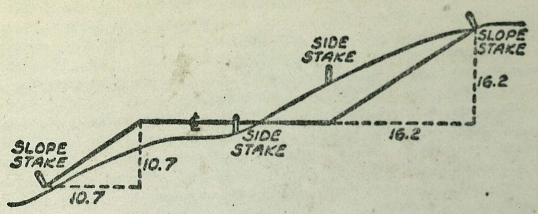
G-406



Distances from Side Stakes for Cross-Sectioning

Slope 1 to 1. Roadway of Any Width

	0	.1	.2	.3	.4	.5	.6	.7	.8	9	
0	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29	29.00	29.10	29.20	29 30	29.40	29.50	29.60	29.70	29.80	29.90	29
30	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31	31.00	31.10	31 20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32	32.00	32.10	32 20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33	33.00	33 10	33 20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34	34 00	34.10	34 20	34 30	34.40	34.50	34.60	34.70	34.80	34.90	34
35	35.00	35 10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36	36 00	36.10	36 20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37	37 00	37.10	37 20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38	38 00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

IMPROVED TABLES
AND
INFORMATION

Table XIII—Corrections for Tangents and Externals

These corrections are to be added to the approximate values, found by dividing the tangent, or external, for a 1° curve (Table VIII) by the degree of curve, in order to obtain the true tangents, or externals. Intermediate values may be obtained by interpolation.

For Tangents Add

Central Angle	Degree of Curve													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	03	.06	09	13	16	19	.22	.25	.28	.31	34	38	42	.46
15°	04	10	14	19	24	.29	.34	.39	45	.51	.53	58	.63	.68
20°	06	.13	19	26	.32	.39	.45	.51	.58	.65	.72	79	.84	.90
25°	.08	16	24	.33	40	49	.58	67	.75	.83	90	.99	1.06	1.14
30°	10	19	.29	39	49	.59	.69	79	.89	.99	1.09	1.20	1.29	1.39
35°	11	22	.34	47	.58	.69	.70	.81	.92	1.04	1.29	1.42	1.54	1.66
40°	13	.26	.40	.53	.67	.80	.93	1.06	1.20	1.34	1.49	1.64	1.79	1.94
45°	15	.30	44	60	76	91	1.06	1.21	1.37	1.52	1.70	1.87	2.04	2.21
50°	17	.34	.51	.68	.85	1.02	1.19	1.36	1.54	1.72	1.91	2.10	2.29	2.48
55°	19	38	.57	76	.95	1.14	1.32	1.52	1.72	1.92	2.14	2.35	2.56	2.77
60°	.21	42	.63	.84	1.05	1.27	1.49	1.71	1.94	2.17	2.38	2.60	2.83	3.07
65°	23	46	.69	.93	1.16	1 40	1.64	1.88	2.13	2.38	2.63	2.88	3.13	3.39
70°	25	.51	76	1.02	1.28	1.54	1.80	2.06	2.33	2.60	2.88	3.16	3.44	3.72
75°	.27	.56	.83	1.12	1.40	1.69	1.98	2.27	2.57	2.87	3.16	3.47	3.78	4.09
80°	30	.61	.91	1.22	1.53	1.84	2.15	2.46	2 78	3.10	3.44	3.78	4.12	4.46
85°	33	66	1.00	1.33	1.68	2.02	2.36	2 70	3.05	3.40	3.77	4.14	4.55	4 89
90°	36	.72	1.09	1.45	1.83	2.20	2.57	2.94	3.32	3.70	4.10	4.50	4.91	5.32
95°	39	79	1.19	1.55	2.00	2.40	2.80	3.20	3.61	4.02	4.40	4.98	5.38	5.83
100°	43	.86	1.30	1.74	2.18	2.62	3.06	3.50	3.95	4.40	4.88	5.37	5.85	6.34
110°	51	1.03	1.56	2.08	2.61	3.14	3.67	4.21	4 76	5.31	5 86	6.43	7 01	7 60
120°	62	1.25	1 93	2.52	3.16	3.81	4 45	5.11	5.77	6 44	7 12	7.80	8.50	9 22

For Externals Add

Central Angle	Degree of Curve													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.001	.003	.004	.006	.007	.008	.009	.011	.012	.014	.015	.017	.018	.020
15°	.003	.007	.010	.014	.018	.023	.027	.029	.032	.035	.039	.043	.047	.051
20°	.006	.011	.017	.022	.028	.034	.038	.045	.051	.057	.063	.070	.076	.083
25°	.009	.018	.027	036	.046	.056	.065	.074	.083	.093	.106	120	127	135
30°	.013	.025	.038	.051	.065	.078	.090	.103	.116	.129	.149	.170	.179	.188
35°	.018	.035	.054	.072	.086	.109	.131	.153	.175	.197	.213	.230	.247	.264
40°	.023	.046	.070	.093	.117	.141	.172	.203	.234	.265	.277	.290	.315	.341
45°	.030	.060	.093	.119	.153	.184	.216	.254	.289	.325	.351	.378	.411	.445
50°	.037	.075	.116	.151	.189	.227	.266	.305	.345	.384	.425	.467	.508	.550
55°	.046	.093	.142	.188	.236	.283	.332	.381	.420	.479	.530	.582	.641	.700
60°	.056	.112	.168	.225	.283	.340	.398	.457	.516	.575	.636	.697	.774	.851
65°	.067	.135	.204	.273	.343	.412	.483	.554	.625	.697	.711	.845	.922	1.01
70°	.080	.159	.240	.321	.403	.485	.568	.652	.735	.819	.906	.994	1.08	1.17
75°	.095	.182	.286	.383	.480	.578	.678	.777	.877	.977	1.07	1.18	1.29	1.39
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.985	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

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ENCANTO SEWERS: (CONT. See Book #405)
W.O. 33043

ELDER ST.
(E WINNETT to KLAUBER)

REF: DWG: 6337-D
6356-B-D & C-D

STA:		GRADE:
		85.32
0+73.60		378.06
		C7.26
	STUBS 5' RT & (UPgrade)	
		84.69
0+63.60		377.29
		C7.40
		84.24
0+53.60		376.72
		C7.52
		84.03
0+43.60=BVC		376.35
	1.75%	C7.68
0+00=M.H #143 (See Book 405 Pg 20) =5+43.76 WINNETT	385.64 375.09 (OUT.) C10.55	385.64 375.59 (IN) C10.05
	85.64 386.00=TP M.H FO.36	
T.B.M.	395.85=P.K NAIL Pole #652478-4 APPROX. 80' SE'LY, SE COR. WINNETT & SAMTAR	

T.B.M 404.71 = P.K Pole #692854-H
Sew STA: 2+50 LT.

Δ = 29°02' 35" RT.
2+50=M.H #98
Stubs 5.15' + 10' RT
ON SPLIT.

		404.17
		398.30=F.L
		C5.87
	404.17 404.30=TP M.H FO.13	
2+00		99.23
		392.51
		C6.72
	11.59%	
1+50		93.33
		386.71
		C6.62
1+00		87.59
		380.92
		C6.67
0+83.60=E.V.C		86.18
		379.02
		C7.16

EIDER (CONT.)

STA:	GRADE:
4+50	417.73 411.06 C 6.67
4+00	414.82 407.87 C 6.95
6.38 %	
3+50	411.58 404.68 C 6.90
3+00	408.50 401.49 C 7.01

STA:		GRADE
6+50		426.92 419.85 C 7.07
	1.79 %	
6+00		425.80 418.96 C 6.84
Δ = 37° 54' 27" RT		423.99 418.30 = F.L C 5.69
5+63.41 = M.H #99 stubs 5.29' + 10' RT on split		423.99 424.30 = TP F 0.31 M.H
5+50		423.61 417.44 C 6.17
	6.38 %	
5+00		421.05 414.25 C 6.80

EIDER (CONT.)

STA:

9+50

0.40%

8+00

GRADE:

29.69
422.58
C 7.11

29.97
422.38
C 7.59

Δ = 50° 28' 36" LT.

7+88.69 = M.H #100
Stubs 5.53' + 10' RT
ON SPLIT

29.64
42.8.80 = TP
C0.84 M.H

29.64
422.33 F.L
C 7.31

7+50

430.07
421.64
C8.43

1.79%

7+00

29.43
420.75
C8.68

STA:

GRADE:

Δ = 4° 10' 24" RT.

10+11.53 = M.H #101
Stubs 5.00' + 10' RT.
ON SPLIT

31.67
431.71 = TP
F0.04 M.H

31.67
423.22 = F.L
C8.45

10+00

31.49
423.18
C8.31

9+50

30.80
422.98
C 7.82

0.40%

9+00

430.11
422.78
C7.33

EIDER (CONT.)

STA:		GRADE:
Δ = 7° 34' 10" RT		33.49
12+30.69 = M.H # 102		424.10 = F.L
stubs 5.01' & 10' RT	3349	C 9.39
ON SPLIT	433.17 = TP. M.H	
	C 0.32	
12+00		33.70
		423.97
		C 9.73
11+50		33.75
		423.77
		C 9.98
	0.40	
11+00		32.91
		423.57
		C 9.34
10+50		32.31
		423.39
		C 8.94

STA:	GRADE:
14+27.84	31.30
	424.89
	C 6.41
14+00	31.49
	424.78
	C 6.71
13+50	32.14
	424.58
	C 7.56
13+00	32.75
	424.38
	C 8.37
12+50	33.39
	424.18
	C 9.21

EIDER (CONT.)

STA: GRADE:

T.B.M. 424.78 = 424.82 = W'Ly Ch "X" ON Rim M.H @ ℄ EIDER & KLAUBER

= end EIDER SEW:

14+55.69 = M.H # 103
stubs 5' & 10' RT

31.19
431.05 = TP
CO. 14 M.H

31.19
425.00 = F.L
C 6.19

2-8-61

ESMT SEW:
(Wonderlin, N'Ly)

REF: DWG: 6333-D & 34-D & 35-D
6356-G-D & H-D

STA:		DATE:	STA:		GRADE:
			EQ: 2+47.80 Ahd		
0+59.49 = E.C		56 28 245.87 C 10.41	2+50.34 BK = M.H #163 Stubs 6' & 12' LT		71.86 262.00 C 9.86
0+33.01 ± (mid-pt) Δ = 6° 35' 43" ℄ Ch = 26.42'	8.45 ± 6' LT (upgrade) Stubs	53.35 243.64 C 9.71	2+00		66.44 257.74 C 8.70
0+06.54 = B.C Δ = 26° 22' 53" ℄ R = 115' T = 26.95'		249.81 241.40 C 8.41			
			1+50	8.45 ±	62.15 253.51 C 8.64
0+00 = ℄ EXIST. M.H Wonderlin		240.85 (IN)			
		240.35 (out)	1+00		258.97 249.39 C 9.58
T. B.M.	301.02	= P.K. NAIL Pole # 685871-H S'Ly side Birdway & E'Ly 40'± ESMT			

ESM'T SEW: N'LY (CONT.)

STA:		GRADE
4+55.64		95.88 271.48 C 24.40
(4+43 = Beg. Conc. BK-Fill)		
4+35.64		94.41 270.56 C 23.85
3+90	82.65 268.48 C 14.17	~~92.41~~ ~~268.48~~ ~~C 23.93~~
3+40	78.28 266.20 C 12.08	~~84.17~~ Rod ~~266.20~~ ~~C 17.97~~ By Cont.
2+90		274.41 263.92 C 10.49

Beg. stubs 10' LT — 4.376

STA:	GRADE:
5+35.64 stub 10' RT	293.52 274.20 C 19.32
1.88	
5+15.64 NAIL 10' RT	300.77 274.00 26.77

Note: At Contractors Request NAILS Set 8' & 16' RT at 90° to ℄ ESM'T.

(NAIL 8+00 +16 RT on SPMT. (NE'ly QUAD))

4+95.64 = M.H.	Drop #164	300.96 273.80 C 27.16 (IN, N'ly)
(= 4+50 Brdway See Book 405, Pg 1)		300.96 273.30 C 27.66 (out, s'ly)
4+75.64 NAIL 10' LT.		301.26 272.39 C 28.87

300.96 (N'ly)
288.00 (IN-Brdwy)
C 12.96

T.B.M

293.60 = 50' 2x2 = W'ly to MH #165
93.50

ESMT. SEW., N'ly (CONT.)

STA:		GRADE
7+00		87.66 282.35 C 5.31
6+50	5.16 Δ Rt Stubs 6' Rt	84.54 279.77 C 4.77
6+00		83.25 277.19 C 6.06
5+55.64 = M.H #165 = 0+00 E'ly ESMT Stubs 8' & 12' RT @ 90°	282.75 274.90 (IN) C 7.85	282.75 274.40 (OUT.) C 8.35
(5+46 = end Conc. enc.)		

8

STA:		GRADE:
9+40		301.03 295.36 C 5.67
8+90	57.5 94 Rt	98.19 292.56 C 5.63
8+40		95.96 289.76 C 6.20
Δ = 15° 44' 12" LT 7+94.10 = M.H #166 Stubs Set 6.06' & 12' RT ON Split		93.87 287.20 C 6.67
7+50	5.16 Rt	290.30 284.93 C 5.37

T.B.M. 312.36 = NAIL in p 4"x4" Fence-Post 90' LT STA: 11+00

ESM't. N'ly (CONT.)

STA:	GRADE:
	16.44
11+40	305.86
	C 10.58
	14.03
11+00	303.79
	C 10.24
	11.50
10+60	301.73
	C 9.77
	308 46
10+20	299.66
	C 8.80
P.O.T	
9+80 = M.H #166-A	304.58
	297.60
	C 6.98

S. 16.68

STA:	GRADE:
	13.62
12+00	308.92
	C 4.70
	13.49
11+90	308.06
	C 5.43
	13.95
11+80	307.45
	C 6.50
	15.12
11+70 = B.V.C.	307.10
	C 8.02
Δ = 97°59'05" LT.	
	317.89
11+62.35 = M.H #167	307.02
Stobs 9.14' + 18' RT ON split	C 10.87

ESMT. N'LY (CONT.)

STA:

Δ=108° 59' 24" RT

EQ { = 11+94.74 Ahd } = M.H # 167.A
{ 12+85.35 Bk }

stubs set 10.33' RT & 10.33 LT
(ON split) grade stub on RT.
Line-only, stub LT.

GRADE:

33.25
323.43
C 9.82

12+50

18.78 Ac

23 73
316.79
C 6.94

12+30 = E.V.C.

18.04
313.03
C 5.01

12+20

16.11
311.41
C 4.70

12+10

314.64
310.04
C 4.60

P.O.T

14+03.77 = M.H # 168
stub 6' LT.

32.22
324.27
C 7.95

13+75

31.83
324.15
C 7.68

13+25

34.29
323.95
C 10.34

0.4 Ac

12+75

34.75
323.75
C 11.00

12+25

Beg stubs 6' LT

332.60
323.55
C 9.05

ESMT SEW, N'LY (CONT.)

STA:	GRADE:
15+00	32.43 327.02 C5.41
14+90	31.42 326.03 C5.39
14+80	30.55 325.28 C5.27
14+70	29.90 324.77 C5.13
14+60 = B.V.C	29.60 324.49 C5.11
14+30	332.07 324.37 C7.70

← 0.48 End Studs 6' LT

← Bot. Studs 6' RT

STA:	GRADE:
M.H +18.65' N'Ly = plug-end	45.92 334.75 = F.L. C11.17
Note: CONT. ON LINE OF BK. TRNG 18.65' to P.end	
Δ = 89° 57' 40" RT	40.47 333.88 (OUT) C6.59
15+44.74 = M.H #769 Stubs 8.48' + 15' RT ON split	40.47 334.38 (IN) C6.09
15+20 = E.V.C	35.33 329.69 C5.64
15+10	333.63 328.24 C5.39

ESMT, Sew, N'ly (CONT.)

STA:		GRADE
16+00		48.68 339.82 C 8.86
15+90		47.69 339.27 C 8.42
15+80		46.43 338.49 C 7.94
15+70		44.50 337.48 C 7.02
15+60		342.72 336.24 C 6.48
15+50 = B.V.C	(could not set)	334.77

T.B.M 375.08 = 375.00 = NAIL Pole # 270920

STA: 8+75 7.5' Lt WREN

17+54.74 = M.H # 170
Stubs 6' 12' RT

54.53
341.60
C 12.93

1.0 %

17+10

46.31
341.15
C 5.16

16+60

49.34
340.65
C 8.69

16+10 = E.V.C

349.29
340.15
C 9.14

Ref: 6334-5-D
6306-H-D

ESM'T [M.H #165 (N'ly Bdwy) E'ly to SPARROW]

STA:		GRADE:
2+00		88.11 279.04 C 11.07
1+50		82.70 276.50 C 6.20
1+00	← 1.07 Rt Stubs 6' RT	80.76 275.97 C 4.79
0+50		80.55 275.43 C 5.12
0+00 = M.H #165 (= 5+55.64 ESM'T N'ly See Pg 8)	274.40 (OUT) 274.90 (IN)	
T.B.M.	293.60 = 50' w'ly 2x2 tie to M.H #165	

STA:		GRADE:
4+00		93 91 286.86 C 7.05
3+50		91.14 284.25 C 6.89
3+00	← 5.22 Rt	88.67 281.64 C 7.03
2+50		86.78 279.03 C 7.75
P.O.T. 2+15 = M.H #172 Stubs 6' + 12' RT		288.03 277.20 C 10.83

T.B.M. 304.93 = w/4y 2x2 (Line-tie) to ℄ WREN ℄ ESMT.

STA:		GRADE:
		05 93
6+50		300.74
		C 5.19
	5.54 ℄	
		304.61
6+00		297.97
		C 6.64
Δ = 15° 41' 30" LT.		
5+50.14 = M.H # 158	307.23	307.23
(= 0+00 WREN	295.20 (IN)	294.70 (OUT)
see Book 405 - pg 22	C 12.03	C 12.53
stubs 6.06' & 12' RT		
ON split		
		298.73
5+00		292.08
		C 6.65
	5.22 ℄	
		296.51
4+50		289.47
		C 7.04

STA:		GRADE:
		25.73
9+00.14 = M.H # 173		314.60
		C 11.13
		18.87
8+50		311.82
		C 7.05
	5.54 ℄	
	stubs 6' RT (approx)	
		13.76
8+00		309.05
		C 4.71
		311.35
7+50		306.28
		C 5.07
		309.09
7+00		303.51
		C 5.58

ESMT: M.H #165, E'ly (CONT)

STA:	GRADE:
	34.04
10+90	328.30
	C 5.74
	33.54
10+80 = B.V.C	327.38
	C 6.16
	32.10
10+50	325.25
	C 6.85
	30.08
10+00	321.70
	C 8.38
	27.84
9+50	318.15
	C 9.69

1.05%

T.B.M 352.26 = 33' S. W'ly cnx tie 15
TP. W'ly INLET - SPARROW

STA: (For SPARROW See Book 405-Pg. 45) Δ = 90° LT - SPARROW	GRADE: 52.51	52.51
11+80.60 = M.H #174	343.40 (IN)	342.90 (OUT)
Stubs Set 8.48' & 15' RT ON SPLIT (S.E. QUAD)	C 9.11	C 9.61
(= 0+00 SPARROW Sew. See Book 405 - Pg 45)		
		41.94
11+50		337.55
		C 4.39
		36.72
11+20 = E.V.C		332.30
		C 4.42
		35.56
11+10		330.76
		C 4.80
		334.42
11+00		329.43
		C 4.99

1.49%

2-14-61

SCIMITAR: (WINNETT M.H #115, E'LY to KIAUBER)

Ref: 6333-34-D
6356-AD

STA:		GRADE:
		94.70
2+00		383.72
		C 10.98
		92.30
1+50		382.04
		C 10.26
	3.36 Stubs 6' RT	90.24
1+00		380.36
		C 9.88
		89.85
0+50		378.68
		C 11.17
0+00 = M.H #115	390.31	390.31
& WINNETT	376.50 (OUT)	377.00 (IN)
(See Book 405 - Pg 20)	C 13.81	C 13.31

T.B.M.

P.K.
395.85 = Nail Pole #6524 7 8-H
60' ± SELY. OF NE corn. WINNETT & SCIMITAR

STA:		GRADE
		403.25
4+00		394.59
		C 8.66
	1.00	401.36
3+50		391.09
		C 10.27
		98.80
3+00		387.59
		C 11.21
Δ = 12° 25' 13" LT		
		97.71
2+85.99 = M.H #116		386.61
Stubs 6.03' & 10' RT. ON Split.		C 11.10
		96.75
2+50		385.40
		C 11.35

SCIMITAR, (WINNETT, E'LY, - CONT.)

STA:

6+00

GRADE
414.97
407.87
C 7.10

Δ = 28° 05' 43" LT

5+86.18 = M.H # 117
Stubs 6.18' & 10' RT.
ON SPLIT

413.85
407.62
C 6.23

5+50

411.13
405.09
C 6.04

7.08

5+00

07.60
401.59
C 6.01

4+50

405.19
398.09
C 7.10

T.B.M

419.63 = Chiseled square TP. w'ly end Blk-Wall Approx 35' s'ly of M.H #118

STA:

8+00

GRADE
25 35
414.92
C 10.42

5.77

7+50

423.75
412.03
C 11.72

Δ = 18° 40' 23" LT.

7+14.79 = M.H # 118
Stubs 6.08' & 10' RT
ON SPLIT

422.42
410.00
C 12.42

7+00

421.78
409.72
C 12.06

1.85

6+50

419.12
408.80
C 10.32

SCIMITAR (WINNETT, E'LY - CONT.)

STA:		GRADE
		32 75
10+00		420.43
Stub 6' LT. here		C 12.32
	0.40	
		31.14
9+50		420.23
		C 10.91
		29.35
9+00		420.03
		9.32
Δ = 45° 04' 04" RT		
		28.65
8+87.69 = M.H #119		419.98
Stubs 6.39' & 10' RT ON SPLIT.		C 8.67
		427.13
8+50		417.80
		C 9.33

T.B.M. Elev = 427.42

= 59.95' CHX-TIE TO M.H #119 ON CONC. DR. @ 6491 SCIMITAR

STA:		GRADE:
(11+95.63 = chmny LT.)		
Δ = 24° 10' 04" LT.		35.33
11+68.63 = M.H #120		421.10
Stubs 6.14' & 15' RT ON SPLIT.		C 14.23
		35.25
11+50		421.03
		C 14.22
	0.40	
		34.92
11+00		420.83
		C 14.09
(10+77.63 = chmny LT.)		
		33.72
10+50		420.63
Stub 6' LT here		C 13.09

SCIMITAR (WINNETT, Ely - CONT.)

STA: = Ely end Sewer.		GRADE
13+94.61 = M.H # 121 Stubs 6+10' RT.		34.03 422.00 C 12.03
13+50		34.58 421.83 C 12.75
13+00		34.90 421.63 C 13.27
(12+95.61 = chmny LT. 5.0)		
12+50		35.21 421.43 C 13.78
12+00		35.24 421.23 C 14.01

T. B. M

428.95 = NAIL Pole # JP 171024 APPROX 80' Ely OF S.E. CORN. KRAUBER & SCIMITAR

SCIMITAR: (WINNETT, M.H #115
(W'ly to Plug-end)

Ref: 6382-33-D
6356-D

STA:		grade:
		90.53
1+20		384.10
		C 6.43
	5.92 @ Stubs 6' RT	
		90.01
0+80		381.74
		C 8.27
		390.11
0+40		379.37
		C 10.74
	390.31	390.31
0+00 = M.H #115	(OUT) 376.50	377.00 (IN)
(WINNETT & SCIMITAR	C 13.81	C 13.31
(See Pg. 16		
	390.31	
	390.10 = TP	
	C 0.21	
T.B.M	395.85 = P.K. NAIL IN Pole # 652478-H = 60± SE'ly OF NE Corn. SCIMITAR & WINNETT	

STA:		GRADE
Δ = 34° 32' LT		
		400.31
2+87.01 = M.H #113		388.00
Stubs 6.28' & 12' RT		C 12.31
ON SPLIT		
	11.48 @	
		96.99
2+50		387.45
		C 9.54
		93.60
2+00		386.71
		C 6.89
Δ = 27° 41' 08" LT		
		91.54
1+52.01 = M.H #114		386.00
STUBS 6.18' & 12' RT		C 5.54
ON SPLIT		

SCIMITAR (WINNETT, W'LY - CONT.)

STA:	GRADES:
5+00	407.26
	400.74
	C 6.52
4+50	405.25
	399.75
	C 7.50
4+00	403.34
	394.76
	C 8.58
3+50	402.15
	391.77
	C 10.38
3+00	400.76
	388.78
	C 11.98

5.98%

412.44 NAIL Pole

STA:	GRADE
6+50	415.22
	406.92
	C 8.30
6+00	412.40
	406.18
	C 6.22
P.O.T.	
5+87.99 = M.H. #112	411.81
Stubs 6+12 RT	406.00
	C 5.81
5+50	409.88
	403.73
	C 6.15

1.49%

5.98%

SCIMITAR ÷ (WINNETT, W'LY - CONT.)

STA:	GRADES:
Δ = 35° 47' 54" RT.	26.82
E + 91.40 = M.H. III	410.50
Stubs 6.30 + 16' RT on split	C 16.32
(8+59 = Beg Conc BK-Fill)	
E+50	24.30
	409.89
	C 14.41
8+00	21.77
	409.15
	C 12.62
7+50	20.48
	408.41
	C 12.07
7+00	17.90
	407.66
	C 10.24

STA:	GRADES:
9+59.40 = Plug-end	29.49
	418.00
	C 11.49
9+25.40	28.18
	414.25
	C 13.93
(9+13 = end Conc. BK-Fill)	

3-1-61

SCIMITAR: (Brdway NE'ly)

Ref: 6332-33-D
6356-D

STA:	GRADES:
1+50	77.12 366.32 C 10.80
1+00	70.93 361.64 C 9.29
9.35' ℄	
0+50	63.56 356.97 C 6.59
Set TBm	363.18 = 2" Pipe 27.90' RT M.H #105 = 0+00
0+00 = M.H #105 stubs 6'+12' RT	359.10 352.30 = PLAN C 6.8±
(Set T.B.M	333.38 = 31' chx tic to ℄ L+T Brdway & 63'rd ON SE'ly CB RT.)
B.M.	332.85 = ℄ L+T Brdwy & 63'rd

STA:	GRADES:
3+00	89.12 380.03 C 9.09
8.91' ℄	
2+50	84.23 375.57 C 8.66
Δ = 76° 29.5' RT	
2+32.42 = M.H #106 stubs 7.64' + 12' RT ON split	82.45 374.00 C 8.45
2+00	81.81 371.00 C 10.81

SCIMITAR (Birdwy NELy) CONT.

STA.	GRADE
5+00	404.62
	395.17
	C 9.45
4+50	401.39
	391.69
	C 9.70
4+00	97.10
	388.21
	C 8.89
Δ = 75° 28.3' RT	
3+62.54 = M.H # 107	93.63
Stubs 7.59' + 12' RT	385.60
	C 8.03
3+50	393.18
	384.49
	C 8.69

6.96 %

STA:	GRADE:
6+50	12.05
	403.49
	C 8.56
6+00	08.82
	401.77
	C 7.05
P.O.T.	
5+89.42 = M.H # 108	08.41
Stubs 6' + 12' RT.	401.40
	C 7.01
5+50	407.08
	398.65
	C 8.43

3.45 %

SCIMITAR (Bridge NE'ly) CONT.

STA:		GRADE
Δ = 34° 12.4' LT = Beg. Conc. Bk-Fill @ 8+12.65 = M.H 109 Stubs 6.28' & 12' AT ON SPLT.		24.51 409.09 C 15.42
8+00		23.81 408.65 C 15.16
7+50	3.45 RD	19.64 406.93 C 12.71
7+00		16.01 405.21 C 10.80

STA:		GRADE:
10+00		25.29 409.84 C 15.45
(9+55.78 = chimney LT.)		
9+50		25.64 409.64 C 16.00
9+00	0.40 RD	26.72 409.44 C 17.28
8+50		25.44 409.24 C 16.20
(8+31.65 = Chimney LT.)		

SCIMITAR (Bridwy N'Ely) CONT.

STA: GRADE:

T.B.M =427.27 = 35' Chx' on Conc. Dr. @ #6320 Scimitar = NW'ly tie to M.H #110

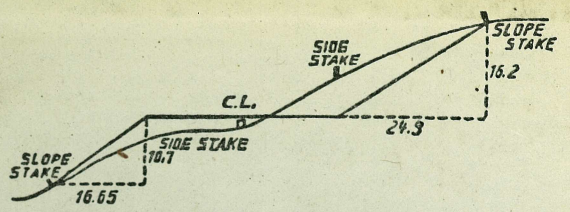
=end Con-Bk Fill
10+38.81 = Plug-end

25.05
410.00
C15.05

0.40%

Δ=29° 39.4' RT
10+06.78 = M.H #110
Stubs 6.20' 412' RT ON SAHT

425 30
409.89
C15.43



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1½ TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.20	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

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