

2840

5

W284C

Our Leather Bound Engineers Note Books are carried in the following rulings:

- No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.
- No. 382 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 4 x 4 to the inch, Center Line Red.
- No. 384 MINING TRANSIT BOOK. Left Hand Page as in this Book, Right Hand Page 8x8 to the inch, Center Line Red.
- No. 385 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 8 vertical and 4 horizontal lines to the inch, Center Line Red.

We also carry the Note Books listed above, bound in extra strong Fabri-Hide (otherwise the same quality of book), which can be furnished at a somewhat lower price.

In ordering Fabri-Hide covered books, add the letter "F" to catalog number.

THE FREDERICK POST CO.
ENGINEERING and DRAFTING SUPPLIES
IRVING PARK STATION

CHICAGO, ILL.
MICROFILMED

JAN 11 1965

Otay Res. to San Diego 2nd M.P.L.

Index

Pages

Finish grades of trench Sta 240+00 to 69+53	1-50
Drain tile profile at Exit #2 Tunnel	69
Measurements of Pavement Broadway Ext.	73
Measurements of Pavement 54 th Street	74

382.98
See Book #5
for this H.I.

240+00

X

378.00

239+90

03

X

4.98 378.00
3.98 379.00 - out 12 set in
side Bank

239+60

09

X

3.10 379.88

T.P. 1.08 382.90

8.59

391.49

239+14

91

X

5.82 385.67

238+84

97

X

3.97 387.55

238+50

96

X

3.97 387.55

238+05

08

X

3.97 387.55

8/14/30

Simpson
Lecky
Remmert

Clear and Warrt

391.49

237+75¹¹

↑

5.20 386.29

K.O

237+45³⁵

X

8.98 382.51

+ 12.00

237+29⁶⁵

X

11.65 379.84

T.P. 12.82 378.67

1.00 379.67

236+99⁸⁹

V.C

5.61 376.06

236+69⁹²

X

4.87 374.80

236+50

4.87 374.80

236+00

0.00

4.87 374.80

235+75

X

4.87 374.80

8/14/30

Simpson

Weeks

Remmen

clear and warm

		379.67	
235+50	↑	6.47	373.20
235+25			371.60
235+00		T.P. - 9.67	370.00
	4.06	374.06	
234+75	X	5.66 4.66	368.40 369.40 = cut 1 st set in side Bank
234+50		5.66 4.66	368.40 369.40 = cut 1 st set in side Bank.
234+00	X	5.66 4.66	368.40 369.40 = cut 1 st set in side Bank
233+55 ⁷⁰		4.54	369.52
233+50			369.65
233+00		3.16	370.90

8/14/30
Simpson
Lecky
Remmen

clear and Warren

374.06

4

232+50 1.91 372.15

232+00 7.19 380.59 T.P. 0.66 373.40

+67 ⁹⁶ 6.38 374.21

231+50 5.94 374.65

+25 5.31 375.28

231+00 4.69 375.90

+75 4.07 376.52

+55 ⁵² 3.58 377.01

230+50 377.15

+25 2.81 377.78

230+00 1.81 378.78 = cut 12 set 2

2.19 378.40

229+50 T.P. 0.94 379.65

8.35 388.00

229+00 7.10 380.90

8/14/30
Simpson
Lecky
Remmen

388.00

228+50

-2.50%

5.85 382.15
7.85 383.15 = cut 19 set
in side Bank

228+00

X

7.60 383.40

227+50

4.55 383.45

227+00

11.88
0.97

0.10

4.50 383.50
T.P. 3.50 384.50 = cut 19 set
in side Bank

1.50 397.88 = CHECK on B.M. #43
394.91 = B.M. #73
El. = 394.91

226+50

12.33 383.55 ✓
11.36

↑
8/14/30
Simpson
Ledy
Remmen

clear and warm

B.M. #43 El. 394.91
25' R 226+64 A.V.

226+00

X

12.28 383.60

398.2
53
392.9
836
9.3
398.24
53
392.9
835
94

225+75

X

12.28 383.60

395.88

225+50

225+44⁶⁶
225+63⁶⁶

EQU.

11.31 384.57

10.28 385.80

386.61

387.09

225+25

225+00

+85

~~3.66%~~

3.25%

224+50

1

388.22

Grade at 224+55

224+33⁶⁶

X

388.77

~~3.66%~~
~~3.25%~~

224+18⁶⁶

X

388.77

North
Portal Tunnel #3

205+18 ⁶⁶ = South Portal Tunnel #3 386.87

BM = I. Pin at Sta. 205+25⁰⁰
El. 385.54

205+00 X 386.87

+50

384.17

204+50 383.87

4.17

204+35 383.00

204+18 ⁶⁶ X 382.00 ✓ 7⁵

204+00 382.00 ✓ 11⁵

1.81 394.28

392.47 = B.M. #40

203+50 12.28 382.00 ✓ 8⁴

11.28 383.00 = cut 12

203+00 12.28 382.00 ✓ 5⁵

11.28 383.00 = cut 12

202+75 X 12.28 382.00 6⁰

T.P 12.29 381.99

0.03 382.02

B.M. #40 - El. 392.47

Top Air Valve - sta. 204+56

4.49 396.96 392.47

4.80 392.16

83
9.16

6.20 390.76

82
8.8

2.70 94.0

2/14/30
Simpson
wecky
Remmen

clear and warm

↓

		382.02		
202+50			380.90	6 ^e
202+31	⁸⁰ P.T.		1.92	380.10
202+00			3.32	378.70
+75			4.42	377.60
201+50	X		5.52	376.50
201+31	⁸⁰ P.C.		7.82	377.50 = cut 12 set on R
201+00			6.65	375.37
			8.64	373.38
200+50			11.77	370.25
			10.77	371.25 = cut 12 set on R
	0.67	369.69	T.P. 13.00	369.02
200+00			2.57	367.12
199+50	X		5.69	364.00
199+25			6.75	362.94

8/14/30
 Simpson
 Lecky
 Remmen
 clear and warm

8/19/30
Simpson
Bliss
Jacobszoon
Lecky
Remmen

clear and warm

369.69

199+00

7.81 361.88

198+75

8.87 360.82
7.87 361.82 = cut 1st set
on 8.

198+50

9.94 359.75

0.76
+ 7.25
360.62

T.P. 9.83 359.86

198+25

1.93 358.69
0.93 359.69 = cut 1st
set on 8.

198+00

2.99 357.63

197+82⁶

356.89

197+75

X

4.07 356.55

197+50

+ 10.090

6.57 354.05

197+25

↓

351.55

197+00		360.62		
			11.57	349.05
	4.01	353.06		

196+75	X		6.51	346.55
--------	---	--	------	--------

196+50			8.15	344.91
--------	--	--	------	--------

196+25				343.27
--------	--	--	--	--------

196+00	X		11.93	341.63
--------	---	--	-------	--------

195+75	X		13.06	340.00
--------	---	--	-------	--------

195+50	X		13.06	340.00
--------	---	--	-------	--------

↑
8/14/30
Simpson
Bliss
Jacobszoon
Leeky
~~Remmer~~

clear and warrant

10

8/15/30
Simpson
Jacobszoon
Leeky
Remmer

clear and warrant

↓

195+22 ⁸⁷

~~357.06~~
X 353.06

11.82 341.24

194+92 ⁹

9.41 343.65

11.19 363.18 T.P. 1.07 351.99

194+63 ²⁷

V.C.

15.04 348.14
10.04 353.14 = cut 5" set in sub Bank

194+33 ⁹⁷

8.50 354.68

T.P. 0.11 363.07

11.14 374.21

194+05 ²⁴

X

10.97 363.24
9.97 364.24 = cut 1" set on 4

193+93 ⁹⁶

V.C.

7.21 367.00

T.P. 0.44 373.77

9.16 382.93

8/15/30

Simpson
Jacobson
Lecky
Remmer

clear and warm

193+65¹⁸ 382.93
7.44 375.49

193+35⁸⁹ ✓ X
1.19 381.74 ✓

193+20⁹⁷ ✓ U
8.78 383.74

193+06¹¹ ✓
21
37
16.2
6.78 385.74 ✓
5.78 Cut 1/2

192+76¹⁶ ✓ X
5.06 387.46

192+35⁵⁰ ✓ X
4.27 388.25

B.M. 1.71 392.52 390.81

192+20⁵ = North Portal
Turn #2 388.28

↑
8/15/30
Simpson
Jacobson
Hecky
Kommert
91.25 -
Clear and Werry

B.M. #39 - E.I. = 395.35

60' Rt. Sta. 191+77 - Top Air Valve

172+08 ⁹⁷
172+05 ⁵⁰ =

X
South Portal Tunnel #2 390.30

171+50 390.31

Check on Comp. floor entr #2 606 389.56 ^{should be} 389.55
171+00 5.30 390.32

9/16/30
↓

170+50 5.29 390.33

+30³ 5.29

T.P. 5.29 395.62 5.14 390.33

170+00 5.13 390.34

175 5.13

169+50 5.12 390.35

+25 5.11 390.36

169+00 5.10 390.37

395.47

B.M. # 37 - El. = 396⁸⁰
Nail in Face of cap south
portal of old tunnel #2

168+50 5.09 390.38

168+00 5.07 390.40
4.07 Cut 12

+61.06
167+65 = North Portal Tunnel #1 390.42

Tunnel Floor 5.80 395.47 389.67

145+93⁰⁶ = South Portal Tunnel #1 388.26
386.76

145+73⁶⁶ X 388.24

145+50 388.13
145+47⁸⁶ 388.09 4.0
381.59

-0.02 0.10

+0.95 0.06

↑
9/16/30
Elliott
Jacobson
Soper
Remme

Pipe grade 390.42
- .75
Tunnel floor 389.67

738
92

399.16 396.54

3.26 399.80

145+97⁰⁶ 11.68 388.12

145+73⁶⁶ 11.56 388.24
10.56 389.24
-0.10

11.54 388.26

386.96

141+00

5.32 381.64

380.14

140+89³ EC.

5.61 381.35

+75

5.99 380.97

140+50

X

6.66 380.30

140+25

6.69 380.27

140+00

3.88

384.12

T.P. 6.72 380.24

139+75

+ 0.125 0/0

3.91 380.21

139+44⁶ B.C.

3.95 380.17

139+00

4.01 380.11

8/16/30

clear and warm

Simpson
Jacobson
Remmer

138+50	+75	0 ¹⁰ 384.12	7.04	380.08
		6		380.05
138+40	09	X	4.08	380.04
138+10	05	K.C.	5.01	379.11
137+80	18	X	7.70	376.92
137+39	83	X	7.52	371.58
		1.67	373.10	T.P. 12.69 371.43
137+09	95	K.C.	4.20	368.90
			3.20	369.90 = cut 10 Set in side Bank
136+79	96	X	5.10	368.00
136+73	89	X		368.00 = Pier #1
		N. + 1		38041
136+32	58	X	12.41	368.00

↑ clear and warm
8/16/30
Simpson
Jacobs 2007
Remmen

↓

8/22/30
Simpson
Jacobs 2007
Kiernan
Remmen

B.M. 33 - El = 366.04
20' Rt. sta. 136+69 - Nail in sill
of old trestle #18

old
trestle

380.41

136+17⁵⁹

11.90 368.51

136+02⁶²

U
V

10.39 370.02
9.39 371.02 = cut 1st set
in side Bank

135+87⁸⁸

X

7.87 372.54
6.87 373.54 = cut 1st set in
side Bank
373.13

+85
+75
768
+57

375.19

135+50

20.56
90

4.48 380.32

382.79

135+38

135+25

0.06 384.80

385.47

T.P. = 12.22 384.74

135+12³⁵

X

8.91 388.05

134+98⁸⁴ B.C.

134+97⁵⁶

V

6.39 390.57

396.96

B.M. #32 - El = 385.19
top of Ave About at coronado "Y"

8/22/30
Simpson
Jacobs 2007
Remmon

397.31	397.31	385.19	397.31
4.10	4.67	12.12	8.14
393.21	392.64	397.31	389.17
88.05	85.47		26.32
5.16	7.17		8.83

397.31	397.31	397.31
97.6	396.6	29
92.6	92.1	394.91
4.9	4.5	90.6
		38

384.80
72.54
12.26

372.54
1.46
374.00
70.02
3.98

134+82⁶⁴

4.88 392.08

K.C.

134+67⁶³

4.38 392.58

X

134+50

4.39 392.57

134+00

4.43 392.53

+ 0.0730%

133+50

4.77 392.49

133+00

4.50 392.46

396.96

8/30/30

Simpson - notes
Jacobszoon - T
Soper - Red
Kiernan - stakes
Remmen - "

132+50

4.54 392.42

4.57 396.96

132+00

T.P. 4.70 392.39

4.71 392.38

131+50

4.74 392.35

131+00

4.78 392.31

130+50

4.81 392.28

+18⁷ EC

392.25

130+00

4.85 392.24

+75

4.87 392.22

129+50

X ↑
397.09

4.89 392.20

8/30/30

Simpson - Notes
Jacobszoon - T
Seper - Rod
Kiernan - stakes
Remmen - "

clear and warm

129+25

5.07 392.02

129+00

0.22 397.09
1.72 398.59

5.26 391.83

396.87 = B.M. #31

128+75

6.95 391.64

128+50

7.13 391.46

128+20³¹ - BC.

+ 0.74%

7.35 391.24

128+00

391.09

127+90^S E.C.

7.57 391.02

127+75

7.69 390.90

8/30/30
Simpson
Jacobszoon

B.M. #31 - El. = 396.87

11' R+ sta. 128+95 - Top A.V.

8/18/30

Simpson notes

clear and warm

Bliss - T

Jacobszoon - J

Remmen

↓

399.25

129+50

392.20

7.15

130+00

392.74

7.11

130+50

392.28

7.07

131+00

392.31

7.04

393.31

6.04 = cut 12

	398.59		
127+50		7.87	390.72
127+25		8.05	390.59
127+00	+ 0.79 0/10	8.24	390.35
126+75		8.41	390.18
126+50	X	8.59	390.00
126+25		10.39	388.20
	0.51 0/10	T.P. 10.38	388.21
126+08	B.C. + 7.20		387.00
126+00		2.32	386.40

8/18/30
 Simpson - notes
 Bliss - T
 Jacobs 300V-F
 Remmen - stakes
 clear and warm

125+50 388.72 5.92 382.80

125+00 + 7.20 0% 9.52 379.20

124+75 X 11.32 377.40

124+50 11.32 377.40

124+00 0.00 11.32 377.40

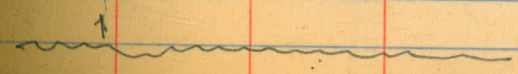
123+50 11.32 377.40

123+00 11.32 377.40

122+75 X 11.32 377.40
11.30 377.42 = set in Side Bank

8/18/30
Simpson - Notes
Bliss - A
Jacobsen - F
Remmer

Clear and warm



	0.14	377.56	377.42 = Grade Point Sta. 122+75
122+50			375.55
+25	7.40%		3.86 373.70
122+00	+		371.85
121+89 ⁹⁸	X		6.75 371.11
121+59 ²⁵	+15.46%		10.45 367.11
121+60	X		T.P. 12.84 364.72
	0.16	364.88	
121+50			365.09
	+19.72%		
121+30			361.15
121+25			4.72 360.16
			T.P. 12.70 352.18
	0.48	352.66	
121+00			355.23

8/19/30
 Simpson-Notes
 Bliss-T
 Jacobszoon F
 Remmen

clear and warm

120+75	X	352.66	2.36	350.30
120+50			8.70	343.96
		T.P. 12.95		339.71
	1.15	340.86	10.86	330.00 = check on Pier #2 - sta. 119+75
120+25				(337.61)
			25.38	343.96
120+00	X			331.27
119+95	X		44.8	330.00
				326
				319
119+50	X			330.00

+ 19.72 %

25.38 %

0.0 %
Trestle

↑

8/19/30
Simpson - notes
Bliss - π
Jacobszoon - π
Kemper - stakes

343.96
1.09
345.00
12.75
332.25
2.80
335.05

B.M. # 30 - El. 335.14
60' Rt Sta. 119+90
Nail in West sill old Trestle #16

119+90 3.36 342.41 T.P. 12.38 330.03 = check on P. er
5 to 119+60 9.74 339.05
8.57 340.22

118+50 0.58 348.79 ↑ T.P. 12.76 348.21
10.53 350.44

118+00 0.87 360.97 ↑ 0.31 360.66
T.P. 12.46 360.10
+75 - 6.78 365.78
117+70 366.80
117+50 370.88

117+40 1.11 372.56 ↑ T.P. 13.03 371.45
X 11.55 372.93

117+10⁰ -15.83 070 X 6.80 377.68
↑ 384.48

8/20/30

Simpson - notes

Jacobs 2007 - T

Kiernan - I

Remmer - I

clear and warm

↓

117+00			378.80
116+75		2.88	381.60
	1.12	384.48	
		T.P.	12.52
			383.36
116+50		11.48	384.40
		10.48	385.40 = cut 1 st set in Side Bank
116+14 ⁹²	X	7.55	388.33 ✓
115+84 ⁹⁸	X	5.72	390.16
115+50		5.35	390.53
		4.35	391.53 = cut 1 st set in side Bank
115+09 ⁹⁹		7.93	390.95
115+00	X	7.83	391.05
		6.00	395.88
			389.88 = Grade Hub Sta. 117+75

$$41 \frac{11}{16} \frac{1}{2}$$

B.M. # 29 - El. = 396.93

Sta. 115+25 - Top of A.V.

↑

8/20/30

Simpson - notes

Jacobson - 1

Kierman - 2

Remmen - 3

clear and warm.

114+75	9.38	391.38	382.00 = Grade Hub For Pier sta. 112+81 ²
		1.50	389.88
114+50		2.68	388.70
114+25		3.86	387.52
114+00	+ 4.70	5.03	386.35
113+75		6.20	385.18
113+50	X	7.38	384.00
113+36 ⁷	0.00	7.38	384.00
113+15	0	7.38	384.00
111+35 ⁵³	X		384.00

8/19/30

Simpson - notes

Bliss - T

Jacobson - F

Remmen - stakes

↓

clear and warm 11

↑
8/19/30

109+80 ⁰⁶			364.64
	2.70	V.C.	376.45
109+65 ¹⁸	X		9.90 366.55
109+50		V.C.	369.14
109+40		-17.14	5.60 370.85
109+19 ⁴⁹	X		2.08 374.37
		T.P.	0.27 376.18
	8.79		384.97
108+89 ⁷⁸			6.47 378.50
		V.C.	
108+59 ⁸⁶			4.22 380.75
108+29 ⁸⁷	X		3.87 381.10

8/21/30

S. m. p. Son - Notes

Jacobs 2001 - T

Kierman - F

Kemmer - stakes

↓

$$\begin{array}{r} 4096 \\ 1220 \\ \hline 2876 \end{array}$$

Clear and warm

92+38.81

46.19

92+85.00

93+85

 $\Delta 11'36''$ $D = 8''$

$$109+73 \frac{93}{78} \text{ T.P. } 5'48'' = 2.76$$

$$109+65 \frac{18}{78} = 5'27'' = 25.22$$

$$109+40 = 4'26.5'' = 20.54$$

$$109+19 \frac{49}{78} = 3'37.3'' = 19.77$$

$$108+89 \frac{78}{78} = 2'26'' = 19.98$$

$$108+59 \frac{86}{78} = 1'14.2'' = 30.98$$

$$108+29 \frac{87}{78} =$$

$$108+28 \frac{93}{78} \text{ B.C.}$$

107+99⁹² 384.97 5.85 379.12

107+70²⁵ 10.17 374.80
T.P. 12.62 372.95
0.93 373.28

107+41⁰⁷ 5.42 367.86
T.P. 12.71 360.57
0.25 360.82

107+12⁵⁸ X 2.36 358.46

107+00 X +37.60
7.11 353.71
T.P. 13.02 347.80
0.40 348.20

106+75 X +30.00
1.99 346.21
0.99 347.21 = cut 1° set in side Bank

106+50 X 9.49 338.71
8.49 339.71 = cut 1° set in side Bank

8/21/30
Simpson - notes
Jacobszoon - T
Kiernan - F
Remmen - stakes
Clear and Hat

348.20
T.P. 13.00 335.20

0.49 335.69

106+25 2.73 332.96

+ 23.0%

106+00 8.48 327.21

T.P. 12.92 322.77

0.63 323.40

0.31 327.51

327.21

6.65 320.87 = Reset 8/16/30

2.53 320.87 (8/21/30)

11.28 312.02 = check on

105+75

+ 25.35%

105+50 T.P. 12.99 314.53

2.56 + 317.09

105+40 5.09 312.00

↑
8/26/30

104+79.5 Pier

104+60

X

312.00

+ 0.0%

32

$\Delta = 20'17''$

$D = 16''$

106+43.66 P.T.

106+25 = $1^{\circ}29.6' = 18.72$

106+00 = $3^{\circ}29.6' = 25.08$

105+75 = $5^{\circ}30' = 25.08$

105+50 = $7^{\circ}30' = 25.08$

105+40 = $8^{\circ}18' = 10.03$

105+25 = $9^{\circ}30' = 15.06$

105+16 P.C. = $10^{\circ}08.5' = 8.13$

↑

8/21/30

Simpson - Notes

Jacobszoon - T

Kiernan - F

Remmen - stakes

clear, and where

Pier 3 of Trestle #11

8/26/30

Simpson - Notes

Jacobszoon - T

Soper - Rod

Remmen - stakes

↓

B.M. #27 - El. 316.59

60' Rt. sta. 105+06 - Nail in sill of
old Trestle #15

333.47

12.57

320.75

0.30

321.05

12

309.85

2.20

312.05

104+50

315.37

333.47

104+30

322.12

104+25

323.80

333.47

333.47 +1

- 33.71%

337
168

22.12
17.35

32.13
1.24

104+00

332.23

Set 1st cut
in side Bank

358.78
12.00
345.78
0.25
346.23
40.61
5.58

346.23
13.04
333.19
0.88
333.47

103+75

340.65

2.34

399.29

396.95 = B.M. #26

T.P. 12.61

386.68

1.55

388.23

T.P. 12.84

375.39

0.58

375.97

12.90

363.07

0.39

363.46

16.86
15.86

346.60

347.60 = cut 1st set
in #

103+50

- 23.80%

8/22/30

Simpson - notes

Jacobszoon - T

Kiernan - F

Remmen - stakes

Clear and Warm



103+25

352.55

103+00 363.46
4.96 358.50
T.P. 0.39 363.07
12.85 375.92

102+75 364.45

102+50
- 23.80 0/0
5.52 370.40
T.P. 0.00 375.92
12.33 388.25

102+18⁹⁹ X 10.47 377.78

101+89⁵⁵ 4.66 383.59

101+59⁷⁶ 1.17 387.08

34

8/22/30

Simpson - notes

Jacobs 200N - K

Kierman - F

Kemmen - stakes

clear and warm

101+29 ⁷⁸
388.25
X T.P. 0.00 388.25
5.09 393.34

0.00%

100+43 ⁴⁰
X
5.09 388.25
4.09 389.25 = cut 10
set in side
Bank.

100+13 ¹²
6.21 387.13
5.21 388.13

99+83 ⁶¹
U
V
9.56 383.78
T.P. 13.00 380.34
0.86 381.20

99+54 ¹³
2.99 378.21

99+25 ¹⁵
10.77 370.46
T.P. 12.73 368.47 - T.P. see
next page

35

8/22/30
Simpson - notes
Jacobszoon - T
Kiernan - §
Remmen - stakes

clear and warm

B.M. # 26 - E.I. = 396 ⁹⁵
60' Rt. Stk. 100+84 - Top A.V.

↑
8/22/30

98+96 ⁸³

360.56

↑ KC
X
+32.8%

98+75

352.00

X

98+75
157
98+56.3 ←

98+25

352.00

X

¹⁶
41 Pier

0.47 368.94

368.47 = T.P. see
last page

98+12

12.12 356.82

X

⁷²
12.28

97+84 ³⁸

2.26 366.68

U

T.P. 0.00 368.94

28.34

12.34 381.28

97+55 ³⁸

6.72 374.36

↓

378.50
1284
365.66

65.66
222
53.44
3.60
57.08

378.50
70.40
8.84

36
388.25
270
391.00
12.90
378.10
378.40
378.50
0.10
57

B.M. # 25 - El. = 360 ³⁴

At Sta. 98+45

Nail in sill of old Trestle # 19

8/22/30

Simpson - notes

Jacobson - π

Kiernan - Φ

Remmen - stakes

↓

clear and warm

366.68
7.05

367.73
10.90
356.83
4.31
361.14
57
9.14

367.73
56.82
10.91

381.28

97+25³⁸

1.46 377.82
T.P. - 1.45 379.83 =

8.49 388.32

96+96⁰⁶

5.29 383.03

96+66⁰⁷

T.P. 4.35 383.97

0.81 395.21

394.40 = B.M. #24

11.25 383.96 = check on
Grade Hub of
Sta. 96+66

96+36¹⁰

12.59 382.62

J.P. 12.60 382.61
0.66 383.27

96+06³²

4.26 379.01

X
+6.00
X

95+70

10.07 373.20

37

B.M. #24 - El. = 394⁴⁰

Rt. Sta. 96+43 - Top A.V.

↑

8/22/30

Simpson - notes
Jacobszoon - T
Kiernan - Rod
Remmen - stakes

clear and warm

8/23/30

Simpson - notes
Jacobszoon - T
Kiernan - Rod
Remmen - stakes

clear and warm

↓

95+50 383.27
 11.67 371.60
 12.90 370.37
 2.75 373.12
 + 8.00
 95+00¹¹ X 5.51 367.61
 7.51 368.61 = cut 1st
 set in side
 Bank
 94+70³³
 9.15 363.97
 7.15 365.97 = cut 2nd set
 in side Bank
 0.20 366.17
 94+40⁹⁶ V.C.
 8.31 357.86
 T.P. 12.90 353.27
 0.17 353.44
 94+12²⁰ X
 4.12 349.32
 3.12 350.32 = cut 1st set
 in side Bank
 12.18 341.26
 1.02 342.28
 94+00 345.14
 + 37.29

38

↑

8/23/30
 Simpson - Notes
 Jacobszoon - T
 Kiernan - F
 Remmen - stakes
 Clear and Warm

↓

8/25/30
 Simpson - Notes
 Jacobszoon - T
 Soper - F
 Kiernan - stakes
 Remmen
 Clear and Hot.

93+75

342.78

+ 34.19%

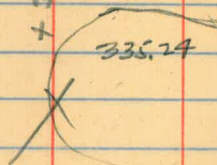
15.71 336.57

2.71 339.57 = cut 3°
Set in side Bank.

335.24

93+50

39
96



328.00

3.24 232.00 set 4° cut
inside Bank.

8/29/30

93+26³ Pier

91
83
76

0.00%

92+80

X

328.00

92+60

+ 42.91%

5.70 336.58

3.70 338.58 = cut 2° set
inside Bank.

T.P. 0.00 342.28

92+38

81

12.50 354.78

X

9.11 345.67

T.P. 0.00 354.78

12.56 367.34

8/25/30

Simpson - notes

Jacobszoon - T.

Soper - Rod

Kiennan - stakes

Remmen - "

clear and Huf

B.M. #23 - El. = 327.89

Rt. Sta. 92+90

Nail in sill of old Trestle #13

$92+10$ ⁵⁶
 367.34
 11.58 355.76
 T.P. 0.30 367.04
 12.80 379.84

$92+00$
 -28.80
 358.80

$91+68$ ⁴⁵ X
 11.95 367.89

$91+39$ ³²
 4.79 375.05
 T.P. 0.56 379.28
 11.44 U 390.72
 V

$91+09$ ⁷²
 10.81 379.91
 3.67 387.42
 383.75

$90+79$ ⁸² X
 5.00 382.42
 4.00 383.42
 - cut 12
 Set in side
 Bank

8/25/30
 Simpson-Notes
 Jacobszoon-T
 Soper - Rod
 Kiernan - Stakes
 Remmen - "

clear and Hot

Set 8/27/30

90+50 390.72 6.97 383.75

90+00 X 4.72 386.00

T.P. 4.70 386.02

4.59 390.61

T.P. 4.61 386.00

0.00

392.41 = B.M. # 21

4.09 396.50

86+00 10.50 386.00

85+83⁴⁰ X 10.50 386.00

B.M. # 22 E.I. = 396.44

60' Rt. sta. 89+90 - Top Air Valve

P.T. 87+98²⁶

87+75 = 1°55'

87+50 = 3°55'

87+25 = 5°55'

87+00 = 7°55'

86+75 = 9°55'

86+50 = 11°55'

86+25 = 13°55'

86+00 = 15°55'

85+83¹⁰ = 17°55'

85+50 = 19°55'

85+25 = 21°55'

85+00 = 23°55'

84+80⁰⁷ = 25°30' 79.0 S.

84+50¹⁰ = 27°54.6

84+20³² = 30°17.5

84+00 = 31°55' P.O.C.

83+75 = 33°55'

83+50 = 35°55'

P.C. = 83+18³⁴ = 38°27'

8/25/30
Simpson - notes
Jacobszoon - T
Soper - Rod
Kiernan - stakes
Remmen "

8/26/30
Simpson - notes
Jacobszoon - T
Soper - Rod
Kiernan - stakes
Remmen - "

		396.50	
85+50		10.70	385.80
+25		10.85	385.65
85+00		11.00	385.50
	+ 0.60 070		
84+80 ⁰⁷	X	11.12	385.38
84+50 ¹⁰		12.45	384.05
	0.35	T.P. 12.49	384.01
	V.C.		384.36
84+20 ³²	X	3.94	380.47
84+00	+ 16.11 076	7.21	377.15
83+75		11.24	373.12
		T.P. 11.22	373.14
	0.29		373.43

8/26/30

Simpson - notes
 Jacobszoon - X
 Soper - Rod
 Kiernan - stakes
 Remmen - "

clear and warm

B.M. # 21 - El. = 392.41
 Sta. 84+20 - Top A.V.

373.93

83+50

4.33 369.10

83+03³⁹

16.11 976

17.84 361.59
11.84 361.59
361.04

83+00

X

T.P. 12.65 360.78

0.43 361.21

82+89⁸⁵

X

1.82 359.39

V.C.

82+60⁶⁶

X

8.76 352.45

T.P. 12.87 348.34

0.12 348.46

81+50

349.06

82+40

2.58 345.88

82+18⁸³

X

9.30 339.16

T.P. 12.71 335.75

3.46 339.21

8/26/30

Simpson - Notes

Jacobszoon - T

Saper - Rod

Kierman - stakes

Remmen - "

clear and warm

82+04³⁷

339.21

4.04 335.17

9.21 330.00 - check
on Pier #2

81+89⁶⁹

332.30

81+74⁷⁴

330.58

81+59⁷⁵

330.00

B.M. #20

9.94 332.98

Record
332.92

81+32⁵⁸

12.92 330.00
9.92 cut 30

81+17⁵⁹

12.42 330.50
7.42 cut 50

342.92

↑

49

8/26/30

Simpson - notes

Jacobson - T

Soper - Rod

Kiernan - stakes

Remmen - "

clear and warm

V.C.

X

0.00
Trestle

X

V.C.

9/15/30

↓

B.M. #20 - El. = 332.92

Sta. 81+40 - nail in sill of old
trestle #12

81+02⁶⁶

$$\begin{array}{r} 10.94 \\ 7.94 \\ \hline 331.98 \end{array} \text{ Cut } 30^\circ$$
80+87⁸⁷

$$\begin{array}{r} 8.47 \\ 3.07 \\ \hline 334.45 \end{array} \text{ Cut } 50^\circ$$

3.38

342.92

T.P.

11.78 339.54

80+36⁶⁶

$$\begin{array}{l} = \text{Ahead} \\ = \text{Eu Q} \end{array}$$
80+47⁶⁶

$$\begin{array}{r} 6.56 \\ 1.56 \\ \hline 344.76 \end{array} \text{ Cut } 50^\circ$$

0.81

351.32

T.P.

12.31 350.51

80+14⁶¹

$$\begin{array}{r} 10.13 \\ 4.13 \\ \hline 352.69 \end{array} \text{ Cut } 60^\circ$$
79+85⁰⁸

$$\begin{array}{r} 4.86 \\ 0.86 \\ \hline 357.96 \end{array} \text{ Cut } 40^\circ$$

0.01

362.82

T.P.

12.90 362.81

79+50

$$\begin{array}{r} 13.61 \\ 9.61 \\ \hline 362.10 \end{array} \text{ Cut } 40^\circ$$

-11.81

375.71

79+00

X

7.71 368.00

390.09

0.79 390.88

78+50

V.C.

372.06

5.9

385.0

0.01

375.71

76.2

6.0

T.P.

-8.7

12.55 375.70

78+42⁴⁶

X

15.58 372.67

Cut 3.0

12.58

78+12⁶⁷

V.C.

12.06 376.19

Cut 8.8

3.26

77+83²²

X

6.35 381.90

T.P.

0.49

388.25

12.61

387.76

77+50⁸⁷

V.C.

10.98 389.39

✓

77+36¹⁹

400.37

8.15 392.22

Cut 2.0

6.15

77+21²⁴

B.M. #19 123 400.37

6.44 393.73
5.44 399.14
Curt 10

2.13 401.27

399.14 = B.M. #19

77+06²⁵

X

6.77 394.50

76+50

6.77 394.50

76+00

6.77 394.50

75+50

6.77 394.50

D.P. 0%
DEEP CUT

75+18⁷⁷

X

6.77 394.49

9/15/30

Elliott
Jacobszon
Soper
Kermmen

1/19/30

B.M. #19 - E.L. = 399.14

Sta. 77+35 - Tap A.V.

399.14

3.55 402.69

77+06²⁵

2.7 399.8
74.0
cut - 5.3

77+21²⁴

3.1 399.6
398.9
cut - 5.7

77+36⁴⁴

5.8 396.9
42.2
cut - 4.7

77+50⁸⁷

6.9 395.8
389.9
cut - 6.9

77+83²²

12.05 390.64
381.9
8.7

T.P. 12.60 390.09

401.27

74+88⁷⁷ 7.87 393.40
 399.14 = B.M. 19

1.52 400.66
 8/20/30

74+58⁹⁷ ✓ 10.53 390.13
 0.07 387.92 T.P. 12.81 397.85

74+29⁹⁷ 9.22 384.70

74+00⁹⁷ X 10.79 377.13 9.79
 0.55 375.69 T.P. 12.78 375.14 0.100

73+75 6.19 369.50
 5.19 370.50 - cut 10 set
 02 #

73+50 13.69 362.00
 12.69 363.00 cut 10 set
 07 #

73+25⁹⁷ X 354.50

30.0 0%

399.14 399.14
 3.17 6.58
 402.31
 405.72

8/20/30
 Jumpsun-Nates 6.5 9.95 395.77
 Jacobszorn-T 90.13
 Saper-Rod C-5.64
 Remmen-stakes

74+88⁹⁷ 4.2
 7.6 398.1
 9.34
 C-4.7

75+18⁷⁷ 4.6 8.05 397.67
 397.7
 94.5
 C-3.2

75+50 2.6 6.0 399.7
 99.5
 C-5.2

76+00 2.1 5.55 400.17
 14.5
 C-5.7

76+50 1.7 5.05 400.67
 99.5
 C-6.21

77+06²⁵ 2.5 C-5.3

77+21²⁵ 2.7 C-5.7

73+00

+ 20.94%
+ 22.14%

348.96

72+55

X

339.00

12.83	351.83		339.00 = Pier #1
		8.50	343.33
8.50	351.82		343.32 = B.M.#8
		0.71	351.11
12.33 0	363.44		363.44
		T.P. 0.00	
11.24 0	374.68		

71+80

X

339.00

71+50

- 50.26%

354.87

71+25

368.01

		T.P. 0.00	374.68
13.06	387.74		

B.M.#18 - El. = 343.32

Rt. Sta. 72+20

Nail in Cross Brace of old Trestle #10

8/28/30
Simpson - Notes
Jacobszoon - T
Soper - Rod
Kiernan - stakes
Remmen - "

clear and warm

71+80	8.12	339.00
- 0.03	347.12	
	T.P. 12.80	347.15
1.07	359.95	
	T.P. 12.60	358.88
71+50	16.61	354.87
	12.61	358.87 = cut + 40
71+25	3.47	368.01
1.14	371.48	
	T.P. 12.78	370.34
	383.12	382.13
0.99		

Grade Revision on account of Equation. - 9/4/30 -

Station	Grade at this point	Break Point	Revision on account of Equation	Value
70+98 ²⁶				382.13
70+94 ¹⁹	X		5.61	382.13
	-18.9%			
70+64 ⁶⁷	X		0.18	387.56
		T.P.	0.00	387.74
	1.59			389.33
	-3.8%			
70+34 ⁶⁹	X		0.63	388.70
	+3.8%			
70+04 ⁷¹	X		1.77	387.56
	+4.0%			
69+53 ⁶¹	X		8.92	380.41
		T.P.	12.77	376.56

B.M. # 17 — El. = 389.92
 60' Rt. Sta. 70+98 — Top A.V.

↑
 8/28/30
 Simpson — Notes
 Jacobszoon — T
 Soper — Rod
 Kiernan — stakes
 Kemmen — "
 clear and warm

399.14 B.M. 19[#]

1.43 400.57

75+18⁷²

6.08 394.49

74+88⁷²

7.17 393.40

74+58⁹²

10.94 390.13

T.P. 12.76 387.81

0.46 388.27

74+29⁴⁷

3.57 389.70

74+00⁴⁹

11.14 377.13

T.P. 12.55 375.72

0.63 376.35

73+75

6.85 369.50

T.P. 12.81 363.59

0.99 364.48

73+50

2.48 362.00

73+25

9.98 354.50

T.P. 12.70 351.78

0.04 351.82

351.82

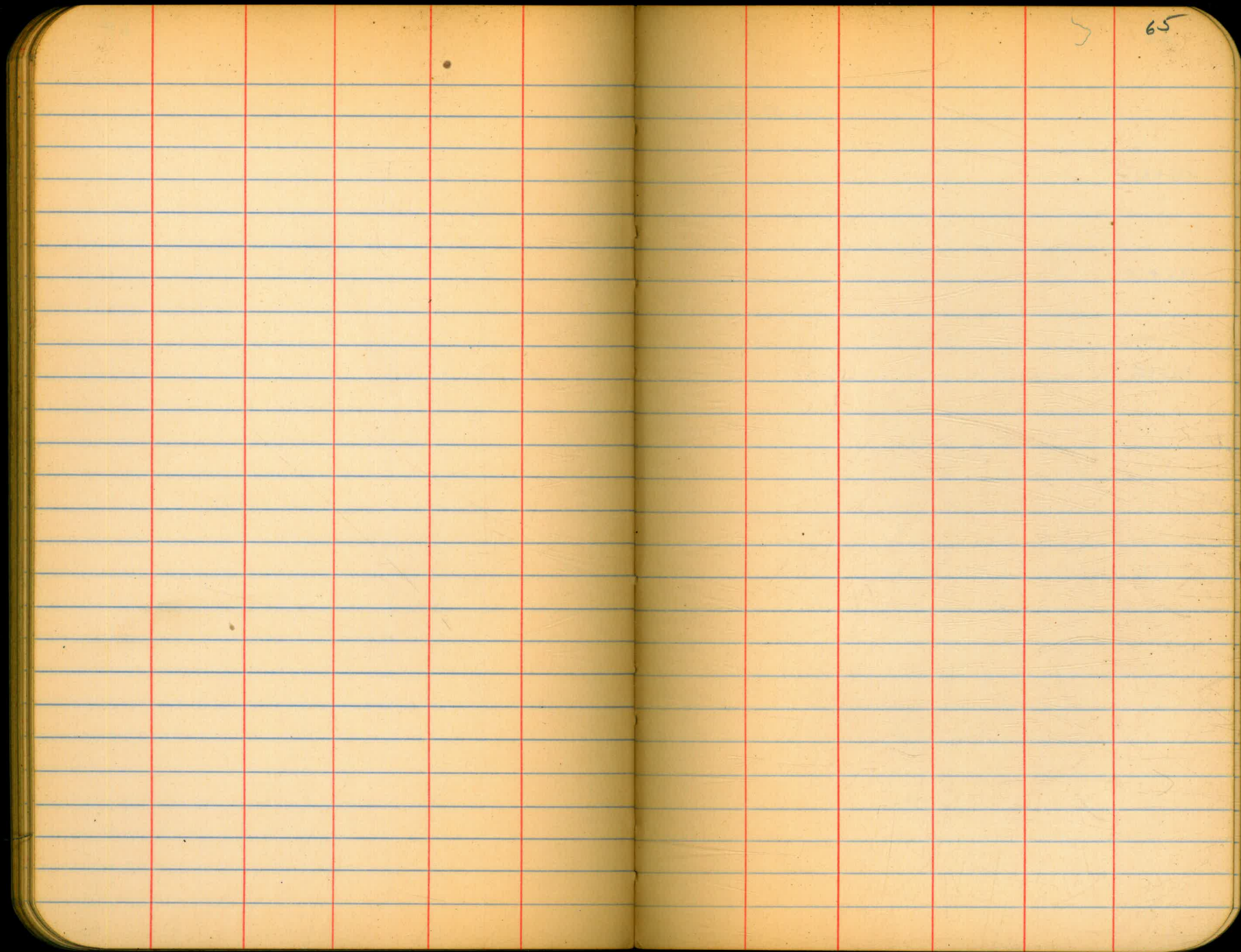
731.00

2.86 348.96

724.55

12.82 339.00

57



385.19 = B.M.

135 + 25

135 + 50

135 + 75

$$\begin{array}{r} 76.16 \\ 192+22.50 \\ \hline 53.7 \end{array}$$

$$\begin{array}{r} 387.96 \\ 2.50 \\ \hline 385.96 \end{array}$$

$$\begin{array}{r} 76 \\ 24 \\ \hline 1.20 \end{array}$$

Drain tile Exit #2

69

390.81

0.40 391.21

192+31⁵ outlet in
r. well — 4.75 386.46 = Grade

192+76¹⁶ X 5.21 386.00 = Grade

193+06" — 1.09 5.51 385.70

193+56" 6.01 385.20 End Drain

Profile

390.81

0.40

391.21

192+76 3.7 387.5 c-15

193+06 4.0 387.2 c-15

193+23 3.7 387.5

193+53 4.0 387.2

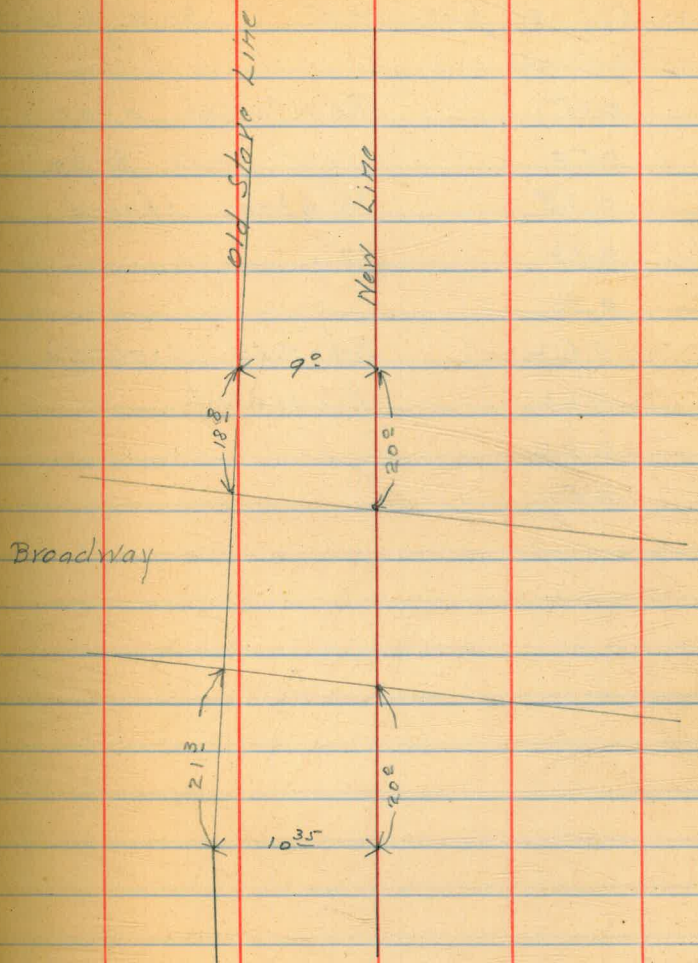
193+56 End Drain Grade Grade

Otay Res. - San Diego Rrd
Main Pipe Line

Broadway Ext. Crossing.

0+00 = South Line of pavement.

Station	Thickness of pavement	Pipe Elevations.	
		New.	Old
0+00	0.75		
0+03	0.50	-20	231.83
0+05	0.50	+56	238.39
0+11.50	0.50		239.98
0+15	0.50		
0+18	0.68		
0+21	0.50		
0+24.50	0.50		
0+31	0.50		
0+33	0.50		
0+36	0.75		



54th St Crossing.

0+00 = E.L. of pavement 30.0 pavement
thickness

0+00	0.75	Reinforced over
0+03	0.50	wood stave pipe
0+12	0.58	1/2" #bars spaced
0+14	0.62	12"
0+17	0.80	
0+20	0.62	34'x5.50' concrete
0+22	0.62	Excavated.
0+31	0.66	
0+34	0.83	

27

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 $\frac{1}{2}$ to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body

of table in same row and column gives distance

from side stake to slope stake. If ground is not

the side stake and slope stake, lower target by this

amount if cut, elevate if fill. Add this amount

to cut or fill and find distance in table. Set up

rod at this point and line of sight should cut

target.

Adjustment

necessary.

TABLE No. 2.

To find Tangent and External for curve of

any other degree, divide by degree of curve and

add correction found in column of corrections.

Degree of curve with a given T may be found

by dividing tangent (or external), opposite T by

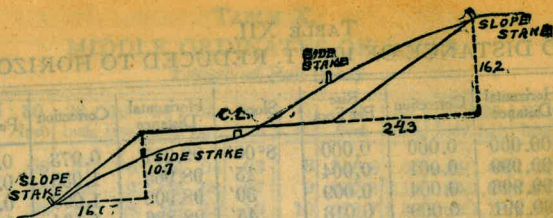
given tangent (or external).

The distance from a point on the tangent to

the curve is very nearly the square of the tangent

length divided by twice the radius.

**IMPROVED TABLES
AND
INFORMATION**



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1 1/2 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.25	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

Computed by L. Leland Locke.

16.38'
D=16°

12+27.59 EC.

11+25 = 8° 12.5'

10+99.78 = 10° 13.5'

10+70.06 = 12° 36.1'

10+61.13 BC = 13.19

12.36
93
12.19

102.59
48
82072
41036

60 | 492.43 2 | 8
480

12.14

25.22
48

20176
10088
121056

29.32
48

23776
11888
142656

8.93
98
7104
3572
42864

1013.5
222.6
1236.1

July 19th Levels + Cuts

2400.00
221.67

offset
2014.50
1882.75

40231 260 <u>398.11</u> 398.11	40231 460 <u>397.54</u> 397.54	40231 420 <u>398.11</u> 398.11	40231 650 <u>395.77</u> 395.77
5.22	3.22	4.71	5.64

40231 6.46 <u>395.77</u> 395.77	40231 5.40 <u>395.77</u> 395.77	40231 3.50 <u>394.61</u> 394.61	782 25 <u>5.32</u>	782 17 <u>4.1</u>	40231 394.49 <u>7.8</u> 7.8
6.3	4.58	5.70			5.7

390.30
75
389.55