

G. B. 216

JUN 26 1921

ENGINEERS'
FIELD BOOK
NO. 205

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 $1\frac{1}{2}$ see inside of back cover.

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G-216

CITY ENGINEER'S OFFICE

MICROFILMED

APR 12 1965

This Field Book is manufactured of a High Grade 50% Rag Paper having a WATER RESISTING SURFACE, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

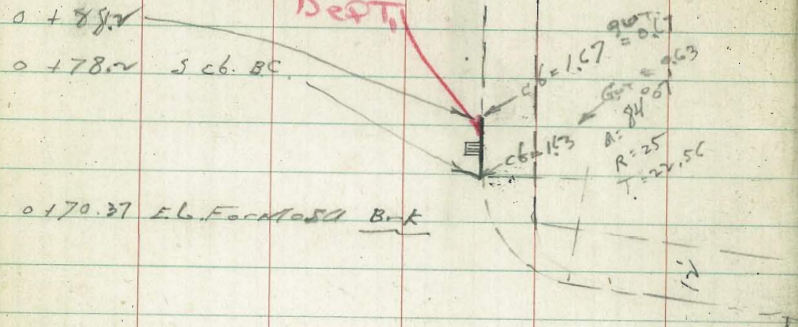
Av. W. Pt. Loma Blvd.
Famosa Blvd. to Midway

C.S.M.
C. South
W.F.M.
L-5-45.

See 1676-37.

1 + 60 This was built inadvertently by

10' Ely by ST.
DEPTH



0 + 351.8 & Famosa

Famosa Blvd.
70' wide

0 + 00 = W.L. Famosa = E.g.

23 + 52

SE Pole
B.M. Spike Famosa & W. Pt. Loma

307

N inlay cb

1.68 1.15
5.01 ✓ 5.01 ✓

See
6.37 B.M. # W G.B. 213-76

Lt. 907.

⊕

Rt. 907.1

1.15
5.54
5.49
C 0.05

1.74
4.93
5.47
F 0.54

1.17
0.80
5.89
5.20
C 0.69

INDEXED

NOV WK 5 1948

1.60 0.93
curb 5.76
5.51
C 0.75

1.60
5.09
5.34
F 0.75

0.93 1.60
out cb

0.80
5.89
4.98
C 0.91

1.70
4.99
4.94
C 0.05
MKd 0.00

1.03
5.66
5.24
C 0.44

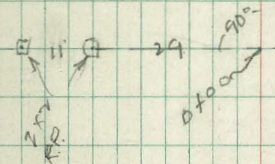
curb
7.80 1.13
5.56
5.49
C 0.07

1.70
4.89
5.09
F 0.20

curb
1.73 7.80
5.56
5.54
C 0.02

3.08 B.M.
3.61
6.69 *

Badger Hill
11/11/47



+50

2.58
4.96
4.39
F0.57

3.32
4.22
4.72
F0.50

2.73
4.81
4.74
C0.07

5.100

2.36
5.18
5.58
F0.40

3.08
4.46
5.19
F0.73

2.46
5.08
5.23
F0.15

+50

2.15
5.37
5.91
F0.52

2.84
4.70
5.62
F0.92

2.20
5.32
5.65
F0.31

T.P. on S, 5706

4100 Brk. 584 7.54 5.01 1.68

1.93
4.74
5.34
F0.58

2.60
4.09
4.90
F0.81

1.93
4.76
5.01
F0.25

+50

1.80
4.89
5.78
F0.28

2.44
4.25
4.95
F0.70

1.77
4.92
4.54
C0.38

3700

1.67
5.02
5.71
F0.09

2.29
4.40
5.03
F0.63

1.62
5.07
4.97
C0.15

+50

1.54
5.15
5.70
F0.01

2.10
4.55
5.20
F0.65

1.47
5.20
4.87
C0.35

2700

1.41
5.28
5.89
F0.57

1.99
4.70
5.37
F0.67

1.32
5.37
4.87
C0.80

+50

5.01
1.28 5.23
C0.18

1.84
4.85
5.50
F0.25

1.17
4.52
5.00
C0.52

669 X

9100 Brk.

4°33'

750

1°48'

8100

1°03'

7150

0°18' 20"

T.P. 5.84 9.64 3.7x 3.80 = 7130 B.C.

7130 = B.C.L.T.

167(-37)

T.P. = ON S. CUT 3706

7100

750

6100

750

H.I.

Lt. GUT

E

Rt. GUT. 3

4.08
5.56
4.80
C 0.70

3.87
5.77 ✓
5.08
C 0.69

3.65
5.99
5.48
C 0.51

3.44
6.20
5.42
C 0.77

3.35
4.19
3.62
C 0.57

3.22
4.32
3.45
C 0.87

3.01
4.53
3.70
C 0.75

2.79
4.75
3.93
C 0.87

5.00
4.84
4.76
F 0.12

4.76
4.88
5.17
F 0.29

4.52
5.12
5.44
F 0.32

4.28
5.36
5.57
F 0.21

4.18
3.36
3.50
F 0.24

4.04
3.50
3.77
F 0.27

3.80
3.74
4.10
F 0.30

3.56
3.98
4.28
F 0.30

4.58
5.06 ✓
4.97
C 0.09

4.32
5.32 ✓
5.34
F 0.04

4.05
5.59 ✓
5.53
C 0.06

3.78
5.86 ✓
5.49
C 0.37

3.68
3.86 ✓
3.70
C 0.12

3.52
4.02 ✓
3.99
C 0.03

3.26
4.28 ✓
4.41
F 0.13

2.99
4.55 ✓
4.42
C 0.13

17 7°02.9

+50 6°17.9

11 5°32.9

T.P. 229 8.61 3.31 $\frac{6.32}{6.33}$ 6.32+91.3 B.K. 5°25.14

+60.35 E Adrian 4°57.3

10 +50 4°48 ✓

+29.7 B.K. 4°29.410 4°03'
0.45

9 +50 3°18'

9.64

LT 907

E.

P. 907. 4

$$\begin{array}{r} 2.79 \\ 4.82 \\ 4.77 \\ \hline C 0.05 \end{array}$$

$$\begin{array}{r} 4.04 \\ 4.57 \\ 4.47 \\ \hline C 0.10 \end{array}$$

$$\begin{array}{r} 4.29 \\ 4.32 \\ 3.82 \\ \hline C 0.50 \end{array}$$

$$\begin{array}{r} 4.33 \\ 5.31 \\ 5.04 \\ \hline C 0.27 \end{array}$$

$$\begin{array}{r} 4.46 \\ 5.18 \\ 4.87 \\ \hline C 0.31 \end{array}$$

$$\begin{array}{r} 4.58 \\ 5.06 \\ 4.67 \\ \hline C 0.44 \end{array}$$

$$\begin{array}{r} 4.47 \\ 5.17 \\ 4.68 \\ \hline C 0.49 \end{array}$$

$$\begin{array}{r} 4.28 \\ 5.36 \\ 4.81 \\ \hline C 0.55 \end{array}$$

$$\begin{array}{r} 4.60 \\ 4.01 \\ 4.42 \\ \hline F 0.42 \end{array}$$

$$\begin{array}{r} 4.90 \\ 3.71 \\ 3.99 \\ \hline F 0.28 \end{array}$$

$$\begin{array}{r} 5.20 \\ 3.21 \\ 3.68 \\ \hline F 0.27 \end{array}$$

$$\begin{array}{r} 5.25 \\ 4.39 \\ 4.66 \\ \hline F 0.27 \end{array}$$

$$\begin{array}{r} 5.38 \\ 4.26 \\ 4.67 \\ \hline F 0.36 \end{array}$$

$$\begin{array}{r} 5.50 \\ 4.14 \\ 4.54 \\ \hline F 0.46 \end{array}$$

$$\begin{array}{r} 5.39 \\ 4.25 \\ 4.53 \\ \hline F 0.28 \end{array}$$

$$\begin{array}{r} 5.20 \\ 4.44 \\ 4.58 \\ \hline F 0.14 \end{array}$$

$$\begin{array}{r} 4.06 \\ 4.55 \\ 4.82 \\ \hline F 0.27 \end{array}$$

$$\begin{array}{r} 4.40 \\ 4.21 \\ 4.54 \\ \hline F 0.33 \end{array}$$

$$\begin{array}{r} 4.74 \\ 3.87 \\ 3.67 \\ \hline C 0.20 \end{array}$$

$$\begin{array}{r} 4.80 \\ 4.84 \\ 4.17 \\ \hline C 0.67 \end{array}$$

$$\begin{array}{r} 4.94 \\ 4.70 \\ 4.35 \\ \hline C 0.35 \end{array}$$

$$\begin{array}{r} 5.08 \\ 4.56 \\ 3.89 \\ \hline C 0.67 \end{array}$$

$$\begin{array}{r} 4.97 \\ 4.67 \\ 4.69 \\ \hline F 0.07 \end{array}$$

$$\begin{array}{r} 4.78 \\ 4.84 \\ 4.91 \\ \hline F 0.05 \end{array}$$

BM 117 SPIKE
S.W. Cor. R.P.
Adrian +
W. P. LORRA Bhd

BM. RR SPIKE IN P.P.

16+70 on Rt.

3.78 3.04 ✓

±50

16

±50

15

±50

14

BM.

T.P. #11 2.29 6.82 4.08 4.53 4.53

13 +57.8V E.C. 90°25' Brk.

R.P.²
71.95 LT
139.95 LT
LT RT.

13

8°34.9

12+50

7°47.9
8.61 T

L7.90T.

Rt. 50T. 5

1.93
4.89
4.13
C 0.72

7.11
4.71
4.55 ✓
C 0.16

2.29
4.53
4.73
F 0.20

2.47
4.35
4.67
F 0.32

2.65
4.17
3.94
C 0.23

2.83
3.99
4.06
F 0.07

2.98
5.03
5.14
F 0.51

3.27
5.34
4.99
F 0.35

3.53
5.08
5.30
F 0.22

2.68
4.14
4.60
F 0.42

7.85
3.97
4.34
F 0.37

3.01
3.81
3.99
F 0.18

3.18
2.64
3.74
F 0.10

3.34
3.48
3.56
F 0.08

3.51
3.31
3.41
F 0.10

3.15
4.96
5.19
F 0.23

4.00
4.61
4.91
F 0.30

4.30
4.31
4.59
F 0.28

2.10
4.72
4.78
F 0.06

7.25
4.57
4.95 ✓
F 0.38

2.40
4.12 ✓
4.94
F 0.52

2.55
4.27 ✓
4.30
F 0.03

2.70
4.12 ✓
3.96
C 0.16

2.85
3.97 ✓
3.19
C 0.28

2.98
5.43 ✓
5.41
C 0.22

3.28
5.23 ✓
5.28
F 0.05

3.72
4.89 ✓
5.10
F 0.29

RR SPIKE TOPPIK
WEEKS RR BRIDGE
100' LT. 14100

T.P. 580 7.60 5.02 1.80

+ 50

19+29.2 Brk.

^E
2.10 cb
4.72

18+98.2 E. Chapman

18+67.2 Brk.

^E
2.10 cb
4.72 ✓

+ 50

18

+ 50

17

6.81

L.T. 90T.

8

R.T. 90T. 6

1.19
5.63
5.05
C 0.58

1.13
5.69 ✓
5.08
C 0.61

1.00
5.82 ✓
5.34
C 0.48

1.00
5.82 ✓
5.24
C 0.58

1.21
5.61 ✓
5.25
C 0.36

1.39
5.43 ✓
4.78
C 0.65

1.57
5.75 ✓
4.87
C 0.38

1.75
5.07
4.67
C 0.40

2.01
4.81
5.03
F 0.22

1.95
4.87
5.12
F 0.25

1.95
4.87
5.23
F 0.30

1.95
4.87
5.23
F 0.30

2.07
4.80
5.25
F 0.45

2.18
4.64
5.24
F 0.60

2.35
4.47
5.05
F 0.58

2.51
4.31
4.88
F 0.57

1.29
5.33
5.02
C 0.31

1.43
5.39 ✓
4.72
C 0.67

1.43
5.39 ✓
5.05
C 0.34

1.43
5.39 ✓
4.72
C 0.67

1.50
5.32 ✓
5.47
F 0.15

1.65
5.17 ✓
5.42
F 0.25

1.80
5.02 ✓
5.24
F 0.22

1.95
4.87 ✓
5.02
F 0.15

Contd. P. 9

27 + 50 Break

24 T.P. 702 919 543 217
strub on West

+50

21

+50

20

760

Lt. gut.

6

Rt. gut. 7

207
7.12
7.21
Fo. 0.09

291
6.28
6.59
Fo. 0.31

241
6.78
6.83
Fo. 0.05 ✓

194
5.68
5.43
Co. 0.25

276
4.84
5.30
Fo. 0.36

225
5.35
5.23
Co. 0.12 ✓

177
5.83
5.40
Co. 0.43

261
4.99
5.34
Fo. 0.35

210
5.50
5.32
Co. 0.18 ✓

163
5.97
5.23
Co. 0.74

246
5.74
5.54
Fo. 0.40

194
5.66
5.47
Co. 0.19 ✓

148
6.12
5.26
Co. 0.36

231
5.29
5.64
Fo. 0.35

179
5.81
5.65
Co. 0.16 ✓

134
6.26
5.93
Co. 0.33

216
5.44
5.70
Fo. 0.26

164
5.96
5.75
Co. 0.21 ✓

LT. 907

RT. 907.9

25 0°13.7'

I.P. NAIL 5.70 10.13 4.76 4.43
26 LT.)

R.P.S = 40' Rt. Max.
Hub 50 RT.

24+89.06 B.C. RT. C.T. Bldg. 85.0 RT. (Break)

3.95
6.18
6.45
F 0.27

4.41 ✓
5.72
5.87
F 0.15

3.54
6.59
6.07
C 0.52

3.88
5.31
5.08
C 0.23

4.35 ✓
4.84
4.99
F 0.15

3.48
5.71 ✓
5.20
C 0.51

1 50

3.58
5.61
6.13
F 0.52

4.12 ✓
5.07
5.23
F 0.10

3.30
5.89 ✓
5.55
C 0.34

24

3.20
5.99
6.37
F 0.38

3.80 ✓
5.39
5.60
F 0.21

3.08 ✓
6.11 ✓
5.70
C 0.41

+ 50

2.83
6.36
6.38
F 0.07

3.50
5.79
5.98
F 0.29

2.86
6.33 ✓
6.15
C 0.18

23

2.45
6.74
7.05
F 0.31

3.20
5.99
6.37
F 0.38

2.63
6.56 ✓
6.48
C 0.08

9.9

R.P.S.
 40' RT. Nail,
 50' RT Hub
 300 approx, nail Bloly.

27 + 49.75 P.C.C. L° 30.75 Break

+ 50 5° 28.0
 Break on E

27 4° 25.2

+ 50 3° 22.3

26 2° 19.4

25 + 50 1° 16.6

10.13

L.T. 907. Σ

RT. 907 **10**

5.93
 4.20
 4.52
 Fo.32

6.70
 3.93
 4.30
 Fo.43

5.13 ✓
 5.00
 4.00
 C 4.18

5.60
 4.53
 4.71
 Fo.18

5.81 ✓
 4.32
 4.52
 Fo.20

4.86 ✓
 5.27
 4.17
 C 4.10

5.27
 4.86
 4.91
 Fo.08

5.54 ✓
 4.59
 4.93
 Fo.34

4.60 ✓
 5.53
 4.21
 C 4.11

4.94
 5.19
 5.23
 Fo.04

5.26 ✓
 4.87
 5.41
 Fo.54

4.33
 5.80 ✓
 4.67
 C 4.13

4.61
 5.54
 6.28
 Fo.70

4.97 ✓
 5.12
 5.60
 Fo.44

4.07 ✓
 6.00
 5.11
 C 0.95

4.28
 5.85
 6.10
 Fo.25

4.70 ✓
 5.23
 5.81
 Fo.38

3.80 ✓
 6.33
 5.25
 C 0.08

1+68 0°42.0

250 5°59.0

1 3°59.3

0+50 1°59.6

T.P. 5.26 11.24 4.15 5.98

$0+00 = 35' \text{ E}$
 $29+12.14 = 1°27.0$
 $= 40' \text{ E}$

Ties off 40' E
 40' RT. Man.
 50' RT. Hub
 140' RT. Hub

P.C.C. and 5' Jog on E Blvd.

28+8226 = E.C. 4 A to LT. on N.L.
10°03.8

28+41 0°31.9

10.13

LT. 90°

£

RT. 11

6.70
 $\frac{4.54}{4.84}$
 F0.28

6.71
 $\frac{4.53}{4.84}$
 F0.31

6.65
 $\frac{4.59}{4.89}$
 F0.30

6.58
 $\frac{4.66}{5.01}$
 F0.35

6.61 6.50
 $\frac{3.52}{4.15} \quad \frac{3.63}{3.91}$
 F0.63 F0.28

6.24
 $\frac{3.89}{4.31}$
 F0.42

5.94
 $\frac{4.19}{4.01}$
 F0.42

6.53
 $\frac{3.60}{4.13}$
 F0.53

6.38
 $\frac{3.75}{4.11}$
 F0.36

5.26
 $\frac{4.98}{5.94}$ O.K.
 Here Ely

5.30
 $\frac{4.94}{5.49}$
 C0.25

5.39 ✓
 $\frac{4.85}{5.74}$
 C0.07

$\frac{5.45}{5.79}$
 $\frac{5.60}{6.17}$

5.51
 $\frac{5.78}{5.40}$
 C0.33

$\frac{5.53}{5.71}$ ✓
 $\frac{5.23}{6.27}$

5.55
 $\frac{4.58}{4.03}$
 C0.50

5.51
 $\frac{4.62}{4.03}$
 C0.59

5.35 ✓
 $\frac{4.78}{4.06}$
 C0.72

+50 17° 56.8

4 15° 57.2 ✓

+50 13° 57.5

3 11° 57.9

+50 9° 58.4 ✓

2 7° 58.6

11.24

3.92

7.32 ✓

7.32

0.0

4.80

6.74 ✓

6.74

0.16

5.80

5.74

5.54

0.10

LAST POINT

6.25

4.99

5.07

0.08

6.50

4.68

4.78

0.10

6.60

4.58

4.83

0.25

Rt.
90T.

12

curve transition 14 to 7

on Sky Line Blvd.

0+0 to 0+94.5 to 1+68.4

choods 2x36

$\Delta = 13^{\circ}22'$

$1^{\circ}40'30''$

cb R = 416.69

$3^{\circ}21'$

T = 48.95

$5^{\circ}01'30''$

L = 97.45

$6^{\circ}42'$

5153.32 E.C. $22^{\circ}04'$

5 $19^{\circ}56.5$

Pt. 13
OUT.

9
209
1.5

209
9.15
9.17
E.C. 0.02

303
8.21
8.25
E.C. 0.04

Curve transition
on Nly side of
W. Pt. Londa Blvd.

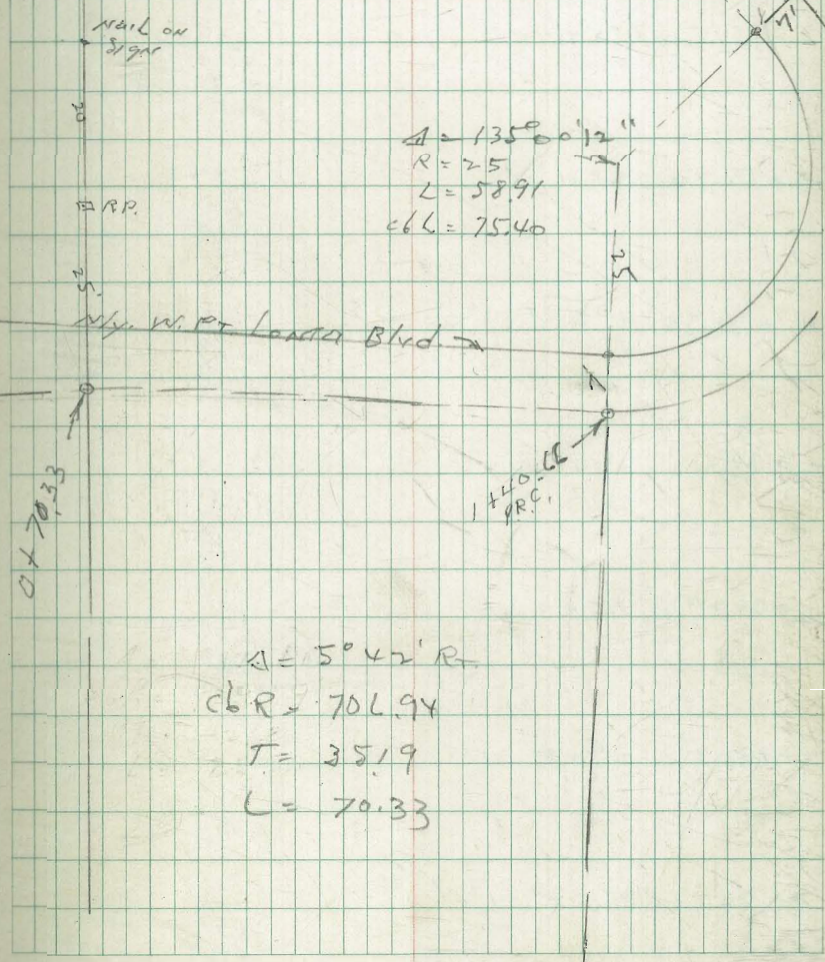
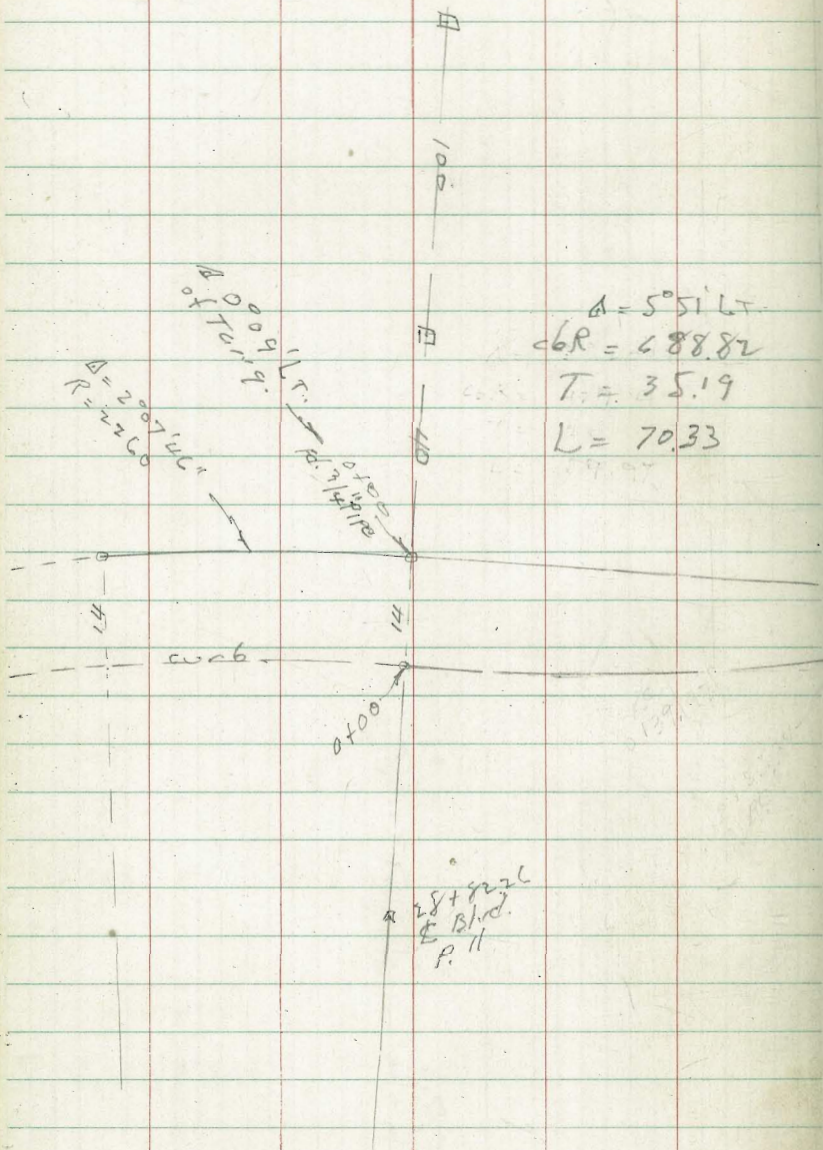
Sly Alleyway

244 1001 12 2 1101 ppc

$\Delta = 5^{\circ} 51' L$
 $c6R = 688.82$
 $T = 35.19$
 $L = 70.33$

$\Delta = 135^{\circ} 00' 12''$
 $R = 25$
 $L = 58.91$
 $c6L = 75.40$

$\Delta = 5^{\circ} 42' R$
 $c6R = 706.94$
 $T = 35.19$
 $L = 70.33$



Curve TRANSITION
Sketched P. 14

907.90

0+00 PRC,

$$\begin{array}{r} 6.24 \\ 4.63 \\ 5.00 \\ \hline F0.43 \end{array}$$

0+17.58 0°43'52"

$$\begin{array}{r} 6.24 \\ 4.58 \\ 5.09 \\ \hline F0.51 \end{array}$$

0+35.15 1°27'44"

$$\begin{array}{r} 6.31 \\ 4.53 \\ 4.96 \\ \hline F0.43 \end{array}$$

0+52.74 2°11'36"

$$\begin{array}{r} 6.37 \\ 4.50 \\ 5.15 \\ \hline F0.65 \end{array}$$

0+70.33 PRC 2°55'30"

$$\begin{array}{r} 6.40 \\ 4.47 \\ 5.19 \\ \hline F0.72 \end{array}$$

0+87.91 0°42'45"

$$\begin{array}{r} 6.37 \\ 4.50 \\ 5.13 \\ \hline F0.63 \end{array}$$

1+05.49 1°25'30"

$$\begin{array}{r} 6.33 \\ 4.54 \\ 4.67 \\ \hline F0.13 \end{array}$$

1+23.07 2°08'15"

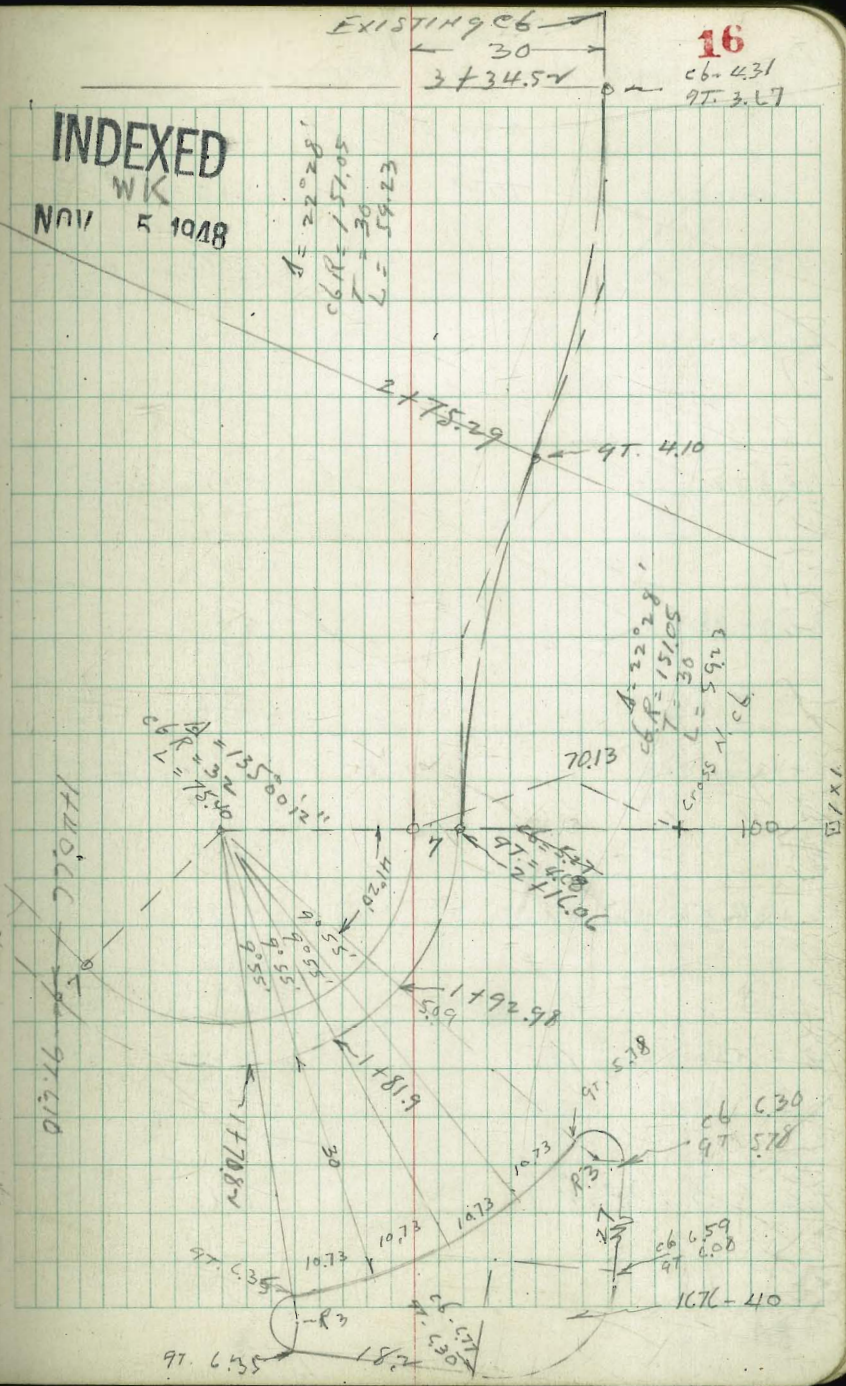
$$\begin{array}{r} 6.24 \\ 4.63 \\ 4.77 \\ \hline F0.14 \end{array}$$

1+40.66 PRC 2°51'

$$\begin{array}{r} 6.16 \\ 4.71 \\ 5.00 \\ \hline F0.29 \end{array} \quad \begin{array}{r} 6.10 \\ \hline F0.23 \end{array}$$

Swly Return on Midway
and N. Pt. Loma Blvd

Nly W. Pt. Loma Blvd



290 BM.
8.38
11.28

1+40.00 $C_{1.0} = F_{0.23}$

1+55.7 $\begin{array}{r} 5.85 \\ 5.43 \\ \hline 5.25 \\ C_{0.18} \end{array}$

1+70.84 $\begin{array}{r} 5.54 \\ 5.74 \\ 5.94 \\ \hline C_{0.70} \end{array}$

1+81.9 $\begin{array}{r} 5.31 \\ 5.97 \\ 4.97 \\ \hline C_{1.0} \end{array}$

1+97.98 $\begin{array}{r} 5.09 \\ 6.19 \\ 4.91 \\ \hline C_{1.28} \end{array}$

2+16.06 PRC $\begin{array}{r} 4.68 \\ 6.00 \\ 5.43 \\ \hline C_{1.17} \end{array}$

2+38.87 $2^{\circ}48'30''$ $\begin{array}{r} 4.51 \\ 6.77 \\ 5.32 \\ \hline C_{1.45} \end{array}$

2+35 Break $\begin{array}{r} 4.44 \\ 6.84 \\ 5.29 \\ \hline C_{1.55} \end{array}$

2+45.68 $5^{\circ}37'$ $\begin{array}{r} 4.35 \\ 6.93 \\ 5.45 \\ \hline C_{1.48} \end{array}$

2+60.49 $8^{\circ}25'30''$ $\begin{array}{r} 4.23 \\ 7.05 \\ 6.67 \\ \hline C_{0.38} \end{array}$

2+75.29 PRC $11^{\circ}14'$ $\begin{array}{r} 4.10 \\ 7.18 \\ 7.12 \\ \hline C_{0.06} \end{array}$

2+90.10 $2^{\circ}48'30''$ $\begin{array}{r} 11.00 \\ 7.28 \\ 6.74 \\ \hline C_{0.54} \end{array}$

2+104.81 $5^{\circ}37'$ $\begin{array}{r} 3.89 \\ 7.39 \\ 6.84 \\ \hline C_{0.55} \end{array}$

3+19.72 $8^{\circ}25'30''$ $\begin{array}{r} 3.78 \\ 7.50 \\ 7.01 \\ \hline C_{0.49} \end{array}$

3+34.52 E.C. $11^{\circ}14'$ End Job $\begin{array}{r} 3.67 \\ 7.61 \text{ on Pav.} \end{array}$

Island gutter

3'R		3'R	
6.35	6.21	6.07	5.93
4.93	5.07	5.21	5.35
4.97	4.81	4.90	4.79
F 0.04	C 0.26	C 0.31	C 0.56
			C 0.51

Stake to alley Returns

for ST. Dept.

CSM

C.S.

KFA

11-20-45.

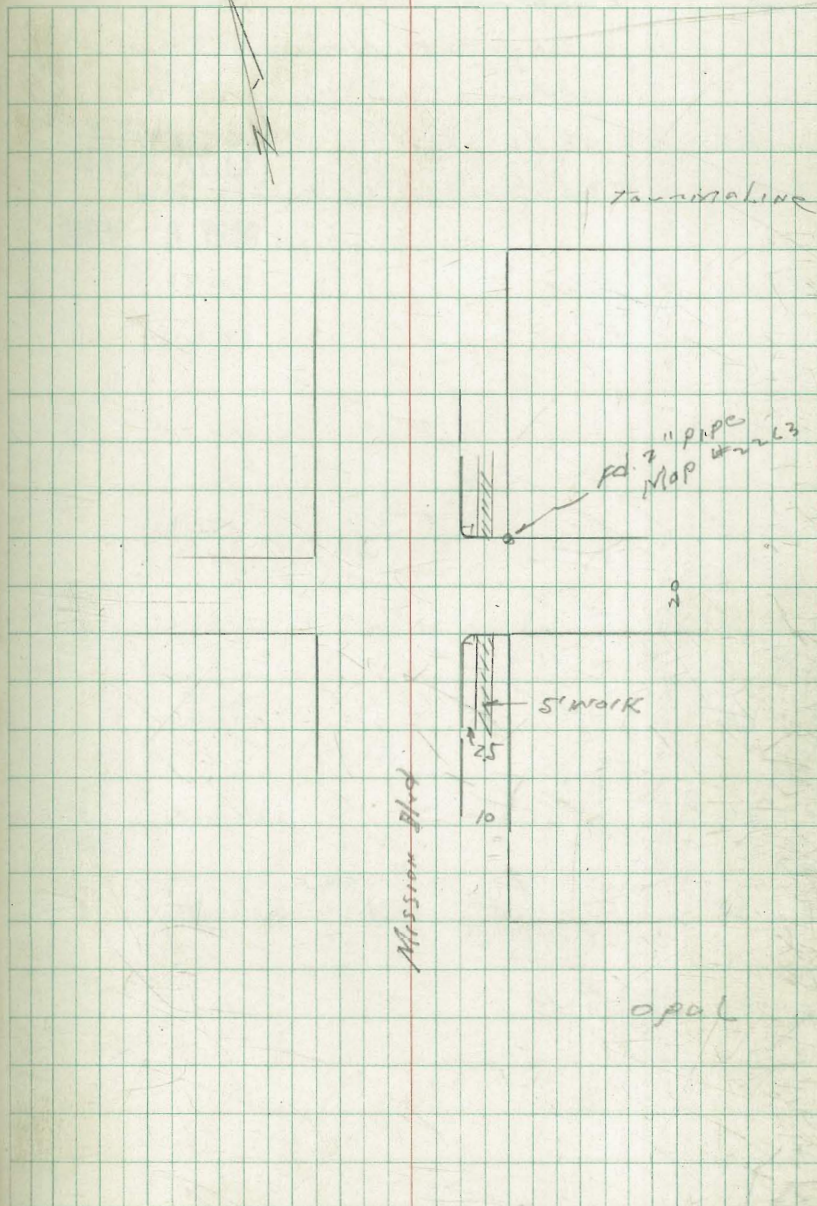
Use Ex. Walk for grade

INDEXED

WIK

NOV 5 1948

Higgs Avenue Overhead

Block 4
First Addition
Ocean Spray tract.

Block 69 W
Santa Monica

0.7%
150' Sewer Const. for Fralls
in alley bet Newport and
Santa Monica on Venice St.

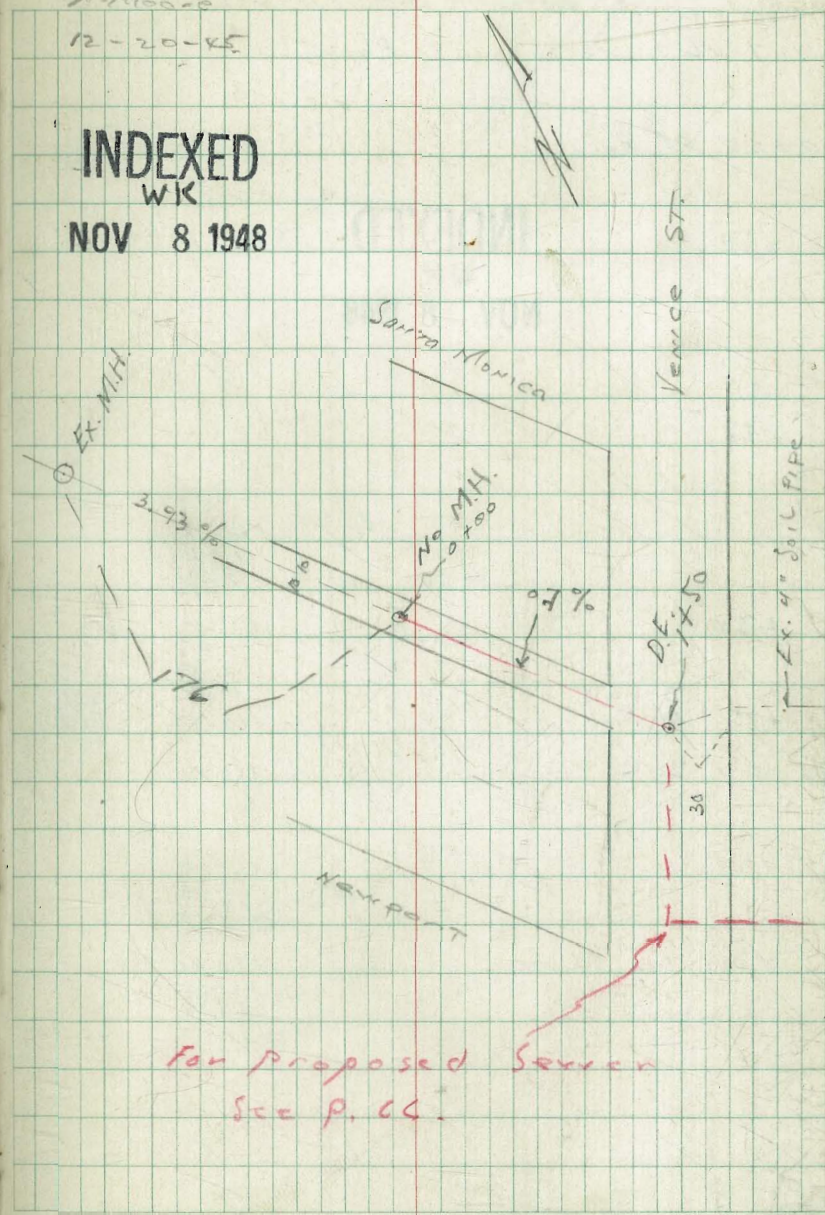
SWBP	12.08	(21353)	201.45	Santa Monica Venice
T.P.	8.86	(22139)	100	212.53 ✓

Ex. M.H. RIM	10.48	210.91	✓
" " F.L.	18.23	203.10	✓
0+00		210.08	11.31 3.25 C 8.06
0+25	11.14 2.36 C 8.84	210.25	
0+50		210.43	10.96 1.89 C 9.07
0+75	10.79 2.16 C 8.63	210.60	
1+00		210.78	10.61 3.70 C 6.91
1+25	10.44 5.24 C 5.20	210.95	
1+50 @ Venice		211.13	10.26 4.20 C 6.06

Noor
Sottocrieyen
H. Moore

12-20-45

INDEXED
WK
NOV 8 1948



For Proposed Sewer
See p. 66.

C.S. 6" Water Const. on **STERNE ST**
 1-7-46 Willow to Plum

0+25 Break PC Ret. $\begin{matrix} 168.54 \\ 5.23 \\ 2.43 \\ \hline 176.20 \end{matrix}$

+50 **INDEXED**
 WK
 NOV 8 1948 $\begin{matrix} 167.73 \\ 6.04 \\ 3.20 \\ \hline 176.97 \end{matrix}$

1 $\begin{matrix} 166.10 \\ 7.67 \\ 4.53 \\ \hline 178.30 \end{matrix}$

+50 $\begin{matrix} 164.48 \\ 9.29 \\ 6.15 \\ \hline 179.92 \end{matrix}$

2 $\begin{matrix} 162.86 \\ 10.91 \\ 7.07 \\ \hline 180.84 \end{matrix}$

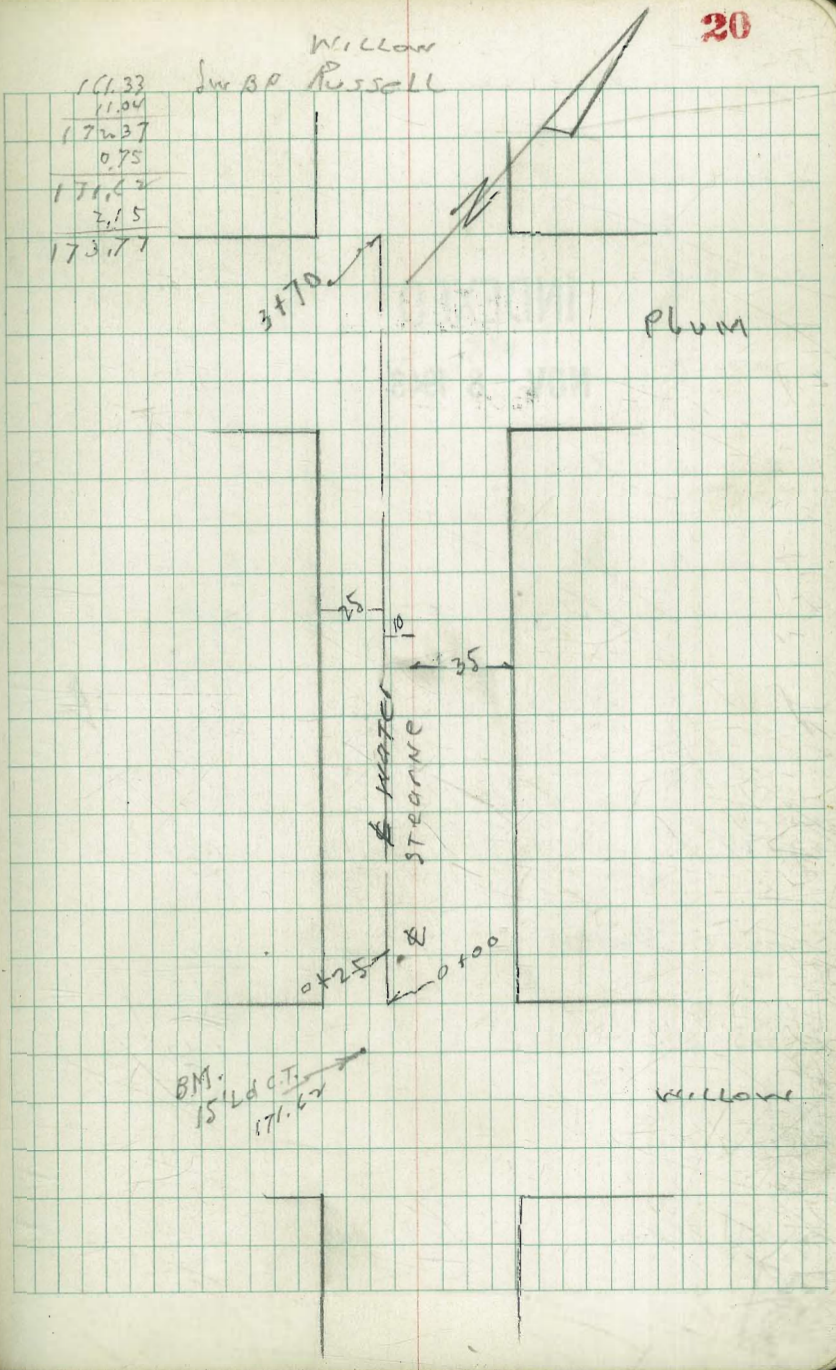
+50 $\begin{matrix} 161.27 \\ 12.54 \\ 7.65 \\ \hline 181.46 \end{matrix}$

+75 Break PC Ret. $\begin{matrix} 14.35 \\ 7.78 \\ \hline 22.13 \end{matrix}$

3 +100 B-K FL Plum $\begin{matrix} 1373 \\ 8.47 \\ \hline 1522 \end{matrix}$ $\begin{matrix} 160.42 \\ 13.35 \\ 7.78 \\ \hline 181.55 \end{matrix}$

+35 $\begin{matrix} 160.27 \\ 13.55 \\ 10.57 \\ \hline 184.39 \end{matrix}$

+70 W.L. Plum $\begin{matrix} 160.40 \\ 13.37 \\ 11.37 \\ \hline 185.14 \end{matrix}$



1-8-46 1" Water on Russell ^{10' S of}
Willow, Wly to P.L. E

0 + 00 = wly Willow 158.00
16.45
13.91 on
-2.54 pay

INDEXED
W.K.
NOV 8 1948

0 + 30 B ✓ 158.40
76.05
13.51
-2.54

0 + 70 B ✓ 159.20
15.25
12.44
-2.81

1 + 10 B ✓ 160.35
14.10
11.04
-3.00

1 + 50 B ✓ 161.90
72.55
9.52
-3.03

✓ 164.05
10.40
7.41
-2.99

+ 50 166.21
8.24
4.49
-3.75

BC Ret
2 + 75 B. ✓ 167.29
7.16
2.98
-4.18

3 + 00 E.L. Plum ✓ 168.49
6.16
2.73
-3.43

3 + 35 B " 168.49
5.96
2.27
-3.69

3 + 70 W.L. " 168.70
5.75
1.67
-4.08

3 + 95 BC Ret. 168.54
5.91
1.53
-4.38

161.33 = B.M. R20
13.12
174.45 *

21

4 + 10 B 168.24
6.21
1.93
-4.28

4 + 50 B 166.85
7.20
4.26
-3.34

4 + 90 B 164.28
10.17
6.94
-3.23

5 + 30 B 160.52
13.93
10.36
-3.57

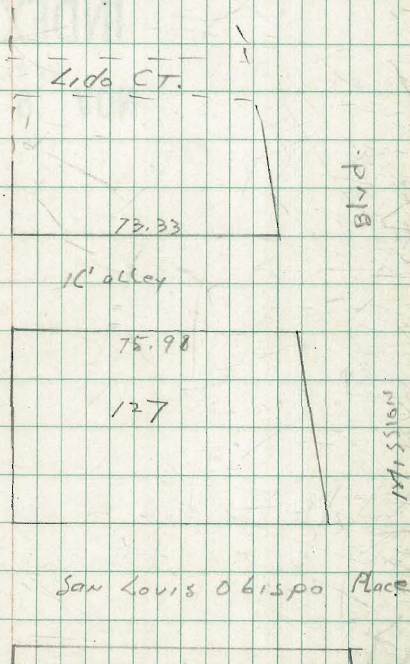
5 + 60 = End = Blowoff
615 E of W.L. Roseville 157.23
17.22
14.40
-2.82

1-10-46 Pav. 10' Alley
 BIK 127 Mission Beach

± STA.	S.L.	±	N.L.
0 + 00 = E.L. Strandway	4.97 ✓ 4.76	4.75 ✓ 4.98	4.93 ✓ 4.80 ✓
0 + 10 Break	4.32 ✓ 5.41 ✓	4.12	4.32 ✓ 5.41 ✓
0 + 40.5	2.40 ✓ 7.33 ✓	2.20	2.40 ✓ 7.33 ✓
0 + 71 Break	0.47 ✓ 9.26 ✓	0.27 ✓ 9.46 ✓	0.47 ✓ 9.26 ✓
0 + 74.5 = W.L. Blvd + 0.02	9.71 ✓	+ 0.03 9.76 ✓	+ 0.15 9.58 ✓

1.98 BMBD San Louis Obispo Pl.
 2.75 and Seawall
 9.73 *

INDEXED
 WIK
 NOV 8 1948



Pacific
Set Curb stakes, Lots 21 to 26 Blk 186 Beach

N.W.B.P.	1.19	71.56		70.37	Diamond Gresham
T.P.	3.01	65.10	9.47	62.09	
SW, T.P. 7' Mon	2.55	58.86	8.79	56.31	Felspar Gresham
check to B.M. SW. 7' C.T. corner Gresham			6.43	52.43	52.42

SW
7' Mon. 3.25 59.56 56.31

0 + 00 w/ Gresham

58.00
1.56 ✓

INDEXED
WK
NOV 8 1948

0 + 50

57.17
2.39 ✓

1 + 00

56.33
3.23 ✓

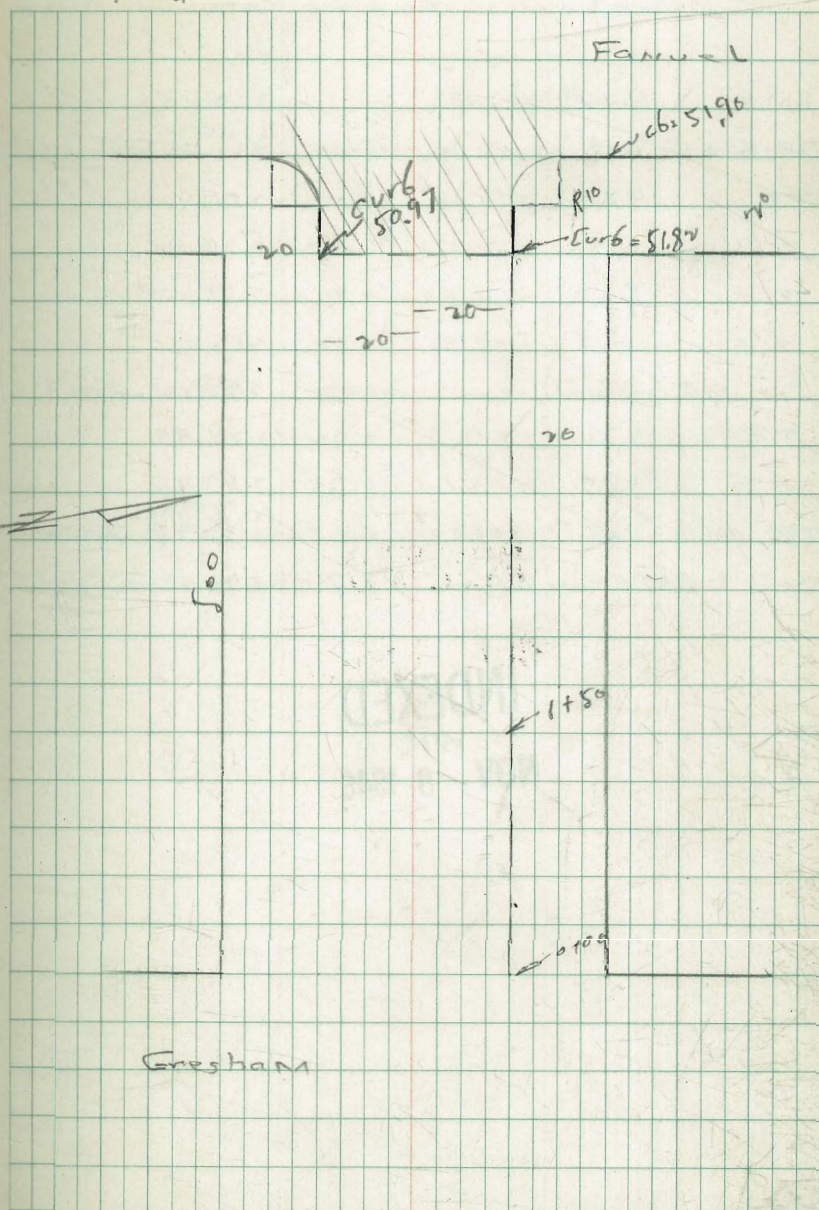
1 + 50

55.50
4.06

Stakes set to established grade
and 3' back of curb face

S. Moore
S. Moore Meyer
W. Moore
1-19-46.

23



Beach Levels, vicinity Catalina Blvd
and Silvergate Ave.

BM.B.P.	2.73	263.41		260.68	
T.P. Mon.	1.78	263.34	1.85	261.56	241.63
T.P.	4.21	256.13	11.42	251.92	0.07
T.P.	4.83	256.73	6.23	249.90	
T.P.	8.03	264.05	0.71	256.07	
T.P.	12.18	275.91	0.32	263.73	
Set BM, 3-8" nails	—		1.77	274.14	
T.P.	9.30	284.29	0.92	274.99	
T.P.	9.69	293.64	0.34	283.95	
T.P. BM.	9.14	301.63	1.15	292.49	292.70
check to BM.B.P. in E. curb			8.17	293.46	0.21
					0.14

INDEXED
WIK
NOV 8 1948

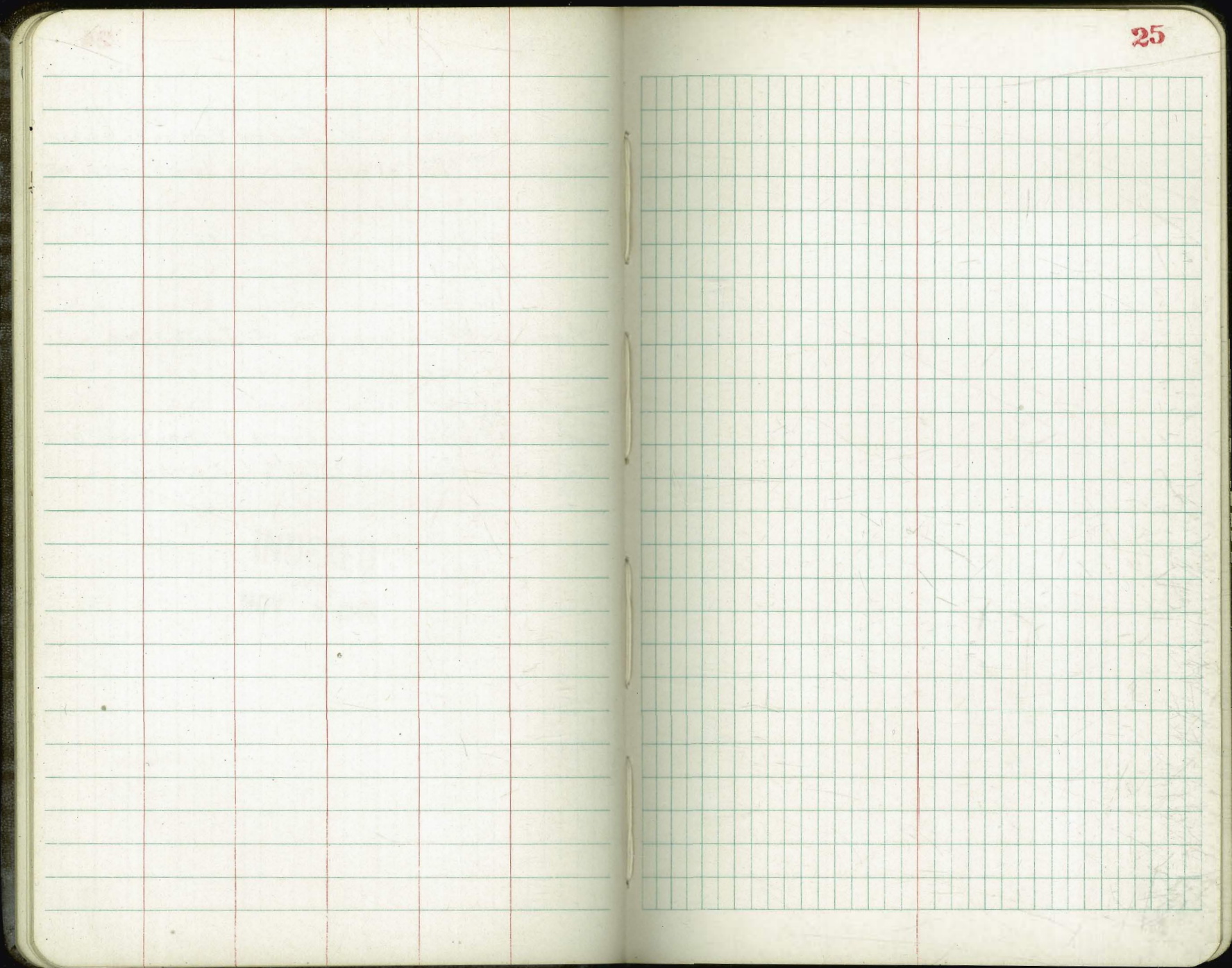
C.S.M.
C.S.
W.M. 1-21-48

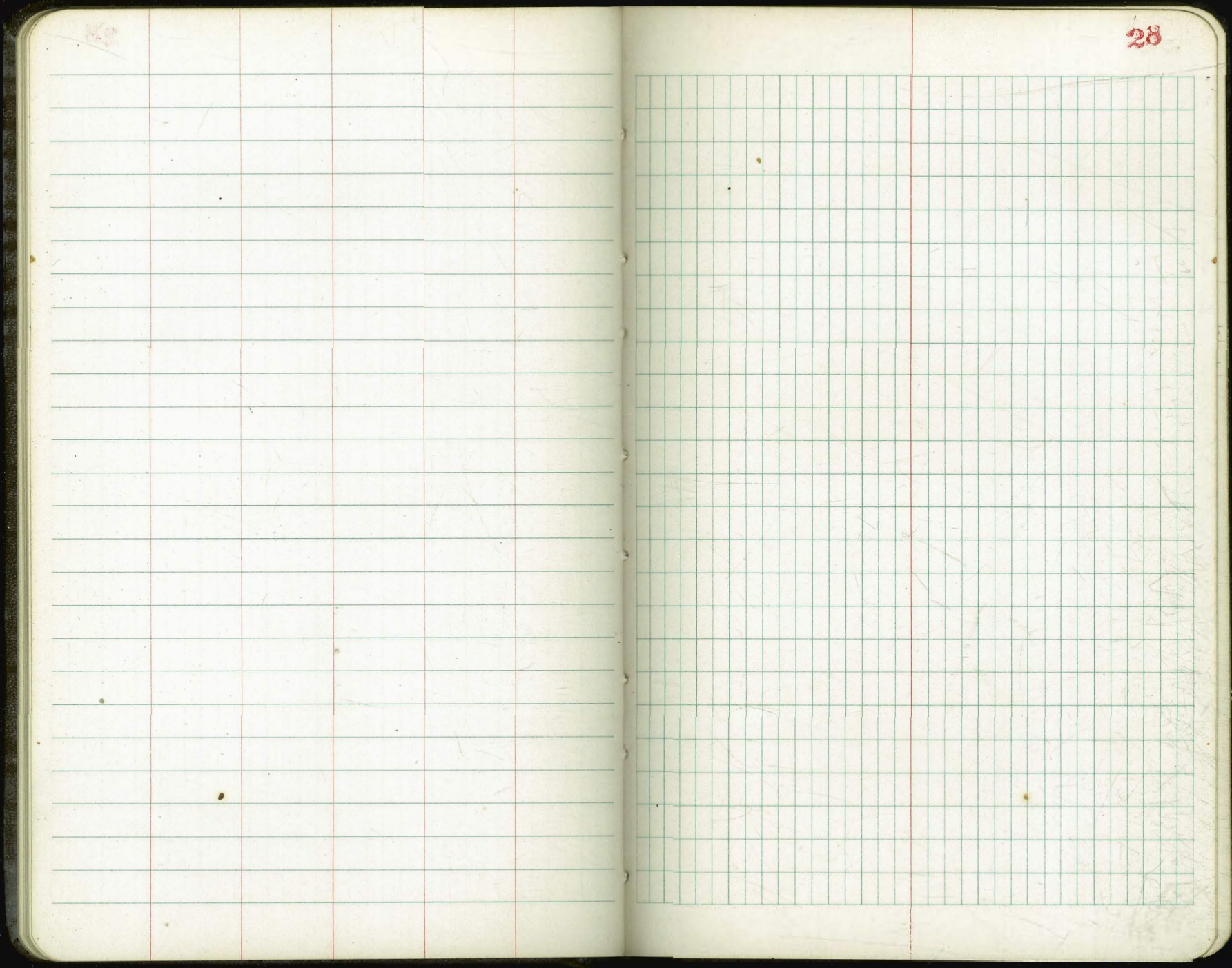
24

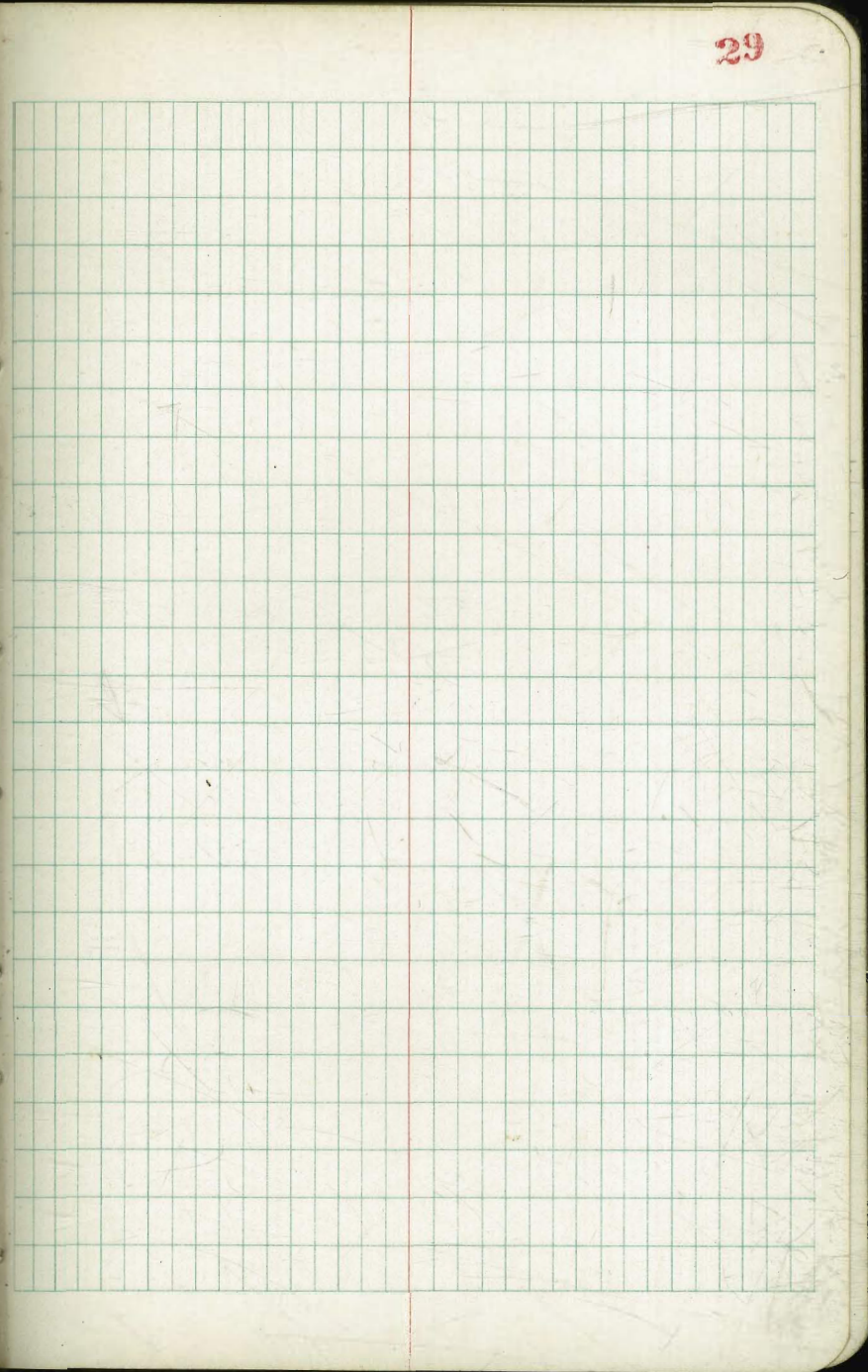
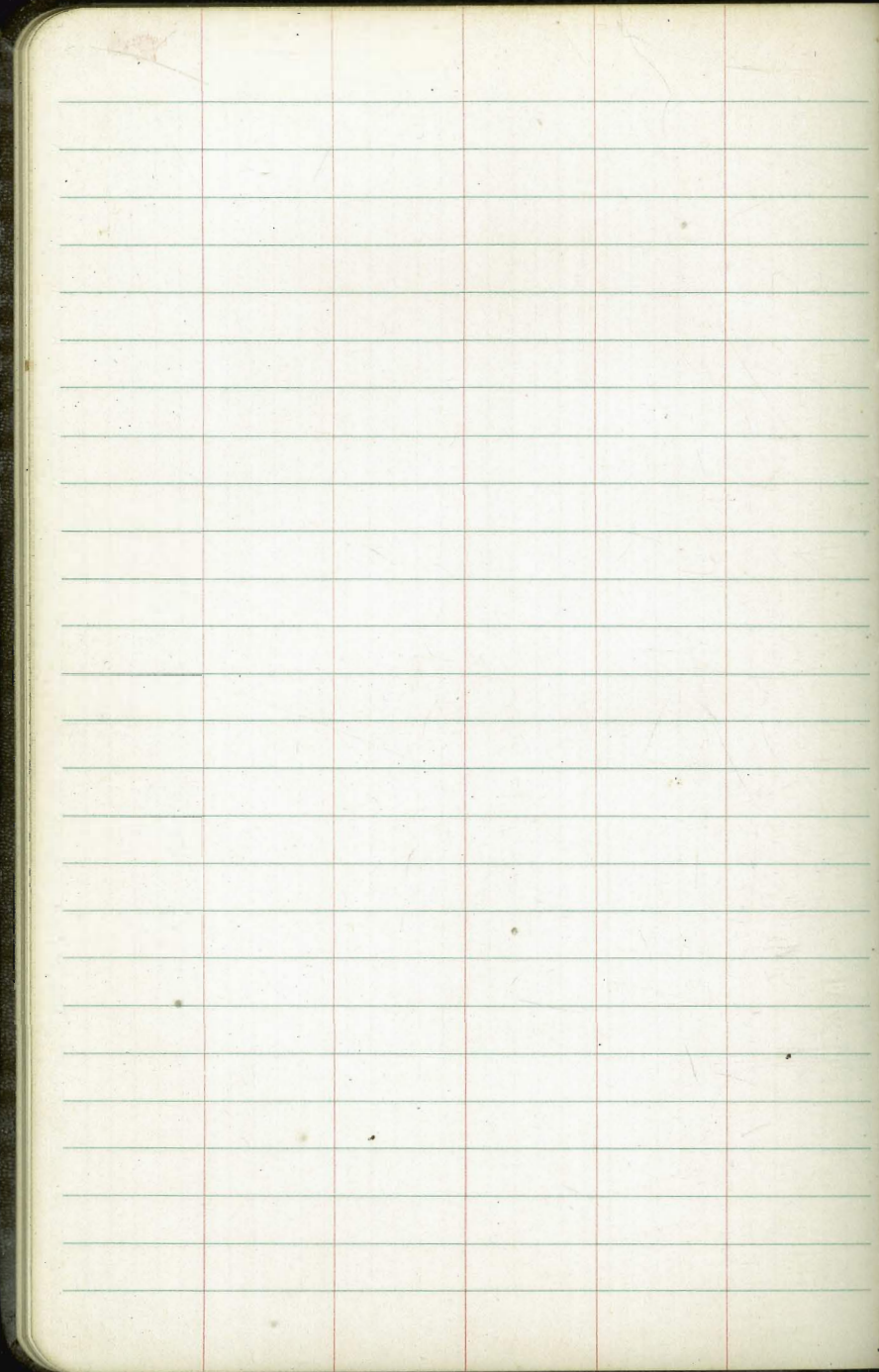
NWBP Catalina and Santa Barbara
BM. Con. Mon. ^{approx.} E Talbot + W 10' line Catalina

3-8" nail SW P.P. Silvergate + Jennings

SE Cor. curb, Silvergate & Charles St.
E 66 Silvergate 85' S of Dudley







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A page with a grid pattern, featuring horizontal blue lines and two vertical red margin lines. The page is otherwise blank.

Trench
grade

7+50			199.50
8			199.0
+50	%		198.50
9			198.0
+50			197.50
10			197.0
+50			196.5
11	Brk		196.0
+50			194.82
11+91.41	BCLT.		193.84
12	Brk.	0° 14.70' ✓	193.64
+25		0° 57.73' ✓	192.89
+50		1° 40.70' ✓	192.14
+75		2° 23.67' ✓	191.39
13	Brk.	3° 06.64' ✓	190.64
+25	Brk.	3° 49.61' ✓	189.39
+50	Brk.	4° 32.58' ✓	187.64
+75		5° 15.55' ✓	185.39
14		5° 58.52' ✓	183.14
+25		6° 41.5' ✓	180.89
+46	Brk.	7° 17.6' ✓	179.0
+62	"	7° 45.08' ✓	177.74
+78	"	8° 12.58' ✓	176.44
+94	"	8° 40.08' ✓	176.12
15+10	"	9° 07.58' ✓	175.80
15+25	" B.O.Y.	9° 33.36' ✓	175.80

32

214.94 π					
9.76					
205.18					
243	199.50	99.0	98.50	98.0	97.50
107.61 π	15.44	15.94	16.44	16.94	17.44
10.14	7.42	8.21	8.07	7.76	7.92
	C 8.02	C 7.73	C 8.37	C 7.18	C 7.19
197.47	= T.P. 50' R.P. 64' B.C.				
3.82					
101.29 π	97.0	96.50	96.0	94.82	93.84
12.80	10.61	11.11	11.01	12.79	13.77
188.43	4.05	5.25	6.16	7.30	8.71
0.20	C 6.56	C 5.86	C 5.45	C 5.47	C 5.06
188.63 π					
	93.64	92.89	92.14	91.39	90.64
	7.65	8.40	9.15	9.90	10.65
	2.78	3.58	4.27	4.99	5.79
	C 4.87	C 4.82	C 4.88	C 4.91	C 4.86
	89.39	87.64	85.39	83.14	80.89
	11.90	13.65	15.90	18.14	20.89
	7.18	9.15	11.08	12.77	14.74
	C 4.72	C 4.50	C 4.82	C 4.72	C 4.65
			T.P.		
	79.0	77.72	76.76	76.12	
	9.63	10.91	11.87	12.51	
	4.99	6.67	7.85	8.76	
	C 4.64	C 4.24	C 4.02	C 3.75	
	75.80	75.80			
	12.83	12.83			
	8.74	8.35			
	C 4.09	C 4.48			

Trench
grade

		188.135	
		0.48	
15+36 Brk	9° 52', 27'	175.80	188.15
15+49.35 = (E.C.)	10° 15.25'	176.07	12.38
+52 Brk		176.12	200.53
+68 "		176.76	1.32
+84 "		177.77	179.21
16 Brk		179.0	7.56
+30		182.0	206.77
16+6048 B.C. LT		185.07	
+69.28 Cr.	11° 05'	185.94	
16+78.09 E.C.	22° 10'	186.81	
17		189.0	
+32 Brk		192.20	
+52 "		193.80	
+72 "		195.0	
+92 "		195.80	
18+12 "		196.20	
18+16.77 B.C. Rt			
+35.57	11° 58' 05"		
+54.37	23° 56' 10"		
+73.77 E.C.	35° 54' 15"		
19			
+25 2" P.d.V. Valve			
+50			
19+90 Brk.		196.20	
20+45		195.10	

33

175.80	76.07	76.12	76.76	77.77
12.83	12.56	12.51	11.87	10.91
8.06	7.50	7.25	6.82	5.96
C 4.77	C 5.06	C 5.26	C 5.05	C 4.95
179.0	182.0	85.07	85.94	86.81
9.63	6.63	15.46	14.59	13.72
4.82	0.48	7.95	7.21	6.57
C 4.81	C 6.15	C 7.51	C 7.38	C 7.15
89.0	92.20	93.80	95.00	95.80
11.53	8.33	6.73	11.77	10.97
5.32	2.99	1.32	5.50	4.30
C 6.21	C 5.34	C 5.41	C 6.27	C 6.67
96.20	96.20	96.20	96.20	96.20
10.57	10.57	10.57	10.57	10.57
3.45	3.50	4.49	3.48	3.59
C 7.12	C 7.07	C 6.08	C 7.09	C 6.98
96.20	96.20	96.20	96.20	95.10
10.57	10.57	10.57	10.57	11.67
4.07	4.43	4.77	5.42	5.96
C 6.50	C 6.14	C 5.80	C 5.15	C 5.71

		206.77	
21+00 Brk		194.0	
+50		194.0	
21+99.88 Δ = 0°01'LT.	0%	194.0	
22+50		194.0	
+62.5 Brk		194.0	
23		193.70	
+50	0.8%	193.30	
24		192.90	
+50		192.50	
25 = Brk		192.10	
+50		191.10	
25+90.41 B.C. LT. R. 45' Set		190.30	
26+09.68 24°33'10"		190.30	
+28.95 49°06'20"		190.30	
26+48.24 E.C. 73°39'30"		190.30	
+50 Brk. 6" B.O.V.		190.30	
26+60 16" Gate Valve		190.50	
+70 6" B.O.V.		190.70	
+73 ± = U.S. Cable		190.70	
27	2%	191.30	
+50		192.30	
+90 Cross Sewer		192.50	
28		193.30	
+08 ± " Gas		193.10	
+50		194.30	

	94.0	94.0	94.0	94.0	94.0	93.70
	12.77	12.77	8.27	8.27	8.27	8.97
	6.40	6.92	3.29	3.75	3.88	4.23
	C 6.31	C 5.85	C 5.38	C 4.92	C 4.77	C 4.74
190.50						
18MBP						
attached	93.30	92.90	92.50	92.10	91.10	
Contracting	9.37	9.77	10.17	10.57	11.57	
	4.70	5.14	5.59	6.04	6.47	
	C 4.67	C 4.03	C 4.58	C 4.53	C 5.10	
	90.30	90.30	90.30	90.30	90.30	
	12.37	12.37	12.37	12.37	12.37	
	6.82	6.97	7.21	7.22	7.17	
	C 5.55	C 5.40	C 5.10	C 5.15	C 5.20	
	90.50	90.70	90.70	91.30	92.30	
	12.17	11.97	11.91	14.48	13.48	
	6.94	6.63	6.48	8.37	7.50	
	C 5.23	C 5.34	C 5.43	C 6.11	C 5.92	
	92.50	93.30	93.16	94.30		
	13.28	12.48	12.62	11.48		
	6.94	7.37	6.65	6.02		
	C 6.34	C 5.11	C 5.97	C 5.46		

		205.78 T	
		0.25	
29		195.30	205.53
		12.89	
+50 Brk.		196.30	218.22 T
		2.34	
30		198.20	216.08
+50		200.70	5.99
31		203.20	222.07 T
+50		205.70	1.56
		0.51	
+96 Brk.		208.0	11.74
37 + 14.85 = B.C. LT.		208.75	132.25 T
+16 Brk.	0° 43.9'	208.80	
+36 Brk.	13° 27.8'	209.10	
+56 Brk.	26° 11.8'	209.80	
+76 Brk.	38° 55.7'	210.0	
32 + 85.55 = E.C.	45° 00.75'	210.0	
33		210.0	
+50		210.0	
33 + 75.49 = B.C. RT.		210.0	
33 + 90 Brk.	9° 13.8'	210.0	
34 + 06 Brk.	19° 25'	210.22	
+22 Brk.	29° 36.2'	210.67	
+38 Brk.	39° 47.3'	211.34	
+46.21 = E.C.	45° 01.5'	211.80	
+54 Brk.		212.24	
35 + 00 Brk.		215.40	

38.1971 Per 1'

95.30	96.30	98.20	200.70	
10.48	9.48	7.58	17.72	
5.19	4.17	2.08	12.11	
C 5.29	C 5.31	5.50	C 5.61	
		T.P.		
203.20	05.70	208.0	8.75	880
15.22	12.72	10.42	9.67	9.62
9.55	6.88	4.55	3.56	3.51
C 5.67	C 5.84	C 5.87	C 6.11	C 6.11
9.40	9.80	210.0	210.0	210.0
9.02	8.62	8.42	8.42	12.07
2.61	2.05	2.39	2.34	6.02
C 6.41	C 6.56	C 6.03	C 6.08	C 6.05
				T.P.
210.00	210.0	210.50	10.22	10.67
12.07	12.07	12.07	11.85	11.40
6.07	6.06	5.86	5.45	4.94
C 6.00	C 6.01	C 6.21	C 6.40	C 6.44
11.34	11.80	12.24	15.40	
10.73	10.27	10.01	16.85	
4.15	3.36	12.91	10.89	
C 6.58	C 6.91	C 7.10	C 5.96	
		T.P.		

B.M.
→ Radius
Stab 45° RT
Curve 34 + 46.21

178.25 ch.

15.92 ch.

Trench
Grade

		232.25	
		0.16	
35 + 35		217.15	222.09
			11.50
+70		218.90	233.59
			0.52
36 + 10 Brk.		220.90	242.97
			4.98
+52.5		223.45	247.95
+95 Brk. ✓		226.0	247.95
			13.24
37 + 20 " ✓		227.0	234.71
			0.11
+45 " ✓		227.50	234.8
+65			
38		✓	
+35		✓	
+70		✓	
39 + 05		✓	
+40		✓	
+80		✓	
40 + 20		✓	
40 + 31.51 B.C. LT.		✓	
+46	5° 24.3	✓	
+50 - 1" P + V. Valve	11° 46.3	✓	
+62.5	19° 44.7 Brk.	227.50	
+66 = 10" Water	EXISTING 21° 58.4	227.43	
+76 = 28° 20.4		227.24	
+87.5	35° 39.0 Brk.	227.0	
41 + 02.19 E.C.	45° 00.0	226.37	
41 + 12.5 Brk.	Brk.	226.0	

36

	17.15	18.90	20.90	23.45	26.00
	15.10	13.35	11.35	8.80	17.59
	9.34	7.28	4.49	1.35	9.58
	C 5.76	C 6.07	C 6.86	C 7.45	C 8.01
				T.P.	
	27.0	27.50	27.50	16.09	227.50
	16.59	16.09	16.09	1.82	20.45
	8.00	6.33	4.92		4.04
	C 8.59	C 9.70	C 11.17	C 14.27	C 16.36
	20.45	20.45	20.45	20.45	20.45
	2.69	2.54	3.02	5.41	8.49
	C 17.76	C 17.81	C 16.83	C 15.04	C 11.76
			10.5		
	20.45	227.50	13.24	7.43	27.24
	8.81	20.45	7.21	7.39	7.82
	C 11.24	10.91	9.21	0.57	1.25
		C 10.46	T.P. C 7.18	C 7.01	C 6.57
	226.37	226.0			
	8.45	8.81			
	2.27	3.07			
	C 6.18	C 5.75			

Trench
grade

41 + 43.75 224.12

41 + 75 Bck 222.25

42 + 26.74 Bck 220.18

40 + 4.63 } Equation = P.O.T. } —

44.74

40 + 59.97 End Schedule #1 217.97

" S.L. Pescadero

234.84 ✓ T
10.00
224.84 = BM Swi Santa Barbara
224.89

37

24.1 ✓	222.5	20.18	17.97
10.70	12.57	14.04	10.85
5.32	7.33	9.35	↑
5.38	5.24	5.29	↓

Joint Value
for

7/23/45 Sewer 1100' Pendleton Abb.

		Hd wall BMBP culv. 1.05	
0 + 00	- 11.00 ✓	387	4.97 π
0 + 10 M.H.	- 7.53 ✓	4.45	0.47 π
0 + 25	- 7.47 ✓	5.21	5.68 π
0 + 50	- 7.25 ✓	4.55	0.13 π
0 + 70	- 7.11 ✓	4.46	5.59 π
0 + 78	- 7.05 ✓	4.46	5.59 π
1 + 00	- 6.90 ✓	5.59 π	5.59 π
1 + 25	- 6.72 ✓	5.02	5.68 π
1 + 50	- 6.55 ✓	0.57	5.68 π
1 + 75.5 M.H. 22° 31' LT	- 6.37 ✓	4.40	5.68 π
2 + 00	- 6.20 ✓	3.93	5.68 π
2 + 25	- 6.03 ✓	1.04	5.68 π
2 + 50	- 5.85 ✓	B.M.	5.68 π
2 + 81.8 = Δ 8° 05' LT	- 5.63 ✓	S.B. 1.05	5.68 π
3 + 04	- 5.47 ✓		5.68 π
+ 25	- 5.33 ✓		5.68 π
+ 50	- 5.15 ✓		5.68 π
+ 75	- 4.98 ✓		5.68 π
4 + 00	- 4.80 ✓		5.68 π
+ 25	- 4.63 ✓		5.68 π
+ 50	- 4.45 ✓		5.68 π
+ 75	- 4.28 ✓		5.68 π
5 + 00	- 4.10 ✓		5.68 π
+ 14 ⁴ Dead End	- 4.00 ✓		5.68 π

Indexed
Cos. R.

M.H.

38

- 11.00	7.53	- 7.47	- 7.25	- 7.11
15.97	12.45	12.34	12.17	12.03
6.85	7.50	7.14	7.03	5.45
C 9.07	C 5.45	C 5.70	C 4.74	C 4.57
				M.H.
	- 7.05	- 6.90	- 6.72	- 6.55
	11.97	11.82	11.64	11.47
	2.41	4.57	4.72	4.41
	C 9.56	C 7.15	C 6.92	C 7.26
				C 6.84
	5.68 π			
	- 6.20	- 6.03	- 5.85	- 5.63
	11.88	11.71	11.53	11.31
	5.07	5.00	4.75	4.80
	C 6.79	C 6.71	C 6.57	C 6.51
				C 6.48
	π	π		
	5.68	5.59		
	- 5.33	- 5.15	- 4.98	- 4.80
	11.01	10.79	10.57	10.37
	4.56	4.39	4.27	4.23
	C 6.45	C 6.35	C 6.28	C 6.12
				C 5.99
		π 5.59		
	- 4.45	- 4.28	- 4.10	- 4.00
	10.04	9.87	9.69	9.59
	4.18	4.05	3.98	4.13
	C 5.86	C 5.82	C 5.71	C 5.46

150 5.0 3.8

4 5.0 3.8

150 5.2 3.6

3 5.5 3.3

150 5.6 3.2

2 + 00 5.47 3.37

1 + 90 5.38 3.41

T.P. 4.10 879 4.40 4.69

BM #2 6.06 909 3.03

R.P. 341
 0+00 CON. MON ON £
 1-24-46

150

4.9

4.2

7

4.9

4.2

T.P

4.6

9.10

4.5

4.6

150

4.6

4.2

6

4.6

4.2

150

4.5

4.3

4.3

B.K

5

4.8

4.0

8.79

10 6° 52.7 5.0 4.1

1.50 5° 22.7 5.1 4.0

9 3° 52.7 4.8 4.3

1.50 2° 22.7 4.9 4.2

8 0° 52.7 4.9 4.2

7 + 7070 B.C.L.T 5.0 4.1

Hub 25 + 81° S
R.P.S. chisel X

Galv. SPIKE ONE
1-24-46

4.24

4.31

4.37

4.44

4.50 Brk

4.48

+ 50			5.2	3.4	
			5.8	3.62	STAKE

12			5.3	3.3	
			5.3	3.8	

117	70.14	EC	9.10	5.2	3.4	
		11°59'		5.3	3.8	

BM	H-2	5.57	8.60	3.3	1679-15
----	-----	------	------	-----	---------


+ 50	11°22.7		5.2	3.9	
------	---------	--	-----	-----	--

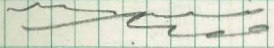
11	9°52.7		5.0	4.1	
----	--------	--	-----	-----	--

10	+ 50	8°22.7	5.0	4.1	
----	------	--------	-----	-----	--

9.10

RP CHISEL X 75' N 4.03
Hub 75'S

GALV SPIKE ON 
1-2x-46.

 4.05

4.12

4.08

+50

5.1

3.5

15

5.1

3.5

+50

5.0

3.6

14

4.9

3.7

+50

5.2

3.8

13

5.0

3.6

8.60

273 BIK

150 5.1 3.9

18 5.2 3.8

150 5.2 3.8

17 5.5 3.5

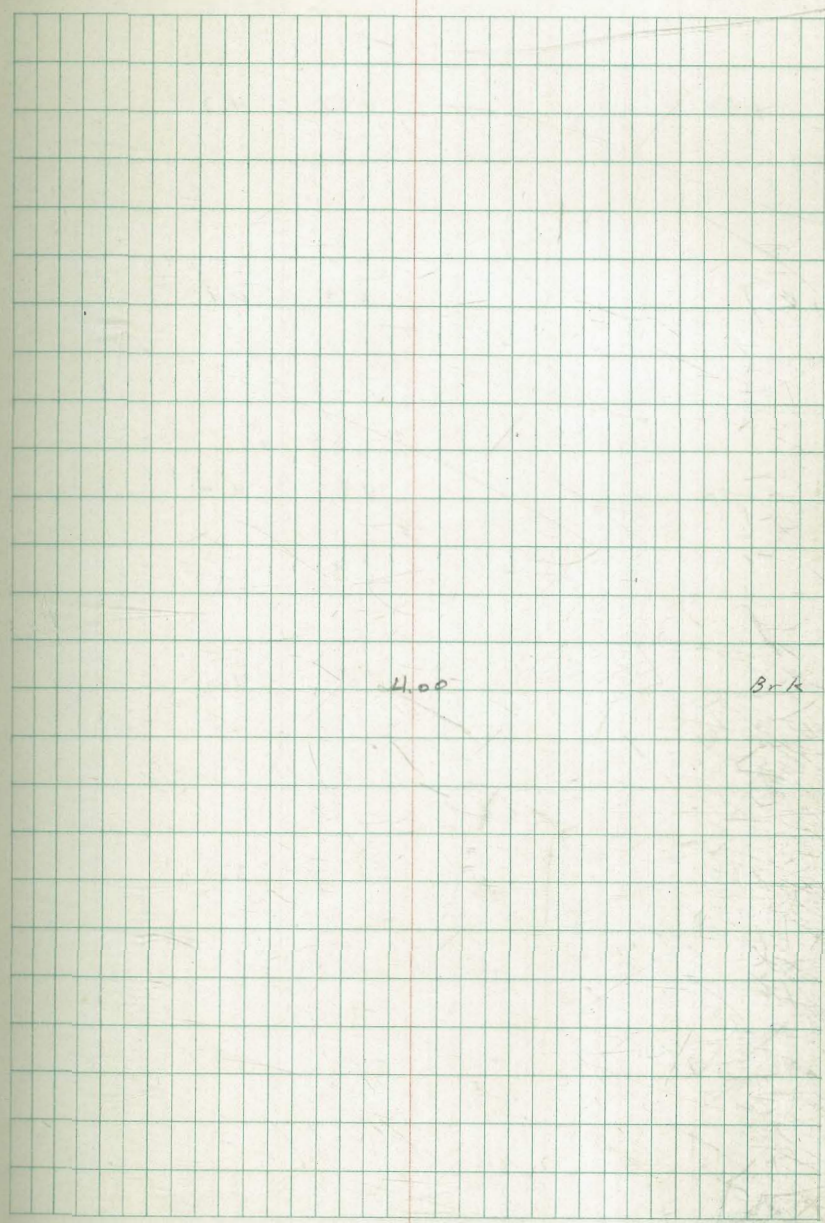
150 5.1 2.9

T.P. 500 901 465 295

14 5.1 3.5

860

11.00 Brk



+50 4.7 4.3

21 4.9 4.1

+50 4.8 4.2

20 5.0 4.0

+50 5.1 3.9

19 5.1 3.9

9.8

+50

4.9 4.0

24

5.0 3.9

+50

4.8 4.1

23

X Beg. finish
Sub-95
95

4.6 4.3

4.5

Break

+50

4.6 4.3

T.P

243

8.91

273

6.28

22

4.6 4.4

901
—

7.50

4.8

3.5

T.P.

4.7

8.31

4.77

4.14

27

5.2

3.7

370

Break

7.50

5.1

3.8

26

5.1

3.8

7.50

5.0

3.9

25

4.9

4.0

891

750

4.9 3.4

30

4.9 3.4

750

4.9 3.4

29

4.9 3.4

750

5.0 3.3

28

4.9 3.4

8.31

150

4.9

3.3

33

4.9

3.3

T.P.

4.43

8.21

4.53

3.78

150

5.1

3.2

32

5.2

3.1

3.53

150

5.1

3.2

31

5.0

3.3

8.31

150

5.1 3.1

36

5.0 3.2

150

4.9 3.3

35

5.0 3.2

150

5.0 3.2

34

4.9 3.3

8.21

150

4.8

3.2

39

4.8

3.2

150

4.7

3.3

T.P.

425

8.00

4.6

3.75

38

4.9

3.3

150

5.0

3.2

37

5.0

3.2

3.36

821

4

750 6.5 3.9

3.90

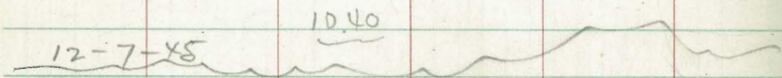
42 6.9 3.5

3.54

150 Brook 7.13 3.27 ON State

3.27

Brook



41 3.2

150 3.0

BM. #C 7.64 10.40 2.76 12-7-45

40 4.9 3.1

8.00

45 5°45.1 5.1 5.3

5.8

150 4°31.4 5.5 4.9

5.1

44 3°17.7 5.9 4.5

4.88

150 2°04.0 6.7 4.7

4.88

43 0°50.3 6.3 4.1

4.24

47+65.8 BC LT. 6.5 3.9

RR^s

55'S

54'N

10.40

2x2 on S. Emb. of
Dyke. 3' S of S. shoulder

Galv. spike

on

E
1-25-XC

4.00

+50 11°07.0 3.80 6.60

47 8°02.2 3.76 6.04

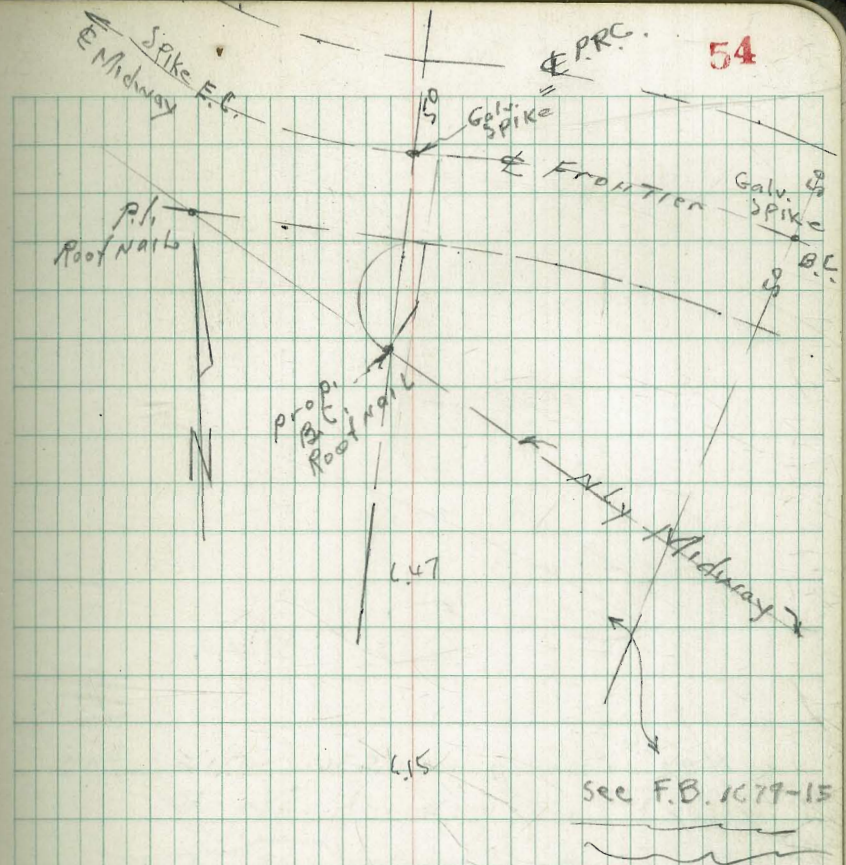
+50 1°57.2 3.93 6.47

46 1°52.2 4.44 5.96

45 + 49.18 PRC.
CON = 40.6 7°28.0
RPS
75.5
"SPIKE

+50 0°59.0 4.8 5.6

10.6



Galv. SPIKE
ON PRC.

590

580

4848623^{EC}
19° 31' 25"

5.34 5.06

450 17° 17.2'

4.86 5.54

48 14° 12.2'

4.28 6.12

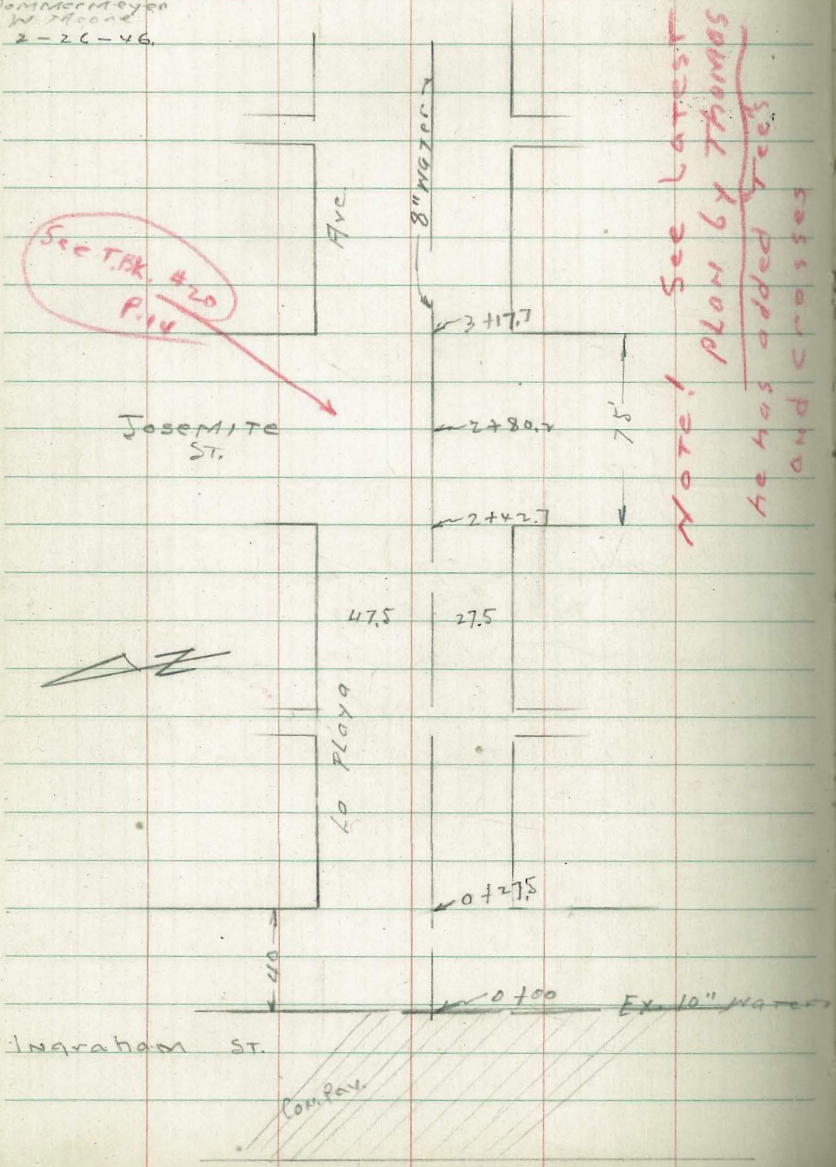
10.40

20^d spike in Pav. EC
E Midway

1-25-46.

Location and grades for 8" Water line on
La Playa Ave. Ingraham to Crown Point Drive

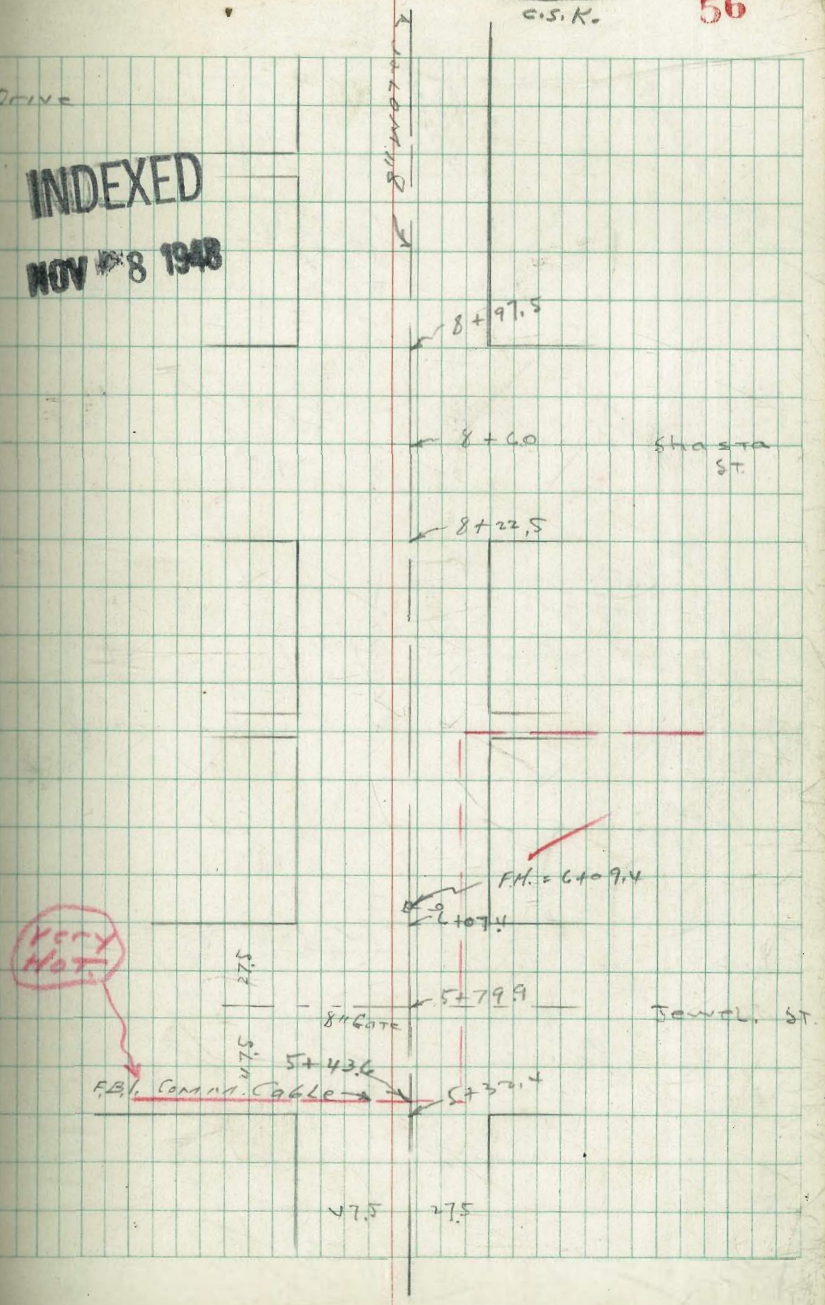
C. Moore
 J. M. Meyer
 W. Moore
 2-26-46



See T.P.K. #20
 P. 14

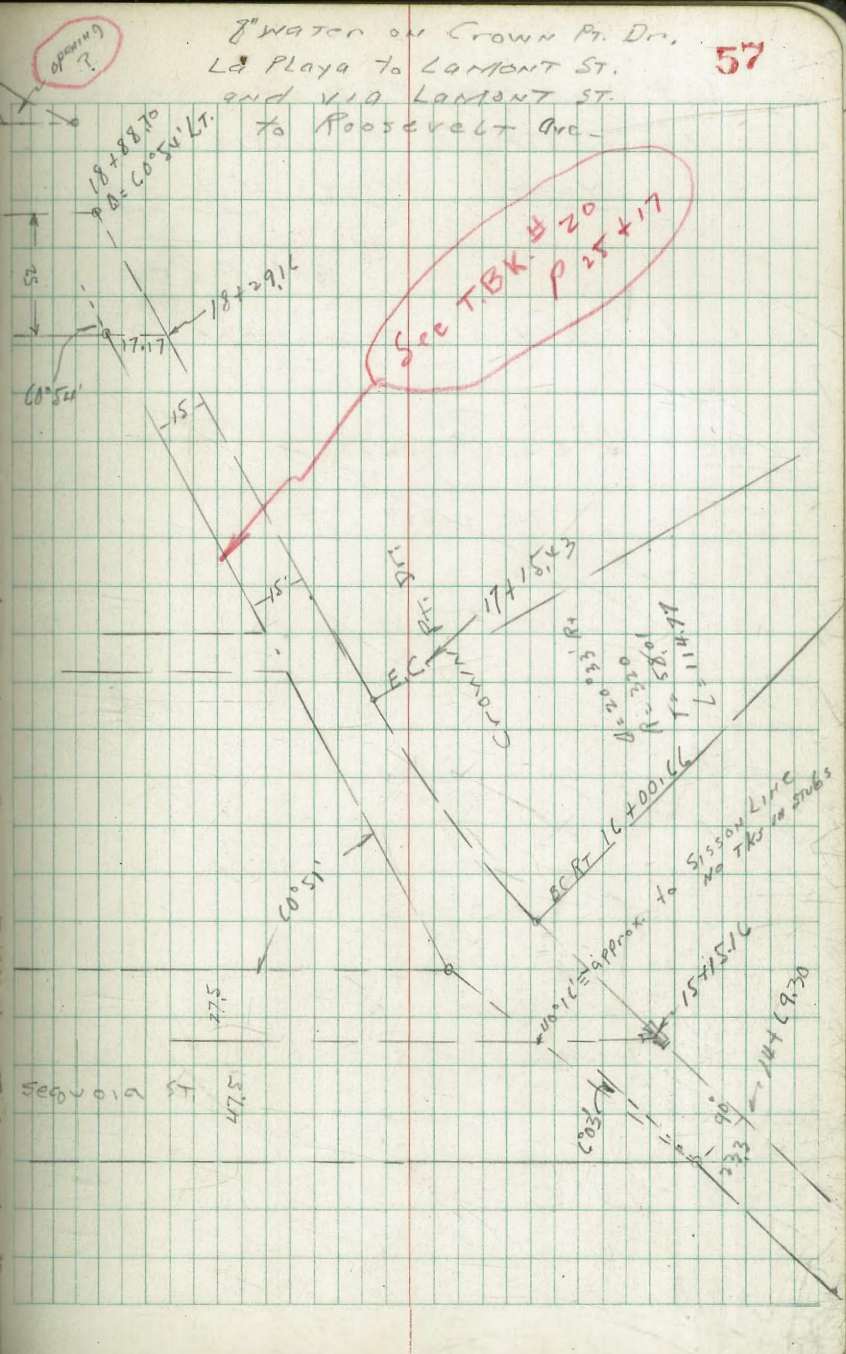
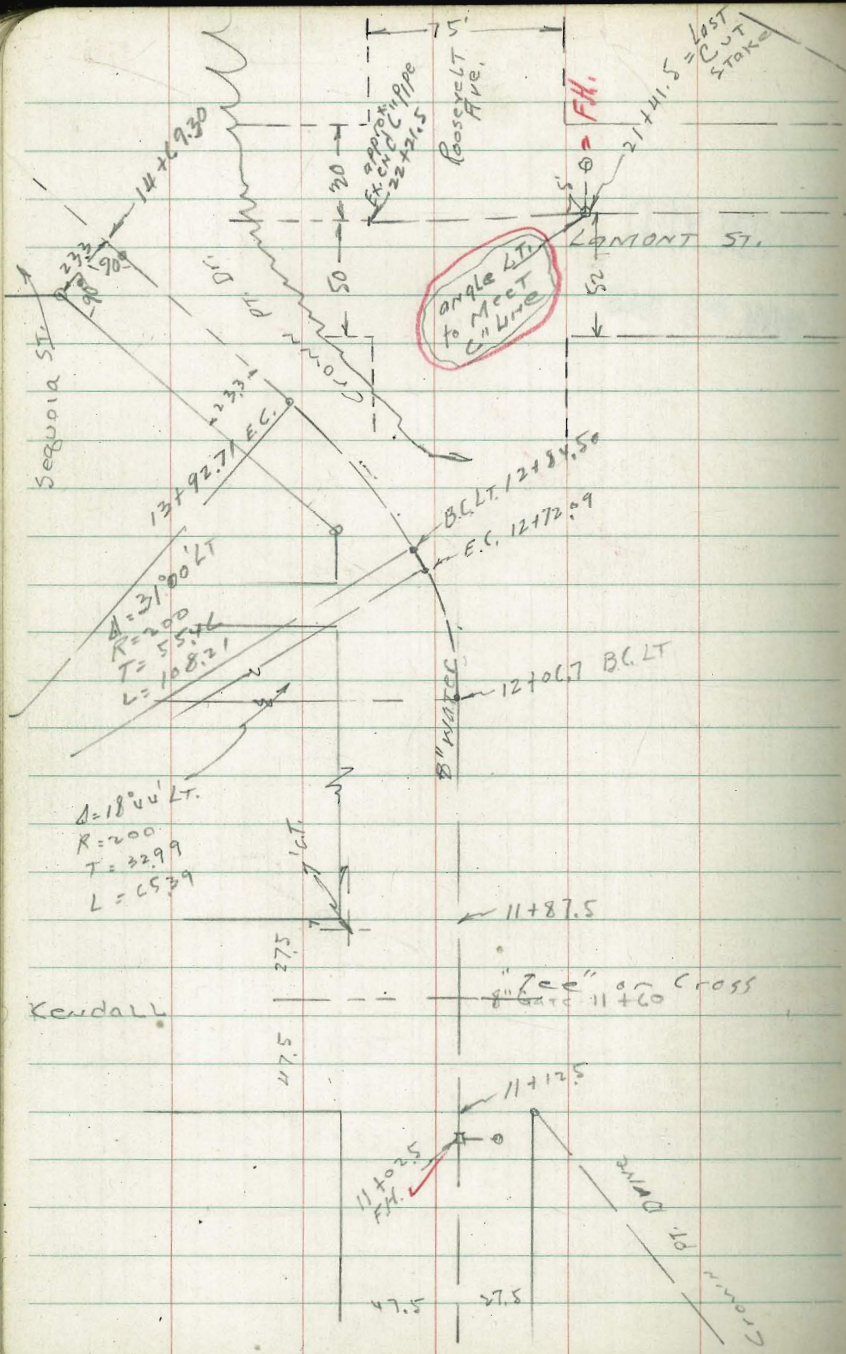
Note! See Latest
 Plan by Thomas
 he has added trees
 and crosses

INDEXED
 NOV 28 1948



Very
 Not.

FBI. Comm. Cable



8" water on Crown Pt. Dr.
 La Playa to Lambert St.
 and via Lambert St.
 to Roosevelt Ave.

opening?

See TBK. #20
 p 25+17

Kendall

Sequoia St

La Playa Ave. 8" Water grades
Ingraham to Crown Pt. Dr.

NOTE! offsets 4' to South.

B.M. P.C. 5 = 26.48
3.35

0+00 EX. MAIN ON INGRAHAM $\sim 9.83 \times$

0+27.5 = E.L. Ingraham

+50

+42.7 W.L. JOSEMITE

+80.2 E "

3+17.7 E.L. "

F.L.

58

Brk.

$$\begin{array}{r} 22.8 \\ 7.03 \\ \hline 3.88 \\ C 3.15 \end{array} = C 3.2 = \text{Marked to even on both fig. shown}$$

$$\begin{array}{r} 22.50 \\ 7.33 \\ \hline 3.83 \\ C 3.5 \end{array}$$

$$\begin{array}{r} 22.25 \\ 7.58 \\ \hline 4.23 \\ C 3.35 = C 3.4 \end{array}$$

$$\begin{array}{r} 22.0 \\ 7.83 \\ \hline 3.87 \\ C 3.90 \end{array} \quad C 4.0$$

Brk.

$$\begin{array}{r} 21.8 \\ 8.03 \\ \hline 4.39 \\ C 3.64 \end{array} \quad C 3.7$$

Brk.

$$\begin{array}{r} 21.55 \\ 8.28 \\ \hline 5.15 \\ C 3.13 \end{array} \quad C 3.2$$

$$\begin{array}{r} 21.3 \\ 8.53 \\ \hline 4.96 \\ C 3.57 \end{array}$$

3 x 50

$$\begin{array}{r} \sim 983 = H.I. \\ \underline{608} \\ 3175 \text{ T.P.} \\ \underline{742} \\ 3117 = H.I. \end{array}$$

4

+ 50

5

5 + 324 W.L. Jewel

+ 79.9 = Cross 10' E of E Jewel

6 + 07.4 E.L. Jewel

+ 09.4 F.H. "Tee"

6 + 50

F.L.

59

$$\begin{array}{r} 21.05 \\ \underline{8.78} \\ 5.24 \\ \underline{C 3.54} \end{array} \quad C 3,4$$

$$\begin{array}{r} 20.68 \\ \underline{9.15} \\ 5.35 \\ \underline{C 3.80} \end{array}$$

$$\begin{array}{r} 20.31 \\ \underline{9.52} \\ 5.84 \\ \underline{C 3.98} \end{array} \quad C 3,7$$

$$\begin{array}{r} 19.94 \\ \underline{9.89} \\ 6.99 \\ \underline{C 3.8} \end{array}$$

T.P.

Brk.

$$\begin{array}{r} 19.7 \\ \underline{11.47} \\ 8.34 \\ \underline{C 3.13} \end{array} \quad C 3,7$$

$$\begin{array}{r} 19.7 \\ \underline{11.47} \\ 8.13 \\ \underline{C 3.34} \end{array} \quad C 3,7$$

Brk.

$$\begin{array}{r} 19.7 \\ \underline{11.47} \\ 8.14 \\ \underline{C 3.23} \end{array} \quad C 3,3$$

$$\begin{array}{r} 19.74 \\ \underline{11.43} \\ 8.18 \\ \underline{C 3.25} \end{array} \quad C 3,3$$

cb.
RTI pri
24.0

$$\begin{array}{r} 20.74 \\ \underline{10.43} \\ 6.55 \\ \underline{C 3.88} \end{array} \quad C 3,9$$

7

31.17 = H.I.

+50

8

+22.5 W.L. Shasta

+60 E. Shasta

8 + 97.5 E.L. Shasta

9 + 50

10 + 00

+50

F.L.

60

$$\begin{array}{r} 21.97 \\ 9.20 \\ 5.05 \\ \hline C 4.15 \end{array} \quad C 4.2$$

$$\begin{array}{r} 23.2 \\ 7.97 \\ 4.30 \\ \hline C 3.77 \end{array} \quad C 3.8$$

$$\begin{array}{r} 24.43 \\ 6.74 \\ 2.98 \\ \hline C 3.70 \end{array} \quad C 3.8$$

Brk.

$$\begin{array}{r} 25.0 \\ 6.17 \\ 3.04 \\ \hline C 3.13 \end{array} \quad C 3.2$$

$$\begin{array}{r} 25.0 \\ 6.17 \\ 2.59 \\ \hline C 3.48 \end{array} \quad C 3.5$$

Brk.

$$\begin{array}{r} 25.0 \\ 6.17 \\ 2.78 \\ \hline C 3.43 \end{array} \quad C 3.5$$

$$\begin{array}{r} 24.26 \\ 6.71 \\ 3.21 \\ \hline C 3.7 \end{array}$$

31.17 = above H.I.

$$\begin{array}{r} 33.0 \\ 27.97 \\ 2.06 \\ \hline 30.03 \end{array} \quad H.I.$$

$$\begin{array}{r} 23.5 \\ 6.53 \\ 3.15 \\ \hline C 3.38 \end{array} \quad C 3.4$$

$$\begin{array}{r} 22.73 \\ 7.30 \\ 4.70 \\ \hline C 2.7 \end{array}$$

11 + 02.5 = F.H. Tee

11 + 12.5 = W.L. Kendall

+ 60 = 10' E of Q Kendall "Tee" on Cross

11 + 87.5 = E.L. Kendall

12 = Last 4' to S. CUT STUB

12 + 06.7 B.C. LT, Beg. here 4' offset stubs are to LT, or Nly.

+ 23.05

12 + 39.40

12 + 55.75

20.03 = H.I.

F.L.

61

21.95	
8.08	
5.36	
<u>21.72</u>	C 2.8

Rt	cb.
	90.
25.65	✓
4.38	
3.35	
<u>C 10.3</u>	
6.90	

Brk.

21.8	
8.13	
5.50	
<u>21.73</u>	C 2.8

20.97	
9.06	
5.91	
<u>21.15</u>	C 3.2

Brk.

20.5	
9.53	
6.21	
<u>21.24</u>	C 3.4

20.45	
9.58	
6.43	
<u>21.15</u>	C 3.2

20.4	
9.63	
6.63	
<u>21.0</u>	

20.3	
9.73	
6.73	
<u>21.0</u>	

20.18	
9.85	
6.85	
<u>21.0</u>	

20.02	
10.01	
7.01	
<u>21.0</u>	

$12 + 72.09 \text{ E.C.}$

$12 + 84.5 \text{ B.C. LT.}$

$13 + 11.55$

$13 + 38.6$

$13 + 65.65$

$13 + 92.71 = \text{E.C.}$

14

+ 50

$14 + 49.3$

$30.03 = \text{H.I.}$

F.L.

62

$$\begin{array}{r} 19.86 \\ 10.17 \\ 7.17 \\ \hline C 3.0 \end{array}$$

$$\begin{array}{r} 19.74 \\ 10.29 \\ 7.29 \\ \hline C 3.0 \end{array}$$

$$\begin{array}{r} 19.47 \\ 10.56 \\ 7.56 \\ \hline C 3.0 \end{array}$$

Brk

Stub 13+38.6

$$\begin{array}{r} 19.2 \\ 10.83 \\ 7.17 \\ \hline C 3.66 \end{array} \quad C 3.7$$

$$\begin{array}{r} 30.03 \text{ H.I.} \\ 7.17 \\ \hline 22.86 = 7.P \\ 2.25 \\ \hline 25.11 \times \end{array}$$

$$\begin{array}{r} 18.84 \\ 0.27 \\ 3.45 \\ \hline C 2.82 \end{array} \quad C 2.8$$

$$\begin{array}{r} 18.5 \\ 0.61 \\ 3.83 \\ \hline C 2.78 \end{array} \quad C 2.8$$

$$\begin{array}{r} 18.4 \\ 0.71 \\ 4.05 \\ \hline C 2.66 \end{array} \quad C 2.7$$

$$\begin{array}{r} 17.75 \\ 7.36 \\ 4.48 \\ \hline C 2.68 \end{array} \quad C 2.7$$

Brk,

$$\begin{array}{r} 17.5 \\ 7.61 \\ 4.81 \\ \hline C 2.8 \end{array}$$

15+00

15+15.16 = "Y" = "Sisson"

+50

16+00.00 BC RT

+29.35

+58.04

16+80.73

17+15.43 E.C.

+50

25.11

F.L.

63

$$\begin{array}{r} 17.15 \\ \underline{7.90} \\ 4.71 \\ C \quad 3.25 \end{array} \quad C 3.3$$

Brk

$$\begin{array}{r} 17.0 \\ \underline{8.11} \\ 4.81 \\ C \quad 3.3 \end{array} \quad + \text{Sisson}$$

$$\begin{array}{r} 16.74 \\ \underline{8.39} \\ 4.95 \\ C \quad 3.44 \end{array} \quad C 3.5$$

$$\begin{array}{r} 16.3 \\ \underline{8.81} \\ 4.71 \\ C \quad 4.1 \end{array}$$

$$\begin{array}{r} 16.07 \\ \underline{9.04} \\ 5.54 \\ C \quad 4.0 \end{array}$$

$$\begin{array}{r} 15.86 \\ \underline{9.25} \\ 5.17 \\ C \quad 4.08 \end{array} \quad C 4.11$$

$$\begin{array}{r} 15.63 \\ \underline{9.48} \\ 5.44 \\ C \quad 4.04 \end{array} \quad C 4.1$$

$$\begin{array}{r} 15.4 \\ \underline{9.71} \\ 5.45 \\ C \quad 4.26 \end{array} \quad C 4.3$$

$$\begin{array}{r} 15.11 \\ \underline{10.00} \\ 5.70 \\ C \quad 4.3 \end{array}$$

18

18+20 beg. cut thro Pav.18+29.16 = W.L. Lamont

+50

18+80 = East edge Pav.18+88.7 = Δ 60° 54' Lt, beg. here,
offsets are to East
on Pt. of line

19

+50

20

+50

21

25.11

F.L.

64

18.64	T.P.	14.71
5.96	Stub	10.40
<u>24.60</u>	X	6.47
		<u>C 3.93</u>

C 4.0

11.48

10.12

6.92

C 3.8

14.31

10.29

6.79

C 3.5

ON Pav.

Bck

14.0

10.6

6.46

C 4.14

C 4.2

E.L. CUT
STUB
18.15

14.17

10.43

6.79

C 4.04

C 4.1

14.92

9.68

5.52

C 4.1

15.47

8.93

5.03

C 3.9

16.42

8.18

4.36

C 3.82

17.17

7.43

3.89

C 3.54

C 3.5

21 + 41.5 = Δ I.T. = F.H. Tee = 5' S of
 to meet Ex. 6" pipe Roosvelt
end

22 + 21.5 = Meet Ex. 6" end
 when 4 where
 uncovered,
 now under 6" Pat. ^{Black}

BM. Levels for Water Job. Moorland				
Sr. BP	7.16	28.87		21.71 Cr. PT. Rn
I.P.	6.02	29.88	5.01	23.86
I.P.	7.28	31.50	5.66	24.22
BM. McCon. Kendall check to Men and La Playa		6.50	25.00	24.89 ^{From Fed. 915g}
I.P.	1.51	29.65	3.36	28.14
I.P.	6.05	29.80	5.90	23.75
I.P.	5.42	31.38	3.82	25.96
I.P. check to E. Ld. Ct. ^{Graham} La Playa		4.90	26.28	26.28 0.02

24.60 H.I. F.L.

65

17.8
 6.80
 3.60
 C 3.12

= Last Cut
 Stake

21 x 5 cb.
 3.15 gr
 for
 F.H.

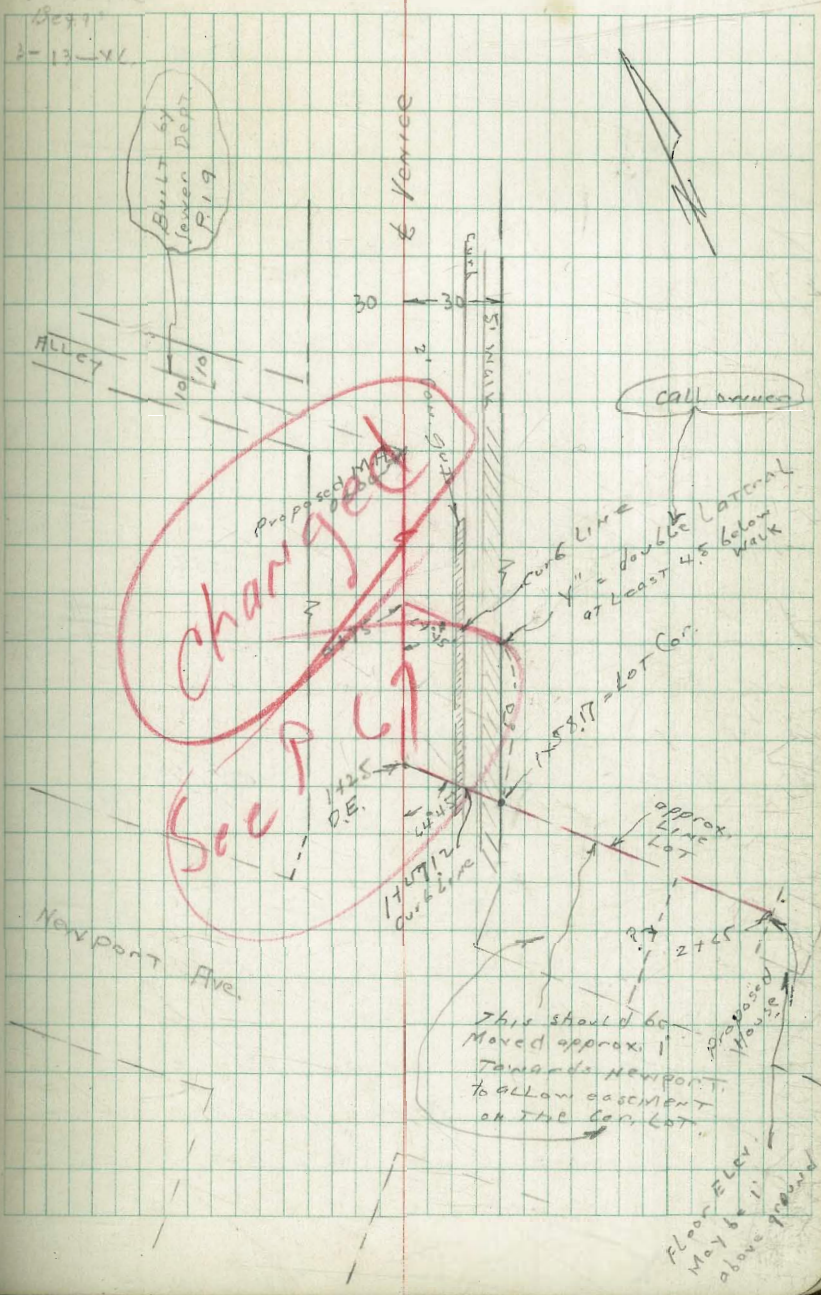
Levels for proposed Sewer
on Venice St. at Newport Ave

From P. 19

SW.B.P.	191	232.05	230.14	Newport Venice
0+00	♀ alley + Venice Proposed M.H.	15.2	216.9	
+50		10.8	221.3	
+75		8.7	223.4	
"	331.7 LT = "Y" = do. A 40' x 5' LT.	8.20	223.9	" do walk ← 190 walk
+100		6.6	225.5	
+125	A 40' x 5' LT = D.E.	4.7	227.4	
+147.12	1' con. 9' T.	5.33	226.72	
"	Top cb	6.7	227.68	
+158.17	edge walk	4.7	228.03	lot Cor.
+164		2.6	229.5	
+170		3.4	228.7	
+176.5	Blk. Wood = Wly edge Proposed House	8.1	224.0	Ground

C. Moore
Surveyor
K. Moore

66



Sewer CONST AT
Venice + Newport

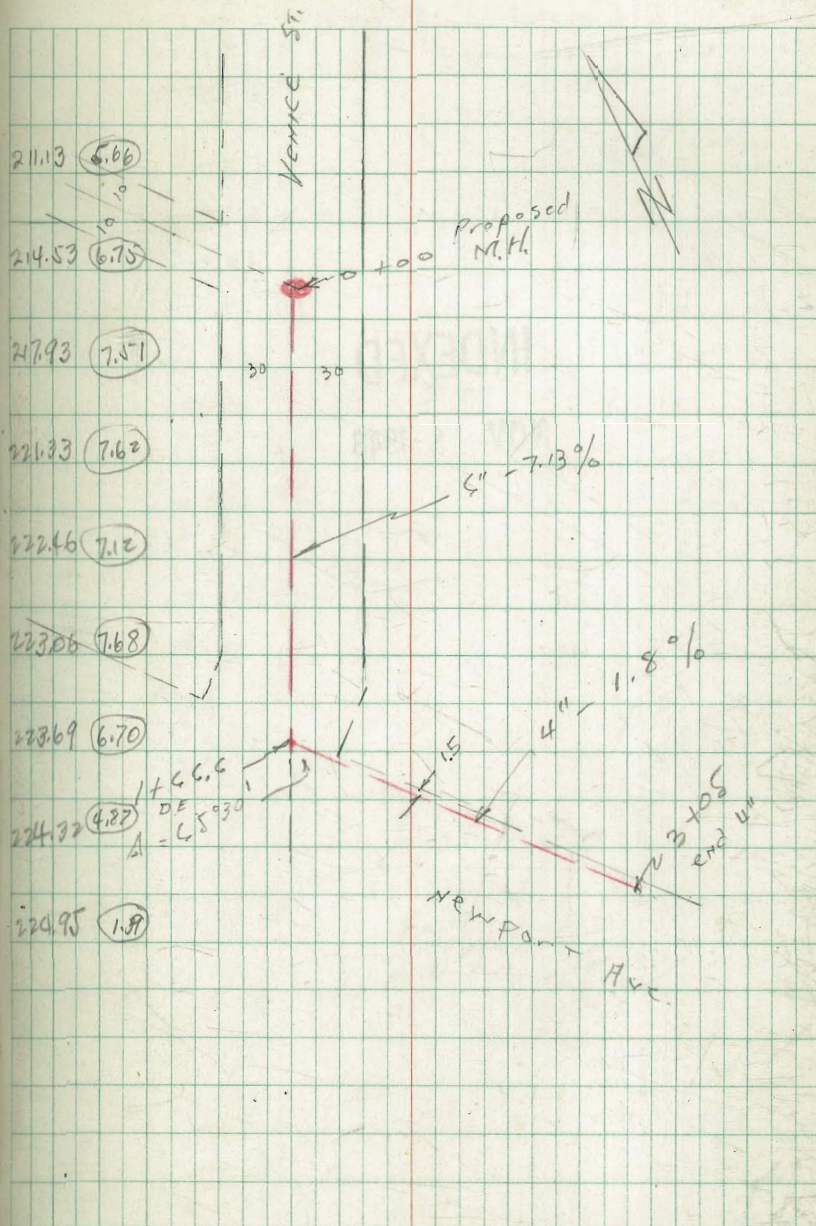
C. Moore
Sanitation Engineer
1399

SW. B.P.	302	233.16	230.14	Newport Venice
		56.		
0 + 00 M.H.		211.13	22.03 14.37 C 5.66	
+ 50		214.70	18.46 11.88 C 6.58	
1.		218.26	14.90 7.72 C 7.18	
+ 50		221.82	11.34 4.21 7.13	
1 + 56.6 Δ C 5° 30' LT.		223.01	10.15 3.58 C 6.57	
2 + 00		223.61	9.55 2.42 C 7.13	
+ 35		224.24	8.92 2.77 C 6.15	
170		224.87	8.29 3.97 C 4.32	
3 + 0.5		225.50	7.44 6.82 C 0.84	

2.20 below top of
Con. foundation and floor elev.
will be 1' above foundation,
owner is to fill approx 1.5
above ground at end of 4" line

3-30-46.

67



C.S. CUT STAKES $\frac{5}{2}$ of
 E.B. Riley St. Hazza to Benicia
 5-11-46

	cb grade	
0300 Ely Hazza		28.70
0410 cb E.C.		28.50
0459.6		30.00
14092		31.50
158.9		33.00
24085		34.50
158.1		36.00
34077		37.50
157.3		39.00
4407 cb B.C.		40.50
4417 WL Benicia		40.80

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 WK
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Cuts to cb grade
 on prop. line

BM 43.29 RR Spike SW Riley
 0.23 P.P. Benicia 68

43.52
 9.24
 34.28 T.P.
 1.28
 35.56 x

35.56 x
 7.59
 27.97 = cb and
 on High opposite

28.7	28.5	30.0	31.5	33.0
7.36	7.1	5.6	12.0	10.5
C 36	4.7	3.1	9.2	7.6
C 1.0	C 2.4	C 2.5	C 2.8	C 2.9

Cross
 on wall

34.5	36.0	37.5	39.0	40.5
9.0	7.5	C 1.0	4.5	3.0
C 1	7.2	4.0	2.3	1.2
C 2.9	C 2.3	C 2.0	C 2.2	C 1.8

40.8
 2.7
 7.6
 C 1.1

35.56 x
 5.29
 30.27 = Top wall

30.24
 0.03 dif.

Water Grades on Name
 Felspan St. S. W. M. Y. N.
 LAMONT to Noyes E. B.
 6-17-46

4 Noyes INDEXED
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0 + 00 w.l. Noyes
 62.58
 9.94
 6.39
 C 3.55

0 + 50
 64.61
 8.91
 5.13
 C 3.78

1 P.C.
 65.64
 7.88
 4.53
 C 3.95

1 + 40
 66.36
 7.10
 3.40
 C 3.74

1 + 80
 66.88
 6.64
 1.34
 C 5.30

2 + 20 E.V.C.
 67.18
 2.34 ← T.P.
 1.50
 C 4.84

2 + 50
 67.33
 8.62
 4.07
 C 4.55

Top
 91.39 Sing. F.H. Diamond
 Noyes

Corrected 1701-48.
 77.58 = NW.B.P. Emerald + Noyes
 0.09
 77.67 x
 8.82
 68.85 T.P.
 4.67
 73.52 x
 1.49
 72.03 T.P. STUB 2 + 20
 3.92
 75.95 x

Stakes Set 1x'S of E

3 + 00	67.58
	<u>8.37</u>
	4.37
	<u>64.0</u>

3 + 50	67.83
	<u>8.12</u>
	4.52
	<u>63.6</u>

4 + 00	68.08
	<u>7.87</u>
	5.15
	<u>62.72</u>

4 + 50	68.33
	<u>7.62</u>
	5.02
	<u>62.6</u>

5 + 00 E.L. Marrella	68.58
	<u>7.37</u>
	4.95
	<u>62.0</u>

E Marrella	69.23	672
		<u>4.11</u>
		<u>62.61</u>

0 + 00 W.L. Marrella	69.88
	<u>6.07</u>
	4.05
	<u>62.0</u>

+ 50	71.22	<u>T.P.</u>
	<u>4.73</u>	
	0.58	
	<u>64.15</u>	

1	72.55
	<u>10.76</u>
	6.58
	<u>64.18</u>

75.95	* Fred
<u>0.58</u>	
75.37	T.P. Stud 0150
<u>7.95</u>	
83.32	*

83.32 Fwd.

3.25	
<u>80.07</u>	T.P. 5706 3400
8.80	
<u>88.87</u>	X

0.07	
<u>88.20</u>	← 88.19
	N.E. 7' C.T.
	LAMONT
	Felspar

1 + 50	73.90
	<u>9.42</u>
	5.32
	<u>C 4.1</u>

2	75.24
	<u>8.08</u>
	4.70
	<u>C 3.38</u>

+ 50	76.58
	<u>6.74</u>
	4.23
	<u>C 2.51</u>

3	77.92
	<u>5.40</u>
	3.25
	<u>C 2.15</u>

← T.P.

+ 50	79.26
	<u>9.61</u>
	7.85
	<u>C 1.76</u>

4	80.60
	<u>8.27</u>
	6.29
	<u>C 1.88</u>

+ 30	81.40
	<u>7.47</u>
	5.42
	<u>C 2.05</u>

+ 40 Break	82.20
	<u>6.67</u>
	4.55
	<u>C 2.12</u>

5 = F.L. Lamont	83.10
	<u>5.77</u>
	3.53
	<u>C 2.24</u>

← 1" Cap
over gate V.

Water grades on C.M.
 Emerald St. 6-17-46
 LAMONT to Hayes
 Bottom
 ditch

0400 W.G. Hayes $\begin{array}{r} 73.20 \\ 10.88 \\ 8.68 \\ \hline 22.2 \end{array}$

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WK

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+50 $\begin{array}{r} 74.05 \\ 10.03 \\ 7.43 \\ \hline 22.5 \end{array}$

1 $\begin{array}{r} 74.90 \\ 9.18 \\ 6.58 \\ \hline 22.0 \end{array}$

+50 $\begin{array}{r} 75.75 \\ 8.33 \\ 5.81 \\ \hline 2.52 \end{array}$

2 $\begin{array}{r} 76.50 \\ 7.48 \\ 5.00 \\ \hline 2.48 \end{array}$

+50 $\begin{array}{r} 77.45 \\ 6.63 \\ 4.03 \\ \hline 22.0 \end{array}$

3 $\begin{array}{r} 78.30 \\ 5.78 \\ 3.24 \\ \hline 2.54 \end{array}$ ← T.P.

+50 $\begin{array}{r} 79.15 \\ 10.89 \\ 6.45 \\ \hline 2.44 \end{array}$

72

$\begin{array}{r} 77.58 \\ 6.50 \\ \hline 84.08 \\ 3.24 \\ \hline 80.84 \end{array}$ ← T.P. ST-6 3+00
 $\begin{array}{r} 9.20 \\ \hline 90.04 \end{array}$ *

Stakes set 14' S of E

u $\begin{array}{r} 80.00 \\ 10.04 \\ 7.62 \\ \hline C 2.42 \end{array}$

+ 50 $\begin{array}{r} 80.85 \\ 9.19 \\ 6.56 \\ \hline C 2.63 \end{array}$

S = E. G. Marshall $\begin{array}{r} 81.70 \\ 8.34 \\ 5.70 \\ \hline C 2.64 \end{array}$

to " $\begin{array}{r} 82.20 \\ 7.84 \\ 4.94 \\ \hline C 2.9 \end{array}$

0 + 00 = Wife. u $\begin{array}{r} 82.70 \\ 7.34 \\ 4.78 \\ \hline C 2.56 \end{array}$

0 + 50 $\begin{array}{r} 84.47 \\ 5.57 \\ 3.37 \\ \hline C 2.12 \end{array}$

1 $\begin{array}{r} 84.24 \\ 3.80 \\ 1.56 \\ \hline C 2.24 \end{array}$ ~~J.P.~~

+ 50 $\begin{array}{r} 88.01 \\ 10.20 \\ 8.13 \\ \hline C 2.07 \end{array}$

2 $\begin{array}{r} 89.78 \\ 8.43 \\ 6.26 \\ \hline C 2.17 \end{array}$

90.04 Fred.
 $\begin{array}{r} 1.50 \\ \hline 88.48 \end{array}$ T.P. stud 1 + 00
 $\begin{array}{r} 9.73 \\ \hline 98.21 \end{array}$ x

Moore Water Grades on
 Benton
 Depp Chalcedony, Lamont to Jewell
 Allen
 7-5-46. for City Water Dept

125.95 SET CT. Lamont Chalcedony
 8.97
 134.92

0 + 00 W.L. Lamont
 123.00
 11.92
 9.32
 C 2.6

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0 + 50
 123.75
 11.17
 6.13
 C 5.04

1 + 00
 124.50
 10.42
 5.69
 C 4.73

1 + 30
 124.95
 9.97
 5.57
 C 4.4

1 + 60 P.V.C.
 125.40
 9.52
 5.69
 C 3.83

2 + 00
 125.70
 9.22
 5.76
 C 3.46

2 + 40 E.V.C.
 125.50
 9.42
 5.59
 C 3.73

3
 124.67
 10.25
 5.01
 C 5.24

3 + 50

$$\begin{array}{r} 124.0 \\ 10.92 \\ 4.50 \\ \hline C 6.42 \end{array} \quad \text{T.P.}$$

4

$$\begin{array}{r} 123.33 \\ 8.13 \\ 4.23 \\ \hline C 5.7 \end{array}$$

+ 50

$$\begin{array}{r} 122.67 \\ 8.79 \\ 4.19 \\ \hline C 4.60 \end{array}$$

5 = E.L. Kendall

$$\begin{array}{r} 122.0 \\ 9.46 \\ 5.89 \\ \hline C 3.57 \end{array}$$

8

$$\begin{array}{r} 121.50 \\ 9.86 \\ 7.46 \\ \hline C 2.5 \end{array}$$

0 + 00 W.L. Kendall

$$\begin{array}{r} 121.0 \\ 10.46 \\ 9.01 \\ \hline C 1.45 \end{array}$$

0 + 50

$$\begin{array}{r} 119.80 \\ 11.66 \\ 10.34 \\ \hline C 1.32 \end{array}$$

1 + 00

$$\begin{array}{r} 118.60 \\ 12.86 \\ 11.46 \\ \hline C 1.4 \end{array} \quad \text{T.P.}$$

134.92 = X

$$\begin{array}{r} 4.50 \\ 130.42 \\ 6.04 \\ \hline \end{array} \quad \text{T.P. stub 3 + 50}$$

131.46 = X

$$\begin{array}{r} 11.46 \\ 120.00 \\ 8.11 \\ \hline 121.11 \end{array} \quad \text{T.P. stub 1 + 00}$$

1 + 50

117.40
3.71
2.21
C 1.5

2 + 00

116.20
2.91
2.75
C 2.16

2 + 50

115.10
6.11
3.75
C 2.36

3 + 00

113.80
7.31
4.87
C 2.40

3 + 50

112.50
8.51
5.85
C 2.66

4

111.40
9.71
6.81
C 2.9

121.11 *

121.11

10.27
110.84

1140 cl 90
5x

4 + 50

110.20
10.91
7.81
C 3.1

5 + 00 E. G. Jewell

109.00
12.11
9.08
C 3.03

Stake 100' cb.
 Lot 12 Blk 78 Pt. Loma Hts.

Neare W.S. 21018
 Bagg
 Green
 Roberts
 7.23-47.

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 WK
 NOV 8 1948

SUB P.P.
 Pt. Loma Ave
 SANTA BARBARA 1217 19443 18220

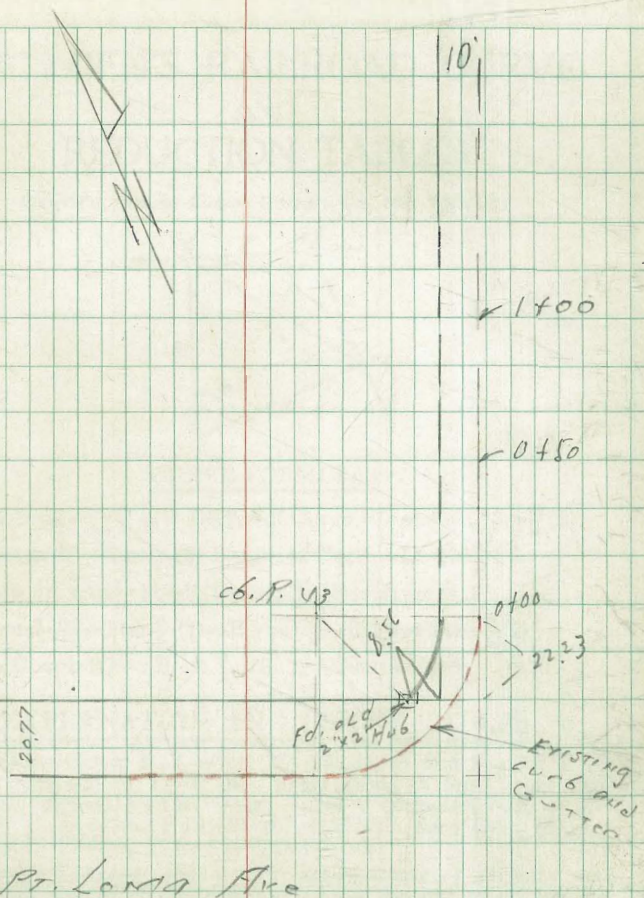
curb grade profile
 0+00 End of Return 6.86 187.57 187.56

0+50 $\frac{190.73}{4.20}$ ✓

1+00 $\frac{192.89}{1.54}$ ✓

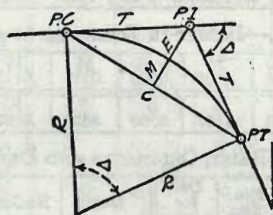
Stakes set to grade
 and 2' back of cb. line

79



DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

Copyright, 1914, by Eugene Dietzgen Co., New York City



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) Δ —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° curve $T = 3454.1$ and $\div 8\frac{1}{3} = 414.49$ 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) $.3 \times C \times D^\circ$ 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 115.37. For from Table IV for 1° curve $E = 960.6$ for $8^\circ 20' = 960.6 \div 8\frac{1}{3} = 115.27$ and from Table V correction—.10 or $E = 115.37$ 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 $D = 5^\circ 30'$.

SE Beech 11.07
612

671
- 440
+ 231
460
691

5.70 495
1.8
3.9

6.71

5.34

12.05
20

12.25

7.00

215

75

5.19

5+19 E.P.

6+20 "

7+30 end Pav.

700

517

12.23

13+08.7 = Δ

49.24 LT

15+27.6 = Δ LT To Sequoyia

22 x 89

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) ÷ 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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