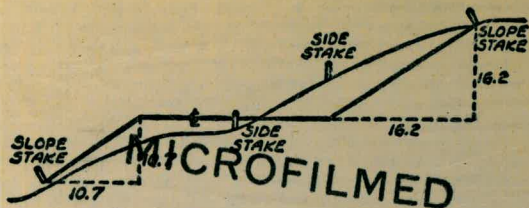


754

W 754



JAN 14 1965

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING  
SLOPE 1 TO 1. ROADWAY OF ANY WIDTH

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29	29.00	29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	29
30	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31	31.00	31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32	32.00	32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33	33.00	33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34	34.00	34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	34
35	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36	36.00	36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37	37.00	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38	38.00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

TABLE XIII—CORRECTIONS FOR TANGENTS AND EXTERNALS

These corrections are to be added to the approximate values, found by dividing the tangent, or external, for a 1° curve (Table VIII) by the degree of curve, in order to obtain the true tangents, or externals. Intermediate values may be obtained by interpolation.

FOR TANGENTS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.03	.06	.09	.13	.16	.19	.22	.25	.28	.31	.34	.38	.42	.46
15°	.04	.10	.14	.19	.24	.29	.34	.39	.45	.51	.53	.58	.63	.68
20°	.06	.13	.19	.26	.32	.39	.45	.51	.58	.65	.72	.79	.84	.90
25°	.08	.16	.24	.33	.40	.49	.58	.67	.75	.83	.90	.99	1.06	1.14
30°	.10	.19	.29	.39	.49	.59	.69	.79	.89	.99	1.09	1.20	1.29	1.39
35°	.11	.22	.34	.47	.58	.69	.79	.81	.92	1.04	1.29	1.42	1.54	1.66
40°	.13	.26	.40	.53	.67	.80	.93	1.06	1.20	1.34	1.49	1.64	1.79	1.94
45°	.15	.30	.44	.60	.76	.91	1.06	1.21	1.37	1.52	1.70	1.87	2.04	2.21
50°	.17	.34	.51	.68	.85	1.02	1.19	1.36	1.54	1.72	1.91	2.10	2.29	2.48
55°	.19	.38	.57	.76	.95	1.14	1.32	1.52	1.72	1.92	2.14	2.35	2.56	2.77
60°	.21	.42	.63	.84	1.05	1.27	1.49	1.71	1.94	2.17	2.38	2.60	2.83	3.07
65°	.23	.46	.69	.93	1.16	1.40	1.64	1.88	2.13	2.38	2.63	2.88	3.13	3.39
70°	.25	.51	.76	1.02	1.28	1.54	1.80	2.06	2.33	2.60	2.88	3.16	3.44	3.72
75°	.27	.56	.83	1.12	1.40	1.69	1.98	2.27	2.57	2.87	3.16	3.47	3.78	4.09
80°	.30	.61	.91	1.22	1.53	1.84	2.15	2.46	2.78	3.10	3.44	3.78	4.12	4.46
85°	.33	.66	1.00	1.33	1.68	2.02	2.36	2.70	3.05	3.40	3.77	4.14	4.55	4.89
90°	.36	.72	1.09	1.45	1.83	2.20	2.57	2.94	3.32	3.70	4.10	4.50	4.91	5.32
95°	.39	.79	1.19	1.55	2.00	2.40	2.80	3.20	3.61	4.02	4.40	4.98	5.38	5.83
100°	.43	.86	1.30	1.74	2.18	2.62	3.06	3.50	3.95	4.40	4.88	5.37	5.85	6.34
110°	.51	1.03	1.56	2.08	2.61	3.14	3.67	4.21	4.76	5.31	5.86	6.43	7.01	7.60
120°	.62	1.25	1.93	2.52	3.16	3.81	4.45	5.11	5.77	6.44	7.12	7.80	8.50	9.22

FOR EXTERNALS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.001	.003	.004	.006	.007	.008	.009	.011	.012	.014	.015	.017	.018	.020
15°	.003	.007	.010	.014	.018	.023	.027	.029	.032	.035	.039	.043	.047	.051
20°	.006	.011	.017	.022	.028	.034	.038	.045	.051	.057	.063	.070	.076	.083
25°	.009	.018	.027	.036	.046	.056	.065	.074	.083	.093	.106	.120	.127	.135
30°	.013	.025	.038	.051	.065	.078	.090	.103	.116	.129	.149	.170	.179	.188
35°	.018	.035	.054	.072	.086	.109	.131	.153	.175	.197	.213	.230	.247	.264
40°	.023	.046	.070	.093	.117	.141	.172	.203	.234	.265	.277	.290	.315	.341
45°	.030	.060	.093	.119	.153	.184	.216	.254	.289	.325	.351	.378	.411	.445
50°	.037	.075	.116	.151	.189	.227	.266	.305	.345	.384	.425	.467	.508	.550
55°	.046	.093	.142	.188	.236	.283	.332	.381	.420	.470	.530	.582	.641	.700
60°	.056	.112	.168	.225	.283	.340	.398	.457	.516	.575	.636	.697	.774	.851
65°	.067	.135	.204	.273	.343	.412	.483	.554	.625	.697	.711	.845	.922	1.01
70°	.080	.159	.240	.321	.403	.485	.568	.652	.735	.819	.906	.994	1.08	1.17
75°	.095	.182	.286	.383	.480	.578	.678	.777	.877	.977	1.07	1.18	1.29	1.39
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.885	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

52nd St. from Univ. to Landis <sup>Water, Page</sup>  
 Landis from 52nd, to Altadona <sup>grabs 1-A</sup>  
 Avenida de La Playa (Proposed line)  
 Alignment + Profile 5-10

60th St. 12" MAIN, LAYOUT + PROFILE 11, 15-20

" " " " CUTS FOR 20, 21

CLINTON ST. 6" MAIN CUTS FOR RR

DODSON ST. 6" MAIN CUTS FOR 23, 24

52nd St. Pipeline for  
Const. by City

Sta.	B.S.	H.I.	F.S.	Elev.	
BM. BR. NW. Cor. Univ. 52nd				315.57	
	8.39	323.96			
0+00			8.2	315.8	
			6.7	317.3	317.1
0+05 Fire Hyd.		⊕	7.3	316.7	317.1
0+50			2.3	321.7	321.6
T.P. #1			0.40	323.56	
	11.70	335.26			
1+00			6.4	328.9	326.0
1+50			3.6	331.7	329.4
2+00			3.5	331.8	331.6
2+50			2.4	332.9	332.8
2+90.25			2.6	332.7	332.9
3+50			2.2	333.1	332.6
4+00			2.3	333.0	332.5
4+50			2.5	332.8	332.1
5+00			3.9	332.4	332.0
T.P.			3.18	332.08	
	4.25	336.33			
5+50			3.5	332.8	332.3

Wightman

see City Engrs.

F.B. 1569

Corr

P.O. 4

3.6

6.4

5.8

3.7

3.6

3.3

4.0

4.0

4.2

3.9

4.0

Aug. 12, 13, 16  
1948

Rainey  
King  
West  
Adams

Wightman

Rex

Ad. H.T. d. 52nd Sta. 24303  
& Rex East

Rex

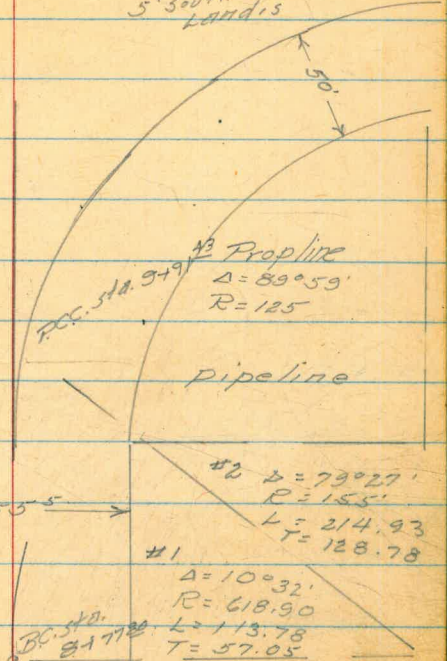
52nd St.

0+00 end conc. Univ.

University Ave.

Sta	B.S.	HI.	I.S.	Elev	
		336.33			
6+00			1.9	334.4	333.2 4.7
			1.0	335.3	334.5 0.8
6+50	SECOR + 52nd Wrightman &		1.2	335.1	334.5 0.6
7+00			1.3	335.0	334.5 4.0
7+50			1.3	335.0	334.9 3.6
8+00			2.7	333.6	333.7 3.4
8+50			5.0	331.4	331.0 3.8
			8.2	328.1	328.3 3.3
	B.C. 8+77.80		10.0	326.3	327.0 2.8
9+00			10.6	225.7	326.6 2.6 Landis st
9+50			10.3	226.0	327.9 3.5
9+91.43	P.C.		5.0	331.3	330.4 7.8
10+00			3.6	332.7	330.4 4.4
10+25			0.9	335.4	330.4 8.5
10+50			2.3	334.0	330.4 8.9
10+75			3.8	332.5	330.4 5.9
11+00			3.4	332.7	330.4 4.0
11+25			4.6	331.7	330.4 4.0

incl. #2 curve  
from E.C. to 2.  
Sta. end Landis  
1st. w/ 2" line  
5' south of d.  
Landis



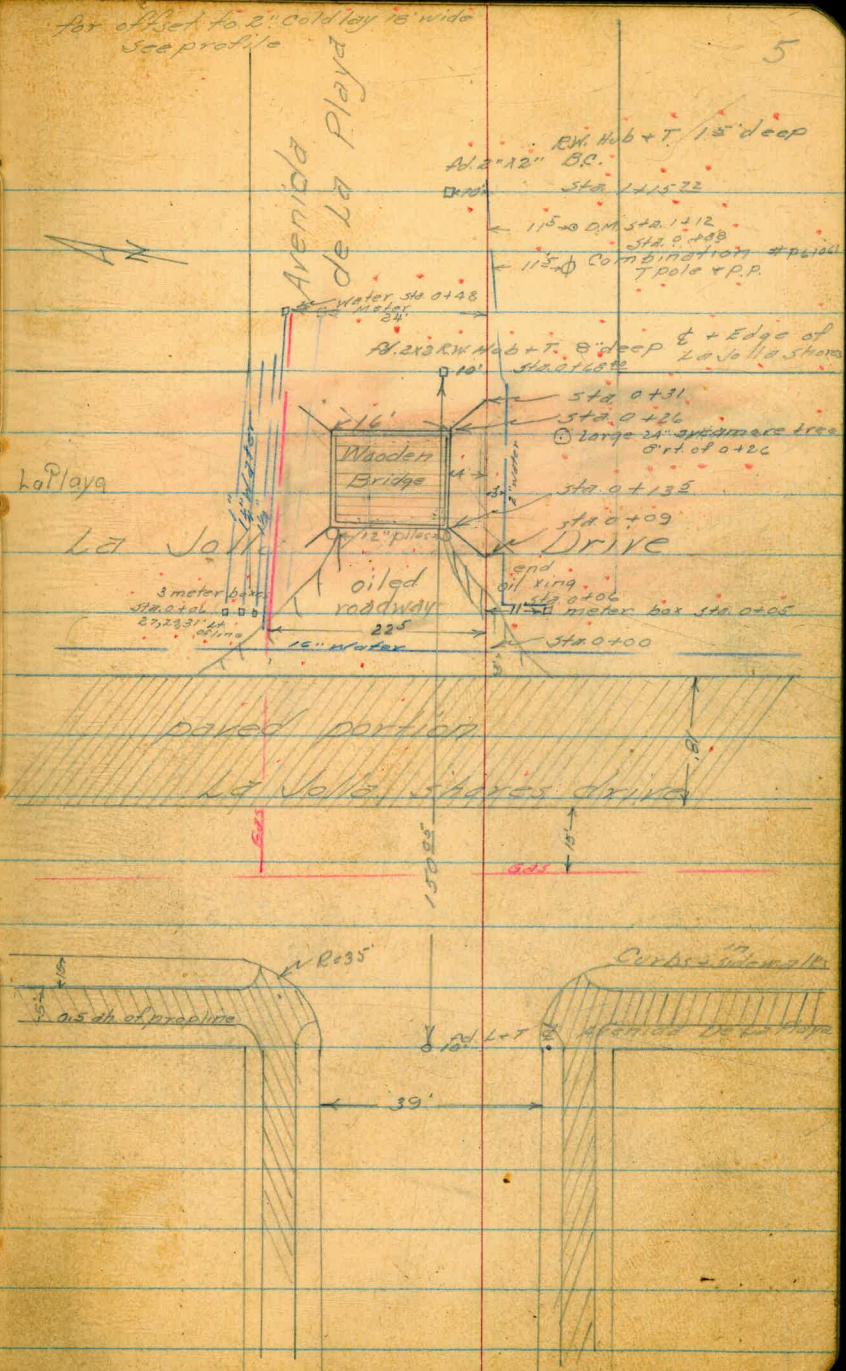
P.M. Sta. 7+28.85  
Towle Ct

Sta.	B.S.	I.I.	F.S.	Elev.	
		336.38			
			4.87	331.46	
	0.01	331.47			
11+50			1.3	330.2	4.0
11+75			2.8		4.0
12+00			4.6		4.0
12+06 <sup>36</sup> EC			5.0		4.0
		(5)	3.4		
F.H.		8	4.1		4.0
12+50			7.7		4.0
13+00			10.9		4.0
T.P.			12.83	318.64	
	2.10	320.74			
13+50			3.1		4.0
14+00			4.5		4.0
14+50			4.8		4.0
15+00			4.8		4.0
15+50			4.9		4.0
16+00			5.0		4.0
16+50			4.0		4.0

Sta.	B.S.	I.I.	F.S.	Elev.
		320.74		
17+00			2.4	4.0
		(5)	2.0	
F.H. SE		4	2.0	4.0
17+50			2.1	4.0
CK to sewer M.H.	Altadena.		1.68	319.06
				319.07

B.M.	1.06	55.75	54.69	
T.P.	0.39	44.83	11.31	44.44
T.P.	1.40	36.03	10.20	34.63
T.P.	1.20	24.55	12.68	23.35
T.B.M.	11.41	28.09	7.87	16.68
0-3/8			9.5	18.6
0+00			9.1	19.0
0+06			8.9	19.2
0+10			11.3	16.8
0+14			11.5	16.6
0+23			7.9	20.2
0+30			8.3	19.8
Edge oil			8.1	20.0
1+00			7.3	20.8
6' ht. oil			7.3	20.8
B.C.H. 15' 92			6.9	21.2
1+50			5.6	22.5
2+00			2.7	25.4
5' ht. oil			2.9	25.2

for offset to 2" cold lay is wide  
See profile



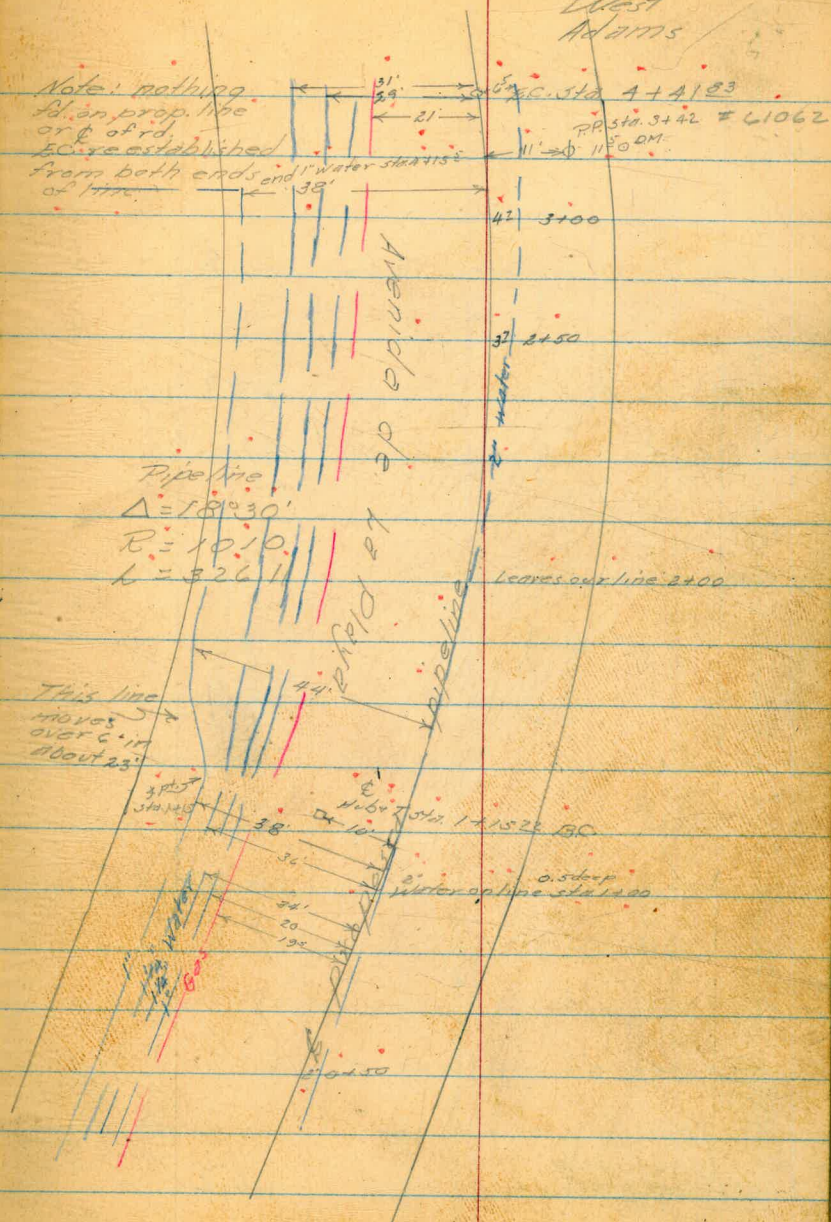


Aug. 30-31, 1948 Rainey - 6

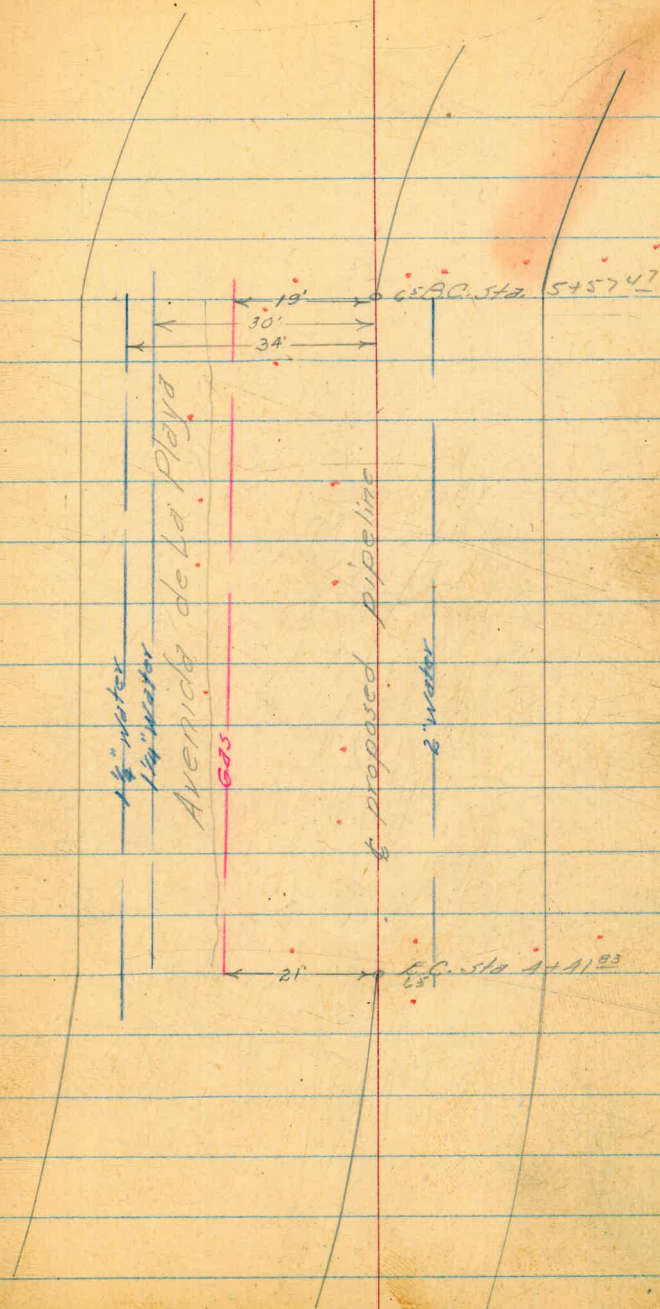
King  
East  
Adams

		28.69		
T.P.	11.67	37.22	1.94	26.15
2+50			9.8	27.4
3+00			7.5	29.7
3+10.1			7.5	29.7
3+50			5.3	31.9
4+00			2.7	34.5
5+10.1			2.4	34.8
T.P.			2.74	34.48
	11.55	46.03		
4+41.83 EC.			8.5	37.5
4+50			8.0	38.0
2.5 Lt. oil			8.0	38.0
5+00			3.7	42.3
oil 32 Lt.			3.7	42.3

Note: nothing  
shown prop. line  
or E of rd.  
EC's established  
from both ends and  
of 11'.

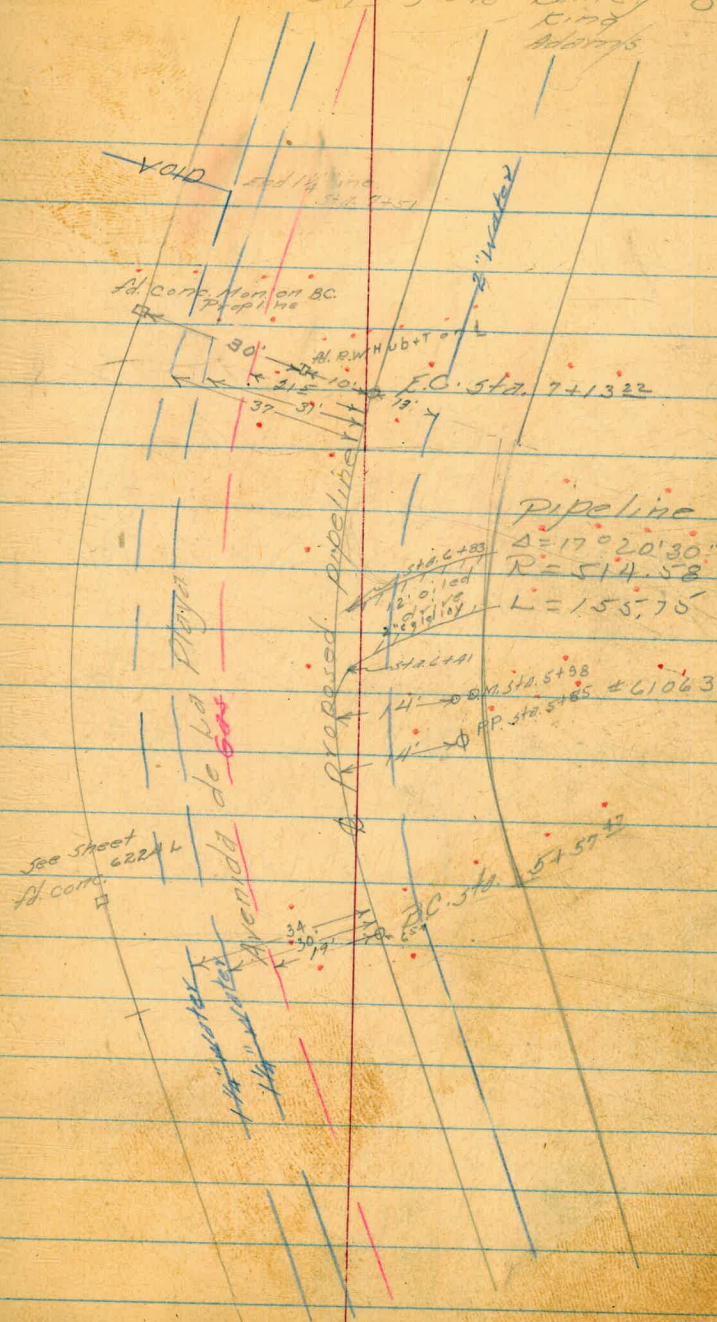


	46.03		
T.P.	0.41	45.62	
12.92	58.54		
5+50	11.7	46.8	
5+57 <sup>2</sup> B.C.	11.2	47.3	
oil 25 ft.	11.0	47.5	
6+00 edge oil	7.3	51.2	
6+50	2.6	55.9	
oil 25 ft.	2.6	55.9	
T.P.	0.79	57.75	
13.06	70.81		
7+00 edge oil	10.0	60.8	
7+13 <sup>2</sup> edge oil	8.6	62.2	

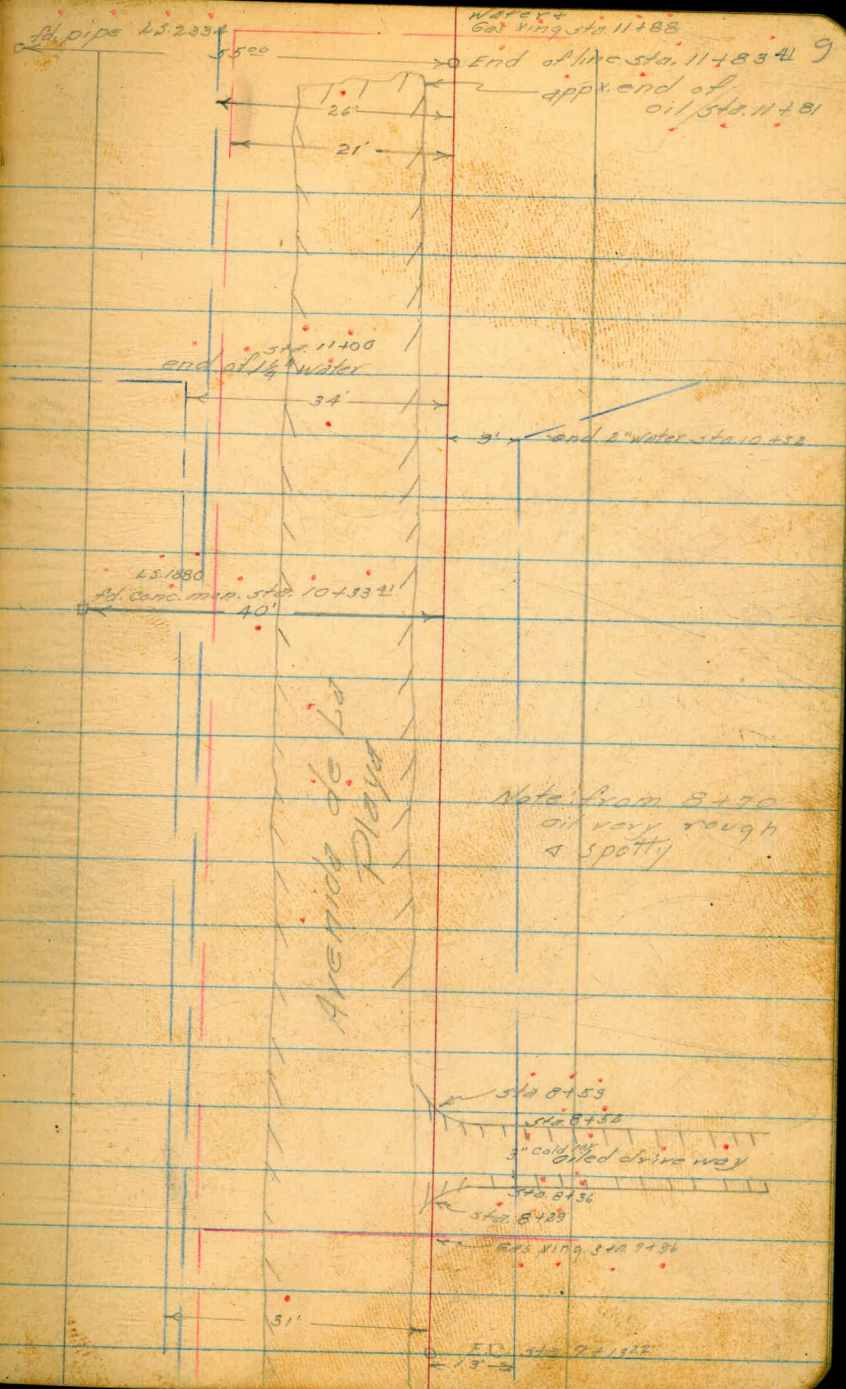


	70.81		
7450		5.1	65.7
TP		0.20	70.61
	13.06	83.67	
8400		12.4	71.3
oil 25 ft			
8450 edge oil		6.7	77.0
9400		1.3	82.4
oil 13 ft		1.3	82.4
TP		0.71	82.96
	10.82	95.78	
0450		7.8	88.0
oil 35 ft		7.7	88.1

Sept. 1, 1948 *Butte* 8  
Kind  
Morris



	95.78		
10+00		2.1	93.7
oil 2.5 ft		2.1	93.7
T.P.		0.67	95.11
12.97	108.08		
10+50		3.8	99.3
oil 4.5 ft		3.8	99.3
11+00		2.8	105.3
oil 4.2 ft		2.8	105.3
		1.42	106.66
12.07	118.73		
11+50		7.7	111.0
oil 3.5 ft		7.7	111.0
11+83.4		4.3	114.4
T.P. 55' N of end T.B.M. set on pipe		3.35	115.38
1.58	116.96		



116.96

T.P.

12.89 104.07

0.55 104.62

T.P.

12.53 92.09

0.95 93.04

T.P.

12.48 80.56

0.60 81.16

T.P.

12.82 68.34

2.35 69.19

N. of Widders Valley + Torrey rd.

B.M.

R.R. spike 17 RR

6.66 62.53

corr.

62.17

CONT'D ON PAGE 15.

3+38 SEWER M.H. 4.9' RT.  
@ CAROL ST.  
3+35.19 CITY ENG'S TAG 25.0' RT. P.O.T.

3+34 SEWER LINE.

3+11.5 GAS LINE TO CAROL ST.

2+77.5 WATER SERVICE LINE

2+44 WATER SERVICE LINE.

1+64.8 SEWER M.H. 4.9 RT.

1+64 GAS SERVICE LINE.

1+63 SEWER CROSSING ON DIAGONAL.

1+53.7 WATER SERVICE LINE.

1+00 WATER LINE PARALLEL, 6.0' LT.  
GAS LINE VALVE, 21.7' RT. ALONG PROP. LINE.

0+50 WATER VALVE 6.0' LT. ALONG PROP. LINE

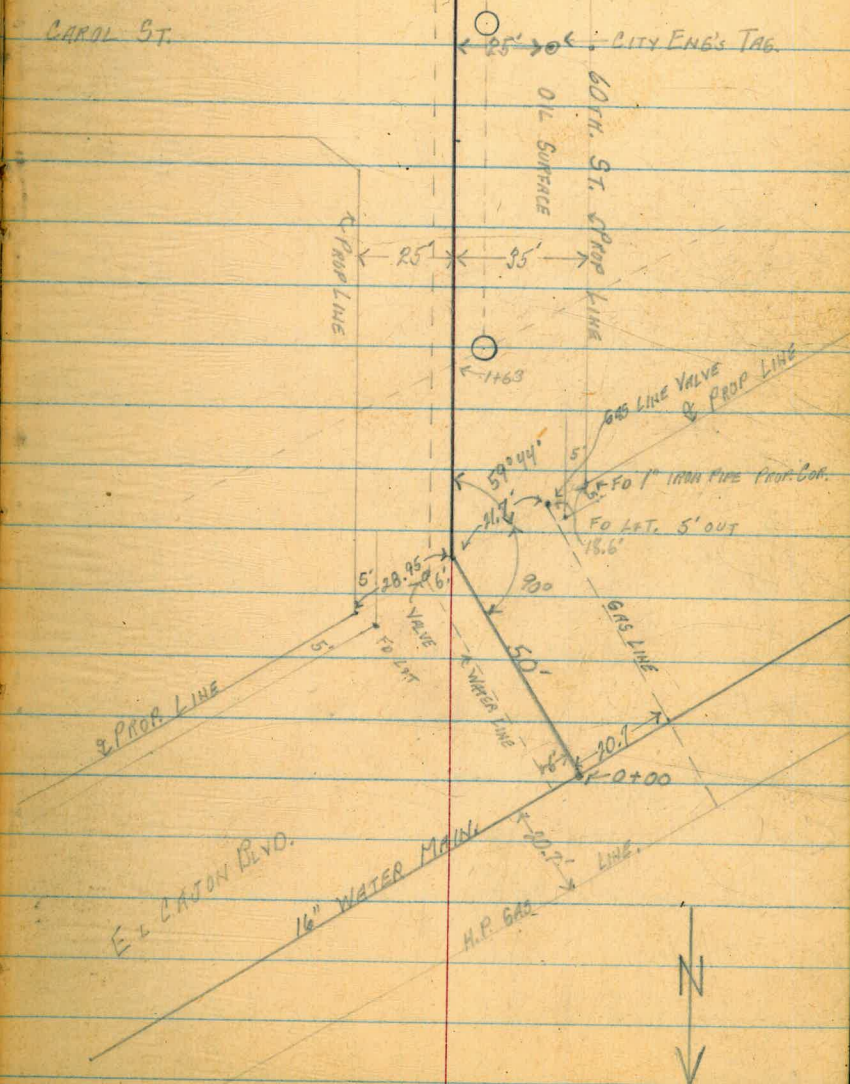
0+50 L 30° 16' RT. PROP. LINE INT. SW. S. SIDE EL CAJON BLVD.

0+00 INTERSECTION WITH 16" WATER MAIN ON EL CAJON BLVD.

DEC. 30, 1948. LEONARD WEST HAYNE 11.  
60TH ST. 12" WATER MAIN  
FROM EL CAJON BLVD TO MEADE.

CONTINUED ON PAGE 15.

CAROL ST.



Profile & Cuts on 6' OFFSETS  
Avenida De la Playa

KING  
Shirman  
Adams

1-6-49

12.

	+	47	-		Cut
B. m.	10.85	27.53		16.68	
0+07			7.8	19.7	14.4 5.3
0+50			7.5	20.0	14.7 5.3
0+95			7.2	20.3	15.0 5.3
1+00			6.7	20.8	16.1 4.7
1+15 <sup>72</sup> BC			6.2	21.3	16.8 4.5
1+50			4.7	22.8	18.4 4.4
2+00			2.3	25.2	20.7 4.5
2+30			0.9	26.6	22.2 4.4
T.P.	11.64	<del>27.29</del> 38.93	0.24	27.29	
2+50			11.3	37.6	23.1 4.5
3+00			9.1	39.8	25.3 4.5
3+50			6.8	32.1	27.6 4.5
4+00			4.2	34.7	29.8 4.9
4+41.83 <sup>EC</sup>			1.4	37.5	32.8 4.7
T.P.	9.95	48.36	0.52	38.41	
5+00			5.9	42.5	37.4 5.1
5+57 <sup>47</sup>			0.8	47.6	42.6 5.0
T.P.	12.25	59.85	0.76	47.60	

			59.85			Cuts
6+00			8.4	51.5	46.8	4.7
6+35			5.3	54.6	50.4	4.2
6+50			3.8	52.1	51.9	4.2
T.P.	11.88	70.94	0.79	59.06		
7+00			9.9	61.0	57.0	4.0
EC, 7+13 <sup>22</sup>			8.5	62.4	58.3	4.1
7+50			5.0	65.9	62.1	3.8
T.P.	12.02	82.61	0.35	70.59		
8+00			11.2	71.4	67.3	4.1
8+50			5.5	72.1	72.9	4.2
9+00			0.0	82.6	78.5	4.1
T.P.	12.29	93.99	0.91	81.70		
9+50			5.9	88.1	84.1	4.0
10+00			0.3	93.7	89.7	4.0
T.P.	12.59	106.23	0.35	93.64		
10+50			7.0	99.2	95.3	3.9
11+00			1.0	105.2	100.9	4.3
T.P.	12.94	118.22	0.95	105.28		



~~118.22~~

11750	7.2	1160	106.5	4.5
11783.41	3.7	114.5	110.3	4.2
B.M.	2.84	115.32	113.8	

JAN. 15, 1949.

LEONARD  
WEST  
RAYNE

15,

60TH. ST. PIPE LINE; CONT'D FROM PAGE 11.

6+89 WATER LINE TO RT.

6+62 SEWER LINE TO LT.

6+59.5 GAS LINE TO LT.

6+26 WATER LINE TO RT.

5+90.5 WATER LINE TO RT.

5+85.1 2 BRADFORD ST.

5+84.8 M.H. ON SEWER 5.8' RT.

5+60.5 SEWER LINE TO BRADFORD ST.

5+47.3 WATER LINE TO RT.

5+17 WATER LINE TO RT.

5+11 SEWER LINE TO LT.

5+05.5 GAS LINE TO LT.

← 25' → ← 35' →

BRADFORD ST.

0

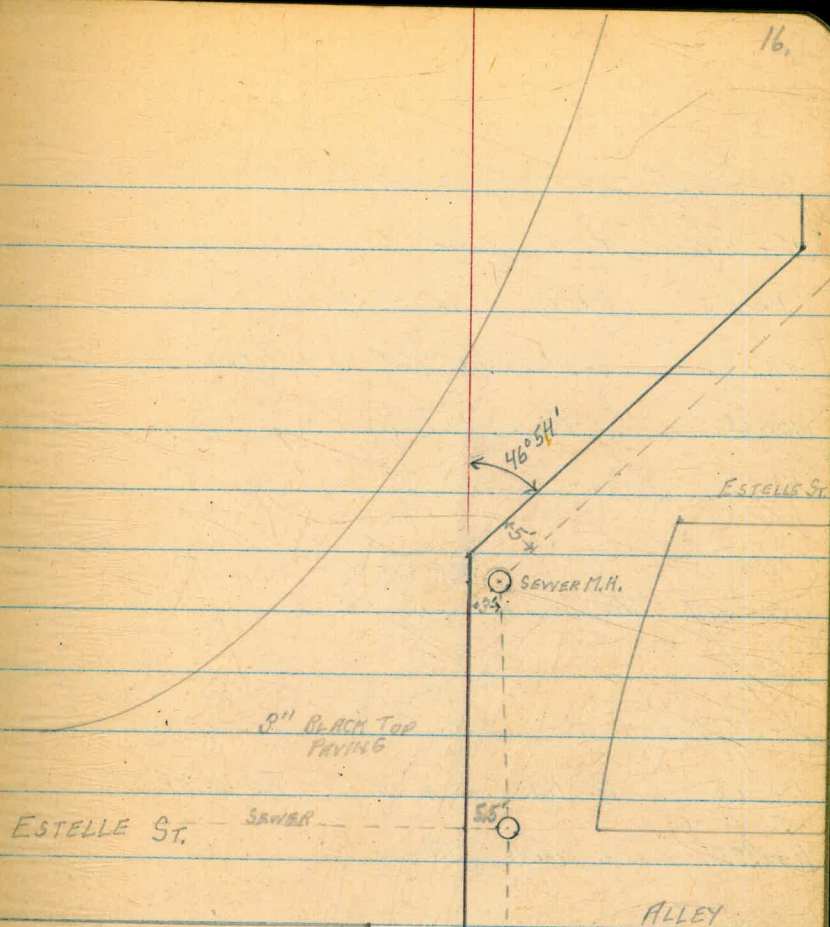
OILED SURFACE

4+38 WATER SERVICE LINE.

3+99.5 WATER SERVICE LINE.

3+47 WATER SERVICE LINE.

- 9+54 4" 54" TROJAN P.L. 18.0' LG.
- 9+27.3 H.P. GAS LINE CROSSING.
- 9+10 WATER LINE TO LT.
- 9+05.3 4" 54" TROJAN P.L. 8.3' LG.
- 8+99.15 ANGLE 46°54' RT.
- 8+96.5 MAN HOLE ON SEWER, 3.0' RT. TO CENTER OF M.H.
- 8+96.7 6" C.I. WATER MAIN CROSSING.
- 8+48.8 M.H. ON STORM DRAIN 21.0 RT.
- 8+32.56 CITY ENG'S TAG IN DRIVEWAY 28.00 RT.
- 8+35.06 CITY ENG'S TAG IN SIDEWALK 28.00 RT.
- 8+10.15 N. LINE OF ESTELLE ST. TO EAST.
- 8+95 8" SEWER LINE EAST ON ESTELLE ST.
- 8+18 R4" CONCRETE STORM DRAIN, APPROX. LOC.
- 8+09.4" WATER VALVE 4.9' LG.
- 7+88.5 WATER LINE TO RT.
- 7+77.5 SEWER LINE TO LT.
- 7+65.7 GAS LINE TO LT.
- 7+40.5 WATER LINE TO RT.



18+32.9 END OF EXISTING 12" MAIN. GATE VALVE.

18+30.8 WATER LINE TO RT.

18+89 WATER LINE TO RT.

18+82.5 SEWER LINE TO LT. APPROX. LOCATION.

18+65.4 GAS LINE TO LT.

11+97.9 GATE VALVE 4.7' LT.

SEWER LINE TO ADELAIDE ST.

11+77.5 M.H. ON SEWER 5.3' RT.

FOUND

11+54.5R CHISELED + IN CURB, E. LINE 60TH. ST.; 7' OFFSET ON N. LINE

11+51.8 1 1/2" H.P. GAS LINE TO ADELAIDE ST.

11+47.5 GATE VALVE 4.8' LT.

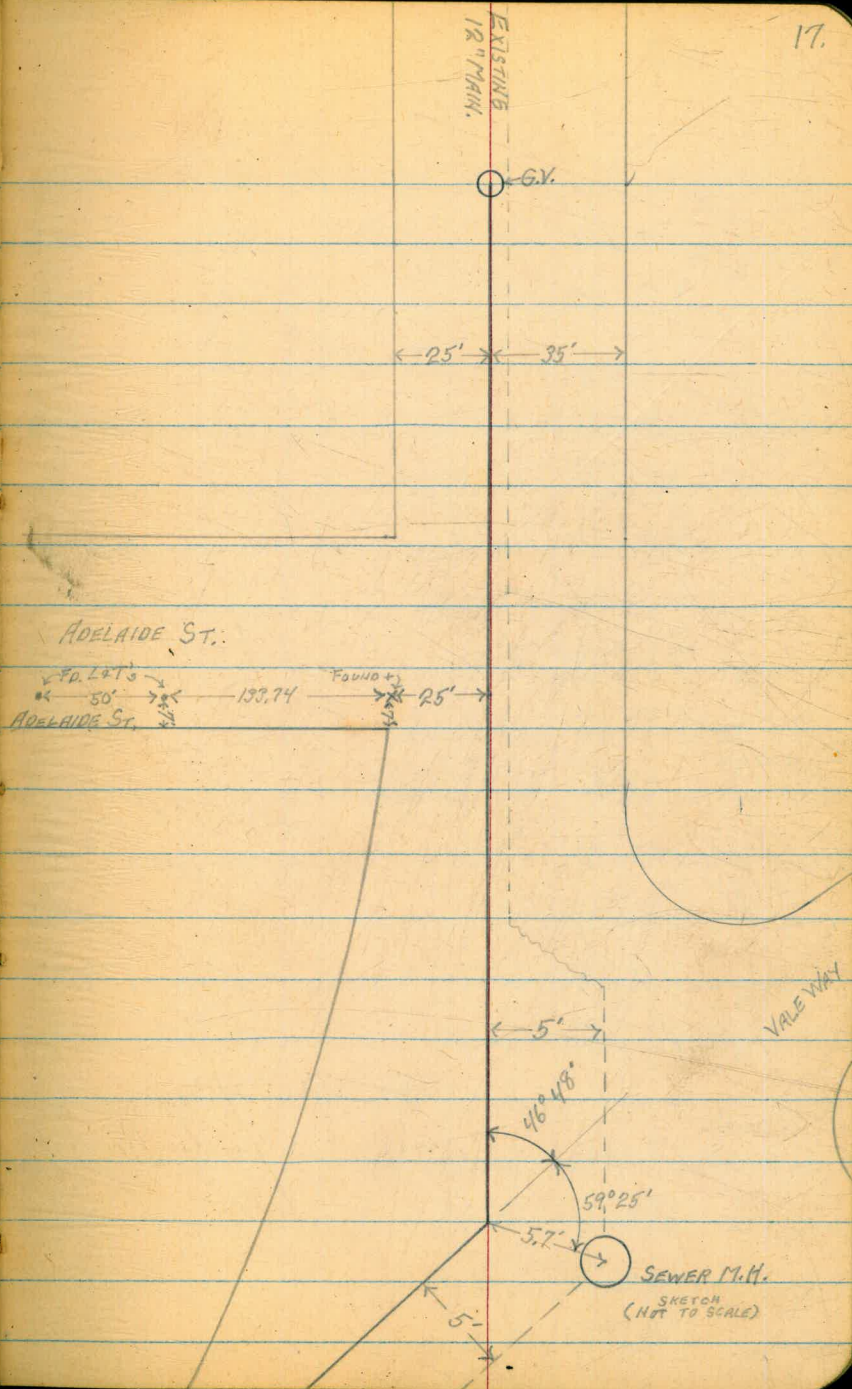
10+47.5 4" 54" TROJAN P.L.

10+31 6" WATER MAIN, S.W. TO VALE WAY.

10+17.32 ANGLE 46° 48' LT.

10+10.5 6" WATER MAIN, N-S ON 60TH. ST.

9+86.5 APPROX. LOCATION OF SEWER LINE TO LT.



PROFILE OVER PROPOSED		60TH ST. 12" WATER MAIN	
B.M.	+ 9.30	469.38 ✓	466.08 <small>BASS PLUS N.W. 5TH + EL CAYON RD.</small>
T.P.		-4.09	465.29 ✓
	+ 5.68	470.97 ✓	
CHECK B.M.		-1.46	469.51 ✓ = 469.52 <small>REC. CAYON</small>
0+00		-4.56	466.41 ✓
0+50		-5.26	465.71 ✓
1+00		-5.76	465.21 ✓
1+50		-6.31	464.66 ✓
1+64.8		-6.55	464.42 ✓ <small>TOP M.H.</small>
"		464.92 -12.22	458.70 <small>SEWER INVERT (2)</small>
2+00		-6.81	464.16 ✓
2+50		-7.99	463.08 ✓
3+00		-10.06	460.91 ✓
3+38	<small>5' H.</small> T.P.	-12.40	458.57 <small>5.2068 M.H. R.M.</small>
	+ 0.35	458.92 ✓	
3+38	<small>5' H.</small>	458.57	-7.50 451.07 <small>SEWER INVERT (7)</small>
3+50		-1.19	457.99 ✓
4+00		-5.71	459.21 ✓
4+50		-10.84	448.08 ✓

60th St. Profile Cont'd.

458.92

487.24 ✓

T.P.		-12.34	446.58 ✓	Rock	8+48.3	21' RT		-8.08	419.16 ✓	Rim M.H. Storm Drain
	+ 0.26		446.84 ✓		"	"	(419.16)	-8.0	411.16 ✓	Invert Elev. Storm Drain
5+00		-3.46	443.38 ✓		8+50			-7.85	419.39 ✓	
5+50		-8.10	438.74 ✓		8+94.5	30' RT		-8.51	418.93 ✓	Rim M.H. on Sewer
5+84.8	5' RT	-11.03	435.81 ✓	TOP M.H.	"	"	(418.93)	-6.50	412.63 ✓	SEWER INVERT
"	"	435.81	-7.58	428.23	SEWER INVERT	8+99.15	P.T.	-8.29	418.95 ✓	
T.P.		-9.70	427.14 ✓	TOP FIRE HYD. S.F. DOP	9+50			-9.02	418.22 ✓	
	+ 0.53		437.67 ✓	10' RT	10+00			-9.22	418.02 ✓	
6+00		-5.26	434.41 ✓		10+17.85	P.T.		-9.26	417.98 ✓	
6+50		-7.35	430.82 ✓		"	57' RT		-9.54	417.70 ✓	Rim M.H. on Sewer
7+00		-11.01	426.66 ✓				(417.70)	-7.3	410.40 ✓	SEWER INVERT
T.P. Spike RR# 177806		-11.03	426.64 ✓		10+50			-8.31	418.33 ✓	
	+ 0.60		427.24 ✓		11+00			-6.07	421.17 ✓	
7+50		-3.86	422.88 ✓		11+50			-3.67	423.57 ✓	
8+00		-5.89	421.35 ✓		T.P.			-2.47	424.77 ✓	N. Edge M.H.
8+15	OVER 24" Storm Drain	-6.88	420.36 ✓		11+77.5	5.5 RT		-6.90	417.39 ✓	Rim, Sewer
8+35	5.5 RT	-7.74	419.50 ✓	Rim M.H. on Sewer	"		(424.77)	-6.80	417.97 ✓	SEWER INVERT
"	"	419.50	-5.40	414.10 ✓	SEWER INVERT	T.P.		-2.47	424.77 ✓	"
"	SEWER LINE E. on Estate	-5.40	414.10 ✓	SEWER INVERT	10.14		435.72			
					+ 11.24		426.71			

APRIL 21, 1949 LEONARD  
PAYNE 20.  
CHRYER

12" WATER LINE, 60TH ST., EL CAJON TO MEADE,  
CUT STAKES ON 4' OFFSET LINE:

	435.71 436.71		476.50 ✓ 467.56 477.79 ✓ 479.99 482.48 ✓ 484.65 ✓ 486.65	+0.99	470.51		469.52	FIRE PUG, NE. COR. EL CAJON & 60TH ST.
12+00								
12+50		-5.71			GRADE			CUT.
13+00		-2.28		0+50	462.1	-4.9	465.6	C.S. 5
T.P.		-1.06		+70 0+80 FIRE PUG	465.7	-4.7	465.8	C.O. 1
+6.46	441.11 ✓ 442.11			1+00	461.6	-5.4	465.1	C.S. 5
13+82.9 END OF LINE		-5.86	435.76 ✓ 436.76	1+50	461.1	-6.1	464.4	C.S. 3
CHECK R.M. NAIL IN LEAD IN CURB		-4.80	436.91 ✓ 437.51 = 438.91	2+00	460.6	-6.4	464.1	C.S. 5
RETRACE T.P.'s TO LOCATE LEVEL ERROR				2+50	459.9	-7.5	463.0	C.S. 7
+0.79	439.60		438.81	2+70	458.8	-8.2	462.3	C.S. 5
CHECK T.P. ON CORN		-2.25	435.65	3+10	457.0	-10.1	460.4	C.S. 4
CHECK T.P. M.M. RIM		-12.82	425.78 = 438.60	3+50	454.2	-12.7	457.8	C.S. 6
				T.P. +0.28	458.07	-18.72	457.79	
				4+10	448.7	-5.9	452.2	C.S. 5
				4+50	444.8	-10.0	448.1	C.S. 3
				T.P. +1.80	446.65	-12.62	445.45	
				5+00	439.9	-3.3	445.3	C.S. 4
				5+50	435.1	-8.1	438.5	C.S. 4
				6+00	431.0	-12.4	434.2	C.S. 2
				TOP F.P. S.E. COR. 60TH & GARDNER				
				CHECK T.O.M.	-9.48		437.17 = 437.19	

60th St. 12" WATER MAIN, CUT STAKES, CONT'D.

		446.65			
T.P.	+0.05	<sup>H.d.</sup> 439.90	-12.80	439.85	Rock
6+50		427.0	-3.7	430.2	C.S.R.
7+00		423.1	-7.4	426.5	C.S.4
7+50		420.3	-10.3	423.6	C.S.3
8+00		417.6	-12.5	421.4	C.S.8
8+10		417.1	-13.1	420.8	C.S.7
T.P.	+4.96	<sup>H.d.</sup> 425.89	-12.97	420.98	
8+50		416.4	-6.4	419.5	C.S.1
8+99.15	L. 46° 54' 25"	415.5	-6.8	419.1	C.S.6
9+50		414.6	-7.6	418.8	C.S.7
10+00		415.0	-7.7	418.2	C.S.R
10+17.33	L. 46° 48' 21"	415.1	-7.8	418.1	C.S.0
10+50		415.4	-6.8	419.1	C.S.7
11+00		417.7	-4.6	421.3	C.S.6
11+50		420.0	-2.2	422.7	C.S.7
11+82.5	"TEE"	422.2	-0.2	425.7	C.S.5
T.P.	+12.01	437.78	-0.12	425.77	

60th St. 12" W.L. - CONT'D.

		437.78			
12+00		423.3	-11.0	426.8	C.S.5
12+50		426.7	-7.6	430.2	C.S.5
13+00		430.6	-4.2	435.6	C.S.0
13+32.9		433.0	-1.9	435.9	C.S.9
CHECK B.M.		<del>433.0</del>	-0.90	436.88 = 436.90	<sup>Rec.</sup>

LEAD IN CURB N.E. COR



APRIL 27, 1949

LEONARD  
PAYNE  
CARYER.

22

## CLINTON ST. 6" WATER MAIN - 37TH TO 38TH ST.

R.M.	+7.25	105.83		98.58	Top R.P. SE. Cor Invert 2.58 2
6+60		MEET EXIST. PIPE	-4.17	101.66	
6+20		96.7	-5.26	100.57	C 3.9
6+00		96.6	-5.53	100.30	C 3.7
5+50		96.5	-5.34	100.49	C 4.0
5+00		96.3	-5.55	100.28	C 4.0
4+50		96.2	-5.87	99.96	C 3.8
4+00		96.0	-6.10	99.78	C 3.7
3+50		95.9	-6.13	99.70	C 3.8
3+00		95.7	-6.20	99.63	C 3.9
2+50		95.6	-6.59	99.24	C 3.6
2+00		94.9	-7.20	98.68	C 3.7
1+50		93.9	-8.19	97.64	C 3.7
1+00		92.8	-9.28	96.55	C 3.8
0+50		91.7	-10.27	95.56	C 3.9
0+00		MEET EXIST. PIPE	-10.55	95.28	
CHECK R.M.			-7.25	98.58	SAME

LINE IS 10' S. OF C. OF ST.

APRIL 27, 1949

LEONARD  
PAYNE  
CARVER.

23

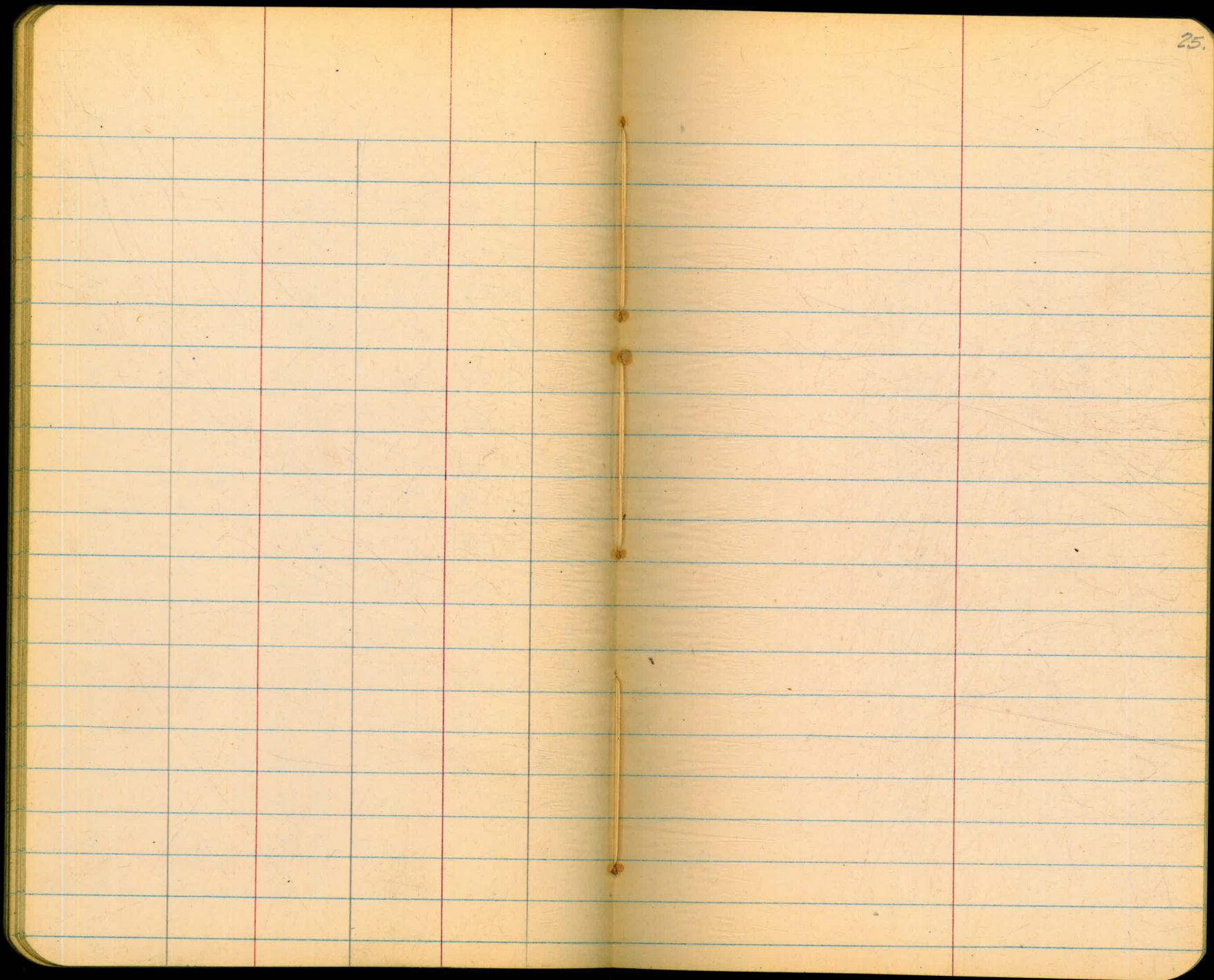
DODSON ST. 6" WATER MAIN, MARKET ST. TO "K" ST

R. 17	+ 0.18	145.15		144.95	
		BOTTOM PIPE:		HUB ELEV.	COT. ON POINT, MARKET ST.
11+00 <sup>60</sup>	END	MEET EXIST. PIPE	-10.27	134.86	
10+60 <sup>60</sup>	S. LINE MARKET.	EST. 62 135.			
10+55	FIRE HYD.	134.9	-9.93	135.20	C 0.3
10+50 T.P.		131.3	-11.31	133.82	C 2.5 ON SPINE.
	+2.81	H. d. 136.63			
10+00		130.3	-3.90	132.73	C 2.4
9+50		129.3	-4.29	132.34	C 3.0
9+00		128.3	-4.58	132.05	C 3.7
8+50		127.3	-5.30	131.33	C 4.0
8+00		126.3	-6.71	129.92	C 3.6
7+60.7	N. LINE ISLAND AVE.	EST. 60, 129			
7+50		125.3	-8.02	128.61	C 3.3
7+00		124.9	-8.98	127.65	C 2.7
6+80.7	S. LINE ISLAND AVE.	124.5	-10.20	126.45	C 2.0
T.P.	+1.47	H. d. 125.25	-12.85	123.78	ROCK
6+50		120.5	-1.78	123.47	C 3.0
6+00		114.1	-8.63	116.62	C 2.5
T.P.	+0.06	H. d. 112.61	-12.70	112.55	ROCK
5+50		107.6	-2.17	110.44	C 2.8

LINE IS 10 FT. E. OF C. OF ST.

DODSON ST, CONT'D

H.d.		H.d. 112.61			
5+00		101.2	-8.77	103.84	C 2.6
T.P.	+1.16	H.d. 101.01	-12.76	99.85	Rock
4+50		94.7	-3.59	97.42	C 2.7
4+00		88.3	-9.79	91.22	C 2.9
3+70.32	N. SIDE "J" ST.	84.5	-12.55	88.46	C 4.0
T.P.	+0.66	H.d. 88.97	-12.90	88.31	Rock
3+40	CENTER "J" ST.	83.5	-2.05	86.92	C 3.4
3+10.32	S. SIDE "J" ST.	81.7	-3.98	84.99	C 3.2
3+00		80.9	-4.81	84.16	C 3.3
2+50		77.2	-8.68	80.29	C 3.1
2+00		74.2	-11.50	77.47	C 3.3
T.P.	+3.03	H.d. 80.05	-11.95	77.02	ON CURB
1+50		72.0	-4.34	76.71	C 3.7
1+00		71.2	-5.48	74.57	C 3.4
0+50		70.8	-6.07	73.98	C 3.2
0+00	N. LINE "K" ST. PLUS IN CURB	70.5	-6.50	73.55	MEET EXIST. PIPE
CHECK R.M.	S.E. COR. 29 <sup>TH</sup> & "K"		-0.59	79.46 = 79.47	REC.



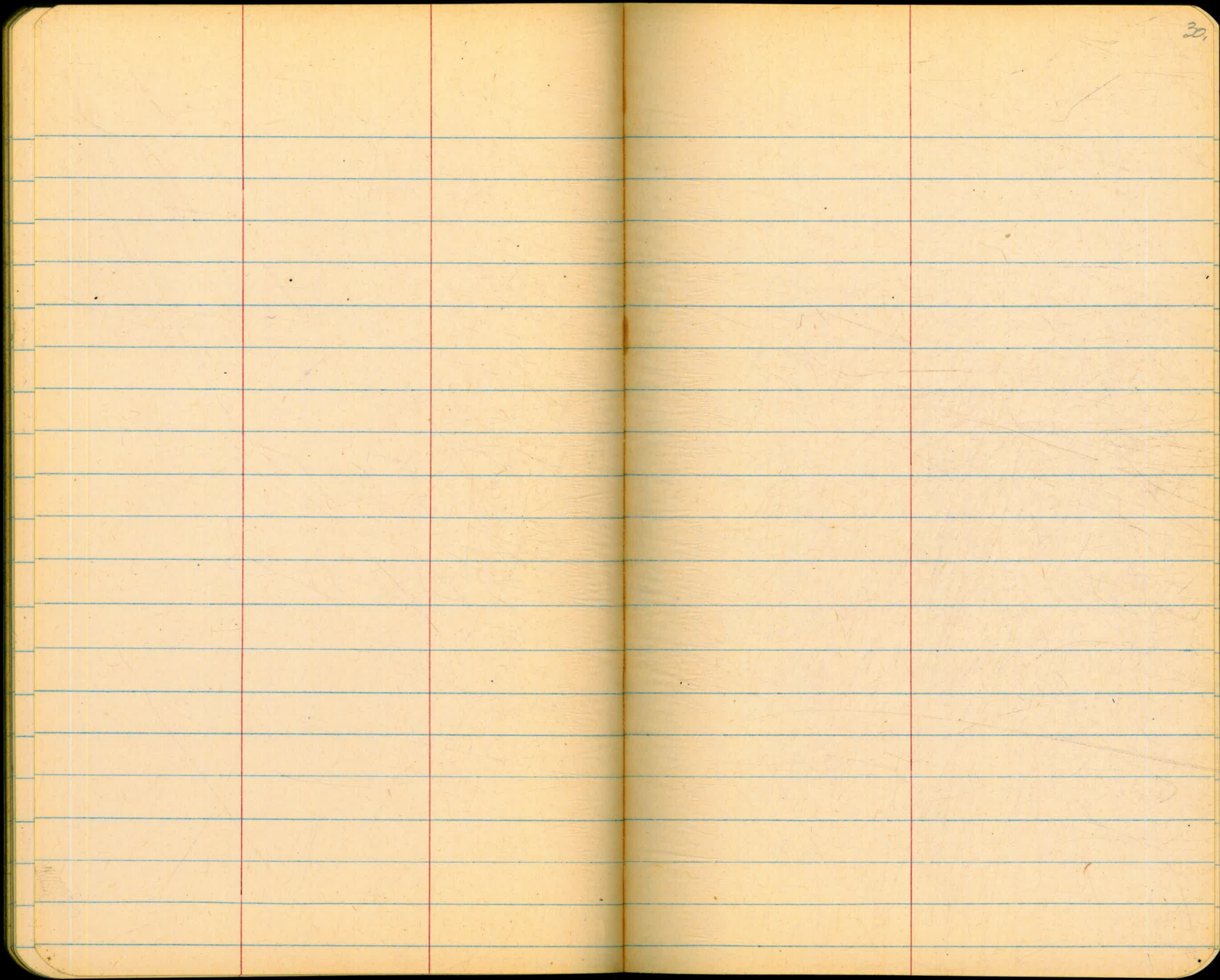










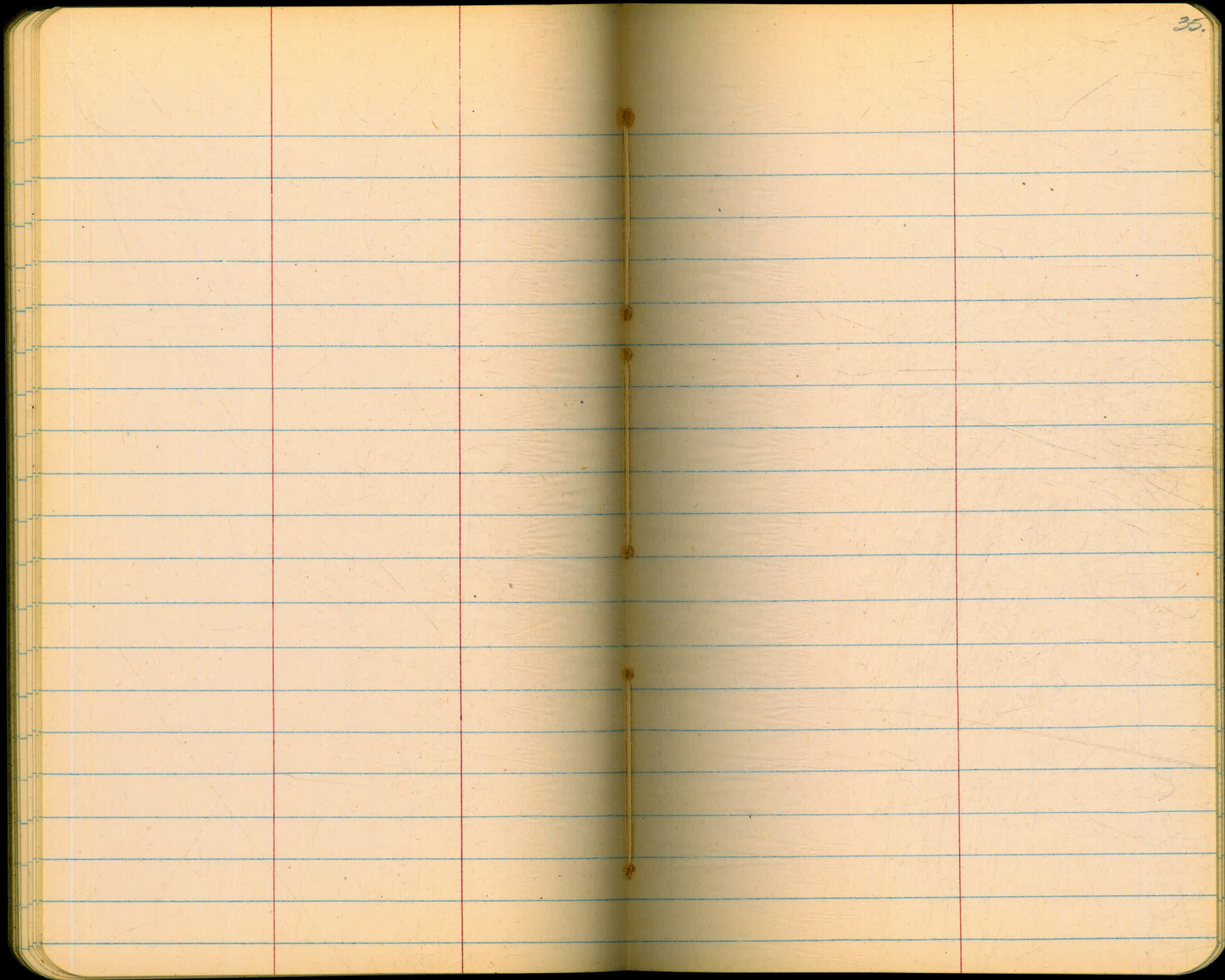














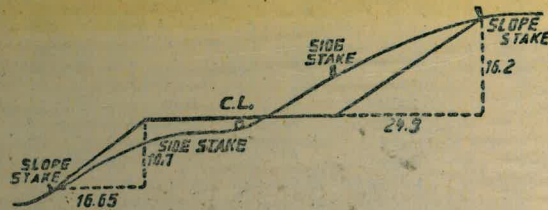












**DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.**

SLOPE  $1\frac{1}{2}$  TO 1. ROADWAY OF ANY WIDTH.

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

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