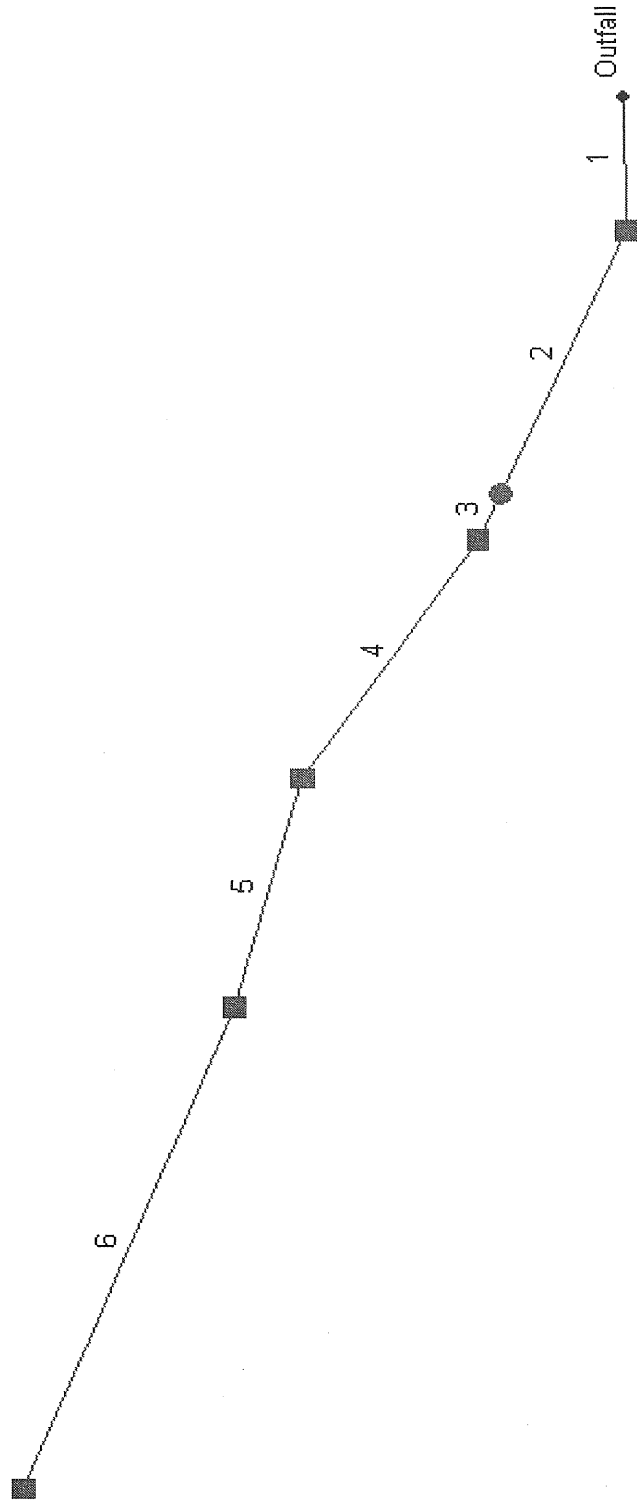


Hydraflow Plan View



Profile 1

No. Lines: 6

07-24-2006

Storm Sewer Inventory Report

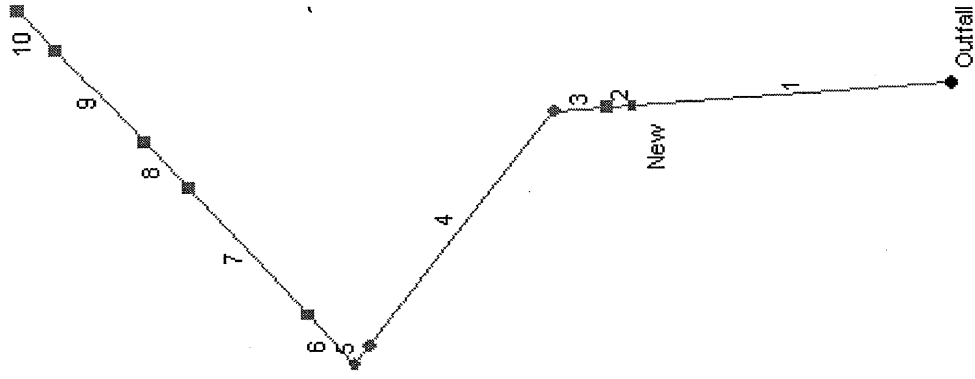
Line No.	Alignment				Flow Data				Physical Data							Line ID	
	Dnstr line No.	Line length (ft)	Defl angle (deg)	Junc type	Known Q (cfs)	Drng area (ac)	Runoff coeff (C)	Inlet time (min)	Invert El Dn (ft)	Line slope (%)	Invert El Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)		Inlet/ Rim El (ft)
1	End	42.0	178.8	Grate	0.00	1.01	0.90	5.0	12.59	0.74	12.90	24	Cir	0.013	0.72	17.50	Existing Pipe
2	1	90.0	25.0	MH	0.00	0.00	0.90	5.0	13.00	5.56	18.00	24	Cir	0.013	0.15	28.00	SD 15
3	2	16.0	0.1	Grate	0.00	0.64	0.90	5.0	18.00	5.00	18.80	24	Cir	0.013	0.50	27.20	SD 16
4	3	90.0	10.3	Grate	0.00	0.23	0.90	5.0	18.90	2.00	20.70	18	Cir	0.013	0.57	28.40	SD 17
5	4	74.0	-19.0	Grate	0.00	0.37	0.90	5.0	20.80	2.00	22.28	18	Cir	0.013	0.50	29.40	SD 18
6	5	162.0	6.8	Grate	0.00	0.47	0.90	5.0	22.38	1.00	24.00	15	Cir	0.013	1.00	29.30	SD 19

Profile 1																	
Number of lines: 6													Date: 07-24-2006				

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	Existing Pipe	12.96	24 c	42.0	12.59	12.90	0.738	14.59	14.69	0.21	14.90	End
2	SD 15	8.35	24 c	90.0	13.00	18.00	5.556	15.09	19.02	n/a	19.02 j	1
3	SD 16	8.39	24 c	16.0	18.00	18.80	5.000	19.33	19.83	n/a	19.83 j	2
4	SD 17	5.37	18 c	90.0	18.90	20.70	2.000	20.10	21.58	n/a	21.58 j	3
5	SD18	4.32	18 c	74.0	20.80	22.28	2.000	21.87	23.07	n/a	23.07 j	4
6	SD19	2.58	15 c	162.0	22.38	24.00	1.000	23.33	24.64	n/a	24.64 j	5
Profile 1							Number of lines: 6			Run Date: 07-24-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; j - Line contains hyd. jump.												

Hydraflow Plan View



Profile 2

No. Lines: 10

07-24-2006

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 type	N value (n)	J-loss coeff (K)		Inlet/ Rim El (ft)
1	End	240.0	-94.3	MH	0.00	0.00	0.90	5.0	8.50	0.66	10.09	36	Cir	0.013	0.15	20.39	Existing Pipe
2	1	20.0	0.0	Curb	0.00	3.29	0.90	5.0	10.09	1.50	10.39	36	Cir	0.013	0.50	20.39	Existing Pipe(2)
3	2	40.0	0.5	MH	0.00	2.27	0.90	5.0	10.49	2.03	11.30	36	Cir	0.013	0.81	21.80	SD 1
4	3	238.0	-50.5	MH	0.00	0.00	0.90	5.0	11.40	2.00	16.16	30	Cir	0.013	0.15	28.50	SD 3
5	4	18.0	-0.2	MH	0.00	0.19	0.90	5.0	16.16	2.00	16.52	30	Cir	0.013	1.00	29.50	SD 4
6	5	54.0	103.3	Grate	0.00	0.71	0.90	5.0	16.62	1.00	17.16	24	Cir	0.013	0.50	28.70	SD 5
7	6	138.0	0.8	Grate	0.00	0.56	0.90	5.0	17.26	1.00	18.64	24	Cir	0.013	0.50	28.80	SD 6
8	7	50.0	0.2	Grate	0.00	0.22	0.90	5.0	18.74	1.00	19.24	18	Cir	0.013	0.50	29.60	SD 7
9	8	100.0	-1.2	Grate	0.00	0.23	0.90	5.0	19.34	1.00	20.34	18	Cir	0.013	0.50	29.60	SD 8
10	9	44.0	0.9	Grate	0.00	0.72	0.90	5.0	20.44	2.00	21.32	15	Cir	0.013	1.00	29.10	SD 9

Profile 2

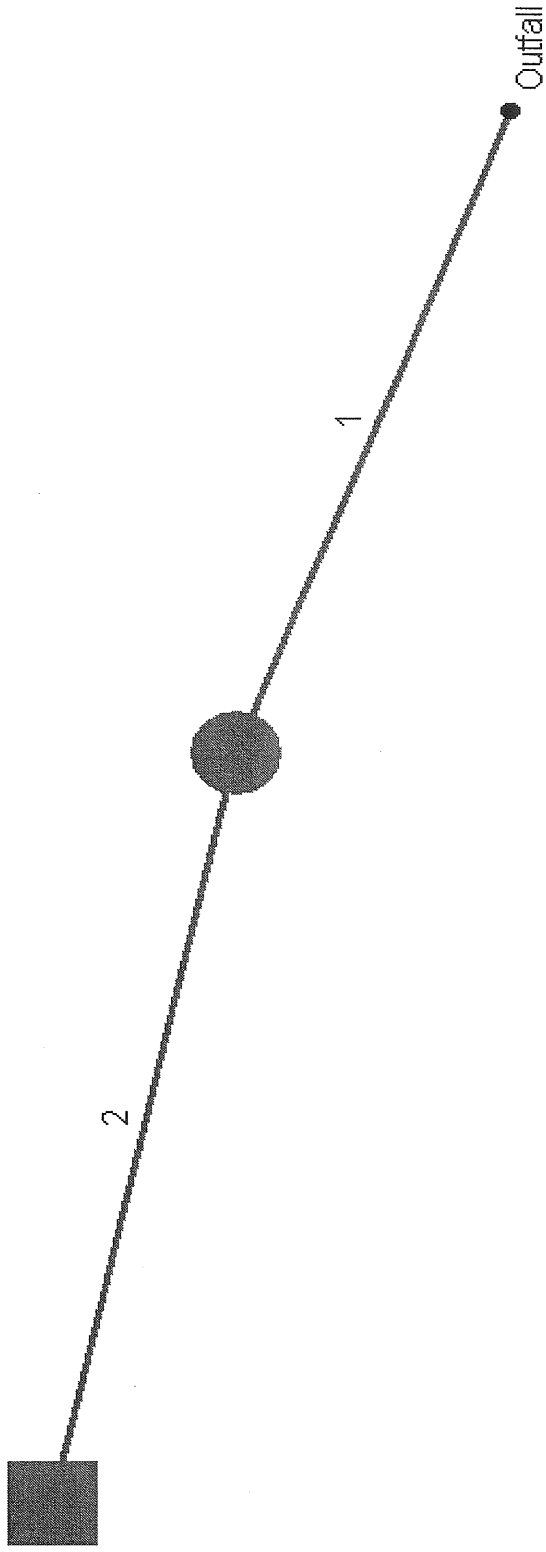
Number of lines: 10

Date: 07-24-2006

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Pipe slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	Existing Pipe	37.28	36 c	240.0	8.50	10.09	63	11.50	12.05	0.14	12.19	End
2	Existing Pipe(2)	37.38	36 c	20.0	10.09	10.39	00	12.65	12.41	0.42	12.83	1
3	SD 1	22.56	36 c	40.0	10.49	11.30	25	13.38	13.28	0.26	13.54	2
4	SD 3	12.95	30 c	238.0	11.40	16.16	00	13.76	17.36	n/a	17.36 j	3
5	SD 4	13.01	30 c	18.0	16.16	16.52	00	17.73	17.73	n/a	17.73 j	4
6	SD 5	12.21	24 c	54.0	16.62	17.16	00	17.97	18.40	n/a	18.40 j	5
7	SD 6	9.00	24 c	138.0	17.26	18.64	00	18.83	19.70	n/a	19.70 j	6
8	SD 7	6.16	18 c	50.0	18.74	19.24	00	19.95	20.19	n/a	20.19 j	7
9	SD 8	5.15	18 c	100.0	19.34	20.34	00	20.48	21.21	n/a	21.21 j	8
10	SD 9	3.95	15 c	44.0	20.44	21.32	00	21.41	22.12	n/a	22.12 j	9
Profile 2								Number of lines: 10		Run Date: 07-24-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; j - Line contains hydraulic pipe.												

Hydraflow Plan View



profile 3

No. Lines: 2

07-24-2006

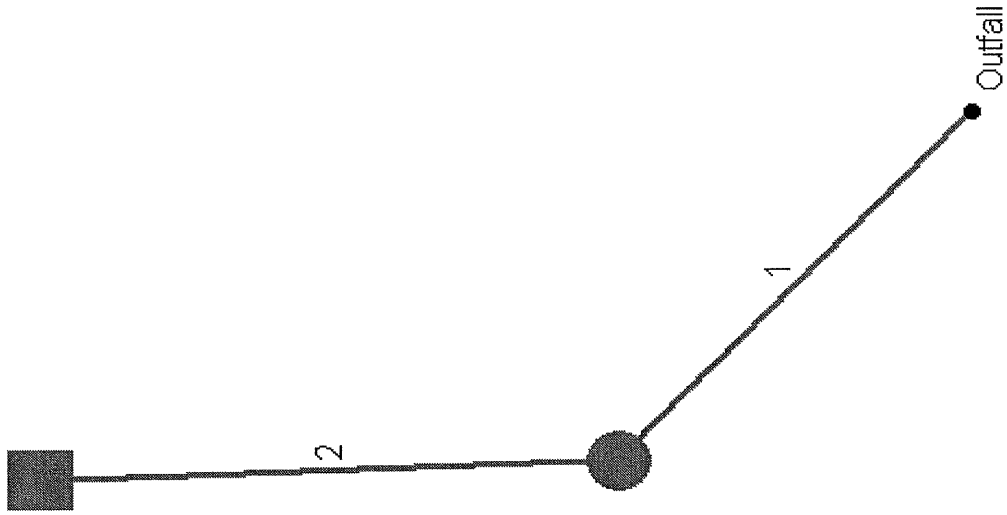
Storm Sewer Inventory Report

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 EI Dn (ft)	Line slope (%)	Invert EI Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)		Inlet/Rim EI (ft)
1	End	18.0	-158.4	MH	0.00	0.19	0.90	5.0	16.16	1.89	16.50	30	Cir	0.013	0.19	29.50	SD 4
2	1	20.0	-8.9	Grate	0.00	0.12	0.90	5.0	24.60	2.00	25.00	12	Cir	0.013	1.00	29.30	SD 21
<p>profile 3</p> <p style="text-align: right;">Number of lines: 2</p> <p style="text-align: right;">Date: 07-24-2006</p>																	

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 4	1.67	30 c	18.0	16.16	16.50	1.889	18.66	18.66	0.00	18.66	End
2	SD 21	0.66	12 c	20.0	24.60	25.00	2.000	24.84	25.34	n/a	25.34 j	1
profile 3							Number of lines: 2			Run Date: 07-24-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; j - Line contains hyd. jump.												

Hydraflow Plan View



profile 4

No. Lines: 2

07-24-2006

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 EI Dn (ft)	Line slope (%)	Invert EI Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)	Inlet/Rim EI (ft)	
1	End	18.0	-137.1	MH	0.00	0.19	0.90	5.0	16.16	2.00	16.52	30	Cir	0.013	0.75	29.50	SD 4
2	1	20.0	45.1	Grate	0.00	0.07	0.90	5.0	24.60	2.00	25.00	12	Cir	0.013	1.00	29.30	SD 20

profile 4

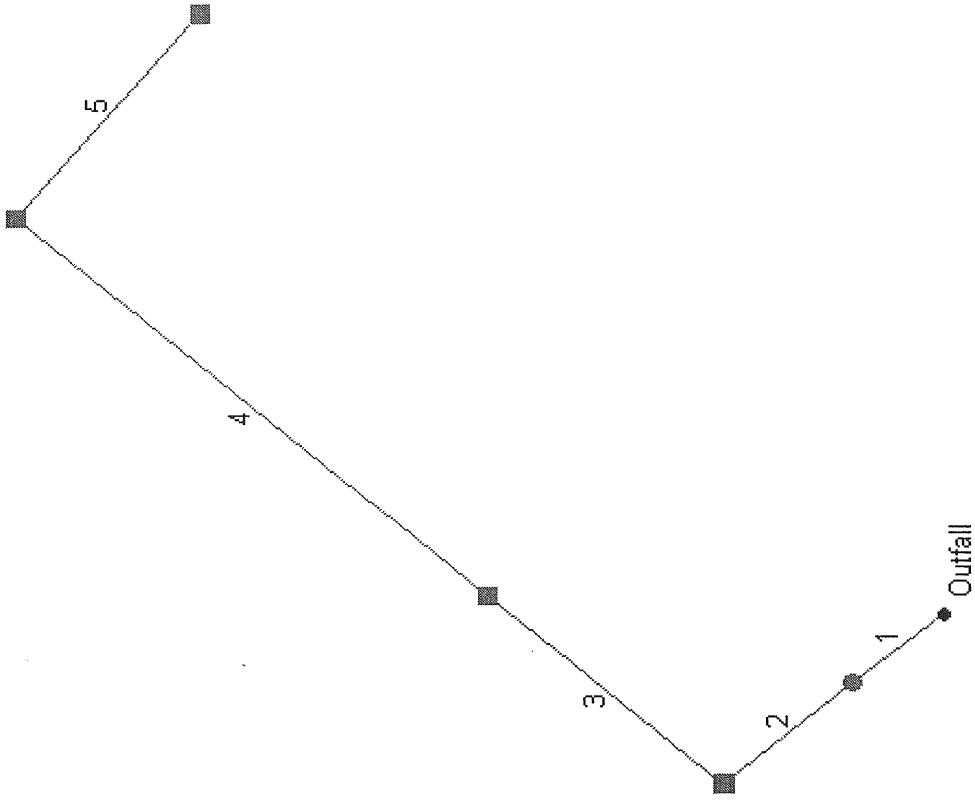
Number of lines: 2

Date: 07-24-2006

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 4	1.22	30 c	18.0	16.16	16.52	2.000	18.66	18.66	0.00	18.66	End
2	SD 20	0.34	12 c	20.0	24.60	25.00	2.000	24.78	25.25	n/a	25.25 j	1
profile 4							Number of lines: 2			Run Date: 07-24-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 10 Yrs. ; j - Line contains hyd. jump.												

Hydraflow Plan View



profile 5

No. Lines: 5

07-24-2006

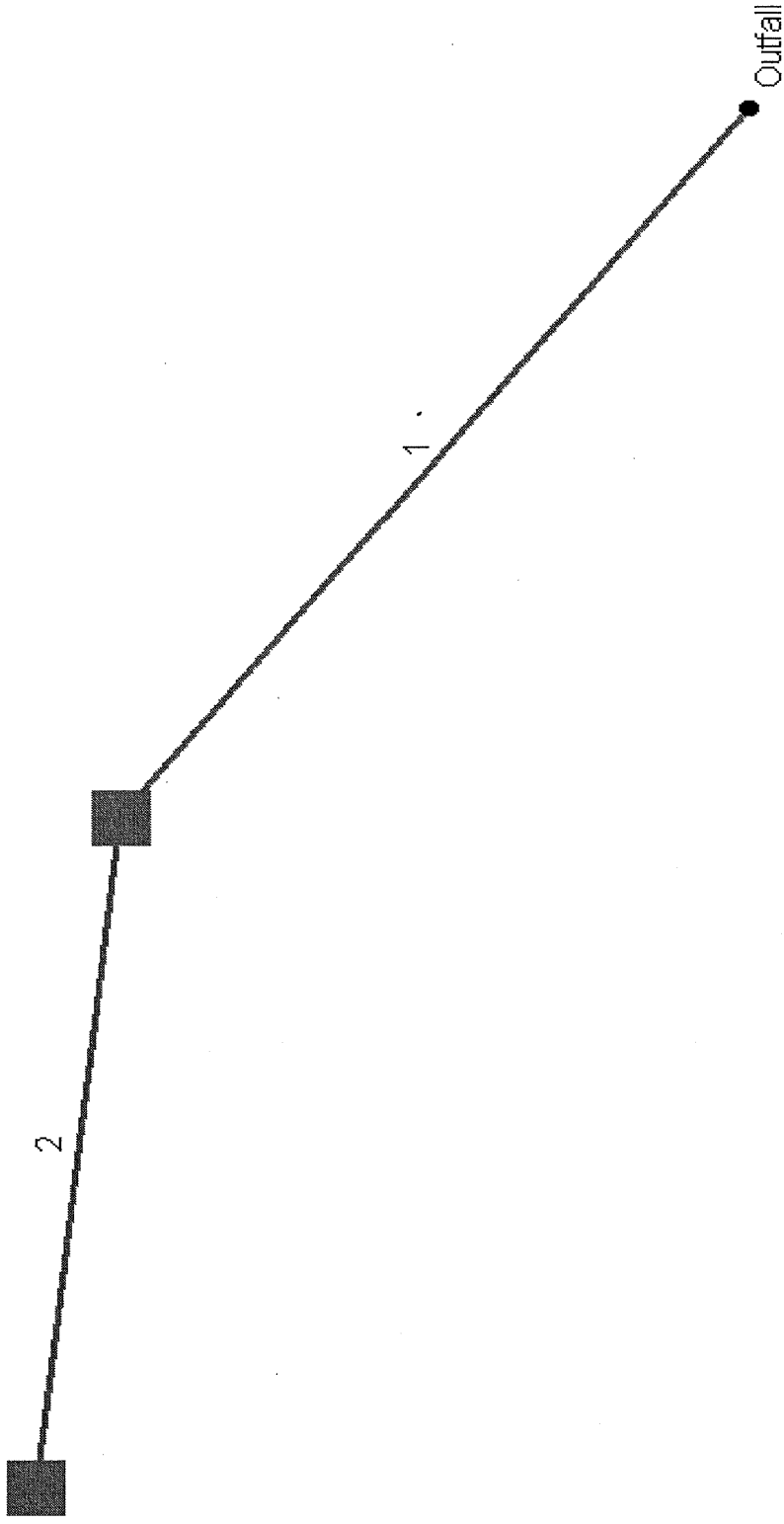
Storm Sewer Inventory Report

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 type	N value (n)	J-loss coeff (K)		Inlet/Rim El (ft)	
1	End	26.0	-129.2	MH	0.00	0.00	0.90	5.0	13.10	8.46	15.30	24	Cir	0.013	0.15	22.30	SD 10	
2	1	38.0	-1.5	Grate	0.00	0.14	0.90	5.0	15.30	5.00	17.20	24	Cir	0.013	1.49	25.20	SD 2	
3	2	70.0	81.3	Grate	0.00	0.49	0.90	5.0	18.10	2.00	19.50	18	Cir	0.013	0.50	28.10	SD 12	
4	3	140.0	0.6	Grate	0.00	0.29	0.90	5.0	19.60	2.07	22.50	18	Cir	0.013	1.50	30.60	SD 13	
5	4	65.0	88.3	Grate	0.00	0.10	0.90	5.0	22.60	0.68	23.04	15	Cir	0.013	1.00	30.45	SD 14	
profile 5																	Number of lines: 5	Date: 07-24-2006

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 10	4.41	24 c	26.0	13.10	15.30	8.462	15.10	16.04	n/a	16.04 j	End
2	SD 2	4.48	24 c	38.0	15.30	17.20	5.000	16.28	17.95	n/a	17.95 j	1
3	SD 12	3.94	18 c	70.0	18.10	19.50	2.000	18.63	20.26	n/a	20.26 j	2
4	SD 13	1.90	18 c	140.0	19.60	22.50	2.071	20.54	23.03	n/a	23.03 j	3
5	SD 14	0.55	15 c	65.0	22.60	23.04	0.677	23.21	23.34	n/a	23.34 j	4
profile 5							Number of lines: 5			Run Date: 07-24-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; j - Line contains hyd. jump.												

Hydraflow Plan View



profile 6

No. Lines: 2

07-24-2006

Storm Sewer Inventory Report

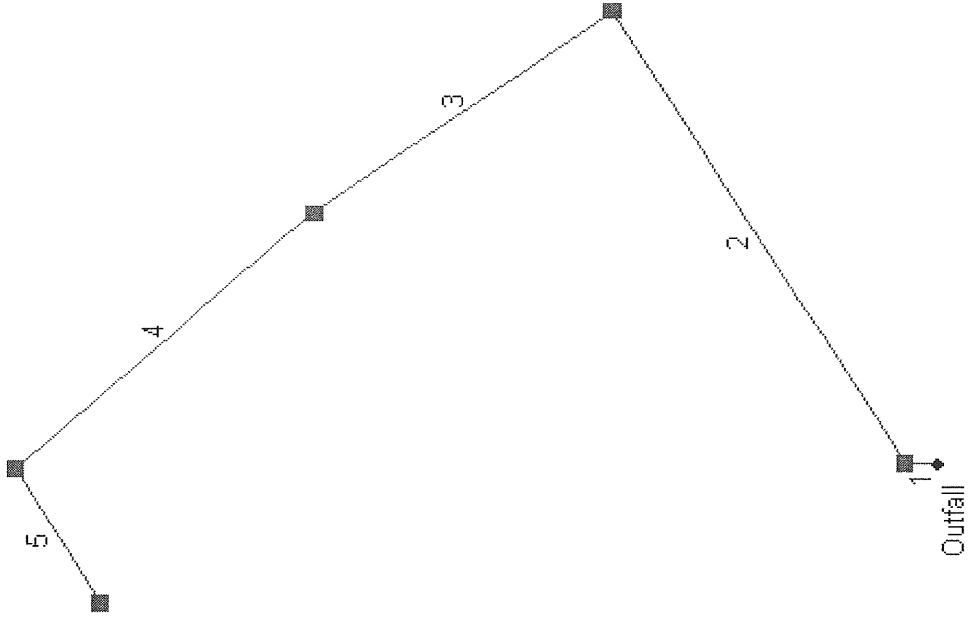
Line No.	Alignment				Flow Data				Physical Data							Line ID	
	Dnstr line No.	Line length (ft)	Defl angle (deg)	Junc type	Known Q (cfs)	Drng area (ac)	Runoff coeff (C)	Inlet time (min)	Invert EI Dn (ft)	Line slope (%)	Invert EI Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)		Inlet/Rim EI (ft)
1	End	38.0	-141.0	Grate	0.00	0.14	0.90	5.0	15.30	5.00	17.20	24	Cir	0.013	0.88	25.20	SD 2
2	1	28.0	-32.3	Grate	0.00	0.10	0.90	5.0	17.30	5.00	18.70	12	Cir	0.013	1.00	26.50	SD 11
profile 6																Number of lines: 2	Date: 07-24-2006

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 2	1.27	24 c	38.0	15.30	17.20	5.000	17.30	17.60	n/a	17.60 j	End
2	SD 11	0.55	12 c	28.0	17.30	18.70	5.000	17.72	19.01	n/a	19.01 j	1
profile 6							Number of lines: 2			Run Date: 07-24-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; j - Line contains hyd. jump.												

Hydraflow Plan View

10 year



Profile 7

No. Lines: 5

07-12-2006

Storm Sewer Inventory Report

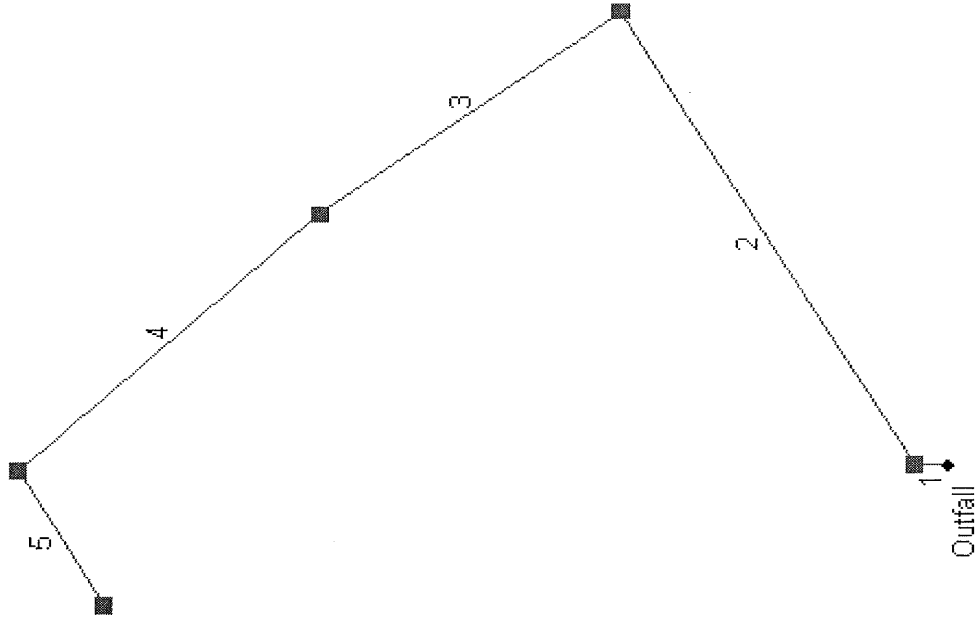
Line No.	Alignment				Flow Data				Physical Data							Line ID	
	Dnstr line No.	Line length (ft)	Defl angle (deg)	Junc type	Known Q (cfs)	Drng area (ac)	Runoff coeff (C)	Inlet time (min)	Invert EI Dn (ft)	Line slope (%)	Invert EI Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)		Inlet/ Rim EI (ft)
1	End	12.0	-88.7	Curb	0.00	1.07	0.90	5.0	6.50	0.75	6.59	15	Cir	0.013	1.32	12.00	Existing Pipe
2	1	216.0	58.4	Grate	0.00	0.46	0.90	5.0	6.69	0.50	7.77	18	Cir	0.013	1.50	16.40	SD 28
3	2	140.0	-96.3	Grate	0.00	0.32	0.90	5.0	7.87	0.50	8.57	18	Cir	0.013	0.50	13.80	SD 29
4	3	154.0	-6.6	Grate	0.00	0.13	0.90	5.0	8.67	0.50	9.44	18	Cir	0.013	1.47	13.80	SD 30
5	4	64.0	-76.8	Grate	0.00	0.82	0.90	5.0	9.54	0.50	9.86	12	Cir	0.013	1.00	14.30	SD31
<p>Profile 7</p>																	
														Number of lines: 5		Date: 07-12-2006	

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	Existing Pipe	12.18	15 c	12.0	6.50	6.59	0.750	7.83*	8.26*	2.02	10.28	End
2	SD 28	7.77	18 c	216.0	6.69	7.77	0.500	11.51*	12.69*	0.45	13.14	1
3	SD 29	5.87	18 c	140.0	7.87	8.57	0.500	13.27*	13.71*	0.09	13.79	2
4	SD 30	4.57	18 c	154.0	8.67	9.44	0.500	13.86*	14.15*	0.15	14.30	3
5	SD31	3.98	12 c	64.0	9.54	9.86	0.500	14.30*	15.11*	0.40	15.51	4
Profile 7							Number of lines: 5			Run Date: 07-12-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 10 Yrs. ; *Surcharged (HGL above crown).												

Hydraflow Plan View

25 year



Profile 7

No. Lines: 5

07-12-2006

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 EI Dn (ft)	Line slope (%)	Invert EI Up (ft)	Line size (in)	Line type	N value (n)		J-loss coeff (K)	Inlet/ Rim EI (ft)
1	End	12.0	-88.7	Curb	0.00	1.07	0.90	5.0	6.50	0.75	6.59	15	Cir	0.013	1.32	12.00	Existing Pipe
2	1	216.0	58.4	Grate	0.00	0.46	0.90	5.0	6.69	0.50	7.77	18	Cir	0.013	1.50	16.40	SD 28
3	2	140.0	-96.3	Grate	0.00	0.32	0.90	5.0	7.87	0.50	8.57	18	Cir	0.013	0.50	13.80	SD 29
4	3	154.0	-6.6	Grate	0.00	0.13	0.90	5.0	8.67	0.50	9.44	18	Cir	0.013	1.47	13.80	SD 30
5	4	64.0	-76.8	Grate	0.00	0.82	0.90	5.0	9.54	0.50	9.86	12	Cir	0.013	1.00	14.30	SD31
Profile 7																	
Number of lines: 5															Date: 07-12-2006		

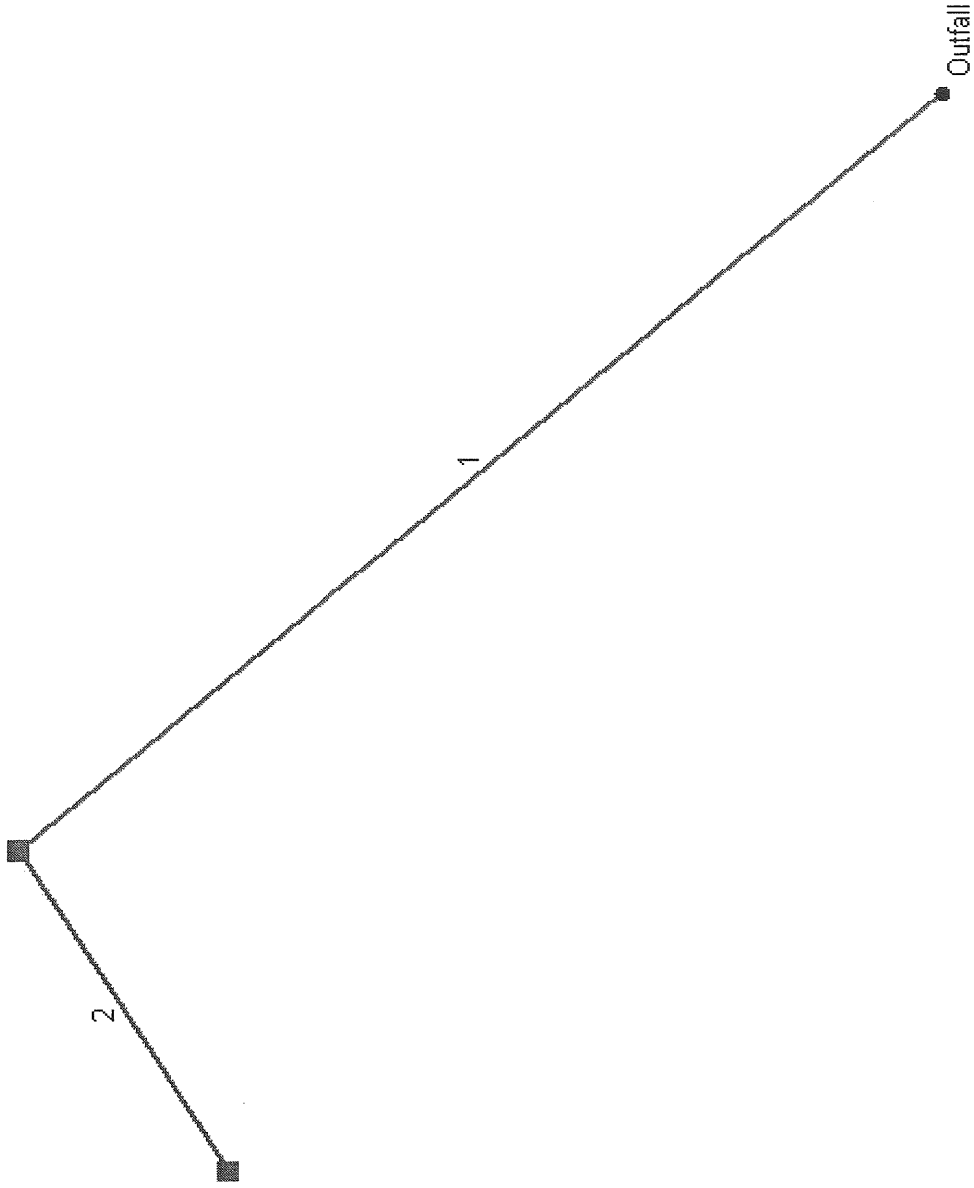
Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	Existing Pipe	13.62	15 c	12.0	6.50	6.59	0.750	7.83*	8.36*	2.53	10.89	End
2	SD 28	8.71	18 c	216.0	6.69	7.77	0.500	12.43*	13.92*	0.57	14.49	1
3	SD 29	6.59	18 c	140.0	7.87	8.57	0.500	14.65*	15.20*	0.11	15.31	2
4	SD 30	5.16	18 c	154.0	8.67	9.44	0.500	15.39*	15.76*	0.19	15.96	3
5	SD31	4.50	12 c	64.0	9.54	9.86	0.500	15.96*	16.98*	0.51	17.49	4

Profile 7	Number of lines: 5	Run Date: 07-12-2006
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NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; *Surcharged (HGL above crown).

Hydraflow Plan View



Profile 8

No. Lines: 2

07-24-2006

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)	Dmg area (ac)	Runoff coeff (C)	Inlet time (min)	Invert El Dn (ft)	Line slope (%)	Invert El Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)		Inlet/Rim El (ft)
1	End	140.0	-131.6	Grate	0.00	0.62	0.90	5.0	7.87	0.50	8.57	18	Cir	0.013	1.48	13.80	SD 29
2	1	46.0	-79.3	Grate	0.00	0.65	0.90	5.0	8.67	0.50	8.90	12	Cir	0.013	1.00	13.60	SD 64

Profile 8

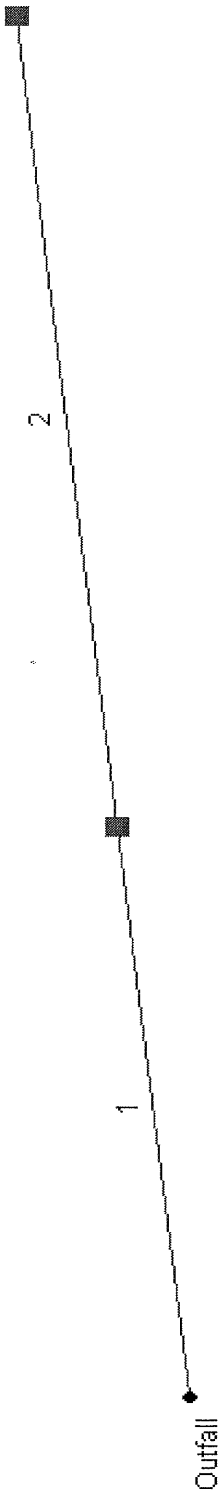
Number of lines: 2

Date: 07-24-2006

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 29	6.91	18 c	140.0	7.87	8.57	0.500	9.12	9.71	0.53	10.24	End
2	SD 64	3.57	12 c	46.0	8.67	8.90	0.500	10.28*	10.74*	0.32	11.06	1
Profile 8							Number of lines: 2			Run Date: 07-24-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; *Surcharged (HGL above crown).												

Hydraflow Plan View



Profile 9

No. Lines: 2

07-12-2006

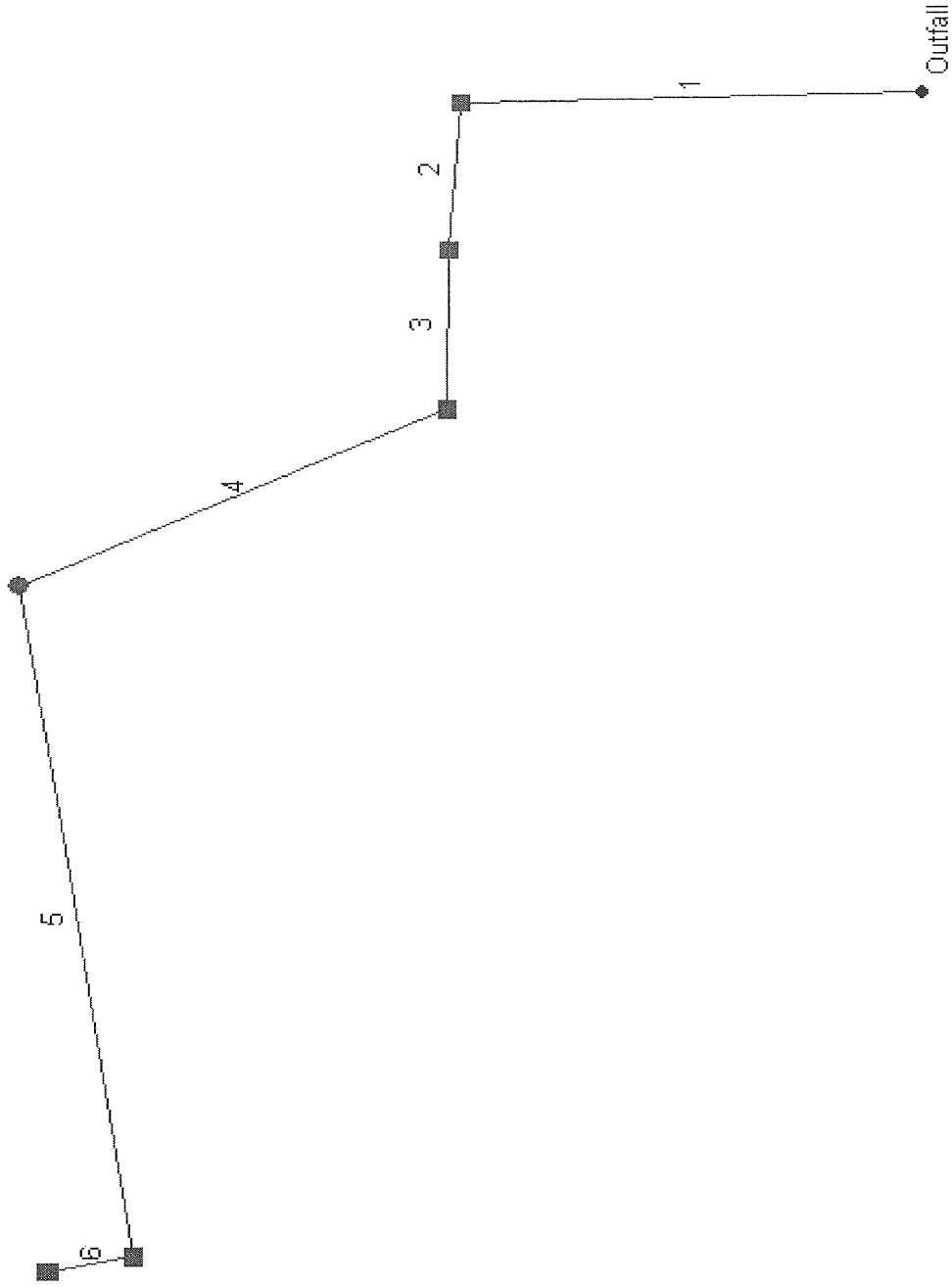
Storm Sewer Inventory Report

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 EI Dn (ft)	Line slope (%)	Invert EI Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)		Inlet/ Rim EI (ft)
1	End	122.0	-6.6	Grate	0.00	0.61	0.90	5.0	6.69	0.20	6.93	10	Cir	0.013	0.50	11.80	SD 62
2	1	174.0	0.2	Grate	0.00	0.42	0.90	5.0	7.03	0.20	7.38	10	Cir	0.013	1.00	12.80	SD 63
<p>Profile 9</p> <p style="text-align: right;">Number of lines: 2</p> <p style="text-align: right;">Date: 07-12-2006</p>																	

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 62	5.45	10 c	122.0	6.69	6.93	0.197	7.52*	14.89*	0.78	15.67	End
2	SD 63	2.30	10 c	174.0	7.03	7.38	0.201	16.94*	18.87*	0.28	19.15	1
Profile 9							Number of lines: 2			Run Date: 07-12-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; *Surcharged (HGL above crown).												

Hydraflow Plan View



Profile 10

No. Lines: 6

07-12-2006

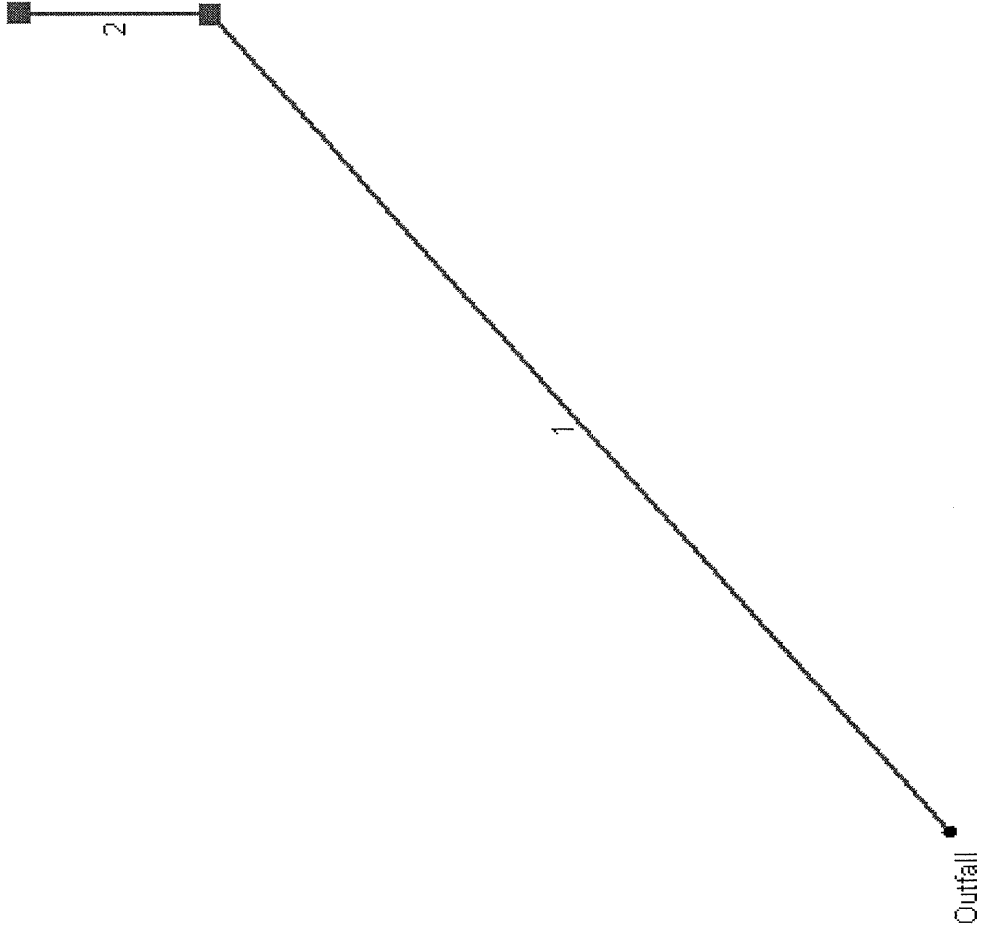
Storm Sewer Inventory Report

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 type	N value (n)	J-loss coeff (K)	Inlet/ Rim El (ft)	
1	End	105.0	-91.5	Grate	0.00	0.87	0.90	5.0	6.25	0.10	6.35	36	Cir	0.013	1.49	17.46	Existing Pipe
2	1	37.0	-83.5	Grate	0.00	0.04	0.90	5.0	6.45	0.11	6.49	18	Cir	0.013	0.50	16.79	Existing Pipe
3	2	40.0	-4.6	Grate	0.00	0.14	0.90	5.0	6.59	1.05	7.01	18	Cir	0.013	1.39	17.11	Existing Pipe
4	3	107.0	65.2	MH	0.00	0.00	0.90	5.0	7.11	2.22	9.49	15	Cir	0.013	0.97	19.20	Existing Pipe
5	4	170.0	-74.4	Grate	0.00	0.10	0.90	5.0	9.59	0.40	10.27	12	Cir	0.013	1.50	16.50	SD 59
6	5	20.0	88.3	Grate	0.00	0.17	0.90	5.0	10.37	0.40	10.45	12	Cir	0.013	1.00	16.50	SD 60
Profile 10																	
Number of lines: 6														Date: 07-12-2006			

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	Existing Pipe	5.90	36 c	105.0	6.25	6.35	0.095	9.25	9.26	0.02	9.28	End
2	Existing Pipe	2.05	18 c	37.0	6.45	6.49	0.108	9.28*	9.29*	0.01	9.30	1
3	Existing Pipe	1.92	18 c	40.0	6.59	7.01	1.050	9.30*	9.32*	0.03	9.34	2
4	Existing Pipe	1.35	15 c	107.0	7.11	9.49	2.224	9.34	9.96	n/a	9.96 j	3
5	SD 59	1.46	12 c	170.0	9.59	10.27	0.400	10.18	10.86	0.22	11.07	4
6	SD 60	0.93	12 c	20.0	10.37	10.45	0.400	11.17	11.18	0.04	11.22	5
Profile 10							Number of lines: 6			Run Date: 07-12-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.												

Hydraflow Plan View



Profile 11

No. Lines: 2

07-12-2006

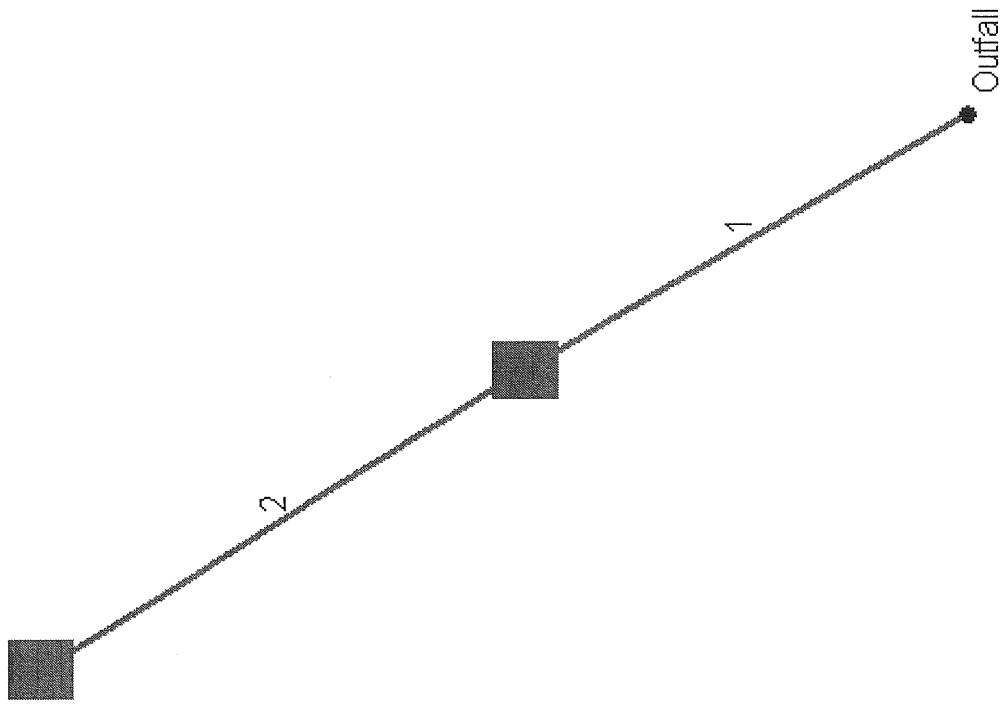
Storm Sewer Inventory Report

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 EI Dn (ft)	Line slope (%)	Invert EI Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)		Inlet/ Rim EI (ft)
1	End	122.0	-39.2	Grate	0.00	0.10	0.90	5.0	14.00	1.00	15.22	12	Cir	0.013	1.21	19.50	SD 26
2	1	20.0	-50.1	Curb	0.00	0.08	0.90	5.0	15.32	1.00	15.52	12	Cir	0.013	1.00	19.50	SD 27
<p>Profile 11</p> <p style="text-align: right;">Date: 07-12-2006</p>																	
Number of lines: 2																	

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 26	0.93	12 c	122.0	14.00	15.22	1.000	15.00	15.63	n/a	15.63 j	End
2	SD 27	0.44	12 c	20.0	15.32	15.52	1.000	15.77	15.80	n/a	15.89 j	1
Profile 11							Number of lines: 2			Run Date: 07-12-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; j - Line contains hyd. jump.												

Hydraflow Plan View



profile 12

No. Lines: 2

07-24-2006

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)	Dmg area (ac)	Runoff coeff (C)	Inlet time (min)	Invert E/Dn (ft)	Line slope (%)	Invert E/Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)		Inlet/Rim EI (ft)
1	End	18.0	-122.1	Grate	0.00	0.07	0.90	5.0	15.00	2.00	15.36	15	Cir	0.013	0.50	20.60	SD 22
2	1	20.0	-2.0	Grate	0.00	0.06	0.90	5.0	15.46	5.00	16.46	12	Cir	0.013	1.00	20.60	SD 25

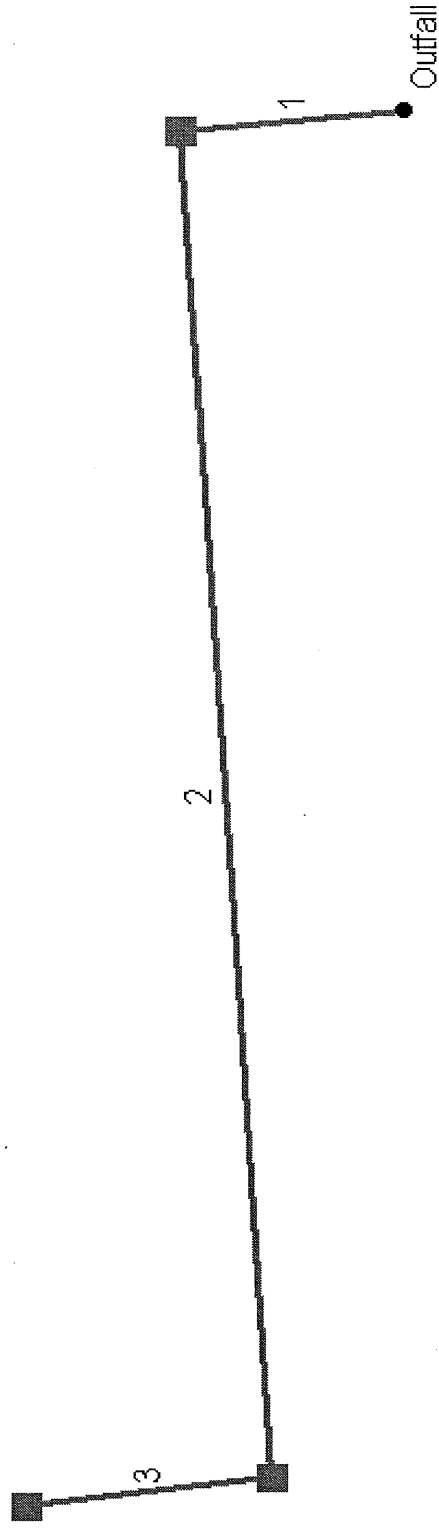
Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 22	0.68	15 c	18.0	15.00	15.36	2.000	16.25	16.25	0.00	16.25	End
2	SD 25	0.33	12 c	20.0	15.46	16.46	5.000	16.26	16.70	n/a	16.70 j	1

profile 12	Number of lines: 2	Run Date: 07-24-2006
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NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; j - Line contains hyd. jump.

Hydraflow Plan View



Profile 13

No. Lines: 3

07-24-2006

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 type	N value (n)		J-loss coeff (K)	Inlet/Rim El (ft)
1	End	18.0	-95.9	Grate	0.00	0.07	0.90	5.0	15.00	2.00	15.36	15	Cir	0.013	1.50	20.60	SD22
2	1	119.0	-87.6	Grate	0.00	0.52	0.90	5.0	15.46	2.00	17.84	12	Cir	0.013	1.50	23.10	SD 23
3	2	20.0	86.3	Grate	0.00	0.14	0.90	5.0	17.94	2.00	18.34	12	Cir	0.013	1.00	23.10	SD 24
<p>Profile 13 Number of lines: 3 Date: 07-24-2006</p>																	

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD22	3.85	15 c	18.0	15.00	15.36	2.000	16.25	16.15	0.51	16.66	End
2	SD 23	3.56	12 c	119.0	15.46	17.84	2.000	16.69	18.64	n/a	18.64 j	1
3	SD 24	0.77	12 c	20.0	17.94	18.34	2.000	19.04	19.04	0.03	19.06	2

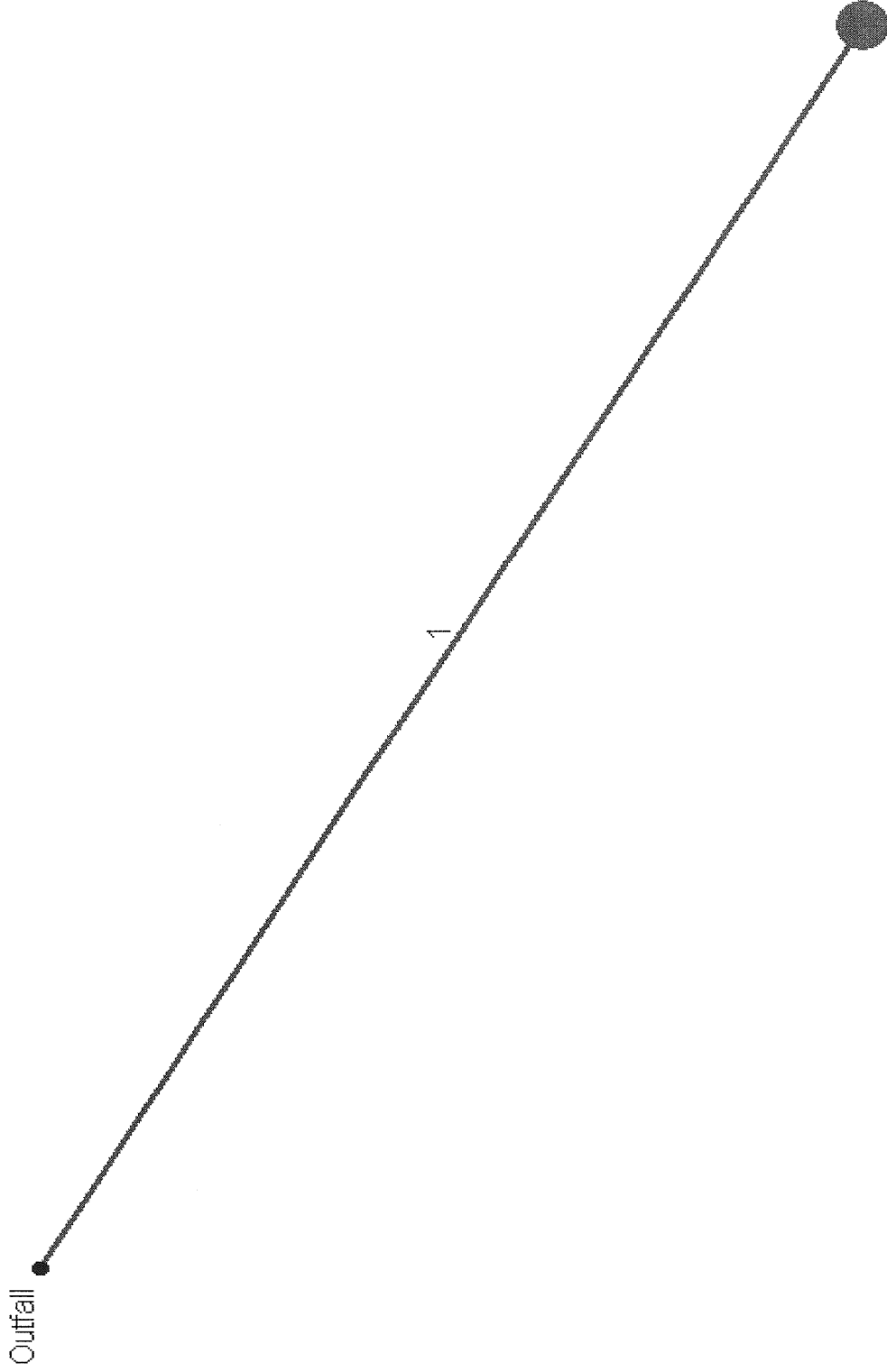
Profile 13

Number of lines: 3

Run Date: 07-24-2006

NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; j - Line contains hyd. jump.

Hydraflow Plan View



Profile 14

No. Lines: 1

07-12-2006

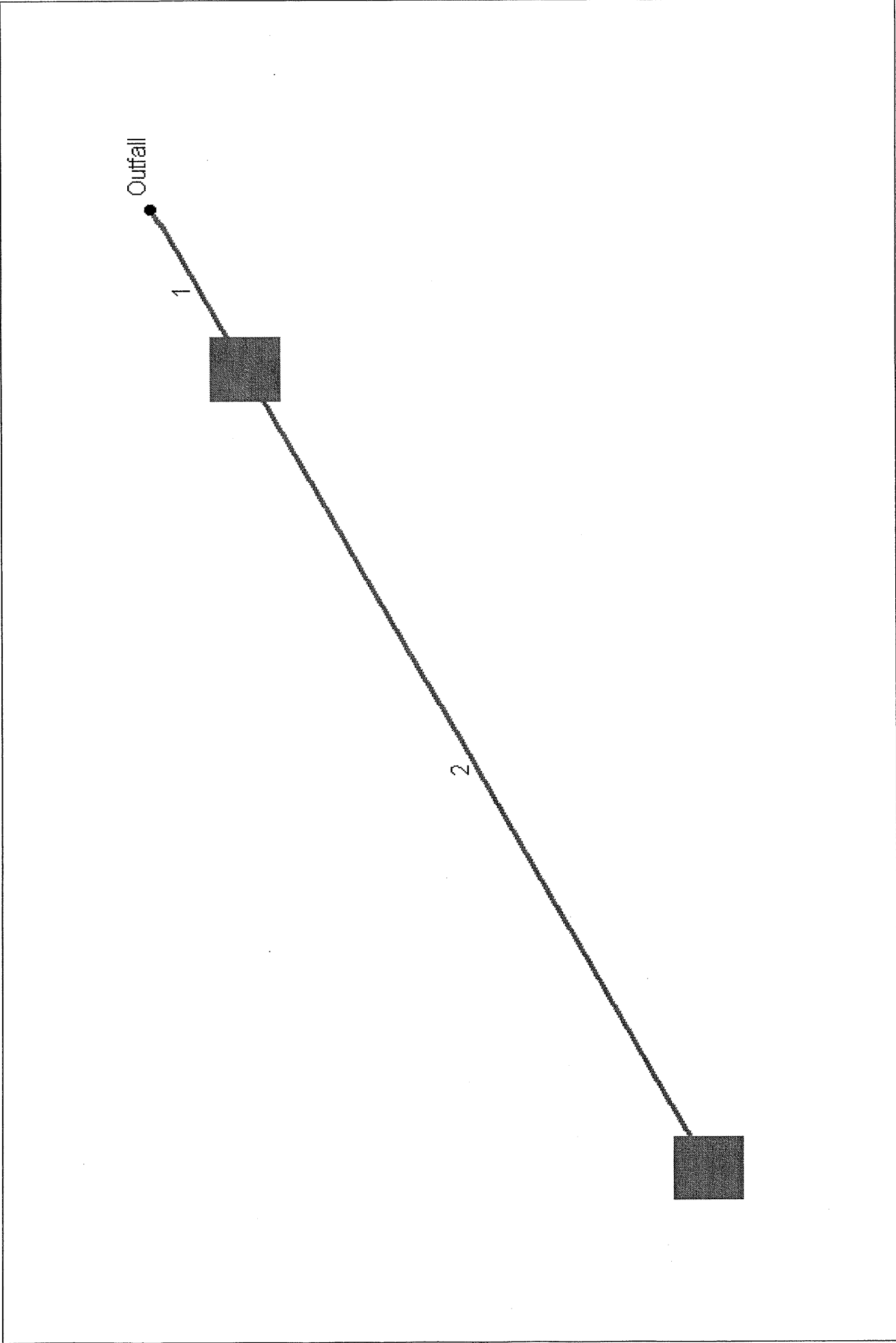
Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data							Line ID	
	Dnstr line No.	Line length (ft)	Defl angle (deg)	Junc type	Known Q (cfs)	Dmg area (ac)	Runoff coeff (C)	Inlet time (min)	Invert El Dn (ft)	Line slope (%)	Invert El Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)		Inlet/Rim El (ft)
1	End	67.0	31.1	MH	0.00	0.10	0.90	5.0	10.00	-0.61	9.59	15	Cir	0.013	1.00	19.20	SD 61
Profile 14 Number of lines: 1 Date: 07-12-2006																	

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 61	0.55	15 c	67.0	10.00	9.59	-0.612	11.25*	11.25*	0.00	11.26	End
Profile 14							Number of lines: 1			Run Date: 07-12-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; *Surcharged (HGL above crown).												

Hydraflow Plan View



Profile 15

No. Lines: 2

07-24-2006

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 EI Dn (ft)	Line slope (%)	Invert EI Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)		Inlet/ Rim EI (ft)
1	End	6.0	152.1	Grate	0.00	0.11	0.90	5.0	12.84	0.33	12.86	12	Cir	0.013	0.50	17.40	SD 56
2	1	30.0	0.0	Grate	0.00	0.13	0.90	5.0	12.96	0.30	13.05	12	Cir	0.013	1.00	17.40	SD 57

Profile 15

Number of lines: 2

Date: 07-24-2006

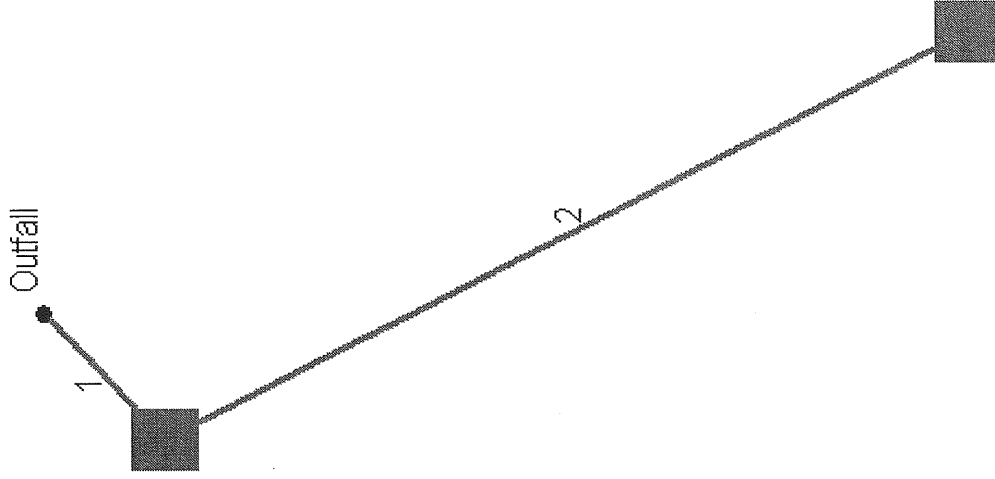
Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 56	1.28	12 c	6.0	12.84	12.86	0.333	13.84	13.85	0.02	13.87	End
2	SD 57	0.71	12 c	30.0	12.96	13.05	0.300	13.88	13.89	0.02	13.91	1

Profile 15	Number of lines: 2	Run Date: 07-24-2006
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NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs.

Hydraflow Plan View



Profile 16

No. Lines: 2

07-24-2006

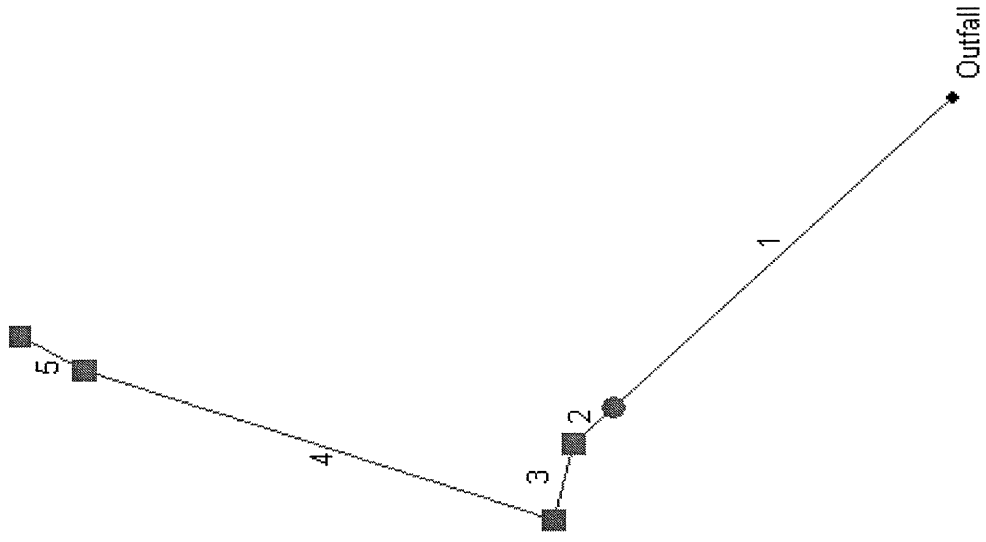
Storm Sewer Inventory Report

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 type		N value (n)	J-loss coeff (K)	Inlet/Rim El (ft)	
1	End	6.0	138.3	Grate	0.00	0.13	0.90	5.0	12.84	0.33	12.86	12	Cir	0.013	1.47	17.40	SD 56	
2	1	30.0	-77.2	Grate	0.00	0.11	0.90	5.0	12.96	0.50	13.11	12	Cir	0.013	1.00	17.40	SD 58	
<p style="text-align: center;">Profile 16</p>																		
															Number of lines: 2		Date: 07-24-2006	

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 56	1.27	12 c	6.0	12.84	12.86	0.333	13.84	13.85	0.06	13.91	End
2	SD 58	0.60	12 c	30.0	12.96	13.11	0.500	13.93	13.93	0.01	13.94	1
Profile 16							Number of lines: 2			Run Date: 07-24-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs.												

Hydraflow Plan View



SD Profile 17

No. Lines: 5

07-24-2006

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 EI Dn (ft)	Line slope (%)	Invert EI Up (ft)	Line size (in)	Line type		N value (n)	J-loss coeff (K)	Inlet/Rim EI (ft)
1	End	134.0	-134.9	MH	0.00	0.00	0.90	5.0	12.30	0.06	12.38	24	Cir	0.013	0.15	16.80	SD 36
2	1	16.0	-0.8	Grate	0.00	0.15	0.90	5.0	12.48	0.75	12.60	15	Cir	0.013	0.86	16.50	SD 51
3	2	24.0	-31.2	Grate	0.00	0.41	0.90	5.0	12.70	0.75	12.88	15	Cir	0.013	1.50	16.80	SD 52
4	3	140.0	96.3	Grate	0.00	0.08	0.90	5.0	12.98	0.40	13.54	12	Cir	0.013	0.50	18.40	SD 53
5	4	20.0	10.5	Grate	0.00	0.46	0.90	5.0	13.64	0.40	13.72	12	Cir	0.013	1.00	18.00	SD 54
SD Profile 17																	
Number of lines: 5															Date: 07-24-2006		

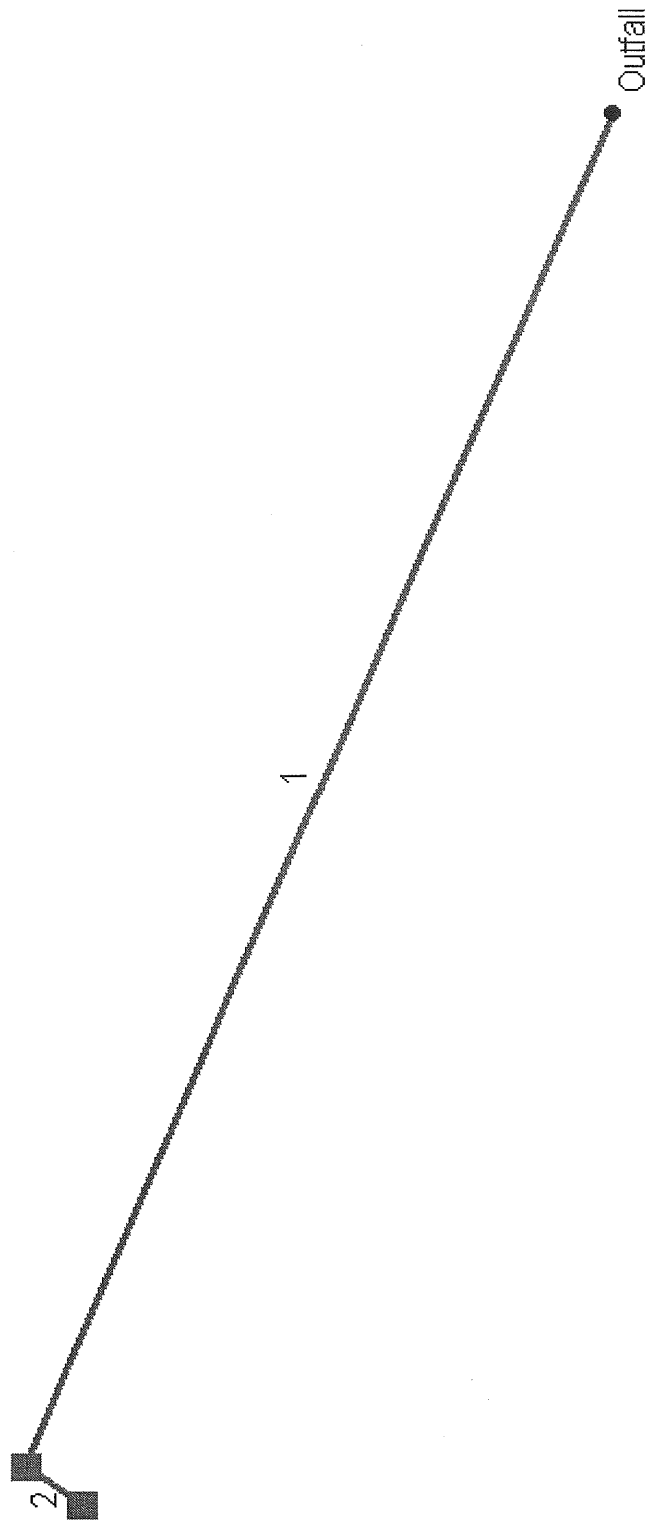
Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 36	5.77	24 c	134.0	12.30	12.38	0.060	14.30	14.38	0.01	14.39	End
2	SD 51	5.78	15 c	16.0	12.48	12.60	0.750	14.39*	14.52*	0.30	14.81	1
3	SD 52	5.02	15 c	24.0	12.70	12.88	0.750	14.90*	15.04*	0.39	15.43	2
4	SD 53	2.95	12 c	140.0	12.98	13.54	0.400	15.47*	16.43*	0.11	16.54	3
5	SD 54	2.52	12 c	20.0	13.64	13.72	0.400	16.60*	16.70*	0.16	16.86	4

SD Profile 17	Number of lines: 5	Run Date: 07-24-2006
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NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; *Surcharged (HGL above crown).

Hydraflow Plan View



Profile 18

No. Lines: 2

07-24-2006

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 type	N value (n)	J-loss coeff (K)		Inlet/Rim El (ft)
1	End	134.0	-158.2	Grate	0.00	1.67	0.90	5.0	12.11	0.20	12.38	24	Cir	0.013	1.46	16.80	SD 36
2	1	6.0	-75.7	Grate	0.00	0.10	0.90	5.0	12.48	0.33	12.50	12	Cir	0.013	1.00	16.50	SD 55

Profile 18

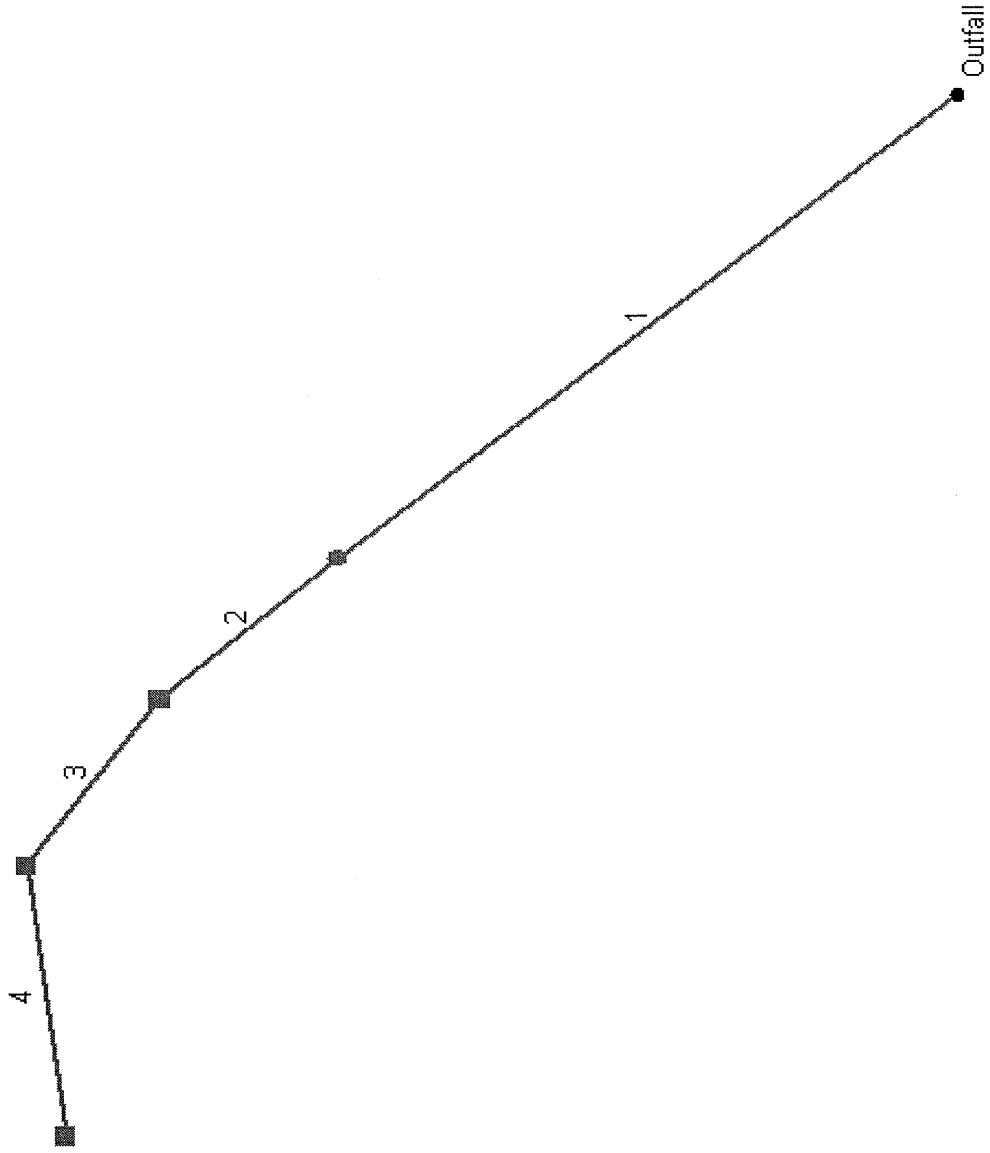
Number of lines: 2

Date: 07-24-2006

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 36	9.64	24 c	134.0	12.11	12.38	0.201	14.11	14.34	0.22	14.56	End
2	SD 55	0.55	12 c	6.0	12.48	12.50	0.333	14.70*	14.70*	0.01	14.70	1
Profile 18							Number of lines: 2			Run Date: 07-24-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; *Surcharged (HGL above crown).												

Hydraflow Plan View



SD Profile 19

No. Lines: 4

07-24-2006

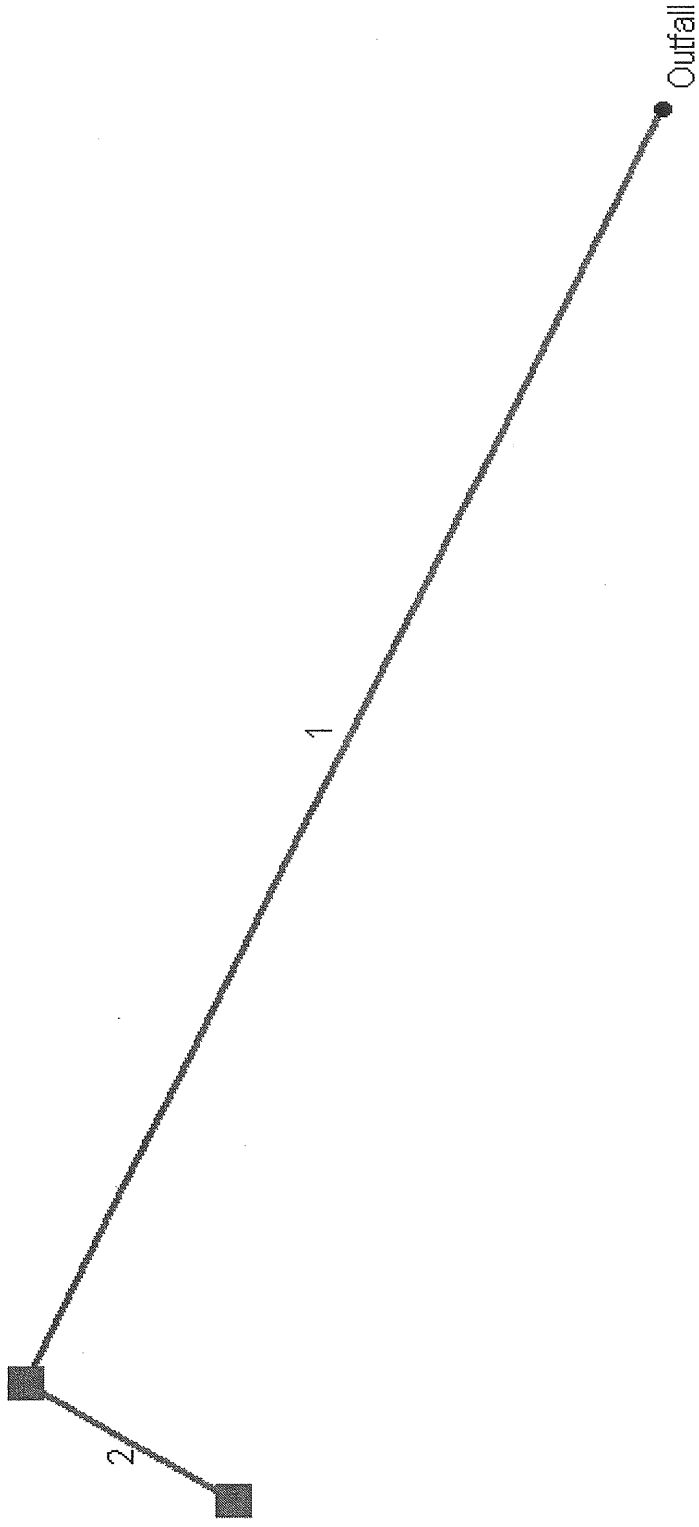
Storm Sewer Inventory Report

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 EI Dn (ft)	Line slope (%)	Invert EI Up (ft)	Line size (in)	Line type	N value (n)		J-loss coeff (K)	Inlet/ Rim EI (ft)	
1	End	100.0	-129.1	MH	0.00	0.00	0.90	5.0	12.00	0.01	12.01	30	Cir	0.013	0.15	18.20	sd35	
2	1	29.2	-1.8	Grate	0.00	0.35	0.90	5.0	12.11	0.62	12.29	15	Cir	0.013	0.50	17.70	sd 47	
3	2	28.1	-12.9	Grate	0.00	0.33	0.90	5.0	12.39	0.53	12.54	12	Cir	0.013	1.11	17.40	sd 48	
4	3	37.2	-43.9	Grate	0.00	0.07	0.90	5.0	12.64	0.35	12.77	12	Cir	0.013	1.00	16.70	sd 49	
SD Profile 19													Number of lines: 4				Date: 07-24-2006	

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	sd35	3.80	30 c	100.0	12.00	12.01	0.010	14.50	14.51	0.00	14.51	End
2	sd 47	3.83	15 c	29.2	12.11	12.29	0.616	14.51*	14.61*	0.08	14.69	1
3	sd 48	2.06	12 c	28.1	12.39	12.54	0.535	14.73*	14.83*	0.12	14.94	2
4	sd 49	0.38	12 c	37.2	12.64	12.77	0.350	15.05*	15.05*	0.00	15.06	3
SD Profile 19							Number of lines: 4			Run Date: 07-24-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; *Surcharged (HGL above crown).												

Hydraflow Plan View



Profile 20

No. Lines: 2

07-24-2006

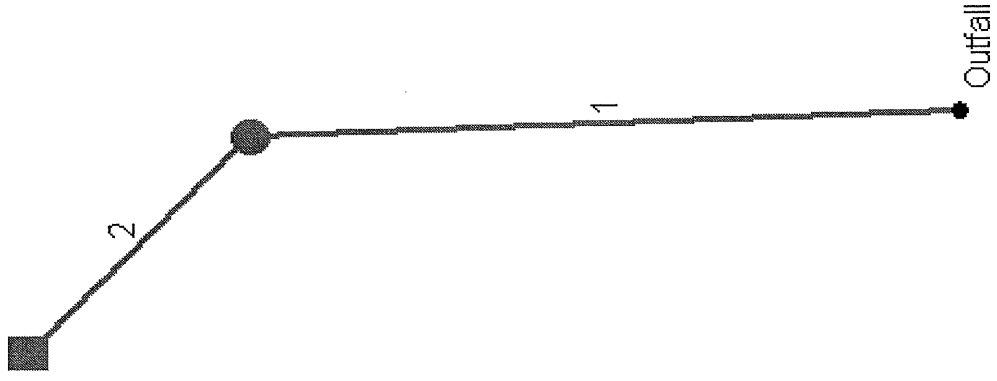
Storm Sewer Inventory Report

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 EI Dn (ft)	Line slope (%)	Invert EI Up (ft)	Line size (in)	Line type	N value (n)		J-loss coeff (K)	Inlet/ Rim EI (ft)
1	End	100.0	-155.2	Grate	0.00	2.53	0.90	5.0	11.71	0.30	12.01	30	Cir	0.013	1.49	18.20	SD 35
2	1	16.0	-82.7	Grate	0.00	0.18	0.90	5.0	12.11	0.31	12.16	12	Cir	0.013	1.00	17.80	SD 50
Profile 20																	
Number of lines: 2																	
Date: 07-24-2006																	

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SD 35	14.70	30 c	100.0	11.71	12.01	0.300	14.21	14.32	0.22	14.54	End
2	SD 50	0.99	12 c	16.0	12.11	12.16	0.313	14.67*	14.68*	0.02	14.70	1
Profile 20							Number of lines: 2			Run Date: 07-24-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; *Surcharged (HGL above crown).												

Hydraflow Plan View



SD Profile 21

No. Lines: 2

07-24-2006

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 EIDn (ft)	Line slope (%)	Invert EIU (ft)	Line size (in)	Line type		N value (n)	J-loss coeff (K)	Inlet/Rim EI (ft)
1	End	44.0	-92.2	MH	0.00	0.00	0.00	0.0	11.80	0.20	11.89	12	Cir	0.013	0.75	18.70	sd44
2	1	20.0	-44.6	Grate	0.00	0.05	0.90	5.0	11.99	0.50	12.09	12	Cir	0.013	1.00	18.50	SD 46

SD Profile 21

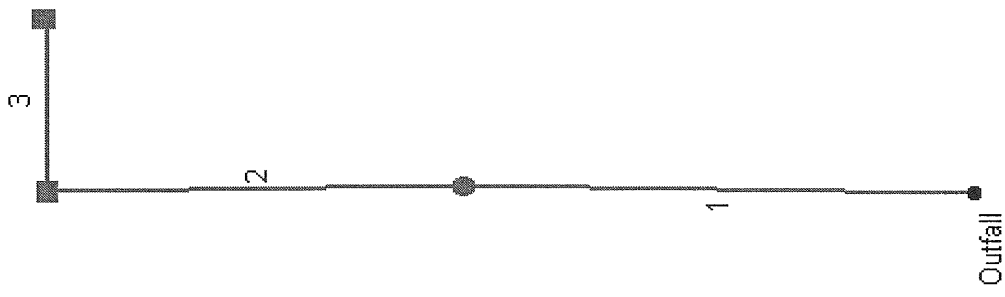
Number of lines: 2

Date: 07-24-2006

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	sd44	0.26	12 c	44.0	11.80	11.89	0.205	12.80	12.80	0.00	12.80	End
2	SD 46	0.27	12 c	20.0	11.99	12.09	0.500	12.80	12.80	0.00	12.81	1
SD Profile 21							Number of lines: 2			Run Date: 07-24-2006		
NOTES: c = cir; e = = box; Return period = 25 Yrs.												

Hydraflow Plan View



SD Profile 22

No. Lines: 3

07-24-2006

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 type	N value (n)		J-loss coeff (K)	Inlet/Rim El (ft)
1	End	54.0	-89.1	MH	0.00	0.00	0.90	5.0	11.50	0.19	11.60	30	Cir	0.013	0.15	19.10	sd34
2	1	44.0	-1.6	Grate	0.00	0.06	0.90	5.0	11.71	0.41	11.89	12	Cir	0.013	1.50	18.70	sd 44
3	2	20.0	89.6	Grate	0.00	0.17	0.90	5.0	11.99	0.50	12.09	12	Cir	0.013	1.00	18.50	sd 45
SD Profile 22																Number of lines: 3	Date: 07-24-2006

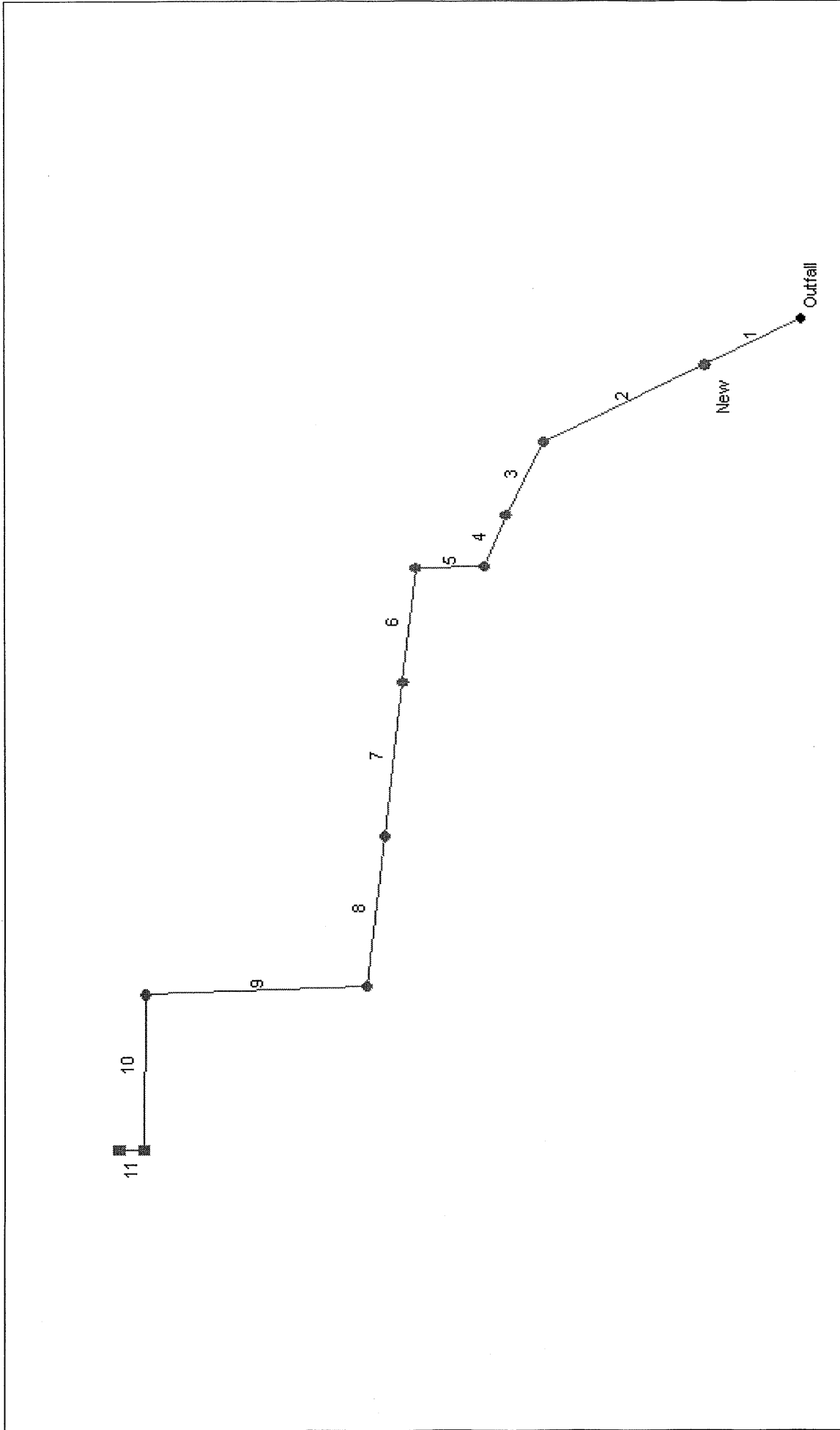
Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	sd34	1.21	30 c	54.0	11.50	11.60	0.185	14.00	14.00	0.00	14.00	End
2	sd 44	1.24	12 c	44.0	11.71	11.89	0.409	14.00*	14.05*	0.06	14.11	1
3	sd 45	0.93	12 c	20.0	11.99	12.09	0.500	14.13*	14.14*	0.02	14.16	2

SD Profile 22	Number of lines: 3	Run Date: 07-24-2006
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NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; *Surcharged (HGL above crown).

Hydraflow Plan View



profile 23

No. Lines: 11

07-24-2006

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 type	N value (n)		J-loss coeff (K)	Inlet/ Rim El (ft)
1	End	86.0	-117.7	MH	0.00	0.00	0.90	5.0	6.74	4.37	10.50	36	Cir	0.013	0.15	18.50	Existing Pipe
2	1	144.0	0.0	MH	0.00	0.00	0.90	5.0	10.60	0.28	11.01	36	Cir	0.011	0.65	18.50	Existing Pipe(2)
3	2	70.0	-36.8	MH	0.00	0.00	0.90	5.0	11.11	0.20	11.25	36	Cir	0.011	0.15	18.70	SD 32
4	3	48.0	-4.5	MH	0.00	1.41	0.90	5.0	11.25	0.21	11.35	36	Cir	0.011	0.94	18.90	SD 33
5	4	54.0	68.4	MH	0.00	0.23	0.90	5.0	11.45	0.30	11.61	30	Cir	0.011	0.99	19.10	SD 34
6	5	100.0	-83.4	MH	0.00	0.93	0.90	5.0	11.71	0.30	12.01	30	Cir	0.011	0.15	18.20	SD 35
7	6	134.0	0.4	MH	0.00	1.20	0.90	5.0	12.11	0.20	12.38	24	Cir	0.011	0.15	16.80	SD 36
8	7	130.0	-0.4	MH	0.00	0.24	0.90	5.0	12.48	0.20	12.74	24	Cir	0.011	0.99	18.00	SD 37
9	8	174.0	81.8	MH	0.00	0.00	0.90	5.0	12.84	0.30	13.36	18	Cir	0.011	1.00	19.20	SD 38
10	9	134.0	-87.3	Grate	0.00	0.08	0.90	5.0	13.46	0.30	13.86	15	Cir	0.011	1.50	18.50	SD 39
11	10	20.0	89.5	Grate	0.00	0.25	0.90	5.0	13.96	2.00	14.36	12	Cir	0.011	1.00	18.50	SD40
profile 23													Number of lines: 11	Date: 07-24-2006			

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	Existing Pipe	15.64	36 c	86.0	6.74	10.50	4.372	9.74	11.76	n/a	11.76 j	End
2	Existing Pipe(2)	16.09	36 c	144.0	10.60	11.01	0.285	12.16	12.30	0.31	12.61	1
3	SD 32	16.31	36 c	70.0	11.11	11.25	0.200	12.75	12.81	0.05	12.85	2
4	SD 33	16.47	36 c	48.0	11.25	11.35	0.208	12.85	12.90	0.29	13.19	3
5	SD 34	11.24	30 c	54.0	11.45	11.61	0.296	13.35	13.37	0.14	13.51	4
6	SD 35	10.59	30 c	100.0	11.71	12.01	0.300	13.51	13.54	0.03	13.57	5
7	SD 36	7.15	24 c	134.0	12.11	12.38	0.201	13.57	13.67	0.03	13.70	6
8	SD 37	2.52	24 c	130.0	12.48	12.74	0.200	13.83	13.85	0.03	13.88	7
9	SD 38	1.66	18 c	174.0	12.84	13.36	0.299	13.89	13.97	0.09	14.07	8
10	SD 39	1.79	15 c	134.0	13.46	13.86	0.299	14.13	14.41	0.28	14.69	9
11	SD40	1.37	12 c	20.0	13.96	14.36	2.000	14.83	14.86	n/a	14.86 j	10
profile 23							Number of lines: 11			Run Date: 07-24-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; j - Line contains hyd. jump.												

Hydraflow Plan View



SD Profile 24

No. Lines: 4

07-24-2006

Storm Sewer Inventory Report

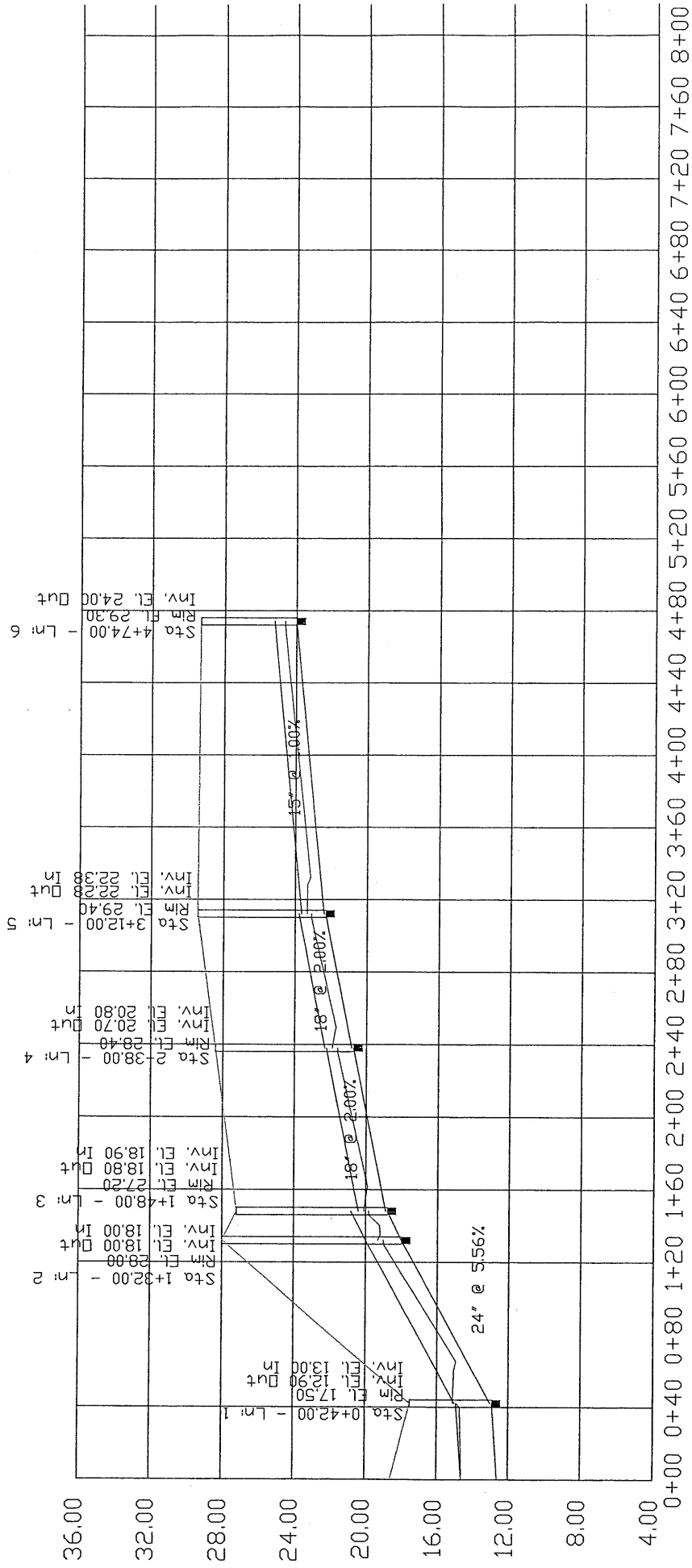
Line No.	Alignment			Flow Data				Physical Data							Line ID		
	Dnstr line No.	Line length (ft)	Defl angle (deg)	Junc type	Known Q (cfs)	Drng area (ac)	Runoff coeff (C)	Inlet time (min)	Invert El Dn (ft)	Line slope (%)	Invert El Up (ft)	Line size (in)	Line type	N value (n)		J-loss coeff (K)	Inlet/Rim El (ft)
1	End	48.0	180.0	MH	0.00	0.00	0.00	0.0	11.30	0.10	11.35	36	Cir	0.013	0.15	18.90	sd33
2	1	82.0	-1.8	Grate	0.00	0.21	0.90	5.0	11.45	0.20	11.61	24	Cir	0.013	0.50	17.80	SD 41
3	2	70.0	1.1	Grate	0.00	0.40	0.90	5.0	11.71	0.20	11.85	15	Cir	0.013	0.50	17.00	SD 42
4	3	64.0	1.8	Grate	0.00	0.80	0.90	5.0	11.95	0.20	12.08	15	Cir	0.013	1.00	16.30	SD 43
SD Profile 24																	
													Number of lines: 4	Date: 07-24-2006			

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	sd33	7.31	36 c	48.0	11.30	11.35	0.104	14.30	14.31	0.00	14.31	End
2	SD 41	7.53	24 c	82.0	11.45	11.61	0.195	14.31*	14.40*	0.04	14.44	1
3	SD 42	6.48	15 c	70.0	11.71	11.85	0.200	14.44*	15.15*	0.22	15.37	2
4	SD 43	4.39	15 c	64.0	11.95	12.08	0.203	15.60*	15.90*	0.20	16.10	3
SD Profile 24							Number of lines: 4			Run Date: 07-24-2006		
NOTES: c = cir; e = ellip; b = box; Return period = 25 Yrs. ; *Surcharged (HGL above crown).												

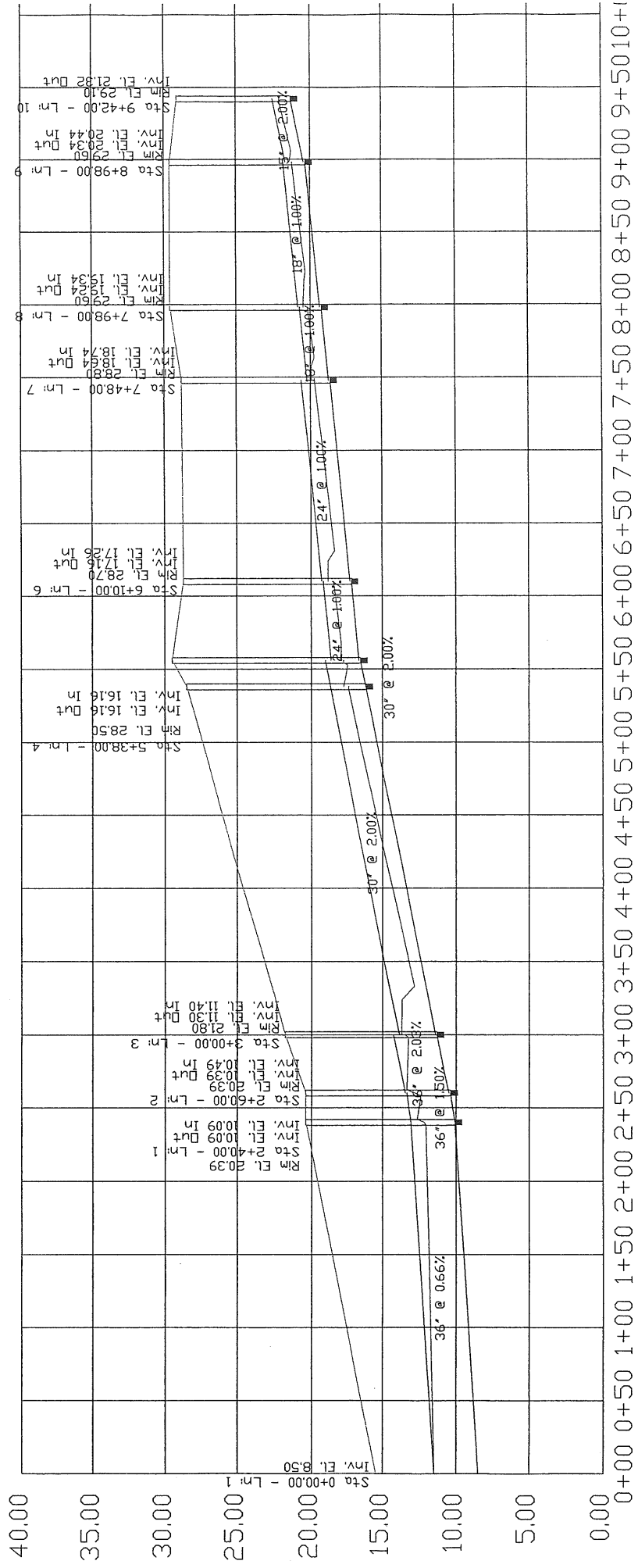
Profile 1

SCALE: 1(in) = 40 (ft) H, 1(in) = 4(ft) V



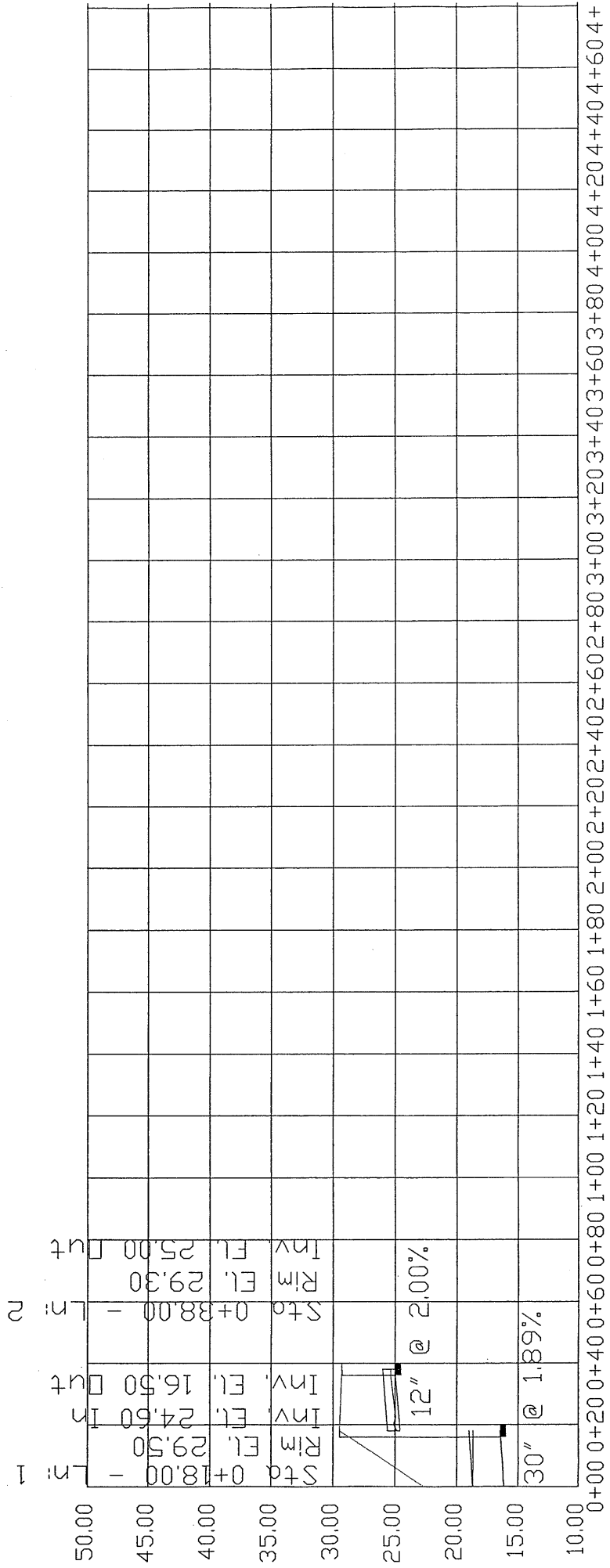
Profile 2

SCALE: 1(in) = 50 (ft) H, 1(in) = 5(ft) V



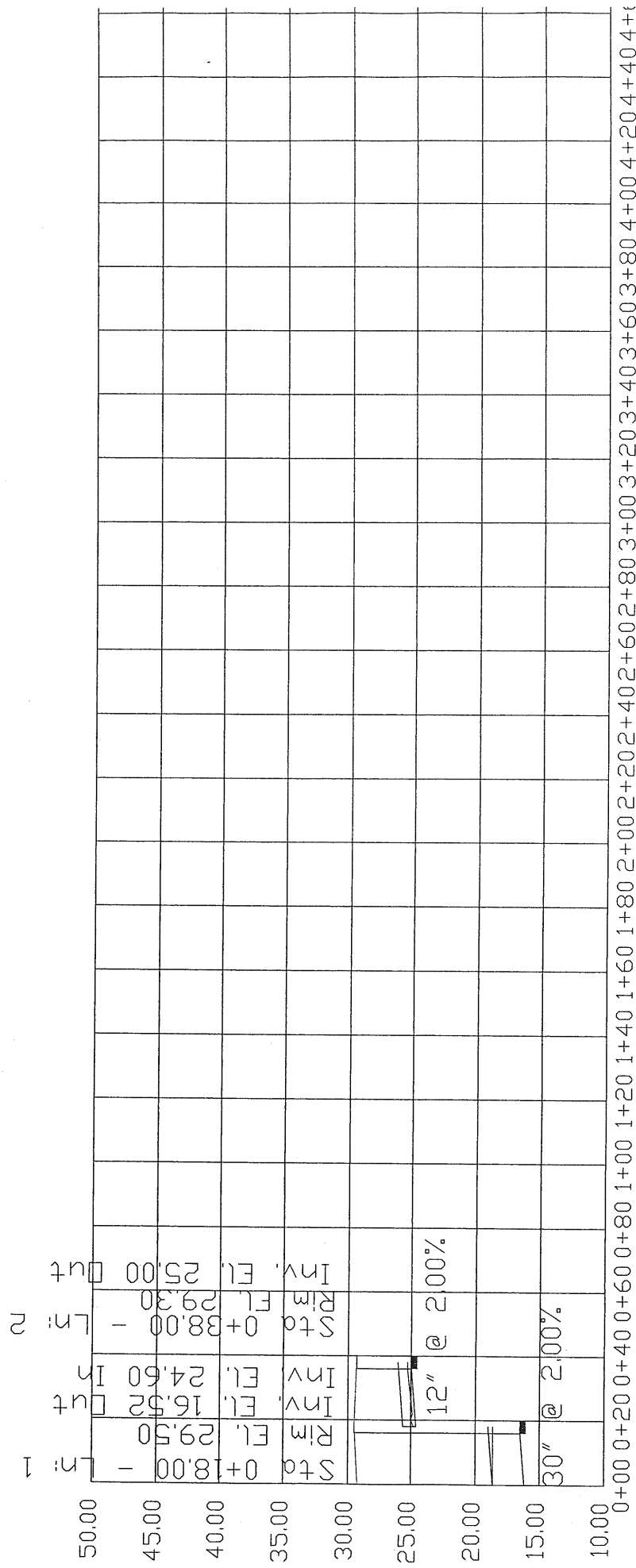
Profile 3

Scale: 1(in) = 40 (ft) H, 1(in) = 5 (ft) V



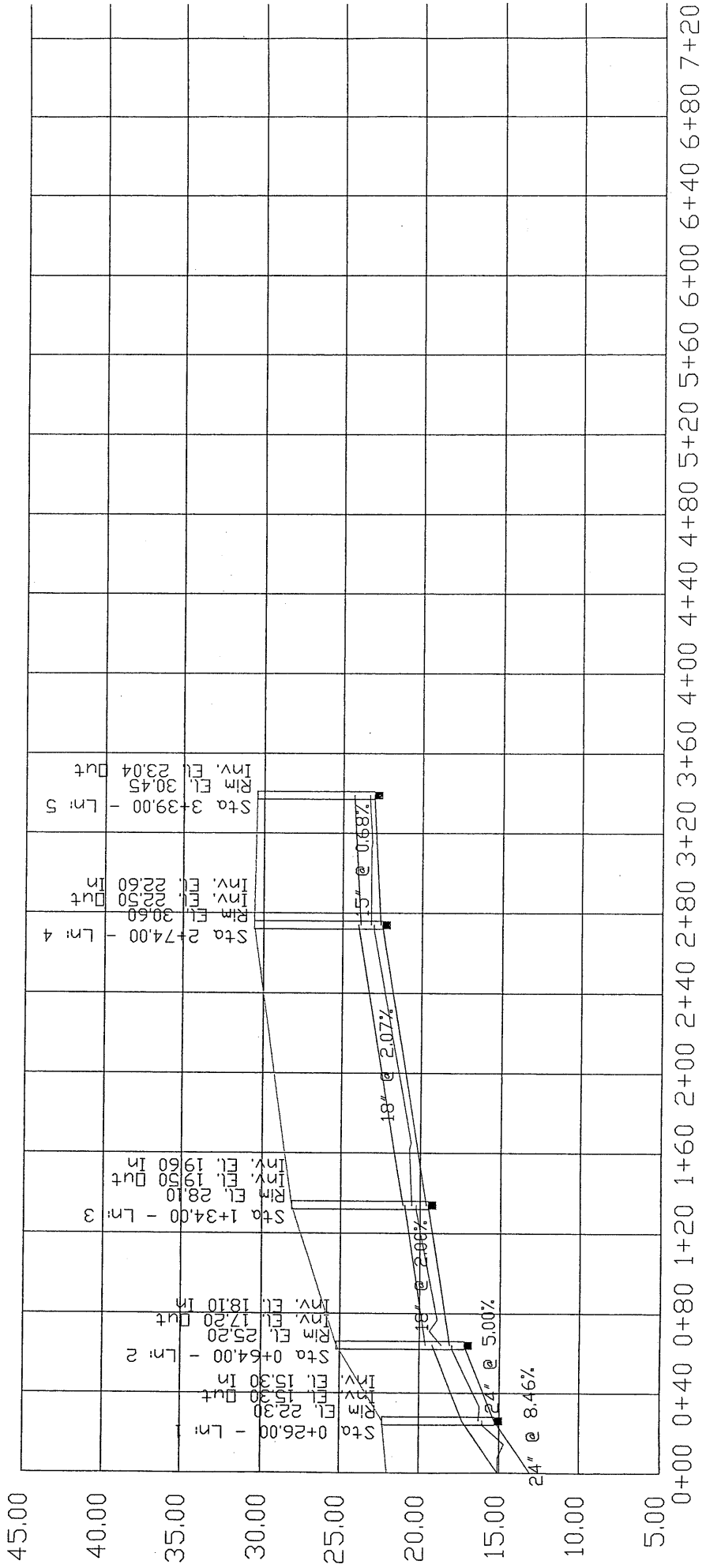
Profile 4

SCALE: 1(in) = 20 (ft) H, 1(in) = 5(ft) V



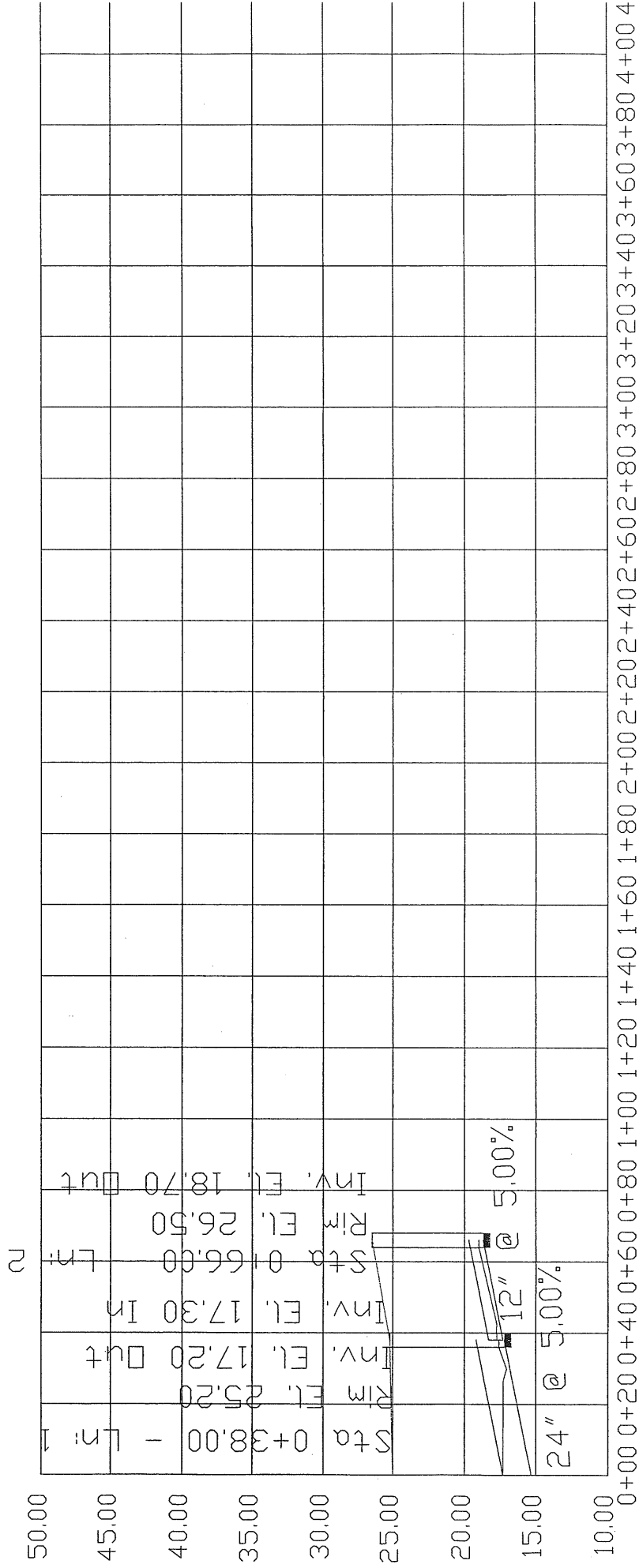
Profile 5

SCALE: 1(in) = 40 (ft) H, 1(in) = 5(ft) V



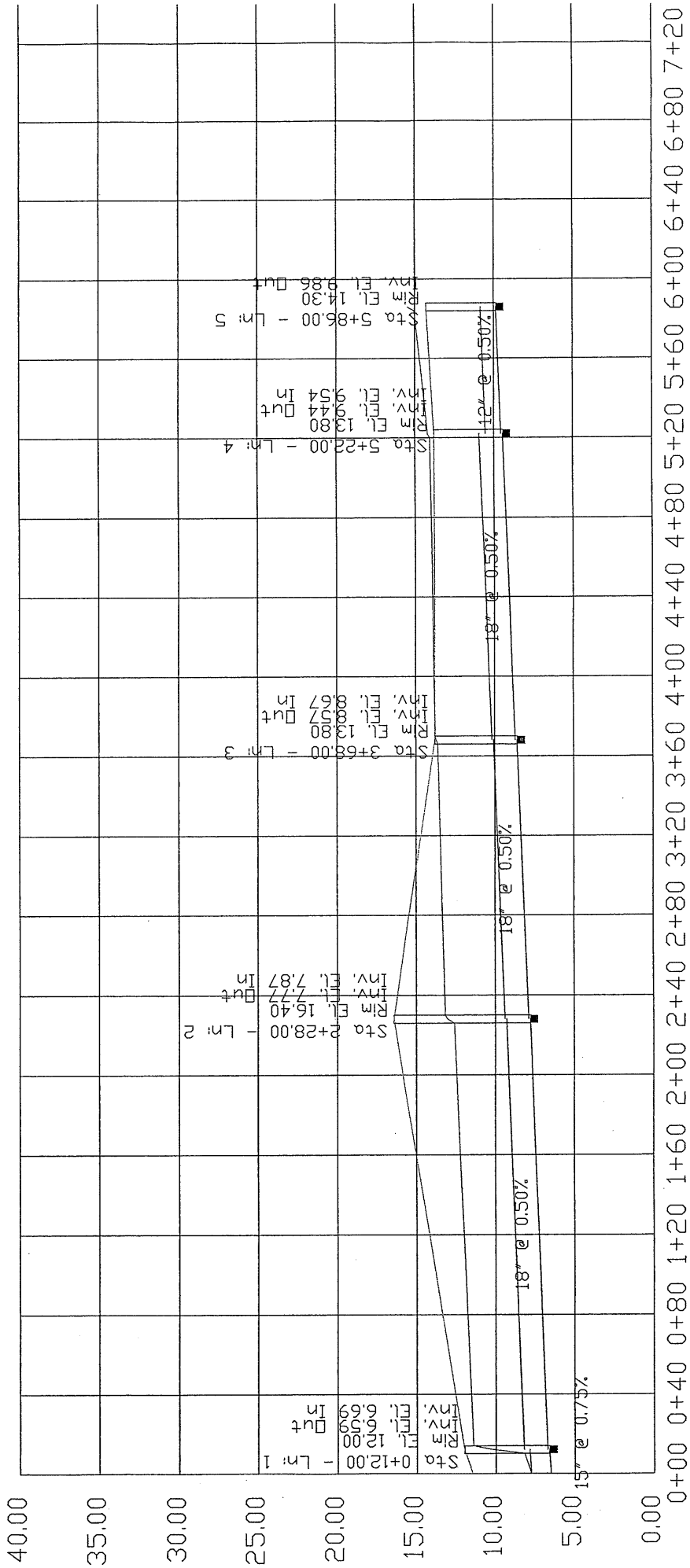
Profile 6

SCALE: 1(in) = 20 (ft) H, 1(in) = 5(ft) V



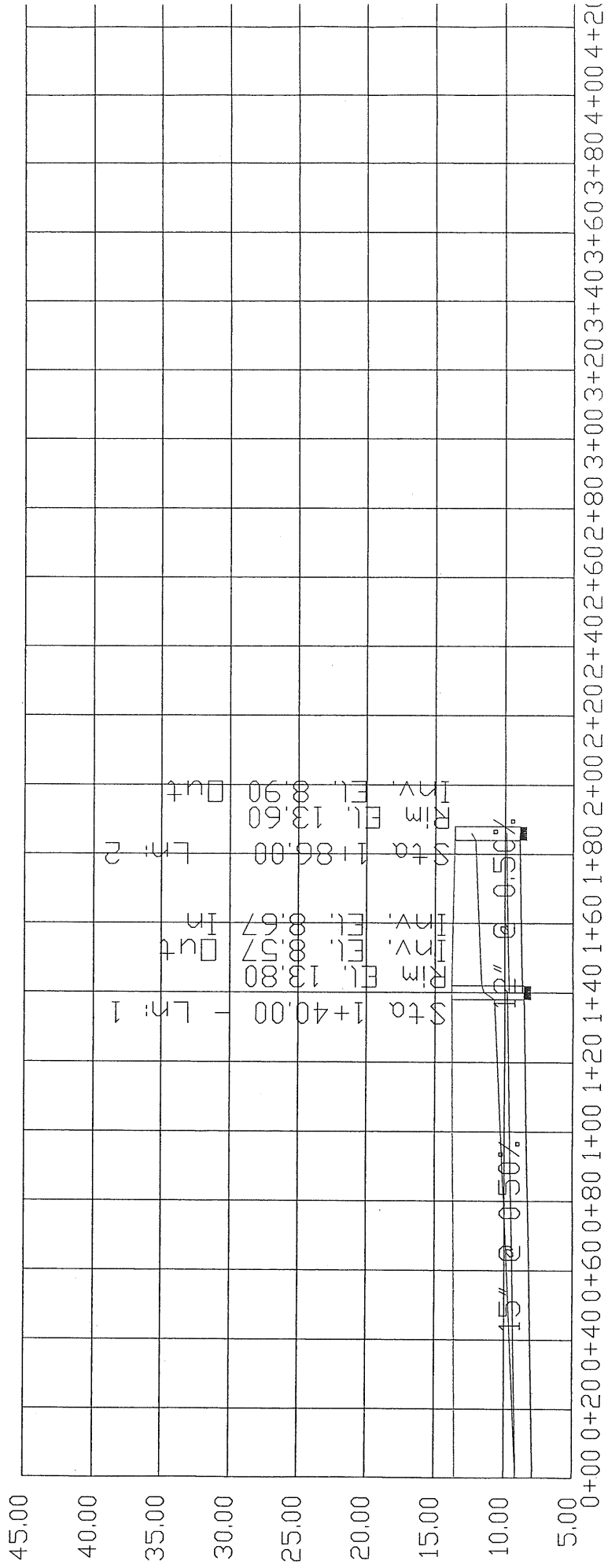
Profile 7

SCALE: 1(in) = 40 (ft) H, 1(in) = 5(ft) V



Profile 8

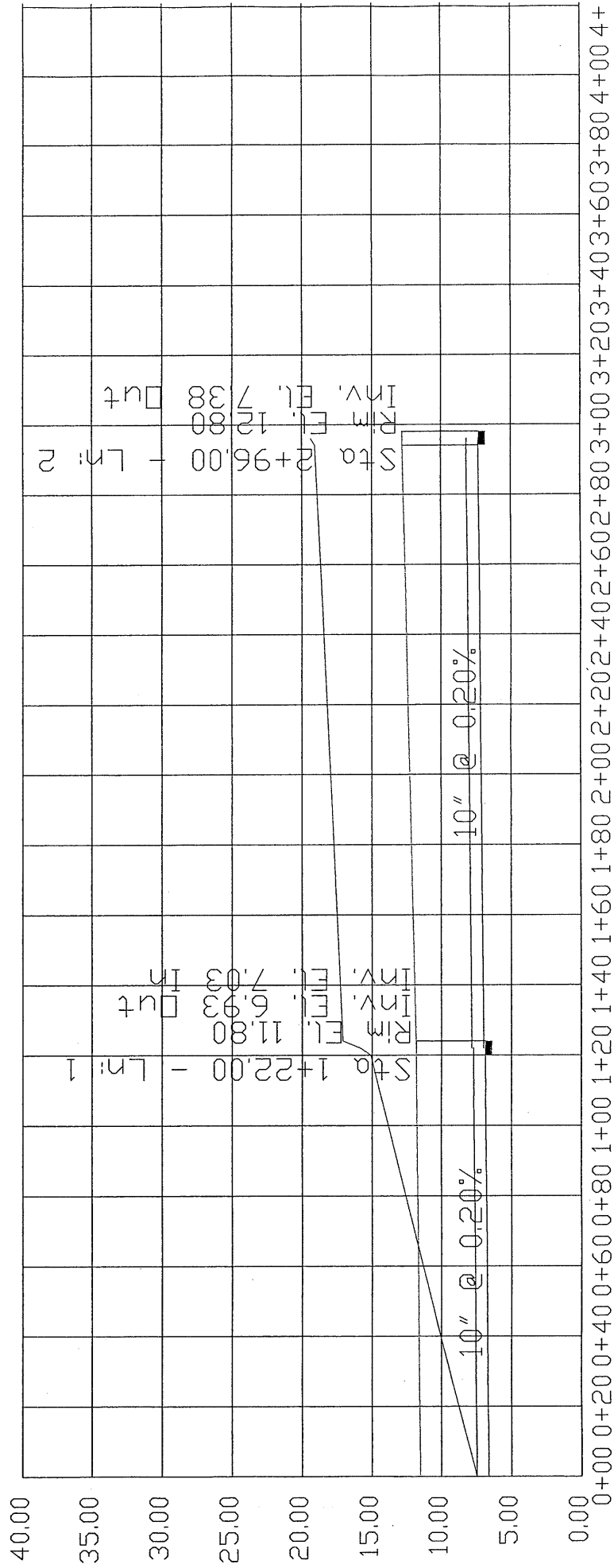
SCALE: 1<in> = 20 (ft) H, 1<in> = 5<ft> V



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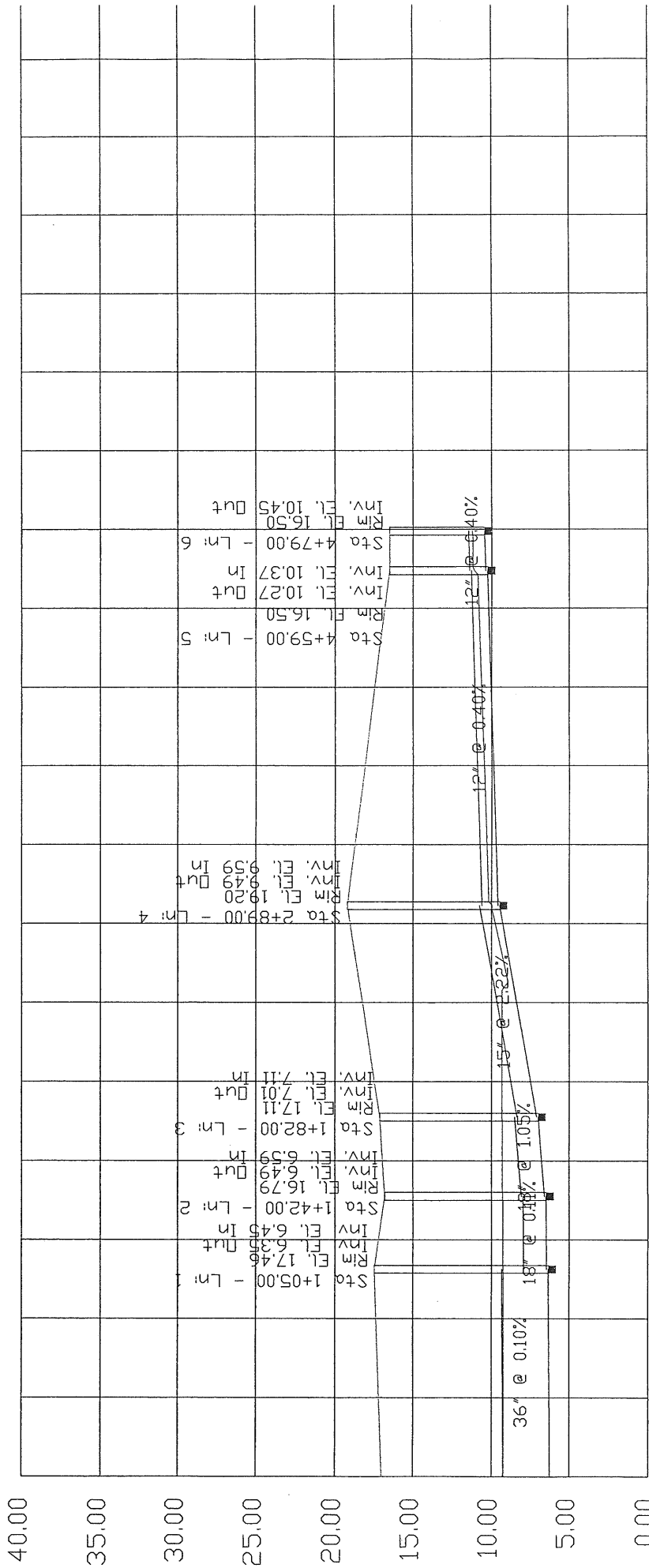
Profile 9

SCALE: 1(in) = 20 (ft) H, 1(in) = 5(ft) V



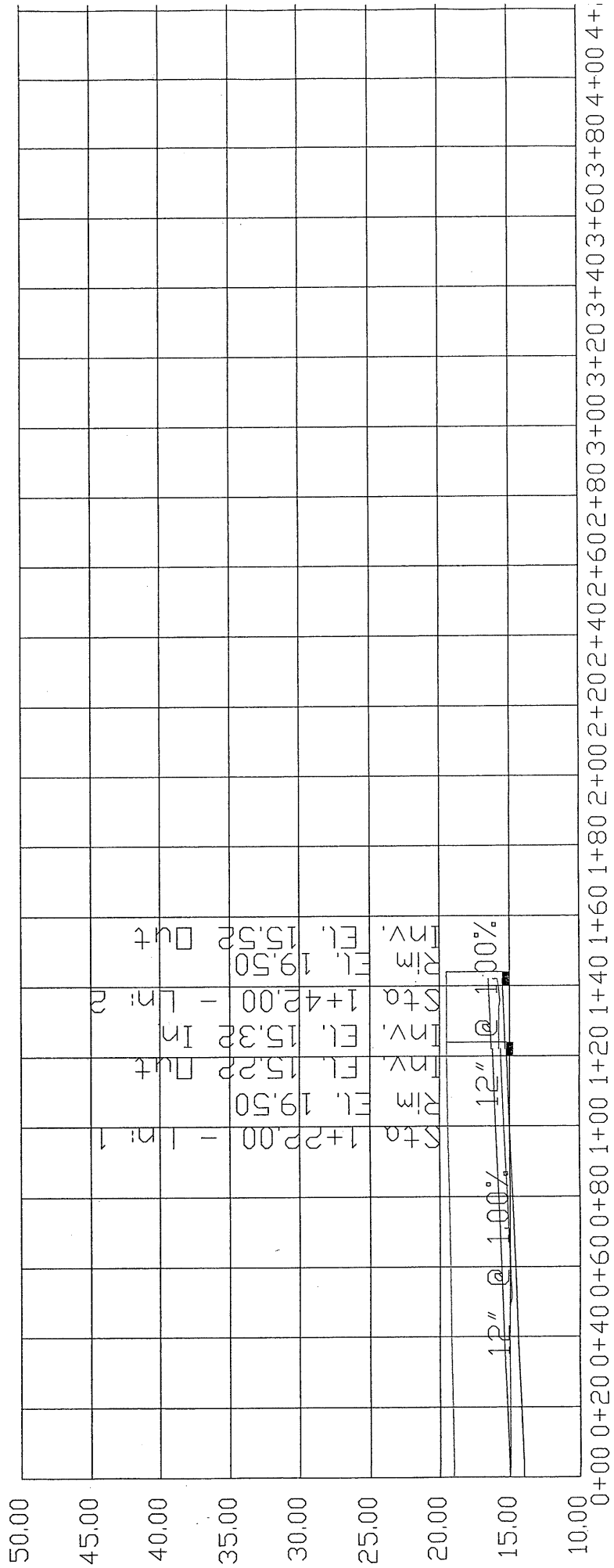
Profile 10

SCALE: 1(in) = 40 (ft) H, 1(in) = 5(ft) V



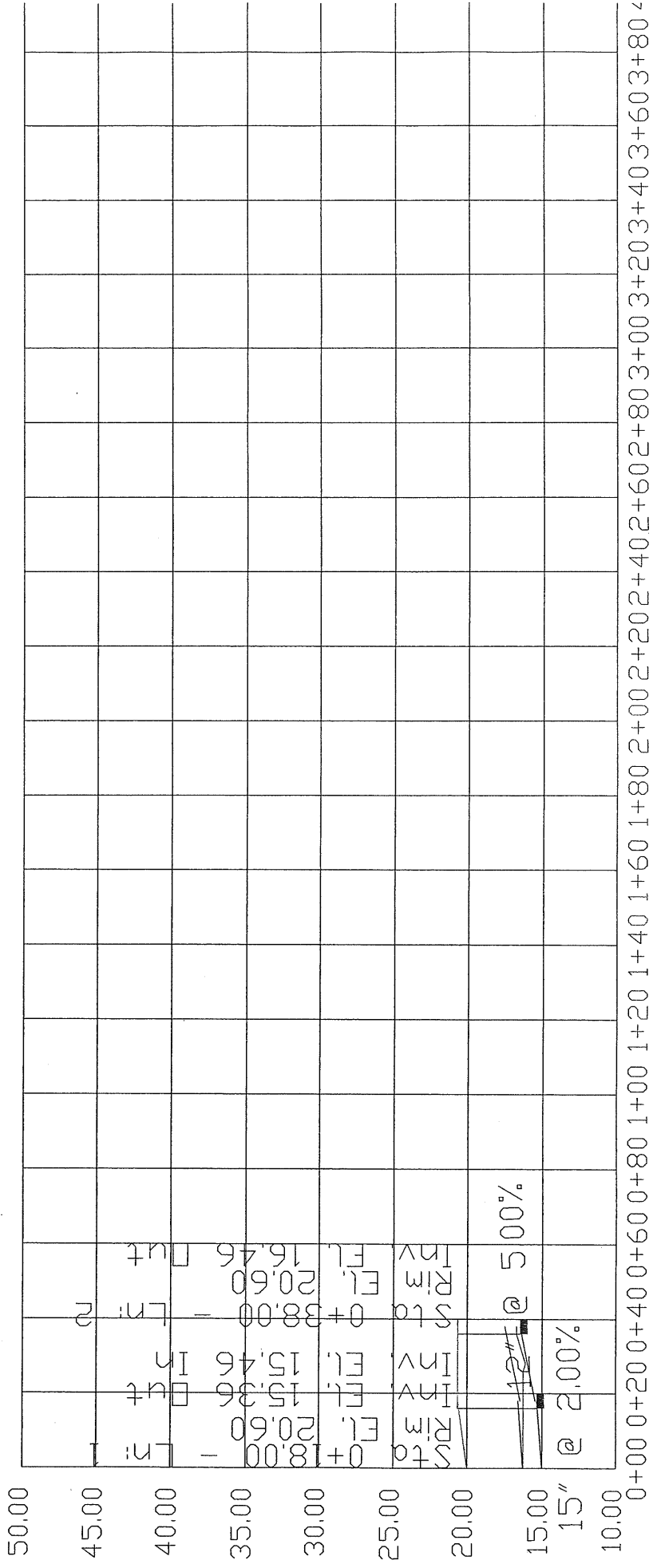
0+00 0+40 0+80 1+20 1+60 2+00 2+40 2+80 3+20 3+60 4+00 4+40 4+80 5+20 5+60 6+00 6+40 6+80 7+20

Profile 11



Profile 12

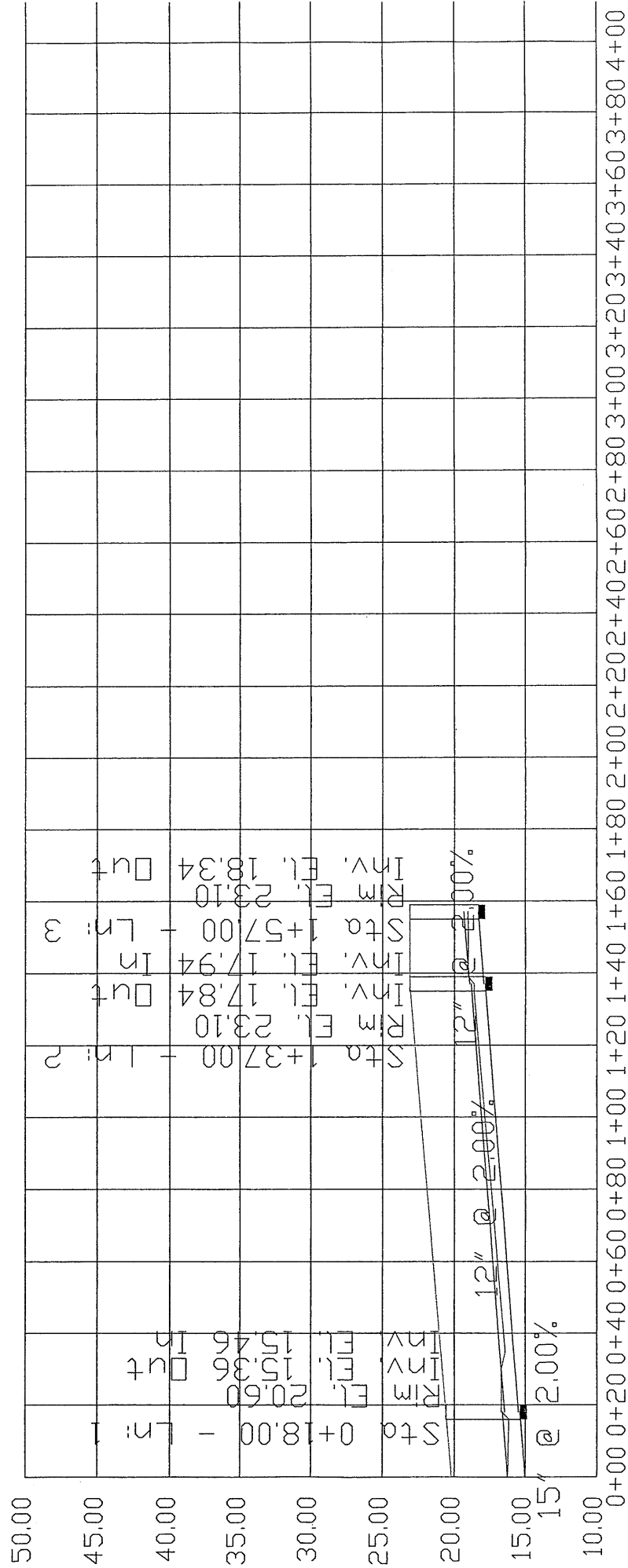
SCALE: 1(in) = 20 (ft) H, 1(in) = 5(ft) V



0+00 0+20 0+40 0+60 0+80 1+00 1+20 1+40 1+60 1+80 2+00 2+20 2+40 2+60 2+80 3+00 3+20 3+40 3+60 3+80 4+00 4+20 4+40 4+60 4+80 5+00 5+20 5+40 5+60 5+80 6+00 6+20 6+40 6+60 6+80 7+00 7+20 7+40 7+60 7+80 8+00 8+20 8+40 8+60 8+80

Profile 13

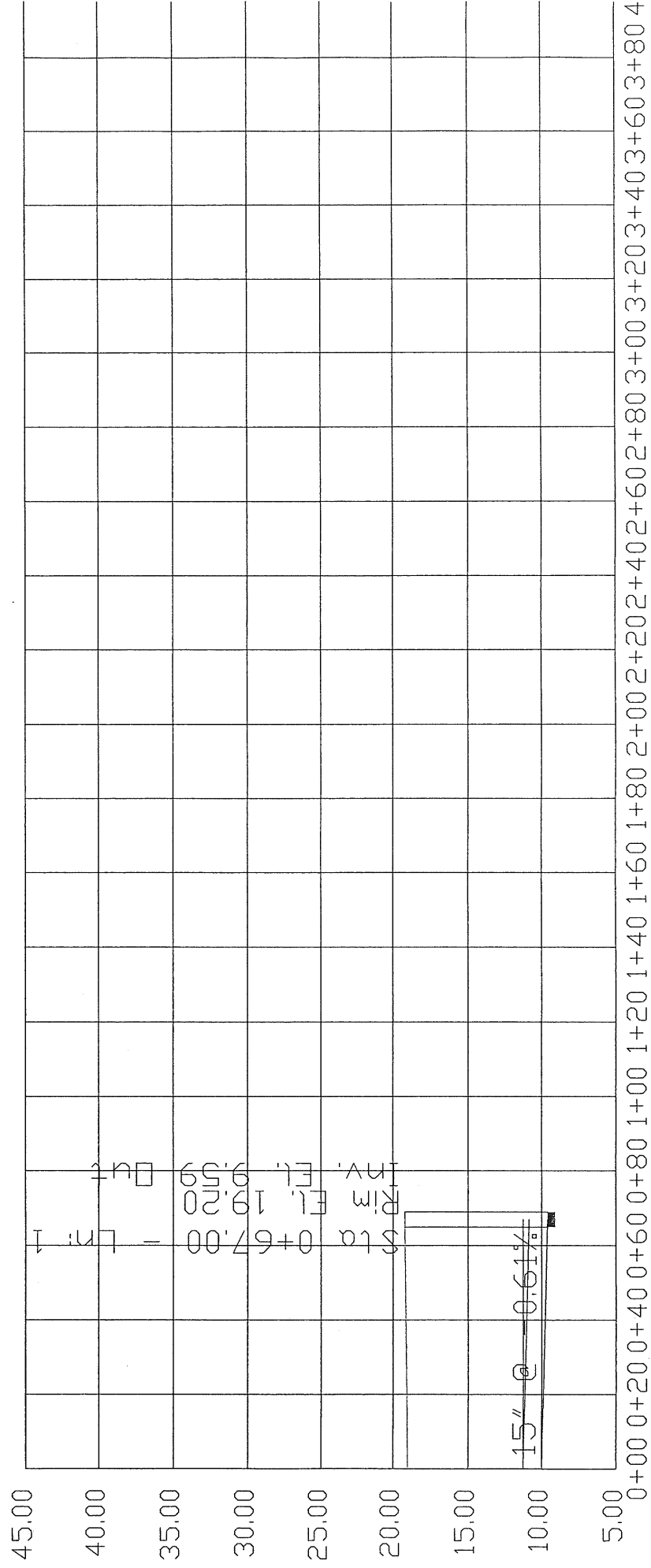
SCALE: 1(in) = 20 (ft) H, 1(in) = 5(ft) V



0+00 0+20 0+40 0+60 0+80 1+00 1+20 1+40 1+60 1+80 2+00 2+20 2+40 2+60 2+80 3+00 3+20 3+40 3+60 3+80 4+00

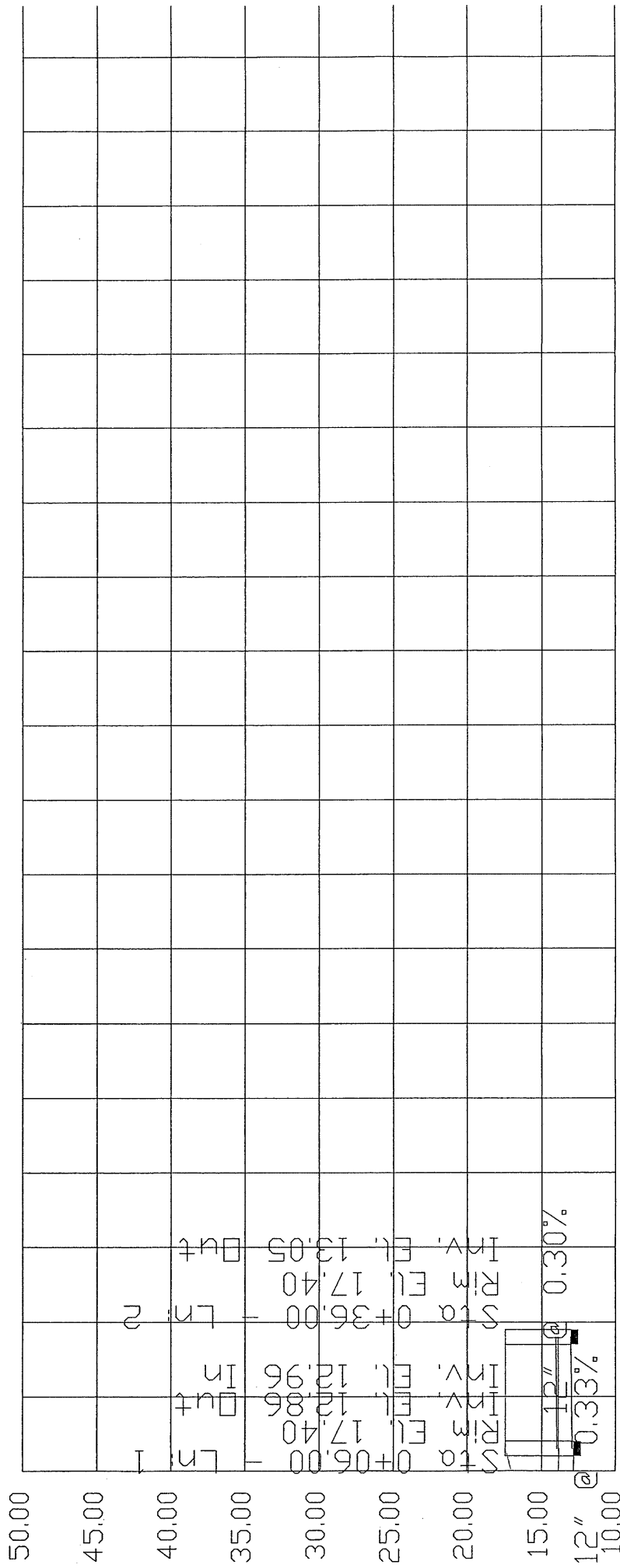
Profile 14

SCALE: 1(in) = 20 (ft) H, 1(in) = 5(ft) V



Profile 15

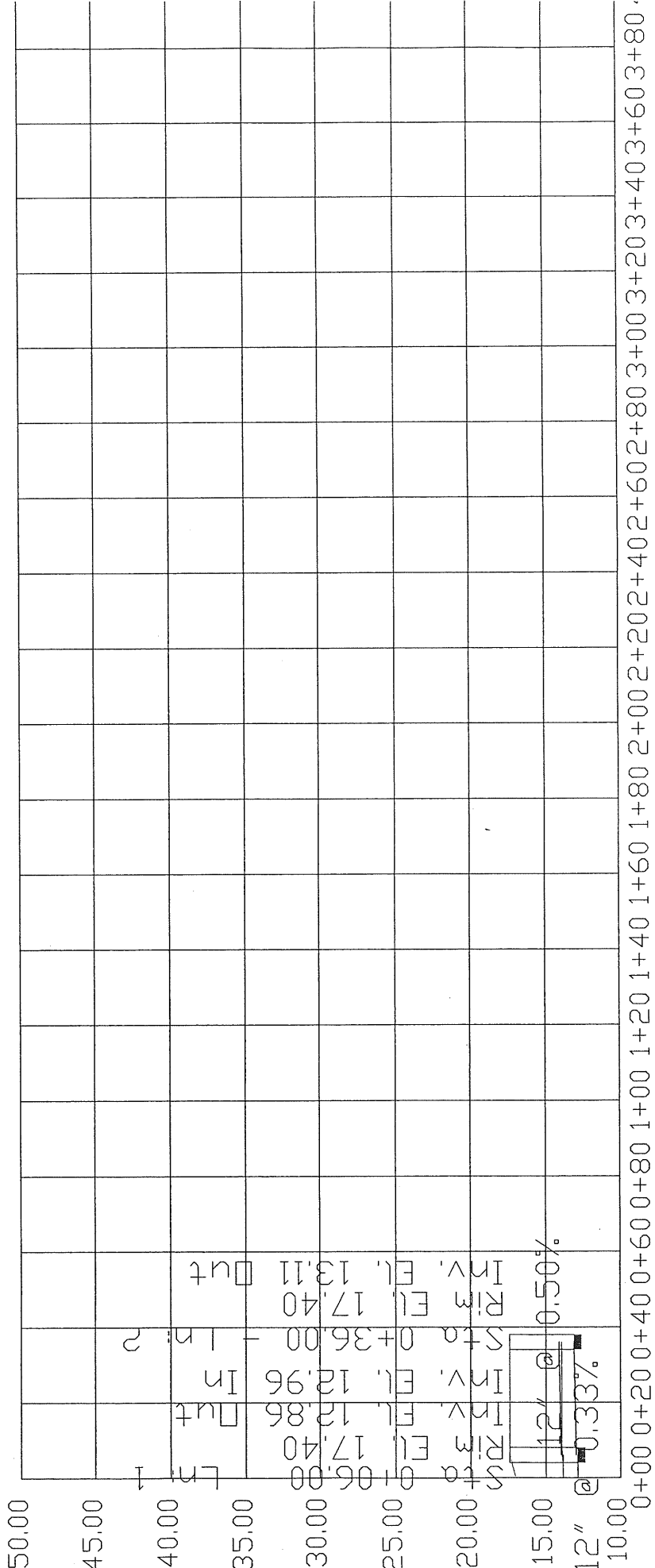
SCALE: 1(in) = 20 (ft) H, 1(in) = 5(ft) V



0+00 0+20 0+40 0+60 0+80 1+00 1+20 1+40 1+60 1+80 2+00 2+20 2+40 2+60 2+80 3+00 3+20 3+40 3+60 3+80 4

Profile 16

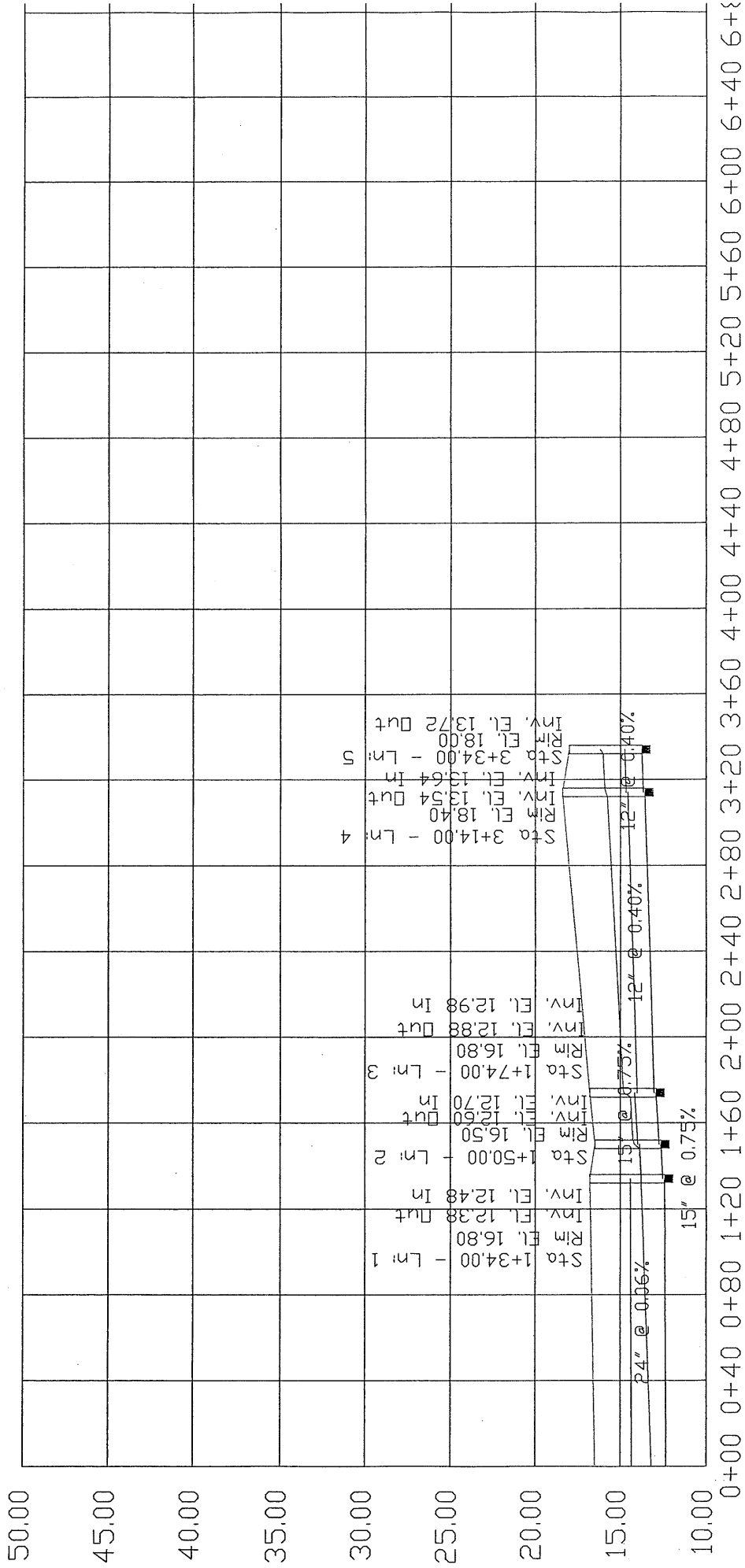
SCALE: 1(in) = 20 (ft) H, 1(in) = 5(ft) V



0+00 0+20 0+40 0+60 0+80 1+00 1+20 1+40 1+60 1+80 2+00 2+20 2+40 2+60 2+80 3+00 3+20 3+40 3+60 3+80 4+00 4+20 4+40 4+60 4+80 5+00 5+20 5+40 5+60 5+80 6+00 6+20 6+40 6+60 6+80 7+00 7+20 7+40 7+60 7+80 8+00

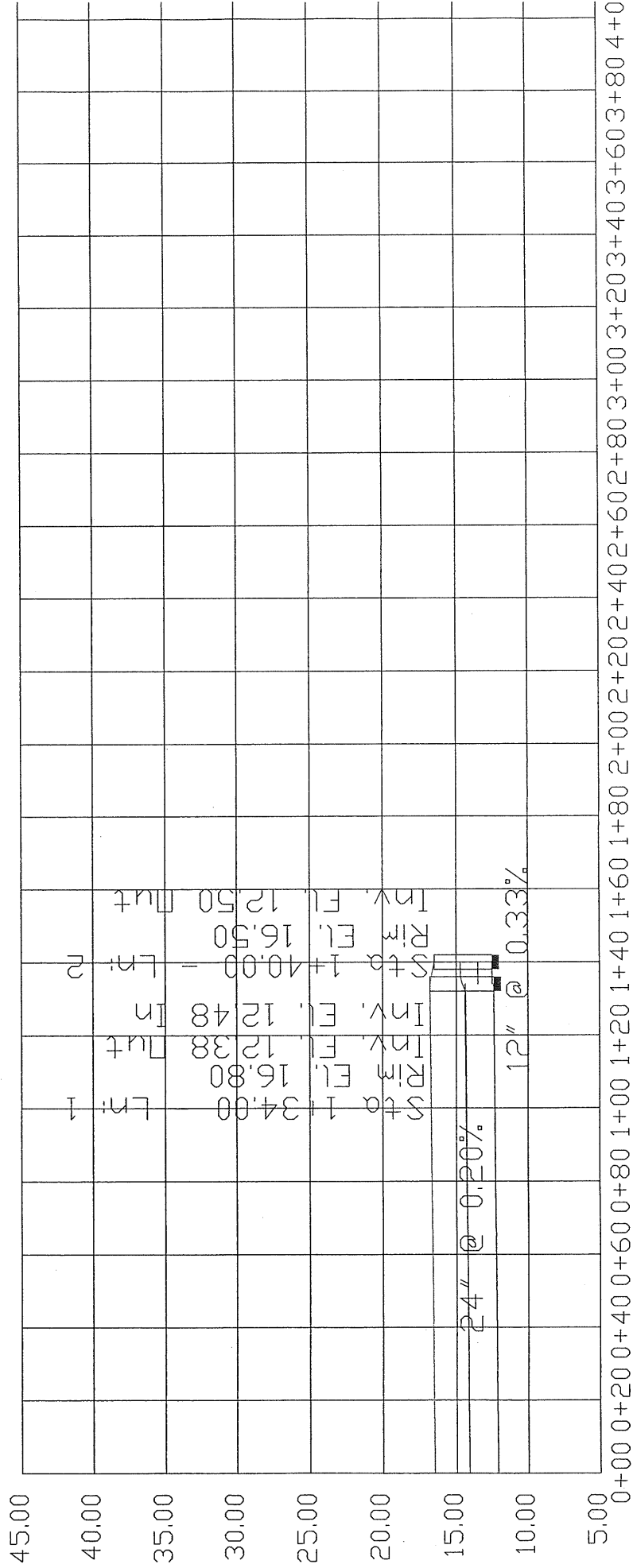
Profile 17

SCALE: 1(in) = 40 (ft) H, 1(in) = 5(ft) V



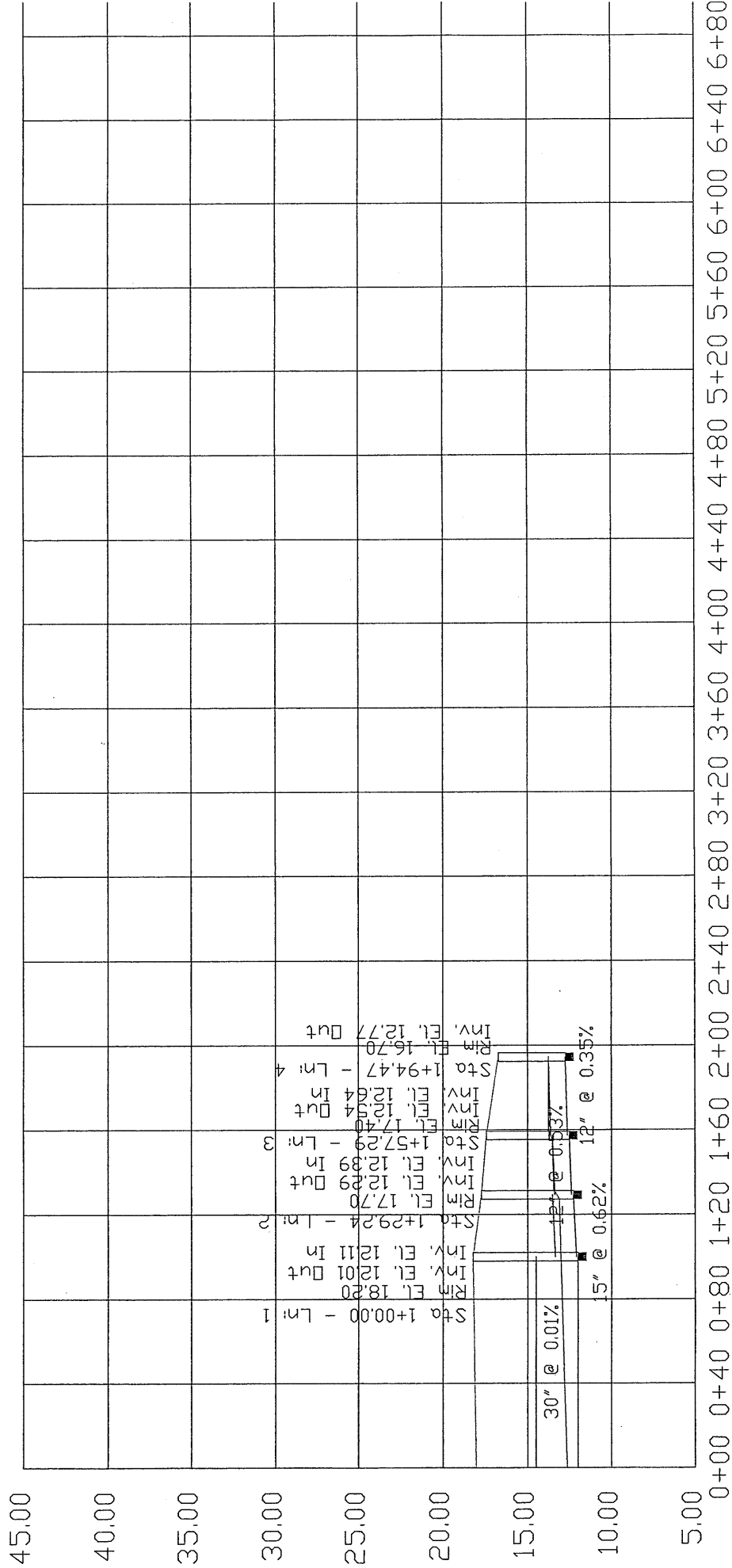
Profile 18

SCALE: 1(in) = 20 (ft) H, 1(in) = 5(ft) V



Profile 19

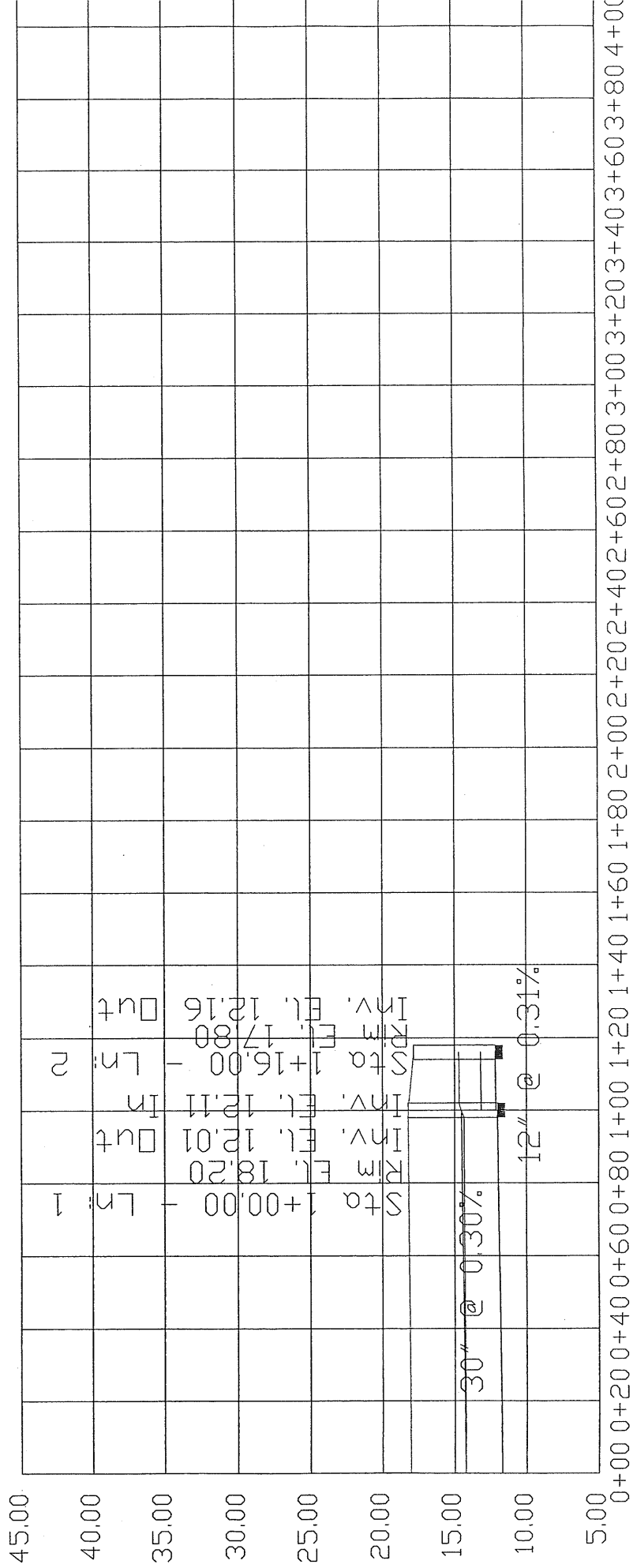
SCALE: 1(in) = 40 (ft) H, 1(in) = 5(ft) V



0+00 0+40 0+80 1+20 1+60 2+00 2+40 2+80 3+20 3+60 4+00 4+40 4+80 5+20 5+60 6+00 6+40 6+80

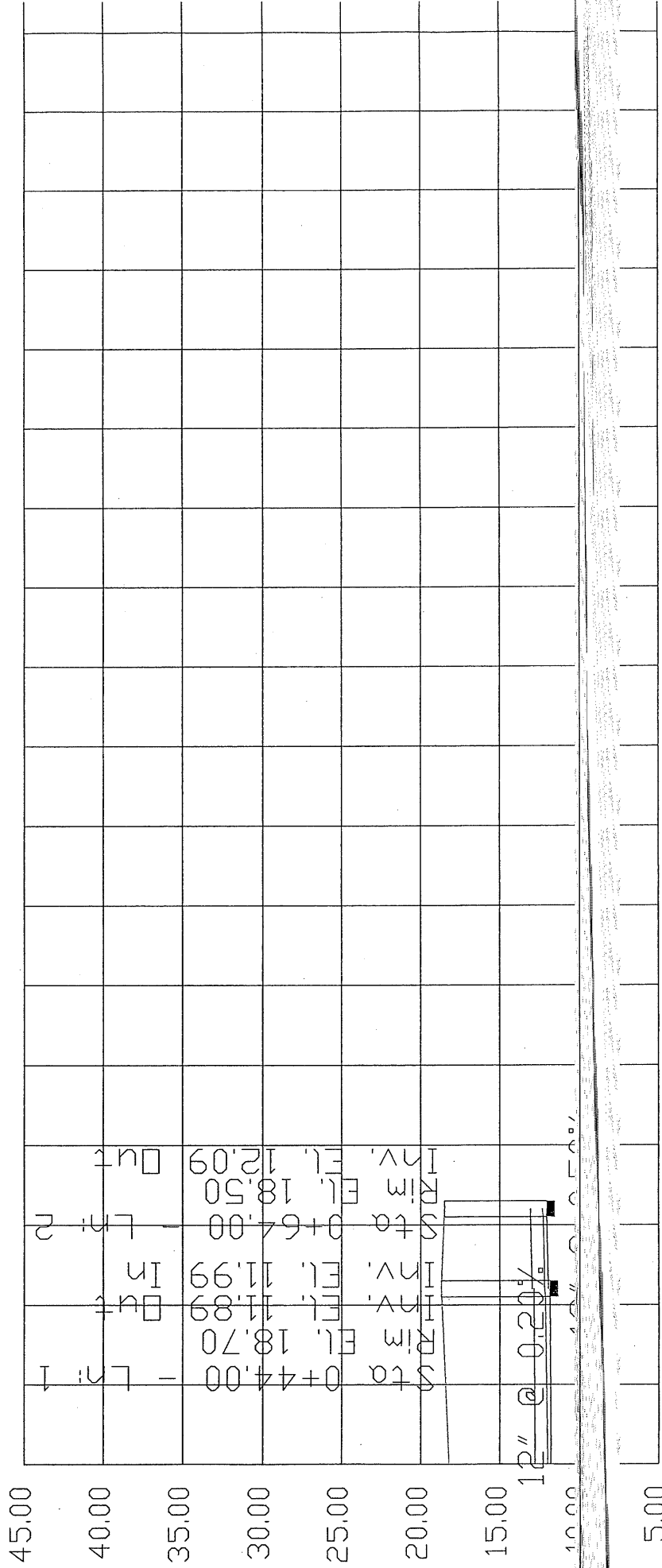
Profile 20

SCALE: 1(in) = 20 (ft) H, 1(in) = 5(ft) V



Profile 21

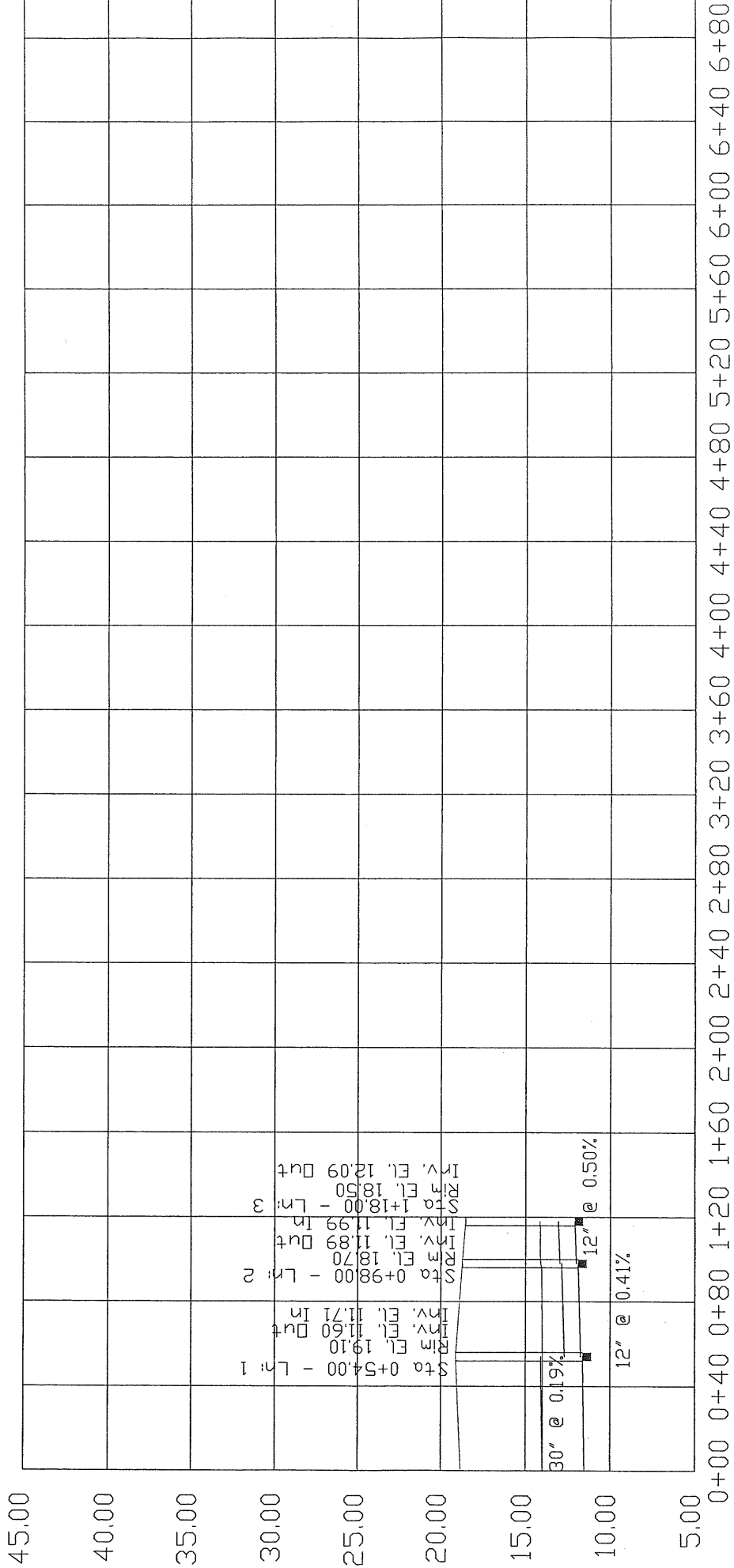
SCALE: 1(in) = 20 (ft) H, 1(in) = 5(ft) V



0+00 0+20 0+40 0+60 0+80 1+00 1+20 1+40 1+60 1+80 2+00 2+20 2+40 2+60 2+80 3+00 3+20 3+40 3+60

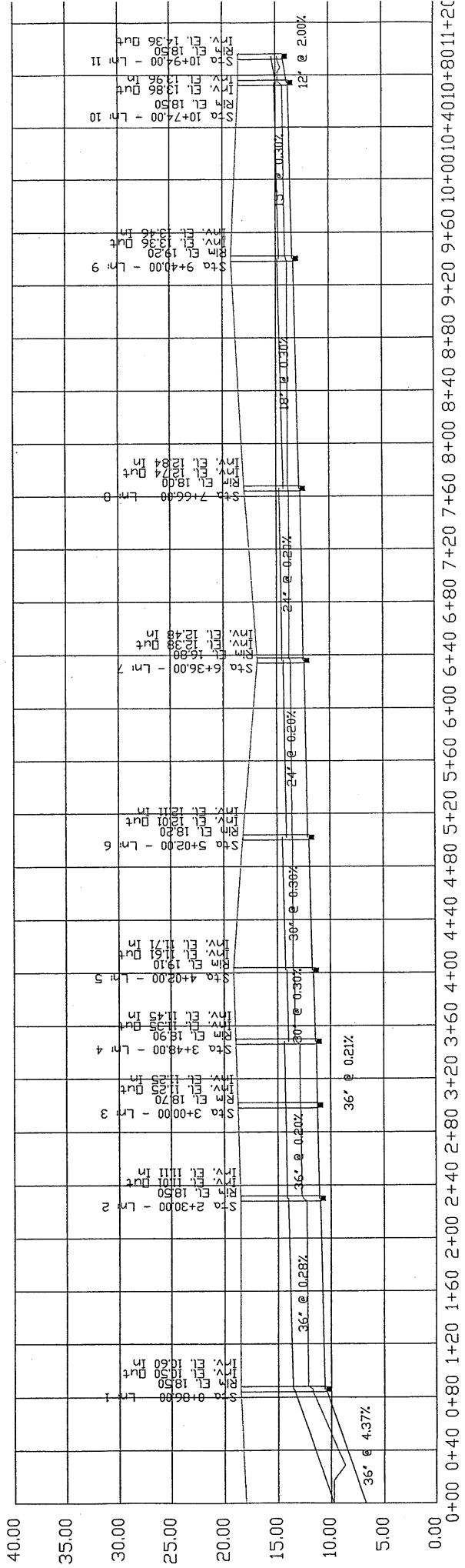
Profile 22

SCALE: 1(in) = 40 (ft) H, 1(in) = 5(ft) V



Profile 23

SCALE: 1(in) = 40 (ft) H, 1(in) = 5(ft) V



0+00 0+40 0+80 1+20 1+60 2+00 2+40 2+80 3+20 3+60 4+00 4+40 4+80 5+20 5+60 6+00 6+40 6+80 7+20 7+60 8+00 8+40 8+80 9+20 9+60 10+00 10+40 10+80 11+20