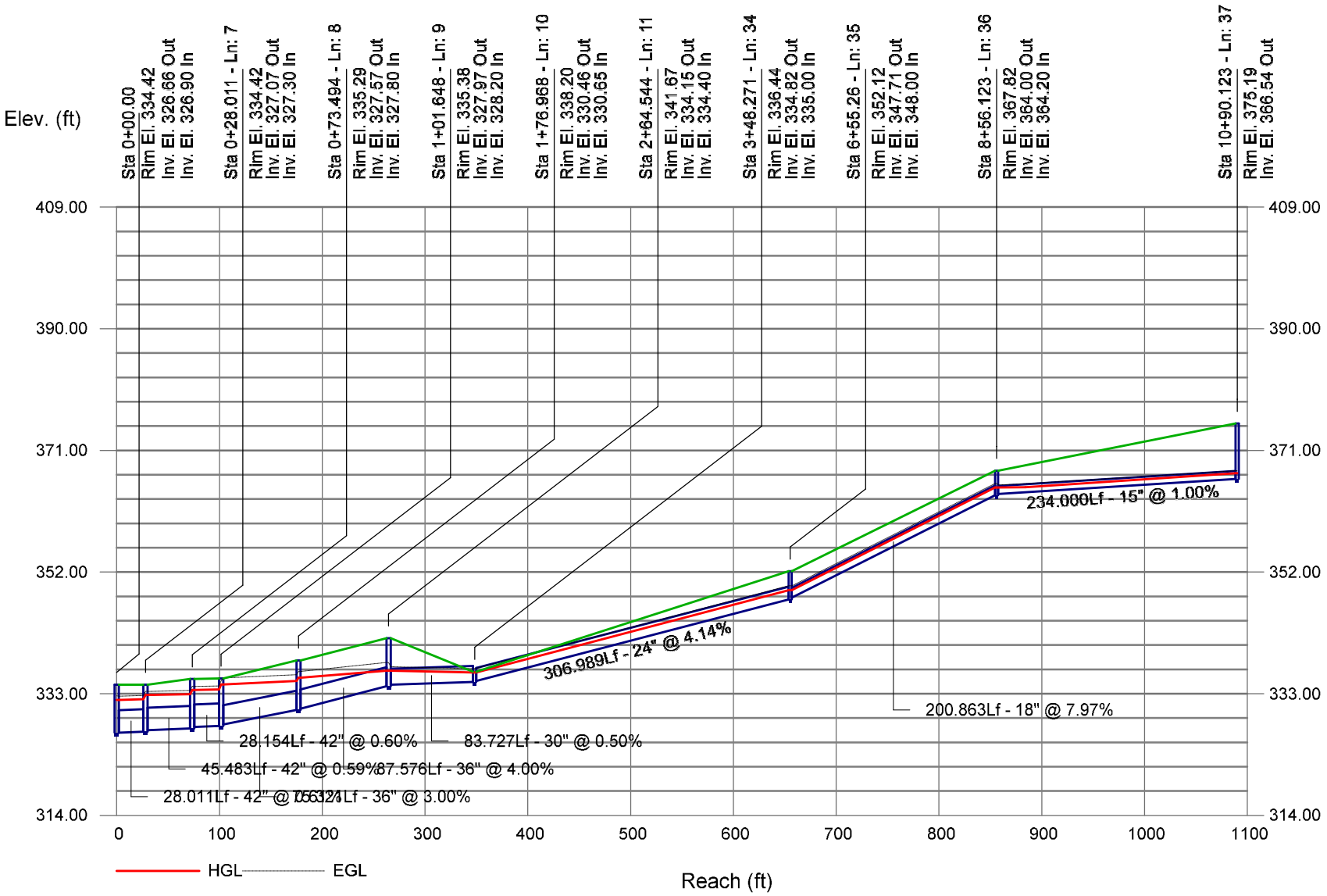
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 1-55 Proj. file: SCM 5A Storm Network.stm



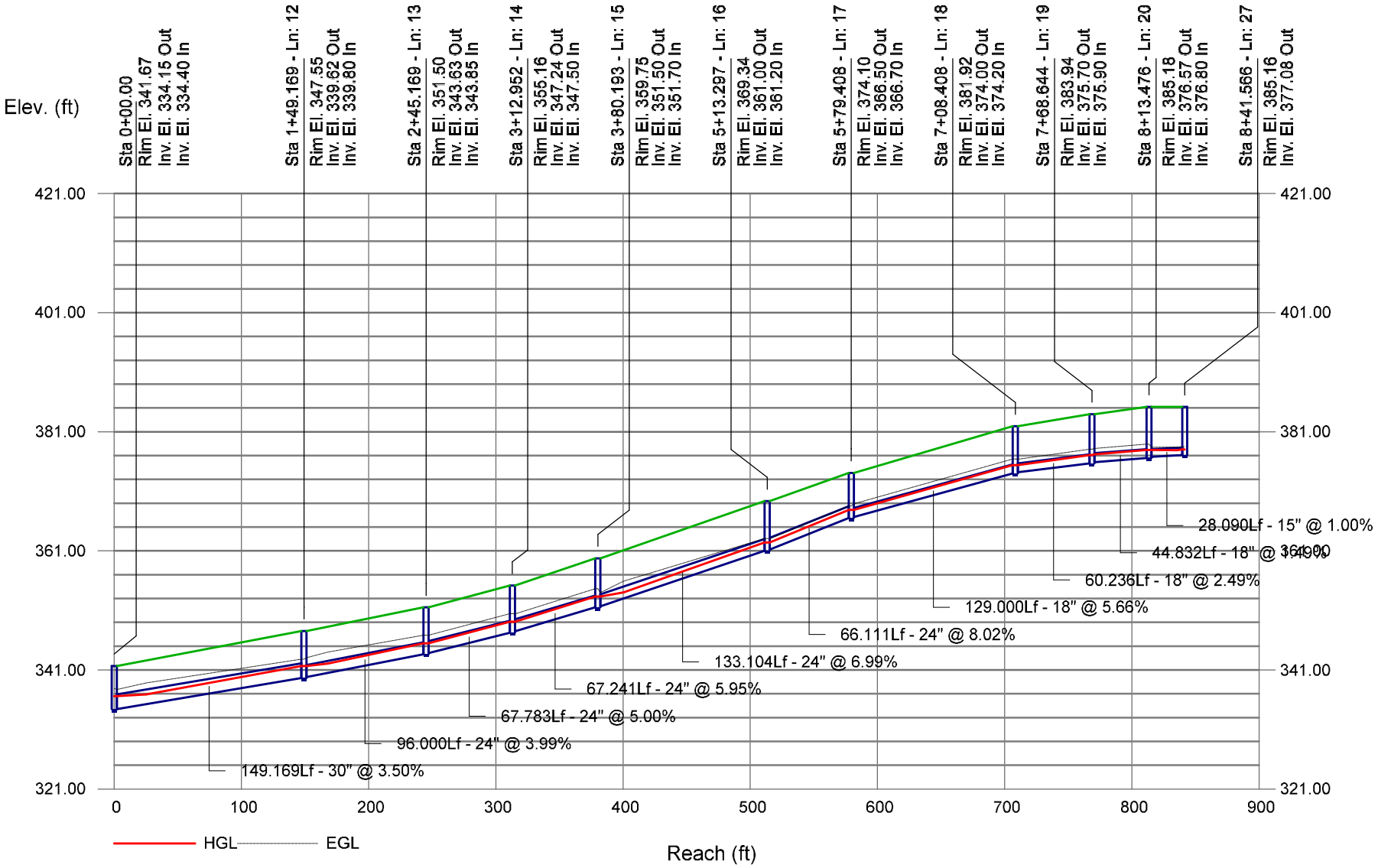
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 7-37 Proj. file: SCM 5A Storm Network.stm



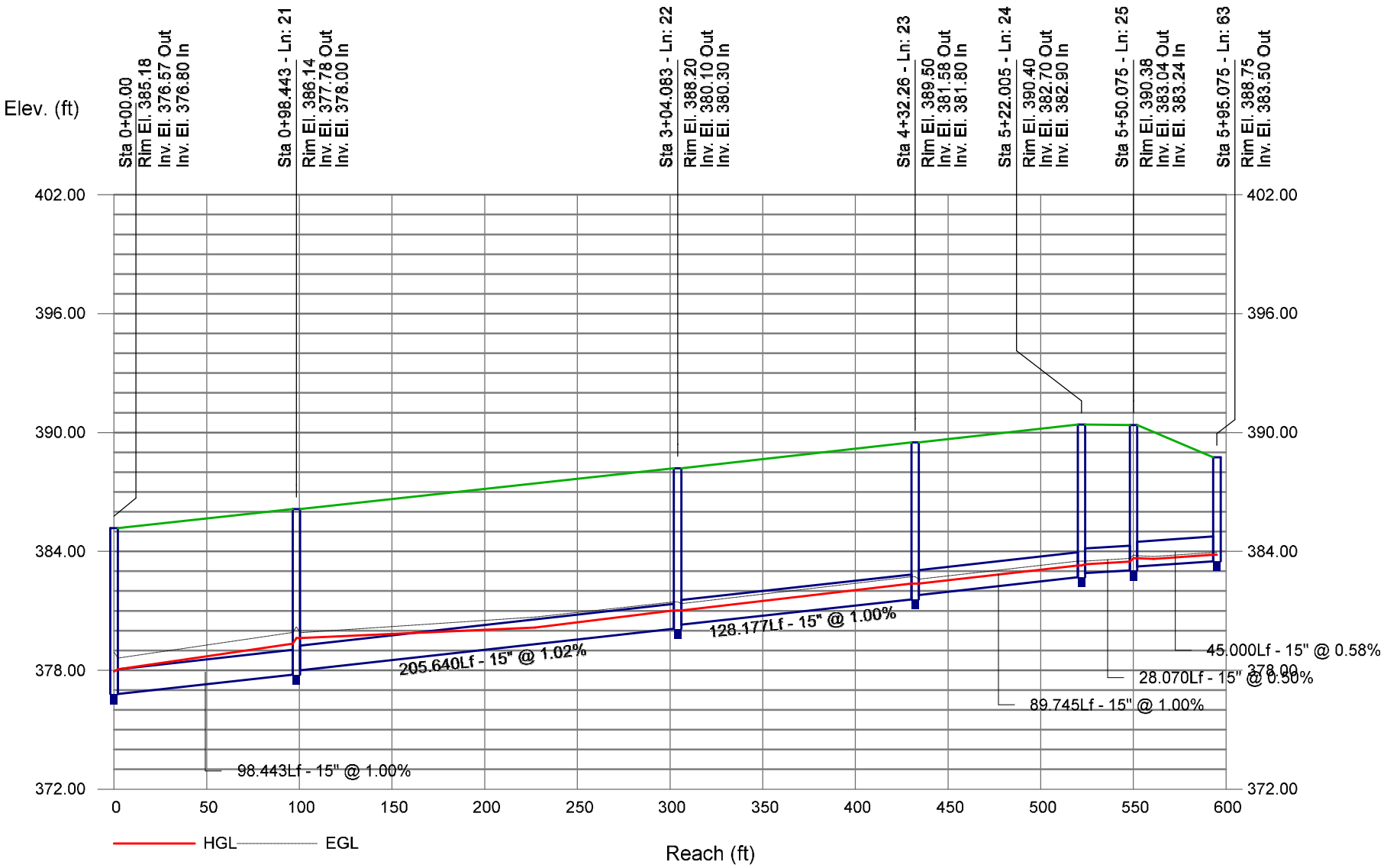
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 12-27 Proj. file: SCM 5A Storm Network.stm



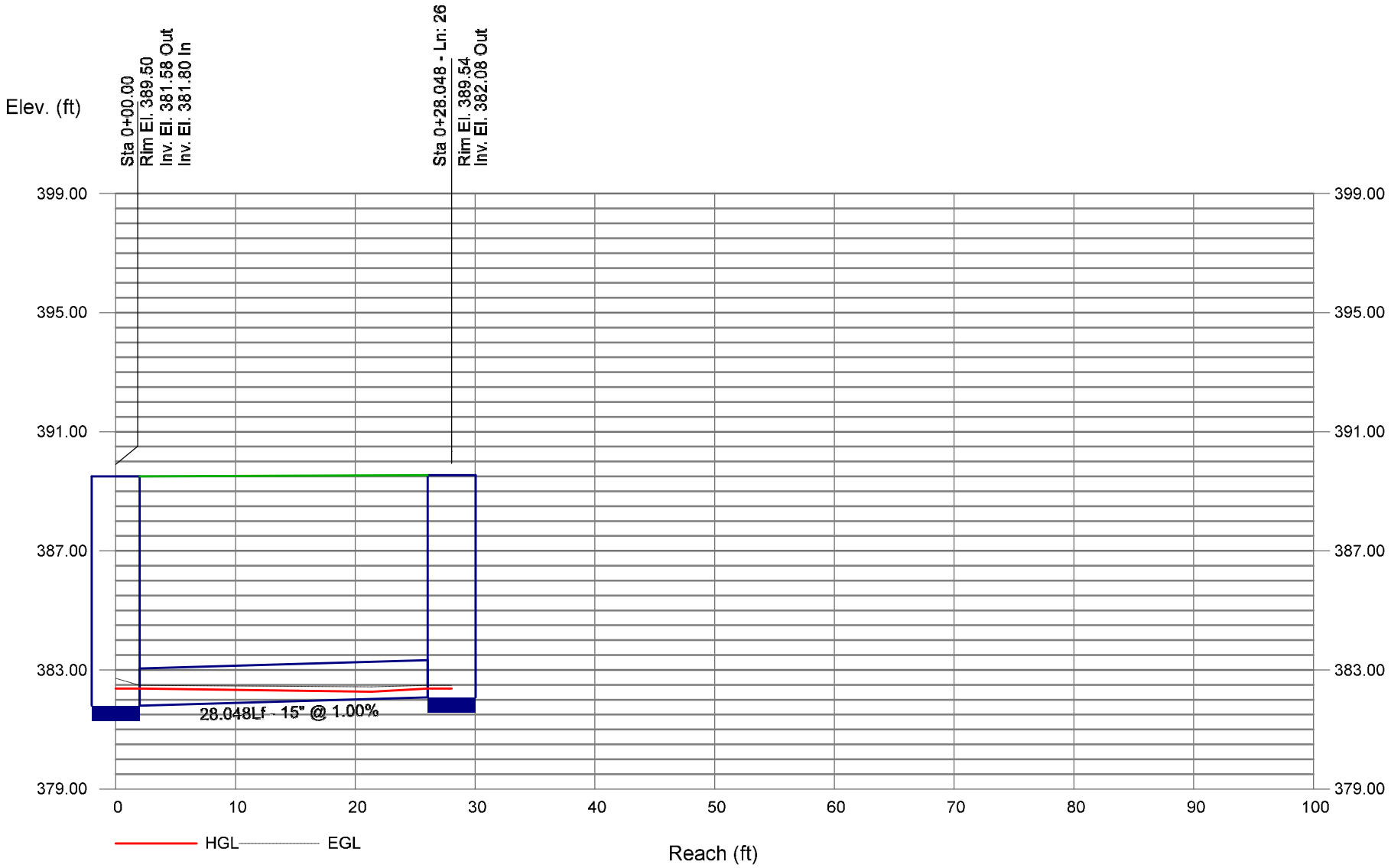
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 21-63 Proj. file: SCM 5A Storm Network.stm



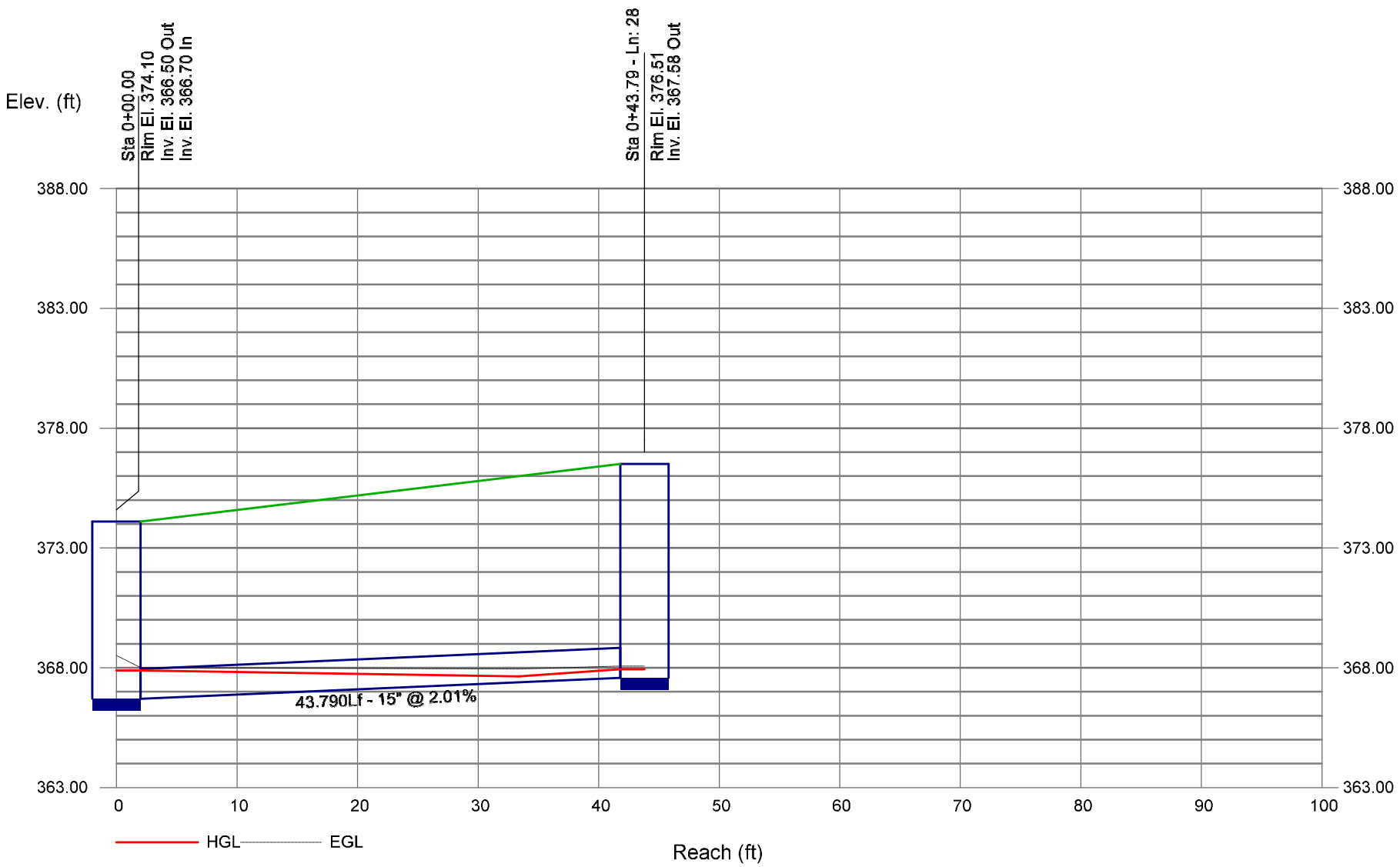
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 26-26 Proj. file: SCM 5A Storm Network.stm



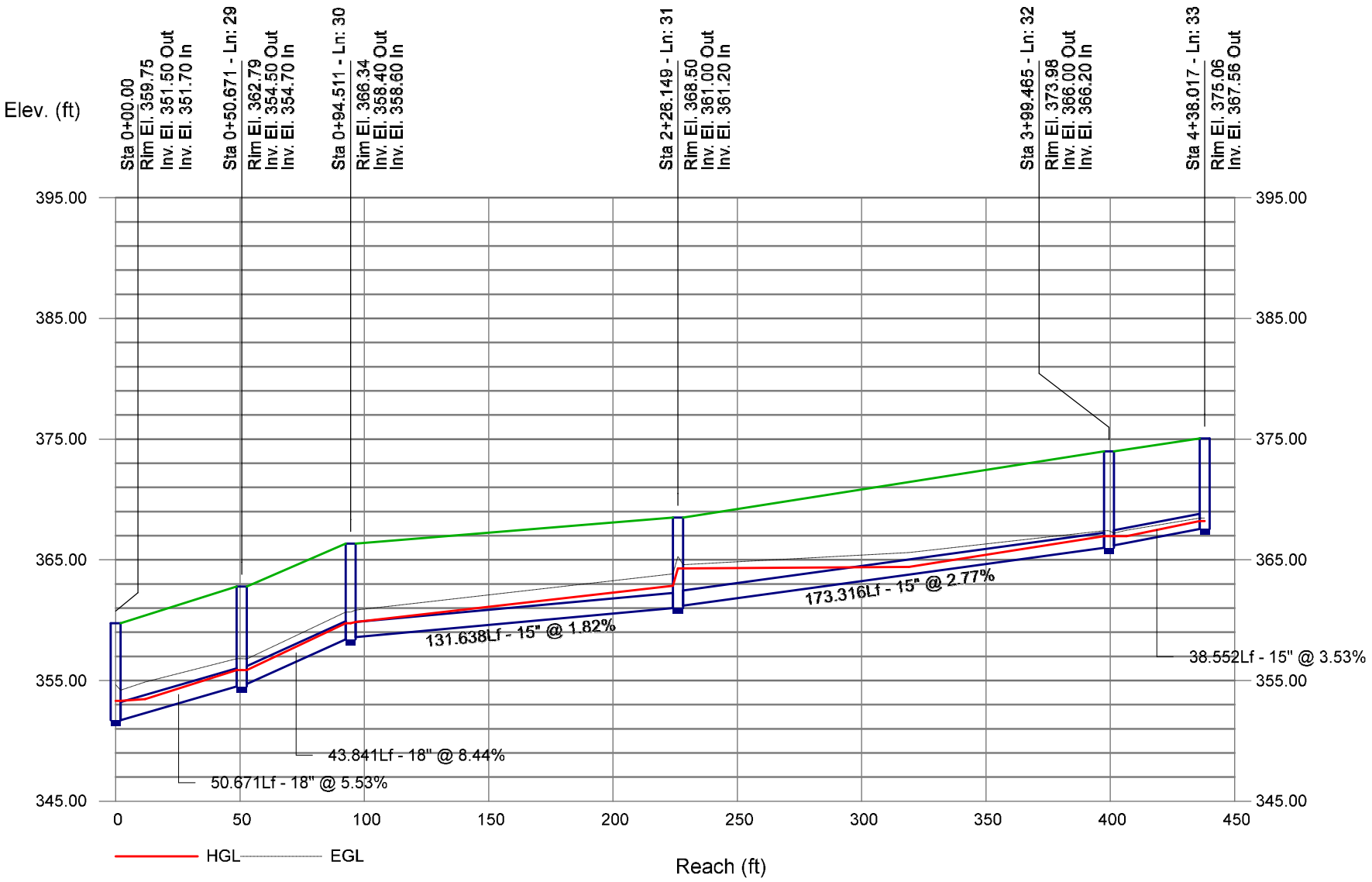
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 28-28 Proj. file: SCM 5A Storm Network.stm



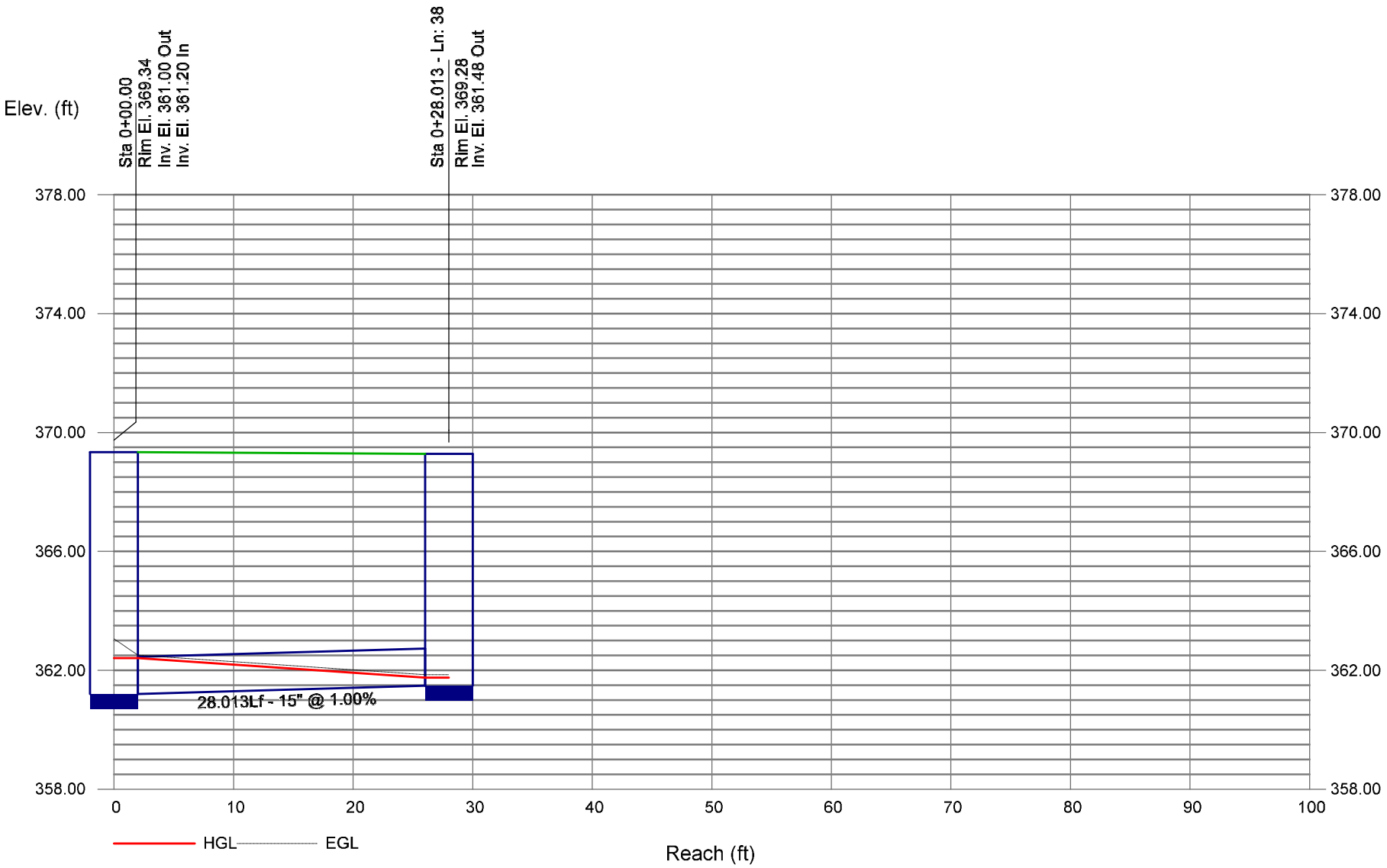
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 29-33 Proj. file: SCM 5A Storm Network.stm



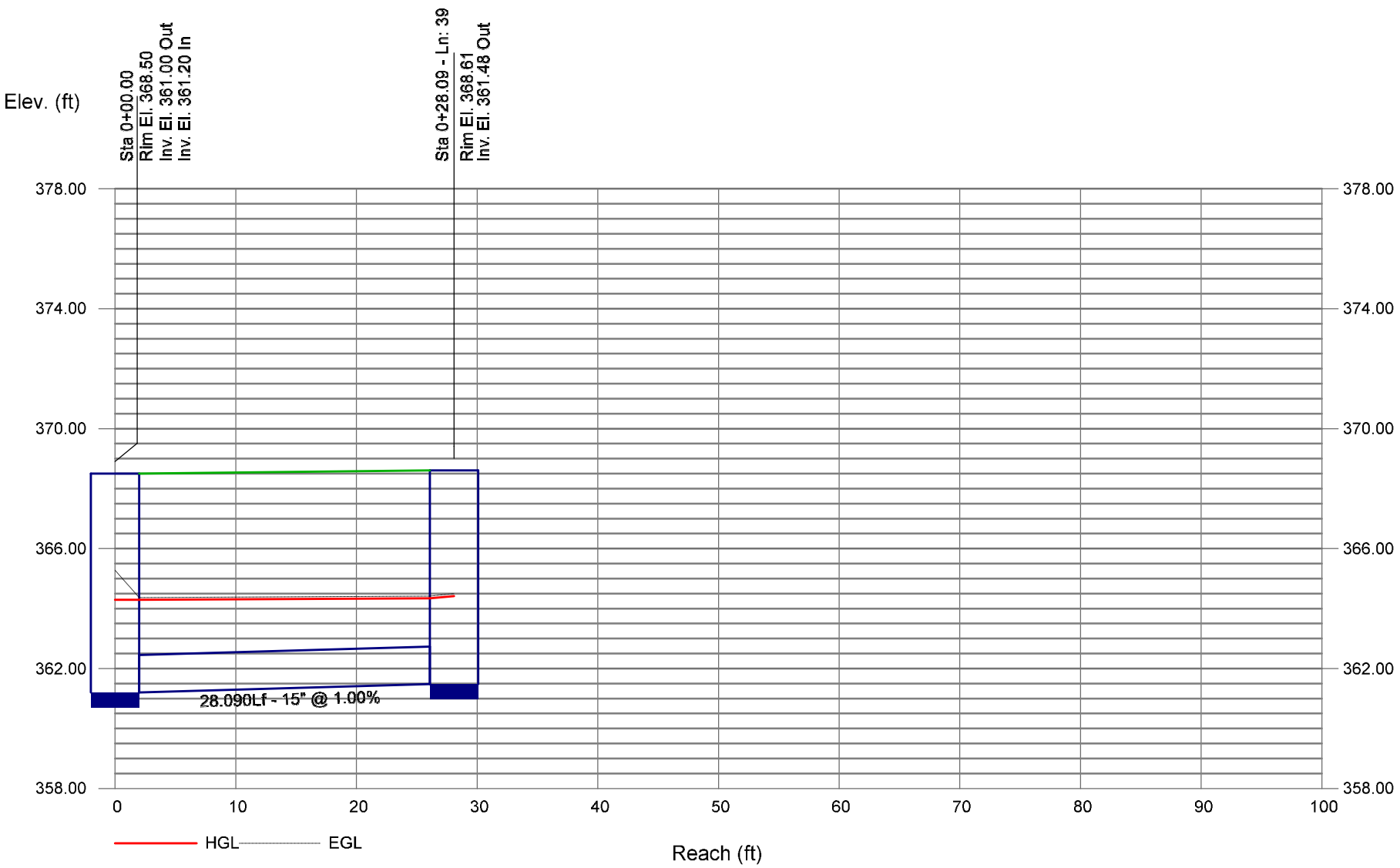
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 38-38 Proj. file: SCM 5A Storm Network.stm



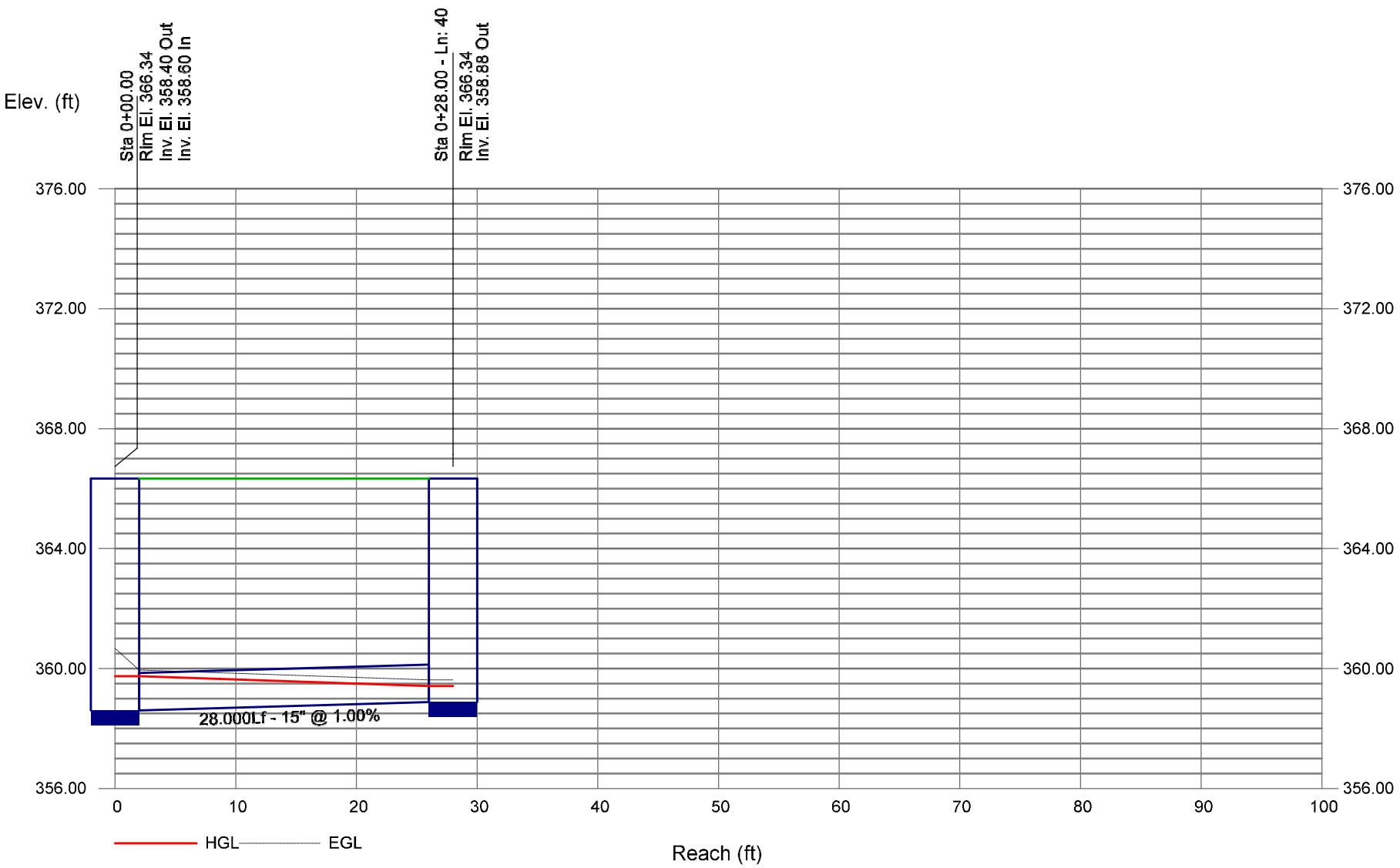
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 39-39 Proj. file: SCM 5A Storm Network.stm



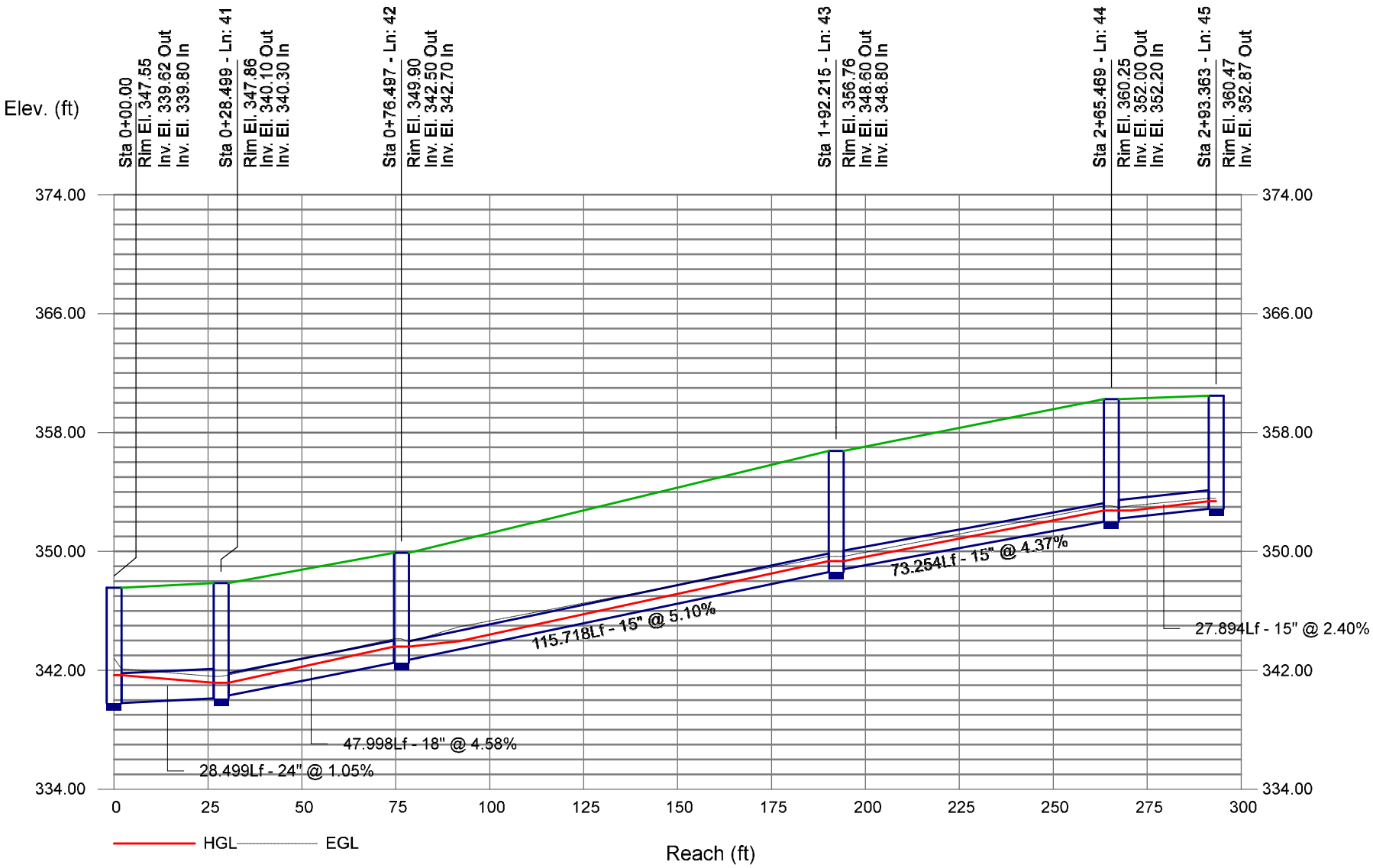
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 40-40 Proj. file: SCM 5A Storm Network.stm



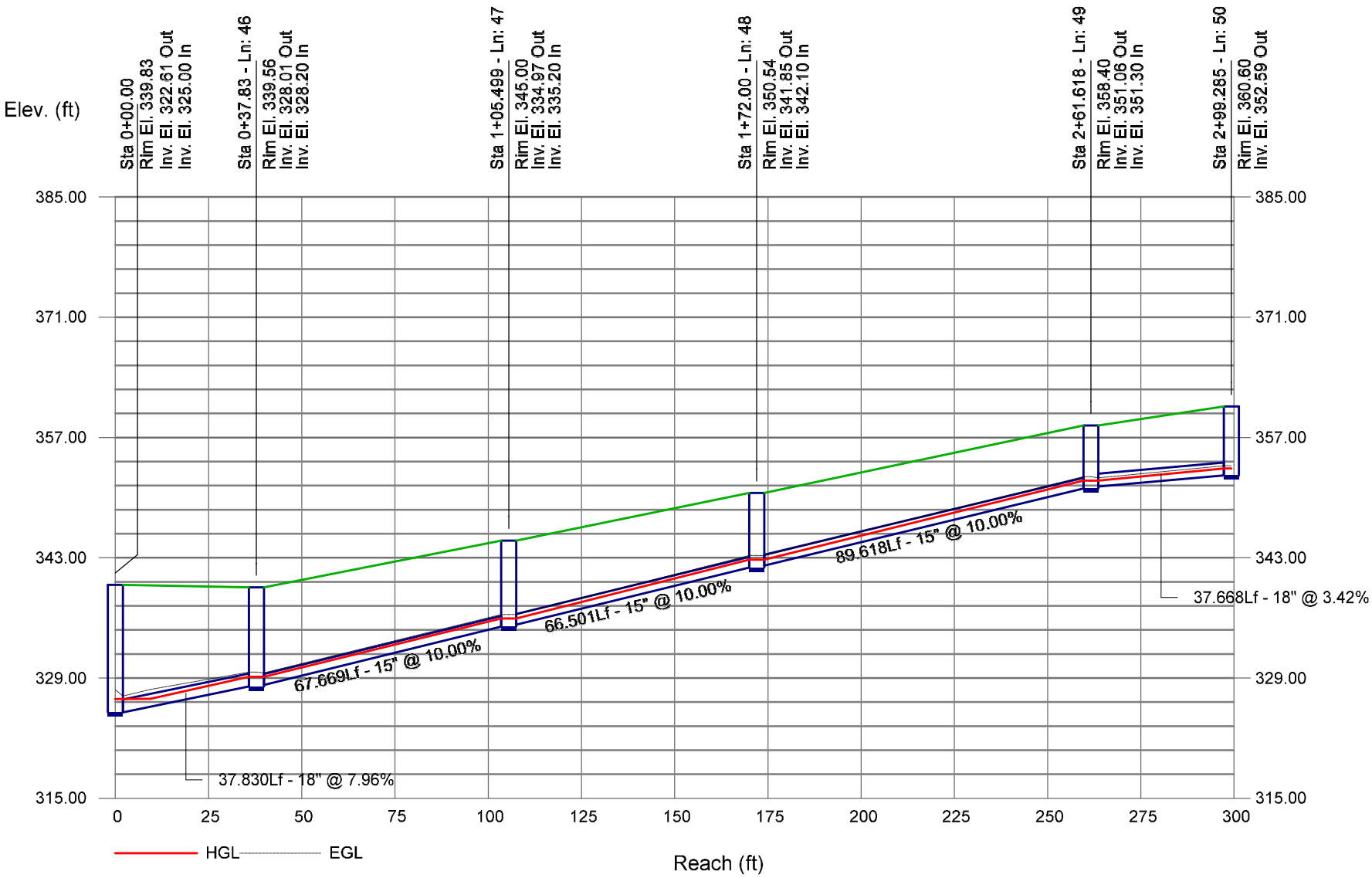
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 41-45 Proj. file: SCM 5A Storm Network.stm



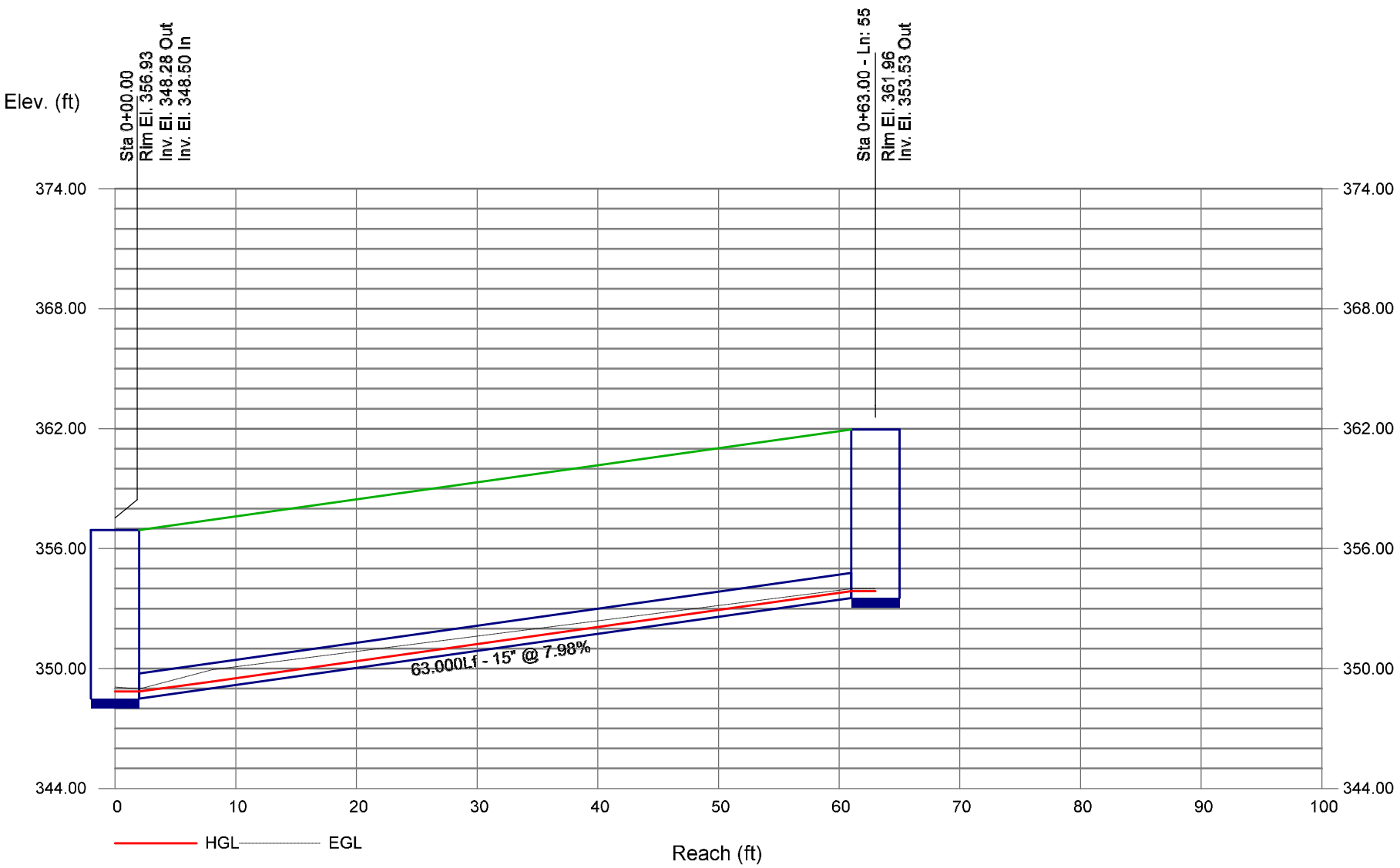
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 46-50 Proj. file: SCM 5A Storm Network.stm



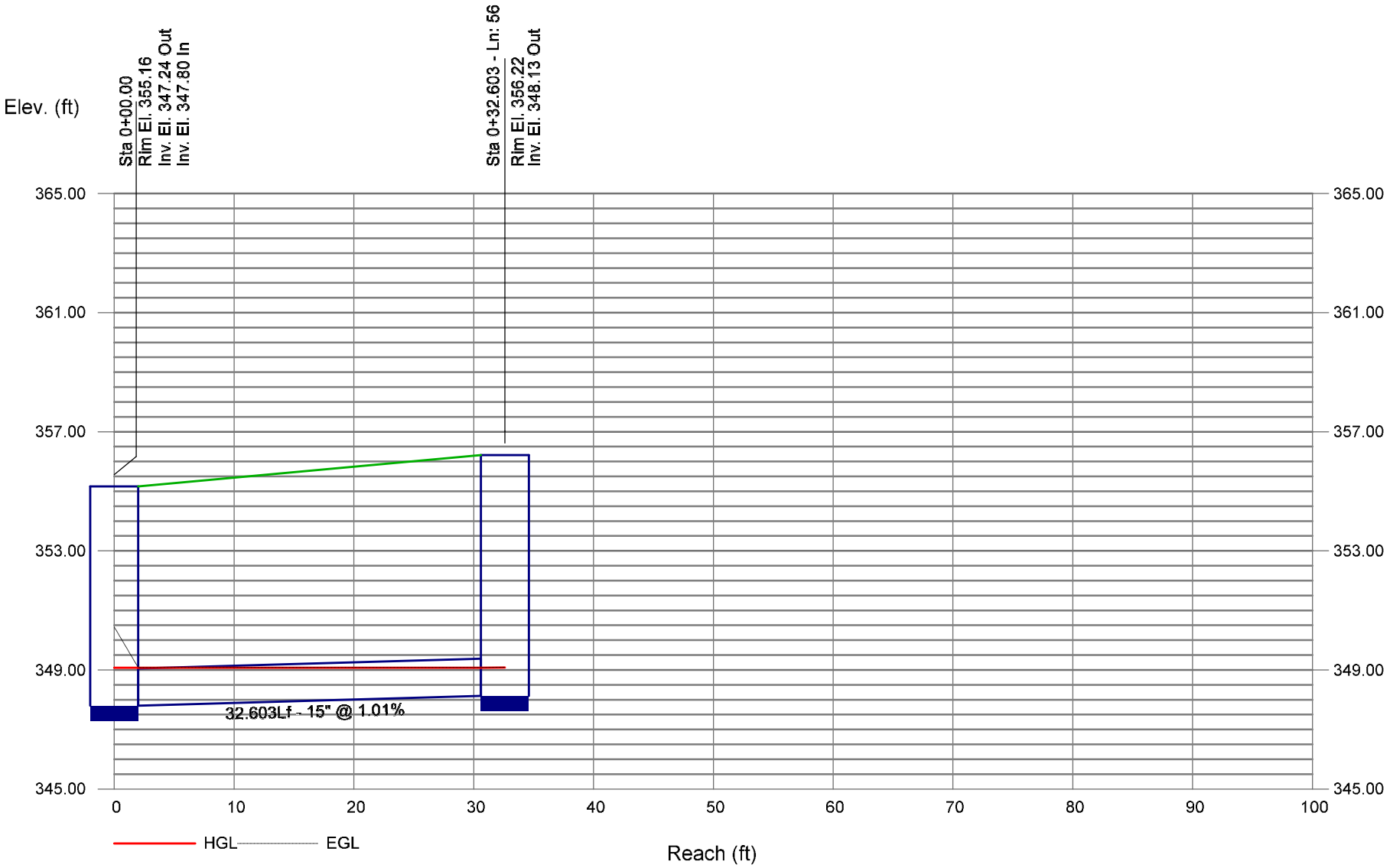
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 55-55 Proj. file: SCM 5A Storm Network.stm



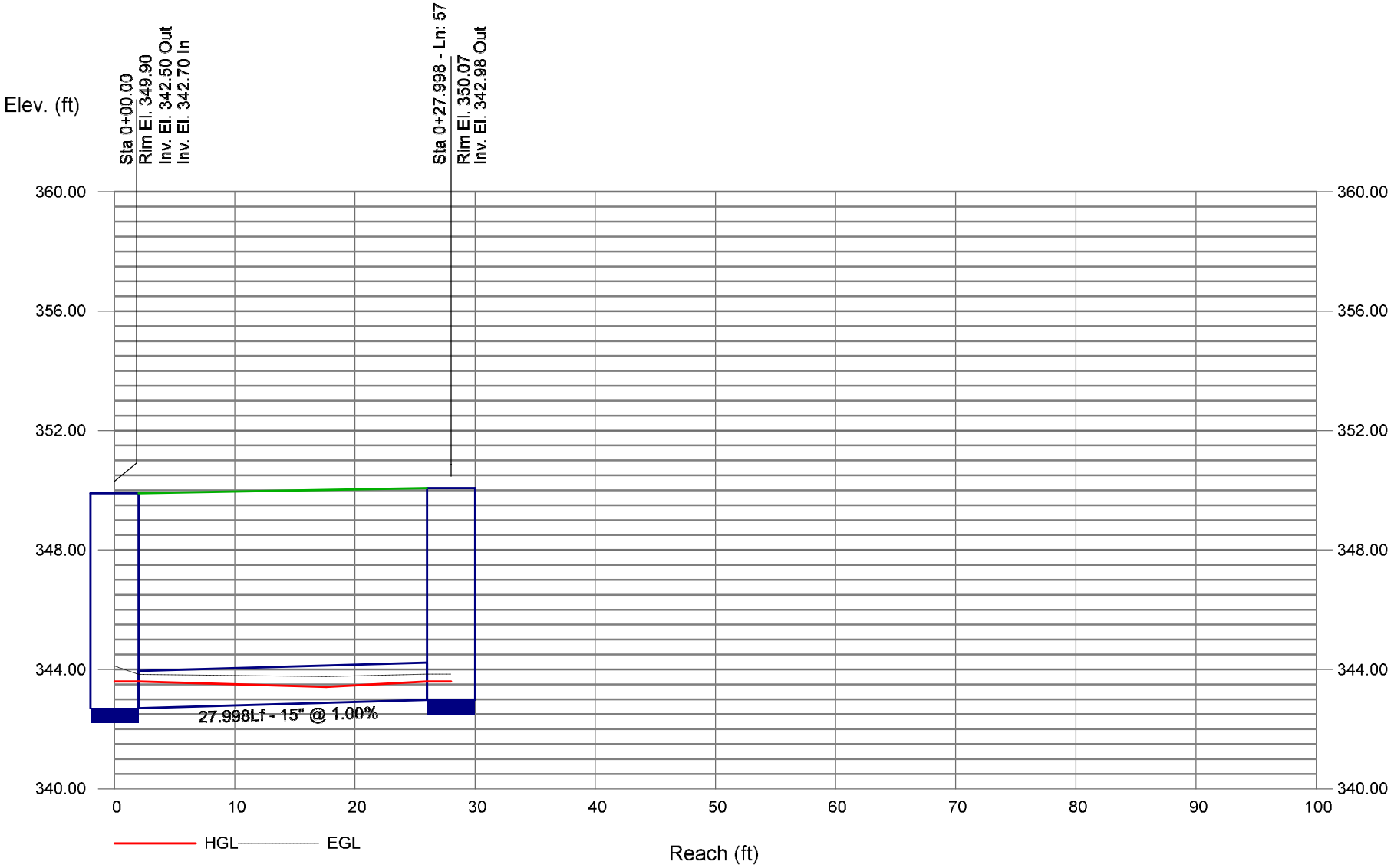
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 56-56 Proj. file: SCM 5A Storm Network.stm



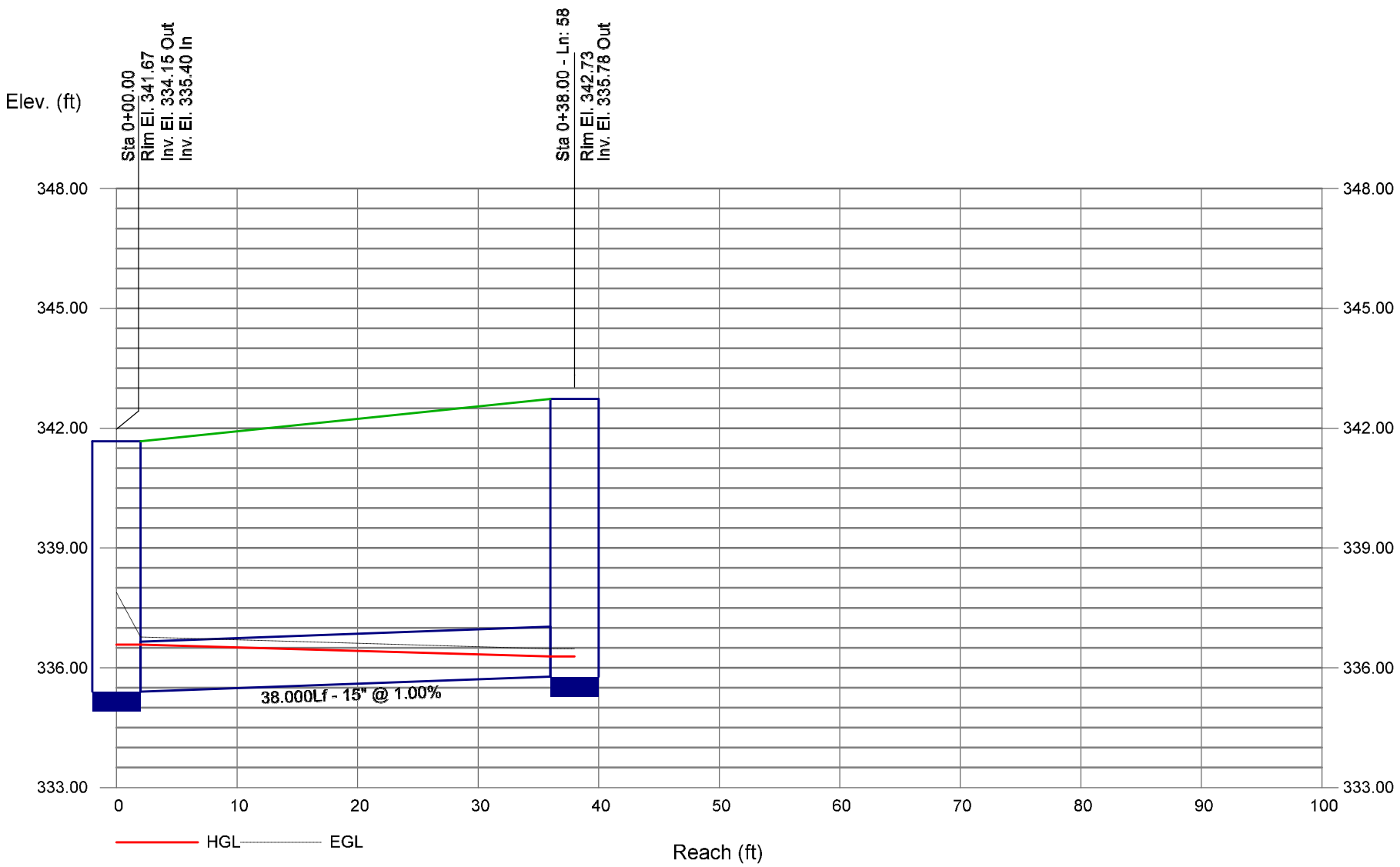
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 57-57 Proj. file: SCM 5A Storm Network.stm



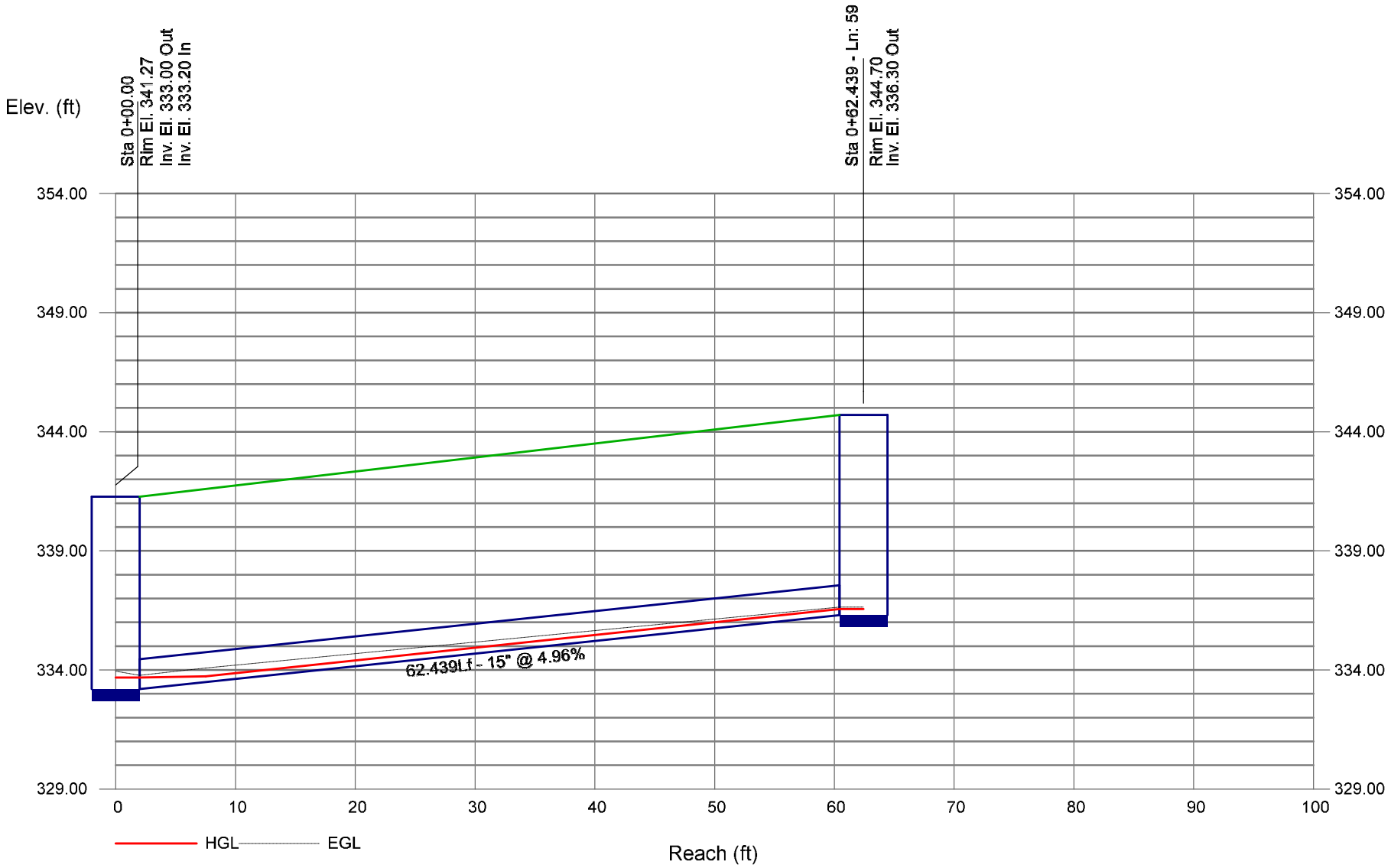
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 58-58 Proj. file: SCM 5A Storm Network.stm



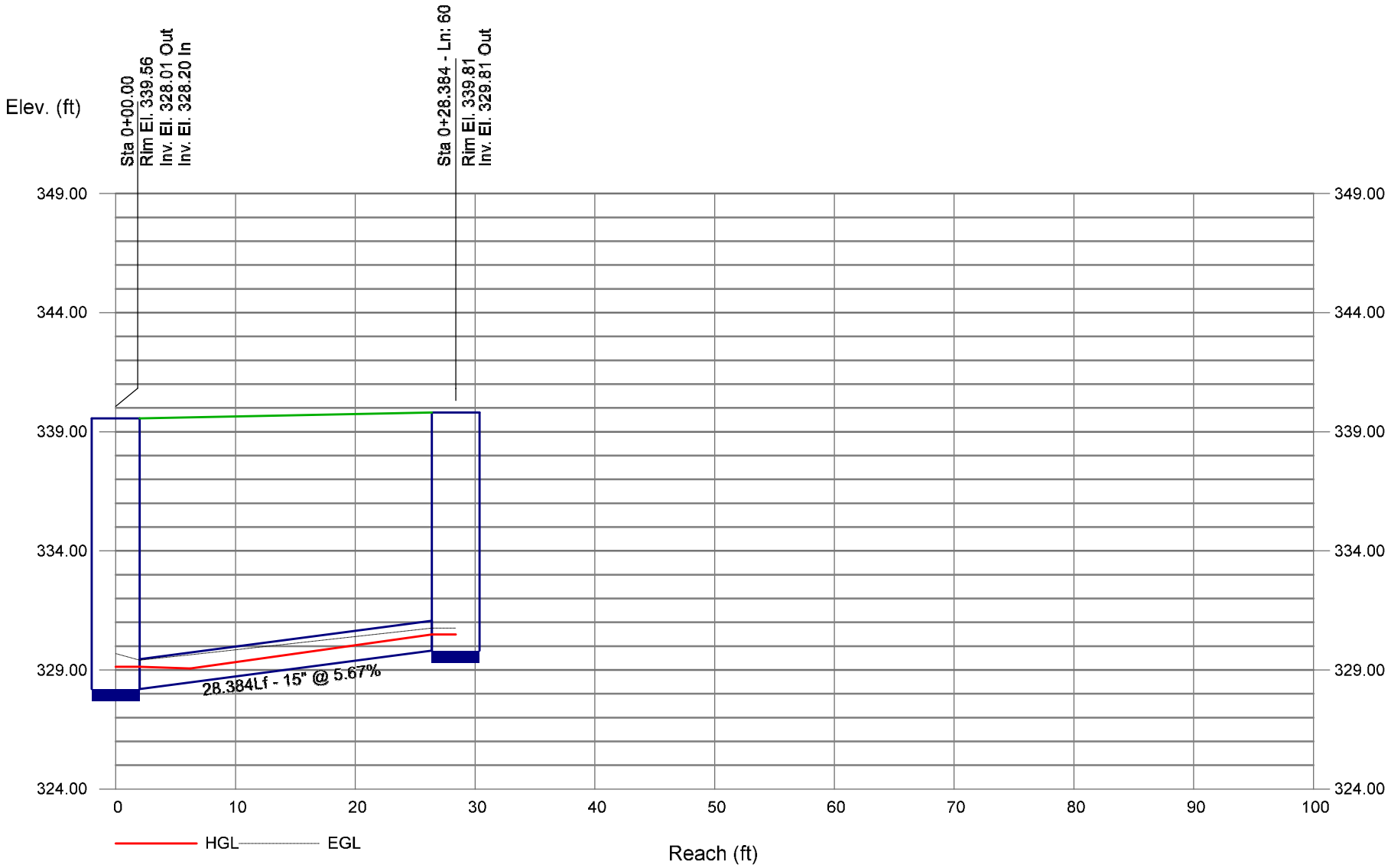
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 59-59 Proj. file: SCM 5A Storm Network.stm



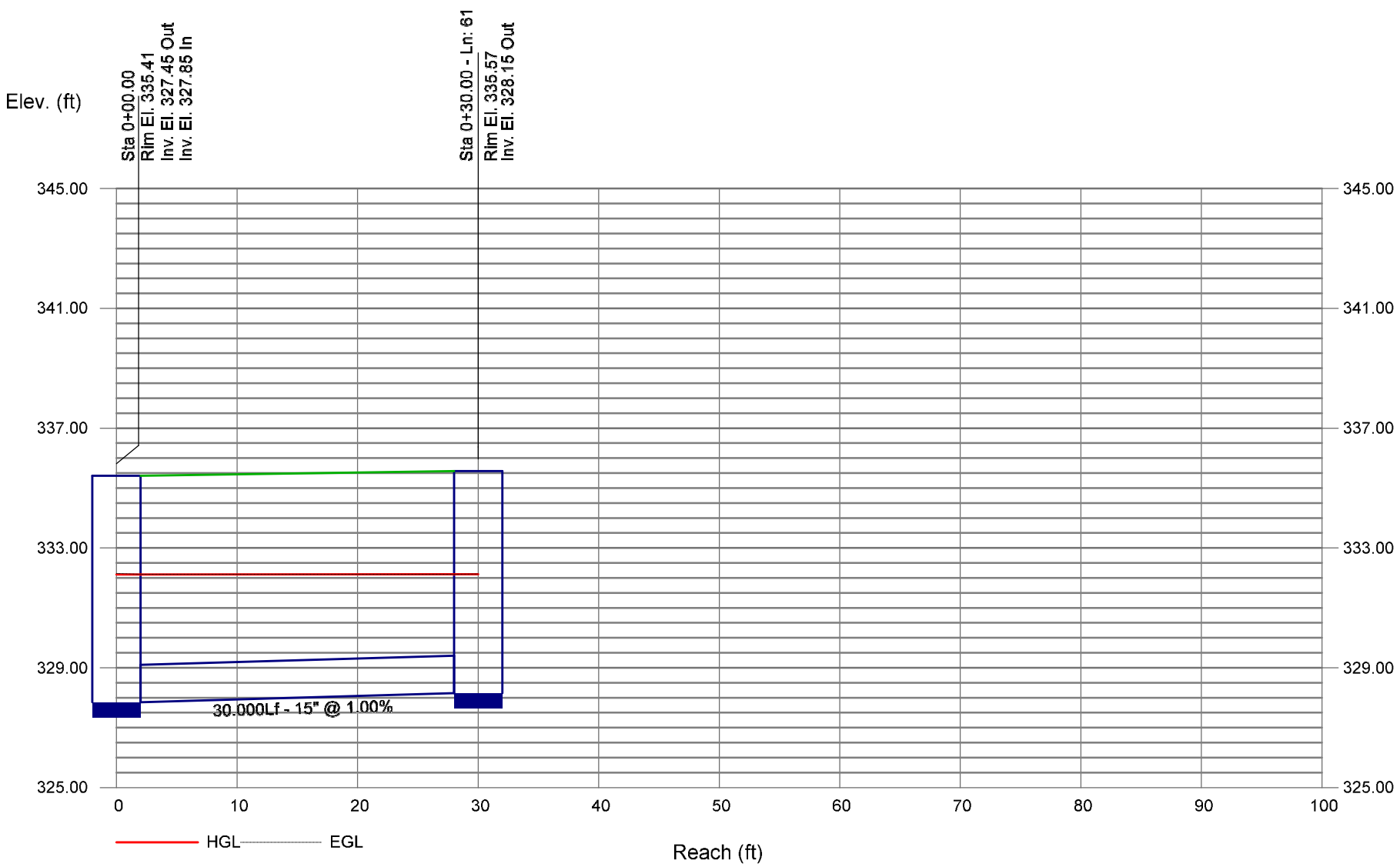
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 60-60 Proj. file: SCM 5A Storm Network.stm



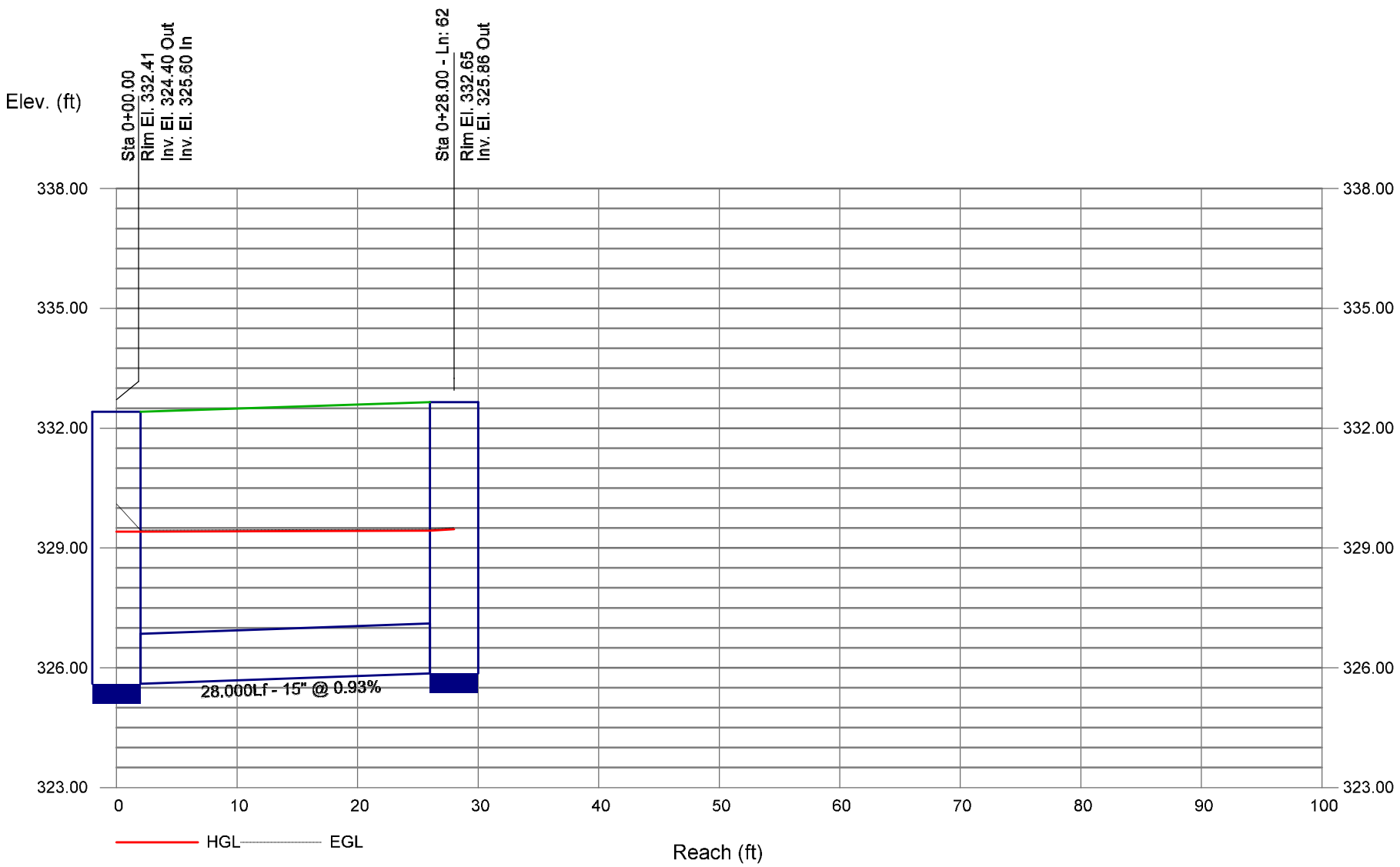
Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 61-61 Proj. file: SCM 5A Storm Network.stm

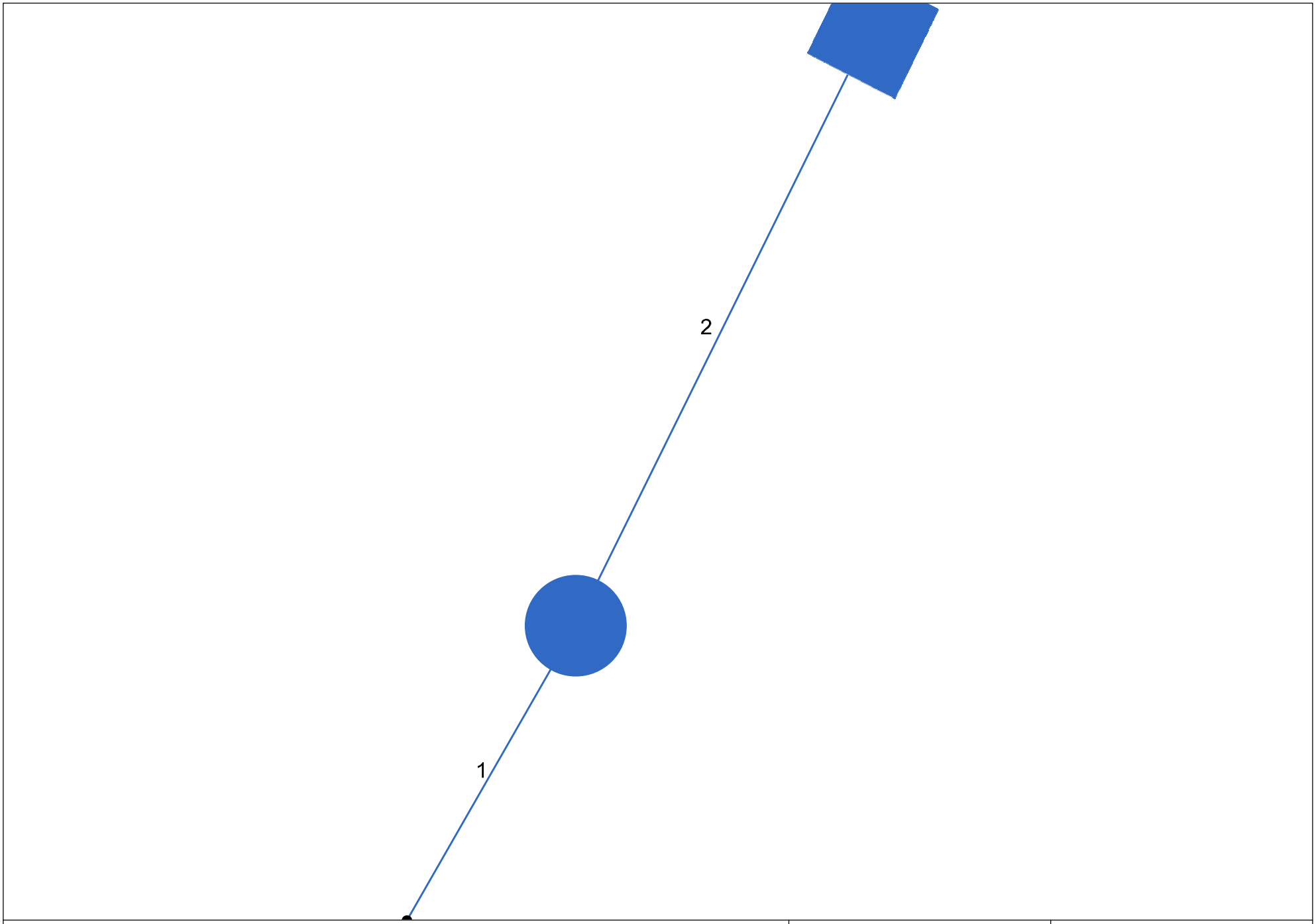


Storm Sewer Profile

SCM 5A 25-YEAR PROFILE 62-62 Proj. file: SCM 5A Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 5B 25-YEAR



Project File: SCM 5B Storm Network.stm	Number of lines: 2	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 5B 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	13.497	-60.670	MH	0.00	0.00	0.00	0.0	315.00	7.41	316.00	18	Cir	0.013	0.15	332.61	Pipe - (595)
2	1	26.561	-2.687	Comb	22.50	0.00	0.00	0.0	322.34	10.01	325.00	18	Cir	0.013	1.00	333.37	Pipe - (594)

Project File: SCM 5B Storm Network.stm

Number of lines: 2

Date: 4/11/2025

Structure Report

SCM 5B 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	JB 551	Manhole	332.61	Cir	4.00	4.00	18	Cir	316.00	18	Cir	322.34
2	CB 505	Combination	333.37	Rect	4.00	4.00	18	Cir	325.00			

Project File: SCM 5B Storm Network.stm | Number of Structures: 2 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 5B 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (595)	22.50	18	Cir	13.497	315.00	316.00	7.409	316.47	317.48	n/a	317.48	End	Manhole
2	Pipe - (594)	22.50	18	Cir	26.561	322.34	325.00	10.015	323.24	326.48	n/a	326.48	1	Combination

Project File: SCM 5B Storm Network.stm

Number of lines: 2

Run Date: 4/11/2025

NOTES: Return period = 25 Yrs.

Inlet Report

SCM 5B 25-YEAR

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	JB 551	0.00	0.00	0.00	0.00	MH	0.0	2.00	0.00	2.00	0.00	0.000	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.0	Off
2	CB 505	22.50*	0.00	7.34	15.16	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.50	21.12	0.44	18.11	0.0	Off

Project File: SCM 5B Storm Network.stm | Number of lines: 2 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

SCM 5B 25-YEAR

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	18	22.50	315.00	316.47	1.47	1.76	12.79	2.53	319.00	0.000	13.497	316.00	317.48	1.48**	1.76	12.77	2.53	320.01	0.000	0.000	n/a	0.15	n/a
2	18	22.50	322.34	323.24	0.90*	1.11	20.20	2.53	325.78	0.000	26.561	325.00	326.48	1.48**	1.76	12.77	2.53	329.01	0.000	0.000	n/a	1.00	n/a

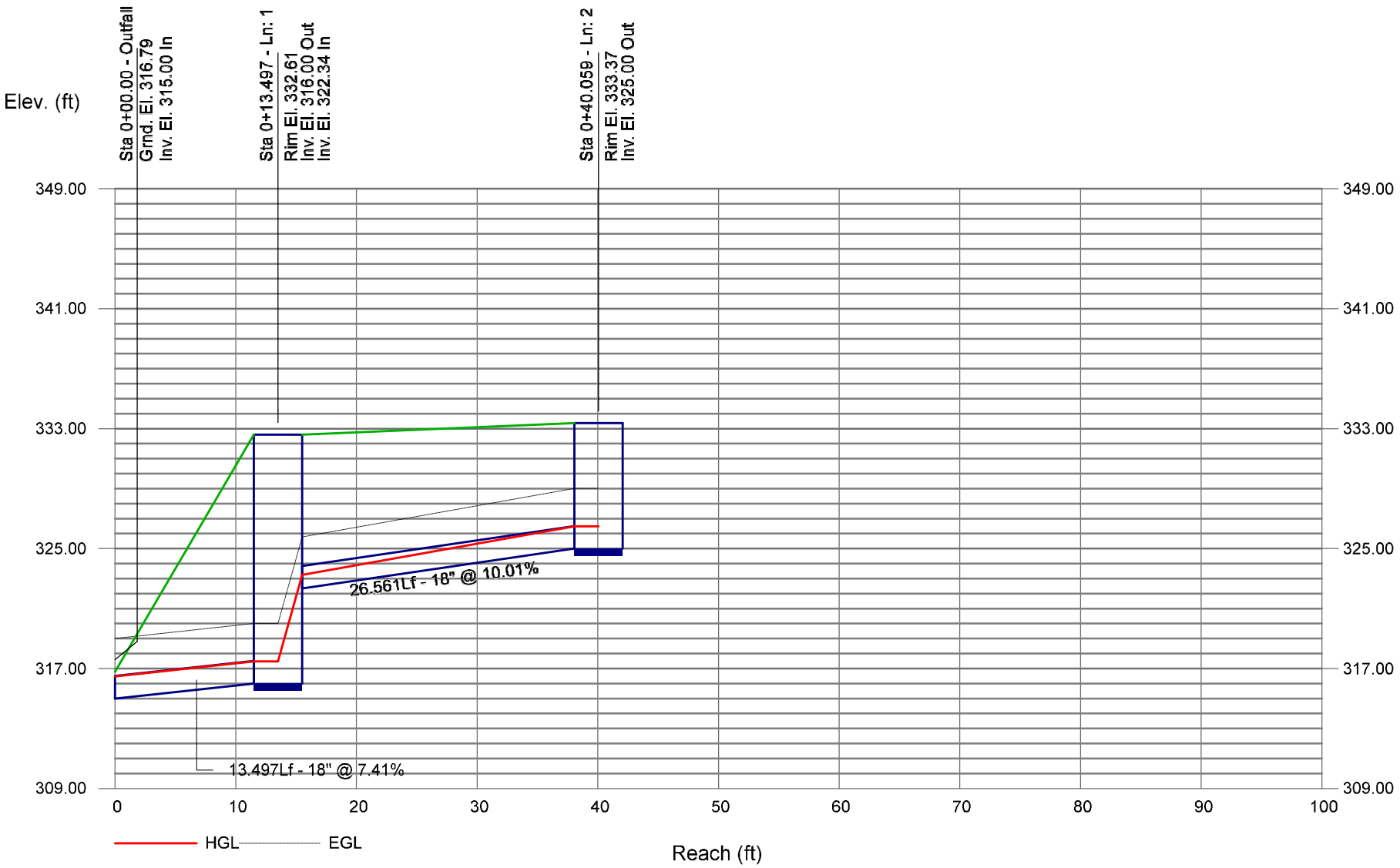
Project File: SCM 5B Storm Network.stm | Number of lines: 2 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth. ; c = cir e = ellip b = box

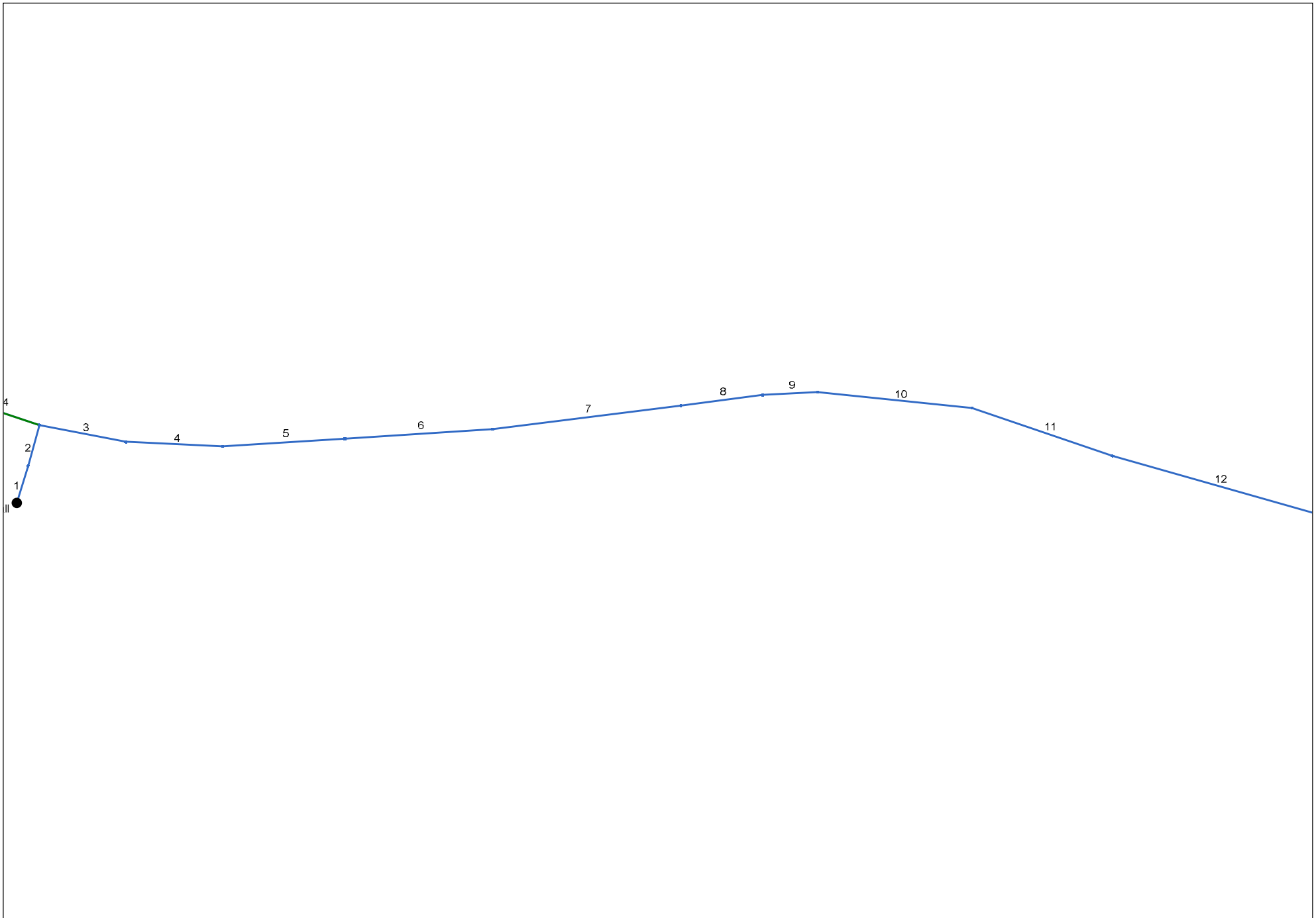
Storm Sewer Profile

SCM 5B 25-YEAR PROFILE 1-2

Proj. file: SCM 5B Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 5C 25-YEAR



Project File: SCM 5C Storm Network.stm	Number of lines: 14	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 5C 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	72.475	-73.012	MH	0.00	0.00	0.00	0.0	291.50	7.30	296.79	30	Cir	0.013	0.15	306.95	Pipe - (547)
2	1	79.000	-1.713	Comb	0.00	0.64	0.72	10.0	300.71	1.00	301.50	30	Cir	0.013	1.50	313.00	Pipe - (548)
3	2	163.563	85.653	Comb	0.00	0.68	0.72	10.0	301.80	4.65	309.40	24	Cir	0.013	0.50	317.91	Pipe - (550)
4	3	180.720	-8.188	Comb	0.00	1.04	0.72	10.0	309.62	4.75	318.20	24	Cir	0.013	0.50	326.00	Pipe - (551)
5	4	228.426	-6.317	Comb	0.00	1.16	0.72	10.0	318.44	5.50	331.00	24	Cir	0.013	0.50	340.00	Pipe - (552)
6	5	275.660	-0.168	Comb	0.00	1.34	0.72	10.0	332.20	5.30	346.80	24	Cir	0.013	0.50	355.00	Pipe - (553)
7	6	353.411	-3.412	Comb	0.00	0.80	0.72	10.0	347.05	2.25	355.00	18	Cir	0.013	0.50	363.95	Pipe - (554)
8	7	153.914	-0.315	Comb	0.00	0.27	0.72	10.0	355.22	2.00	358.30	15	Cir	0.013	0.50	366.74	Pipe - (562)
9	8	101.668	4.365	Comb	0.00	0.62	0.72	10.0	358.57	2.00	360.60	15	Cir	0.013	0.50	369.33	Pipe - (561)
10	9	289.580	9.059	Comb	0.00	0.70	0.72	10.0	360.86	3.50	371.00	15	Cir	0.013	0.50	379.86	Pipe - (560)
11	10	276.541	12.894	Comb	0.00	0.24	0.72	10.0	371.25	1.50	375.40	15	Cir	0.013	0.50	386.85	Pipe - (559)
12	11	389.260	-2.936	Comb	0.00	0.27	0.72	10.0	375.65	0.50	377.60	15	Cir	0.013	1.29	386.53	Pipe - (558)
13	12	86.959	56.108	Comb	0.00	0.16	0.72	10.0	377.80	2.99	380.40	15	Cir	0.013	1.00	385.00	Pipe - (557)
14	2	176.320	-86.677	Comb	0.00	0.24	0.72	10.0	301.80	1.03	303.62	18	Cir	0.013	1.00	311.00	Pipe - (549)

Project File: SCM 5C Storm Network.stm

Number of lines: 14

Date: 4/11/2025

Structure Report

SCM 5C 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	JB 561	Manhole	306.95	Rect	4.00	4.00	30	Cir	296.79	30	Cir	300.71
2	CB 562	Combination	313.00	Rect	4.00	4.00	30	Cir	301.50	24 18	Cir Cir	301.80 301.80
3	CB 563	Combination	317.91	Rect	4.00	4.00	24	Cir	309.40	24	Cir	309.62
4	CB 564	Combination	326.00	Rect	4.00	4.00	24	Cir	318.20	24	Cir	318.44
5	CB 565	Combination	340.00	Rect	4.00	4.00	24	Cir	331.00	24	Cir	332.20
6	CB 566	Combination	355.00	Rect	4.00	4.00	24	Cir	346.80	18	Cir	347.05
7	CB 567	Combination	363.95	Rect	4.00	4.00	18	Cir	355.00	15	Cir	355.22
8	CB 568	Combination	366.74	Rect	4.00	4.00	15	Cir	358.30	15	Cir	358.57
9	CB 569	Combination	369.33	Rect	4.00	4.00	15	Cir	360.60	15	Cir	360.86
10	CB 570	Combination	379.86	Rect	4.00	4.00	15	Cir	371.00	15	Cir	371.25
11	CB 571	Combination	386.85	Rect	4.00	4.00	15	Cir	375.40	15	Cir	375.65
12	CB 572	Combination	386.53	Rect	4.00	4.00	15	Cir	377.60	15	Cir	377.80
13	CB 572A	Combination	385.00	Rect	4.00	4.00	15	Cir	380.40			
14	CB 562A	Combination	311.00	Rect	4.00	4.00	18	Cir	303.62			

Project File: SCM 5C Storm Network.stm | Number of Structures: 14 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 5C 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (547)	30.50	30	Cir	72.475	291.50	296.79	7.299	294.00	298.67	n/a	298.67 j	End	Manhole
2	Pipe - (548)	30.62	30	Cir	79.000	300.71	301.50	1.000	302.32	303.38	n/a	303.38	1	Combination
3	Pipe - (550)	27.51	24	Cir	163.563	301.80	309.40	4.647	303.38	311.22	n/a	311.22	2	Combination
4	Pipe - (551)	25.16	24	Cir	180.720	309.62	318.20	4.748	311.22	319.96	0.57	319.96	3	Combination
5	Pipe - (552)	21.46	24	Cir	228.426	318.44	331.00	5.498	319.96	332.66	0.46	332.66	4	Combination
6	Pipe - (553)	17.17	24	Cir	275.660	332.20	346.80	5.296	332.99	348.29	n/a	348.29	5	Combination
7	Pipe - (554)	12.20	18	Cir	353.411	347.05	355.00	2.250	348.29	356.32	0.43	356.32	6	Combination
8	Pipe - (562)	9.09	15	Cir	153.914	355.22	358.30	2.001	356.32	359.46	0.46	359.46	7	Combination
9	Pipe - (561)	8.05	15	Cir	101.668	358.57	360.60	1.997	359.48	361.72	n/a	361.72	8	Combination
10	Pipe - (560)	5.67	15	Cir	289.580	360.86	371.00	3.502	361.72	371.96	0.24	371.96	9	Combination
11	Pipe - (559)	2.86	15	Cir	276.541	371.25	375.40	1.501	371.96	376.08	n/a	376.08 j	10	Combination
12	Pipe - (558)	1.94	15	Cir	389.260	375.65	377.60	0.500	376.22	378.17	0.25	378.42	11	Combination
13	Pipe - (557)	0.74	15	Cir	86.959	377.80	380.40	2.995	378.42	380.74	n/a	380.74 j	12	Combination
14	Pipe - (549)	1.12	18	Cir	176.320	301.80	303.62	1.032	303.38	304.01	n/a	304.01 j	2	Combination

Project File: SCM 5C Storm Network.stm | Number of lines: 14 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; j - Line contains hyd. jump.

Inlet Report

SCM 5C 25-YEAR

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	JB 561	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
2	CB 562	2.98	3.55	3.45	3.08	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.30	11.25	0.24	8.14	0.0	14
3	CB 563	3.17	4.34	3.95	3.55	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.30	10.95	0.24	7.92	0.0	2
4	CB 564	4.84	4.09	4.59	4.34	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.30	11.09	0.24	8.12	0.0	3
5	CB 565	5.40	3.57	4.88	4.09	Comb	6.0	1.50	0.00	3.00	2.50	0.060	2.00	0.060	0.020	0.013	0.28	10.20	0.22	7.20	0.0	4
6	CB 566	6.24	1.52	4.19	3.57	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.29	10.46	0.23	7.42	0.0	5
7	CB 567	3.72	0.68	2.88	1.52	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.24	8.18	0.18	4.79	0.0	6
8	CB 568	1.26	1.37	1.95	0.68	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.22	6.88	0.14	3.06	0.0	7
9	CB 569	2.89	1.06	2.58	1.37	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.25	8.31	0.18	4.90	0.0	8
10	CB 570	3.26	0.13	2.32	1.06	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.23	7.75	0.16	4.21	0.0	9
11	CB 571	1.12	0.00	0.99	0.13	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.18	4.90	0.08	1.37	0.0	10
12	CB 572	1.25	0.00	1.08	0.17	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.18	5.21	0.09	1.52	0.0	Off
13	CB 572A	0.74	0.00	0.70	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	3.78	0.05	0.84	0.0	Off
14	CB 562A	1.12	3.08	4.20	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.37	14.63	0.37	14.63	0.0	Off

Project File: SCM 5C Storm Network.stm

Number of lines: 14

Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 5C 25-YEAR

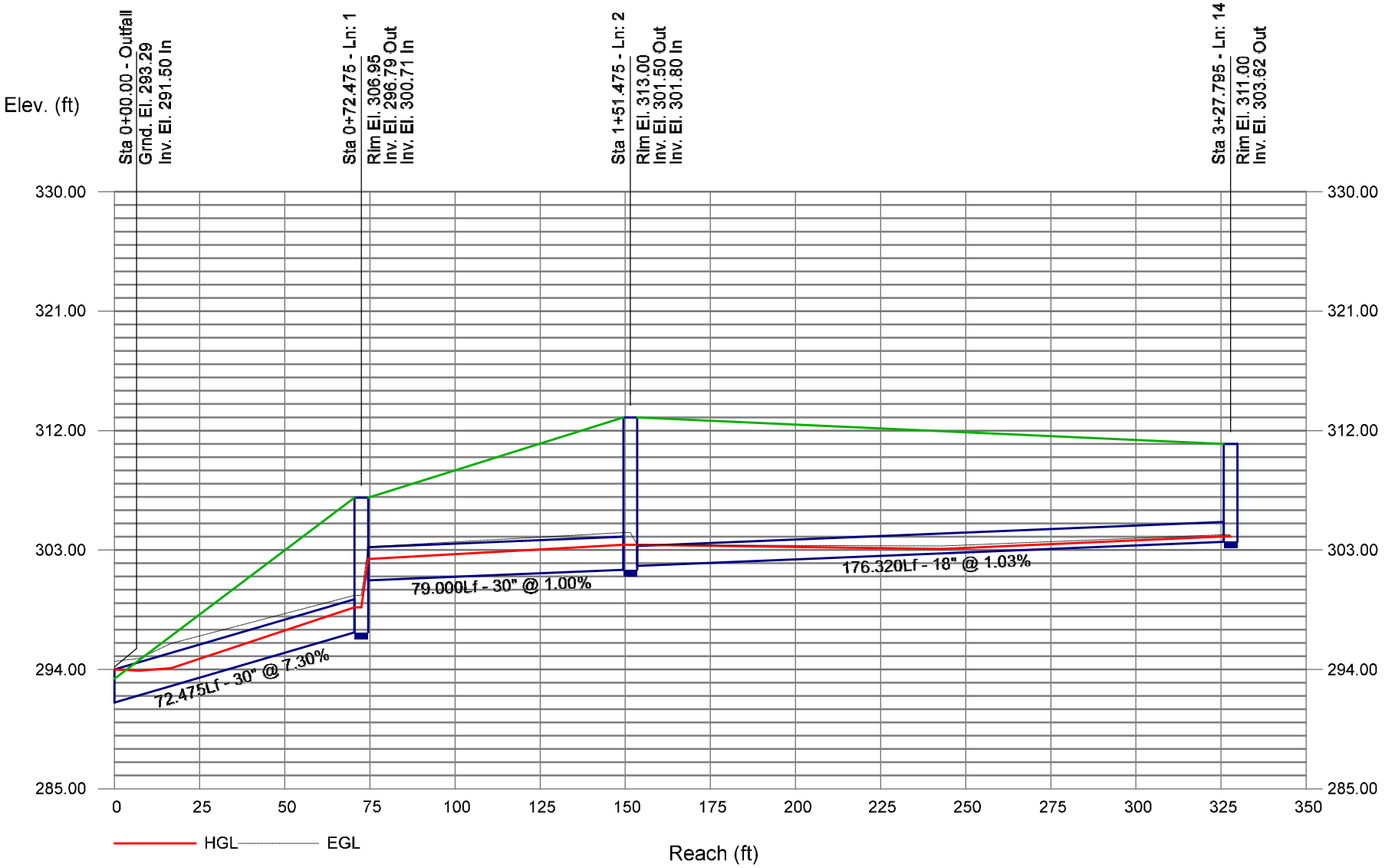
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
	(in)	(cfs)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	(ft)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Ave Sf (%)	Enrgy loss (ft)	(K)	(ft)
1	30	30.50	291.50	294.00	2.50	3.96	6.21	0.60	294.60	0.553	72.475	296.79	298.67 j	1.88**	3.96	7.70	0.92	299.59	0.660	0.607	n/a	0.15	0.14
2	30	30.62	300.71	302.32	1.61*	3.34	9.16	0.93	303.25	0.000	79.000	301.50	303.38	1.88**	3.97	7.71	0.93	304.31	0.000	0.000	n/a	1.50	n/a
3	24	27.51	301.80	303.38	1.58	2.67	10.31	1.31	304.69	0.000	163.563	309.40	311.22	1.82**	3.00	9.17	1.31	312.53	0.000	0.000	n/a	0.50	n/a
4	24	25.16	309.62	311.22	1.60	2.69	9.35	1.14	312.36	0.000	180.720	318.20	319.96	1.76**	2.93	8.57	1.14	321.11	0.000	0.000	n/a	0.50	0.57
5	24	21.46	318.44	319.96	1.52	2.57	8.35	0.93	320.89	0.000	228.426	331.00	332.66	1.66**	2.78	7.71	0.93	333.58	0.000	0.000	n/a	0.50	0.46
6	24	17.17	332.20	332.99	0.79*	1.16	14.85	0.73	333.72	0.000	275.660	346.80	348.29	1.49**	2.51	6.83	0.73	349.02	0.000	0.000	n/a	0.50	n/a
7	18	12.20	347.05	348.29	1.24	1.56	7.79	0.85	349.14	0.000	353.411	355.00	356.32	1.32**	1.65	7.40	0.85	357.17	0.000	0.000	n/a	0.50	0.43
8	15	9.09	355.22	356.32	1.10	1.14	7.94	0.91	357.23	0.000	153.914	358.30	359.46	1.16**	1.19	7.66	0.91	360.37	0.000	0.000	n/a	0.50	0.46
9	15	8.05	358.57	359.48	0.91*	0.96	8.39	0.75	360.23	0.000	101.668	360.60	361.72	1.12**	1.16	6.96	0.75	362.47	0.000	0.000	n/a	0.50	n/a
10	15	5.67	360.86	361.72	0.86	0.90	6.32	0.48	362.20	0.000	289.580	371.00	371.96	0.96**	1.01	5.58	0.48	372.45	0.000	0.000	n/a	0.50	0.24
11	15	2.86	371.25	371.96	0.71	0.68	3.95	0.27	372.24	0.000	276.541	375.40	376.08 j	0.68**	0.68	4.20	0.27	376.35	0.000	0.000	n/a	0.50	0.14
12	15	1.94	375.65	376.22	0.57*	0.54	3.57	0.20	376.42	0.499	389.260	377.60	378.17	0.57	0.54	3.56	0.20	378.37	0.498	0.499	1.941	1.29	0.25
13	15	0.74	377.80	378.42	0.62	0.27	1.21	0.12	378.54	0.000	86.959	380.40	380.74 j	0.34**	0.27	2.78	0.12	380.86	0.000	0.000	n/a	1.00	0.12
14	18	1.12	301.80	303.38	1.50	0.37	0.63	0.01	303.39	0.011	176.320	303.62	304.01 j	0.39**	0.37	3.01	0.14	304.16	0.494	0.252	n/a	1.00	0.14

Project File: SCM 5C Storm Network.stm | Number of lines: 14 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

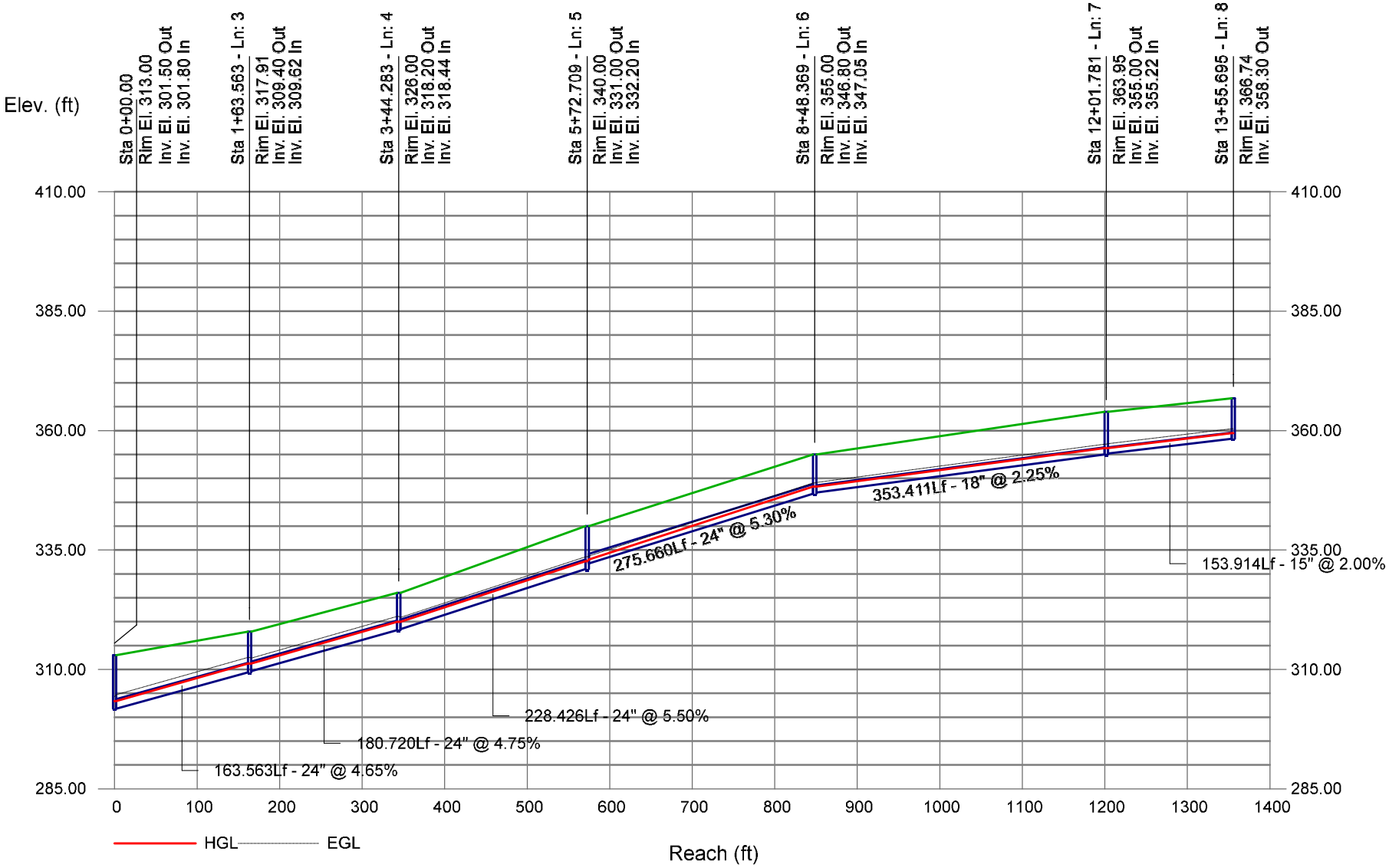
Storm Sewer Profile

SCM 5C 25-YEAR PROFILE 1-14 Proj. file: SCM 5C Storm Network.stm



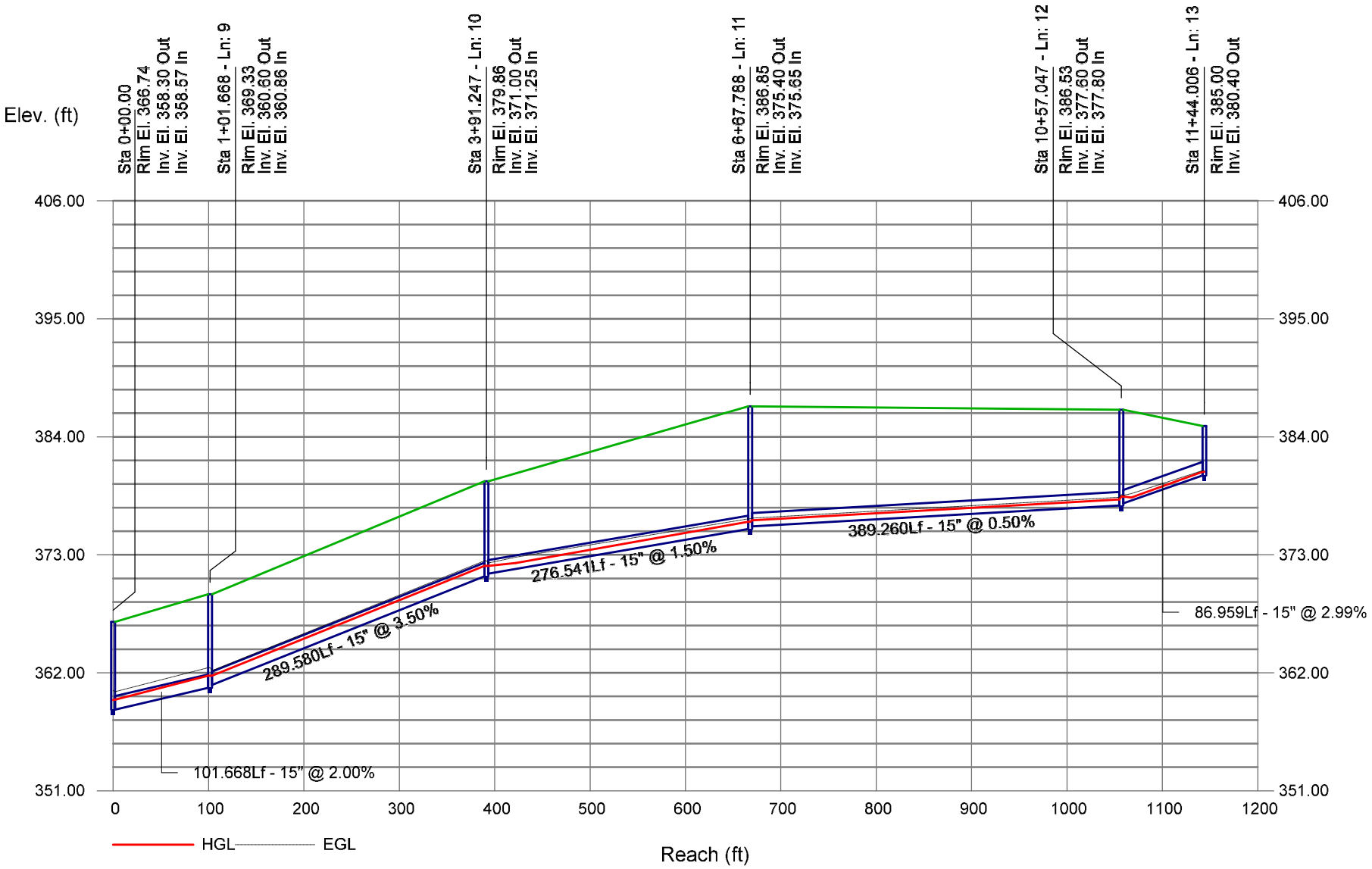
Storm Sewer Profile

SCM 5C 25-YEAR PROFILE 3-8 Proj. file: SCM 5C Storm Network.stm

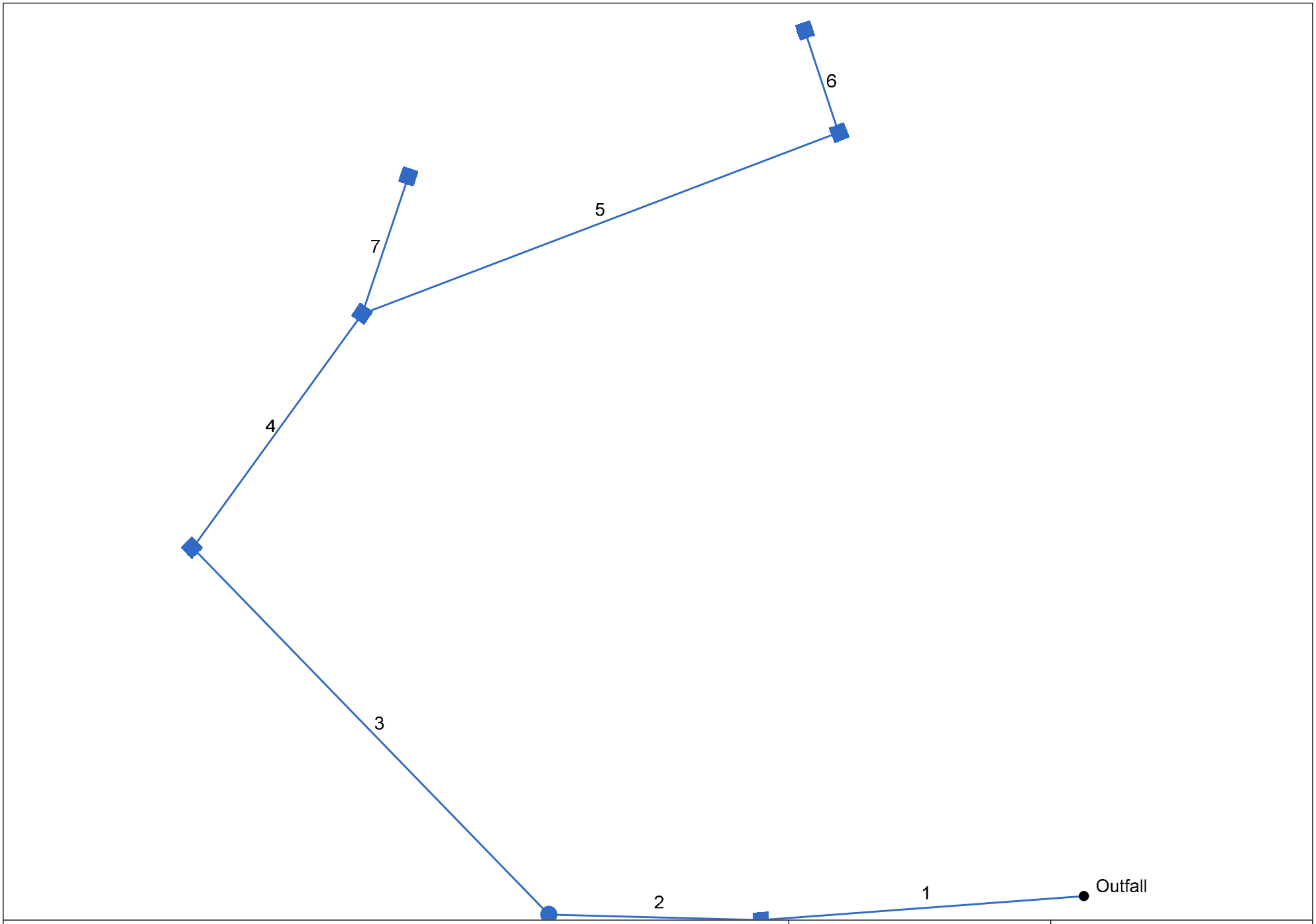


Storm Sewer Profile

SCM 5C 25-YEAR PROFILE 9-13 Proj. file: SCM 5C Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 6A 25-YEAR



Project File: SCM 6A Storm Network.stm	Number of lines: 7	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 6A 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	84.216	175.714	DrGrt	0.00	0.44	0.60	10.0	296.61	2.84	299.00	15	Cir	0.013	0.50	303.92	Pipe - (495)
2	1	55.122	5.798	MH	0.00	0.00	0.00	0.0	299.20	3.81	301.30	15	Cir	0.013	0.74	306.41	Pipe - (494)
3	2	133.087	44.423	Comb	0.00	0.91	0.60	10.0	301.50	1.20	303.10	15	Cir	0.013	1.48	310.62	Pipe - (493)
4	3	75.218	79.870	Comb	0.00	0.10	0.60	10.0	303.30	6.91	308.50	15	Cir	0.013	0.91	316.23	Pipe - (492)
5	4	132.556	33.318	Comb	0.00	0.09	0.60	10.0	308.70	7.17	318.20	15	Cir	0.013	1.50	326.22	Pipe - (491)
6	5	28.021	-87.190	Comb	0.00	0.51	0.60	10.0	318.40	1.00	318.68	15	Cir	0.013	1.00	326.30	Pipe - (496)
7	4	37.852	-17.053	Comb	0.00	0.35	0.60	10.0	308.70	2.08	309.49	18	Cir	0.013	1.00	318.16	Pipe - (512)

Project File: SCM 6A Storm Network.stm

Number of lines: 7

Date: 4/11/2025

Structure Report

SCM 6A 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 601	DropGrate	303.92	Rect	4.00	4.00	15	Cir	299.00	15	Cir	299.20
2	JB 602	Manhole	306.41	Cir	4.00	4.00	15	Cir	301.30	15	Cir	301.50
3	CB 603	Combination	310.62	Rect	4.00	4.00	15	Cir	303.10	15	Cir	303.30
4	CB 604	Combination	316.23	Rect	4.00	4.00	15	Cir	308.50	15 18	Cir Cir	308.70 308.70
5	CB 605	Combination	326.22	Rect	4.00	4.00	15	Cir	318.20	15	Cir	318.40
6	CB 605A	Combination	326.30	Rect	4.00	4.00	15	Cir	318.68			
7	CB 604A	Combination	318.16	Rect	4.00	4.00	18	Cir	309.49			

Project File: SCM 6A Storm Network.stm | Number of Structures: 7 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 6A 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (495)	9.56	15	Cir	84.216	296.61	299.00	2.838	297.86	300.17	n/a	300.17 j	End	DropGrate
2	Pipe - (494)	7.83	15	Cir	55.122	299.20	301.30	3.810	300.17	302.41	0.53	302.41	1	Manhole
3	Pipe - (493)	7.91	15	Cir	133.087	301.50	303.10	1.202	302.75*	304.75*	0.96	305.70	2	Combination
4	Pipe - (492)	4.25	15	Cir	75.218	303.30	308.50	6.913	305.70	309.33	n/a	309.33 j	3	Combination
5	Pipe - (491)	2.48	15	Cir	132.556	308.70	318.20	7.167	309.33	318.83	n/a	318.83 j	4	Combination
6	Pipe - (496)	2.13	15	Cir	28.021	318.40	318.68	0.999	318.89	319.26	n/a	319.26	5	Combination
7	Pipe - (512)	1.45	18	Cir	37.852	308.70	309.49	2.084	309.33	309.94	n/a	309.94 j	4	Combination

Project File: SCM 6A Storm Network.stm | Number of lines: 7 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

SCM 6A 25-YEAR

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	YI 601	1.84	0.00	1.38	0.46	DrGrt	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.14	16.10	0.14	16.10	0.0	Off
2	JB 602	0.00	0.00	0.00	0.00	MH	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
3	CB 603	3.81	0.00	2.40	1.40	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.26	8.94	0.19	5.55	0.0	Off
4	CB 604	0.40	0.00	0.40	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.13	2.26	0.00	0.00	0.0	Off
5	CB 605	0.37	0.00	0.37	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.12	2.06	0.00	0.00	0.0	Off
6	CB 605A	2.13	0.00	1.60	0.53	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.22	6.85	0.14	2.93	0.0	Off
7	CB 604A	1.45	0.00	1.21	0.24	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.19	5.65	0.10	1.73	0.0	Off

Project File: SCM 6A Storm Network.stm | Number of lines: 7 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 102.61 / (Inlet time + 16.50) ^ 0.82; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 6A 25-YEAR

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	15	9.56	296.61	297.86	1.25	1.20	7.79	0.94	298.80	2.194	84.216	299.00	300.17 j	1.17**	1.20	8.00	0.99	301.17	1.895	2.045	n/a	0.50	0.50
2	15	7.83	299.20	300.17	0.97	1.02	7.64	0.72	300.89	0.000	55.122	301.30	302.41	1.11**	1.15	6.81	0.72	303.13	0.000	0.000	n/a	0.74	0.53
3	15	7.91	301.50	302.75	1.25*	1.23	6.44	0.65	303.40	1.500	133.087	303.10	304.75	1.25	1.23	6.44	0.65	305.39	1.499	1.500	1.996	1.48	0.96
4	15	4.25	303.30	305.70	1.25	0.87	3.46	0.19	305.89	0.433	75.218	308.50	309.33 j	0.83**	0.87	4.88	0.37	309.71	0.703	0.568	n/a	0.91	n/a
5	15	2.48	308.70	309.33	0.63	0.62	3.97	0.25	309.58	0.000	132.556	318.20	318.83 j	0.63**	0.62	4.00	0.25	319.08	0.000	0.000	n/a	1.50	0.37
6	15	2.13	318.40	318.89	0.49*	0.45	4.71	0.22	319.12	0.000	28.021	318.68	319.26	0.58**	0.56	3.80	0.22	319.49	0.000	0.000	n/a	1.00	n/a
7	18	1.45	308.70	309.33	0.63	0.45	2.04	0.16	309.50	0.000	37.852	309.49	309.94 j	0.45**	0.45	3.24	0.16	310.10	0.000	0.000	n/a	1.00	0.16

Project File: SCM 6A Storm Network.stm

Number of lines: 7

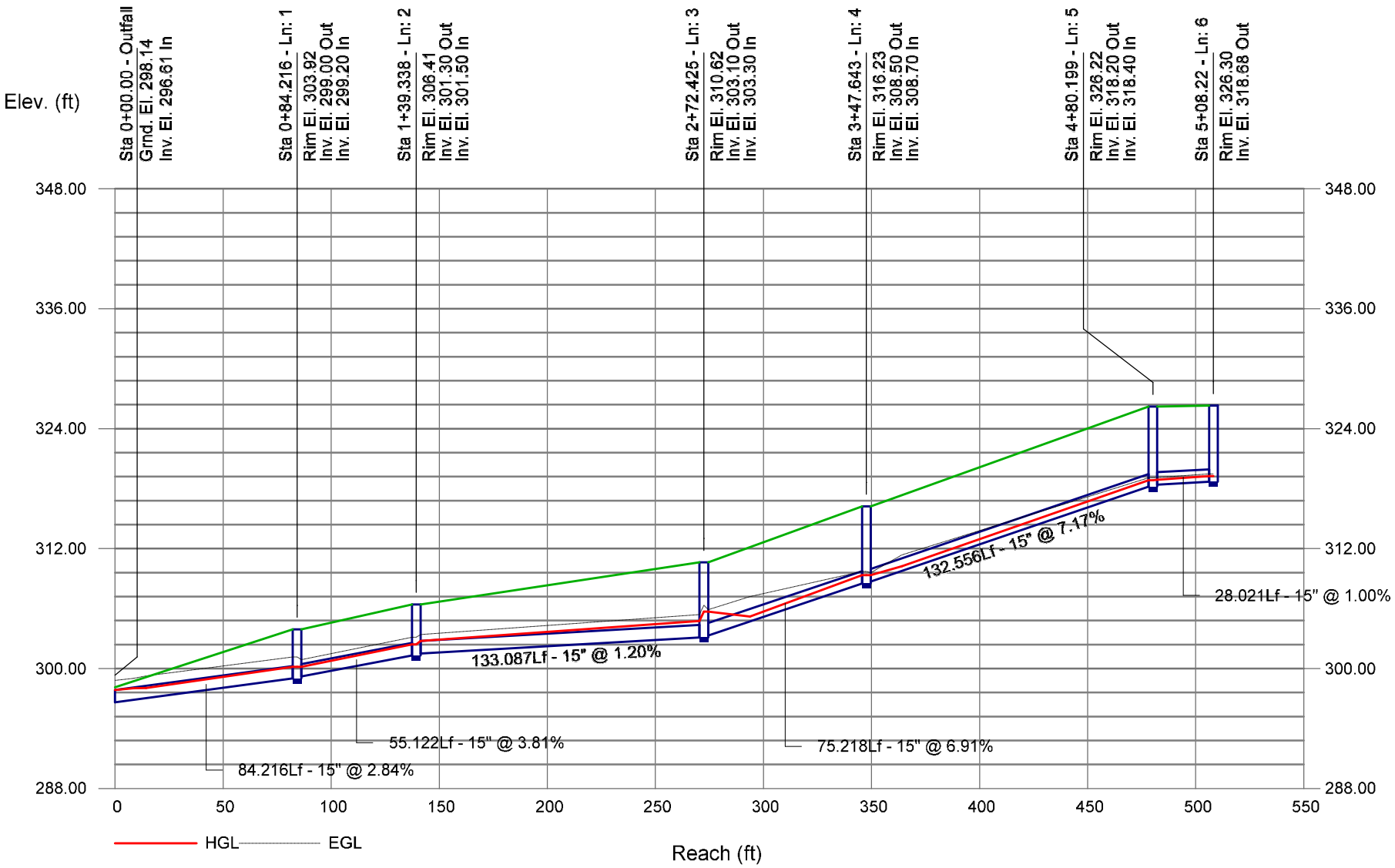
Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Storm Sewer Profile

SCM 6A 25-YEAR PROFILE 1-6

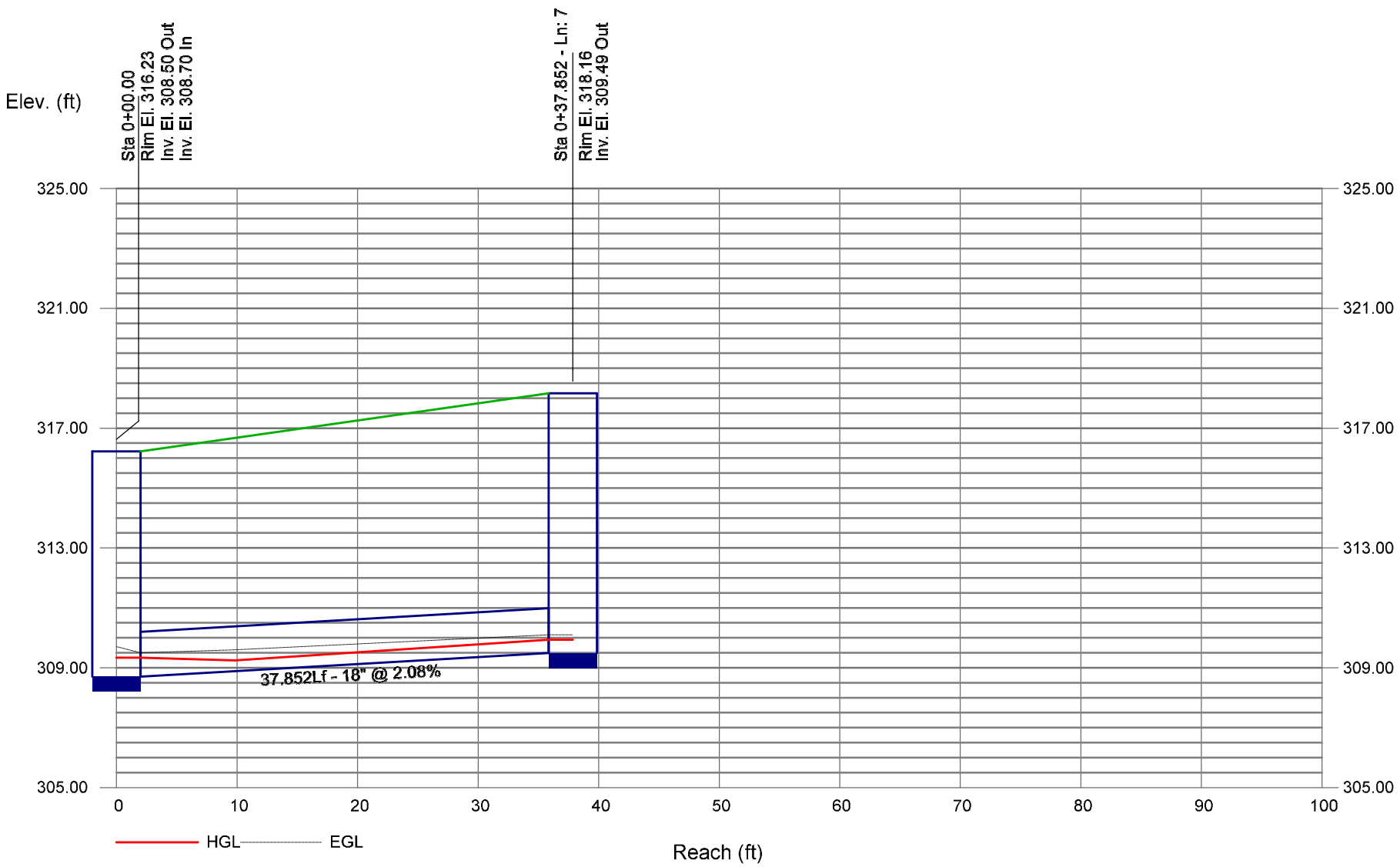
Proj. file: SCM 6A Storm Network.stm



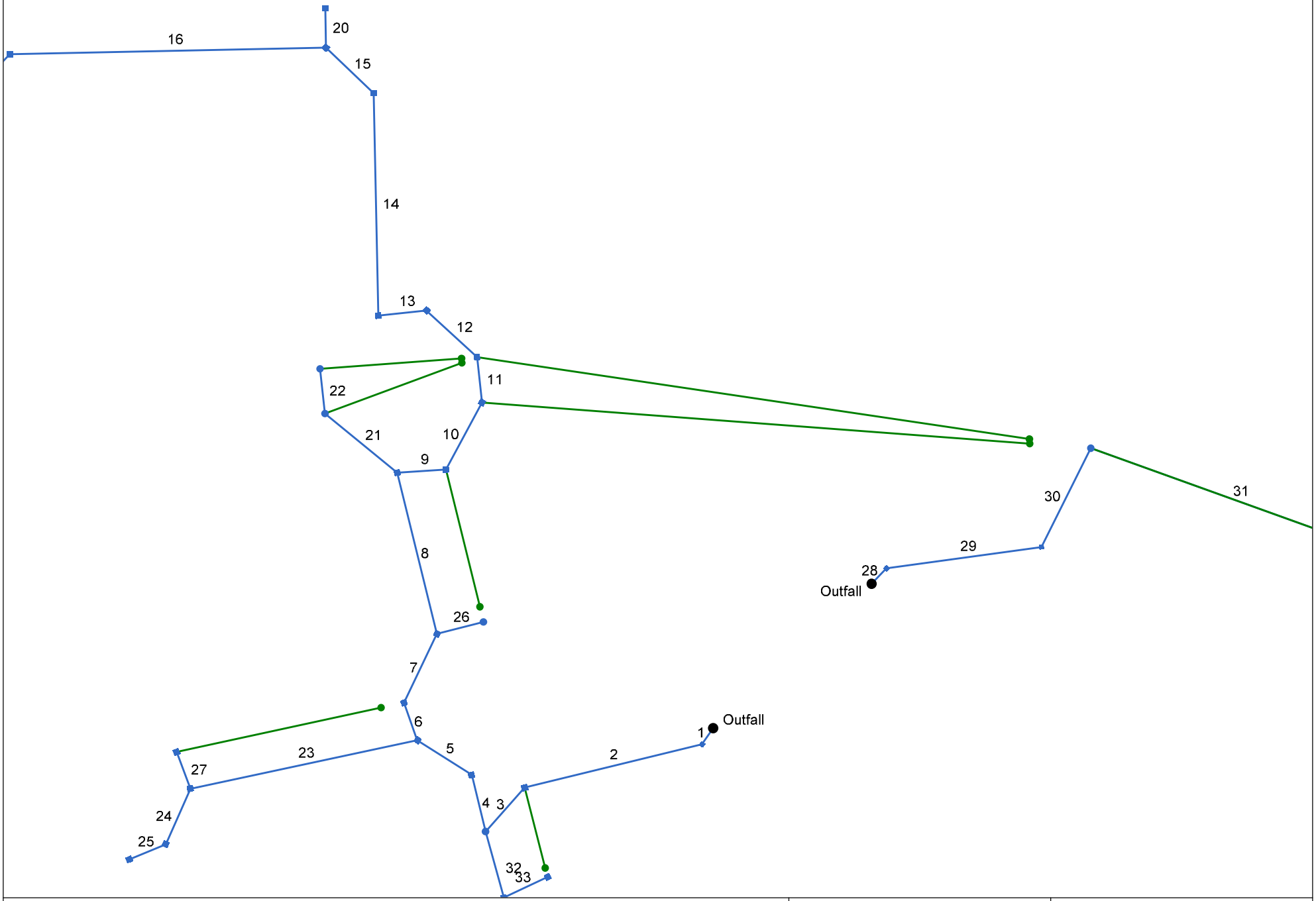
Storm Sewer Profile

SCM 6A 25-YEAR PROFILE 7-7

Proj. file: SCM 6A Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 6B 25-YEAR



Project File: SCM 6B Storm Network.stm	Number of lines: 33	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 6B 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	14.076	124.693	DrGrt	0.00	0.73	0.60	10.0	297.31	4.90	298.00	24	Cir	0.013	1.07	312.44	Pipe - (466)
2	1	129.199	41.569	Comb	0.00	0.08	0.60	10.0	298.20	2.17	301.00	24	Cir	0.013	0.93	318.02	Pipe - (465)
3	2	41.927	-34.580	Comb	0.00	0.26	0.60	10.0	301.28	1.00	301.70	24	Cir	0.013	1.95	315.00	Pipe - (546)
4	3	41.516	124.607	Comb	0.00	0.14	0.60	10.0	301.90	10.00	306.05	24	Cir	0.013	1.10	319.55	Pipe - (514)
5	4	45.778	-43.754	Comb	0.00	0.12	0.60	10.0	306.25	9.94	310.80	24	Cir	0.013	1.12	324.12	Pipe - (460)
6	5	28.278	38.229	Comb	0.00	0.54	0.60	10.0	311.00	9.90	313.80	24	Cir	0.013	1.12	324.70	Pipe - (321)
7	6	54.257	44.766	Comb	0.00	0.53	0.60	10.0	314.00	9.95	319.40	24	Cir	0.013	1.21	331.00	Pipe - (459)
8	7	118.068	-39.263	Comb	0.00	0.03	0.60	10.0	319.60	6.27	327.00	24	Cir	0.013	2.20	336.57	Pipe - (513)
9	8	34.519	99.944	Comb	0.00	0.01	0.60	10.0	327.20	0.61	327.41	18	Cir	0.013	1.31	337.18	Pipe - (463)
10	9	54.019	-58.028	Comb	0.00	0.03	0.60	10.0	327.60	0.74	328.00	18	Cir	0.013	0.92	334.59	Pipe - (310)
11	10	32.394	-34.234	Comb	0.00	0.19	0.60	10.0	328.20	0.62	328.40	18	Cir	0.013	1.06	333.35	Pipe - (309)
12	11	49.141	-41.395	Comb	0.00	0.19	0.60	10.0	328.60	1.02	329.10	18	Cir	0.013	1.18	337.00	Pipe - (308)
13	12	34.087	-48.578	Comb	0.00	0.95	0.60	10.0	329.30	0.88	329.60	18	Cir	0.013	1.50	337.00	Pipe - (307)
14	13	158.245	94.812	Comb	0.00	0.15	0.60	10.0	329.80	3.73	335.70	15	Cir	0.013	1.12	344.52	Pipe - (301)
15	14	46.667	-44.997	Comb	0.00	0.25	0.60	10.0	335.90	4.50	338.00	15	Cir	0.013	1.69	345.87	Pipe - (300)
16	15	224.015	-44.997	Comb	0.00	0.04	0.60	10.0	338.20	2.72	344.30	15	Cir	0.013	1.13	352.48	Pipe - (486)
17	16	43.823	-45.023	Comb	0.00	0.07	0.60	10.0	344.50	0.91	344.90	15	Cir	0.013	1.12	352.51	Pipe - (485)
18	17	92.623	-44.977	Comb	0.00	0.12	0.60	10.0	345.10	1.25	346.26	15	Cir	0.013	1.50	354.03	Pipe - (502)
19	18	28.029	87.415	Comb	0.00	0.07	0.60	10.0	346.50	0.61	346.67	15	Cir	0.013	1.00	354.08	Pipe - (503)
20	15	27.999	44.982	Comb	0.00	0.35	0.60	10.0	338.20	1.00	338.48	15	Cir	0.013	1.00	345.85	Pipe - (305)
21	8	66.408	-37.002	Comb	0.00	0.05	0.60	10.0	327.20	6.63	331.60	15	Cir	0.013	1.12	340.36	Pipe - (537)
22	21	32.002	44.457	Comb	0.00	0.51	0.60	10.0	331.80	0.59	331.99	15	Cir	0.013	1.00	340.43	Pipe - (538)
23	5	164.315	-44.670	Comb	0.00	0.23	0.60	10.0	311.00	4.75	318.80	18	Cir	0.013	1.49	326.34	Pipe - (315)

Project File: SCM 6B Storm Network.stm

Number of lines: 33

Date: 4/11/2025

Storm Sewer Inventory Report

SCM 6B 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	43.094	-54.143	Comb	0.00	0.31	0.60	10.0	319.00	1.39	319.60	15	Cir	0.013	1.10	327.22	Pipe - (499)
25	24	28.022	43.733	Comb	0.00	0.32	0.60	10.0	319.80	0.61	319.97	15	Cir	0.013	1.00	327.23	Pipe - (498)
26	7	33.996	50.101	Comb	0.00	0.08	0.60	10.0	319.60	10.00	323.00	15	Cir	0.013	1.00	331.00	Pipe - (545)
27	23	28.000	81.868	Comb	0.00	0.70	0.60	10.0	319.00	1.00	319.28	15	Cir	0.013	1.00	326.31	Pipe - (320)
28	End	15.198	-46.442	DrGrt	0.00	1.01	0.60	10.0	293.69	2.04	294.00	18	Cir	0.013	1.01	309.92	Pipe - (539)
29	28	110.638	38.584	DrGrt	0.00	0.11	0.60	10.0	294.20	6.87	301.80	15	Cir	0.013	1.28	315.26	Pipe - (540)
30	29	78.569	-55.641	Comb	0.00	0.49	0.60	10.0	302.00	0.89	302.70	15	Cir	0.013	1.49	313.86	Pipe - (541)
31	30	208.966	83.346	Comb	0.00	0.29	0.60	10.0	302.90	1.00	305.00	15	Cir	0.013	1.00	311.00	Pipe - (542)
32	3	48.735	-57.114	Comb	0.00	0.20	0.60	10.0	301.91	0.60	302.20	18	Cir	0.013	1.50	310.31	Pipe - (462)
33	32	34.300	-99.882	Comb	0.00	0.12	0.60	10.0	302.40	0.70	302.64	15	Cir	0.013	1.00	310.04	Pipe - (464)

Project File: SCM 6B Storm Network.stm

Number of lines: 33

Date: 4/11/2025

Structure Report

SCM 6B 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	CB 611	DropGrate	312.44	Rect	3.00	3.00	24	Cir	298.00	24	Cir	298.20
2	CB 612	Combination	318.02	Rect	4.00	4.00	24	Cir	301.00	24	Cir	301.28
3	CB 613	Combination	315.00	Cir	4.00	4.00	24	Cir	301.70	24 18	Cir Cir	301.90 301.91
4	CB 614	Combination	319.55	Rect	4.00	4.00	24	Cir	306.05	24	Cir	306.25
5	CB 615	Combination	324.12	Rect	4.00	4.00	24	Cir	310.80	24 18	Cir Cir	311.00 311.00
6	CB 616	Combination	324.70	Rect	4.00	4.00	24	Cir	313.80	24	Cir	314.00
7	CB 617	Combination	331.00	Rect	4.00	4.00	24	Cir	319.40	24 15	Cir Cir	319.60 319.60
8	CB 618	Combination	336.57	Rect	4.00	4.00	24	Cir	327.00	18 15	Cir Cir	327.20 327.20
9	CB 619	Combination	337.18	Rect	4.00	4.00	18	Cir	327.41	18	Cir	327.60
10	CB 620	Combination	334.59	Rect	4.00	4.00	18	Cir	328.00	18	Cir	328.20
11	CB 621	Combination	333.35	Rect	4.00	4.00	18	Cir	328.40	18	Cir	328.60
12	CB 622	Combination	337.00	Rect	4.00	4.00	18	Cir	329.10	18	Cir	329.30
13	CB 623	Combination	337.00	Rect	4.00	4.00	18	Cir	329.60	15	Cir	329.80
14	CB 624	Combination	344.52	Rect	4.00	4.00	15	Cir	335.70	15	Cir	335.90
15	CB 625	Combination	345.87	Rect	4.00	4.00	15	Cir	338.00	15 15	Cir Cir	338.20 338.20
16	CB 626	Combination	352.48	Rect	4.00	4.00	15	Cir	344.30	15	Cir	344.50
17	CB 627	Combination	352.51	Rect	4.00	4.00	15	Cir	344.90	15	Cir	345.10
18	CB 628	Combination	354.03	Rect	4.00	4.00	15	Cir	346.26	15	Cir	346.50
19	CB 628A	Combination	354.08	Rect	4.00	4.00	15	Cir	346.67			
20	CB 625A	Combination	345.85	Rect	4.00	4.00	15	Cir	338.48			

Project File: SCM 6B Storm Network.stm | Number of Structures: 33 | Run Date: 4/11/2025

Structure Report

SCM 6B 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	CB 618A	Combination	340.36	Cir	4.00	4.00	15	Cir	331.60	15	Cir	331.80
22	CB 618B	Combination	340.43	Cir	4.00	4.00	15	Cir	331.99			
23	CB 615A	Combination	326.34	Rect	4.00	4.00	18	Cir	318.80	15 15	Cir Cir	319.00 319.00
24	CB 615C	Combination	327.22	Rect	4.00	4.00	15	Cir	319.60	15	Cir	319.80
25	CB 615D	Combination	327.23	Rect	4.00	4.00	15	Cir	319.97			
26	CB 617A	Combination	331.00	Cir	4.00	4.00	15	Cir	323.00			
27	CB 615B	Combination	326.31	Rect	4.00	4.00	15	Cir	319.28			
28	YI 631	DropGrate	309.92	Rect	3.00	3.00	18	Cir	294.00	15	Cir	294.20
29	YI 632	DropGrate	315.26	Rect	3.00	3.00	15	Cir	301.80	15	Cir	302.00
30	CB 633	Combination	313.86	Cir	4.00	4.00	15	Cir	302.70	15	Cir	302.90
31	CB 634	Combination	311.00	Cir	4.00	4.00	15	Cir	305.00			
32	CB 613A	Combination	310.31	Rect	4.00	4.00	18	Cir	302.20	15	Cir	302.40
33	CB 613B	Combination	310.04	Rect	4.00	4.00	15	Cir	302.64			

Storm Sewer Summary Report

SCM 6B 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (466)	24.56	24	Cir	14.076	297.31	298.00	4.902	299.31	299.75	n/a	299.75 j	End	DropGrate
2	Pipe - (465)	22.29	24	Cir	129.199	298.20	301.00	2.167	299.75	302.68	0.90	302.68	1	Combination
3	Pipe - (546)	22.07	24	Cir	41.927	301.28	301.70	1.002	302.88	303.38	1.87	303.38	2	Combination
4	Pipe - (514)	20.17	24	Cir	41.516	301.90	306.05	9.996	303.38	307.66	n/a	307.66	3	Combination
5	Pipe - (460)	19.75	24	Cir	45.778	306.25	310.80	9.939	307.66	312.40	0.94	312.40	4	Combination
6	Pipe - (321)	14.10	24	Cir	28.278	311.00	313.80	9.902	312.40	315.15	n/a	315.15 j	5	Combination
7	Pipe - (459)	12.32	24	Cir	54.257	314.00	319.40	9.953	315.15	320.66	0.66	320.66	6	Combination
8	Pipe - (513)	10.35	24	Cir	118.068	319.60	327.00	6.268	320.66	328.15	1.05	328.15	7	Combination
9	Pipe - (463)	8.34	18	Cir	34.519	327.20	327.41	0.608	328.46	328.67	0.57	329.23	8	Combination
10	Pipe - (310)	8.36	18	Cir	54.019	327.60	328.00	0.740	329.23*	329.58*	0.32	329.90	9	Combination
11	Pipe - (309)	8.28	18	Cir	32.394	328.20	328.40	0.617	329.90*	330.10*	0.36	330.46	10	Combination
12	Pipe - (308)	7.66	18	Cir	49.141	328.60	329.10	1.017	330.46*	330.72*	0.34	331.07	11	Combination
13	Pipe - (307)	7.03	18	Cir	34.087	329.30	329.60	0.880	331.07*	331.22*	0.37	331.59	12	Combination
14	Pipe - (301)	3.77	15	Cir	158.245	329.80	335.70	3.728	331.59	336.48	n/a	336.48 j	13	Combination
15	Pipe - (300)	3.24	15	Cir	46.667	335.90	338.00	4.500	336.48	338.73	n/a	338.73	14	Combination
16	Pipe - (486)	1.13	15	Cir	224.015	338.20	344.30	2.723	338.73	344.72	n/a	344.72 j	15	Combination
17	Pipe - (485)	0.99	15	Cir	43.823	344.50	344.90	0.913	344.84	345.29	0.16	345.29	16	Combination
18	Pipe - (502)	0.73	15	Cir	92.623	345.10	346.26	1.252	345.37	346.59	n/a	346.59	17	Combination
19	Pipe - (503)	0.27	15	Cir	28.029	346.50	346.67	0.607	346.70	346.87	n/a	346.87	18	Combination
20	Pipe - (305)	1.36	15	Cir	27.999	338.20	338.48	1.000	338.73	338.94	n/a	338.94 j	15	Combination
21	Pipe - (537)	2.16	15	Cir	66.408	327.20	331.60	6.626	328.15	332.19	n/a	332.19 j	8	Combination
22	Pipe - (538)	1.98	15	Cir	32.002	331.80	331.99	0.594	332.35	332.55	n/a	332.55	21	Combination
23	Pipe - (315)	5.98	18	Cir	164.315	311.00	318.80	4.747	312.40	319.74	n/a	319.74 j	5	Combination
24	Pipe - (499)	2.43	15	Cir	43.094	319.00	319.60	1.392	319.74	320.22	n/a	320.22 j	23	Combination

Project File: SCM 6B Storm Network.stm | Number of lines: 33 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

SCM 6B 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
25	Pipe - (498)	1.24	15	Cir	28.022	319.80	319.97	0.607	320.22	320.41	0.16	320.41	24	Combination
26	Pipe - (545)	0.31	15	Cir	33.996	319.60	323.00	10.001	320.66	323.22	n/a	323.22 j	7	Combination
27	Pipe - (320)	2.72	15	Cir	28.000	319.00	319.28	1.000	319.74	319.94	n/a	319.94 j	23	Combination
28	Pipe - (539)	6.90	18	Cir	15.198	293.69	294.00	2.040	295.19	295.14	0.36	295.50	End	DropGrate
29	Pipe - (540)	3.29	15	Cir	110.638	294.20	301.80	6.869	295.50	302.53	n/a	302.53 j	28	DropGrate
30	Pipe - (541)	2.91	15	Cir	78.569	302.00	302.70	0.891	302.61	303.38	n/a	303.38	29	Combination
31	Pipe - (542)	1.12	15	Cir	208.966	302.90	305.00	1.005	303.38	305.42	n/a	305.42 j	30	Combination
32	Pipe - (462)	1.23	18	Cir	48.735	301.91	302.20	0.595	303.38	302.61	n/a	302.61	3	Combination
33	Pipe - (464)	0.47	15	Cir	34.300	302.40	302.64	0.700	302.65	302.91	n/a	302.91	32	Combination

Project File: SCM 6B Storm Network.stm | Number of lines: 33 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

SCM 6B 25-YEAR

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	CB 611	2.83	0.00	2.83	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.24	26.04	0.24	26.04	0.0	Off
2	CB 612	0.31	0.00	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.08	1.41	0.00	0.00	0.0	33
3	CB 613	1.01	0.00	1.01	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.13	2.56	0.01	0.24	0.0	Off
4	CB 614	0.54	0.00	0.54	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.10	1.73	0.00	0.00	0.0	3
5	CB 615	0.47	0.15	0.61	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.15	3.33	0.15	3.33	0.0	Off
6	CB 616	2.09	1.03	3.12	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.32	11.85	0.32	11.85	0.0	Off
7	CB 617	2.06	0.00	1.87	0.19	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.17	4.36	0.07	1.16	0.0	6
8	CB 618	0.12	0.00	0.12	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.022	2.00	0.060	0.020	0.013	0.08	1.29	0.00	0.00	0.0	7
9	CB 619	0.04	0.00	0.04	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.022	2.00	0.060	0.020	0.013	0.05	0.86	0.00	0.00	0.0	26
10	CB 620	0.12	0.00	0.12	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.062	2.00	0.060	0.020	0.013	0.06	1.07	0.00	0.00	0.0	30
11	CB 621	0.74	0.29	1.00	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.062	2.00	0.060	0.020	0.013	0.14	3.18	0.03	0.56	0.0	30
12	CB 622	0.74	0.00	0.74	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.16	3.91	0.16	3.91	0.0	Off
13	CB 623	3.68	0.00	3.68	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.35	13.34	0.35	13.34	0.0	Off
14	CB 624	0.58	0.07	0.65	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.13	2.59	0.01	0.25	0.0	Off
15	CB 625	0.97	0.00	0.90	0.07	Comb	6.0	1.50	0.00	3.00	2.50	0.027	2.00	0.060	0.020	0.013	0.16	4.10	0.06	1.00	0.0	14
16	CB 626	0.16	0.00	0.16	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.11	1.90	0.00	0.00	0.0	15
17	CB 627	0.27	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.016	2.00	0.060	0.020	0.013	0.11	1.90	0.00	0.00	0.0	16
18	CB 628	0.47	0.00	0.46	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.016	2.00	0.060	0.020	0.013	0.14	2.90	0.02	0.40	0.0	17
19	CB 628A	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.016	2.00	0.060	0.020	0.013	0.11	1.89	0.00	0.00	0.0	Off
20	CB 625A	1.36	0.00	1.36	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.21	6.37	0.21	6.37	0.0	Off
21	CB 618A	0.19	0.00	0.19	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.052	2.00	0.060	0.020	0.013	0.08	1.33	0.00	0.00	0.0	11
22	CB 618B	1.98	0.00	1.69	0.29	Comb	6.0	1.50	0.00	3.00	2.50	0.052	2.00	0.060	0.020	0.013	0.18	5.16	0.09	1.55	0.0	11
23	CB 615A	0.89	0.23	0.98	0.15	Comb	6.0	1.50	0.00	3.00	2.50	0.017	2.00	0.060	0.020	0.013	0.18	5.15	0.09	1.48	0.0	5

Project File: SCM 6B Storm Network.stm | Number of lines: 33 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Inlet Report

SCM 6B 25-YEAR

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)	
24	CB 615C	1.20	0.00	0.97	0.23	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.21	6.59	0.12	2.17	0.0	23
25	CB 615D	1.24	0.00	1.24	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.20	5.95	0.20	5.95	0.0	Off
26	CB 617A	0.31	0.00	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.08	1.41	0.00	0.00	0.0	Off
27	CB 615B	2.72	0.00	1.87	0.84	Comb	6.0	1.50	0.00	3.00	2.50	0.017	2.00	0.060	0.020	0.013	0.24	7.97	0.17	4.35	0.0	6
28	YI 631	3.92	0.00	3.92	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.30	31.85	0.30	31.85	0.0	Off
29	YI 632	0.43	0.00	0.43	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.07	8.80	0.07	8.80	0.0	Off
30	CB 633	1.90	0.02	1.52	0.40	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.20	6.17	0.12	2.01	0.0	31
31	CB 634	1.12	0.40	1.14	0.38	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.24	8.10	0.16	3.88	0.0	Off
32	CB 613A	0.78	0.00	0.78	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.12	1.98	0.00	0.00	0.0	Off
33	CB 613B	0.47	0.00	0.47	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.10	1.64	0.00	0.00	0.0	Off

Project File: SCM 6B Storm Network.stm | Number of lines: 33 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 6B 25-YEAR

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	24	24.56	297.31	299.31	2.00	2.91	7.82	0.95	300.26	1.179	14.076	298.00	299.75 j	1.75**	2.91	8.43	1.10	300.85	1.068	1.124	n/a	1.07	1.18
2	24	22.29	298.20	299.75	1.55	2.61	8.54	0.97	300.72	0.000	129.199	301.00	302.68	1.68**	2.82	7.90	0.97	303.65	0.000	0.000	n/a	0.93	0.90
3	24	22.07	301.28	302.88	1.60*	2.69	8.21	0.96	303.83	0.000	41.927	301.70	303.38	1.68**	2.81	7.85	0.96	304.33	0.000	0.000	n/a	1.95	1.87
4	24	20.17	301.90	303.38	1.48	2.49	8.11	0.86	304.24	0.000	41.516	306.05	307.66	1.61**	2.71	7.44	0.86	308.52	0.000	0.000	n/a	1.10	n/a
5	24	19.75	306.25	307.66	1.41	2.37	8.34	0.84	308.50	0.000	45.778	310.80	312.40	1.60**	2.69	7.35	0.84	313.24	0.000	0.000	n/a	1.12	0.94
6	24	14.10	311.00	312.40	1.40	2.26	6.02	0.61	313.00	0.000	28.278	313.80	315.15 j	1.35**	2.26	6.24	0.61	315.76	0.000	0.000	n/a	1.12	n/a
7	24	12.32	314.00	315.15	1.15	1.87	6.58	0.54	315.69	0.000	54.257	319.40	320.66	1.26**	2.09	5.91	0.54	321.20	0.000	0.000	n/a	1.21	0.66
8	24	10.35	319.60	320.66	1.06	1.69	6.11	0.48	321.14	0.000	118.068	327.00	328.15	1.15**	1.87	5.53	0.48	328.63	0.000	0.000	n/a	2.20	1.05
9	18	8.34	327.20	328.46	1.26*	1.58	5.28	0.43	328.89	0.608	34.519	327.41	328.67	1.26	1.58	5.28	0.43	329.10	0.608	0.608	0.210	1.31	0.57
10	18	8.36	327.60	329.23	1.50	1.77	4.73	0.35	329.58	0.633	54.019	328.00	329.58	1.50	1.77	4.73	0.35	329.92	0.633	0.633	0.342	0.92	0.32
11	18	8.28	328.20	329.90	1.50	1.77	4.69	0.34	330.24	0.622	32.394	328.40	330.10	1.50	1.77	4.69	0.34	330.44	0.622	0.622	0.201	1.06	0.36
12	18	7.66	328.60	330.46	1.50	1.77	4.34	0.29	330.75	0.533	49.141	329.10	330.72	1.50	1.77	4.34	0.29	331.01	0.532	0.532	0.262	1.18	0.34
13	18	7.03	329.30	331.07	1.50	1.77	3.98	0.25	331.31	0.448	34.087	329.60	331.22	1.50	1.77	3.98	0.25	331.46	0.448	0.448	0.153	1.50	0.37
14	15	3.77	329.80	331.59	1.25	0.81	3.07	0.15	331.73	0.340	158.245	335.70	336.48 j	0.78**	0.81	4.65	0.34	336.82	0.660	0.500	n/a	1.12	0.38
15	15	3.24	335.90	336.48	0.58	0.56	5.77	0.30	336.78	0.000	46.667	338.00	338.73	0.72**	0.74	4.39	0.30	339.03	0.000	0.000	n/a	1.69	n/a
16	15	1.13	338.20	338.73	0.52	0.36	2.31	0.15	338.88	0.000	224.015	344.30	344.72 j	0.42**	0.36	3.14	0.15	344.87	0.000	0.000	n/a	1.13	n/a
17	15	0.99	344.50	344.84	0.34*	0.27	3.68	0.14	344.98	0.000	43.823	344.90	345.29	0.39**	0.33	3.02	0.14	345.43	0.000	0.000	n/a	1.12	0.16
18	15	0.73	345.10	345.37	0.27*	0.19	3.77	0.12	345.49	0.000	92.623	346.26	346.59	0.33**	0.26	2.77	0.12	346.71	0.000	0.000	n/a	1.50	n/a
19	15	0.27	346.50	346.70	0.20*	0.12	2.18	0.07	346.77	0.000	28.029	346.67	346.87	0.20**	0.13	2.12	0.07	346.94	0.000	0.000	n/a	1.00	n/a
20	15	1.36	338.20	338.73	0.52	0.41	2.78	0.17	338.90	0.000	27.999	338.48	338.94 j	0.46**	0.41	3.31	0.17	339.11	0.000	0.000	n/a	1.00	0.17
21	15	2.16	327.20	328.15	0.95	0.57	2.16	0.23	328.38	0.000	66.408	331.60	332.19 j	0.59**	0.57	3.82	0.23	332.41	0.000	0.000	n/a	1.12	0.25
22	15	1.98	331.80	332.35	0.55*	0.52	3.82	0.21	332.56	0.000	32.002	331.99	332.55	0.56**	0.53	3.72	0.21	332.76	0.000	0.000	n/a	1.00	n/a

Project File: SCM 6B Storm Network.stm | Number of lines: 33 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

SCM 6B 25-YEAR

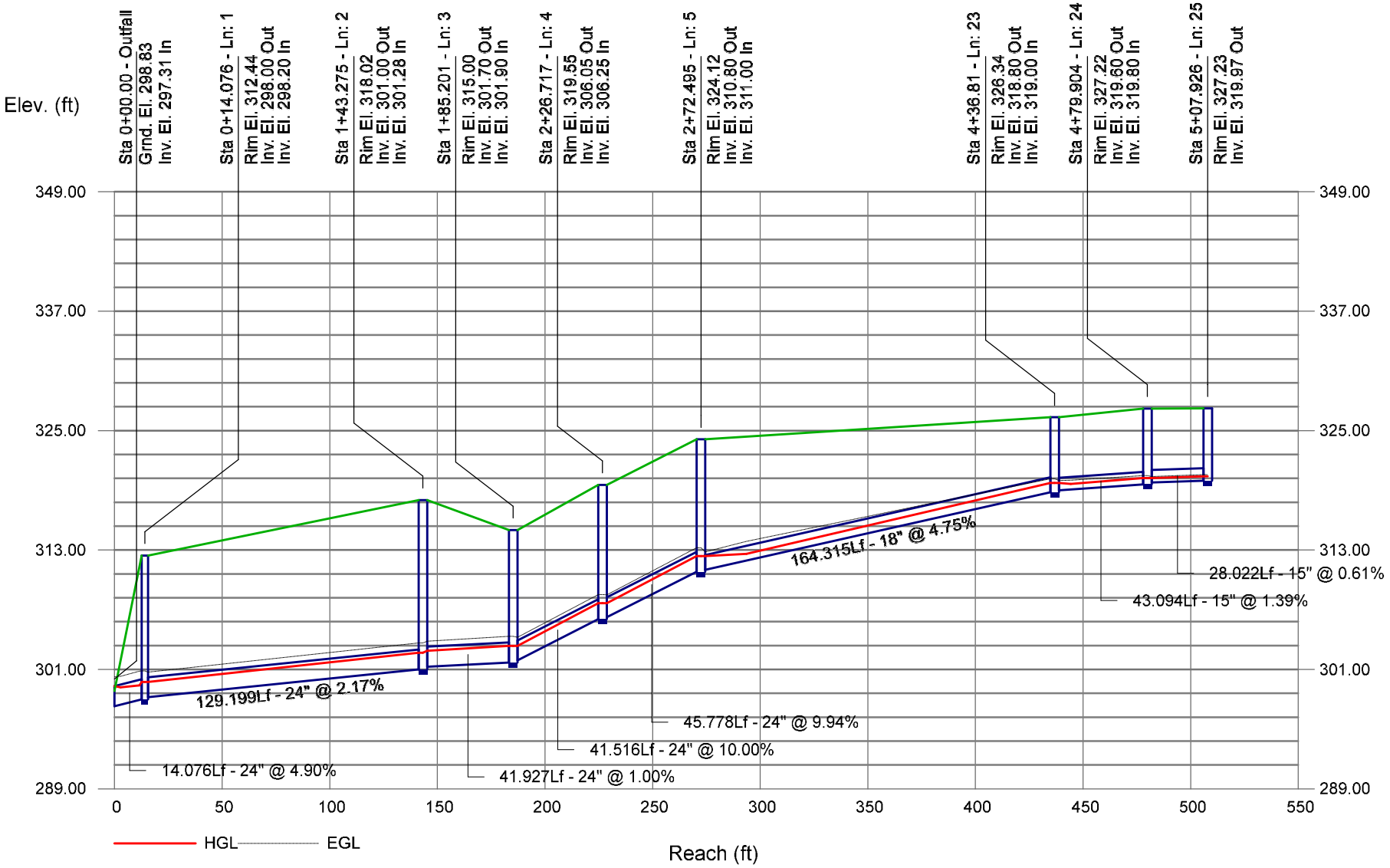
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	18	5.98	311.00	312.40	1.40	1.17	3.49	0.41	312.80	0.000	164.315	318.80	319.74 j	0.94**	1.17	5.11	0.41	320.15	0.000	0.000	n/a	1.49	0.60
24	15	2.43	319.00	319.74	0.74	0.61	3.20	0.25	319.99	0.000	43.094	319.60	320.22 j	0.62**	0.61	3.98	0.25	320.47	0.000	0.000	n/a	1.10	0.27
25	15	1.24	319.80	320.22	0.42	0.37	3.39	0.16	320.39	0.000	28.022	319.97	320.41	0.44**	0.38	3.23	0.16	320.57	0.000	0.000	n/a	1.00	0.16
26	15	0.31	319.60	320.66	1.06	0.14	0.28	0.08	320.74	0.000	33.996	323.00	323.22 j	0.22**	0.14	2.20	0.08	323.29	0.000	0.000	n/a	1.00	n/a
27	15	2.72	319.00	319.74	0.74	0.66	3.57	0.26	320.01	0.000	28.000	319.28	319.94 j	0.66**	0.66	4.13	0.26	320.21	0.000	0.000	n/a	1.00	n/a
28	18	6.90	293.69	295.19	1.50*	1.77	3.90	0.24	295.43	0.432	15.198	294.00	295.14	1.14	1.45	4.77	0.35	295.50	0.500	0.466	0.071	1.01	0.36
29	15	3.29	294.20	295.50	1.25	0.74	2.68	0.11	295.61	0.259	110.638	301.80	302.53 j	0.73**	0.74	4.41	0.30	302.83	0.624	0.441	n/a	1.28	0.39
30	15	2.91	302.00	302.61	0.61*	0.59	4.91	0.28	302.89	0.000	78.569	302.70	303.38	0.68**	0.69	4.22	0.28	303.66	0.000	0.000	n/a	1.49	n/a
31	15	1.12	302.90	303.38	0.48	0.36	2.56	0.15	303.54	0.000	208.966	305.00	305.42 j	0.42**	0.36	3.14	0.15	305.57	0.000	0.000	n/a	1.00	n/a
32	18	1.23	301.91	303.38	1.47	0.40	0.70	0.15	303.53	0.000	48.735	302.20	302.61	0.41**	0.40	3.09	0.15	302.76	0.000	0.000	n/a	1.50	n/a
33	15	0.47	302.40	302.65	0.25*	0.17	2.69	0.09	302.74	0.000	34.300	302.64	302.91	0.27**	0.19	2.45	0.09	303.00	0.000	0.000	n/a	1.00	n/a

Project File: SCM 6B Storm Network.stm | Number of lines: 33 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

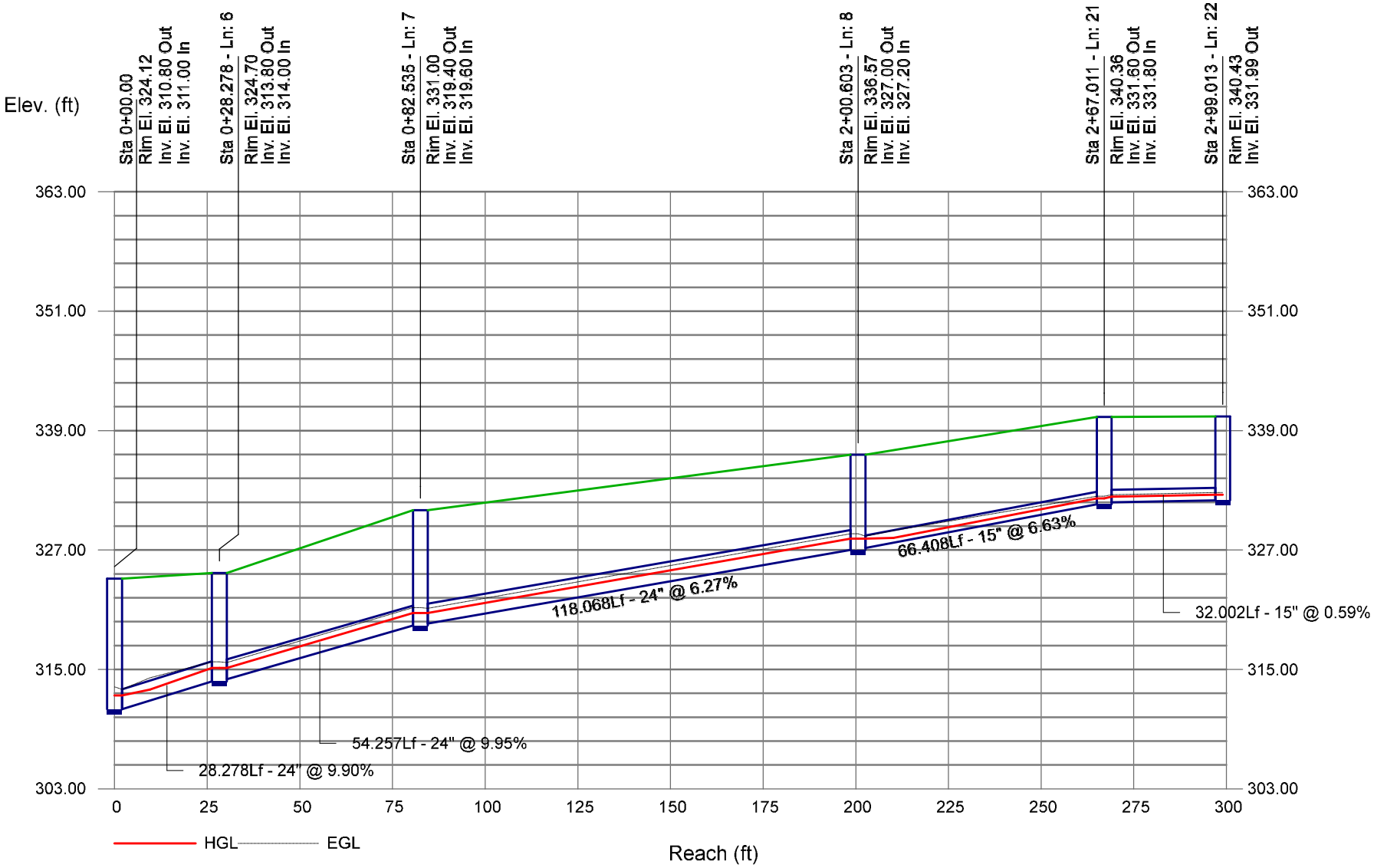
Storm Sewer Profile

SCM 6B 25-YEAR PROFILE 1-25 Proj. file: SCM 6B Storm Network.stm



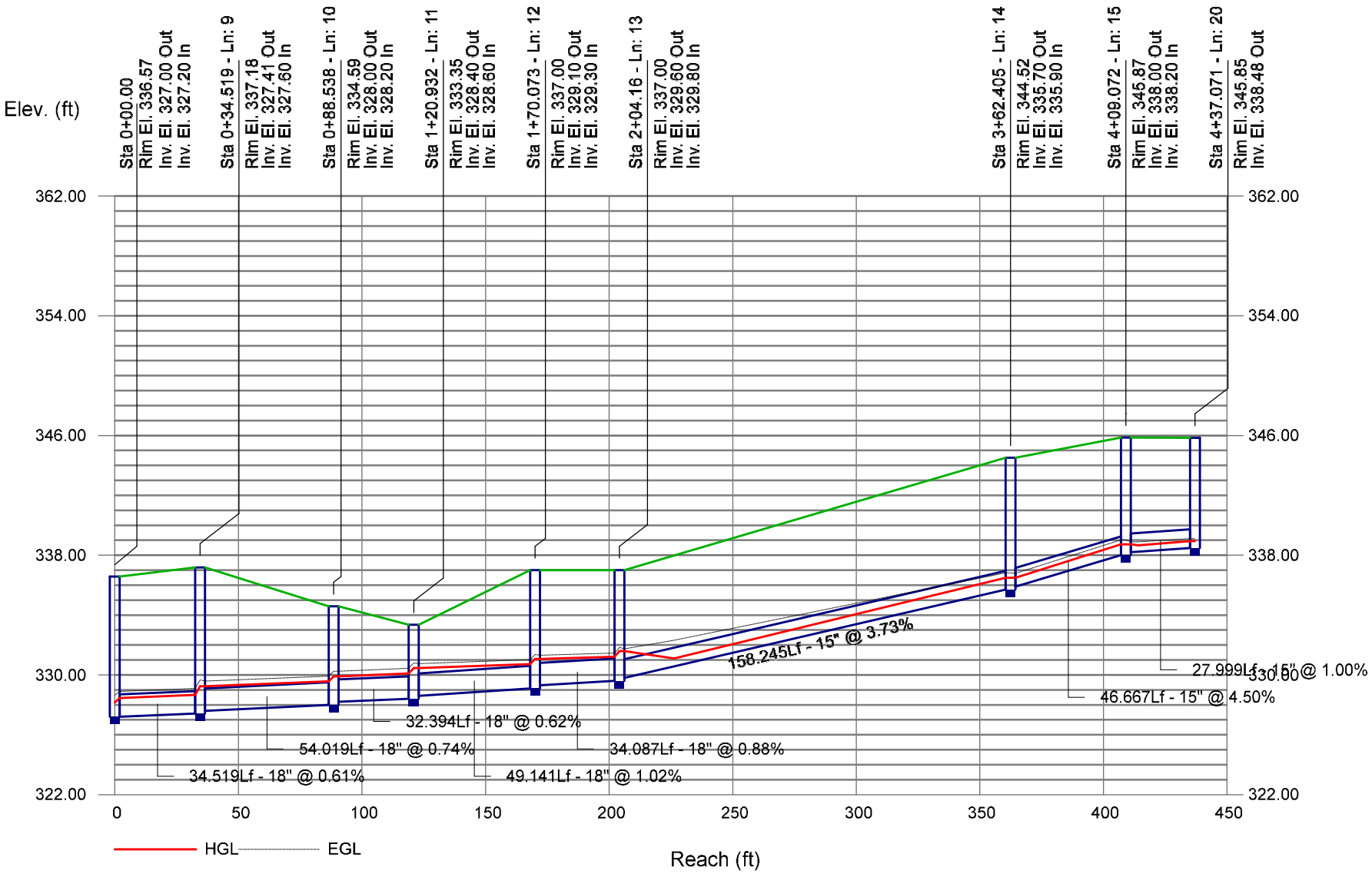
Storm Sewer Profile

SCM 6B 25-YEAR PROFILE 6-22 Proj. file: SCM 6B Storm Network.stm



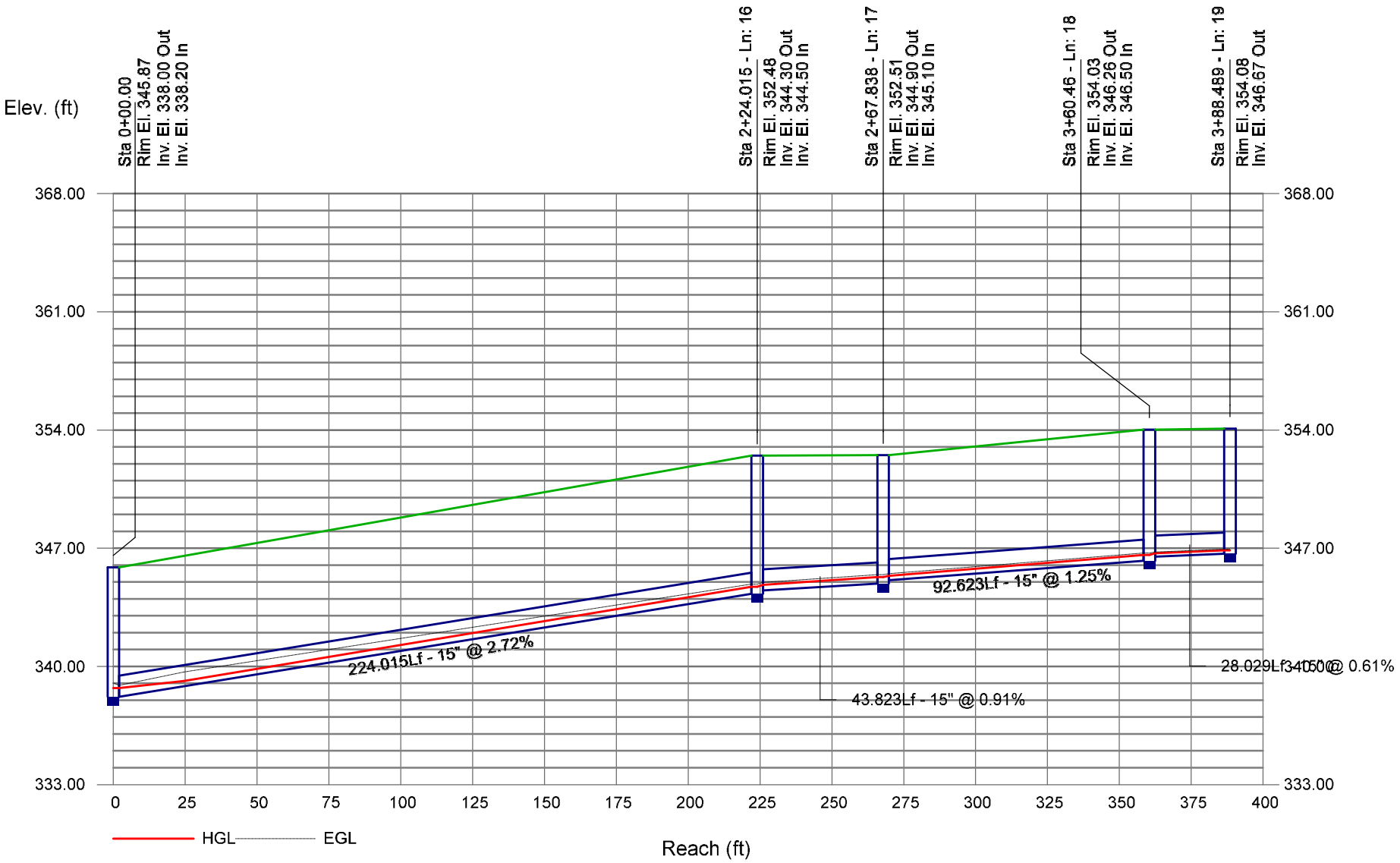
Storm Sewer Profile

SCM 6B 25-YEAR PROFILE 9-20 Proj. file: SCM 6B Storm Network.stm



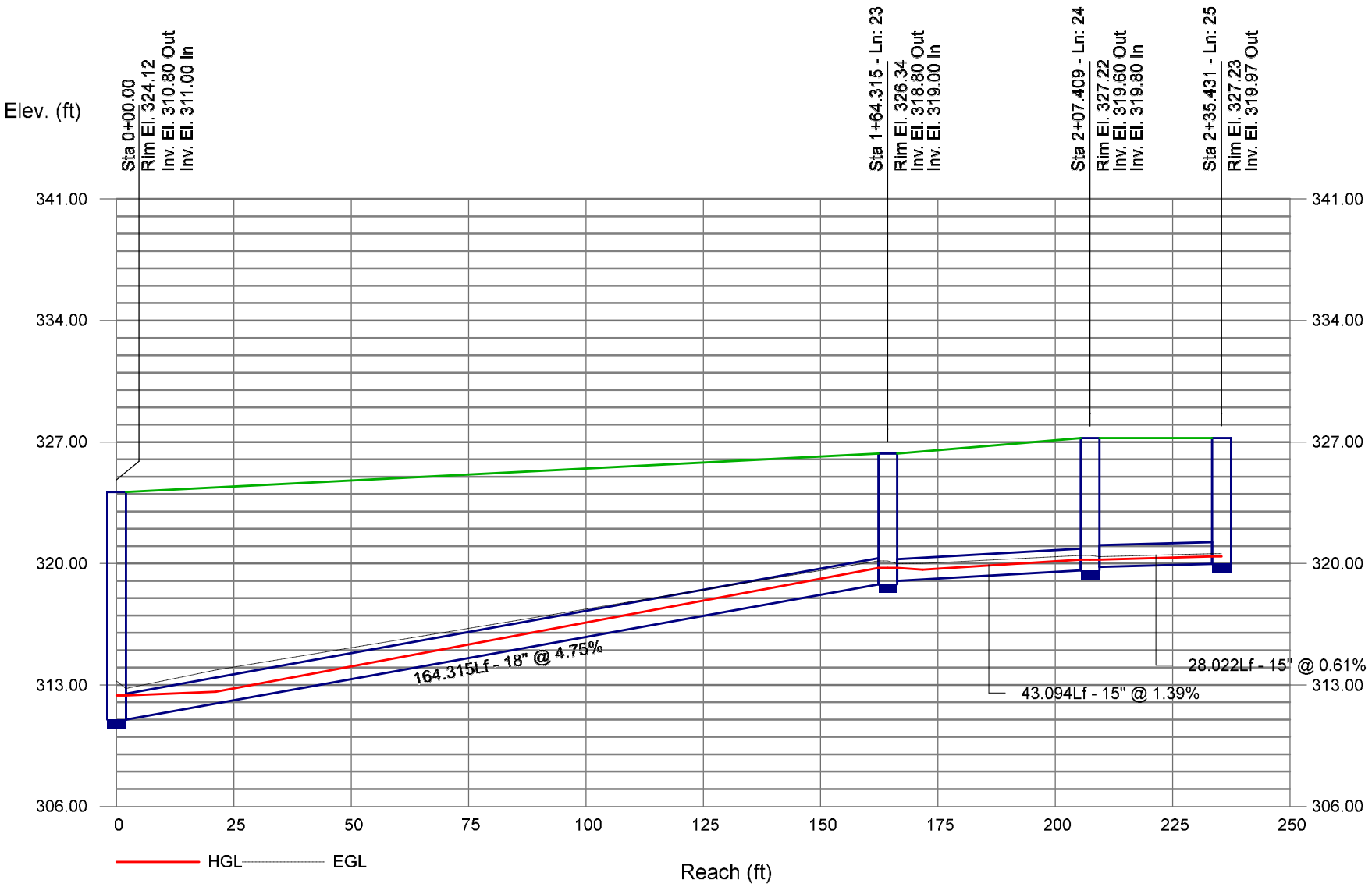
Storm Sewer Profile

SCM 6B 25-YEAR PROFILE 16-19 Proj. file: SCM 6B Storm Network.stm



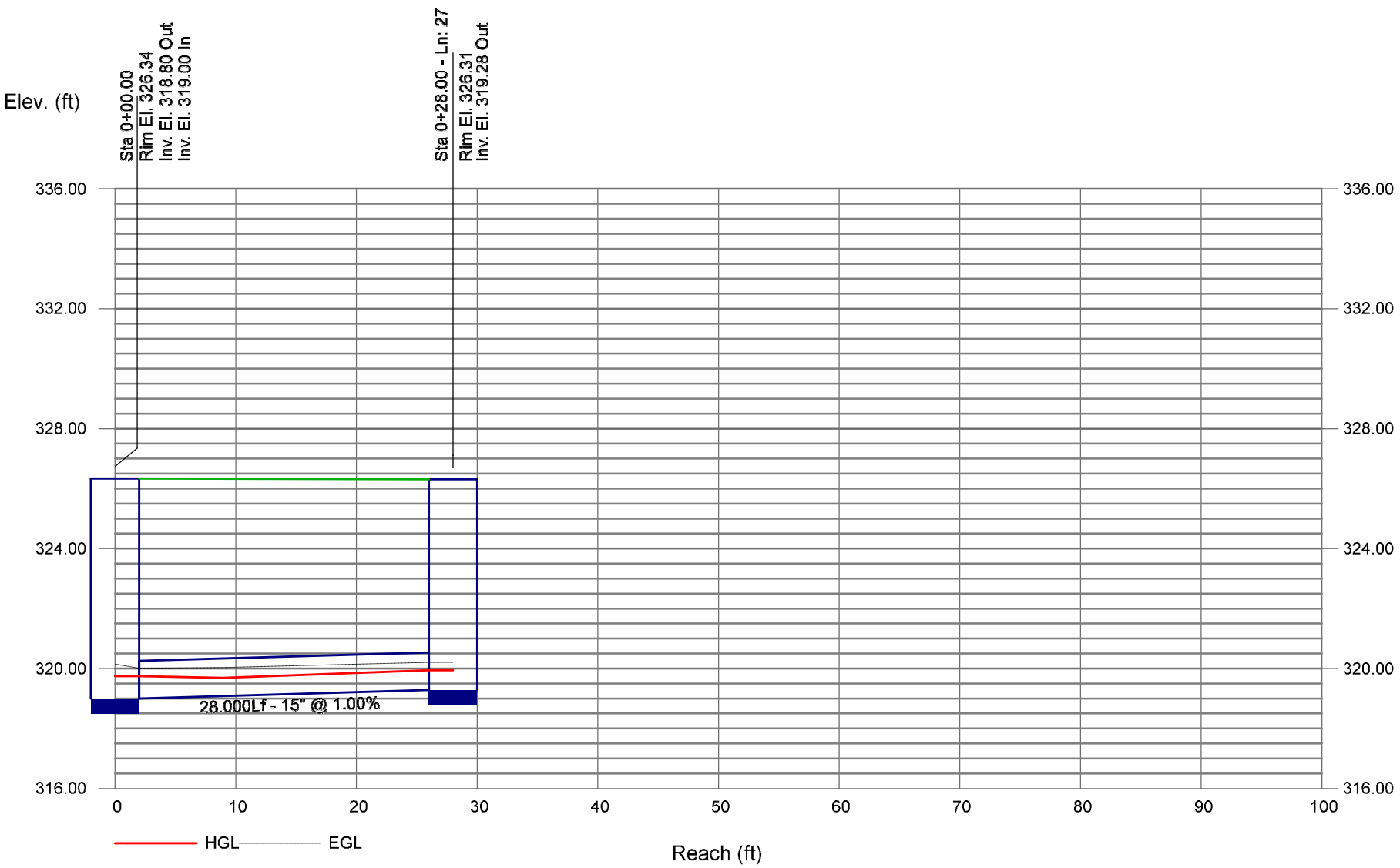
Storm Sewer Profile

SCM 6B 25-YEAR PROFILE 23-25 Proj. file: SCM 6B Storm Network.stm



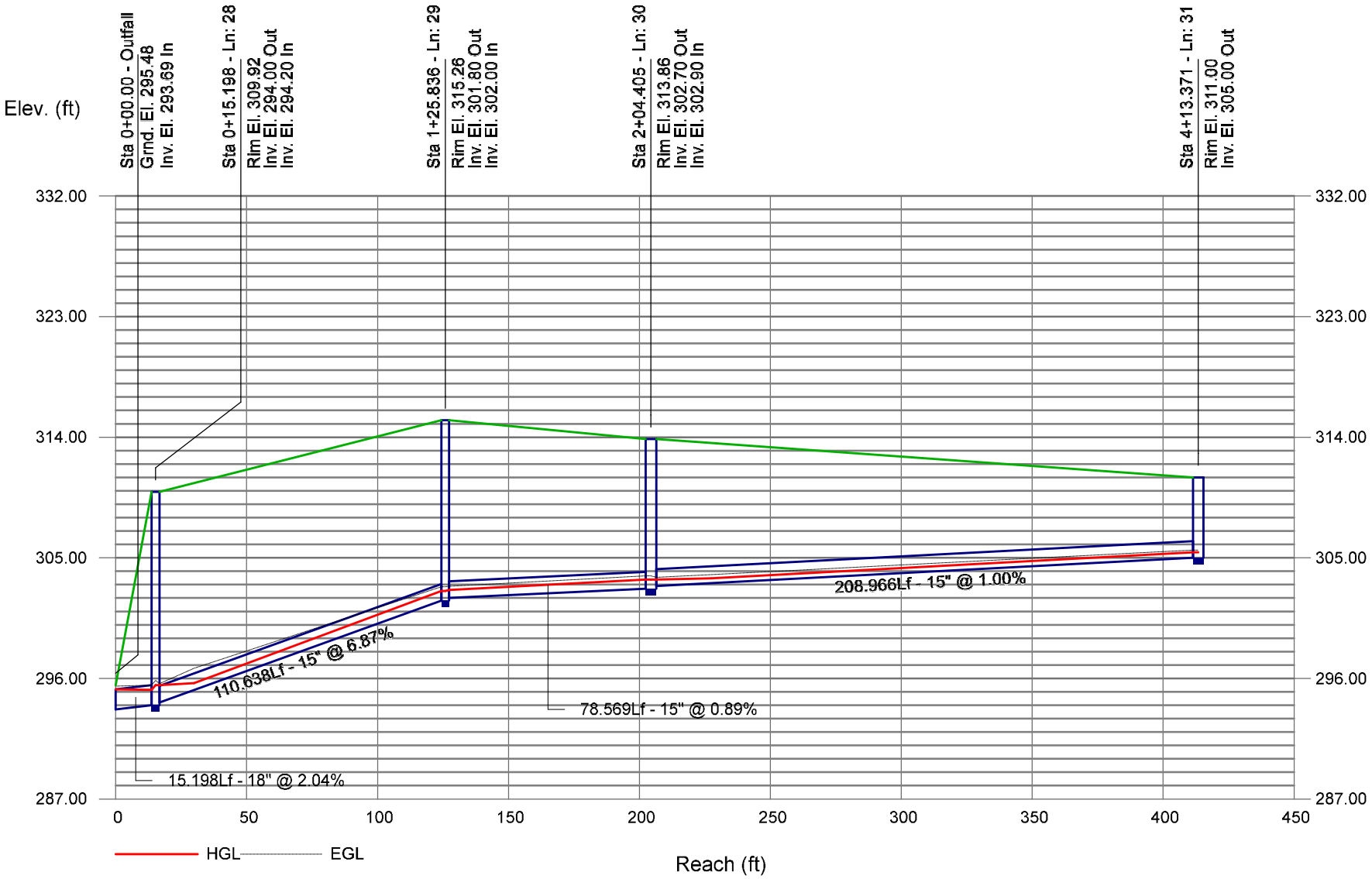
Storm Sewer Profile

SCM 6B 25-YEAR PROFILE 27-27 Proj. file: SCM 6B Storm Network.stm



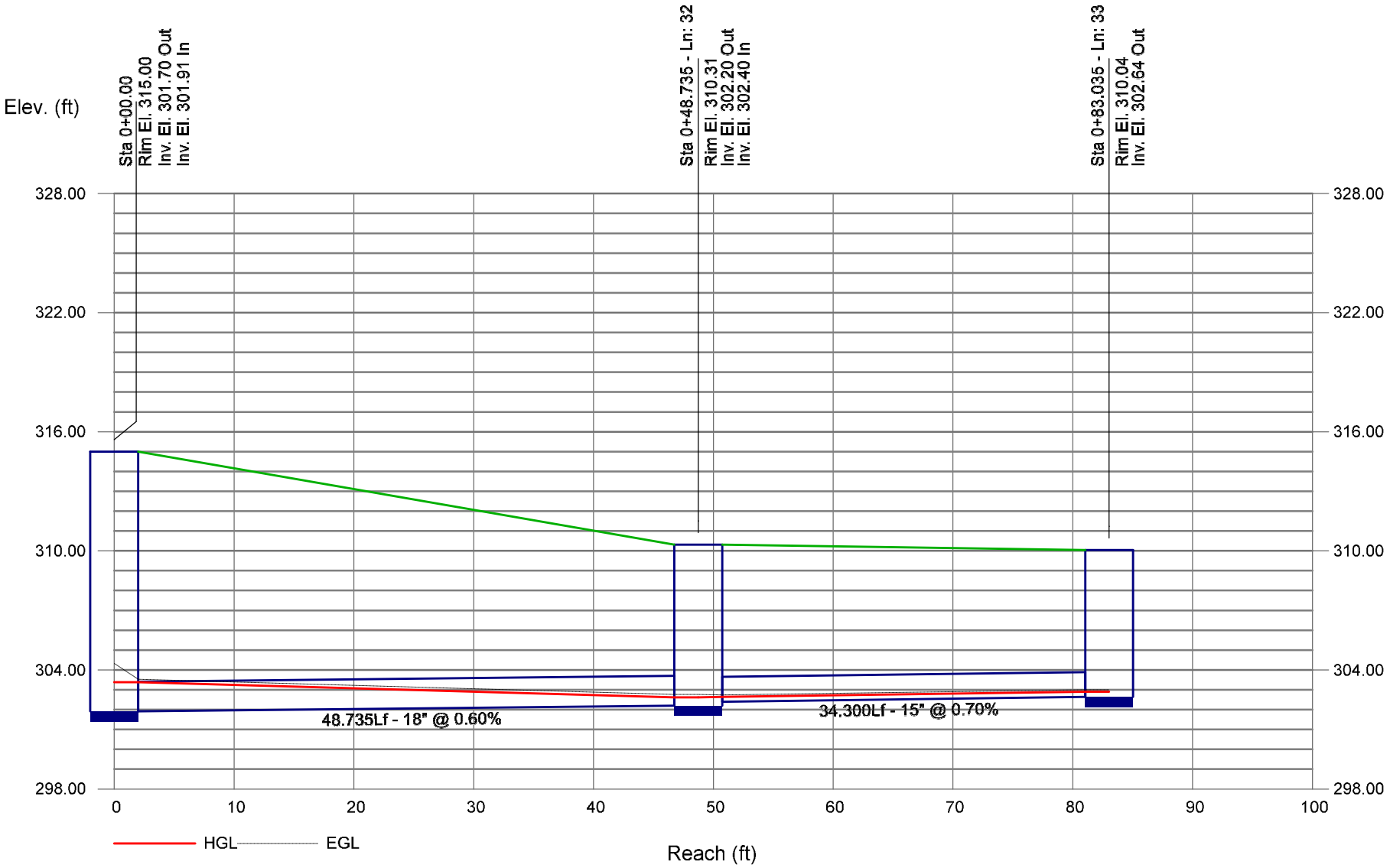
Storm Sewer Profile

SCM 6B 25-YEAR PROFILE 28-31 Proj. file: SCM 6B Storm Network.stm

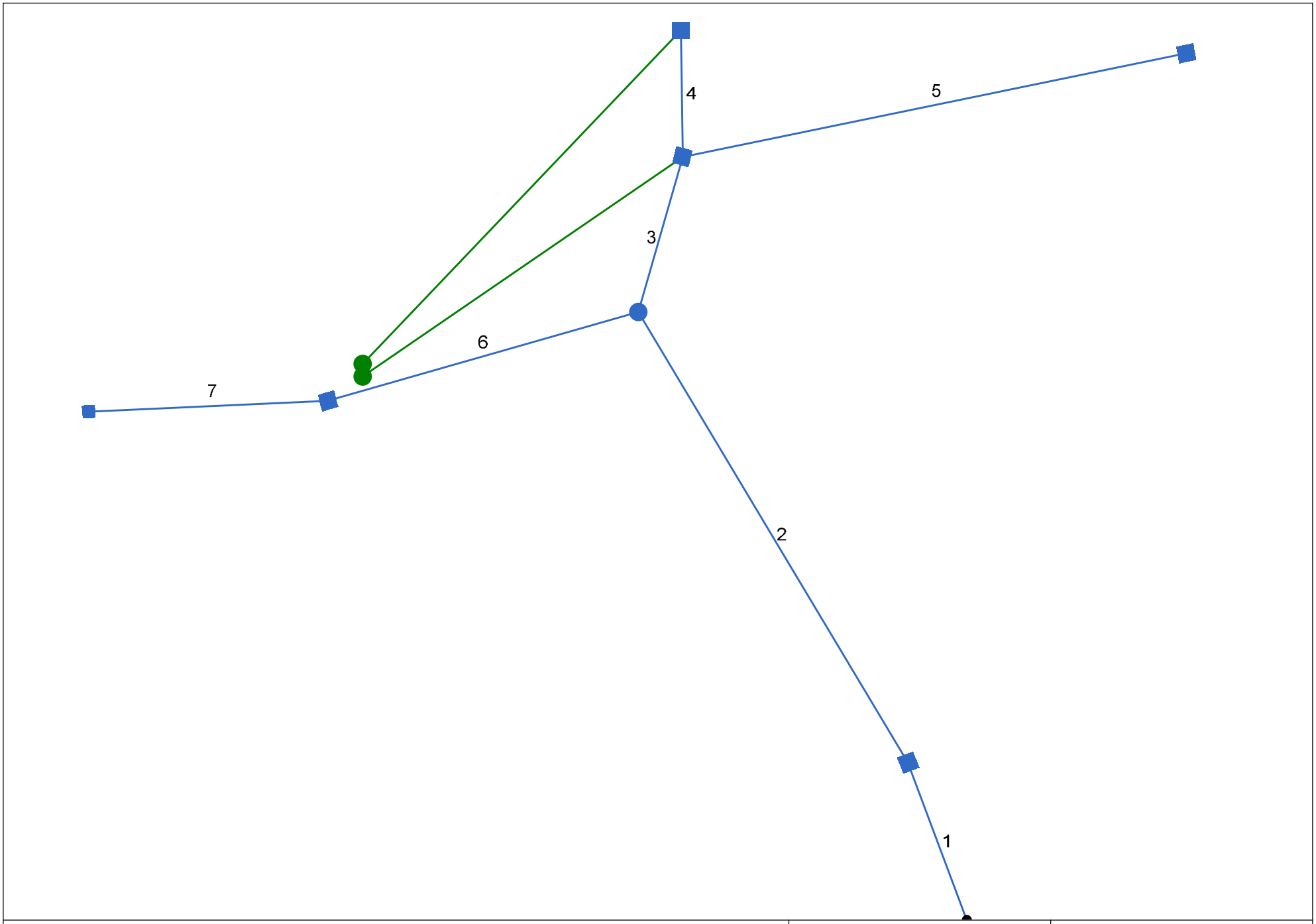


Storm Sewer Profile

SCM 6B 25-YEAR PROFILE 32-33 Proj. file: SCM 6B Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 7 25-YEAR



Project File: SCM 7 Storm Network.stm	Number of lines: 7	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 7 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	40.704	-110.457	DrGrt	0.00	0.65	0.60	10.0	317.86	0.52	318.07	24	Cir	0.013	0.50	330.60	Pipe - (505)
2	1	126.978	-10.287	MH	0.00	0.00	0.00	10.0	318.27	0.50	318.90	24	Cir	0.013	0.97	331.65	Pipe - (504)
3	2	39.048	46.583	Comb	0.00	0.18	0.60	10.0	327.83	2.38	328.76	15	Cir	0.013	1.36	332.78	Pipe - (480)
4	3	30.684	-16.910	Comb	0.00	0.41	0.60	10.0	328.96	3.39	330.00	15	Cir	0.013	1.00	333.86	Pipe - (487)
5	3	124.068	62.476	Comb	0.00	0.26	0.60	10.0	328.96	7.49	338.25	15	Cir	0.013	1.00	342.10	Pipe - (481)
6	2	78.082	-75.262	Comb	0.00	0.31	0.60	10.0	319.45	0.50	319.84	18	Cir	0.013	0.50	328.75	Pipe - (506)
7	6	57.520	13.408	DrGrt	0.00	1.34	0.60	10.0	320.11	0.50	320.40	15	Cir	0.013	1.00	323.85	Pipe - (586)

Project File: SCM 7 Storm Network.stm | Number of lines: 7 | Date: 4/11/2025

Structure Report

SCM 7 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 701	DropGrate	330.60	Rect	4.00	4.00	24	Cir	318.07	24	Cir	318.27
2	JB 702	Manhole	331.65	Cir	4.00	4.00	24	Cir	318.90	15 18	Cir Cir	327.83 319.45
3	CB 703	Combination	332.78	Rect	4.00	4.00	15	Cir	328.76	15 15	Cir Cir	328.96 328.96
4	CB 703A	Combination	333.86	Rect	4.00	4.00	15	Cir	330.00			
5	CB 704	Combination	342.10	Rect	4.00	4.00	15	Cir	338.25			
6	CB 702A	Combination	328.75	Rect	4.00	4.00	18	Cir	319.84	15	Cir	320.11
7	YI 702B	DropGrate	323.85	Rect	3.00	3.00	15	Cir	320.40			

Project File: SCM 7 Storm Network.stm | Number of Structures: 7 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 7 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	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.	Junction Type
1	Pipe - (505)	11.64	24	Cir	40.704	317.86	318.07	0.516	319.86	319.95	0.11	320.06	End	DropGrate
2	Pipe - (504)	9.40	24	Cir	126.978	318.27	318.90	0.496	320.06	320.21	0.28	320.49	1	Manhole
3	Pipe - (480)	3.21	15	Cir	39.048	327.83	328.76	2.382	328.32	329.48	0.41	329.48	2	Combination
4	Pipe - (487)	1.59	15	Cir	30.684	328.96	330.00	3.389	329.48	330.50	n/a	330.50 j	3	Combination
5	Pipe - (481)	1.01	15	Cir	124.068	328.96	338.25	7.488	329.48	338.64	n/a	338.64 j	3	Combination
6	Pipe - (506)	6.35	18	Cir	78.082	319.45	319.84	0.499	320.52	320.91	0.17	321.08	2	Combination
7	Pipe - (586)	5.20	15	Cir	57.520	320.11	320.40	0.504	321.36*	321.73*	0.28	322.01	6	DropGrate

Project File: SCM 7 Storm Network.stm | Number of lines: 7 | Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

SCM 7 25-YEAR

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	YI 701	2.52	0.00	1.30	1.22	DrGrt	0.0	0.00	0.00	3.00	2.50	0.010	2.00	0.020	0.020	0.013	0.14	16.10	0.14	16.10	0.0	Off
2	JB 702	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
3	CB 703	0.70	0.01	0.71	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.12	2.16	0.00	0.00	0.0	6
4	CB 703A	1.59	0.00	1.47	0.12	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.16	4.15	0.06	1.05	0.0	6
5	CB 704	1.01	0.00	0.99	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.14	2.99	0.03	0.48	0.0	3
6	CB 702A	1.20	0.12	1.32	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.20	6.25	0.20	6.25	0.0	Off
7	YI 702B	5.20	0.00	1.43	3.77	DrGrt	0.0	0.00	0.00	2.00	2.00	0.010	2.00	0.020	0.020	0.013	0.19	21.10	0.19	21.10	0.0	Off

Project File: SCM 7 Storm Network.stm | Number of lines: 7 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

SCM 7 25-YEAR

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	24	11.64	317.86	319.86	2.00	3.14	3.70	0.21	320.07	0.265	40.704	318.07	319.95	1.88	3.06	3.80	0.22	320.17	0.229	0.247	0.100	0.50	0.11
2	24	9.40	318.27	320.06	1.79	2.97	3.17	0.16	320.22	0.153	126.978	318.90	320.21	1.31	2.19	4.29	0.29	320.50	0.293	0.223	0.283	0.97	0.28
3	15	3.21	327.83	328.32	0.49*	0.44	7.24	0.30	328.62	0.000	39.048	328.76	329.48	0.72**	0.73	4.38	0.30	329.78	0.000	0.000	n/a	1.36	0.41
4	15	1.59	328.96	329.48	0.52	0.46	3.28	0.19	329.67	0.000	30.684	330.00	330.50 j	0.50**	0.46	3.47	0.19	330.69	0.000	0.000	n/a	1.00	n/a
5	15	1.01	328.96	329.48	0.52	0.33	2.08	0.14	329.62	0.000	124.068	338.25	338.64 j	0.39**	0.33	3.04	0.14	338.79	0.000	0.000	n/a	1.00	0.14
6	18	6.35	319.45	320.52	1.07*	1.35	4.72	0.35	320.86	0.499	78.082	319.84	320.91	1.07	1.35	4.72	0.35	321.25	0.500	0.499	0.390	0.50	0.17
7	15	5.20	320.11	321.36	1.25*	1.23	4.24	0.28	321.64	0.648	57.520	320.40	321.73	1.25	1.23	4.24	0.28	322.01	0.648	0.648	0.373	1.00	0.28

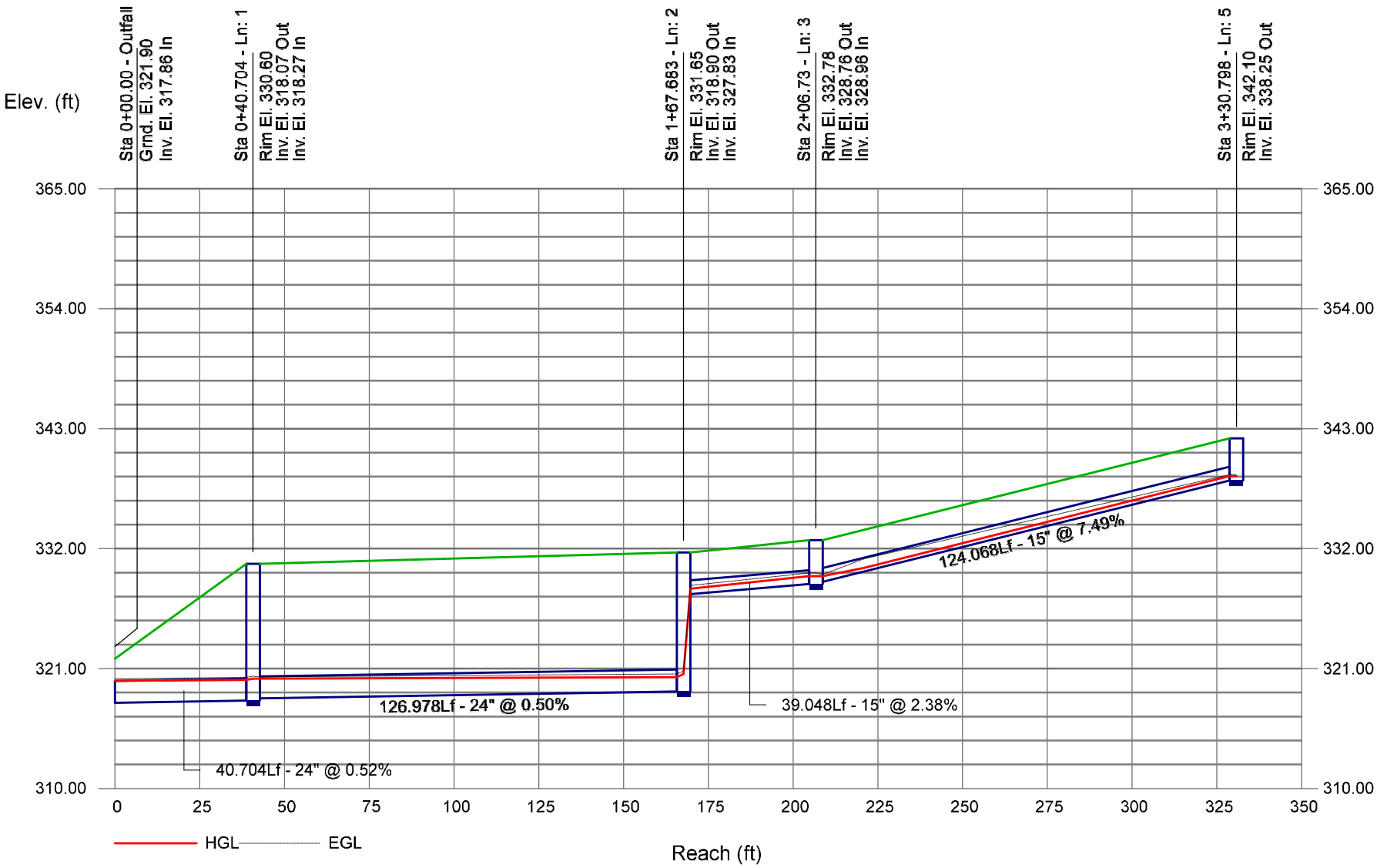
Project File: SCM 7 Storm Network.stm | Number of lines: 7 | Run Date: 4/11/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Storm Sewer Profile

SCM 7 25-YEAR PROFILE 1-5

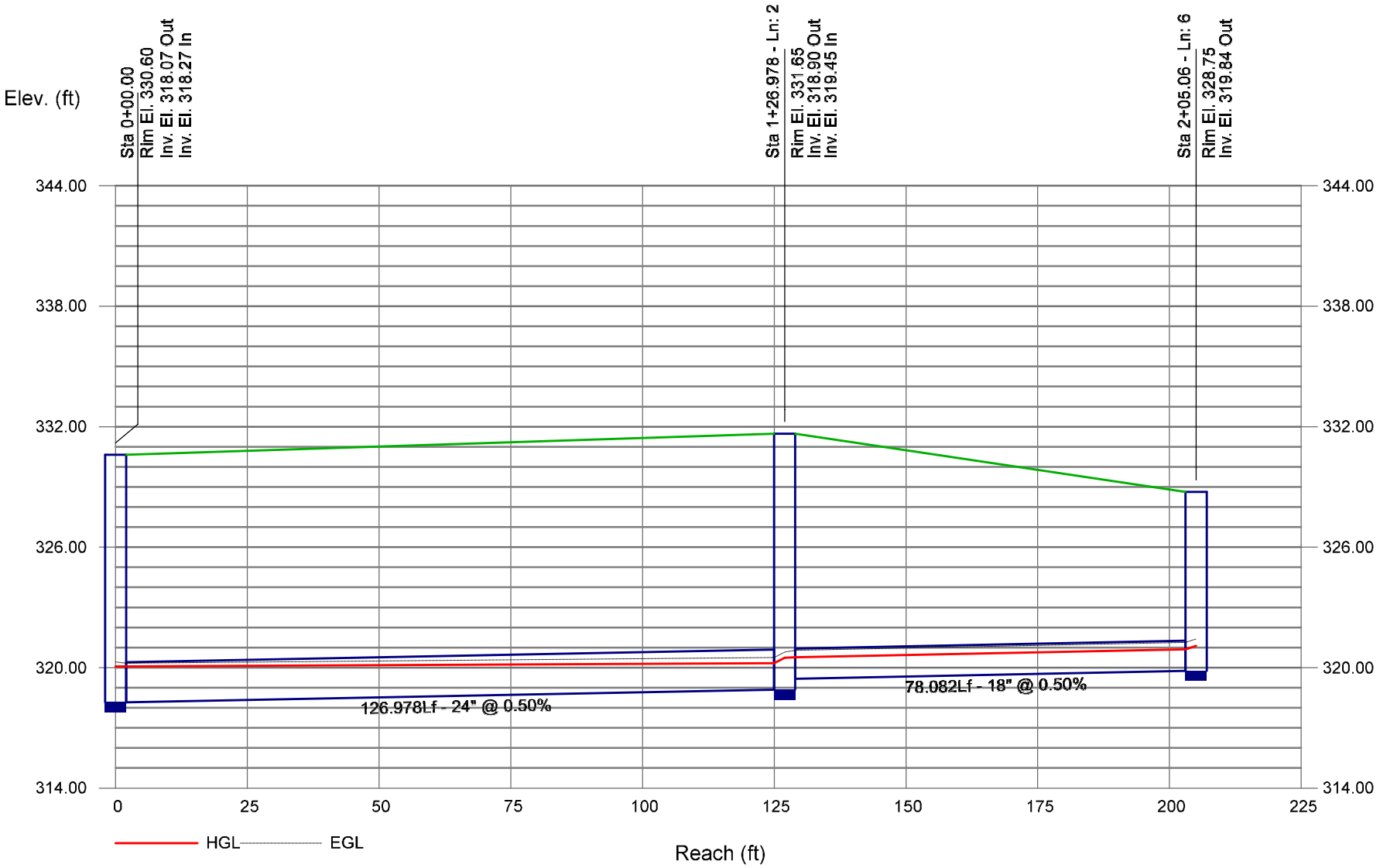
Proj. file: SCM 7 Storm Network.stm



Storm Sewer Profile

SCM 7 25-YEAR PROFILE 4-7

Proj. file: SCM 7 Storm Network.stm



Rip-Rap Calculations

AMERICAN Engineering

4020 Westchase Boulevard Suite 450 Raleigh, NC 27607
OFFICE: 919.469.1101 | **AMERICAN-EA.COM**

Project Name: Merritt
Project Number 23-0004
Date: 4/14/25
Calculated By: RC
Checked By: JK

Rip Rap Dissipater Calculations 10-Year Storm

Outlet ID	Pipe Diameter (in)	Stone Class	Stone Depth (in)	Stone Material (tons)	Geo-Textile (SY)	Start Width (ft)	End Width (ft)	Length (ft)
FES 100	30	B	18	5	16	5	15	10
FES 120	30	B	18	5	16	5	15	10
FES 139	18	B	12	2	7	3	9	6
FES OS 1A	30	B	18	5	16	5	15	10
FES 140	36	B	18	7	22	6	18	12
FES OS 1B	18	B	12	2	7	3	9	6
FES 160	15	B	12	1	5	2.5	7.5	5
FES 0S 1C	18	B	12	2	7	3	9	6
FES 200	30	B	18	5	16	5	15	10
FES 250	18	B	12	2	7	3	9	6
FES OS 2	24	B	15	3	11	4	12	8
FES 400	36	B	18	7	22	6	18	12
FES OS 4	36	B	18	7	22	6	18	12
FES 500	48	I	24	17	38	8	24	16
FES OS 5A	24	B	15	3	11	4	12	8
FES 550	18	B	12	2	7	3	9	6
FES OS 5B	18	B	12	2	7	3	9	6
FES 560	30	B	18	5	16	5	15	10
FES OS 5C	18	B	12	2	7	3	9	6
FES 600	15	B	12	1	5	2.5	7.5	5
FES OS 6A	18	B	12	2	7	3	9	6
FES 610	24	B	15	3	11	4	12	8
FES 630	18	B	12	2	7	3	9	6
FES OS 6B	18	B	12	2	7	3	9	6
FES 700	24	B	15	3	11	4	12	8
FES 0S 7	18	B	12	2	7	3	9	6
GRNWY 100	15	B	12	1	5	2.5	7.5	5
GRNWY 110	15	B	12	1	5	2.5	7.5	5
GRNWY 120	15	B	12	1	5	2.5	7.5	5
EW 11	60 (DBL)	I	30	26	56	18	18	36
EW 21	42	B	24	10	28	7	21	14
EW 31	60	I	30	26	56	18	18	36

Calculations were determined from NCDOT Detail 876.02 *Guide for Rip Rap at Pipe Outlets*
Values shown in table above are minimum quantities and dimensions
DBL is double barell pipe

Sediment Basin Calculations

NOTE:

1. SILT FENCE OUTLETS ARE IMPLEMENTED FOR SEDIMENT CONTROL MEASURES IN DISTURBED AREAS NOT WITHIN SCM AREA. CONTRIBUTING AREAS TO SILT FENCE OUTLETS ARE A MAXIMUM OF 0.25 ACRES.

2. THIS EXHIBIT IS TO WORK IN TANDEM WITH SEDIMENT BASIN SIZING WORKSHEETS SEEN WITHIN THE PROJECT E&SC REPORT.

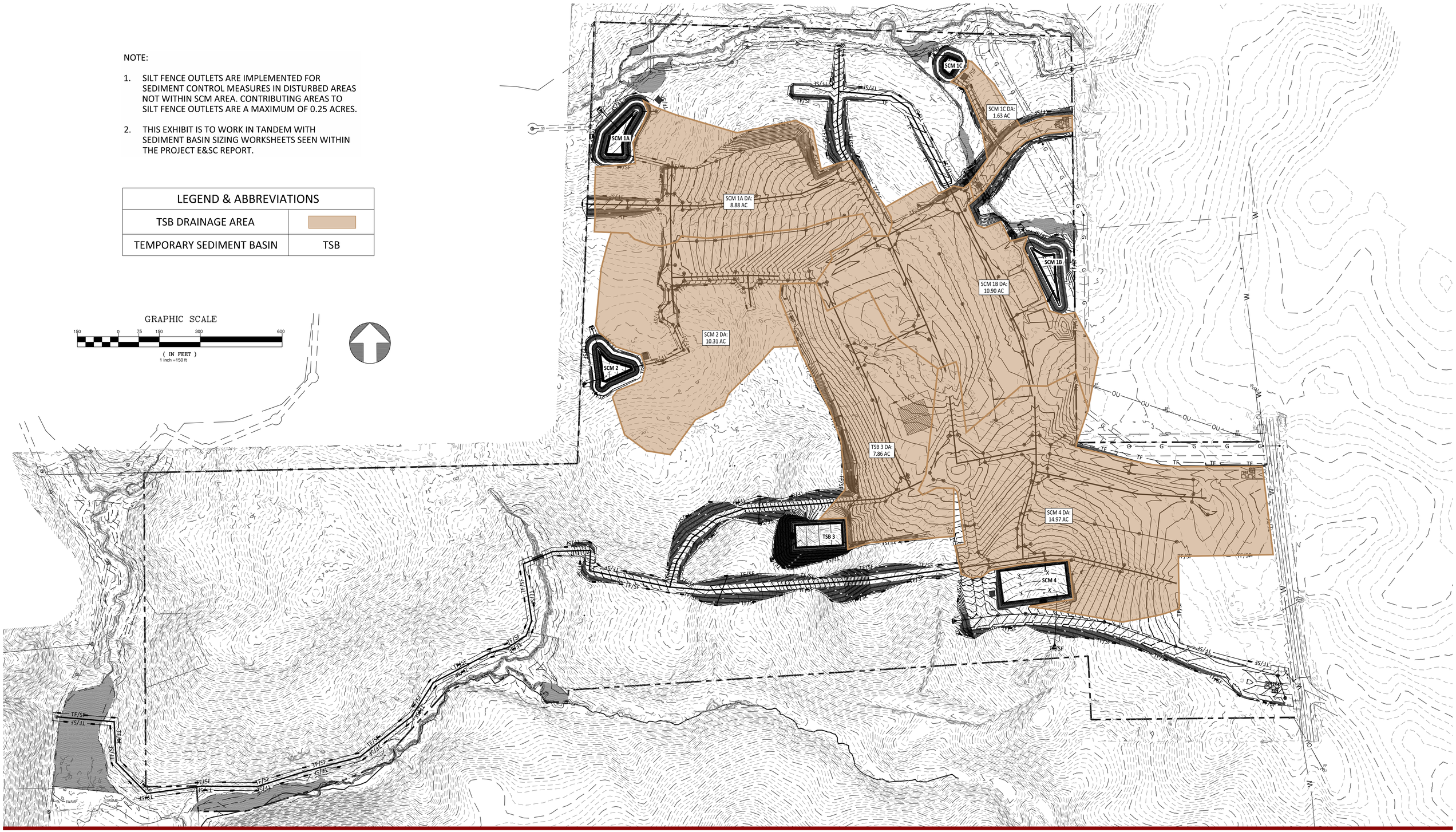
LEGEND & ABBREVIATIONS	
TSB DRAINAGE AREA	
TEMPORARY SEDIMENT BASIN	TSB

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)

1 inch = 150 ft



TEMPORARY SEDIMENT BASIN DRAINAGE AREAS - PH1 STG2

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PROJECT # 230004

MERRITT RESERVE

ROLESVILLE, NC

April 11, 2025

NOTE:

1. SILT FENCE OUTLETS ARE IMPLEMENTED FOR SEDIMENT CONTROL MEASURES IN DISTURBED AREAS NOT WITHIN SCM AREA. CONTRIBUTING AREAS TO SILT FENCE OUTLETS ARE A MAXIMUM OF 0.25 ACRES.
2. THIS EXHIBIT IS TO WORK IN TANDEM WITH SEDIMENT BASIN SIZING WORKSHEETS SEEN WITHIN THE PROJECT E&SC REPORT.

LEGEND & ABBREVIATIONS	
TSB DRAINAGE AREA	
TEMPORARY SEDIMENT BASIN	TSB

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)

1 inch = 150 ft



TEMPORARY SEDIMENT BASIN DRAINAGE AREAS - PH2 & 3 STG1

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PROJECT # 230004

MERRITT RESERVE

ROLESVILLE, NC

April 13, 2025

NOTE:

1. SILT FENCE OUTLETS ARE IMPLEMENTED FOR SEDIMENT CONTROL MEASURES IN DISTURBED AREAS NOT WITHIN SCM AREA. CONTRIBUTING AREAS TO SILT FENCE OUTLETS ARE A MAXIMUM OF 0.25 ACRES.

2. THIS EXHIBIT IS TO WORK IN TANDEM WITH SEDIMENT BASIN SIZING WORKSHEETS SEEN WITHIN THE PROJECT E&SC REPORT.

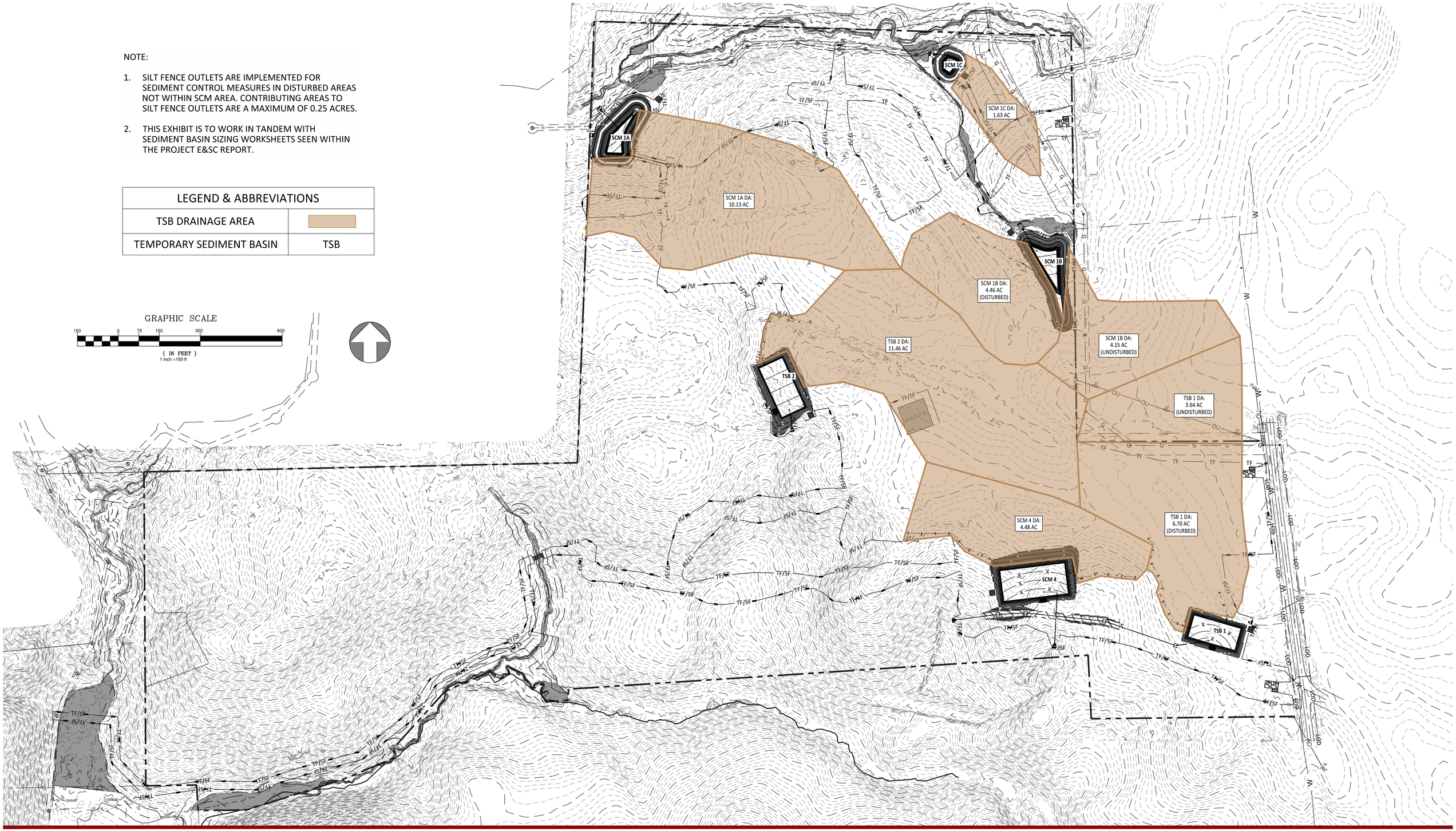
LEGEND & ABBREVIATIONS	
TSB DRAINAGE AREA	
TEMPORARY SEDIMENT BASIN	TSB

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)

1 inch = 150 ft



TEMPORARY SEDIMENT BASIN DRAINAGE AREAS - PH1 STG1

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PROJECT # 230004

MERRITT RESERVE

ROLESVILLE, NC

April 11, 2025

Selection of Sediment Control Measure

10.13	Total Drainage Area		User entry
			Calculated Value

SCM 1A

4/11/25

Do Not Use	Temporary Sediment Trap
Do Not Use	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

10.13	Disturbed Area (Acres)
44.10	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	441059	0	0	0.60	7.20	10.13	10.13	44.10

Total Area (SF) 441059

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 7.20 in/hr

Q = 43.74 cfs

Temporary Sediment Basin

Okay

SCM 1A

10.13	Drainage Area (Acres)
44.10	Peak Flow from 10-year Storm (cfs)

4/11/25

18225.58	Required Volume ft^3
19212	Required Surface Area ft^2
98.0	Suggested Width ft
196.0	Suggested Length ft

100	Trial Top Width at Spillway Invert ft	
200	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft	(2 to 13 feet above grade)
84	Bottom Width ft	
184	Bottom Length ft	
15456	Bottom Area ft^2	
70741	Actual Volume ft^3	**Okay**
20000	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.94	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

8.61	Total Drainage Area		User entry	**SCM 1B**
Do Not Use	Temporary Sediment Trap		Calculated Value	4/11/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
4.46	Disturbed Area (Acres)			
31.27	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
180863	194332	0	0	0.50	7.20	8.61	4.46	31.27

Total Area (SF) 375195

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 7.20 in/hr

Q = 31.01 cfs

Temporary Sediment Basin

Okay

SCM 1B

8.61	Drainage Area (Acres)
31.27	Peak Flow from 10-year Storm (cfs)

4/11/25

15503.93	Required Volume ft^3
13619	Required Surface Area ft^2
82.5	Suggested Width ft
165.0	Suggested Length ft

100	Trial Top Width at Spillway Invert ft	
210	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft	(2 to 13 feet above grade)
84	Bottom Width ft	
194	Bottom Length ft	
16296	Bottom Area ft^2	
74421	Actual Volume ft^3	**Okay**
21000	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.36	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

1.63	Total Drainage Area		User entry
			Calculated Value

SCM 1C

4/11/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

1.63	Disturbed Area (Acres)
7.09	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	70873	0	0	0.60	7.20	1.63	1.63	7.09

Total Area (SF) 70873

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	7.03	cfs

Temporary Sediment Basin

Okay

SCM 1C

1.63	Drainage Area (Acres)
7.09	Peak Flow from 10-year Storm (cfs)

4/11/25

2928.636	Required Volume ft^3
3087	Required Surface Area ft^2
39.3	Suggested Width ft
78.6	Suggested Length ft

50	Trial Top Width at Spillway Invert ft	
66	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(2 to 13 feet above grade)
38	Bottom Width ft	
54	Bottom Length ft	
2052	Bottom Area ft^2	
7956	Actual Volume ft^3	**Okay**
3300	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

2	Skimmer Size (inches)
0.167	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3.10	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

5.15	Total Drainage Area		User entry
			Calculated Value

SCM 4

4/11/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

5.15	Disturbed Area (Acres)
22.44	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	224436	0	0	0.60	7.20	5.15	5.15	22.44

Total Area (SF) 224436

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	22.26	cfs

Temporary Sediment Basin

Okay

SCM 4

5.15	Drainage Area (Acres)
22.44	Peak Flow from 10-year Storm (cfs)

4/11/25

9274.215	Required Volume ft^3
9776	Required Surface Area ft^2
69.9	Suggested Width ft
139.8	Suggested Length ft

125	Trial Top Width at Spillway Invert ft	
250	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(2 to 13 feet above grade)
113	Bottom Width ft	
238	Bottom Length ft	
26894	Bottom Area ft^2	
87144	Actual Volume ft^3	**Okay**
31250	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

2	Skimmer Size (inches)
0.167	Head on Skimmer (feet)
1.75	Orifice Size (1/4 inch increments)
3.21	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

10.32	Total Drainage Area		User entry
			Calculated Value

TSB 1

4/11/25

Do Not Use	Temporary Sediment Trap
Do Not Use	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

6.70	Disturbed Area (Acres)
37.47	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
157598	292045	0	0	0.50	7.20	10.32	6.70	37.47

Total Area (SF) 449643

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 7.20 in/hr

Q = 37.16 cfs

Temporary Sediment Basin

Okay

TSB 1

10.32	Drainage Area (Acres)	
37.47	Peak Flow from 10-year Storm (cfs)	4/11/25

18580.29	Required Volume ft^3	
16322	Required Surface Area ft^2	
90.3	Suggested Width ft	
180.7	Suggested Length ft	

95	Trial Top Width at Spillway Invert ft	
190	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(2 to 13 feet above grade)
83	Bottom Width ft	
178	Bottom Length ft	
14774	Bottom Area ft^2	
49164	Actual Volume ft^3	**Okay**
18050	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2.25	Orifice Size (1/4 inch increments)
3.18	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

11.49	Total Drainage Area		User entry
			Calculated Value

TSB 2

4/11/25

Do Not Use	Temporary Sediment Trap
Do Not Use	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

11.49	Disturbed Area (Acres)
50.06	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	Disturbed (SF)	Off-site (SF)	Impervious (SF)	Rational C Factor	i(10) (in./hr.)	Tot. D. A. (AC)	Disturbed (AC)	Q(10) (CFS)
0	500572	0	0	0.60	7.20	11.49	11.49	50.06

Total Area (SF) 500572

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 7.20 in/hr

Q = 49.64 cfs

Temporary Sediment Basin

Okay

TSB 2

11.49	Drainage Area (Acres)
50.06	Peak Flow from 10-year Storm (cfs)

4/11/25

20684.79	Required Volume ft^3
21804	Required Surface Area ft^2
104.4	Suggested Width ft
208.8	Suggested Length ft

105	Trial Top Width at Spillway Invert ft	
210	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(2 to 13 feet above grade)
93	Bottom Width ft	
198	Bottom Length ft	
18414	Bottom Area ft^2	
60624	Actual Volume ft^3	**Okay**
22050	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2.25	Orifice Size (1/4 inch increments)
3.54	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

8.88	Total Drainage Area		User entry
			Calculated Value

SCM 1A

4/11/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

8.88	Disturbed Area (Acres)
38.67	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	386708	0	0	0.60	7.20	8.88	8.88	38.67

Total Area (SF) 386708

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	38.35	cfs

Temporary Sediment Basin

Okay

SCM 1A

8.88	Drainage Area (Acres)
38.67	Peak Flow from 10-year Storm (cfs)

4/11/25

15979.67	Required Volume ft^3
16844	Required Surface Area ft^2
91.8	Suggested Width ft
183.5	Suggested Length ft

100	Trial Top Width at Spillway Invert ft	
200	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
84	Bottom Width ft	
184	Bottom Length ft	
15456	Bottom Area ft^2	
70741	Actual Volume ft^3	**Okay**
20000	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.46	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

10.90	Total Drainage Area		User entry
			Calculated Value

SCM 1B

4/11/25

Do Not Use	Temporary Sediment Trap
Do Not Use	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

10.90	Disturbed Area (Acres)
47.46	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	Disturbed (SF)	Off-site (SF)	Impervious (SF)	Rational C Factor	i(10) (in./hr.)	Tot. D. A. (AC)	Disturbed (AC)	Q(10) (CFS)
0	474620	0	0	0.60	7.20	10.90	10.90	47.46

Total Area (SF) 474620

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 7.20 in/hr

Q = 47.07 cfs

Temporary Sediment Basin

Okay

SCM 1B

10.90	Drainage Area (Acres)
47.46	Peak Flow from 10-year Storm (cfs)

4/11/25

19612.4	Required Volume ft^3
20674	Required Surface Area ft^2
101.7	Suggested Width ft
203.3	Suggested Length ft

100	Trial Top Width at Spillway Invert ft	
210	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft	(2 to 13 feet above grade)
84	Bottom Width ft	
194	Bottom Length ft	
16296	Bottom Area ft^2	
74421	Actual Volume ft^3	**Okay**
21000	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
4.25	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

1.63	Total Drainage Area		User entry
			Calculated Value

SCM 1C

4/11/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

1.63	Disturbed Area (Acres)
7.09	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	70910	0	0	0.60	7.20	1.63	1.63	7.09

Total Area (SF) 70910

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	7.03	cfs

Temporary Sediment Basin

Okay

SCM 1C

1.63	Drainage Area (Acres)
7.09	Peak Flow from 10-year Storm (cfs)

4/11/25

2930.165	Required Volume ft^3
3089	Required Surface Area ft^2
39.3	Suggested Width ft
78.6	Suggested Length ft

50	Trial Top Width at Spillway Invert ft	
66	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(2 to 13 feet above grade)
38	Bottom Width ft	
54	Bottom Length ft	
2052	Bottom Area ft^2	
7956	Actual Volume ft^3	**Okay**
3300	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

2	Skimmer Size (inches)
0.167	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3.10	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

10.31	Total Drainage Area		User entry
			Calculated Value

SCM 2

4/11/25

Do Not Use	Temporary Sediment Trap
Do Not Use	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

3.00	Disturbed Area (Acres)
29.90	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
318561	130675	0	0	0.50	5.75	10.31	3.00	29.90

Total Area (SF) 449236

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 5.75 in/hr

Q = 29.65 cfs

Temporary Sediment Basin

Okay

SCM 2

10.31	Drainage Area (Acres)
29.90	Peak Flow from 10-year Storm (cfs)

4/11/25

18563.47	Required Volume ft^3
13023	Required Surface Area ft^2
80.7	Suggested Width ft
161.4	Suggested Length ft

90	Trial Top Width at Spillway Invert ft	
145	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft	(2 to 13 feet above grade)
74	Bottom Width ft	
129	Bottom Length ft	
9546	Bottom Area ft^2	
45021	Actual Volume ft^3	**Okay**
13050	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2.25	Orifice Size (1/4 inch increments)
3.17	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

15.37	Total Drainage Area		User entry
			Calculated Value

SCM 4

4/11/25

Do Not Use	Temporary Sediment Trap
Do Not Use	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

15.37	Disturbed Area (Acres)
66.96	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	669666	0	0	0.60	7.20	15.37	15.37	66.96

Total Area (SF) 669666

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 7.20 in/hr

Q = 66.41 cfs

Temporary Sediment Basin

Okay

SCM 4

15.37	Drainage Area (Acres)
66.96	Peak Flow from 10-year Storm (cfs)

4/11/25

27672.15	Required Volume ft^3
29170	Required Surface Area ft^2
120.8	Suggested Width ft
241.5	Suggested Length ft

125	Trial Top Width at Spillway Invert ft	
250	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(2 to 13 feet above grade)
113	Bottom Width ft	
238	Bottom Length ft	
26894	Bottom Area ft^2	
87144	Actual Volume ft^3	**Okay**
31250	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

4	Skimmer Size (inches)
0.333	Head on Skimmer (feet)
2.5	Orifice Size (1/4 inch increments)
3.32	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

7.86	Total Drainage Area		User entry
			Calculated Value

TSB 3

4/11/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

7.86	Disturbed Area (Acres)
34.26	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	342565	0	0	0.60	7.20	7.86	7.86	34.26

Total Area (SF) 342565

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	33.97	cfs

Temporary Sediment Basin

Okay

TSB 3

7.86	Drainage Area (Acres)	
34.26	Peak Flow from 10-year Storm (cfs)	4/11/25

14155.58	Required Volume ft^3	
14922	Required Surface Area ft^2	
86.4	Suggested Width ft	
172.8	Suggested Length ft	

90	Trial Top Width at Spillway Invert ft	
180	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(2 to 13 feet above grade)
78	Bottom Width ft	
168	Bottom Length ft	
13104	Bottom Area ft^2	
43884	Actual Volume ft^3	**Okay**
16200	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.06	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

10.46	Total Drainage Area		User entry	**SCM 1A**
Do Not Use	Temporary Sediment Trap		Calculated Value	4/13/25
Do Not Use	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
10.46	Disturbed Area (Acres)			
45.54	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	455463	0	0	0.60	7.20	10.46	10.46	45.54

Total Area (SF) 455463

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 45.17 cfs

Temporary Sediment Basin

Okay

SCM 1A

10.46	Drainage Area (Acres)
45.54	Peak Flow from 10-year Storm (cfs)

4/13/25

18820.79	Required Volume ft^3
19839	Required Surface Area ft^2
99.6	Suggested Width ft
199.2	Suggested Length ft

100	Trial Top Width at Spillway Invert ft	
200	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
84	Bottom Width ft	
184	Bottom Length ft	
15456	Bottom Area ft^2	
70741	Actual Volume ft^3	**Okay**
20000	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2.25	Orifice Size (1/4 inch increments)
3.22	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

8.91	Total Drainage Area		User entry	**SCM 2**
Do Not Use	Temporary Sediment Trap		Calculated Value	4/13/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
8.91	Disturbed Area (Acres)			
30.99	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	388094	0	0	0.60	5.75	8.91	8.91	30.99

Total Area (SF) 388094

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 5.75 in/hr
Q = 30.74 cfs

Temporary Sediment Basin

Okay

SCM 2

8.91	Drainage Area (Acres)
30.99	Peak Flow from 10-year Storm (cfs)

4/13/25

16036.94	Required Volume ft^3
13500	Required Surface Area ft^2
82.2	Suggested Width ft
164.3	Suggested Length ft

95	Trial Top Width at Spillway Invert ft	
145	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
79	Bottom Width ft	
129	Bottom Length ft	
10191	Bottom Area ft^2	
47761	Actual Volume ft^3	**Okay**
13775	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.47	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

3.72	Total Drainage Area		User entry	**SCM 5A**
Do Not Use	Temporary Sediment Trap		Calculated Value	4/13/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
3.01	Disturbed Area (Acres)			
14.23	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
31074	130908	0	0	0.53	7.20	3.72	3.01	14.23

Total Area (SF) 161982

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 14.11 cfs

Temporary Sediment Basin

Okay

SCM 5A

3.72	Drainage Area (Acres)
14.23	Peak Flow from 10-year Storm (cfs)

4/13/25

6693.471	Required Volume ft^3
6198	Required Surface Area ft^2
55.7	Suggested Width ft
111.3	Suggested Length ft

100	Trial Top Width at Spillway Invert ft	
200	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
84	Bottom Width ft	
184	Bottom Length ft	
15456	Bottom Area ft^2	
70741	Actual Volume ft^3	**Okay**
20000	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2.25	Orifice Size (1/4 inch increments)
1.14	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

0.89	Total Drainage Area		User entry	**SCM 5B**
Okay	Temporary Sediment Trap		Calculated Value	4/13/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
0.89	Disturbed Area (Acres)			
3.88	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	38826	0	0	0.60	7.20	0.89	0.89	3.88

Total Area (SF) 38826

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 7.20 in/hr

Q = 3.85 cfs

Temporary Sediment Basin

Okay

SCM 5B

0.89	Drainage Area (Acres)
3.88	Peak Flow from 10-year Storm (cfs)

4/13/25

1604.38	Required Volume ft^3
1691	Required Surface Area ft^2
29.1	Suggested Width ft
58.2	Suggested Length ft

94	Trial Top Width at Spillway Invert ft	
188	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
78	Bottom Width ft	
172	Bottom Length ft	
13416	Bottom Area ft^2	
62005	Actual Volume ft^3	**Okay**
17672	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2.25	Orifice Size (1/4 inch increments)
0.27	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

4.98	Total Drainage Area		User entry	**SCM 5C**
Do Not Use	Temporary Sediment Trap		Calculated Value	4/13/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
4.98	Disturbed Area (Acres)			
21.70	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	217045	0	0	0.60	7.20	4.98	4.98	21.70

Total Area (SF) 217045

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 21.53 cfs

Temporary Sediment Basin

Okay

SCM 5C

4.98	Drainage Area (Acres)
21.70	Peak Flow from 10-year Storm (cfs)

4/13/25

8968.802	Required Volume ft^3
9454	Required Surface Area ft^2
68.8	Suggested Width ft
137.5	Suggested Length ft

100	Trial Top Width at Spillway Invert ft	
200	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
84	Bottom Width ft	
184	Bottom Length ft	
15456	Bottom Area ft^2	
70741	Actual Volume ft^3	**Okay**
20000	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

2.5	Skimmer Size (inches)
0.208	Head on Skimmer (feet)
1.5	Orifice Size (1/4 inch increments)
3.78	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

2.32	Total Drainage Area		User entry	**SCM 6A**
Do Not Use	Temporary Sediment Trap		Calculated Value	4/13/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
2.32	Disturbed Area (Acres)			
10.11	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	101139	0	0	0.60	7.20	2.32	2.32	10.11

Total Area (SF) 101139

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 10.03 cfs

Temporary Sediment Basin

Okay

SCM 6A

2.32	Drainage Area (Acres)
10.11	Peak Flow from 10-year Storm (cfs)

4/13/25

4179.298	Required Volume ft^3
4405	Required Surface Area ft^2
46.9	Suggested Width ft
93.9	Suggested Length ft

94	Trial Top Width at Spillway Invert ft	
188	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
78	Bottom Width ft	
172	Bottom Length ft	
13416	Bottom Area ft^2	
62005	Actual Volume ft^3	**Okay**
17672	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2.25	Orifice Size (1/4 inch increments)
0.71	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

1.49	Total Drainage Area		User entry	**SCM 6B**
Do Not Use	Temporary Sediment Trap		Calculated Value	4/13/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
1.49	Disturbed Area (Acres)			
6.48	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	64847	0	0	0.60	7.20	1.49	1.49	6.48

Total Area (SF) 64847

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 7.20 in/hr

Q = 6.43 cfs

Temporary Sediment Basin

Okay

SCM 6B

1.49	Drainage Area (Acres)
6.48	Peak Flow from 10-year Storm (cfs)

4/13/25

2679.628	Required Volume ft^3
2825	Required Surface Area ft^2
37.6	Suggested Width ft
75.2	Suggested Length ft

94	Trial Top Width at Spillway Invert ft	
188	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
78	Bottom Width ft	
172	Bottom Length ft	
13416	Bottom Area ft^2	
62005	Actual Volume ft^3	**Okay**
17672	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2.25	Orifice Size (1/4 inch increments)
0.46	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Selection of Sediment Control Measure

5.58	Total Drainage Area		User entry	**TSB 4**
Do Not Use	Temporary Sediment Trap		Calculated Value	4/13/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
5.58	Disturbed Area (Acres)			
24.30	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	243022	0	0	0.60	7.20	5.58	5.58	24.30

Total Area (SF) 243022

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 24.10 cfs

Skimmer Basin

TSB 4

Okay 4/13/25

5.579017	Disturbed Area (Acres)	
24.3014	Peak Flow from 10-year Storm (cfs)	
10042.23	Required Volume ft^3	
7898	Required Surface Area ft^2	
62.8	Suggested Width ft	
125.7	Suggested Length ft	
65	Trial Top Width at Spillway Invert ft	
130	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3.5	Trial Depth ft (2 to 3.5 feet above grade)	
51	Bottom Width ft	
116	Bottom Length ft	
5916	Bottom Area ft^2	
25026	Actual Volume ft^3	**Okay**
8450	Actual Surface Area ft^2	**Okay**
10	Trial Weir Length ft	
1	Trial Depth of Flow ft	
30.0	Spillway Capacity cfs	**Okay**
2.5	Skimmer Size (inches)	
0.208	Head on Skimmer (feet)	
1.75	Orifice Size (1/4 inch increments)	
3.11	Dewatering Time (days)	
	Suggest about 3 days	

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

not selected

Selection of Sediment Control Measure

2.03	Total Drainage Area		User entry	**TSB 5**
Do Not Use	Temporary Sediment Trap		Calculated Value	4/13/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
2.03	Disturbed Area (Acres)			
8.85	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	88527	0	0	0.60	7.20	2.03	2.03	8.85

Total Area (SF) 88527

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 7.20 in/hr

Q = 8.78 cfs

Skimmer Basin

TSB 5

Okay 4/13/25

2.0323	Disturbed Area (Acres)
8.852407	Peak Flow from 10-year Storm (cfs)
3658.14	Required Volume ft^3
2877	Required Surface Area ft^2
37.9	Suggested Width ft
75.9	Suggested Length ft
40	Trial Top Width at Spillway Invert ft
80	Trial Top Length at Spillway Invert ft
2	Trial Side Slope Ratio Z:1
3.5	Trial Depth ft (2 to 3.5 feet above grade)
26	Bottom Width ft
66	Bottom Length ft
1716	Bottom Area ft^2
8489	Actual Volume ft^3 **Okay**
3200	Actual Surface Area ft^2 **Okay**
10	Trial Weir Length ft
1	Trial Depth of Flow ft
30.0	Spillway Capacity cfs **Okay**
2	Skimmer Size (inches)
0.167	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3.88	Dewatering Time (days)

Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

not selected

Selection of Sediment Control Measure

1.51	Total Drainage Area		User entry	**SCM 6**
Do Not Use	Temporary Sediment Trap		Calculated Value	4/13/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
1.51	Disturbed Area (Acres)			
6.56	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	65642	0	0	0.60	7.20	1.51	1.51	6.56

Total Area (SF) 65642

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 7.20 in/hr

Q = 6.51 cfs

Skimmer Basin

SCM 6

Okay 4/13/25

1.506933	Disturbed Area (Acres)
6.563983	Peak Flow from 10-year Storm (cfs)
2712.479	Required Volume ft^3
2133	Required Surface Area ft^2
32.7	Suggested Width ft
65.3	Suggested Length ft
60	Trial Top Width at Spillway Invert ft
120	Trial Top Length at Spillway Invert ft
2	Trial Side Slope Ratio Z:1
3.5	Trial Depth ft (2 to 3.5 feet above grade)
46	Bottom Width ft
106	Bottom Length ft
4876	Bottom Area ft^2
21019	Actual Volume ft^3 **Okay**
7200	Actual Surface Area ft^2 **Okay**
10	Trial Weir Length ft
1	Trial Depth of Flow ft
30.0	Spillway Capacity cfs **Okay**
1.5	Skimmer Size (inches)
0.125	Head on Skimmer (feet)
1.25	Orifice Size (1/4 inch increments)
2.13	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

not selected

Drainage Swale Calculations

NOTE:

1. SEE PROJECT SCHEDULE SHEETS IN CID PLAN SET FOR TDD CALCULATIONS AND RECOMMENDATIONS.
2. AREAS NOT CONTRIBUTING TO DITCHES ARE EITHER CONVEYED VIA STORMWATER INFRASTRUCTURE TO TSB'S OR TO SILT FENCE OUTLETS.

LEGEND & ABBREVIATIONS	
TDD DRAINAGE AREA	
TEMPORARY DIVERSION DITCH	TDD
TEMPORARY SEDIMENT BASIN	TSB

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)

1 inch =150 ft



RUNOFF CONTROL MEASURE DRAINAGE AREAS - PH1 STG1

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PROJECT # 230004

MERRITT RESERVE

ROLESVILLE, NC

April 11, 2025

NOTE:

1. SEE PROJECT SCHEDULE SHEETS IN CID PLAN SET FOR TDD CALCULATIONS AND RECOMMENDATIONS.
2. AREAS NOT CONTRIBUTING TO DITCHES ARE EITHER CONVEYED VIA STORMWATER INFRASTRUCTURE TO TSB'S OR TO SILT FENCE OUTLETS.

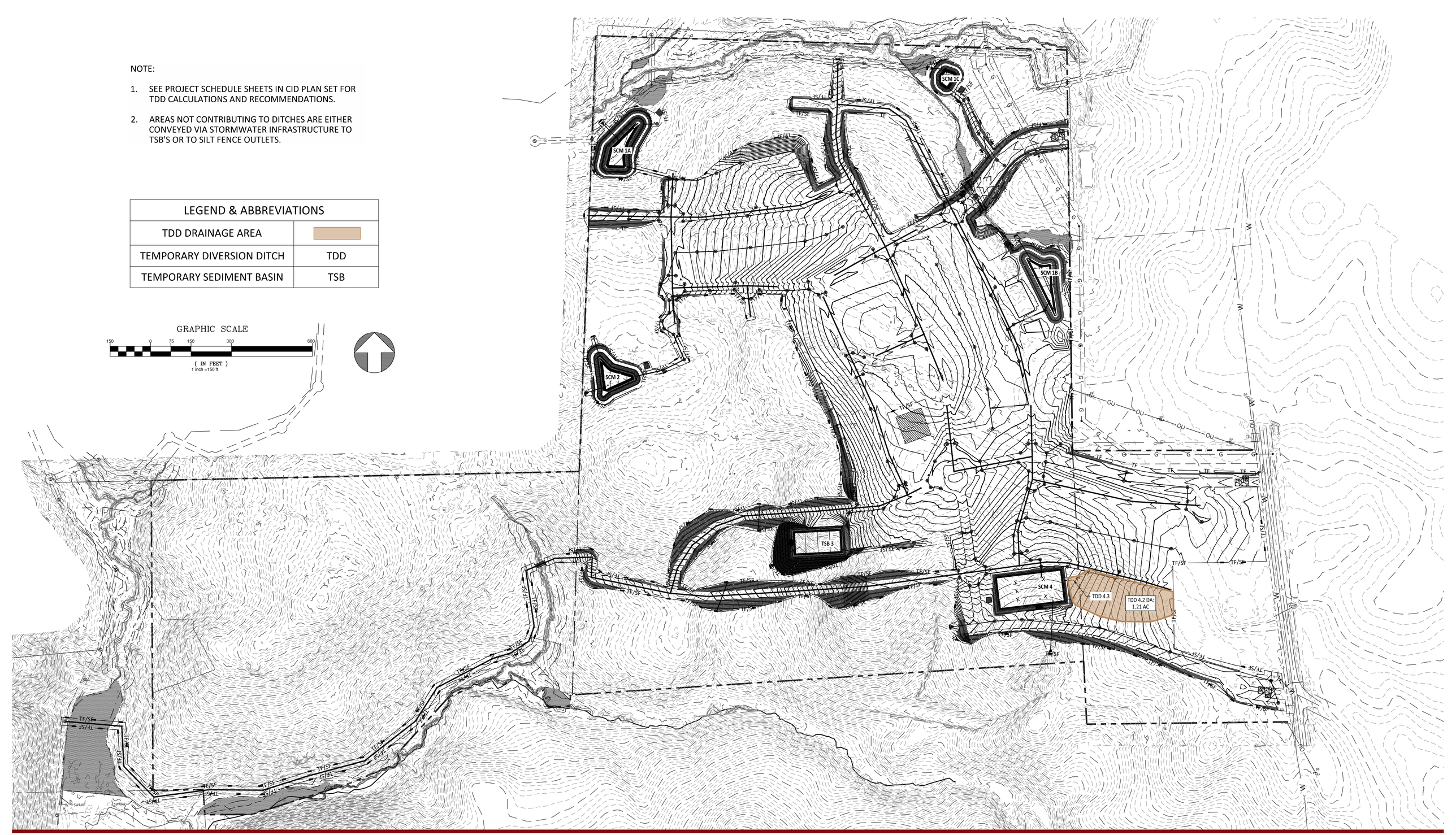
LEGEND & ABBREVIATIONS	
TDD DRAINAGE AREA	
TEMPORARY DIVERSION DITCH	TDD
TEMPORARY SEDIMENT BASIN	TSB

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)

1 inch =150 ft



RUNOFF CONTROL MEASURE DRAINAGE AREAS - PH1 STG2

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PROJECT # 230004

MERRITT RESERVE

ROLESVILLE, NC

April 11, 2025

NOTE:

1. SEE PROJECT SCHEDULE SHEETS IN CID PLAN SET FOR TDD CALCULATIONS AND RECOMMENDATIONS.
2. AREAS NOT CONTRIBUTING TO DITCHES ARE EITHER CONVEYED VIA STORMWATER INFRASTRUCTURE TO TSB'S OR TO SILT FENCE OUTLETS.

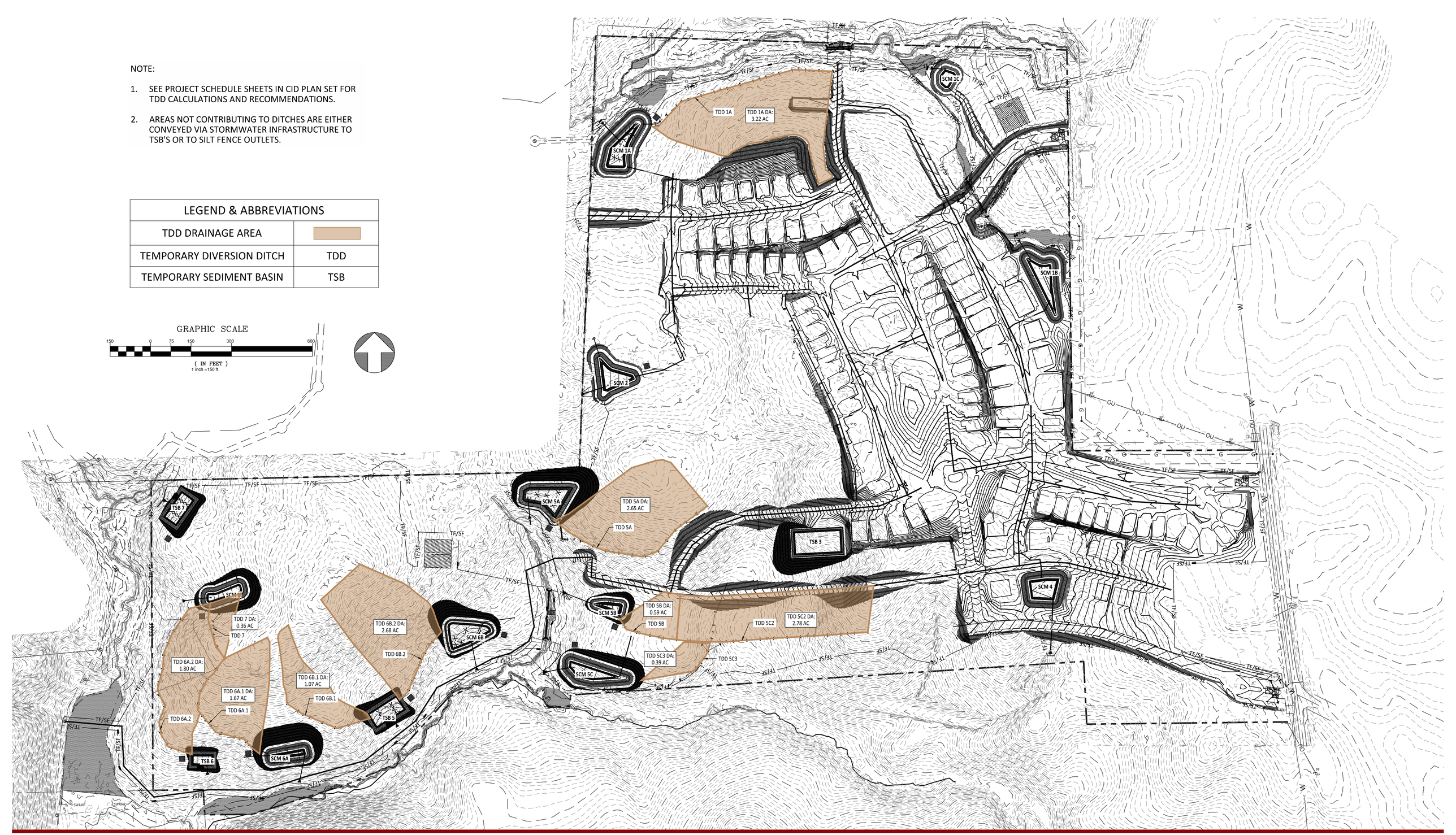
LEGEND & ABBREVIATIONS	
TDD DRAINAGE AREA	
TEMPORARY DIVERSION DITCH	TDD
TEMPORARY SEDIMENT BASIN	TSB

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)

1 inch =150 ft



RUNOFF CONTROL MEASURE DRAINAGE AREAS - PH2 & 3 STG1

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PROJECT # 230004

MERRITT RESERVE

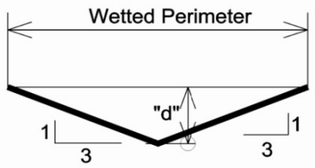
ROLESVILLE, NC

April 13, 2025

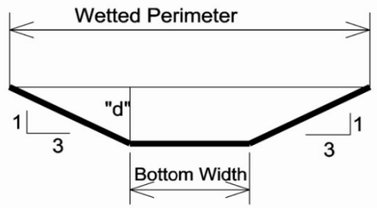
Merritt Reserve - Phase 1

Rev. 110421

Corrected Wetted Perimeter Equation



Ditch Section (For Bottom Width = 0)
(Not To Scale)



Trapezoidal Ditch / Swale Section
(Not To Scale)

TEMPORARY - TRIANGULAR SWALE DRAINAGE CHART - MERRIT RESERVE PHASE 1

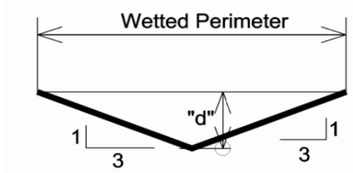
Ditch I.D.	D.A., Ac.	C	i_{10}, in/hr	Q_{10}, cfs	Left Side Slope, Z Z:1	Right Side Slope, Z Z:1	Avg. Ditch Slope, %	Bottom Width	Ditch Lining*	Manning, n	Q_{10} Flow Depth, ft	Flow Velocity V10, fps	Calc.Shear Stress, psf
TDD 1.1	4.84	0.60	7.20	**20.91**	2.00	2.00	3.50	0.00	**Geocoir/Dekowe; 400**	0.033	**1.33**	**5.93**	2.90
TDD 1.2	3.01	0.60	7.20	**13.00**	2.00	2.00	0.92	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**1.43**	**3.19**	0.82
TDD 1.3	0.44	0.60	7.20	**1.90**	2.00	2.00	0.50	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**0.78**	**1.56**	0.24
TDD 1.4	6.25	0.60	7.20	**27.00**	2.00	2.00	0.25	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**2.39**	**2.36**	0.37
TDD 2.1	11.49	0.60	7.20	**49.64**	2.00	2.00	1.00	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**2.32**	**4.62**	1.45
TDD 4.1	2.64	0.60	7.20	**11.40**	2.00	2.00	1.84	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**1.19**	**4.00**	1.37
TDD 4.2	1.15	0.60	7.20	**4.97**	2.00	2.00	2.46	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**0.83**	**3.62**	1.27
TDD 4.3	1.21	0.60	7.20	**5.23**	2.00	2.00	2.47	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**0.84**	**3.67**	1.30

*Alternate lining may be used if it is an approved equal to the one listed

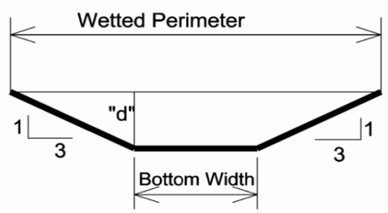
Merritt Reserve - Phase 2 and 3

Rev. 110421

Corrected Wetted Perimeter Equation



Ditch Section (For Bottom Width = 0)
(Not To Scale)



Trapezoidal Ditch / Swale Section
(Not To Scale)

TEMPORARY - TRIANGULAR SWALE DRAINAGE CHART - MERRIT RESERVE PHASE 2 & 3

Ditch I.D.	D.A., Ac.	C	i_{10}, in/hr	Q_{10}, cfs	Left Side Slope, Z Z:1	Right Side Slope, Z Z:1	Avg. Ditch Slope, %	Bottom Width	Ditch Lining*	Manning, n	Q_{10} Flow Depth, ft	Flow Velocity V10, fps	Calc.Shear Stress, psf
TDD 1A	3.22	0.60	7.20	**13.91**	2.00	2.00	1.50	0.00	**N. Am. Green; Coconut; double net**	0.033	**1.34**	**3.90**	1.25
TDD 2	2.64	0.60	7.20	**11.40**	2.00	2.00	4.91	0.00	**Geocoir/Dekowe; 400**	0.033	**0.99**	**5.78**	3.04
TDD 5A	2.65	0.60	7.20	**11.45**	2.00	2.00	6.47	0.00	**Geocoir/Dekowe; 700**	0.033	**0.95**	**6.41**	3.82
TDD 5B	0.59	0.60	7.20	**2.55**	2.00	2.00	4.81	0.00	**N. Am. Green; Coconut; double net**	0.033	**0.57**	**3.93**	1.71
TDD 5C2	2.78	0.60	7.20	**12.01**	2.00	2.00	16.03	0.00	**N. Am. Green; C350; Vegetated**	0.033	**0.81**	**9.11**	8.12
TDD 5C3	0.39	0.60	7.20	**1.68**	2.00	2.00	0.90	0.00	**N. Am. Green; Coconut; double net**	0.033	**0.67**	**1.89**	0.37
TDD 6A.1	1.67	0.60	7.20	**7.21**	2.00	2.00	8.72	0.00	**Geocoir/Dekowe; 700**	0.033	**0.75**	**6.38**	4.09
TDD 6A.2	1.80	0.60	7.20	**7.78**	2.00	2.00	2.91	0.00	**N. Am. Green; Coconut; double net**	0.033	**0.95**	**4.31**	1.72
TDD 6B.1	1.07	0.60	7.20	**4.62**	2.00	2.00	7.44	0.00	**Geocoir/Dekowe; 400**	0.033	**0.66**	**5.37**	3.05
TDD 6B.2	2.68	0.60	7.20	**11.58**	2.00	2.00	3.00	0.00	**N. Am. Green; Coconut; double net**	0.033	**1.10**	**4.82**	2.05
TDD 7	0.36	0.60	7.20	**1.56**	2.00	2.00	7.61	0.00	**N. Am. Green; Coconut; double net**	0.033	**0.44**	**4.11**	2.07

*Alternate lining may be used if it is an approved equal to the one listed

Culvert Calculations

Culvert Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Apr 14 2025

Fowler Road Culvert (#3)

Invert Elev Dn (ft)	=	284.50
Pipe Length (ft)	=	165.00
Slope (%)	=	2.42
Invert Elev Up (ft)	=	288.50
Rise (in)	=	54.0
Shape	=	Circular
Span (in)	=	54.0
No. Barrels	=	1
n-Value	=	0.012
Culvert Type	=	Circular Concrete
Culvert Entrance	=	Square edge w/headwall (C)
Coeff. K,M,c,Y,k	=	0.0098, 2, 0.0398, 0.67, 0.5

Embankment

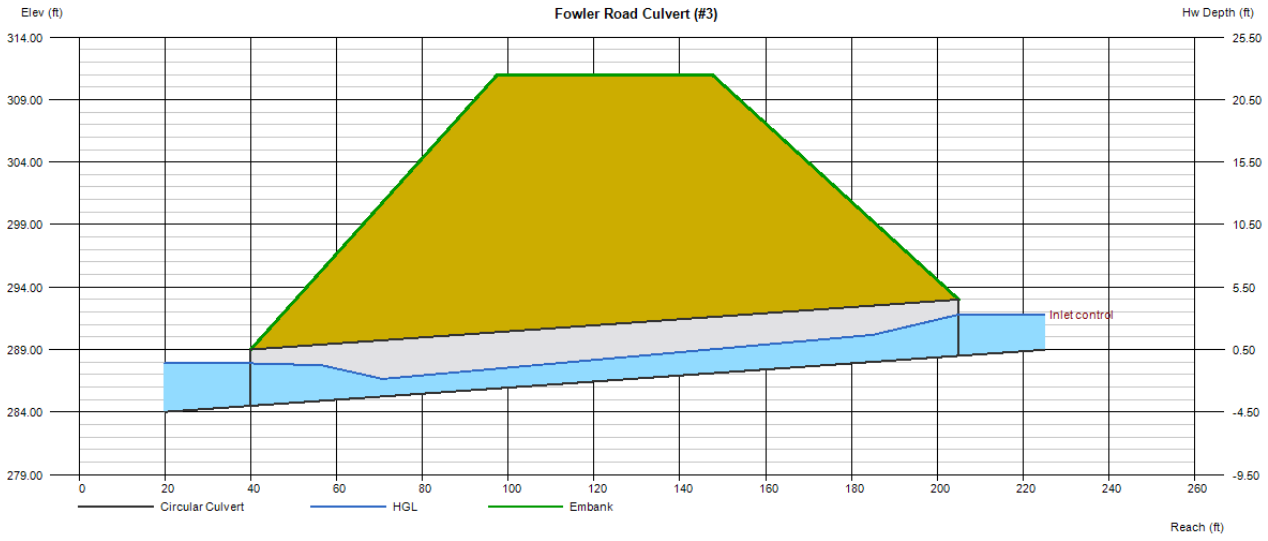
Top Elevation (ft)	=	311.00
Top Width (ft)	=	50.00
Crest Width (ft)	=	20.00

Calculations

Qmin (cfs)	=	62.20
Qmax (cfs)	=	62.20
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	62.20
Qpipe (cfs)	=	62.20
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	4.83
Veloc Up (ft/s)	=	7.64
HGL Dn (ft)	=	287.90
HGL Up (ft)	=	290.79
Hw Elev (ft)	=	291.79
Hw/D (ft)	=	0.73
Flow Regime	=	Inlet Control



Culvert Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Apr 14 2025

Jocund Street Culvert (#2)

Invert Elev Dn (ft)	=	349.30
Pipe Length (ft)	=	95.00
Slope (%)	=	1.26
Invert Elev Up (ft)	=	350.50
Rise (in)	=	54.0
Shape	=	Circular
Span (in)	=	54.0
No. Barrels	=	2
n-Value	=	0.012
Culvert Type	=	Circular Concrete
Culvert Entrance	=	Square edge w/headwall (C)
Coeff. K,M,c,Y,k	=	0.0098, 2, 0.0398, 0.67, 0.5

Embankment

Top Elevation (ft)	=	362.00
Top Width (ft)	=	50.00
Crest Width (ft)	=	20.00

Calculations

Qmin (cfs)	=	160.00
Qmax (cfs)	=	160.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	160.00
Qpipe (cfs)	=	160.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	5.93
Veloc Up (ft/s)	=	8.35
HGL Dn (ft)	=	352.86
HGL Up (ft)	=	353.11
Hw Elev (ft)	=	354.42
Hw/D (ft)	=	0.87
Flow Regime	=	Inlet Control



Culvert Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Apr 14 2025

Strips Drive Culvert (#1)

Invert Elev Dn (ft)	=	369.90
Pipe Length (ft)	=	75.00
Slope (%)	=	1.33
Invert Elev Up (ft)	=	370.90
Rise (in)	=	33.6
Shape	=	Circular
Span (in)	=	33.6
No. Barrels	=	1
n-Value	=	0.012
Culvert Type	=	Circular Concrete
Culvert Entrance	=	Square edge w/headwall (C)
Coeff. K,M,c,Y,k	=	0.0098, 2, 0.0398, 0.67, 0.5

Embankment

Top Elevation (ft)	=	379.40
Top Width (ft)	=	50.00
Crest Width (ft)	=	20.00

Calculations

Qmin (cfs)	=	27.60
Qmax (cfs)	=	27.60
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	27.60
Qpipe (cfs)	=	27.60
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	5.17
Veloc Up (ft/s)	=	6.90
HGL Dn (ft)	=	372.17
HGL Up (ft)	=	372.63
Hw Elev (ft)	=	373.55
Hw/D (ft)	=	0.95
Flow Regime	=	Inlet Control

