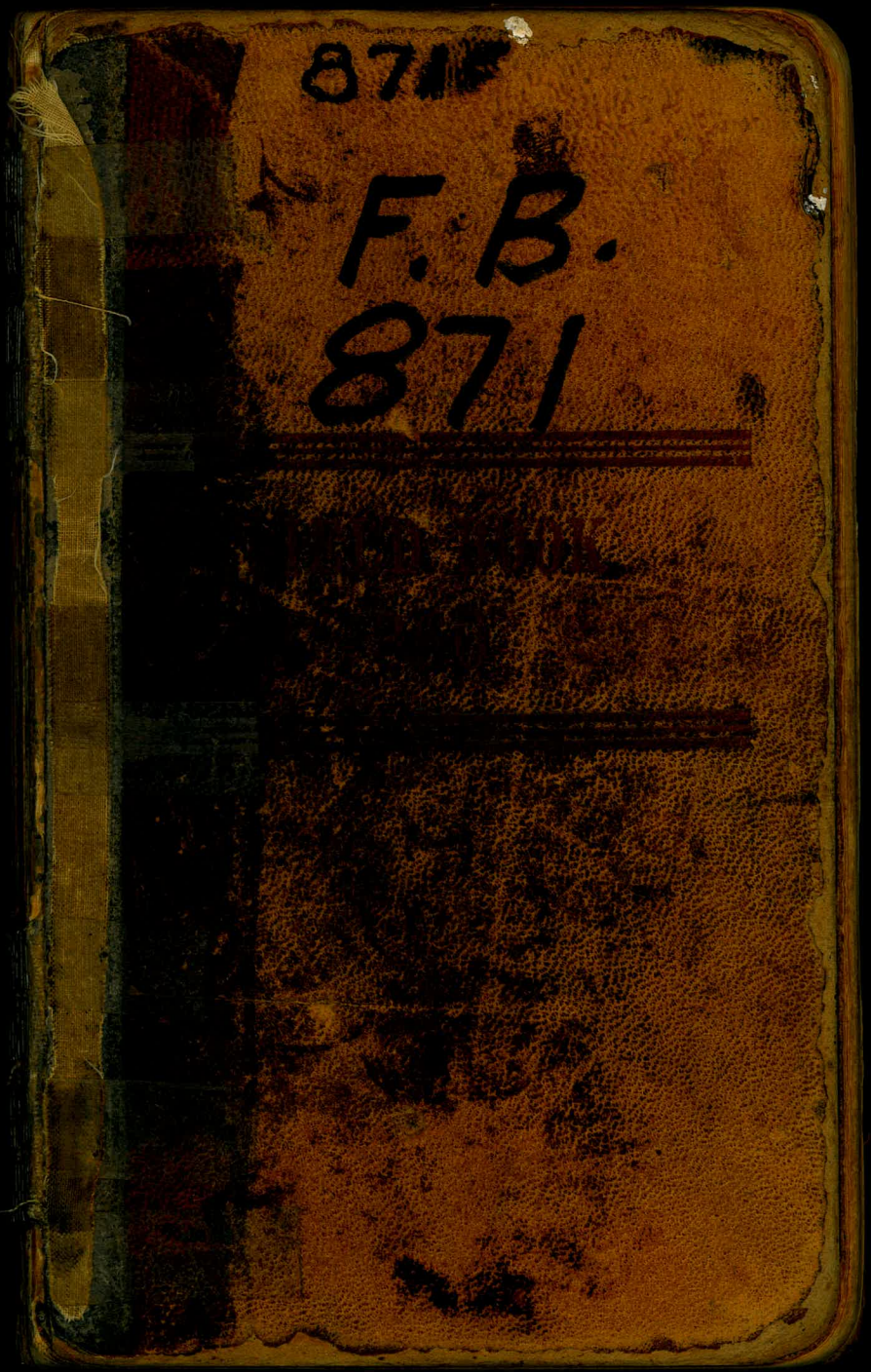

871
F.B.
871

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

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

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

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

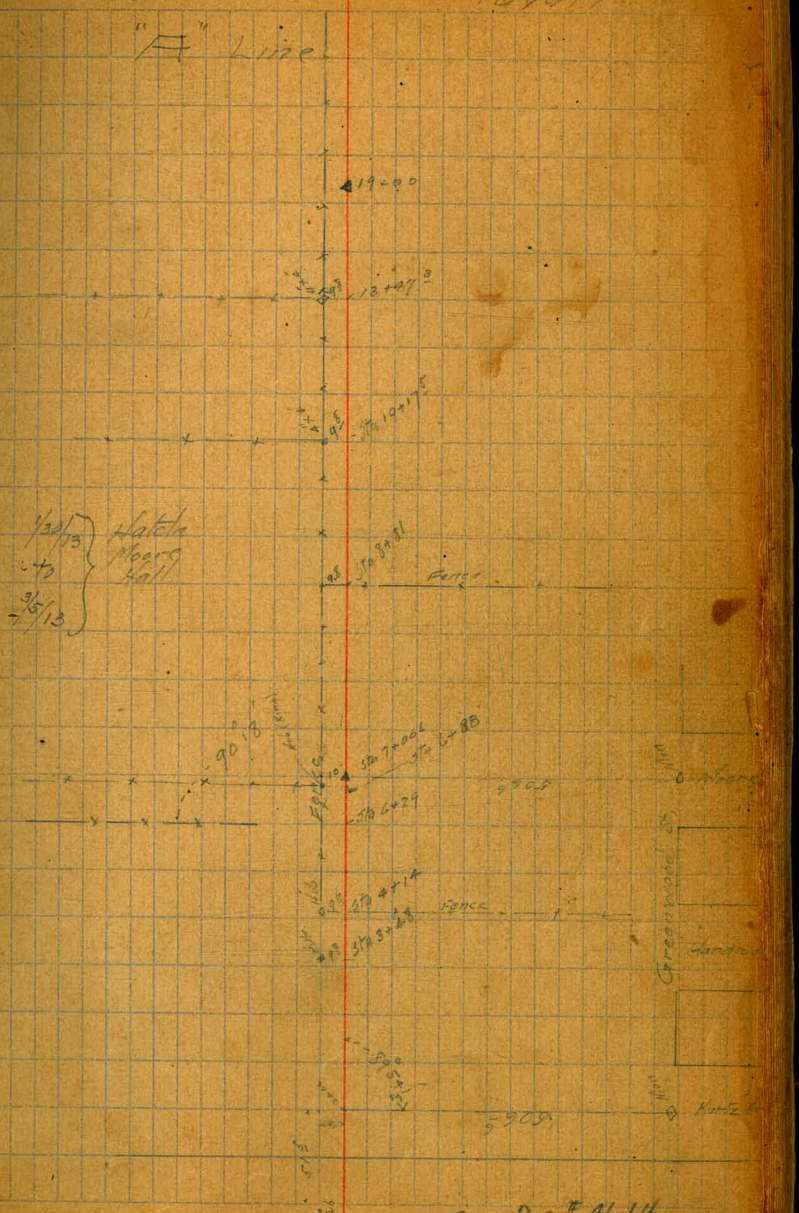
For Keith's Railroad Curve Tabels see end of book.

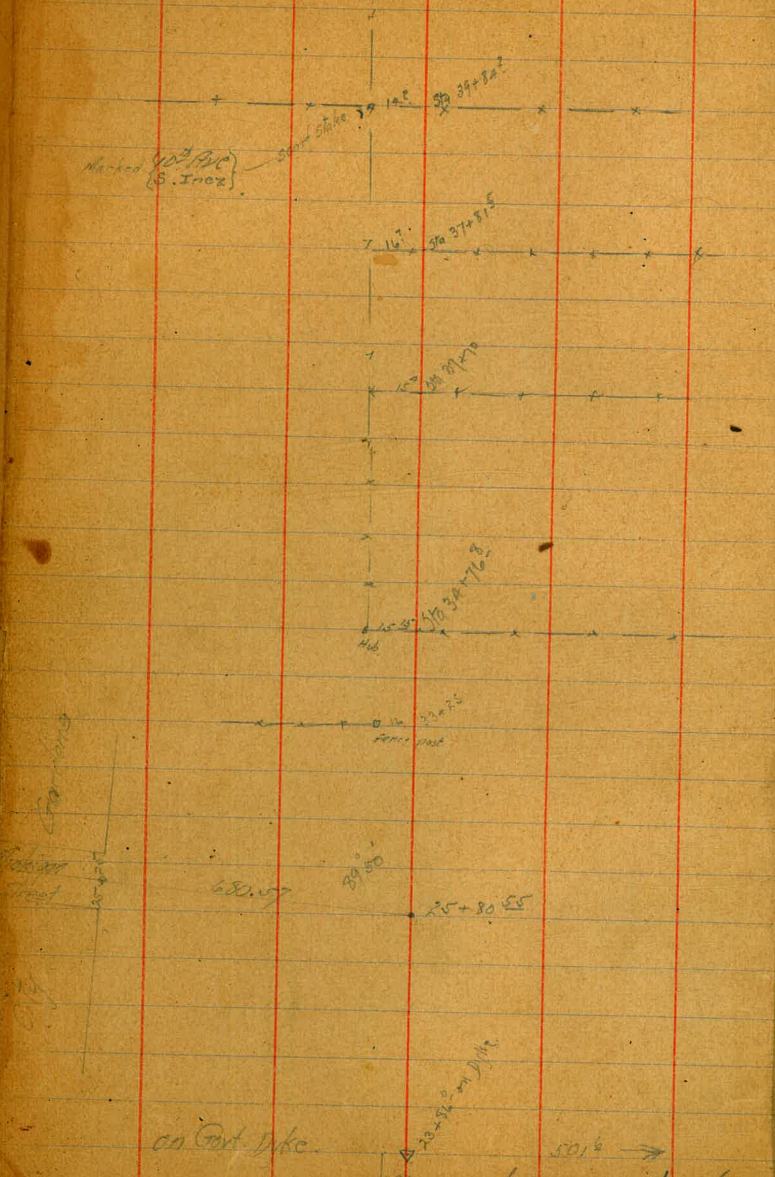
871

Survey of Pueblo N. of Old Town

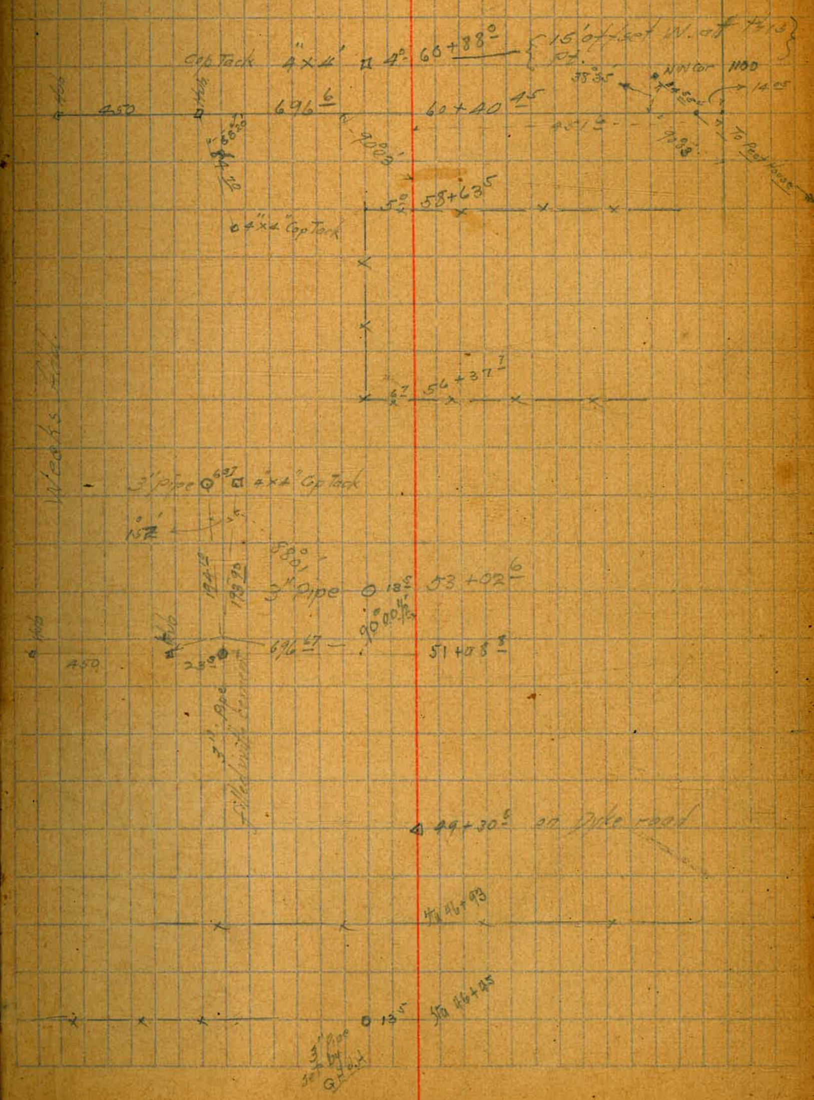
1

"A" Line

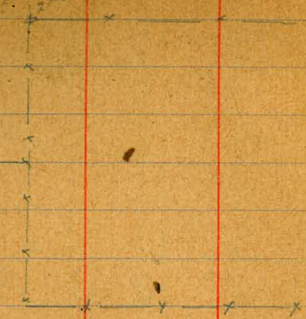




Transit line is 15' E of P.L. from this pt to Sta 60+88



78+99⁵ 22² 2"x2"



72+40⁵ 30²

71+26⁵ 33⁵

△ 67+15² Top of Hill

66+19² 11² ▫ 2"x2" Cap Tack

65+57⁰ 8¹ ▫ 2"x2" Hub
Scarf stake

65+05⁵ 1⁶ ○ 40ᵈ Spike.

Sta 21+95 Hub marked (Line)
Sta 15+93⁵ 3"x3" white scarf. Marked B195, 3 Ave, 130 [Fence runs South across valley from here
Sta 15+71 Cap tk. in fence, 1"x2" white Marked (Lot X)
Sta 12+10², ¼" Pipe, 3 guard Stakes { 1"x2" white Marked (Lot X); 2"x2" " Scarf " (131); 3"x3" " " " (B J or R J)
Sta 10+72, 2"x2"x18 Marked (R and R)
2"x3" Stake Marked 1175 – Sta 1+94.3"

8/20/13 Hatch Moore Hall

Sta 0+00

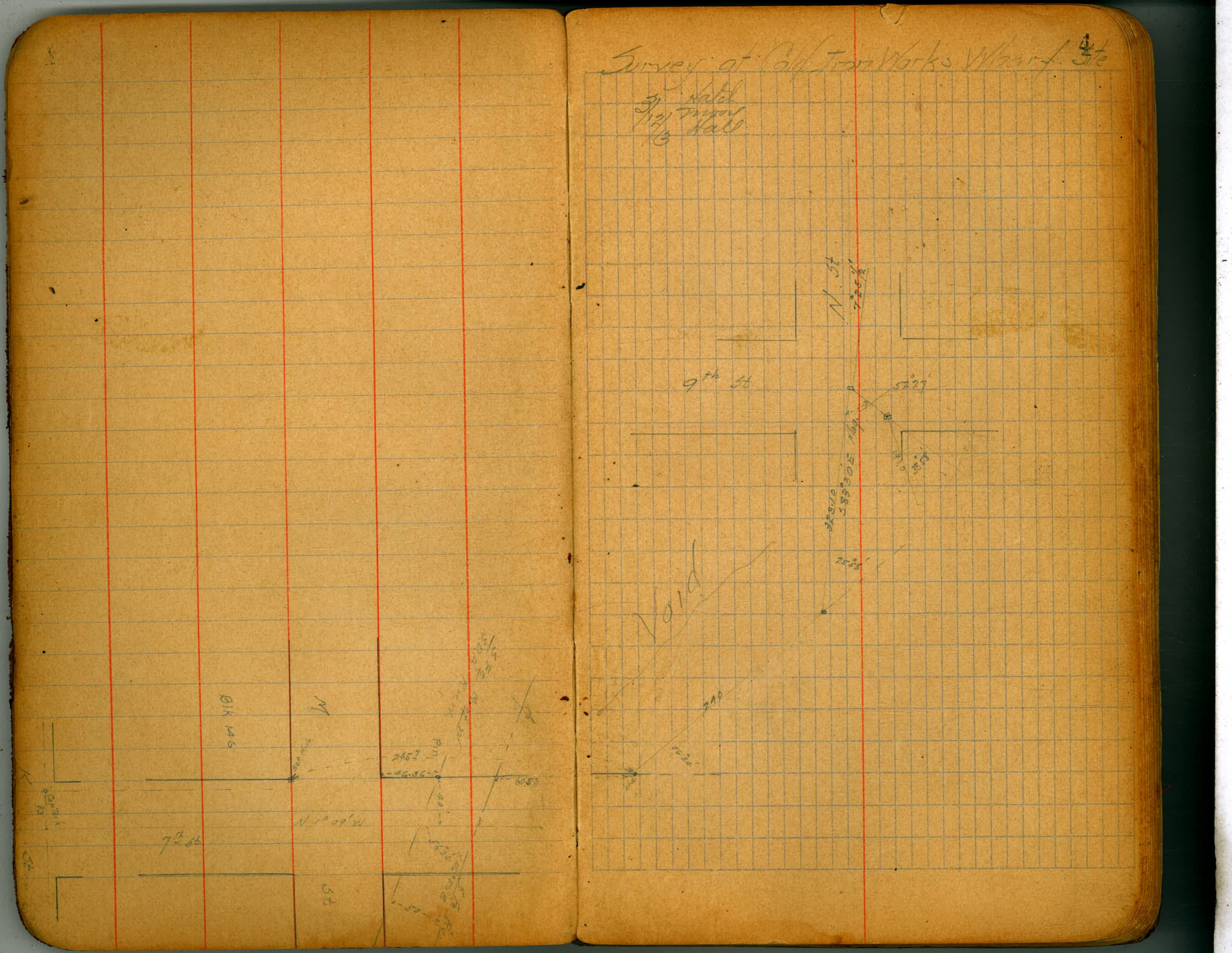
Set 2"x2" Hub Sta 94+00⁸

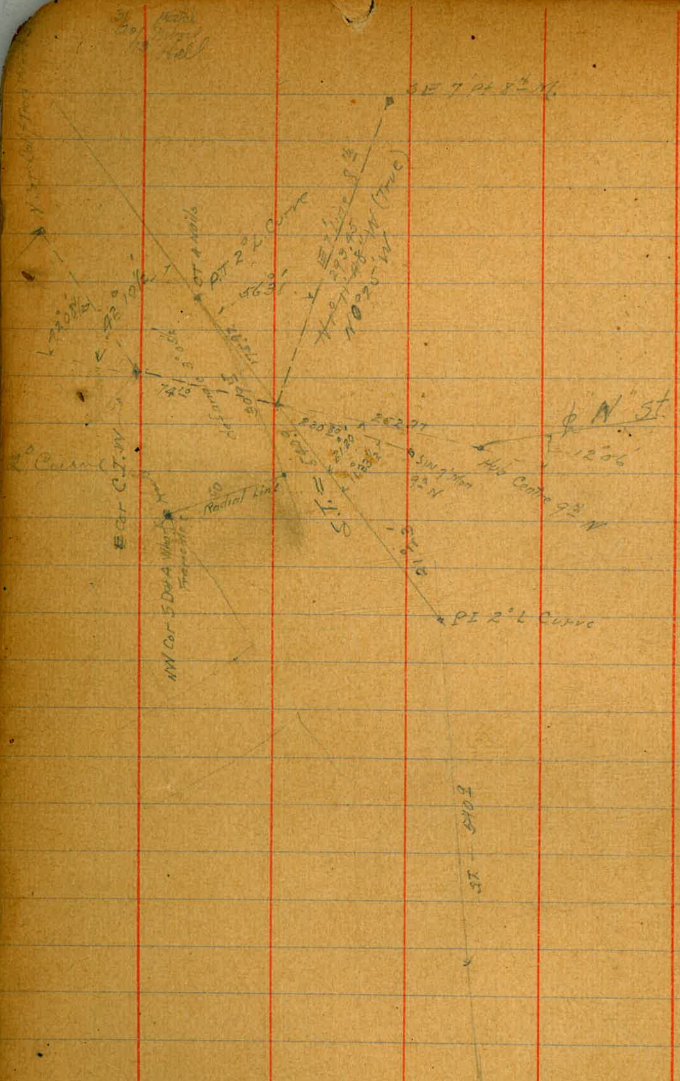
59° 67½

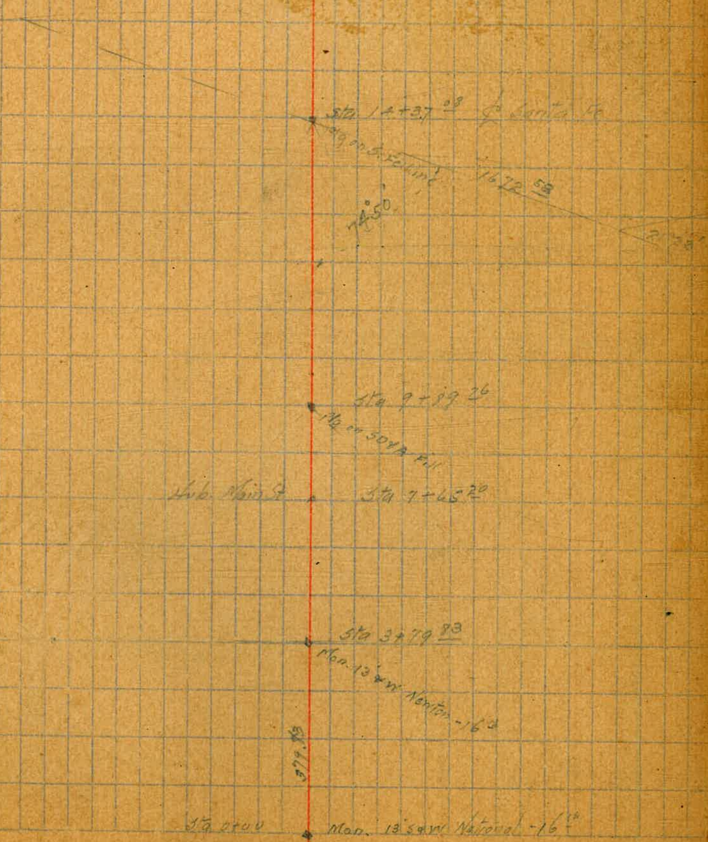
1"x2" 93+43⁷

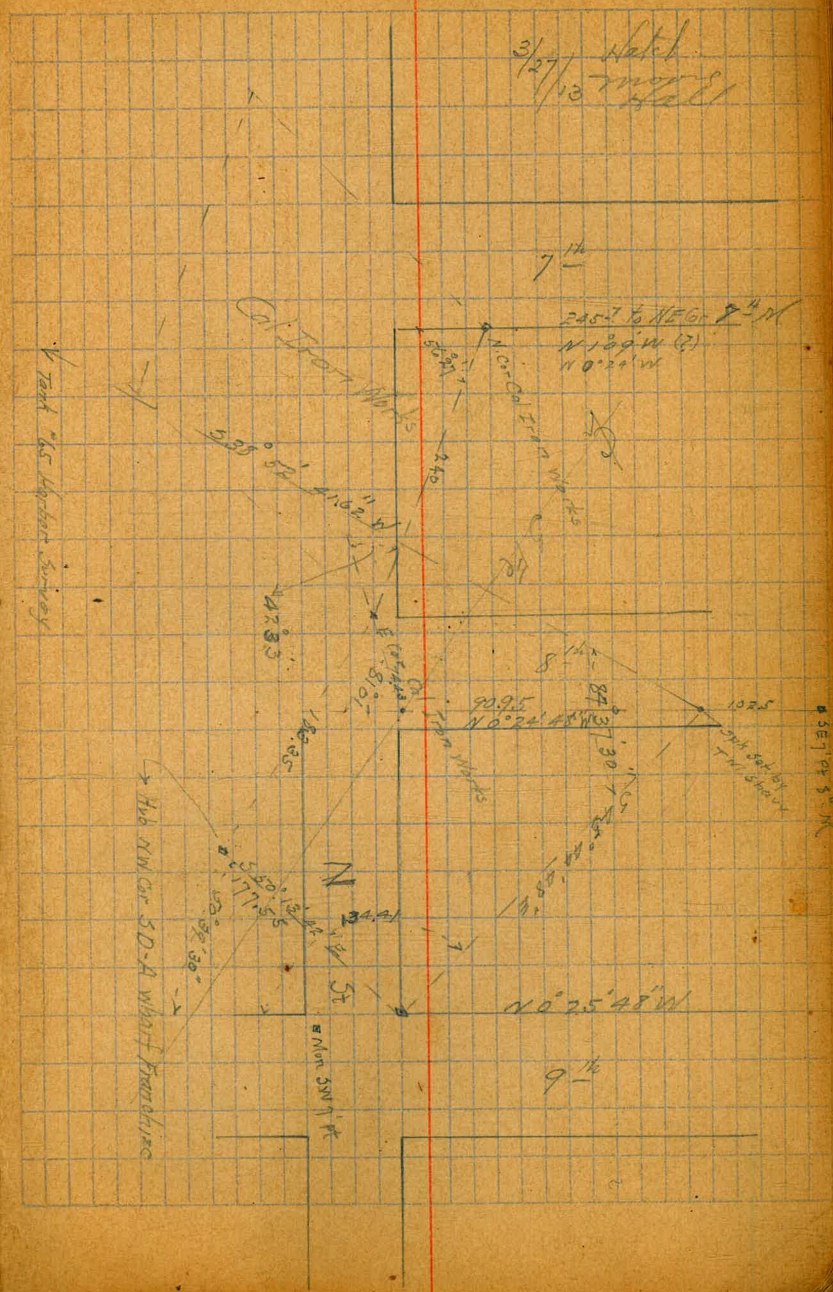
2"x2" with 2"x4" guard .0³ 93+37⁵
291 – W.W.(SLW)

Survey at Calif. Iron Works Wharf Site

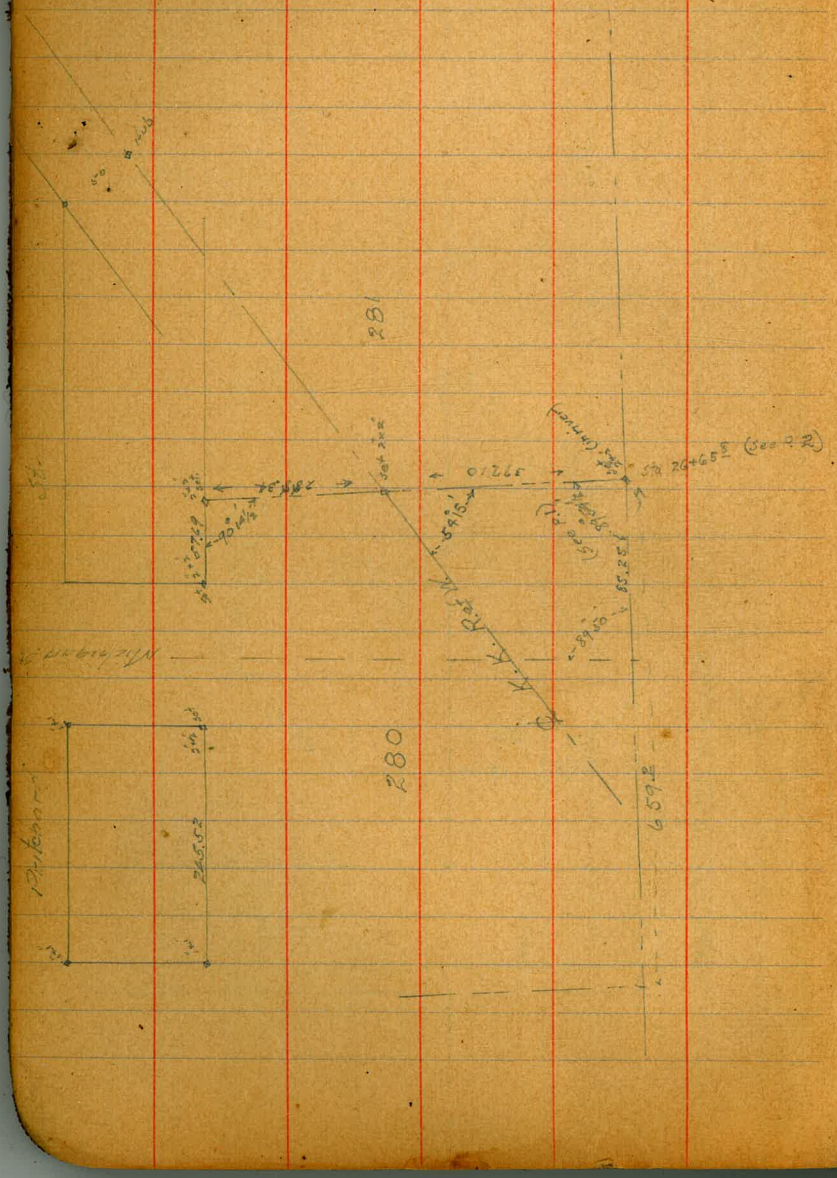



SE 7 Pt 8th M.
PT 2° L Curve
CT & Nails
E Cor C.T. N
2° Curve
Radial Line
NW Cor 5 Dot A West Fremont
S.T.
Hub Centre 9th N
℄ N St.
PI 2° L Curve


Sta 14+37.08 ℄ Santa Fe
Sta 9+89.26
Hub Main St
Sta 7+65.20
Sta 3+79.83
Mon. 13 & W. Newton - 16.3
Mon. 13 S & W. National - 16.6

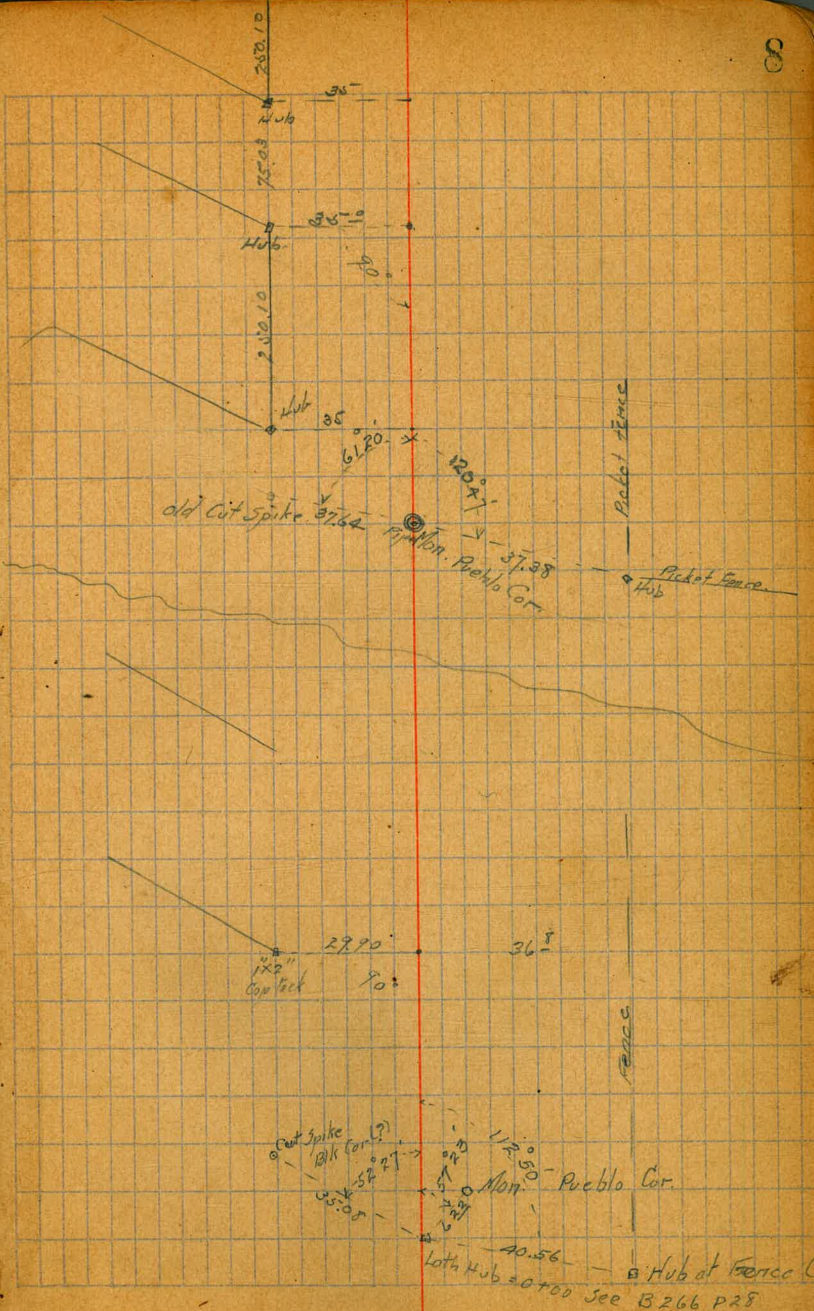

3/27/13
7 1/2
N 0°24' W
Cal. Iron Works
8 1/2
90.95
102.5
N
N 0°25'48" W
9 1/2
Tank '65 Hughes Survey
Hub N.W. Cr. 3D-A Wharf Franchise

Survey to establish
1/20/13 Hatch north corner of PR 280
Ivory Hall



8/19 13/13 Hatch Moore Hall Survey of Landscape St, Bon Ave and to P.L. 169, 170 of Pt Loma for Road.

3+42 84					
2+67 81					
0+17 71					
0+00					
2+69 6					
0+00					



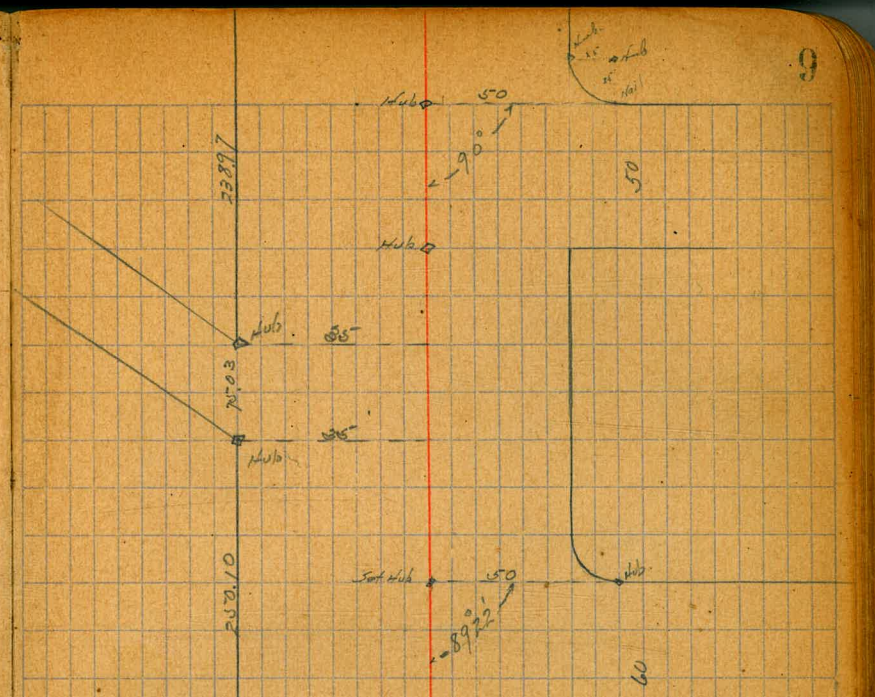
7+79.80

7+29.80

6+67.97

5+92.94

5+04.8

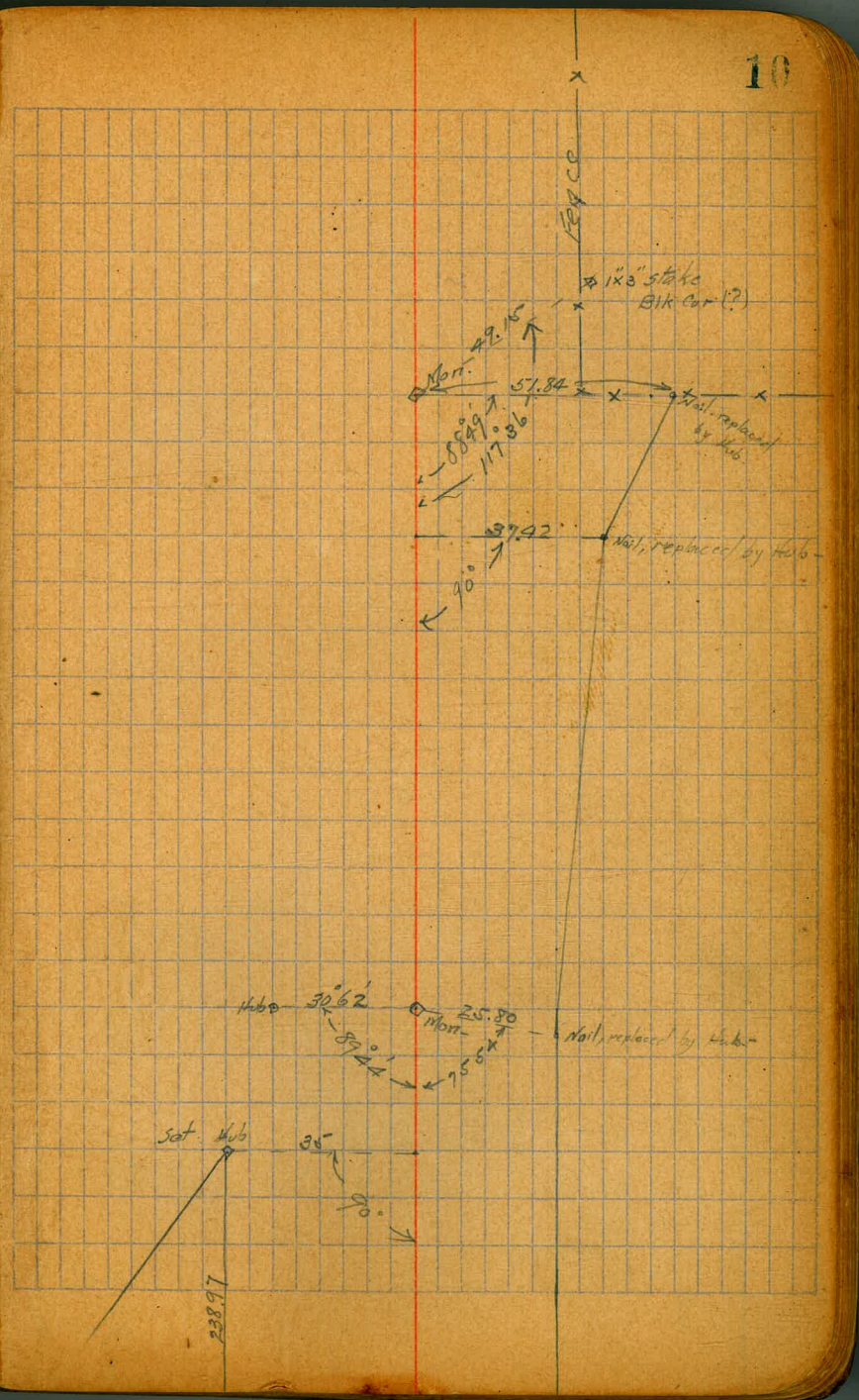


13+13.55

12+16.76

9+34.±

9+06.92



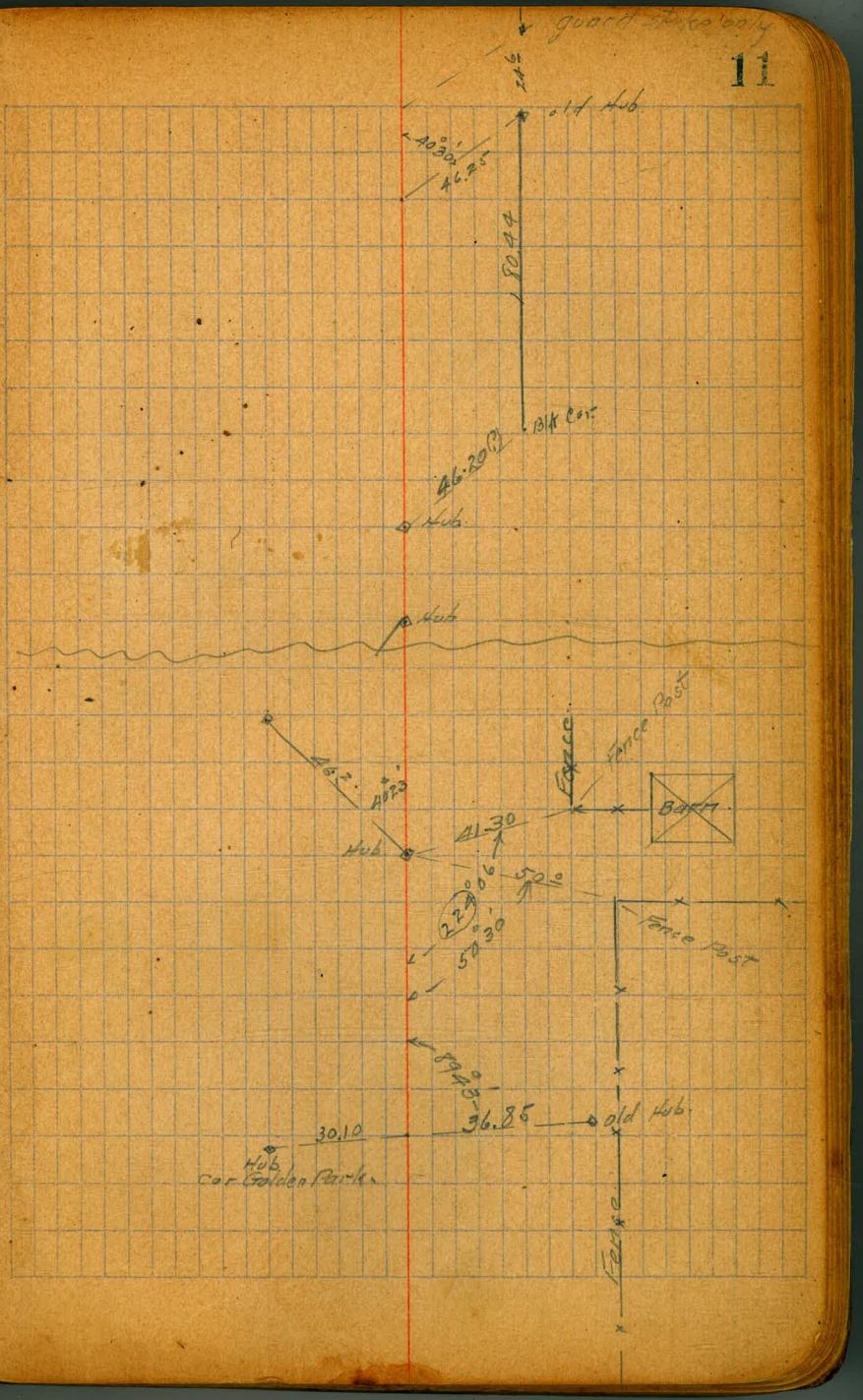
21+56.7

19+76.37

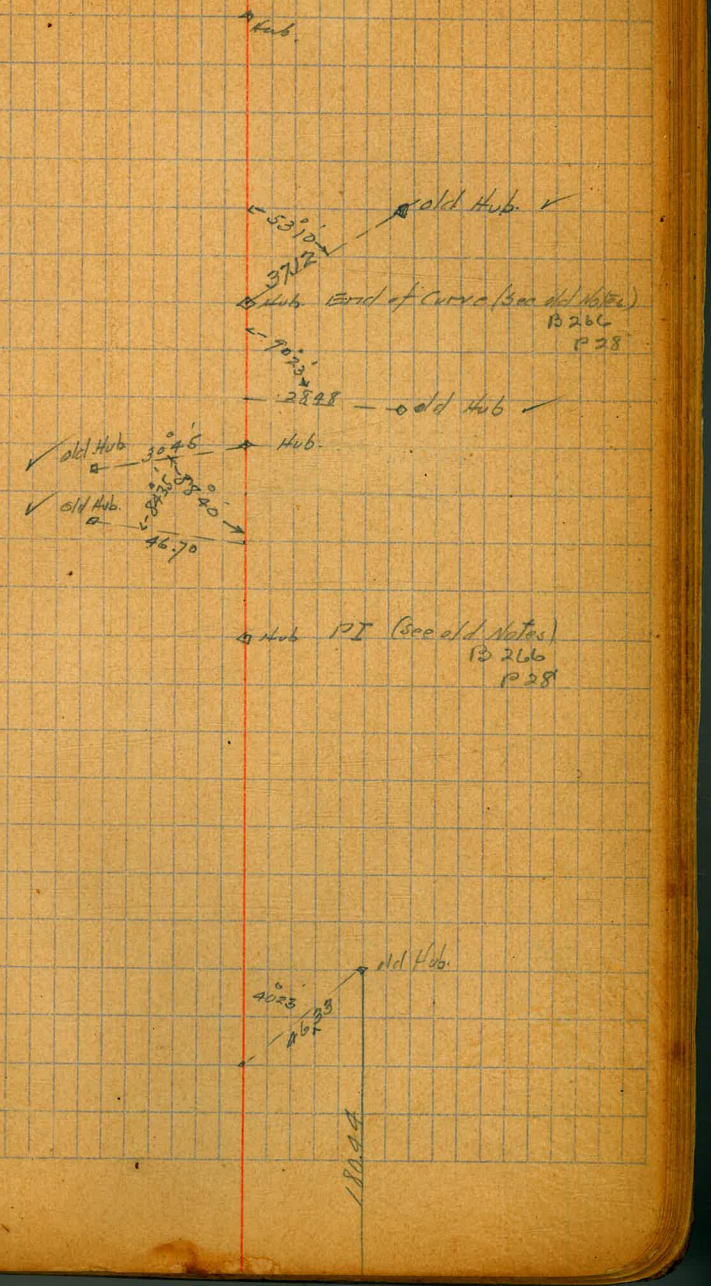
19+30.7

19+30.7 Δ 40°23' L (?)

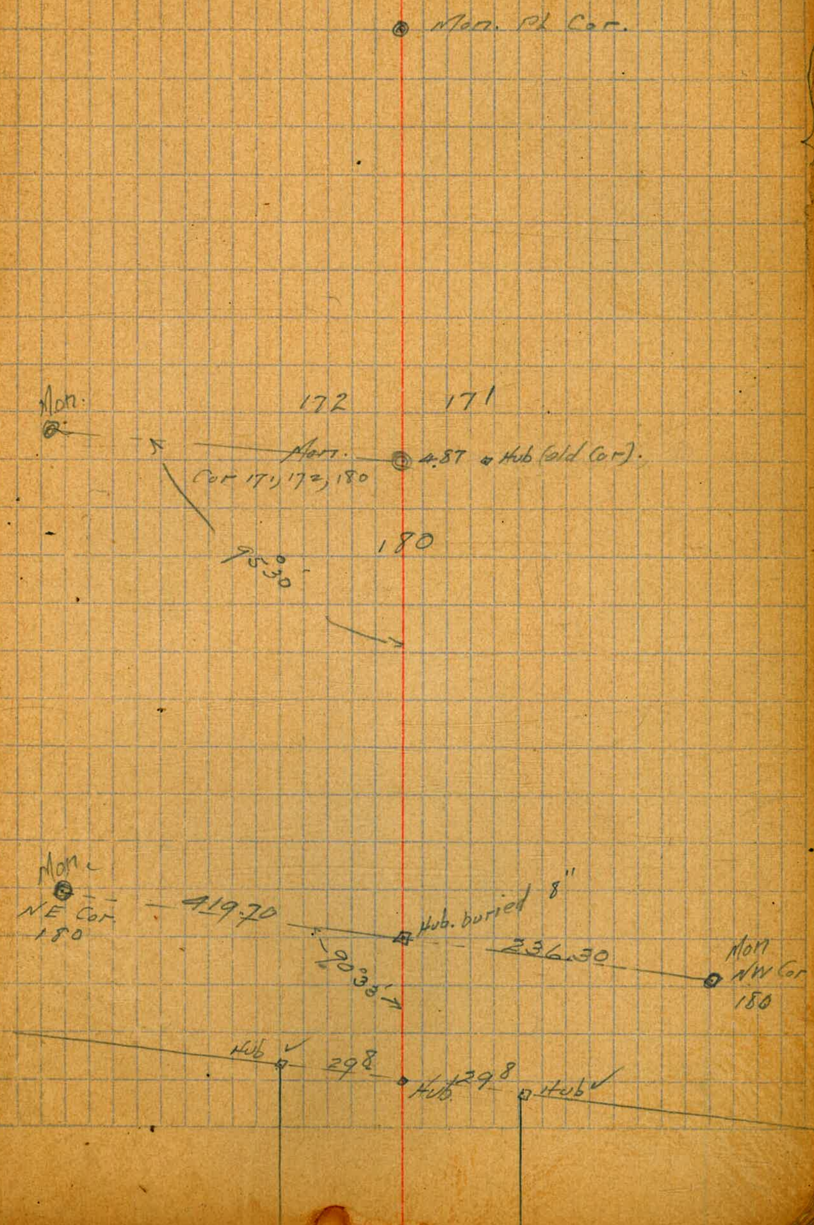
18+25.25



	Angle L	Angle R
30+49 06		
27+76 75		
27+39 25		
27+25		
26+60		
25+54 40	49°53'	
23+61 65		

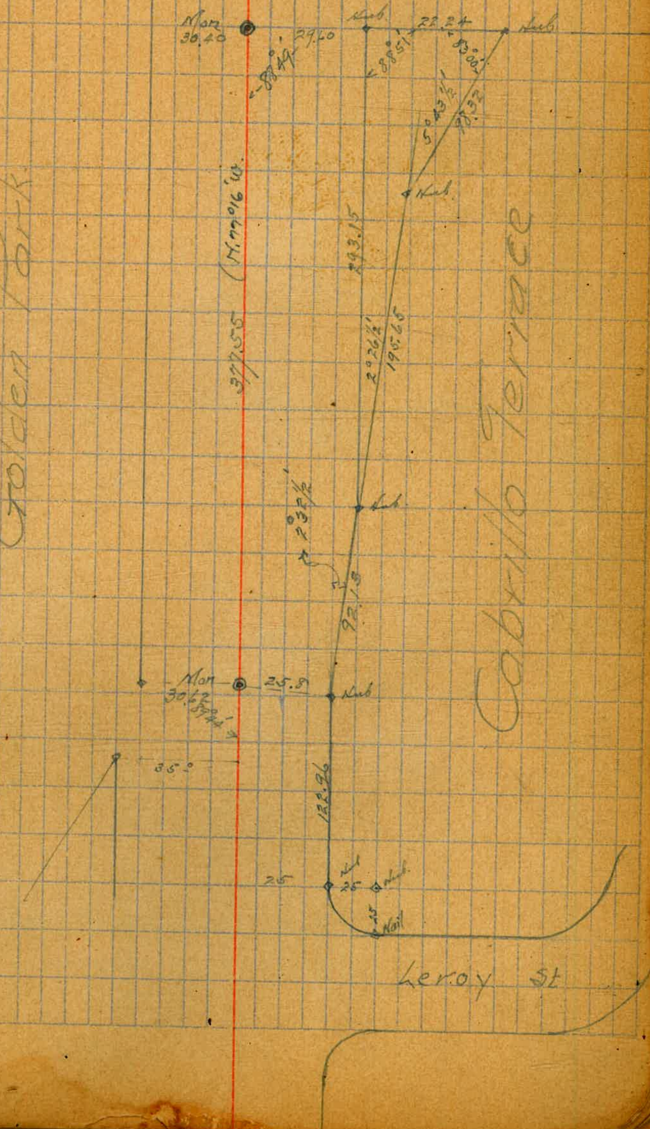


	L	R
42+06 95		
37+44 60		5°42'
30+83 98	5°18'	
30+49 06		



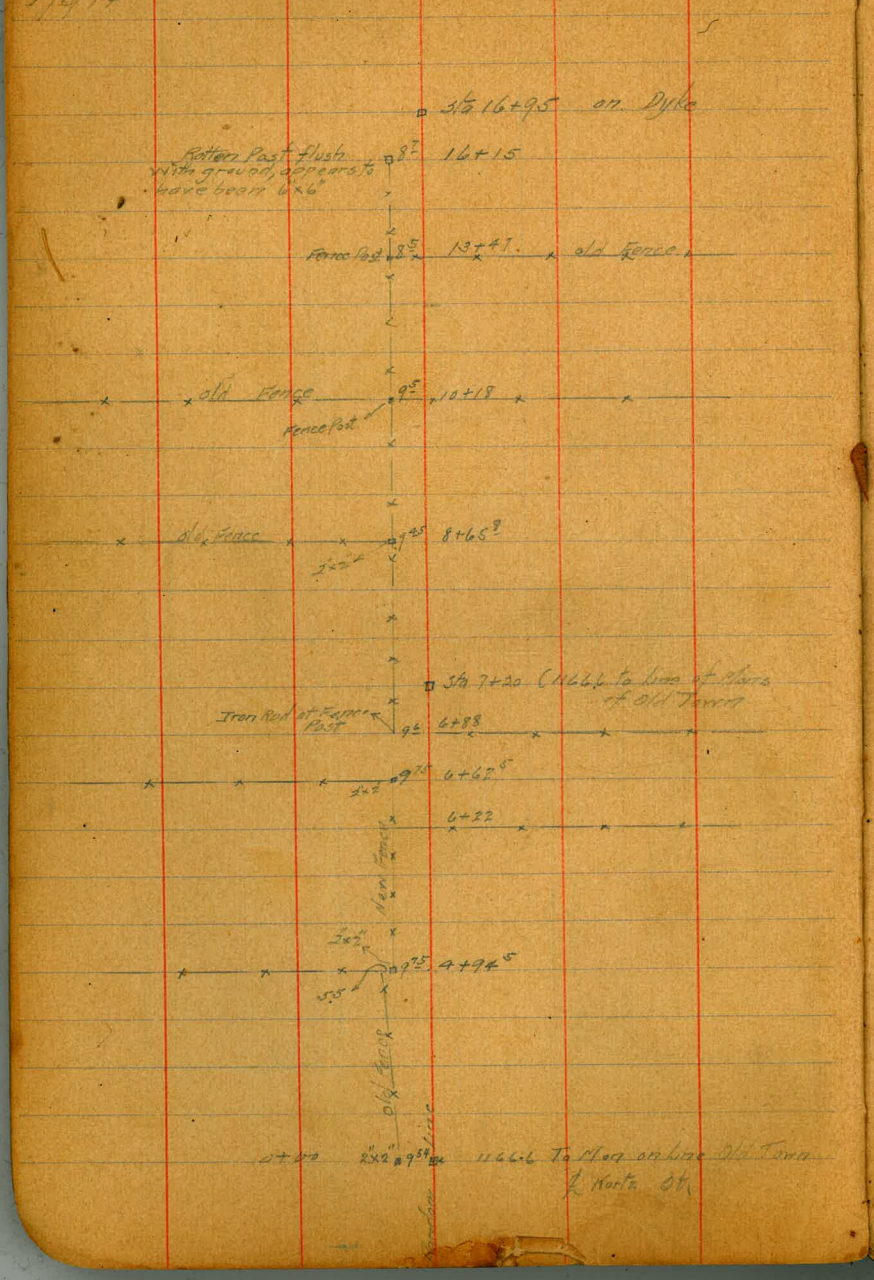
2/2/14 Hatch Moore Hall

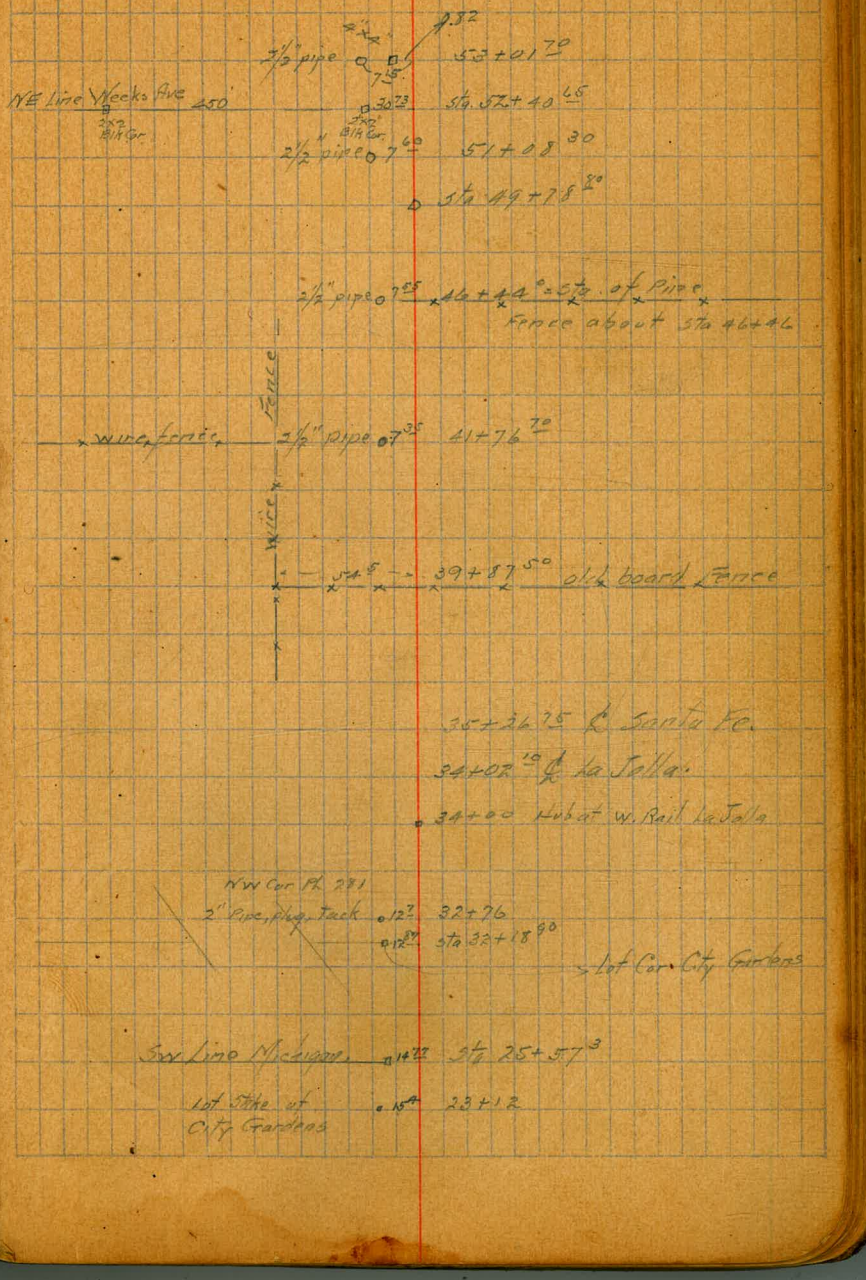
Survey for Closing of Magnetic St.

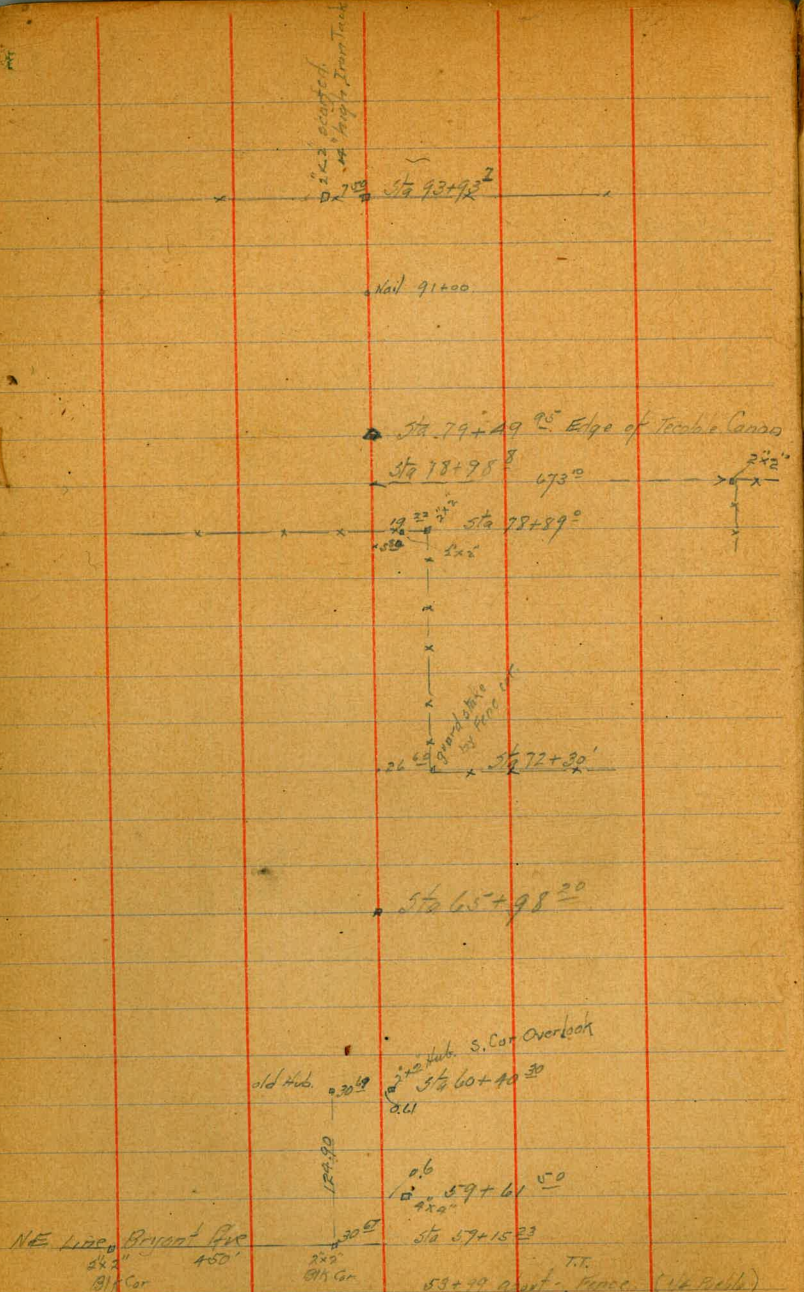


Survey of Pueblos N of Old Town

"B" Line.






2×2 scarfed. 4" high, Iron Tack
7.50
Sta 93+93.2
Nail 91+00.
Sta 79+49.95 Edge of Tecolote Canon
Sta 78+98.8
673.10
2"×2"
19.22
2"×2"
Sta 78+89.0
5.80
2"×2"
guard stake by fence cor.
26.69
Sta 72+30'
Sta 65+98.20
2"×2" Hub. S. Cor Overlook
old Hub.
30.69
Sta 60+40.30
0.61
124.90
0.6
4"×4"
59+61.50
NE Line Bryant Ave
30.65
Sta 59+15.23
2"×2"
450'
2"×2"
Blk Cor
Blk Cor
T.T.
53+99 about Fence (1/4 Pueblo)

Survey of Pueblos N of Old Town.

"C" Line

Cor. Valley Gardens

7^5 2x2 $32+72^{50}$

Sta $32+22^{65}$ 7^{36} NE Blk line City Gardens

$27+30^{50}$

$57+30^{65}$
$4\ 08^{65}$
$32\ 22$

Southerly line Spencer St.

3^{30} 2x2" $19+01^{30}$

$17+32^{0}$

12^{25} 4"x4" Burned off

$13+06^{30}$

$7+20^{21}$ 953^3 to "B" Line

Sta $4+94^5$ 94^5 Fence Post

Sta $4+07^{08}$ on Dyke

$0+00$ 953^3 to "B" Line
on ℄ Kurtz St.

10^9 2x2 Sta $4+57^3$

Set Hub Sta $4+01^6$

12^{74} 2"x2" $71+75$ NE Cor. Pl. 264

Marked Blk F.9. 2"x2" 12^{25} $67+78^{40}$ NE Cor. Boul. Heights

SE Point, Boulevard Hts 2"x2" 12^{05} Sta $56+15^{83}$

Boulevard Gardens

Sta $52+74^{63}$

Sta $52+42^{73}$ 12^{87} 2x2 Blk Cor. NE line Weeks Ave 400' 2x2 Blk Cor.

28^{10} Sta $52+27^{50}$

2"x2"

13^{55} 2½" Pipe Sta $51+96^{30}$

13^{75} 2½" Pipe Sta $51+09^{75}$

Sta $43+97^{20}$

Sta $42+28^{08}$ ℄ Santa Fe Track

9^{40} 2½" Pipe $41+75^{50}$

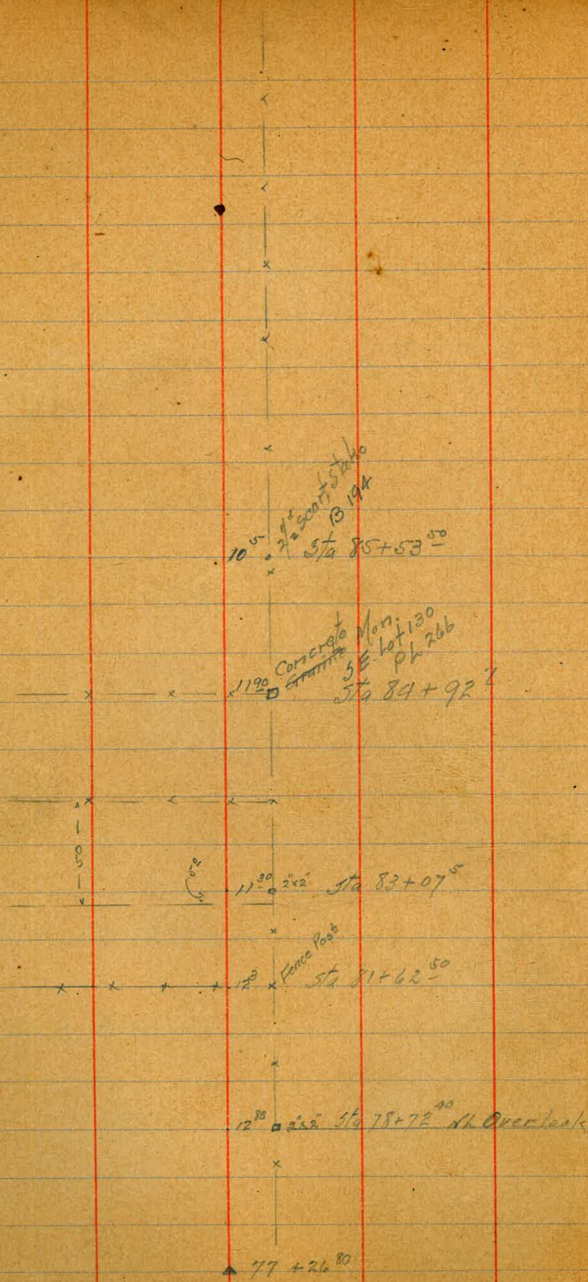
$39\ 79^{65}$

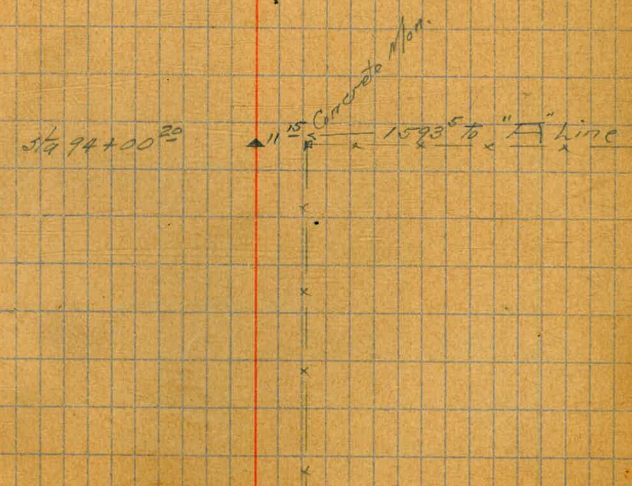
Sta $41+03^{85}$ ℄ La Jolla Track

$39+79^{65}$

8^9 2"x2" $39+12$

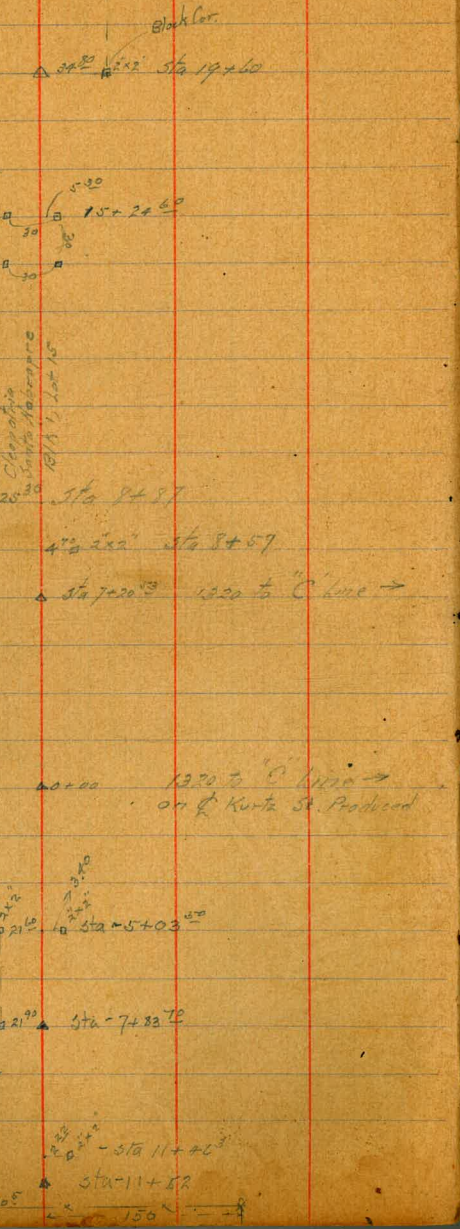
Valley Gardens


10 5 ½" scant stake
B 194
Sta 85+53 50
Concrete Mon.
Granite
SE lot 130
PL 266
1190
Sta 84+92 2
5
11 30 2"x2" Sta 83+07 5
Fence Post
12 3
Sta 81+62 50
12 88 2"x2" Sta 78+72 40 NL Overlook
77 +26 80

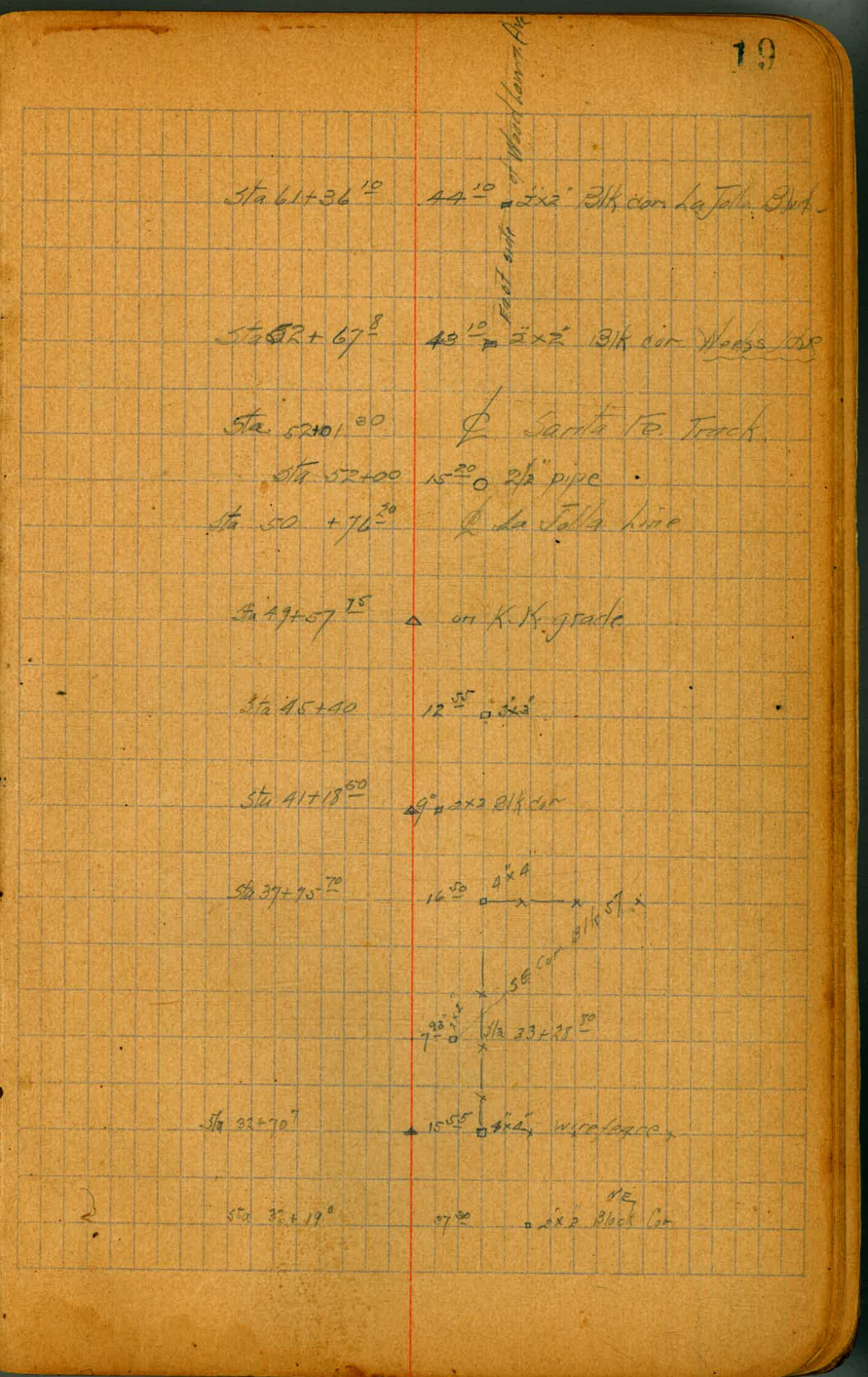

Sta 94+00 20
11 15 Concrete Mon.
1593 5 to "A" Line

Survey of Rebloo N of Old Town

"D" Line



19



Sta 94+00.3 15.74 □ 2"x3"x15" NE 128 PL 255

Sta 85+91.10 ▲

Sta 84+93.40 16° □ Mon (E line 128 PL 255 SW 129 " 264)

Sta 82+68.8 16.2° □ Mon (S. Cor 128 PL 255)

Sta 81+63.7 16.20 □ 3x2

Sta 80+36 16° □ 3x3 Scarf Stake

Sta 73+78.31 ▲

Sta 71+77.5 15.2 □ 3x3 old Fence

Sta 68+39.2 12.8 □ 2"x2"

La Jolla Boulevard

Sta 61+54.60 ▲

8/21 Kurtz Moore Hall

"E" Line

old Fence — Sta 32+39^{30} — 3"x3"

1"x2" — Sta 32+19^{10}

1"x2" white Hub — Sta 31+44^{2}

Sta 31+22 — Lath with tack

old Fence — 50 — Sta 26+53^{7}

51^{90} — Sta 24+60^{50} — old Fence — 2"x2" — 1.2

[illegible] Kurtz and N.W. Line Old Town

491^{6} — Sta 21+19^{75}

0.2 — 1" old Survey stake — Sta 18+09^{20}

old Fence — Sta 17+29^{10}

2"x2" 3^{50} — Sta 1+51^{0}

2"x2" 3^{50} — Sta 0+11^{0}

491^{6} — Sta -4+91^{6} of "C" Line = 0+00 "E" Line

℄ Kurtz St.

27+00 "C" Line

3"x3" White stake 1 ft high — 1^{05} — Sta 69+51^{40} — "SW Cor Pl 327"

on S.L. Tide St — 2"x2" 1^{50} — Sta 66+00^{50}

on N.L. Tide St — 2"x2" 1^{70} — Sta 64+99^{60}

Sta 60+26^{6} — 9^{85} 1"x2" — "W Cor Pl 328"

Sta 59+17^{50} — 9^{85} 1"x2" — "4+52^{75}"

Sta 58+47^{0} — 9^{85} — 37^{3} — 1"x2" Hub — 1"x2" Hub

9^{20} 1"x2" Hub. — Sta 58+13^{1}

9^{45} 1"x2" Hub — Sta 55+58^{8} — "W Cor 329"

1^{50} Rock mound — Sta 49+10^{30}

℄ Kurtz

Hub — ℄ Smith St. — 491^{6} — Sta 42+44^{4}

0.55 — 3^{0} — Sta 36+85^{7}

△ Sta 74+00

Sta 73+67^{7} = N L Witherby St.

Guard "Ph 321"   2"×2" □ Sta 71+94^{70}

Sta 34+04^{80} 1^{T} □ 2"×2"

W½ Pl 245 NW Cor   2"×2" □ 11^{2} Sta 34+09^{0}

2"×2" □ 12^{76} △ Sta 39+56^{8}

8/31/12 Hatch Moore Hall

Survey of Pueblos N of Old Town

"F" Line

To Sta −4+91.6 "C" Line ← 660' △ 0+00

2"×2" 2^{6} Sta $1+87^{8}$

8^{9} Sta $6+98^{8}$

8^{2} Sta $7+57^{8}$

2×4 Hub 4^{6} Sta $11+61^{8}$

2"×2" 5^{2} Sta $13+17^{6}$

0.5 Sta 13+20 = Sta $11+52^{2}$ "D" Line

1"×2" 5^{8} 16^{2} Sta $15+41^{3}$

Fence Cor.

Block Cor. 2^{5}

13^{55} Sta $24+75^{5}$

2"×2" 9^{2} Sta 24+37

Blk 25, San Marco St. Rialto St. 2"×2" 29^{3} Sta 26+77

W/2 Pk 245, NE Cor. 2"×2" 9^{2} Sta $29+42^{5}$

G. Line

Sta $52+08^{2}$ 8^{7} 2"×2" Scarf Stake

Sta 50+95 8^{55} 2"×2" "236"

← 660 to "E" Line △ Sta $42+44^{9}$ 933^{3} to "H" Line →

4"×4" 1' high 44^{3} Sta 35+51

Sta $31+25^{0}$ 26^{8} 2"×2" Hub, Block Cor.

2"×2" 8" high 50^{8} Sta $24+62^{0}$

51^{0} 3^{2} 2"×2" Sta $21+88^{7}$

1^{6} 27^{8}

← 660 to "E" Line △ 30+27 Sta $21+19^{7}$ (933^{3} to "H" Line →

2"×2" Hub Sta $15+07^{5}$

28^{6} 2^{3}

2"×2" 30+40.5

Sta $12+58^{3}$ 6^{9} Fence Cor.

← To Sta −4+91.6 "C" Line 660 △ 1+00 = 0+00 "F" Line

△ Sta 76+50 at edge of Slough

Sta 73+68 8^7 □ 1"×2"

Sta 71+95^9 □ 2"×2"; 4"×4" guard "PL 321"

Sta 69+61^3 10^2 □ 3"×3" (XVI)

2" L iron with old scot stake
➤ 47^7 Sta 69+55

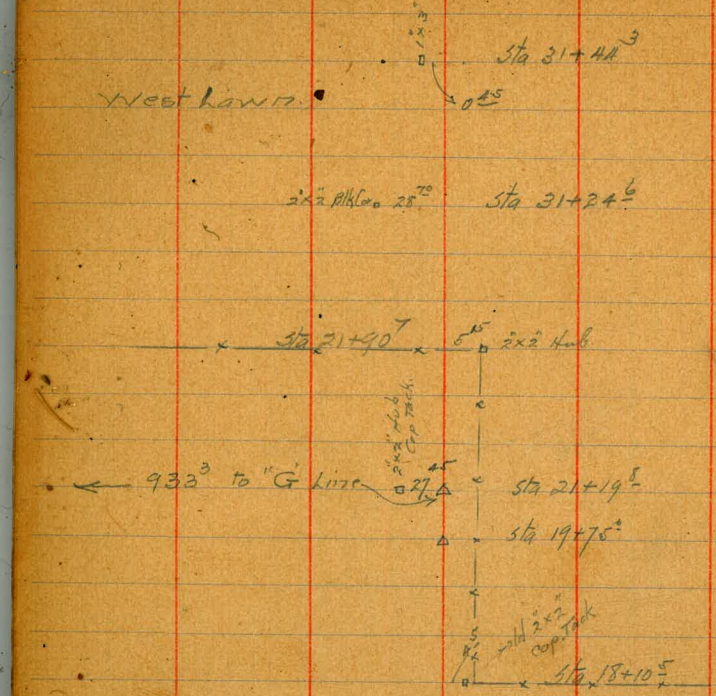
Sta 65+35^9 △ 2"×2" Hub, 4"×4" guard "PL 321"

Sta 59+78^5 9^8 □ 2"×2" Hub on N.L. Tide St.

Sta 55+04^7 △ 9^7 □ 1"×8" White Stake

Survey of Pueblo N. of Old Town

"H" Line



25

Sta 74+45

Sta 71+88 10.8 3"x3" 2' high "VII"

2" iron 2' high 48.7 Sta 69+53.6

Sta 67+00

Sta 60+28.2 9.4 2x2 Hub "236"

Sta 58+68 9.3 4"x6" 1ft high "226"

Sta 56+69.2 9.0 1"x3" white Stake

Sta 53+68.10 8.65 2x2 Hub on SL Tide St.

Sta 52+57 8.5 2x2 Hub on NL Tide St

Sta 50+96

Sta 50+95 8.5 6"x2" Scarf 4"x4" 236

932.9 to "G" line

Sta 42+45.25

9/2/14

Survey of Peebles N. of Old Town 9/4/14

I Line

Sta $29+43^8$ 7 □ 2"x2" Hub W/2 Pl 245, SE Cor

2"x2" Hub Pl 244 SW Cor

Sta $24+77^3$ 6^{25} 25 □ Blk cor Loma Plaza

Blk Cor. {Newark St / Ollie St} 2"x2" Hub □ 19^2 Sta $21+83^2$

Sta $21+57^8$ 1½"x1½" Hub Tin Tack □ 2^{24} △

Sta $15+43^3$ 28^0 □ 7° 2"x2" Blk Cor Loma Plaza

Sta $14+99^2$ 34^8 New Fence

Sta 12+00 △ on Dyke

37^0 17 □ 6"x6" Flush with ground

Sta 0+00 △ = 0+00 "H" Line

Sta 74+64 70' □ 4"x4", 3' high

Sta 70+64 15^3 □ lath 3' high

Sta 64+69 △ 29^6 □ 4x4 Scarf Stake 18" high

Sta $61+17^5$ 12' □ 6' lath

Sta $51+63^2$ △ 10^{10} □ 4"x4", 4' high (SE Cor. Aug 4 1913)

Sta $46+99^2$ 10^3 □ lath

old 1"x4" □ 1^2 Sta $43+35^5$

△ Sta 41+00

14 Newark St Pittsburgh 2"x2" □ 16^7 8^{30} □ 2"x2" (Get Station)

Sta $34+09^9$ △ 8^2 □ 2"x2" W/2 Pl 245 SW Cor

9/14

J Line

Sta 28+00

Sta 22+88.2 — 55-30 — 2x2 hub, 3" white scarf stake

Sta 16+26.8 — 2.6 — 1"x2" Pebble Cor.

Sta 15+90 — 2.0 — 2"x2" hub

Sta 13+12

Sta 11+60.5.0 — 2.4.0 — 3"x3" burnt stake 18" high

Sta 10+00

Sta 3+60 (about) — Old Fence

Sta 3+10.60 — 3.8.0 — 3/4 Pipe 1 ft. high

Sta 2+12.20 — 2.7.0 — 2 1/2 x 2 1/2 scarf stake 1 ft high

0+00 — 13.20 to Sta 21+19.8 H.W.

Edge of channel

Sta 90+20

Sta 78+90

K Line

Sta 42+40° △

Sta 37+76.50 9° □ 3"x3", 18" high, marked III

2" angle Iron □ 49.50 Sta 37+41.0
3-3 guard St Marked II

Sta 29+50 △ 6.50 □ 1"x2" Hub -

Sta 24+28.90 5.80 ○ Mon -

Sta 22+19.50 5.35 ● Spike on Sh Tide St.

△ Sta 22+19.50

Sta 21+18.80 5.2 ● Spike on NL Tide St.

Sta 10+09.0 4.85

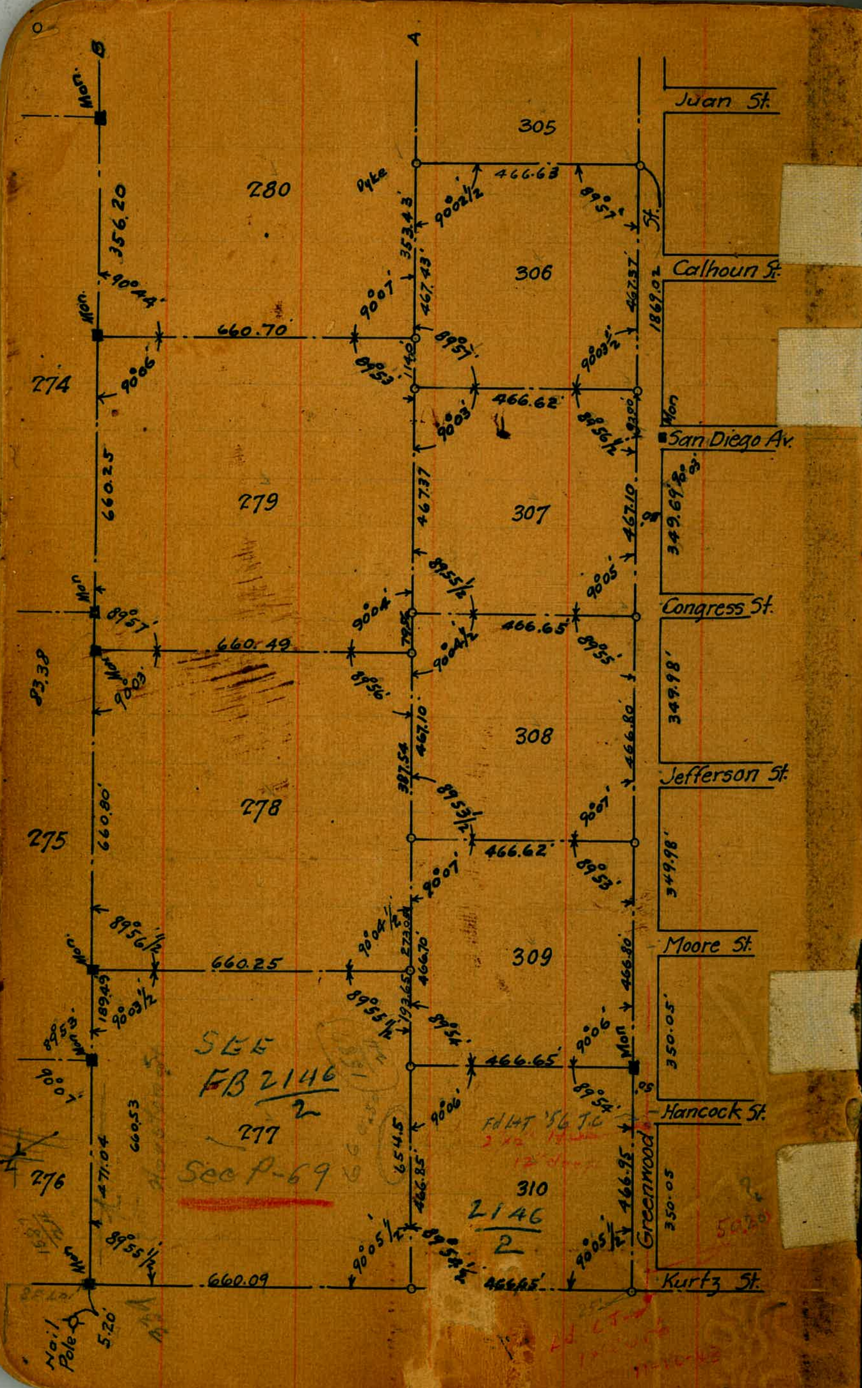
← 1900 to 21+19.8 △ 0+00 "K" Line
"H" Line = 0+00 "J" "

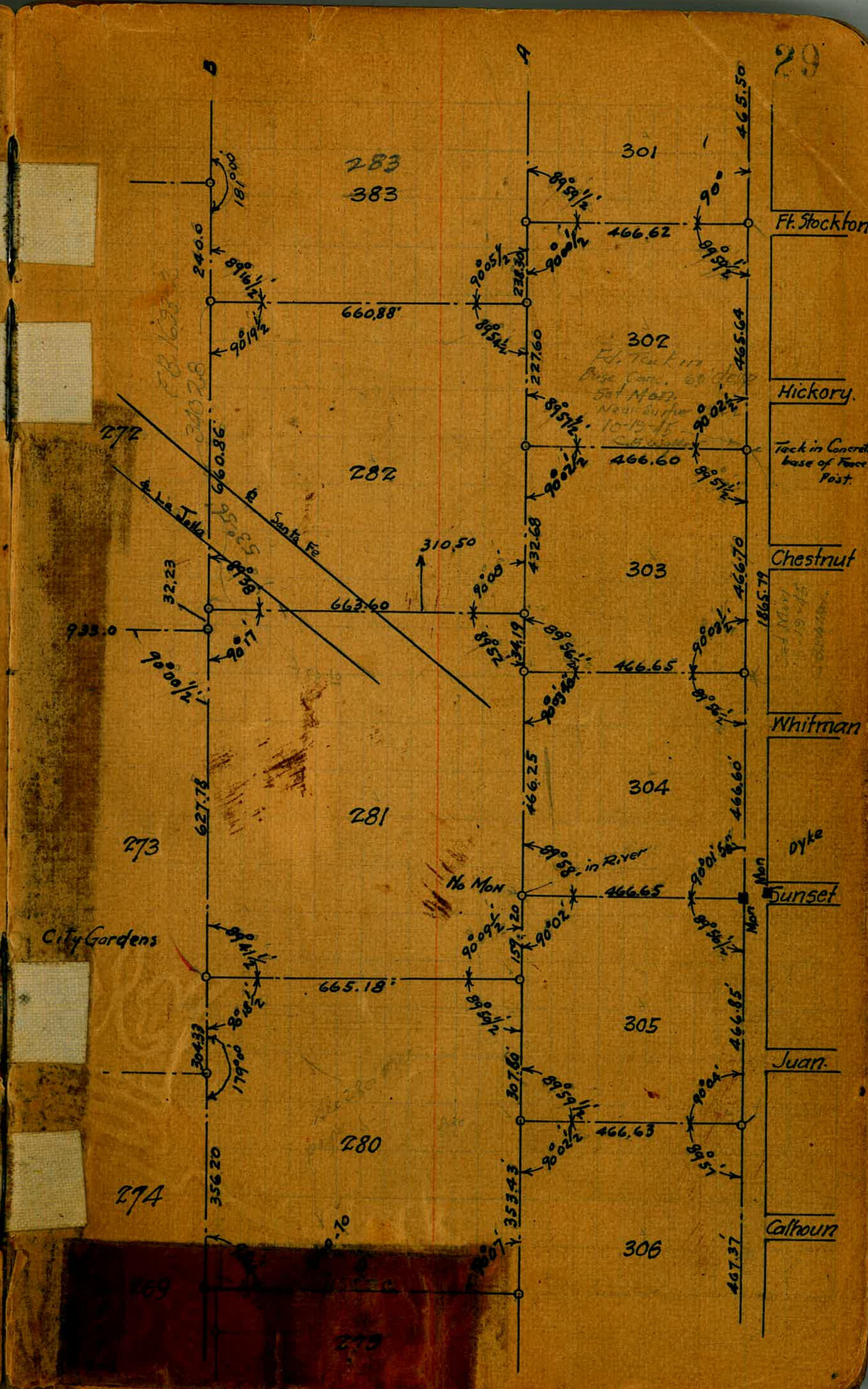
Sta 34+49.50 2"x2" Black Cor □ 3.55 56.65 □

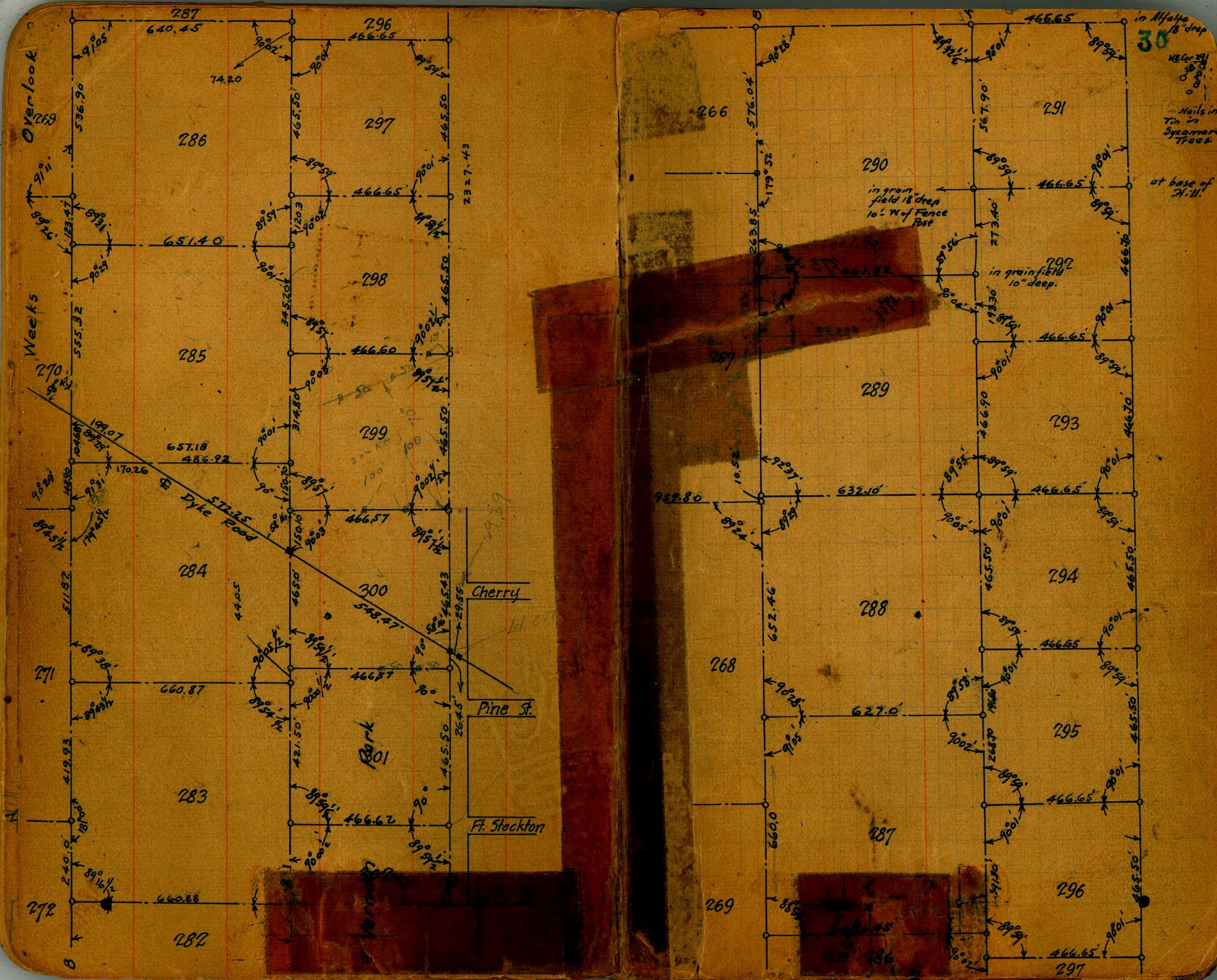
Sta 30+57.7 △

Sta 31+43.4 2"x2" Hub Black Cor □ 3.75 26.25 ○ 1"x2" Hub 30 □ 2"x2" Hub

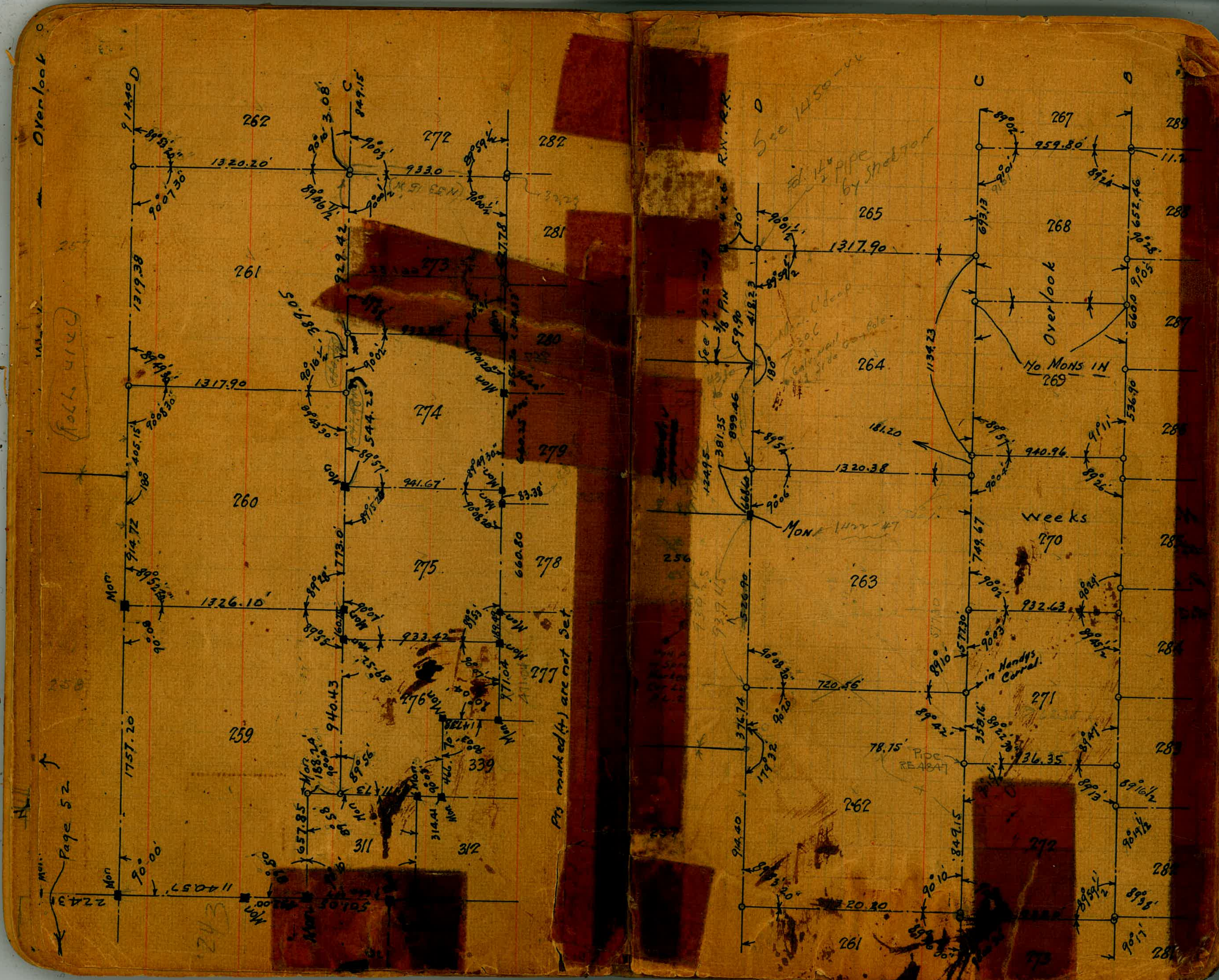
Sta 29+61.8 56° □ 6"x6" with Spike in


Juan St.
Calhoun St.
San Diego Av.
Congress St.
Jefferson St.
Moore St.
Hancock St.
Kurtz St.
Greenwood
305
306
307
308
309
310
280
279
278
277
276
274
275
660.70
660.49
660.25
660.09
466.63
466.62
466.65
356.20
660.25
660.80
SEE FB 2146/2
See P-69
2146/2
Nail Pole
Mon.
Dyke

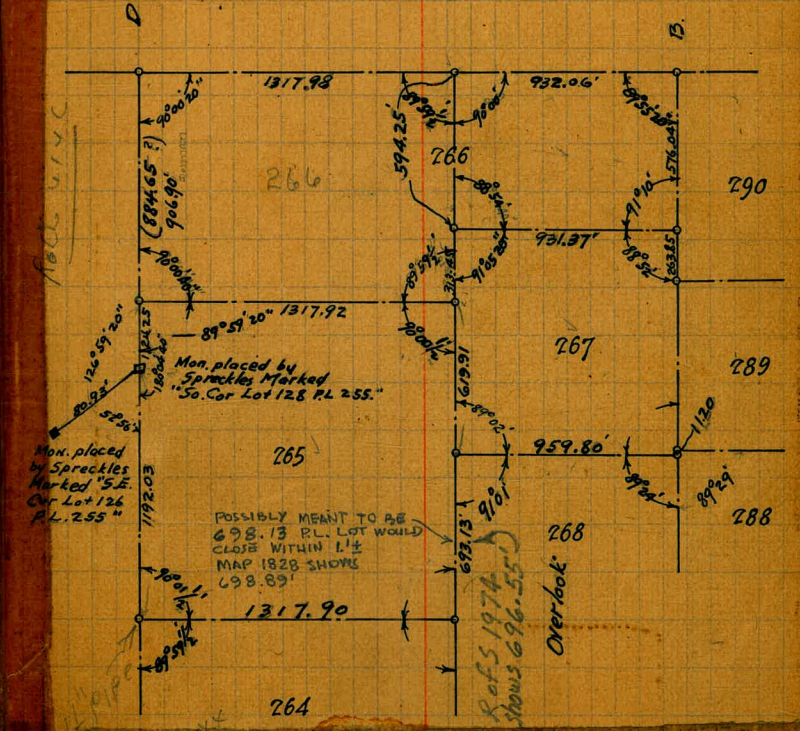

Ft. Stockton
Hickory
Chestnut
Whitman
Sunset
Juan
Calhoun
301
302
303
304
305
306
283
383
282
281
280
272
273
274
City Gardens
Santa Fe
La Jolla
660.88'
663.60
665.18'
466.62
466.60
466.65
466.63
310.50
Tack in Concrete base of Fence Post.
No Mon
in River
Dyke
Mon

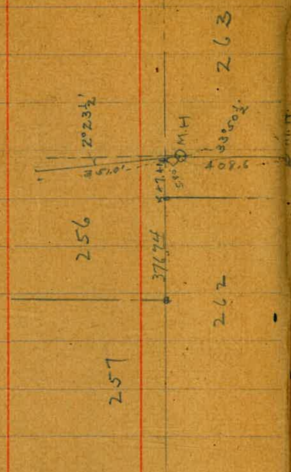


Overlook
Weeks
Dyke Road
Cherry
Pine St.
Ft. Stockton
Park
287
286
285
284
283
282
296
297
298
299
300
301
269
270
271
272
640.45
466.65
536.90
555.32
651.40
657.18
486.92
660.87
660.88
466.60
466.57
466.37
466.62
2327.43
572.25
548.47
266
267
268
269
290
289
288
287
286
291
292
293
294
295
296
297
576.04
632.10
627.0
652.46
660.0
in Alfalfa 18" deep
Nails in Tin in Sycamore Trees.
at base of Hill.
in grain field 18" deep 10' W of Fence Post
in grainfield 10" deep.

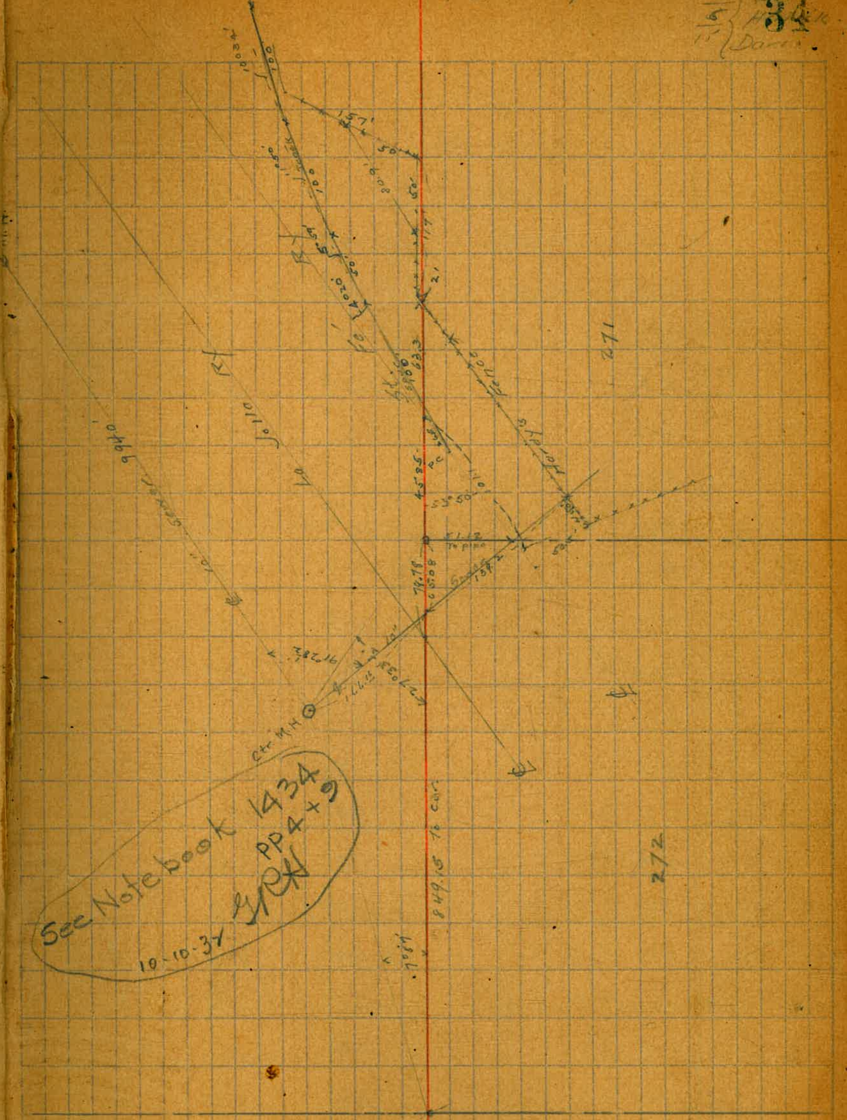

Overlook
Page 52
262
261
260
259
272
273
274
275
276
277
278
279
280
281
282
311
312
339
1320.20'
1317.90
1326.10'
1319.38
1757.20
933.0
941.67'
933.42
940.43
929.42
544.25
660.80
Mon
Pts marked (4.) are not set.
See 1450-VL
R.W. R.R.
Fd. 1¼" Pipe by Shelton
265
264
263
262
261
267
268
270
271
272
273
1317.90
1320.38
720.56
959.80
940.96
932.63
1139.23
Overlook
Overlook
4 Mons IN 269
Weeks
Mon 1422-47
in Handys Corral
Pipe
D
C

Note: On Jan. 23, 1940 Chas Moore, Chief Party says that Cor. Mon. were placed at the Corners of P.L. as shown on Pages 29-32 except in a few cases noted as "No mon in." H.Y.N.





Location of Hardy's Sewer

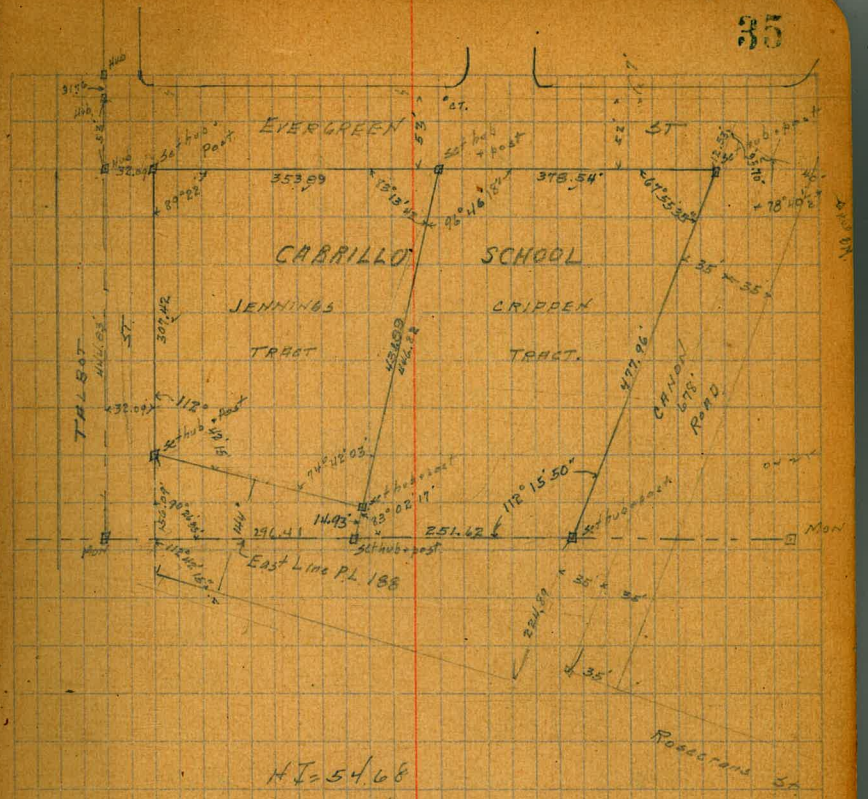


See Notebook 1434 pp 4+9
10-10-37

Survey & Cross Section of Tracts shown on Opposite Page.

Surveyed by Miller & Shaw

	12.90	54.68	41.78	Hub B.M. Tie out for Corner Rd. on hub
N.W. cor Crippens = Int. Evergreen + Canon		9.35	45.33	
E.L. Evergreen 700' N. of Talbot.		8.4	46.3	
" " "	650	6.9	47.8	
" " "	600	5.6	49.1	
8' E. of " "	600	9.9	44.8	
11' " " "	550	10.9	43.8	
1' " " "	550	4.1	50.6	
E.L. "	550	4.0	50.7	
" " "	500	2.7	52.0	
2' E. of " "	500	2.8	51.9	
16' " " "	500	11.3	43.4	
20' " " "	450	12.1	42.6	
3' " " "	450	2.1	52.6	
E.L. "	450	1.7	53.0	
" " "	400	1.3	53.4	
5' E. of " "	400	1.6	53.1	
21' " " "	400	11.5	43.2	
33' " " "	400	13.9	40.8	
30' " " "	350	13.7	41.0	
15' " " "	350	11.7	43.0	
2' " " "	350	2.0	52.7	
E.L. Evergreen 350		1.1	53.6	
" " "	325	1.5	53.2	
3' E. of " "	325	1.5	53.2	



H.I. = 54.68

E.L. Evergreen + 300' N. of Talbot	1.9	52.8	
16' E. of " " "	300	12.3	42.4
28' " " "	300	14.2	40.5
16' " " "	250	12.9	41.7
1' " " "	250	2.9	51.8
E.L. "	250	2.6	52.1
" " "	200	3.0	51.7
12' E. of " "	200	11.0	43.7
10' " " "	150	8.8	45.9
" " "	150	3.1	51.3

54.68

E.L Evergreen		100' N. of Talbot	3.7	51.0
6' E. of	"	100' " "	6.9	47.8
5' " "	"	50' " "	6.6	48.1
E.L	"	50' " "	4.0	50.7
" "	"	10' " "	4.9	49.8
10' E. of	"	10' " "	6.8	47.9
E.L.	"	N.L. "	5.1	49.6
10' E. of	"	N.L. "	6.2	48.5

50' E. of E.L. Evergreen.

N.L Talbot			8.6	46.1
5' N. of	"	"	9.3	45.4
50' "	"	"	9.6	45.1
100' N			9.9	44.8
150' "			11.4	43.3
200' "			13.3	41.4
T.P.	2.86	44.54	13.00	41.68
250' N.			5.0	39.5
300' "			5.5	39.0
350' "			5.6	38.9
400' "			5.7	38.8
450' "			5.3	39.2
500' "			4.7	39.8
550' "			4.3	40.2
600' "			3.2	41.3
650' "			2.2	42.3
700' "			2.5	42.0

44.54

36

720' N.		3.3	41.2
100' E. of Evergreen			
700' N. of Talbot		6.2	38.3
650' " "		5.8	38.7
600' " "		7.1	37.4
550' " "		7.9	36.6
500' " "		8.2	36.3
450' " "		8.5	36.0
400' " "		9.2	35.3
350' " "		9.4	35.1
325' " "		9.0	35.5
300' " "		8.1	36.4
250' " "		7.1	37.4
200' " "		5.2	39.2
150' " "		3.9	40.6
100' " "		3.0	41.5
50' " "		2.5	42.0
10' " "		2.1	42.4
N.L Talbot		1.4	43.1
150' E. of Evergreen			
N.L Talbot		4.4	40.1
50' N. of "	"	5.9	38.6
100' " " "	"	5.9	38.6
150' " " "	"	6.2	38.3
200' "		7.6	36.9

150' E. of Evergreen (cont.)

350' N. of Talbot.	9.1	35.4
300' " " "	10.1	34.4
350 " " "	11.1	33.4
400' " " "	12.1	32.4
450' " " "	11.7	32.8
500' " " "	11.4	33.1
550' " " "	11.4	33.1
600' " " "	10.5	34.0
650' " " "	9.1	35.4
675' " " "	8.3	36.2

200' E. of Evergreen.

650'	10.6	33.9
600 " " "	12.3	32.2
550' " " "	13.6	30.9
500' " " "	14.0	30.5
450' " " "	14.2	30.3
400 " " "	13.6	30.9
350' " " "	12.8	31.7
300' " " "	12.3	32.2
250' " " "	11.0	33.5
200' " " "	9.4	35.1
150' " " "	9.0	35.5
100' " " "	8.6	35.9
50' " " "	8.3	36.2
" " "	8.0	36.5

250' E. of Evergreen

N.L. Talbot.	10.5	34.0
50' N. of "	10.8	33.7
100' " " "	11.1	33.4
150' " " "	11.2	33.3
200' " " "	12.4	32.1
250' " " "	13.1	31.4
T.P. 3.01 34.72	12.83	31.71
300' N. of Talbot.	4.1	30.6
350' " " "	4.7	30.0
400' " " "	5.3	29.4
450' " " "	5.9	28.8
500' " " "	5.6	29.1
550' " " "	4.5	30.2
600 " " "	3.3	31.4
625' " " "	2.5	32.2

300' E of Evergreen

610'	3.9	30.8
600' " " "	4.3	30.4
550' " " "	5.8	28.9
500' " " "	6.6	28.1
450' " " "	7.2	27.5
400 " " "	7.0	27.7
350' " " "	6.5	28.2
300' " " "	5.5	29.2
250' " " "	5.1	29.6

34.72

300' E of Evergreen (cont.

300' N of Talbot	4.6	30.1	
150' " "	4.2	30.5	
100' " "	4.0	30.7	
50 " "	3.7	31.0	
27' E of Abora.	4.9	29.8	
N.L. of Talbot. 300' E. of Ever.	3.3	31.4	
S.E. cor Jennings Tract.	3.6	31.1	

350' E of Evergreen

100' N. of Talbot.	5.7	29.0	
150' " "	5.5	29.2	
(25' E. of Above	6.9	27.8	
200' N. of Talbot 350' E	6.5	28.2	
35' E of Above	8.0	26.7	=fence
250' N. of Talbot 350' E	7.0	27.7	
27' E of Above	7.9	26.8	=N side barn
300' N of Talbot 350' E	7.3	27.4	
350 " " " "	8.1	26.6	
400 " "	8.5	26.2	
450 " "	8.3	26.4	
500 " "	7.8	26.9	
550 " "	5.9	28.8	
590 " "	5.4	28.6	

400' E of Evergreen

570' N. of Talbot	7.3	27.4	
550 " "	7.7	27.0	
500' N of Talbot.	8.4	26.3	
450 " "	9.2	25.5	
400 " "	9.7	25.0	
350 " "	9.5	25.2	
300 " "	9.1	25.6	
263.5 " " (this pt is	9.3	25.4	=N side barn

(15.5' E. of NW cor. of above barn 18' x 34' with longest dis. N+S.)

250' N. of Talbot	8.8	25.9	
200 " "	8.7	26.0	
15' E. of Above	8.7	26.0	

445' E of Evergreen

250' N. of Talbot.	10.8	24.6	
300 " "	10.2	24.5	
350 " "	10.6	24.1	
400 " "	10.3	24.4	
450 " "	9.6	25.1	
500 " "	9.2	25.5	
550 " "	8.5	26.2	
BM 1.78 28.12	8.38	26.34	hub NE Corner
	7.45	20.67	BP SW Canon + Rosecrans

11/12/20 Gregori Miller Shaw

CROSS SECTION OF PORTION OF FILL AROUND UNIVERSITY Hgts Reservoir

IDAHO St

	8.87	378.83	369.96.	SE Idaho & Polk
		629' S. of Howard		cumb Grade
cb/line		8.7	70.13	
6' W. of W. Cb. Idaho		8.6	70.2	
10' " " " "		7.3	71.5	
		623' S. of Howard		
W. Cb.		8.75	70.08	
6' W of " "		8.1	70.7	
8' " " "		7.3	71.5	
		600' S.		
W. Cb		8.7	70.13	370.0
6' W. of " "		7.7	71.1	
8' " " "		5.0	73.8	
10' " " "		3.5	75.3	
		550' S		
W. Cb		8.5	70.3	370.25
6' W of " "		7.6	71.2	
7' " " "		6.4	72.4	
10' " " "		4.2	74.6	
		500' S.		
Wab		8.2	70.6	370.5
6' W. of " "		7.5	71.3	
7.5 " " "		5.3	73.5	
10' " " "		3.4	75.4	

	450' S		
Wab Idaho	8.1	70.7	370.25
7' W of " "	7.2	71.6	
8' " " "	5.8	73.0	
10' " " "	4.1	74.7	
	400 S		
Wab	7.7	71.1	371.0
7.0' W. of " "	6.9	71.9	
8' " " "	5.4	73.4	
10' " " "	4.1	74.7	
	350' S		
Wab	7.5	71.3	371.25
3' W of " "	7.4	71.4	
7' " " "	6.3	72.5	
8' " " "	4.7	74.1	
10' " " "	3.7	75.2	
	300' S.		
Wab	7.3	71.5	371.5
7' W. of " "	6.5	72.3	
8' " " "	5.0	73.8	
10' " " "	3.7	75.1	
	250' S		
Wab	7.0	71.8	371.25
7' W of " "	6.1	72.7	
8' " " "	4.9	73.9	
10' " " "	3.7	75.1	

378.83

300' S. of Howard

Wcb	6.8	372.10	372.0
6.5 W of "	5.9	72.9	
8' " " "	4.1	74.7	
10' " " "	3.0	75.8	

150' S.

Wcb	6.5	72.3	372.21
7' W of "	5.7	73.1	
8' " " "	4.1	74.7	
10' " " "	3.4	75.4	

100' S.

Wcb	6.3	72.5	372.50
6.5' W. of "	5.5	73.3	
8' " " "	4.1	74.7	
10' " " "	3.2	75.6	

50' S.

Wcb	6.1	72.7	372.25
7' W of Wcb	5.5	73.3	
8' " " "	3.9	74.9	
10' " " "	3.3	75.5	

S.L. Howard

Wcb	5.8	73.0	373.00
8.5 W of "	5.2	73.6	
10 " " "	3.9	74.9	

20' N. of S.L. Howard

8.5' W of Angle Cb.	5.3	73.5	373.00
10' " " "	3.9	74.9	

23' N

W. Cb on Angle	5.8	73.0	373.00
8.5 W of "	5.8	73.0	
10 " " "	5.6	73.2	

11/12/20 G

X section ox portion ox X.11 around Univ. Hghts reservoir

Oregon St side

366.0 ~ SE Oregon + Polk

10.80 376.82

22' N. ox SL. Howard

Ecb. Oregon Angling	2.8	74.0	
10'E ox ~ ~	2.6	74.2	

18' N. of SL. Howard

Ecb	2.6	74.0	
7' E ox ~ ~	2.5	74.3	
10' ~ ~ ~ ~	1.7	75.1	

S.L. Howard

Ecb	2.8	74.0	374.0
8' E ox ~ ~	2.7	74.1	
10' ~ ~ ~ ~	2.1	74.7	

50' S. ox Howard

Ecb.	3.3	73.5	373.42
8' E ox ~ ~	3.1	73.7	
10' ~ ~ ~ ~	1.2	75.6	

100' S

Ecb	3.9	72.9	372.82
7' E ox ~ ~	3.6	73.2	
10' ~ ~ ~ ~	1.1	75.7	

150' S

ECb.	4.5	72.3	372.25
6' E ox ~ ~	4.1	72.7	
8' ~ ~ ~ ~	1.6	75.2	
10' ~ ~ ~ ~	0.5	76.3	

200' S

Ecb	5.1	71.7	371.67
6' E. ox ~ ~	4.8	72.0	
7.5' ~ ~ ~ ~	3.0	73.8	
10' ~ ~ ~ ~	1.3	75.5	

250' S

Ecb	5.8	71.0	371.08
6' E ox ~ ~	5.1	71.7	
8.5 ~ ~ ~ ~	2.6	74.4	
10' ~ ~ ~ ~	1.2	75.6	

300 S

Ecb	6.3	70.7	370.50
5' E. ox ~ ~	5.7	71.3	
8' ~ ~ ~ ~	2.2	74.6	
10' ~ ~ ~ ~	1.0	75.8	

350' S

Ecb	6.8	70.0	369.92
5' E ox ~ ~	6.2	70.6	
9' ~ ~ ~ ~	2.6	74.2	
10' ~ ~ ~ ~	1.9	74.9	

400' S

Ecb	7.4	69.4	369.33
6' E. ox ~ ~	6.8	70.0	
8' ~ ~ ~ ~	3.5	73.3	
10' ~ ~ ~ ~	2.2	74.6	

376.82

450' S.

	E.cb.	8.0	68.8	368.75
6'	E.o.X	7.0	69.8	
9'	" "	3.5	73.3	
10'	" "	3.0	73.8	

500' S.

	Ecb.	8.6	68.2	368.17
5'	E.o.X	7.9	68.9	
8'	" "	4.3	72.5	
10'	" "	3.1	73.7	

550' S.

	Ecb.	9.2	67.6	367.58
4'	E.o.X	8.2	68.6	
7'	" "	6.3	70.5	
10'	" "	3.0	73.8	

600' S.

	Ecb.	9.8	67.0	367.00
4'	E.o.X	9.1	67.7	
5'	" "	7.6	69.2	
9'	" "	4.7	72.1	
10'	" "	3.2	73.6	

610' S.

	Ecb.	9.8	67.0	367.00
3'	E.o.X	9.5	67.3	
5'	" "	8.3	68.5	
10'	" "	3.7	73.1	

623' S.

	Ecb line	10.0	66.8	367.0
6'	E.o.X "	9.6	67.2	
10'	" " "	9.3	67.5	

628' S.

	Ecb	10.2	66.6	367.0
10'	E.o.X E.Cb	10.5	66.3	

11/[illegible]/40 Gregory Levels for Steps Univ. Hghts Reservoir

N. E. Cor.

℄ = 2' S. of S.L. Howard St prod.

	10.91	383.92		373.01
Wcb Idaho			10.8	373.12
6' W.			10.6	373.3
8' W			10.1	373.8
17' W			4.9	379.0
21' W			3.4	380.5
24' W			3.2	380.7
27.5 = Edge res.			3.1	380.8
Top of Water Table			+0.3	384.20

S. E. Cor

℄ = 2' N. of N.L. Polk St prod.

	11.69	381.65		369.96
Wcb Idaho			11.56	370.09
4' W			10.9	370.8
6' W			10.9	370.5
9' W			7.3	374.4
14' W			2.1	379.5
21' W			0.8	380.9
27.5' W = edge res.			0.5	381.2

S. W. Cor.

℄ = 2' N. of N.L. Polk.

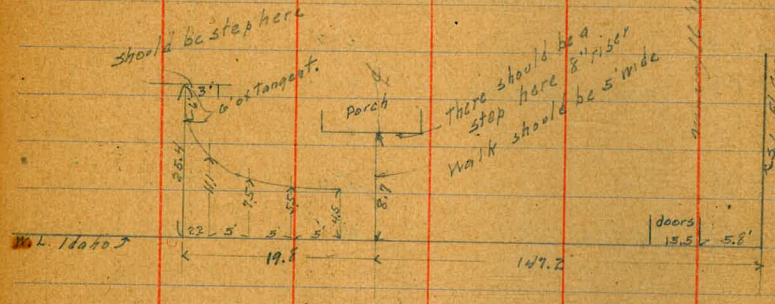
	12.79	378.81		366.02
Ecb Oregon			11.65	367.16
3' E			11.3	367.5
5' E			9.6	369.2
8' E			7.9	370.9
9.5' E			5.0	373.8
T.P.	12.09	385.96	4.94	373.87
19' E			5.5	380.5
23' E			5.0	381.0
26.5' E = edge res			5.1	380.8

N. W. Cor.

℄ = 2' S. of S.L. Howard.

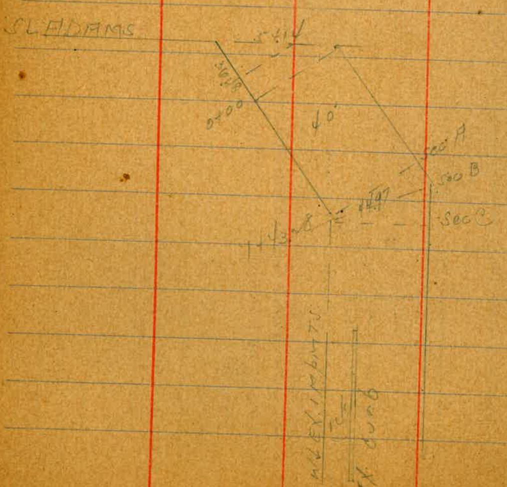
	2.21	383.98		381.77
Ecb Oregon			9.99	373.99
8' E			9.9	374.1
11' E			8.8	375.2
17' E			4.1	379.9
22' E			2.9	381.1
26.5 E = edge res			3.0	381.0

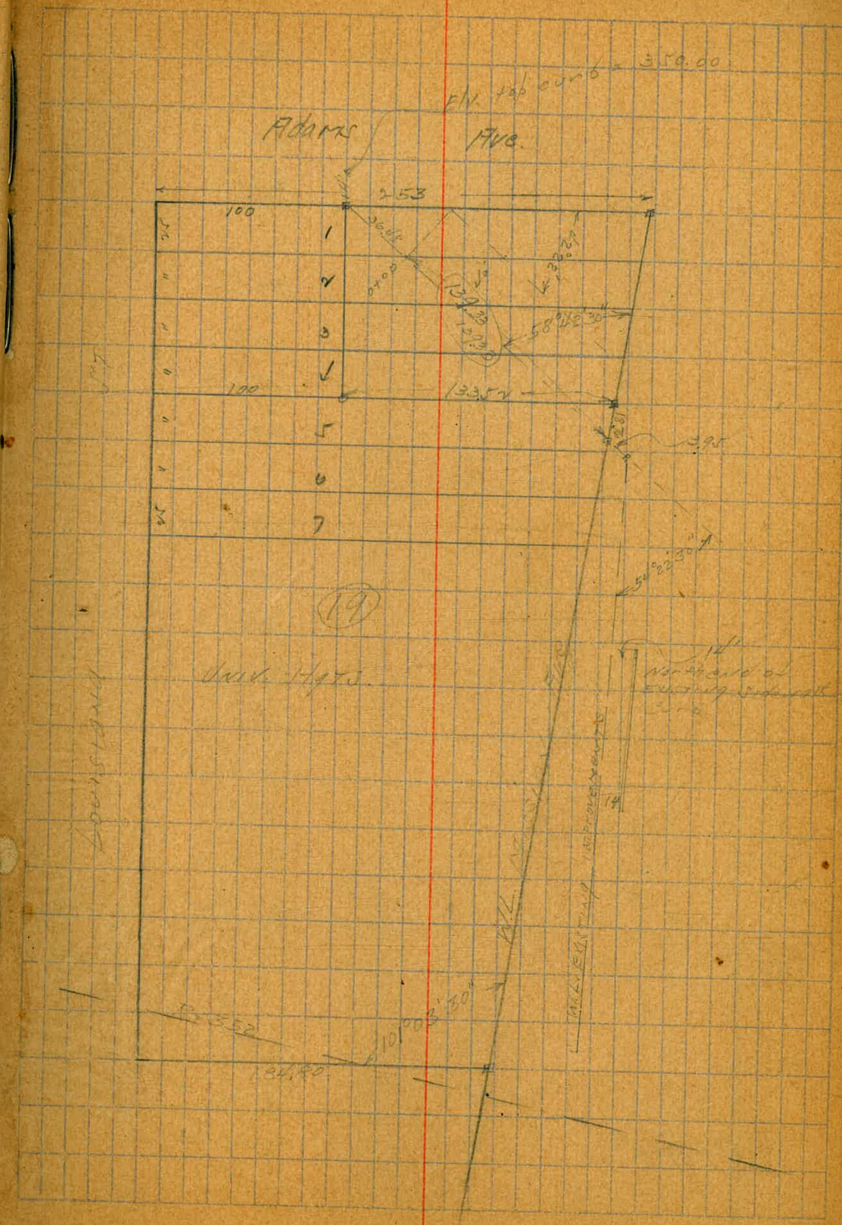
11/18/20 Gregory Data for sidewalk etc at Univ Hghts Reservoir



Survey for opening alley ... Moore
Blk 19 Univ. Hgts. 40' wide ... Pastor / Adams Louisiana

SW Mon	7.65	353.72		351.07	Adams Louisiana
	0+00 - 36.48 = SL Adams				
w			4.1	349.6	
c			5.7	348.0	
E			10.1	343.6	
	0+00 - 18.72				
w			7.3	346.4	
c			5.7	348.0	
	0+00				
w			7.5	346.4	
c			7.7	346.0	
E = SL Adams			10.1	343.6	





Sta.			Rod	Elev.
		353.72		
	0+50			
-10			12.8	340.9
E			11.5	342.2
C			8.8	344.9
W			8.0	345.7
	1+00			
W			8.1	345.6
C			10.1	343.6
E			11.4	342.3
+10			13.6	340.1
T.P.	5.33	346.55	12.51	341.21
	1+43.28 = ℄ of EXISTING IMPMTS = Sec A			
-10			12.4	334.2
E			7.9	338.7
C			5.0	341.6
W			1.7	344.9
	Sec B			
W			1.7	344.9
C			5.0	341.6
E			13.0	333.6
+10			17.1	329.5
	Sec C			
-10			12.9	333.7
E			8.3	338.3
C			3.9	342.7
W			1.7	344.9

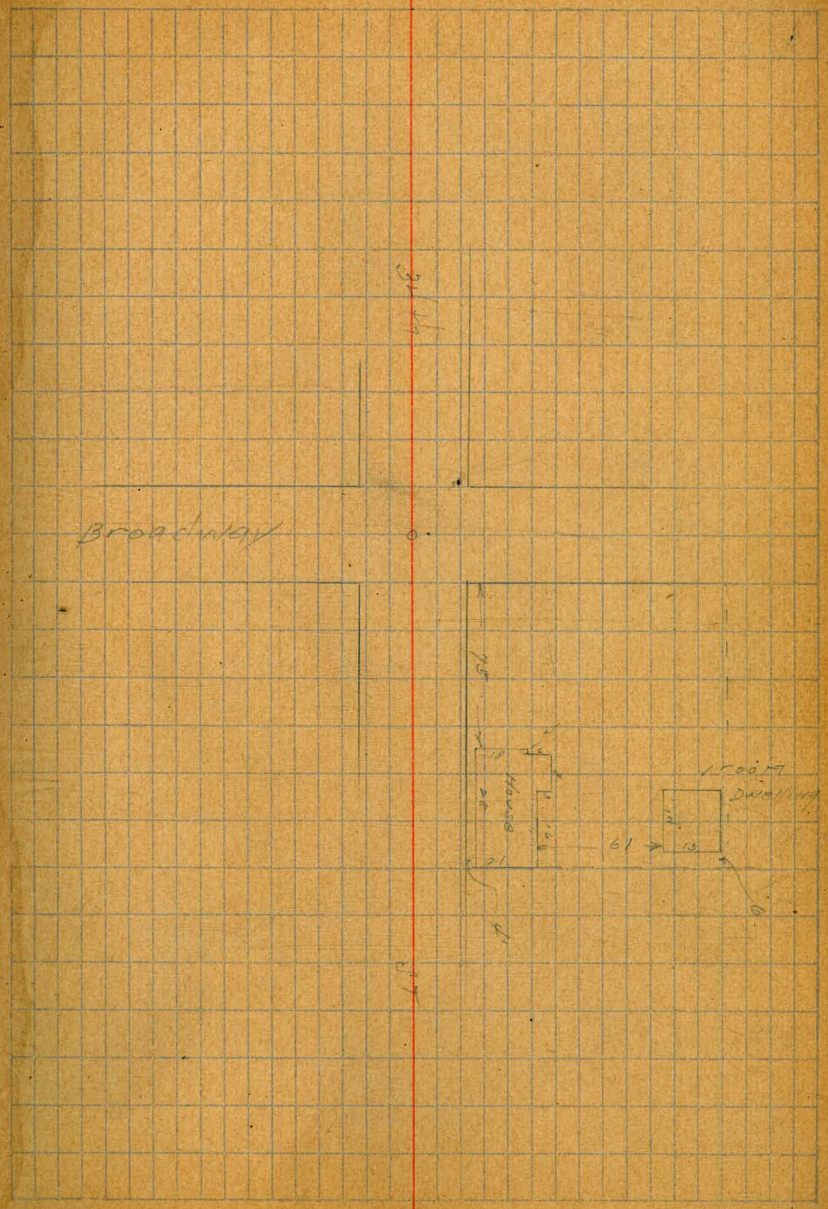
346.55 — Opening of MISSION

Sta.		Rod	Elev.
1+75			
W		2.5	344.1
C		2.1	342.5
E		4.4	342.2
+10		8.0	338.6
3+20.5	= along EXISTING sidewalk curb		
-10		9.0	337.6
E		3.6	343.0
C		3.5	343.1
+6	Top East curb	2.72	343.83
W		2.0	344.6
3+70			
W		1.8	344.8
+14	" " "	2.27	344.28
C		3.2	343.4
E		3.2	343.4
3+90			
B		2.8	343.8
C		2.7	343.9
+6	top East curb	1.72	344.83
W		1.3	345.3

Levels on floor slab of house at 34th & Broadway

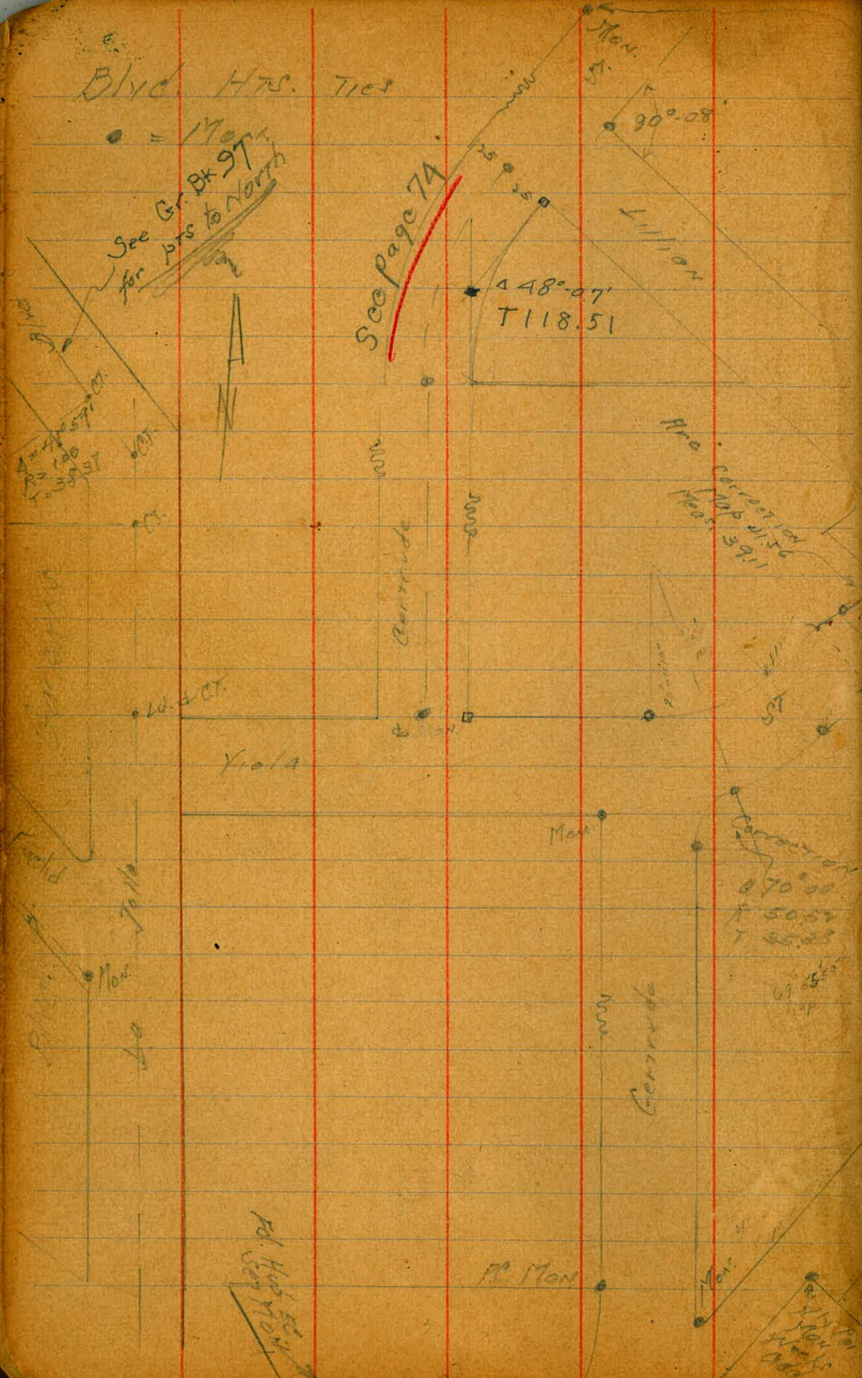
NE Mon	0.97	100.03	99.06	Broadway 34th
Vertical Survey MH Broadway & 34th		10.17	89.91	
Floor slab of house on 34th		13.25	86.75	
" " " 1 room dwelling		17.39	82.64	
NE Corner Lot 1		11.9	88.13	

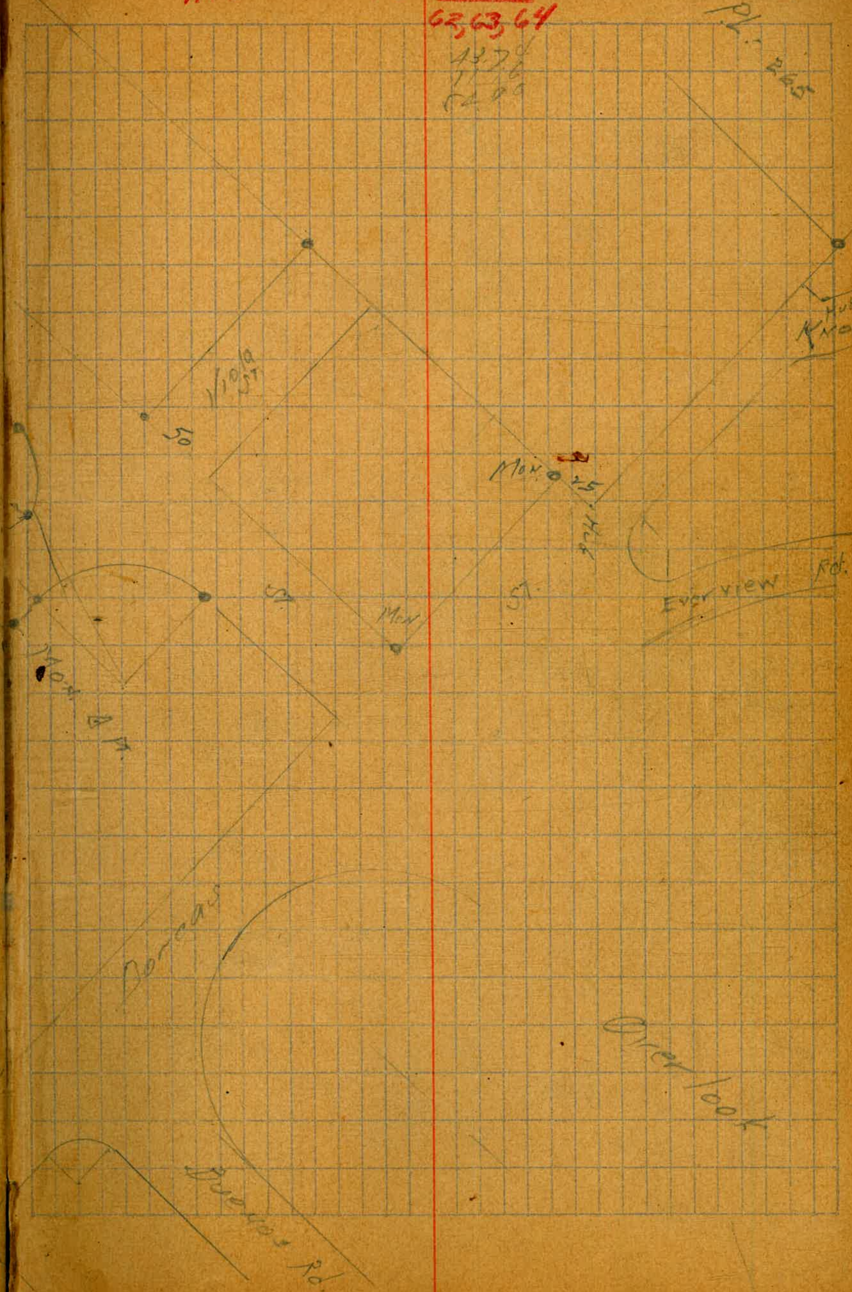
Floor
3/21/27

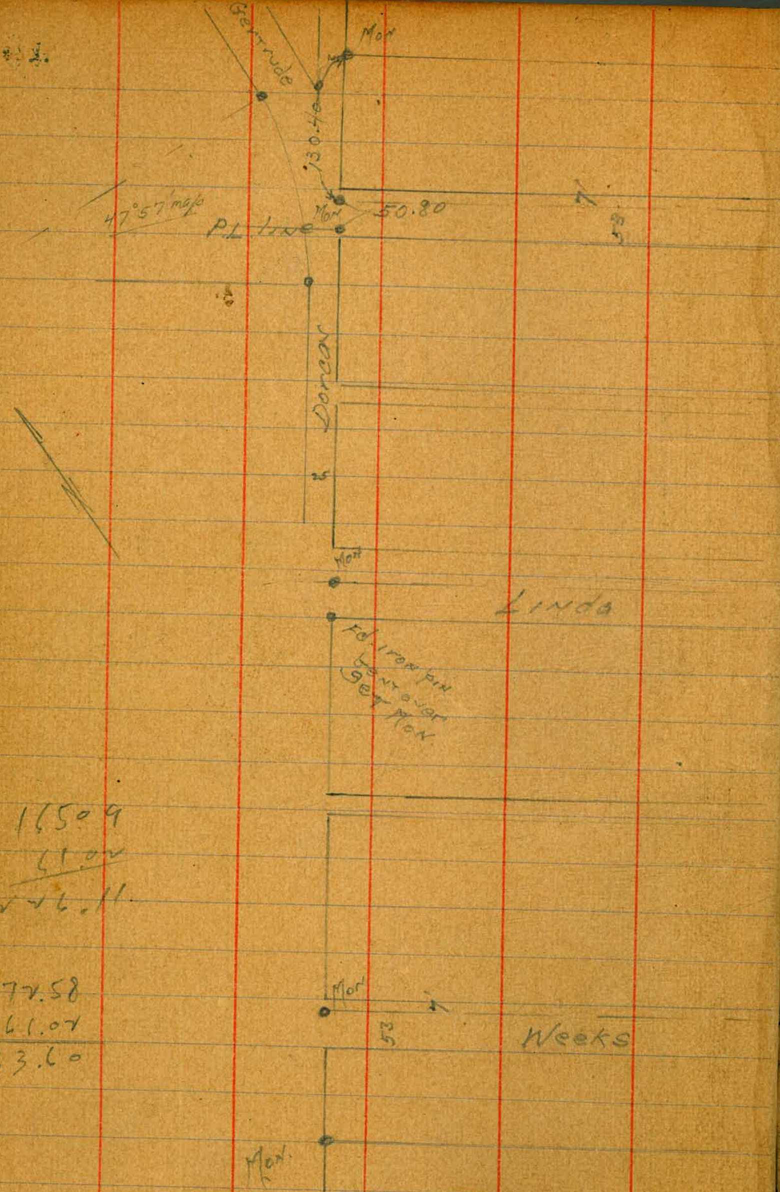


Blvd. Hts. Ties

Ref = See FB 2387 62, 63, 64

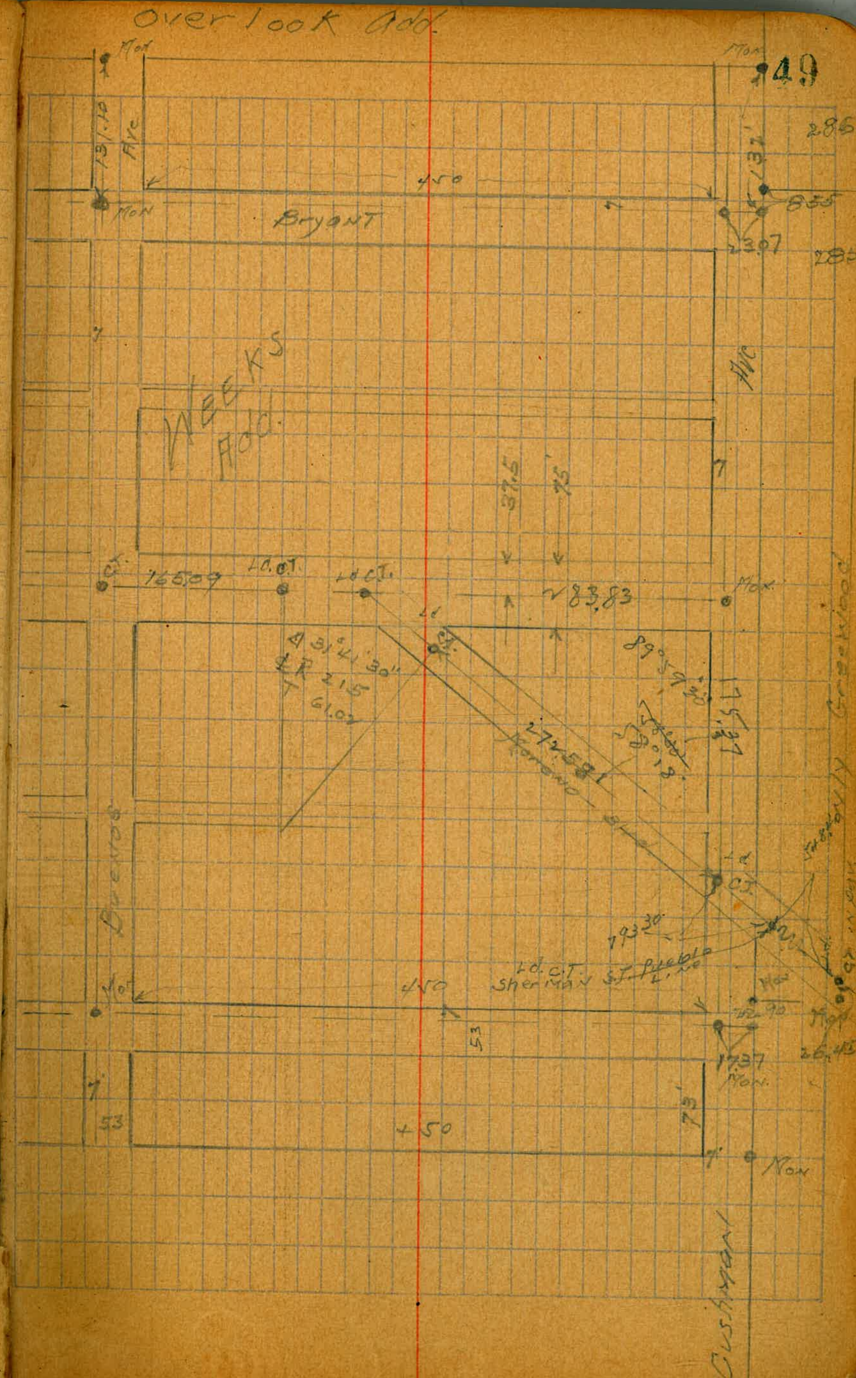


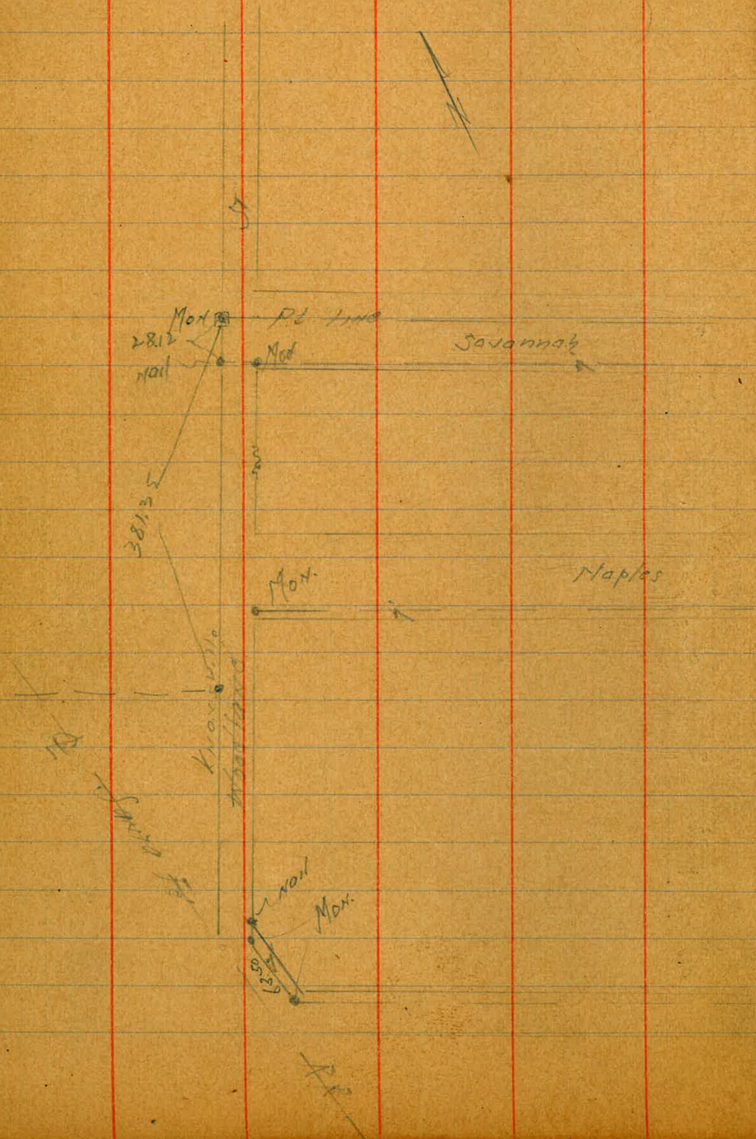


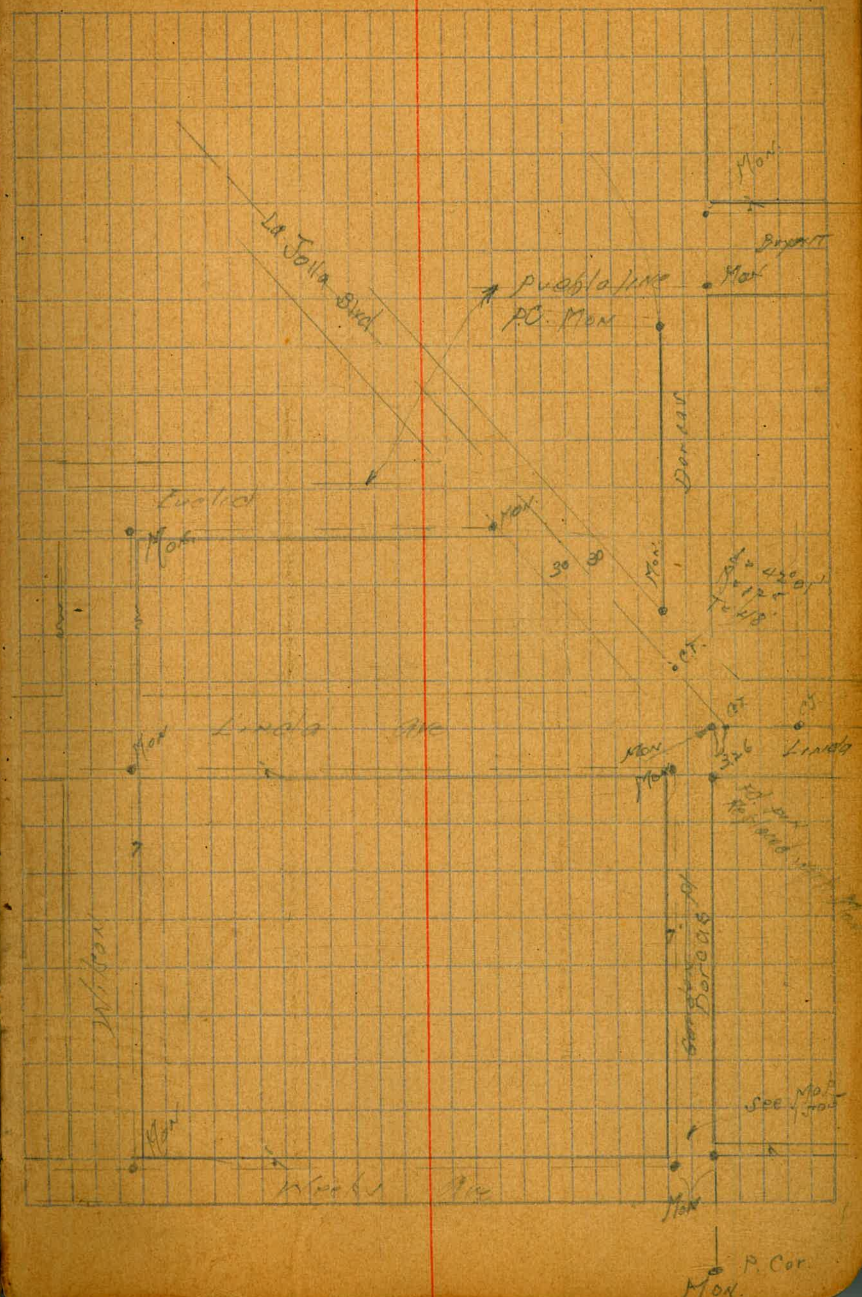


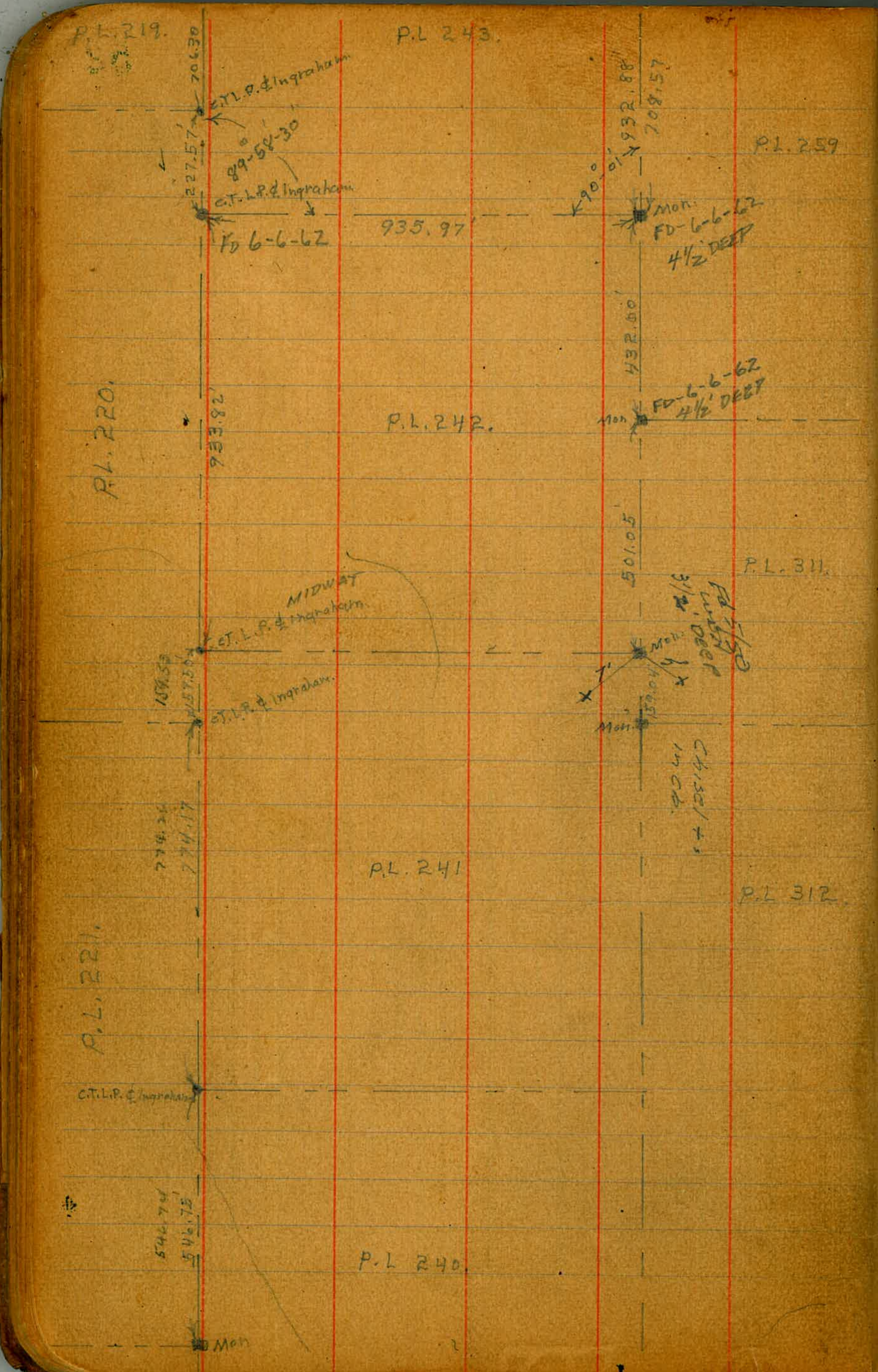
16509
6102
226.11

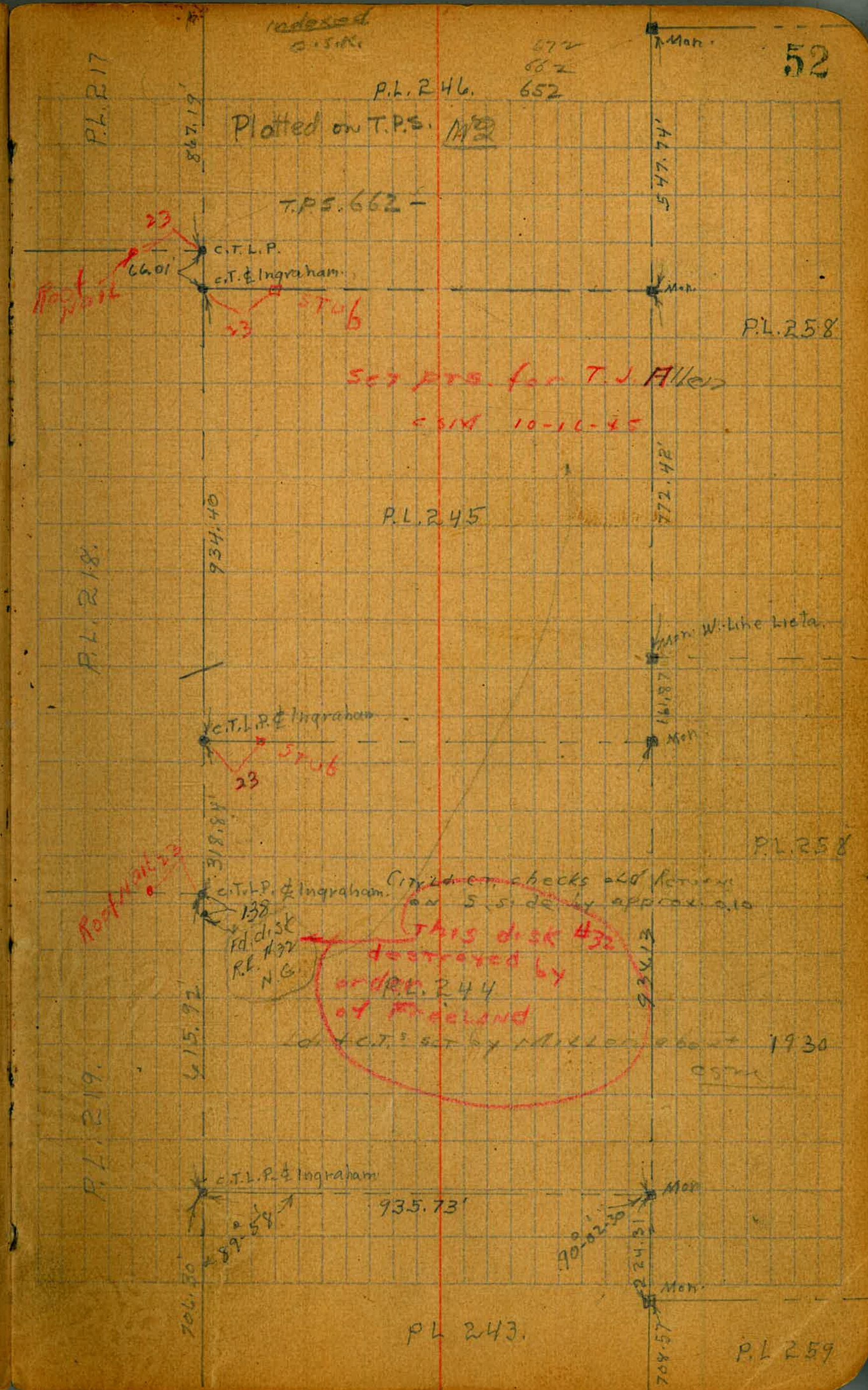
272.58
61.02
333.60




Mon
P.L. line
Savannah
Mon
Nail
Mon.
Naples
Mon.

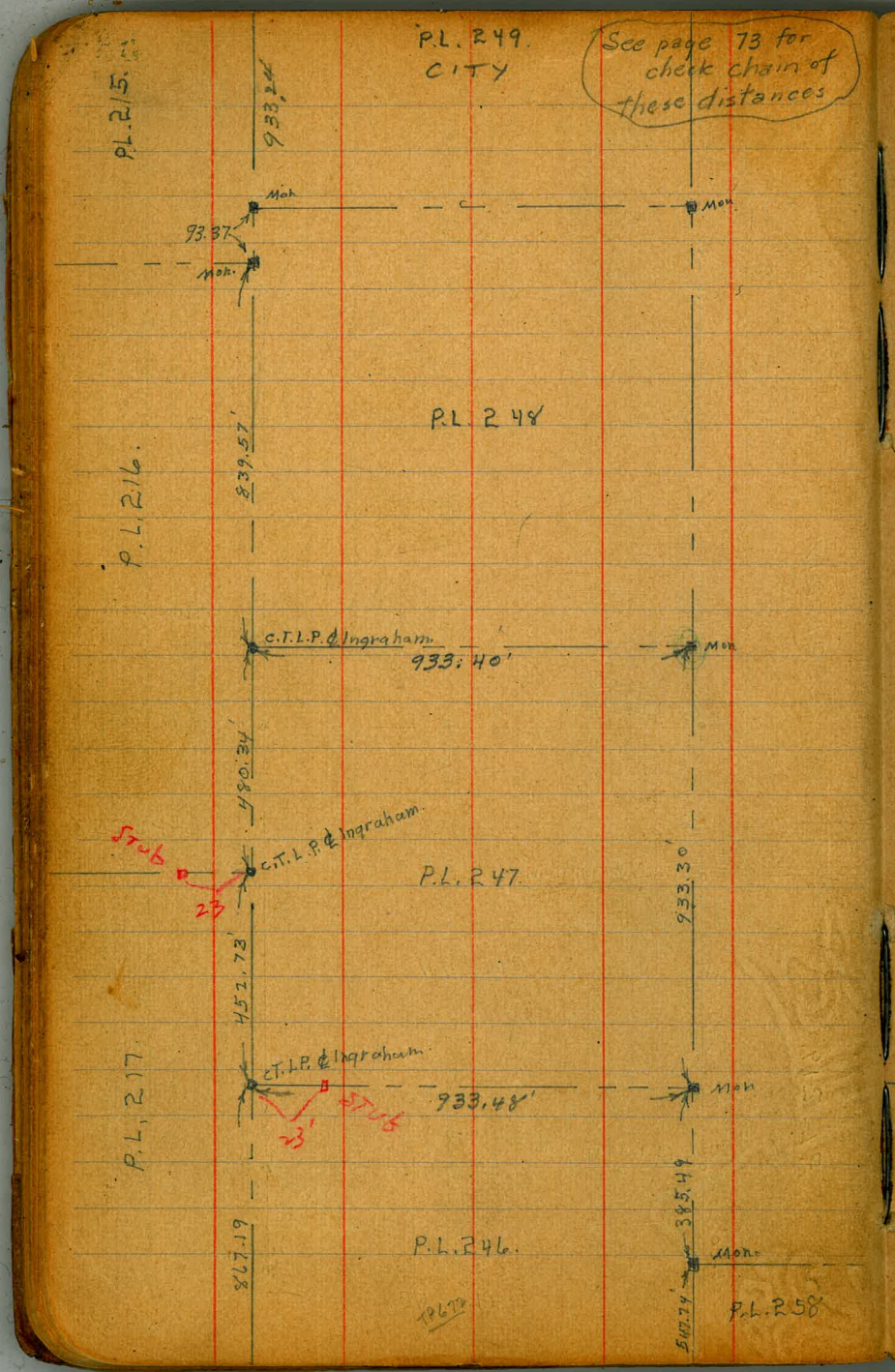

La Jolla Blvd
Pueblo line
P.C. Mon
Mon
Bryant
Euclid
Mon
Mon
Linda Ave
Linda
See Mon. Note
Mon
P. Cor.
Mon.

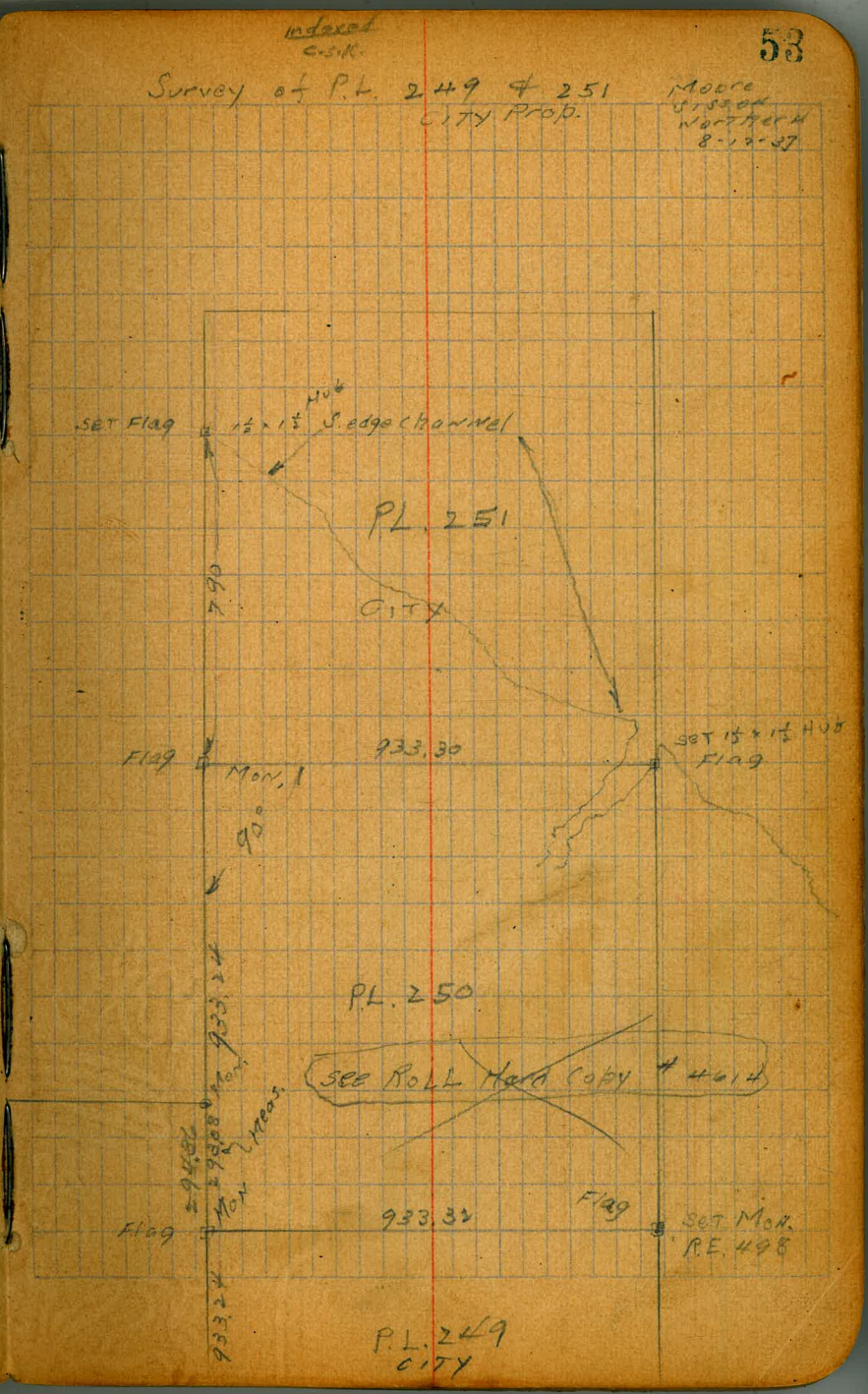

P.L. 219.
706.30
C.T.L.P. & Ingraham
227.57
89°-58'-30"
C.T.L.P. & Ingraham
Fd 6-6-62
P.L. 243.
935.97'
932.88'
708.57
90°-01'
Mon.
FD-6-6-62
4½' DEEP
P.L. 259
432.00
P.L. 220.
933.82'
P.L. 242.
Mon.
FD-6-6-62
4½' DEEP
501.05
P.L. 311.
MIDWAY
C.T.L.P. & Ingraham
C.T.L.P. & Ingraham
Mon.
Mon.
P.L. 241
P.L. 312.
774.17
P.L. 221.
C.T.L.P. & Ingraham
546.75
P.L. 240.
Mon.


Indexed
P.L. 217
P.L. 246.
672
682
652
Mon.
Plotted on T.P.S. No.
847.17'
547.74'
T.P.S. 662 -
23
C.T.L.P.
64.01'
C.T. & Ingraham
Roof Nail
23
Stub
Mon.
P.L. 258
Set pts. for T.J. Allen
10-16-45
772.42'
P.L. 245
934.40
P.L. 218.
Mon. W. Like Lieta
C.T.L.P. & Ingraham
Stub
23
161.87
Mon.
P.L. 258
318.88'
Roof Nail 23
C.T.L.P. & Ingraham.
138
Fd. disk R.E. #32 N.G.
This disk #32 destroyed by order P.L. 244 of Freeland
934.13
1930
615.92
P.L. 219.
C.T.L.P. & Ingraham
935.73'
89°-58'
Mon.
90°-02'-30"
224.31
Mon.
706.30
P.L. 243.
708.57
P.L. 259

Indexed C.S.K.

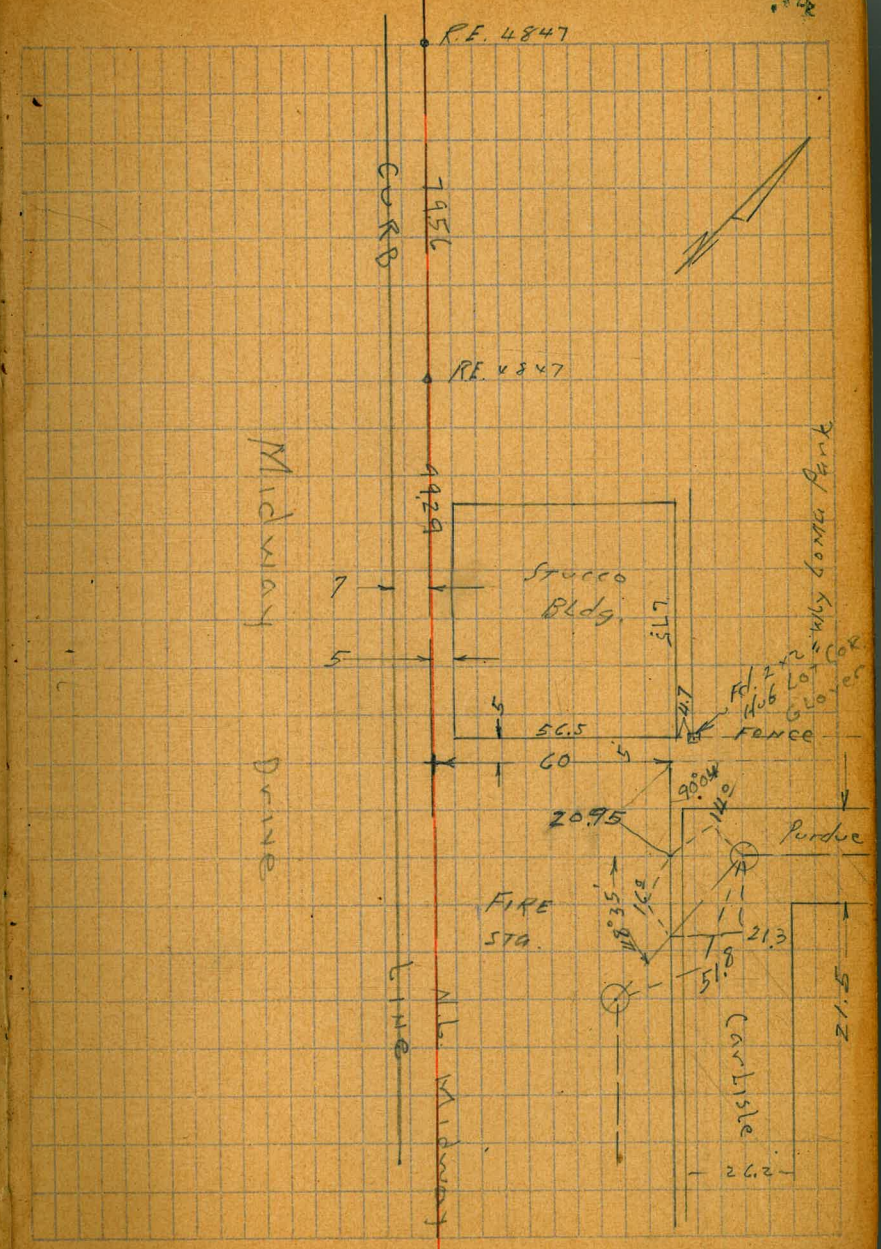
Survey of P.L. 249 & 251 City Prop. Moore Surveyor Northern 8-12-27





Location of Sewer
on Loma Park Trailer Project
P.L. 242'

Moore
Bagg
Sheaman
Olson
6-15-49

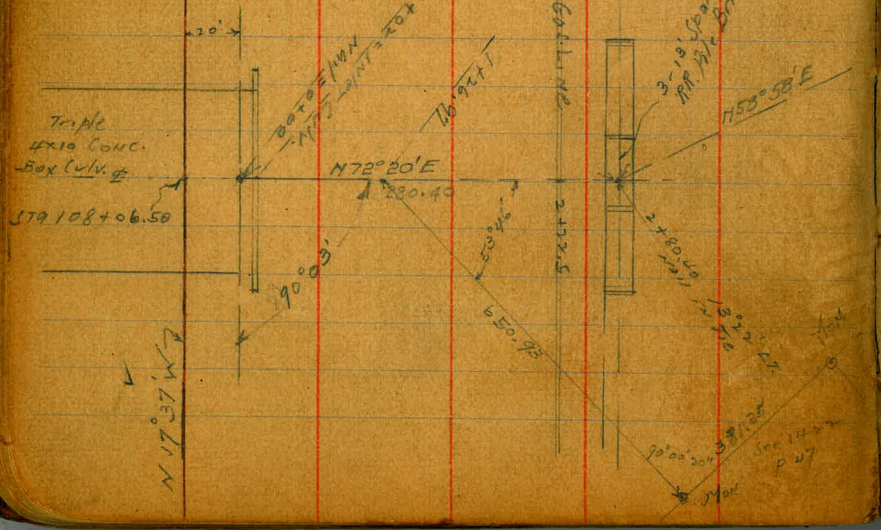


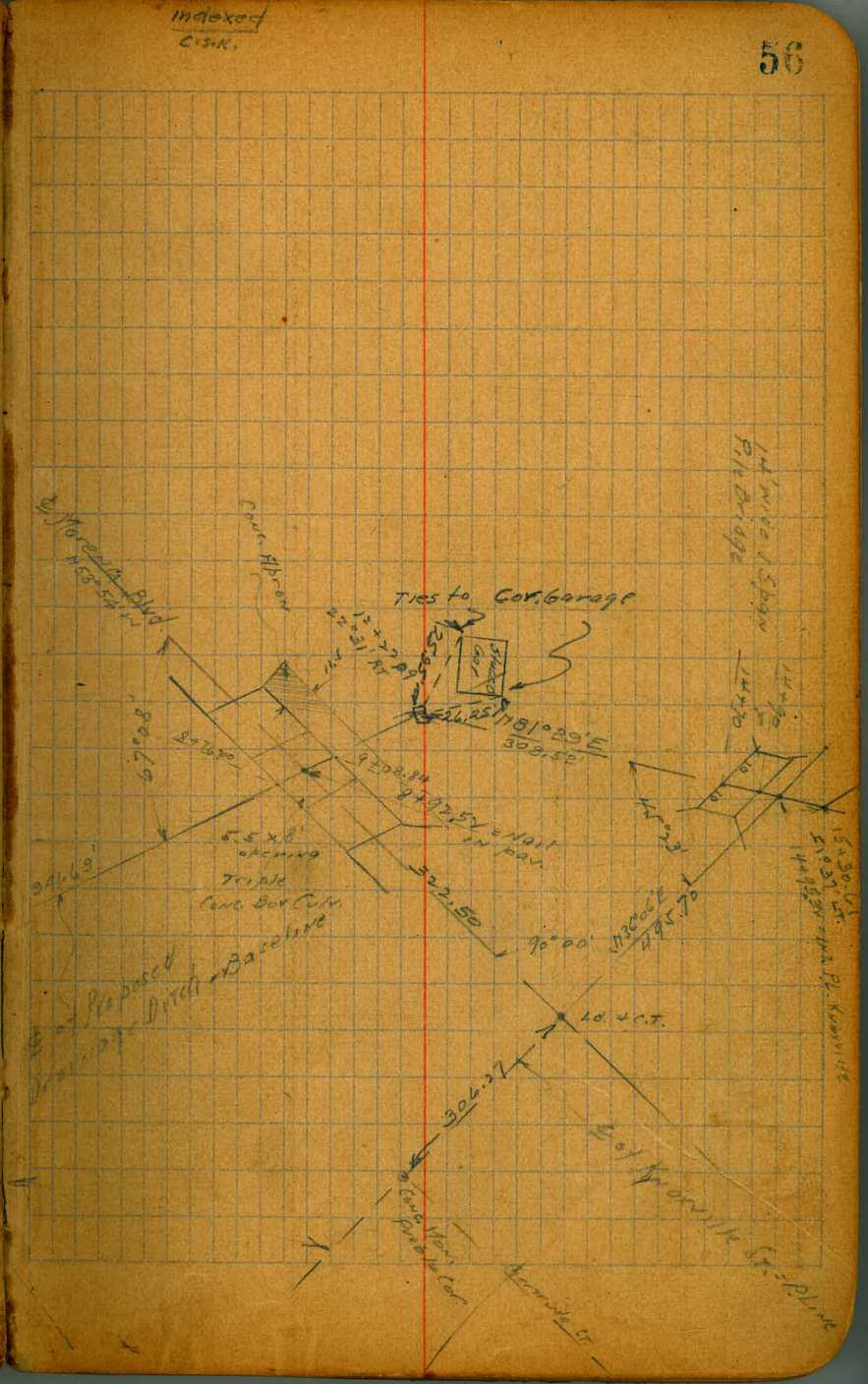
Indexed
C.S.H.

56

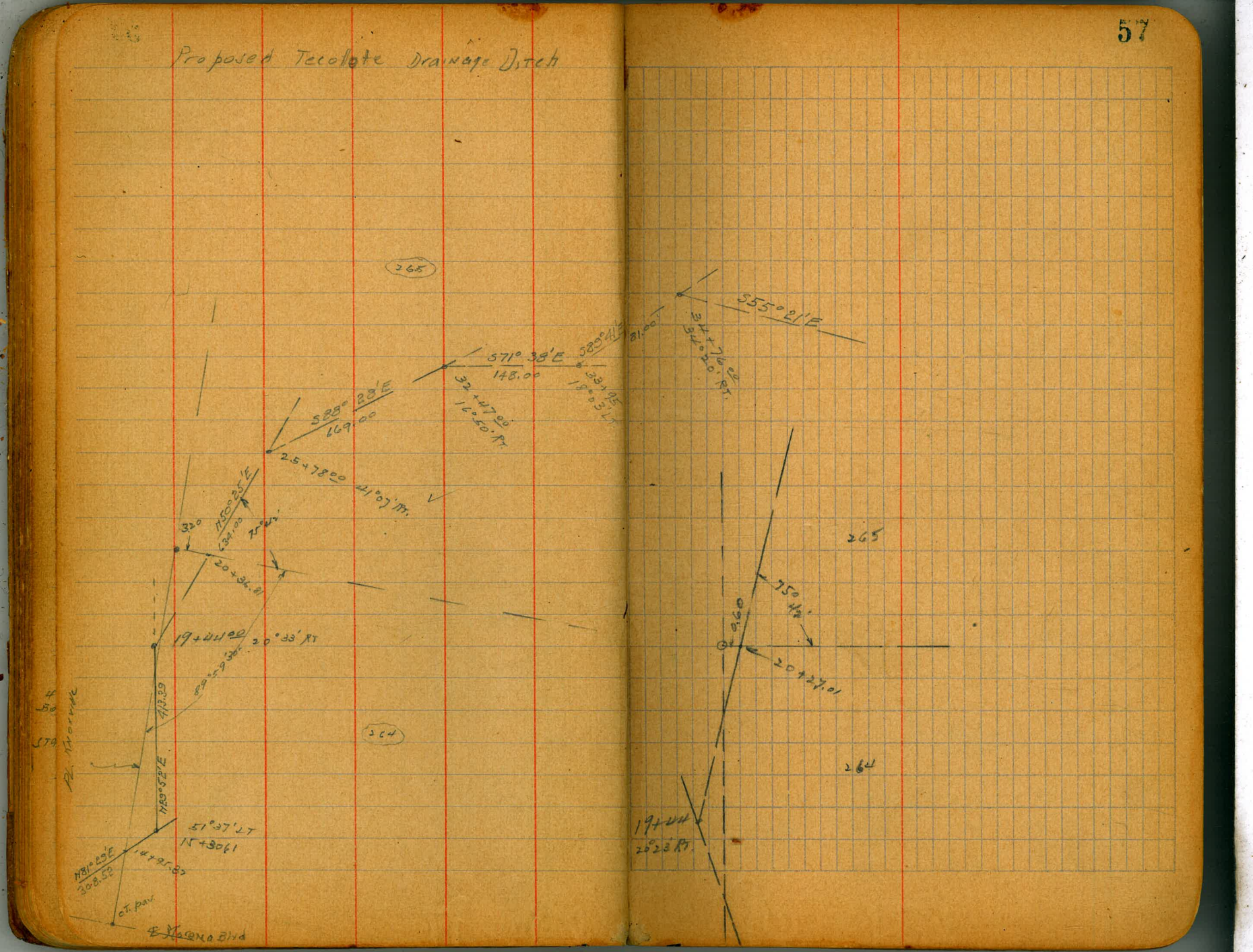
Survey of Proposed Drainage Ditch
in Tecolote Valley
beg. at 108+06.5 Pacific Highway
NEly up stream.

Moore
6-5-36





Proposed Tecolote Drainage Ditch



Levels Tecolote Drainage Ditch

← Baseline = ℄ of Proposed Drainage Ditch

+25					
1					
+70					
0+50					
0+15					
0+08					
0+02 inlet Culv at Pac.					
T.P.	4.74	10.38	3.48	5.64	
T.P.	4.97	9.18	2.49	4.15	
150' Rt of 172+60 Top of rail R.R. Prop. Cor.	6.84	6.64		-0.20	BM #6

+25: 3.4 9.0/20 · 3.7 6.7 · 4.2 6.2/18 · 5.2 5.2/20 · 0.3 10.1/25 · 0.9 9.5/34 · 4.0 6.2/38

1: 3.1 7.3/20 · 2.2 8.2 · 2.2 8.4/13 · 0.4 10.0/25 Ex. ditch · 0.4 10.0/31 · 3.7 6.7/34

+70: 2.4 8.0/20 · 0.4 10.0 · 1.8 8.6/15 · 3.9 6.5/20

0+50: 2.0 8.5/20 · 0.3 10.1 · 2.0 8.4/20

0+15: 2.4 8.0/20 · 1.0 9.4/15 · 0.4 10.0 · 1.4 9.0/15 · 2.8 7.6/20

0+08: 6.03 4.35/22.5 Headwall · 0.38 10.00/16 Ft. · 0.38 10.00 Ft · 0.38 10.0/16 Ft · 6.03 4.35/22.5 headwall

0+02: 6.03 4.35 Top headwall

10.38

Station	Note							
+50		5.8/4.4/30	2.4/8.0/20	1.1/9.3/10 Ex	5.3/5.1/8	5.2/5.2	5.0/5.4/20	
		6.4/4.0/20	6.4/4.8/15	0.7/9.7/8	2.6/7.8	4.3/6.1/5	5.7/4.7/20	
2+80.40	= ℄ 13°22' Lt. Sect. taken on spilt. 3 span pile RR bridge	6.79/3.59/21 rail	3.3/7.1/21 gr.	0.6/9.8 gr.	4.51/5.87 bot. stringer	6.81/3.57 top rail	3.4/7.0/21 gr.	6.84/3.54/21 rail
+50		5.2/5.2/20	4.7/5.7/7	1.2/9.2/3	0.7/9.5	0.9/9.5/8	4.5/5.9/15	6.2/4.2/20
+22.5	16" gas line	5.0/5.4/20	4.4/6.0/4	0.98/9.40 top gas line	1.07/9.31/8	4.3/6.1/12	4.3/6.1/20	
		4.3/6.1/20	5.0/5.4/6	1.0/9.4	1.1/9.3/17 Ex. D.	4.3/6.1/18		
+90		5.1/5.3/20	5.2/5.2	0.9/9.5/3	0.7/9.7/18 Ex. D	4.2/6.2/20		
1+50		3.4/7.0/20	4.6/5.8	3.7/6.7/11	0.6/9.8/14	0.8/9.6/25	4.7/5.7/30 Ex. ditch	

10.38

10.38

7

+50

6

+50

T.P. 8.79 14.60 4.57 5.81

5

+50

4

10.38

6.4 | 6.5 | 4.2 | 4.9 | 6.6 | 6.6

8.0 / 20 | 8.1 / 11 | 10.2 / 8 | 10.4 / 15 x D. | 8.0 / 6 | 8.0 / 20

7.0 | 7.0 | 2.2 | 3.9 | 5.8 | 5.9 | 6.1

7.6 / 20 | 7.6 / 12 | 12 / 14 | 10.7 / 6 | 8.8 / 2 | 8.7 | 8.4 / 20

5.5 | 1.2 | 4.2 | 5.7 | 5.8 | 5.2

9.1 / 25 | 10.4 / 20 | 14 / 6 x | 8.9 / 4 | 8.8 | 9.4 x 0

5.7 | 2.0 | 3.0 | 5.2 | 5.2 | 5.0

8.9 / 30 | 12.6 / 25 | 11.6 / 12 | 9.0 / 10 | 9.4 | 9.6 / 30

14.60

5.8 | 2.1 | 2.3 | 5.3 | 4.7 | 4.7

7.6 / 30 | 8.3 / 26 | 8.1 / 16 | 10.1 / 15 | 5.7 | 5.7 / 20

4.9 | 2.9 | 2.3 | 5.2 | 4.8 | 4.7

5.5 / 30 | 7.5 / 25 | 8.1 / 16 | 7.2 / 12 | 5.6 | 5.7 / 20

2.9 | 1.7 | 2.9 | 5.0 | 4.9 | 4.5

7.4 / 30 | 9.7 / 24 | 7.5 / 14 | 7.4 / 10 | 5.5 | 5.9 / 20

10.38

+50

9 + 20.3 = edge Conc. Apron

Set B.P. B.M. Top of Conc. Box inlet Headwall of Culv. 4.56 1004

9+08.84 inlet Culv. parallel with Blvd

5.5' x 8' triple Conc. Box Culv.

+76.4 outlet Culv. Sect. taken parallel with Moreno Blvd.

+50

8

7+50

14.60

6.8 / 7.8 / 20 — 6.8 / 7.8 / 12 — 5.3 / 9.3 / 9 — 4.9 / 9.7 — 5.2 / 9.4 / 4 — 6.5 / 8.1 / 8 — 6.6 / 8.0 / 20

7.1 / 7.5 / 20 gr. — 5.4 / 9.2 / 15 gr. — 3.59 / 11.01 = F.L. 9.7 = gr. — 5.6 / 9.0 / 18 gr. — 6.4 / 8.2 / 20 gr.

14.60 / 11.01 / 3.59

14.60 / 11.13 / 3.47

14.60 / 11.28 / 3.32

3.47 / 11.13 = F.L. inlet

Head wall 9.96 / 4.64 / 20 — 8.2 / 6.4 / 20 — 5.0 / 9.6 gr. / 15 — 4.8 / 9.8 = gr. / 11.28 = F.L. 3.32 — 6.2 / 8.4 / 15 = gr. — 8.8 / 7.8 / 25 — 10.0 / 4.60 / 25 Head wall

6.8 / 7.8 / 20 — 4.5 / 10.1 / 8 — 4.9 / 9.7 — 5.6 / 9.0 / 10 — 6.8 / 7.8 / 20

6.1 / 8.5 / 20 — 7.1 / 7.5 / 2 — 5.1 / 9.5 — 4.2 / 10.4 / 12 — 6.7 / 7.9 / 16 — 6.7 / 7.9 / 20

6.9 / 7.7 / 20 — 6.4 / 8.2 / 6 — 5.1 / 9.5 / 4.3 — 4.5 / 10.1 — 4.0 / 10.4 / 9 — 7.0 / 7.4 / 12 — 7.0 / 7.4 / 20

14.60

+50

+22.09 Δ 22° 01' Rt Spot on split

12

T.P. 12.4x 2.00x 7.02 7.58

+50

11

+50

10

14.60

8.7 / 11.2 / 20
6.0 / 12.0 / 12
7.2 / 12.8
8.3 / 11.7 / 20

8.3 / 11.7 / 20
8.3 / 11.7 / 8
6.2 / 13.8 / 12
6.0 / 14.0
7.2 / 12.8 / 12
8.3 / 11.7 / 20

7.5 / 12.4 / 20
8.0 / 12.0 / 8
6.9 / 13.1
6.0 / 14.0 / 5
7.8 / 12.2 / 9
7.6 / 12.4 / 13
8.2 / 11.8 / 5

20.02

7.1 / 12.5 / 20
7.7 / 6.9
6.4 / 12.8 / 12
5.9 / 13.7 / 21
6.3 / 13.7 / 34
8.2 / 11.8 / 20

7.2 / 12.8 / 20
7.7 / 6.9
7.2 / 7.0 / 10
5.6 / 9.0 / 12
6.0 / 8.6 / 20

7.0 / 7.6 / 20
7.5 / 12.1 / 5
6.7 / 7.9
5.6 / 9.0 / 3
5.6 / 9.0 / 13
7.2 / 12.8 / 20

7.3 / 12.7 / 20
6.8 / 7.8 / 12
5.4 / 9.2 / 4
5.3 / 9.3
5.5 / 9.1 / 4
6.5 / 8.1 / 8
7.0 / 7.6 / 12
7.8 / 6.8 / 20

14.60

+50

15+30.61 = Δ 51° 37' LT   Taken on Spit

+90

+80   Top Bridge Floor   5.0

+70   Wly Line pile bridge

+50

14

+50

13

20.02

11.0 / 9.0 / 20	8.6 / 11.4 / 16	8.6 / 11.4 / 10	7.3 / 12.7 / 8	8.2 / 11.8	8.5 / 11.5 / 13	10.0 / 10.0 / 20	
	12.0 / 8.0 / 26	9.0 / 11.0 / 20	8.2 / 11.8 / 13	7.5 / 12.5	8.7 / 11.3 / 6	9.4 / 10.6 / 16	11.0 / 9.0 / 20
	Top wing	14.8 / 5.2 / 11	8.0 / 12.0 / 10	7.2 / 12.8	6.0 / 14.0 / 10	14.6 / 5.4 / 11	Top wing
	Top wing wall	15.0 / 5.0	7.0 / 13.0 / 10	6.2 / 13.8	8.3 / 11.7 / 10	15.0 / 5.0 / 11 Top wing	13.7 / 6.3 / 20
	9.2 / 10.8 / 23	7.1 / 12.9 / 17	7.5 / 12.5 / 5	8.4 / 11.6	9.8 / 10.2 / 20		
7.6 / 12.4 / 25	6.7 / 13.3 / 20	6.7 / 13.3 / 12	8.5 / 11.5 / 10	9.3 / 10.7	9.3 / 10.7 / 20		
8.6 / 11.4 / 40	6.5 / 13.5 / 25	6.5 / 13.5 / 25	8.6 / 11.4 / 20	8.8 / 11.2	8.6 / 11.4 / 20		
8.2 / 11.8 / 30	6.1 / 13.9 / 27	6.6 / 13.4 / 20	8.0 / 12.0 / 13	8.4 / 11.6	8.4 / 11.6 / 20		

20.02
℄

19				
+50				
T.P.	10.40	18.7x	11.68	8.34
18				
+50				
17				
+50				
14				
		2002		

12.3 / 6.4 / 60 — 9.3 / 9.4 / 20 — 8.8 / 9.9 / 5 — 10.5 / 8.2 — 11.5 / 7.2 / 20

11.6 / 7.1 / 20 — 11.6 / 7.1 / 12 — 9.3 / 9.4 — 8.4 / 10.3 / 5 — 8.5 / 10.2 / 9 — 11.0 / 7.7 / 20

18.74

11.7 / 8.3 / 20 — 11.5 / 8.5 / 9 — 7.0 / 13.0 / 3 — 7.0 / 13.0 — 6.8 / 13.2 / 5 — 9.2 / 10.8 / 7 — 11.1 / 8.9 / 20

10.8 / 9.4 / 20 — 9.0 / 11.0 / 9 — 7.9 / 12.1 — 8.6 / 11.4 / 5 — 11.4 / 8.6 / 20

10.4 / 9.6 / 20 — 8.3 / 11.7 / 15 — 7.9 / 12.1 / 9 — 9.7 / 10.3 — 10.7 / 9.3 / 530 — 10.8 / 9.2 / 20

9.2 / 10.8 / 20 — 7.4 / 12.6 / 15 — 7.0 / 13.0 / 10 — 8.9 / 11.1 — 10.7 / 9.3 / 20

11.5 / 8.5 / 22 — 11.0 / 9.0 / 20 — 7.5 / 12.5 / 10 — 7.7 / 12.3 — 9.0 / 11.0 / 4 — 10.0 / 10.0 / 20

Ely edge road

20.02

23

+50

22 in creek from here N'ly

+50

21

+50

20

19+44.2 Δ 20°33' Rt

18.74

Station	Readings
23	2/5 4.1 14.6 · 4.6 14.1 · 2/5 4.6 14.1
+50	4.9/20 13.8 · 4.4 14.3 · 4.8/70 13.9
22	5.3/20 13.4 · 4.4 14.3 creek · 4.9/20 13.8
+50	creek 7.4/30 11.3 · 5.4/20 13.3 · 4.4 14.3 · 4.4/0 14.3
21	creek 8.8/50 9.9 · 4.7/30 14.0 · 4.8 13.9 · 4.9/20 13.8
+50	creek 9.0/60 9.7 · 6.0/20 12.7 · 5.6 13.1 · 5.0/20 13.7
20	creek 9.2/80 9.5 · 6.0/20 12.7 · 6.1 12.6 · 6.1/20 12.6
19+44.2	8.4/50 10.3 · 9.5/44 9.2 · 9.5/38 9.2 creek · 8.1/35 10.6 · 7.4/20 11.3 · 6.97 11.77 · 6.4/0 12.3

18.74

24					
+78 Δ 21°07' Rt			taken on split		
+50					
25					
+50					
24					
T.P.	6.11	20.99	3.86	14.88	
23+50					
		18.74			

17.0 16.0 15.6 15.0 17.0

17.0 15.6 15.3 17.0

17.0 16.2 15.3 15.3 16.0 16.4

16.0 15.6 15.3 15.1 16.2 16.6

16.8 15.3 15.2 15.5 15.2

15.8 14.9 14.8 15.3 15.2

20.99

15.0 14.7 14.7

18.74

+50

29

+50

T.P. 4.73 21.91 3.81 17.18

28 Approx. line of Mrs Fish property
she says no plows, scrapers etc will be
allowed to work thru her land.

+50 However, creek is large enough here N/y
only clearance of brush & willows is
necessary.

27

20+50

20.99

High water line

21.91

20.99

32 + 47 Δ 16°50'RT O.K. above this pt.
except for CAT Talk etc.

32 Hub POT

+50

TP 458 22.88 3.41 18.30

31

+50

30

21.91

Survey P.L. 277

9-13-51

Sommermeyer
Begg
R. Sisson
Ottman

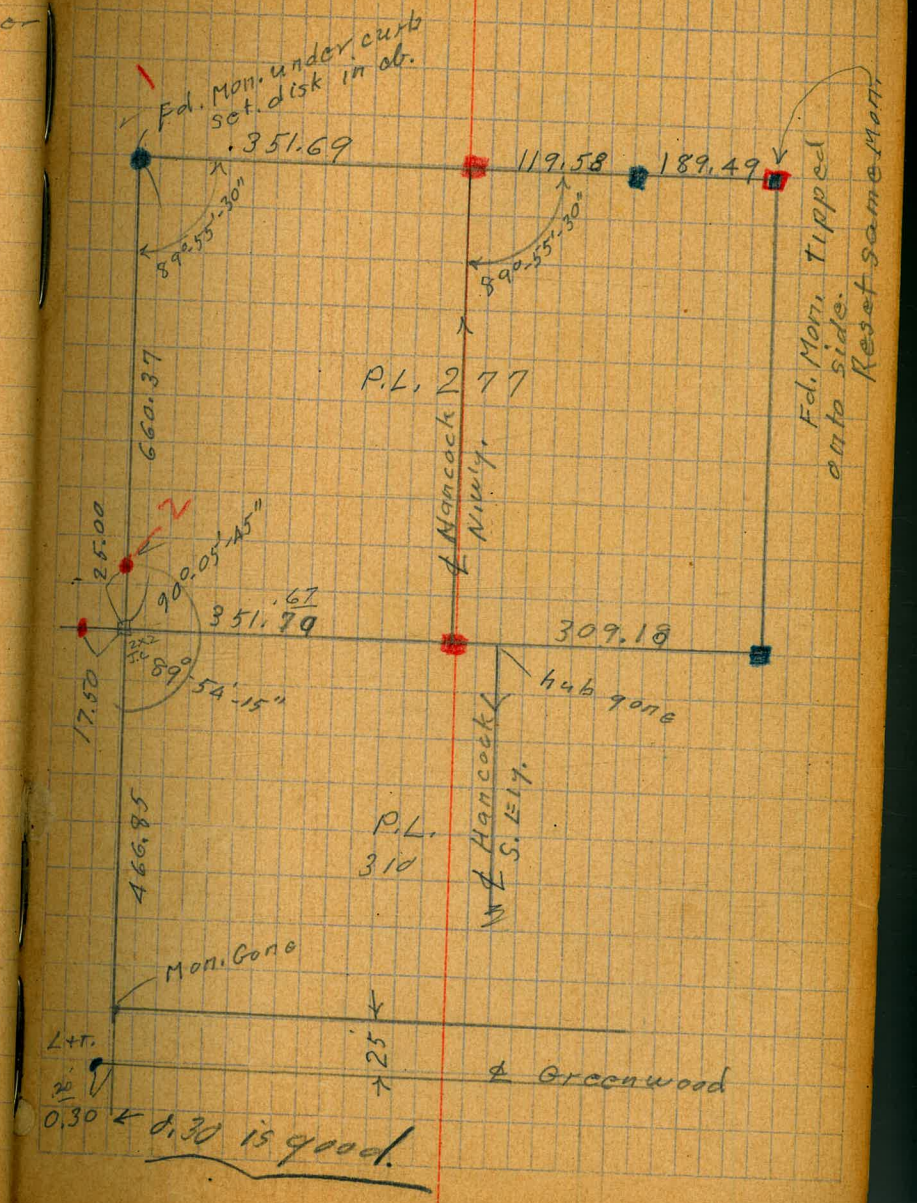
Ref. F.B. 1587-24
Map 427
" 5.78
T.P. sheets { 546 / 547

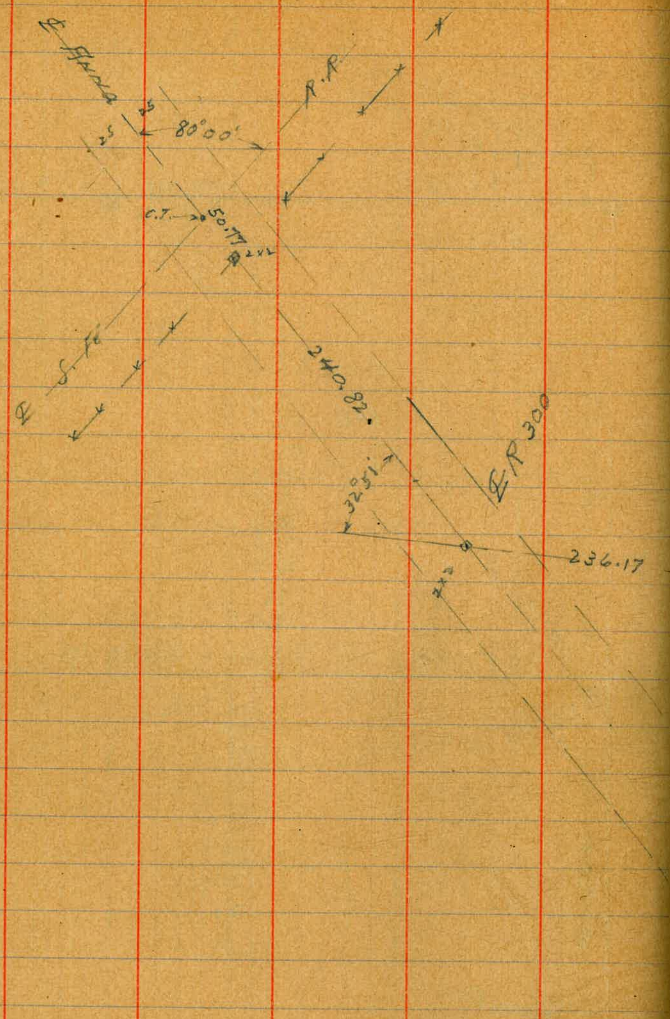
See page 29

All distances chained & apportioned
All angles rolled 4 times

■ = set Conc. Mon.
● = set disk + lead in conc.
■ = Fd. Conc. Mon.
● = Fd. L+T. in Conc.

Copied from FB 2146-2

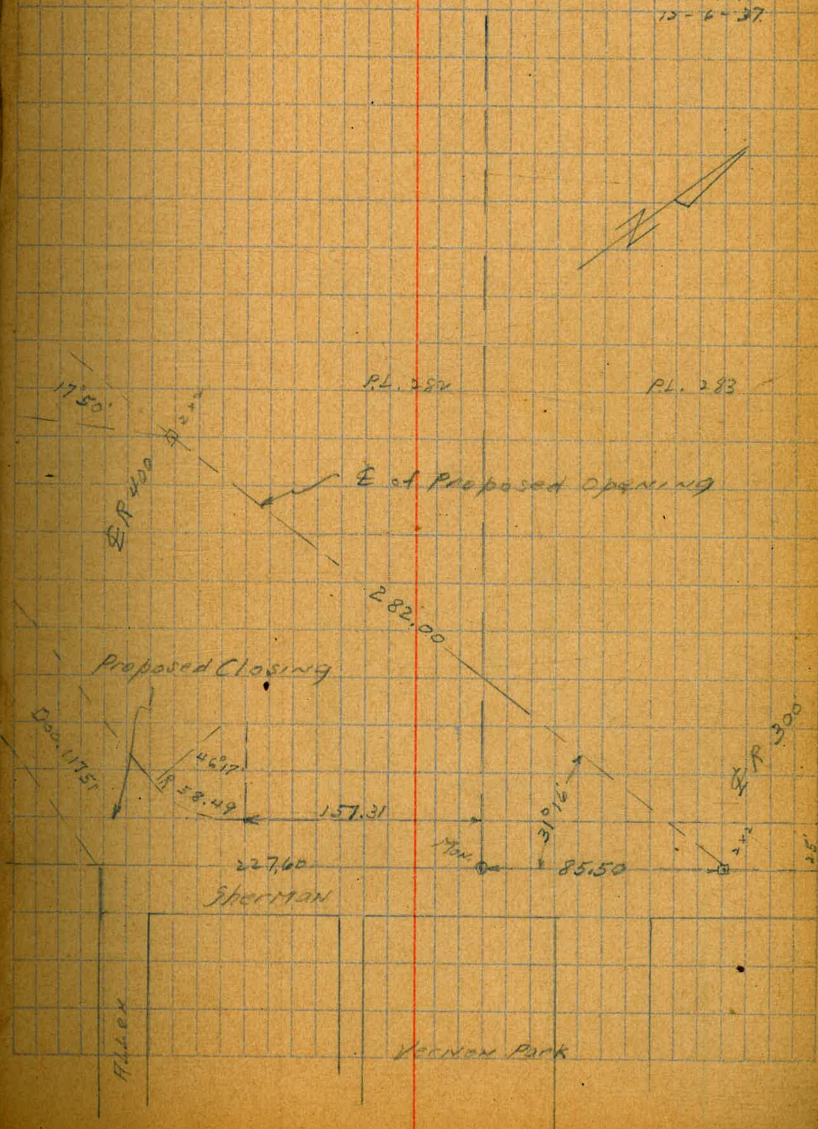




indexed
C.S.K.

Align. for Proposed Opening of
Anna St. bet. Sherman & S.Fe R.R.

Moore
Sisson
Northern
12-6-37.

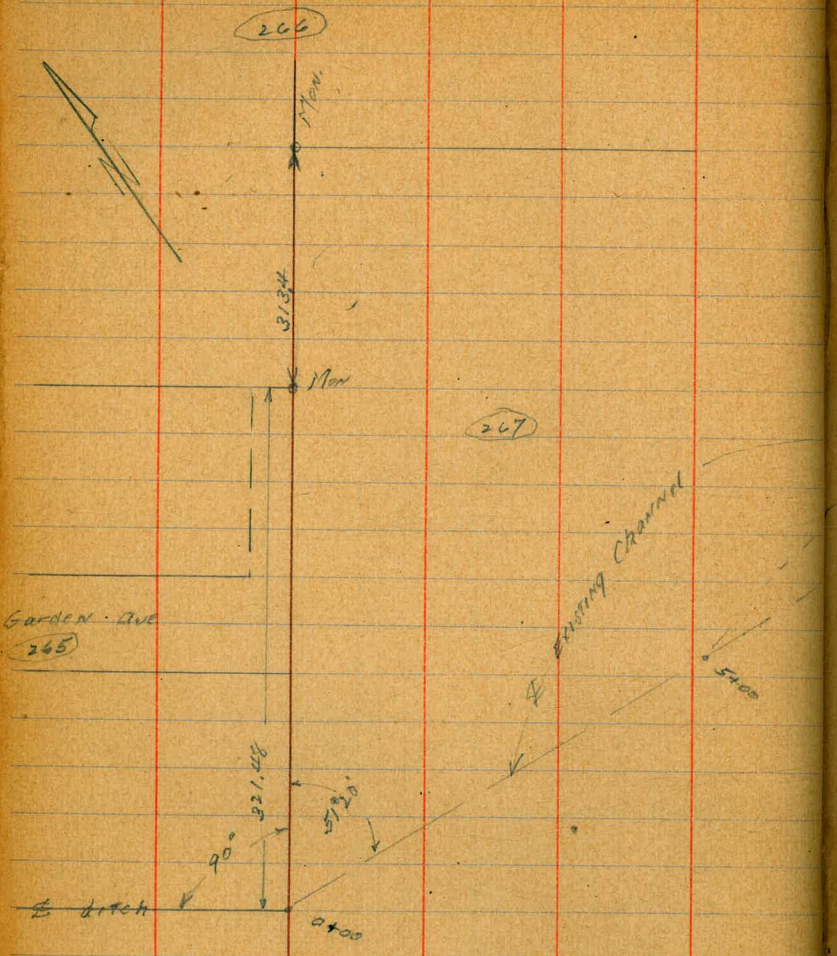


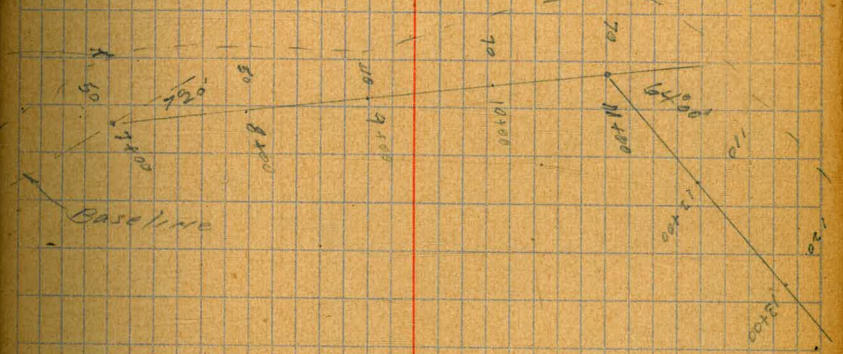
Indexed
C.S.K.

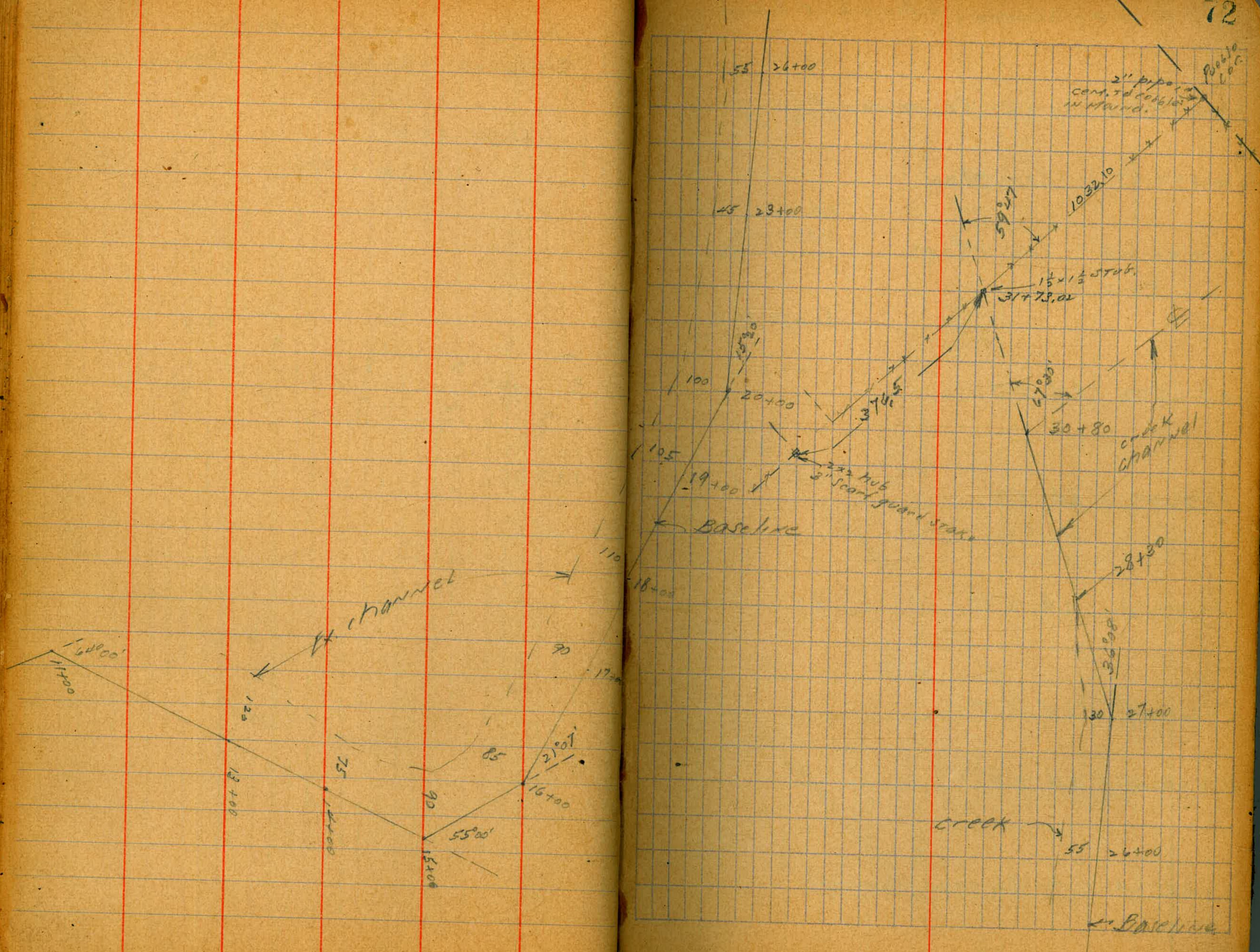
71

Survey of Tecolote Creek Thru
Pueblo Lots 267 - 290 Moore 1-18-38.

offsets at 90°
" " Δ = Split






55
26+00
45
23+00
2" pipe
cem. td cobbles
in Hand.
Pueblo
Loc.
1032.10
59°47'
1½ x 1½ stub.
31+73.02
100
20+00
374.5
67°30'
30+80
105
2x2 hub
2" Scant guard stake
19+00
Baseline
creek
channel
110
18+00
28+30
90
17+00
30
27+00
channel
16+00
120
13+00
75
14+00
85
21°07'
16+00
90
55°00'
15+00
64°00'
11+00
creek
55
26+00
Baseline

± Causeway, check chain

33+58.80 2×4 Causeway P.I.

34+99.97 Con. Mon.

32+04.24 Con. Mon. (Moore Osborne 11-14-40.)

See p. 53

23+44.73 Ld. C.T.

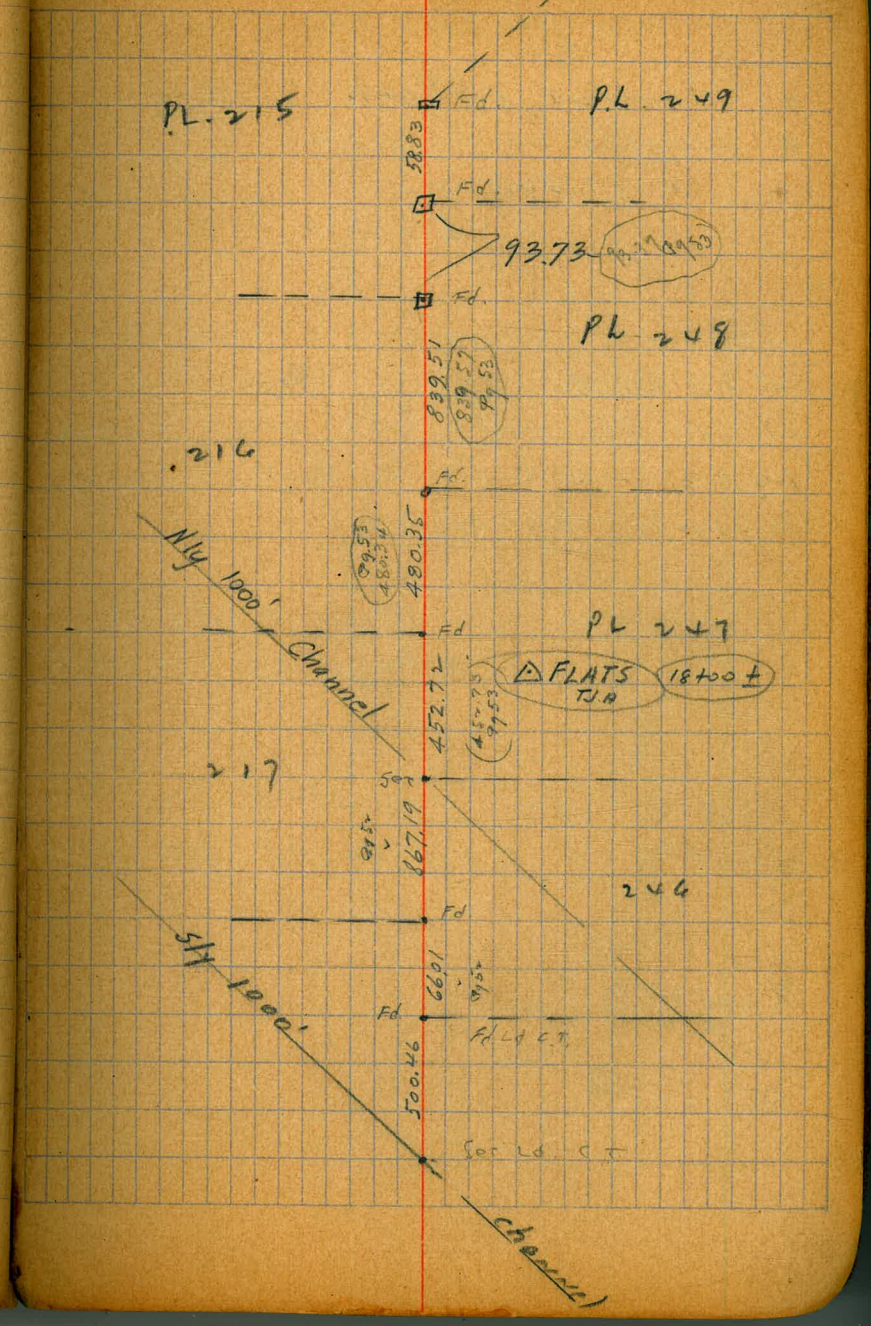
18+86.38 Ld. C.T.

14+33.66 Ld. C.T.

5+44.47 Ld. C.T.

5+00.46 Ld. C.T.

0+00 Ld. C.T. S½ 1000' channel



GERTRUDE St 10-24-52

Also - on page 48

C.H.S.
Begg
Oltman
Johns.

• denoted Fd. L+T.

■ denotes Fd Conc. Mon.

■ " Set " "

□ " " 1/2 + disk

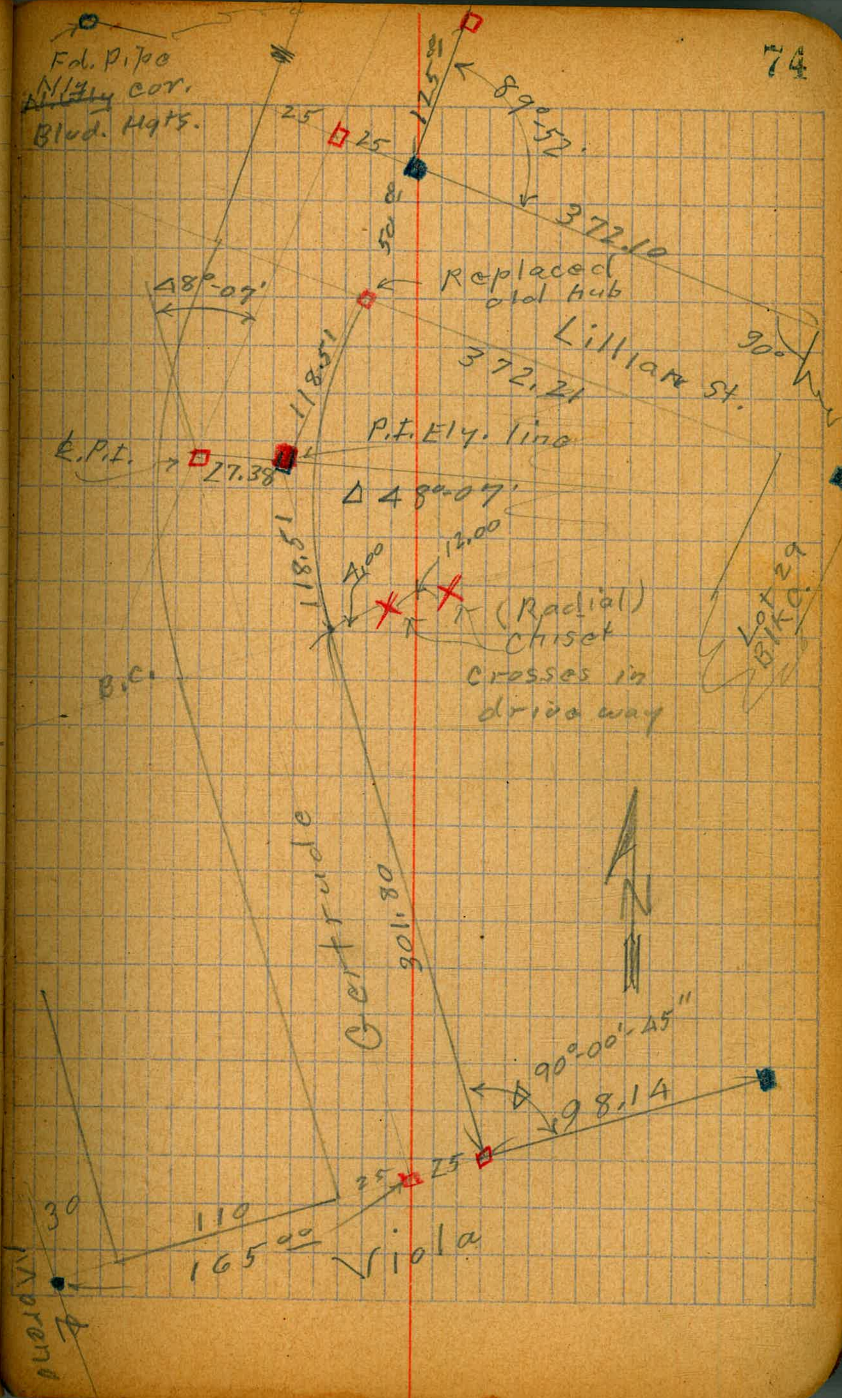
distances shown on Lillian St. Lot 29 Blk. C. are in error. Lot is 25' wide but map shows 16.88 west from E.C. This should be 15.88.

Ref. Map #1628
+ Page 48 this book

Gertrude reset from existing points as shown.

Ref = See FB 2387
63,64

TP Sheet 566



3/19/13

R 30-140
40-107

Time	Az.	V.
3 10	59°14' L	33°25'
3 18	57°42' L	32°12'

546.74
774.26
1.59.53
933.82
427.57

631
633
637
649
651
661
672
671
681
681
691
1233

KEITH'S RAILROAD CURVE TABLES.

Published by KEUFFEL & ESSER CO., New York.

HOW TO USE KEITH'S TABLES.

EXAMPLE.

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

Ext. in Tab. IV opposite 23° 20'=120.87
120.87÷12=10.07. Say a 10° Curve.

Tan. in Tab. IV opp. 23° 20'=1183.1
1183.1÷10=118.31.

Tab. V correction for A. 23° 20' for a 10° Cur.=0.16
118.31+0.16=118.47=corrected Tangent.

(If corrected Ext. is required find in same way)
Ang. 23° 20'=23.33°÷10=2.3333=L. C.

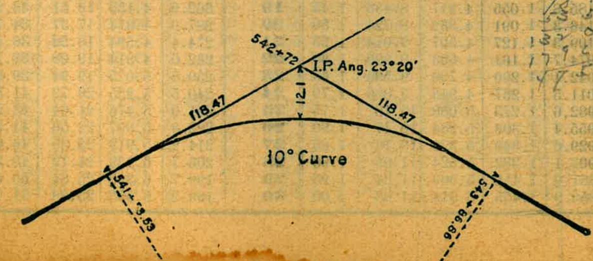
2° 19½'=def. for sta.	542	I. P.=sta.	542+72
4° 49½'= " " "	+50	Tan.=	1.18.47
7° 19½'= " " "	543	B. C.=sta.	541+53.53
9° 49½'= " " "	+50	L. C.=	2.33.33
11° 40'= " " "	543+ 86.86	E. C.=sta.	543+86.86

100—53.53=46.47×3'(def. for 1 ft. of 10° Cur.)=139.41'=
2° 19½"=def. for sta. 542.

Def. for 50 ft.=2° 30' for a 10° Curve.

Def. for 36.86 ft.=1° 50½' for a 10° Curve

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



41.76

2067

Natural Tangents

deg.	0′	10′	20′	30′	40′	50′	deg.	deg.	0′	10′	20′	30′	40′	50′	deg.
0	0000	0029	0058	0087	0116	0145	89	40	8391	8441	8491	8541	8591	8642	49
1	0175	0204	0233	0262	0291	0320	88	41	8693	8744	8796	8847	8899	8952	48
2	0349	0378	0407	0437	0466	0495	87	42	9004	9057	9110	9163	9217	9271	47
3	0524	0553	0582	0612	0641	0670	86	43	9325	9380	9435	9490	9545	9601	46
4	0699	0729	0758	0787	0816	0846	85	44	9657	9713	9770	9827	9884	9942	45
5	0875	0904	0934	0963	0992	1022	84	45	1.0000	1.0058	1.0117	1.0176	1.0235	1.0295	44
6	1051	1080	1110	1139	1169	1198	83	46	1.0355	1.0416	1.0477	1.0533	1.0599	1.0661	43
7	1228	1257	1287	1317	1346	1376	82	47	1.0724	1.0786	1.0850	1.0913	1.0977	1 1041	42
8	1405	1435	1405	1495	1524	1554	81	48	1.1106	1.1171	1.1237	1.1303	1.1369	1.1436	41
9	1584	1614	1644	1673	1703	1733	80	49	1.1504	1.1571	1.1640	1.1708	1.1778	1.1847	40
10	1763	1793	1823	1853	1883	1914	79	50	1.1918	1 1988	1.2059	1.2131	1.2203	1.2276	39
11	1944	1974	2004	2035	2065	2095	78	51	1.2349	1.2423	1.2497	1.2572	1.2647	1.2723	38
12	2126	2156	2186	2217	2247	2278	77	52	1.2799	1.2876	1.2954	1.3032	1.3111	1.3190	37
13	2309	2339	2370	2401	2432	2462	76	53	1.3270	1.3351	1.3452	1.3514	1.3597	1 3680	36
14	2493	2524	2555	2586	2617	2648	75	54	1.3764	1.3848	1.3934	1.4019	1.4106	1.4193	35
15	2679	2711	2742	2773	2805	2836	74	55	1.4281	1.4370	1.4460	1.4550	1.4641	1.4793	34
16	2867	2899	2931	2962	2994	3026	73	56	1.4826	1.4919	1.5013	1.5108	1.5204	1.5301	33
17	3057	3089	3121	3153	3185	3217	72	57	1.5399	1.5497	1.5597	1 5697	1 5798	1.5900	32
18	3249	3281	3314	3346	3378	3411	71	58	1.6003	1.6107	1.6212	1.6319	1.6426	1.6534	31
19	3443	3476	3508	3541	3574	3607	70	59	1.6643	1 6753	1.6864	1.6977	1.7090	1 7205	30
20	3640	3673	3706	3739	3772	3805	69	60	1.7321	1.7437	1.7556	1.7675	1.7797	1.7917	29
21	3839	3872	3906	3939	3973	4006	68	61	1.8040	1.8165	1.8291	1.8418	1.8546	1.8676	28
22	4040	4074	4108	4142	4176	4210	67	62	1.8807	1.8940	1.9074	1.9210	1.9347	1.9486	27
23	4245	4279	4314	4348	4383	4417	66	63	1.9626	1.9768	1.9912	2.0057	2.0204	2.0353	26
24	4452	4487	4522	4557	4592	4628	65	64	2.0503	2.0655	2.0809	2.0965	2.1123	2.1283	25
25	4663	4699	4734	4770	4806	4841	64	65	2 1445	2.1609	2.1775	2 1943	2.2113	2.2286	24
26	4877	4913	4950	4986	5022	5059	63	66	2.2460	2.2637	2.2817	2.2998	2.3183	2.3369	23
27	5095	5132	5169	5206	5243	5280	62	67	2.3559	2.3750	2.3945	2.4142	2.4342	2.4545	22
28	5317	5354	5392	5430	5467	5505	61	68	2.4751	2.4960	2.5172	2.5386	2.5605	2.5826	21
29	5543	5581	5619	5658	5696	5735	60	69	2.6051	2 6279	2.6511	2.6746	2.6985	2.7228	20
30	5774	5812	5851	5890	5930	5969	59	70	2.7475	2.7725	2 7980	2.8239	2.8502	2.8770	19
31	6009	6048	6088	6128	6168	6208	58	71	2.9042	2.9319	2 9600	2.9887	3.0178	3.0475	18
32	6249	6289	6330	6371	6412	6453	57	72	3.0777	3 1084	3.1397	3.1716	3.2041	3.2371	17
33	6494	6536	6577	6619	6661	6703	56	73	3.2709	3.3052	3.3402	3.3759	3.4124	3.4495	16
34	6745	6787	6830	6873	6916	6959	55	74	3.4874	3.5261	3 5656	3.6059	3.6470	3.6891	15
35	7002	7046	7089	7133	7177	7221	54	75	3.7321	3.7760	3.8208	3.8657	3.9136	3.9617	14
36	7265	7310	7355	7400	7445	7490	53	76	4.0108	4.0611	4.1126	4.1653	4.2193	4.2747	13
37	7536	7581	7627	7673	7720	7766	52	77	4.3315	4.3897	4.4494	4.5107	4.5736	4.6382	12
38	7813	7860	7907	7954	8002	8050	51	78	4.7046	4.7729	4.8430	4.9152	4.9894	5.0658	11
39	8098	8146	8195	8243	8292	8342	50	79	5.1446	5.2257	5,3093	5.3955	5.4845	5.5764	10
deg.	60′	50′	40′	30	20′	10′	deg.	deg.	60′	50′	40′	30′	20′	10′	deg.

deg.	0′	10′	20′	30′	40′	50′	deg.
80	5.6713	5 7694	5.8708	5 9758	6.0844	6.1970	9
81	6.3138	6.4348	6 5606	6.6912	6.8269	6.9682	8
82	7.1154	7.2687	7.4287	7.5958	7.7704	7.9530	7
83	8.1443	8.3450	8.5555	8.7769	9.0098	9.2553	6
84	9.5144	9.7882	10.078	10.385	10.711	11.059	5
85	11.430	11.826	12.250	12.706	13.197	13.727	4
86	14.300	14.924	15.605	16.350	17.169	18.075	3
87	19.081	20.206	21.470	22.903	24.542	26.432	2
88	28.636	31.242	34.368	38.189	42.964	49.104	1
89	57.290	68.750	85.940	114.588	171.885	343.77	0
deg.	60′	50′	40′	30′	20′	10′	deg.

Natural Cotangents

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1½ TO 1.

FOR SINGLE TRACK EMBANKMENT.

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

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

W.S. 5017