FIELD BOOK

361

F.B.562

KEUFFEL & ESSER CO.

DRAWING MATERIALS
AND
SURVEYING INSTRUMENTS.

NEW YORK.

CHICAGO. SAN FRANCISCO. ST. LOUIS.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

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

"Copyright, 1895, by Keuffel & Esser Co."

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

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

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

MICROFILMED 1964

OFFICE OF THE CITY ENGINEER
EAST SAN DIEGO CAL.

Steiner
Klauber
Castle-
Howard
Clark.

Between N. line and Sisson. Avs.

Cond'd to Mar 27. 1915

Note:- Card index brought up to page 26 Jan 20, 16. (GFH)

INDEX

	Page
Alignment & Offsets Steiner + = sts	1
" Pacific	3-4
Diagram of Int Scott Wabash	6
Alignment of Orange (Storey-Scott)	7
" " Anna (" ")	8
" " Klauber	9
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" " STEINER	14-15-16
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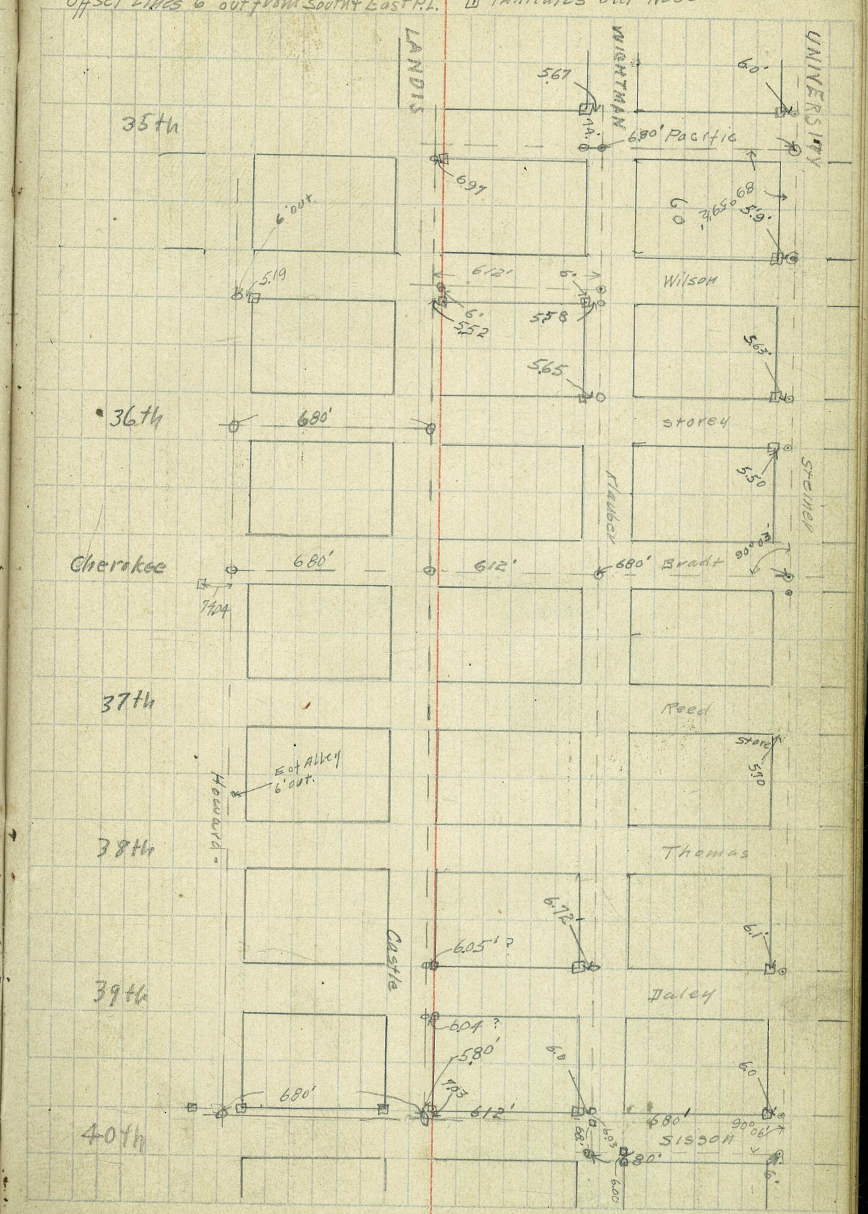
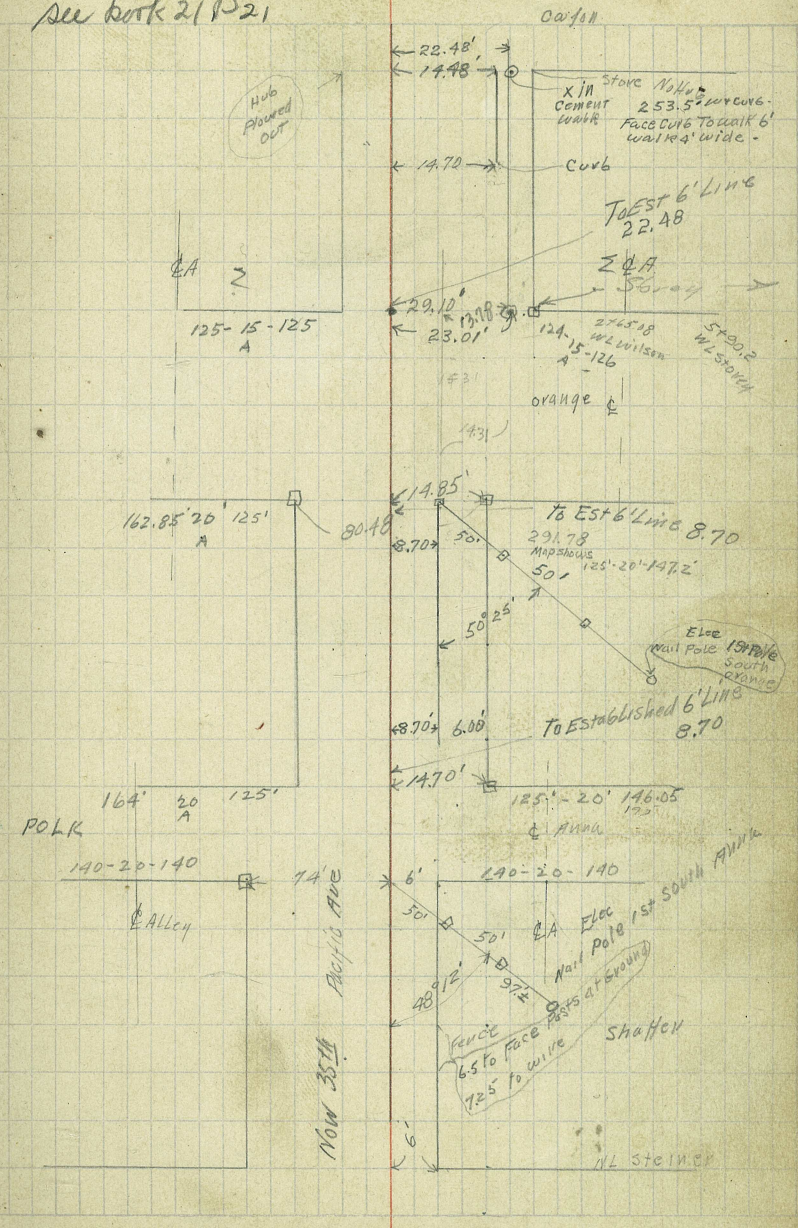
" at Fillmore Wabash -	19
Alignment of Mission	30-35
Ref. Pts. 1st + "	39

Alignment Steiner & Parallell sts South between Pacific & Sisson.

offset Lines 6' out from South & East P.L. ⊡ indicates old Hubs.

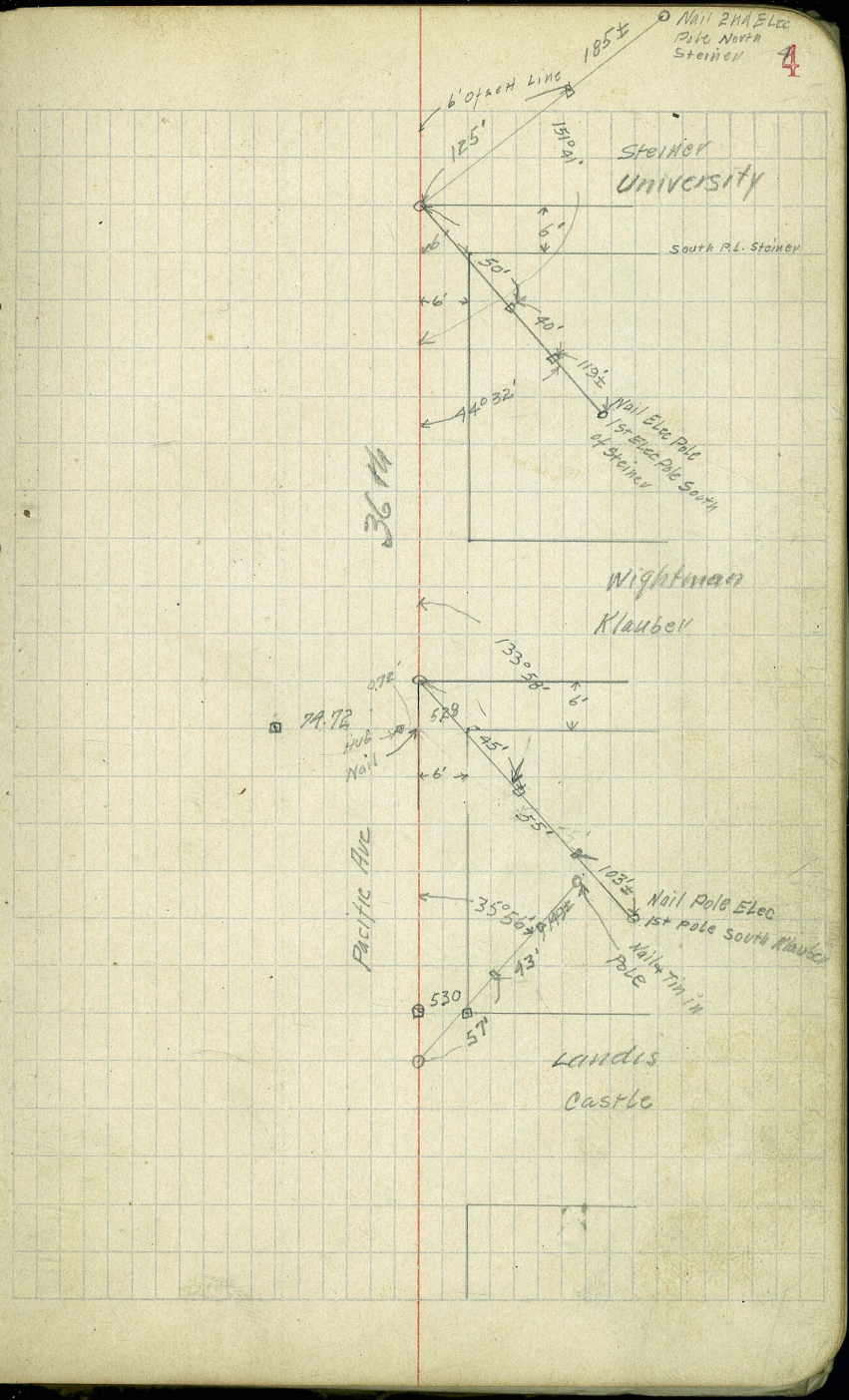


See book 21 P21

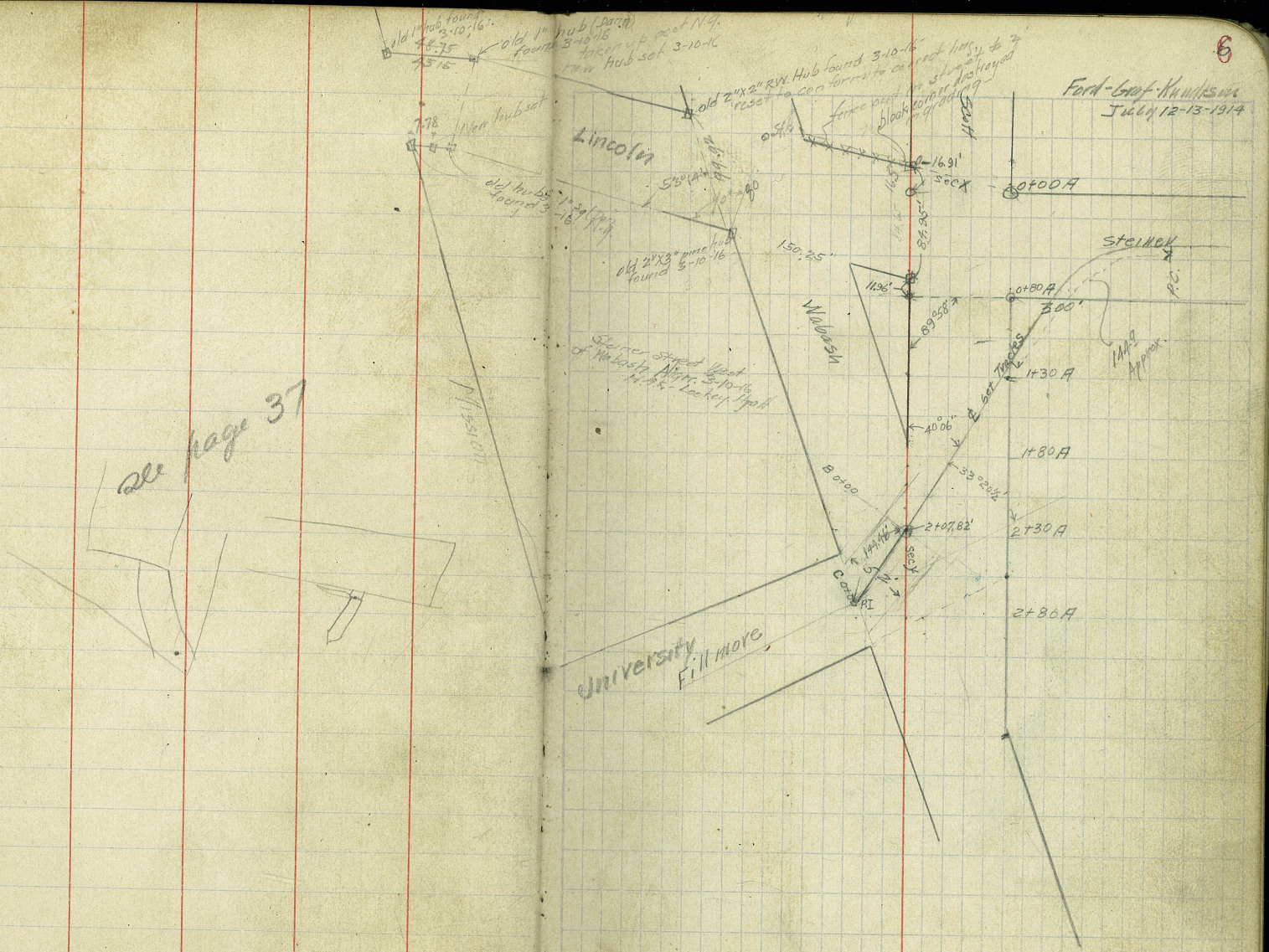


Pt Referenced Here is 6' North of South Line Steiner & 6' West of East Prop Line Pacific Ford-Graf-Knudtson 6-30-14-

Pt Ref Here is 6' North of South Line Klauber & 6' West of East Line Pacific – June 30-1914 – Ford Graf Knudtson.



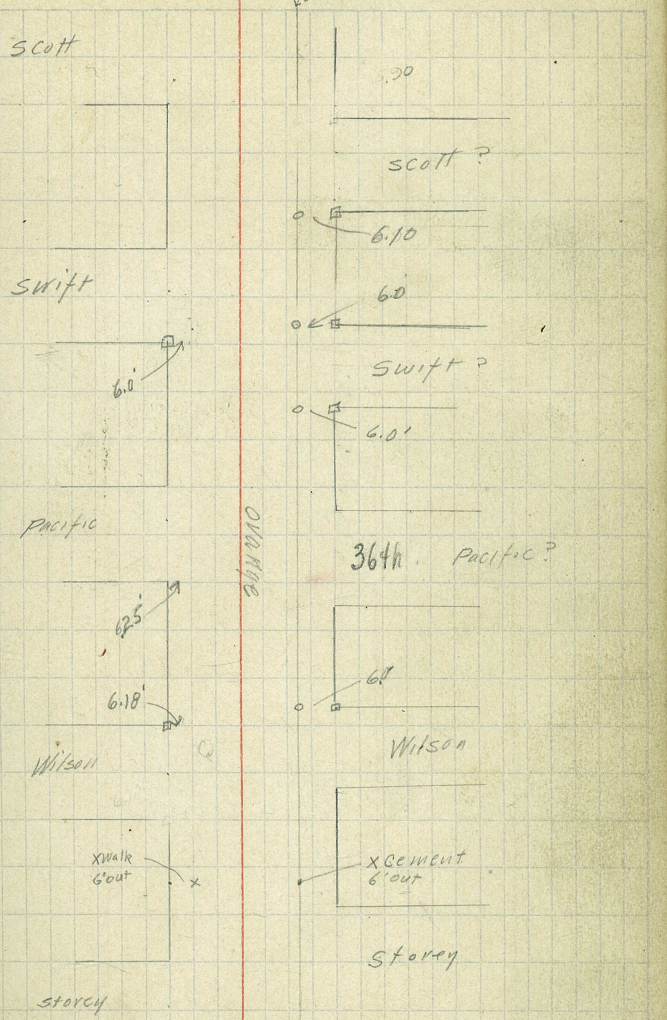
Ford-Graf-Knudtson
July 12-13-1914



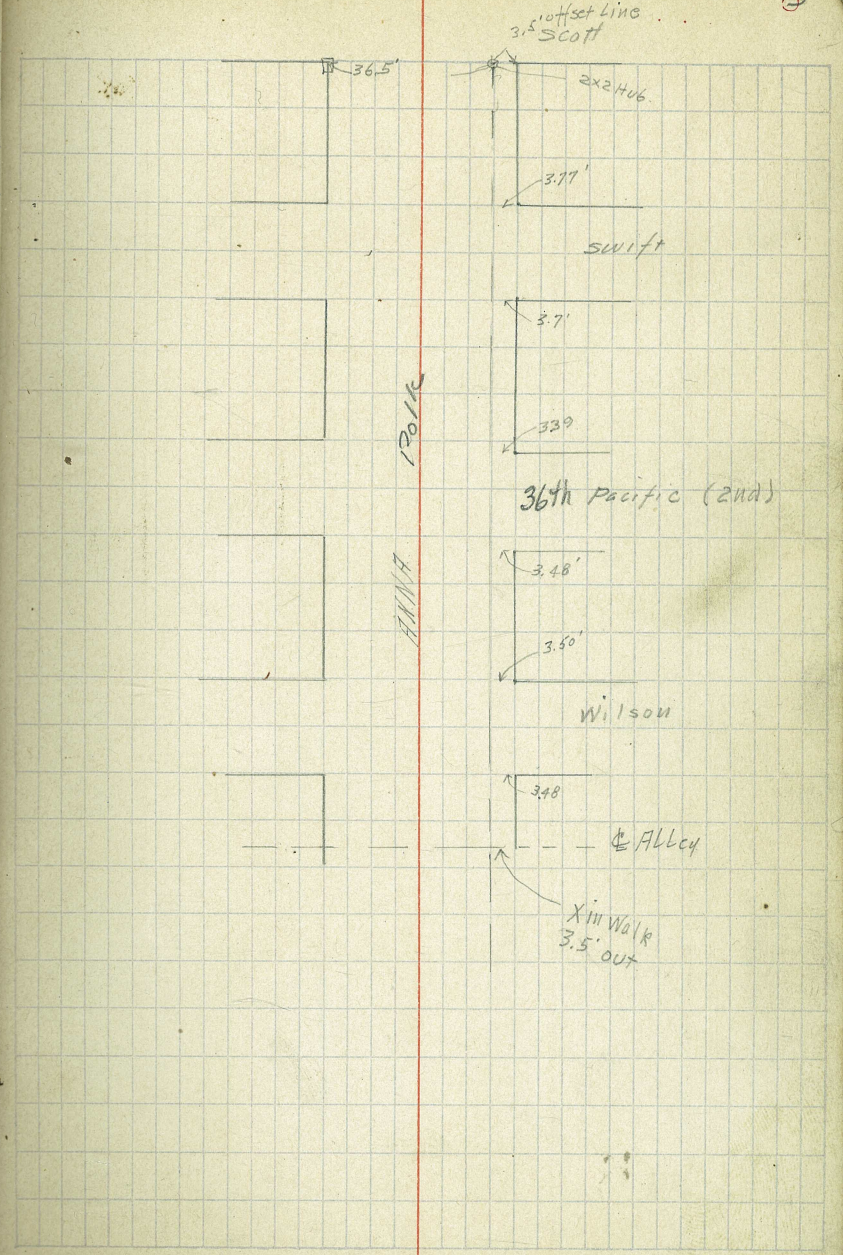
see page 37

Alignment Orange Storey to Scott

Ford
Brown
Knudtson
July 27-1914



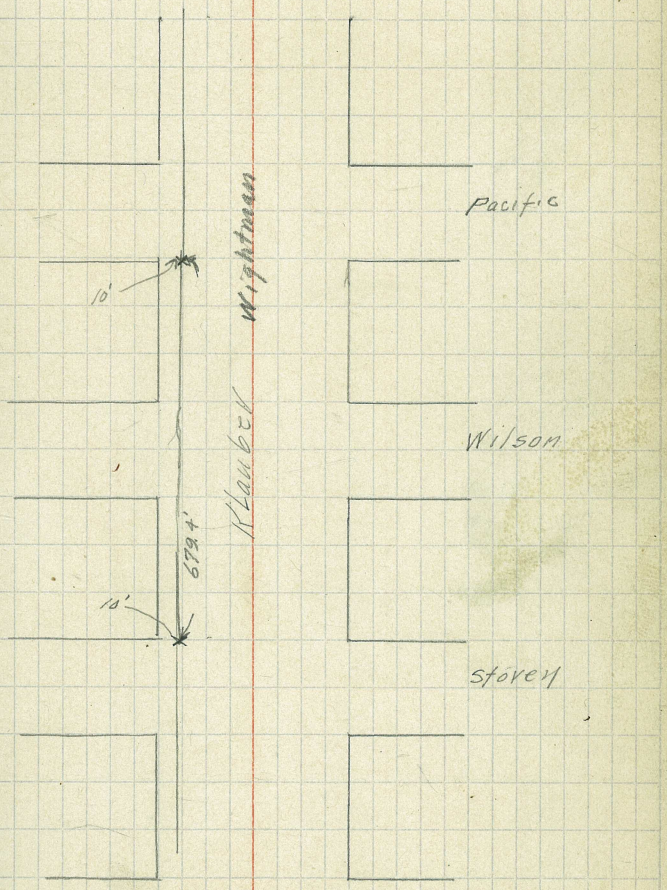
Alignment Anna Story to Scott

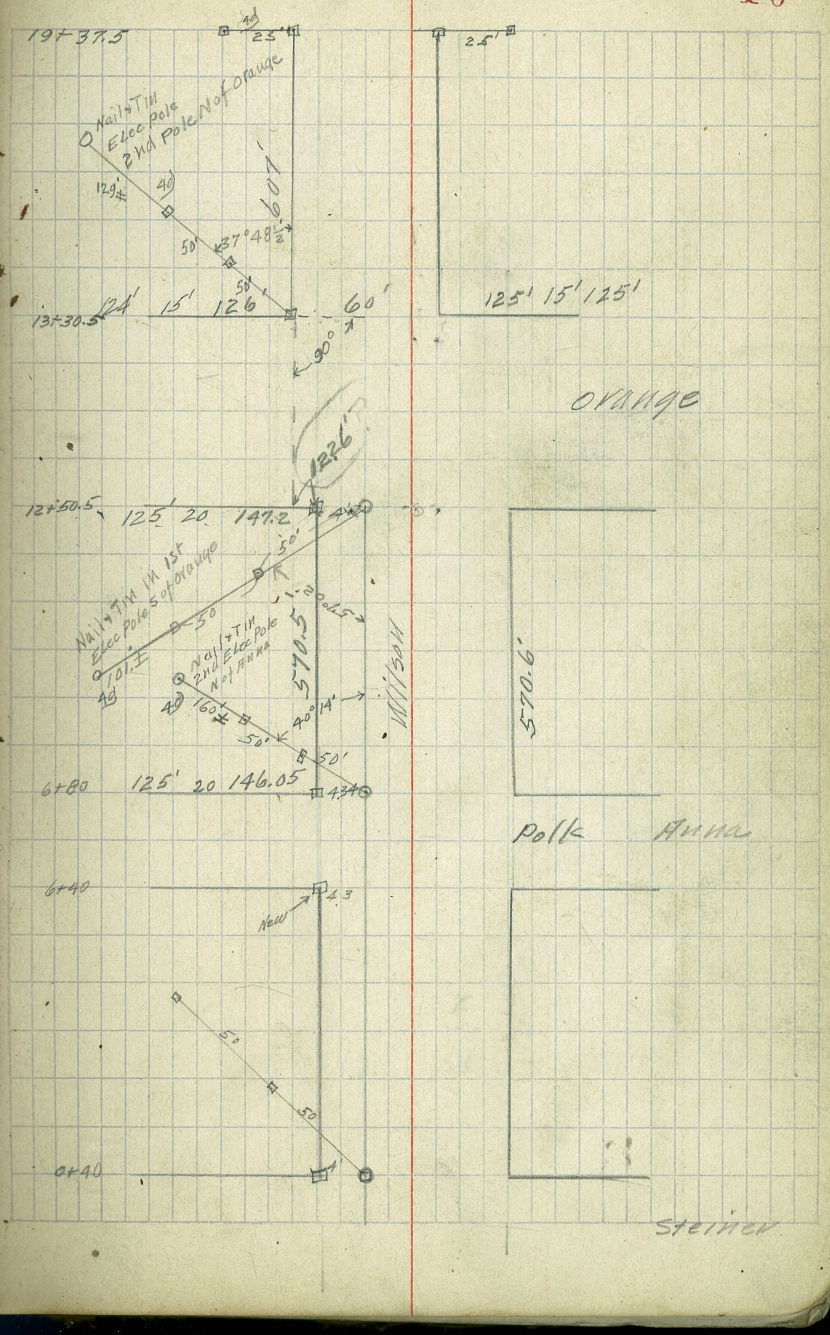


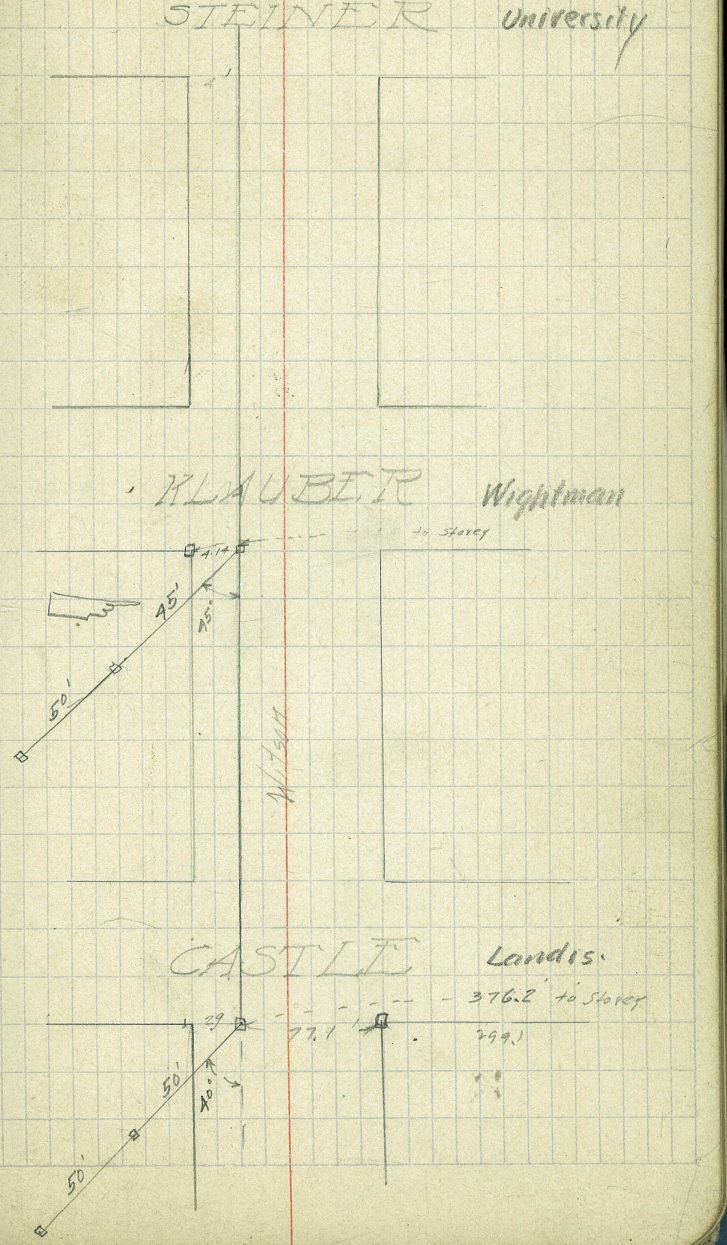
Alignment of Klauber

NOV 5-1910
Ford
Hyatt
Graf

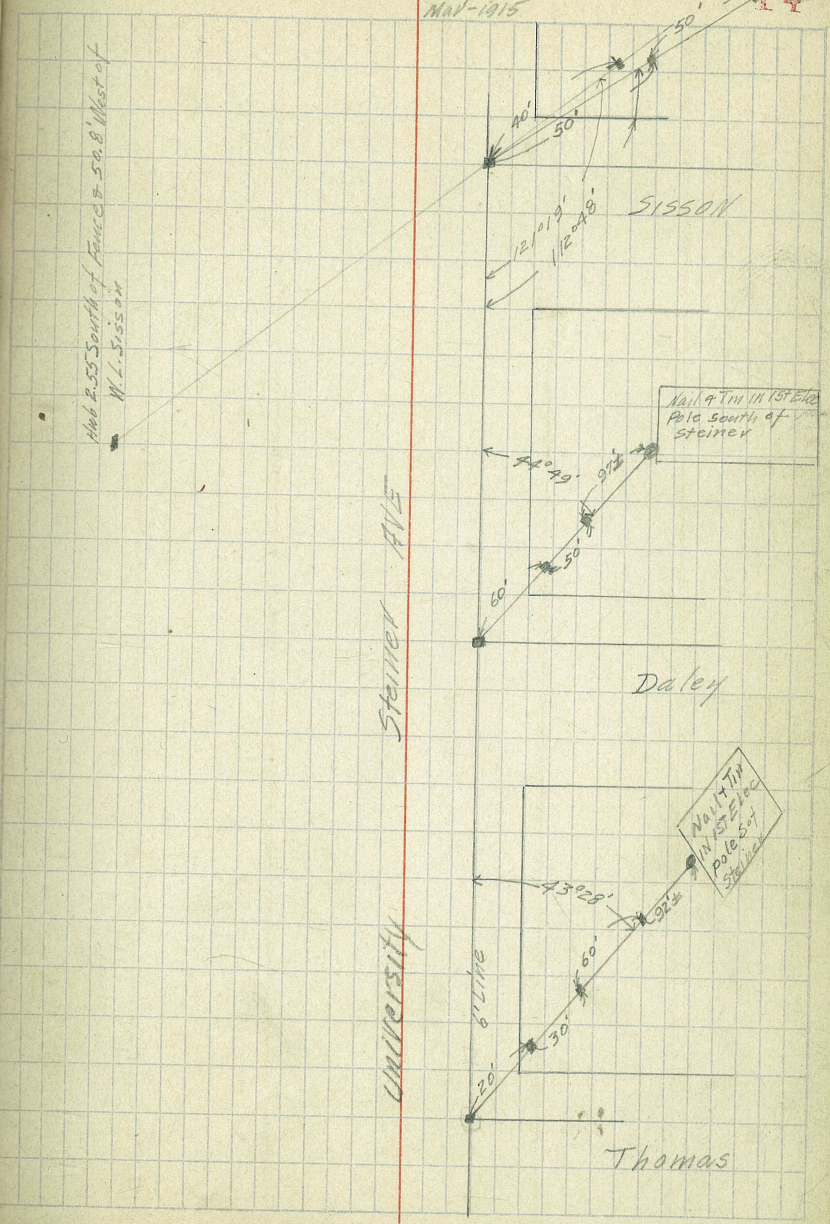
9p



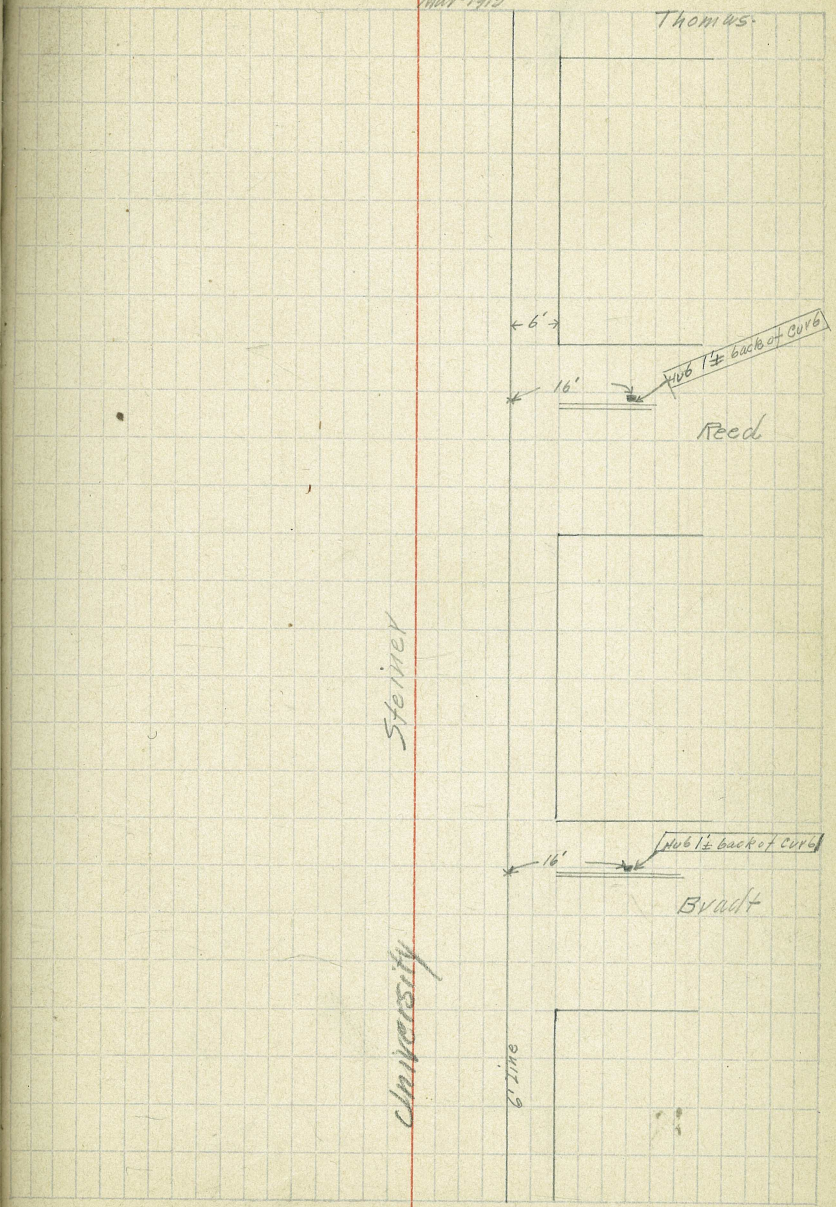

19+37.5
25'
Nail+Tin
Elec Pole
2nd Pole N of orange
129'
40
607'
50'
37°48½'
50'
13+30.5
124'
15'
126
60'
90°
25'
125' 15' 125'
orange
122.6'
12+50.5
125' 20 147.2
50'
Nail+Tin in 1st
Elec Pole S of orange
50
Nail+Tin
2nd Elec Pole
N of Anna
101.±
570.5
40°14'
Wilson
570.6'
6+80
125' 20 146.05
Polk
Anna
6+40
New
50
50
0+40
Steiner


STEINER
University
KLAUBER
Wightman
to Storey
45'
45°
50'
CASTLE
Landis
376.2' to Storey
77.1'
299.1'
50'
40°
50'

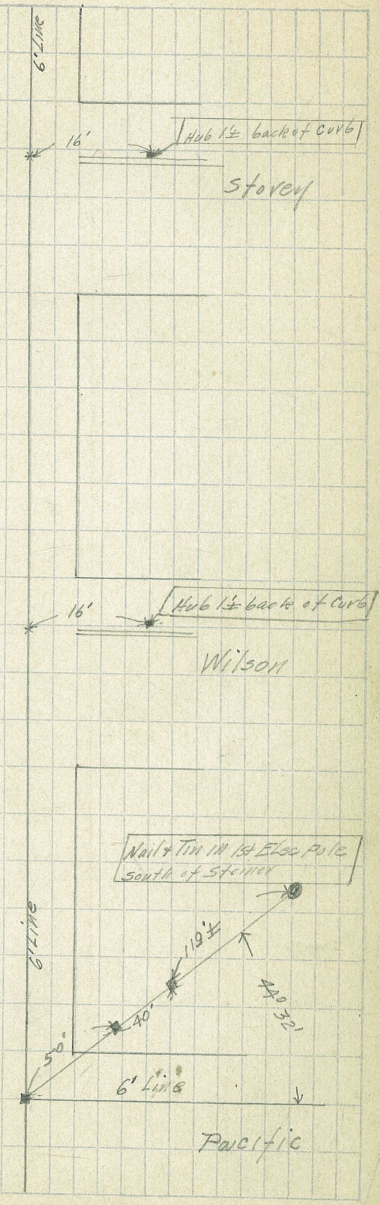
Ford
Hyatt
Graf
Mar-1915



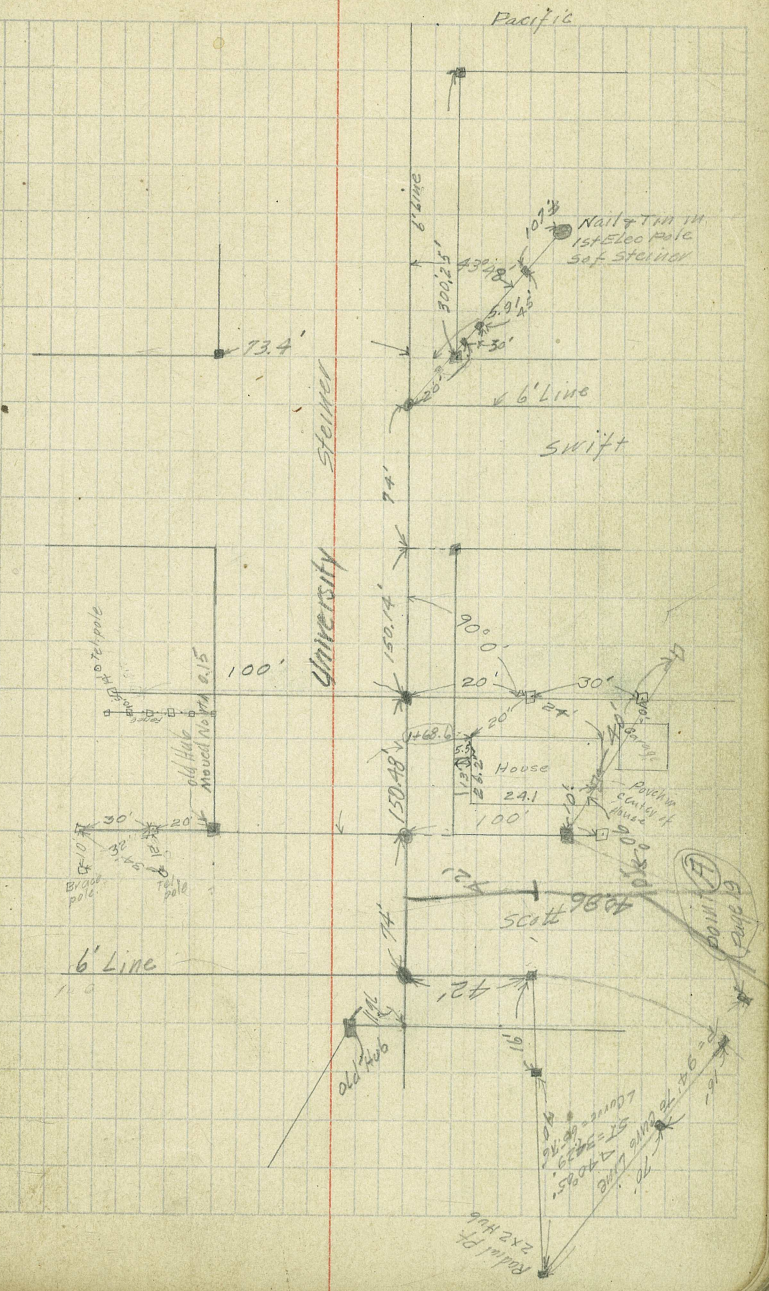
Ford
Hyatt
Graf
Mar-1915



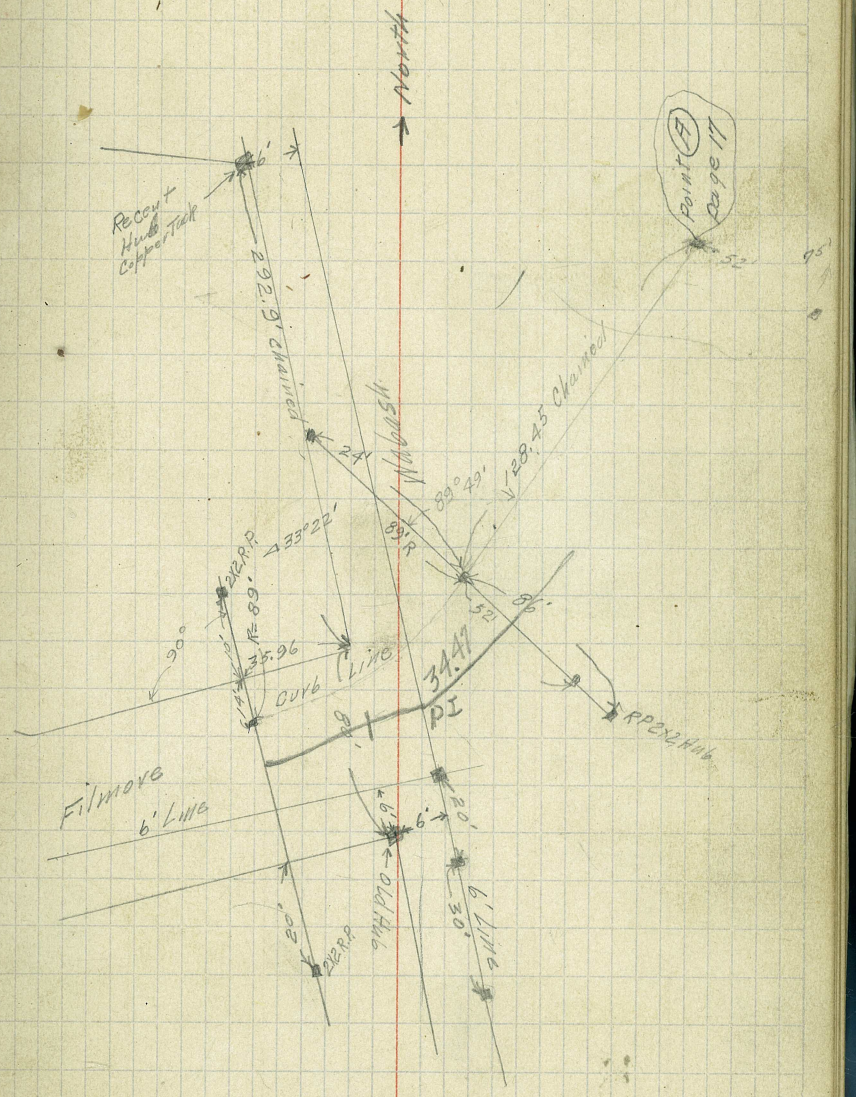
Ford
Hyatt
Gray
Mar-1915

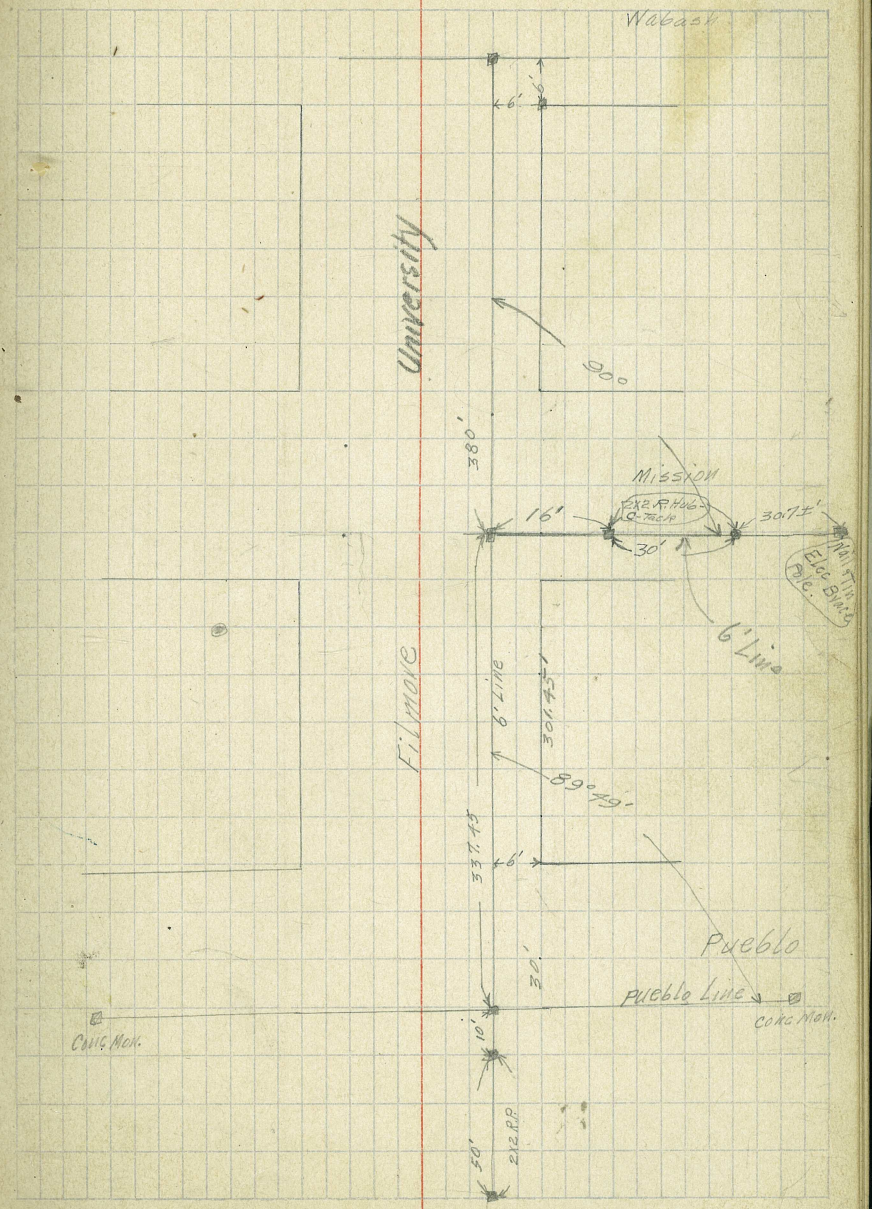


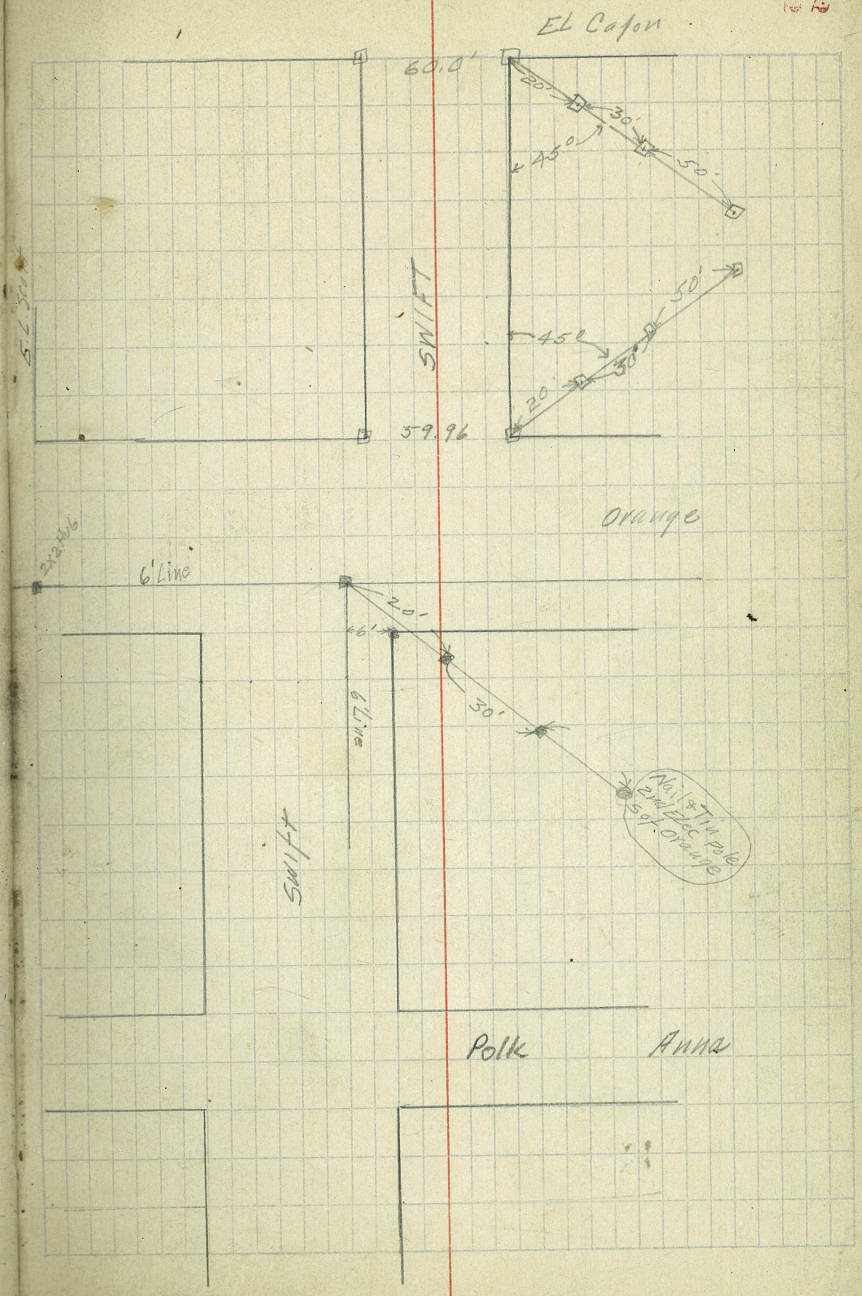
Ford
Hyatt
Draft
March-1915

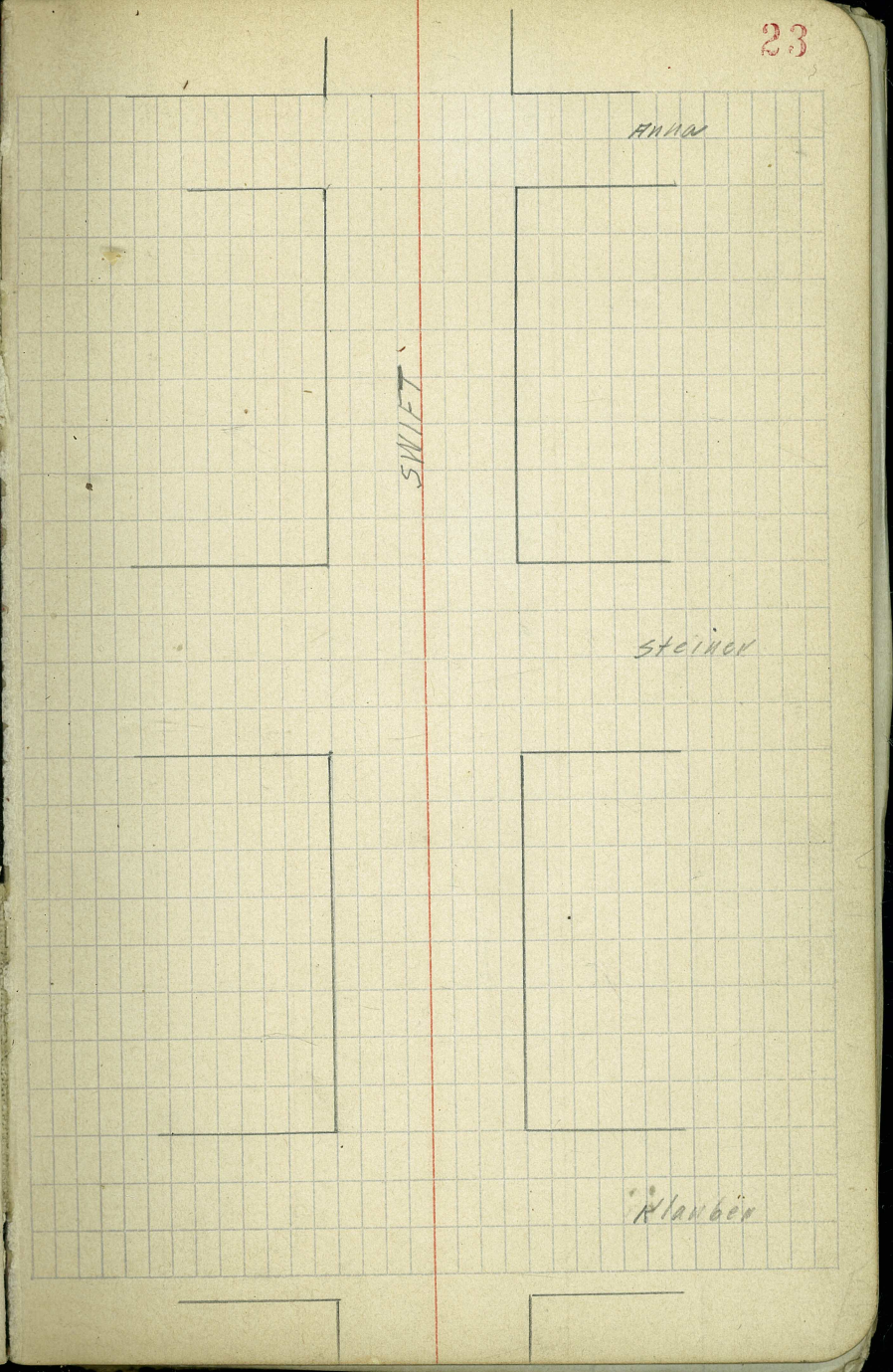


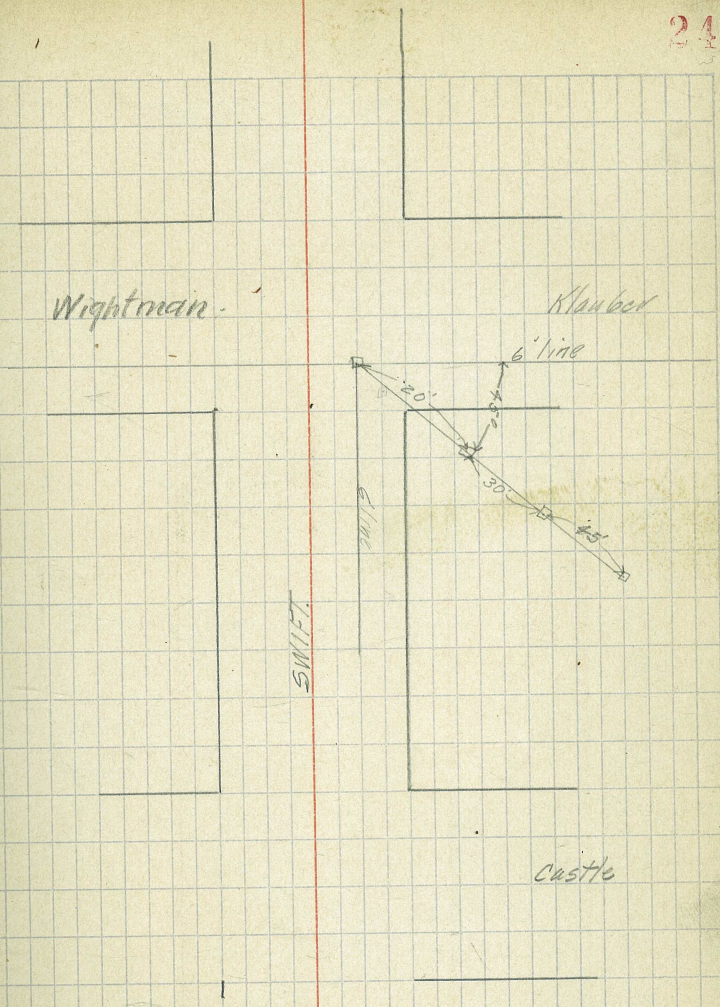
April 3-1915
Ford-Gray-Hyatt.

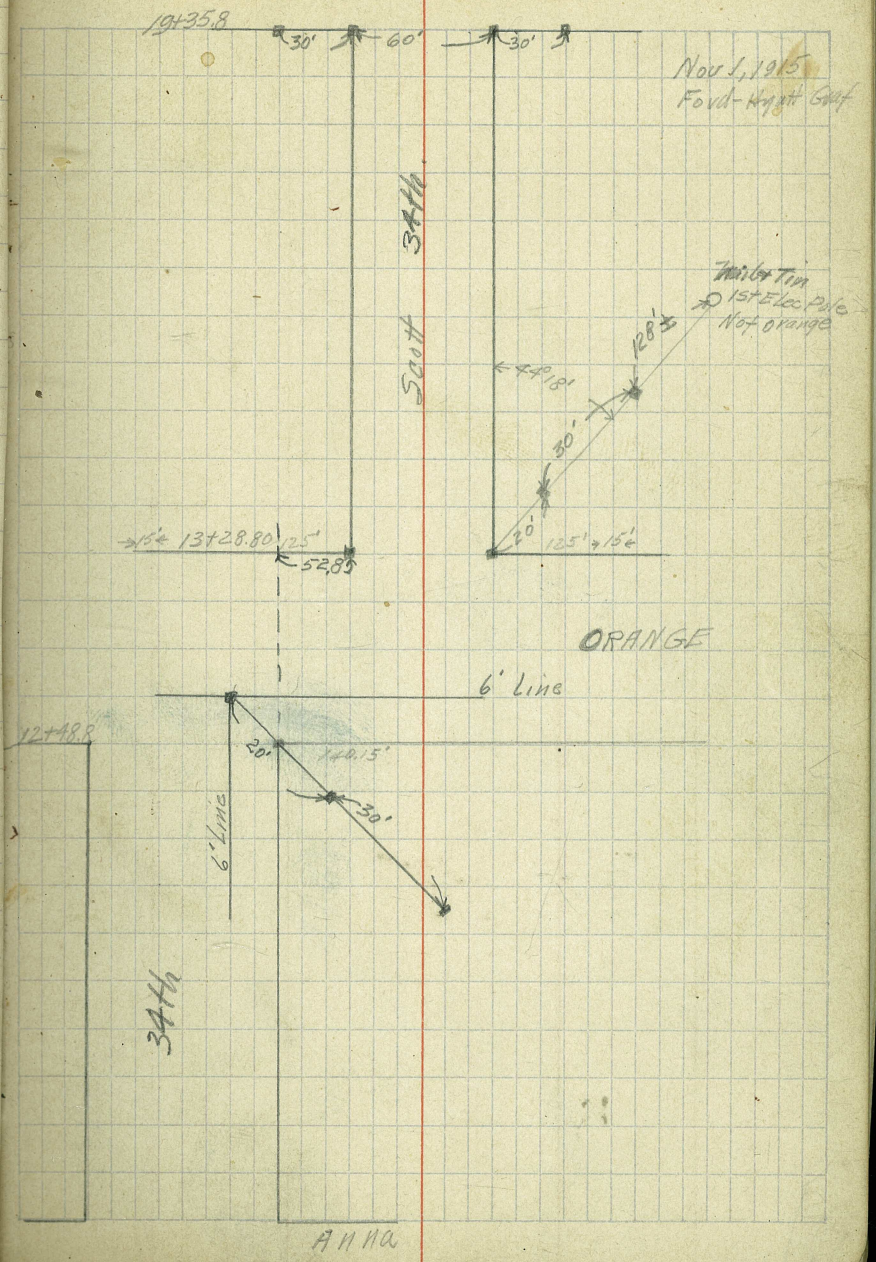


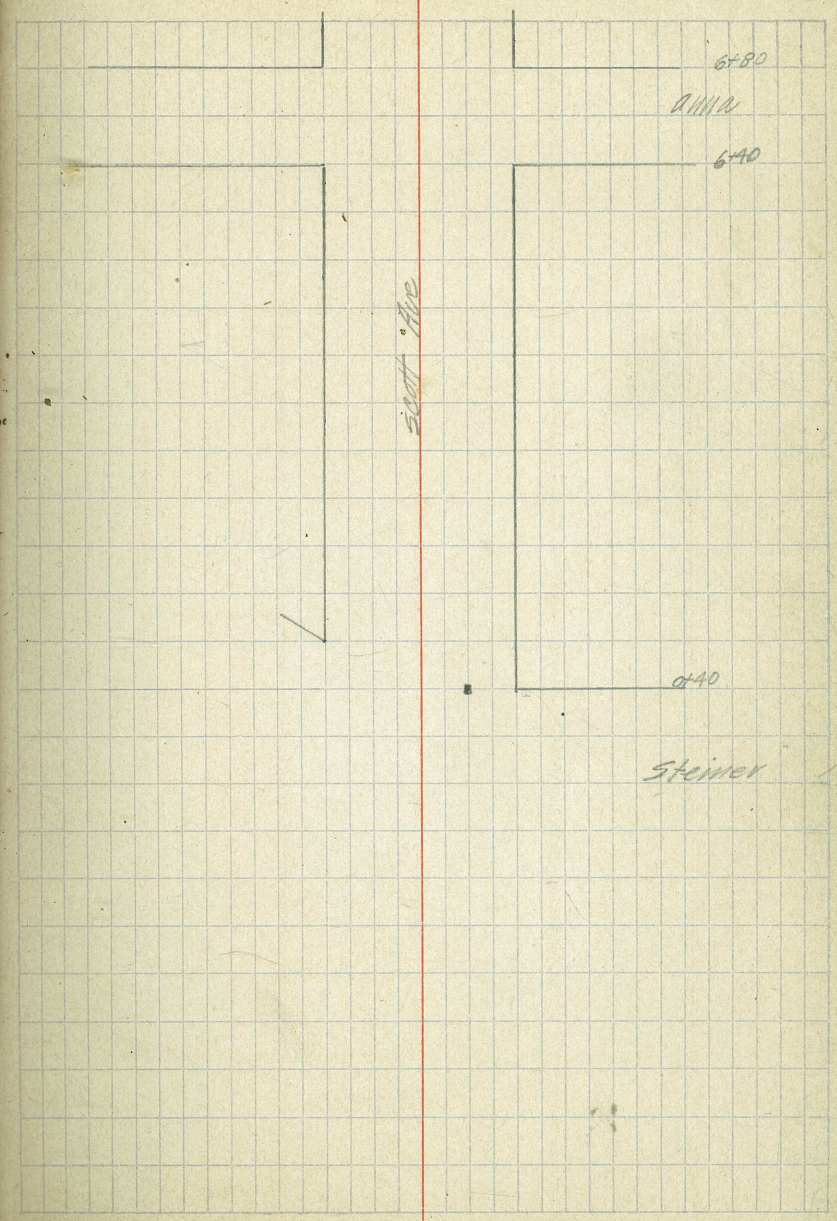

Wabash
6'
6'
University
90°
380'
Mission
16'
2x2 R.Hub-C-Tack
30'
30.7±'
Nail Tin Elec Brace Pole.
6' Line
Filmore
6' Line
301.45'
89°49'
337.45
6'
Pueblo
30'
Pueblo Line
Conc. Mon.
Conc. Mon.
10'
50'
2x2 R.P.


El Capon
60.0'
20'
30'
45°
50'
SWIFT
45°
50'
30'
20'
59.96
Orange
2x2x6
6' Line
20'
6'
30'
6' Line
Nail & Tin Pole
2nd Elec Pole
Sof. Orange
Swift
Polk
Anna


Anna
SWIFT
Steiner
Klaubér


Wightman
Klauber
6' line
20'
45°
30'
45'
6' line
SWIFT
Castle

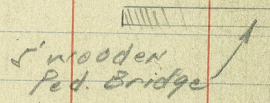

19+35.8
30'
60'
30'
Nov 1, 1915
Ford-Hyatt Graf
Scott 34th
Nail & Tin
1st Elec Pole
Not orange
128'
44°18'
30'
20'
125'
15'
15'
13+28.80
125'
52.85
ORANGE
6' Line
12+48.8
20'
140.15'
30'
6' Line
34th
Anna


6+80
anna
6+40
Scott Ave
0+40
Steiner

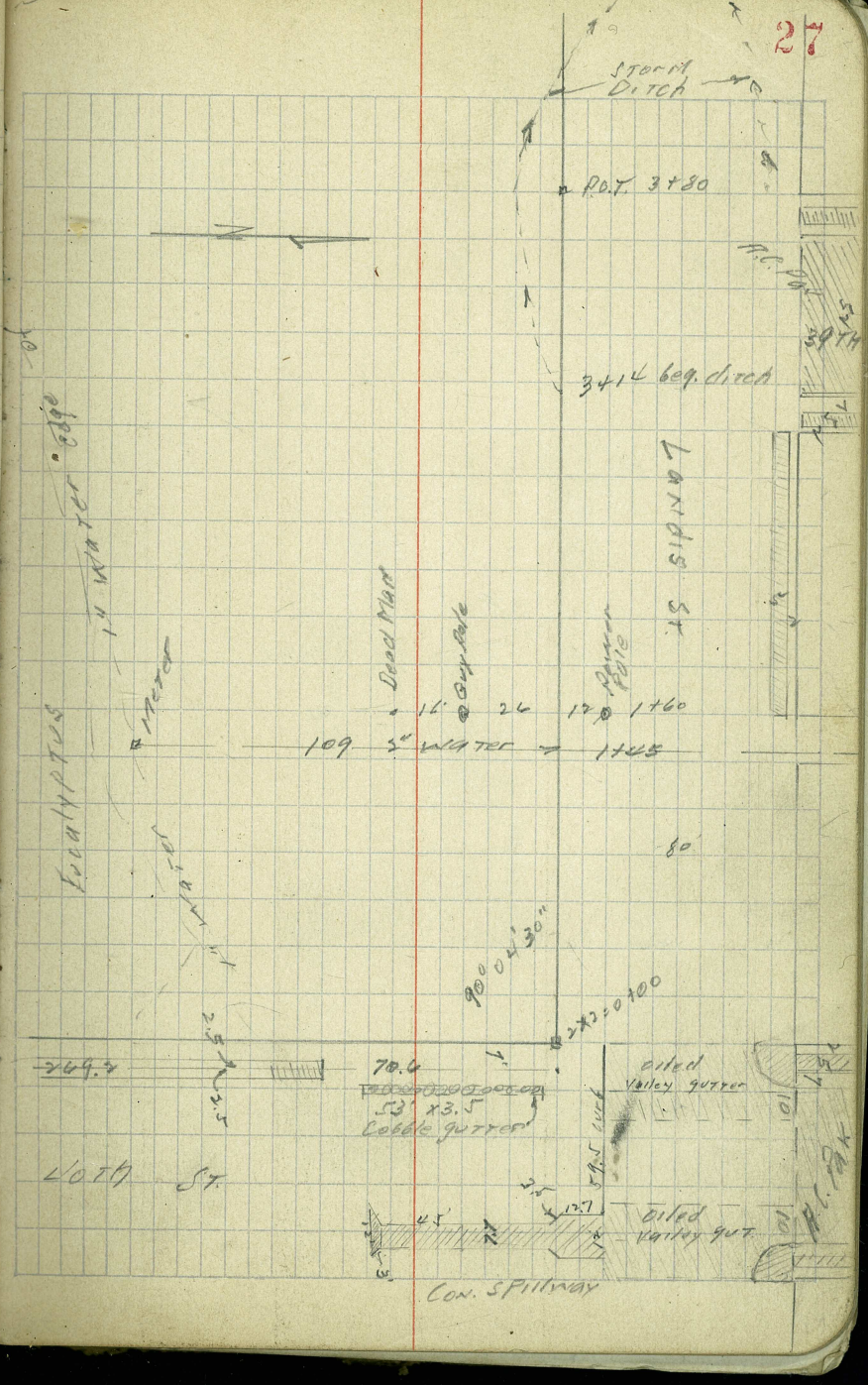
Indexed
C.S.K.

Contour Levels
Cruz Park E.S.D.
40th & Landis

Moore
5-9-39



27



Contour Levels

Cruz Park

2+00					
1+50					
1+00					
	L.G. = Line of grove				
0+50					
0+00 = WL 40th St					
0-7 = ℄ 5' Wood Bridge					
NWBP	3.26	333.54		330.28	40th Landis

Lt.

S.L. Landis Baseline

28

312.04	320.14	321.54	326.34	327.94	329.74	330.64	331.14	329.04	
21.5 / 170	13.4 / 150 L.G.	12.0 / 143	7.2 / 100	5.6 / 75	3.8 / 50	2.9 / 25	2.4 / 3	4.5	
		313.74	322.14	325.34	327.64	329.74	330.94	331.74	329.34
		19.8 / 160	11.4 / 128 L.G.	8.2 / 100	5.9 / 75	3.8 / 50	2.6 / 25	1.8 / 4	4.2
			314.94	322.34	325.14	328.24	331.54	329.54	
			18.6 / 120	11.2 / 100 L.G.	8.4 / 80	5.3 / 50	2.0 / 3	4.0	
				309.94	317.44	320.54	325.74	329.84	
				23.6 / 117	16.1 / 99 Line Grove	13.0 / 80	7.8 / 50	3.7	
				310.34	317.34	317.34	324.54	329.64	329.93
				23.2 / 95	16.2 / 76	16.2 / 70	9.0 / 30	3.9	3.61 / 14 Curb
						316.24	324.24	329.54	
					Bridge deck	17.3 / 70.6	9.3 / 30	4.0	

333.54

Station	Notes
3+80	on 2×7 P.O.T.
3+60	
3+40	
3+20	
3+00	
2+80	

333.54

LT.

Cross-section readings (rod reading / distance out, elevation), left to right, ending at centre line:

Station															
3+80	26.1 / 150 L.G. — 307.44	19.2 / 100 — 314.34	15.9 / 75 — 317.64	13.5 / 50 — 320.04	10.1 / 16 — 323.44	11.4 / 14 — 322.14	11.4 / 13 — 322.14	10.1 / 12 — 323.44	6.38 — 327.16						
3+60	30.2 / 230 L.G. — 303.34	27.0 / 200 — 306.54	26.4 / 175 — 307.14	23.0 / 150 — 310.54	19.7 / 125 — 313.84	17.0 / 100 — 316.54	14.4 / 75 — 319.14	11.5 / 50 — 322.04	8.2 / 13 — 325.34	9.1 / 11 — 324.44	9.1 / 10 — 324.44	7.7 / 9 — 325.84	5.8 — 327.74		
3+40	29.0 / 240 L.G. — 304.54	26.0 / 220 — 307.54	24.2 / 200 — 309.34	22.5 / 175 — 311.04	20.2 / 150 — 313.34	14.7 / 100 — 318.84	12.0 / 75 — 321.54	9.9 / 50 — 323.64	6.3 / 9 — 327.24	7.6 / 7 — 325.94	7.6 / 6 — 325.94	5.6 / 5 — 327.94	4.9 — 328.64		
3+20	29.0 / 240 L.G. — 304.54	26.0 / 230 — 307.54	22.2 / 200 — 311.34	20.4 / 175 — 313.14	17.7 / 150 — 315.84	12.8 / 100 — 320.74	10.4 / 75 — 323.14	9.0 / 50 — 324.54	5.1 / 5 — 328.44	6.5 / 4 — 327.04	4.5 / 3 — 329.04	4.9 / 2 — 328.64	4.9 — 328.64		
3+00	26.2 / 220 L.G. — 307.34	21.2 / 200 — 312.34	18.4 / 175 — 315.14	15.9 / 150 — 317.64	11.4 / 100 — 322.14	9.6 / 75 — 323.94	7.7 / 50 — 325.84	6.4 / 25 — 327.14	4.8 — 328.74						
2+80	25.4 / 190 — 308.14	15.7 / 169 L.G. — 317.84	13.3 / 150 — 320.24	8.8 / 100 — 324.74	7.0 / 75 — 326.54	5.5 / 50 — 328.04	4.7 / 25 — 328.84	4.0 / 3 — 329.54	4.5 — 329.04						

333.54

5+05

4+97

4+90

4+60

4+30

3+95

L.G.

L.G.

L.G.

L.G.

L.T.

S.L. Landis

RT

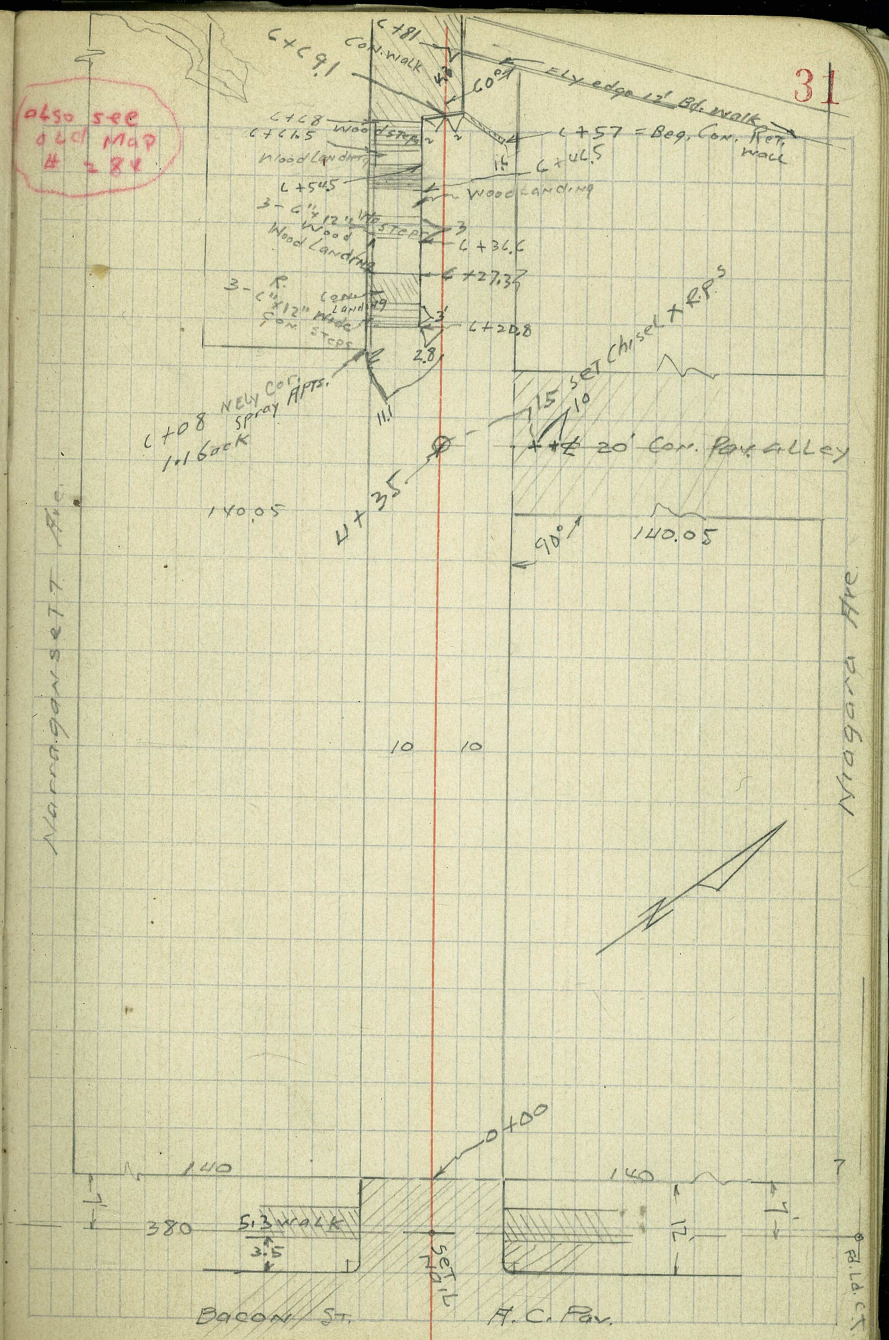
Junction of Ditches

S.L. Landis

C. Moore
Sommermeyer
Begg.
4-10-46

X sec of 20' Alley (Ely and Wly)
Blk 71 Ocean Beach - See 1252-72.

NEBP	6.43	17.48		11.05	Newport Bacon
T.P. NWBP	8.15	21.13	4.50	12.98	Niagara Bacon
	0-12	W.C6 Line Bacon St.			indexed e.s.k.
N	Pav		5.40	15.73	
C	"		5.22	15.91	
S	"		5.07	16.06	
	0+00 W.L. Bacon St				
S	Top c6.		4.15	16.98	
S	Pav		4.43	16.70	
C	"		4.90	16.23	
N	"		4.62	16.51	
N	Top c6.		4.45	16.68	
	0+05				
N			3.2	17.9	
+2			4.3	16.8	
C			4.6	16.5	
+6			4.5	16.6	
S			2.7	18.4	
T.P.	5.56	23.34	3.35	17.78	
	0+41				
S-2			3.9	19.4	
S			4.2	19.1	
+4			5.6	17.7	
C			5.5	17.8	
N			5.0	18.3	
+9.7	℄ Sin. gar.	dirt floor	5.0	18.3	



23.34

	0 + 50.3			
- 5,2	E.L. 4 Car gar.	4.91	18.43	Con. floor
- 3		5.12	18.22	" Apron
N		5.2	18.1	
C		5.3	18.0	
+ C		5.4	17.9	
S		4.2	19.1	
+ 10		3.8	19.5	
	0 + 86.5			
S		4.4	18.9	
+ 3		5.0	18.3	
C		5.0	18.3	
N		5.2	18.1	
+ 3	Con. Apron	5.10	18.24	
+ 5,2	W.L. 4 Car gar.	4.91	18.43	Con. fl.
	1 + 01			
N		5.2	18.1	
C		5.0	18.3	
+ 7		5.0	18.3	
+ 9	℄ 14" P.P.			
S		4.3	19.0	
	1 + 05			
N - 3	℄ Sin. gar. entrance at present. NLY.	4.8	18.5	dirt
	1 + 29.5			
S		4.1	19.2	
+ 4		4.7	18.6	

23.34

C	4.7	18.6	
N	4.8	18.5	
+ 1,9 S.E. 4 Cor. Shingle House	5.0	18.3	ground
1 + 41.5			
N + 0,6 ℄ 5.2 Con. Step	4.09	19.25	
N - 1,9 " " "	4.05	19.29	
1 + 49.5			
- 1,9 S.W. Shingle House	4.9	18.4	
W	4.7	18.6	
C	4.5	18.8	
+ 7	4.6	18.7	
S	4.2	19.1	
1 + 53			
N - 2 S.E. Cor. Shingle House			
1 + 70			
N + 0,1 ℄ 5.2 Con. Step	4.17	19.17	
N - 2 " " "	4.02	19.32	
1 + 74			
N - 2,2 S.W. Cor. Shingle House			
1 + 82			
S - 5 ℄ Sin. gar. EAST entrance	4.0	19.3	dirt fl.
S + 0,1 W.L. above gar.	3.8	19.5	
+ 5	4.4	18.9	
C	4.5	18.8	
N	4.5	18.8	
+ 4 E.L. do. gar.	4.78	19.06	Con. fl.

23.34

	1+98			
N-4	Con. gar. floor	4.28	19.06	
N		4.4	18.9	
C		4.5	18.8	
+5		4.4	18.9	
+8.2	℄ 14" P.P.			
S		3.9	19.4	
	1+99			
S +0.1	W. end Sin. gar.	See 1+82		
	2+00			
N-3.8	Wk. L. do. gar.	4.28	19.06	Con. fl.
T.P.	5.26 24.01	4.59	18.75	
	2+20			
S-3.7	℄ Sin. gar.	5.0	19.0	dirt fl.
	2+25			
-10		4.9	19.1	
S		4.8	19.2	
C		5.0	19.0	
N		5.0	19.0	
+2	Beg. picket fence	5.0	19.0	
	2+75			
N-2	End picket fence			
	2+81			
N 0.8	℄ Bd. House 10' wide	4.9	19.1	ground
	3+10			
N-6	℄ 4 car gar. 27' wide	4.3	19.7	dirt fl.
N		4.8	19.2	

24.01

C		4.9	19.1	
S		4.8	19.2	
+10		5.1	18.9	
	3+24.5			
S+2	℄ 18" P.P.			
	3+33			
S.L. alley		4.9	19.1	
" "	-43.5 = ℄ Sin. gar.	5.33	18.68	Con. fl.
	3+57.5			
S-0.1	Beg. picket fence			
	3+58.5			
S-0.1	end picket fence	4.5	19.5	also N.E. Con. House Porch
C		4.6	19.4	
N		4.2	19.8	
+10		3.6	20.4	
	3+73			
S on line	NW. Con. House Porch			
	3+76			
N-3.2	E.L. 4 car gar.	3.1	20.9	dirt fl.
N		4.0	20.0	
C		4.3	19.7	
S		4.3	19.7	
+10		4.6	19.4	
T.P.	5.78 25.96	3.83	20.18	
	4+01			
S-5	℄ 2' Con. walk	6.18	19.78	
S		6.2	19.8	

S +3		5.8	r0.7	
C		6.0	r0.0	
+7		5.7	r0.3	
N		4.8	r1.2	
+4		4.3	r1.7	
	4+15			
N −3.8	W.L. 4 car gar.	4.1	r1.9	dirt FL.
	4+24			
S +0.6	E 14" P.P.			
	4+25 = E.L. 20 alley	to stone		
N −20	Con. pav.	4.74	r1.22	
N −0.3	" " edge	5.22	r0.74	
N	dirt	5.5	r0.5	
C		5.4	r0.6	
S +0.3	east edge Con. Apron	4.88	r1.08	dirt same
S +1.6	E.L. 3 Car gar.	4.58	r1.38	Con. FL.
	4+35			
S −0.3	on Con. apron	4.72	r1.24	dirt same
C	M H Rim	5.3	r0.7	
N		5.4	r0.6	
+0.45	edge Con Pav	5.46	r0.50	in alley
N +20		5.00	r0.96	
	4+45			
N −20	Con Pav.	4.67	r1.29	
N −0.6	" " edge	5.02	r0.94	
N	dirt	5.2	r0.8	
C		5.1	r0.9	

S		4.7	r1.3	
S +0.5	Con. apron edge	4.70	r1.26	
	4+48.7			
S −0.5	Con apron	4.69	r1.27	
S −1.8	WL 3 car gar.	4.54	r1.42	Con FL.
	4+49.			
N 0.8	S.E. Cor of Cabin			
	4+49.7			
S −1.8	E 2' con walk	4.54	r1.42	
	4+61.4			
N −0.6	SW Cor cabin			
	4+64.2			
S −3.2	E do. gar 19' wide	4.4	r1.6	dirt FL.
S		4.3	r1.7	
C		4.9	r1.1	
+9.8	SE Cor Cabin	4.2	r1.8	ground
N	4+76.2	4.2	r1.8	
S −3.7	E 4' con walk	3.69	22.27	
S		4.2	21.8	
C		4.6	21.4	
+9.7	SW Cor Cabin	4.0	22.0	ground
	4+79			
N −0.3	SE Cor Cabin			
S −0.6	Con. apron	3.83	22.13	
S −3.3	E.L. 5 Car gar.	3.19	22.77	Con. FL.

25.96

	4+91.5			
N-0.4	= ground	4.0	22.0	Prop. owner will call for grade at this point
N-0.4	= Crowfoot S. side Con. foundation	3.63	22.33	S.W. Cor. cabin.
"	= Beg. Picket fence			
	5+24			
N-10		3.3	22.7	
N.		3.3	22.7	
C		3.4	22.6	
S		3.0	23.0	
S+0.7	Con. Apron	2.95	23.01	
S+3.5	WL 5 car gas	2.63	23.33	Con. fl.
	5+38.5			
S-1.4	Beg. 6" Con Ret wall	0.98	24.98	Top wall
S-1.3	ground	2.2	23.8	ground
	5+43			
N+0.4	Beg. 6" Con Ret. wall	2.38	23.58	Top wall
N+0.3	ground	2.6	23.4	
	5+56.5			
S-1.4	End Ret. wall + E.L. 4.4 Con. walk	0.88	25.08	
S-1.3	ground	1.9	24.1	
S		2.1	23.9	
C		2.7	23.3	
+9.6	ground	2.5	23.5	
"	Top Con. wall	2.12	23.84	
N+10		2.7		
	5+67		23.3	
S+0.4	℄ 14" P.P.			

This apron is on a straight grade

Note

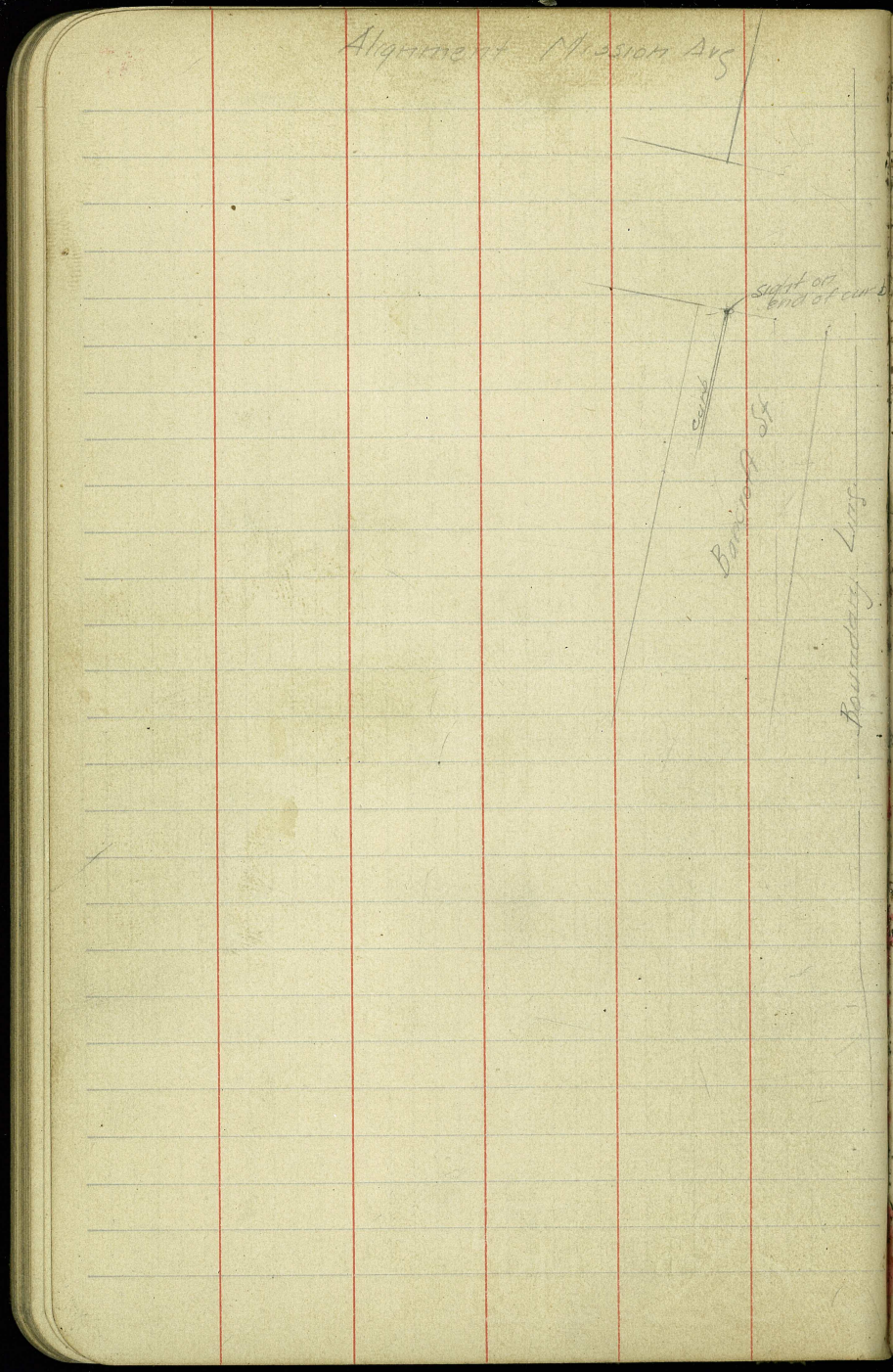
25.96

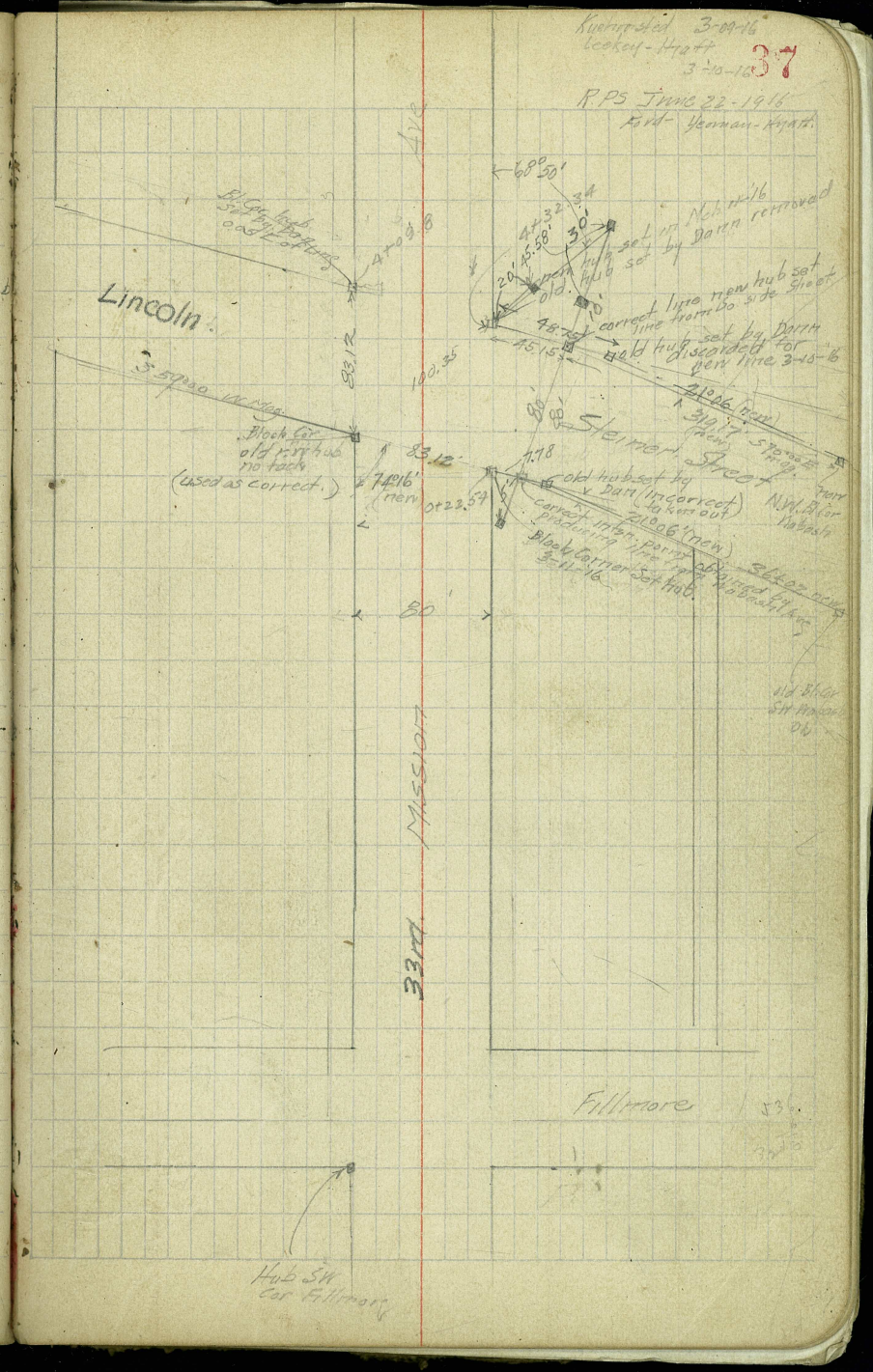
T.P.	5.50	29.18	2.28	23.68
	5+96.7			
N-10			5.1	24.1
N-0.2			4.8	24.4
N	Top 6" Con. wall		4.14	25.04
+0.3	" "		4.14	25.04
+0.5			4.6	24.6
C			5.7	23.5
S			5.1	24.1
+1	ground		4.6	24.6
+1	Top 6" Con. Ret wall		3.59	25.59
	6+02.2			
S-1	Top Con. walk 4.6 wide		4.10	25.08
S-0.2	" Top 4.6 con. step		4.75	24.43
S	ground		6.3	22.9
C			5.9	23.3
+9.8	"		4.7	24.5
N	Top end 6" Con. wall		4.05	25.13
N+0.2	ground		4.7	24.5
+10			5.0	24.2
	6+02.5			
N-1.4	SE Cor Cabin			
	6+07.8			
N+0.3	℄ 3.2 overhanging inside clothes closet in Cabin			

	C+08			
N +0.3		4.6	24.6	
C		6.3	22.9	
+5		7.0	22.2	
S		6.9	22.3	
S +1.1	ground	6.4	22.8	
"	Top Con. wall	4.21	24.97	N.E. Con. spray Apts.
	C+20.8			
S -1.1	Top Con. Steps	8.36	20.82	
S	" " "	8.36	20.82	
+7.2	" " "	8.33	20.85	
C		7.3	21.9	
N		3.8	25.4	
N +1.x	SW Con Cabin	3.5	25.7	ground
	C+36.C			
N-0.N	Top Cliff	3.x	25.8	Picket fence
C		8.8	20.4	
+2.8	Top 1ST wood steps	10.92	18.26	
S	" " "	10.83	18.35	
	C+46.5			
S	Top wood Landing & wood steps	13.3x	15.84	
+7.2	Top 2nd wood step	13.3x	15.84	
+7.5	ground	18.8	10.4	
C		18.8	10.4	
N		18.9	10.3	
+10	Side of Cliff	19.8	9.4	

9.18

T.P. 0.39	16.23	13.3x	15.8x
C+5x.5			
N -10 foot cliff		13.8	2.4
N		12.0	4.2
C		9.8	6.4
+2.7 ground		9.8	6.4
" Top Wood Landing		5.7x	10.49
S " " "		5.7x	10.49
C+69.1			
& alley Top Main Con. walk and roof of Wood steps		10.x1	5.82
T.P - x.99	10.81	10.x1	5.82
C+81			
S on Con. walk		5.78	5.03
C " " "		5.57	5.24
N " Bd. walk		5.66	5.15
N1 Sand Beach		9.3	1.5
check to NEBP Newport Abbott		4.29	6.52 6.50

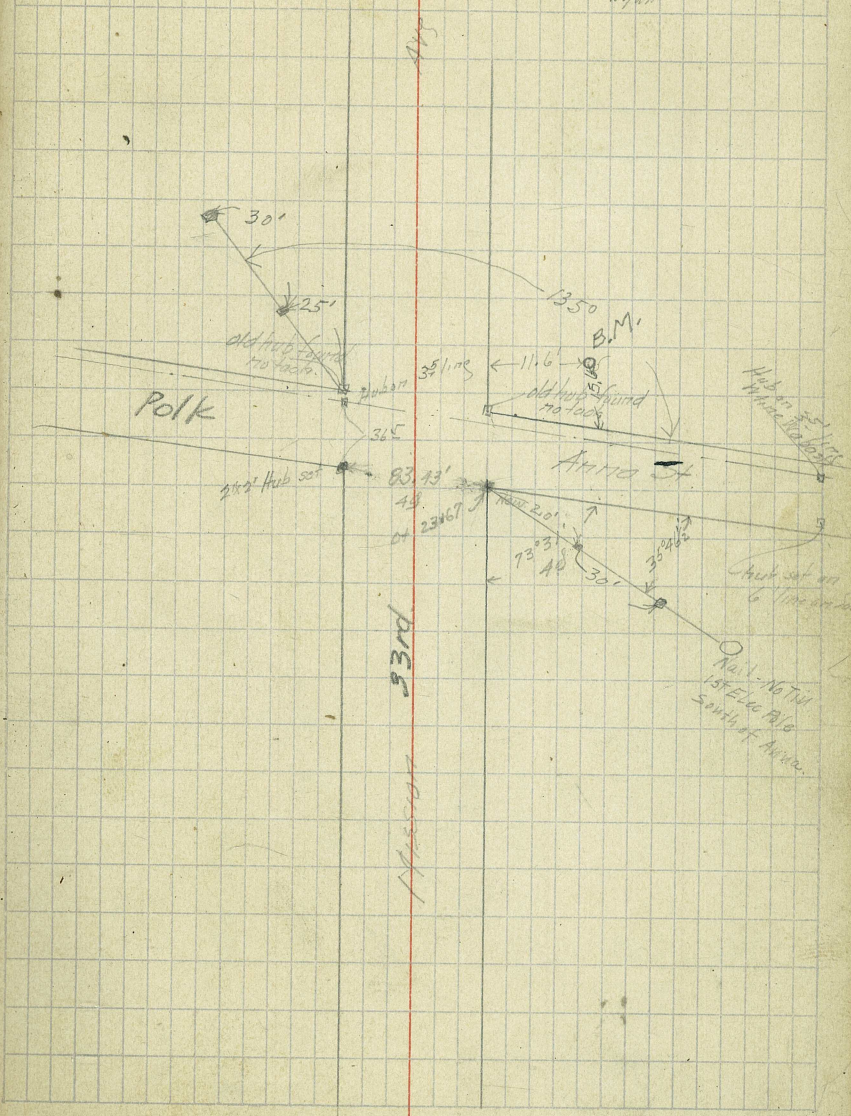

Alignment Mission Ave
sight on end of curb
curb
Bancroft St
Boundary Line


Kuehnstedt 3-09-16
Leekey-Hyatt 3-10-16
37
R.P.S. June 22-1916
Ford-Yeoman-Hyatt
Lincoln
Ave
68°50'
4+32.34
30'
45.58'
20'
new hub set in Nch 11-16
old hub set by Dann removed
correct line new hub set line from So. side Sheet
old hub set by Dann discarded for new line 3-10-16
48.75'
45.15'
21°06' (new)
319.17' (new)
Steiner Street
N.W. Bl. Cor Wabash
Block Cor old r.w. hub no tack (used as correct.)
83.12'
74°16' (new)
0+22.54
100.35
80'
7.78
old hub set by Dann (incorrect taken out)
correct intsn. point obtained by producing line from Wabash Ave
Block Corner Set hub 3-11-16
36+02 new
old Bl. Cor SW Wabash Ave
Mission
33rd
Fillmore
Hub SW Cor Fillmore

Alignment Mission

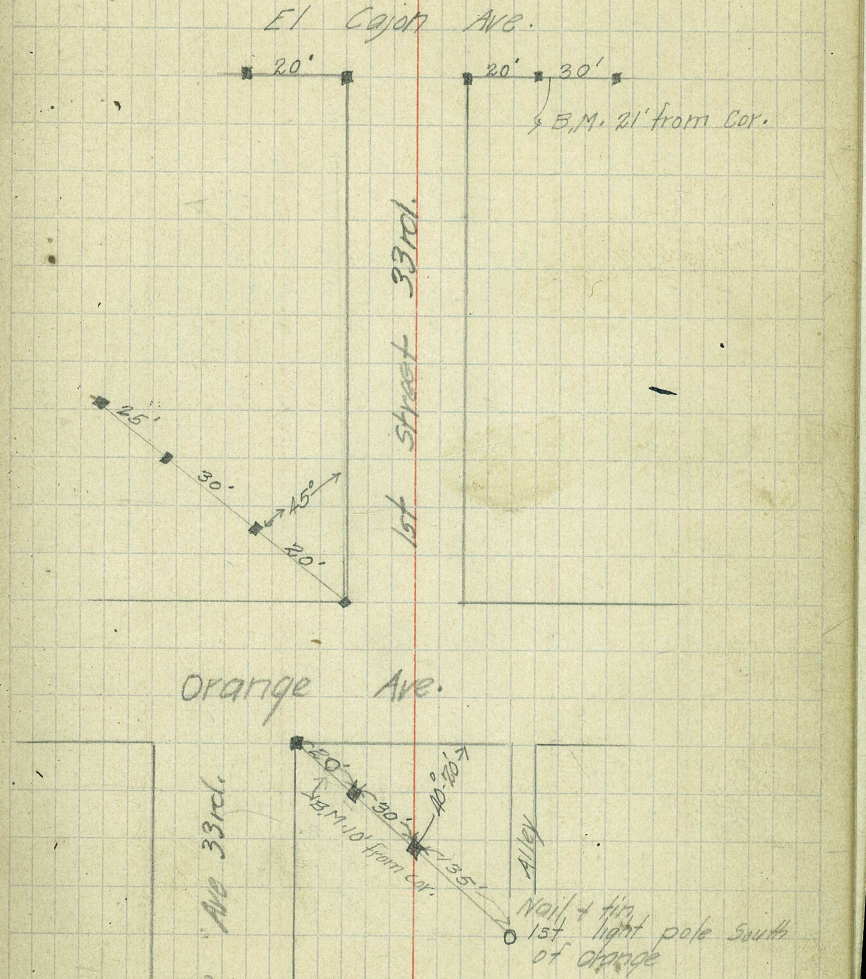
Kuehnstad
Leekay 3-9-16
Hyatt 3-10-16

R.P.S. June 22-1916
Fond- Mon Yeomans
Hyatt



Reference Points Mission & 1st.

Hyatt & Yeamans June 23, 16.



Indexed
C.S.K.

Survey of Sewer Line thru
Blk 19 Middletown Add.

Note!

Survey according to
Davis Tie Point Map

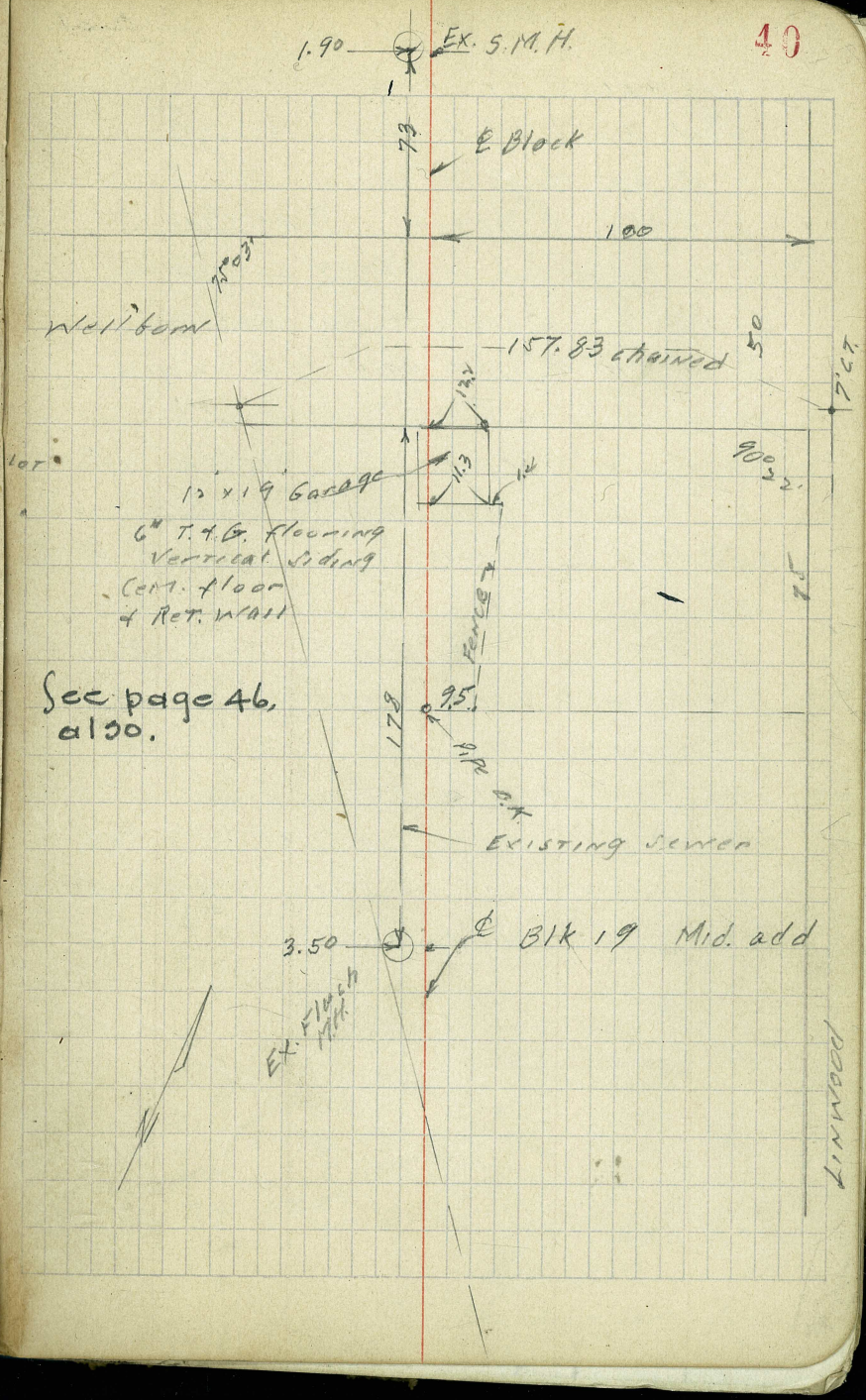
Moore
Northern
6-28-39.

Sewer M. Holes found but
" betw. M.H. not uncovered

N E ly Cor. garage over 2.2[illegible] on Next lot
S " " " " 1.30 " "
Fence at S. E ly Cor. garage
over 2.7

Fence at 75' S ly from Wellborn
0.50 back

N E Cor gar. on St. Line
N W " " 0.6 in St.



See page 46, also.

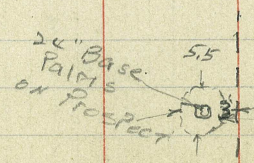
Indexed 7-19-40
E.S.K.

Location of Curb & Sidewalk
old by J. Molineaux 12-27-19
New by Hotel Contr.
old by P. Acton June 1910
3-7
57 the Terrace Sub. of Blk 57 La Jolla Park

7' line = Baseline for Levels =
E of old 5' conc. walk & E of new
14' width conc. walk Constructed by
Hotel Contractor after Removal of
Old 5' walk Constructed by Molineaux 12-27-19
and old 5.33 walk " " P. Acton 6-10.

Note! at 10:10 A.M. 7-27-39.
Hotel employe was watering Shrubs etc
in Parking bet. Prop. line & 5' sidewalk
and Curb & Sidewalk and 5' conc. walk
& new full width walk at Wly end
was very wet on the Nly side of
Jenner St. Wly of Prospect St.

Puz for Levels



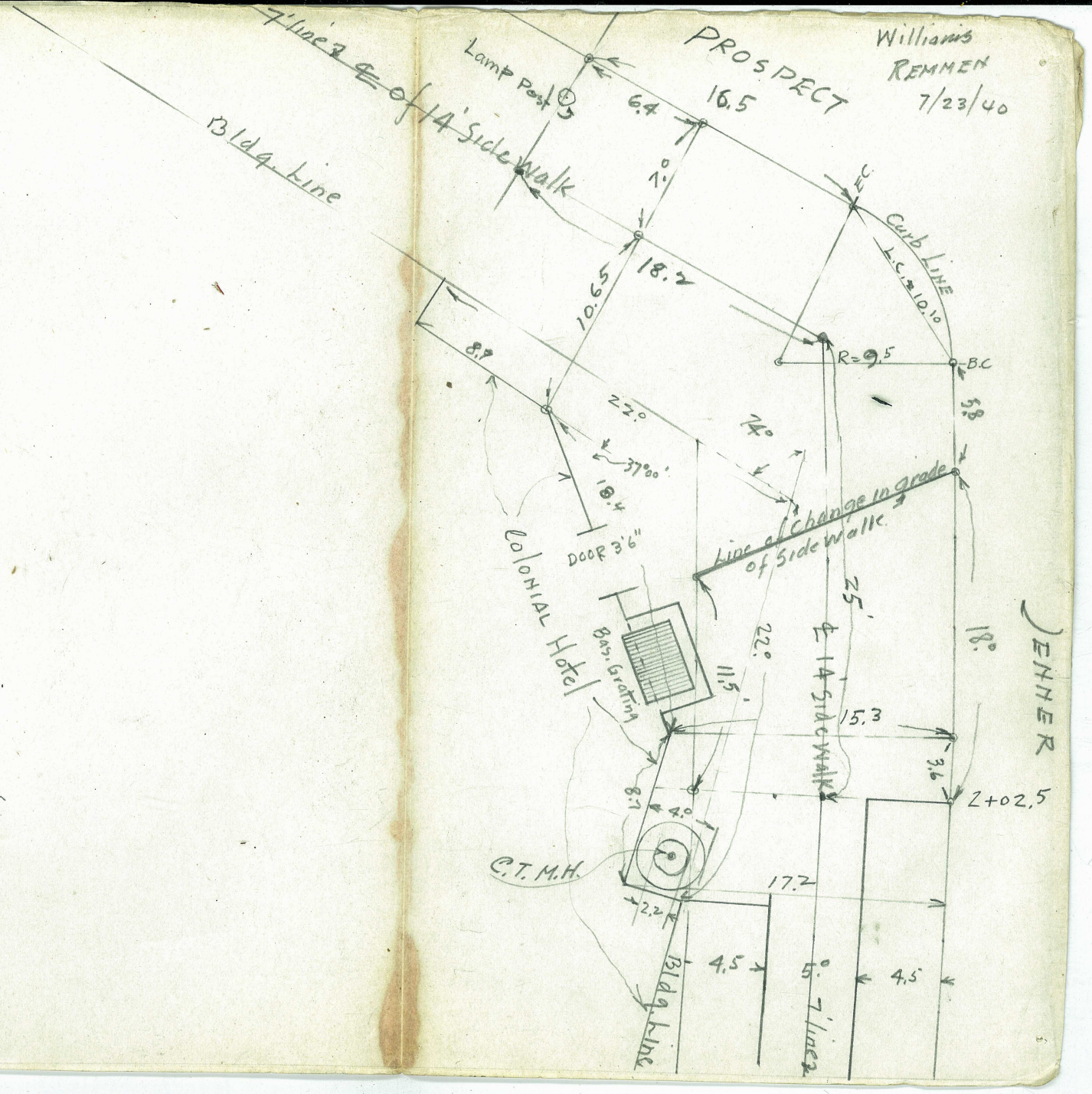
41

1+50					
T.P.	5.49	89.76	1.03	84.27	
1+00					
T.P.	10.84	85.30	0.25	74.44	
0+50					
0+00 ℄ Blk 57 La Jolla Park					
T.P.	0.59	74.71 ✓	12.92	74.12	✓
T.P.	0.50	87.04 ✓	10.55	86.54	✓
SWBP	3.02	97.09 ✓		94.07	Prospect Girard

LT.	Base Line	RT.		
83.45 / 6.31 / 2.5	83.40 / 6.36	83.36 / 6.40 / 2.5	83.23 / 6.53 / 7	83.08
	89.76 / 8			
66.94 / 7.77 / 2.5	66.94 / 7.77	66.93 / 7.78 / 2.5	77.40 / 7.90 / 7	77.29
	85.30 ✓ π / 3			
71.61 / 3.10 / 2.5	71.58 / 3.13	71.56 / 3.15 / 2.5	71.38 / 3.33 / 7	71.50
65.82 / 8.89 / 2.5	65.77 / 8.94	65.73 / 8.98 / 2.5	65.68 / 9.03 / 7	65.71
	74.71 ✓ π / 3			

R=11583

T'RT = TOP CG



Williams
REMMEN
7/23/40
PROSPECT
Lamp Post
16.5
6.4
7.0
18.2
10.65
E.C.
Curb Line
L.C. = 10.10
R = 9.5
B.C.
5.8
8.7
22.0
37°00'
18.4
74°
Line of change in grade of Sidewalk
DOOR 3'6"
Colonial Hotel
Bas. Grating
11.5
22.0
25'
℄ 14' Sidewalk
15.3
18.0
3.6
2+02.5
8.7
4.0
C.T.M.H.
17.2
2.2
4.5
5.0
4.5
Bldg. Line
7' line
Bldg. Line
7' line ℄ of 14' Sidewalk
JENNER

2+05

2+02.5 beg. of Hotel full width 14' walk

T.P. 7.50 96.92 ✓ 0.3 ↓ 89.42

1+95

1+88.6 Joint in 5' walk end of Molesworth Job beg. Hotel Job

1+74 = Joint in Curb end old beg. new curb

89.76

Lt		Rt	
90.16 / 6.76 / 7	89.97 / 6.95	89.65 / 7.27 / 7	89.46
89.75 / 7.17 / 2.5	89.66 / 7.26	89.56 / 7.36 / 2.5	89.36 / 7.56 / 7 — 89.07
	96.92 ✓ / 7		
88.70 / 1.04 / 2.5	88.71 / 1.05	88.70 / 1.04 / 2.5	88.50 / 1.24 / 7 — 88.30
87.94 / 1.82 ✓ / 2.5	87.91 / 1.85	87.84 / 1.90 / 2.5	87.66 / 2.10 / 7 — 87.56
86.26 / 3.50 / 2.5	86.21 / 3.55	86.16 / 3.60 / 2.5	86.05 / 3.71 / 7 — 85.86
	89.76 / 8		

R-11,583

	LT		RT	
2+54	91.92 5.00 7	91.79 5.13	91.67 5.25 7	
2+30.4	91.73 Prop Con 5.19 7	91.65 5.27	91.57 5.35 7	91.60
2+23.3	91.73 Prop. Con 5.19 7	91.61 5.31	91.48 5.44 7	91.60
2+18	91.72 5.20 7	91.56 5.36	91.21 5.71 7	90.96
2+15	91.67 5.25 7	91.25 5.67	90.87 6.05 7	90.61
2+10	90.89 6.03 6.5	90.63 6.29	90.36 6.56 7	90.03
	90.92	90.92 2		

12+11.583

Note! J.W.W. called my attention to fallen blossoms of Hibiscus growing in Parking bet. curb & sidewalk on Jenner St just W/x of Prospect.

This shrubbery & bushes of Hibiscus over hang the walk and the fallen blossoms are indeed as slippery as banana Peels if stepped on even on a level surface.

C.S. Moore

2.84 94.08 94.07 / 0.01

3 + 21.5 = Joint in Curb bet. work and Racton of Hotel Contr. 6-10

2 + 76

96.92

LT RT

45

check to Starting B.M.

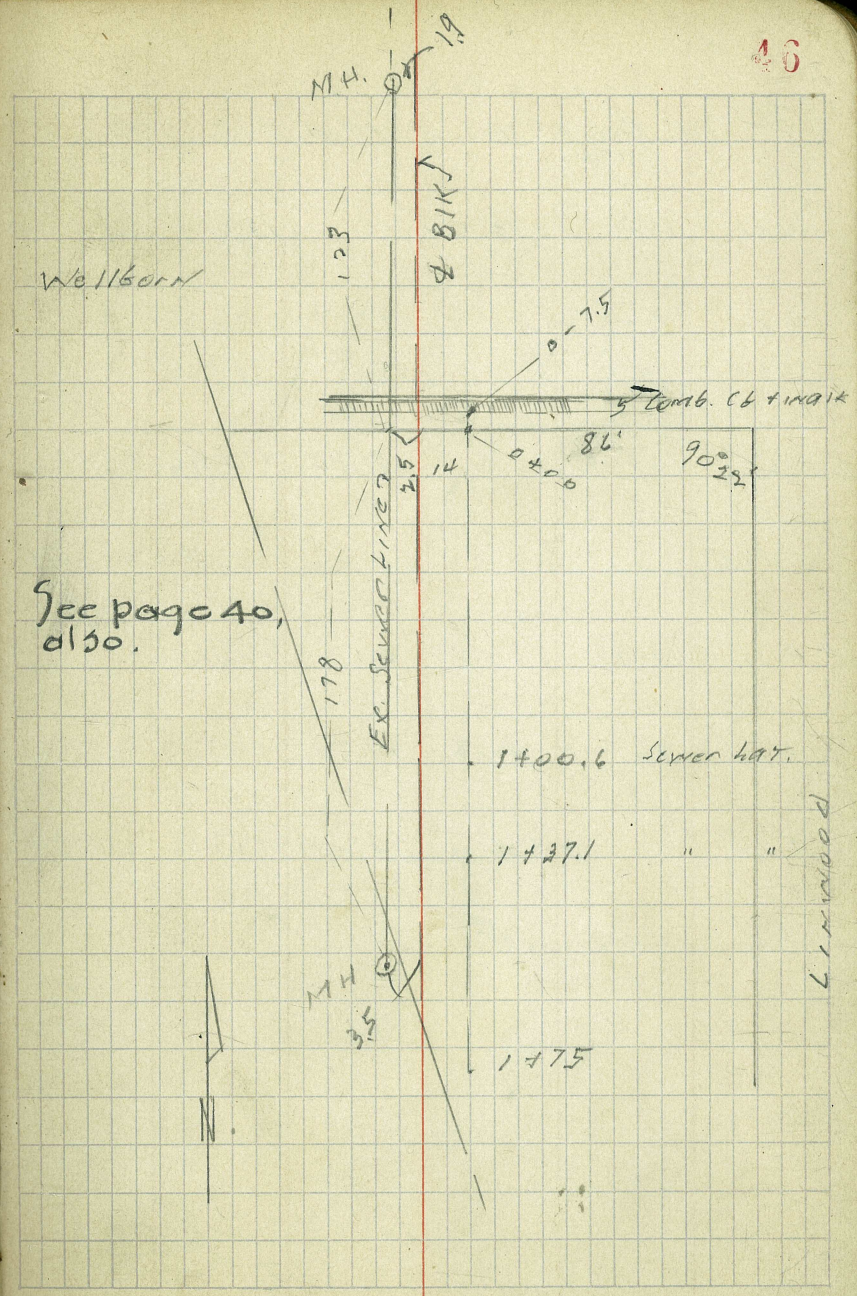
92.16	92.06	91.96
4.76	4.86	4.96
7		7
92.02	91.90	91.78
4.90	5.02	5.14
7		7

96.92

Moore
9-25-39.

Sewer Levels
Blk 19 Mid. Add.

NWBP	0.42	139.91 ✓		139.49	Well. & Linwood
16.5 W/y of 0 - 7.5			18.52	121.39	edge walk
0 - 7.5			15.79	124.12	" "
0+00 S/y Wellborn			14.2	125.7	
0+19			9.8	130.1	
0+50			8.2	131.7	
0+74			6.5	133.4	
0+75			5.0	134.9	
T.P.	12.68	147.76 ✓	4.83	135.08	
1+00			11.8	136.0	
1+25			10.4	137.4	
1+40			7.9	139.9	
1+63 N edge Fern Lath Shed			6.0	141.8	
1+65			5.0	142.8	
1+74 S " " " "			5.0	142.8	
1+75			1.0	146.8	
1+80			0.5	147.3	



See page 40, also.

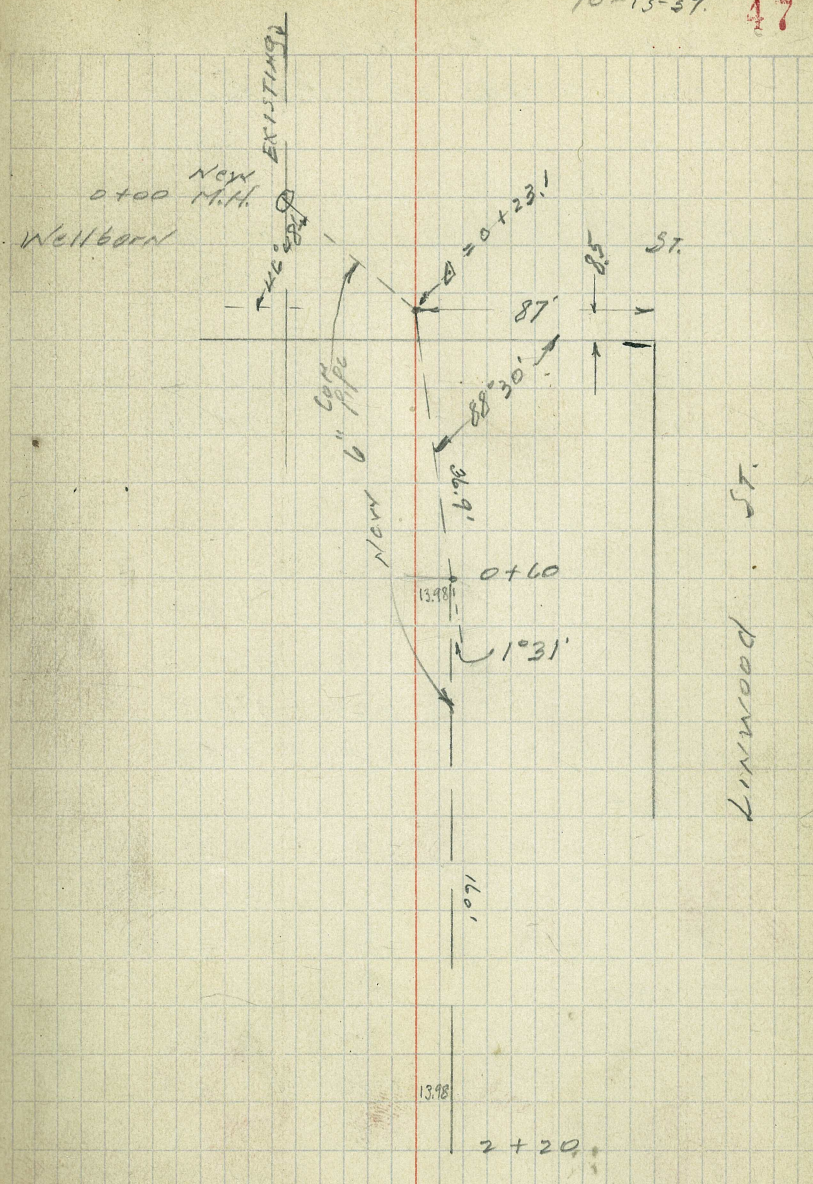
Indexed
C.M.K.

Location + Levels on Sewer as Const.
by Greer Blk 19 Mid. Add.
Greear

NWBP	1.13	140.62		139.49	Wellborn Kinwood
0+00	Rim M.H.		19.87	120.75	
0+00	F.L. "		7.17	117.45	
△ 0+23.1	Top 6" Pipe		19.86	120.76	FL 120.20
0+95	" "		10.20	130.42	FL 129.86
T.P.	10.38	150.87	0.13	140.49	
1+29	Top 6" Pipe		17.70	133.17	FL 132.61
1+75	" end of "		13.00	137.87	FL 137.31
2+20	end of ditch				

Moore
10-13-39.

17



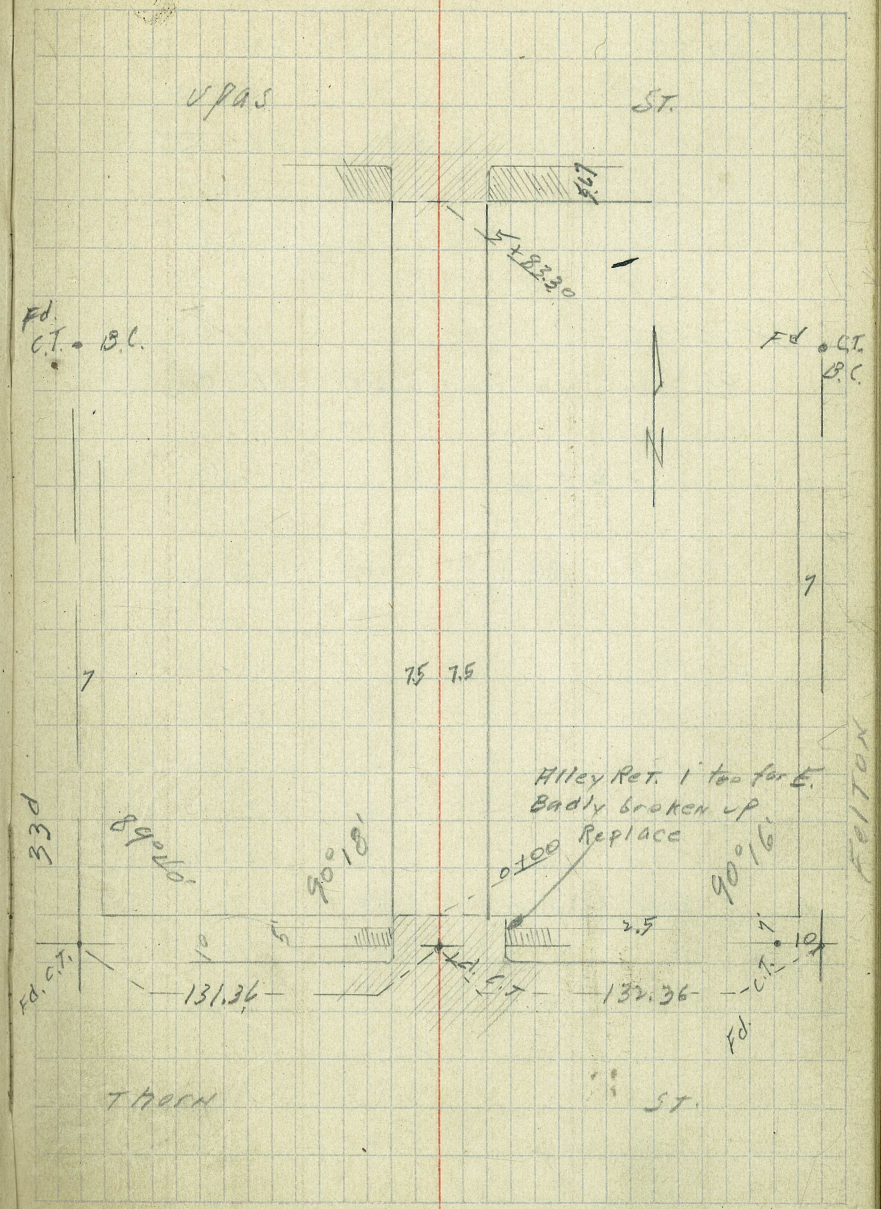
Xsec 15' alley Blk "C" Altadena
Thorn to Upas bet 33d + Felton

SW BP	8.69	323.49		314.80	33d + Thorn
00-10					
W	Pav.		5.53	317.96	
E			5.17	318.32	
0+00 N.L. Thorn					
E	cb broken out				
E	Pav		4.46	319.03	
C	"		4.97	318.52	
W	"		4.63	318.86	
W	cb		4.54	318.95	
0+05					
W			3.9	319.6	
C			4.2	319.3	
E			4.2	319.3	
0+20					
E			3.8	319.7	
C			3.8	319.7	
W			3.7	319.8	
+6 Sin. gar. cem. S. entrance 8' door			3.84	319.65	

Plotted By CBH 10-25-39

indexed
C.S.K.

Moore
10-13-39. 13



323.49

	0+57				
W			3.5	320.0	
C			3.3	320.2	
E			3.2	320.3	
+0.3	3' Cem wk		3.00	320.49	✓
	0+59				
W-2	Cem. & Iron		3.67	319.82	✓
W-4	Sin. gar. Cem		3.62	319.87	✓
0+64	C+4.8	on Wr. Po. Pole			
T.P.	4.91	325.34	3.06	320.43	
	0+84				
E			5.0	320.3	
E			5.0	320.3	
C			5.0	320.3	
W			5.1	320.2	
+0.5	E 2' Cem wk		5.52	319.82	✓
+5			5.6	319.7	✓
	0+98				
-5			5.4	319.7	✓
W			4.8	320.5	
C			5.0	320.3	
E			5.0	320.3	
+0.8	Sin. gar. Cem		4.71	320.63	✓

325.34

1+06 beg. fence on E on line

	1+24		
-5		5.1	320.2
E		5.2	320.1
C		4.7	320.6
W		4.5	320.8
+0.5	2' Cem. wk.	4.84	320.50 ✓

1+44 end fence 0.8 in alley

	1+50		
-5		5.1	320.2 ✓
W		4.8	320.5
C		4.8	320.5
E		4.9	320.4
+5		4.9	320.4 ✓

1+84 on W. Po Pole on line

	2+00		
-5		5.0	320.3 ✓
E		4.9	320.4
C		4.6	320.7
W		5.0	320.3
+5		5.0	320.3 ✓

2+43				
W ON WK		4.45	320.89	✓
+0.6 E 2' WK		4.45	320.89	fence also in gully ex 0.6
C		4.3	321.0	
E		4.4	320.9	
2+70				
E		4.2	321.1	
C		3.9	321.4	
W		4.2	321.1	
+5		4.2	321.1	✓
3+04				
-5		4.4	320.9	✓
W		4.2	321.1	
+0.5 Po. Pole				
C		3.9	321.4	
E		3.8	321.5	
+5		3.8	321.5	✓
3+25				
-5		3.8	321.5	✓
E		3.4	321.9	
C		3.8	321.5	
W 2' Cem. WK		4.51	320.83	✓
3+60				
-5		4.0	320.7	✓
W		4.2	321.1	
C		4.1	321.2	
E		4.0	321.3	
+5		4.2	321.1	✓

3+93				
-5		4.4	320.9	✓
E		4.4	320.9	
C		4.4	320.9	
W		4.7	320.6	
+2.7 Sm. gar Cem.		4.7	320.6	✓
T.P. 4.24	325.16	4.42	320.92	
4+17				
-5		4.9	320.3	✓
W		4.5	320.7	
C		4.5	320.7	
E		4.4	320.6	
+1.3 Cem apron		4.51	320.65	✓
+3.4 Sm. gar Cem		4.13	321.03	✓
4+28				
E		4.4	320.6	
C		4.5	320.7	
+4.4 Po. Pole				
W Sedge Cem. apron		4.81	320.35	✓
+4 " do. gar Cem		4.70	320.46	✓
4+33				
E		4.5	320.7	
E +15 Sm. gar Cem.		4.07	321.09	✓

325.14

4+44					
W-4 N edge do. gar			4.73	320.43	cem ✓
W	cem apron		4.95	320.21	✓
C			4.8	320.4	
E			4.6	320.6	
4+68					
E			4.9	320.3	
C			4.9	320.3	
+7 Sin. gar. cem			5.20	319.96	0.5 in alley ✓
4+78					
W on 2' cem. wk			5.44	319.70	✓
4+97 P. Pole 1.3 in alley on W					
" Fence 0.5 in alley					
5+00					
W			5.4	319.8	
C			5.4	319.6	
E			5.3	319.9	
T.P.	3.01	322.24	5.91	319.25	
5+25					
E			3.1	319.2	
C			3.1	319.2	

322.24

+7.1 S. edge cem apron	3.02	319.24	✓
W +1.6 S " do. gar			cem ✓
5+40			
W 1.6 N " "	2.94	319.32	" ✓
W +0.2 N edge cem apron	3.04	319.22	✓
C	3.1	319.2	
E	3.3	319.0	
5+45			
E beg 2' cem. wk.	3.20	319.06	✓
C	3.3	319.0	
W	3.4	318.9	
+0.5 cem. drain	3.45	318.81	✓ & wk. to alley Keep grade below this
5+53			
E wk. + apron cem	3.28	318.98	✓
" -4 Sin gar "	3.18	319.08	✓
5+80			
W	4.8	317.5	
C	4.8	317.5	
E ground	4.6	317.7	
+0.2 Top 2' cem. wk.	3.38	318.88	✓ and steps
5+83.30 SL Upas St.			
E cb	4.82	317.44	✓
E Pav.	5.09	317.17	✓
C "	5.21	317.05	✓

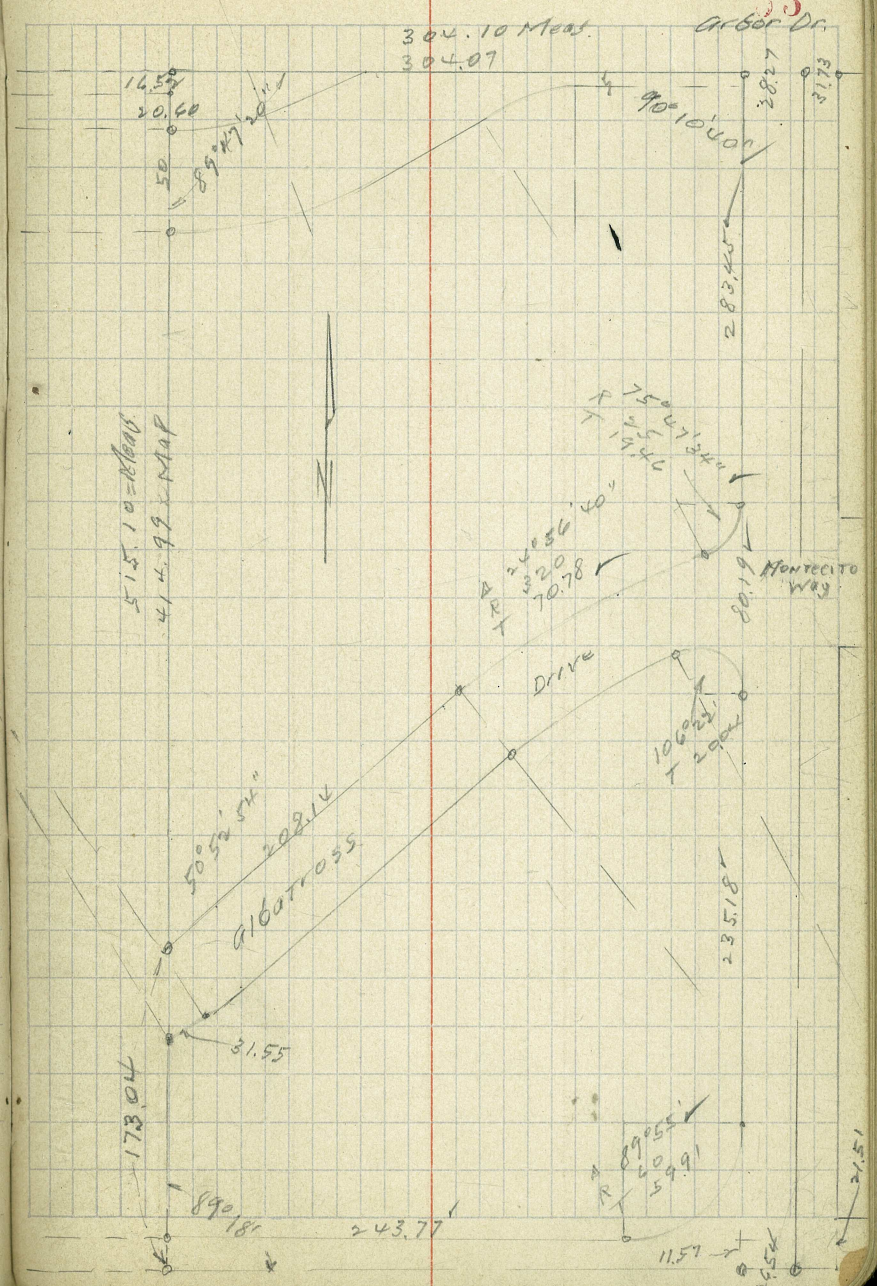
		322.24			
W	Par.		4.92	317.34	
W	cb		4.62	317.64	
	5.67 N = S cb Line Upas				
W	Par		5.31	316.95	
E	"		5.42	316.84	
NW BP	33d + Upas		3.65	318.61	318.45
T.P.	2.25	318.09	4.42	315.84	
NW BP	Upas Felton		5.76	312.33	312.35

curb has heaved up

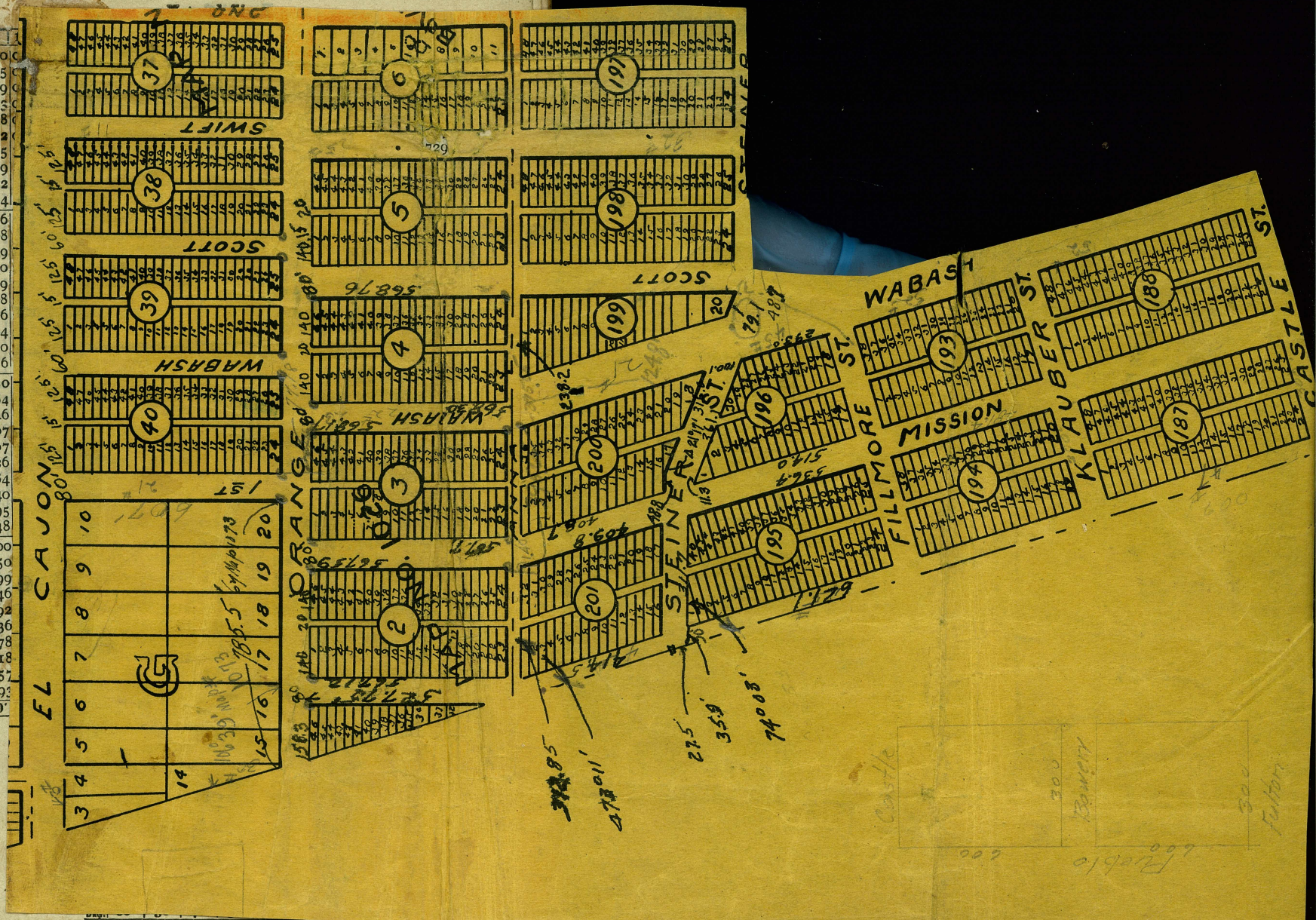
INDEXED
EFB

Check Survey of
Gilbert's Hillcrest Add.

Moore
osborn
Hale
3-26-40



Deg.	0′	1
0	0000	0
1	0175	0
2	0349	0
3	0523	0
4	0698	0
5	0872	0
6	1045	
7	1219	
8	1392	
9	1564	
10	1736	
11	1908	
12	2079	
13	2250	
14	2419	
15	2588	
16	2756	
17	2924	
18	3090	
19	3256	
20	3420	
21	3584	
22	3746	
23	3907	
24	4067	
25	4226	
26	4384	
27	4540	
28	4695	
29	4848	
30	5000	
31	5150	
32	5299	
33	5446	
34	5592	
35	5736	
36	5878	
37	6018	
38	6157	
39	6293	
Deg.	60′	



Natural Cosines

Natural Tangents

deg.	0′	10′	20′	30′	40′	50′	deg.
0	0000	0029	0058	0087	0116	0145	89
1	0175	0204	0233	0262	0291	0320	88
2	0349	0378	0407	0437	0466	0495	87
3	0524	0553	0582	0612	0641	0670	86
4	0699	0729	0758	0787	0816	0846	85
5	0875	0904	0934	0963	0992	1022	84
6	1051	1080	1110	1139	1169	1198	83
7	1228	1257	1287	1317	1346	1376	82
8	1405	1435	1405	1495	1524	1554	81
9	1584	1614	1644	1673	1703	1733	80
10	1763	1793	1823	1853	1883	1914	79
11	1944	1974	2004	2035	2065	2095	78
12	2126	2156	2186	2217	2247	2278	77
13	2309	2339	2370	2401	2432	2462	76
14	2493	2524	2555	2586	2617	2648	75
15	2679	2711	2742	2773	2805	2836	74
16	2867	2899	2931	2962	2994	3026	73
17	3057	3089	3121	3153	3185	3217	72
18	3249	3281	3314	3346	3378	3411	71
19	3443	3476	3508	3541	3574	3607	70
20	3640	3673	3706	3739	3772	3805	69
21	3839	3872	3906	3939	3973	4006	68
22	4040	4074	4108	4142	4176	4210	67
23	4245	4279	4314	4348	4383	4417	66
24	4452	4487	4522	4557	4592	4628	65
25	4663	4699	4734	4770	4806	4841	64
26	4877	4913	4950	4986	5022	5059	63
27	5095	5132	5169	5206	5243	5280	62
28	5317	5354	5392	5430	5467	5505	61
29	5543	5581	5619	5658	5696	5735	60
30	5774	5812	5851	5890	5930	5969	59
31	6009	6048	6088	6128	6168	6208	58
32	6249	6289	6330	6371	6412	6453	57
33	6494	6536	6577	6619	6661	6703	56
34	6745	6787	6830	6873	6916	6959	55
35	7002	7046	7089	7133	7177	7221	54
36	7265	7310	7355	7400	7445	7490	53
37	7536	7581	7627	7673	7720	7766	52
38	7813	7860	7907	7954	8002	8050	51
39	8098	8146	8195	8243	8292	8342	50

deg.	60′	50′	40′	30′	20′	10′	deg.

deg.	0′	10′	20′	30′	40′	50′	deg.
40	8391	8441	8491	8541	8591	8642	49
41	8693	8744	8796	8847	8899	8952	48
42	9004	9057	9110	9163	9217	9271	47
43	9325	9380	9435	9490	9545	9601	46
44	9657	9713	9770	9827	9884	9942	45
45	1.0000	1.0058	1.0117	1.0176	1.0235	1.0295	44
46	1.0355	1.0416	1.0477	1.0533	1.0599	1.0661	43
47	1.0724	1.0786	1.0850	1.0913	1.0977	1 1041	42
48	1.1106	1.1171	1.1237	1.1303	1.1369	1.1436	41
49	1.1504	1.1571	1.1640	1.1708	1.1778	1.1847	40
50	1.1918	1 1988	1.2059	1.2131	1.2203	1.2276	39
51	1.2349	1.2423	1.2497	1.2572	1.2647	1.2723	38
52	1.2799	1.2876	1.2954	1.3032	1.3111	1.3190	37
53	1.3270	1.3351	1.3452	1.3514	1.3597	1 3680	36
54	1.3764	1.3848	1.3934	1.4019	1.4106	1.4193	35
55	1.4281	1.4370	1.4460	1.4550	1.4641	1.4733	34
56	1.4826	1.4919	1.5013	1.5108	1.5204	1.5301	33
57	1 5399	1.5497	1.5597	1 5697	1 5798	1.5900	32
58	1.6003	1.6107	1.6212	1.6319	1.6426	1.6534	31
59	1.6643	1 6753	1.6864	1.6977	1.7090	1 7205	30
60	1.7321	1.7437	1.7556	1.7675	1 7797	1.7917	29
61	1.8040	1.8165	1.8291	1.8418	1.8546	1.8676	28
62	1.8807	1.8940	1.9074	1.9210	1.9347	1.9486	27
63	1.9626	1.9768	1.9912	2.0057	2.0204	2.0353	26
64	2.0503	2.0655	2.0809	2.0965	2.1123	2.1283	25
65	2.1445	2.1609	2.1775	2.1943	2.2113	2.2286	24
66	2.2460	2.2637	2.2817	2.2998	2.3183	2.3369	23
67	2.3559	2.3750	2.3945	2.4142	2.4342	2.4545	22
68	2.4751	2.4960	2.5172	2.5386	2.5605	2.5826	21
69	2.6051	2 6279	2.6511	2.6746	2.6985	2.7228	20
70	2.7475	2 7725	2 7980	2.8239	2.8502	2.8770	19
71	2.9042	2.9319	2.9600	2.9887	3.0178	3.0475	18
72	3.0777	3 1084	3.1397	3.1716	3.2041	3.2371	17
73	3.2709	3.3052	3.3402	3.3759	3.4124	3.4495	16
74	3.4874	3.5261	3 5656	3.6059	3.6470	3.6891	15
75	3 7321	3.7760	3.8208	3.8657	3.9136	3.9617	14
76	4.0108	4.0611	4.1126	4 1653	4.2193	4.2747	13
77	4 3315	4.3897	4.4494	4.5107	4.5736	4.6382	12
78	4 7046	4.7729	4.8430	4.9152	4.9894	5 0658	11
79	5 1446	5 2257	5,3093	5.3955	5.4845	5.5764	10

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

55¢

Line .05 S Scott old hub W.L.
" .50 N Wabash guinea E.L.
" 20 N " hub W.L.
" .05 N " N.W. Cor.
.05 S " N.W.

77.18

0-0

608
113
595.7

ENGINEERING DEPARTMENT,
CITY OF EAST SAN DIEGO.
CALIFORNIA.

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.

MADE IN GERMANY.