

1655

DEALER
IN THE

ENGINEERS'
FIELD BOOK

No. 403F

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

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

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

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be $30.6 + (20 - 16) \div 2$ or 2 ft. added to $30.6 = 32.6$. For slopes of 1 on 1½ see inside of back cover.
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1655

CITY ENGINEER'S OFFICE

82° 37' 15"

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.

Proposed Sewer Pressure Line
Coast Blvd Jannett Prospect Girard + Hall St 47-50

Sewer Levels Blk 59 L J. PK. 72

Trunk Sewer line
on Torrey Pines Rd
Prospect Pl. to La Jolla Shores

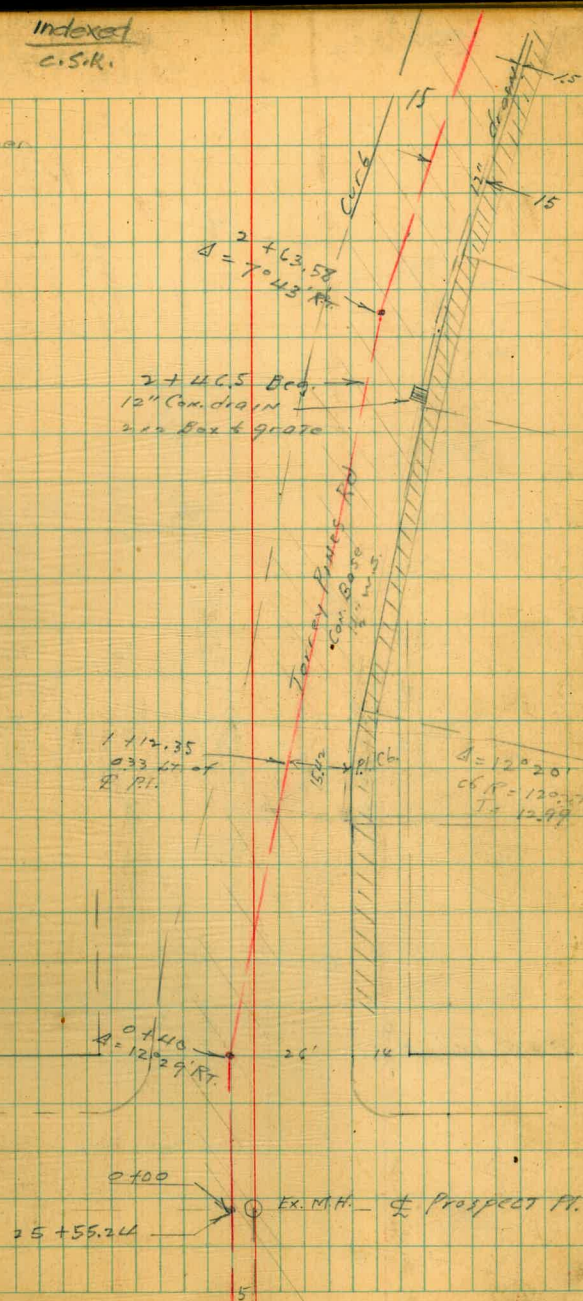
Prospect to Viking Way = 5" Con. 1 1/2" w.s.
Viking Nely 6" A.C. Pav.

0+40 Δ 12° 29' RT. Mb. Prospect Pl.

Note! 0+00 Not angle as
shown in other book

Indexed
C.S.R.

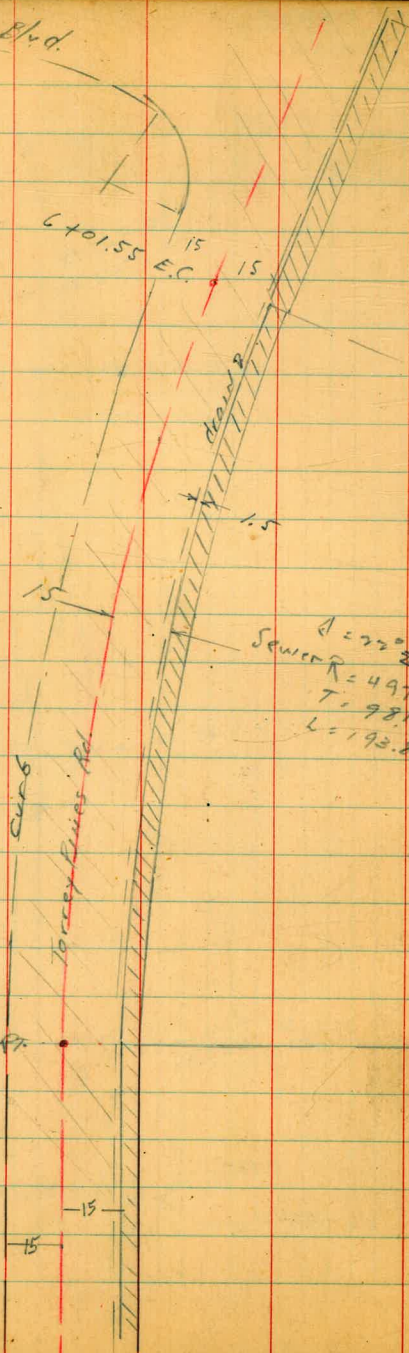
Moore
Sons and Meyer
Moore
3-1943



Coast Blvd.

- 2° 26.3
- 5° 19.1
- 8° 11.9
- 11° 10.0

6+01.55 E.C.



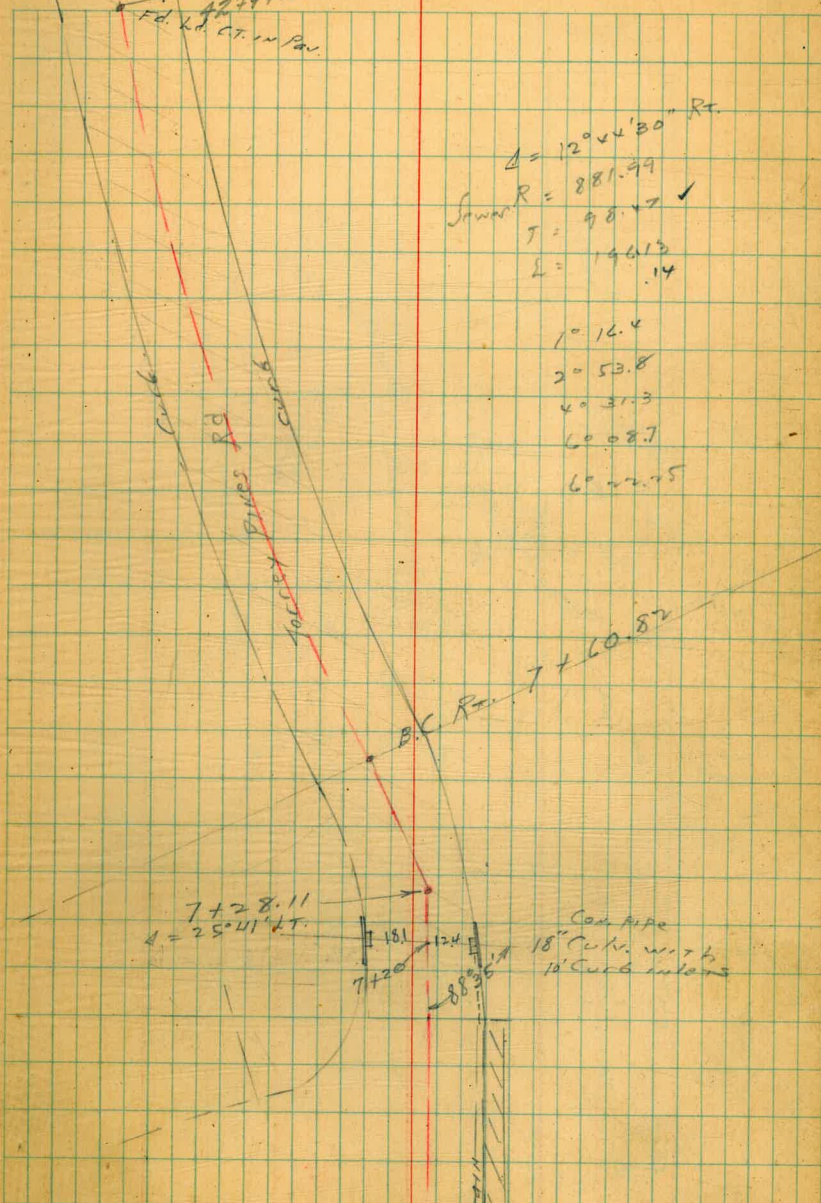
$D = 220.30' \text{ Rt.}$
 Sewer $R = 497.41$
 $T = 98.19$
 $L = 193.89$ ✓

4+07.66 E.C. Pt.

15' 15' 9+56.95 = E.C.

FD. X 22+194.35 G244-28
 27. in Pav.

2

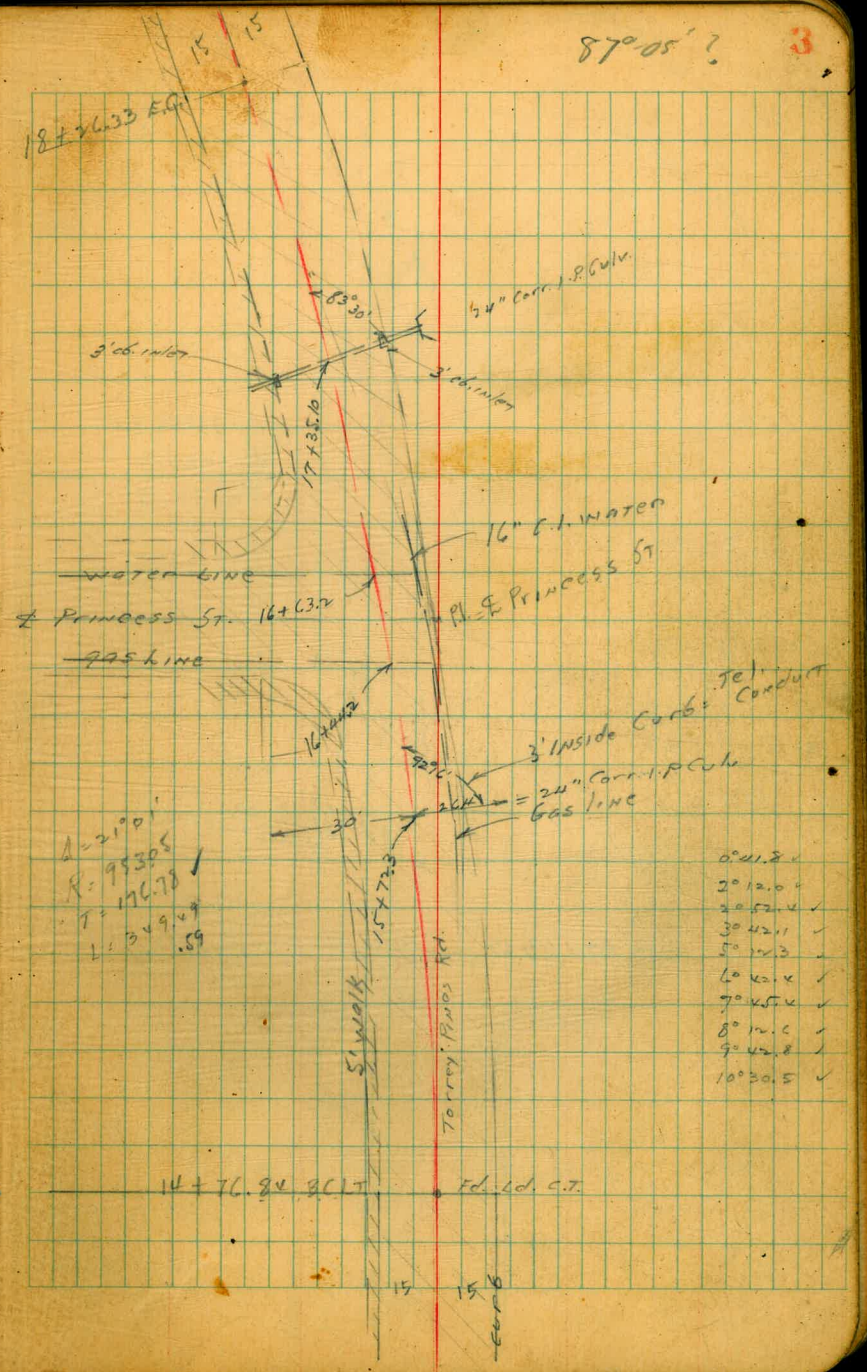
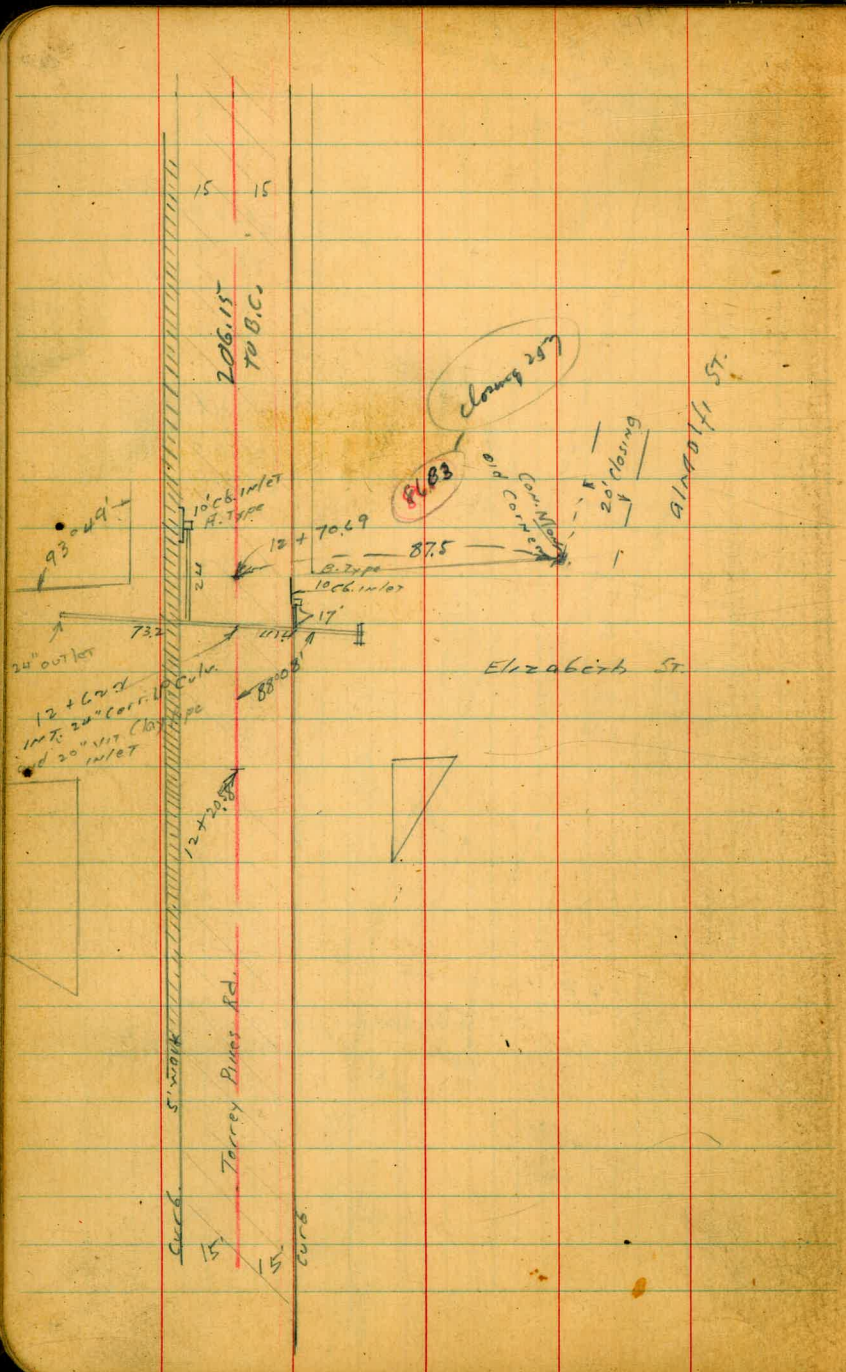


$D = 120.4' \text{ Rt.}$
 Sewer $R = 881.99$
 $T = 98.17$ ✓
 $L = 146.15$
 14

- 1° 16.4
- 2° 53.8
- 4° 31.3
- 6° 08.7
- 6° 22.75

7+28.11
 $D = 250.41' \text{ Rt.}$

Curb Pipe
 18" Curb with
 15" Curb inlets



87° 05' ? 3

$A = 2190'$
 $R = 95305$
 $T = 17678$
 $L = 349.49$
 $.59$

- 0° 41.8 ✓
- 20 12.0 ✓
- 30 42.4 ✓
- 50 42.3 ✓
- 60 42.4 ✓
- 70 42.4 ✓
- 80 42.4 ✓
- 90 42.8 ✓
- 100 30.5 ✓

$\Delta = 33^\circ 52' 30''$
 $R = 499.67$
 $T = 152.17$

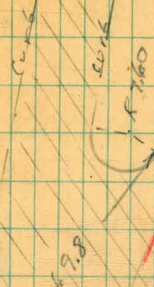
$19+81.3$
 B.C. ϕ 30" Pav.
 also Sewer B.C.

$19+59.67$ Ed. Id. CT. of Viking way



23+36.05 E.C.

4



Torrey Place Rd.

$\Delta = 33^\circ 52' 30''$
 Sewer $R = 600$
 $T = 182.7$
 $L = 354.74$

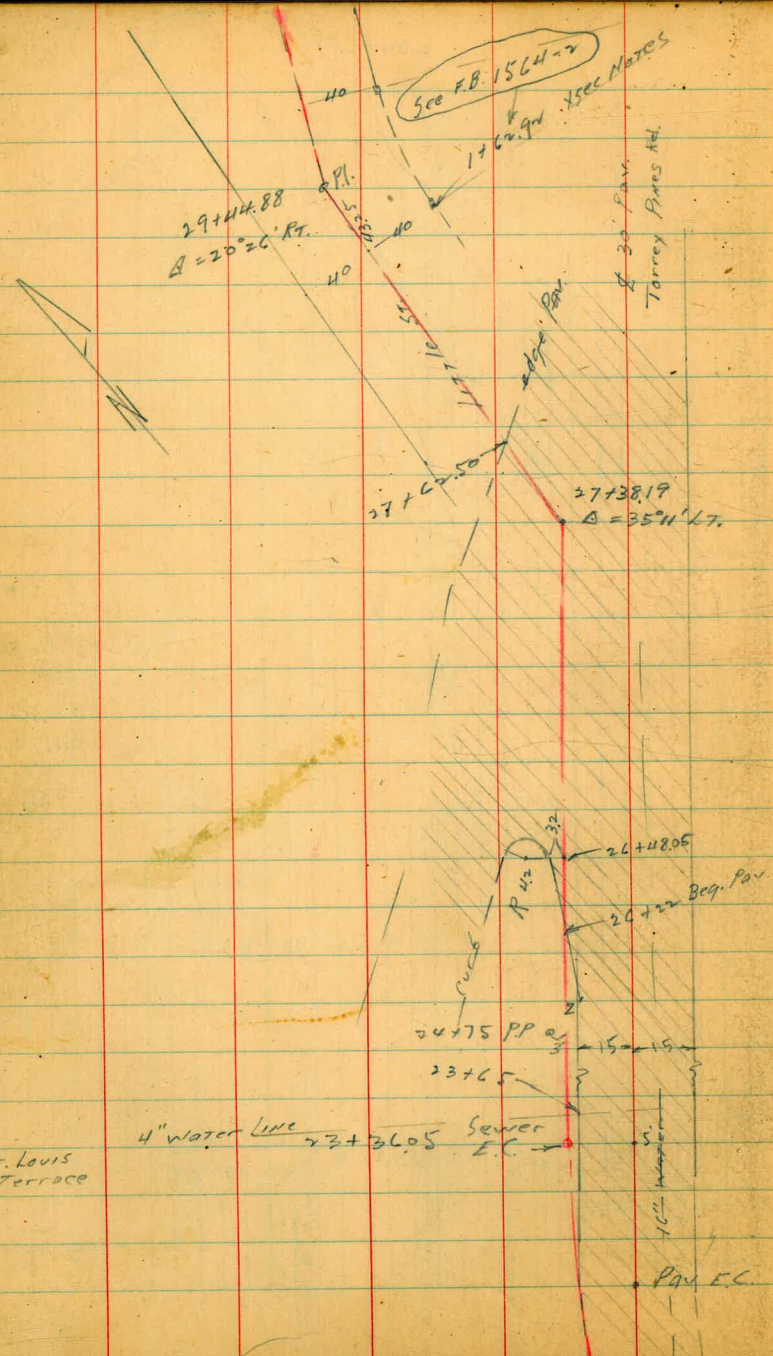
See G.B. 174-38

$19+81.31 =$ Pav. B.C.
 Sewer B.C.

Water 19+69.8

905 19+50

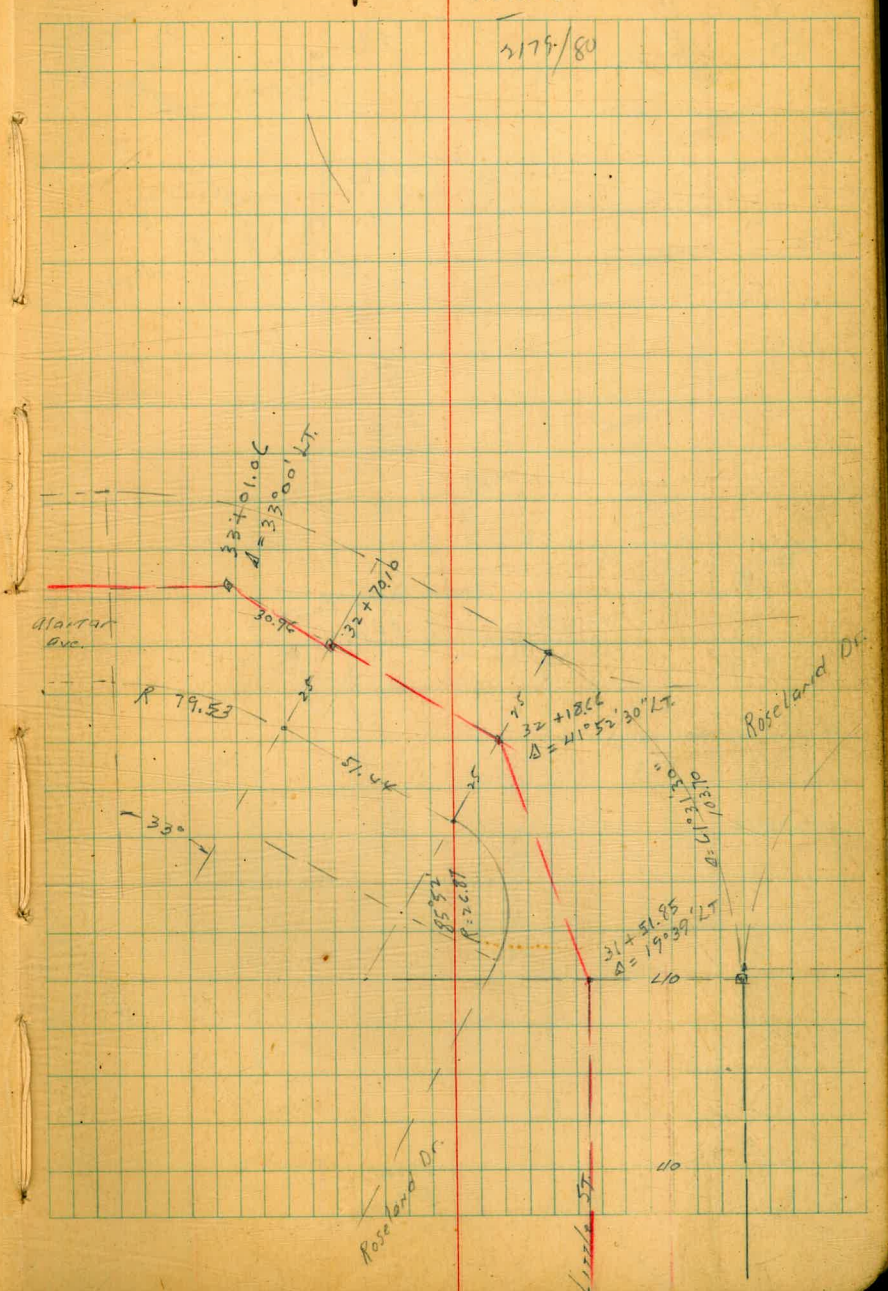
Viking way

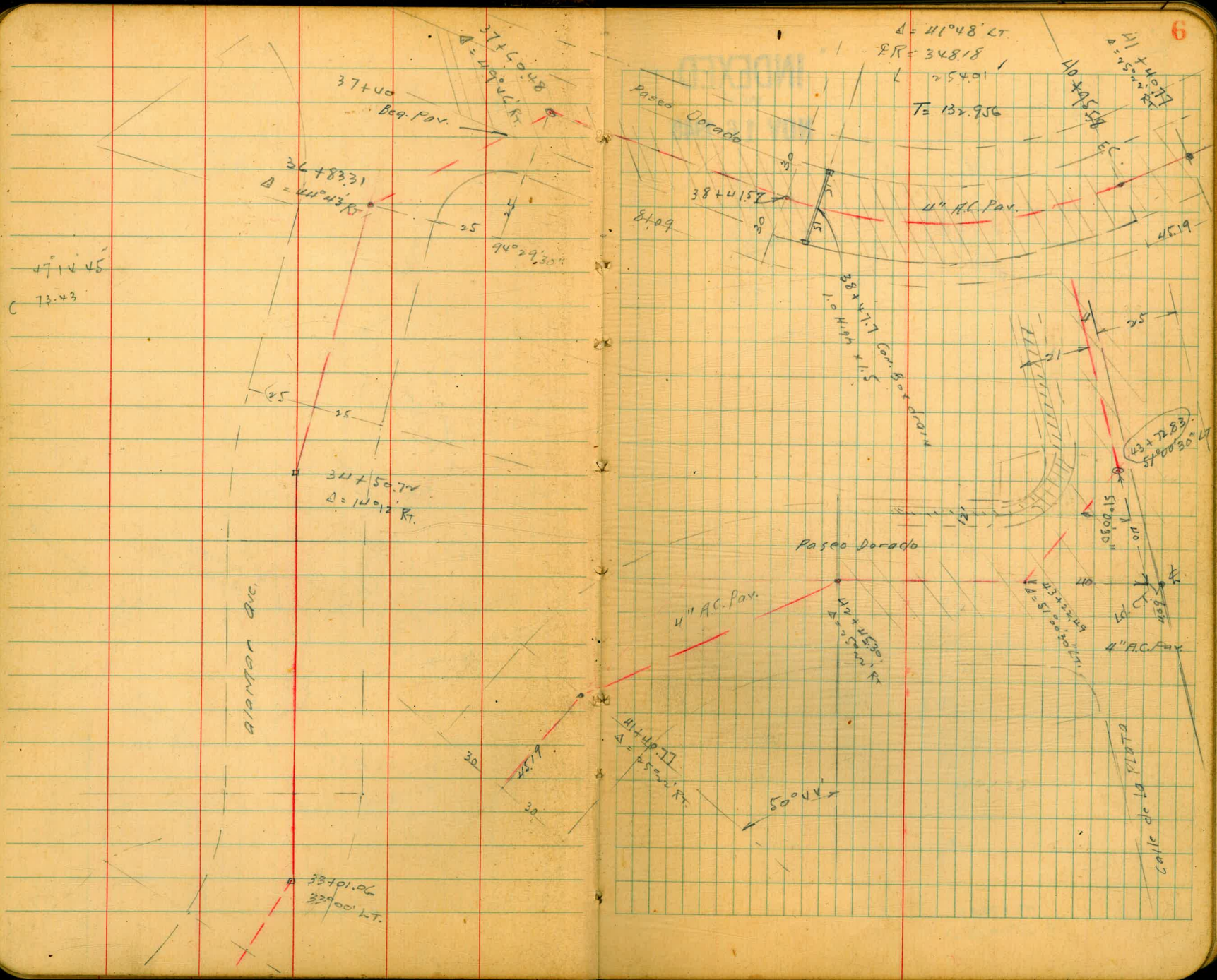


Tie Points

5

3179/80

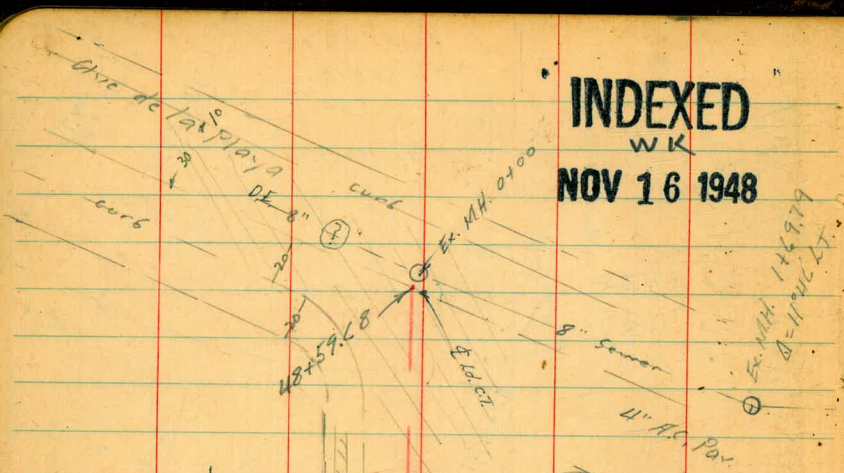




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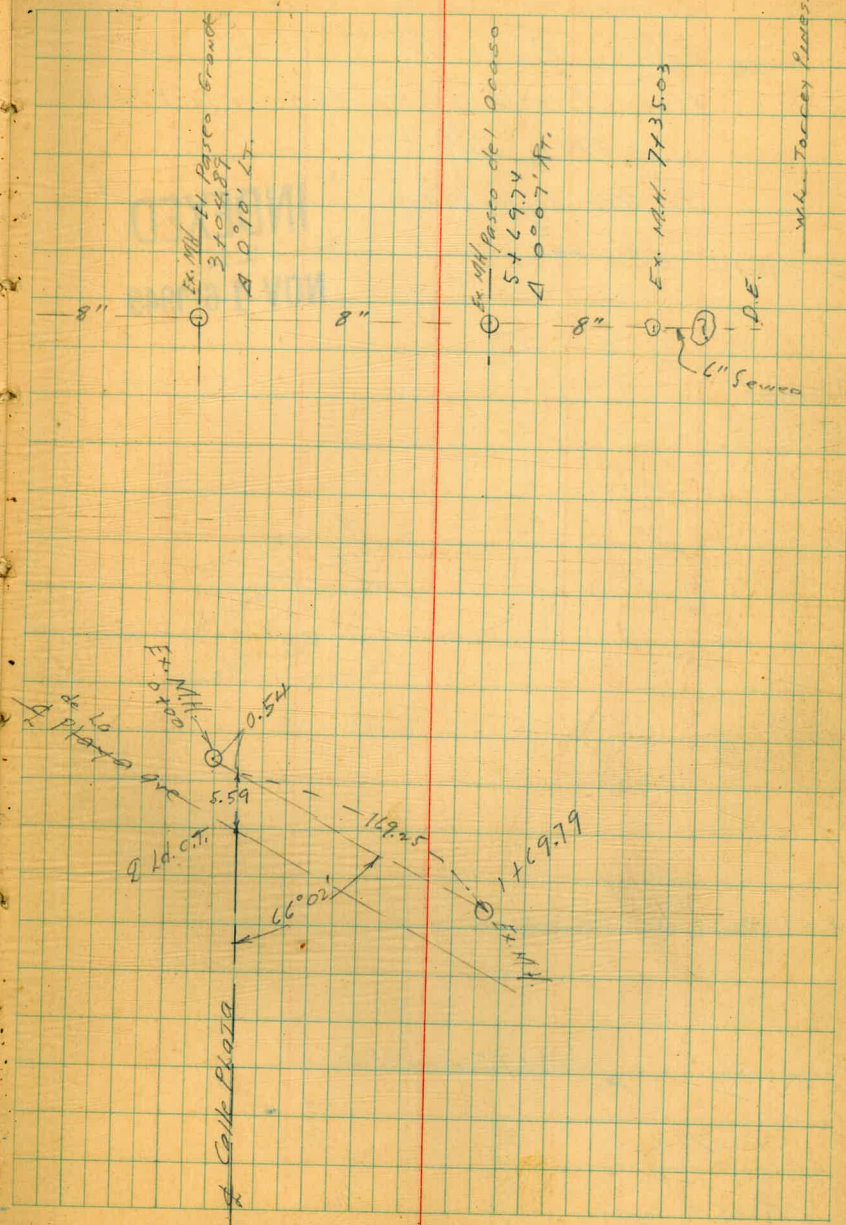
WK

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43 + 72.83
 $\Delta = 51^{\circ}00'30''$ LT

Location of Ex. Sewer on
 Ave. de la Playa



W.L. Tacey Surveyor

ALTERNATE Sewer line via
 Torrey Pines Rd.
 from Little St. to Calle de la Plaza
 and left on
 to Ave de la Playa

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30+75.14 E.C. 2' 15' 15'

- 0° 40.5
- 2° 21.6
- 4° 24.7
- 6° 16.7
- 7° 13.0

$\Delta = 141^{\circ} 21' \text{ RT}$
 Sewer R = 767.00
 $L = 193.21$
 E.B. 174-39
 $L = 99.14$

28+81.93 B.C. RT. 15' 15'

27+95 edge Pav.

27+38.19
 from P. 5

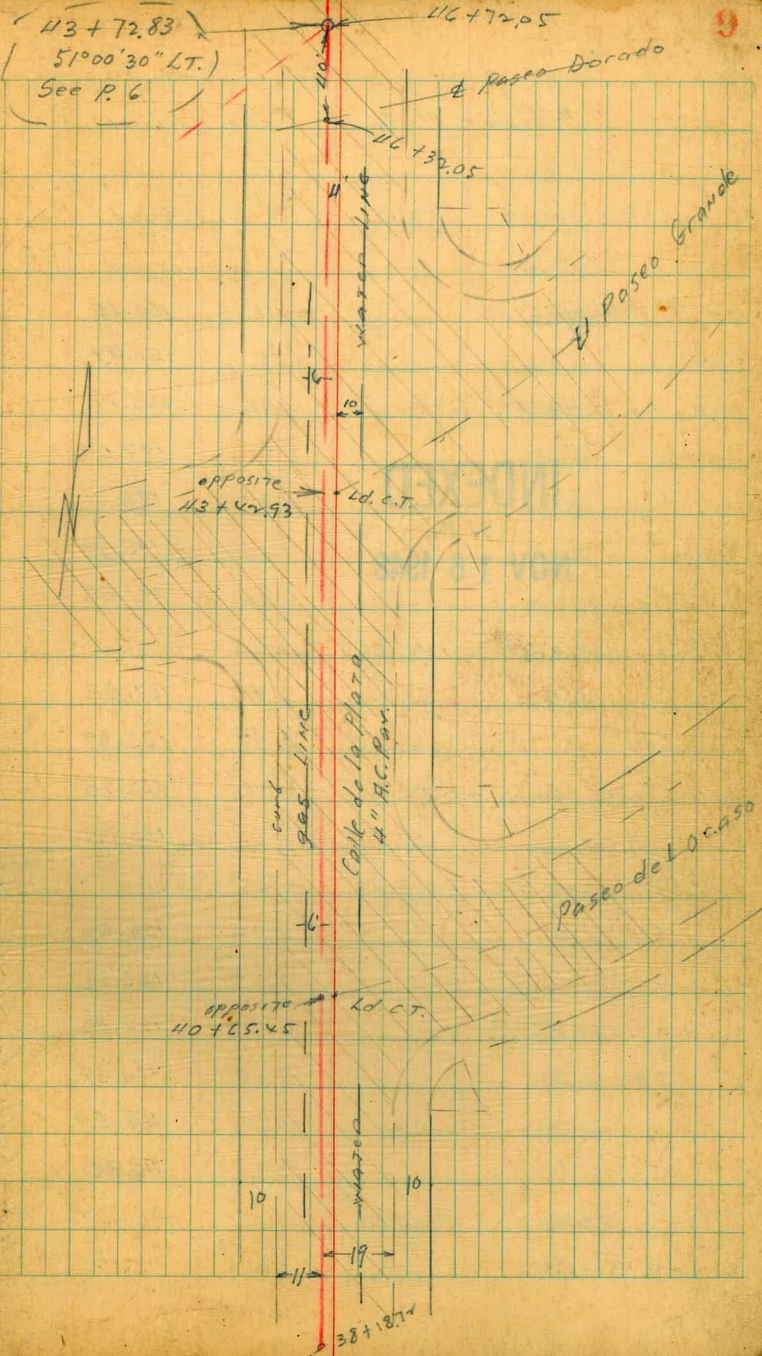
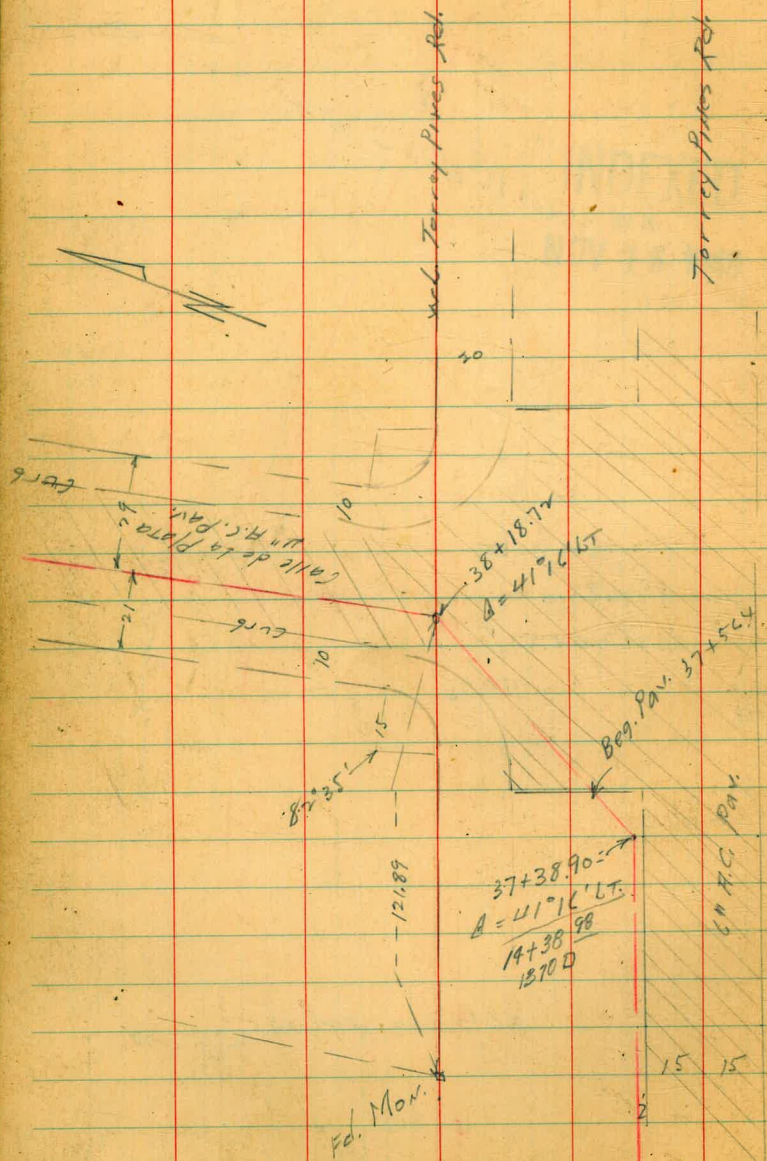
35+01.86 E.C.

$\Delta = 75^{\circ} 31' \text{ LT}$
 Sewer R = 683.0
 $L = 304.37$
 $L = 154.75$

- 2° 12.1
- 4° 17.9
- 6° 23.7
- 8° 29.5
- 10° 35.3
- 12° 41.0

B.C. LT. 31+97.49 30'

Torrey Pines Rd.



Sewer Levels on Torrey Pines Rd.
Prospect Pl. to La Jolla Shores

SE. Cox. Man.	0.94	153.15	✓	✓ Torrey Prospect
0 + 00	2.40	150.75		
0 + 30	2.66	150.99		
0 + 40	A = 12° 29' RT. N.H. Prospect	2.98	150.17	
0 + 50		3.51	149.69	
0 + 70		4.94	128.21	
1 + 00		7.17	145.98	
+ 50		11.30	141.85	
T.P.	0.64	141.86	11.93	141.22
			3.98	137.88
+ 50			7.97	133.89
✓ + 63.58	A = 7° 43' RT	8.96	132.90	
3		11.78	130.08	
T.P.	0.26	129.47	12.65	129.21
+ 50			2.75	126.52
✓			6.25	123.22
✓ + 07.16	B.C. RT	6.65	122.82	
+ 50			9.08	120.39
5		10.93	118.50	
+ 50			12.61	116.86
T.P.	1.10	117.50	13.07	116.40
6 + 01.55	E.C.	2.40	115.10	

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Notes Reduced - 5/10/43

117.50

check to SW B.P.	Coast Blvd Torrey Rd	3.95	113.55	✓	F.B. 1047 113.82
6 + 50		4.12	113.38		
7		5.79	111.71		
7 + 00	Int. 18" Culk.	6.54	110.96		
"	124 RT db. inlet	6.53	110.97		grate
"	" " " " "	12.38	103.12		E.C. Pipe
"	181 LT " " "	8.64	108.88		grate
"	" " " " "	17.11	100.39		FL Pipe
7 + 28.11	A = 25° 41' LT	6.71	110.79		
7 + 60.84	B.C. RT	7.65	109.85		
8		8.85	108.65		
+ 50		10.68	106.82		
9		13.14	104.36		
T.P.	0.54	105.15	12.88	104.64	✓
+ 50			3.94	101.22	
9 + 56.95	E.C.	4.42	100.74		
10		7.54	97.69		
+ 50			11.0	94.16	
T.P.	0.23	92.44	12.95	92.21	✓
11		1.62	90.82		
+ 50			4.38	88.06	
12		6.24	86.20		
7 + 20.58	SL Elizabeth St.	7.09	85.36		
+ 40		7.96	84.48		
+ 50		8.64	83.80		

10

12 + curv Int. 24" Curb	9.33	83.11
" 41.4 RT FL. Inlet ^{20"}	23.94	68.50
" 73.4 LT " 24" outlet	38.65	53.79
12 + 70.69 N.L. Elizabeth St.	9.56	82.88
13	9.40	83.09
+ 50	9.01	83.93
14	8.86	83.58
+ 50	8.59	83.85
T.P. Lath for Levels on Elizabeth	11.17	81.30 ✓
T.P. 4.46	89.57	7.33 85.11 ✓
14 + 76.84 B.C. LT.	5.47	89.10
15	5.40	89.17
+ 50	5.11	89.96
+ 74.3 Int. 24" Curb	5.17	89.90
" 26.4 RT. FL. Inlet	10.8	78.77
" 30 LT. " outlet	13.1	76.97
16	4.92	84.65
+ 50	4.60	89.97
check to Ld. CT. Princess on E.C. Torrey	4.37	85.20 ^{96.49} _{85.34 = FB} ^{85.65 = 1930}
17	3.67	85.90
235.10 Int. 24" Curb	2.73	86.88
" 15 RT gutter curb inlet	3.27	86.30

17 + 35.10 15 RT FL. Curb	8.73	80.89
" 15 LT gutter	2.81	85.76 curb inlet
" " "	10.03	79.59 FL Curb
+ 50	2.13	87.99
T.P. 120.34	101.76	0.15 89.40 ✓
18		11.60 90.16
+ 26.33 E.C.		10.20 91.56
+ 50		8.99 92.77
19		6.54 95.22
+ 30		4.81 96.95
+ 50		4.34 97.82
19 + 81.31 B.C.P.T.		3.62 98.12
20		3.39 98.37
check to BMBP N.W. Cor. Viking and Torrey Rd	5.41	96.35 ✓ ^{From USCG 96.59} _{96.34 = old}
20 + 25		3.19 98.57
+ 50		3.38 98.28
21		4.30 97.26
+ 50		5.37 96.39
22		6.36 95.90
T.P. 176	97.30	6.24 95.54 ✓ ^{Power} _{mail Pole}
+ 50		2.70 98.60
23 end of Pav.		3.79 98.51
23 + 36.05 E.C.		3.8 98.5
+ 50		4.0 98.3
24		4.6 92.7

97.30 ✓

24 + 50	5.0	92.3
25	5.0	92.3
+ 50	5.3	92.0
26	5.2	92.1
+ rd Bcg. A.C. Pav.	5.90	91.90
+ 50	6.23	91.07
27	7.20	90.10
27 + 38.19 $\Delta = 35^{\circ}11' \text{LT.}$	8.14	89.18
+ 62.5 end of Pav.	9.00	88.30

BM. B.P.

T.P. N.W. Coa 1.85 91.99 7.16 90.14

old
90.11 CITY
Little St
Terry St
90.39 from
EB. 1609

Screen levels via Little St. and Glasgow Ave

27 + 90	8.0	89.0
28 + 05	11.5	80.5
T.P.	0.25 79.47	12.77 79.22 ✓
+ 40	3.0	76.5
+ 70	6.1	73.9
29	9.2	70.3
29 + 44.88 $\Delta = 20^{\circ}06' \text{RT.}$	13.2	66.3
T.P.	0.19 66.52 ✓	13.14 66.33 ✓
+ 65	2.4	69.1
30	6.5	60.0
+ 15	8.2	58.3
+ 25	12.8	53.7

66.52 ✓

12

T.P.	0.97 54.54 ✓	12.95 53.57 ✓
30 + 35		3.4 51.1
+ 40		1.0 53.5
+ 65		6.2 48.3
+ 83		6.9 47.6
31 + 10		5.2 49.3
+ 57.85 $\Delta = 19^{\circ}39' \text{LT.}$	10.0	69.5
+ 85		14.5 40.0
T.P.	1.54 43.48 ✓	12.60 41.94 ✓
32 + 18.66 $\Delta = 41^{\circ}52'30'' \text{LT.}$	5.1	38.9
+ 55		8.3 35.2
+ 70.10 in wash	13.2	30.08
+ 90 " "	14.7	28.8
+ 95		11.2 32.3
33 + 01.06 $\Delta = 33^{\circ}00' \text{LT.}$	11.5	32.0
T.P.	0.91 32.84 ✓	11.55 31.93 ✓
+ 12		2.2 30.6
+ 25 in wash	7.5	25.3
+ 33		3.6 29.2
+ 55 in wash	9.3	23.5
+ 62		5.8 27.0
+ 70 in wash	9.8	28.0
+ 85 " "	10.3	21.5
+ 88		7.4 25.9
34		8.3 24.5
34 + 50.72 $\Delta = 44^{\circ}12' \text{RT.}$	11.8	21.0

angle
ST 06

		32.84 ✓		
T.P.	0.08	<u>19.95</u>	12.97	19.87 ✓
35			2.2	17.8
+50			5.8	14.2
35			9.4	10.6
+50			13.0	7.0
T.P.	1.28	8.44 ✓	12.79	7.16 ✓
36 + 83.31	$\Delta = 44^{\circ}33' \text{ RT}$		4.3	9.1
37			5.4	3.2
+40	Reg. Pav.		5.77	2.67
37 + 60.48	$\Delta = 49^{\circ}04' \text{ RT}$		5.69	2.75
38			5.31	3.08
+41.57	BC LT.		5.03	3.91
+47.7	Int. drain		4.88	3.56
"	15' RT. grate		4.91	3.53
"	" " Fh. Box		6.84	1.64
"	15' LT grate		5.74	2.70
"	" " Fh. Box		7.50	0.98
39			4.46	3.98
+50			4.15	4.29
40			3.78	4.06
+50			3.47	4.97
40 + 95.58	E.C.		3.06	5.38
T.P.	5.38	<u>10.56</u>	3.26	5.18 ✓
41 + 40.77	$\Delta = 45^{\circ}04' \text{ RT}$		4.99	5.57
42			4.71	5.85
42 + 45.30	$\Delta = 45^{\circ}04' \text{ RT}$		5.08	5.98

		10.56 ✓		
42 + 70			5.46	5.10
43			4.98	5.58
43 + 44.49	$\Delta = 51^{\circ}04'30'' \text{ LT}$		4.69	5.87
T.P.	3.10	<u>10.13</u>	3.53	7.03 ✓
43 + 74.83	$\Delta = 51^{\circ}04'30'' \text{ LT}$		3.91	6.20 ✓ ^{trail} _{int. pav. ✓}
44			3.93	6.20
+50			4.16	5.97
45			4.40	5.73
+50			4.74	5.39
46			4.98	5.15
+50			5.27	4.86
47			5.56	4.57
+50			5.83	4.30
48			6.03	4.10
+35			6.59	3.52
48 + 59.68	E. Ave de la Playa		6.05	4.08
T.P.	6.04	<u>10.13</u>	6.04	4.09 ✓ ^{Ld. CT. &} _{Playa & PLAZA}

EXISTING
Levels on Sewer Line on

Ave de la Playa P. 7

10.13 HI Fwd.

2+00 RIM M.H. 6.05 2.03

" F.L. " 10.62 -0.99

1+09.79 RIM " 5.16 9.97

" F.L. " 9.78 0.35

3+04.89 RIM " 3.90 6.23

" F.L. " 8.45 1.68

T.P. 9.35 17.22 ✓ 7.87 ✓

5+09.74 RIM M.H. 5.79 11.93

" F.L. " 10.26 6.96

7+35.03 RIM " 2.67 19.55

" F.L. " 7.22 10.00

Ld. at 9 Ave de la Playa 0.69 16.53 16.82 ✓

and w L Torrey Ave Rd
front walkway OSC + G

1649-9

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Cont'd from p. 15

14

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20.30 ✓

42 + 50		4.59	15.71
43		7.16	13.19
+ 42.93	Pasco Grande	8.25	2.05
+ 50		8.49	11.81
44		9.27	11.03
T.P.	3.28 14.15 ✓	9.03	10.67 ✓
+ 50		4.09	10.06
45		5.00	9.15
+ 50		5.94	8.21
46		6.85	7.30
+ 12		7.34	6.81
+ 32.05	Pasco Grande	7.22	6.93
+ 53		8.15	6.00
46 + 72.05 = 43 + 72.83		7.90	6.25 ✓
See P 6 and 9			6.13

Levels on alternate sewer line

on Torrey Pines Rd. P. 8
and Calle de la Plata

BM/BP	Dist	Reading	Correction	Reduced
N.W. Corner	2.00	92.14		90.14
27+95	end of 7th. Pav. edge of Pav.	4.61		87.53
28+50	ground	5.6		86.5
28+81.93	B.C. RT	6.1		86.0
29		6.4		85.7
+50		7.7		84.9
30		8.9		83.2
+50		10.5		81.6
30+75.14	E.C.	11.4		80.7
T.P.	1.06	81.83		80.77
31		1.2		80.6
+50		3.6		78.2
31+97.49	B.C. LT.	5.2		76.2
32+50		7.3		74.5
33		9.0		72.8
+50		10.2		71.6
34		11.9		69.9
T.P.	0.84	69.99		69.17
+50		1.4		68.6
35+01.86	E.C.	2.7		67.3
+50		4.1		65.9
36		5.6		64.8

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36+50		6.8		63.2
37		8.6		61.4
37+38.90	Δ = 41°16'47"	10.1		59.9
+50	beg. of Pav	11.79		58.20
T.P.	0.76	57.99	12.76	57.23
Check to	BM/BP N.E. Corner	3.30		54.69
	Torrey Pines Rd. and Calle de la Plata			
38		2.65		55.39
38+18.74	Δ = 41°16'47"	3.89		54.19
+50		8.06		49.93
T.P.	0.28	45.57	12.70	45.29
39		2.47		43.10
+50		7.45		38.12
40		11.93		33.69
T.P.	0.26	33.90	14.83	32.72
+50		3.39		29.61
+65.45	Paseo Ocaso	4.32		28.68
41		6.15		26.85
+15		7.00		26.00
+50		9.84		23.18
T.P.	0.12	20.30	12.84	20.18
42		1.30		19.00

old
54.69 = CITY
54.93 1049-8
USGS
54.80 from 2
USGS

Contd. on p. 14

Levels on Proposed Pump Site

on Elizabeth St. & Torrey Pines Rd.
Charlotte

INDEXED

WIK

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12 + 70.69 Nly Elizabeth

12 + 63

12 + 45

12 + 35

Charlotte
12 + 20.58 Sly Elizabeth St. P.3

T.P. P.11 5.41 86.73

81.32

Torrey Pines Rd.

Rt.

16

82.61	83.08	83.5	72.6	72.1	73.1	75.22	
$\frac{4.14}{15}$	$\frac{3.15}{15}$	$\frac{3.7}{21}$	$\frac{14.1}{40}$	$\frac{14.6}{50}$	$\frac{13.4}{75}$	$\frac{11.79}{87.5}$ Cor N. 10m	
82.81	83.28	83.7	71.8	71.3	73.0	73.5	
$\frac{3.94}{15}$	$\frac{3.45}{15}$	$\frac{3.0}{23}$	$\frac{14.9}{41}$	$\frac{15.4}{50}$	$\frac{13.7}{75}$	$\frac{13.7}{85}$	
83.54	83.97	84.3	72.3	71.7	72.9	73.2	
$\frac{3.21}{15}$	$\frac{2.76}{15}$	$\frac{2.4}{22}$	$\frac{14.4}{38}$	$\frac{15.0}{52}$	$\frac{13.8}{73}$	$\frac{13.5}{87}$	
84.05	84.48	84.8	75.5	75.0	75.1	74.0	75.0
$\frac{2.68}{15}$	$\frac{2.25}{15}$	$\frac{2.4}{24}$	$\frac{11.4}{35}$	$\frac{11.7}{45}$	$\frac{11.6}{60}$	$\frac{12.7}{73}$	$\frac{11.7}{83}$
84.83	85.22	84.9	82.9	82.2	81.9	81.1	80.6
$\frac{1.90}{15}$	$\frac{1.51}{15}$	$\frac{1.8}{20}$	$\frac{3.8}{30}$	$\frac{4.5}{37}$	$\frac{4.8}{47}$	$\frac{5.6}{75}$	$\frac{6.1}{84}$
77. E. 6.							
						86.73	

Service Line via alley N. of Girard
 from Torrey Pines Rd. to Wall St.
 to Cave St. to Prospect thence
 back to Torrey Pines Rd.

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alleys bet. Kline & Wall & can. pay

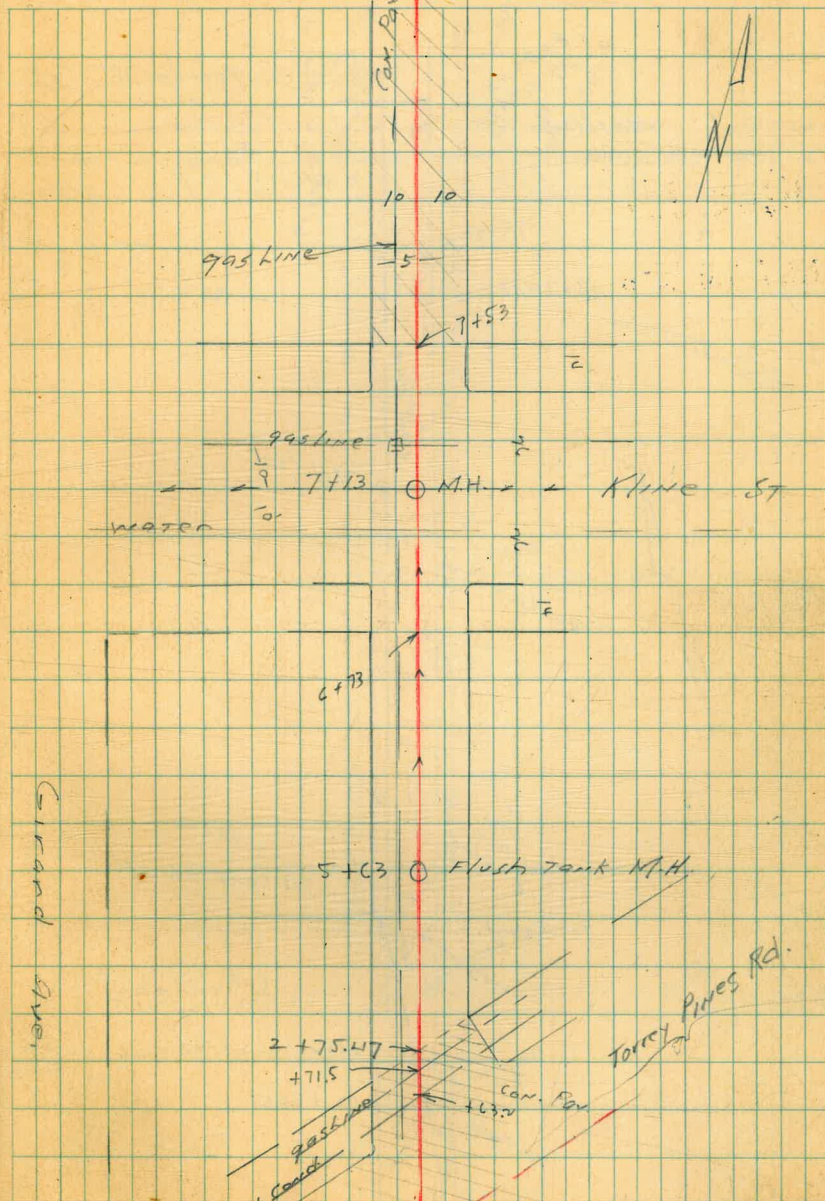
Wall & Ivanhoe & Cave = Con. pay with ^{skin} Top

Prospect Pl = Con. pay.

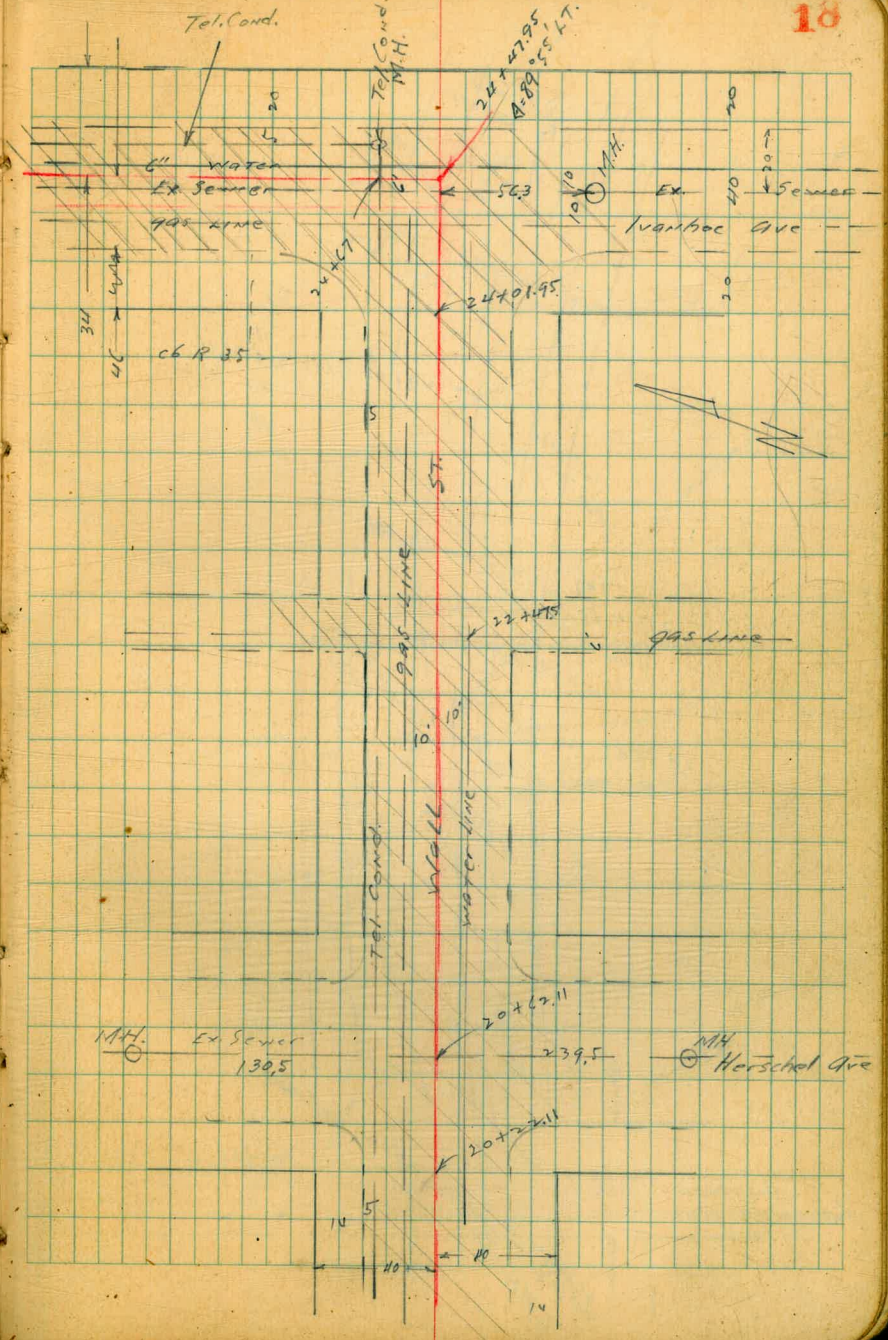
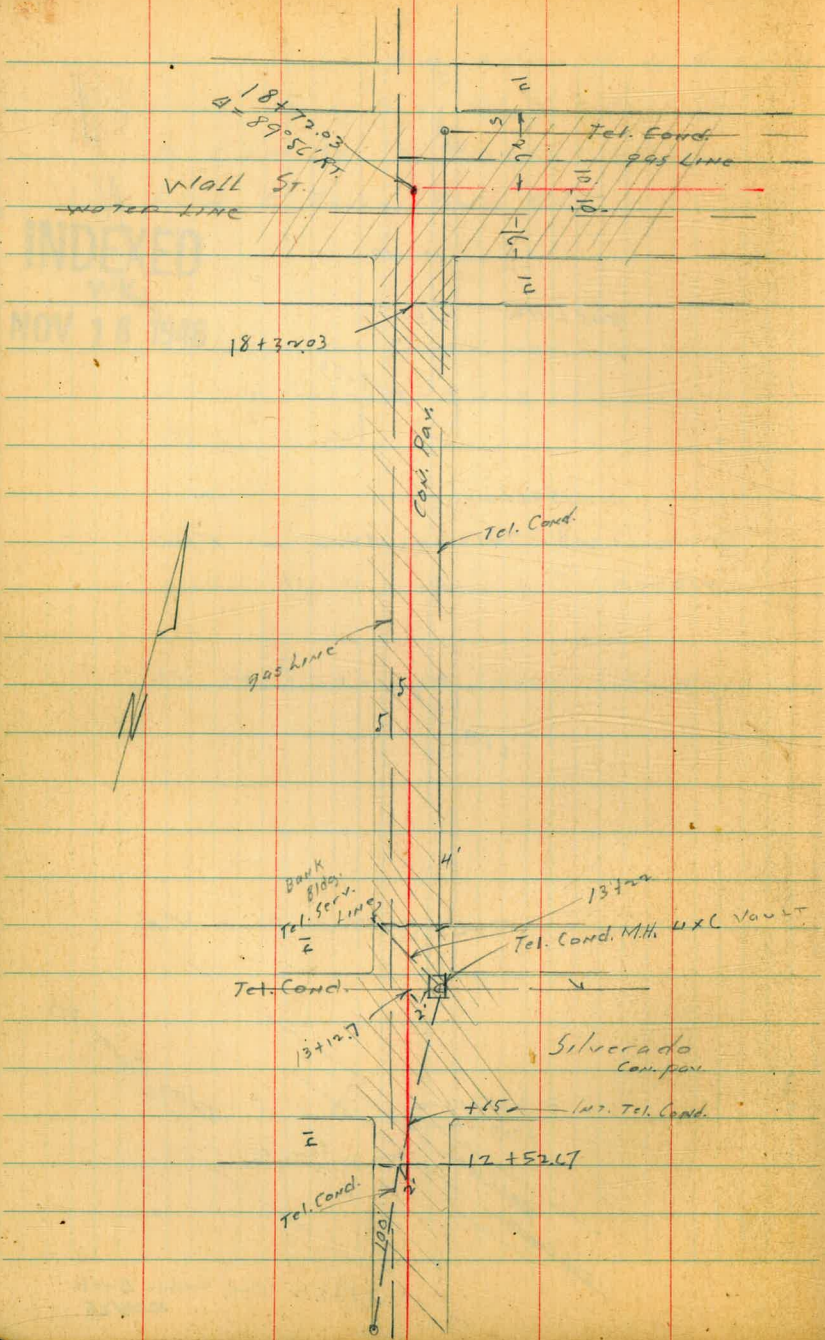
check in office for St. Light Conduits

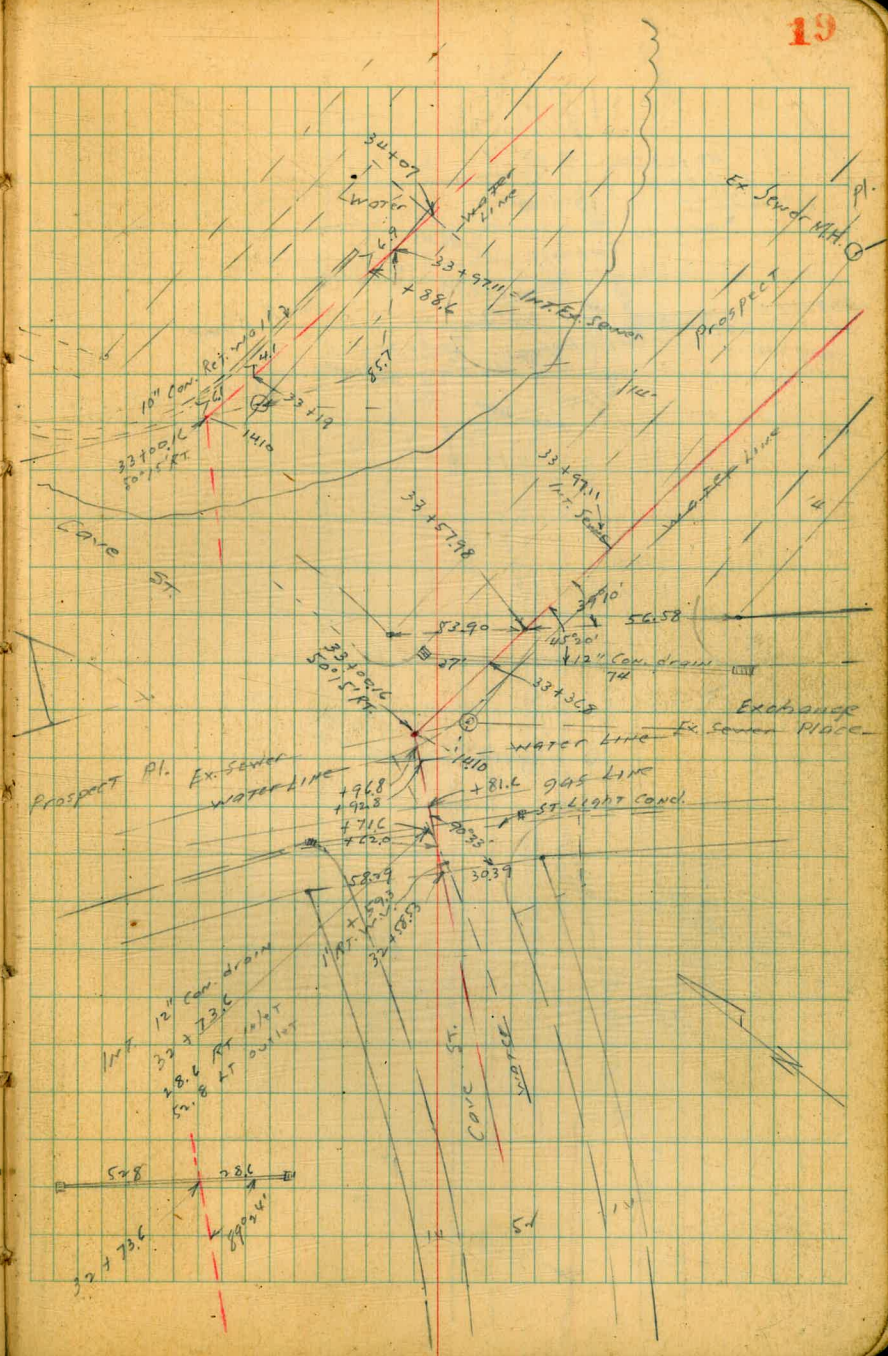
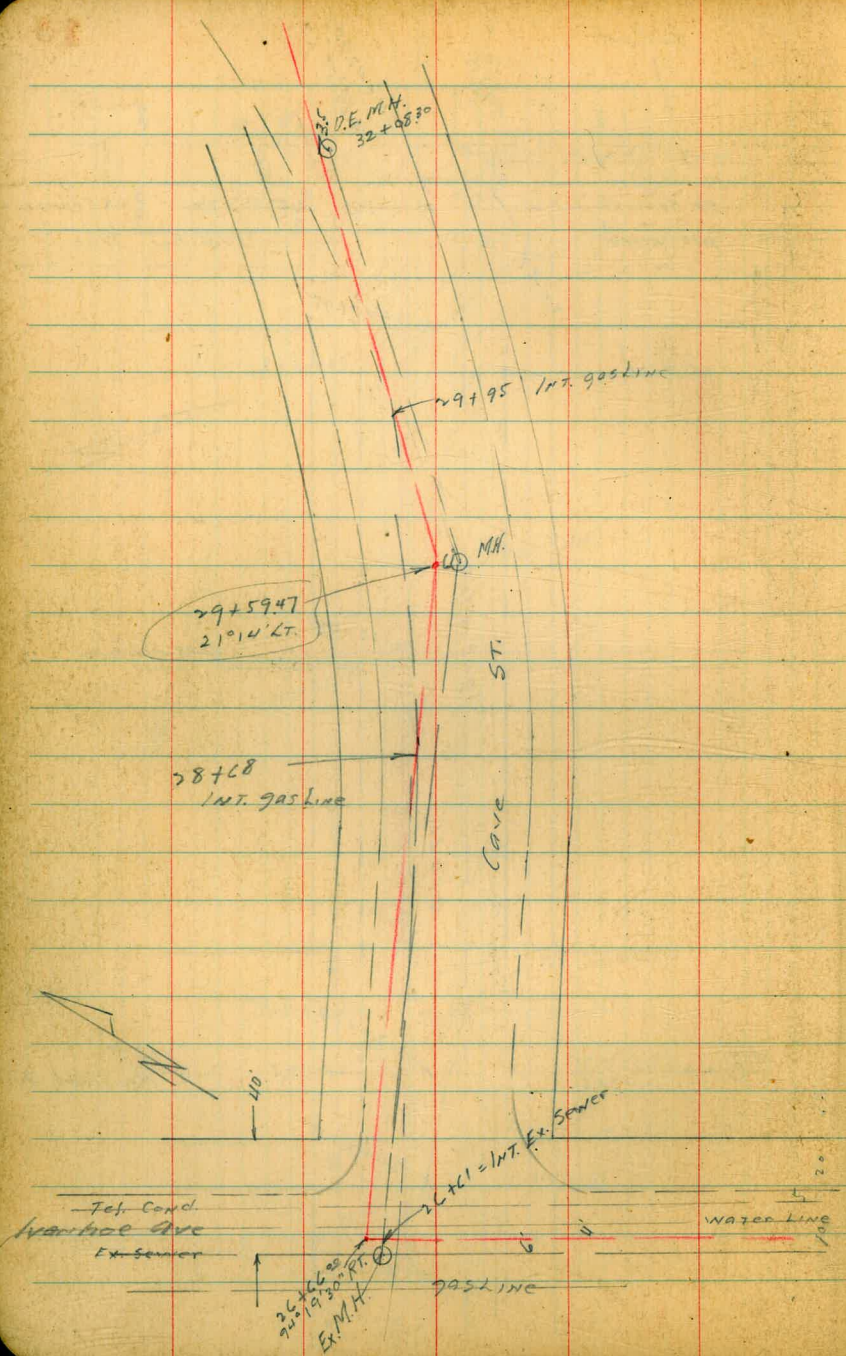
water Mains & Services

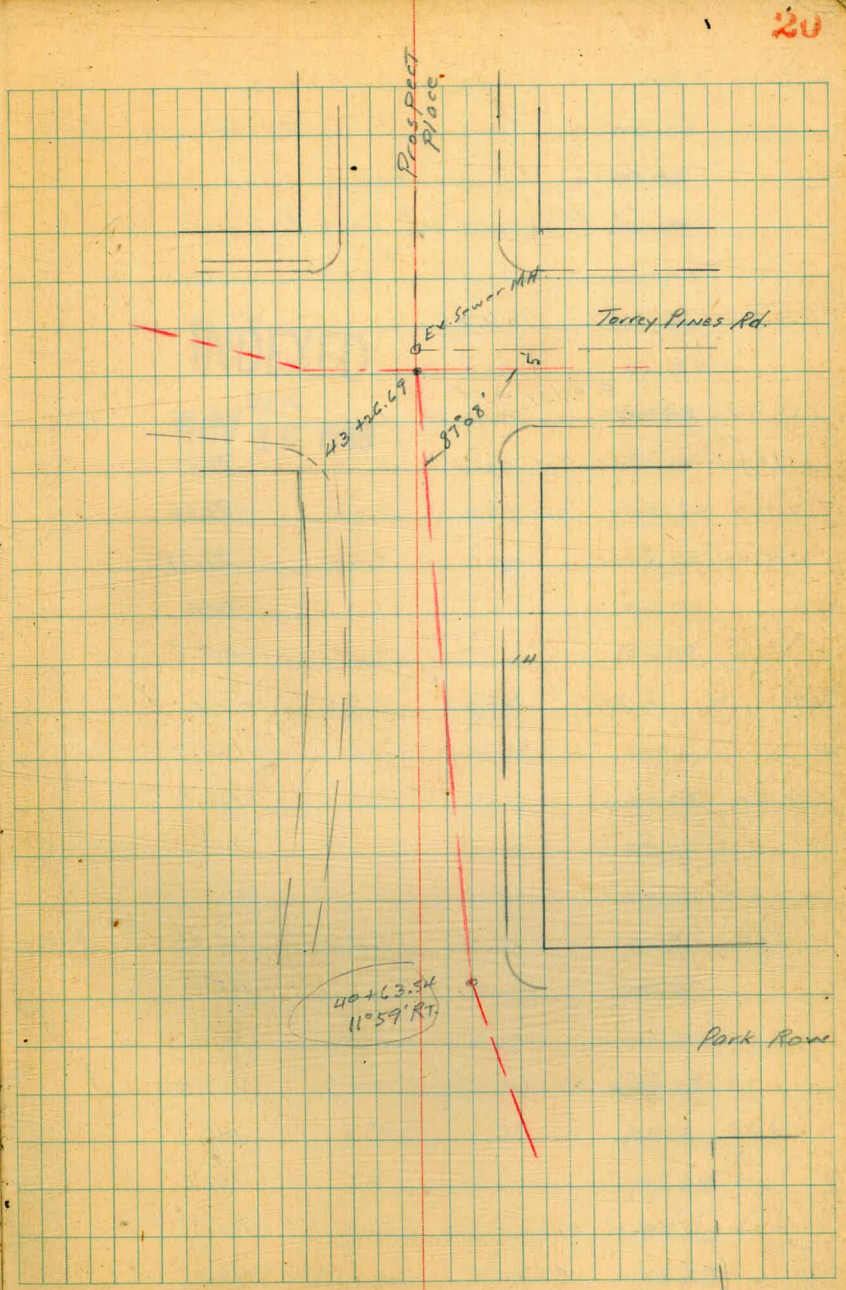
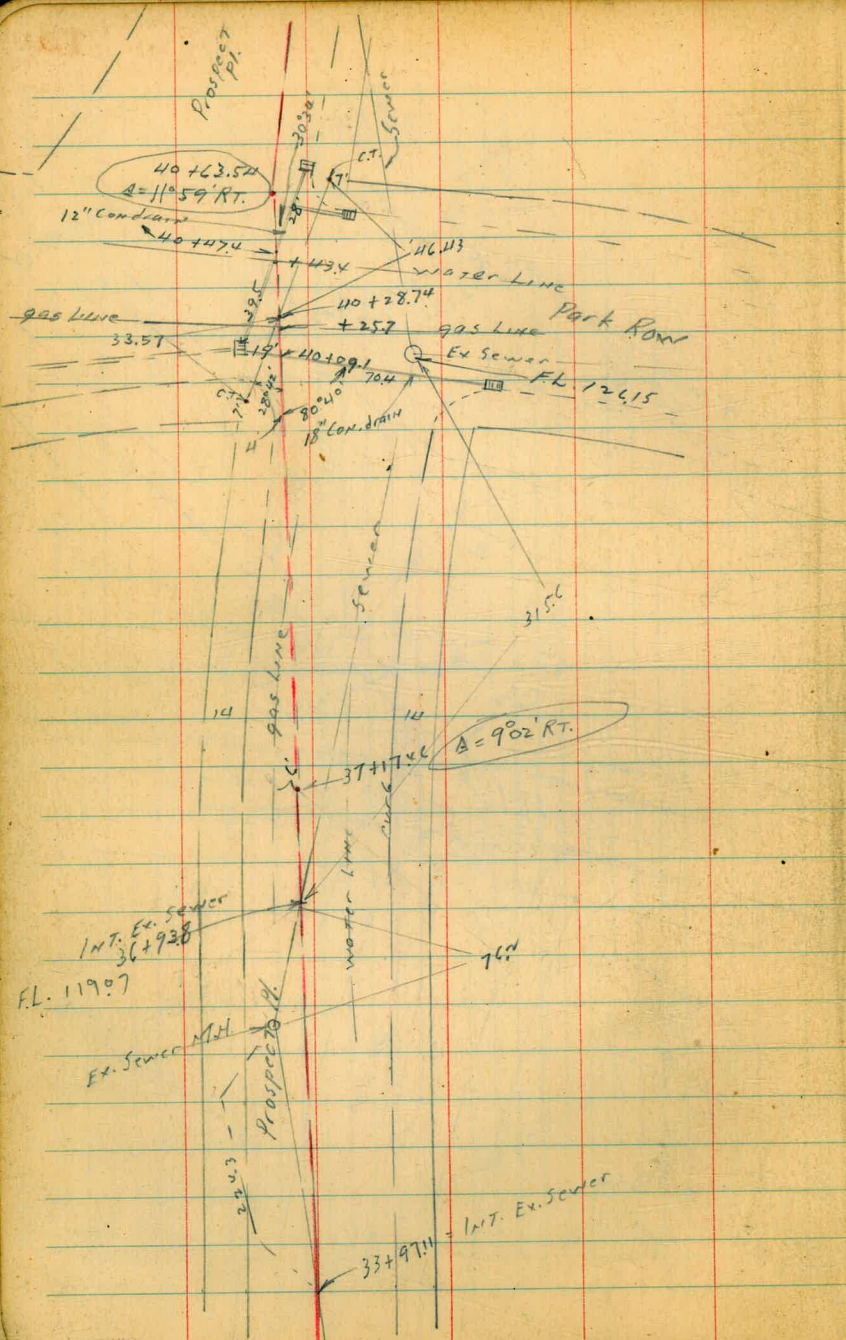
also check up on gas, water & fire alarm cond.



2+33.74 See other Book
 1650/25







4-16-43 Sewer levels via alleys N of
 Girard Terrey Pines Rd to Wall St.
 thence to Lvanthoo, Cave St.
 and Prospect Pl. back to Terrey Pines Rd.

SEBD	9.47	104.86	95.19	Virginia Way Girard
✓ +33.74	E alley and A Pt. Terrey Pines Rd	6.08	98.78	sec other book
+ 63.2	Int. Tel. Cond.	5.59	99.27	
+ 71.5	" gas line	5.20	99.66	
✓ + 75.47	end Com. 224	5.09	99.77	
3		3.3	101.6	
+ 50		0.7	109.2	
T.P.	8.78	113.29	0.35	104.51 ✓
4		7.6	105.7	
+ 50		2.0	106.3	
5		6.3	107.0	
+ 50		5.4	107.9	
+ 63	Flush Tank M.H.	4.73	108.56	Rim could not get Fl.
6		4.8	108.5	
+ 50		4.3	109.0	
+ 73	1/2 Kline	3.8	109.5	
+ 87		4.0	109.3	
7		3.7	109.6	
+ 13	M.H. Rim	3.17	110.17	
"	" Flw	10.15	103.18	
"	" " From East	9.09	104.20	

7+39		3.8	109.5	
7+53	Beq. Con. Pav.	3.29	110.00 w/ly Kline	
8		3.14	110.15	
+ 50		3.01	110.28	
T.P.	4.96	115.50 ✓	2.73	110.50 ✓
9		5.10	110.84	
+ 50		4.98	110.59	
10		5.17	110.35	
+ 50		5.37	110.15	
11		5.55	109.97	
+ 50		5.78	109.74	
12		6.03	109.49	
+ 52.67	1/2 Silverado	6.24	109.28	
T.P.	4.51	114.11 ✓	5.94	109.60 ✓
+ 67		4.99	109.12	
+ 72.67	1/2 Silverado	4.46	109.65	
13 + 12.7		4.93	109.18	
"	ERT Tel. M.H. Rim	4.84	109.29	Tel. Cond about 36" deep
"	" " Bot. Vault	12.05	102.06	
+ 19		5.20	108.91	
+ 32.67	1/2 Silverado	4.71	109.40	
+ 50		4.87	109.24	
14		4.91	109.20	
+ 50		5.07	109.04	
15		5.25	108.86	
+ 50		5.58	108.53	

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114.11 ✓

16			6.27	107.84
+ 50			7.07	107.09
T.P.	1.91	108.74	7.28	106.23
17			2.25	106.29
+ 50			3.27	105.87
18			3.98	109.76
+ 32.03	S. L. Wall St.		4.34	109.92
+ 44			5.17	103.57
18 + 72.03	E. Wall of 89°56' RT.		4.98	103.76
19			4.64	109.12
+ 50			3.94	109.80
20			3.31	105.93
+ 22.11	w/ly Herschel		3.14	105.62
T.P.	5.72	111.21	3.75	105.49 ✓
20 + 62.11	E. Herschel		5.05	106.16
"	229.5 RT. or S. SMH.		2.24	108.97 P.M.
"	" " " "		6.03	105.18 F.L.
"	130.5 LT. or N. "		5.79	105.92 P.M.
"	" " " "		11.33	99.88 F.L.
+ 88	gutter		5.62	105.59
21 + 02.11	E. ly Herschel		5.07	106.19
Fd. B.M.B.P.	w/ly wall + Herschel		5.42	105.77 ✓
21 + 50			4.32	106.89
22			3.95	107.26

111.21

22

22 + 50			3.60	107.61
23			3.23	107.98
T.P.	6.46	114.48 ✓	3.19	108.04 ✓
+ 50			6.13	108.35
24 + 01.95	w/ly Ivanhoe		5.58	108.90
+ 41.95	Int. Sewer line		5.00	109.88 E. Ivanhoe
"	56.3 ^{or 50.} RT. S.M. H.		4.51	109.97 P.M.
"	" " " "		9.33	105.15 F.L.
24 + 47.95	A 89°55' LT.		5.08	109.40
25			5.41	109.07
+ 50			5.49	108.99
26			5.62	108.86
+ 50			5.99	108.29
+ 61	Int. Ex. 6" Sewer		6.08	108.40 Pav.
"	6" LT. S.M. H.		6.03	108.25 P.M.
"	" " " "		11.32	103.16 F.L.
26 + 66	A 94°19'30" RT.		6.11	108.37
T.P.	8.88	117.36 ✓	6.00	108.48 ✓
26 + 80			7.39	107.97
27			7.07	108.29
+ 50			8.16	109.20
28			7.23	110.13
+ 50			6.24	111.12
29			5.18	112.18

B.M.B.P. N. Cor.
Ivanhoe
and Cave
108.46 old
CITY

117.30 ✓

29 + 50		4.00	113.30	
29 + 59.47	Δ 41° 10' RT	3.82	113.59	
"	6 RT S.M.H.	3.74	113.64	Rim
"	"	9.19	108.17	F.L.
30		3.42	113.99	
+ 50		2.89	119.47	
31		2.32	115.09	
+ 50		2.41	119.95	
T.P.	4.08	119.14 ✓	2.30	115.06 ✓
3d		4.20	119.79	
+ 08.3		4.39	119.75	
"	3.5 RT M.H.	4.33	119.81	Rim
"		9.85	109.29	F.L.
+ 50		4.88	119.26	
+ 58.53	Singly Prospect Pl.	5.09	119.05	
+ 73.6	Int. 12" Con. drain	5.25	113.89	
"	28.5 RT to inlet	5.47	113.67	grate
"	" " " " "	8.20	110.99	F.L.
"	52.8 LT to outlet	6.99	112.15	grate
"	" " " " "	10.29	108.85	F.L.
33 + 00.16	Point A 50° 15' RT.	5.32	113.82	
"	141.1 RT S.M.H.	4.92	119.20	Rim
"	" " "	10.98	108.16	F.L.
+ 36.8	Int. 12" Con. drain	4.51	119.63	
"	74 RT to inlet	4.05	115.09	grate
"	" " " " "	7.70	111.99	F.L.

149.14 ✓

23

33 + 36.8	37' 27" to outlet	12.55	106.59	grate
"	" " " "	14.94	104.20	F.L.
+ 50		4.28	119.86	
33 + 97.11	Int. Sewer Line	3.67	115.47	
34 + 50		1.34	117.80	
Fd. 8M. 8P	N.W. Cor. Cave Prospect Pl.	5.96	113.18 ✓	11311 City
T.P.	12.57	131.41 ✓	0.30	118.84 ✓
35		11.69	119.72	
+ 50		9.77	121.69	
36		7.85	123.56	
+ 50		5.88	125.53	
37		4.36	127.05	
37 + 17.46	Δ = 90° 2' RT.	4.11	127.30	
36 + 93.8	70° 2' N to S.M.H.	6.49	129.92	Rim
"	" " " " "	12.34	119.97 ✓	F.L.
+ 50		3.59	127.82	P. 19 1/2
38		2.85	128.56	
+ 50		2.42	128.97	
39		2.33	129.08	
T.P.	9.22	138.53 ✓	2.10	129.31 ✓

138.53 ✓

39 + 50		9.59	128.94	
40		9.69	128.84	
109.1	Int. 18" Con. drain	9.49	129.02	
"	19' LT Junc. Box	10.69	127.84	graze
"	" " " "	13.58	124.95	F.L.
"	70' RT Inlet	8.43	130.10	graze
"	" " " "	10.43	128.10	F.L.
Ex. S.M.H.	Park Row + Prospect	8.34	130.19	RIM
"	" " " "	12.38	126.15	F.L.
40 + 25.7		9.17	128.8	
40 + 47.2	Int. 12" Con. drain	8.28	130.25	
"	39.5 LT Junc. Box	10.69	127.82	graze
"	" " " "	12.96	125.57	F.L. Junc. Box
"	28 RT to inlet pipe	7.15	131.38	graze
"	" " " "	8.70	129.83	F.L.
40 + 63.54	$\Delta = 11^{\circ}59'$ RT.	7.55	130.98	
41		5.18	133.35	
BMBP	50' Con. Park Row and Prospect Pl.	6.77	131.76	131.77 ✓
41 + 50		1.08	137.45	
T.P.		9.25	136.56	137.31 ✓

146.56 ✓

24

44		4.71	141.85	
+ 50		0.51	146.05	
T.P.	7.91	154.26	0.21	144.35 ✓
42 + 91.7		4.82	149.94	
43 + 26.69	ex Jersey Pines Rd. and Prospect Pl.	3.52	150.74	
Con. Mod. S.W. Jersey Pines Rd. Prospect Pl.	2.06	152.20	152.21	

Proposed Pressure Sewer Line

Kavina St. Outfall to

Jenner " " "

$\Delta = 14^{\circ}37'$
w.c.R. = 644.60
L = 164.44

$10^{\circ}33'$
12" outfall
95°33'

Ex. M.H. = 0+00 for Pressure Line
10°33' RT

88.91

0+68.08
P.R.C.

See p 33 for newly discarded M.H. and Elev.

101°02'
Ex. M.H. 135'

19.02
Ex. M.H.

19.84
Tie to T.

note for levels at PUMP SITE

B.C.R.
30
B.C.S.V.
E.C. Chisel Cross

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$\Delta = 14^{\circ}37'$
w.c.R. = 644.60
L = 164.44
2 C.C.S.
T 82.67

P.C.C.

25

+ Chisled Cross

C. Moore
Schmidt Meyer
W. Moore
4-22-43.

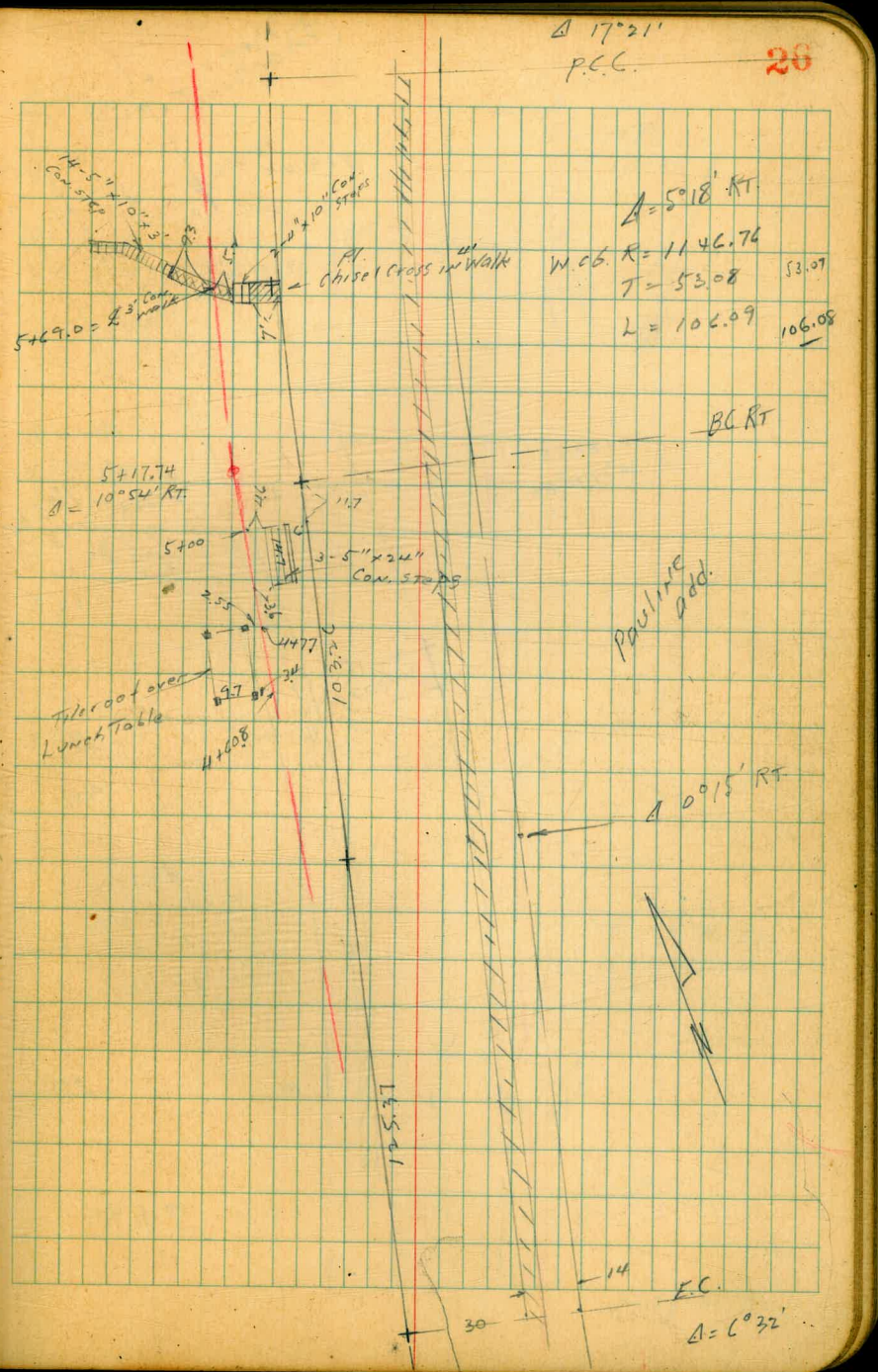
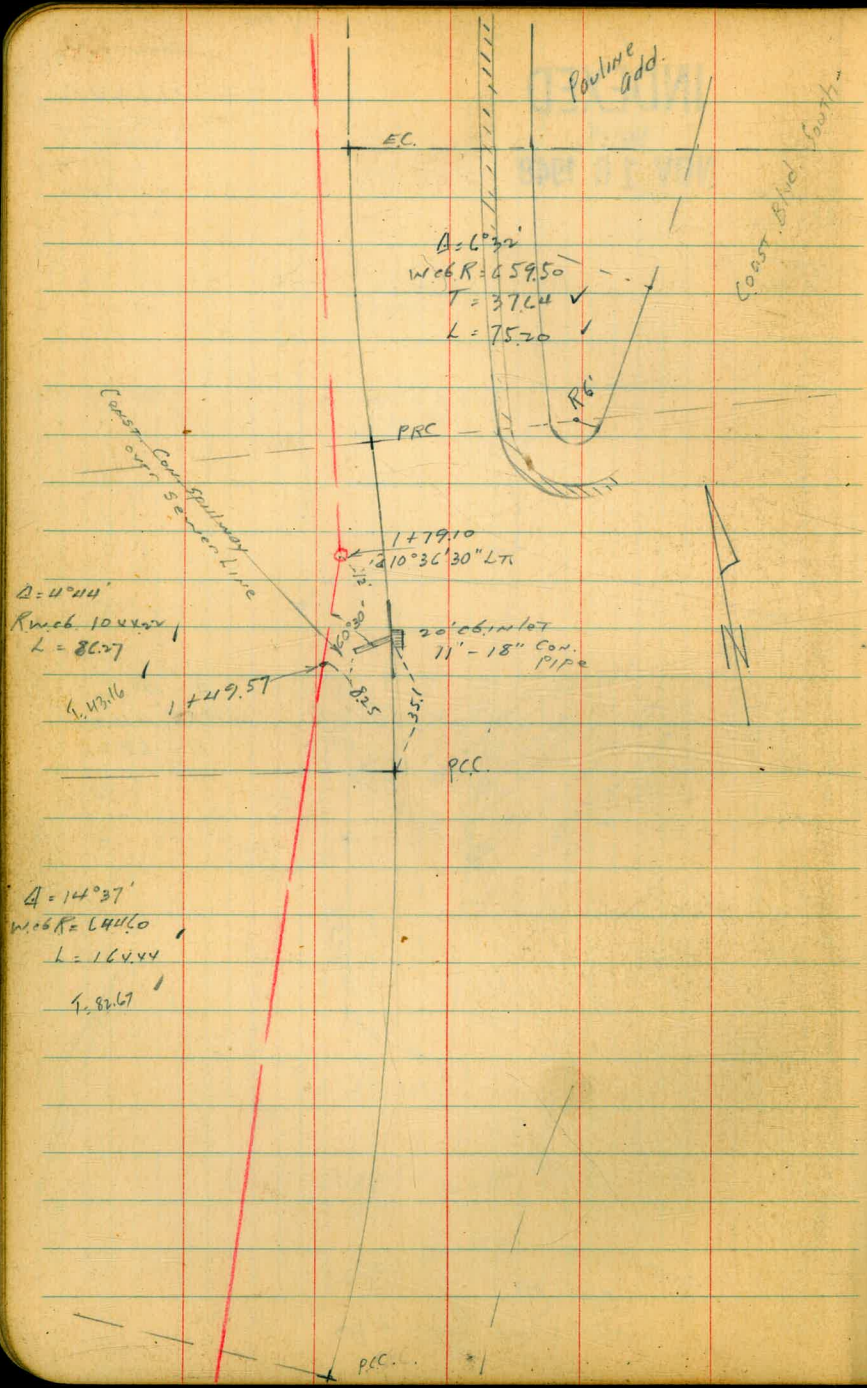
Old Cor = Tie to well set in
5' from as spike in
and 203' south
of old well set
Set well on
5' from tie
at old well set
and 203' south
of old well set
and 203' south
of old well set

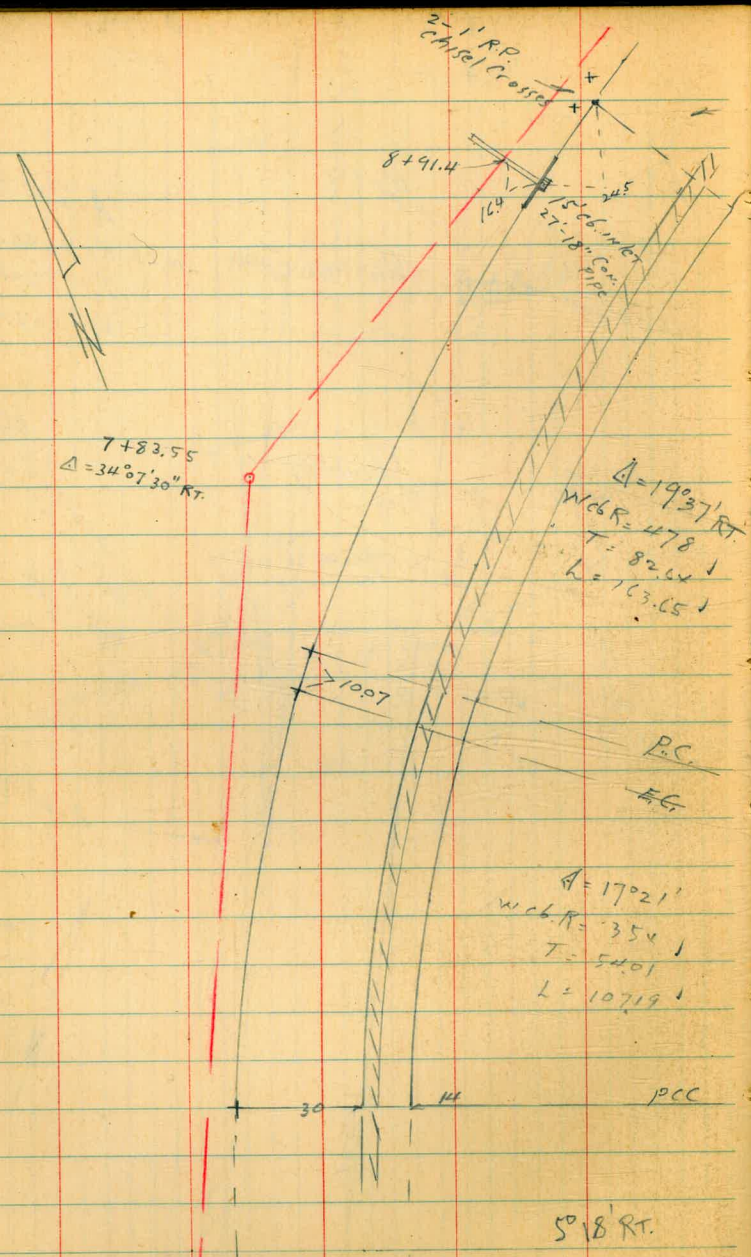
$\Delta = 9^{\circ}29'$
w.c.R. = 411.34
L = 68.08

$\Delta = 9^{\circ}29'$ RT
w.c.R. = 411.34
L = 68.08

Chisel Cross
E.C.

B.K. ①
Nicholson's add. # 952





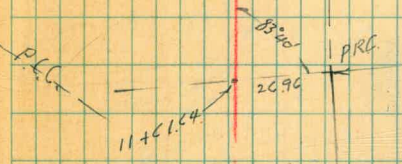
7+83.55
 $\Delta = 34^{\circ} 07' 30'' \text{ RT.}$

$\Delta = 19^{\circ} 37' \text{ RT.}$
 WCB R = 478
 T = 82.64
 L = 163.65

$\Delta = 17^{\circ} 21'$
 WCB R = 354
 T = 5401
 L = 10719

50' 8' RT.

$\Delta = 8^{\circ} 48' \text{ RT.}$



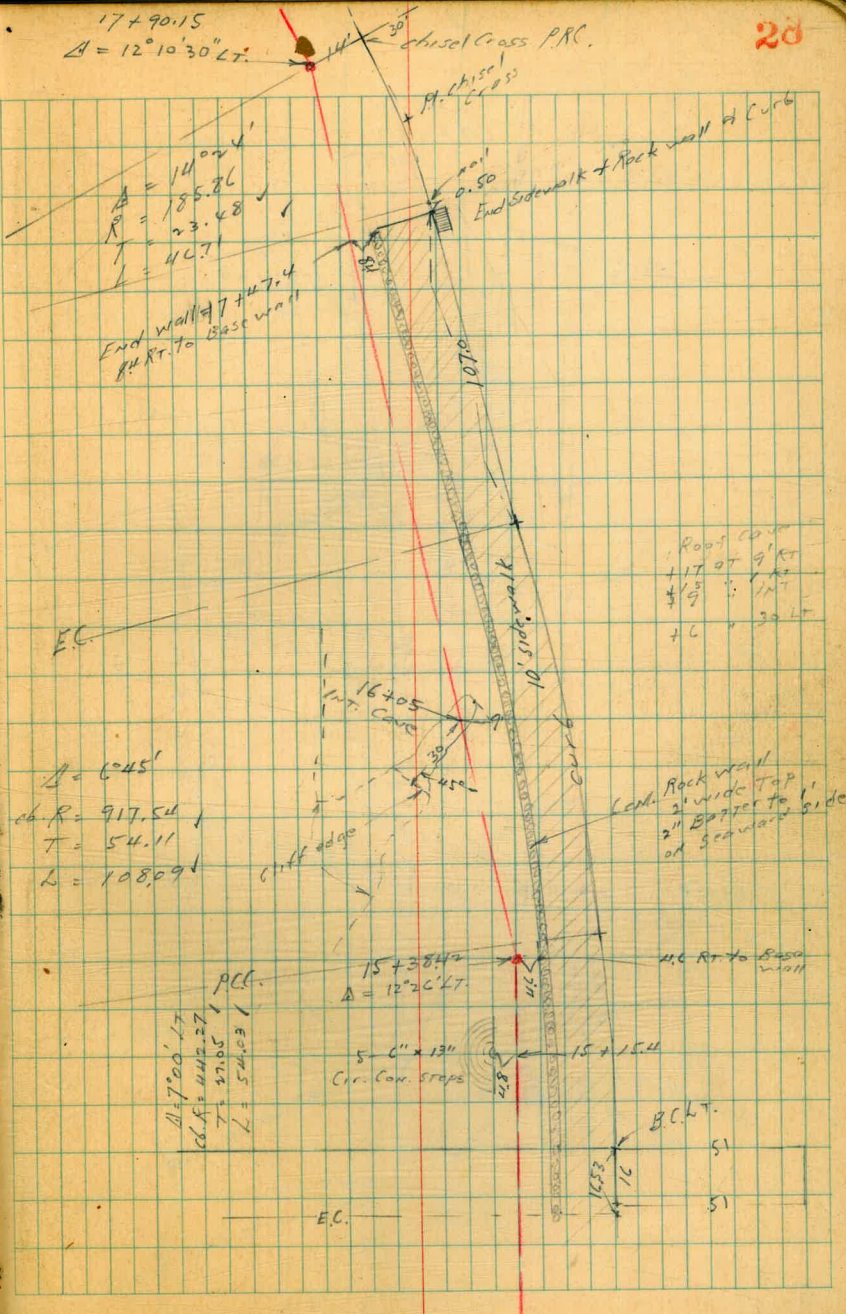
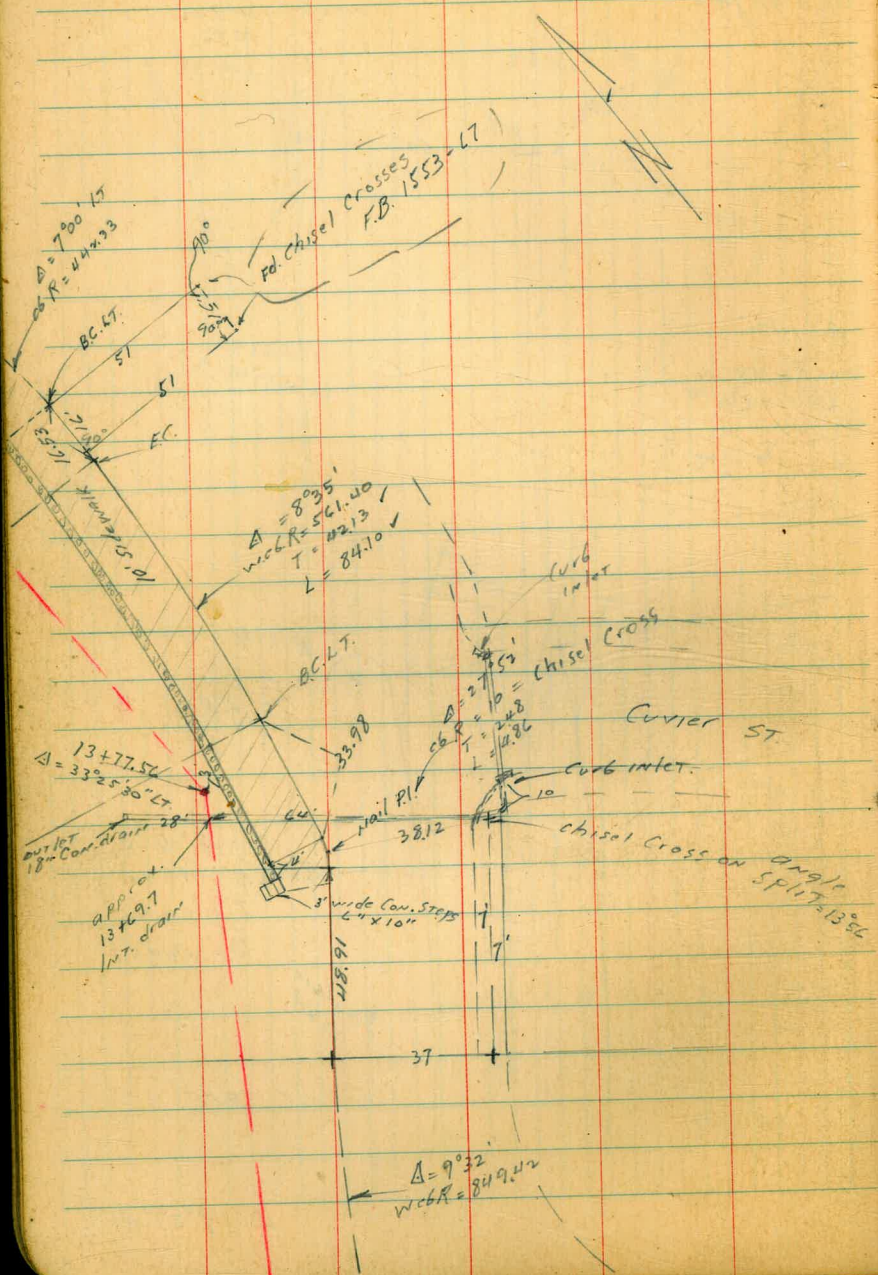
$\Delta = 14^{\circ} 52'$
 WCB R = 495.32
 L = 12852
 T = 64.77

$\Delta = 9^{\circ} 32'$
 WCB R = 849.44
 T = 70.83
 L = 141.33

$\Delta = 8^{\circ} 48' \text{ RT.}$
 WCB R = 785.04
 T = 60.40
 L = 129.57

padding added.

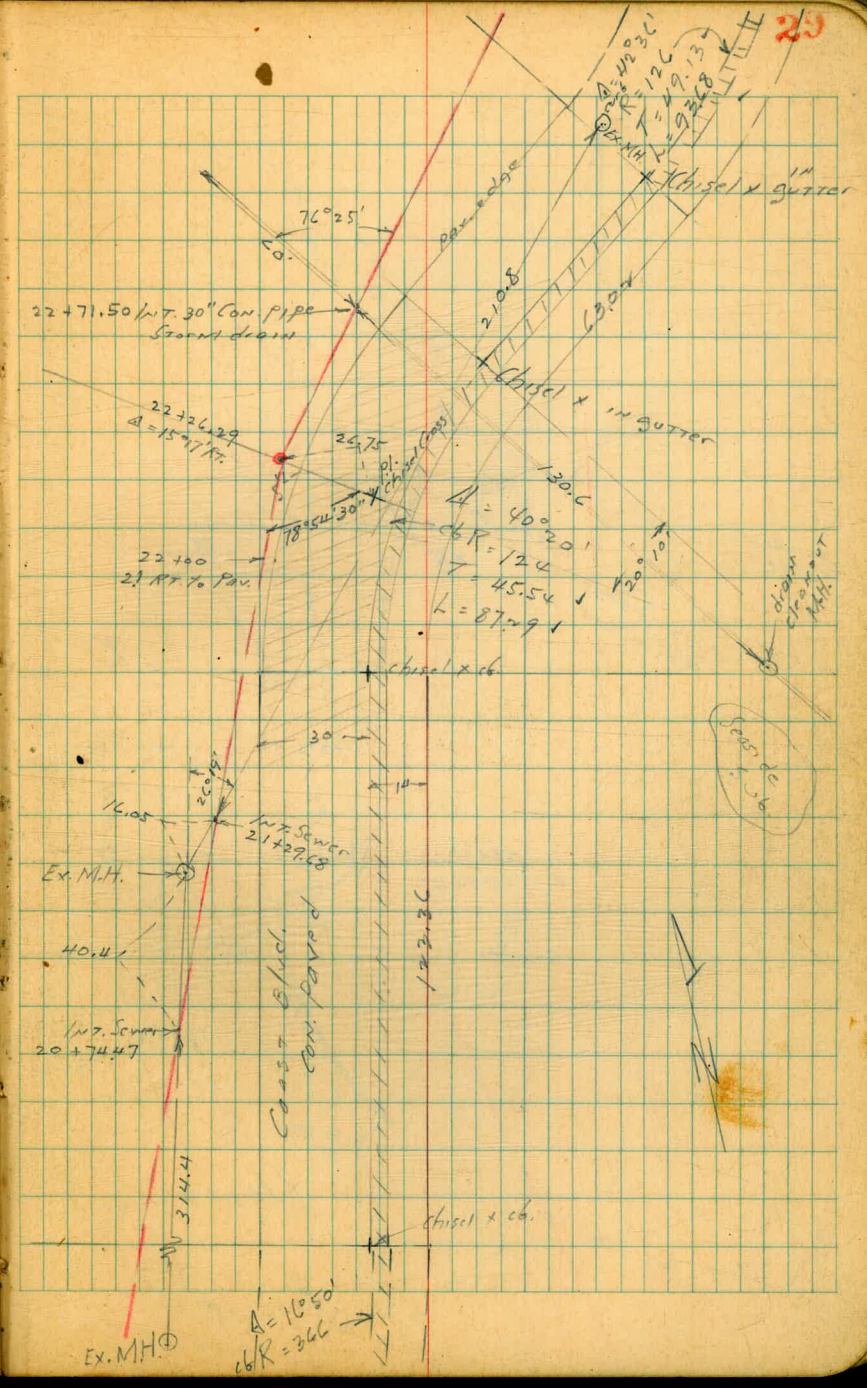
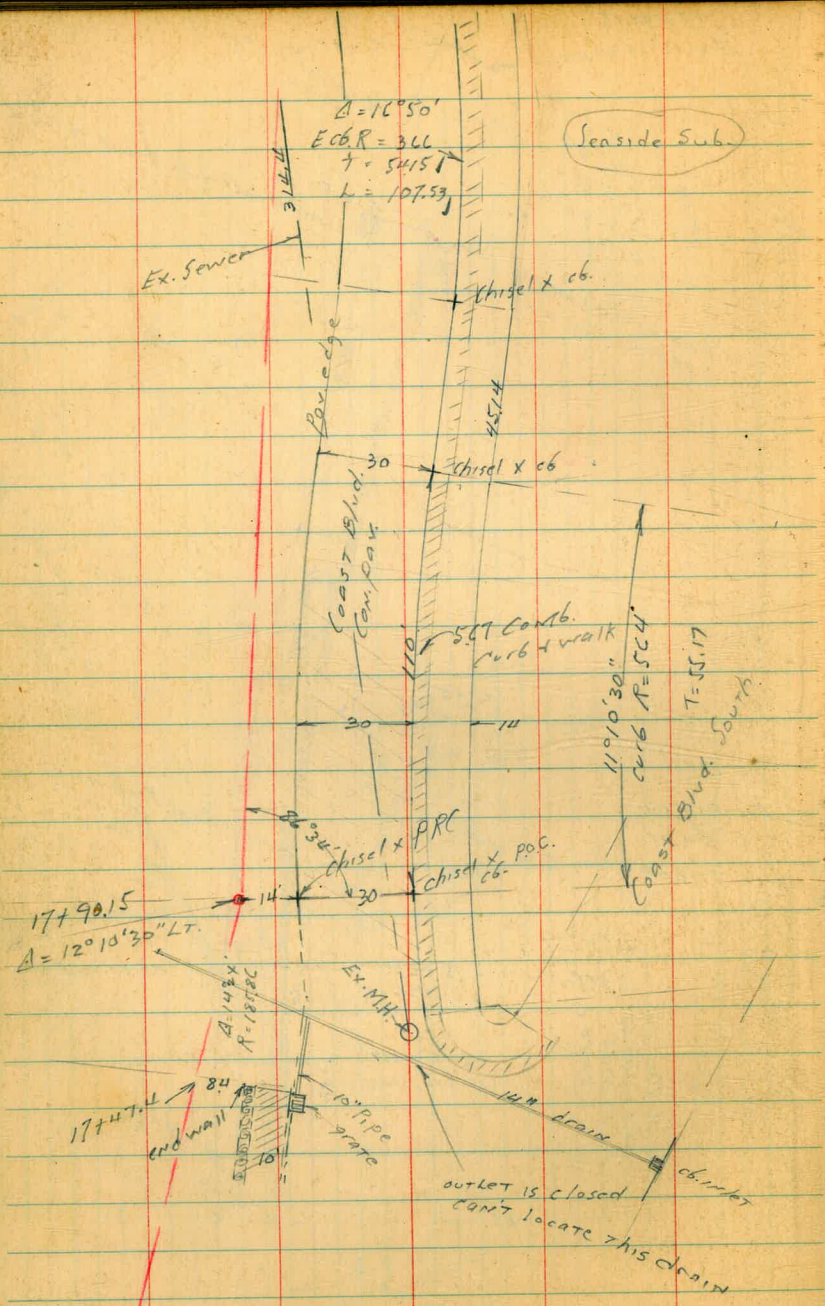
$\Delta = 19^{\circ} 37' \text{ RT.}$

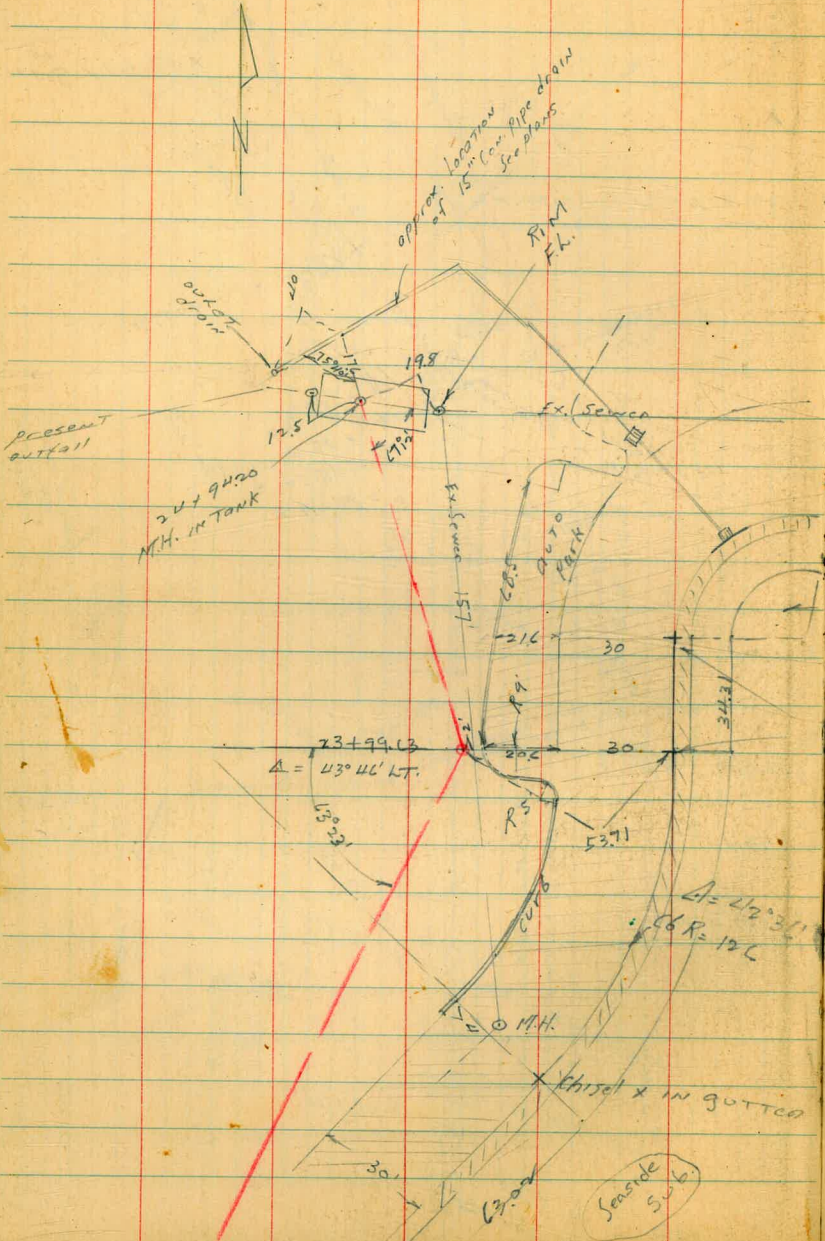


17+90.15
 $\Delta = 12^{\circ}10'30''$ LT.

$\Delta = 6^{\circ}45'$
 ch. R = 917.54
 T = 54.11
 L = 108.09

17+00' LT
 ch. R = 442.27
 T = 21.05
 L = 54.03





$\Delta = 95^{\circ} 26'$
 $CB R = 31.38$

2-1" RP
 Chisled XS

Casa Moravia Hotel

Seaside Sub. B

Levels proposed PUMP SITE
AT RAVINA ST. Sewer Outfall

Sketch p. 25

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WK

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0 + 51.06

0 + 34.04

0 + 17.04

0 + 100 B.C.P.T.

T.P. 2.77 18.20 3.23 15.43

T.P. 0.55 18.66 8.87 18.11

T.P. 0.87 26.98 12.54 26.11

T.P. 0.18 38.63 10.25 38.45

T.P. 0.57 48.70 10.30 48.13

check to N.E.B.P. curb
Pearl + Olivetas 7.26 49.17 $\frac{49.29 - \text{CITY}}{0.17}$ old

T.P. 0.63 58.23 12.62 57.20

check to U.S.G.S. B.M. Chisel
Square 4.53 65.89

T.P. 0.44 70.42 11.28 69.98

T.P. BMBP
SE Con 0.20 81.06 9.72 81.06

SW 1/4 T.C.T. 90.15

Pearl and
Drapen Sts. 0.63 90.78

See other
Book
#K50

CITY
DATUM

Left

31
W.Curb
TOP

02.1	65	9.8	10.9	16.7	16.90
$\frac{12.1}{70}$	$\frac{11.7}{44}$	$\frac{8.4}{40}$	$\frac{7.3}{22}$	$\frac{1.5}{5}$	1.30

3.00	6.80	10.6	16.2	16.50
$\frac{15.4}{60}$	$\frac{11.4}{37}$	$\frac{7.6}{27}$	$\frac{2.0}{5}$	1.70

3.10	5.90	6.9	9.7	16.0	15.93
$\frac{15.1}{60}$	$\frac{12.3}{44}$	$\frac{11.3}{33}$	$\frac{8.5}{10}$	$\frac{2.4}{5}$	2.27

4.20	7.6	15.4	15.29
$\frac{14.0}{45}$	$\frac{10.4}{23}$	$\frac{3.0}{5}$	2.91

18.20 ✓

Ed. B.P. curb S.Ely Con. Ravina and Olivetas

72.09 = USGS See FB. 1649 P. 17
C. 1119
C. 5.771 CENTER TOP CURB S.Ely Con. Pearl + Draper Blvd.

90.30 = USC&G Walker 1649 - p 5
9.91
81.27

Found
T.P. BM.BP in curb

111

19.83 ✓

1+50 approx. Middle of Curve $\Delta = 14^\circ 37'$

1+30

2" x 2" RAT.
T.P. 012501

3.58

70.94 ✓

0.84

17.36

1+44

1+11

1+00

0+6808 PRC curb

18.20 ✓

32

Sta of Foulne add
N. Cor. of Coast Blvd & Coast Blvd. South

Top
W. Curb

02.8 09.3 15.9 16.9 17.9 17.9 17.83

18.5 11.6 5.5 4.5 3.5 3.0 3.11
94 80 73 49 31 17

03.6 08.8 15.0 17.2 17.8 17.67

17.3 12.1 5.9 5.7 3.1 3.27
88 79 70 33 10

20.94 ✓

02.9 08.7 14.8 16.6 18.1 18.9 17.3 17.61

15.3 13.5 3.4 1.6 4.1 4.3 0.9 0.59
88 81 67 40 37 25 12

02.5 5.00 9.6 14.6 10.5 12.2 11.1 12.6 17.2 17.55

15.7 13.2 8.6 3.6 7.7 6.0 7.1 5.6 1.0 0.65
86 76 69 63 60 55 44 22 11

02.6 5.80 7.20 10.1 12.1 17.1 17.93

15.4 12.4 10.9 8.1 6.1 6.1 1.1 0.77
84 68 52 44 21 7

02.2 05.3 09.5 11.0 12.8 17.0 17.00

16.0 14.9 8.7 7.2 5.4 1.2 1.20
68 52 46 27 14 6

18.20 ✓

Levels on Pressure Line Between
Ravina St and Jensen St

8M.B.E. Cub	2.67	22.50	19.83	11.501 Coast Blvd. S.
-------------	------	-------	-------	--------------------------

M.H. on Coast Blvd

Rim	6.53	15.99
F.L.	15.13	7.37

M.H. S. of Tank

Rim	11.86	10.64
F.L.	15.87	6.63

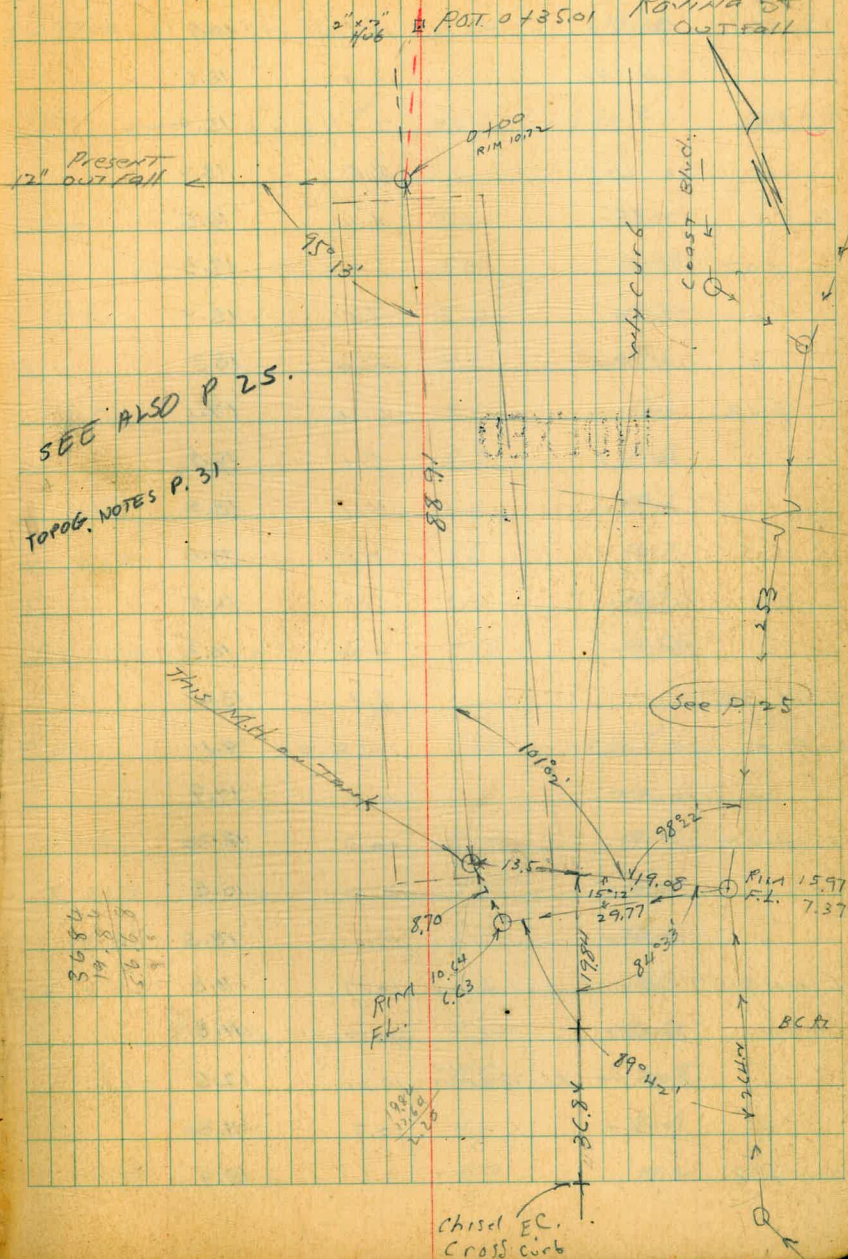
INDEXED

WK

NOV 16 1948

0+100	Outlet M.H. Rim	11.78	10.74
"	" F.L. Cover sealed		
0+115		8.2	19.3
0+120		5.3	17.2
0+135.01	P.O.T. Hub	5.14	17.36
0+145		6.8	15.7
0+158		5.4	17.1
0+165		7.5	15.0
"	10 LT	10.1	12.4
"	" RT	4.6	17.9
0+175		8.0	17.5
"	10 LT	10.4	12.1
"	" RT	4.5	18.0

Layout of Existing Septic Tank at
Ravina St and Jensen St



22.50 ✓

0+88		6.2	16.3
"	10 LT	11.6	10.9
"	10 RT	3.9	18.6
+00		7.1	15.9
"	10 LT	8.6	13.9
"	7 RT	4.0	18.5
+07		5.4	17.3
"	10 LT	7.1	15.9
"	10 RT	4.2	18.3
+13		5.4	17.1
"	10 LT	5.6	16.9
"	10 RT	4.1	18.9
+18		5.5	17.0
"	10 LT	5.6	16.9
"	10 RT	4.2	18.3
+30		8.9	13.6
"	10 LT	10.4	9.1
"	10 RT	4.6	17.9
+40		10.3	12.20
"	10 LT	11.7	10.8
"	10 RT	4.0	18.5
+49.57	1/2. line of drain	10.7	11.8
"	8 RT	10.7	11.8
"	8.5 RT FL 18 ^{#drain} 20712	10.00	12.5
"	10 LT	10.7	11.80
+68		3.6	18.9

22.50

34

+68	10 LT	9.8	12.7	
+79.10	A 10° 31' 30" LT	3.32	19.18	STUB
T.P.	441 24.24 ✓	2.67	19.83 ✓	BKBP
+100		5.0	19.2	
"	10.7 RT Top of	5.31	18.93	
+50		5.0	19.2	
3		4.6	19.6	
+50		4.6	19.6	
X		4.9	19.3	
+25		6.1	18.1	
+50		5.5	18.7	
5		5.5	18.7	
5+17.7X	A 10° 54' RT	5.58	18.66	
T.P.	6.23 24.89 ✓	5.58	18.66 ✓	5+17.7X A STUB
5+42		5.7	19.2	
5+69	on curv. walk	5.85	19.09	
+85		6.6	18.3	
6+00		5.6	19.3	
"	8.9 RT Top Curb	4.32	20.6	
+52		4.4	20.5	
7		4.0	20.9	
+10		5.7	19.2	

24.89 ✓

7 + 25		4.7	20.2
" 10 LT		7.6	17.3
+ 50		6.4	18.5
+ 65		3.7	21.2
7 + 83.55 Δ 3x° 07' 30" RT.		3.6	21.27 stub
8		3.0	21.7
+ 33		2.4	22.5
" 10' LT		3.1	21.8
+ 45		5.9	19.0
" 10 LT		8.6	16.3
" 10 RT		1.9	23.0
+ 55		4.3	20.6
" 10 LT		5.8	19.1
" 10 RT		1.7	23.2

T.P. 10.58 35.22 ✓ 0.45 24.14 ✓

+ 70		10.4	24.8
+ 88		10.7	24.5
8 + 91.4	1/2" 18" drain	14.3	22.9
"	10.6 LT F.h. out let	17.57	17.65
"	16.4 RT Top curb	9.98	25.29
"	" " grade	11.07	24.20
"	" " F.h. Box	16.78	18.44
+ 95		10.6	24.6
9 + 01		11.0	24.2

35.22 ✓

35

9 + 10		14.7	20.5
" 5' LT		15.9	19.3
" 10 LT		14.0	21.2
9 + 18		9.6	25.6
+ 50		8.0	26.6
10		7.0	28.2
+ 50		4.6	30.6
"		2.5	32.7

T.P. 11.47 45.64 ✓ 1.05 34.17 ✓

+ 50		11.1	34.5
17		9.3	36.3
+ 50		6.5	39.1
+ 56	Bag Terraced portion of park	6.7	38.9
+ 63		4.3	41.3
+ 80		3.7	41.9
" 10' LT		8.1	37.5
18 + 10		8.0	37.6
" 10 LT		11.9	33.7
+ 25		7.3	38.3
" 10 LT		10.8	34.8
+ 33		5.4	40.4
" 10 LT		10.2	35.4

T.P. 4.61 50.13 ✓ 0.14 45.52 ✓

50.13 ✓

13 + 45	3.4	46.7
+ 63	3.4	46.7
+ 19.7 Int.	4.9	45.2
" 28 Lt Fl. Outlet	14.58	35.55
" 64 Rt A " Pipe	4.7	45.4 approx.
B + 77.5C = A 33°25'30" Lt.	4.9	45.2
14	5.9	42.2
+ 30	10.3	39.8
+ 50	13.0	37.1
" 3.5 Lt	13.4	36.7
" 10 Lt	18.9	31.2
+ 75	14.7	35.9
" 3.5 Lt.	15.5	34.6
" 7 Lt	20.0	30.1

check to B.M.B.P. ^{SECOR} Courier Coast Blvd. 0.00 50.13 ✓ 50.51 ✓

T.P.	2.23	39.94 ✓	17.44	37.71 ✓
15		5.4	34.5	
" 4 Lt		5.4	39.5	
" 7 Lt		9.5	30.9	
+ 15.4		5.7	39.2	
" 4.8 Lt Top ^{Corr.} Steps		5.74	34.2	
" 12 " Bot "		8.05	31.29	
15 + 38.44 A 12° 20' Lt.		5.91	39.03	Stub

39.94 ✓

36

15 + 38.44 8 Lt	6.0	33.99		
" 10 Lt	9.5	30.9		
15 + 50	5.9	39.0		
" 7 Lt	6.4	32.7		
" 9 Lt	10.0	29.9		
16 + 05 over Cave	5.4	39.5	ground	
" 4 Lt { 90° Lt.	5.6	39.3	"	
" 5 Lt {	7.4	32.5	"	
" 30 Lt }	17.9	22.0	Roof of Cave	
" on line Sewer	20.9	19.0	" " "	
" 1' Rt { 45° Lt.	24.9	13.0	" " "	
" 9 Rt. } Line of	28.9	11.0	" " "	
" } Cave				
+ 25	4.4	35.5		
" 4 Lt	4.4	35.7		
" 5 Lt	5.5	32.9		
+ 50	2.5	37.9		
" 3 Lt	3.7	36.2		
+ 70	1.9	38.0		
+ 85	2.4	37.7		
17	2.6	37.3		
+ 50	3.9	36.0		
+ 60	3.3	36.6		
17 + 90.15 A = 12° 10' 30" Lt.	4.7	35.2		
T.P.	1.40	35.37 ✓	5.97	33.97 ✓

35.37 ✓

18		0.5	39.9	
+50		2.2	33.1	
19		4.0	31.9	
+50		5.4	30.7	
20		6.6	28.8	
+50		7.4	28.0	
+74.47 Int. Sewer Line		8.3	27.1	ground
21		8.6	26.8	
M.H. 40.4 N of 20+74.47		9.02	26.35	R.M.
" " " "		13.24	22.13	FL.
21+29.68 Int. Sewer Line		9.0	26.8	ground
+50		9.3	26.1	
22		9.9	25.5	
T.P.	4.35	29.77 ✓	9.95	25.42
22+26.49 A=15° RT		4.93	24.89	
" 5' RT		4.77	25.00	Pav. edge
+50		5.5	29.3	
+71.5 Int. 30" drain		5.8	29.0	ground
" 60' LT. FL. outlet		20.2	9.57	
" 130.6 RT RIM of M.H.		1.24	28.53	drain clearout
" " " FL.				Cover Sealed See Plans and grade Book.
23		6.5	23.3	
+50		6.2	23.6	
+55		6.4	23.8	

29.77 ✓

37

23+17		8.2	21.6	
" 10' LT.		12.8	17.0	
+85		6.2	23.6	
" 12' LT		12.0	17.8	
23+99.63 Δ 43° 46' LT		6.31	23.96	
" 10' LT.		6.6	23.2	
T.P.	4.33	27.79 ✓	6.31	23.46 a stub
24+13		3.9	23.9	
" 10' LT		4.7	23.1	
" 28' LT		20.2	07.6	
" 6.7 RT curb		3.98	23.81	
24+23		4.1	23.7	
" 21' LT		5.6	22.2	
" 30' LT		20.4	07.9	
" 9.7 RT		4.0	23.8	
24+45		4.3	23.5	
" 37' LT		5.8	22.0	
" 53' LT		14.6	13.2	
" 60' LT		12.8	15.0	
" 70' LT		21.7	06.1	
" 17' RT cb.		4.05	23.71	
24+70		4.8	23.0	
" 32' LT		6.0	21.8	
" 42' LT		11.3	16.5	
" 50' LT		24.3	03.5	
" 30' RT cb.		4.00	23.79	

27.79 ✓

24 + 94.00	M.H. RIM	5.48	22.31	ex Tank
"	19.8 Rt. M.H.	4.73	23.06	RIM
"	" "	10.66	17.13	F.L.
"	13 LT.	6.5	21.3	
"	36 LT	21.9	05.9	

M.H.	157' So. of above M.H.	3.80	23.99	RIM
"	" " "	8.21	19.58	F.L.

T.P. 5.43 32.71 0.51 27.28 Stand disk ✓

check to Main. A Point 2.48 29.23 " "

T.P. 11.35 42.38 0.68 32.03

T.P. 11.28 54.21 0.45 42.93

check to SE CT 5.88 48.33 (old City 48.30)

T.P. 6.94 59.13 2.00 52.21

T.P. 4.67 61.20 2.60 56.53

T.P. 1.19 53.04 9.35 51.85

check to Sely BMBP Curb 5.99 47.05 ✓

This is only an R.P. Point for A Point on Roof
USCG Roof #1 1933 Top Con. Ret. wall of Swim Cove
approx 145' N. of Casa Manana Hotel

USCG MKd. "Roof" 1933 Top of Contact Sta. Roof

Jenner + Coast Blvd So. in my field B.M. Book

Coast Blvd. + Girard

47.39 Walker 1930 ^{F.B.} 1423

47.00 = old City

See F.B. 1649 p 18 for

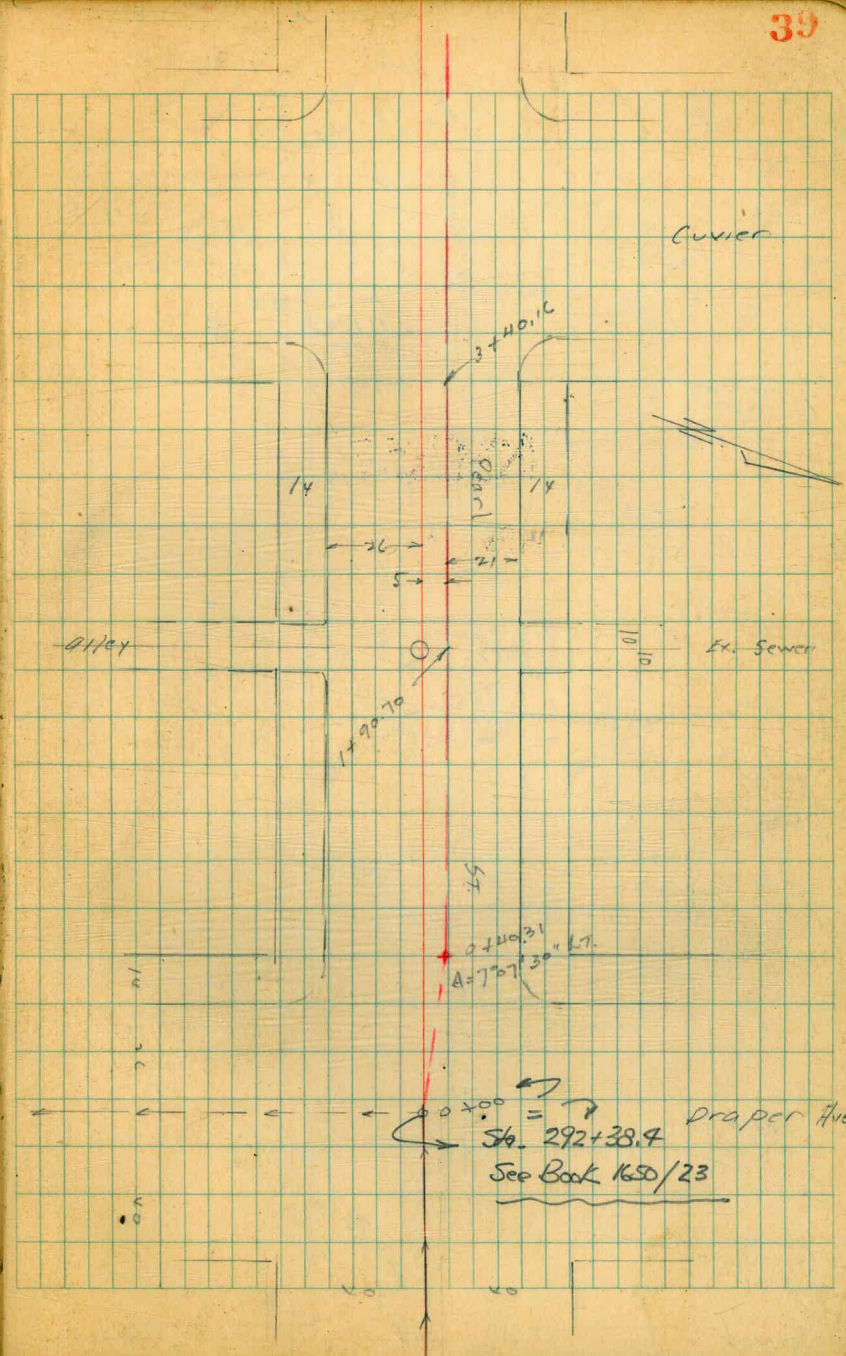
Sewer Pressure Line
 Rearland Draper to Ravina outfall
 + = chisel crosses

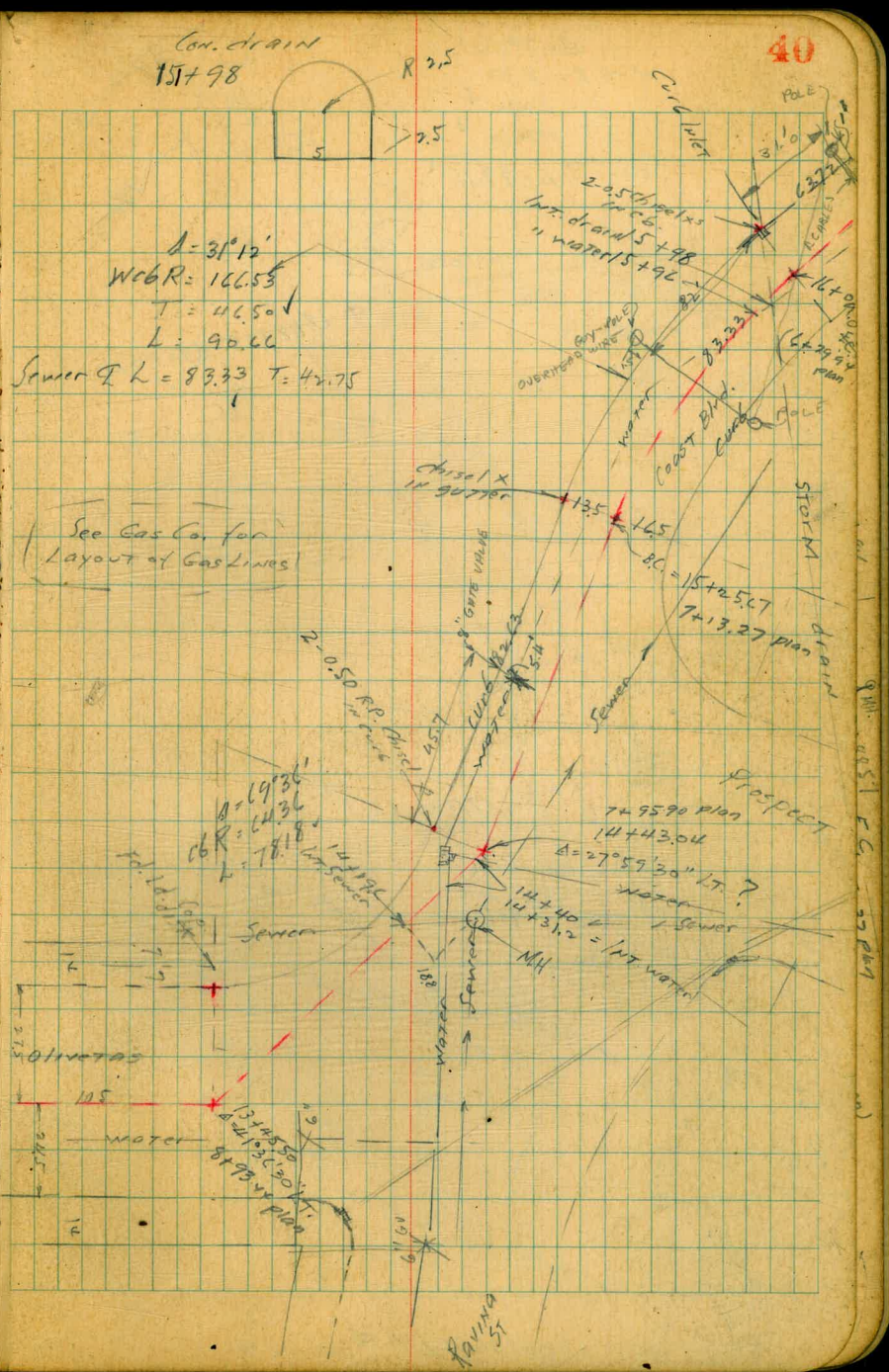
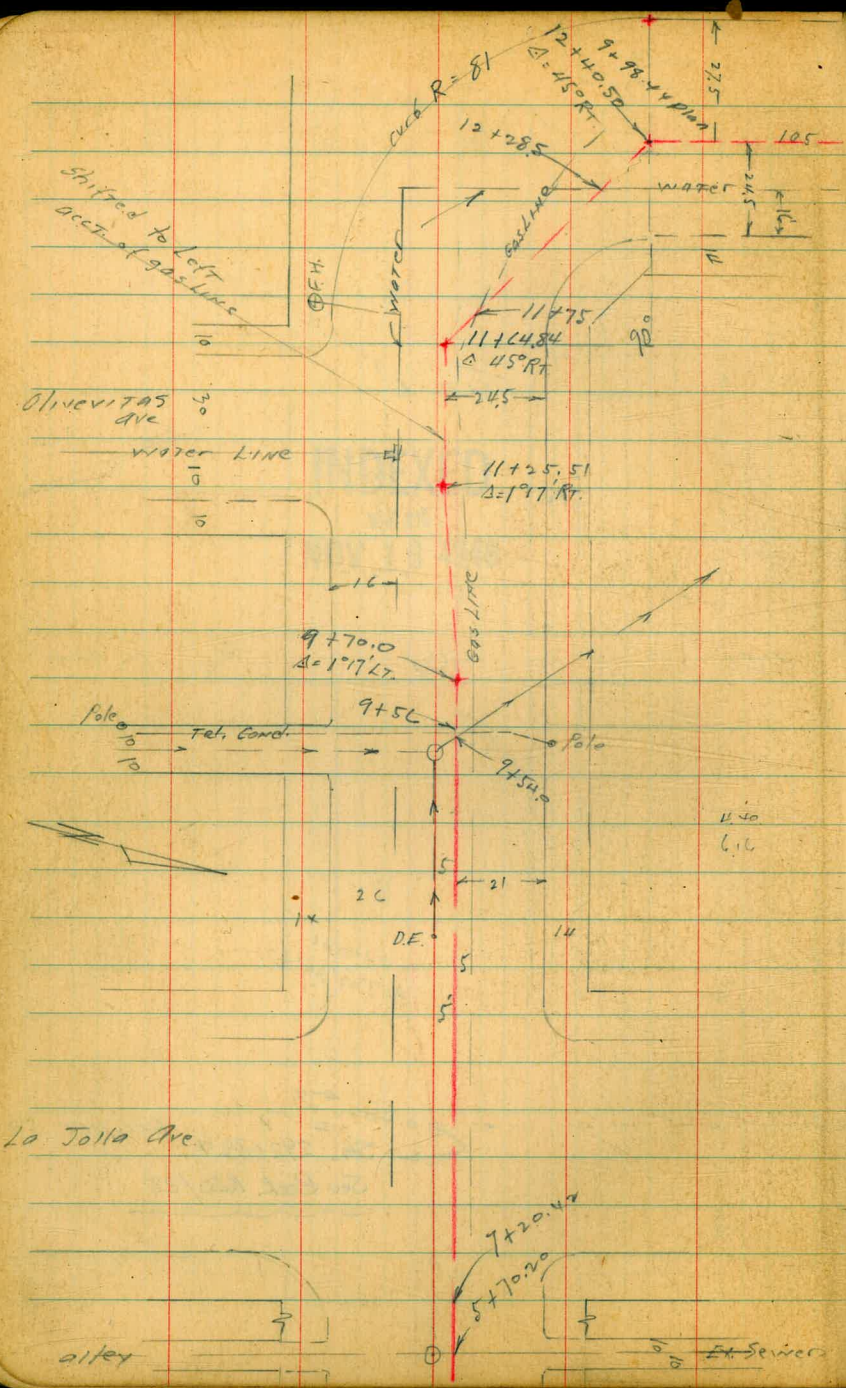
Con. Pav. beg. to end

Levels p. 43

INDEXED
 WK
 NOV 16 1948

Moore
 5-4-43





$\Delta = 7^{\circ}00'$
 $WcR = 830$
 $T = 50.76$
 $L = 101.46$
 Sewer $L = 99.75$

Chisel Cross in gutter

$18+88.15 = (3+50.79 \text{ plan})$
 REC

$\Delta = 39^{\circ}00'$
 $WcR = 930$
 $T = 116.86$
 $L = 224.64$
 Sewer $L = 215.43$

Chisel Line
 Coast Blvd

17+39.6 Int. Sewer

17+13 Int. Sewer

$16+72.77 = (5+66.22 \text{ plan})$
 REC

Chisel X in gutter

17+31 B.C.R.T.

M.H.

Old Cor. Ocean St.

$16+09.00 = 6+29.94$
 EC

See T.P. BK #30-25

$19+81.90 = (2+51.04 \text{ plan})$

$\Delta = 4^{\circ}24'$
 $WcR = 804.87$
 $T = 30.92$
 $L = 61.81$
 Sewer $L = 60.77$

$T = 8.59$
 $\Delta = 11^{\circ}36'$
 $WcR = 841.14$
 $L = 17.03$
 $C = 17.0$

$T = 64.05$
 $\Delta = 9^{\circ}32'$
 $WcR = 768.13$
 $L = 127.81$
 $C = 127.66$
 Sewer $L = 125.56$

Blvd.

POLE

Coast Blvd

Sewer

Coast Blvd

$19+07.90 = (2+51.04 \text{ plan})$
 REC

$21+72.80 = (1+58.88 \text{ plan})$
 $21+70.00 = (1+56.00 \text{ plan})$
 $21+71.71 = (1+57.71 \text{ plan})$
 REC

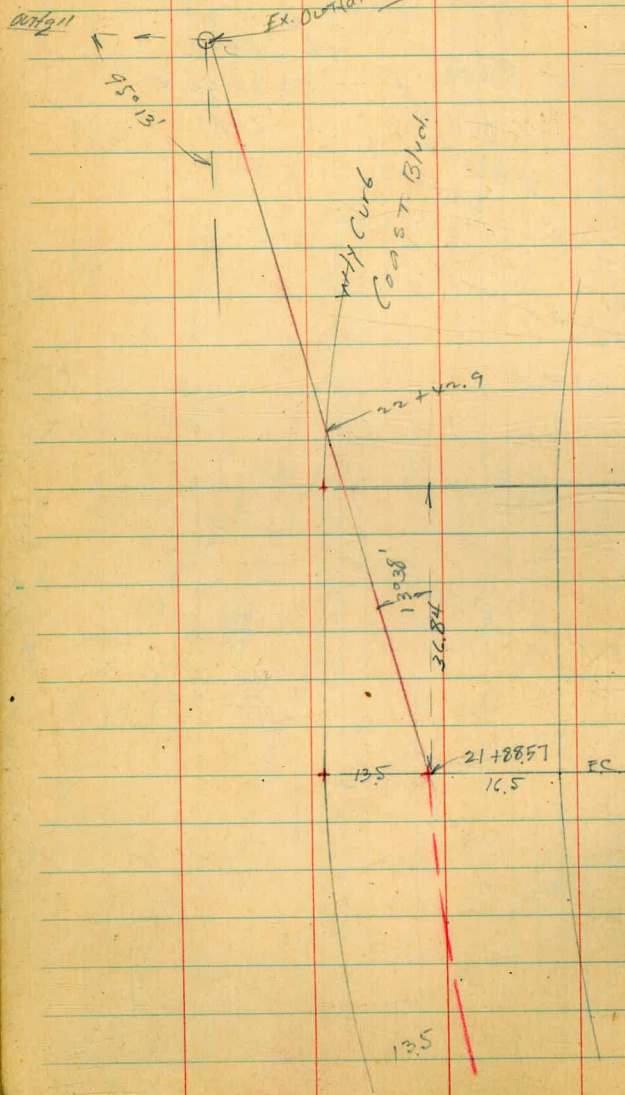
36.84
 $19+88.51$
 $2 = 0+50.37 \text{ plan}$
 REC

Chisel X in gutter

M.H.

$19+91 = \text{Int. Sewer}$
 $19+91.90 = (2+51.04 \text{ plan})$
 REC

Ex. Outfall M.H. = 0400 Page 25
= 23737.22



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Sketch p 39

Levels on pressure line

Pearl & Draper via Coast Blvd.

to Ex. outfall, foot of Ravina St.

S. Wly 7' CT.	0.34 0.33	90.49 90.48	90.15	Pearl & Draper
0 + 00 E Pearl & Draper	0.34	90.17		
0 + 40.31 A 7" x 7' 30" LT	1.18	89.31	Wly Draper	
0 + 50	1.31	89.18		
1	2.77	87.72		
+ 50	4.29	86.20		
+ 90.7 Int. Sewer line	5.48	85.01		
" 5' LT. M.H. Rim	5.36	85.13		
" " " F.L.	12.37	78.12		
2	5.78	89.71		
+ 50	7.44	83.05		
3	8.94	81.55		
+ 40.6 Fly Currier	10.28	80.91		
T.P. SE BP Curve	0.44	81.50	9.43	81.26 Pearl Currier
3 + 80.6 9 Currier	1.89	79.61		
4	2.32	79.18		
4 + 20.6 Wly "	2.74	78.76		
+ 50	4.15	77.35		
5	6.40	75.10		

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WK

NOV 16 1948

81.50

43

5 + 50	8.57	72.93		
5 + 70.4 Int. Sewer	9.40	72.10		
" 5' LT. M.H. Rim	9.34	72.16		
" " " " F.L.	16.74	69.78		
6	10.81	70.69		
T.P. 11.7	70.14	17.48	69.0	✓
6 + 50	1.65	68.98		
7	3.95	66.19		
7 + 20.4 Fly - La Jolla Blvd	4.85	65.29		
+ 60.4 " " "	5.29	64.85		
8 + 00.44 Wly " " "	6.33	63.81		
+ 50	8.57	61.57		
9	10.97	59.17		
T.P. 0.54	59.22	11.46	58.68	✓
9 + 50	2.30	56.92		
9 + 54 Int. Sewer line	2.53	56.69		
" 5' LT. M.H. Rim	2.34	56.88		
" " " " F.L.	8.50	50.72		Main Sewer
" " " " F.L.	6.74	52.98		front E
9 + 70.0 A = 10' 17' LT.	3.37	55.85		
10	4.69	54.53		
+ 50	7.02	52.20		

59.00 ✓

11		9.08	49.99
11 + 45.51	$\Delta = 1^{\circ}17'RT$	9.67	49.55
+ 50		9.94	49.28
11 + 64.84	$\Delta = 45^{\circ}RT$	10.10	49.12
12 + 00		11.40	47.82

T.P. 0.69 48.82 ✓ 11.09 48.13

12 + 40.50	$\Delta = 45^{\circ}RT$	1.73	47.09
+ 50		2.46	46.36
13		6.50	42.32
13 + 45.50	$\Delta = 41^{\circ}36'30"LT$	9.96	38.86
+ 70		12.06	36.76

T.P. 1.04 37.25 ✓ 12.61 36.21 ✓

14 + 00		2.76	34.99
+ 19.5	Int. Ex. Sewer	3.93	33.82
"	18.8 Nly front Int	4.45	32.80 M.H. Rim
"	"	12.03	25.22 " Fl.
14 + 43.04	$\Delta = 47^{\circ}59'30"LT$	4.73	32.52
+ 75		6.30	30.95
15		7.64	29.63
15 + 45.67	BCRT	9.01	28.22
+ 50		10.34	26.93
+ 75		11.74	25.51

37.25

44

T.P.	2.73	27.22 ✓	12.74	24.51 ✓
15 + 98	Int. Street drain	3.05	29.18	Per.
"	18.3 Nly & ab. inlet	3.20	24.02	Top db
"	" " " "	4.20	23.02	grove
"	" " " "	17.75	09.99	Fl. drain
16 + 09	ES	3.55	23.69	
+ 50		4.55	22.69	
16 + 70	BCRT	4.88	22.36	
17		5.22	22.02	
17 + 13	Int. Ex. Sewer	5.34	21.90	Per
17 + 39.6	" " "	5.60	21.62	"

5.7 Sly of 17+13	M.H. Rim	4.79	22.45
"	" " Fl.	8.91	18.33
13.3 Nly	" " Rim	5.60	21.62
"	" " Fl.	10.00	17.22

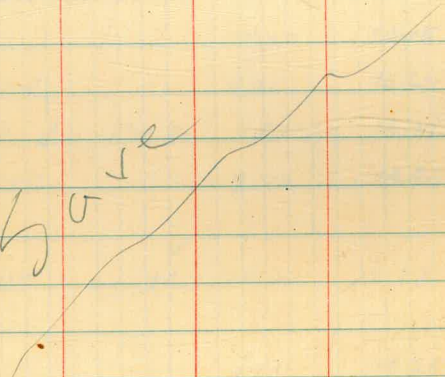
T.P. 0.81 23.58 ✓ 4.47 22.77 ✓

17 + 50		2.02	21.56
18		2.48	21.10
+ 50		3.05	20.53
18 + 88.15	PCC	4.03	19.55
19		4.44	19.19
+ 50		6.36	17.22

19+50.6	Int. Sewer Line	6.49	17.09	Pav.
24.1	19+50.6 Nly of M.H. Rim	7.63	15.95	
"	" F.L.	12.91	10.67	
19+75	Int. Sewer Line	7.38	16.20	"
19+87.90	P.C.C.	7.91	15.67	
19+96.1	Int. Sewer Line	8.34	15.26	"
no		8.54	15.02	
+34		10.44	13.12	
+59	dip in Pav.	11.97	11.61	
+78		11.73	12.35	
21		10.43	13.15	
21	+13.46 P.C.C.	9.96	13.62	
21	+20.63 P.L. $\Delta = 11^{\circ}36'RT$	9.81	13.77	
21	+27.80 P.C.C.	9.73	13.85	
T.P.	7.49	20.26 ✓	10.21	13.37 ✓
21	+50	6.61	14.25	
21	+88.57 = EC = $\Delta = 13^{\circ}38'LT$	5.93	14.93	
22	+16	5.67	15.19	
22	+42.91 gwt	5.53	15.33	
22	+42.9 Top w cb	4.98	15.88	
22	+60	4.6	16.3	
23	+39.28 = 0+00 Page 33	10.14	10.72	M.H. Rim
check to T.P. Pot = +35.01		3.54	17.34 ✓	17.36 0.02
	P.33			

Notes Reduced. Pg. 15 to 25.

Save



Save

Levels Proposed Pressure Sewer
Coast Blvd, Senner St, Prospect St, Girard Ave, Wall St.

BM	0.43	43.51	43.08	NEBP Factory Court 8' x 10' South
TP	1.89	32.51	12.89	30.62
TP	8.89	32.85	8.55	23.96
0-28.3	Frish Sewer MH	12.93	19.92	02 Pipe
"	"	32.85	0.00	Flank Hub
0+0	"	10.82	22.03	02 Hub
+08	= 3 Pipe Fence			
+16	= 5 x 4 Shrubs			
+28	= 1/2' 4" Dirt Path	9.9	22.85	WK
+58.7	= 5 x 4 Cb	9.10	23.75	Top
"	= Gutter Conc Pav	10.04	22.81	
+74.5	"	10.19	22.66	
"	Carb	9.39	23.46	Top
+79.7	"	9.39	23.46	"
+79.7	= Gutter	10.27	22.58	
1+0	= P. 18" Conc Pipe	10.00	22.85	
"	11/4" Lt of 1/2" Sty Inlet	10.15	22.70	02 Grate
"	" " " "	14.15	18.70	Bottom Box
"	18.3 R Top of 1/2" Inlet	10.36	22.49	Grate
"	" " " "	12.46	20.39	Bottom Box
+50	02 Conc Pav	9.04	23.81	
2+0	"	7.45	25.40	
+50	"	5.98	26.87	
2+0	"	4.72	28.13	
+22.84	Δ 11" RT	4.13	28.72	

INDEXED

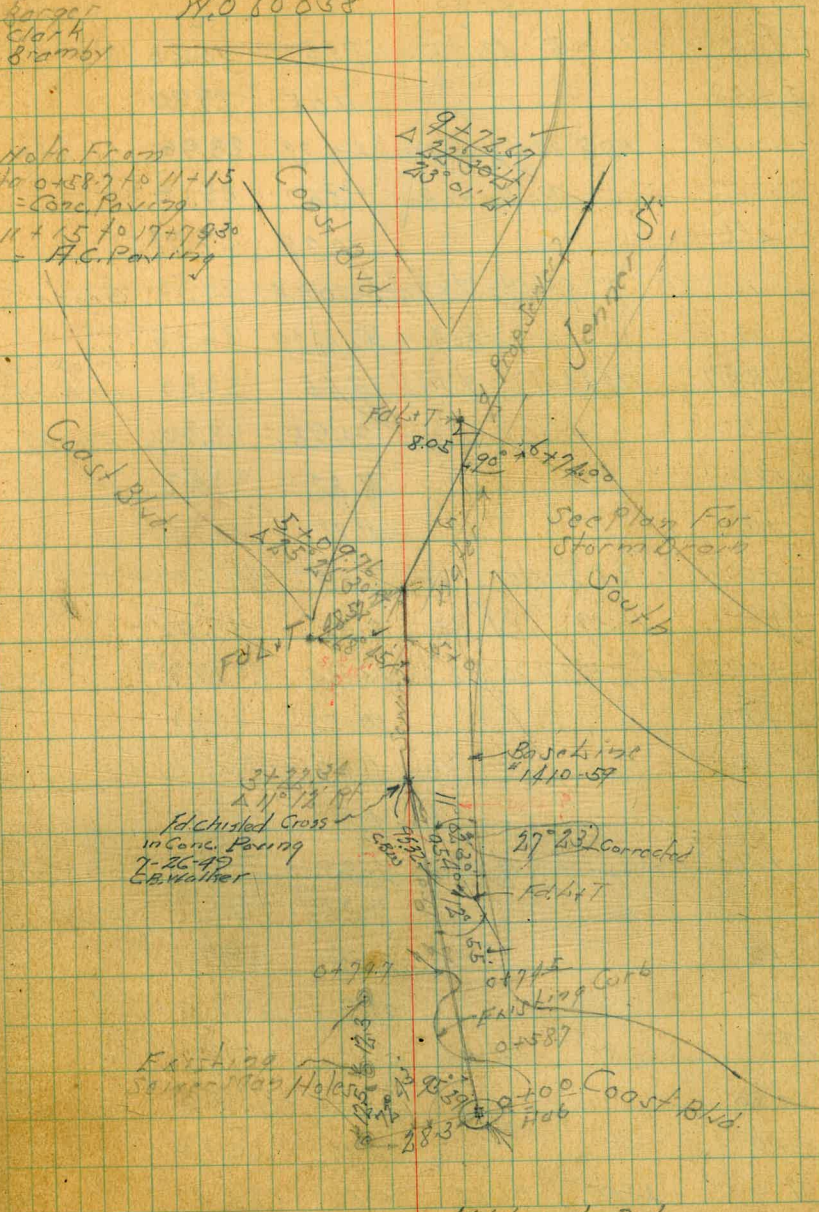
NOV 16 1948

Oct 19 48

Sisson
Becker
Karger
Clark
Grimby

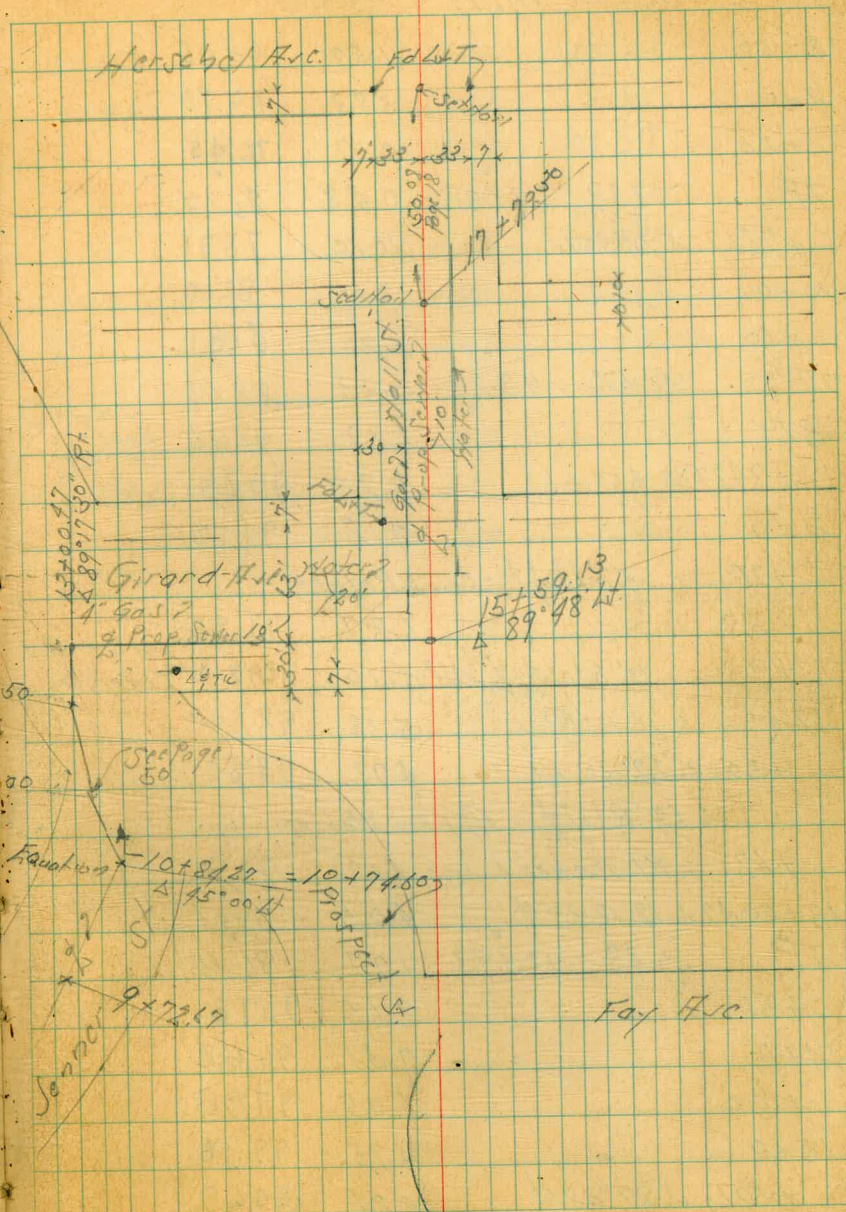
14.0 10058

Note From
Sta 0+58.7 to 11+15
= Conc Pav 179
11+15 to 17+930
= H.C. Paving



Additional Data
FB 1869-25-26

		32.85		
TP	10.05	40.25	2.65	30.20
3+38			11.05	29.20
"	15.8	Lt of 1/2 - Ely lot	11.29	28.96 Grate
"		Bottom Box	15.07	25.18
+66			10.28	29.97
"	9	Rt of 1/2 - Wly lot	10.74	29.51 Grate
"		Bottom Box	13.29	26.96
+847	11/2	Lt of 1/2 - L MH	9.45	30.80 Drop MH or Riss
"			21.95	18.30 Flow Line
4+0			8.82	31.43
+50			5.88	34.37
5+0		R.I. Water Line	2.99	37.26
TP	11.39	51.33	0.31	39.94
+0976		Δ 25° 25' 30" Rt	13.31	37.99
+50			10.52	40.81
6+0			7.09	44.24
+50			4.20	47.13
+73	16.4	Lt of 1/2 - L MH	2.85	48.48 or R.I.
"			9.36	41.97 Flow Line
7+0			2.36	48.97
+25			0.77	50.56
TP	12.81	64.03	0.11	51.22
+50			10.80	53.23
8+0			4.90	64.13
TP	13.15	76.62	0.56	62.47



76.62

8+50		11.57	65.05
9+0		5.83	70.79
+50		0.17	76.45
TP	12.87 23°01'	89.01	0.48 76.14
+72.67	122°00' Lt	10.10	78.91
10+0		7.01	82.00
+50		1.20	87.81
TP	9.54 98.22	0.33	88.68
BM		6.87	91.35
+84.27	Δ 45°00' Lt	7.84	90.38
11+0		7.12	91.10
+20	5.2' Left = Carb Returns		
+50		6.27	91.95
+93	7' Rt of 1/2 MH	5.30	92.92
12+0	Δ 11°15' Rt	5.38	92.84
+50	Δ 22°30' Rt	4.72	93.50
"	68 Rt of 1/2 = Approx Water		
+62	- Rt. Water Line	4.60	93.42
13+00.47	Δ 89°17'30" Rt	4.05	94.17
TP	7.48 103.93	1.77	96.45
+50		8.65	95.18
14+0		7.31	96.62
+50		6.05	97.88
15+0		4.75	99.18
+59.13	Δ 89°48' Lt	3.24	100.69

11/18/80
Prospect +
Jenney
91.23
check X

on R. in
Coxer Bto

10393

8093

49

15+77		2.55	100.38
+90		2.34	101.59
16+0		2.36	101.57
+13		2.63	101.30
+39		2.11	101.82
+50		1.80	102.13
TP	6.40 108.53	1.80	102.13
17+0		5.78	102.75
+50		5.10	103.43
+79.36	Δ 1/2 Alley	4.71	103.82
TP	5.56 110.70	3.39	103.14

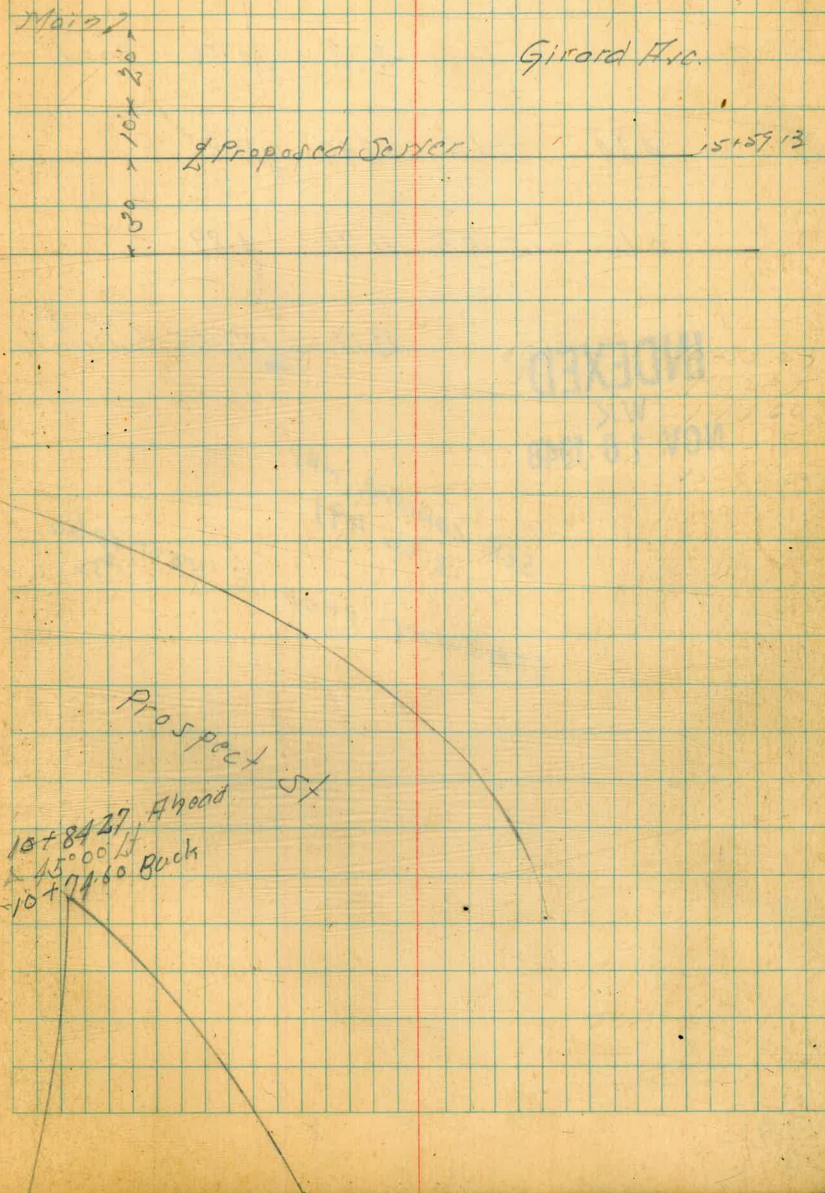
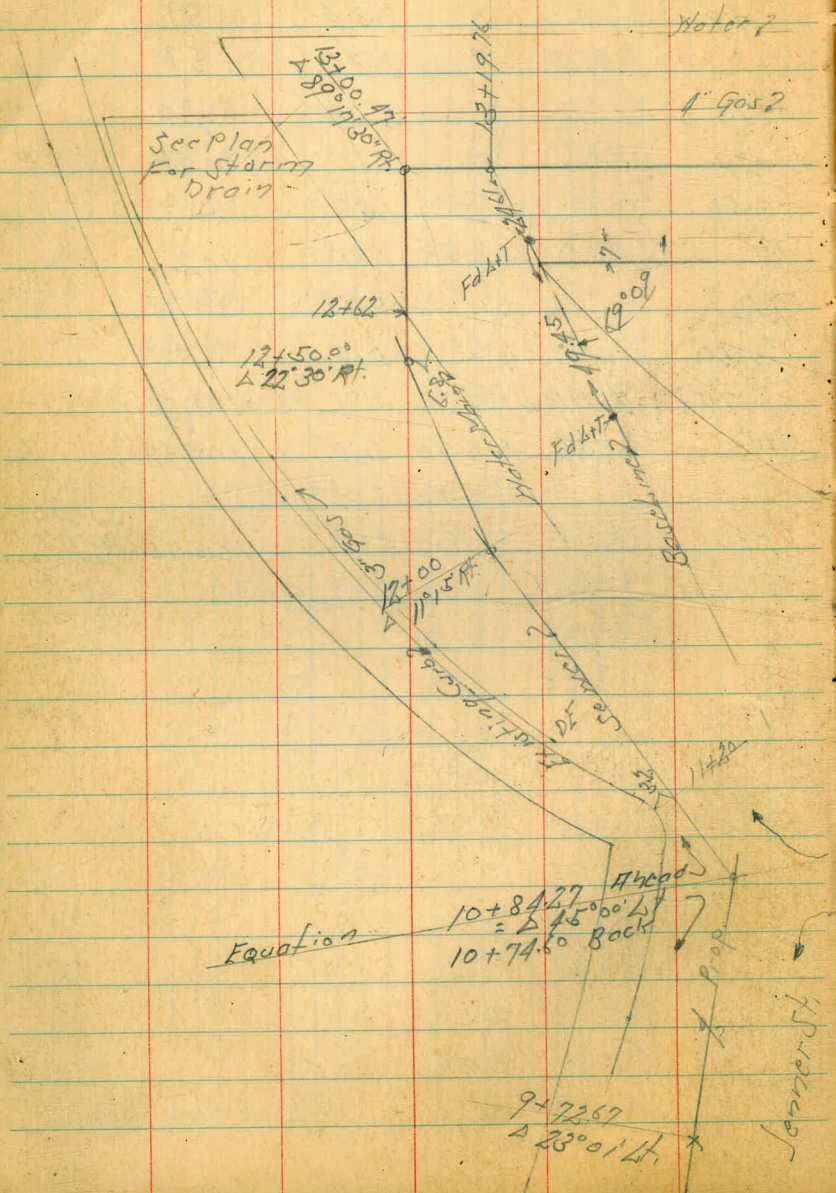
BM

4.95

105.75

5/11/80
Jenney
105.79
109.33

Proposed Pressure Sewer
 Coast Blvd Sanner St Prospect St Girard Ave + Hall St



Levels Proposed Pump House
Opposite Casa Manana Hotel

BM 2.25 24.38 22.03 on Hub
0+0

0100 2.72 21.56 on Hub
Page 47

TP 4.84 16.65 12.47 11.81

0.66 5.55 11.76 4.89

13.10 -7.55 Top 12"
Cast Iron Pipe

INDEXED

WK

NOV 16 1948

SEE CONTOUR MAP
ROLL 491

STAIRWAY PROFILE NEXT PAGE
#50

Nov 15-48.
Siroy
Smith
Becker
Borger

51

Location & Profile for Prop. Steps at Pump
Sta. at Coast Blvd. - Casa De Manana
P. 47 for Pressure Line Notes

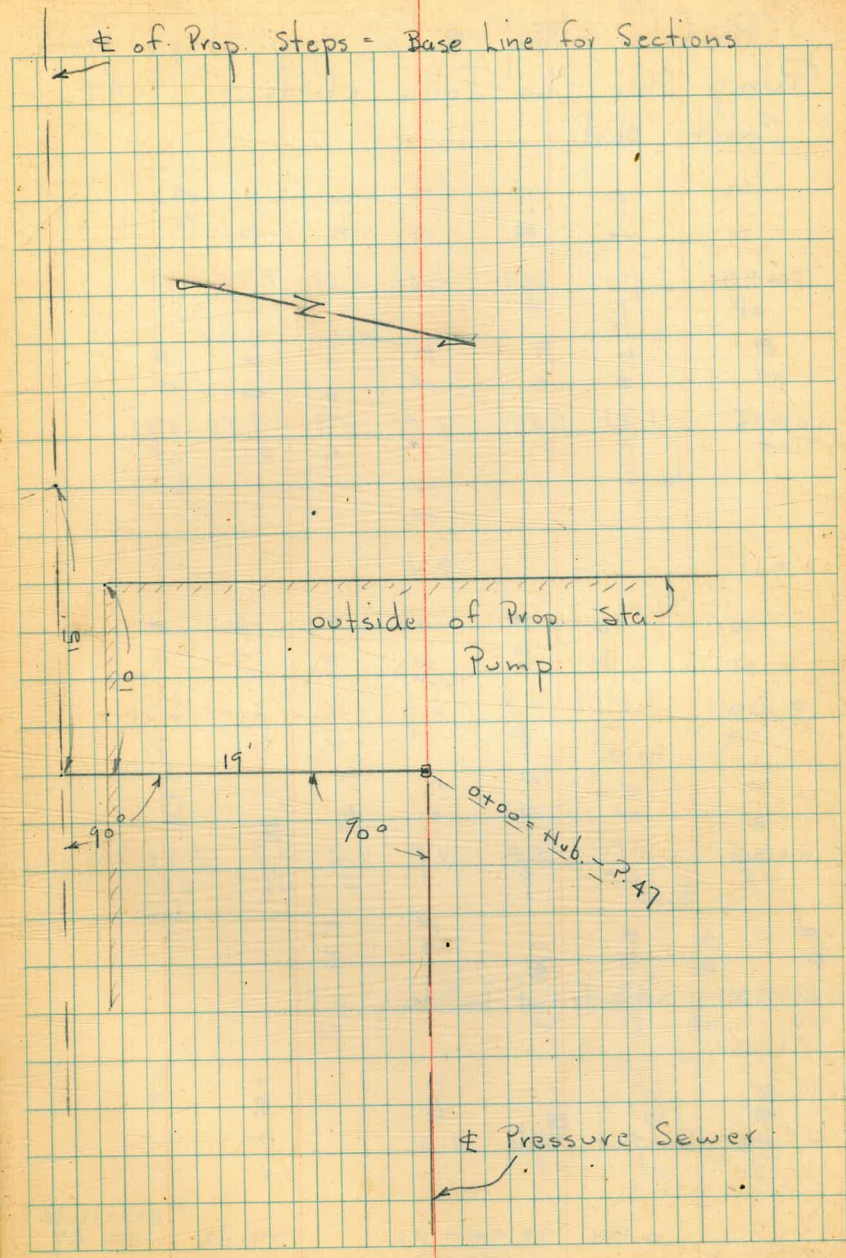
W.O. 60058

12-28-48

70.

INDEXED
WK
DEC 28 1948

0+00
for Profile



Profile along $\frac{1}{2}$ of Prop. Steps from
 Pump Sta. - La Jolla cliffs - P. 47
 Coast Blvd.

0 + 20

0 + 15

0 + 11

0 + 10

0 + 05

0 + 00 = outside of landing

0 - 05 = S.L. of Bldg.

0.30 22.33

22.03

0+00 Hub.
 P. 47

53

Lt.

of Prop. Steps

Rt.

3.3	19.0	5.0	15.3	17.8	20.2	19.1	13.1	19.8
0	6	0	6	5	6	6	9	0
3.8	4.1	12.7	16.2	14.5	17.5	17.1	5.1	6.3
20	6	20	6	8	9	9	20	40
18.5	18	9	7.8	17.8	16.8	16.1	17.2	16.0
sand	sand				sand		sand	sand
3.8	11.4	11.4	11.4	13.0	13.3	13.3	5.0	5.8
18.6	18.8	18.2	13.0	9.3	9.0	17.3	16.5	5.8
20	15	11	9	9	10	15	40	40
sand	sand	sand				sand		
3.7	3.5	4.1	4.1	5.2	5.2	8.5	3.6	5.2
18.6	18.8	18.2	13.0	9.3	9.0	17.3	16.5	5.8
20	15	11	9	9	10	15	40	40
sand	sand	sand				sand		
3.7	3.5	4.1	4.1	5.2	5.2	8.5	3.6	5.2
18.6	18.8	18.2	13.0	9.3	9.0	17.3	16.5	5.8
20	15	11	9	9	10	15	40	40
sand	sand	sand				sand		
3.7	3.5	4.1	4.1	5.2	5.2	8.5	3.6	5.2
18.6	18.8	18.2	13.0	9.3	9.0	17.3	16.5	5.8
20	15	11	9	9	10	15	40	40
sand	sand	sand				sand		
3.7	3.5	4.1	4.1	5.2	5.2	8.5	3.6	5.2

22.33

Lt.

+

Rt.

54

0+35 = end = sand

0+27 = Toe of last outcrop

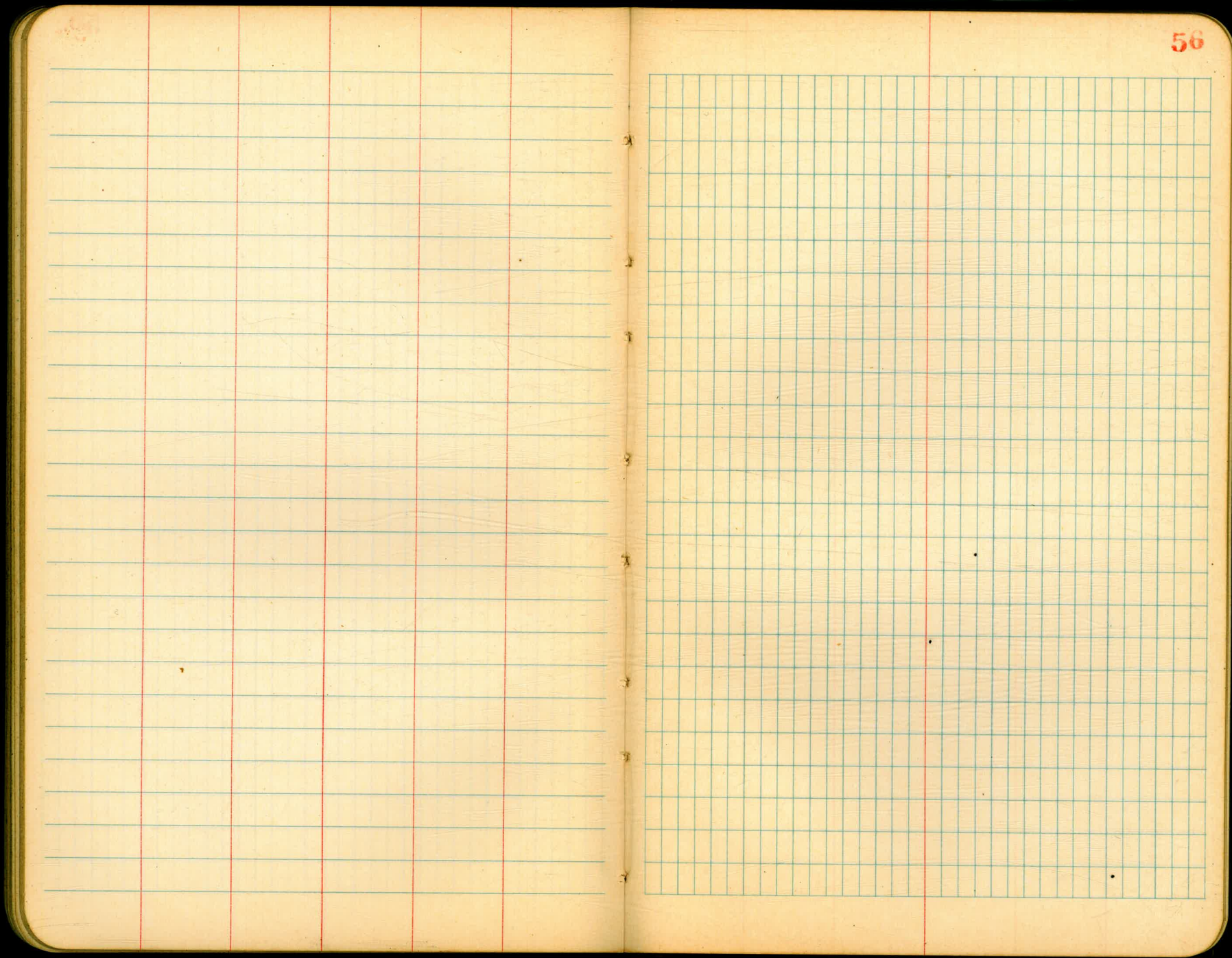
3.6
19.1

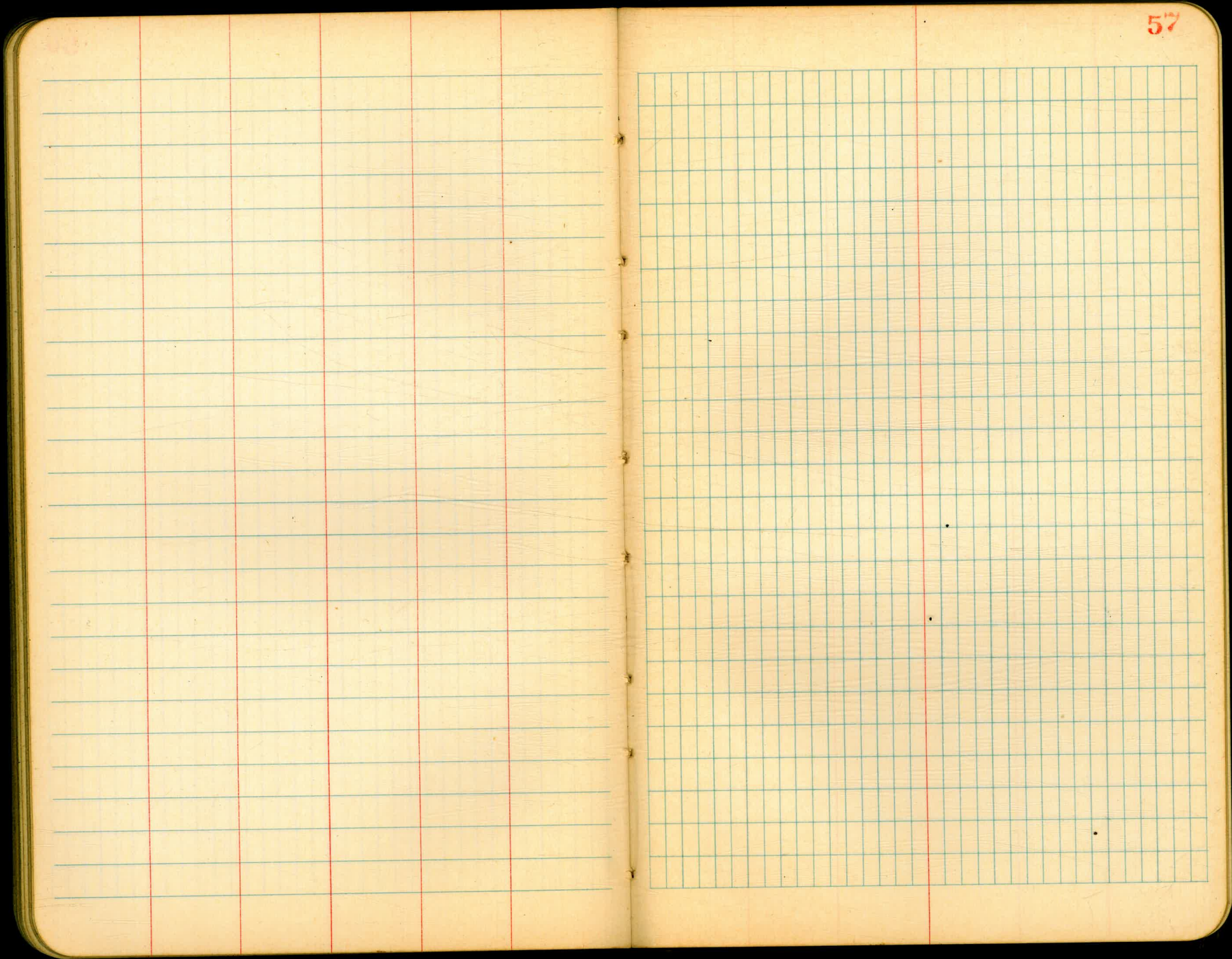
1.6
20.7
2.7
19.6
Sand
22.33

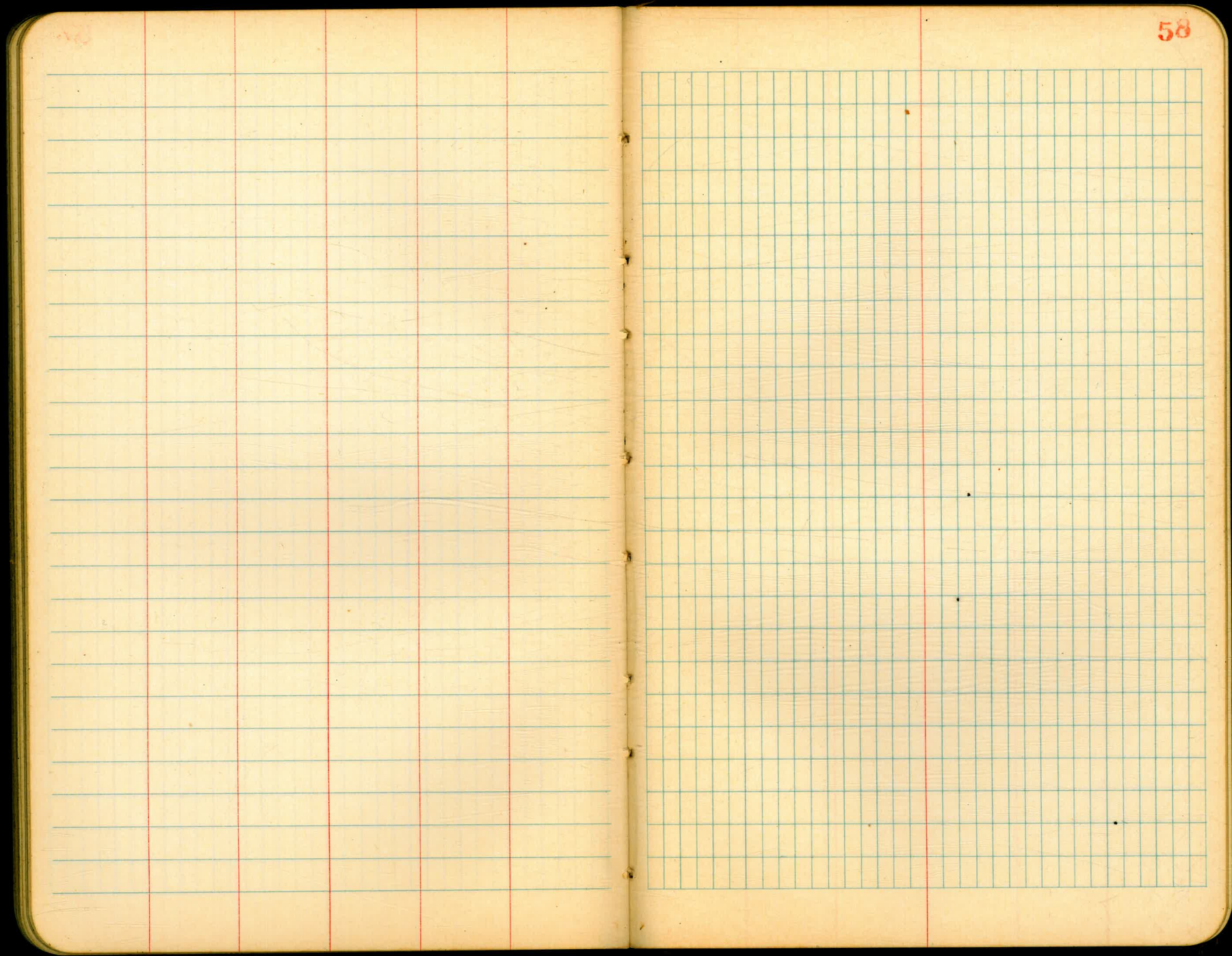
3.3
19.0
20

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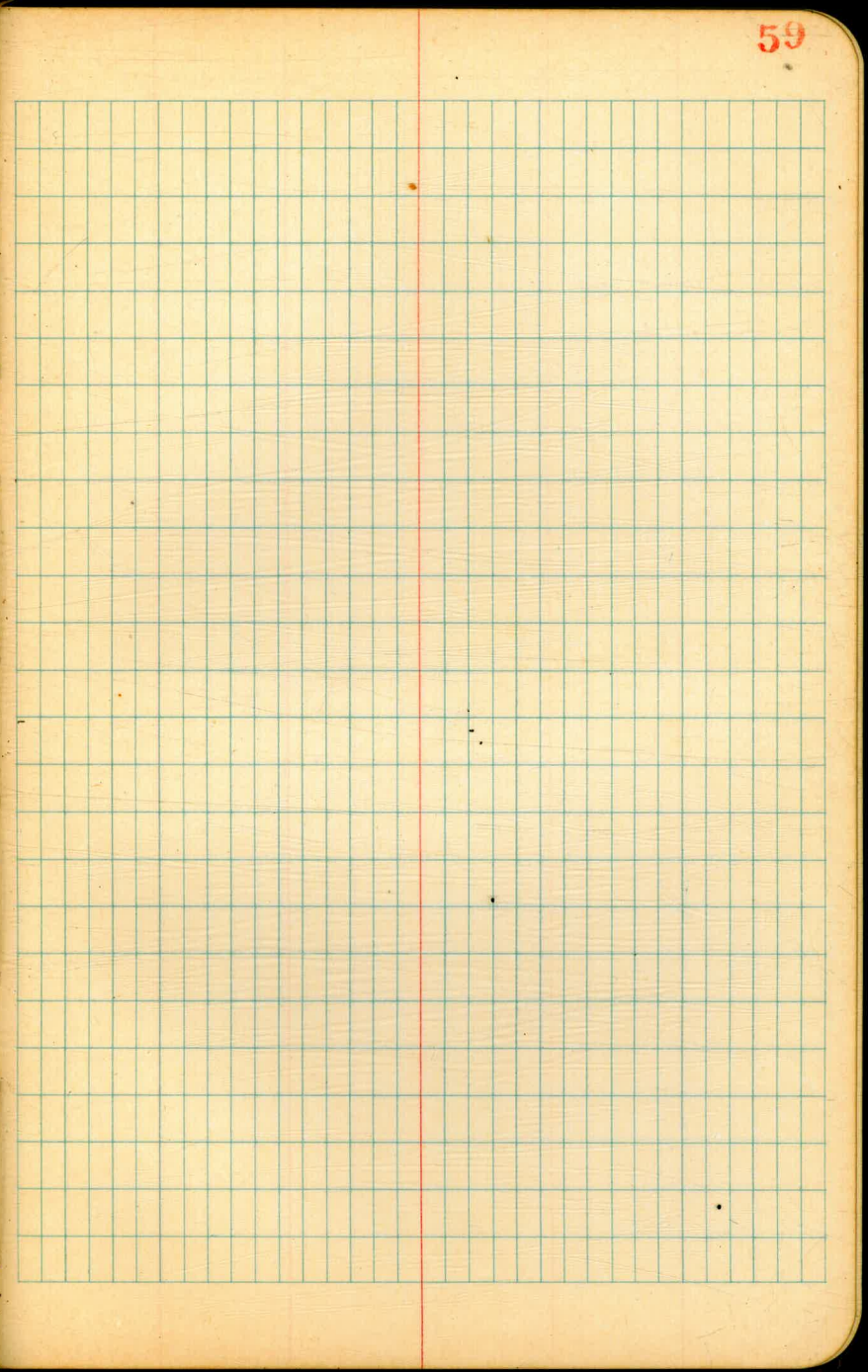
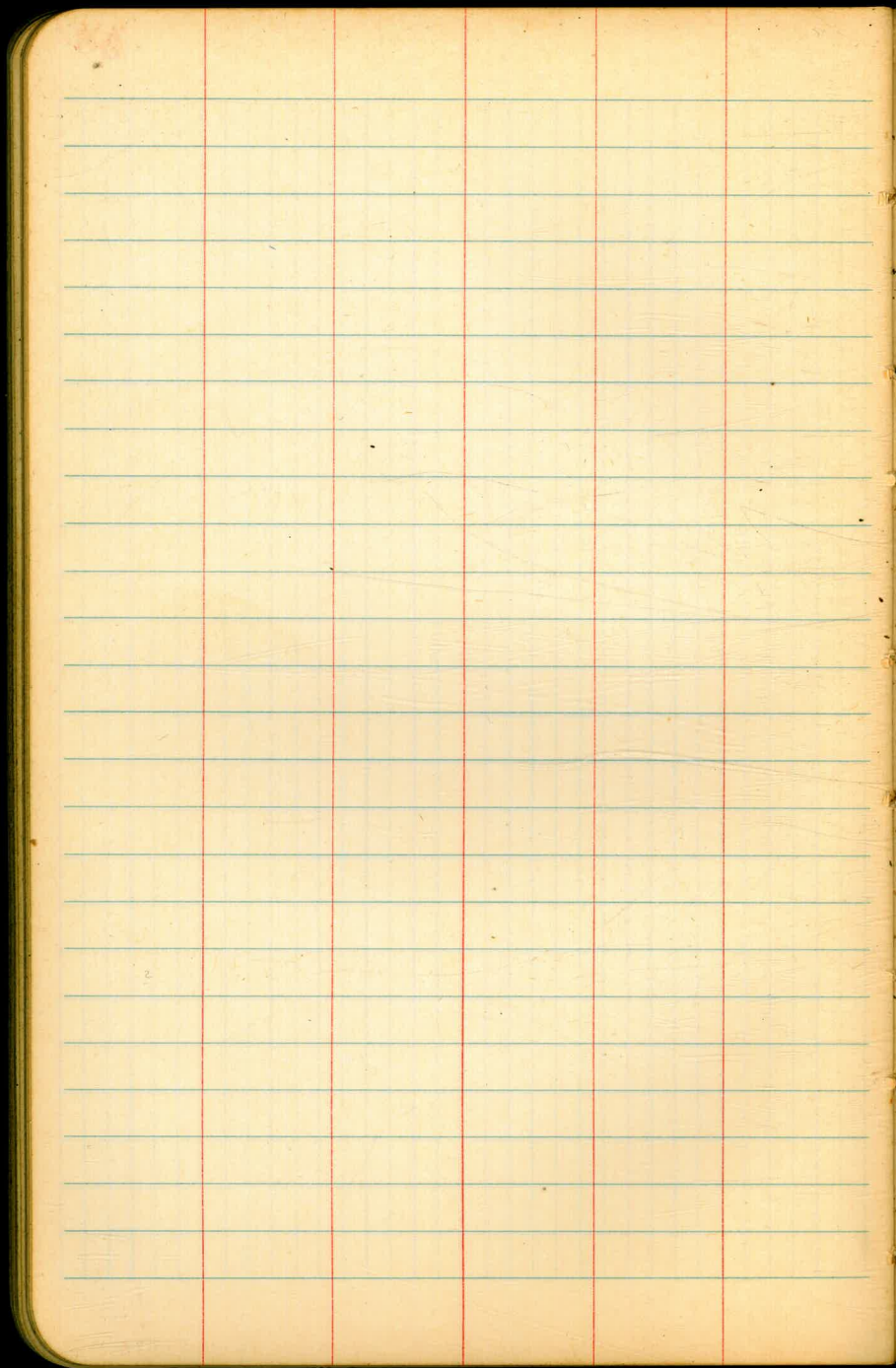
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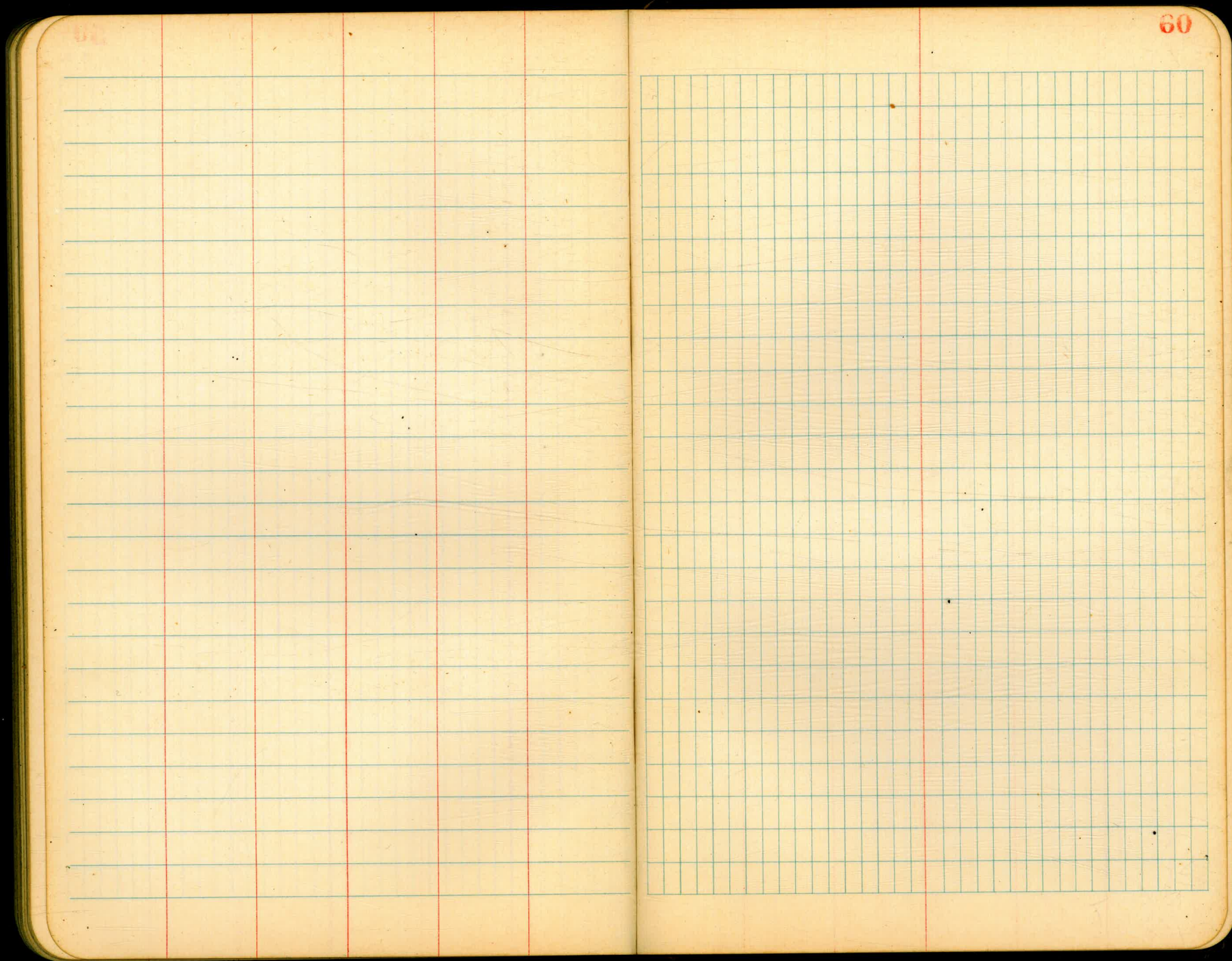


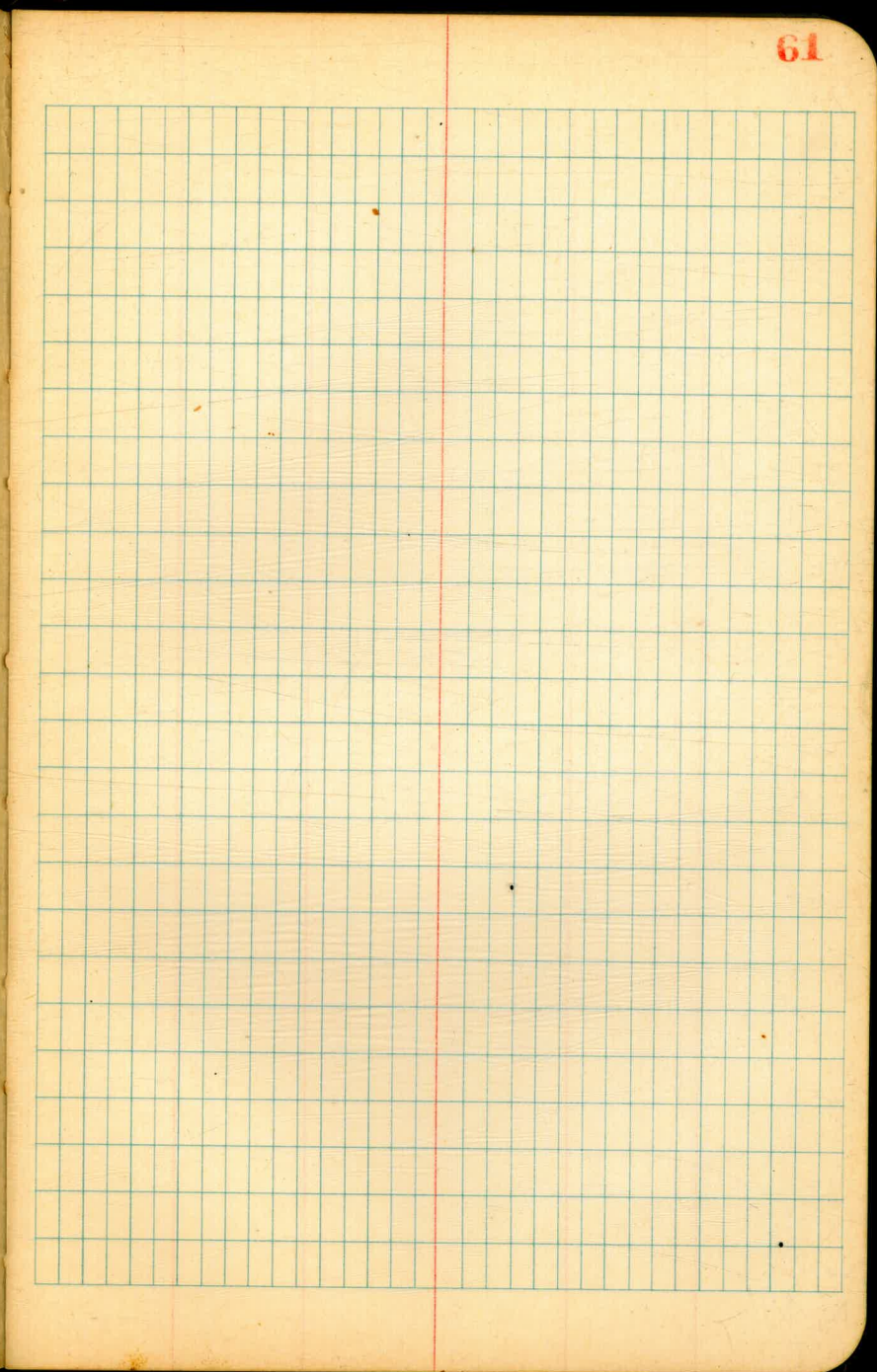
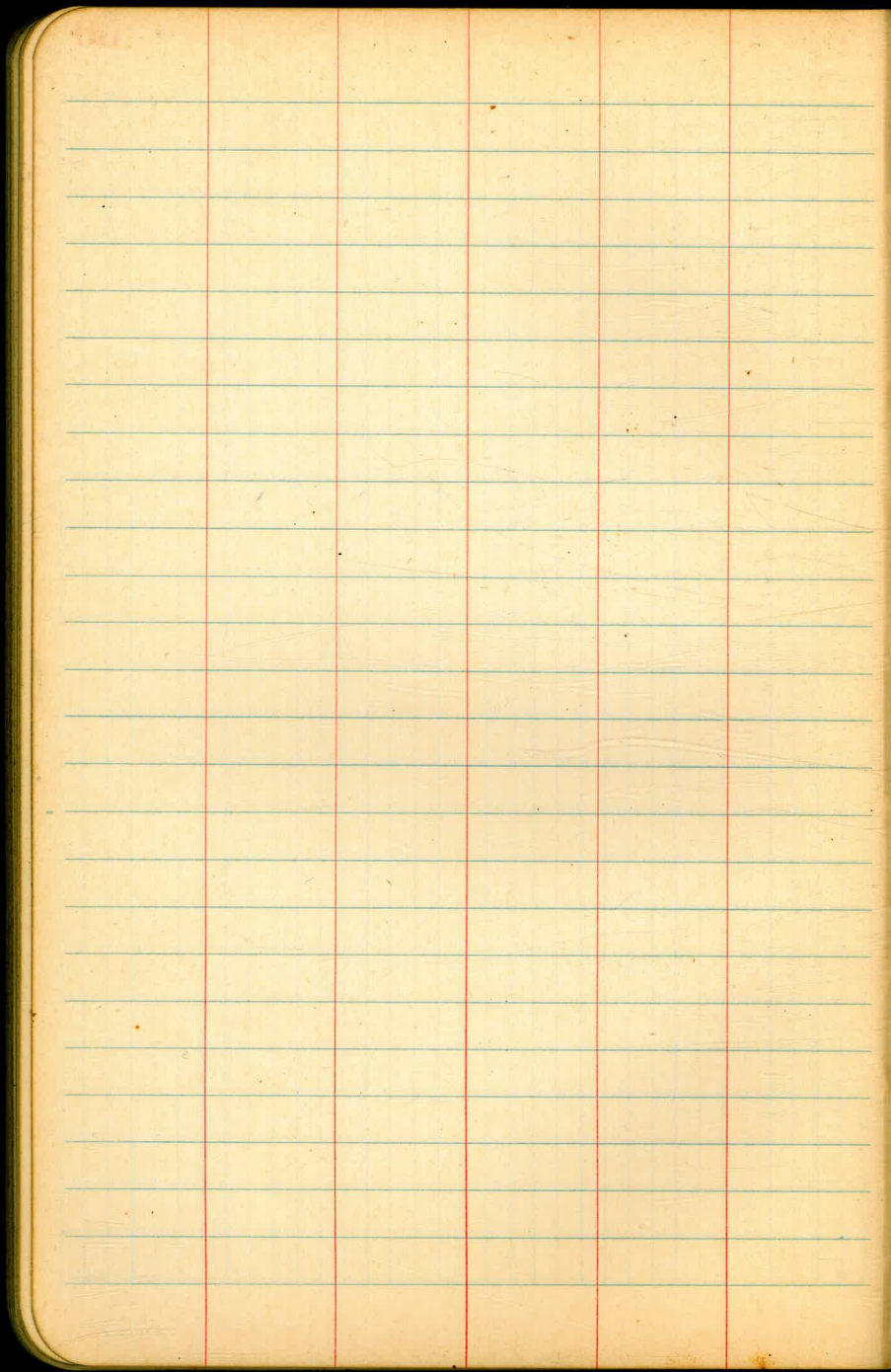


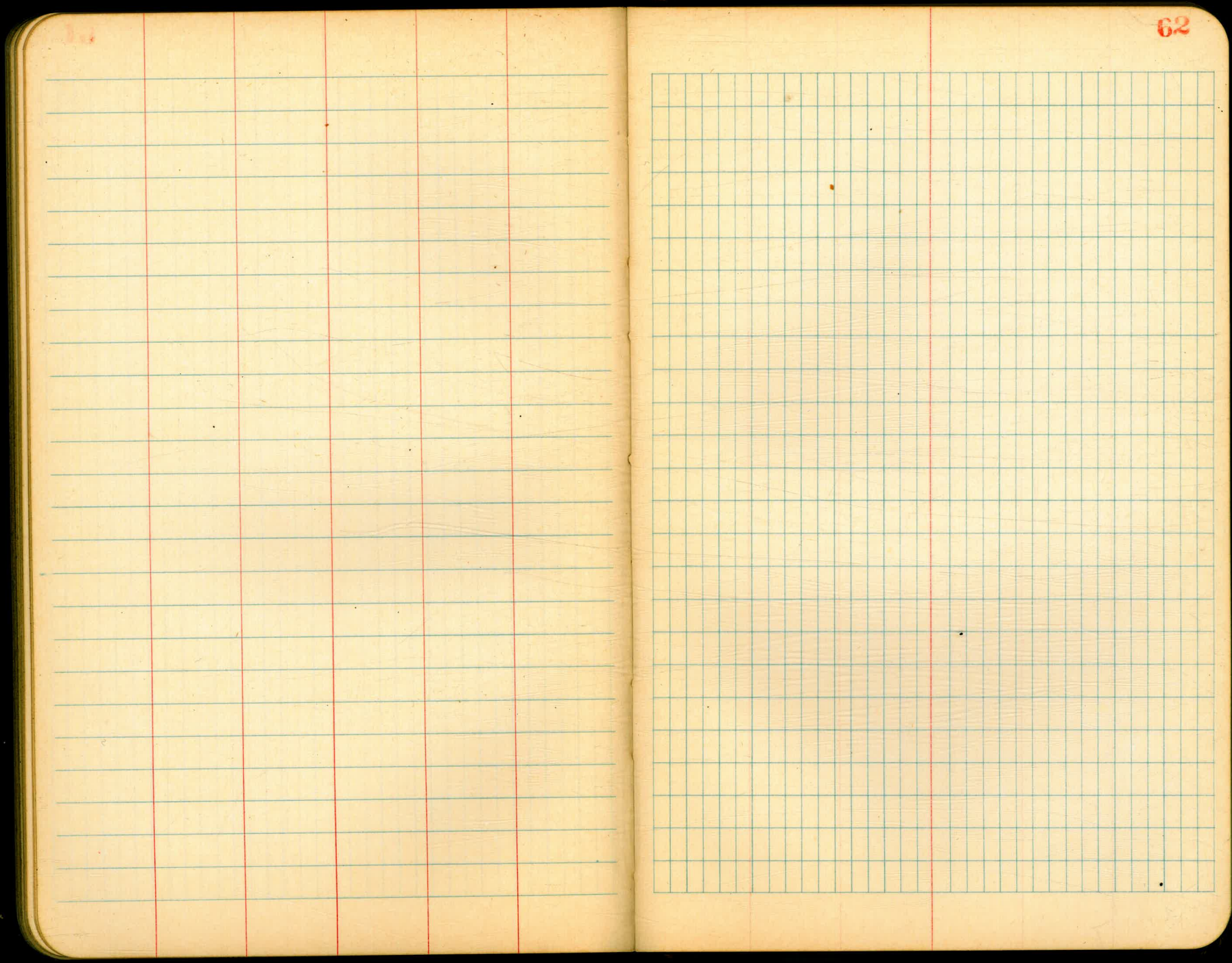


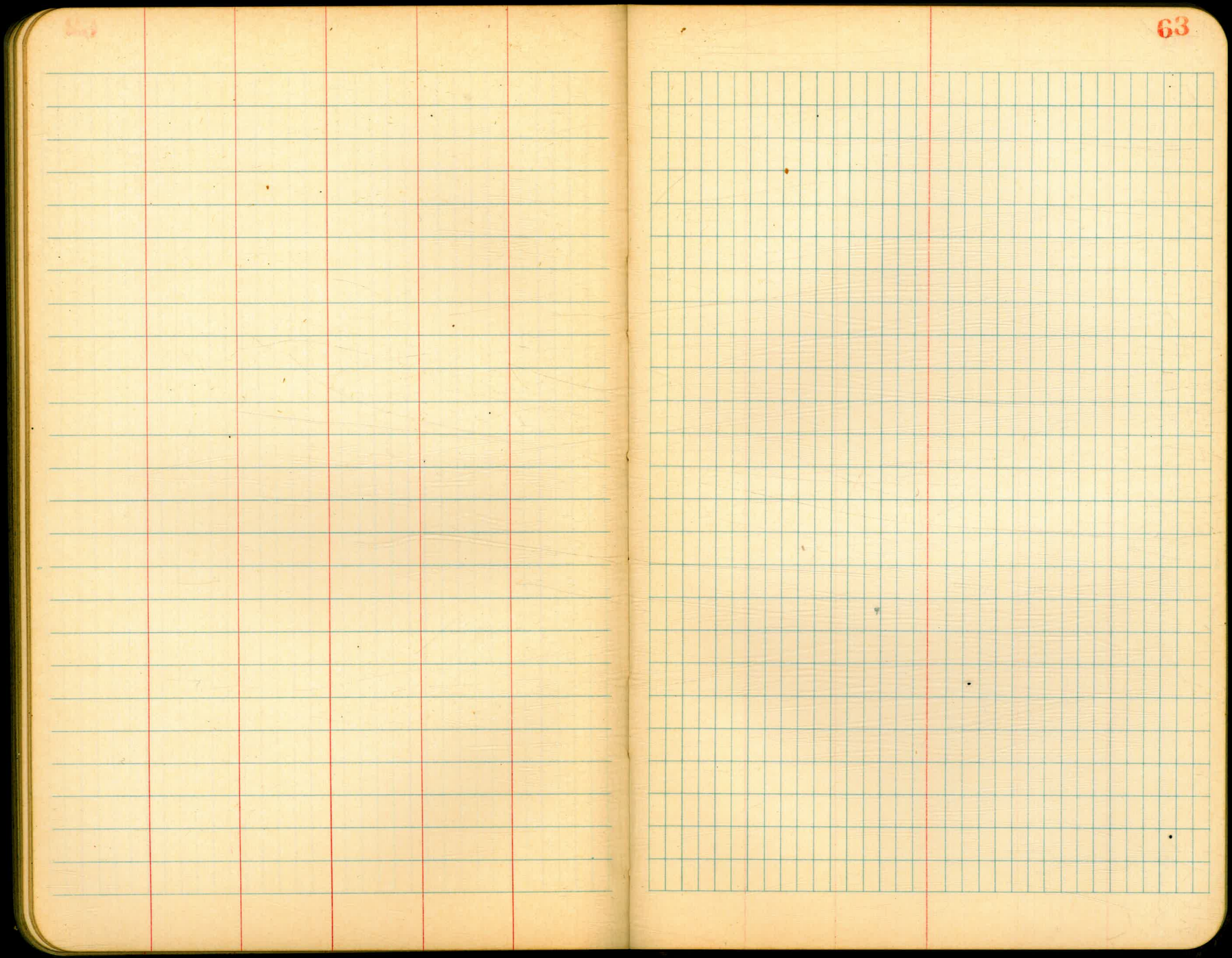
58





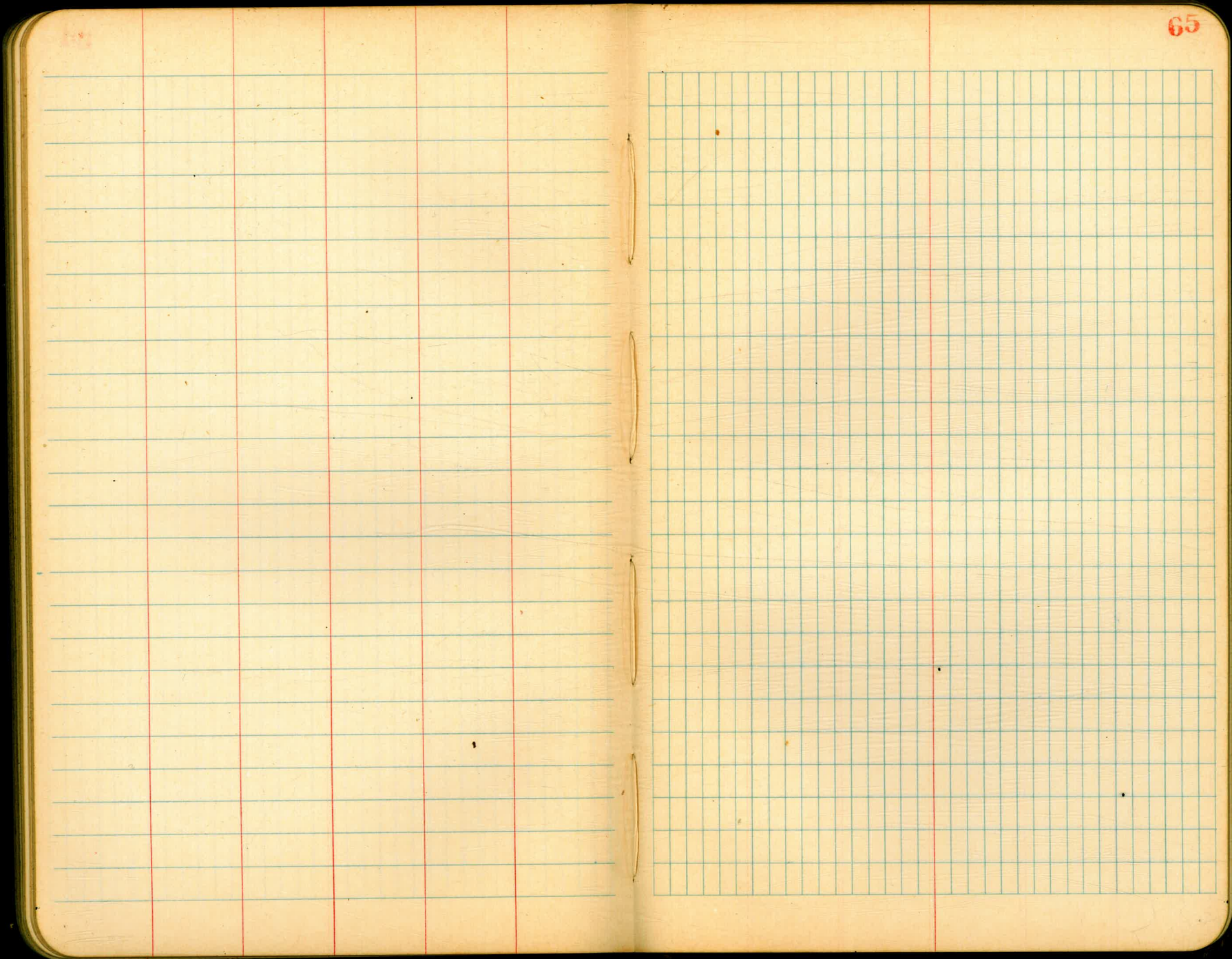


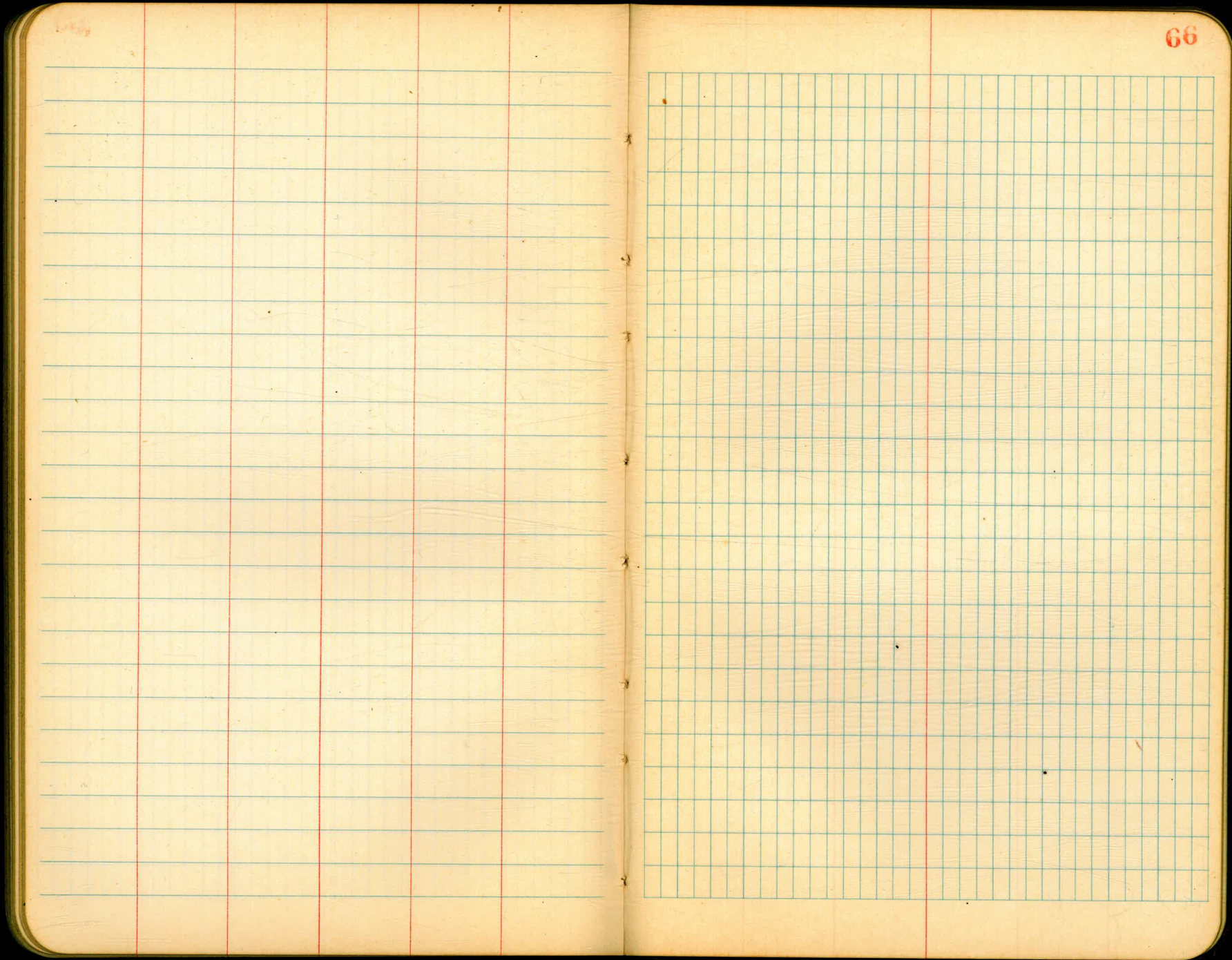


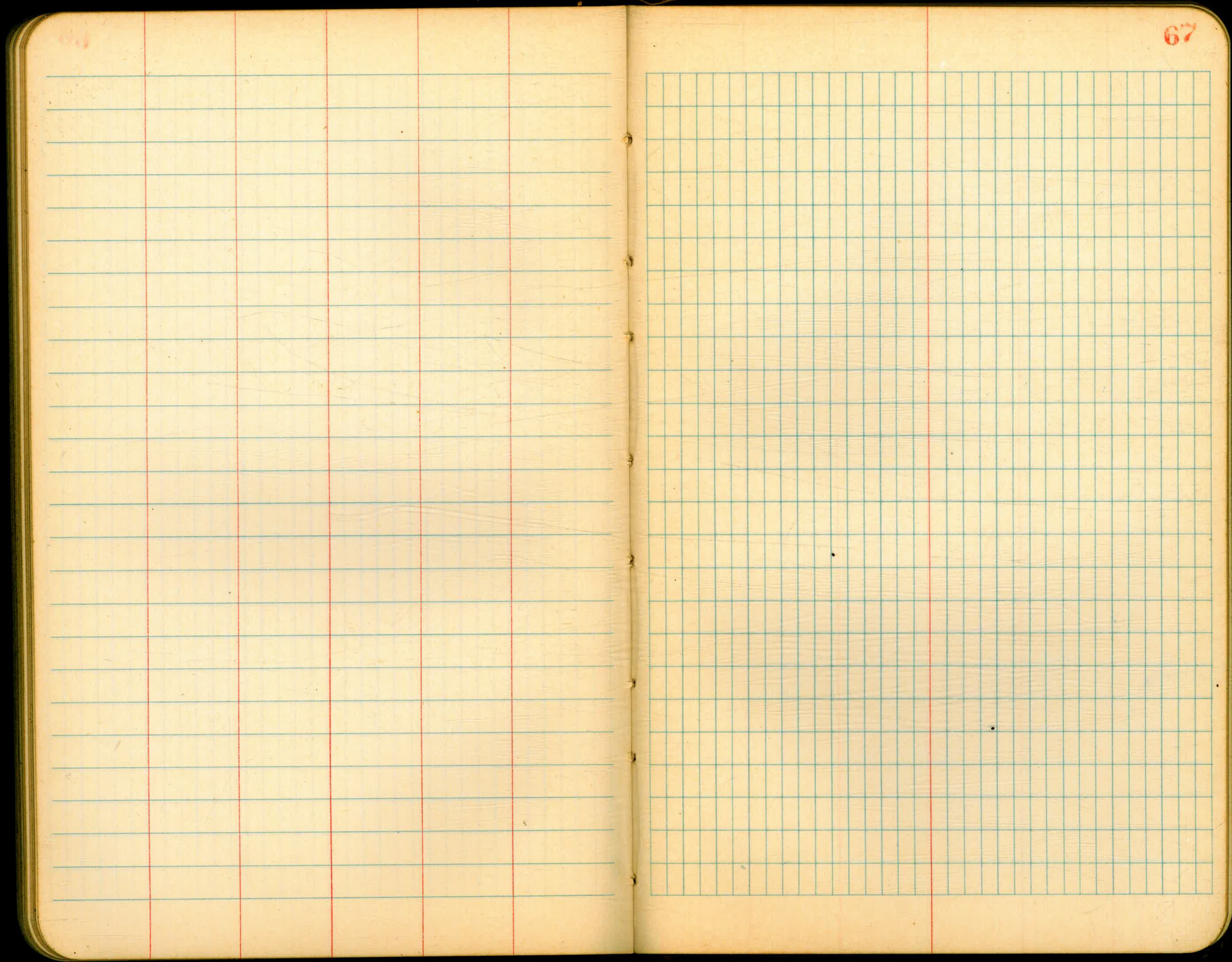


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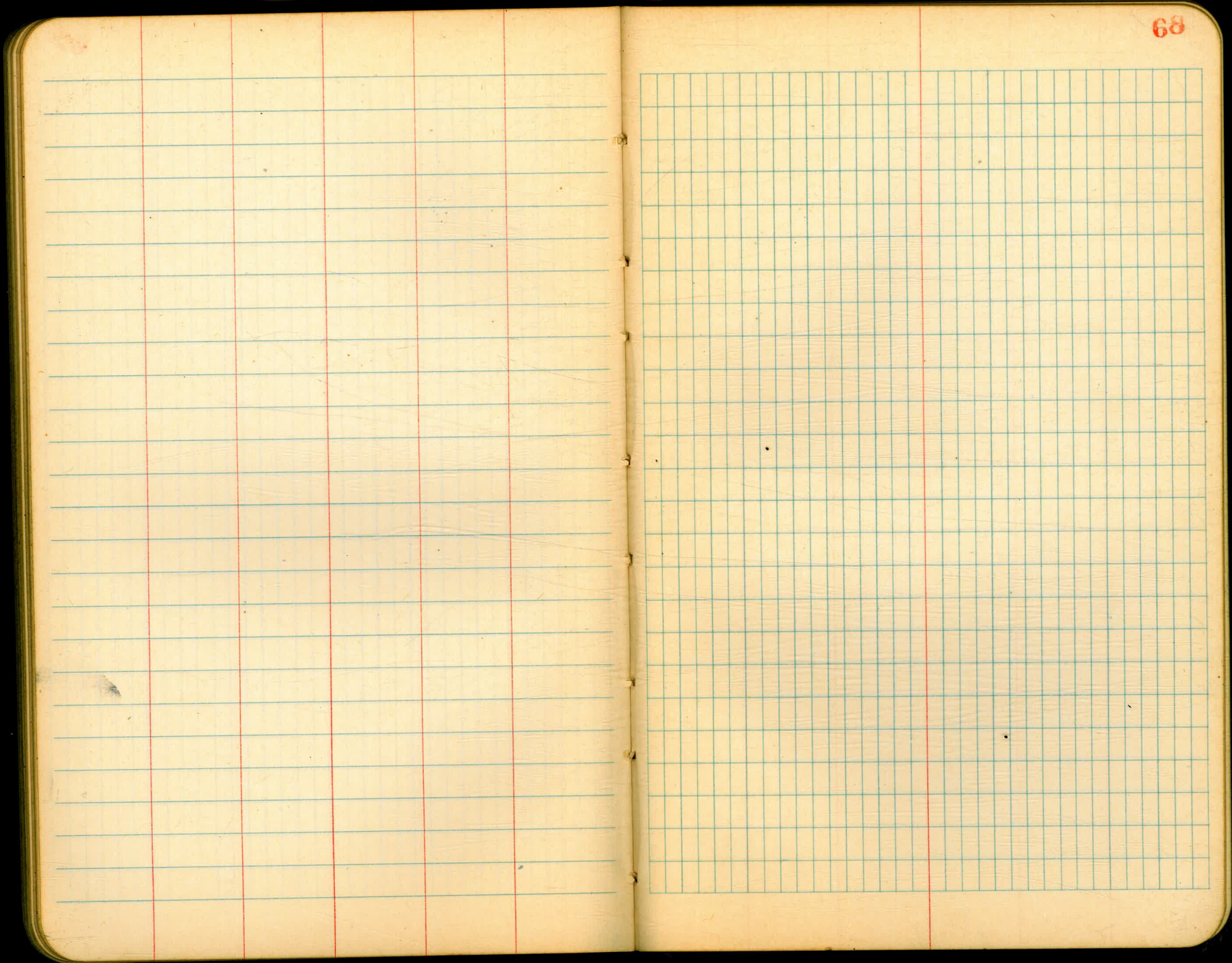
Blank ledger page with horizontal blue lines, a vertical red margin line, and a grid of small squares.

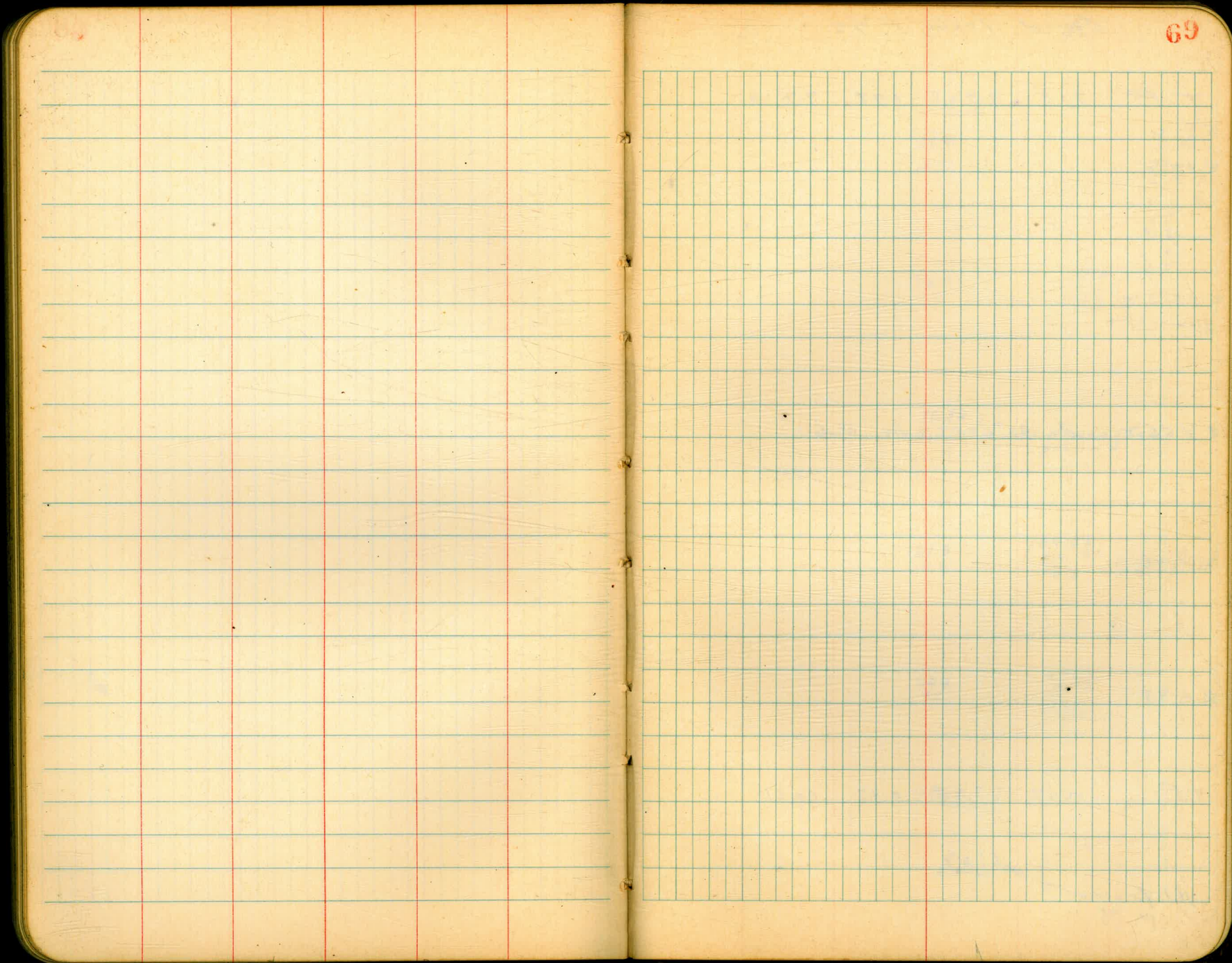






67





Contd. from P. 75

T.P. 715 79.25 0.98, 72.10

2 + 60

2 + 57.2

2 + 56.2 A 90° Lt. 2 x 2 Hub

2 + 46

2 + 33

T.P. 1247 73.08 0.47 60.61

H.I. from
P. 75

61.08

Lr

E

R

70

72.5

0.6

71.5

1.6

71.36

1.72

68.3

4.8

63.6

9.5

73.08

72.5

0.6

1.8

ground

of Cor. Wall

69.66

4.4

0.3

wood

stains

64.96

9.7

0.3

stains

to Bot. Wall
approx 12
Below
ground

= old natural
ground

Note!

at 2+60 Fd. 6" Vit. pipe 1.2 Rt.

at 3+07.2 " " " 1.4 Rt.

No change to N.

3+07.2 on pipe

79.25

L7

8

R- 71

and approx, 1' below base of Con. wall
to TOP 6" LINE

" " TOP 6" pipe about at Bot. wall

= Elev. of old Hub
shown on p. 78

73.71
5.54

74.8
4.5
7.8

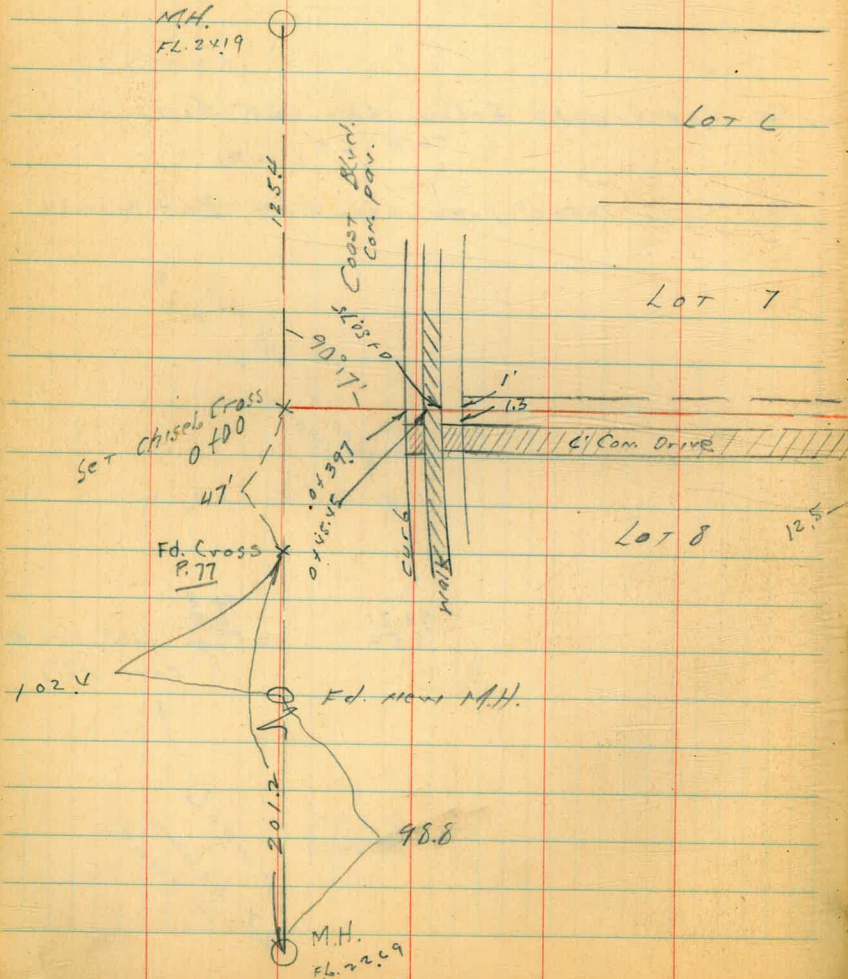
ground at
Con.
Corr. Wall

Bot. wall
2.7 below
ground

Levels for Proposed Sewer
on Lot 8 Blk 59 La Jolla Park
see P.77 for old line

Lot 5

M.H.
FL. 24.19



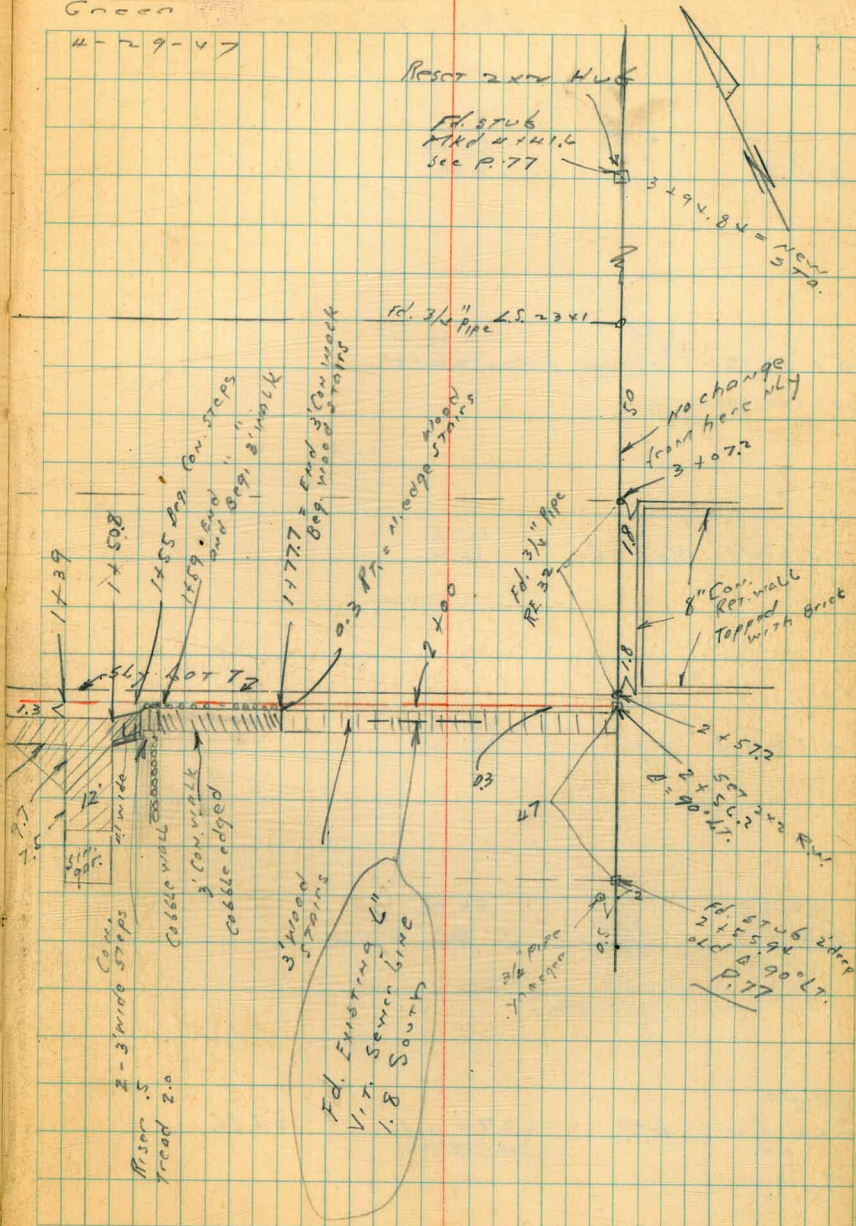
Moore
Bc99
Green

W.O. 80039

Indexed
c.s.k.

72

4-29-47



± Sewer Levels
Sketch P. 72

0 + 70

0 + 50.75 inside edge walk

0 + 39.7 Top cb.

0 + 39.7 9T.

0 + 00 chisel x on Pav.

B.M. B.P.
S. cb. S.H.
of F.H.
at SWIM
Cove

8.61 36.27 27.66

Lt

±

Pt

73

33.22
39.5

33.3
3.0
70.7 w. Con house

32.41
3.86

32.37
3.90
71.3
N. edge drive

32.17
4.10

31.38
4.89

30.42
5.85

31.71
4.56
74.9
PINT
New M.H.
23.02
13.25
149.4
F.L.

36.27

+ 50.8

1 + 39

+ 25

1 + 22 1.5 Lt Beg. Lattice fence

119

1 + 00

T.P. 12.65 48.61 0.31 35.96

0 + 77

36.27

Lt

¢

Rt

14

41.9
6.7

41.81
6.80
1.3 N.L. drive
and 2' walk

41.0
76

41.14
7.47
1.3 N.L. drive

39.5
9.1

39.2
9.4
9.5 E Cor house

37.7
10.9
5.4
E. Cor. House

38.7
9.9

37.0
11.6

11.22
1.3 N.L. drive

48.61

35.0
1.3
5.5
W. Cor. house

35.0
1.3

36.27

Levels Contd. ON P 70

2417

2400

T.P. 12.78 61.08 0.31 48.30

1478 1.5 Lt. end Lattice + Beg. Rail fence

1459 TOP ^{Con.} steps +

1552

1455

48.61

L

E

R

75

58.1
3.0

59.5
1.0
0.3

wood stairs

53.1
8.0

53.06
8.02
0.3

wood stairs

52.26
8.87

1.8

Top Ex.
Cm V.T. Rpe

61.08

47.2
1.2

47.04
1.57
0.3

end
M.L. Con. Walk
Beg. wood
stairs

43.8
4.8

43.8
4.8
0.3

Beg. Con.
M.L. Walk

43.66
4.95
0.02
Top of
Rock
wall

42.71
5.90
0.3

Top Bar
step

42.4
1.2

42.23
6.38
0.3

edge walk

48.61

Levels for proposed Sewer

81k sq La Jolla Parks

BM or P.V.	10.32	37.98	27.66	Coast Blvd SWAMP CORNER
EL MH 172.44 of 00			13.79	28.19
RM " " " "			9.88	28.10
" " 20.25 " "			2.57	35.41
EL " " " "			15.29	22.89
0 + 00 on Con. P.V.			6.85	31.13
+ 20 " " " "			5.76	32.02
+ 45.8 " " " gwt.			5.56	32.42
+ 45.8 Top Curve			4.77	33.21
+ 51.7 edge walk			4.63	33.35
+ 57.1 " "			4.50	33.48
+ 60.05			3.9	34.1
+ 00			0.8	39.2
T.P. 1237	50.08		0.27	37.71
+ 40			8.6	41.4
+ 61			5.5	44.5
+ 75			3.5	46.5
T.P. 1284	62.60		0.32	49.76
+ 100			10.1	52.5
+ 25			1.7	60.9
T.P.	9.98	72.35	0.23	62.37

72.35

76

2 + 55.94	A 90° LT.	2.28	70.07	on Stub
T.P.	9.35	79.42	2.28	A STUB
		2 + 71		
E		9.2	70.2	
S LT		11.0	68.4	
S RT		5.9	73.5	
		2 + 80		
E		7.2	72.2	
S RT		4.2	75.0	
S LT		10.1	69.3	
		2 + 90		
E		8.5	70.9	
S LT		10.5	68.9	
S RT		5.2	74.2	
		3 + 03.92		
E		8.1	71.3	
S LT		9.6	69.8	
S RT		6.0	73.4	
		3 + 25		
E		7.5	71.9	
S LT		9.7	69.7	
S RT		5.3	74.1	
		Consol. p. 78		

Proposed Sewer

Blk. 59 La Jolla Park

Moore
South Merdleyer
W.F.C.
5-20-44

M.H.
F.L. 24.19

1724

EXISTING
LINE here

THIS MAY BE IC'S DW.
PLEASE CHECK

Chisel Gess

2014

M.H.
F.L. 22.19

changed
see p. 72

Indexed
C-51K

77.

St 20
30' 29' Rr.

1" PIPE S+63.5

2" VIT. PIPE
6" x 6" High Tile wall S+54.5
S+60

R.O.T. 2441.6
STUB

Ed. 244 2453.94

Mail 2403.94

3' Wood STAFF 3 401

STUB
2455.94 90° LT.

Block

59

79.42 Hl. from P. 76

375394

♀ Hub 5.71 73.91

♂ LT 7.0 72.4

♂ RT 4.3 75.1

3780

♀ 5.3 74.1

♂ LT 6.5 72.9

♂ RT 3.7 75.1

3795

♀ 6.5 72.9

♂ LT 8.1 71.3

♂ RT 4.1 75.3

4783

♀ 5.5 73.9

1.1 Rt. - Wedge Pointe Pole

4704

♀ 5.7 73.7

♂ LT 8.1 71.3

♂ RT 4.5 74.9

T.P. 6.30 79.76 5.96 73.46

4707

♀ 6.7 73.1

2.8 Rt SW Car house 6.5 73.3 Brick Pien

♂ LT 8.9 70.9

4725

♀ 5.3 74.5

79.76

78

4725

♂ LT 8.5 71.3

2.9 Rt. against house 4.9 74.9

4729.4

1.3 Rt Beg. picket fence

4740.6

♀ 5.5 74.3

3 Rt NW Car house 4.4 75.4

♂ LT 7.9 71.9

4747

♀ 7.8 72.0

2 Rt 4.1 75.7

♂ LT 9.9 69.9

4753

♀ 8.5 71.3

2 Rt 4.6 75.2

♂ LT 10.5 69.3

4754

♀ 5.4 74.4

2 Rt 4.6 75.2

1.1 Lt. ^{Beg.} Edge of Con. Ret. wall 5.10 74.66 top wall

1.6 Lt Bot. wall 8.6 71.2

4755.5

1.4 Rt end picket fence

4778

♀ 4.8 75.0

79.76

4+78

1' LT E edge 6" Ret Wall	4.80	74.96	Top wall
1.5 " Bot wall	7.65	72.11	on walk
3.4 Rt Sw Cor House	4.22	75.6	

5+02.5

2.6 Rt NW Cor House	3.8	76.0	ground
---------------------	-----	------	--------

5+03

0.5 Rt. to Wedge Tol Pole

5+03.5

2 1" Pipe	4.72	75.04	
3 Rt	3.5	76.3	
0.9 Lt end E. edge Con. Ret Wall	4.91	74.85	
1.5 Lt " Bot wall	8.96	71.70	on Con. walk

5+04

0.4 Rt Beg. to Barbed wire fence 6' High

3"x4" Posts 7' C20s.

5+08

2	6.7	73.1	
2 Rt Wedge of 24" dia. Eucal. Tree	5.2	74.4	
5 LT	8.2	71.6	

5+20 @ 30° 29' Rt

2	5.2	74.4	
4 Rt	3.2	76.4	
5 LT	8.2	71.4	

5+42

2	8.3	71.5	
---	-----	------	--

79.76

79

5+04

5 Rt	5.3	74.5	
5 Lt	11.2	68.4	

5+54

2 end wire fence	8.9	70.9	
5 Rt	6.9	72.9	

5+54.5

2 ground Bot. Tile wall	8.9	70.9	
-------------------------	-----	------	--

1.3 LT. Con. Tile Wall

See B.M. 1" Pipe 5+03.5 4.72 75.04

T.P.	0.38	69.29	10.85	68.91
T.P.	0.93	57.61	12.61	56.68
T.P.	1.33	46.31	12.43	44.98
T.P.	3.72	36.72	12.91	33.80
check to Orig. B.M.		9.07	27.67	27.67

5+03.5 1" Pipe 9.90 84.94 75.04

5+20 @ 30° 29' Rt 10.6 74.3

5+30 8.5 76.4

5+42 6.6 78.3

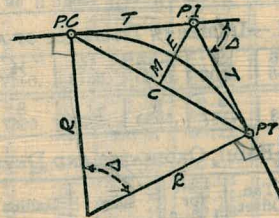
5+50 7.0 77.9

8494

5+51	5.0	79.9	
5+60	South edge Tile wall	4.5	chisel cross ground
5+64	Fl. 4" Vit. pipe	5.75	79.19

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) $\Delta =$ 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 $\div 8\frac{1}{2} = 414.49$ 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 = $.3 \times 54.5 \times 8\frac{1}{2} = 136.2'$ 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 $8^\circ 20' = 960.6 \div 8\frac{1}{2} = 115.27$ 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 $D = 5^\circ 30'$.

152.21 Max SE Tarry - Prospect
2 + 33.74 Dally rd at Girard

Atlantic Ave.
Δ = 33°00' LT
ER = 104.53
T = 30.96

1°17'
35
20.58
14.42

29+45.57
93° 20' 10"
90

9519 SE Virginia
Girard

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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