

947

F.B. 947

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FIELD BOOK

360

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# KEUFFEL & ESSER CO.

DRAWING MATERIALS  
AND  
SURVEYING INSTRUMENTS.  
NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

## TABLES FOR EXCAVATIONS AND EMBANKMENTS.

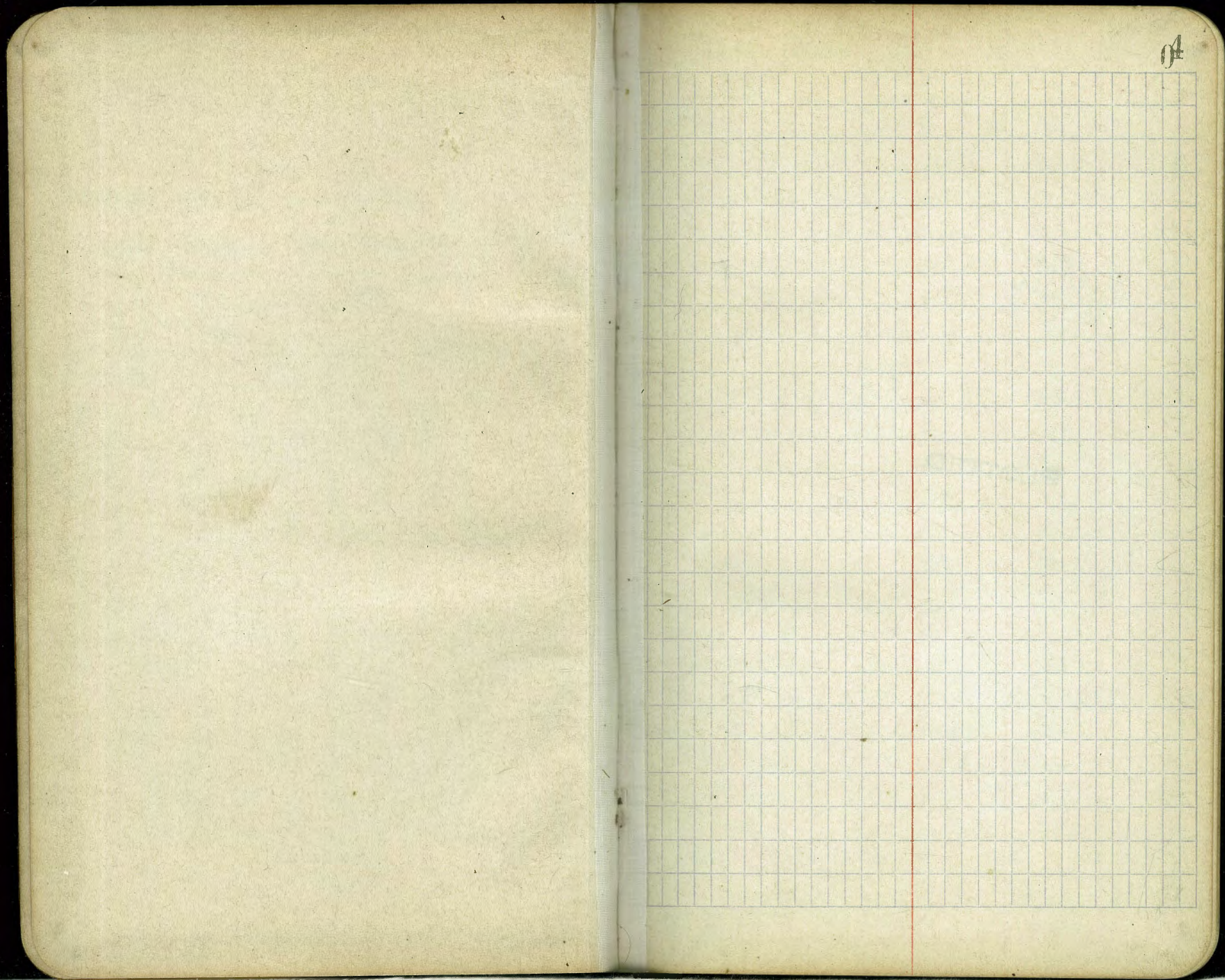
DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.  
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.  
FOR SINGLE TRACK EXCAVATION.

"Copyright, 1885, by Keuffel & Esser Co."

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
18	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
19	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
20	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	20
21	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	21
22	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	22
23	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	23
24	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	24
25	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	25
26	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	26
27	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	27
28	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	28
29	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	29
30	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	30
31	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	31
32	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	32
33	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	33
34	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	34
35	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	35
36	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	36

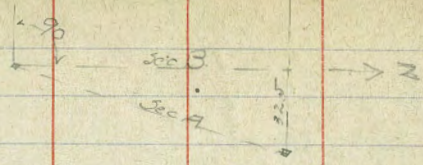
Calculated by Julien A. Hall, M. Am. Soc. C. E.

For Keith's Railroad Curve Tables see end of book.



4

1/2  
1/2  
Hatch



Substake. 1220 3529 2309

Sec A = W.D. Rosecrans

N	11.8	235
cb	11.6	237
1/2	11.5	238
c	11.6	237
1/2	11.4	239
cb	10.9	244
s	12.05	248

Talbot  
60' wide

**PLOTTED**

s	10.5	248
cb	10.6	247
1/2	10.9	244
c	10.9	244
1/2	11.0	247
cb	10.8	250
N	9.9	254

50' W

N	7.7	276
cb	7.8	275
1/2	8.3	270
c	8.3	270
1/2	7.9	274
cb	7.9	274
s	8.0	277

3529

100' W

s	5.5	298
cb	5.5	298
1/2	5.6	297
c	5.6	297
1/2	5.9	294
cb	5.4	299
s	5.8	300

150' W

N	2.6	327
cb	2.4	329
1/2	3.5	318
c	3.9	316
1/2	3.0	323
cb	2.8	325
s	2.8	325

1306

1770 065  
200' W

3424

s	12.4	353
cb	12.6	351
1/2	13.0	347
c	13.3	346
1/2	13.2	348
cb	12.2	355
N	12.2	355

4770

250' W = El. Hamatite

N	9.9	38.4
cb	10.2	37.5
1/2	9.9	37.8
c	9.9	37.8
1/4	9.8	37.9
cb	9.8	38.4
S	9.6	38.1

CV

S	7.6	40.1
cb	7.4	40.3
1/2	7.9	39.8
c	7.9	40.3
1/4	7.7	40.0
cb	8.0	39.7
N	7.4	40.3

PLOTTED

White

N	5.4	47.3
cb	5.6	47.1
1/2	5.4	47.3
c	5.7	47.0
1/4	5.5	47.2
cb	4.8	47.9
S	5.1	47.6

4770

50' W

S	1.6	46.1
cb	2.2	45.5
1/2	2.1	45.6
c	2.6	45.1
1/4	2.0	45.7
cb	2.1	45.6
N	2.6	45.1

T.P.

1291

60.37 0.24

4746

103 W = EL

Eurepman

S	11.4	49.0
cb	11.5	48.9
1/2	11.6	48.8
c	12.0	48.4
1/4	10.8	49.6
cb	10.9	49.5
1/2	11.3	49.1
N	12.6	47.8

133-CV

N	9.4	51.0
cb	9.3	51.1
1/2	8.8	51.6
c	8.0	52.4
1/4	7.1	53.3
cb	7.7	52.7
S	7.2	52.2

6037

163 W = White winged

S	5.0	55.4
+5	5.1	55.3
cb	6.9	53.5
+2	5.0	54.2
	5.0	55.4
1/4	4.9	55.5
c	5.7	54.7
1/2	6.2	54.7
d	6.3	54.1
N	6.4	54.0

200 W

PLOTTED

N	1.7	58.7
cb	2.6	57.8
1/2	2.6	57.8
c	2.4	58.0
1/4	2.5	57.6
	2.9	58.5
+3	2.9	58.5
	3.0	57.4
d	2.8	57.6
S	2.5	57.9

TP 12.76 73.11 0.02 60.05

250 W = Eh Spathie

S	10.4	60.7
d	10.9	60.2
1/2	11.6	61.5
c	11.9	61.2
	15.2	57.9
+6	14.9	58.2
	11.7	61.4

7311

1/2	11.9	61.2
cb	12.1	61.0
N	11.9	61.7
	287 W = Eh	
S	9.4	63.7
cb	9.4	63.7
1/2	9.2	63.9
	13.0	60.1
+5	13.0	60.1
	9.4	63.7
c	9.1	64.0
1/2	8.1	65.0
cb	7.0	66.1
S	5.7	67.4

325 W = W.L. Spathie

S	1.7	70.4
cb	3.0	70.1
1/2	4.6	68.5
c	5.8	67.3
+5	6.2	66.9
	10.0	62.6
1/2	11.4	61.7
	6.5	66.6
d	6.7	66.4
N	7.0	66.1

50 W of W.L.

N	3.0	70.1
cb	2.8	70.3
	3.3	69.8
+3	3.3	64.9

	7311		
1/4		577	65.4
		53.0	70.1
c		1.3	71.8
T.P. on Sub. 12.89	8529	071	72.40
1/4		11.9	73.4
cb		10.5	74.8
S		8.2	77.1
	60' W = Elk Leroy St.		
S		6.7	78.6
cb		9.7	75.6
1/4		11.6	75.7
c		12.8	74.5
1/4		14.2	71.1
+8		19.9	65.4
		19.5	65.8
cb		14.3	71.0
N		14.3	71.0
	85' W = CR.		
N		12.3	77.0
+3		12.6	77.7
		17.4	67.9
cb+6		17.8	67.5
		12.3	72.0
1/4		11.5	73.8
c		10.9	74.4
1/4		10.0	75.3
cb		8.1	77.2
S		5.3	80.0

PLOTTED

	8529		
	110' = W of Leroy		
S		4.2	81.1
cb		7.2	78.1
1/4		8.8	76.5
c		9.9	75.4
1/4		10.7	74.6
+4		10.7	74.6
		16.7	68.6
cb		13.5	71.8
+8		12.9	72.4
		10.5	74.5
N		10.9	74.4
	40' W of Leroy		
1/4		8.8	76.5
cb		8.4	76.9
		13.9	71.4
+6		14.6	70.7
		8.6	76.7
1/4		8.5	76.8
c		7.9	77.4
1/4		6.4	78.9
cb		5.2	80.1
S		3.1	82.2
	90' W		
S		1.1	86.2
cb		3.6	81.7
1/4		5.0	80.3
c		5.8	79.5
1/4		6.0	79.3
		11.7	73.6

	8529		
cb	{ 11.7	73.6	
	{ 5.5	79.8	
N	5.9	79.9	

129 W - Ek. Spathic Ave (Reservoir?)

N	3.5	81.8
cb	{ 3.7	81.6
	{ 7.9	79.4
+8	{ 9.3	
	{ 3.5	81.8
1/4	3.7	81.6
c	3.1	87.7
1/2	2.6	87.7
d	1.3	84.0
T.P.	96.52	126
S	11.0	85.5

PLOTTED

W Line Spathic Ave

S	9.6	86.9
cb	11.9	84.6
1/2	13.2	87.7
c	13.1	87.4
1/4	13.2	87.7
+2	{ 4.3	87.7
	{ 1.6	77.9
cb	{ 8.3	78.7
	{ 2.9	83.6
N	13.3	87.7

50 W of Spathic

N	11.0	85.5
+7	{ 10.4	86.1
	{ 16.0	80.5
cb	15.0	81.5

96.52

	54.8	81.7
+5	10.3	85.7
1/4	10.6	85.9
c	10.1	86.4
1/2	8.9	87.6
d	7.6	88.9
S	6.0	90.5
	95.8 W = Angle at N Line	
S	4.1	92.4
cb	1.8	89.7
1/4	8.0	88.5
c	8.6	87.9
1/2	8.6	87.9
+5	8.5	88.0
	12.9	83.6
cb	12.5	83.7
+6	13.3	83.2
	15.7	87.8
N	9.5	87.0
	125 W	
N	6.9	89.6
cb	56.9	89.6
	10.9	85.6
+5	11.3	85.7
	16.3	90.7
1/4	6.7	89.8
c	5.8	90.7
1/2	5.0	91.5
cb	4.4	92.1
S	2.5	94.0



96.52

162 W

S	0.3	96.2
cb	1.9	96.6
1/4	3.1	97.4
c	3.9	97.6
1/4	4.8	97.7
cb	5.4	97.1
	20.1	86.6
N	5.9	86.6
	2.46	91.9

175 W

N	9.3	87.2
+3	8.0	87.5
cb	8.3	92.7
cb	3.3	93.2
1/4	3.7	92.8
c	3.4	93.1
1/4	2.5	94.0
cb	1.5	95.0
TP	12.86	108.68
	0.70	95.82
S	11.8	96.9

200 W

S	8.9	99.8
cb	12.3	96.6
1/4	13.5	95.9
c	14.3	96.6
1/4	14.4	96.3
cb	51.3	96.4
	217.3	89.6
N	51.3	89.4
	214.3	96.4

H.R. Spoke - Pale

105.68

97.10  
11.20  
105.90

107.01 = 107.02 B.M. check 9

225 W

N	51.5	95.9
	5.63	92.8
+5	5.65	92.2
	5.23	95.9
1/4	12.9	95.8
1/4	12.9	95.8
c	12.7	96.0
1/4	11.9	96.8
cb	9.1	99.6
S	4.6	104.1

250 W

S	0.5	107.9
cb	5.7	103.0
1/4	9.0	99.7
c	10.8	97.9
1/4	11.5	97.2
cb	11.8	96.9
	51.4	97.3
+5	213.0	95.7
N	14.0	94.7

TP 10.32 107.92 11.58 97.10

275 W

N	11.8	95.6
	80.3	97.1
+3	8.3	98.1
cb	9.0	98.4
1/4	8.8	98.6
c	6.8	100.6

	10742		
1/4		3.3	106.1
	300 W		
ca		1.4	106.0
1/4		2.9	102.5
+3		7.0	100.6
cb		7.1	100.3
+7		5.2	100.7
		29.3	98.1
N		10.8	96.6

325 W

N		8.8	98.6
+4		3.3	102.1
cb		5.3	102.1
T.P.	1258	11919	0.81
			10661

275 W

seb.		10.9	108.2
S		6.2	113.0

300 W

5 1/4		7.8	111.4
cb		3.4	115.8
S		+1.4	120.6

325 W

S		+8.6	127.8
cb		+3.5	122.7
1/4		2.2	117.0
C		7.7	111.5
1/4		11.9	107.3

11919

350 W

		13.4	103.8
+5		516.5	102.7
		217.8	101.4
cb		12.9	104.3
1/4		6.6	112.6
C		2.0	117.2
1/4		+3.7	123.9
cb		+9.0	128.2
S		+14.0	133.2

370 W = EL Akroz

S		+18.9	138.1
cb		+13.6	132.8
1/4		+7.4	126.6
O		+2.7	121.9
1/4		2.6	116.6
cb		9.1	111.1

1110 122.32 7.97 111.22

+3		15.6	106.7
N		16.8	105.5

25 W of EL Akroz

N		15.1	106.2
+6		14.6	107.7
d		8.5	113.8
1/4		4.0	118.3
C		0.5	121.8

122.32

1/4	+16.4	128.7
cb	+12.3	132.6
S	+16.9	139.1
50 W		
S	+17.2	139.5
cb	+11.6	133.9
1/4	+7.5	129.8
c	+1.8	124.1
1/4	3.4	118.9
cb	8.3	114.0
+2	13.4	108.9
N	13.4	108.9

PLOTTED

75 W

N	12.0	110.3
+8	12.2	110.1
cb	8.2	114.1
1/4	0.0	122.3
c	+5.8	128.1
1/4	+11.4	133.7
cb	+16.4	138.7
S	+22.3	144.6

100 W

S	+26.5	147.8
cb	+19.0	141.3
1/4	+14.2	136.5
c	+8.1	130.4

122.32

1/4	+1.8	124.1
+7	2.5	119.8
cb	7.1	115.7
+2	10.4	111.9
N	10.5	111.8

125 W

N	9.4	112.9
+7	9.6	112.7
cb	5.0	117.3
1/4	+1.6	123.9
c	+9.0	131.3
1/4	+14.7	137.0
cb	+18.1	140.4
S	+24.2	146.8

150 W

S	+20.0	142.3
cb	+15.2	137.5
1/4	+10.3	132.6
c	+5.0	127.3
1/4	0.0	122.3
cb	5.6	116.7
+3	7.6	113.7
N	8.1	114.7

12232

175' W

N	6.5	115.8
cb	7.3	115.0
+3	4.6	117.7
1/4	3.1	119.7
c	+0.6	122.9
1/4	+6.8	129.1
cb	+11.0	133.3
3	+14.3	136.6

200' W

S	+18.1	140.5
cb	+12.8	135.1
1/4	+7.5	129.8
c	+4.1	126.4
1/2	1.6	120.7
+5	2.7	119.6
+7	5.5	116.8
cb	4.9	117.4
N	1.9	117.4

225' W

N	3.5	118.8
cb	4.0	118.3
+3	5.7	118.6
	1.2	121.1
1/4	0.0	122.3
c	+4.9	127.7
1/4	+9.7	132.0

PLOTTED

12

12232

cb	+14.4	136.7
S	+19.8	141.1
	250' W	
S	+14.9	127.7
cb	+14.7	132.0
1/4	+11.8	134.1
c	+6.1	128.4
1/4	+0.4	122.7
+5	5.5	121.8
	2.8	119.5
cb	2.2	120.1
N	2.4	119.9

TP 12.20

124.20

0.32

12200

275' W

N	12.9	121.3
cb	12.9	121.3
+4	13.2	121.0
1/4	11.7	122.5
c	7.5	126.7
1/4	1.8	122.6
cb	+2.1	136.3
S	+5.7	139.9
	300' W	
S	+2.7	136.9
cb	0.3	133.9
1/4	1.9	129.3

13420		
c	96	124.6
1/2	11.4	124.8
cb	11.6	124.6
N	11.5	122.7
TP rail to 672	13474 6.8	129.02
325 W		
N	10.7	126.0
cb	10.4	124.3
1/4	10.2	124.5
c	9.9	125.3
1/2	6.2	128.5
cb	2.1	127.6
S	+1.1	125.8
350 W		
S	+3.0	127.7
cb	2.3	124.4
1/2	1.2	130.5
c	7.8	126.9
1/4	7.1	125.6
cb	7.0	125.3
N	7.1	125.6
375 W		
N	7.9	126.8
cb	7.6	127.1
1/4	7.8	126.9

PLOTTED

13474		
cb	6.1	128.6
1/2	8.1	122.6
cb	+2.8	127.5
S	+5.6	120.3
400 W		
S	+7.9	120.6
cb	+8.7	121.0
1/2	+2.3	127.0
c	1.5	127.2
1/4	6.1	128.6
cb	6.5	128.2
N	7.0	127.7
425 W		
N	5.7	129.0
cb	5.6	129.1
+5.5	5.6	129.1
1/2	3.1	131.6
c	+0.7	125.6
1/4	+4.0	128.7
cb	+8.3	123.0
S	+12.3	122.0
450 W		
S	+12.5	127.2
cb	+8.9	122.7
1/4	+3.9	128.6

12474

cr	+0.3	175.0
1/4	1.5	173.7
+3	4.5	170.7
cb	3.9	170.8
N	3.9	170.8

475 W

N	2.8	171.9
cb	2.4	172.3
1/4	3.1	171.6
+2	+0.2	174.9
cr	+1.0	175.7
1/4	+3.7	178.4
cb	+8.8	143.5
S	+13.2	147.9

PLOTTED

500 W

S	+12.5	167.7
cb	+8.9	167.6
1/4	+4.1	178.8
cr	+1.0	175.7
+2	+0.8	175.5
	3.1	171.6
+5	2.8	171.9
	1.0	177.7
1/4	1.5	174.7
cb	1.2	177.5
N	1.1	173.6

T.P.	12.61	147.12	0.23	134.51
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14712

511 SW of Akron = E. of Bangor on South

N	12.5	174.6
cb	12.9	174.7
1/4	12.4	174.7
+5	14.0	173.1
+7	15.3	171.8
c	11.3	175.8
1/4	8.5	178.6
cb	4.3	142.8
S	0.9	147.1

cr Bangor

S	2.2	144.9
cb	7.9	179.1
+5	14.2	176.9
1/4	10.2	176.9
+3	11.3	175.8
c	10.8	176.3
1/4	11.3	175.8
cb	11.0	176.1
N	10.5	176.6

NW Bangor on South

N	7.6	139.5
cb	8.2	138.9
1/4	8.3	138.8
S	9.7	137.4

147.12

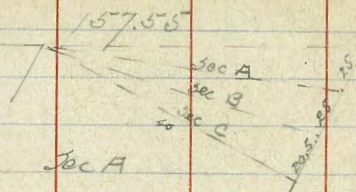
1/4	9.1	138.0
1/2	10.5	136.6
3	6.9	140.7
T.P. R.R. Spk. in pole 1423 150.64 8.71 138.41		
6' W of Bangor on South = E. Bangor on North		
N	10.3	140.3
cb	10.8	139.8
1/4	11.0	139.6
c	11.8	138.8
1/4	12.2	138.4
+7	12.0	138.6
cb	13.8	136.8
5	8.8	141.8
E side int. Bangor - Bow - Magnetic		
5	6.1	144.5
+5	6.1	144.5
cb	7.9	141.7
+0	11.5	139.1
1/4	10.2	140.4
c	10.5	140.1
1/4	10.1	140.5
cb	10.7	140.6
N	10.3	140.3

PLOTTED

150.64

on

5	3.7	146.9
cb	4.3	146.3
1/4	4.8	145.8
c	5.0	145.6
1/4	5.7	144.9
cb	5.4	145.7
N	6.1	144.6
W. Side int. Bangor - Bow - Magnetic		
5	10.5	151.1
cb	10.0	150.6
1/4	11.2	149.4
c	12.1	148.6
1/4	12.6	148.0
cb	13.4	147.2
N	13.1	147.5
T.P. 765	157.55 174	149.90
S. line Magnetic on Bow.		
W	6.3	151.3
cb	8.4	149.7
1/4	9.4	148.7
c	11.6	147.0
1/4	12.0	145.6
cb	13.2	144.4
E	12.8	144.8



E	16.5	141.1
cb	15.3	147.7
1/4	13.8	147.8
c	12.3	145.9
1/4	10.5	147.0
cb	8.4	149.7
W	6.3	151.7

Sec B

PLOTTED

W	6.3	151.7
cb	8.0	149.6
1/4	10.2	147.4
c	11.7	145.9
1/4	13.3	146.3
cb	14.5	143.1
E	15.1	142.5

Sec C

E	14.4	147.7
cb	13.8	147.8
1/4	13.0	144.6
c	10.9	146.7
1/4	9.2	148.4
cb	7.8	149.8
W	6.3	151.7

157.55  
25' South

W	4.4	157.7
cb	5.5	157.1
1/4	7.6	150.0
c	10.5	147.1
1/4	13.0	144.6
cb	13.6	146.0
E	13.5	144.1

50' S

E	13.0	144.6
1/4	13.0	144.6
cb	9.4	148.7
1/4	6.3	151.3
c	5.9	151.7
1/4	4.7	152.9
cb	3.7	153.9
W	2.6	155.0

75' S

W	1.2	156.4
cb	1.7	156.9
1/4	3.0	154.6
c	3.4	154.2
1/4	4.9	152.7
cb	8.6	149.0
1/4	10.0	147.6
1/2	12.1	145.5
E	12.4	145.7



		157.55	
		100' S	
E		11.5	146.1
+5		511.5	146.1
cb		399	147.7
1/2		8.1	149.5
c		4.5	152.1
1/2		2.4	155.2
cb		1.4	156.2
W		4.7	156.9
7.10	7.25	0.15	157.0
		164.35	157.10
		125' S	
W		5.4	159.0
cb		6.6	157.8
1/2		7.1	157.7
c		8.0	156.4
1/2		9.2	155.2
cb		12.1	154.3
+6		13.8	150.6
E		17.3	147.1
		150' S	
E		16.6	147.8
+3		516.6	147.8
cb		11.1	153.3
1/2		8.7	155.7
c		7.4	157.0
1/2		6.7	157.7
1/2		6.0	158.4

PLOTTED

		164.35	
cb		4.9	159.5
W		4.1	160.3
		180.5' S	
W		3.1	161.7
cb		3.8	160.6
1/2		4.4	160.0
c		5.2	159.2
1/2		6.8	157.6
+4		7.9	156.5
+7		15.2	149.2
cb		15.2	149.2
E		15.4	149.0
		205' S	
E		8.5	155.9
+2		59.1	155.3
cb		46.6	149.8
1/2		14.7	149.7
+5		8.6	155.8
1/2		7.0	157.4
c		4.8	159.6
1/2		3.9	160.5
cb		30.5	160.9
W		2.6	161.8

164.35

225' S

W	2.3	167.1
cb	3.0	161.4
1/2	4.1	160.3
c	5.5	158.9
1/2	7.3	157.1
+2	5.76	156.8
	2.11.4	153.0
cb	14.0	150.4
+5	5.2.5	151.9
	7.5	156.9
E	6.2	158.2

250' S

PLOTTED

E	3.4	161.0
cb	6.2	158.2
+2	5.6.5	157.9
	2.9.0	155.1
1/2	11.4	153.0
c	12.9	151.5
+2	4.7	159.7
1/2	3.5	160.9
cb	2.7	161.7
W	2.0	162.4

275' S

HP	9.98	171.77	2.56	161.79
W			8.9	162.9
cb			9.3	162.5
1/2			9.6	162.2

171.77

c	10.7	161.1
1/2	12.0	159.8
	18.5	153.3
+3	18.5	153.3
cb	12.2	159.6
E	9.2	162.6
	300' S	
E	9.5	162.3
cb	11.1	160.7
+5	5.11.4	160.4
	17.6	155.4
	5.15.0	153.8
1/2	10.8	161.0
c	9.5	162.3
1/2	8.4	163.4
cb	8.1	163.7
W	7.7	164.1
	315' S	Tap
W	7.1	164.7
cb	7.6	164.2
1/2	8.4	163.4
c	9.4	162.4
1/2	12.3	159.5
+5	17.4	154.4
cb	9.5	162.3
E	8.4	163.4

17177

315'S Bottom

W	10.7	1614
cb	13.4	1584
1/2	16.4	1554
c	16.6	1552
1/2	17.1	1547
+5	17.4	1546
cb	9.5	1673
E	8.4	1674

325'S Bottom

E	6.8	1650
cb	8.5	1673
+5	12.0	1598
1/4	12.7	1591
c	13.3	1585
1/4	13.5	1583
cb	12.8	1590
W	12.4	1594

325'S Top

E	6.8	1650
cb	8.5	1673
+5	9.1	1677
1/2	9.2	1676
c	8.7	1671
1/4	8.2	1676
cb	7.5	1643
W	8.2	1675

17177

350'S

W	6.6	1657
cb	6.6	1657
1/2	7.1	1667
c	7.2	1666
1/2	6.6	1657
cb	5.5	1663
E	3.5	1683

355'S = NL Inex St.

E	3.2	1686
cb	4.4	1674
1/2	4.6	1672
c	4.6	1672
1/2	4.8	1670
cb	5.1	1667
W	5.0	1668

356'S Inex St.

W	3.3	1685
cb	3.2	1686
1/2	3.1	1687
c	3.2	1686
1/2	2.9	1689
cb	3.2	1686
E	2.5	1693

TP 1079

179.87

269

169.08

179.87  
St. Ines St.

E	9.0	1709
cb	9.7	1702
1/4	10.2	1697
c	10.0	1699
1/4	9.5	1704
cb	9.2	1707
W	9.3	1706

25'S

W	8.2	1717
cb	8.0	1719
1/4	8.1	1718
c	8.0	1719
1/4	7.8	1721
cb	6.9	1730
E	5.9	1740

50'S

E	3.7	1768
cb	4.7	1752
1/4	3.8	1741
c	6.3	1736
1/4	6.4	1735
cb	6.4	1735
W	6.7	1732

PLOTTED

179.87

75'S

W		4.8	1751
cb		4.8	1751
1/4		4.3	1754
c		3.7	1762
1/4		3.4	1765
cb		2.7	1772

TD	1172	185.96	2.63	177.24
E			10.8	1782

100'S

E		9.4	1796
cb		10.3	1787
1/4		10.7	1782
c		11.5	1775
1/4		12.1	1769
cb		12.4	1766
W		12.3	1767

125'S

W		10.3	1787
cb		9.8	1792
1/4		9.3	1797
c		9.2	1798
1/4		9.0	1800
cb		8.6	1804
E		7.9	1811

188.96

151' S

F	6.3	1847
cb	6.7	1847
1/2	6.7	1847
c	6.6	1844
1/2	7.4	181.6
B	8.2	1808
W	8.9	180.1

TP of Hud, 12.90

192.75

9.11 179.85

1652.5 = 1/2 Short St

E	8.7	1841
cb	9.1	1877
1/2	9.5	1877
c	9.8	1870
1/2	10.3	187.5
d	11.1	1817
W	11.9	1809

PLOTTED

or Short St.

W	9.2	1876
cb	8.7	184.1
1/2	7.5	185.7
c	6.8	186.0
1/2	6.6	186.7
cb	5.6	187.7
F	5.2	1876

192.75

5' S of Cr.

W	15.7	177.1
cb	15.3	177.5
1/2	14.0	178.8
c	12.6	180.7
1/2	512.5 28.5	180.7 184.3
d	5.0	187.8
E	4.7	188.1

10' S of Cr.

E	4.2	188.6
cb	4.7	188.1
1/2	56.1 22.5	186.7 180.3
c	7.8	185.0
1/2	8.0	184.8
cb	8.0	184.8
W	8.9	183.9

5' Short St.

W	7.0	185.8
cb	6.3	186.5
1/2	5.3	187.5
c	5.4 21.0	188.4 181.8
1/2	10.7	187.1
1/2	3.6	189.7
d	2.9	189.9
E	2.6	190.7

192.75

45' S of Nk Johns St

W	1.4	188.4
cb	3.7	189.1
1/2	3.0	189.8
c	2.6	190.7
1/4	52.2	190.6
	7.4	185.4
+7	55	187.0
	25	190.3
cb	1.8	191.0

TPO 1265 203.36 204 190.71

E 11.8 191.6

PLOTTED

30' S of Nk John St.

F	17.4	186.0
cb	516.5	186.9
	9.3	190.1
1/2	10.0	192.4
c	10.7	192.7
1/4	11.4	191.0
cb	12.3	191.1
W	13.6	189.8

45' S of Nk John St

W	11.2	192.2
cb	10.4	192.0
1/2	10.3	192.1
c	9.7	192.7
1/4	9.1	190.3
cb	8.2	195.2
E	7.8	195.6

203.36

51 John St =

E	6.3	197.1
cb	7.0	196.4
1/2	7.8	195.6
c	8.6	194.8
1/4	8.9	194.5
cb	9.2	194.7
W	9.7	192.7

25' S

W	8.0	195.5
cb	7.4	196.0
1/2	6.9	196.5
c	6.4	197.0
1/4	6.3	197.1
cb	6.3	197.1
E	5.7	197.7

TPO 1278 211.81 433 199.03

50' S

E	13.2	198.6
cb	13.1	198.7
1/2	13.0	198.8
c	13.0	198.8
1/4	13.2	198.6
cb	14.0	197.8
W	14.3	197.5

211.51

75's

W	12.2	1996
cb	11.5	2007
1/4	11.5	2002
c	11.2	2006
1/2	10.9	2009
d	11.0	2008
E	11.2	2006

100's

E	7.5	2047
cb	8.2	2026
1/4	8.0	2028
c	8.8	2020
1/2	9.3	2022
d	9.6	2024
W	10.3	2015

TP on Pole 352 213.75 1.88 209.93

125's

E	6.8	2080
cb	6.5	2077
1/4	7.6	2064
c	8.5	2053
1/2	9.8	2060
d	10.5	2073
TP	10.00	215.76
W	13.3	2045

215.76

150's

W	12.9	2029
cb	11.6	2027
1/4	11.0	2028
c	9.8	2060
1/2	9.0	2063
d	8.2	2076
E	6.7	2091

175's

E	7.7	2081
cb	9.2	2066
1/4	10.2	2056
c	10.7	2051
1/2	11.7	2041
d	12.4	2034
W	13.3	2022

200's

W	13.4	2024
cb	12.4	2034
1/4	11.9	2079
c	11.1	2047
1/2	10.0	2058
d	8.5	2073
E	6.5	2093

215.76

225' S

E	4.6	211.7
cb	6.3	209.5
1/2	7.5	208.7
c	9.0	206.8
1/2	10.0	205.8
d	10.9	204.9
W	11.5	204.7

250'S - N<sup>h</sup> Janginaga St

W	9.5	206.7
cb	8.2	207.6
1/2	7.5	208.7
c Sub,	6.39	209.5
1/2	5.2	210.6
cb	4.0	211.8
E	2.7	213.1

PLOTTED

Proble line Sec "A"

E	3.2	215.6
cb	1.6	215.7
1/2	2.9	217.9
c	4.1	211.7
1/2	5.4	210.6
cb	6.5	209.3
W	7.5	208.7

Proble

no. sec B  
1034 sec A

→ 6.13 line

215.76

sec B

W	7.2	210.8.6
cb	6.1	209.7
1/2	5.3	210.5
c	4.1	211.7
1/2	2.8	213.0
cb	1.5	214.3
E	0.2	215.6

T.P. 10.81

224.75 182

213.74

50'S of Sec B

E	9.3	215.5
cb	10.4	214.6
1/2	11.6	213.7
c	12.6	212.7
1/2	13.6	211.7
cb	14.7	210.1
W	15.8	209.0

100'S

W	15.4	209.4
cb	14.7	210.1
1/2	14.1	210.7
c	13.0	211.8
1/2	12.6	212.7
cb	11.6	213.7
E	10.7	214.1



22475

150'S

E	10.1	215.7
cb	10.4	215.4
1/2	11.2	217.6
c	11.3	217.5
1/2	11.8	217.0
cb	11.8	217.0
W	12.2	217.6

200'S

W	10.0	216.8
cb	9.3	215.5
1/2	8.5	216.3
c	7.6	217.4
1/2	7.1	217.7
cb	6.5	218.3
E	6.1	218.7

250'S

E	3.8	221.0
cb	4.7	220.1
1/2	5.7	219.1
c	6.7	218.1
1/2	7.4	217.4
cb	8.1	216.7
W	8.2	216.6

22475

300'S

W	7.4	217.6
cb	6.3	218.5
1/2	5.6	219.7
c	4.4	220.6
1/2	3.4	221.6
cb	2.3	222.5
E	1.5	223.3

350'S

W	5.70	222.07	236	222.39
E			3.4	224.7
cb			4.6	222.5
1/2			5.8	222.3
c			6.6	221.5
1/2			7.5	220.6
cb			8.2	219.9
W			9.2	218.9

400'S

W	9.2	218.9
cb	8.0	220.1
1/2	7.1	221.0
c	6.3	221.8
1/2	5.3	222.8
cb	4.1	224.0
E	3.2	224.9

228.09

450' S

E	4.7	220.4
cb	5.5	222.6
1/2	6.3	224.8
c	7.0	227.1
1/2	7.7	229.4
cb	8.8	231.3
W	9.6	233.5

485' S

W	9.1	219.0
cb	8.9	219.7
1/2	8.4	219.7
c	6.7	221.4
1/2	5.6	222.5
cb	4.9	223.4
E	4.1	224.0

500' S

E	4.1	224.0
cb	4.8	223.3
1/2	5.8	222.3
c	7.6	220.5
1/2	8.0	220.1
cb	8.3	219.8
W	6.4	221.7

228.09

525' S

W	3.2	220.9
cb	5.8	222.3
1/2	7.5	220.6
c	6.6	221.5
1/2	6.9	221.6
cb	5.6	222.5
E	4.8	223.3

550' S

E	6.0	222.1
cb	6.2	221.9
1/2	6.0	222.1
+5	6.6	221.5
c	5.6	222.5
1/2	0.7	227.4
cb	+2.9	231.0
W	+6.0	234.1

575' S

W	+9.1	228.2
cb	+6.3	234.4
1/2	+1.8	229.9
c	4.4	222.7
1/2	5.8	222.7
cb	6.0	222.1
E	6.0	-222.1

22809

600' S

E	5.7	22216
cb	5.3	22218
1/2	5.2	22219
+5	4.6	22225
c	1.9	22227
1/2	+2.2	22203
cb	+6.5	22246
W	+9.9	22280

625' S

W	+7.9	22260
cb	+3.7	22218
1/2	0.3	22278
c	3.1	22250
+2	4.7	22226
1/2	5.3	22228
cb	5.0	22221
E	5.4	22227

T.P. May - 12.85 236.18 2.76 222,33

654.7 - Sec A

X1	5.4	2220.8
cb	9.8	2226.6
1/2	11.4	2226.8
c	12.6	2223.6
1/2	12.9	2223.3

Pueblo

5.8 ←

2276.2

Sec B

300 A

Line 27

cb	12.8	22224
E	13.1	22231
Sec B		
E	13.2	22230
cb	12.8	22226
1/2	12.7	22235
c	12.6	22236
1/2	11.5	22247
cb	9.7	22265
W	5.4	22208

25' S of Sec B.

W	7.2	22290
cb	10.8	22254
+5	12.0	22242
1/2	12.2	22260
c	12.3	22239
1/2	12.2	22260
cb	12.7	22235
E	12.9	22233

50' S

E	12.2	22240
cb	12.3	22239
1/2	12.1	22241
c	11.8	22244
1/2	11.7	22245

	236.18		
cb		11.6	2226
+5		11.6	2226
W		9.0	2272
	75'S		
W		10.9	2253
cb		11.1	2251
1/2		11.2	2250
c		11.3	2249
1/2		11.5	2247
cb		11.5	2247
E	PLOTTED	11.1	2251
	100'S		
E		9.6	2266
cb		11.0	2254
1/2		10.7	2258
c		10.4	2258
1/2		10.1	2261
cb		10.4	2258
W		10.9	2253
	125'S		
W		8.7	2275
cb		8.8	2274
1/2		9.1	2271
c		9.3	2269
1/2		8.8	2274

	236.18		
cb		7.6	2286
E		6.9	2293
	150'S		
E		8.5	2277
cb		4.2	2320
1/2		4.8	2319
c		5.3	2309
1/2		6.2	2300
cb		6.9	2293
W		7.6	2286
	175'S		
W		5.2	2310
cb		4.4	2318
1/2		3.4	2328
c		2.8	2334
1/2		2.4	2338
cb		2.0	2342
E		1.0	2352
TO	1117	246.71	264
		235.57	
	200'S		
E		9.8	2269
cb		10.0	2267
1/2		10.4	2263
c		11.2	2255
1/2		12.6	2251

	246.71		
cb	13.6	233.1	
W	14.1	234.6	
	225'S		
W	13.1	233.6	
cb	11.8	234.9	
1/4	10.6	236.1	
c	9.5	237.2	
1/4	8.6	238.1	
cb	8.1	238.6	
E	7.9	238.8	
	PLOTTED'S		
E	5.7	241.0	
cb	6.0	240.7	
1/4	6.8	239.9	
c	8.2	238.5	
1/4	9.3	237.6	
cb	9.8	236.9	
W	11.6	235.1	
	275'S		
W	11.0	235.7	
cb	9.4	237.3	
1/4	7.3	239.4	
c	6.6	240.1	
1/4	5.7	241.0	
cb	4.7	242.0	
E	4.4	242.3	

	246.71		
	300'S		
E	2.6	244.1	
cb	3.7	243.0	
1/4	5.0	241.7	
c	5.8	240.9	
1/4	6.4	240.3	
cb	7.6	239.1	
W	8.8	237.9	
	356'S		
W	8.5	238.2	
cb	7.6	239.1	
1/4	6.3	240.6	
c	5.0	241.7	
1/4	3.9	243.3	
cb	2.3	244.6	
E	1.1	246.6	
TP. 11.6	256.87	10.0	245.71
	350'S		
E	10.0	246.9	
cb	11.1	245.8	
1/4	12.1	244.8	
c	13.4	243.5	
1/4	15.2	241.7	
cb	16.3	240.6	
W	17.7	239.2	

256.87

375' S

W	17.4	2499.5
cb	15.6	2417
1/4	14.0	2449
c	12.9	2440
1/4	11.5	2454
cb	10.1	2468
E	8.7	2482

400' S

E	7.4	2495
cb	8.3	2486
1/4	9.4	2475
c	10.6	2463
1/4	11.3	2456
cb	11.9	2450
W	13.1	2438

425' S

W	12.4	2465
cb	11.1	2458
1/4	10.0	2469
c	9.0	2479
1/4	8.0	2489
cb	6.7	2507
E	5.6	2513

PLOTTED

256.87

462.5 = Pueblo line

E	3.4	2535
cb	4.9	2540
1/4	6.3	2506
c	7.5	2494
1/4	11.8	2481
cb	12.8	2469
W	10.9	2460

25' S of Pueblo line

W	8.6	2483
cb	7.4	2495
1/4	7.3	2496
c	4.6	2523
1/4	3.9	2530
cb	2.0	2549
E	0.7	2567

110	1101	267.69	219	256.68
		50' S		

E	8.3	2594
cb	9.0	2587
1/4	10.3	2574
c	11.7	2560
1/4	14.6	2531
cb	15.2	2525
W	17.6	2501

267.69  
75'S

W	15.2	2525
cb	13.6	2541
1/4	12.7	2550
c	10.8	2569
1/4	10.2	2575
cb	9.1	2586
E	3.7	2620

100'S  
PLOTTED

E	3.3	2622
cb	4.3	2634
1/4	6.6	2611
c	6.4	2613
1/4	10.5	2572
cb	12.6	2551
W	14.5	2532

125'S

W	12.1	2556
cb	10.7	2570
1/4	9.2	2585
1/5	8.8	2589
c	5.0	2623
1/4	3.9	2638
cb	2.8	2649
E	2.1	2656

267.69

15-0'S

E	12	2665
cb	1.7	2660
1/4	3.0	2647
c	3.7	2640
1/4	5.4	2627
cb	8.4	2593
W	9.8	2579

175'S

W	8.9	2588
cb	8.1	2596
1/4	6.9	2608
c	5.1	2646
1/4	2.4	2653
cb	1.5	2662
E	0.4	2673

TD 563 271.72 160 266.09

100'S

E	3.8	2679
cb	4.9	2668
1/4	5.6	2661
c	6.3	2654
1/4	7.4	2637
cb	10.9	2608
W	11.9	2598

271.72

225 S

w	10.8	2609
d	10.5	2612
1/2	9.5	2614
c	6.2	2655
1/2	5.0	2667
d	4.4	2673
E	3.4	2683

280 S

E	3.6	2681
d	2.0	2677
1/2	5.0	2667
c	5.9	2658
1/2	8.5	2632
d	8.5	2632
w	10.7	2610

275 S

w	9.6	2621
d	8.2	2625
1/2	8.0	2627
c	7.3	2624
1/2	5.3	2665
d	4.4	2673
E	4.2	2675

PLOTTED

271.72

300 S

E	4.7	2670
d	5.0	2667
1/2	4.9	2668
d	5.7	2660
1/2	7.4	2623
d	8.2	2635
w	8.9	2629

325 S

w	7.4	2643
d	6.2	2655
1/2	5.6	2661
c	5.1	2666
1/2	5.3	2664
d	5.4	2667
E	5.3	2664

350 S

E	5.7	2660
d	5.6	2651
1/2	5.5	2662
c	5.3	2664
1/2	5.3	2664
d	5.0	2667
w	5.1	2666



271.72  
400 S

W	4.5	267.2
ch	4.8	266.9
1/2	4.9	266.8
c	4.8	266.9
1/2	5.6	266.1
ch	5.6	266.1
E	5.7	266.0

450 S

PLOTTED

E	5.1	266.6
ch	4.9	266.8
1/2	5.0	266.7
c	4.3	267.0
1/2	4.8	266.9
ch	4.6	267.1
W	4.2	267.5

500 S

W	3.7	268.0
ch	3.9	267.8
1/2	4.2	267.5
c	4.6	267.1
1/2	5.4	266.3
ch	5.3	266.4
E	5.7	266.0

271.72

548 S = N. Fort St.

E	4.8	266.9
ch	4.4	267.3
1/2	3.9	267.8
c	3.9	267.8
1/2	3.9	267.8
ch	3.7	268.0
W	3.5	268.2

SW Fort St.

W	3.6	268.1
ch	3.8	267.9
1/2	4.0	267.7
c	4.2	267.5
1/2	4.6	267.1
ch	4.8	266.9
E	5.1	266.6

SE Fort St.

E	4.6	267.1
ch	4.4	267.3
1/2	4.2	267.5
c	3.6	268.1
1/2	3.5	268.2
ch	3.5	268.2
W	2.4	269.3

TP Map 1160

279.19 4.15

267.57

279.17  
Wh Bow Arc

N	10.9	268.7
cb	10.7	268.5
1/2	11.0	268.2
c	11.0	268.2
1/2	10.8	268.4
b	10.3	268.9
s	9.9	269.3

50 W

S	7.3	271.9
cb	7.8	271.4
1/2	8.1	271.1
c	8.4	270.8
1/2	8.6	270.6
cb	8.8	270.4
N	8.8	270.6

100 W

N	8.4	270.8
cb	8.1	271.1
1/2	8.3	270.9
c	7.5	271.7
1/2	7.5	271.7
cb	7.3	271.9
s	6.7	272.5

PLOTTED

279.17  
150 W

S	8.2	271.0
cb	8.6	270.6
1/2	9.1	270.1
c	9.2	270.0
1/2	9.5	269.7
cb	9.3	269.9
N	8.9	270.3

200 W

N	7.1	272.1
cb	7.4	271.8
1/2	7.6	271.6
c	7.4	271.8
1/2	7.4	271.8
cb	7.3	271.9
s	7.4	271.8

250 W

S	4.1	275.1
cb	4.1	275.1
1/2	4.3	274.9
c	4.3	274.9
1/2	4.4	274.8
cb	4.4	274.8
N	4.6	274.6

279.17  
300 W

N	2.3	27769
cb	2.1	27771
1/2	2.0	27792
c	1.8	27774
1/2	1.7	27775
cb	1.7	27775
S	1.7	27775

279 12.12 290.02 127 27790

PLOTTED 350 W

S	10.2	27798
cb	10.6	27794
1/2	10.6	27794
c	10.8	27792
1/2	10.9	27791
cb	11.0	27790
N	11.4	27786

100 W

N	9.9	27801
cb	9.5	27805
1/2	9.2	27808
c	9.1	27809
1/2	8.8	27812
cb	8.8	27812
S	8.4	27816

290.02  
450 W

S	7.0	27870
cb	7.2	27828
1/2	7.4	27826
c	7.7	27822
1/2	7.7	27822
cb	7.7	27822
N	8.1	27819

500 W

N	5.7	27843
cb	5.4	27846
1/2	5.5	27845
c	5.2	27848
1/2	5.1	27849
cb	4.8	27854
S	4.9	27851

550 W

S	2.7	27873
cb	2.6	27874
1/2	2.9	27871
c	3.0	27870
1/2	3.1	27869
cb	3.3	27867
N	3.8	27864

290.02

606 W = EA Silver Gate Ave

N		1.9	4885	
cb		1.7	4883	
1/2		1.3	4887	
c		1.1	4889	
1/4		0.6	4890	
cb		0.3	4897	
3		0.1	4899	
T.P.	701	296.68	0.35	289.67
W. K. L. P.	923	302.34	3.57	293.11
PLOT				
Nk Fort (from East)				
W		11.3	491.0	
cb		12.0	490.3	
1/2		12.5	489.8	
c		12.8	489.5	
1/4		13.2	489.1	
cb		13.4	4889	
E		13.8	488.5	
Nk Fort (from West)				
E		13.8	4885	
cb		13.3	4890	
1/2		12.7	4896	
c		12.3	4900	
1/4		12.2	4901	
cb		11.4	4909	
W		10.9	4914	

302.34

20. (East)

W		10.5	4913
cb		11.4	4909
1/2		11.9	4904
c		11.7	4906
1/4		12.2	4901
cb		12.6	4897
E		13.2	4891
Cu (West)			
E		12.9	4890
cb		12.3	4900
1/2		11.8	4905
c		11.3	4910
1/4		11.5	4908
cb		10.8	4915
W		10.0	4923
Sh. (East)			
W		9.7	4926
cb		10.6	4917
1/2		10.7	4916
c		10.5	4915
1/4		11.2	4911
cb		11.5	4908
E		12.4	4899

302.34  
5h. (West)

E	12.2	290.1
cb	11.4	290.9
1/2	11.1	291.2
c	10.7	291.6
1/2	10.5	291.8
d	10.0	292.2
W	9.1	292.2

43'S of 5h. (West) = 50'S of Ph. Cor.

PLOTTED

W	7.8	295.5
cb	8.7	292.6
1/2	9.2	292.1
c	9.4	292.9
1/2	9.8	292.5
cb	10.2	292.1
E	10.9	291.6

9.3'S

E	9.2	292.1
cb	8.7	292.6
1/2	8.0	294.2
c	7.4	294.9
1/2	7.6	296.7
cb	6.9	295.6
W	6.0	296.2

302.34  
143'S

W	4.0	298.3
cb	5.1	297.2
1/2	5.7	296.6
c	5.5	296.8
1/2	6.3	296.0
cb	6.6	295.7
E	7.3	295.0

193'S

E	5.4	296.9
cb	4.9	297.6
1/2	4.2	298.1
c	3.3	299.0
1/2	3.6	298.7
cb	2.8	299.6
W	2.0	300.3

243'S

W	10.3	302.6
cb	0.6	301.7
1/2	1.3	301.0
c	1.2	301.1
1/2	2.3	300.0
cb	2.5	299.8
E	3.5	298.8

TP 12.73

314.83 0.24

302.10

314.83

300' S - NW Run 58

E	13.3	301.2
cb	12.2	302.6
1/2	11.8	303.0
c	11.3	303.5
1/2	10.8	304.0
cb	10.3	304.5
W	9.3	305.5

CV

W	7.8	307.0
cb	8.8	306.0
1/2	9.7	305.1
c	10.0	306.8
1/2	10.2	305.6
cb	10.8	304.0
E	11.2	303.6

PLOTTED

Sh.

E	9.9	306.9
cb	7.4	305.1
1/2	8.6	306.2
c	8.4	306.1
1/2	8.3	306.5
cb	7.5	307.3
W	6.4	308.4

314.83

43' S

W	4.0	310.8
cb	5.1	309.7
1/2	5.9	308.9
c	6.1	308.7
1/2	6.0	308.8
cb	7.0	307.8
E	7.3	307.5

93' S

E	4.2	310.6
cb	3.9	310.9
1/2	3.5	311.3
c	3.5	311.3
1/2	3.0	311.8
cb	2.3	312.5
W	1.0	313.8

TP 1211

326.65 029

314.54

W	14.3	313.5
W	10.7	316.0
cb	11.1	315.6
1/2	12.1	314.6
c	12.3	314.4
1/2	12.7	314.0
cb	12.8	313.9
E	13.1	313.6

326.68

193.5

F		
cb	10.2	216.5
1/6	9.9	216.8
c	9.8	216.9
1/6	9.5	217.2
d	9.4	217.3
W	8.3	218.4
	8.0	218.7

243.5

W		
cb	5.5	221.2
1/6	5.7	221.0
c	6.7	220.0
1/6	6.7	220.0
d	7.1	219.7
E	7.3	219.6
	7.4	219.3

PLOTTED

293.5

E		
cb	4.8	221.9
1/6	5.0	221.7
c	4.5	222.2
1/6	4.3	222.4
d	4.0	222.7
W	2.9	222.8
	2.9	222.8

326.65

343.5

W		
cb	0.7	226.0
1/6	0.9	225.8
c	1.8	224.9
1/6	2.3	226.4
d	2.2	226.5
E	2.6	226.1
	2.5	226.2

TR 851

332.71 145

325.20

393.5

W		
cb	5.8	227.9
1/6	6.6	227.1
c	7.2	226.5
1/6	7.2	226.5
cb	7.4	226.3
E	7.6	226.1
	7.6	226.1

443.5

E		
cb	6.3	227.4
1/6	6.3	227.4
c	5.9	227.8
1/6	5.8	227.9
cb	5.6	228.1
W	5.0	228.7
	4.8	228.9

39

333.71  
493's

W	3.9	3779.8
cb	4.1	3779.6
1/2	4.6	3779.1
c	4.7	3779.0
1/4	4.5	3779.2
cb	5.1	3778.6
E	5.1	3778.6

843's

E	4.2	3779.5
cb	3.9	3779.8
1/2	3.7	3779.0
c	3.9	3779.8
1/4	3.6	3779.1
cb	3.1	3779.6
W	3.0	3779.7

893's

W	2.1	3771.6
cb	2.7	3771.0
1/2	2.8	3770.9
c	3.0	3770.7
1/4	2.1	3770.6
cb	3.2	3770.5
E	3.2	3770.5

333.71

607<sup>55</sup> = Pueblo line (Angle)

E	30	3330.7
cb	26	3321.1
1/2	30	3320.7
c	28	3320.9
1/4	25	3321.2
cb	23	3321.6
W	22	3321.5

50's of Pueblo line

W	10	3322.7
cb	12	3322.5
1/2	16	3322.1
c	18	3321.9
1/4	17	3322.0
cb	18	3321.9
E	21	3321.6

FP. 7107 1217

343.16 282

330.89

100's

W	9.4	3333.7
cb	9.4	3333.7
1/2	10.1	3333.0
c	10.0	3333.1
1/4	10.0	3333.1
cb	9.9	3333.2
E	10.2	3332.9



343.06

150 S

E	9.1	336.0
cb	8.8	334.7
1/4	8.8	334.3
c	9.0	334.1
1/2	8.8	334.3
cb	8.4	334.7
W	8.5	334.6

200 S

W	7.5	335.6
cb	7.6	335.5
1/4	8.2	334.9
c	7.8	336.3
1/2	7.7	335.4
cb	7.6	335.5
E	7.8	335.3

250 S

E	6.5	336.6
cb	6.5	336.6
1/4	6.7	336.4
c	6.8	336.7
1/2	7.2	335.9
cb	6.7	336.4
W	7.0	336.1

PLOTTED

343.06

300 S

W	6.3	336.8
cb	6.0	337.1
1/4	6.4	336.7
c	6.1	337.0
1/2	6.0	337.1
cb	5.6	337.5
E	5.3	337.8

350 S

E	4.8	338.3
cb	5.0	338.1
1/4	5.3	337.8
c	5.3	337.8
1/2	6.0	337.1
cb	5.9	337.2
W	5.9	337.2

400 S

W	5.5	337.6
cb	5.2	337.9
1/4	5.4	337.7
c	4.5	338.6
1/2	4.6	338.5
cb	4.3	338.8
E	3.9	339.2

343.06

450'S

E	3.3	3398
cb	3.7	3394
1/2	4.0	3391
c	4.2	3389
1/2	4.8	3383
cb	4.8	3383
W	5.1	3380

500'S

W	1.5	3386
cb	1.4	3387
1/2	1.2	3389
c	3.6	3395
1/2	3.4	3397
cb	2.9	3407
E	2.7	3406

550'S

E	2.1	3410.
cb	2.3	3408
1/2	2.8	3402
c	3.1	3400
1/2	3.5	3396
cb	3.7	3397
W	4.0	3391

TR

7.52

347.30

378

340.28

347.80

600'S

W	7.7	3401
cb	7.4	3404
1/2	7.3	3405
c	7.2	3406
1/2	6.9	3409
cb	6.4	3414
E	6.0	3418

650'S

E	6.2	3426
cb	5.3	3425
1/2	6.2	3416
c	6.5	3413
1/2	6.6	3412
cb	6.7	3411
W	6.9	3409

700'S

W	6.3	3415
cb	6.0	3418
1/2	5.9	3419
c	5.7	3421
1/2	5.7	3421
cb	4.5	3433
E	4.4	3434

42

349.80

750' S

E	3.5	744.7
cb	3.9	747.9
1/4	3.9	747.9
c	4.9	747.9
1/4	5.2	747.6
b	5.4	747.4
W	5.5	747.3

PLOTTED

800' S

W	4.9	747.9
cb	4.6	747.7
1/4	4.5	747.7
c	4.1	747.7
1/4	4.3	747.5
cb	3.2	747.6
E	2.9	747.9

850' S

E	2.7	745.1
cb	3.0	744.8
1/4	3.9	747.9
c	3.7	744.1
1/4	4.3	747.5
cb	4.5	747.3
W	4.9	747.9

TP	5.50	349.76	3.54	344.26
----	------	--------	------	--------

349.76

900' S

W	6.6	347.7
cb	6.2	347.6
1/4	6.0	347.8
c	5.6	344.7
1/4	5.6	346.7
b	4.8	345.0
E	4.5	345.3

950' S

F	4.4	745.6
cb	4.9	744.9
1/4	5.4	744.4
c	5.5	744.7
1/4	5.9	747.9
b	6.3	343.5
W	6.5	747.7

981.5 = Pueblo line (N. Artec. SD) 20 wide

W	6.3	747.5
cb	5.9	747.9
1/4	5.5	744.7
c	5.47	744.7
1/4	5.3	744.5
cb	4.9	744.9
E	4.3	745.5

349.76

5th Ateco St.

E	4.3	3455
cb	4.6	3457
1/2	5.3	3445
c	5.3	3446
1/2	6.0	3438
cb	6.5	3433
W	6.8	3430

50's

W	6.5	3433
cb	6.0	3438
1/2	5.5	3443
c	5.0	3448
1/2	5.0	3448
cb	4.3	3455
E	4.1	3457

100's

E	3.9	3459
cb	4.4	3454
1/2	4.8	3450
c	4.8	3450
1/2	5.4	3444
cb	5.9	3439
W	6.1	3437

349.76

150's

W	5.6	3447
cb	5.5	3447
1/2	5.0	3448
c	4.9	3454
1/2	4.4	3454
cb	3.9	3459
E	3.8	3460
TP	12.53	3458.47 382
		345.94

200's

E	11.6	3460
cb	11.9	3466
1/2	12.4	3461
c	12.5	3460
1/2	12.9	3456
cb	13.2	3453
W	13.6	3449

250's

W	13.0	3455
cb	12.5	3460
1/2	12.2	3463
c	11.8	3467
1/2	11.5	3470
cb	11.3	3472
E	10.6	3479

35847

300's = 7h

E		
cb	9.9	348.6
1/2	10.6	347.9
1/4	10.5	348.0
c	10.8	347.7
1/2	11.2	347.3
cb	11.7	346.8
W	12.0	346.5

2h

W		
cb	11.3	347.4
1/2	10.9	347.6
1/4	10.6	347.9
c	10.3	348.2
1/2	9.7	348.8
cb	9.9	348.6
E	9.2	349.3

PLOTTED

5h

E	8.6	349.9
cb	9.3	349.2
1/2	9.4	349.1
c	9.9	349.1
1/2	10.2	348.3
cb	10.7	347.8
W	10.9	347.6

35847

50's

W	9.7	348.8
cb	9.4	349.1
1/2	8.7	349.8
c	8.5	350.0
1/2	8.2	350.3
cb	8.1	350.4
E	7.5	351.0

100's

E	6.2	352.3
cb	7.0	351.5
1/2	7.0	351.5
c	6.8	351.7
1/2	7.7	350.8
cb	8.3	350.7
W	8.7	349.8

150's

W	7.3	351.7
cb	7.2	351.3
1/2	6.5	352.0
c	5.8	352.7
1/2	6.0	352.5
cb	5.6	352.9
E	4.8	353.7

358.47

157.55 = N6

St

E	39	3546
cb	46	3579
1/2	53	3572
c	51	3574
1/2	56	3579
cb	61	3574
W	63	3577

ev

PLOTTED

W	57	3578
cb	56	3579
1/2	51	3574
c	47	3538
1/2	49	3536
cb	41	3544
E	36	3549

SW

St

E	34	3551
cb	40	3565
1/2	43	3562
c	41	3544
1/2	48	3577
cb	51	3574
W	53	3572

358.47

370.5

W	41	3560
cb	40	3565
1/2	35	3550
c	28	3557
1/2	38	3547
cb	31	3554
E	20	3565

TD 1237

367.99 285

355.62

Subtotal 602

363.44 10.57

357.42

100's

W	79	3555
cb	76	3558
1/2	74	3560
c	69	3565
1/2	68	3566
cb	66	3568
E	69	3565

Preservation line

E	69	3565
cb	64	3570
1/2	67	3567
c	69	3565
1/2	71	3563
cb	73	3561
W	72	3561

363,44

1293 37515 122 36222

1253 38642 126 37389

673 39029 286 38356

curb around tank 246 38783 388 —

1/15  
Halt  
Mines

1/20 Curves for 24' Roadway  
Reverse curve each  $\Delta = 10^{\circ}00'$   
 $R = 600$

47

P spike in Pole 296

986

9710

59' W of Nib Bessemer = E. end of Curve

N

10.0

cr

10.1

S

9.2

107' W

S

7.5

cr

8.4

N

8.7

139' W

N

7.3

cr

6.9

S

5.4

164' W

S

4.7

cr

5.7

N

5.8

193.7' W = Reverse Pt.

N

3.9

cr

4.5

S

3.8

223.9' W

S

2.2

cr

2.4

+9

13.2

N

6.2

+6

1.2

Here Curve from Magnetite to Bow  
 $\Delta = 46^{\circ}23' R = 300$

18

West end Curve is 0.9 W. of E. Bangor St. on South

		95.06		
19' N		318.4	W	4.2
12' N				3.2
+3				0.9
CV				1.5
S				0.5
TP	654	103.89	071	97.35
		273.4		
S				5.2
CV				5.7
+5				5.8
				283
N				10.8
+2				5.9
		298.4	end of curve	
15' N				4.5
12' N				8.4
+4				5.9
				4.2
CV				3.9
+7				3.3
S				1.5

BE 4 E of E. Bangor St.

TP	756	145.97		138.41
		West of Curve		
N				11.4
CV				11.6
S				11.6
		55 E		
S				10.1
CV				10.3
N				9.9
		50 E		
N				7.7
CV				7.6
S				8.8
		75 E		
S				6.4
CV				5.1
N				5.0
		100 E		
N				1.8
CV				2.7
S				4.1
		125 E		
S				1.0
CV				0.9
TP	1134	157.18	013	145.84
N				10.7



Tree Curve at Trex St.

BC = 281.3 S of Sec C (See p 16)

A = 22° P R = 300 St = 58.86 L = 116.24

49

157.18  
130 E

N 8.9  
W 9.4  
S 10.3

175 E  
S 11.1

W 8.8  
N 7.0

200  
N 5.4

W 6.3  
S 7.9

211.45 W = Encl -  
S 8.0

C 5.5  
N 4.3

TP 221 171.29 169.05

BC  
W 8.1  
W 8.4  
E 9.2  
25 S

E 8.5  
W 7.5

W 7.0  
32 S Top

W 6.7  
W 7.3

E 8.2  
32 S Bottom

F 16.0  
W 15.8

W 10.3  
40 S Bottom

W 13.6  
W 13.6

E 15.0  
40 S Top

E 8.1  
W 7.4

W 6.4

171.29

50.5

W 6.2

cr 6.8

E 7.6

75.5

E 6.5

cr 6.2

W 5.7

100.5

W 4.8

cr 4.7

E 4.5

116.24 EC

E 4.0

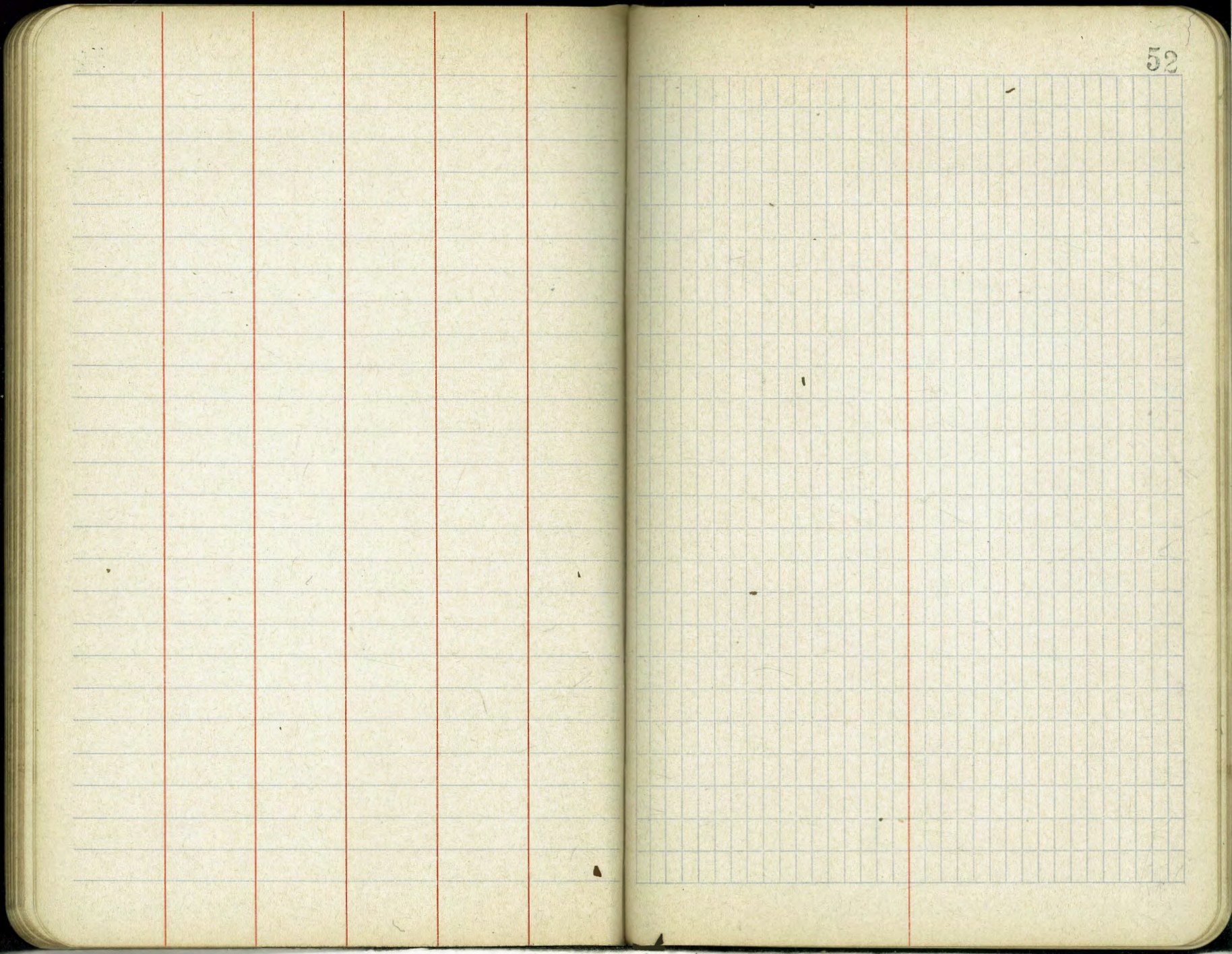
cr 3.7

W 3.9

B.M. S.E. Cor. D & California 6.973

" " Arctic rd 10.502

Buss plugs.



7/13/15  
Groop  
Shorraker  
Moore

CROSS SECTION OF  
LARK ST 60' WIDE 10' WALLS  
From Ft Stockton to Washington

BM	7.01	280.03	279.02	SE Lark = Ft Stockton
		S. L. Ft Stockton		
E			6.7	
cb			7.4	
1/4			7.7	
C			7.6	
1/4			8.1	
cb			8.4	
				40' 50"
West lb.			8.0	
1/4			7.3	
C			6.9	
1/4			6.9	
cb			6.7	
E			6.2	
				65' 50"
E			5.3	
cb			5.6	
1/4			5.9	
C			6.3	
1/4			6.6	
cb			6.8	
W			6.2	

↓  
Curb + Walk is in on  
the West Side of Lark  
from S. L. Ft Stockton to  
60' South.



90' 50"

55

W				6.3
cb				6.1
1/4				6.0
C				5.5
1/4				5.0
cb				5.0
E				5.0
				115' 50"
E				5.0
cb				4.6
1/4				4.5
C				4.6
1/4				5.1
cb				5.1
W				5.6
				140' 50"
W				5.3
cb				4.7
1/4				4.3
C				3.4
1/4				4.6
cb				4.5
E				4.8

280.03

165' 50

E	4.5
cb	3.4
1/4	3.4
C	2.9
1/2	3.0
cb	3.3
W	5.7

190' 50

W	3.5
cb	3.5
1/4	2.6
C	1.8
1/2	2.8
cb	3.0
E	4.2

215' 50

E	4.6
cb	3.0
1/4	2.4
C	1.4
1/2	2.0
cb	2.3
W	2.6

LARK ST.

54

240' 50

W	2.7
cb	2.3
1/4	2.8
C	2.7
1/2	2.6
cb	3.4
E	4.8

265' 50

E	5.8
cb	5.5
1/4	5.1
C	4.9
1/2	4.6
cb	4.5
W	4.3

282' 50

W	5.1
cb	6.0
1/4	6.3
C	6.6
1/2	7.9
cb	7.6
E	7.0

380.03

300 So. - N.W. WASHINGTON

E	7.7
+1	9.5
cb	10.2
1/4	10.0
C	9.4
1/4	9.4
cb	9.5
W	8.9

4/3 Hatch  
15 Mural  
HallElevation for contour map  
of Rotation Hospital ground

[Sec A]

55

Sub. 0.5	101.97	100 assumed
3m	107	
25		2.0
35		2.1
45		2.5
55		2.8
65		3.2
75		4.4
85		3.7
95		3.8
105		3.1
115		2.4
125		5.1
135		5.5
145		5.9
155		6.4
165		6.4
175		11.9
185		12.6
195		12.0
205		10.1
215		9.8
225	5.82	95.24 12.60
235		89.42 89.42
245		9.5
255		9.3
265		10.1

89.42

		95.24	
L9		11.1	
K9		10.9	
K10		12.5	
L10		11.3	
M10		11.0	
N10		10.3	
O10		8.8	
Q11		4.1	
X11		3.9	
M11		9.0	
L11		11.7	
K11		12.7	
K12		12.6	
L12		10.8	
M12		6.3	
N12		1.6	
T12	4.8	99.89	94.71
L12		3.5	
O13		3.5	
N13		6.2	
M13		10.6	
L13		15.1	
K13		16.0	
K14		18.5	
L14		14.3	

		98.89
K14		14.3
N14		14.3
O14		5.9
L15		10.5
N15		13.9
M15		14.1
L15		14.8
K15		15.2
K16		12.6
L16		13.3
M16		14.0
N16		13.5
O16		12.3
Q17		11.6
M17		12.4
N17		12.5
L17		10.4
K17		7.8
K18		2.3
L18		6.0
M18		10.0
N18		11.3
O18		10.8
O19		10.2
N19		12.5

18-19 = 16.2



98.89

M 19			8.0	
L 19			3.6	
K 19			0.5	
J 19	1063	107.05	2.17	9642
J 18			6.1	
J 17			7.8	
I 17			13.6	
I 17			10.3	
I 18			5.6	
I 19			4.4	
H 19			2.4	
H 18			6.5	
H 17			9.1	
G 19			5.3	
G 18			7.2	
G 17			9.7	
F 19			4.8	
F 18			6.8	
F 17			9.4	
E 19			4.0	
E 18			5.8	
E 17			9.2	
D 19			3.8	
D 18			5.2	
D 17			8.1	

10705

C 19				4.0
C 18				4.9
C 17				7.6
B 19				4.4
B 18				4.8
B 17				7.3
A 19				4.1
A 18				4.5
A 17				6.0
JR 171	98.13	10.63		9642
J 16				9.7
I 16				5.8
H 16				4.3
G 16				6.2
F 16				5.7
E 16				3.5
D 16				1.8
C 16				1.8
B 16				1.6
A 16				1.0
A 15				6.5
Hub near A 15				586
B 15				7.2
C 15				7.1
D 15				7.2

98.13

E 15			10.4	
F 15			12.5	
G 15			12.9	
H 15			11.6	
I 15			11.8	
J 15			12.8	
TP	109	87.13	12.09	86.04
J 14			4.7	
I 14			6.3	
H 14			5.6	
G 14			5.1	
F 14			5.4	
E 14			5.7	
D 14			4.6	
C 14			3.7	
B 14			3.6	
A 14			3.3	
A 13			7.3	
B 13			7.3	
C 13			8.5	
D 13			7.2	
E 13			7.5	
F 13			7.1	
G 13			6.8	
H 13			6.2	

87.13

51

I 13			5.7	
J 13			5.1	
J 12			5.2	
I 12			5.9	
H 12			6.3	
G 12			6.7	
F 12			7.1	
E 12			7.4	
D 12			7.6	
C 12			8.0	
B 12			8.1	
A 12			8.1	
A 11			8.5	
B 11			8.2	
C 11			8.0	
D 11			7.7	
E 11			7.4	
F 11			7.1	
G 11			6.7	
H 11			6.2	
I 11			5.6	
J 11			5.1	
J 10			4.1	
I 10			2.2	
H 10			3.3	

87,13

G 10			1,0	
F 10			2,2	
E 10			4,5	
D 10			5,1	
C 10			6,7	
B 10			7,6	
A 10			8,3	
A 9			3,6	
T.P.	12,16	96,87	2,42	54,71
B 9			9,7	
C 9			9,6	
D 9			7,5	
E 9			6,0	
F 9			4,3	
G 9			4,7	
H 9			5,9	
I 9			7,8	
J 9			11,3	
J 8			4,6	
I 8			2,6	
H 8			1,6	
G 8			1,1	
F 8			0,9	
T.P.	7,78	10,295	1,70	95,17
E 8			7,7	

58

102,95

D 7				7,6
C 8				9,1
B 8				8,7
A 8				10,8
H 7				6,0
B 7				5,5
C 7				5,4
D 7				5,6
E 7				5,6
D 6				5,1
C 6				4,7
B 6				3,6
A 6				3,4
B 5				3,0
C 5				4,6
D 5				5,2
D 4				5,5
E 4				5,5
C 4				4,3
B 4				3,3
A 4				3,6
A 3				5,5
B 3				4,9
C 3				5,7
D 3				6,5

	10295			
E3			6.5	
F3			5.9	
G3			5.9	
E2			9.5	
D2			9.0	
C2			8.7	
B2			8.0	
TP	242	97.51	786	9509
A2			3.0	
A1			6.4	
B1			6.7	
C1			7.2	
D1			6.8	
E1			5.9	
F1			4.7	
G1			3.7	
G			5.6	
F			6.6	
E			8.1	
D			10.1	
C			11.4	
B			11.3	
H			12.3	
Sub. "H"			1222	8529
TP	744	102.53	242	9509

	10253		59
E6			5.0
E5			4.9
F5			4.9
G5 Sub.			466
H5			4.5
I5			4.4
J5			3.9
G4			5.2
F4			5.3
G2			7.1
F2			7.7
G6			4.4
F6			4.5
H6			4.7
I6			4.8
G7			4.5
F7			4.6
J6			4.9
J7			7.0
TP Sub. 0.5 - check. -		257	99.96 (100.00)

4/21/54  
1/15/54

[Sec B]

Hub see p 59 6/6	91.45	85.29
E12	9.3	
D12	9.9	
C12	10.9	
B12	11.4	
A12	13.4	
E+18.11	3.0	
F11	6.2	
D11	9.9	
C11	10.0	
B11	9.8	
A11	11.7	
E+11,10	0.0	
F10	2.8	
D10	8.9	
C10	9.9	
B10	9.9	
A10	11.3	
A9	10.6	
B9	10.1	
TR	916	99.81
F10	0.80	90.65
G10	7.8	
G9	4.5	
G9	3.0	
F9	5.4	

99.81

60

E9	6.7
F9	1.3
G8	2.0
F7	4.2
Floor Level readability	5.80
G7	2.6
H7	1.4
I6	3.6
H6	4.1
G6	5.3
TR	282
	91.22
	11.41
	88.40
G5	3.0
H5	1.9
I5	2.1
J5	2.7
K4	12.0
J4	11.2
I4	11.4
H4	11.5
G4	10.8
F4	9.9
E4	9.8
Floor Level	9.75
A3	13.2
B3	13.2

9.22

C3	12.3
D3	9.9
E3	9.9
F3	12.5
G3	13.0
H3	12.9
I3	13.0
J3	13.0
K3	13.0
L3	12.8
N	3.0
M	6.9
M1	11.2
L	10.0
L1	12.6
L2	12.5
K2	12.8
K1	12.7
K	11.1
J	12.1
J1	12.9
J2	12.8
I2	13.4
I1	13.1
I	12.5

9.22

H	12.2
H1	13.2
H2	13.7
G2	14.0
G1	13.8
G	12.7
F	13.2
F1	13.7
F2	13.9
Top Septic tank	13.02
E2	13.1
E1	13.8
E	13.2
D	13.5
D1	13.2
D2	12.9
C2	13.4
C1	13.3
C	13.3
B	13.6
B1	13.7
B2	13.7
A2	13.1
A1	14.0
A	13.7

		91.72			
TR	695	85.29	12.58	78.34	
A4			6.6		
B4			6.5		
A5			6.3		
B5			4.2		
A6			6.0		
B6			3.2		
A7			5.6		
B7			3.7		
A8			4.4		
B8			3.9		
TR	503	87.12	3.20	82.09	
Check			1.80	85.32	85.29





PC 32+05.91		$\Delta 90^{\circ}0'$			Nail
		T 50'			
PI 31+77.37 CC 31+66.5	L 90°0'	R 50'	# 7		Stake
		L 78.54			
PL 31+57.37		E 20.71			Nail
EC 30+76.94		$\Delta 13^{\circ}20'$			Nail
		T 58.44			
PI 30+18.12	R 13°20'	R 500'	# 6		Nail
		L 116.36			
PC 29+59.68		E 3.40			Nail
EC 29+01.88		$\Delta 75^{\circ}12'$			Nail
		T 77.01			
PI 28+47.61	R 75°12'	R 190	# 5		Stake
		L 131.25			
PC 27+70.60		E 26.22			Nail
EC 25+21.62		$\Delta 8^{\circ}22'$			Nail
		T 60.34			
PI 24+41.49	R 8°22'	R 82.5	# 4		Nail
		E 2.20			
PC 24+01.15		L 120.87			Nail

E.G. 40129.99

 $\Delta 29^{\circ}50'$ 

Nail

T 76.65

P.I. 3946213 R 49°50'

R 165'

Stake

L 143.51

P.C. 38486.48

E 16.93

Nail

E.C. 35428.84

 $\Delta 92^{\circ}23'$ 

Nail

T 114.67

P.I. 34466.48 R 92°23'

R 110'

 $\Delta 9$ 

L 177.36

P.C. 33481.48

E 48.90'

Nail

E.G. 32496.27

 $\Delta 76^{\circ}30'$ 

Nail

T 53.41

P.I. 32459.32 L 76°30'

R 67.75

 $\Delta 8$ 

Stake

C.C. 32451.48

L 90.46

P.C.C. 32405.91

E 18.52

Nail



11/17/15  
Gregory  
Moore  
Miller

CROSS-SECTION OF  
GROVE ST 60' wide  
from S.L. of Brooklyn Hgts 10' wide  
to 250' No. of S.L. 10' wide

2260 ~~19~~

67

BM	049	22596	22547	B.P. 511 Cedar
		S.L. BROOKLYN Hgts		
W		33	2207	
cb		40	2200	
1/4		47	2213	
C		46	2214	
1/4		50	2210	
+8		52	2207	
cb		48	2212	
E		47	2213	
		35' No.		
-15		128	2132	
E		88	2172	
cb		59	220.1	
1/4		52	220.8	
C		49	221.1	
1/4		46	221.4	
cb		42	221.8	
W		30	223.0	
		35' No.		
W		38	2202	
cb		44	221.6	
1/4		48	2212	
C		58	2202	
1/4		59	220.1	

N		66	219.4
E		84	217.6
+15		11.3	214.7
		45' No.	
-25		19.1	206.9
-10		17.3	208.7
E		14.4	211.6
cb		7.2	218.8
1/4		7.2	218.8
C		6.5	219.5
1/4		5.1	220.9
cb		4.6	221.4
W		4.5	221.5
		35' No.	
W		5.0	221.0
cb		5.4	220.6
1/4		5.7	220.3
C		7.1	218.9
1/4		7.8	218.2
cb		8.0	218.0
E		8.9	217.1
+10		9.8	216.2 = <sup>edge of yard</sup> <sub>front of house</sub>
		75' No.	
E		8.4	217.6
cb		7.7	218.3

	225.96		
	226.0		
1/4		7.5	218.5
C		6.5	219.5
1/4		6.3	219.7
cb		5.9	220.1
W	89' No. = ctr. of cement walk to house on East. = 7.9	5.2	220.8
	100' No.		
W		5.1	220.9
cb		5.5	220.5
1/4		5.8	220.2
C		6.1	219.9
1/4		7.0	219.0
cb		7.6	218.4
E		8.0	218.0
+4 = fence line	elevation ground = 8.0		218.0
	125' No.		
-4 = fence line		6.7	219.3
E		6.5	219.5
cb		6.1	219.9
1/4		5.7	220.3
C		5.0	221.0
1/4		4.8	221.2
cb		4.6	221.4
W		4.1	221.9
	150' No.		
W		2.8	223.2
cb		3.3	222.7

1/4			3.0	223.0
C			2.8	223.2
1/4			3.5	222.5
cb			3.7	222.3
E			4.2	221.8
+4 = fence line			4.7	221.3
	175' No.			
-4.3 = fence line			2.8	223.2
E			2.3	223.7
cb			2.0	224.0
1/4			1.5	224.5
C			0.3	225.7
T.P.	224	227.93	5.27	225.69
1/4			2.6	225.3
cb			2.5	225.4
W			2.1	225.8
	200' No.			
W			1.0	226.9
cb			1.4	226.5
1/4			1.3	226.6
C			1.5	226.4
1/4			2.6	225.3
cb			3.4	224.5
E			4.5	223.4
+10			5.7	222.2

227.93 28

225' No

-10	7.3	220.6
E	5.8	222.1
cb	4.6	223.3
1/4	3.8	224.1
C	2.7	225.2
1/4	1.9	226.0
cb	1.4	226.5
W	1.2	226.7

230' No

W	2.9	225.0
cb	3.7	224.2
1/4	4.9	223.0
C	5.2	222.7
1/4	6.6	221.3
cb	7.6	220.3
E	8.3	219.6
+15	11.2	216.7

275' No

-15	16.3	211.6
E	14.1	213.8
cb	13.2	214.7
1/4	11.8	216.1
C	10.8	217.1
1/4	9.6	218.3
cb	8.5	219.4

69

W	7.2	220.7
+10	6.2	221.7

Posted. 4-27-16.

Falcon

Goldfinch

closed Hawk

16

Ibis

17

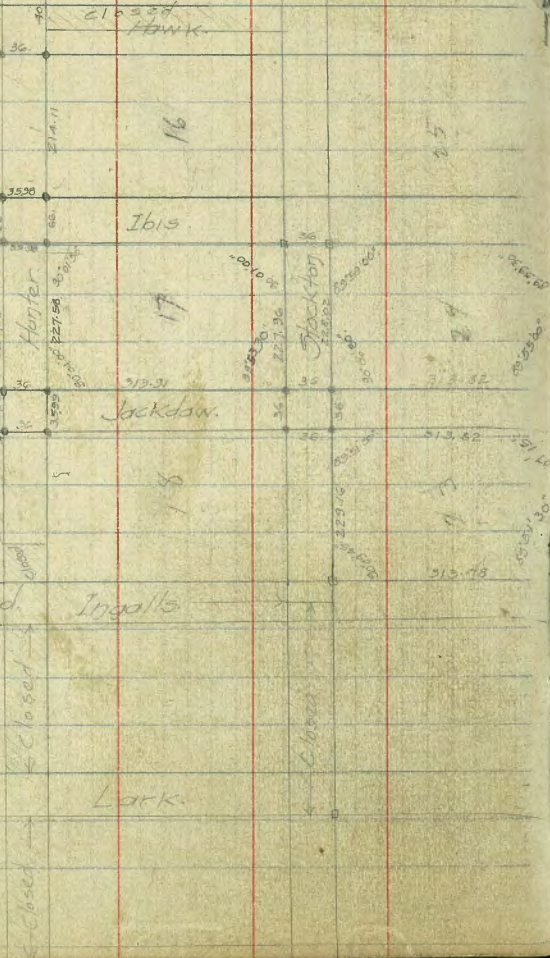
Jackdaw

18

Closed Ingalls

Lark

Bar



Falcon

Goldfinch

Hawk

Ibis

Jackdaw

Ingalls

Lark

36

2

1

39

80

47

16

45

4

3

42

96

64

55

56

57

58

59

67

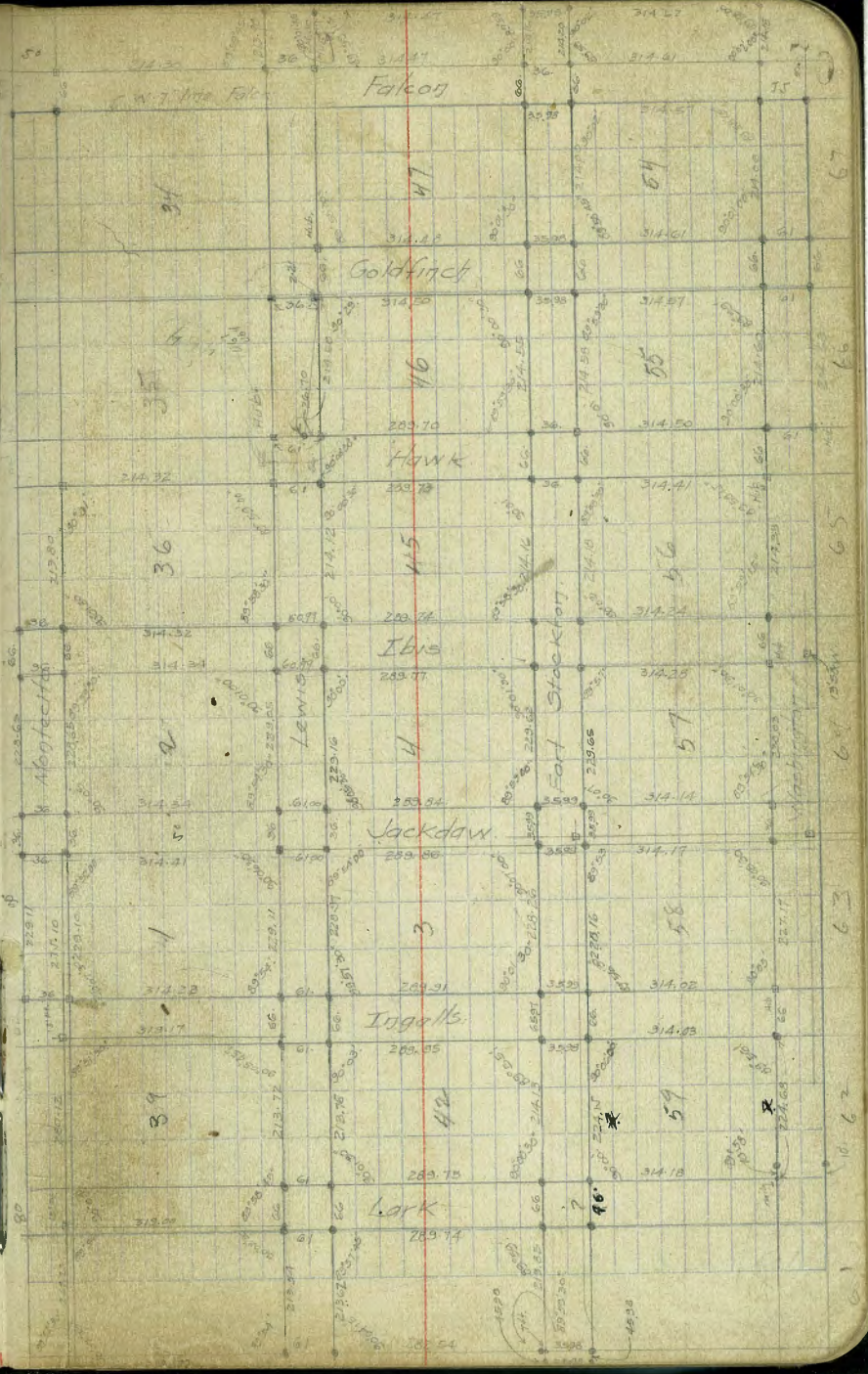
66

65

64

63

62



Posted 4-27-16.

74

Bart.

Hwyer.

Cloud

20

21

Stockton

4

3

Monticello

5

6

10

Lewis

8

7

Stephens

Calhoun

Randolf

Lark

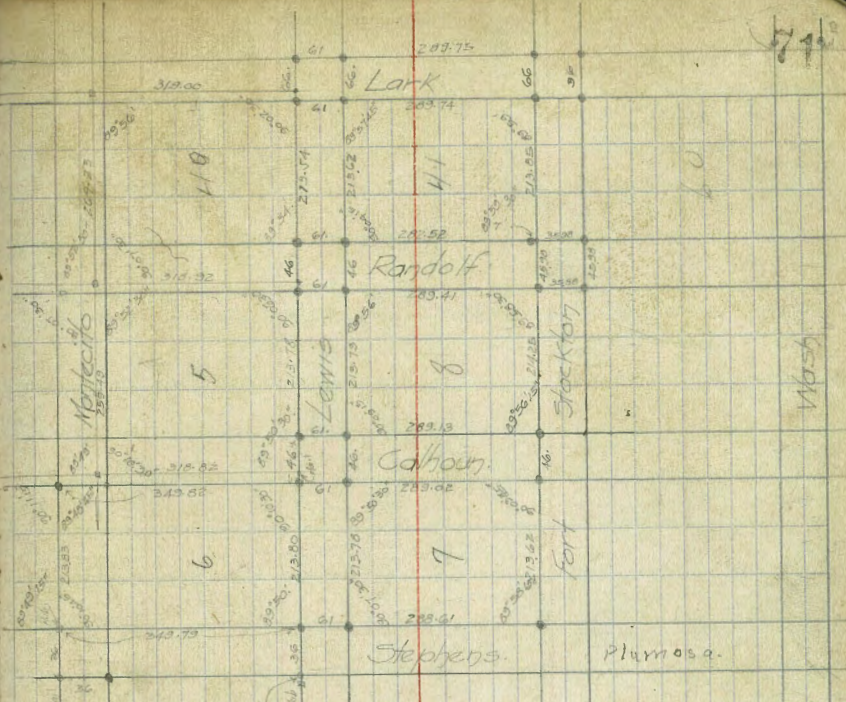
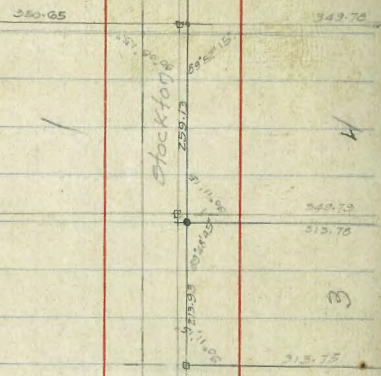
Fort

Stockton

Plumosa

Wash

Indexed  
1/17/19 KAL



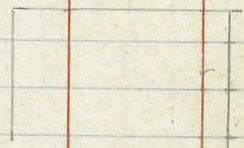


July  
July  
July

Hunter



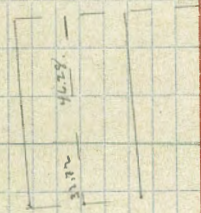
plumosa



plumosa

Randolph

125'  
way



Cross Section Alley Block 21 Re. Sub.  
 of Blocks K + L Toralta  
 Orange Ave to El Cajon Ave Bet 43rd & Fairmount  
 Levels next page

Sept. 18-46

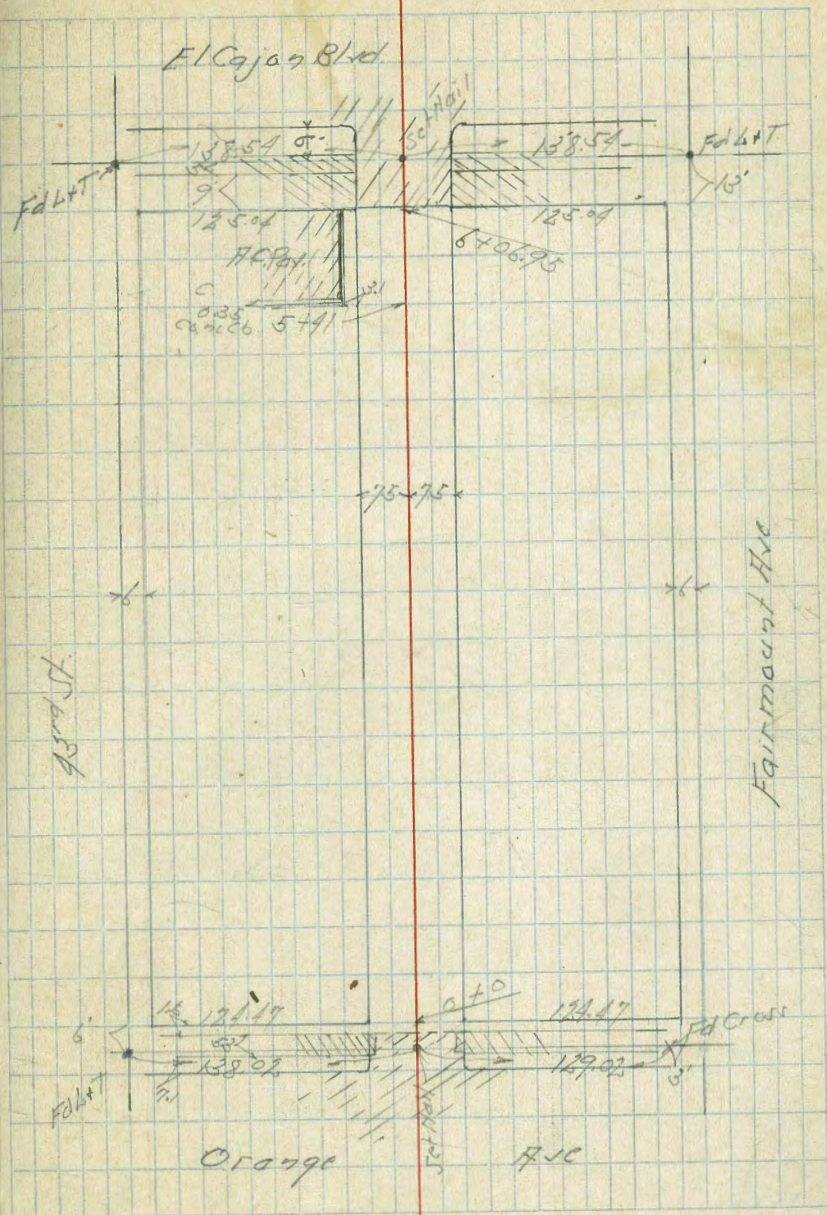
H. Sisson  
 McCay  
 Haddel  
 Allen

No. 230

Note: - Benchmarks between Orange 43rd  
 + El Cajon + Fairmount Do not check

Indexed  
 c. s. k.

73



Cross Section Alley Block 21 R+L Sub.  
of Blocks K+L Terolito  
Sketch Page 73

144

129

120

107 72 Rt of  $\frac{1}{2}$  = S/Ly Lot's Fence

105

0+01' 73 Lt of  $\frac{1}{2}$  = S/Ly Lot's Fence

0-016 = N Edge Walk R+L = H/Ly Paving

0-14 = N Ch line of original Arc

B.M.

342

364.43

361.01

111 BP  
Original  
Asst

Lt = W

R

Rt = F

74

61.8  
2.6  
7.5

60.8  
3.6  
7.5

60.9  
3.5

60.8  
2.6  
7.5

60.11  
4.26  
9.6 = H/Ly Conc  
Walk

61.7  
2.7  
7.5

61.0  
3.5  
7.5

61.0  
3.4

60.7  
2.7  
7.5

60.0  
4.26  
9.6 = H/Ly Conc  
Walk

61.1  
2.6  
7.5

60.2  
3.5  
7.5

60.1  
3.5

60.0  
2.6  
7.5

60.3  
4.26  
9.6 = H/Ly Conc  
Walk

59.80

4.65  
7.2 = H/Ly Conc  
Walk

59.61  
4.81

59.23

4.75  
8 = cb

59.08

5.35  
8 = gutter

59.01  
5.36

59.77

4.65  
7.2 = H/Ly Conc  
Walk

58.97

5.46  
8 = gutter

4.83  
8 = cb

364.13

+80 7.6 Rt of  $\frac{1}{2}$  = Wly Wire + Board Fence  
 +85 7.5 W of  $\frac{1}{2}$  = Wly Board Fence  
 +20  
 +89 8' Rt of  $\frac{1}{2}$  = Wly Wire + Board Fence  
 +81  
 +74  
 +68 7.7 W of  $\frac{1}{2}$  = Wly Poxter Pole Also Wly Lath Fence  
 +61  
 0 + 46 7.6 Rt of  $\frac{1}{2}$  = Wly Lath Fence

364.43

69.65	69.65	59.5	60.1	60.9
156	47.4 = Wly Conc H. Iron	59.5	60.1	60.9
142 = Wly A. Car. Gar. Conc. Floor	47.4 = Wly Conc H. Iron	49	49.5	50.5
59.99	5.65 = Wly Conc H. Iron	49	49.5	50.5
444	45 = Wly Conc H. Iron	49	49.5	50.5
142 = Wly A. Car. Gar. Conc. Floor	45 = Wly Conc H. Iron	49	49.5	50.5
10.12	47.4 = Wly Conc H. Iron	49	49.5	50.5
131 = Wly A. Car. Gar. Conc. Floor	47.4 = Wly Conc H. Iron	49	49.5	50.5
146	47.4 = Wly Conc H. Iron	49	49.5	50.5
60.8	60.2	60.2	60.2	60.2
36.75	47.4	49	49.5	50.5
60.2	60.2	60.2	60.2	60.2
49.75	49.75	49.75	49.75	49.75
60.21	60.21	60.21	60.21	60.21
43.3	43.3	43.3	43.3	43.3
76 = Wly Conc H. Iron	76 = Wly Conc H. Iron	76 = Wly Conc H. Iron	76 = Wly Conc H. Iron	76 = Wly Conc H. Iron

364.43

+52

8.1 Rt of 1/2 = Sly Bldg  
8.8 Rt of 1/2 = Nly Board Fence

+50

+37

+12

TP 3.70 361.06 7.07 357.36

+10

7.9 Rt of 1/2 = Nly Wire Fence 8.4 Rt = Sly Board fence  
7.1 Lt of 1/2 = Nly Power Pole 8.6 Lt of 1/2 = Nly Wire

+50

7.4 Lt of 1/2 = Nly Board Fence 9.2 Lt = Sly Wire Fence  
8.8 Rt of 1/2 = Sly Wire Fence

+39

364.43

Lt.

Rt.

Rt.

76

6.4  
20  
57.9

6.4  
20  
57.2

6.4  
20  
56.7

6.4  
20  
56.6

6.4  
20  
56.4

58.56  
18.8  
2.9  
58.47  
18.8  
2.9  
58.10  
18.8  
2.9  
58.12  
18.8  
2.9

361.06

6.4  
20  
58.7

6.4  
20  
58.2

6.4  
20  
57.7

6.4  
20  
57.8

6.4  
20  
57.3

6.4  
20  
59.0

6.4  
20  
58.6

6.4  
20  
59.0

6.4  
20  
59.06

6.4  
20  
59.32

6.4  
20  
59.06  
18.8  
2.9  
59.06

6.4  
20  
59.32  
18.8  
2.9  
59.32

364.43

+70 8.2 Rt of  $\frac{1}{2}$  Sky Board Fence

+65

+50

+27 8.7 Rt of  $\frac{1}{2}$  Sky Board Fence

+20

+10

+99 7.3 Lt of  $\frac{1}{2}$  Sky Porter Pole

+72

+70 8.4 Rt of  $\frac{1}{2}$  Sky Bldg. Sky Board Fence

2158

361.06

L

R

R

77

20.5 55.4

20.5 55.6

17 55.5

20.5 55.5

20.5 55.5

20.5 55.9

20.5 56.2

18 56.3

20.5 56.2

20.5 56.5

57.51

5.6 56.5  
17.4 = Sky Bldg.  
Cable Floor

57.14

5.6 56.5  
17.4 = Sky Bldg.  
Cable Floor

361.06

6.0 55.02

8.0 56.5 = 4 Cable  
Floor

5.0 55.50

5.0 56.5 = 4 Cable  
Floor

66 20.1 54.5	61 7.5 55.0	64 54.7	67 2.4 54.5	70 1.0 54.1
5.87 8.00 = Floor Conc 10.11 Fin				
	635 1.1 54.71		660 1.0 54.46	
	6.35 1.1 = Do Garage Conc Floor			
	580 1.7 = Do Garage Conc Floor			
	6.44 1.0 = Do Garage Conc Floor			
65 20 55.2	65 1.5 55.3	67 55.0	70 1.5 55.1	70 1.5 54.6

361.06

+50

+42

+35

+15

+07

+0

3799

7.31/10/15 Wly Post Pole 9.11/10/15 Wly Blvd. Fence

361.06

+41

TP 4.92 358.38 7.60 353.46

+37 8.1 Lt of  $\frac{1}{2}$  - 1/4 Bldg 79 Lt of  $\frac{1}{2}$  Sly wire fence Metal  
Pails

+19 8.1 Lt of  $\frac{1}{2}$  - Sly Bldg

+09

5#0 7.5 Lt of  $\frac{1}{2}$  = 1/4 Porcelain Pale

+92

+75

+62

361.06

Lt Lt Rt

54.98  
2.90  
3.90 = 540.35  
358.38

54.73

6.90  
7.00 = 1.00  
6.00 = 1.00  
Floor

54.8

7.5

53.8

7.5

53.6

7.5

53.6

7.5

53.6

7.5

54.94  
6.10  
19.00 = 1.00  
6.00 = 1.00  
Floor

54.2

7.5

53.9

7.5

53.8

7.5

53.8

7.5

54.31

6.75  
16.00 = 1.00  
6.00 = 1.00  
Floor

361.06



BM 4.64 360.97

NW BP  
0109914  
4328  
361.01

TP 5.88 365.65 2.53 359.73

TP 8.19 362.26 4.31 354.07

BM 6.17 352.21

S.W. BP  
F/Cajon  
Fairbairn  
352.03

6+26.95 = S.Cb Line F/Cajon Blvd

6+06.95 = S.L.F/Cajon Blvd

6+0 7.24 of 7 = Wly T&I Pole

+7.5

5+53

358.58

Lt.

+

Rt.

80

53.41	53.75	53.21	53.08	52.60	52.54	52.78
497 11-45.8V	463 11-03.5Cb	517 7.5-Cb	530 7.3-Gutter	578	584 7.5 pull	560 7.5-Cb + NW 50 ft 5.00-8.00
53.90	54.25	53.5	53.2	53.4	53.4	53.4
448 11-07.95 Pole	413 10.6-Cb	495 7.5	511 7.5	511	475 11-5 = Wly Blk	475 = S. NW Blk
54.30	54.67	53.6	53.3	53.6	53.6	54.27
408 11-07.95 Pole	371 10.6 = Top Cb	475 7.5	511	511	475 = S. NW Blk	475 = Door to Toilet on 2nd floor
				52.76	52.23	52.10
				51.98	52.55	

Water Grades Alley

Cuts

BM. B.P. NW. Cor. 4 <sup>th</sup> & Orange	361.0				
3.14	364.15				
0+00			359.8		Int. W. Gate (open)
0+50		3.8	360.4	360.2	3.7
1+00		4.2	360.0	359.3	4.2
1+50		5.1	359.1	358.4	4.2
2+00		6.0	358.2	357.4	4.3
2+50		7.3	356.9	356.4	4.0
3+00		7.9	356.3	355.6	4.2
T.P.	3.64	359.96	7.83	356.32	
3+50		4.3	355.7	355.0	4.2
4+00		4.8	355.2	354.5	4.2
4+50		5.6	354.4	353.9	4.0
5+00		6.3	353.7	353.1	3.8

Water Grades (Alley betw. Fairmount  
43 Yd)  
From Orange to El Cajon

5+50 359.96 6.3 353.7 353.2

6+00 6.8 353.2 352.8

T.P.#2 6.48 364.70 1.74 358.22

B.M 3.69 361.01

## KEITH'S RAILROAD CURVE TABLES.

Published by KEUFFEL & ESSER CO., New York.

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### HOW TO USE KEITH'S TABLES.

#### EXAMPLE.

Wanted a Curve with an Ext. of about 12 ft. Angle  
of Intersection or I. P.= $23^{\circ} 20'$  to the R. at Station  
542+72.

Ext. in Tab. IV opposite  $23^{\circ} 20'$ =120.87  
 $120.87+12=132.87$ . Say a  $10^{\circ}$  Curve.

Tan. in Tab. IV opp.  $23^{\circ} 20'$ =1188.1  
 $1188.1+10=1198.1$ .

Tab. V. correction for A.  $23^{\circ} 20'$  for a  $10^{\circ}$  Cur.=0.16  
 $1198.1+0.16=1198.26$ =corrected Tangent.

(If corrected Ext. is required find in same way)  
Ang.  $23^{\circ} 20'$ = $23.33^{\circ} + 10=33.33^{\circ}$ =L. C.

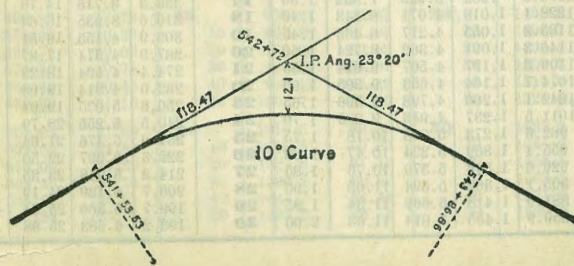
$2^{\circ} 19\frac{1}{2}'$ =def. for sta. 542	I. P.=sta. 542+72
$4^{\circ} 49\frac{1}{2}'$ = " " " +50	Tan.= 1.18.47
$7^{\circ} 19\frac{1}{2}'$ = " " " 543	B. C.=sta. 541+53.53
$9^{\circ} 49\frac{1}{2}'$ = " " " +50	L. C.= 2.33.33
$11^{\circ} 40'$ = " " " 543+	E. C.=sta. 543+86.86
86.86	

$100-53.53=46.47 \times 3'$  (def. for 1 ft. of  $10^{\circ}$  Cur.)= $139.41'$ =  
 $2^{\circ} 19\frac{1}{2}'$ =def. for sta. 542.

Def. for 50 ft.= $2^{\circ} 30'$  for a  $10^{\circ}$  Curve.

Def. for 36.86 ft.= $1^{\circ} 50\frac{1}{2}'$  for a  $10^{\circ}$  Curve

(These tables are published in Field Books of  
KEUFFEL & ESSER Co., New York, N. Y.)



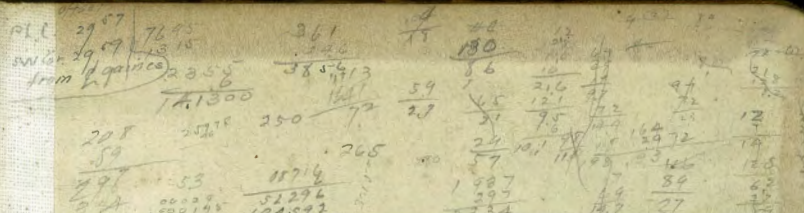
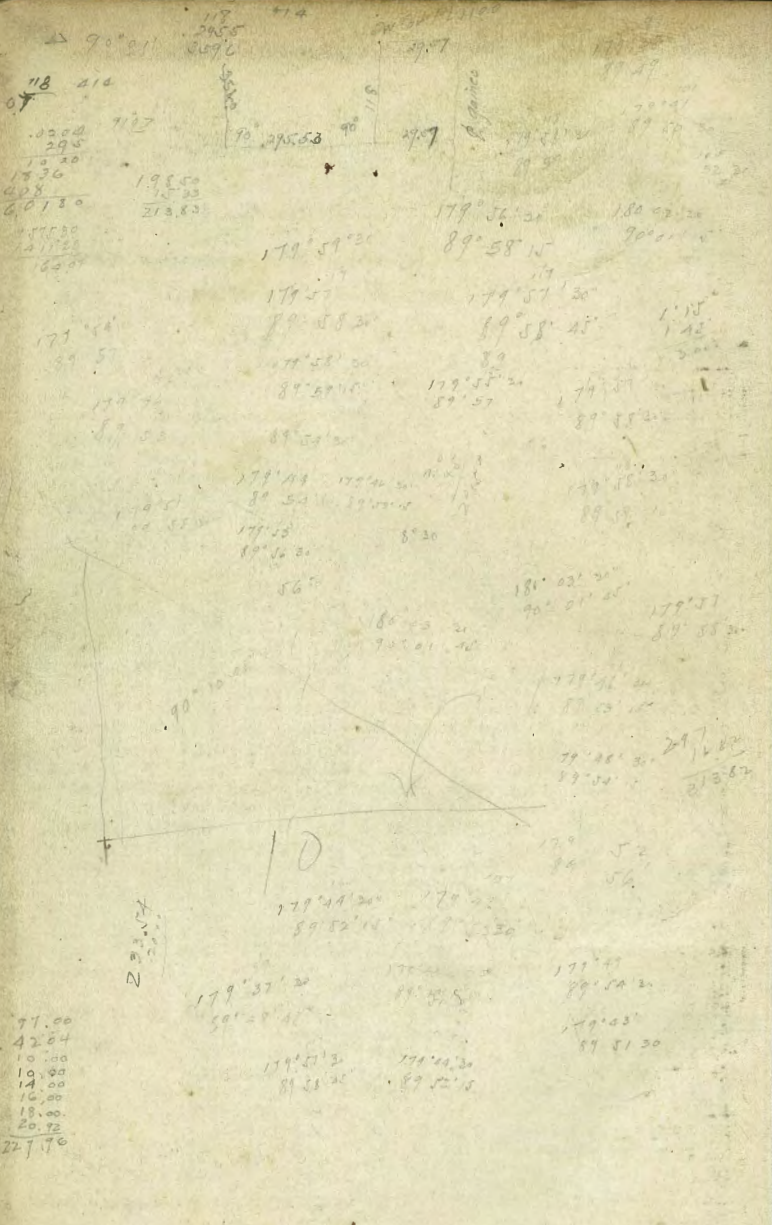
Natural Tangents

deg.	0'	10'	20'	30'	40'	50'	deg.	0'	10'	20'	30'	40'	50'	deg.	
0	0000	0029	0058	0087	0116	0145	89	40	8391	8441	8491	8541	8591	8642	49
1	0175	0204	0233	0262	0291	0320	88	41	8693	8744	8796	8847	8899	8952	48
2	0349	0378	0407	0437	0466	0495	87	42	9004	9057	9110	9163	9217	9271	47
3	0524	0553	0582	0612	0641	0670	86	43	9325	9380	9435	9490	9545	9601	46
4	0699	0729	0758	0787	0816	0846	85	44	9657	9713	9770	9827	9884	9942	45
5	0875	0904	0934	0963	0992	1022	84	45	1.0000	1.0058	1.0117	1.0176	1.0235	1.0295	44
6	1051	1080	1110	1139	1169	1198	83	46	1.0355	1.0416	1.0477	1.0533	1.0599	1.0661	43
7	1228	1257	1287	1317	1346	1376	82	47	1.0724	1.0786	1.0850	1.0913	1.0977	1.1041	42
8	1405	1435	1465	1495	1524	1554	81	48	1.1106	1.1171	1.1237	1.1303	1.1369	1.1436	41
9	1582	1614	1644	1673	1703	1733	80	49	1.1504	1.1571	1.1640	1.1708	1.1778	1.1847	40
10	1763	1793	1823	1853	1883	1914	79	50	1.1918	1.1988	1.2059	1.2131	1.2203	1.2276	39
11	1944	1974	2004	2035	2065	2095	78	51	1.2349	1.2423	1.2497	1.2572	1.2647	1.2723	38
12	2126	2156	2186	2217	2247	2278	77	52	1.2799	1.2876	1.2954	1.3032	1.3111	1.3190	37
13	2309	2339	2370	2401	2432	2462	76	53	1.3270	1.3351	1.3432	1.3514	1.3597	1.3680	36
14	2493	2524	2555	2586	2617	2648	75	54	1.3764	1.3848	1.3934	1.4019	1.4106	1.4193	35
15	2679	2711	2742	2773	2805	2836	74	55	1.4281	1.4370	1.4460	1.4550	1.4641	1.4733	34
16	2867	2899	2931	2962	2994	3026	73	56	1.4826	1.4919	1.5013	1.5108	1.5204	1.5301	33
17	3057	3089	3121	3153	3185	3217	72	57	1.5399	1.5497	1.5597	1.5697	1.5798	1.5900	32
18	3249	3281	3314	3346	3378	3411	71	58	1.6003	1.6107	1.6212	1.6319	1.6426	1.6534	31
19	3443	3476	3508	3541	3574	3607	70	59	1.6643	1.6753	1.6864	1.6977	1.7090	1.7205	30
20	3640	3673	3706	3739	3772	3805	69	60	1.7321	1.7437	1.7556	1.7675	1.7797	1.7917	29
21	3839	3872	3906	3939	3973	4006	68	61	1.8040	1.8165	1.8291	1.8418	1.8546	1.8676	28
22	4040	4074	4108	4142	4176	4210	67	62	1.8807	1.8940	1.9074	1.9210	1.9347	1.9486	27
23	4245	4279	4314	4348	4383	4417	66	63	1.9626	1.9768	1.9912	2.0057	2.0204	2.0353	26
24	4452	4487	4522	4557	4592	4628	65	64	2.0503	2.0655	2.0809	2.0965	2.1123	2.1283	25
25	4663	4699	4734	4770	4806	4841	64	65	2.1445	2.1609	2.1775	2.1943	2.2113	2.2286	24
26	4877	4913	4950	4986	5022	5059	63	66	2.2460	2.2637	2.2817	2.2998	2.3183	2.3369	23
27	5095	5132	5169	5206	5243	5280	62	67	2.3559	2.3750	2.3945	2.4142	2.4342	2.4545	22
28	5317	5354	5392	5430	5467	5505	61	68	2.4751	2.4960	2.5172	2.5386	2.5605	2.5826	21
29	5543	5581	5619	5658	5696	5735	60	69	2.6051	2.6279	2.6511	2.6746	2.6985	2.7228	20
30	5774	5812	5851	5890	5930	5969	59	70	2.7475	2.7725	2.7980	2.8239	2.8502	2.8770	19
31	6009	6048	6088	6128	6168	6208	58	71	2.9042	2.9310	2.9600	2.9887	3.0178	3.0475	18
32	6249	6289	6330	6371	6412	6453	57	72	3.0777	3.1084	3.1397	3.1716	3.2041	3.2371	17
33	6494	6536	6577	6619	6661	6703	56	73	3.2709	3.3052	3.3402	3.3759	3.4124	3.4495	16
34	6745	6787	6830	6873	6916	6959	55	74	3.4874	3.5261	3.5656	3.6059	3.6470	3.6891	15
35	7002	7046	7089	7133	7177	7221	54	75	3.7321	3.7760	3.8208	3.8657	3.9136	3.9617	14
36	7265	7310	7355	7400	7445	7490	53	76	4.0108	4.0611	4.1126	4.1653	4.2193	4.2747	13
37	7536	7581	7627	7673	7720	7766	52	77	4.3315	4.3897	4.4494	4.5107	4.5736	4.6382	12
38	7813	7860	7907	7954	8002	8050	51	78	4.7046	4.7729	4.8430	4.9152	4.9894	5.0658	11
39	8098	8146	8195	8243	8292	8342	50	79	5.1446	5.2257	5.3093	5.3955	5.4845	5.5764	10

deg.	60'	80'	40'	30'	20'	10'	deg.	60'	80'	40'	30'	20'	10'	deg.
80	5.6713	5.7694	5.8708	5.9758	6.0844	6.1970	9	5.6713	5.7694	5.8708	5.9758	6.0844	6.1970	9
81	6.3138	6.4348	6.5606	6.6912	6.8269	6.9682	8	6.3138	6.4348	6.5606	6.6912	6.8269	6.9682	8
82	7.1154	7.2687	7.4287	7.5958	7.7704	7.9530	7	7.1154	7.2687	7.4287	7.5958	7.7704	7.9530	7
83	8.1443	8.3450	8.5555	8.7769	9.0098	9.2553	6	8.1443	8.3450	8.5555	8.7769	9.0098	9.2553	6
84	9.5144	9.7882	10.078	10.385	10.711	11.059	5	9.5144	9.7882	10.078	10.385	10.711	11.059	5
85	11.430	11.826	12.250	12.706	13.197	13.727	4	11.430	11.826	12.250	12.706	13.197	13.727	4
86	14.300	14.924	15.605	16.350	17.169	18.075	3	14.300	14.924	15.605	16.350	17.169	18.075	3
87	19.081	20.206	21.470	22.903	24.542	26.432	2	19.081	20.206	21.470	22.903	24.542	26.432	2
88	28.636	31.242	34.368	38.189	42.964	49.104	1	28.636	31.242	34.368	38.189	42.964	49.104	1
89	57.290	68.750	85.940	114.588	171.885	343.770	0	57.290	68.750	85.940	114.588	171.885	343.770	0

Natural Cotangents

314.50  
2.21  
316.71  
14.00  
302.71 (25.226  
24  
67  
61  
27  
21  
31  
24  
71  
100.903  
67  
67.6049



**DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.**

ROADWAY 14 FEET WIDE. SIDE SLOPES  $1\frac{1}{2}$  TO 1.

FOR SINGLE TRACK EMBANKMENT.

	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

MADE IN GERMANY.

20653  
107  
23624  
26597  
26597  
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