

1587

DECEMBER

EXERCISES

1887



# EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and  
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning  
Roadway 16 feet wide. Side Slopes 1 on 1.  
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be  $30.6 - (20 - 16) \div 2$  or 2 ft. added to  $30.6 = 32.6$ . For slopes of 1 on 1½ see inside of back cover.

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# 1587

ENGINEERING DEPARTMENT  
CITY OF SAN DIEGO,  
CALIFORNIA.

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Made in U. S. A.



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to be  
of road  
examp  
30.6 =

Cross Section DATE St. Bancroft to 32nd 2-3

" " 32nd St. Cedar to Elm 4-13

" " Sketch - Page 9 & 10

BM Jefferson-Hancock-Moore-Kurtz-Rosecrans -14

Cross Sections KURTZ Rosecrans to Greenwood 15-23

" " sketch page 24

" " HANCOCK Rosecrans - West 25-33

" " MOORE Rosecrans to Greenwood 34-37

" " JEFFERSON " " 38-41

" " GAINES Kurtz-Jefferson 42-46

" " RILEY " " 47-51

" " GREENWOOD " " 52-55

" " SHERMAN " - North 56-58

" " SAN DIEGO Ave. Trias La Jolla Ave 59-67

" " Newell ST. Evergreen to Willow 68-73

" " Alley Blk 144 SOL & TCG 74-79







Walker.  
Bliss  
Hale  
9-7-40

CROSS SECTIONS 75' / 45.  
DATE Street Roadway = 30' bet. cbs.

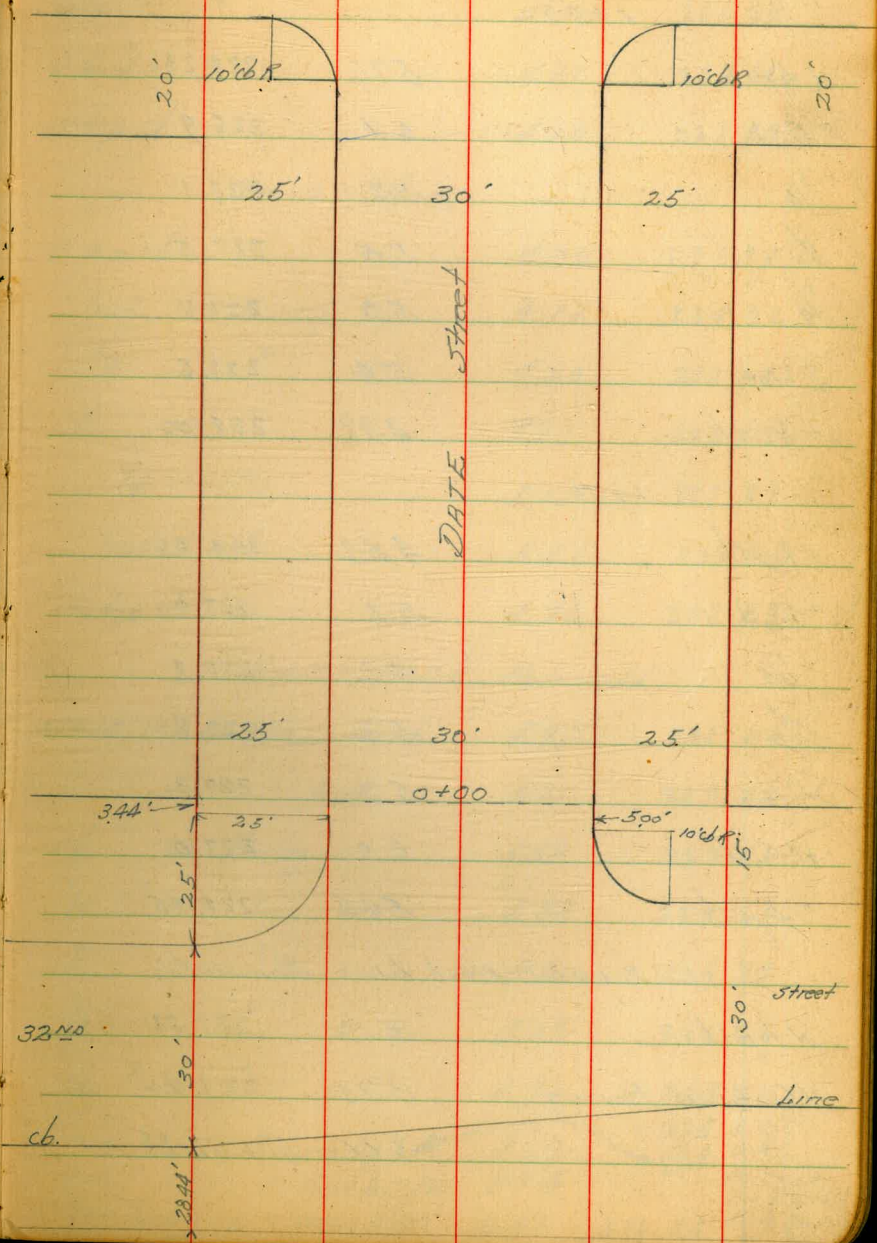
From Bancroft to 32nd Street

	12.31	243.78'	231.47	230.85	N.E. 8 P. Cedar 4 32nd St
T.P.	0.65	231.50'	1293	230.85	
T.P.	6.41	232.99	4.92	226.58	N.E. 7' Arch Date + 32nd.
0+00 = East Line 32nd					
n top cb.		6.46		226.53	5'
" Gut		7.1		225.9	
1/4		6.6		226.4	
1/2		6.4		226.6	
3/4		6.3		226.7	
Gut		6.4		226.6	
s top cb.		5.93		227.06	0V
0+50					
s top cb.		5.47		227.52	
s Gut		6.0		227.0	
1/4		5.9		227.1	
1/2		5.9		227.1	
3/4		6.4		226.6	
n Gut.		6.8		226.2	
n top		6.11		226.88	

Red. Plot 9-11-40  
on Profile # 234 EB Hough

BANCROFT

Street





23299

Date of

1+00

N top cb.	5.76	227.23
" Gut.	6.1	226.9
" 1/4	5.9	227.1
L	5.5	227.5
1/4	5.3	227.7
S Gut.	5.4	227.6
S top cb.	4.99	228.00

1+50

S top cb.	4.53	228.46
" Gut.	5.1	227.9
" 1/4	5.2	227.8
L	5.2	227.8
N 1/4	5.7	227.3
N Gut.	6.0	227.0
" top cb.	5.44	227.55

2+00 = West line Bancroft

N top cb.	5.10	227.89
N Gut. on Pacing	5.75	227.24
	5.11	227.88

23299

Date of

3

L on Pacing	4.77	228.22
S 1/4 "	4.70	228.29
S Gut.	4.99	228.00
S top cb.	4.10	228.89

2+10 = cb BC

S top cb.	4.00	228.99
" Gut. on Pacing	4.77	228.22
" 1/4 " "	4.80	228.19
L " "	4.92	228.07
N 1/4 " "	5.17	227.82
" Gut " "	5.51	227.48
N top cb.	4.96	228.03

2+20 = N/C Bancroft

N+15' = cb BC Return top cb.	4.95	228.04
" " " " Gut.	5.75	227.24
cb. on Pacing	5.58	227.41
1/4 " "	5.38	227.61
L " "	5.20	227.79
1/4 " "	5.03	227.96
cb " "	4.90	228.09
+10' = cb BC Return top cb.	4.69	228.30
+10' " " " Gut on Pacing	3.94	229.05
Cap. back NE 7' Date 32.25	6.41	226.58

for check  
See 32nd  
St X-Section  
p. 9



Walker  
Bliss  
Isbell  
Hale  
9-10-40

CROSS SECTION 32ND ST. ROADWAY,  
FROM CEDAR TO ELMI ST. 7.5' 1/4 J

See sketch Page 9

	NEBP CEDAR + 32ND	
10.91 242.38	231.47	
5' East cb BC		
= E. Prop line 32nd on cb.	10.87	231.51
" " " " Pav.	11.49	230.89
5' West of EL.		
= cb BC Return top cb.	10.95	231.43
" " " " Paving	11.52	230.86
E cb 32nd "	11.66	230.72
" 1/4 " "	11.67	230.71
" " " "	11.77	230.61
W 1/4 " "	11.86	230.52
" cb. " "	11.97	230.41
BC. cb Ret. top cb pav	12.10	230.28
" " " " Paving do	11.40	230.98
cb B.C. + 10.5 on Pav.	12.60	229.78
" " " " cb.	11.87	230.51

SECTION B

W top cb.	11.30	231.08
Gut on Paving	11.77	230.61
1/4 " "	11.20	231.18

INDEXED

242.38

4

EPB		
E on Paving	10.80	231.58
" " "	10.80	231.58
E Gut. " "	11.07	231.31
E top cb	10.33	232.05
	0 + 10 = N line CEDAR on East	
E top cb	10.33	232.05
" Gut.	11.07	231.31
1/4	10.3	232.1
1/4	10.6	231.8
1/4	10.7	231.7
Gut.	10.8	231.6
W top cb	10.20	232.18
	0 + 30 = P.V.C.	
N top cb	6.69	235.69
" Gut.	7.5	234.9
1/4	7.8	235.1
1/4	7.2	235.2
1/4	7.3	235.1
E Gut.	7.4	235.0
E top cb	6.78	235.60

Notes Red. 1 Plot of  
Profile # 1610 BRK



	242.38	3240 54
0 +50 = Break in cb.		
E top cb.	4.65	237.73
" Gut.	5.3	237.1
" 1/2	5.1	237.3
1/4	4.9	237.5
W 1/4	5.1	237.3
" Gut.	5.6	236.8
" top cb.	4.51	237.87
0 +70		
" top cb.	2.78	239.60
Gut.	3.6	238.8
1/4	3.3	239.1
1/2	3.0	239.4
1/2	3.2	239.2
Gut.	3.5	238.9
top cb.	2.72	239.66
0 +90		
E Gut. in Drive	2.0	240.4
1/2	1.9	240.5
1/2	1.6	240.8
1/4	1.9	240.5

	242.38	3240 54
W Gut.	2.3	240.1
" top cb.	1.38	241.00
1 +10		
W top cb.	0.45	241.93
" Gut.	1.2	241.2
" 1/4	0.8	241.6
1/2	0.6	241.8
E 1/4	0.9	241.5
" Gut.	1.0	241.4
" top cb.	0.48	241.90
TP	2.58	244.56
0.40		241.98
1 +30		
E top cb. in Drive		
" Gut.	2.7	241.9
" 1/4	2.4	242.2
1/2	2.1	242.5
1/4	2.4	242.2
W Gut.	2.7	241.9
" top cb.	2.07	242.49
1 +50		
W top cb.	1.95	242.61



	24456	3210	57
W Guts		2.6	242.0
" 1/4		2.2	242.4
" 1/2		2.1	242.5
" 1/4		2.3	242.3
Guts		2.4	242.2
E top cb.		1.93	242.63
	1+70		
E top cb.		2.23	242.33
" Guts		2.8	241.8
" 1/4		2.6	242.0
" 1/2		2.5	242.1
" 1/4		2.6	242.0
W Guts		2.8	241.8
" top cb.		2.17	242.39
	1+90		
W top cb.		2.90	241.86
" Guts		3.7	240.9
" 1/4		3.4	241.2
" 1/2		3.2	241.4
" 1/4		3.4	241.2
E Guts		3.6	241.0
E top cb.		2.92	241.64

	24456	3210	57
		2+10	
E top cb.		4.06	240.50
" Guts		4.8	239.8
" 1/4		4.5	240.1
" 1/2		4.4	240.2
" 1/4		4.5	240.1
Guts in Drive Way		4.7	239.9
	2+30		
W top cb.		5.50	239.06
" Guts		6.4	238.2
" 1/4		6.1	238.5
" 1/2		6.0	238.6
E 1/4		6.1	238.5
E Guts in Drive Way		6.3	238.3
" " " " cb.		6.10	238.46
	2+50		
E top cb.		7.46	237.10
" Guts		8.2	236.4
" 1/4		8.1	236.5
" 1/2		8.0	236.6
" 1/4		8.2	236.4



	244.56	32 N D	St.
W Gut.	8.3	236.3	
" top cb.	7.41	237.15	
	2+70		
W top cb.	9.72	234.84	
" Gut.	10.6	234.0	
" 1/4	10.5	234.1	
ℓ	10.3	234.3	
4 1/4	10.5	234.1	
" Gut.	10.8	233.8	
W top cb.	9.98	234.58	
T.P.	0.37	231.95	12.98 231.58
2+98.3 = South edge Rim MH	108	230.87	Sever
3+00.5 = N " " "	114	230.81	
	3+00 = Δ in cb on West = Shino Date 10 E		
E top cb.	1.42	230.53	
" Gut.	2.4	229.6	
" 1/4	2.0	230.0	
+7.1	11.0	230.85	
ℓ	1.2	230.8	
1/4	1.7	230.3	
Gut.	1.7	230.3	
W top cb.	0.85	231.10	

	231.95	
	3+15 = B.C. cb Return	
W top cb.	2.38	229.57
" Gut.	3.3	228.7
1/4	3.3	228.7
ℓ	3.2	228.8
1/4	3.4	228.6
ℓ	4.1	227.9
+2.1 = Gut of cb.	4.1	227.9
" on top cb B.C. Ret	3.87	228.08
	South cb Date st.	
E. line 32 N D top cb.	4.93	227.02
E Gut.	5.3	226.7
+5' cb B.C. top cb.	4.95	227.00
" " " Gut.	5.0	227.0
+15'	5.0	227.0
cb.	4.8	227.2
1/4	4.3	227.7
ℓ	4.2	227.8
1/4	4.2	227.8
Gut.	4.2	227.8
W top cb.	3.36	228.59



23195

5 1/4

W top cb.	4.13	227.82
" Gut	5.0	227.0
1/4	4.8	227.2
1/2	4.8	227.2
1/10	4.9	227.1
cb.	5.0	227.0
E	5.3	226.7
1/2		
E	5.4	226.6
+21.2=cb.	5.5	226.5
1/4	5.5	226.5
1/2	5.5	226.5
1/10	5.6	226.4
cb	5.6	226.4
W top cb.	4.81	227.14
N 1/4		
W top cb.	5.58	226.37
" Gut	6.4	225.6
" 1/10	6.2	225.8
1/2	6.1	225.9

23195

89

E 1/4	6.1	225.9
" Gut = cb.	6.0	226.0
+226 = E.L.	5.8	226.2
N cb. Date		
E Line 32nd top cb.	5.44	226.51
" Gut.	6.1	225.9
+3.44 = cb. B.C. top cb.	5.46	226.49
" " " Gut.	6.1	225.9
+23.8 = cb.	6.6	225.4
1/4	6.7	225.3
1/2	6.8	225.2
1/4	7.0	225.0
W Gut	7.1	224.9
" top cb.	6.34	225.61
N.E. Return 5 Ports		
cb B.C.	5.46	226.49
Part # on cb.	5.51	226.44
" " Gut.	6.3	225.7
" 2 on cb.	6.01	225.94
" " Gut	6.7	225.3
" #3 " cb.	6.87	225.08
" #3 " Gut	7.5	224.5







219.51

0+90

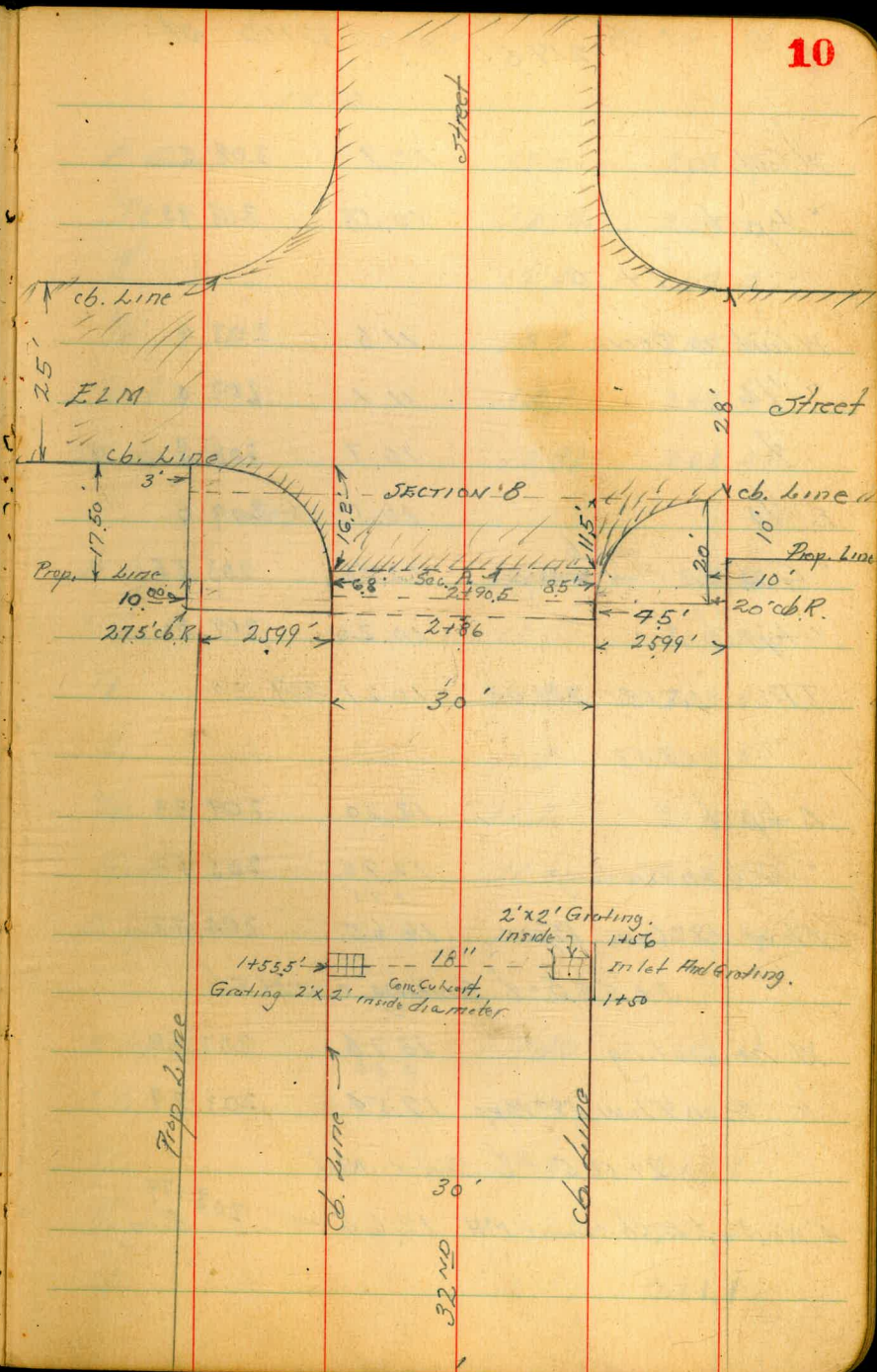
E. Gutch in Drive	7.2	212.3
" 1/4	7.6	211.9
2/4	7.6	211.9
3/4	7.8	211.7
W. Gutch	8.1	211.4
" top cb.	7.52	211.99

1+10

W top cb.	9.26	210.25
" Gutch	9.9	209.6
" 1/4	9.5	210.0
2/4	9.3	210.2
E 3/4	9.1	210.4
" Gutch	9.0	210.5
" top cb.	8.59	210.92

1+30

E. Gutch in Drive	10.2	209.3
" 1/4	10.1	209.4
2/4	10.2	209.3
3/4	10.6	208.9





219.51

32ND ST

W Gut 10.9 208.6

" top cb 10.58 208.93

1+50

W Gut in Drive 11.6 207.9

" 1/4 11.1 208.4

1/2 10.7 208.8

E 1/4 10.5 209.0

" Gut on Flow Grating<sup>cb</sup> 10.96 208.55

" top cb 10.20 209.31

T.P. 12.13 221.43 10.21 209.30

1+53

E top cb 12.10 209.33

" Gut on Grating 12.90 208.53

Flow 18" Conc. Pipe 16.65 204.78

1+55.5 = 1/2 Grating on W cb.

W on Grating 13.74 207.69

" " on Flow 18" Pipe 17.54 203.89

1+56.5 = 1/2 Sewer MH,

4' West of E cb = Sewer MH 12.64 — 208.79  
Burr.

221.43

32ND ST

11

1+70

E Gut 12.5 208.9

1/4 12.2 209.2

1/2 12.4 209.0

1/4 12.9 208.5

Gut 13.1 208.3

W top cb 12.96 208.47

1+90

W top cb 11.60 209.53

" Gut 12.2 209.2

1/4 11.80 209.6

1/2 11.5 209.9

1/4 11.2 210.2

Gut 11.6 209.8

E top cb 11.12 210.31

2+10

E top cb 9.40 212.03

" Gut 10.1 211.3

1/4 9.8 211.6

1/2 9.9 211.5

1/4 10.3 211.1



	221.43	32ND ST.
W Gut.	10.7	210.7
W top cb.	10.21	211.22
	2.50	
W top cb.	6.05	215.38
" Gut.	6.9	214.5
" 1/4	6.2	215.2
" 1/2	6.0	215.4
" 1/4	5.8	215.6
E Gut.	6.1	215.3
E top cb.	5.46	215.97
	2.86 = B.C. cb Return 27.5' R on W	
E top cb.	1.83	219.60
Gut.	2.5	218.9
" 1/4	2.1	219.3
" 1/2	2.2	219.2
" 1/4	2.7	219.7
Gut.	3.1	218.3
W top cb.	2.37	219.06
	2.90.5 = B.C. 20' cb R on E	
cb - 0.4 on cb Ret	2.05	219.38
Gut.	2.8	218.6
cb.	2.8	218.6

	221.43	32ND ST.
" 1/2	2.3	219.1
" 1/2	2.0	219.4
" 1/4	1.9	219.5
E Gut.	2.1	219.3
" top cb. B.C. Ret.	1.41	220.07
	SECTION A	
E cb - 2.2' on cb Return	0.92	220.51
" " " Conc. Gutter	1.48	219.95
E Gut. on Pav.	1.43	220.00
" 1/4 " "	1.35	220.08
" " " "	1.42	220.01 ✓
" 1/4 " "	1.61	219.82
cb " "	1.97	219.46
+ 2.2' Gut on Pav. at Ret.	2.07	219.36
" - top cb Return	1.65	219.78
	SECTION B	
W cb - 15' on cb Return	1.35	219.08
" " " Gut at "	1.74	218.69
W cb - 7' on Pav	1.26	219.17
Gut " "	0.90	220.53
" 1/4	0.65	220.78
	Cont P. 11	



	221.43	32ND Jt	
L on Paving.		0.52	220.91
1/4 " "		0.42	221.01 K
cb. " "		0.40	221.03
+7 " "		0.39	221.04
T.P. 5.20	225.25	1.39	220.04
chk. S.F.B.P. Elm + 32ND		5.05	220.20

220.18 = B.M.  
0.02 = Error

K.C.B. + 20

= cb B.C. on Return 3.94  
" " " Paving. 3.45



Bench Marks Jefferson Moore Hancock  
+ Kurtz West of Rosacruz

BM	5.12	9.74		4.62	SEBP San Diego Hwy Rosacruz
TP	3.51	8.05	5.20	4.54	
BM			4.69	3.36 <sup>ok</sup>	on old 2 Mon Rosacruz & Jefferson
TP	4.03	8.46	3.62	4.43	
BM			5.28	3.18	2 Mon Jefferson Ed Greer road
BM	4.75	7.52	5.69	2.77	2 Mon Moore Riley
BM			5.10	2.42	2 Mon Hancock & Riley
BM	4.33	5.95	5.90	1.62	2 Mon Kurtz & Riley
TP	4.33	6.52	3.76	2.19	
BM	3.69	7.50	2.71	3.85 3.81	NE Hill Pole Rosacruz Kurtz 3.92
TP	5.04	8.89	3.65	3.85	
BM			5.57	3.22	old 2 Mon Rosacruz & Jefferson
TP	5.37	9.87	4.39	4.50	
BM			5.29	4.58	SEBP San Diego Hwy Rosacruz 4.62

Sept 25. 40  
S. 5507  
Northway  
H Moore



Kurtz S/Cross Section  
Rosecraws to Greenwood

50' wide

2+90 = Pole 20.5 R1Z

2+50

2+0

1+50

1+11 = 1/4 Bldg to N of H.L. = Board Fence

1+0

0+50

0+01 = Pole 21.1 R1Z = Fly Bldg to N of H.L.

0+0 = H.L. Rosecraws

B/M 4.30 5.92

1.62

to Map  
by Kurtz +  
Riley

INDEXED  
E.F.B.

S =

L

R

Sept 26-40

S. Riley

Hortman

M. R. T. W. Moore

15

1.3	1.2	0.6	1.1	0.4	1.2
4.6	4.7	5.3	4.8	5.5	4.7
35	25	18		12	25

1.7	1.5	0.9	1.2	1.2
1.2	1.1	5.0	4.7	4.7
35	25	16		25

2.5	2.2	1.4	1.8	2.6
3.4	3.7	4.5	4.1	3.3
35	25	19		25

2.1	1.9	1.9	2.5	3.1
3.8	4.0	4.0	3.4	2.8
35	25	20		25

2.3	1.7	1.6	2.0	2.3
3.1	1.6	4.2	3.9	3.6
35	25	10		25

1.6	1.7	1.9	2.6	2.4
4.3	4.4	4.0	3.3	3.5
40	25		20	25

5.92

Notes Reduced by C.B.H. 10-7-40  
Plotted - Bartlett 10-8-40



28

5+0

4+50

4+38 210 R1/2 - Talpojo ✓

4+0

3+19.94 - H.L. Gaines

3+24.94 = 1/2 Gaines

2+99.94 = F.L. Gaines - w/ly board fence on 2 sides

5.92

L1

L2

R1

1.7	2.2	1.8	1.3	1.8	1.4	1.6	1.8
4.2	3.7	4.1	4.6	4.1	4.5	4.3	4.1
4.5	3.5	4.7	4.5	4.1	4.0	3.5	4.5

2.0	2.0	1.9	1.4	1.8	2.0	2.5	2.2
3.9	3.9	4.0	4.5	4.1	3.9	3.4	3.7
4.5	3.5	4.7	4.5	4.1	3.8	3.5	4.5

1.9	1.8	1.5	1.1	1.7	1.7	2.1	2.4	2.3
4.0	4.1	4.4	4.8	4.2	4.3	3.8	3.5	3.6
4.5	3.5	4.8	4.6	4.2	4.3	3.8	3.5	4.5

1.9	1.9	1.7	0.9	1.4	1.2	1.6
4.0	4.0	4.2	5.0	4.5	4.7	4.3
4.5	3.5	4.8	4.6	4.5	4.7	4.3

1.4	1.4	1.6	1.0	1.2	1.1	2.0	2.0
4.5	4.5	4.3	4.9	4.7	4.8	3.9	3.9
4.5	3.5	4.8	4.6	4.7	4.8	3.9	3.9

0.5	1.1	0.8	1.1	1.2	1.7	1.1
5.4	4.2	5.1	4.8	4.7	4.7	4.2
4.5	3.5	4.6	4.8	4.7	4.7	4.2

5.92



Kentz St.

17

7+50

Lt		Z		Rt	
1.0	2.3	1.4	1.6	1.4	1.8
6.0	4.7	5.6	5.4	5.6	5.2
45	25	18	7	25	45

6+99.88 = H-L Riley

1.3	2.2	2.1	1.3	1.7	1.4	1.5
5.7	4.8	4.9	5.7	5.3	5.6	5.5
45	25	20	17	17	17	25

TP 5.84 6.96 430 162

696

6+74.88 = Z Riley

2.6	1.9	1.4	1.9	1.3	1.6
3.3	4.0	4.5	4.0	4.6	4.3
25	17	15	19	19	25

6+49.88 = FL Riley

1.6	2.2	1.6	1.4	1.6	1.2	1.7	1.7
4.3	3.7	4.3	4.5	4.3	4.7	4.2	4.2
45	25	18	15	15	19	25	25

6+0

1.5	2.1	1.3	1.5	1.2	1.6	2.0
4.4	3.8	4.6	4.4	4.7	4.3	3.9
45	25	15	15	15	25	45

5+50

1.3	2.2	1.2	1.6	1.3	1.6	1.7
4.6	3.7	4.7	4.3	4.6	4.3	4.3
45	25	15	15	15	25	45

5.92

5.92



B.M. 6.33 7.69 560 1.36

Mon & Korky  
FL Greenwood

9+9972 FL Greenwood

9+50

9+0

8+75

8+50

8+0

6.96

6+

7

PH

2.4	2.6	1.6	1.8	2.6	4.7	4.5
46	4.4	5.4	5.2	4.4	2.3	2.5
45	2.5	2.1		1.1	2.2	2.5

1.7	2.1	0.9	1.0	1.7	2.2	2.0	3.4	1.5	1.8
5.3	4.9	6.1	6.0	5.3	4.8	5.0	3.6	5.5	5.2
45	3.5	2.8	2.5	1.8		6.1	1.5	2.5	4.0

1.4	4.5	4.7	2.0	2.1	1.5	1.1	2.2	2.3
5.6	2.5	2.2	5.0	4.9	5.5	5.9	4.8	4.7
40	2.5	2.2	1.9		7.1	1.5	2.5	4.5

1.5	4.3	4.9	4.0	1.9	1.8	1.5	1.5	2.3	2.0
5.5	2.7	2.1	3.0	5.1	5.2	5.5	5.5	4.7	5.0
50	3.5	2.5	2.1	1.8		7.1	1.8	2.5	4.5

4.5	4.3	2.9	1.8	1.7	1.4	2.0	2.0	2.0
2.5	1.7	4.1	5.2	5.3	5.6	5.0	5.0	5.0
46	3.5	2.5	2.1		6.1	1.3	2.5	4.5

0.6	1.5	2.2	1.2	1.5	1.3	1.6	1.9
6.4	5.5	4.8	5.8	5.5	5.7	5.4	5.1
40	2.5	2.0	1.7		7.0	2.5	4.5

6.96



Kurtz St.

Sept. 30-40 19

12+50

	Lt	Z	RT
	3.2	3.2	2.1
	4.5	5.6	4.9
	3.5	2.2	5.
			3.4
			4.3
			3.0
			4.7
			3.5
			3.1
			4.6
			3.5

12+0

	Lt	Z	RT
	3.2	3.1	2.2
	4.5	4.6	5.5
	3.5	2.5	2.2
			2.8
			4.9
			2.8
			4.9
			2.5
			2.9
			4.8
			3.5

11+50

	Lt	Z	RT
	2.9	3.0	2.0
	4.8	4.7	5.7
	3.5	2.5	2.2
			2.4
			5.3
			2.7
			5.0
			2.5
			2.8
			4.9
			3.5

11+0

	Lt	Z	RT
	2.8	2.9	1.8
	4.9	4.8	5.9
	3.5	2.5	2.2
			1.7
			6.0
			5.6
			4.5
			5.0
			2.5
			2.5
			2.6
			5.1
			3.5

10+49.72 = Lt Greenwood

	Lt	Z	RT
	2.2	2.3	1.8
	5.5	5.4	5.9
	3.5	2.5	2.2
			1.7
			6.0
			2.7
			5.0
			2.5
			2.2
			5.5
			2.5

10+24.72 = Lt Greenwood

	Lt	Z	RT
	2.1	2.8	1.8
	5.6	4.9	5.9
	3.5	2.5	2.1
			1.8
			5.9
			2.4
			5.3
			2.5

7.69

7.69



15+ 14.45 E.L. Sherman

4.0	4.2	3.1	3.8	3.5
3.7	3.5	4.6	3.9	4.2
3.5	2.8	2.5		3.5

15+0

4.0	3.1	3.1	3.6	3.5	3.5
3.7	3.6	4.6	4.1	4.2	4.2
3.5	2.8	2.5		3.5	3.5

14+50

3.7	3.6	2.9	3.3	3.4	3.4	3.5
4.0	4.1	4.8	4.4	4.3	4.3	4.2
3.5	2.5	2.2	8		2.5	3.8

14+0

3.0	3.1	2.6	3.1	3.4	3.3
4.7	4.6	5.1	4.6	4.8	4.4
3.5	2.5	2.1		3.5	3.5

13+50

3.4	3.3	2.5	2.4	3.2	3.0	3.1
4.3	4.4	5.2	5.3	4.5	4.7	4.6
3.5	2.5	2.2	8		2.5	3.5

13+0

3.1	3.4	2.4	2.8	3.6	3.0	3.1
4.6	4.3	5.3	4.9	4.1	4.7	4.6
3.5	2.5	2.3	6		2.5	3.5

7.69

7.69



Kortz St.

17+88 = Wly Niro + Ely P. ch. of F. acc 26 Nov 52 ✓

17+50

17+09 = 14" Cypress Tree 28.6 Nov 52 ✓

17+0

16+65 = Ely Niro F. acc 26.5 Nov 52 ✓

16+50

16+0

TP 4.66 8.72 3.63 4.06

598 Hub  
Spor. meat  
Kurtz

15+64.42

15+39.42

7.69

2146 hooks  
2340 field

21

L	R	P
3.8	3.1	3.7
4.2	5.1	5.1
3.5	2.5	3.5

4.7	4.9	3.6	4.2	4.0	3.3	3.3
4.0	3.8	5.1	4.5	4.7	5.1	5.1
4.0	3.3	2.5	3.5	4.7	2.5	3.5

3.9	4.5	3.9	4.9	4.5	4.2	4.2
4.8	4.2	4.2	3.8	4.2	4.5	4.5
3.5	3.7	2.5	4.0	4.2	2.5	3.5

4.0	4.4	3.6	4.6	4.3	4.2
4.7	4.3	5.1	4.1	4.4	4.5
3.5	3.7	2.5		2.5	3.5

8.72

3.9	4.2	3.5	3.5	4.2	4.6	4.9
3.8	3.5	4.2	4.2	3.5	3.1	2.8
3.5	3.7	2.5	3.5		2.5	3.5

4.0	4.0	3.4	4.0	3.6
3.7	3.7	4.3	3.7	4.1
3.5	3.8	2.5		2.5

7.69



TP 5.01 7.96 5.77 2.95

20+0 = Wire Fence 24.5 N of SL ✓

19+50

19+11 = Fly Wire Fence 25 N of SL ✓

19+08 = Fly Board Fence 32.8 N of SL ✓

19+0

18+75 = Fly Board Fence 32.5 N of SL ✓

18+58 = Fly Picket Fence 28 N of SL ✓

18+50

18+44 = Tree 40.2 N of SL ✓ Tree 32.6 N of SL ✓

18+37 = 14" Tree 40.2 N of SL ✓

18+18 = 18" Tree 26.3 N of SL ✓

18+04 = 12" Tree 27 N of SL ✓

18+0

8.72

22

Lt

A

Rt

3.4	3.7	3.0	3.7	3.7	3.7
5.3	4.8	5.7	5.0	5.0	5.0
10	30	25		25	25

3.9	4.1	3.4	4.0	3.6	3.5
4.8	4.6	5.3	4.7	5.1	5.2
35	30	25		25	35

3.9	4.2	3.7	3.9	3.9	4.0
4.8	4.5	5.0	4.8	4.8	4.7
35	30	25		25	35

4.1	4.3	3.5	4.5	4.7	4.6
4.6	4.4	5.2	4.2	4.0	4.1
35	30	25		25	35

3.7	4.0	3.1	3.5	3.1	3.0
5.0	4.7	5.6	5.2	5.6	5.7
35	29	25		25	35

8.72



BM

4.37 3.57

Nail Pow Pole  
SW Cor Pl.  
277

21+76.46 = PL Line

21+52 = 3.4 Conc Walk on M

21+36 = Pepper Tree 21 N of S L ✓

21+34 = Cypress Tree 21 N of S L ✓

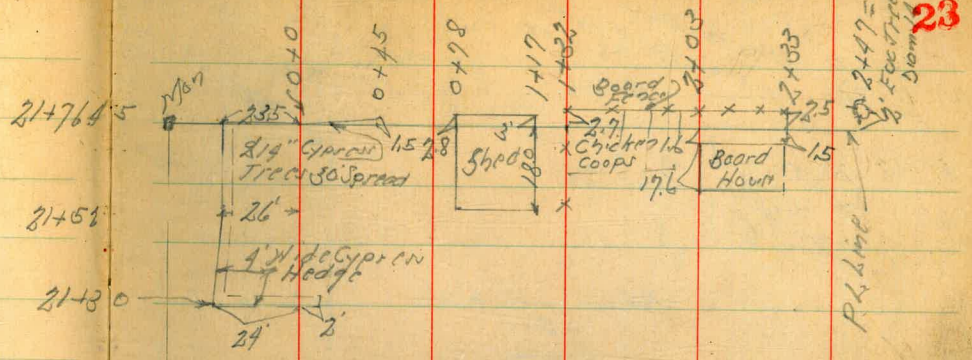
21+19 = 1/4 Wire Fence 241 N of S L ✓

21+0

20x55 = Paper Pole 52 S of S L ✓

20x50

7.96



Kentz	L1	L2	R1	R2
2.9	3.1	2.7	3.2	3.1
5.1	4.9	5.3	4.8	4.9
3.5	2.7	2.5		2.5
	3.1	2.8	3.21	3.15
	4.9	5.2	4.75	4.81
	3.5	2.5	67 Conc Walk	10 = Conc Walk
	3.0	3.0	3.2	3.2
	5.0	5.0	4.8	4.8
	3.5	2.5		3.5
	3.2	3.1	3.5	3.3
	4.8	4.9	4.5	4.7
	4.0	2.5		3.5

7.96



Kurtz - Sherman - Hancock

FD 9-20-56  
F.d. Mon. ok. 9/14/51 - CMB  
used - 3-21-56 J.C. Fair Bank  
471104

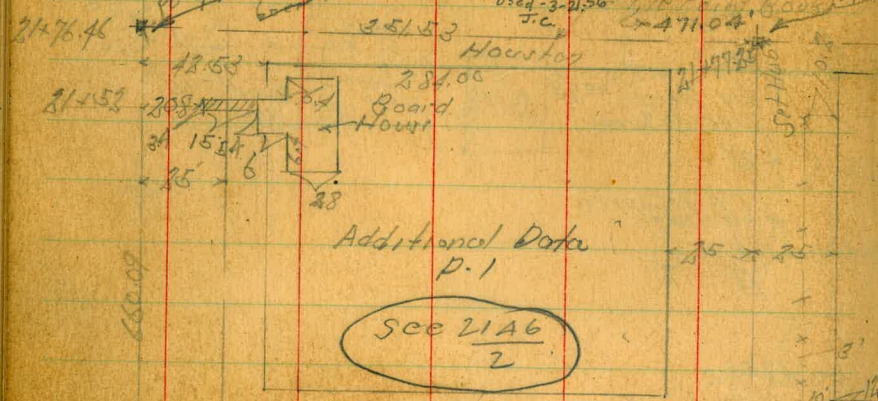
P.D. Mon 2/15/43

PL 276

PL 275

2481-B  
A409-B

24

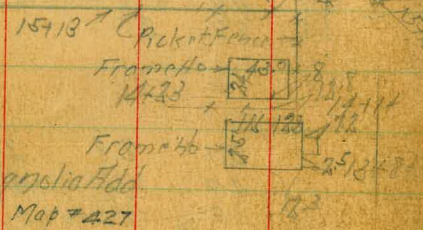


Additional Data P.1

SEE 2146 / 2

Sherman St

ON NELY of line  
C.H.S. #4158  
Disk in gutter  
15 in gutter. It is  
15473

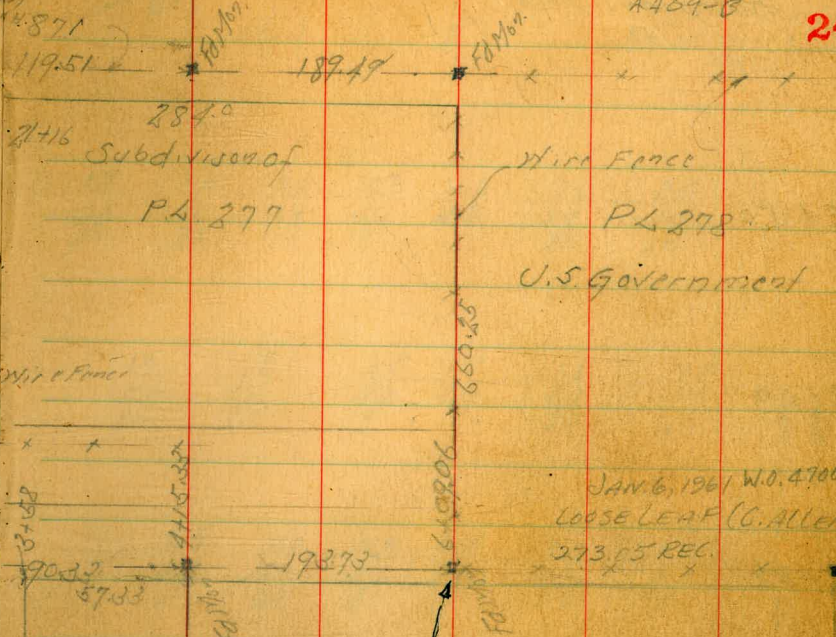


Magnaolia Bldg  
Map #427

2-10-54 FB 2375-12  
Fd. Conc. Mon 2' below  
with hole but no tack.  
set city disc.  
in gutter  
Walker

Greenwood

Note: Mon does  
not do either  
or angle  
not used  
3-20-56  
J.C.



Subdivision of

U.S. Government

JAN 6, 1961 W.O. 47008  
LOOSE LEAF (G. ALLEN)  
27315 REC.

THIS MONTIED OUT ON  
LOOSE LEAF NOTES  
116161 - WO # 47008 - ALLEN

P.L. 309

10-14-77  
SEE F.G. 871 / 69

2500  
2500

Hancock

153

145027

54



Cross Section Hancock St  
Riverside West

2+50

2+00

1+50

1+0

0+50

0+0 = H. Parsons

BM 4.98 7.40

2.12

7 Mo  
Hancock  
Rt. 11

INDEXED  
EPR

4+5

7

Oct 2 40  
Sutton  
Yorkboro  
Rt. 11 Moore  
Hall 25

1.7	2.4	2.6	2.3	2.6	2.6	2.5
5.3	5.0	4.8	5.1	4.8	4.8	4.9
40	35	35	30	35	35	40

1.9	1.8	2.5	1.7	1.6	1.7
5.5	5.6	4.9	5.7	5.8	5.7
40	35	35	35	35	40

2.9	2.4	2.3	2.5	3.1	3.2
4.5	5.0	5.1	4.9	4.3	4.2
40	35	35	35	35	40

2.3	2.1	2.0	2.3	2.3	2.2
5.1	5.3	5.1	5.1	5.1	5.1
30	35	35	35	35	40

2.7	2.1	2.2	2.9	2.8	2.9
4.7	5.3	5.2	4.5	4.6	4.5
40	35	35	35	35	40

3.3	2.7	2.5	3.2	3.7	3.7	3.6
4.1	4.7	4.9	4.2	3.7	3.7	3.8
40	35	4	6	6	25	40

7.40

Notes Reduced by C.M.H. 10-7-40  
Plotted by Bartlett 10-9-40



5+0

St.	Z	Rh.
2.7	2.4	2.1
4.7	5.0	5.3
4.0	2.5	2.0
2.5	2.3	2.5
4.9	5.1	4.9
4.6	4.7	4.7
	2.5	4.0

4+50

St.	Z	Rh.
2.7	2.6	2.3
4.7	4.8	5.1
4.0	2.5	2.0
2.6	2.4	2.7
4.8	5.0	4.7
4.1	4.6	4.8
	2.5	4.0

4+0

St.	Z	Rh.
2.8	2.8	2.3
4.6	4.6	5.1
4.0	2.5	2.1
2.6	2.4	2.8
4.8	5.0	4.6
4.1	4.1	3.0
	2.5	4.3

3+50 - W.L. Gains

St.	Z	Rh.
2.7	2.5	2.2
4.7	4.9	5.2
4.0	2.5	2.1
2.5	2.4	2.1
4.9	5.0	5.3
4.2	4.7	5.0
	2.5	4.0

3+25

St.	Z	Rh.
2.2	2.0	2.4
5.2	5.4	5.0
4.0	2.5	1.8
2.2	2.2	2.6
5.2	5.2	4.7
	2.5	4.0

3+0 = F.L. Gains

St.	Z	Rh.
2.2	2.2	2.6
5.2	5.2	4.8
4.0	2.5	1.1
2.0	2.3	2.6
5.4	5.1	4.8
	2.5	4.0

7.40

7.40



Hancock

7+50

7+0 - W. H. Riley

TP 5.25 7.67 4.98 2.42

6+75

6+50 - E. H. Riley

6+0

5+50

7.40

27

6+

7

R1

2.8	2.1	1.5	2.4	2.3	2.5	2.2	2.2
4.9	5.6	6.2	5.3	5.4	5.2	5.5	5.5
40	25	18	8	8	8	25	40

2.6	3.2	2.3	2.4	2.5	2.4	2.4
5.1	4.5	5.4	5.3	5.2	5.3	5.4
40	25	19		5	25	40

7.67

2.3	2.4	2.1	2.4	3.2	2.8	3.1
5.1	5.0	5.3	5.0	4.2	4.6	4.3
40	25	18		5	25	40

2.6	2.4	1.9	2.3	2.4	2.8	2.4	2.4
4.8	5.0	5.5	5.1	5.0	4.6	5.0	5.0
40	25	18	10		5	25	40

2.8	2.5	1.9	2.4	2.3	2.3	2.6	2.6
4.6	4.9	5.5	5.0	5.1	5.1	4.8	4.8
40	25	20	10		2	25	40

3.0	2.9	2.3	2.6	2.6	3.0	2.9	3.2
4.4	4.5	5.1	4.8	4.8	4.4	4.5	4.8
40	25	20	10		5	25	40

7.40



10+25

$$\begin{array}{r} 2.5 \\ 5.2 \\ 25 \end{array}$$

$$\begin{array}{r} 2.7 \\ 5.0 \end{array}$$

$$\begin{array}{r} 2.8 \\ 4.9 \\ 25 \end{array}$$

10+0 - FL Greenwood

$$\begin{array}{r} 2.9 \\ 4.8 \\ 25 \end{array}$$

$$\begin{array}{r} 3.1 \\ 4.6 \\ 20 \end{array}$$

$$\begin{array}{r} 2.4 \\ 5.3 \\ 18 \end{array}$$

$$\begin{array}{r} 2.7 \\ 5.0 \end{array}$$

$$\begin{array}{r} 3.0 \\ 4.7 \\ 25 \end{array}$$

9+50

$$\begin{array}{r} 2.6 \\ 5.1 \\ 40 \end{array}$$

$$\begin{array}{r} 2.6 \\ 5.1 \\ 25 \end{array}$$

$$\begin{array}{r} 2.0 \\ 5.7 \\ 18 \end{array}$$

$$\begin{array}{r} 2.6 \\ 5.1 \end{array}$$

$$\begin{array}{r} 2.8 \\ 4.9 \\ 25 \end{array}$$

$$\begin{array}{r} 2.8 \\ 4.9 \\ 40 \end{array}$$

9+0

$$\begin{array}{r} 2.4 \\ 5.3 \\ 40 \end{array}$$

$$\begin{array}{r} 2.5 \\ 5.2 \\ 25 \end{array}$$

$$\begin{array}{r} 1.8 \\ 5.8 \\ 18 \end{array}$$

$$\begin{array}{r} 2.4 \\ 5.3 \end{array}$$

$$\begin{array}{r} 1.9 \\ 5.8 \\ 9 \end{array}$$

$$\begin{array}{r} 2.5 \\ 5.2 \\ 25 \end{array}$$

$$\begin{array}{r} 2.7 \\ 5.0 \\ 40 \end{array}$$

8+50

$$\begin{array}{r} 2.2 \\ 5.5 \\ 40 \end{array}$$

$$\begin{array}{r} 2.5 \\ 5.2 \\ 25 \end{array}$$

$$\begin{array}{r} 2.0 \\ 5.7 \\ 18 \end{array}$$

$$\begin{array}{r} 2.3 \\ 5.4 \\ 11 \end{array}$$

$$\begin{array}{r} 2.0 \\ 5.7 \end{array}$$

$$\begin{array}{r} 2.0 \\ 5.7 \\ 25 \end{array}$$

$$\begin{array}{r} 2.9 \\ 4.8 \\ 40 \end{array}$$

8+0

$$\begin{array}{r} 1.8 \\ 5.9 \\ 40 \end{array}$$

$$\begin{array}{r} 2.2 \\ 5.5 \\ 25 \end{array}$$

$$\begin{array}{r} 1.9 \\ 5.8 \\ 18 \end{array}$$

$$\begin{array}{r} 2.6 \\ 5.1 \\ 13 \end{array}$$

$$\begin{array}{r} 3.1 \\ 4.6 \end{array}$$

$$\begin{array}{r} 1.7 \\ 6.0 \\ 25 \end{array}$$

$$\begin{array}{r} 2.0 \\ 5.7 \\ 40 \end{array}$$

767

7.67



12+50

4.	5	6	7	8	9	10	11	12
3.6	3.4	3.7	2.9	3.3	3.2	3.9	3.2	3.2
4.1	4.3	4.0	4.8	4.4	4.5	3.8	4.5	4.5
45	33	10	8		11	17	28	33

12+10

4.	5	6	7	8	9	10	11	12
3.2	3.4	3.7	3.0	3.1	2.9	3.8	3.2	3.2
4.5	4.3	4.0	4.7	4.6	4.8	3.9	4.5	4.5
45	33	11	9		11	16	27	33

11+50

4.	5	6	7	8	9	10	11	12
3.3	3.1	3.6	2.9	2.8	2.7	3.5	2.9	
4.4	4.6	4.1	4.8	4.9	5.0	4.2	4.8	
45	33	13	11		9	15	33	

11+48 = Port Polr 18 N of S.L. ✓

11+20

3.23

1.44

3.2 = Harbor  
Co. 7-16-11 ✓

11+0

4.	5	6	7	8	9	10	11	12
2.7	3.3	2.9	2.7	2.7	2.9	2.6		
5.0	4.4	4.8	5.0	5.0	4.8	5.1		
45	33	14		9	18	33		

10+50 = N.L. Greenwood = Polr 6 N of S.L. ✓

4.	5	6	7	8	9	10	11	12
3.5	3.4	2.6	2.6	2.5	3.3	3.5		
4.2	4.3	5.1	5.1	5.2	4.4	4.2		
33	25	17		10	23	33		

767

767



15+16.82 PL L121

15+0

14+97 = Power Pole 176 Hoffsh ↓

14+50

14+0

13+51 = Power Pole 178 Hoffsh ↓

13+50

TP 5.55 8.98 424 3.43

13+0

767

30

2.8 2.1 3.3  
6.2 6.8 5.7  
33 18 33

3.3 2.4 2.5 2.8 1.9 2.0  
5.7 6.6 6.5 6.2 7.1 7.0  
33 12 7 33 45

4.4 3.6 3.7 3.6 4.4 3.6 3.2  
4.6 5.4 5.3 5.4 4.6 5.4 5.8  
33 8 10 17 33 45

4.5 4.0 4.3 4.7 4.9 4.9  
4.5 5.0 4.7 4.3 4.1 4.1  
13 12 14 33 45

3.8 3.8 4.3 3.8 3.8 4.0 4.4 4.3 4.5  
5.2 5.2 4.7 5.2 5.2 5.0 4.6 4.7 4.5  
13 33 8 6 11 15 33 45

8.98

3.4 3.3 3.9 3.1 3.4 3.6 4.2 3.6  
4.3 4.4 3.8 4.6 4.3 4.1 3.5 4.1  
4.5 33 9 7 11 18 33

767



17+50

17+21 = Polc 15 S of N/4 ✓

17+0

TP 5.52 9.25 5.15 3.83

16+50

16+0

15+70

15+40

898

St.	St.	St.	St.	St.	St.	St.	St.
4.8	4.7	4.7	4.2	4.3	5.2	4.4	4.5
4.6	4.7	4.7	5.2	5.1	4.2	5.0	4.9
4.0	2.5	3.0	1.7		4.5	2.5	4.0

4.5	4.4	4.1	4.2	5.2	4.3	4.4
4.9	5.0	5.3	5.2	4.2	5.1	5.0
4.0	2.5	1.8		4.5	2.5	4.0

9.35

3.5	3.6	3.5	4.2	4.0	4.1
5.5	5.4	5.5	4.8	5.0	4.9
4.0	2.5		1.0	2.5	4.0

3.4	3.1	3.2	4.2	3.7	3.9
5.6	5.9	5.8	4.8	5.3	5.1
4.0	2.5		8	2.5	4.0

2.9	2.5	2.9	2.9	3.8	3.7
6.1	6.5	6.1	6.1	5.2	5.3
4.0	2.5		6	1.0	2.5

2.1	2.5	2.7	3.0
6.9	6.5	6.3	6.0
2.5		1.1	2.5

8.98



20+50

L	S	R
3.4	3.4	3.4
6.0	6.0	6.0
35	25	14
3.0	3.4	3.5
6.4	6.0	5.9
11	7	10
3.7	3.5	3.5
5.7	5.9	5.9
25	25	40

20+0

3.6	3.5	3.6	3.2	3.5	3.5	4.1	3.7	3.7
5.8	5.9	5.8	6.2	5.9	5.9	5.3	5.7	5.7
35	25	15	11	8	9	25	40	

19+50

3.6	3.6	3.3	3.4	4.1	3.8	3.8
5.8	5.8	6.1	6.6	5.3	5.6	5.6
35	25	8	25	40		

19+48: Power Pole 148 S of NL ✓

19+0

3.7	3.8	3.4	3.5	4.5	4.1	4.1
5.7	5.6	6.0	5.9	4.9	5.3	5.3
35	25	8	6	25	40	

18+50

4.0	4.0	3.9	3.9	4.9	4.3	4.3
5.1	5.1	5.5	5.5	4.5	5.1	5.1
40	25	3	6	25	40	

18+21: Power Pole 152 S of NL ✓

18+0

4.2	4.3	4.2	3.9	4.9	4.4	4.2
5.2	5.1	5.2	5.5	4.5	5.0	5.2
40	25	17	15	25	40	

9.35

9.35



BN

3.52

3.61

Nail Pole  
SW Cor. Ph  
277  
3.57

TP

396

7.13

6.18

3.17

072 Hub  
21+7725

21+7725 - P.L. L. 20

21+64 = 14" Tree 10' N of S.L. ✓

21+50

21+31 = 12" Tree 12' N of S.L. ✓

21+0

9.35

Lt.

R

R1

3.0	3.4	3.17	4.0	3.7
6.4	6.0	6.18	5.4	5.7
40'	25'	072 Hub	9'	25'

3.1	3.3	2.9	2.6	2.7	2.7
6.3	6.1	6.5	6.8	6.7	6.7
40'	25'	11'		25'	40'

3.4	3.1	3.4	3.1	3.0	3.1	3.6	3.2	3.2
6.0	6.3	6.0	6.3	6.4	6.3	5.8	6.2	6.2
35'	25'	10'	7'		11'	13'	25'	40'

9.35



Cross Section Moore St.  
Reservoir to Greenwood.

50' Wide

Oct. 3. 40

34

2+50

2+0

1+50

1+0

0+50

0+0 = W.L. Reservoir

RM

4.86

7.63

2.77

2 Mon.  
Moore St  
Rite/

INDEXED  
EFG

lt

rt

pt

3.1	2.8	2.8	2.6	2.5	2.7
4.5	4.8	4.8	5.0	5.1	4.9
	3.5	8		11	2.5

3.1	3.5	2.7	2.6	2.5	2.6
4.5	4.1	4.9	5.0	5.1	5.0
4.0	2.5	4		11	2.5

3.2	3.1	3.3	2.7	2.9	2.8	2.8
4.1	4.5	4.3	4.9	4.7	4.8	4.8
4.0	3.5	8	6		11	2.5

3.6	3.5	3.7	3.0	3.1	2.8	2.9
4.0	4.1	3.9	4.6	4.5	4.8	4.7
4.0	2.5	9	7		10	2.5

3.1	3.2	3.3	2.2	2.7	2.7	3.1	3.53
4.5	4.1	4.3	5.1	4.9	4.9	4.5	4.10
4.0	2.5	11	9		11	2.5	2.5

4.3	3.0	3.2	2.8	2.8	3.1
3.3	4.6	4.4	4.8	4.8	4.5
4.0	2.5	11	9		2.5

7.63

Notes Reduced 10-7-40 S. B. H.  
Plotted 10-8-40 Bartlett

W. Cove  
Wall



4+50

H						
2.6	3.0	2.9	2.3	2.7	2.6	2.7
5.0	4.6	4.7	5.3	4.9	5.0	4.9
4.0	2.5	8	6		10	2.5

4+0

3.2	3.4	3.4	2.4	2.5	2.6	2.9
4.4	4.2	4.2	5.3	5.1	5.0	4.7
4.0	2.5	8	6		11	2.5

3+50 = J.L. Gairn

2.9	3.0	2.7	2.6	2.7	3.1
4.7	4.6	4.9	5.0	4.9	4.5
2.5	9	7		2.5	4.0

3+25

3.1	2.9	3.1
4.5	4.7	4.5
2.5		2.5

3+0 = E.L. Gairn

3.2	3.5	3.8	3.0	2.9	3.1
4.4	4.1	3.8	4.6	4.7	4.5
4.0	2.5	7	6		2.5

3.10 ✓  
4.53  
2.59 = 23.50 on 7/11

2+72

7.63

7.63



Moore 57

7+02 = Power Pole 3.8 N of S.L.

7+0 = W L Riley = Wire Fence 3.7 S of N.L.

6+75

6+50 = F L Riley

6+0

TP 4.99 8.07 4.55 3.08

5+51 = Power Pole 3.6 N of S.L.

5+50 = Fly 3 Wire Fence 5.5 S of N.L.

5+0 = Tree 6.4 S of N.L.

7.63

36

3.0	3.0	2.2	3.0	2.5	3.0	3.0	3.4	3.1	3.1
5.1	5.1	5.9	5.1	5.6	5.1	5.1	4.7	5.0	5.0
40	25	15	10	9		7	8	25	40

3.5	3.3	2.3	3.0	2.9	3.2	3.3	3.4
4.6	4.8	5.8	5.1	5.2	4.9	4.8	4.7
25	10	9		8	12	25	40

2.8	3.1	2.6	2.9	2.7	3.1	3.0
5.3	5.0	5.5	5.2	5.4	5.0	5.1
25	10	8		9	25	40

3.1	3.3	3.4	2.6	2.9	2.7	3.4	3.7	2.9
5.0	4.8	4.7	5.5	5.2	5.4	4.7	4.1	5.2
40	25	19	7		10	12	25	40

8.07

3.3	3.5	3.7	2.5	2.9	3.1	3.5
4.2	4.1	3.9	5.1	4.7	4.5	4.1
40	25	8	6		9	25

3.2	3.2	3.8	3.0	3.1	3.0	3.1
4.4	4.4	3.8	4.6	4.5	4.6	4.5
40	25	8	6		10	25

7.63



10+0 = EL Greenwood

9+51 = Power Pole 4.5 N of S L ✓

9+50

9+0

8+51 = Hwy High Flood on N L ✓

8+50

8+0

7+50

7.63

Lt

A

Rt

3.4	3.6	3.3	3.42	3.7	3.8	4.0	3.8
4.7	4.5	4.8	4.5	4.4	4.3	4.1	4.3
25	14	12	25	9	12	25	40

3.3	3.4	3.5	2.9	3.7	3.7	4.1	3.7	3.9
4.8	4.7	4.6	5.2	4.4	4.4	4.0	4.1	4.3
40	25	11	9	8	8	12	25	40

3.3	3.3	3.4	2.9	3.6	3.4	4.0	3.9	3.8
4.8	4.8	4.7	5.2	4.5	4.7	4.1	4.2	4.3
40	25	10	8	8	8	10	25	40

2.9	2.9	3.1	2.7	3.4	3.2	3.9	3.2
5.2	5.2	5.0	5.4	4.7	4.9	4.2	4.9
40	25	10	9	8	8	10	25

2.9	2.9	3.1	2.6	3.2	3.1	3.6	3.0
5.2	5.2	5.0	5.5	4.9	5.0	4.5	5.1
40	25	10	9	9	9	10	25

2.9	2.8	3.3	2.5	3.2	3.1	3.6	3.1	3.1
5.2	5.2	4.8	5.6	4.9	5.0	4.5	5.0	5.0
40	25	10	9	9	8	9	25	40

7.63

8.07



Cross Section Jefferson St.  
Rosecrans to Greenwood

50' wide

INDEXED  
EFG

38

2+50

3.7	4.2	4.0	4.3
4.9	4.6	4.8	4.5
2.5		1.6	2.5

2+0

4.3	4.4	4.3	4.0	4.1
4.5	4.4	4.5	4.8	4.7
2.5	1.5		1.6	2.5

1+50

3.8	3.9	3.7	4.0
5.0	4.9	4.9	4.8
2.5	4		2.5

1+0

3.6	3.6	3.5	3.5	4.0	4.2
5.2	5.2	5.2	5.3	4.8	4.6
2.5	6		1.8	2.0	2.5

0+50

3.6	3.6	3.4	3.5	4.2	4.0	3.7
5.2	5.2	5.2	5.3	4.6	4.8	5.1
2.5	10		1.8	2.0	2.5	2.5

0+0 = 1/4 Rosecrans

3.6	3.3	3.1	3.1	3.6
5.2	5.5	5.7	5.7	5.2
2.5	10		1.6	2.5

BM 544 8.80

8.36

8 Mon.  
Jefferson  
Rosecrans

8.80

Notes Reduced 10-7-40 C.B.H.  
Plotted 10-8-40 Bantlet



TP 5.36 8.93 5.23 3.57

5+0

4+50

4+02 = Anchor Pole 3.2/0.5.4 ✓

4+0

3+50 = 1/2 Gain 0.5

3+25

3+0 = 1/2 Gain 0.5

2+98 = Power Pole 3.1/0.5.4 ✓

8.80

4. 2. R1

3.6	3.7	3.6	3.9	4.3	3.6	3.7
5.2	5.1	5.2	4.9	4.5	5.2	5.1
4.0	2.5	2.5	1.2	1.6	2.5	4.0

3.2	3.4	3.4	3.1	3.4	3.3	3.4	3.3	3.4
5.6	5.4	5.4	5.7	5.9	5.5	5.4	5.5	5.9
4.0	2.5	9.	7.	7.	1.3	1.5	2.5	4.0

3.3	3.1	3.1	2.8	3.6	3.4	3.4
5.5	5.7	5.7	6.0	5.2	5.4	5.4
2.5	1.1	1.1	1.3	1.5	2.5	4.0

3.5	3.7	3.7	3.6	4.1
5.3	5.1	5.1	5.2	4.7
2.5	6	6	1.4	2.5

3.1	3.3	3.1
5.7	5.5	5.7
2.5		2.5

4.3	4.1	3.7	3.5	4.0	2.7
4.5	4.7	5.1	5.3	4.8	6.1
2.5	1.1		1.5	1.9	2.5

8.80



7+50

LT						RT	
39	40	39	36	39	38	4.1	42
$\frac{5.0}{70}$	$\frac{4.9}{25}$	$\frac{5.0}{12}$	$\frac{5.3}{10}$	50	$\frac{5.1}{7}$	$\frac{4.8}{25}$	$\frac{4.7}{40}$

7+0 = J.L. Riley

44	4.1	36	37	37	4.0
$\frac{4.5}{25}$	$\frac{4.8}{12}$	$\frac{5.3}{10}$	52	$\frac{5.2}{8}$	$\frac{4.9}{25}$

6+75

40	3.7	37	3.7	40
$\frac{4.9}{25}$	$\frac{5.2}{10}$	52	$\frac{5.7}{8}$	$\frac{4.9}{25}$

6+50 = F.L. Riley

4.0	3.5	3.6	4.0
$\frac{4.9}{25}$	$\frac{5.1}{10}$	53	$\frac{4.9}{25}$

6+0

4.1	4.0	3.5	3.5	3.7	3.8
$\frac{4.8}{70}$	$\frac{4.7}{25}$	54	$\frac{5.4}{9}$	$\frac{5.2}{25}$	$\frac{5.1}{40}$

5+50

3.3	3.7	3.7	3.3	3.5	3.7	3.9	4.1
$\frac{5.6}{40}$	$\frac{5.2}{25}$	$\frac{5.2}{12}$	$\frac{5.6}{10}$	54	$\frac{5.2}{11}$	$\frac{5.0}{25}$	$\frac{4.8}{40}$

8.93

8.93



B.M.

5.76

3.17

2 Mo 7  
Safford  
Greenwood  
3.18

1010 = F.L. Greenwood

9+50 = Fly Lark Fence 2.0 No SL = Perce Pele 4.8 No SL

9+0

8+50

8+0

8.93

Lt

L

Rt

3.9	3.8	3.9	4.1
5.0	5.1	5.0	4.8
25		9	25

4.1	3.7	3.7	3.8	4.1
4.8	5.2	5.2	5.1	4.8
25	10		7	25

3.6	3.6	3.6	3.7	3.9	3.8	3.8
5.3	5.3	5.3	5.2	5.0	5.1	5.1
40	25	11		5	25	40

3.9	3.8	3.8	3.8	3.9	3.9	4.0
5.0	5.1	5.1	5.1	5.0	5.0	4.9
40	25	11		5	25	40

3.8	3.9	4.1	3.7	4.0	4.0	4.0	4.2
5.1	5.3	4.8	5.2	4.9	4.9	4.9	4.7
40	25	13	11			25	50

8.93



Cross Section Gains St.  
Kurtz to Jefferson

50' wide

INDEXED  
EPB

Oct. 4-40

42

Lt = 14

L

Rt = 5

0+80

1.7	1.8	1.9	2.4
5.8	5.7	5.6	5.1
10	25		25

0+60

2.0	1.4	1.1	1.1	1.5	2.0	2.0
5.5	6.1	6.4	6.4	6.0	5.5	5.5
40	25	17		14	16	25

0+40

2.6	2.7	2.4	2.5	1.9	2.0
4.9	4.8	5.1	5.0	5.6	5.5
40	25		9	13	25

0+20

1.4	1.2	1.6	2.6	2.7	1.4	1.6
6.1	6.3	5.9	4.9	4.8	6.1	5.9
40	25	12		11		25

0+15

1.1	1.2	1.4	1.5
6.4	6.3	6.1	6.0
40	25		25

0+0 = H.L. Kurtz

1.4	2.0	1.1
6.1	5.5	6.4
25		25

Frage 259 ✓

BM

5.90

7.52

1.62

#1407  
R. Kurtz

7.52

Notes Reduced 10-7-40 G.H.  
, Plotted 10-9-40 Daitler



3+50: H.L. Hancock

TP 6.04 7.96 5.60 1.92

3+0 = S.L. Hancock

2+50

2+0

1+50

1+0

752

W Lt R E Rt

2.2	2.8	2.6	2.5
5.8	5.2	5.4	5.5
3.5	1.7		3.5

7.96

2.5	2.0	2.1
5.0	5.5	5.4
3.5		3.5

2.8	2.4	2.3	2.0	2.0
4.7	5.1	5.2	5.5	5.5
4.0	3.5		3.5	4.0

2.1	2.6	2.2	2.2	2.0
4.8	4.9	5.3	5.3	5.5
4.0	3.5		3.5	4.0

2.2	2.4	2.1	2.2	
5.3	5.1	5.4	5.3	N.H. Force
4.0	3.5		3.5	3.5.9 ✓

2.0	2.3	2.0	2.4
5.5	5.2	5.5	5.1
4.0	3.5		3.5



W  
H  
R

6

R1

6+50: J. L. Moorl

30	25	3.1	3.1	3.6
50	5.5	4.9	4.9	4.4
25	22		11	25

6+0

3.4	28	3.0	2.6	3.1
4.6	5.2	5.0	5.4	4.9
40	25	6		25

5+50

3.3	30	3.2	3.6	3.4	2.4	2.5
4.7	5.0	4.8	4.4	4.6	5.6	5.7
40	25	14	8		25	40

5+0

3.1	3.2	3.1	3.6	3.5	3.1	2.7
4.9	4.8	4.9	4.4	4.5	4.9	5.3
40	25	17	9		25	40

4+50

2.7	2.8	2.6	2.3	3.4	3.1	2.9
5.3	5.2	5.4	4.7	4.6	4.9	5.1
35	25	18	10		25	40

4+0

2.6	2.7	3.0	2.8	2.6	2.8
5.4	5.3	5.0	5.2	5.4	5.2
35	25	16		25	40

7.96

7.96







Goines St.

1010 - S. L. Jefferson

9150

7.91

$\frac{W}{L}$

\*

$\frac{E}{R}$

3.5	3.1	3	3.1	3.8	4.2
$\frac{4.1}{2.5}$	$\frac{4.8}{1.2}$	4.8	$\frac{4.8}{1.5}$	$\frac{4.1}{1.6}$	$\frac{3.7}{2.5}$

3.1	3.2	2.7	2.9	3.1	3.6	3.5
$\frac{4.8}{1.0}$	$\frac{4.7}{2.5}$	$\frac{5.2}{1.2}$	5.0	$\frac{4.8}{1.0}$	$\frac{4.3}{1.2}$	$\frac{4.1}{2.5}$

7.91



Cross Section P, 1st St  
Kurtz to Jefferson

50' wide

1+50 = N.Y. Fence 0.6 W of W.L. ✓

1+0

0+53 Sly Fence 0.6 E of W.L. ✓

0+50

0+30

0+15

0+0 = N.Y. Kurtz

BM

6.03

7.65

1.62

2 Mon.  
Piling  
Kurtz

INDEXED  
E.F.B.

St. W

Z

Rt. F

47

2.3	2.3	2.4	2.6
$\frac{5.4}{25}$	5.4	$\frac{5.2}{25}$	$\frac{5.1}{10}$

2.3	1.9	2.2	2.4	2.4
$\frac{5.4}{25}$	$\frac{5.8}{10}$	5.5	$\frac{5.3}{25}$	$\frac{5.3}{10}$

2.0	2.1	1.8	2.1	2.2
$\frac{5.7}{40}$	$\frac{5.6}{25}$	5.9	$\frac{5.6}{25}$	$\frac{5.5}{10}$

1.7	2.0	1.9
$\frac{6.0}{25}$	5.7	$\frac{5.8}{25}$

1.6	1.8	0.1	1.7
$\frac{6.1}{25}$	5.9	$\frac{7.5}{5}$	$\frac{6.0}{25}$

1.5	1.7	1.7
$\frac{6.2}{25}$	6.0	$\frac{6.0}{25}$

7.65

Notes Reduced 10-7-40 C.A.H.  
Plotted 10-9-40 Bartlett



4+50

4+0

3+50 - H.L. Hancock

3+0 - S.L. Hancock

2+50

2+0

7.65

Lt

A

Rt

2.3	2.6	3.2	2.9	2.9
5.1	5.1	4.5	4.8	4.8
40	25		25	40

2.5	2.5	2.9	3.1	2.8	2.7
5.2	5.2	4.8	4.6	4.9	5.0
40	25			25	40

2.4	2.9	2.5
5.3	4.8	5.2
25		25

3.1	2.5	2.3
4.6	5.2	5.4
25		25

2.8	2.7	2.3	2.1	2.4	2.0	2.2
4.9	5.0	5.4	5.6	5.3	5.7	5.5
40	25	25		15	25	40

2.2	2.0	1.7	2.3	2.8	2.9
5.5	5.7	6.0	5.4	4.9	4.8
40	25		5	25	40

7.65



6+50 - S L Moore

6+18

6+0

5+85

5+50

5+0

7.65

LT	L	RT
2.7	3.4	2.7
$\frac{5.0}{2.5}$	$\frac{4.3}{2.5}$	$\frac{5.0}{2.5}$

2.9	2.9	3.0	3.5	2.9	2.7
$\frac{4.8}{2.0}$	$\frac{4.8}{2.5}$	$\frac{4.7}{1.5}$	$\frac{4.2}{1.5}$	$\frac{4.8}{2.5}$	$\frac{5.0}{2.0}$

2.9	3.2	1.4	0.7	-0.3	0.7	2.9	2.9
$\frac{4.8}{2.5}$	$\frac{4.5}{2.7}$	$\frac{6.3}{4}$	$\frac{7.0}{4}$	$\frac{8.0}{1.0}$	$\frac{7.0}{1.5}$	$\frac{4.8}{1.9}$	$\frac{4.8}{2.5}$

2.7	2.9	3.4	2.9	3.0
$\frac{5.0}{2.0}$	$\frac{4.8}{2.5}$	$\frac{4.3}{2.5}$	$\frac{4.8}{2.5}$	$\frac{4.7}{2.0}$

2.8	2.9	2.8	3.4	2.8	2.8	2.7
$\frac{4.9}{2.0}$	$\frac{4.8}{2.5}$	$\frac{4.9}{1.7}$	$\frac{4.3}{1.7}$	$\frac{4.7}{1.5}$	$\frac{4.9}{2.5}$	$\frac{5.0}{2.0}$

2.7	2.5	2.8	2.9	2.6	2.6
$\frac{5.0}{2.0}$	$\frac{5.2}{2.5}$	$\frac{4.9}{2.0}$	$\frac{4.8}{2.0}$	$\frac{5.1}{2.5}$	$\frac{5.1}{2.0}$

7.65



8+50

8+0

7+53 - Power Pole 3.2 E of WL

7+50

TP 2.51 8.30 1.86 5.79

7+0 = Firchyd. 5.8' W of E.L.  
= N.A. Moore

7.65

Lt

L

R1

3.4	3.6	3.8	3.6
4.9	4.7	4.5	4.7
25		25	40

3.3	3.4	3.4	3.4	3.4
5.0	4.9	4.9	4.9	4.9
40	25		25	40

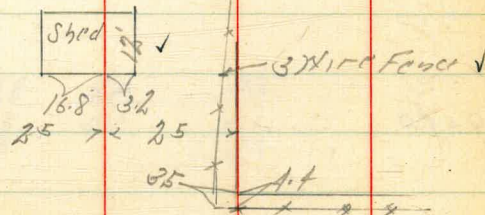
3.3	3.2	3.5
5.0	5.1	4.8
25		25

8.30

8+39.5

7+91

N.A. Moore



3.1	3.2	3.0
4.6	4.5	4.7
		25

7.65



Riley St

10+0 = Sh. Jefferson

9+50

9+0

8.20

Lt

St

Rt

4.3

~~4.0~~  
2.5

0

4.3

4.1

~~4.0~~  
2.5

3.6

~~4.7~~  
4.0

3.8

~~4.5~~  
2.5

4.0

4.3

4.2

~~4.1~~  
2.5

3.3

~~5.0~~  
1.0

3.8

~~4.5~~  
2.5

3.8

4.5

3.9

~~4.4~~  
2.5

8.30



Cross Section Greenwood  
Kurtz to Jefferson

2+0

1+50

1+0

0+50

0+25

0+0 = H.L. Kurtz

B.M

5.67

7.29

1.62

8 Mon  
Riley + Kurtz

INDEXED  
EFB

Δ = 24

Δ

Oct. 5-10

52

Rt. E

3.0	4.1	3.1	3.0	2.3	2.4	2.8	2.5	2.5
4.3 35	2.2 25	4.2 21	4.3 13	5.0 11	4.9	4.5 10	4.8 25	4.8 10

2.8	3.2	2.7	2.2	2.2	2.5	2.4	2.2
4.5 40	4.1 25	4.6 13	5.1 11	5.1	4.8 10	4.9 25	5.1 10

2.8	3.7	3.0	2.4	2.5	2.8	2.6	2.3
4.5 40	3.6 25	4.3 13	4.9 11	4.8	4.5 10	4.7 25	5.0 10

2.7	2.3	2.1	2.0	2.2	2.6	2.3	2.1
4.6 40	5.0 25	5.2 14	5.3 12	5.1	4.7 15	5.0 25	5.2 10

2.3	4.4	3.3	2.3	2.6	1.1	1.7
5.0 40	2.9 25	4.0 15	5.0 13	4.7	6.2 25	5.6 10

2.2	2.4	4.3
5.1 25	4.9	3.0 25

7.29

Notes Reduced 10-7-40  
 Plotted 10-9-40  
 B.M. Bartlett



4+50

3+88 = 2' Conc Walk 0.7 W ↓

TP 629 9.35 4.23 2.06

4+18 = Nly Picket Fence 0.7 E of W.L. ✓

4+0

3+94 = 6" Tree 6.5 E of W.L. ✓

3+71 = 6" Tree 8 E of W.L. ✓

3+50 = N.L. Hancock = Picket Fence 0.3 E of W.L. ✓

3+0 = S.L. Hancock

3+50

7.29

L.S. W

2

P.L. I

3.5	4.0	4.3	3.1	3.5	3.0	3.8	3.4	3.1
5.9	5.1	5.1	6.3	5.9	6.4	5.6	6.0	6.3
4.0	2.5	1.5	1.0		1.1	1.5	2.5	4.0

3.68

$$\begin{array}{r} 5.67 \\ 2.5 - 8.35 \\ \hline \text{Walk} \end{array}$$

9.35

3.6	3.6	3.2	3.2	2.9	3.7	2.8
3.7	3.7	4.1	4.1	4.4	3.6	4.5
2.5	1.4	1.2		1.2	2.5	4.0

3.5

2.8

3.1

3.8

4.5

4.2

3.0

2.5

2.9

4.3

4.8

4.4

2.7	3.7	2.7	2.5	2.3	2.3	2.8	2.5	2.5
4.6	3.6	4.6	4.8	5.0	5.0	4.5	4.8	4.8
3.5	2.5	2.0	1.4	1.2		1.1	2.5	4.0

7.29



7+0 = 1/2 Moorl

6+75 = 1/2 Moorl

6+53 = Port + Tel Pole 1.3. E of W.L. ↓

6+50 = 1/2 Moorl

6+0

5+50

5+03 = Port + Tel pole 0.4 E of W.L. ↓

5+0

9.35

Lt	2	3	4	5	6	7
4.2	4.7	3.7	3.9	3.6	4.6	3.9
5.3	4.7	5.7	5.5	5.8	4.8	5.5
4.0	2.5	1.2		1.0	1.5	2.5

3.8	4.1	4.3	3.9	4.0	3.5
5.6	5.3	5.1	5.5	5.4	5.9
4.0	2.5	1.5	1/2		2.5

3.7	4.1	4.1	3.8	4.1	3.4
5.7	5.3	5.3	5.6	5.3	6.0
4.0	2.5	1.5	1.3		2.5

4.1	4.5	4.4	3.3	3.7	3.5	4.5	4.4	3.3
5.3	4.9	5.0	6.1	5.7	5.9	4.9	5.0	6.1
4.0	2.5	1.6	1.2		1.2	1.5	2.5	4.0

3.8	4.4	4.1	3.0	3.4	3.1	3.5	3.0	3.5
5.6	5.0	5.3	6.4	6.0	6.3	5.9	6.4	5.9
4.0	2.5	1.5	1.2		9	1.3	2.5	4.0

3.8	4.4	4.2	2.9	3.5	3.3	4.0	3.7	3.1
5.6	5.0	5.2	6.5	5.9	6.1	5.4	5.7	6.3
4.0	2.5	1.5	1.1		1.0	1.5	2.5	4.0

9.35



BM 6.18 3-17 2 Mon.  
Jefferson  
Greenwood  
3.18  
10+0 = 5 L Jefferson = 114 Force 0.6 W of E.L. ✓

9+50

9+12 = 24" Tree 2 W of E.L. ✓

9+0

8+94 = 18" Tree 1.6 W of E.L. ✓

8+84 = 12" Tree 3.1 W of E.L. ✓

8+53 = Power Tel Pole 22 E of W.L. = Force 0.6 W of E.L. ✓

8+50

8+0

7+50

9.25

	L1	L		R1	
4.5	4.8	14	3.6	3.9	3.8
4.9	4.6	5.0	5.8	5.5	5.6
40	25	17	18		25

4.2	4.5	3.9	3.3	3.8	3.7
5.2	4.9	5.5	6.1	5.8	5.7
40	25	16	14		25

4.1	4.5	3.8	3.3	3.9	3.7
5.3	4.9	5.6	6.1	5.5	5.7
40	25	15	13		25

4.1	4.6	4.4	3.6	4.2	4.0	4.2	3.7	3.9
5.3	4.8	5.0	5.8	5.2	5.4	5.2	5.7	5.5
40	25	15	12		18	15	25	40

4.3	4.9	4.8	3.7	4.2	4.3	3.8	3.9
5.1	4.5	4.6	5.7	5.2	5.1	5.6	5.5
40	25	14	11		10	25	40

4.2	4.7	3.7	4.1	4.1	4.4	3.6	3.5
5.2	4.7	5.7	5.3	5.3	5.0	5.8	5.9
40	25	12		9	15	25	40

9.25



Crown Station Sherman St  
Kurtz St North

50 wide

2+58 = Nly Wire Fence 5' E of M.L. ↓

2+50

2+0

1+50

1+25 = Sly Wire Fence 4.6 E of M.L. ↓

1+0

0+50

0+0 = N.L. Kurtz From East

BM 6.69 9.30

2.61

02 Hub  
15.716.82  
Hancock  
P.L. 1971

INDEXED  
E.F.B.

Lt = 21

2

Pl = 5

2.8	1.8	1.9	2.5
6.5	7.5	7.4	6.8
25	8		25

3.3	3.6	3.0	3.1	2.9
6.5	5.7	6.3	6.2	6.4
20	25	5		25

4.9	4.0	4.1	4.5	4.3
4.9	5.3	5.2	4.8	5.0
25	5		10	25

4.6	5.1	4.4	4.0	4.4	3.8
4.7	4.7	4.9	5.3	4.9	5.5
40	25	5		8	25

4.3	5.3	4.2	3.6	4.1	3.4	3.4
5.0	4.0	5.1	5.7	5.2	5.9	5.9
40	25	5		7	25	40

4.6	4.5	3.4	3.5	3.4
4.7	4.8	5.7	5.8	5.9
25	15	7		25

Notes Reduced & Plotted 10-9-40 Bartlet

56



Sherman St.

54  
22  
25

5+50

5+0

4+50

4+14 = Tel Pole 8.7' W of E.L. ✓

4+0

3+58 = H.L. Hancock From East

2+92 = S.L. Hancock From East

9.30

57

Lt

S

Rt

4.2	4.5	4.4	4.5	5.5	5.3	4.4
5.1	4.8	4.9	4.8	5.8	4.0	4.9
4.0	2.5	4.8		1.5	2.5	4.0

4.7	4.7	4.6	3.9	5.3	5.2	4.2
4.6	4.6	4.7	5.4	4.0	4.1	5.1
4.0	2.5	1.5		4.5	2.5	4.0

4.3	4.2	4.2	3.8	5.6	5.2	3.9
5.0	5.1	5.1	5.5	3.7	4.1	5.4
4.0	2.5	1.5		2.0	2.5	4.0

4.0	4.1	4.0	4.4	2.5	1.5
5.3	5.2	5.3	4.9	6.7	7.8
4.0	2.5		4.3	2.5	4.0

3.8	4.1	3.6	4.1	2.8
5.5	5.2	5.7	5.2	6.5
2.5	2.5		5	2.5

2.6	2.3	2.9
6.7	7.0	6.4
2.5		2.5

9.30



41

8

R1

BM

4.93

on P.L. Mod  
6409.06

6409.06 - P.L. Line

9.30

4.5

4.4

4.5

5.3

5.3

5.2

4.4

4.8

4.9

4.8

4.0

4.0

4.1

4.9

4.0

2.5

5

5

2.5

4.0

9.30



Xsec San Diego Ave = 75' wide  
 12' curbs  
 Trias to La Jolla Ave 12.75 1/4

SEBP	11.45	55.20		43.75	W.J. Ave Amputia
T.P.	12.00	67.17	0.03	55.17	
T.P.	11.47	78.23	0.41	66.76	
T.P.	12.51	90.10	0.64	77.59	
T.P.	11.96	101.74	0.32	89.78	
T.P.	12.62	114.01	0.35	101.39	
T.P.	12.18	126.00	0.19	113.82	
T.P.	12.13	137.71	0.42	125.58	

0 + 0 = Nly Trias ST

- 30			14.1	123.6	
w			7.2	130.5	
cb			4.0	133.7	
1/4			0.2	137.5	
c			+4.0	141.7	
1/4			+8.2	145.9	
cb			+11.5	149.2	
E			+14.5	152.2	
	0 + 25				
E			+12.8	150.5	

12-30-1940 JH  
 Red Plot on page # 782

~~INDEXED~~  
 EPB

137.71

59

cb		+ 10.3	148.0	Moore Osborne
1/4		+ 6.0	143.7	Hale 12-26-40
c		+ 1.7	139.4	
1/4		1.8	135.9	
cb		5.1	132.6	
w		9.5	128.2	
+ 22		15.0	122.7	
+ 25		18.1	119.6	
+ 30		18.4	119.3	
	0 + 50			
- 25		17.0	120.7	
- 16		16.0	121.1	
w		12.0	125.7	
cb		9.0	129.7	
1/4		5.2	132.5	
c		1.2	136.5	
1/4		+ 3.2	140.9	
cb		+ 7.4	145.1	
E		+ 12.0	149.7	
	0 + 75			
E		+ 9.2	146.9	



	137.71		
cb	+ 5.0	142.7	
1/4	+ 0.8	138.5	
c	3.0	134.7	
1/4	7.1	130.6	
cb	11.2	126.5	
w/	15.5	122.2	
+ 30	24.5	113.2	
	1400		
- 30	28.3	109.4	
w/	19.5	118.2	
cb	15.8	121.9	
1/4	11.7	126.0	
c	7.0	130.7	
1/4	1.4	136.1	
cb	+ 1.7	139.4	
E	+ 5.7	143.4	
	1425		
F	+ 2.5	140.2	
cb	0.4	137.3	
1/4	4.7	133.0	
c	9.1	128.6	

	137.71		
1/4		13.5	124.2
cb		18.0	119.3
w/		23.5	114.2
+ 30		33.6	104.1
	1450		
- 30		37.1	100.6
w		28.1	109.6
cb		24.1	113.6
1/4		20.4	117.3
c		17.5	120.2
1/4		11.4	126.3
cb		6.9	130.8
E		1.0	137.7
TP	0.44	125.74	125.10
	1475		
F		+ 6.8	132.5
cb		+ 1.2	126.9
1/4		3.8	121.9
c		8.5	117.2



1/4			12.7	113.0
cb			17.3	108.4
W			21.8	93.9
+30			29.2	96.5
	2+100			
-30			34.4	91.3
W			26.1	99.6
cb			21.4	104.1
1/4			17.2	108.5
c			12.8	112.9
1/4			9.0	116.7
cb			4.4	121.3
E			+0.7	126.4
	2+25			
E			3.4	122.3
cb			7.6	118.1
1/4			12.2	113.5
c			17.2	108.5
T.P	0.24	112.98	13.00	112.74

W 1/4			8.5	104.5
cb			12.8	100.2
W			17.5	95.5
+30			26.5	86.5
	2+50			
-30			31.8	81.2
W			22.7	90.3
cb			18.5	94.5
1/4			13.7	99.3
c			8.9	104.1
1/4			3.8	109.2
cb			0.8	112.2
E			+2.4	115.4
	2+75			
E			2.3	110.7
cb			6.3	106.7
1/4			10.4	102.6
c			14.5	98.5
1/4			18.3	94.7
cb			22.8	90.2
W			28.3	84.7



112.98

W + 30	37.8	75.2
3 + 00 Sly Ampudia		50' wide 10' c rbs
- 30	43.5	69.5
W	35.1	77.9
cb	31.0	82.0
1/4	26.6	86.4
c	21.6	91.4
1/4	17.3	95.7
cb	14.0	99.0
E	9.2	103.8
S cb		
E	12.5	100.5
T.P.	0.23	100.40 12.81 100.17
cb	4.1	96.3
1/4	7.5	92.9
c	12.0	88.4
1/4	16.5	83.9
cb	20.9	79.5
W	25.4	75.0

100.40

62

+ 20	31.0	69.4
♀ Ampudia		
- 20	35.3	65.1
W	31.1	69.3
cb	26.6	73.8
1/4	23.0	77.4
c	18.2	82.2
1/4	14.0	86.4
cb	9.2	91.2
E	4.4	96.0
N cb		
E	8.6	91.8
cb	12.6	87.8
T.P.	0.13	88.11 12.22 87.98
1/4	4.7	83.4
c	10.5	77.6
1/4	15.0	73.1
cb	19.1	69.0
W	22.3	65.8



88.11

W+20	27.1	61.0
Nly Ampudia = 0100		
-20	31.3	56.8
VV	24.7	61.4
cb	22.5	65.6
1/4	19.5	69.6
c	14.7	73.4
1/4	10.0	78.1
cb	5.3	82.8
E	2.0	86.1

0+25

E	12.4	75.4
---	------	------

T.P.	020	75.30	130.1	75.10
------	-----	-------	-------	-------

cb	4.3	71.0
1/4	6.4	68.9
c	8.4	66.7
1/4	12.3	63.0
cb	16.3	59.0
W	20.4	54.8

75.30

63

+30	25.8	49.5
0+50		
-30	28.5	46.8
W	25.4	49.9
cb	23.2	52.1
1/4	20.7	54.6
c	17.4	57.9
1/4	14.0	61.3
cb	11.1	64.2
E	7.1	68.2

T.P.	044	63.37	123.9	62.91
------	-----	-------	-------	-------

0+75

E	1.8	61.6
cb	4.1	59.3
1/4	5.9	57.5
c	9.3	54.1
1/4	13.1	50.3
cb	15.0	48.4
W	16.7	46.7



63.37

+30		17.0	46.4
	1+00		
-30		19.0	45.4
W		19.0	44.4
cb		17.7	45.7
1/4		16.9	46.5
c		14.7	48.7
1/4		12.5	50.9
cb		10.4	52.8
E		7.1	56.3

T.P. 129 52.60 12.06 51.31

	1+25		
E		1.3	51.3
cb		3.0	49.6
1/4		4.8	47.8
c		6.1	46.5
1/2		7.1	45.5
cb		8.4	44.2
W		9.8	43.8

52.60

64

+10		8.6	44.0
	1+50		
-10		10.1	42.5
W		10.8	41.8
cb		10.8	41.8
1/4		9.1	43.5
c		8.5	44.1
1/4		7.6	45.0
cb		6.3	46.3
E		4.3	48.3

1+75

E		4.5	48.1
cb		5.8	46.8
1/4		7.6	45.0
c		8.8	43.8
1/2		9.9	42.7
cb		10.7	41.9
W		10.4	42.2
+10		10.0	42.6
	2+00		
-10		11.0	41.6



5260

W	10.8	41.8
cb	10.3	42.3
1/4	10.5	42.1
c	9.4	43.2
1/4	8.0	44.6
cb	6.0	46.6
E	4.2	48.4
2+25		
E	5.0	47.6
cb	6.2	46.4
1/4	8.5	44.1
c	9.9	42.7
1/4	10.4	42.2
cb	11.0	41.6
W	11.2	41.4
+10	12.1	40.5
2+50		
-10	13.3	39.3
W	11.8	40.8
cb	11.0	41.6
1/4	10.7	41.9

5260

65

C	9.3	43.3
+4	9.3	43.3
+7	8.2	44.4
cb	7.6	45.0
E	6.0	46.6
2+72		
E	6.7	45.9
+5	9.6	43.0
cb	9.6	43.0
1/4	9.8	42.8
c	11.3	41.3
1/4	11.7	40.9
cb	12.8	39.8
W	13.3	39.3
+10	13.7	38.9
2+85		
E-13	5.3	47.3
" -8	6.1	46.5
" -3	9.2	43.4
E	9.0	43.6
" cb	9.8	42.8



52.60

E 1/4	10.4	42.2
C	10.7	41.9
C + 19 S. Cor. Cemetery Wall	10.7	41.9
B + 00 = Sly Arista ST		
E - 22 Iron PIN	5.7	46.9
E - 18 hub	6.9	45.7
E - 15	8.5	44.1
F	8.4	44.0
eb	9.1	43.5
E 1/4	10.3	42.3
E 1/4 + 9.6 wall	10.3	42.3
K Arista		
E - 37	7.6	45.0
" - 25	8.7	43.9
E	9.0	43.6
" eb	9.2	43.4
E 1/4	9.9	42.7
+ 2 wall	10.0	42.6
M L Arista = 0400		
E - 20.3 = New E.L.	8.7	43.9
E = old E.L.	9.5	43.1

52.60

E c6	9.9	42.7	66	
+ 5.5 wall	9.5	43.1		
T.P.	3.62	46.21	10.01	42.59
0 + 13				
F - 24.7E Sing. gar.	2.0	44.2	0.1	44.2 floor
0 + 30				
E - 16	2.7	43.5		
E	4.0	42.2		
+ 8 Cor. wall	4.7	41.5		
0 + 58				
- 12	3.9	42.3		
E	5.1	41.1		
E c6	5.8	40.4		
" + 7 NE 1/4 Cor. do. gar.	5.8	40.4		40.4 cem. floor
1 + 00				
E - 6	4.6	41.6		
E	5.4	40.8		
eb	4.7	39.5		
+ 7 My end. CEM. RET. wall	6.8	39.4		



4621

1 + 41.7x = A on E.L.

E	6.6	39.6
cb	7.8	38.4
1/4	9.0	37.2
+10	9.6	36.6

1+65

E ♀ Com walk	7.5	38.7
cb	8.7	37.5
1/4	10.1	36.1
+4	10.5	35.7
+5	10.4	35.8
♀	11.1	35.1

1+88

E	9.0	37.2
cb	9.8	36.4
1/4	11.0	35.2
c	12.5	33.7

T.P. 447 38.64 12.04 34.17

c + 12.8 N end curb 5.35 33.29 on La Jolla ave.

" Pav. 5.76 32.88

3844

67

2+26

E-1 ♀ Com. wk 2.2 36.4

E 3.4 35.2

cb 3.9 34.7

1/4 5.4 33.2

+ 4.7 Pav. 5.68 32.96

2+58

E 5.0 33.6

cb Top com 5.16 33.48

" Pav. in gut 5.62 33.04

La Jolla Ave.  
SEBP CRISTA ST 3.20 35.44 35.48



Moore  
2-3-41

70' wide  
Xsec Newell St. 18' curbs  
8.5'  $\frac{1}{4}$  S  
Evergreen to Willow

NWB	11.64	20.03	8.39	Rosecrans Newell
T.P.	12.70	32.63	0.10	19.93
T.P.	12.97	45.42	0.18	32.45

E L Evergreen - 25 = CB PC

S	CB	7.03	3839
S	gvt	7.50	3792
N	"	6.50	3892
N	CB	5.97	3945

E L Evergreen

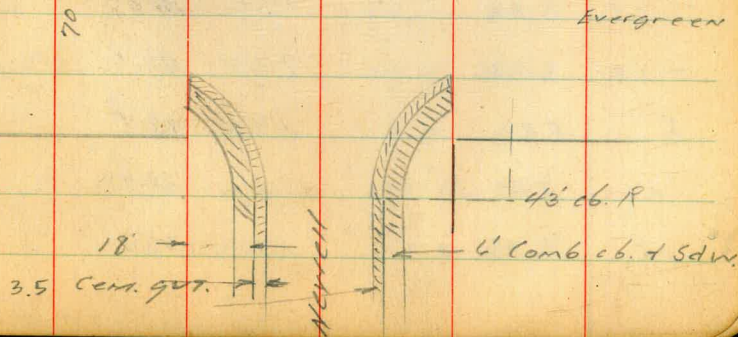
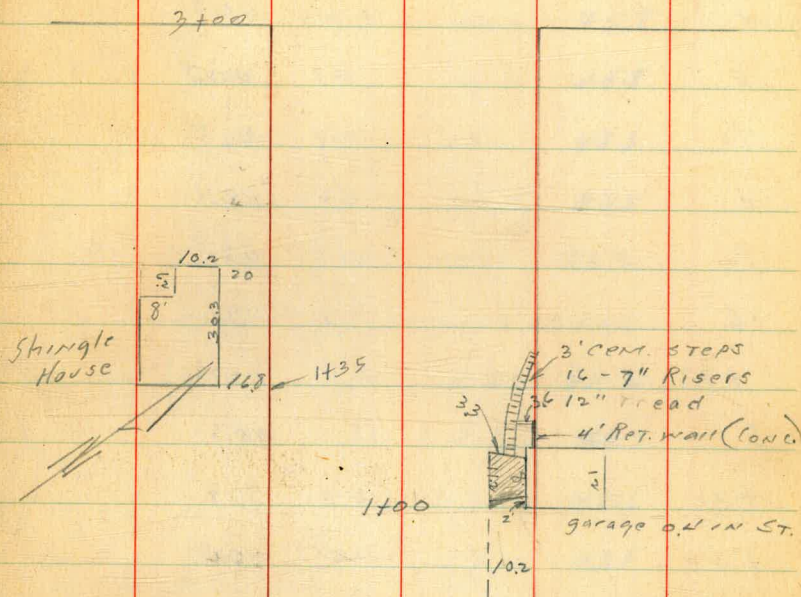
N	Top CB	246	4296
"	gvt	293	4249
S	"	536	4006
"	Top CB	478	4064

End cbs

SL	CB	492	40.50
SL	gvt	558	3984
NL	"	128	4414
NL	CB	0.82	4460

68

Willow





45.42

## E Evergreen

N	+0.5	45.94
cb	0.7	44.7
1/4	0.9	44.5
c	1.0	44.4
1/4	1.5	43.9
cb	1.8	43.6
+13	3.0	42.4
S	5.1	40.3
+10	8.0	37.4
+20	8.8	36.6

T.P. 12.77 57.99 0.20 45.22

## W. cb Evergreen

-20	19.1	38.9
-10	17.9	40.1
S	14.6	43.4
+5	13.6	44.4
cb	12.7	45.3

57.99

69

1/4	12.8	45.2
c	12.2	45.8
1/4	12.2	45.8
cb	12.1	45.9
N	10.5	47.5
+2	6.8	51.2
W. L. Evergreen = 0 + 0.0		
-4	+3.2	61.2
N	8.3	49.7
+15	9.4	48.6
cb	10.9	42.1
1/4	10.6	42.4
c	10.6	42.4
1/4	11.1	46.9
+2	11.0	47.0
cb	10.9	42.1
+13	12.7	45.3
S	14.8	43.2
+10	16.8	41.2
+20	17.6	40.4



57.99

0 + 25

-15	11.7	46.3
S	9.4	48.4
c6	6.0	52.0
1/4	6.9	51.1
C	6.7	51.3
1/4	7.0	51.0
c6	5.9	52.1
N	4.6	53.4
+1	4.0	54.0
+3	+5.8	63.8

0 + 50

-3	+11.4	69.4
N	+5.3	63.3
+6	0.1	57.9
c6	0.2	57.8
1/4	0.4	57.6
C	1.1	56.9
1/4	1.5	56.5
+2	2.2	55.8

57.99

70

+3	1.2	56.8		
c6	1.0	57.0		
S	4.6	53.4		
+15	7.6	50.4		
T.P.	12.75	70.22	0.02	57.97

0 + 75

-15	15.1	55.1	
S	12.4	57.8	
c6	7.7	62.5	
+5	7.6	62.6	
+7	8.5	61.7	
1/4	8.3	61.9	
C	7.5	62.7	
1/4	6.0	64.2	
c6	3.1	67.1	
N	+3.4	73.6	
+8	E dirt drive	+3.9	74.1



70.22

0+83

N	E dia. Dr.	+2.7	72.9
cb		+0.6	70.8
1/4		3.9	66.3
c	S.M.H. Rim	5.58	64.64

T.P.	908	78.91	0.39	69.83
------	-----	-------	------	-------

1+00

N	+0.4 EL. gar. sl. Con	5.91	73.00
---	-----------------------	------	-------

	+10.2 Con. Cem. apron	6.84	72.07
--	-----------------------	------	-------

cb		8.1	70.8
----	--	-----	------

1/4		9.9	69.0
-----	--	-----	------

c		10.7	68.2
---	--	------	------

1/4		11.3	67.6
-----	--	------	------

cb		12.2	66.7
----	--	------	------

S		16.8	66.1
---	--	------	------

+15		20.1	58.8
-----	--	------	------

1+06

N	+0.4 E gar Cem. fl	5.92	72.99
---	--------------------	------	-------

	+10.2 E apron	6.58	72.33
--	---------------	------	-------

78.91

71

1+12

N	+0.4 W.L. gar	5.93	72.98	Cem fl
---	---------------	------	-------	--------

N	+5.4 Bot. steps	6.12	72.79	on apron
---	-----------------	------	-------	----------

N	+10.8 Con. Cem. apron	6.30	72.61
---	-----------------------	------	-------

1+25

-15		17.4	61.3
-----	--	------	------

S		12.9	66.0
---	--	------	------

cb		8.6	70.3
----	--	-----	------

1/4		7.1	71.8
-----	--	-----	------

c		7.0	71.9
---	--	-----	------

1/4		6.7	72.2
-----	--	-----	------

cb		5.8	73.1
----	--	-----	------

+6		5.4	73.5
----	--	-----	------

+12		0.6	78.3
-----	--	-----	------

+15		0.6	78.3
-----	--	-----	------

N	Top Steps	+3.0	81.9
---	-----------	------	------

1+50

N		+4.2	83.1
---	--	------	------

+6		+1.8	80.7
----	--	------	------

+10		2.6	76.3
-----	--	-----	------



78.91

cb	4.2	78.7
1/4	4.9	78.0
c	4.8	74.1
1/4	5.0	73.9
cb	6.9	72.0
S	12.4	66.5
+19 floor El. Shingle house	17.2	61.7
1+75		
-15	16.8	62.1
S	12.8	66.1
+10	10.1	68.8
cb	6.7	72.2
1/4	4.4	74.5
1/4	4.1	74.8
c	3.4	75.5
1/4	3.1	75.8
cb	3.1	75.8
+9	1.8	77.1
+12	+4.7	83.6
N	+5.2	84.1

78.91

72

2+00		
N	+5.6	84.5
+4	+4.2	83.1
+6	0.6	78.3
cb	2.6	76.3
1/4	3.1	75.8
c	3.5	75.4
1/4	3.4	75.5
+2	3.8	75.1
cb	8.4	70.5
+5	11.0	67.3
S	14.9	64.0
+15	19.9	59.0
2+25		
-15	22.4	56.5
S	18.6	60.3
cb	9.5	69.4
1/4	4.3	74.6
c	3.5	75.4
1/4	3.2	75.7



78.91

cb	3.2	95.7
+12	1.7	72.2
N	+4.1	83.0
2+50		
N	+0.5	79.4
+1	1.5	72.4
cb	3.0	76.9
1/4	3.7	75.2
c	8.4	70.5
1/4	10.8	68.1
cb	15.2	63.7
S	21.2	57.7
+15	25.3	53.6
2+75		
-15	28.3	50.6
S	24.7	54.2
cb	19.6	59.3
1/4	16.9	62.0
c	12.1	64.8
1/4	10.8	68.1

78.91

73

cb	6.8	72.1
+13	2.7	76.2
H	2.2	76.7
3+00 Fly Willow		
N	5.4	73.3
cb	10.7	68.2
1/4	13.4	65.5
T.P.	0.22	66.49
c	2.7	63.8
1/4	6.2	60.3
cb	9.6	56.9
S	15.4	51.1
+15	19.3	47.2
swBP, Willow Lowell		
	14.34	52.5
		52.6



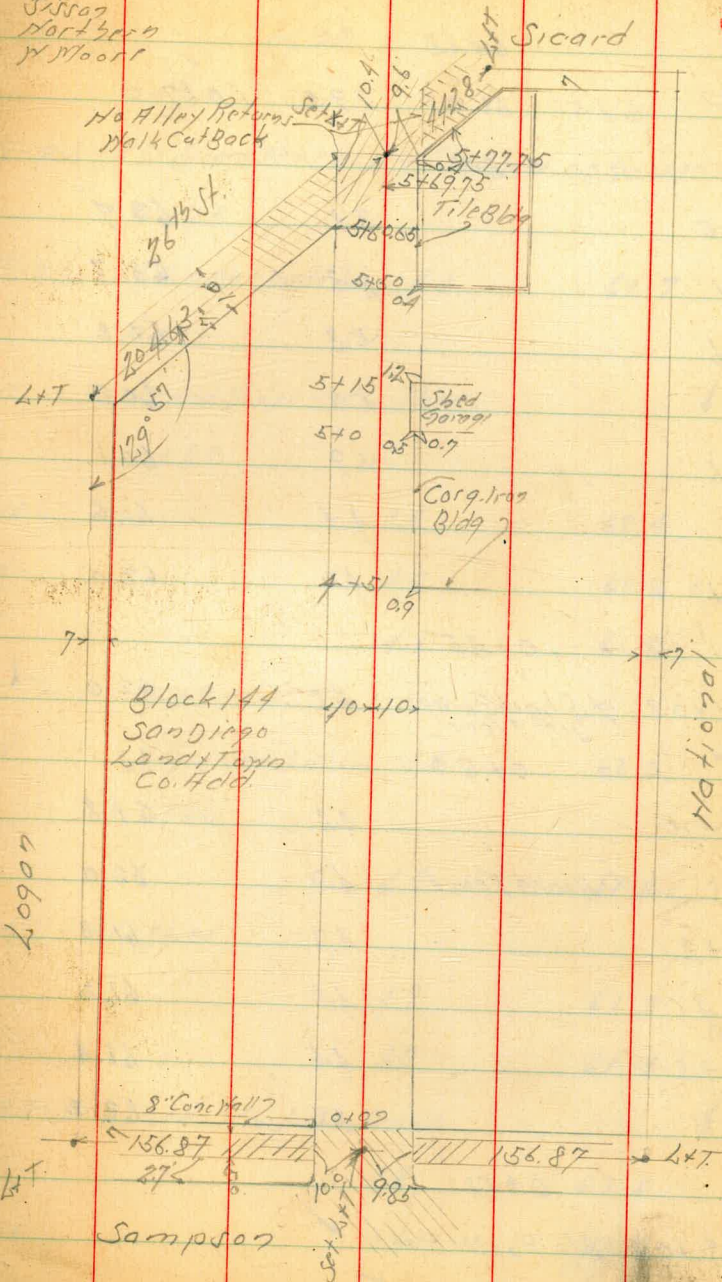
Cross Section Alley Block 144  
San Diego Land & Tract Co. Add.

Intersect  
LM

BM	9.60	63.62	54.02	NEOP National Sampson
		0-10 = FCB Sampson		
S on Paving		5.64	57.98	
1/2 "		5.22	58.30	
1/4 "		5.00	58.62	
		0+0 = FL Sampson		
N Top Wall		4.17	63.79	
N Top CB		4.05	59.57	
Gutter on Paving		4.38	59.24	
1/2 "		4.86	58.76	
Gutter		4.85	58.77	
S Top CB		4.81	58.81	
		0+05		
-10		2.6	61.0	
S		2.6	60.0	
+6		4.7	58.9	
1/2		4.5	59.1	
+5		4.3	59.3	
N		1.1	62.5	
+5		0.0	63.6	

Red. plot on Profile 2189  
4-16-41 C.B.H.

April 15-41  
Sisson  
North 30° W  
W Floor



74



		63.62		
TP	5.85	66.02	2.95	60.67
		0+25		
-5		2.3		63.7
H		2.3		63.7
+6		5.8		60.2
$\frac{1}{2}$		5.8		60.2
+6		5.9		60.1
S		4.4		61.6
+10		4.0		62.0
		0+45		
H+0.3	= $\frac{1}{2}$ Shack Garage Dirt Floor	4.0		62.0 ✓
		0+50		
-10		4.2		61.8
S	= Wly Board Fence	4.0		62.0
+2		4.7		61.3
$\frac{1}{2}$		4.8		61.2
+5		4.6		61.4
H		3.8		62.2
		0+51		
S+0.8	= Wly Paper Pole ✓			
H+0.6	= Wly Tel Pole ✓			
H+0.3	= Wly Board Fence			

		66.02		75
		0+70		
S-0.2	= Fly Board Fence = Wly Shed or Garage ✓			
		0+73		
S-0.7	= $\frac{1}{2}$ Garage Dirt Floor 4.3		61.7	✓
		0+76		
H	= Fly Board Fence = Wly Shed			✓
		0+80		
H			3.6	62.4
$\frac{1}{2}$			4.5	61.5
S			4.5	61.5
		0+94		
H	= $\frac{1}{2}$ Garage Dirt Floor 3.5		62.5	✓
		1+0		
-5			4.8	61.2
S-0.7	= Fly Shed			
S			4.7	61.3
$\frac{1}{2}$			4.5	61.5
+9.9	= Fly Shed = Wly Lat 4 Fence			✓
H			3.8	62.2
+5			3.4	62.6



66.02

1+20

H+0.1 = Fly Lath Fence = 1/4 5 bed ✓

1+29

4.4

61.6 ✓

H = 2 Garage Dirt Floor

1+46

H+0.2 = 1/4 1/2 Tall Pole ✓

1+50

-10

3.8

62.2

H

4.2

61.8

d

4.8

61.2

S

5.1

60.9

+5

5.1

60.9

1+51

S-0.2 = 1/4 Board Fence ✓

1+66

H-0.2 = 1/4 Shack Garage  
Dirt Floor

4.9

61.1 ✓

1+75

S+1.5 = 1/4 Pole Pole ✓

1+77

S-0.7 = 1/4 Board Fence ✓

66.02

1+89

S-3.6 = 2 Garage Dirt Floor 5.9

60.1 ✓

2+0

-3.6 = Fly On Garage 6.3

59.7 ✓

S

6.2

59.8

d

6.4

59.6

H

6.0

60.0

+0.3 = 1/4 Board Bldg. ✓

+5

5.4

60.6

2+12

S-4.0 = 2 Garage Dirt Floor 6.2

59.7 ✓

2+26

H = Fly Board Bldg.  
Fly Part of Garage Dirt F

7.1

58.9 ✓

2+31

H = 1/4 Board Fence ✓

2+50

-10

7.8

58.2

H

7.9

58.1

d

8.0

58.0

S

8.2

57.8

+10

7.7

58.3



66.02

2+57

S-22  $\frac{1}{2}$  Garage Dirt Floor 8.6 57.4 ✓

2+95

S+0.2 = Fly Board Fence ✓

2+79

H+0.2 = 1/4 1/4 T&amp;I Pole ✓

2+86

S+1.7 = Fly Power Pole ✓

2+93

S+0.8 = Fly Board Fence ✓

3+0

-10 10.3 55.7

S 9.2 56.8

+3 8.8 57.2

Z 8.7 57.3

H 8.1 57.9

3+13

H-0.5 =  $\frac{1}{2}$  2.5 Conc Walk 7.63 58.39 ✓

3+16

H = Fly Board Fence

-0.4 = Fly Dwelling  
Conc Found Top 6.48 59.54 ✓

66.02

77

3+37

H-0.3 = Fly Dwelling  
Conc Found Top 6.30 59.72 ✓

= Fly Board Fence

3+50

-5 7.9 58.1

H 8.2 57.8

Z 8.8 57.2

S 9.1 56.9

+10 9.8 56.2

3+63

H = Fly Board Fence ✓

3+69

H =  $\frac{1}{2}$  11.2 Conc Apron 7.67 58.35 ✓H-5.0 =  $\frac{1}{2}$  Garage Conc Floor 7.10 58.92 ✓

3+81

H-0.5 =  $\frac{1}{2}$  Garage Dirt Floor 7.7 58.3 ✓

4+0

-10 9.8 56.2

S 9.1 56.9

+5 8.6 57.4



66.02

Z 81 57.9

H 77 58.3

4+06

S-3.5 = 1/2 Garage Dirt Floor 9.4 56.6 ✓

4+09

H-0.7 = Fly Shed ✓

4+17

S+2.0 = Sky Power Pole ✓

S+0.5 = Wly Board Fence

4+25

S+0.7 = Fly Board Fence

H = Wly Tel Pole ✓

-0.8 = 1/4 4 Garage Dirt Floor 7.6 58.4 ✓

4+30

H 78 58.2

Z 8.3 57.7

S 88 57.2

+10 9.3 56.7

4+51

S+0.9 = Wly Corq Bldg

66.02

78

4157

H-0.9 = Fly 4 Garage 7.5 58.5 ✓  
Dirt Floor ✓

TP 3.13 60.97 8.18 57.84 ✓

4+65

H-0.7 = 1/2 3.8 Concrete Walk 2.42 58.55 ✓

4+72

H-4 = Wly 3 Car Garage 2.8 58.2 ✓  
Dirt Floor

4+86

S+0.8 = 1/2 8' Door Corq Bldg 3.3 57.7 ✓  
Bottom Door

4+94

H-4 = Fly 3 Car Garage 2.8 58.2 ✓  
Dirt Floor

5+0

S 3.5 57.5

Z 3.6 57.4

H 3.3 57.7

5+04

H-3.9 = Wly 4 Car Garage 3.2 57.8 ✓  
Dirt Floor

5+09

H+1.2 = 1/2 10' Open 2.9 Garage 3.6 57.4  
Dirt Floor

5+19

H-0.9 = Wly Tel Pole ✓



60.97

5+24

5+15 = Sky Power Pole ✓

5+34

H-4 = Fly Car Garage 3.9 57.1 ✓  
Dirt Floor

5+50

-10 4.6 56.4

H 4.7 56.3

L 5.0 56.0

+6 4.6 56.4

+96 = Fly Tile Bldg 4.1 56.9

5+60.65

5+0.4 4.3 56.7

L 5.2 55.8

H 5.2 55.8

+0.4 = Top Walk + Parking 4.96 56.01

5+69.75 = Fly 26<sup>th</sup> St Taken on 1/10/09

H = Walk + Parking 4.96 56.01

L on Parking 5.46 55.51

S = Walk + Parking 5.71 55.26

60.97

5+82.79 = Fly 26<sup>th</sup> St on 1/10/09

S on Parking 6.77 54.20

L " " 6.26 54.71

H " " 5.92 55.05

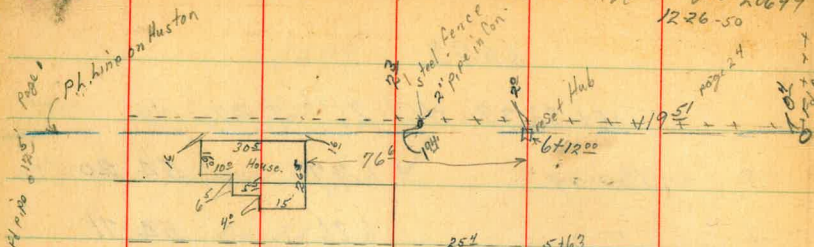
BM 11.01 49.96

N.E.B.P.  
Nationalt  
26<sup>th</sup> St  
4996



D. Smith

Encroachments Houston Ave No. 20644  
1226-50

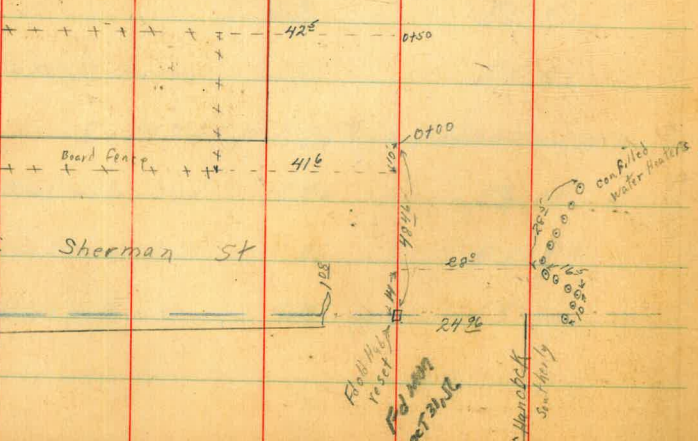
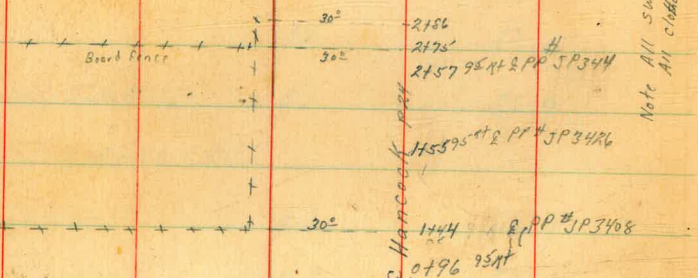


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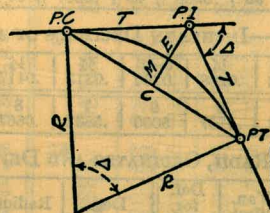
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Note All Survey Bearings P.M. are 2.5° East  
All Chords are 105 East

# DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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## CURVE FORMULAS

Radius= $R = \frac{50}{\sin \frac{D}{2}}$  (1) Degree of Curve= $D$  and  $\sin \frac{D}{2} = \frac{50}{R}$  (2)

Tangent= $T = R \tan \frac{\Delta}{2}$  (3) Length of Curve= $L = 100 \frac{\Delta}{D}$  (4)

Middle ordinate= $M = R(1 - \cos \frac{\Delta}{2})$  (5)  $= R \text{vers} \frac{\Delta}{2}$  (6)

External= $E = T \tan \frac{\Delta}{4}$  (7)  $= R \div \cos \frac{\Delta}{2} - R$  (8)  $= R \text{exsec} \frac{\Delta}{2}$  (9)

Long Chord= $C = 2 R \sin \frac{\Delta}{2}$  (10)  $\Delta = \text{Central Angle}$

## EXPLANATION AND USE OF TABLES

**Stations.**—Given P. I.—Sta. 161+60.35 to find Sta. of P. C. and P. T.  $\Delta = 62^\circ 10'$   $D = 8^\circ 20'$ . From Table IV for  $1^\circ$  curve  $T = 3454.1$  and  $+8\frac{1}{3} = 414.49$  ft. From Table V correction = .36 or  $T = 414.85$  ft. P. C.—Sta. P. I.— $T = 157 + 45.50$ . Also from (4)  $L = 746.00$  and P. T.—Sta. P. C. +  $L = 164 + 91.50$ .

**Offsets.**—Tangent offsets vary (approximately) directly with  $D$  and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft. = 7.27 ft. Distance = 158—Sta. P. C. = 54.50, hence offset =  $7.27 (54.50 \div 100)^2 = 2.16$  ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus  $(54.50)^2 \div (2 \times 688.26) = 2.16$  ft.

**Deflections.**—Deflection angle =  $\frac{1}{2} D$  for 100 ft.,  $\frac{1}{4} D$  for 50 ft., etc. For  $c$  ft. = (in minutes)  $.3 \times C \times D^2$  or = defl. for 1 ft. from Table III  $\times C$ . For Sta. 158 of above curve =  $.3 \times 54.5 \times 8\frac{1}{3} = 136.2'$  or  $2^\circ 16.2'$ , or =  $2.50 \times 54.5 = 136.2'$  from Table III. For Sta. 159 deflection angle =  $2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$ , etc.

**Externals.**—May be found in similar manner to tangents. Thus  $E$  for curve above is 91.37. For from Table IV for  $1^\circ$  curve  $E = 960.6$  for  $8^\circ 20' = 960.6 \div 8\frac{1}{3} = 91.27$  and from Table V correction = .10 or  $E = 91.37$  ft. Or suppose  $\Delta = 32^\circ$  and  $E$  is measured and found to be 42 ft. What is  $D$ ? From Table IV  $E = 230.9$  and  $\div 42 = 5.5$  or  $D = 5^\circ 30'$ .



TABLE IV.—TANGENTS AND EXTERNALS TO A 1° CURVE.

Central Angle	Tangent	External	Central Angle	Tangent	External	Central Angle	Tangent	External
31°	1589.0	216.3	41°	2142.2	387.4	51°	2732.9	618.4
10'	1598.0	218.7	10'	2151.7	390.7	10'	2743.1	622.8
20	1606.9	221.1	20	2161.2	394.1	20	2753.4	627.2
30	1615.9	223.5	30	2170.8	397.4	30	2763.7	631.7
40	1624.9	226.0	40	2180.3	400.8	40	2773.9	636.2
50	1633.9	228.4	50	2189.9	404.2	50	2784.2	640.7
32°	1643.0	230.9	42°	2199.4	407.6	52°	2794.5	645.2
10	1652.0	233.4	10	2209.0	411.1	10	2804.9	649.7
20	1661.0	235.9	20	2218.6	414.5	20	2815.2	654.3
30	1670.0	238.4	30	2228.1	418.0	30	2825.6	658.8
40	1679.1	241.0	40	2237.7	421.4	40	2835.9	663.4
50	1688.1	243.5	50	2247.3	425.0	50	2846.3	668.0
33°	1697.2	246.1	43°	2257.0	428.5	53°	2856.7	672.7
10	1706.3	248.7	10	2266.6	432.0	10	2867.1	677.3
20	1715.3	251.3	20	2276.2	435.6	20	2877.5	682.0
30	1724.4	253.9	30	2285.9	439.2	30	2888.0	686.7
40	1733.5	256.5	40	2295.6	442.8	40	2898.4	691.4
50	1742.6	259.1	50	2305.2	446.4	50	2908.9	696.1
34°	1751.7	261.8	44°	2314.9	450.0	54°	2919.4	700.9
10	1760.8	264.5	10	2324.6	453.6	10	2929.9	705.7
20	1770.0	267.2	20	2334.3	457.3	20	2940.4	710.5
30	1779.1	269.9	30	2344.1	461.0	30	2951.0	715.3
40	1788.2	272.6	40	2353.8	464.6	40	2961.5	720.1
50	1797.4	275.3	50	2363.5	468.4	50	2972.1	725.0
35°	1806.6	278.1	45°	2373.3	472.1	55°	2982.7	729.9
10	1815.7	280.8	10	2383.1	475.8	10	2993.3	734.8
20	1824.9	283.6	20	2392.8	479.6	20	3003.9	739.7
30	1834.1	286.4	30	2402.6	483.3	30	3014.5	744.6
40	1843.3	289.2	40	2412.4	487.2	40	3025.2	749.6
50	1852.5	292.0	50	2422.3	491.0	50	3035.8	754.6
36°	1861.7	294.9	46°	2432.1	494.8	56°	3046.5	759.6
10	1870.9	297.7	10	2441.9	498.7	10	3057.2	764.6
20	1880.1	300.6	20	2451.8	502.5	20	3067.9	769.7
30	1889.4	303.5	30	2461.7	506.4	30	3078.7	774.7
40	1898.6	306.4	40	2471.5	510.3	40	3089.4	779.8
50	1907.9	309.3	50	2481.4	514.3	50	3100.2	784.9
37°	1917.1	312.2	47°	2491.3	518.2	57°	3110.9	790.1
10	1926.4	315.2	10	2501.2	522.2	10	3121.7	795.2
20	1935.7	318.1	20	2511.2	526.1	20	3132.6	800.4
30	1945.0	321.1	30	2521.1	530.1	30	3143.4	805.6
40	1954.3	324.1	40	2531.1	534.2	40	3154.2	810.9
50	1963.6	327.1	50	2541.0	538.2	50	3165.1	816.1
38°	1972.9	330.2	48°	2551.0	542.2	58°	3176.0	821.4
10	1982.2	333.2	10	2561.0	546.3	10	3186.9	826.7
20	1991.5	336.3	20	2571.0	550.4	20	3197.8	832.0
30	2000.9	339.3	30	2581.0	554.5	30	3208.8	837.3
40	2010.2	342.4	40	2591.0	558.6	40	3219.7	842.7
50	2019.6	345.5	50	2601.1	562.8	50	3230.7	848.1
39°	2029.0	348.6	49°	2611.2	566.9	59°	3241.7	853.5
10	2038.4	351.8	10	2621.2	571.1	10	3252.7	858.9
20	2047.8	354.9	20	2631.3	575.3	20	3263.7	864.3
30	2057.2	358.1	30	2641.4	579.5	30	3274.8	869.8
40	2066.6	361.3	40	2651.5	583.8	40	3285.8	875.3
50	2076.0	364.5	50	2661.6	588.0	50	3296.9	880.8
40°	2085.4	367.7	50°	2671.8	592.3	60°	3308.0	886.4
10	2094.9	371.0	10	2681.9	596.6	10	3319.1	892.0
20	2104.3	374.2	20	2692.1	600.9	20	3330.3	897.5
30	2113.8	377.5	30	2702.3	605.3	30	3341.4	903.2
40	2123.3	380.8	40	2712.5	609.6	40	3352.6	908.8
50	2132.7	384.1	50	2722.7	614.0	50	3363.8	914.5

TABLE IV.—TANGENTS AND EXTERNALS TO A 1° CURVE.

Central Angle	Tangent	External	Central Angle	Tangent	External	Central Angle	Tangent	External
61°	3375.0	920.2	71°	4086.9	1308.2	81°	4893.6	1805.3
10'	3386.3	925.9	10'	4099.5	1315.6	10'	4908.0	1814.7
20	3397.5	931.6	20	4112.1	1322.9	20	4922.5	1824.1
30	3408.8	937.3	30	4124.8	1330.3	30	4937.0	1833.6
40	3420.1	943.1	40	4137.4	1337.7	40	4951.5	1843.1
50	3431.4	948.9	50	4150.1	1345.1	50	4966.1	1852.6
62°	3442.7	954.8	72°	4162.8	1352.6	82°	4980.7	1862.2
10	3454.1	960.6	10	4175.6	1360.1	10	4995.4	1871.8
20	3465.4	966.5	20	4188.5	1367.6	20	5010.0	1881.5
30	3476.8	972.4	30	4201.2	1375.2	30	5024.8	1891.2
40	3488.3	978.3	40	4214.0	1382.8	40	5039.5	1900.9
50	3499.7	984.3	50	4226.8	1390.4	50	5054.3	1910.7
63°	3511.1	990.2	73°	4239.7	1398.0	83°	5069.2	1920.5
10	3522.6	996.2	10	4252.6	1405.7	10	5084.0	1930.4
20	3534.1	1002.3	20	4265.6	1413.5	20	5099.0	1940.3
30	3545.6	1008.3	30	4278.5	1421.2	30	5113.9	1950.3
40	3557.2	1014.4	40	4291.5	1429.0	40	5128.9	1960.2
50	3568.7	1020.5	50	4304.6	1436.8	50	5143.9	1970.3
64°	3580.3	1026.6	74°	4317.6	1444.6	84°	5159.0	1980.4
10	3591.9	1032.8	10	4330.7	1452.5	10	5174.1	1990.5
20	3603.5	1039.0	20	4343.8	1460.4	20	5189.3	2000.6
30	3615.1	1045.2	30	4356.9	1468.4	30	5204.4	2010.8
40	3626.8	1051.4	40	4370.1	1476.4	40	5219.7	2021.1
50	3638.5	1057.7	50	4383.3	1484.4	50	5234.9	2031.4
65°	3650.2	1063.9	75°	4396.5	1492.4	85°	5250.3	2041.7
10	3661.9	1070.2	10	4409.8	1500.5	10	5265.6	2052.1
20	3673.7	1076.6	20	4423.1	1508.6	20	5281.0	2062.5
30	3685.4	1082.9	30	4436.4	1516.7	30	5296.4	2073.0
40	3697.2	1089.3	40	4449.7	1524.9	40	5311.9	2083.5
50	3709.0	1095.7	50	4463.1	1533.1	50	5327.4	2094.1
66°	3720.9	1102.2	76°	4476.5	1541.4	86°	5343.0	2104.7
10	3732.7	1108.6	10	4489.9	1549.7	10	5358.6	2115.3
20	3744.6	1115.1	20	4503.4	1558.0	20	5374.2	2126.0
30	3756.5	1121.7	30	4516.9	1566.3	30	5389.9	2136.7
40	3768.5	1128.2	40	4530.4	1574.7	40	5405.6	2147.5
50	3780.4	1134.8	50	4544.0	1583.1	50	5421.4	2158.4
67°	3792.4	1141.4	77°	4557.6	1591.6	87°	5437.2	2169.2
10	3804.4	1148.0	10	4571.2	1600.1	10	5453.1	2180.2
20	3816.4	1154.7	20	4584.8	1608.6	20	5469.0	2191.1
30	3828.4	1161.3	30	4598.5	1617.1	30	5484.9	2202.2
40	3840.5	1168.1	40	4612.2	1625.7	40	5500.9	2213.2
50	3852.6	1174.8	50	4626.0	1634.4	50	5517.0	2224.3
68°	3864.7	1181.6	78°	4639.8	1643.0	88°	5533.1	2235.5
10	3876.8	1188.4	10	4653.6	1651.7	10	5549.2	2246.7
20	3889.0	1195.2	20	4667.4	1660.5	20	5565.4	2258.0
30	3901.2	1202.0	30	4681.3	1669.2	30	5581.6	2269.3
40	3913.4	1208.9	40	4695.2	1678.1	40	5597.8	2280.6
50	3925.6	1215.8	50	4709.2	1686.9	50	5614.2	2292.0
69°	3937.9	1222.7	79°	4723.2	1695.8	89°	5630.5	2303.5
10	3950.2	1229.7	10	4737.2	1704.7	10	5646.9	2315.0
20	3962.5	1236.7	20	4751.2	1713.7	20	5663.4	2326.6
30	3974.8	1243.7	30	4765.3	1722.7	30	5679.9	2338.2
40	3987.2	1250.8	40	4779.4	1731.7	40	5696.4	2349.8
50	3999.5	1257.9	50	4793.6	1740.8	50	5713.0	2361.5
70°	4011.9	1265.0	80°	4807.7	1749.9	90°	5729.7	2373.3
10	4024.4	1272.1	10	4822.0	1759.0	10	5746.3	2385.1
20	4036.8	1279.3	20	4836.2	1768.2	20	5763.1	2397.0
30	4049.3	1286.5	30</					



TABLE VI.—CORRECTIONS FOR SUB-CHORDS AND LONG CHORDS.

FOR SUB-CHORDS ADD										Excess of arc per 100 ft.	LONG CHORDS				
D	10	20	30	40	50	60	70	80	90		D	200	300	400	500
4°	.00	.00	.01	.01	.01	.01	.01	.01	.00	.02	1	199.99	299.97	399.92	499.85
6	.00	.01	.01	.02	.02	.02	.02	.02	.01	.05	2	199.97	299.88	399.70	499.39
8	.01	.02	.02	.03	.03	.03	.03	.03	.02	.08	3	199.93	299.73	399.32	498.63
10	.01	.02	.03	.04	.05	.05	.05	.04	.02	.13	4	199.88	299.51	398.78	497.57
12	.02	.04	.05	.06	.07	.07	.07	.05	.03	.18	5	199.81	299.24	398.10	496.20
14	.02	.05	.07	.08	.09	.10	.09	.07	.04	.25	6	199.73	298.90	397.26	494.53
16	.03	.06	.09	.11	.12	.12	.12	.09	.05	.33	7	199.63	298.51	396.28	492.57
18	.04	.08	.11	.14	.15	.16	.15	.12	.07	.41	8	199.51	298.05	395.14	490.31
20	.05	.10	.14	.17	.19	.20	.18	.15	.09	.51	9	199.38	297.54	393.86	487.75
22	.06	.12	.17	.21	.23	.24	.22	.18	.10	.62	10	199.24	296.96	392.42	484.90
24	.07	.14	.20	.25	.28	.28	.26	.21	.12	.74	12	198.90	295.63	389.12	478.34
26	.09	.17	.24	.29	.32	.33	.31	.25	.15	.86	14	198.51	294.06	385.22	470.65
28	.10	.19	.27	.34	.37	.38	.36	.29	.17	1.00	16	198.05	292.25	380.76	461.86
30	.11	.22	.31	.39	.43	.44	.41	.33	.19	1.15	18	197.54	290.21	375.74	452.02
32	.13	.25	.36	.44	.49	.50	.47	.38	.22	1.31	20	196.96	287.94	370.17	441.15
34	.15	.28	.40	.50	.55	.57	.53	.43	.25	1.48	22	196.32	285.44	364.06	429.30
36	.17	.32	.45	.56	.62	.64	.59	.48	.28	1.66	24	195.63	282.71	357.43	416.53
38	.18	.36	.51	.62	.70	.71	.66	.53	.31	1.86	26	194.87	279.76	350.30	402.89
40	.21	.40	.56	.69	.77	.79	.73	.59	.35	2.06	28	194.06	276.59	342.69	388.43
42	.23	.44	.62	.76	.85	.87	.81	.65	.38	2.28	30	193.18	273.20	334.61	373.20
44	.25	.48	.68	.84	.94	.96	.89	.72	.42	2.50	32	192.25	269.63	326.08	357.28
46	.27	.52	.75	.92	1.02	1.05	.98	.78	.46	2.74	34	191.26	265.81	317.12	340.73
48	.30	.57	.81	1.00	1.12	1.14	1.06	.86	.50	2.99	36	190.21	261.80	307.77	323.61
50	.32	.62	.89	1.09	1.21	1.24	1.15	.93	.55	3.24	38	189.10	257.60	298.03	305.99
52	.35	.67	.96	1.18	1.31	1.35	1.25	1.01	.59	3.52	40	187.94	253.21	287.94	287.94
54	.38	.73	1.04	1.28	1.42	1.46	1.35	1.09	.64	3.80	42	186.72	248.63	277.51	269.54
56	.41	.78	1.12	1.38	1.53	1.57	1.46	1.17	.69	4.09	44	185.44	243.87	266.78	250.85
58	.44	.84	1.20	1.48	1.65	1.69	1.57	1.26	.74	4.40	46	184.10	239.93	255.78	231.95
60	.47	.91	1.29	1.59	1.76	1.81	1.68	1.35	.80	4.72	48	182.71	233.83	244.51	212.92

NOTE.—When a chord of less than 100 ft. is used the corrections given in the above table should be added to the nominal length of chord to get the length which should be used in order that the 100 ft. points will check with those obtained by using the standard 100 ft. chord. Thus in locating a 14° curve by 25 ft. chords measure 25'.06 for each chord. Long chords are useful in passing obstacles.

TABLE VII.—MIDDLE ORDINATES FOR RAILS IN FEET.

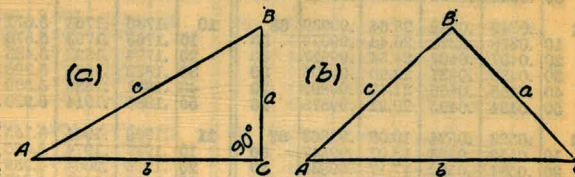
Deg. of Curve	LENGTH OF RAILS							Deg. of Curve	LENGTH OF RAILS.						
	32	30	28	26	24	22	20		32	30	28	26	24	22	20
1°	.022	.020	.016	.013	.011	.009	.008	16°	.356	.313	.273	.236	.200	.170	.139
2	.045	.038	.034	.029	.025	.021	.017	17	.378	.333	.290	.252	.213	.180	.148
3	.067	.058	.051	.044	.037	.031	.026	18	.400	.351	.306	.265	.225	.190	.156
4	.089	.079	.069	.060	.050	.042	.035	19	.423	.371	.324	.280	.238	.201	.165
5	.112	.099	.086	.074	.063	.053	.044	20	.445	.392	.341	.296	.250	.212	.174
6	.134	.117	.102	.088	.076	.064	.052	21	.466	.410	.357	.309	.262	.222	.182
7	.156	.137	.120	.104	.088	.074	.061	22	.487	.430	.375	.325	.275	.233	.191
8	.179	.158	.137	.119	.100	.085	.070	23	.509	.450	.390	.338	.287	.243	.199
9	.201	.175	.153	.133	.112	.095	.078	24	.531	.469	.408	.354	.299	.253	.208
10	.223	.196	.171	.148	.125	.106	.087	25	.552	.486	.424	.367	.311	.263	.216
11	.245	.216	.188	.163	.139	.117	.096	26	.573	.506	.441	.382	.323	.274	.225
12	.268	.236	.206	.179	.151	.128	.105	27	.594	.524	.457	.396	.335	.284	.233
13	.290	.254	.222	.192	.163	.138	.113	28	.618	.545	.475	.411	.348	.294	.242
14	.312	.275	.239	.207	.175	.148	.122	29	.638	.564	.491	.424	.361	.303	.250
15	.334	.295	.257	.223	.188	.159	.131	30	.660	.583	.508	.438	.374	.313	.259

SLOPE REDUCTIONS.

When distances are measured on a slope they may be reduced to the equivalent horizontal distance by the following approximate rule:—subtract from the slope distance the square of the rise divided by twice the slope distance. Thus for a slope distance of 250.3 ft. and a rise of 15 ft. correction=15<sup>2</sup>÷2×250.3=.45 (by slide rule) or horizontal distance=250.3-.45=249.85. When vertical angle=V. A. is measured horizontal distance=slope distance—slope distance (1—Cos. V. A.). Thus for slope distance of 248.7 ft. and V. A. of 4° 20' from Table VIII Cos=.99714 and correction=1-.99714=.00286 per foot or total of .286×2½ (near enough)=.57 and horizontal distance=248.7-.57=248.13 ft.

See fig. (a). TRIGONOMETRICAL FORMULAS.

- sin. A =  $\frac{a}{c}$
- cos. A =  $\frac{b}{c}$
- tan. A =  $\frac{a}{b}$
- cot. A =  $\frac{b}{a}$
- sec. A =  $\frac{c}{b}$
- cosec. A =  $\frac{c}{a}$



FORMULA FOR SOLVING TRIANGLES.

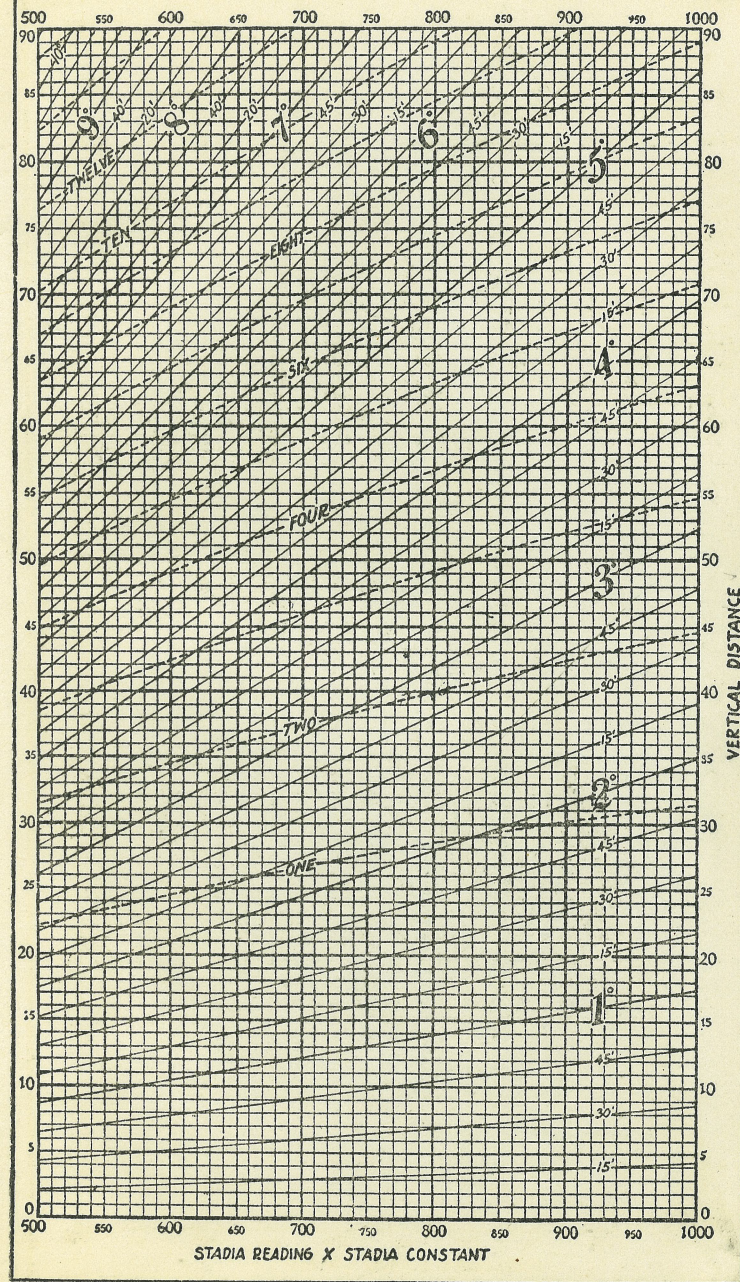
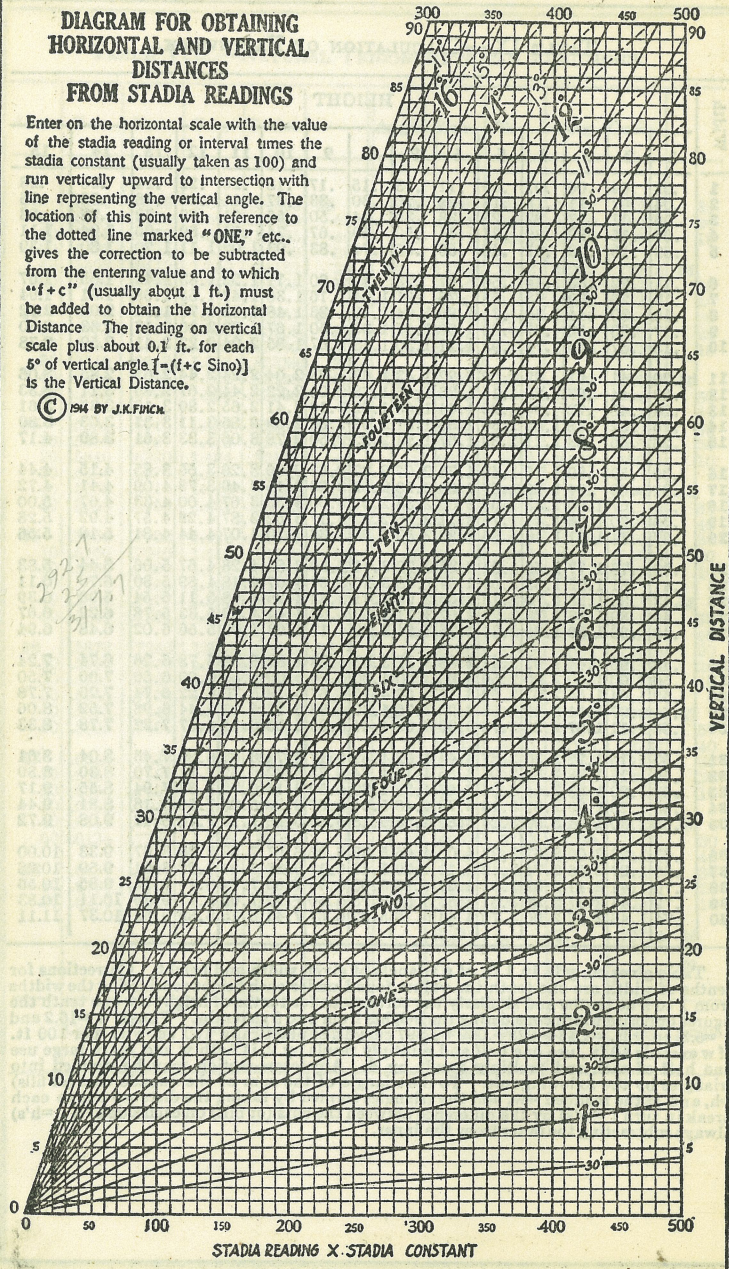
Given	Sought.	Right triangles. See fig. (a).
a, c	A, B, b	sin. A = $\frac{a}{c}$ , cos. B = $\frac{a}{c}$ , b = $\sqrt{(c+a)(c-a)}$
a, b	A, B, c	tan. A = $\frac{a}{b}$ , cot. B = $\frac{a}{b}$ , c = $\sqrt{a^2+b^2}$
A, a	B, b, c	B = 90° - A, b = a cot. A, c = $\frac{a}{\sin. A}$
A, b	B, a, c	B = 90° - A, a = b tan. A, c = $\frac{b}{\cos. A}$
A, c	B, a, b	B = 90° - A, a = c sin. A, b = c cos. A
Given	Sought.	Oblique triangles. See fig. (b).
A, B, a	b	b = $\frac{a \sin. B}{\sin. A}$
A, a, b	B	sin. B = $\frac{b \sin. A}{a}$
a, b, C	A - B	tan. $\frac{1}{2}(A-B) = \frac{(a-b) \tan. \frac{1}{2}(A+B)}{a+b}$
a, b, c	A	If s = $\frac{1}{2}(a+b+c)$ , sin. $\frac{1}{2}A = \sqrt{\frac{(s-b)(s-c)}{bc}}$
		cos. $\frac{1}{2}A = \sqrt{\frac{s(s-a)}{bc}}$ , tan. $\frac{1}{2}A = \sqrt{\frac{(s-b)(s-c)}{s(s-a)}}$
		sin. A = $\frac{2\sqrt{(s-a)(s-b)(s-c)s}}{bc}$
A, B, C, a	area	area = $\frac{a^2 \sin. B \sin. C}{2 \sin. A}$
A, b, c	area	area = $\frac{1}{2}bc \sin. A$
a, b, c	area	s = $\frac{1}{2}(a+b+c)$ , area = $\sqrt{s(s-a)(s-b)(s-c)}$



**DIAGRAM FOR OBTAINING  
HORIZONTAL AND VERTICAL  
DISTANCES  
FROM STADIA READINGS**

Enter on the horizontal scale with the value of the stadia reading or interval times the stadia constant (usually taken as 100) and run vertically upward to intersection with line representing the vertical angle. The location of this point with reference to the dotted line marked "ONE," etc., gives the correction to be subtracted from the entering value and to which "f+c" (usually about 1 ft.) must be added to obtain the Horizontal Distance. The reading on vertical scale plus about 0.1 ft. for each 5° of vertical angle [ $=(f+c \text{ Sino})$ ] is the Vertical Distance.

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3.5 1.70

232.  
51.5  
24.76  
368.46

33  
24.94  
8.09

232.  
51.50  
33  
376.50

DISTANCES FROM CENTER OF ROADWAY FOR  
CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½  
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be  $41.9 + (20 - 16) \div 2$  or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.

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