

#716

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

MICROFILMED
Distances from Center of Roadway for Cross-Sectioning

Roadway 16 feet wide. Side Slopes 1 on 1.

For Single Track Embankment.

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

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

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54242
0.037

22
25

Please Return to
City of San Diego Water Dept.
Room 903 Civic Center
Telephone F-9-7511

Ext. 313

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Bing Special Enamel Waterproof thread.

Made in U. S. A.

Index Record.
Notes reduced or plotted

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34	8/2/48	MBD				
44	2/9/49	MBD				

89 59 00
78 19 30
11 40 30

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alice

5th 27+00 to 29+00
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alice

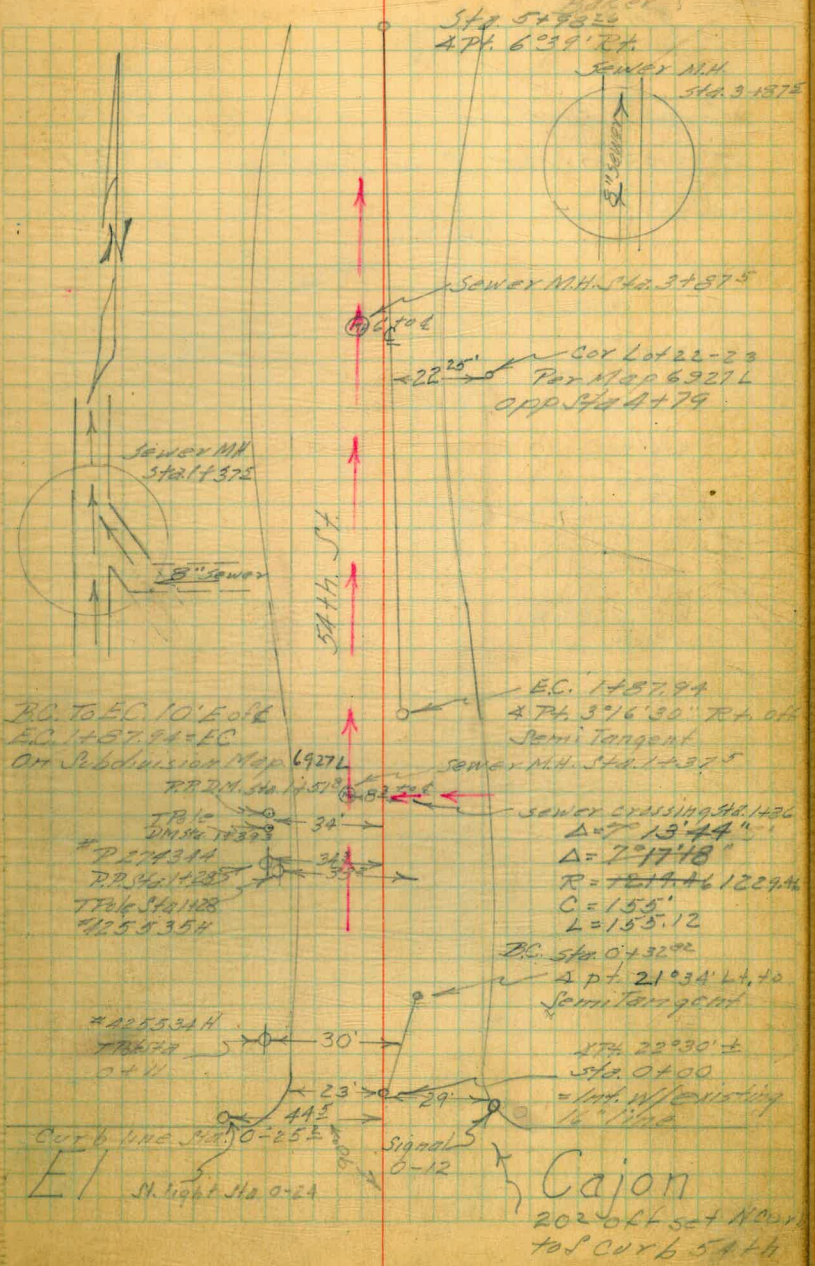
Preliminary
Alignment 54th St. Pipeline

June 26, 1947

Rainey

Nixon

Water



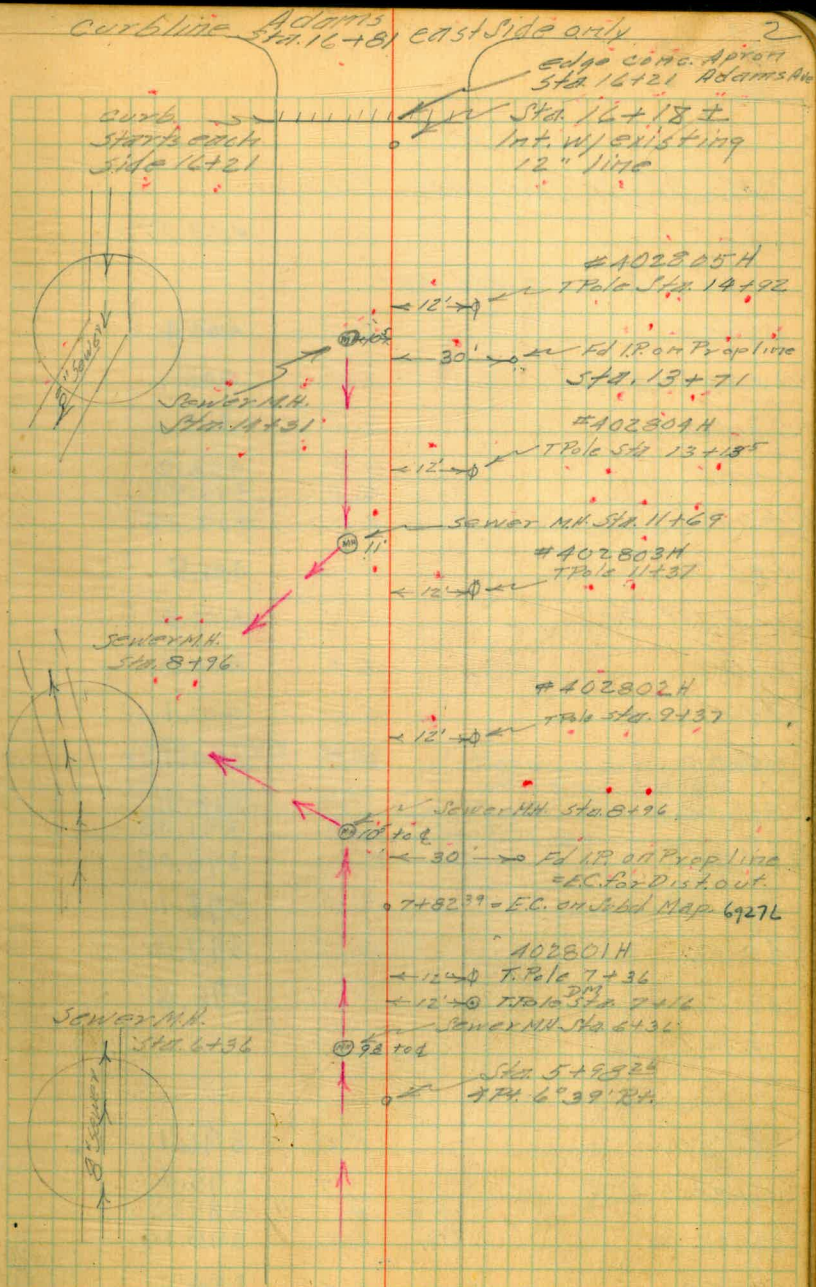
Note: 0+00 is 16.6' Ahead of
the end of pipe. Top of pipe
4.6 below 0+00

Cajon
202' offset set North
to curb 54th

2

Preliminary Alignment 54th Pipeline

Note: End of 12" 5' E of 16+18
Top of pipe 3.6 below 16+21



Sta.

B.M. B.P. SE. Cor 54th + El Cajon

403.77

2.31 + 406.08

0+00		2.7	403.4
0+32 ⁸² BC.		3.0	403.1
0+50		3.1	403.0
1+00		3.9	402.2
1+37 ⁵	Inv.	12.1	393.98
	Rim	4.00	402.08
1+50		4.6	401.5
1+87 ⁸ EC.		5.1	401.0
2+00		5.3	400.8
2+50		6.0	400.1
3+00		7.0	399.1
3+50		7.8	398.3
3+87 ⁵	Inv.	14.2	391.88
	Rim	8.03	398.05
4+00		8.0	398.1
4+50		8.7	397.4
5+00		9.5	396.6
TP#1		8.79	397.29
		0.76	398.05
5+50		2.0	396.1
5+98 ²⁶ XPI		2.7	395.4
6+36	Inv.	8.5	389.55
	Rim	2.91	395.14
6+50		3.6	394.5

June 23, 1947

Rainey
Nelson
Baker

Sewer M.H. 8.3 W of line

398.6	398.9	398.7	397.9
6'	25'	47'	50'

Sewer M.H. 6.1 W of line

SECTION TO LEFT
OF STA. 3+50
TAKEN BY BLISS,
7/16/47

RBS

Sewer M.H. 9.8 W of line

A 54th St. Pipeline (Profiles)

Sta			
	398.05 ✓		
7+00		5.2	392.9
7+50		7.6	390.5
8+00		10.4	387.7
T.P.#2		12.69	385.36 ✓
	0.17		385.53 ✓
8+50		1.2	384.3
	Ink	10.3	375.23
8+96	Rim	3.24	382.29
9+00		3.9	381.6
9+50		6.7	378.8
10+00		8.3	377.2
10+50		8.9	376.6
11+00		8.7	376.8
11+50		7.2	378.3
	Ink	18.7	366.83
11+69	Rim	6.54	378.99
12+00		5.6	379.9
12+50		2.4	383.1
T.P.#3		0.02	385.51 ✓
	10.40		395.91 ✓
13+00		10.3	385.6
13+50		6.8	389.1
14+00		3.5	392.4
14+50		0.0	395.9
T.P.#4		0.07	395.84 ✓
	12.67		408.51 ✓

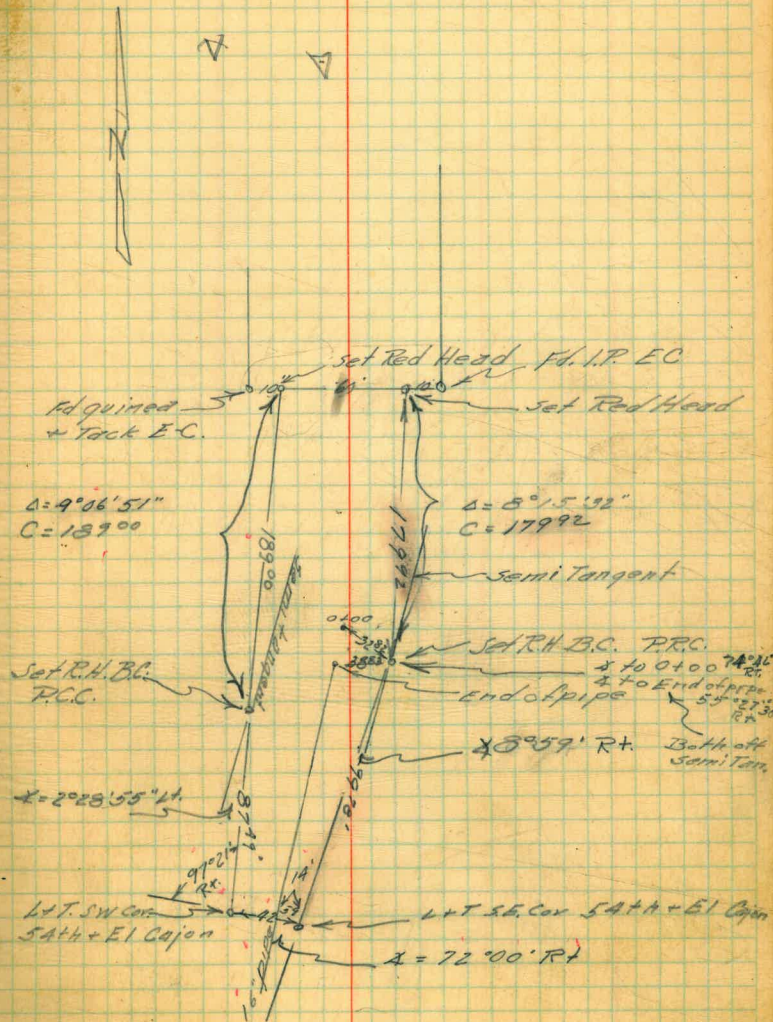
Sewer M.H. 105 W of line

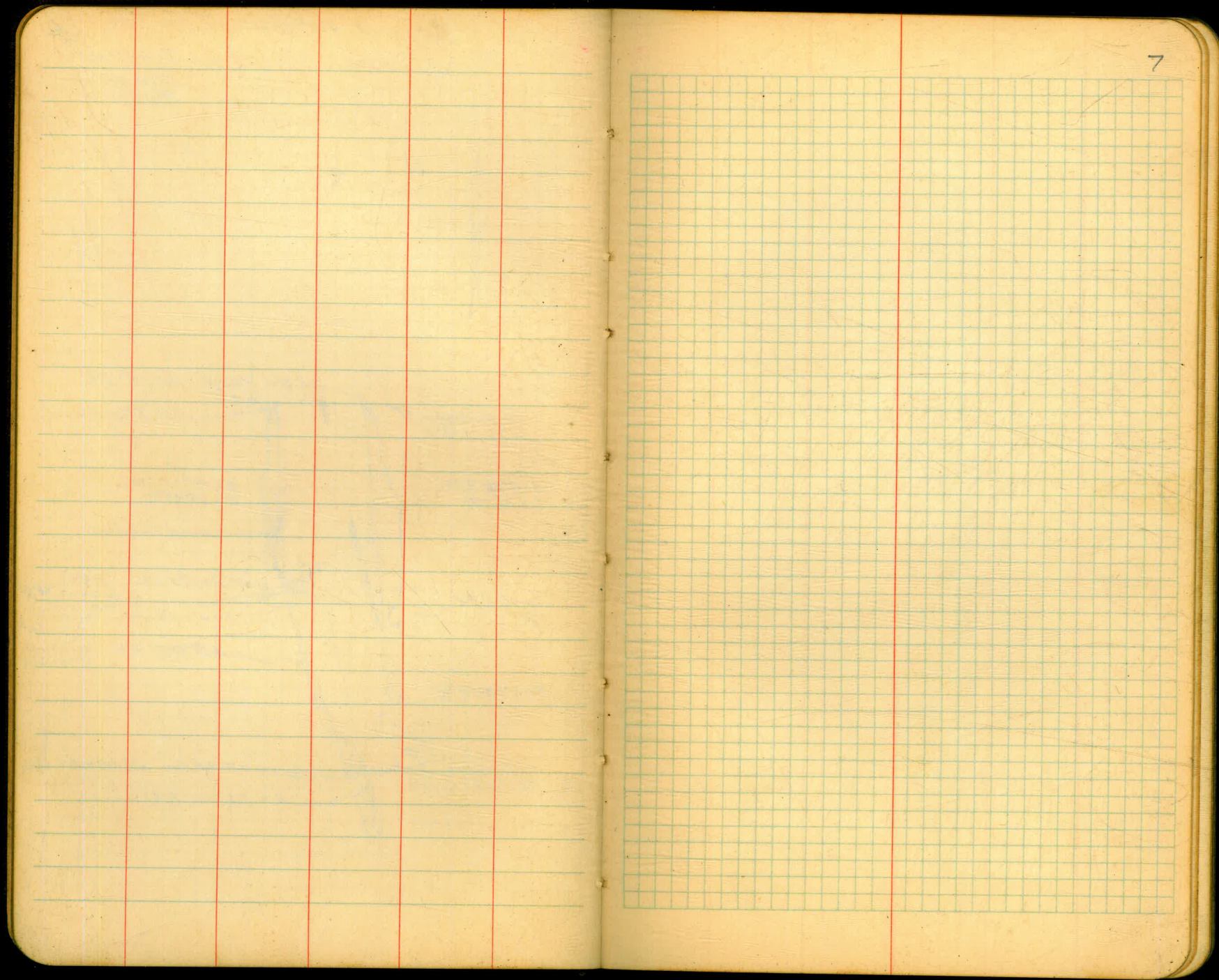
Sewer M.H. 11' W of line

Sta

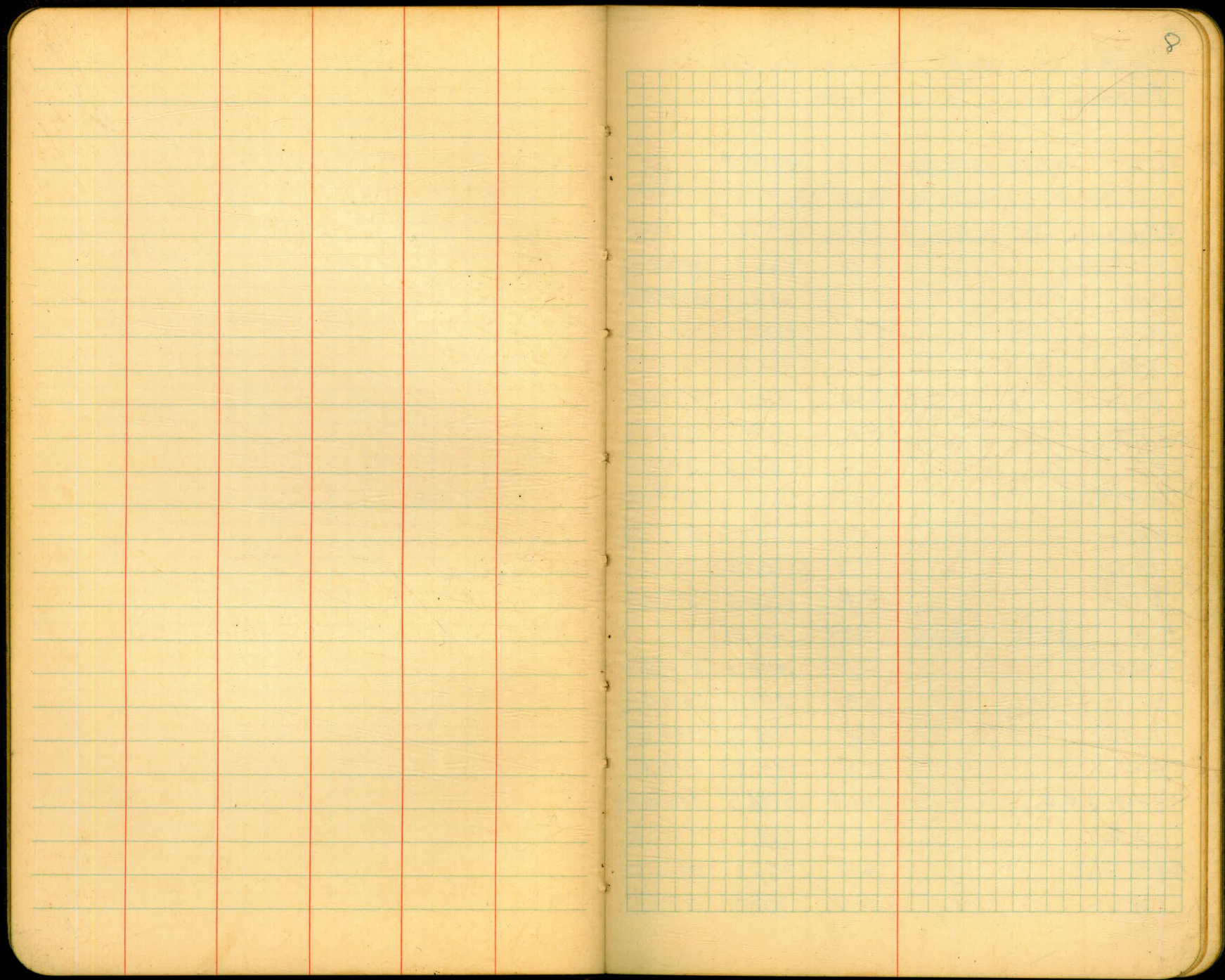
	408.51		
15+00	8.6	399.9	
15+50	4.7	403.8	
16+00	0.7	407.8	
T.P. #5	0.87	407.64	
7.75		415.39	
16+18 end of line	6.3	409.1	
16+21 St. of conc. Apron 6.12		409.27	
B.M. B.P. NE. Cor. 54th + Adams			corr
	2.13	413.26	413.40
T.P. #5	7.75	407.64	
2.05		409.69	
T.P. #6	11.64	398.05	
7.41		405.16	
B.M. B.P. NE. Cor.	1.68	403.78	403.77 corr
54th + El Cajon			
B.M. B.P. NE. Cor. 54th + Adams		413.26	
4.58		417.84	
16+13	7.23	410.61	
16+68	5.79	412.05	
B.M.	4.58	417.84	

El Cajon + 54th. Tie To 6
 Pipeline July 8, 1947 Rainey
 Nichol
 Baker





7



54 St. P.L. El Cajon to Adams
Profile over 10' offsets

B.M.	4.55	408.32		403.77	
0+00			4.7	403.6	397.4
0+32.82 B.C.			5.0	403.3	397.4
0+50			5.1	403.2	397.3
+75			5.6	402.7	397.2
1+00			5.9	402.4	397.2
+25			6.0	402.3	397.2
+50			6.2	402.1	397.2
+75			6.5	401.8	397.1
+87.94 E.C.			6.9	401.4	397.1
2+00			6.8	401.5	397.1
+50			7.3	401.0	397.0
3+00			8.2	400.1	396.3
T.P.	4.97	402.04	8.25	400.07	
3+50			2.9	399.1	390.6
4+00			2.9	399.1	395.0
+50			3.4	398.6	394.5
5+00			4.1	397.9	393.9
5+42 F.H.			4.68	397.64	398.0
+50			4.9	397.1	393.9
5+98.26 Δ			6.0	396.0	392.7
+50			6.9	395.1	391.7

12" C.I.

Rainey
King
Nieman
Baker

9-2-47

9

B.P. S.E. Cor El Cajon + 54 St.
cuts

All cuts 0.5 below bottom
of pipe to clear for backfill

6.7
6.4
6.4
6.0
5.7
5.6
5.5
5.2
4.8
4.9
4.5
4.3
4.0
4.6
4.6
4.5
4.4 Fire Hyd.
3.7
3.8
3.9

54th St (Construction)

402.04

7+00			8.5	393.5	390.3
+50			11.7	390.3	387.9
T.P.	0.93	391.48	11.49	390.55	
8+00			3.9	387.6	385.1
+50			6.5	385.0	381.7
9+00			9.2	382.5	378.3
+50			12.2	379.3	375.6
T.P.	8.13	386.94	12.67	377.81	
10+00			9.4	377.5	374.0
10+42 F.H.			9.65	377.29	377.8
+50			9.8	377.1	373.2
11+00			9.2	377.7	373.3
+50			8.5	378.4	374.3
12+00			6.5	380.4	376.2
+50			3.7	383.2	379.0
T.P.			0.87	386.07	
	6.58	392.65			
13+00			6.6	386.1	382.4
13+50			3.0	389.7	386.0
T.P.			2.31	390.34	
	11.86	402.20			
14+00			9.1	393.1	389.7
14+50			5.4	396.8	393.3
15+00			2.5	399.7	396.9

10

3.7

2.9

3.0

3.8

4.5

4.2

4.0

f0.5 fire hydrant

4.4

4.9

4.6

4.7

4.7

4.2

4.2

3.9

4.0

3.3

54th St. (Construction)

	402.20		
	0.58	401.62	
13.03	414.65		
15+50	10.5	404.2	400.5
15+75	8.9	405.8	402.3
16+05 ⁹³	6.6	408.1	403.8
B.M. BP 54th Adams	1.39	414.65	

on lateral at Sta. 3+50 end

Grade Same as 3+50		cut
10'S		3.0
10'N		3.0

cuts

4.2

4.0

4.8

Miss
Leonard
Baker
11/12/47

Preliminary Alignment Montezuma Road

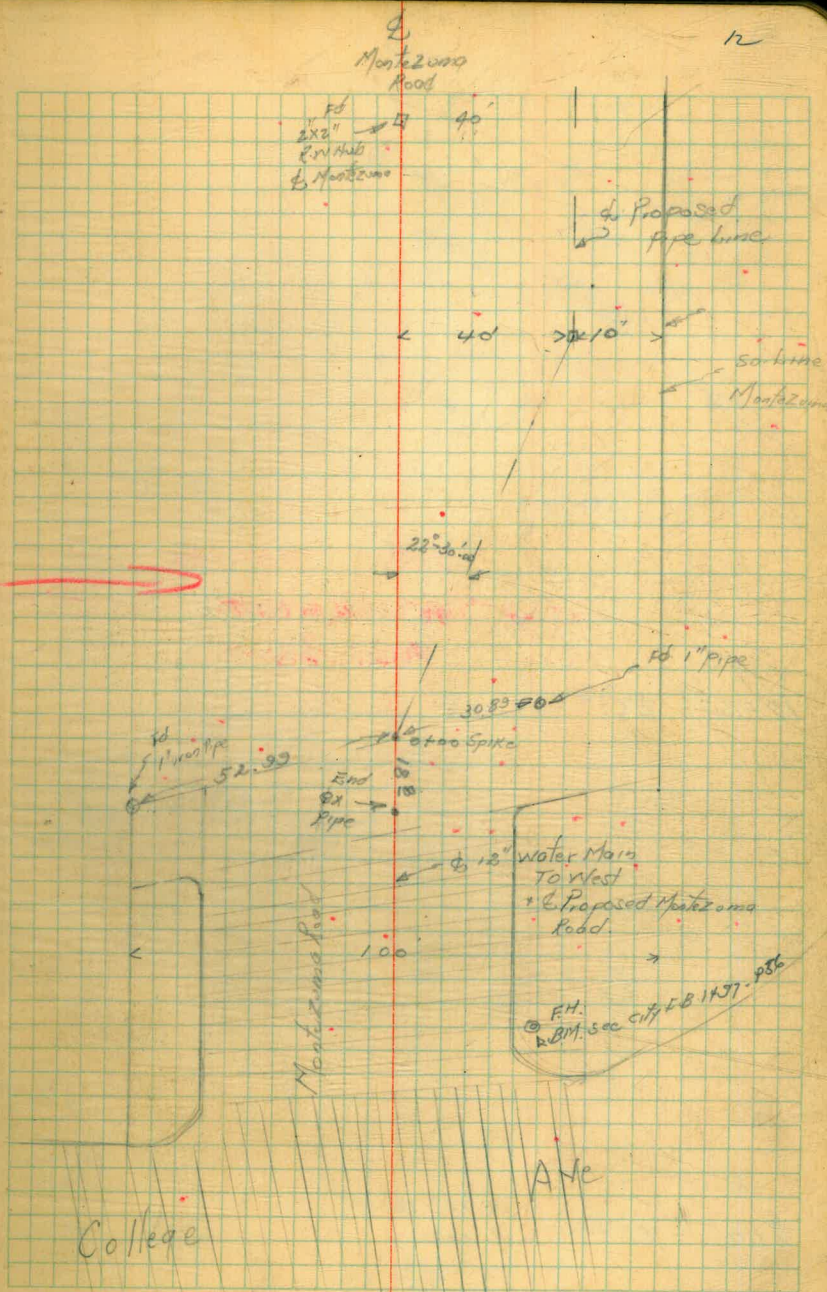
Pl. Location

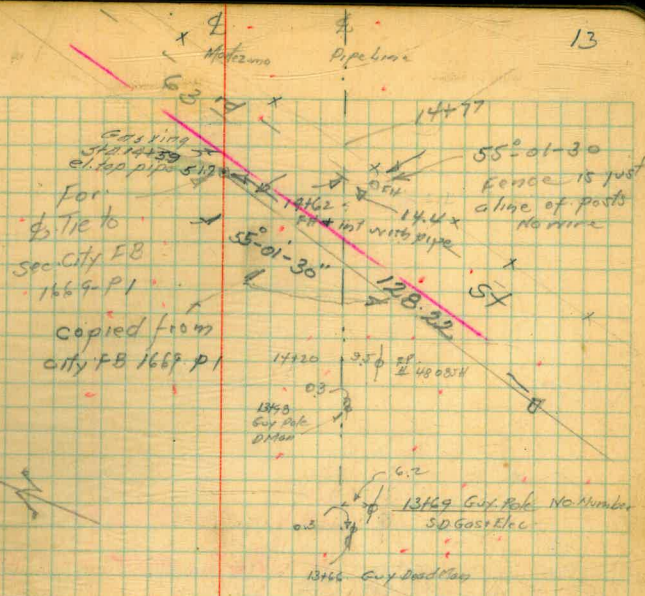
1404 52 L. 4 22°-30'-00" Ex. Hub

0700

← SEE REVISION
ALIGNMENT
PAGE 33

3049
529
885
533





Existing
14439
el. top pipe 5170
For
to Tie to
Sec. City FB
1669-P1
copied from
city FB 1669-P1

55° 01' 30"
Fence is just
a line of posts
No wire

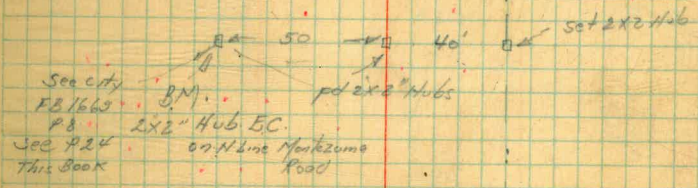
14220
3.5' 48 0.554
1349
City Park
Dist

13169 City Park No Number
SD Gas Elec

13166 City Road Plan

SEE REVISION
ALIGNMENT
PAGE 33

12+16.²² EC.



Sec city
FB 1663
P8
Sec P24
This Book

Proposed
Pipe Line

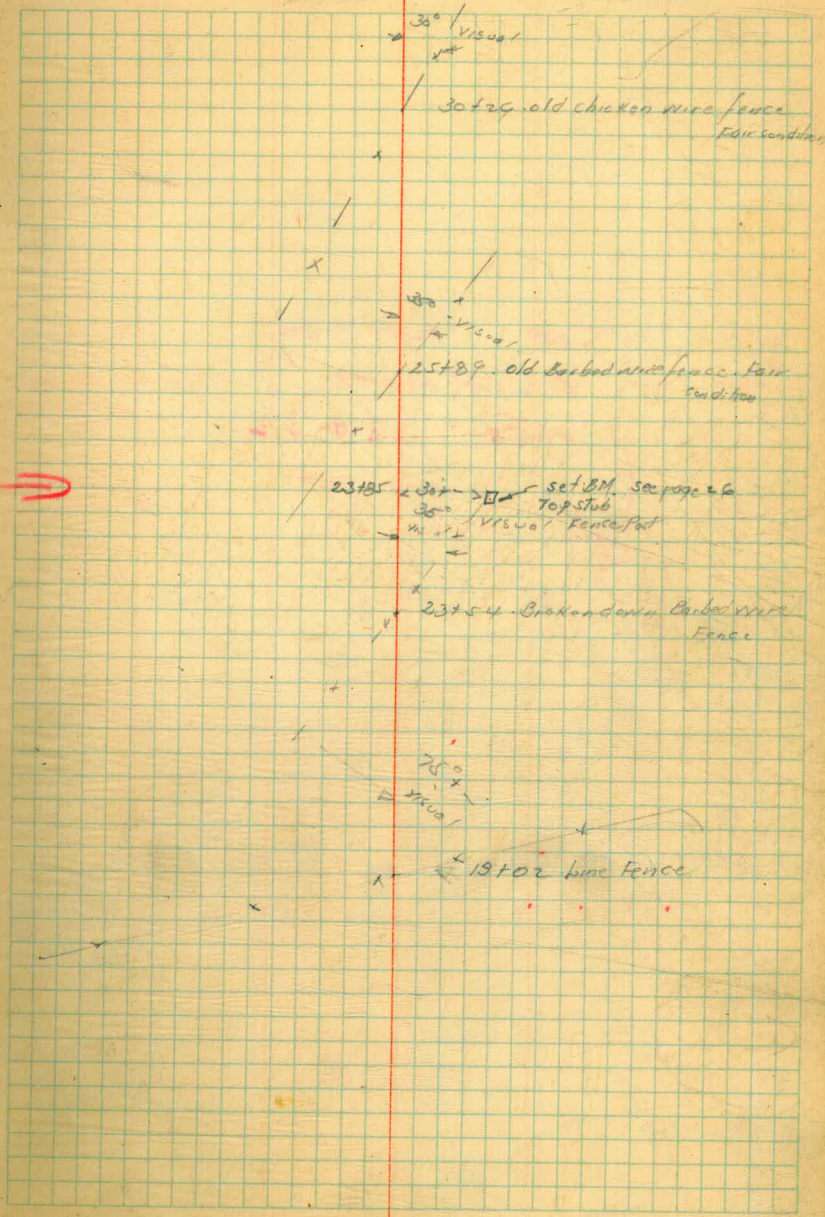
FD 2x2" Hub

9+05.³⁴ BCRT

Δ 12° 12' 00"
R 1460
L 310.88
T 156.03

SEE REVISION
ALIGNMENT
← PAGE 33 →

19402. Barbed wire line fence



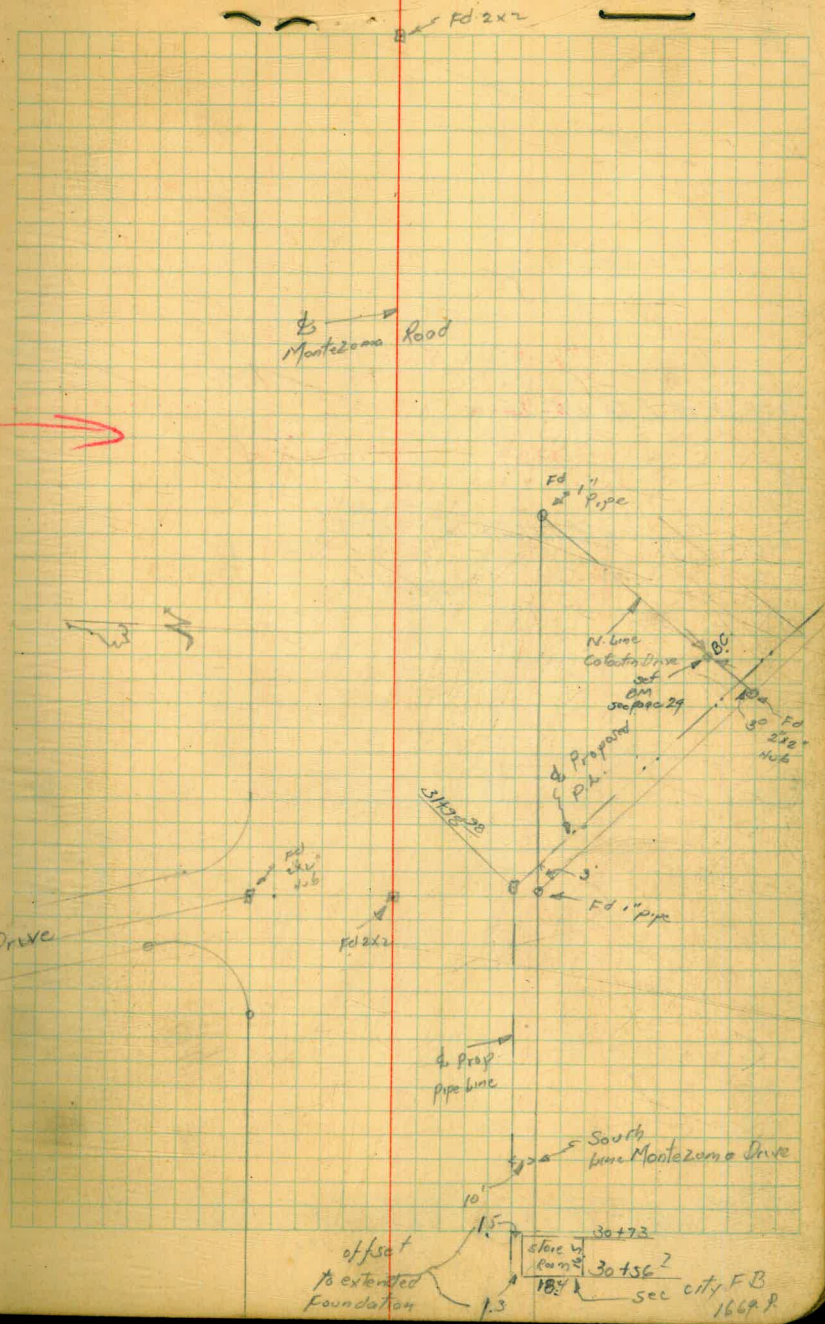
500 REVISION
 ALIGNMENT
 PHOS. 33 + 32

31438⁹⁸ L. Rt 97°34'00 set 2"x2" 4/16

Lia Drive

Drive

Montezuma Road

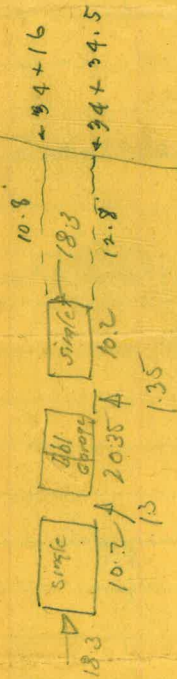


offset to extended foundation
 30+73
 30+56.2
 18.5
 see city FB 1669 P

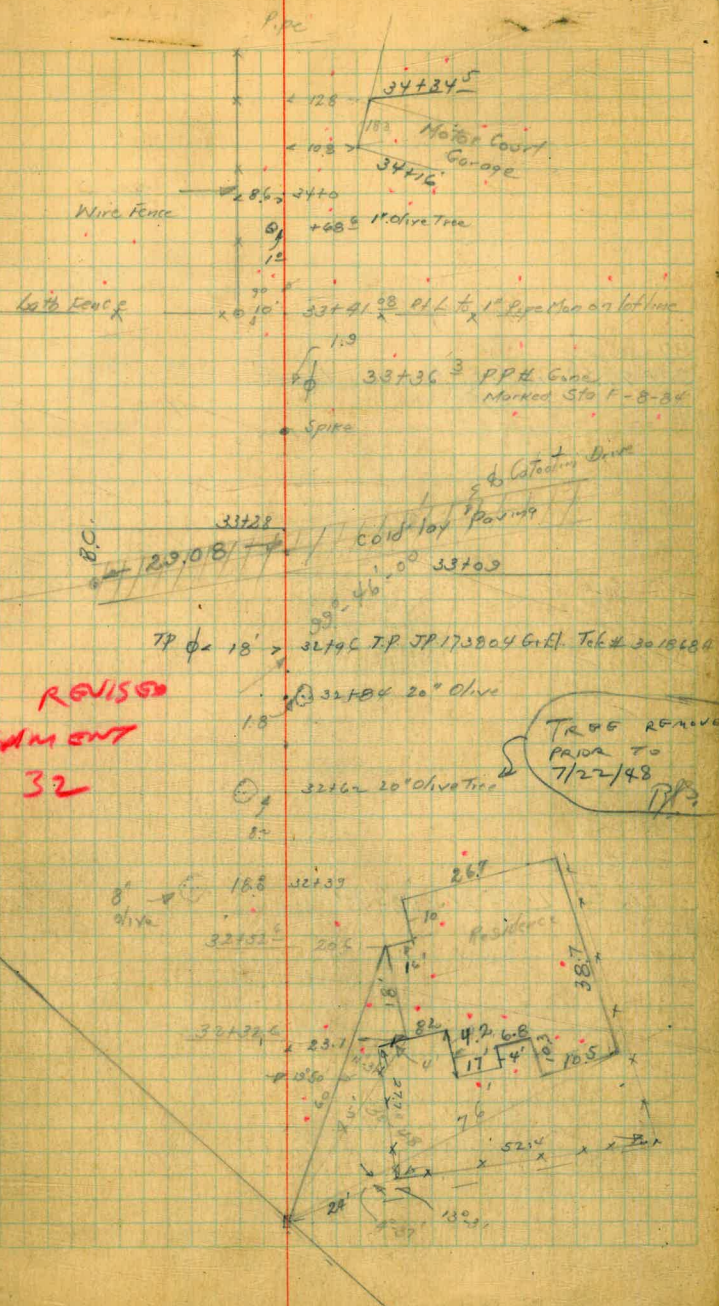
69
41
28

MONTEZUMA ROAD WATER MAIN

FIELD BOOK 716 - Pgs. 16



31+35 - L.R. 47°39'00" Identical with L. Shows on
Preceding page



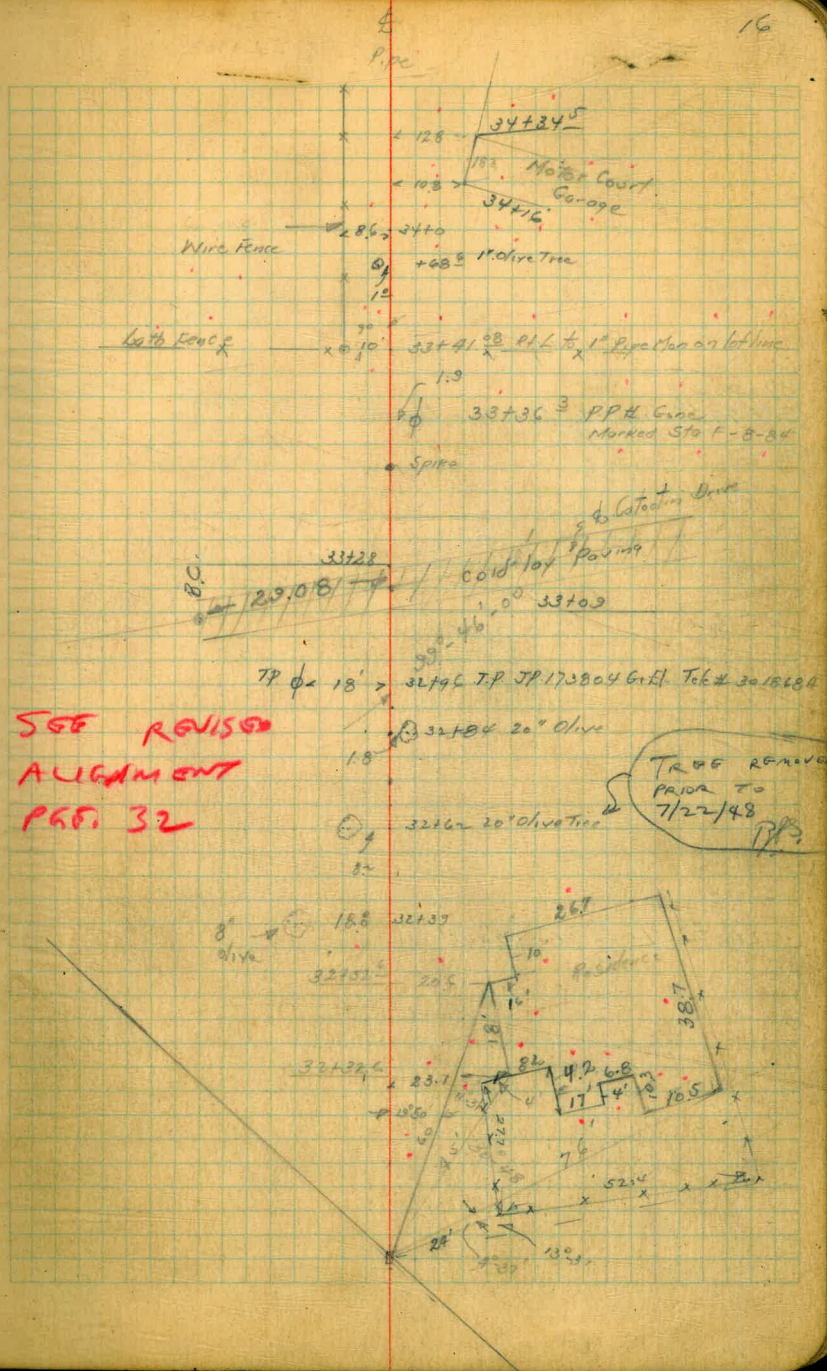
SEE REVISED
ALIGNMENT
PAGE 32

TRAP REMOVED
PRIOR TO
7/22/48
PP3

33+32.18 L 67° 17' 26" 00

33+20.17 int E. Catookin Drive

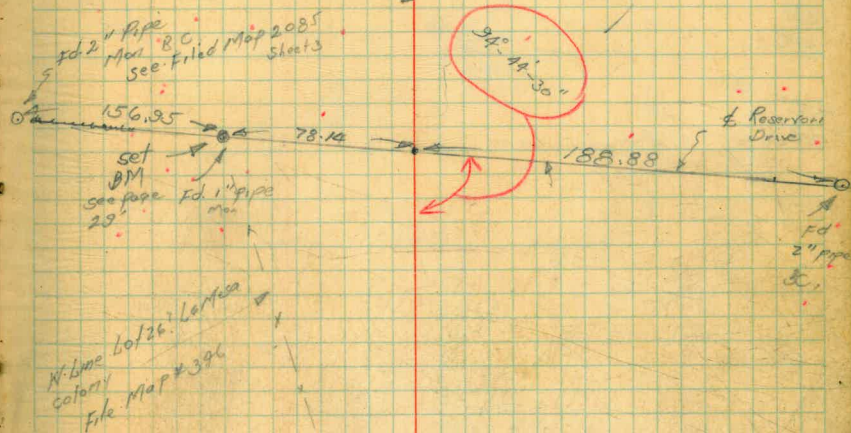
31+98.98 L: RT 47° 39' 00" Identical with L Shown on
Proceeding page



37
~~At 99.16~~ int to Reservoir Drive

36+60²⁵ L. Rt 26°-42'-45"

17
Pipe Line



set 2' x 2" Nub

10.2 x 3640
7.5 x 157 L. in Fence
7.5 x 35150

15.4 x 3518
7.6 x 35100
18.3 x 34797

47 Torres fine
34791
1.2

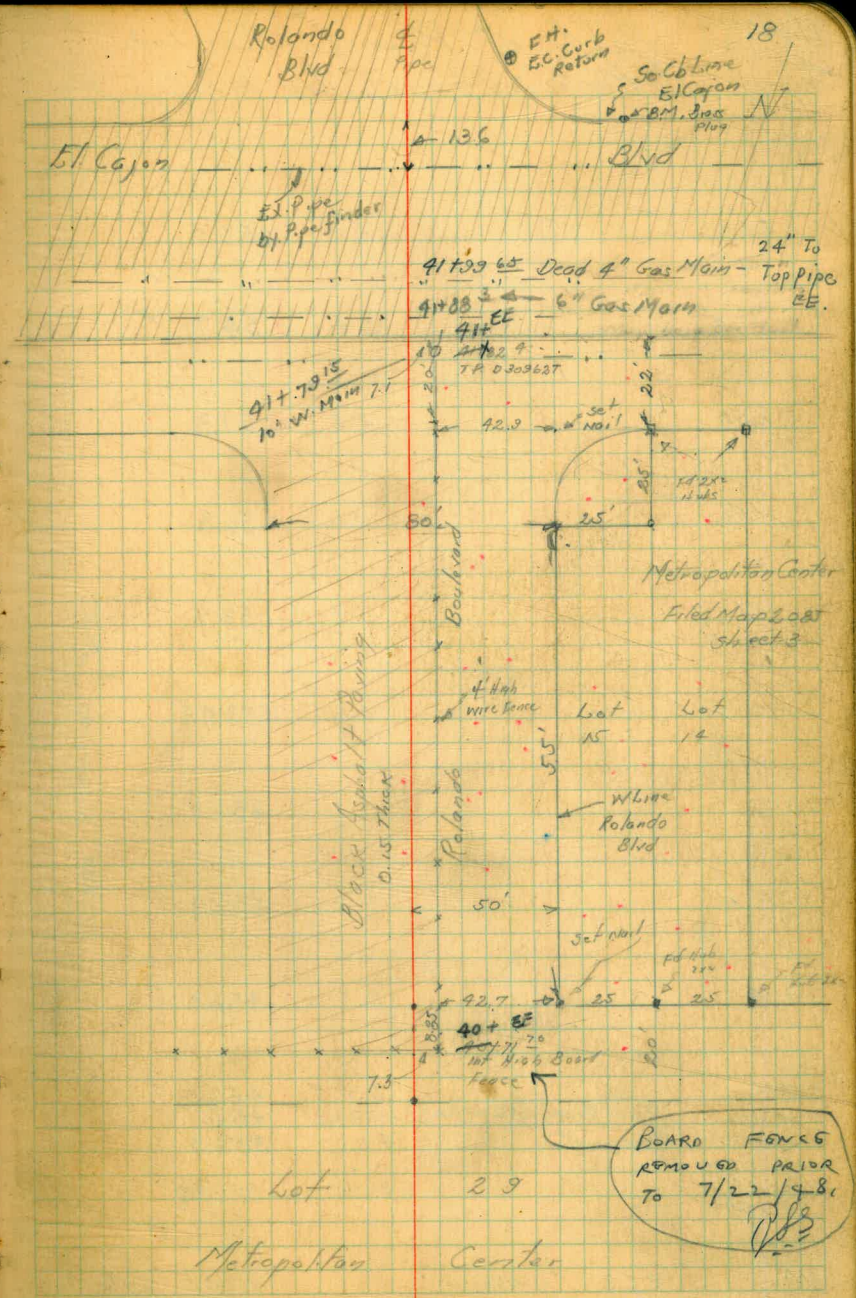
42+ (EE)
40+33+ - E. ex Main

41+ (EE)
41+82 - N. Curbline El Cajon

41+ (EE)
41+62 - End Wire Fence

40+ (EE)
40+80 - int. Sabine Alley

40+ (EE)
40+60 - int. N. Line Alley



Bliss notes
 Leonard T
 Baker &
 11/4/27
 cloudy + cold

Profile of Proposed Pipe Line
 Montezuma Road + College to El Capon Blvd

2+0		5.1	455.0	✓
79		5.4	54.7	✓
450		2.8	57.3	✓
41		3.3	56.8	✓
42		6.4	53.7	✓
40 ⁵²	6.07 466	6.16	453.98	✓
1+0		6.1	454.0	✓
450		6.2	453.9	✓
0+30		6.1	454.0	✓
0+00		8.1	452.0	✓
0-18.8	Top Pipe (12" water)	13.42	446.72	✓
" " "	Ground	9.2	450.9	✓
check bottom canal		86.5	451.49	✓
JM	7.63	460.14	452.51	

WE

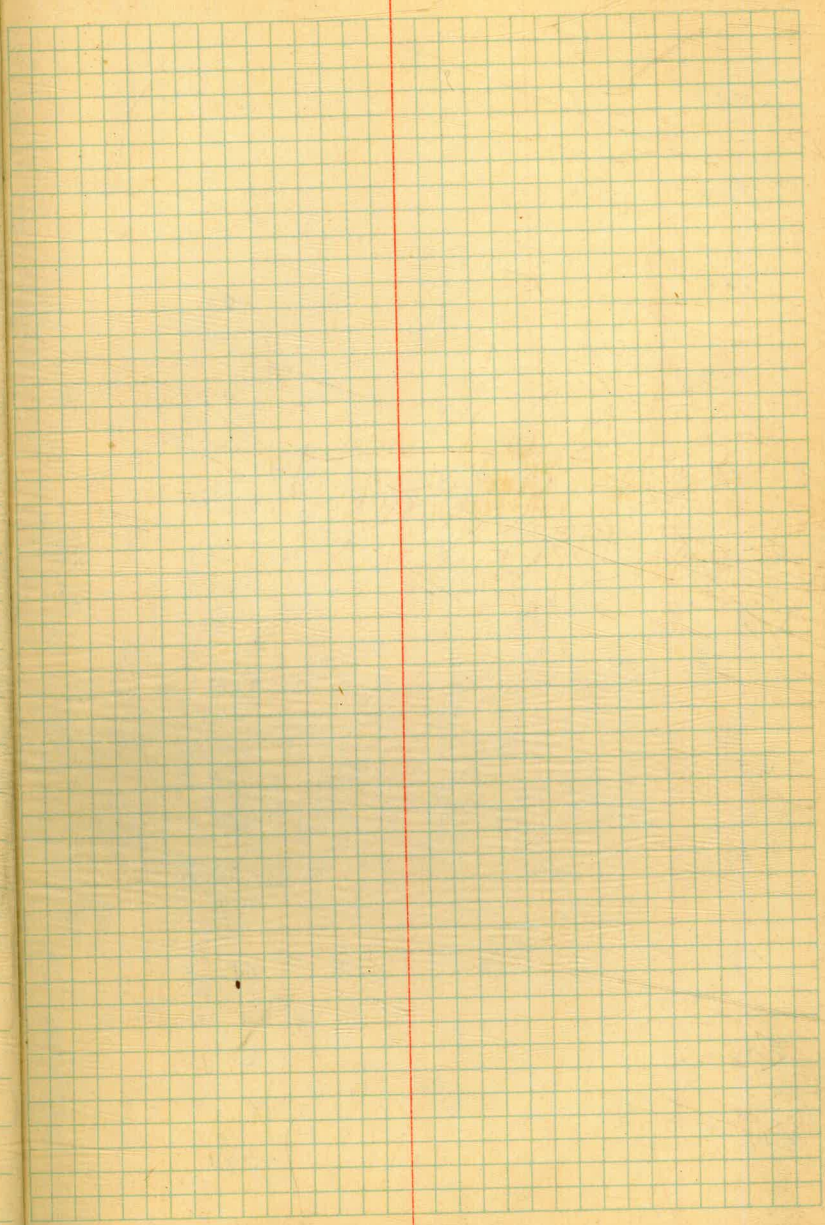
NOTES REDUCED

SE Top of
 College Building
 See City P.O.
 1437 P.S.

750	7.3	452.8	✓
910	5.5	54.6	✓
787	5.2	54.9	✓
725	3.8	56.3	✓
763	3.6	56.5	✓
750	4.6	55.5	✓
730	5.4	54.7	✓
370	3.9	56.2	✓
779	4.7	55.4	✓
750	4.3	55.8	✓
732	2.7	57.4	✓
2714	4.7	455.4	✓

460.14

NOTES REDUCED W/E

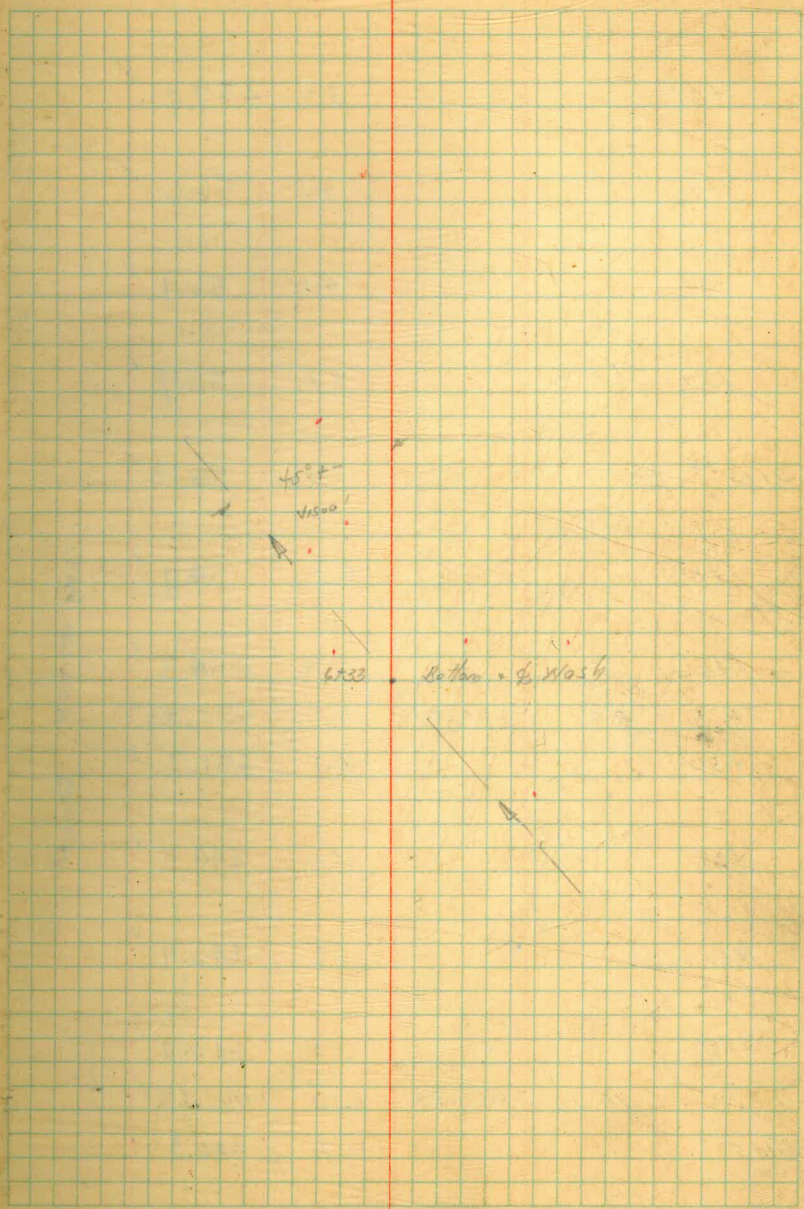


+27			3.9	437.3	✓
+20			5.1	36.1	✓
+10			10.5	30.7	✓
+90			12.0	29.2	✓
+82			10.7	30.5	✓
+50			11.3	29.9	✓
+33	Bottom Wash		13.2	28.0	✓
6to			6.7	34.5	✓
TP	1.14	441.17	12.78	440.03	✓
+70			12.6	440.2	✓
+50			7.4	45.4	✓
+29			3.9	48.9	✓
TP	1.45	452.81	8.78	451.36	✓
+50			9.0	451.1	✓
		460.14			

W.G.

REDUCED

NOTES



184		32	457.9	✓
171		45	56.6	✓
150		44	56.7	✓
123		5.4	55.7	✓
9705 ³⁹ BC		496	56.13	✓
188		6.2	54.9	✓
166		6.8	454.3	✓
TP	8.87	461.09	0.32	452.22 ✓
150		1.3	451.2	✓
125		3.0	449.5	✓
810		6.6	445.9	✓
166		9.5	443.0	✓
TP	11.90	452.57	0.53	440.64 ✓
7150		0.9	440.3	✓

441.17

WIS

REDUCED

NOTES

12+0		3.8	457.3	✓
190		3.8	57.3	✓
185		3.0	58.1	✓
173		3.1	58.0	✓
150		8.3	52.8	✓
131	Bottom Wash	12.3	48.8	✓
115		10.1	51.0	✓
11+0		7.1	54.0	✓
166		3.8	57.3	✓
150		3.3	57.8	✓
128		4.7	56.4	✓
113		3.3	57.8	✓
10+0		3.0	458.1	✓

461.09

NOTES REBU & CO WIE

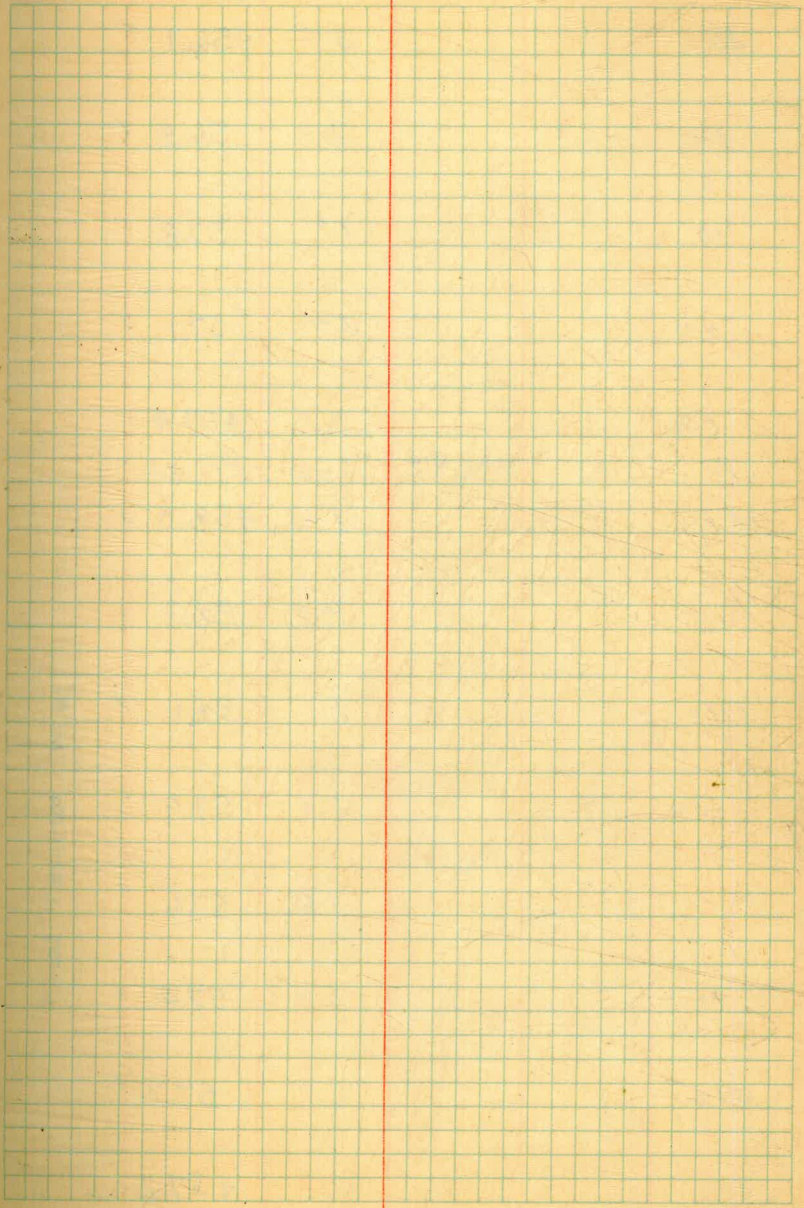
350-
1500/11231 Bottom ash Wash - very
little drainage from Se.

162	Top Pipe	8.05	455.17	✓	
162	Int 6' Main Ground	6.0	457.2	✓	
118		6.3	456.9	✓	
140		4.9	58.3	✓	
173		4.9	58.3	✓	
150		5.8	57.4	✓	
139		5.7	57.5	✓	
117		3.4	59.8	✓	
1310		3.2	60.0	✓	
180		4.0	58.3	✓	
155		4.6	58.6	✓	
150		3.4	59.8	✓	
134		3.0	460.2	✓	
Check BM	4.52	463.22	2.33	458.70	✓
1216 ²²	E.C. on Rail	3.41	457.68	✓	

NOTES REDUCED W.E.

1212 BM /
Name of station
1000 F.C.
58 60 level
Sea level 16
1629-PS

46103



2070		3.4	456.1	✓
150		2.7	56.8	✓
19		1.7	57.8	✓
135		2.4	57.1	✓
150		2.1	457.4	✓
T.P.	155	459.47	5.30	457.92 ✓
1870		5.2	458.0	✓
150		4.9	58.3	✓
1710		5.1	58.1	✓
150		5.3	57.9	✓
1670		5.8	57.6	✓
150		5.8	57.4	✓
1570		6.0	57.2	✓
150		6.0	457.2	✓

463.22

56.47 18450
on Pick

W.E.

NOTES REDUCED

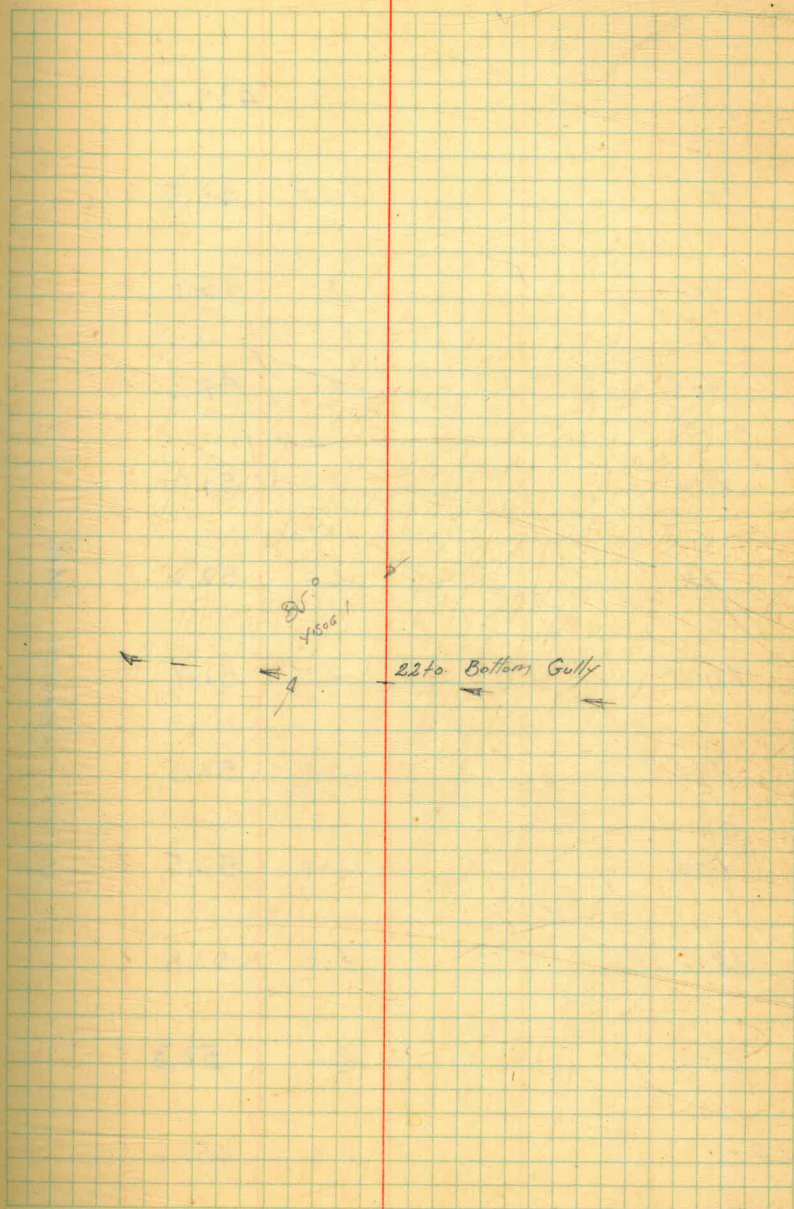
Set BM	128	454.84	5.91	453.56	
+60			8.4	451.1	✓
+50			7.8	51.7	✓
23+0			6.8	52.7	✓
+50			7.7	51.8	✓
+30			9.6	49.9	✓
+17			15.3	44.2	✓
22+0			20.6	38.9	✓
+75			16.3	443.2	✓
+53			8.8	50.7	✓
21+0			6.1	53.4	✓
+60			5.0	54.5	✓
20+50			4.3	455.2	✓
		459.47			

Nail in
Top stub fence
Post 30+ - Rt
23+85

W1/E1

R SOULGEY

NOTES



150	15.0	439.8	✓
2810	10.9	43.9	✓
191	9.7	45.1	✓
150	6.5	48.3	✓
2710	3.8	51.0	✓
150	2.6	52.2	✓
2610	2.9	51.9	✓
189	2.3	52.5	✓
150	2.3	52.5	✓
2510	2.0	52.8	✓
150	2.5	52.3	✓
2410	3.2	451.6	✓

NOTES REPROD WISE

454.84

+27 ⁵	1st	Water Main Pipe	4.03	449.17	✓
+27 ⁵	1st	Water Main Grd	3.2	452.0	✓
+20 ¹²		¢ Catalyst	2.9	452.3	✓
109		Nudge cold lay paving	3.1	52.1	✓
3340			3.8	51.4	✓
150			4.1	51.1	✓
3240			4.7	50.5	✓
158 ⁹⁸		RT on Hub	4.68	450.52	✓
150			4.4	450.8	✓
T.P.	6.14	455.20	5.80	449.04	✓
3140			4.8	450.0	✓
150			6.5	48.3	✓
3040			9.3	45.5	✓
150			13.7	41.1	✓
109			16.9	37.9	✓
2940			16.9	437.9	✓

454.84

NOTES REDUCED WISE.

See 19th revision →

36+60 ²⁶	L. Pt on Hob	2.29	429.84 ✓
T.P.	0.31	422.13 ✓	12.58
+50		13.1	31.3 ✓
+28		9.8	34.6 ✓
36+0		4.2	440.2 ✓
T.P.	0.14	444.40 ✓	12.89
+50		8.9	448.3 ✓
+28		6.0	51.2 ✓
35+0		5.6	51.6 ✓
+50		5.1	52.1 ✓
34+0		4.1	53.1 ✓
+50		4.4	52.8 ✓
+41		4.5	452.7 ✓
Set BM	5.95	457.15 ✓	4.00
+32 ¹⁸	L. Lt	Ground line 4 ^e East	3.2
		From 33+32 33+35 36+60 ²⁶	3.2
		is identical with profile	3.2
		45 run.	3.2
33+28	S Edge cold lay		3.2
		452.0 ✓	
		452.0	

NOTES REDUCED W.I.E.I

1" Pipe
 BC. Catechin
 Drive on inside
 marked 32
 see also notes
 page 15

735	Note This is toe of loose rock & dirt fill	12.0	435.8	✓
T.P.	11.91	447.81	0.46	435.90 ✓
3940		49	31.5	✓
780		7.6	28.8	✓
763		8.9	27.5	✓
750		11.0	425.4	✓
T.P.	11.69	436.36	0.15	424.67 ✓
704		7.8	417.0	✓
Set BM.	13.01	424.82	9.50	411.81 ✓
3840		6.1	415.2	✓
180	Bottom Wash	87	12.6	✓
766		7.2	14.1	✓
750		7.0	14.3	✓
725		3.7	417.6	✓
T.P.	165	421.31	12.47	419.66 ✓
3740		9.8	22.3	✓
36480		50	427.1	✓

✓ Pipe Man
to Preserve
78' at 3840
see page 17

NOTES REDUCED W.E.

43213

Check BM		2.95	452.42	✓	SWBP
+331- Ex pipe on paving		3.8	451.6	✓	Polanco Blvd + El Cajon
" TOP Pipe		6.63	448.77	✓	
+11 appd El Cajon on paving		3.8	51.6	✓	
42+EE					
42+0 on paving		3.9	51.5	✓	
Top 6" NGR on		6.42	448.95	✓	
+88 Gas flare on paving		4.35	451.02	✓	
+82.2 H/Gutter El Cajon		4.7	50.7	✓	
on paving			48.95	✓	
+79.15 Top pipe 10'		6.42		✓	
+79.15 10" pipe in Driveway		4.6	50.8	✓	
+65 on paving		4.4	51.0	✓	
+50 on paving		4.6	50.8	✓	
41+EE					
41+0 on paving		5.7	49.7	✓	
+71.3 on paving		6.1	49.3	✓	
see sketch Apr 8					
+62 Natural Ground		6.3	49.1	✓	
+56 on fill		3.8	51.6	✓	
40+EE					
40+0		9.4	446.0	✓	
T.P.	8.19	455.37	0.63	447.18	✓
+63		5.1	42.7	✓	
+50		8.0	439.8	✓	
		447.81			

NOTES REDUCED W.E.

Bliss
King
Baker
1/11/47

Line Revision

Reprofile line Revision
Montezuma Road + Catoctin Drive

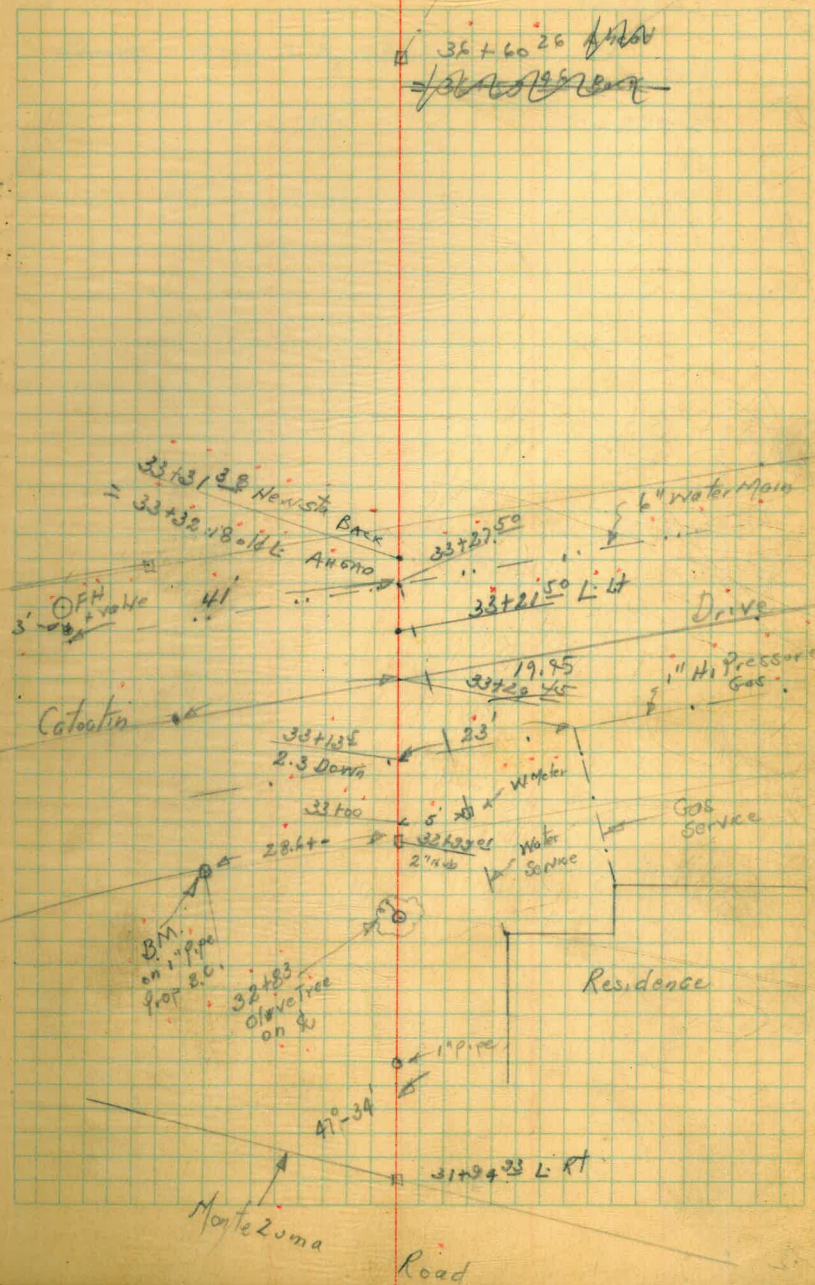
BM	6.20	457.46	451.20
31+94.23	6.8	450.6	
32+0	6.9	450.5	
150	6.2	451.2	
33	6.0	451.4	
+ 10.5 Edge oil Surface	5.5	451.9	
+ 13.5 Gas	5.2	452.2	
19.45 + 29.46 d. Catoctin	5.2	452.2	
+ 21.50 L	5.2	452.2	
+ 27 Edge oil Surface	5.5	451.9	

RFB

12/30/47

NOTES

REAR



MONTZUMA ROAD
ALIGNMENT REVISION

32
33

RAINY - APRIL 22, 1998

Fences

Sta. 22+93

Sta. 25+51

Sta. 23+18

Sta. 18+97

Sta. 14+99.5

E.C. Sta. 12+17.50

$A = 12^{\circ}12'00''$

$R = 149.0'$

$L = 317.27'$

B.C. Sta. 2+00.23

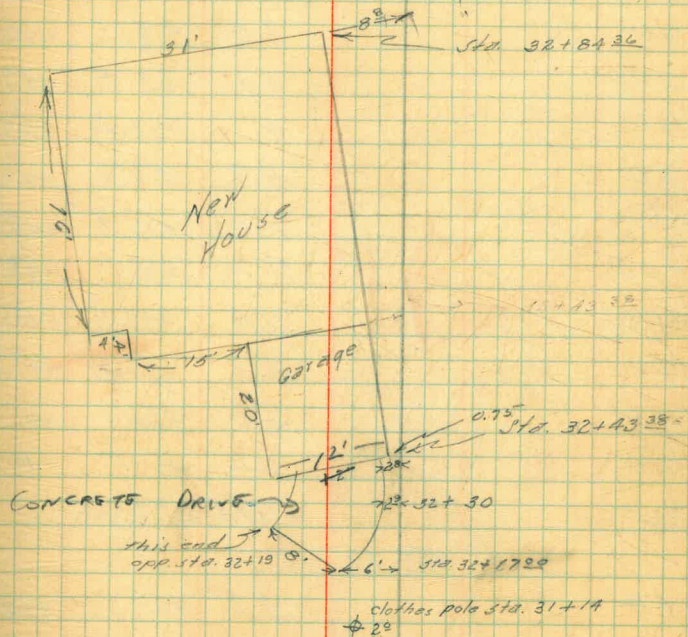
0+00 22+99.97

0+00 22+99.97

April

Rainey
King
Baker

33 34



SEE
REVISED
ALIGNMENT
PAGE, 32

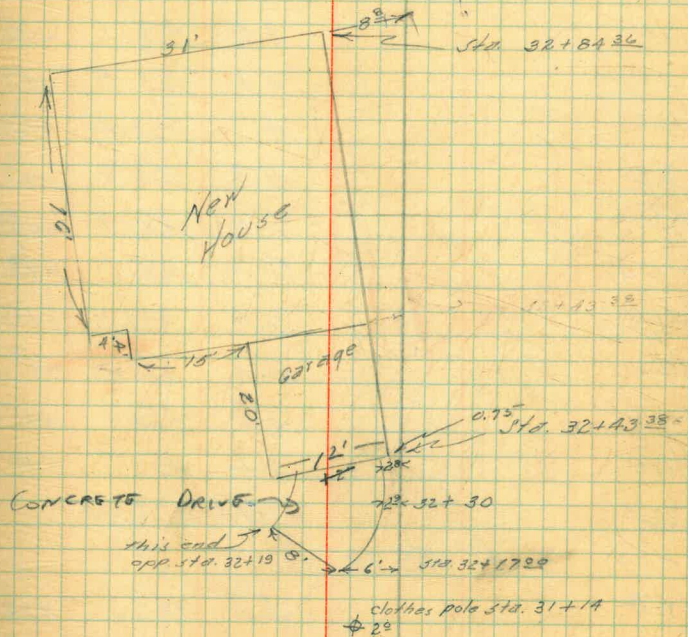
old Sta. 31+98.28 AH.
= 32+13.65 BC.

X PA. Sta. 31+23.00
47.934' EA.

April

Rainey
King
Baker

33 34



SEE
REVISED
ALIGNMENT
PAGE, 32

old Sta. 31+98.00 AH.
= 32+19.65 BC.

X PA. Sta. 31+73.00
47.34' EA.

Profile 10' offsets
Trojan St. Pl.

	2.47	457.86		455.39	on Iron Pin.	WT.
52+98.58			3.3	454.6	442.3	12.3
52+82.25 AH,			3.4	454.5	442.3	12.2
52+82.41 BK,			3.8	554.1	442.4	11.7
52+50			4.4	453.5	442.5	11.0
51+50			4.7	453.2	442.3	10.9
51+00			4.9	453.0	442.2	10.8
50+50			5.0	452.9	442.0	10.9
50+00			5.2	452.7	441.8	10.9
49+50			5.4	452.5	441.7	10.8
49+00			6.1	451.8	441.5	10.3
48+50			6.8	451.1	441.0	10.1
48+00			7.2	450.7	440.5	10.2
T.P. #2			7.21	450.65		
	5.14	455.79				
47+50			5.9	449.9	440.0	9.9
47+00			6.1	449.7	439.5	10.2
46+50			5.9	449.9	439.5	10.4
46+00			5.7	450.1	439.5	10.6
45+50			5.1	450.7	439.5	11.2
45+00			4.7	451.1	439.5	11.6
44+50			3.6	452.2	439.5	12.1
44+00			3.1	452.7	439.5	13.2
43+50			3.6	452.2	439.5	12.7
on mm,			2.74	453.05		

Profile 4' offsets
Ploetzuma P.L.

	4.05	456.56		452.51
0+00			5.1	451.5 446.2
0+26 ¹³ BR			4.7	451.9 447.2
0+26 ¹³ #h			4.8	451.8 447.2
0+50			4.7	451.9 448.0
1+00			4.7	451.9 448.1
1+50			4.9	451.7 447.7
2+00			5.4	451.2 447.1
2+50			6.2	450.4 446.4
3+00			7.0	449.6 445.7
3+50			7.6	449.0 445.0
4+00			8.3	448.3 444.4
4+50			8.9	447.7 443.8
5+00			9.6	447.0 443.2
5+50			10.0	446.6 442.6
6+00			10.4	446.2 442.3
6+50			10.5	446.1 442.2
7+00			10.4	446.2 442.2
7+50			10.1	446.5 442.5
8+00			9.7	446.9 442.9
8+50			9.2	447.4 443.6
B.C. 9+00 ²³			8.4	448.0 444.2
T.P.	11.16	456.66	11.06	445.50 Drain
9+50			8.8	448.7 444.9
10+00			7.2	449.5 445.6

Rainey King Baker
Adams Rogers

5.3
4.7
4.6
3.9
3.8
4.0
4.1
4.0
3.9
4.0
3.9
3.9
3.8
4.0
3.9
3.9
4.0
4.0
4.0
3.8
3.8
3.8
3.8
3.8
3.9
3.9

King reports that ϕ elev.
is 0.1' higher than 4'
offset except where
 ϕ elev. is shown in
book. A.R.

456.66

10450	6.4	4503	446.2
11700	5.7	451.0	446.9
11750	5.1	451.6	447.6
12700	4.5	452.2	448.2
127750	4.3	452.4	448.2
12750	4.0	452.7	448.3
13400	3.6	453.1	448.4
13750	3.2	453.5	448.5
14700	2.6	454.1	448.6
14750	2.3	454.4	448.7
15700	2.4	454.3	448.8
15750	2.6	454.1	450.3
16700	2.7	454.0	450.2
16750	2.8	453.9	450.0
17700	3.2	453.5	449.7

cut

4.1
4.1
4.0
4.0
4.2
4.4
4.7
5.0
5.5
5.7
5.5
3.8
3.8
3.9
3.8

T.P. 2.86 453.80 ^{171.51} 17200

T.P. 33750	4.04	456.84	452.8
33750-4	4.1	52.7	446.0
34700	4.0	52.8	446.0
34750	4.5	52.3	446.0
35700	5.2	57.6	446.0
35725	5.6	51.2	444.9
35750	8.2	48.7	443.0

6.7
6.8
6.3
5.6
6.3
5.6

	434.24				
35+75		12.2	44.6	440.0	4.6

T.P. ^{9.11.11} 35+75	0.99	415.60	12.23	444.61	
-------------------------------	------	--------	-------	--------	--

36+00		5.2	40.4	436.0	4.4
-------	--	-----	------	-------	-----

36+25		10.4	35.2	431.2	4.0
-------	--	------	------	-------	-----

	0.96	433.63	12.91	432.69	
--	------	--------	-------	--------	--

36+50		1.9	31.8	427.0	4.6
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36+60 ²⁶		3.4	30.3	425.4	4.9
---------------------	--	-----	------	-------	-----

36+75		5.4	28.3	423.0	5.3
-------	--	-----	------	-------	-----

37+00		11.1	22.6	418.0	4.6
-------	--	------	------	-------	-----

T.P.	1.41	424.01	11.05	422.60	
------	------	--------	-------	--------	--

37+25		6.3	17.7	413.2	4.5
-------	--	-----	------	-------	-----

37+53		9.9	14.1	408.6	5.5
------------------	--	-----	------	-------	-----

37+90		9.6	14.4	408.6	5.8
------------------	--	-----	------	-------	-----

38+25		3.1	20.9	416.0	4.9
------------------	--	-----	------	-------	-----

T.P. 38+25 ^{9.11}		3.09		420.92	
----------------------------	--	------	--	--------	--

13

Profile (V)
MONTAZUMA P.L.

4.05 457.95 453.80

17+50	4.5	53.4	449.4
18+00	4.9	53.0	449.0
18+50	5.3	52.4	448.6
19+00	5.9	52.0	448.2
19+50	6.3	51.6	447.8
20+00	6.5	51.4	447.4
20+50	6.9	51.0	447.0
21+00	7.2	50.7	446.6
21+50	7.7	50.2	446.2
22+00	8.1	49.8	445.8
22+50			

2.50 452.18 8.17 449.68

22+50	2.8	49.4	445.4
23+00	3.2	49.0	445.1
23+50	3.8	48.4	444.7
24+00	4.3	47.9	444.3
24+50	4.5	47.7	443.9
25+00	4.8	47.4	443.5
25+50	5.3	46.9	443.1
26+00	5.6	46.6	442.7
26+50	6.0	46.2	442.3
27+00	6.4	45.8	441.9

KING
Slipman
Adams. 11-23-46

37

4.0

4.0

4.0

3.8

3.8

4.0

4.0

4.1

4.0

4.0

4.0

3.9

3.7

3.6

3.8

3.9

3.8

3.9

3.9

3.9

452.18

27+50			6.9	45.3	441.6	3.7
28+00			7.0	45.2	441.4	3.8
28+50			7.1	45.1	441.3	3.8
T.P.	7.01	452.16	7.03	445.15		
28+00			7.0	45.2	441.4	3.8
29+50			6.7	45.5	441.6	3.9
30+00			6.5	45.7	441.9	3.9
30+50			6.2	46.0	442.3	3.7
31+00			5.7	46.5	442.8	3.7
31+50			5.1	47.1	443.9	4.2
31+68 ⁹⁵			5.0	47.2	443.0	4.2

CK @ 32+50

0.22 451.24 451.24

T.P. 4.20 455.70 0.26 457.30 Cor. Fence

32+09 ⁶⁰ BK						
31+94 ⁹³ Ah			6.4	449.3	443.1	6.2
32+50			4.3	451.4	445.8	5.6
33+00			3.9	451.8	446.0	5.8
33+19 ⁴⁸ BK			3.4	452.3	446.0	6.3
32+00			2.4	447.3	442	
+04			7.3	448.4	438	4.6

40

B.M.	S.W. Cor			
	1.59	45401		452.42
42+28			2.4	51.6 ✓ 447.1
42+00			2.6	51.4 ✓ 446.3
41+50			3.2	50.8 ✓ 446.1
41+00			4.3	49.7 ✓ 445.6
40+75			4.7	49.3 ✓ 445.4
40+50			6.1	47.2 ✓ 444.6
⊕			6.4	47.6 ✓
40+25			8.3	45.7 ✓ 443.1
⊕			8.2	45.8 ✓

T.P.				
	1.32	443.17	12.16	441.85
39+75			2.5	40.7 ✓ 438.2
⊕			2.4	40.8
39+50			5.4	38.8 ✓ 437.6
⊕			5.3	37.9
39+25			8.3	34.9 ✓ 439.6
⊕			8.4	34.8

T.P.				
	0.90	431.39	12.68	430.49
38+75			3.6	27.8 ✓ 424.2
⊕			3.7	27.7

S.W. Cor El Cañon y Rolando

4.5
5.1
4.7
4.1
3.9
3.3
2.6

2.5
3.2
4.3

3.6

431.39

38+50

7.4

24.0 ✓ 420.6

E

7.4

24.0

38+25

11.9

419.5 ✓ 416.0

E

11.8

19.6

T. P.

2.32 422.16 ✓

12.55 ✓

418.84 ✓

37+90

6.9

414.3 ✓ 408.6

E

6.8

14.4

37+55

7.9

413.3 ✓ 408.6

E

7.8

13.4

37+25

3.6

417.6 ✓ 17.7

42

3.4

3.5

5.7

4.6

✓

FEB. 2 1969
 DEPT. BAKER
 ROGERS

SET ELEVATIONS FOR AIR VALVE & GATE VALVES

B.M.	4.08	456.59		452.51	
0+95	AIR VAL (Bluetop)	4.58	452.01	452.01	453.15
B.M.	1.70	460.40		458.70	
P	5.81	458.63	7.58	452.82	
12+65	AIR VAL (Fill & Mud)	6.55	452.08	452.08	454.23 F20 454.09 F20
14+70	GATE VAL. (" ")	7.65	450.98	450.98	454.25 F313 454.11 F313
15+55	AIR VAL. (" ")	5.52	453.09	453.09	454.34 F14 454.20 F14
12+65	(Bluetop)	4.54	454.09	454.09	
14+70	(" ")	4.52	454.11	454.11	
15+55	(" ")	4.43	454.20	454.20	
P	2.49	457.09		454.60	
P	5.21	456.80	5.50	451.59	Top FH
33+74	GATE VAL. Bluetop	4.20	452.6	452.6	AV. GRD. EL = 9.07 4.20
34+95	AIR VAL. Bluetop	5.20	451.6	451.6	AV. GRD. EL = 7.87 = 2.10 1/2 5.20 2.67 = 2.7 1/2
B.M.	3.90	456.32		452.42	BP SWGR 176 Capu Rel Bird
41+60 ⁵⁵	So. SIDE	5.30	451.02	451.02	2.05 higher Blacktop
41+60 ⁵⁵	NO. SIDE	5.40	450.92	450.92	

Water Grades
Hayes St. Front Vermont
to 10th

			290.84	
	3.15	295.99		
0+50			7.9	288.1 288.1
1+00			11.1	284.9 285.0
T.P.			12.99	283.00
	3.25	386.25		
1+50			4.4	281.9 282.0
2+00			7.0	277.3 279.2
3+50			10.0	276.3 276.4
3+00			12.1	274.2 274.1
3+50			12.2	274.1 273.8
4+00			11.9	274.4 274.4
4+50			11.5	274.8 274.9
5+00			11.1	275.2 275.5
5+50			10.6	275.7 276.2
6+00			10.0	276.3 276.8
6+50			9.0	277.3 277.5
6+98			7.7	278.6 278.4
F.H.			2.93	278.32

10' 5"

Dec. 16, 1948 King
Shipman
Adams

44

3.5

3.4

3.4

3.6

3.6

3.4

3.3

3.5

3.4

3.2

3.0

3.0

3.3

5.7 int with a line 10th st.

5' E. of prop line 10th st.

grades - 4' offsets Missouri St.
 gresham - Ingraham

B.M.	11.53	81.24		70.31
F.H. 4'		2.9	78.9	77.6
F.H. 5'00		2.8	79.0	77.6
0+50		2.3	79.5	74.5
1+00		2.7	79.1	75.1
1+50		2.7	79.1	75.5
2+00		2.5	79.3	76.0
2+50		2.0	79.8	76.3
3+00		0.6	81.2	77.1
3+50		0.2	81.6	77.4
T.P.	7.00	88.63	0.21	81.63
4+00		6.6	82.0	77.4
4+50		6.0	82.6	77.4
5+00		5.3	83.3	77.4
5+50		5.4	83.2	77.4
Top 16'		8.9	79.7	Top Pipe
F.H. 4'		5.5	83.1	82.8
F.H. 5'00		5.6	83.0	82.8
6+00		5.4	83.2	79.0
6+50		5.2	83.4	79.2
7+00		4.9	83.7	80.2

King 3-31-49
 Shipman
 West

Top curb 4.78 47

B.P. N.W. Cor. Diamond & Gresham
 CUTS

1.3
1.4
3.0
4.0
3.6
3.3
3.5
4.1
4.2
4.6
5.2
5.9
5.8
Bottom Pipe 78.4
0.3
0.2
4.2
4.2
3.3

88.63

7450			4.6	84.0	80.5
8400			4.5	84.1	80.6
8450			4.4	84.2	80.7
9400			4.0	84.6	81.1
9450			2.6	86.0	82.5
10400			1.2	87.4	82.9

T.P.	5.83	83.89	0.57	88.06	
------	------	-------	------	-------	--

10450			3.4	88.5	84.5
11400	quitter		5.8	88.1	84.5

T.P.	1.08	84.32	10.65	83.24	
------	------	-------	-------	-------	--

T.P.	2.42	79.01	7.73	76.59	
------	------	-------	------	-------	--

T.P.			8.67	70.34	76.31
------	--	--	------	-------	-------

45

3.5

3.5

3.5

3.5

3.5

4.5

4.0

3.6

Grades - Meter Boxes
Law St. - Cass - Everett

B.M.	9.07	75.47		26.48
#1			5.8	69.7
2			3.9	70.8
3			3.2	71.3
4			2.2	72.3
5			1.4	72.9
6			0.9	73.6
7			0.5	74.2
T.P.	12.20	87.21	0.46	75.01
8			10.4	76.1
9			8.3	78.9
10			6.8	80.4
11			6.3	80.9
12			6.5	80.7
13			5.8	80.9
14			4.5	82.7
15			3.4	83.8
16			2.9	84.3
17			2.7	84.5
T.P.			2.70	84.51

R. 09
Shipman
West.

4-1-49

46

0.0
0.8
1.0
1.0
1.2
1.0
0.8

0.7
1.0
1.0
0.8
0.1
0.5
0.5
0.8
1.1
1.3

+75 to top copper pipe

70.0

69.7
2.4
73.1
4.8
76.3

B.M.	12 ³⁰	78.70		66.40	
#1 - 7'v			8.9	69.8	69.8
Skip 4 lots					
#2 - 16E.			6.4	72.3	71.5
#3 - 25'			5.5	73.1	72.3
#4 - 20' W.			4.8	73.9	73.1
5 - 15'E			4.1	74.6	73.6
6 - 7' W			3.3	75.4	74.7
7 - 20 W			2.8	75.9	75.2
Start					
T.P.	11.57	87.53	2.74	75.96	
8 - 30E			9.3	78.2	77.5
9 - 30E			7.0	80.5	79.3
10 - 25'E			5.7	81.8	80.4
11 - 20 E			5.3	82.2	81.2
12 - 8'E			5.0	82.5	81.7
13 - 10 W			4.1	83.4	82.9
14 - 15'E			3.2	84.3	83.7
15 - 10 W.			2.3	85.2	84.4
			3.01	84.50	

0.0

0.8

0.8

0.8

1.0

0.7

0.7

0.7

1.2

1.4

1.0

0.8

0.5

0.6 - 1.35

0.8

PRELIMINARY SURVEY FOR PIPELINE
WINONA ST. W EL CAJON TO COLLIER

8+40.05 7 PT 0°30' LT

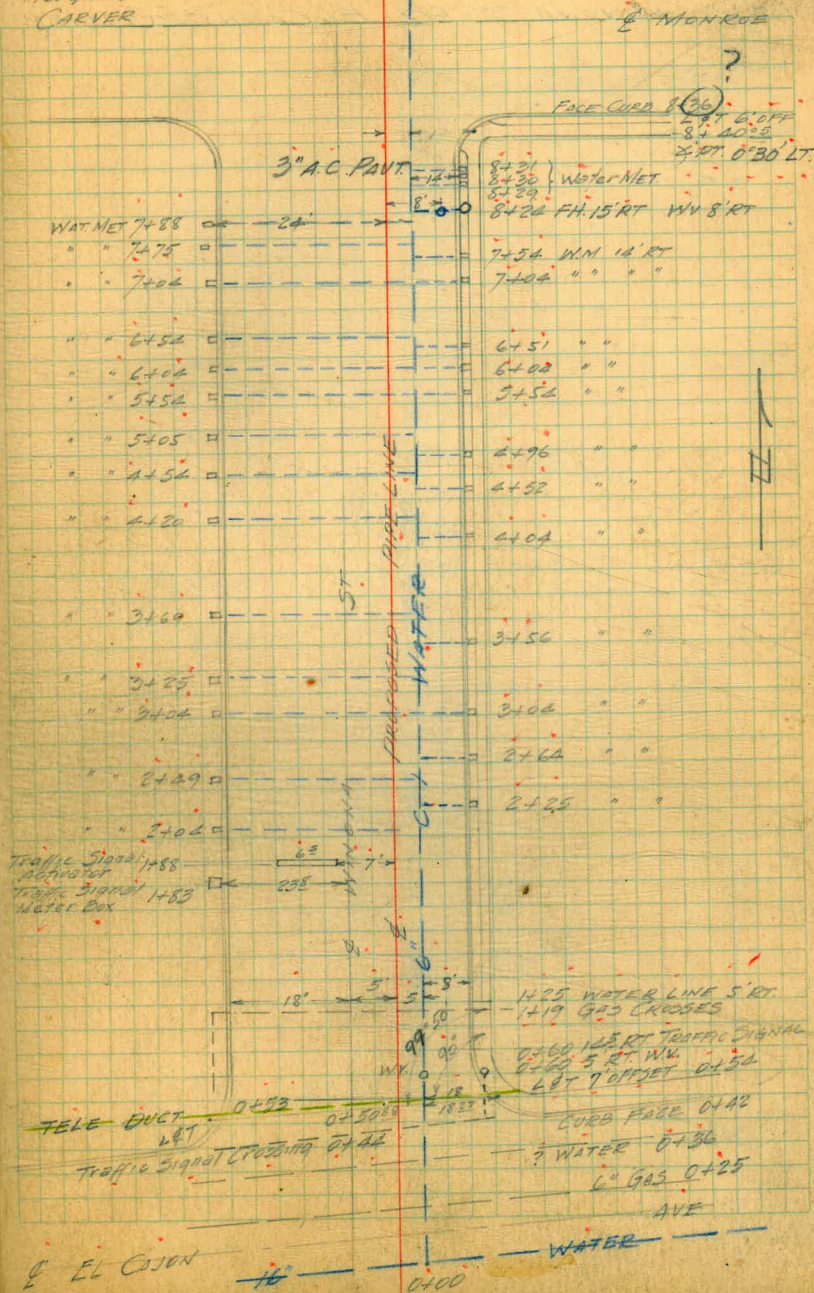
0+54 18° from L&T 90' LT

0+50.85 18.27 from L.T. 99°50' LT

0+00

MAY 19 1950
BEATTY
ROGERS
CARVER

48



WINONA ST. TO EL CAJON TO COLLIER

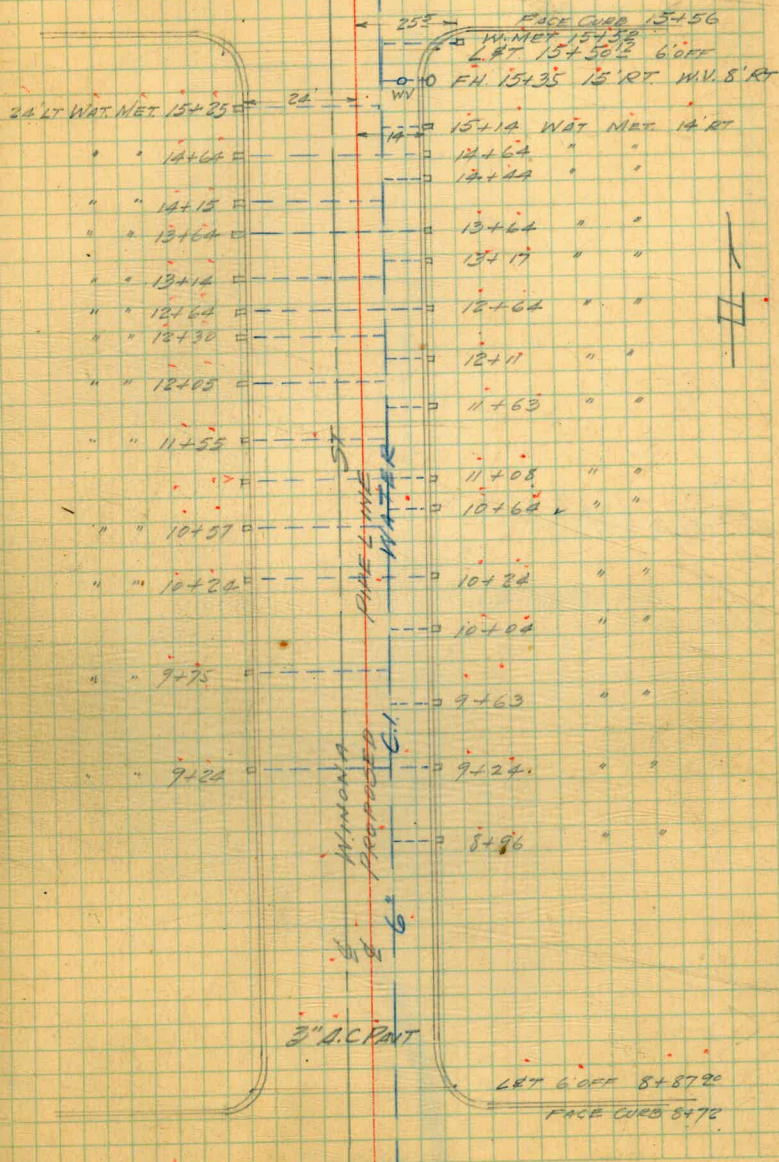
46.60

53
50
3
9.16

May 22, 1950

49

E. MADISON



MONROE

WINONA ST. to EL CAJON TO COLLIER

May 22, 1950

50

END OF LINE

30+63.38

30+73.4

COLLIER

6" WATER 30+63.38

LET
2# LT WAT NET 30+68
29+58
29+00
29+52
28+09
27+58
27+09
26+20
25+92
25+58
25+08
24+68
24+34
23+83
23+34

18' 5' 35'
95'
0-0
0-0
29+58
29+08
28+58
28+20
28+09
27+58
27+09
26+24
25+00
25+92
25+58
25+29
24+68
24+34
23+83
23+34
LET 6' OFF 23+07.88
WAT VAL 43 RT 23+11
FACE CURB 23+02

WATER

W10

E ADAMS

2# LT WAT NET 22+30
21+84
21+34
20+94
20+24
19+73
19+24
18+81
18+35
17+84
17+35
16+84
16+34

27' 0" WATER 22+77
FACE CURB 22+66
LET 22+60.5 6' OFF
0-0
0-0
21+84
21+34
21+98
21+58
21+24
20+73
20+30
20+24
19+73
19+24
19+08
18+73
18+24
17+73
17+34
16+97
16+64
16+54
16+26
LET 6' OFF 15+97.22

WINONA

PINE BLVD

PROPOSED

3' A.C. DIRT

E MADISON

½ PROFILE, 5' East of E. Winona St. El Capitan Cellar

BM	6.35	395.68	389.33	
SET TBM		1.51	394.17	✓
30+63 ²⁸		3.57	392.11	✓
+50		3.78	391.90	✓
30+00		4.05	391.63	✓
+50		4.14	391.54	✓
29+00		4.44	391.24	✓
+50		4.56	391.12	✓
28+00		4.72	390.96	✓
+50		4.97	390.71	✓
27+00		5.08	390.60	✓
+50		5.21	390.37	✓
26+00		5.46	390.22	✓
+50		5.75	389.93	✓
25+00		5.98	389.70	✓
+50		6.12	389.56	✓
24+00		6.41	389.27	✓
+50		6.53	389.15	✓
23+00		6.74	388.94	✓
IV BM	2.10	391.43	6.35 389.33 389.33	
+50		2.62	388.81	✓
22+00		2.99	388.44	✓
+50		3.30	388.13	✓
21+00		3.60	387.83	✓
+50		3.88	387.55	✓

Beatty,
Rogers
Carver

MAY 22 1950
Cool & Cloudy
T # 14897

51

Exp. P. NE Cor Adams & Winona

Exp. F.H. SE Cor Cellier & Winona

Exp. P. NE Cor Adams

May 22, 1950

52

5' Eoot & Profile
 & Winona St EL CAJON To COLLIER

	391.43		2.21	387.22 ✓
20+00			4.60	386.83 ✓
+50			5.04	386.39 ✓
19+00			5.62	385.81 ✓
+50			6.17	385.26 ✓
18+00			6.82	384.61 ✓
+50			7.40	384.03 ✓
17+00			8.09	383.34 ✓
+50			8.63	382.80 ✓
16+00			9.16	382.27 ✓
+50			6.76	384.67 ✓
15+00	0.21	384.88 ✓	3.38	381.50 ✓
+50			4.25	380.63 ✓
14+00			5.16	379.72 ✓
+50			6.07	378.81 ✓
13+00			6.96	377.92 ✓
+50			7.42	377.46 ✓
12+00			7.62	377.26 ✓
+50			7.80	377.08 ✓
11+00			8.01	376.87 ✓
+50			8.20	376.68 ✓
10+00			8.33	376.55 ✓
+50			8.50	376.38 ✓
9+00			8.72	376.16 ✓
8+00			1.89	376.99 ✓
CK RM.	10.02	38701 ✓	9.98	377.03 - 377.04 ✓

Top F.H. SE Cor Madison & Winona

on Curb SE Cor Winona & L

BR. V. SE Cor Winona.

May 22, 1950

59

E PROFILE 5' EAST OF WINONA. JT. EL CAJON TO COLLIER

387.01

8+82		11.19	375.82 ✓	
+67		10.74	376.27 ✓	
+55		10.02	376.99 ✓	
+46		10.74	376.27 ✓	
8+00		10.05	376.96 ✓	
+50		9.40	377.61 ✓	
7+00		8.60	378.41 ✓	
+50		7.81	379.20 ✓	
6+00		7.08	379.93 ✓	
+50		6.41	380.60 ✓	
5+00		5.64	381.37 ✓	
+50		5.22	381.79 ✓	
4+00		5.84	381.17 ✓	
+50		6.54	380.47 ✓	
3+00		7.17	379.84 ✓	
+50		7.83	379.18 ✓	
2+00		8.48	378.53 ✓	
+50		9.04	377.97 ✓	
+21		9.42	377.59 ✓	
1+00		10.49	376.52 ✓	
+58		12.68	374.33 ✓	
TP	6.43	380.97 ✓	12.47	374.54 ✓
+42		7.04	373.93 ✓	
+22		7.15	373.82 ✓	
+07		7.34	373.63 ✓	
0+00		7.52	373.45 ✓	
SET TOM		5.52	375.45 ✓	

E MONROE

NW Bolt on Traffic Light Post, NE COR EL CAJON & WINONA

JAN. 16 1951

54

E ALIGNMENT
54TH ST PIPELINE EXTENSION
BETWEEN COLLIER AVE. & 56TH LINE COLLWOOD SUB-DIV.

Cont'd page 58

4+50 81.73' 29°39' LT 2" I.P. 24T
PROP COR.

4+04.35 14°56'30" LT NE'ly LINE LOT 15

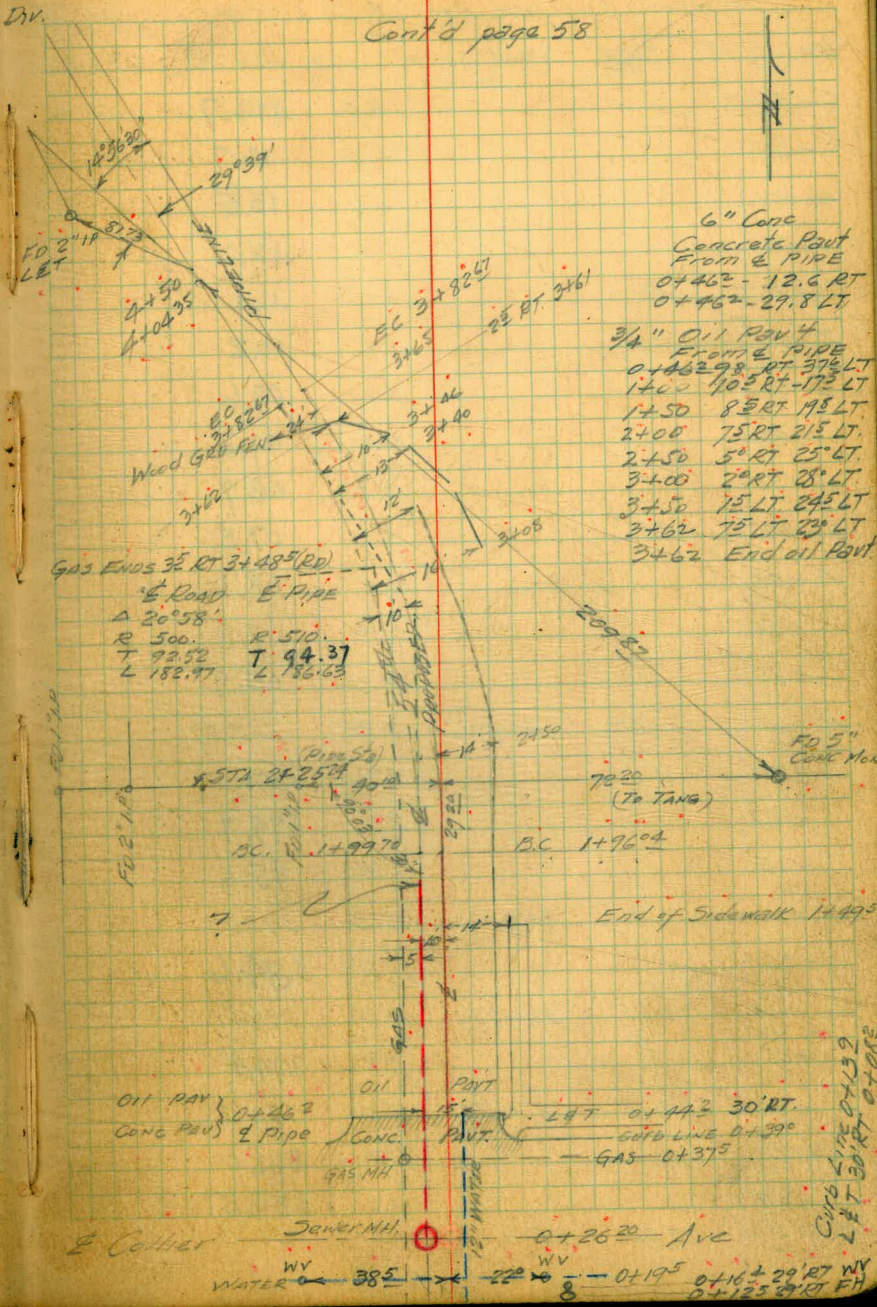
3+82.67 EC.

Δ 20°58' LT
R. 500.510
T. 92.52
L. 186.63

1+96.04 B.C.

182.97 ENE 500' R

0+46.20



6" Conc
Concrete Pout
From E PIPE
0+462-12.6 RT
0+462-29.8 LT

3/4" Oil Pout
From E PIPE
0+462.98 RT 37.6 LT
1+00 110.5 RT-17.5 LT
1+50 85 RT 19.5 LT
2+00 75 RT 21.5 LT
2+50 50 RT 25.5 LT
3+00 20 RT 28.5 LT
3+50 15 LT 29.5 LT
3+62 75 LT 23.5 LT
3+62 End oil Pout

GAS ENDS 35 RT 34.485 (RD)
E ROAD E PIPE
Δ 20°58'
R 500. R 510.
T 92.52 T 94.37
L 182.97 L 186.63

End of Sidewalk 1+49.5

OIL PAV } 0+462
Conc Pout } E Pipe } Conc. } PAVT } LAT 0+443 30 RT.
GAS MH } Conc. } PAVT } Conc. } PAVT } GOLF LINE 0+139
GAS 0+375

E COLLIER Sewer MH. 0+26.20 Ave
WY 385 22 8 0+195 0+16+29 RT WY
WATER 8 8 0+125 RT FH

CURB LINE 0+139
LAT 50 RT 0+186

E PROFILE
 PROPOSED PIPELINE ON 54TH ST.
 BETWEEN COLLIER AVE. & So LINE OF COLLWOOD SUB-
 B.P. NE COR 54TH & Adams

B.M	5.78	419.18	413.40	54 TH & Adams
0+46 ²⁰			4.51	414.7 ✓
0+50			4.5	14.7
1+00			5.7	13.5
+50			7.0	12.2
+96 ⁰⁴ (B.C.)			8.1	11.1
2+50			9.0	10.2
3+00			9.6	09.6
+38			10.0	09.2
+50			10.5	08.7
3+82 ⁶⁶ (E.C.)			11.7	07.5
4+00			11.1	08.1
+50			11.4	07.8
+80			13.3	05.9 ✓
TP Rock	1.07	406.96	13.29	405.89
5+00			5.9	401.1
+07			7.1	399.9
+15			11.4	95.6 ✓
TP Rock	0.67	394.40	13.23	393.73
+50			7.8	384.6
TP Rock	0.18	381.58	13.00	381.40
+75				
+85			7.2	374.4
TP Rock	0.12	370.24	11.46	370.12
6+00			7.2	361.0
+09			11.7	358.5
TP Top Stake L 50	0.88	359.61	11.51	358.73

NOTES
 NOTES REDUCED & CHECKED BY EWE 1-22-51

JAN. 18, 1951 Cool & Cloudy
 BEATTY
 LEONARD
 WELKEE

	4.66	4.43	4.51	4.76	(Top Conc. Point 0+46 ²⁰)
	29.8		5.0	12.6	
ON CONC. POINT	5 LT. E of Pipe				
ON OIL "	(20' LT. E 54 TH ST)				
" " "					
" " "					
" " "					
" " "					
" " "					
ON EDGE OF OIL POINT					
	E END				
	5.5	5.9			
	10	*			
	9.5	9.8			
	10	*			
	6.0	*			
	10	*			

E' PROFILE (Cont'd)
54th ST PIPELINE

1/18/51

		359.61		
6+50			5.7	353.9 ✓
+69			11.5	348.1 ✓
7+00			3.4	356.2 ✓
P rock	12.39	371.99	0.01	359.60
+50			7.5	364.5
+67			6.9	365.1
8+00			8.4	63.6
+50			16.8	55.2
9+00			17.4	54.6
+25			14.8	57.2
+50			12.8	59.2
+65			13.7	58.3
10+00			15.4	56.6
P (stump)	0.89	360.01	12.87	359.12
+50			4.9	55.1
11+00			7.2	52.8
+50			9.3	50.7
+85			12.5	47.5
12+00			15.6	44.4
P (stump)	0.13	346.82	13.32	346.69
12+50			13.4	333.4
P	0.17	333.75	13.24	333.58
13+00			16.1	317.7
P (rod)	0.06	321.75	12.06	321.69
13+23			10.4	311.4
P	0.24	308.92	13.07	308.68

56

E' ROAD

			15	10
			0.0	10
			23	10
			53	10
		13.1		10
			13.4	10
		11.8		10
			9.1	10
			71.9	10
			23	10
		1.0		10
			6.0	10
			13.1	10
			10.1	10
			13.6	10

2 PROFILE (CONT'D)
50

1/18/51

	308.92			
13+50		8.4	300.5	
+60		12.2	296.7	
TP (rock)	0.53	296.23	12.22	295.70
14+00		5.6	290.6	
+46		14.6	281.6	
OK TP		7.62	288.61	288.11
TP (rock)	0.12	282.17	13.18	283.05
+50		4.3	278.9	
TP (rock)	0.71	271.45	12.43	270.74
+73		4.5	267.0	
15+00		6.6	64.9	
+50		7.4	64.1	
+82		7.5	64.0	
16+00		6.8	64.7	
+38.5	END of PIPELINE	6.3	65.2	
		4.20	26.25	(OK's Profile)
+50		5.7	265.8	
+72		0.4	271.1	

NOTES REVISED & CHECKED BY EWE 1-22-51

57

FD TP MARKED 288.11 EL (N-1)

1.3
10

4.3
10

6.9
10

7.2
10

(Top B.C. ORIG. HUB
12+71.52 ± ROAD)

E ALIGN MT Cont'd
54th ST PIPELINE

JAN. 17 1951

14+71.82^{AH} ORIG B.C. 54th ST = 16+71.82 BK

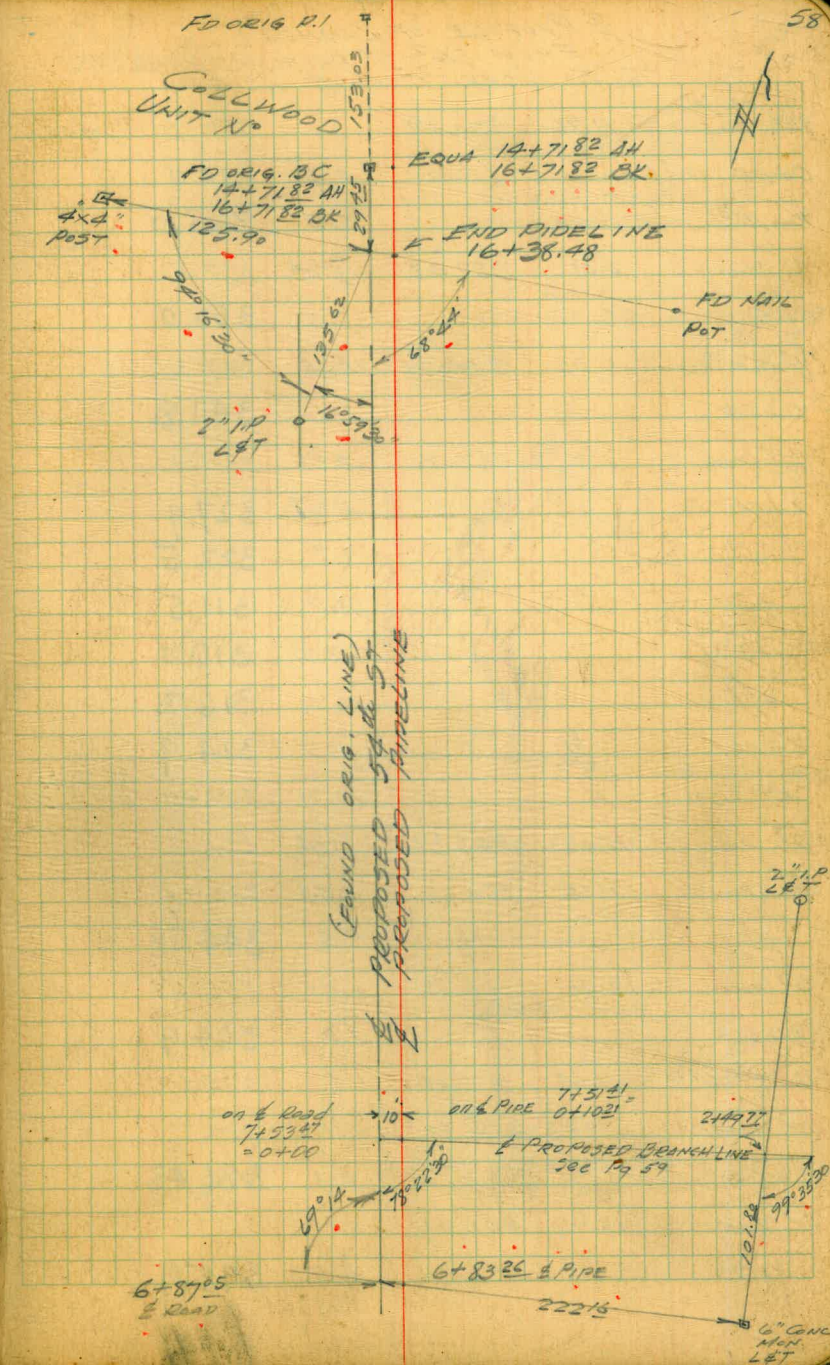
16+28.48 E PIPELINE } SO LINE LOT 4
16+42.37 E 54th ST } END E OF PIPE
125.90 LT To Cor.
68°44' LT. To Cor.
COLLWOOD
CUR-DIV.
UNIT N°

6+87.05 Pot

222.16 RT To Conc Man. SE Cor Lot 12

69°14' LT To So. Inc Lot 13

58

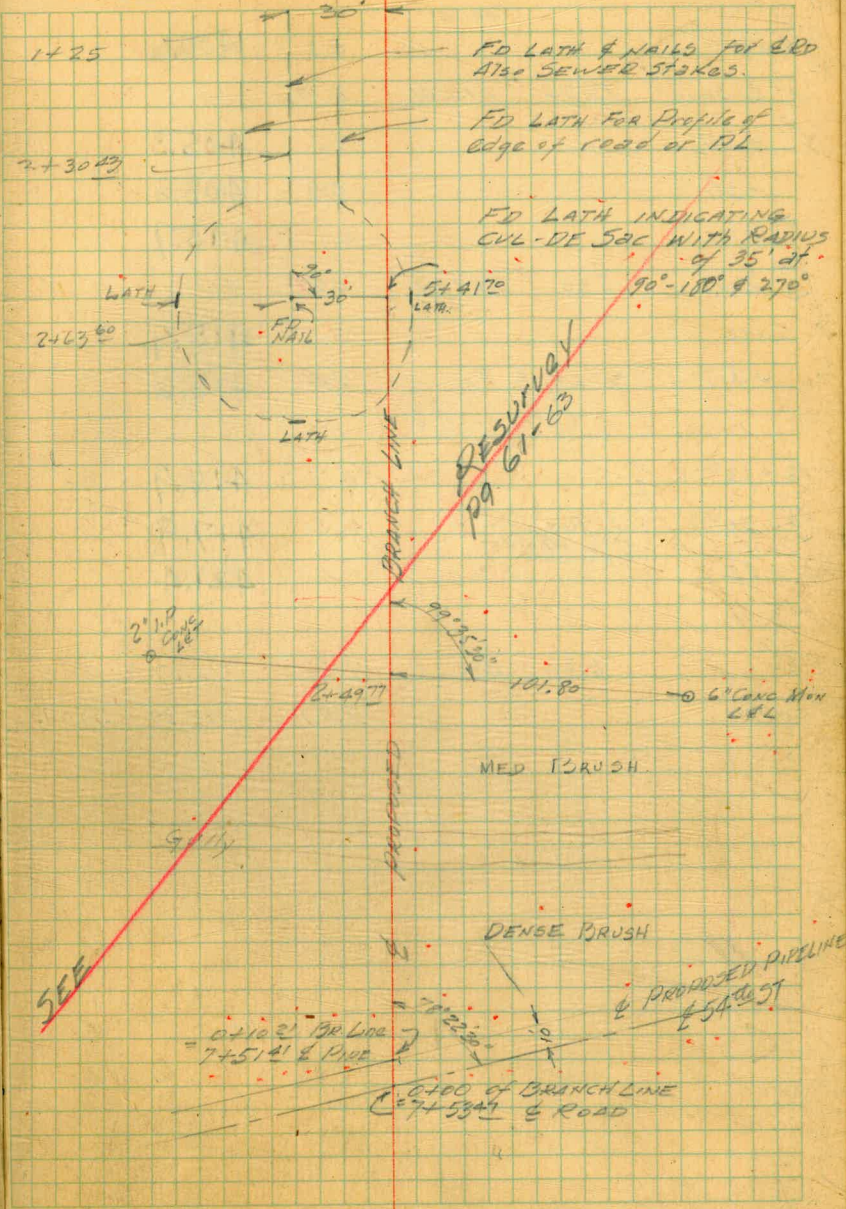


PROFILE OF BRANCH LINE
FROM 54th ST PROPOSED PIPELINE
TO EL CERRITO UNIT No 4

TP Top Stake 6+50	11.76	370.49	358.73	pp.55
0+00 = (ERD 10' LT & PIPE)	0.5	370.0		
0+10 ²¹ (E PIPE)	5.5	365.0		
TP (Rock)	0.01	357.48	13.02	357.47
0+50		7.5	350.0	
TP (Rock)	0.05	344.39	13.14	344.34
0+74		2.6	341.8	
TP (Rock)	1.06	332.20	13.25	331.14
1+00		4.3	327.9	
+14		9.7	322.5	
+50		20.7	311.5	
+57		22.2	310.0	
+70		16.0	316.2	
2+00		7.3	324.9	
SET TGM		10.71	321.49	ON CONC MON 108 PT 2450
TP (Rock)	12.01	343.37	0.84	331.36
TP (Rock)	11.14	354.08	0.43	342.94
+50		9.5	344.58	
TP (Rock)	12.20	365.88	0.40	352.68
3+00		1.0	364.9	
TP Top Stake	11.68	377.06	0.50	368.38
TP (Rock)	11.96	388.83	0.19	376.87
3+50		2.4	386.43	
TP (Rock)	12.67	401.41	0.09	386.72
+73		5.5	395.9	

SEE RESURVEY
PP 61-63

JAN. 26, 1951
BEATTY
LEONARD
WELSER



SEE

E PROFILE Cont'd

Jan 26 1951

60

	401.41		0.8	400.6
4+00				
P Top Stake	13.24	414.46	0.19	401.22
+30			9.2	405.3
+50			5.9	408.6
+74			0.8	413.7
TP (Rock)	8.30	422.01	0.75	413.71
5+00			6.1	415.9
+4170	30' LT & RAD. PT of Cul-de-Sac (STA 2+63.00)		5.4	416.6
(2+63.00)			5.1	416.9
(2+30.42)	4' ROAD (STA. MARKED ON LOTS)		4.1	417.9
(1+25)			0.6	421.4
TP	6.85	419.36	9.50	412.51
CK BM			5.97	413.39 = 413.40

STATION	TO + B.S.	EL. CERRITO H.I.	UNIT - F.S.	PROPOSED PIPELINE No 4 ELEV.	WATERLINE
B.M.	3.50	416.90		413.40	
P	0.51	408.27	9.14	407.76	✓
IP	0.13	395.36	13.04	395.23	✓
SET TBM	12.98	402.14	6.20	389.16	✓
P _{rock}	0.00	382.38	12.98	382.38	
IP _{rock}	0.11	369.50	12.99	369.39	
0+00 (E 54 th ST)			1.85	367.65	✓
0+10 ²¹ (E PIPE)			6.0	363.5	✓
P _(rock)	0.71	357.74	12.47	357.03	✓
0+50			11.8	345.94	✓
IP _(rock)	0.16	344.67	13.23	344.51	✓
IP _(rock)	3.69	335.68	12.68	331.99	✓
1+00			7.6	328.1	✓
IP _{rock}	1.36	323.73	13.31	322.37	✓
+25			4.0	319.7	✓
+34			8.7	315.0	✓
+43			14.8	308.9	✓
+46			15.4	308.3	✓
+48			14.8	308.9	✓
1+50			14.4	309.3	✓
+71			10.2	313.5	✓
OK TBM,	11.99	333.51	2.21	321.52 = 321.49	
2+00			6.0	327.5	✓
IP _(rock)	12.62	345.65	0.48	333.03	✓
IP _{Rock}	13.05	358.47	0.23	345.22	✓

AUG. 30, 1951

BEATTY
LEONARD
SEAVELLO

611

B.P. NE Cor 54th & ADAMS

on 1 1/2" I.P. 10' RT 3+75'

3/4" I.P. at Cor. of PEN Cycle 40' LT 4+75'

on hub

on Cogg Man
129.39

8-31-50

62.

E PROFILE - PROPOSED WATER LINE				
FROM	PROPOSED 54" ST. PIPE - EL GERRITO			
2+50		358.47	10.4	348.07 ✓
2+62.73			5.1	353.37 ✓
P. rock	13.06	371.40	0.13	358.34 ✓
3+00			2.3	369.1 ✓
P. rock	13.16	384.55	0.01	371.39 ✓
P. rock	12.63	396.54	0.63	383.91 ✓
+50			6.4	390.15 ✓
+63			1.3	395.24 ✓
P. rock	13.12	409.64	0.02	396.52 ✓
4+00			7.2	402.44 ✓
P. Rock	11.04	419.57	1.11	408.53 ✓
+15				407.2 ✓
+40			9.9	409.67 ✓
+50			5.8	413.77 ✓
5+00			3.8	415.77 ✓
5+09.35			3.6	415.97 ✓
CK			2.68	416.99 = 416.90
			3.87	415.7
			3.30	416.27
			2.22	417.35 = 417.26

UNIT "A"

5485⁷⁵ 8' So. C5 71

4' Back Curb C0 38

{	P.R.C. 50' Rad So Side C1 28	416.00 Curb Grade
		1.28
		417.28

E ALIGNMENT - PROPOSED
WATER LINE FROM
PROPOSED 54th ST PIPELINE TO EL CERRITO
UNIT N^o 4

Proposed
BEGINNING OF SUB-DIV. WATER MAIN
5+09³⁵ END OF PROPOSED CONN

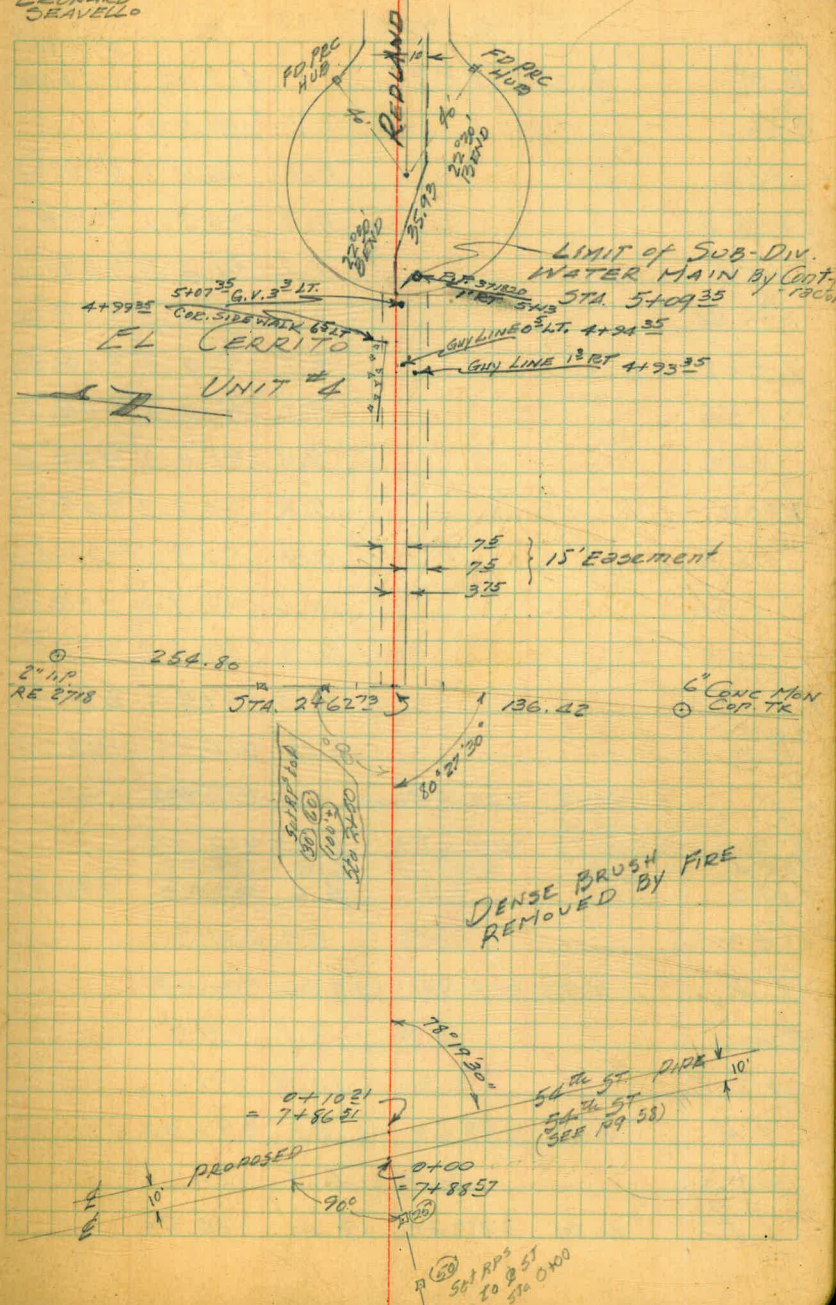
2+62⁷³ Intersection with Sub-Div. Boundary

0+10²¹ & Prop Conn
7+86⁵¹ & " 54th PIPELINE

0+00 & Proposed Conn. 54th ST PIPE
= 7+88⁵⁷ & 54th ST

Aug 30, 1951
BEATTY
LEONARD
SEAVELLO

63



54th St Collier Ave to Montezuma Rd

STKS FOR 12" AC

				BPNE Bar
B.M.	6.17	419.57	413.40	54th + Adams
-0+46			4.7	414.9
+50			4.9	414.7 410.6
1+00 X			5.9	413.7 409.4
+50			7.2	412.4 408.2
B.C.				
1+99.70			8.3	411.3 407.0
2+25			8.7	410.9 406.6
+50			9.1	410.5 406.1
+75			9.4	410.2 405.8
3+00			9.8	409.8 404.7
+25			10.1	409.5 402.6
+50			10.6	409.0 400.5
+75			11.3	408.3 398.4
E.C.				
+86.33			11.3	408.3 397.4
CHECK				
B.M.			6.16	413.41 = 413.40

B.M.	7.18	420.58	413.40
T.P.	1.79	414.07	8.30 412.28
4+00			6.0 408.1
4+50			6.6 407.5 392.3
X			
+59.34			8.9 405.7
T.P.	0.78	401.85	13.00 401.07
5+00			3.1 398.8
+25			10.4 391.5
T.P.	0.67	389.69	12.83 389.02
+50			6.9 388.8
T.P.	0.61	377.20	13.10 376.59

Void

West
Williams
Varonakis &
Kellhofer X

12/8/55

64

C4 1
C4 3
C4 2
C4 3
C4 3
C4 4
C4 4
C5 1
C6 9
C8 5
C9 9
C10 9

111.07
6.2
408.07
2.22
410.29
13.17
407.12

12/12/55 WARM SUNNY

4+00 7.7 E PIPE
C158 4+50 8.5
8.4

WEST
WILLIAMS X
VARONAKIS P
KELLHOFER

3.6

10.7

7.2

54 TH ST. CONT.

377.20

5+75		4.3	372.9	
T.P.	0.21	364.20	13.21	363.99
6+00		1.5	362.7	
+12		4.6	359.6	
+59		10.8	353.4	
+67		10.9	353.3	
+74		11.5	352.7	
+82		11.1	353.1	
+91		9.8	354.4	348.5
7+00		7.4	356.8	357.4
+12.5		5.0	359.2	354.5
T.P.	1.79	365.27	0.72	363.48
+50		0.9	364.4	360.5
T.B.M.				
+70	1.55	364.95	1.87	363.40
+90		1.6	363.4	360.1
8+00		2.7	362.3	359.6
+12.5		4.1	360.9	357.8
+34		6.7	358.3	352.8
+41		7.5	357.5	357.8
+50		8.4	356.6	357.2
9+00		9.4	355.6	357.0
+50		7.3	357.7	350.9
10+00		7.8	357.2	350.8
B.C.				
+48.75		10.4	354.6	
T.P.				
+75	0.22	353.17	12.00	352.95

Void

12/12/55

65

PIPE

4.3

1.4

4.7

11.0

11.0

11.1

10.8

C 52 364.2 9.3 354.9

C 54 7.8 356.4

C 32 5.6 358.6

C 32 1.1 364.2

C 23 365.0 1.2 363.8

C 33 1.8 363.2

C 27 2.8 362.2

C 31 4.2 360.8

C 5 E 6.9 358.1

C 5 Z 7.6 357.4

C 5 A 8.3 356.7

C 4 E 9.3 355.7

C 6 E 7.4 357.6

C 6 A 8.0 357.0

10.4

12.2

54 TH ST. CONT.

353.17

11+00		2.2	351.0
+25		5.0	348.2
+50		8.3	344.9
+75		11.6	341.6
T.P.	0.15	340.31	13.01 340.16
12+00		4.3	336.0
+25		10.1	330.2
T.P.	0.07	327.07	13.31 327.00
+50		3.8	323.3
+75		11.6	315.5
T.P.	0.93	314.95	13.05 314.02
E.C.			
+87.58		5.3	309.7
13+00	0.53	303.52	11.96 302.99
+12.5		8.1	295.4
T.P.	0.03	290.47	13.08 290.44
+25		0.6	289.9
+37.5		4.7	285.8
+50		8.0	282.5
+75		11.7	278.8
T.P.	4.90	282.45	12.92 277.55
+92		5.6	271.9
14+00		6.1	276.4
CHECK			
T.B.M.		6.23	276.22 = 276.19

NOTE: CONTRACTOR MADE NEW CUTS WITH CAT. TOOK OUT GINNIES 12/19/55

12/12/55

66.

\$ PIPE

2.3

5.3

8.3

11.8

3.5

9.9

3.8

11.6

5.6

12.5

7.8

0.6

4.5

8.0

11.6

5.5

6.2

E. Rim M.H. 14+52 (F.B. 904-36)

		54 TH.		ST. CONT.	
T.B.M.	12.14	288.33		276.19	
T.P.	12.87	300.68	0.52	287.81	
T.P.	7.86	308.51	0.03	300.65	
E.C.			1.9	306.6	303.0
12+87.56					
T.P.			1.90	306.61	
E.C. (10)	0.58	307.19			
13+00			6.1	301.1	297.0
+12.5			11.6	295.6	291.5
T.P.	0.52	294.53	13.18	294.01	
+25			4.0	290.5	285.6
+37.5			8.0	286.5	281.0
+50			11.4	283.1	278.6
T.P.	2.90	284.42	13.07	281.52	
+75			5.7	278.7	275.0
+92			7.4	277.0	272.5
14+00			7.9	276.5	272.0
+30			9.2	275.2	270.4
+38			9.3	275.1	270.0
+46			9.5	274.9	269.9
+75			8.5	275.9	272.0
T.P.	12.76	288.95	8.23	276.19	
15+00			10.9	278.1	274.6
(10)					279.9
+50			4.1	284.9	281.2
T.P.	13.00	301.60	0.35	288.60	284.8
16+00			11.7	289.9	286.2
+50			6.9	294.7	290.0
17+00			1.6	300.0	296.2

WEST
WILLIAMS X
VARONFAKIST
KELHOFER

12/19/55
E. PIPE PARTLY CLOUDY

67.

14+52		E. RIMMH. (FB. 904-36)	
C3	6	2.1	306.4
C4	1	6.5	300.7
C4	1	12.1	295.1
C4	9	294.5	4.2
C5	5	8.3	286.2
C4	5	11.7	282.8
C3	7	284.4	6.1
C4	5	7.7	276.7
C4	5	8.3	276.1
C4	8	9.4	275.0
C5	1	9.6	274.8
C5	0	9.6	274.8
C3	9	8.6	275.8
C3	5	289	10.7
C3	7	250 ✓	4.4
C3	2	C5 ✓	11.8
C4	7	7.2	293.4
C3	8	1.3	300.9

(10) STARTS HERE 284.6

54TH ST. CONT.

301.60

T.P.	13.35	314.81	0.14	301.46	
17+50			8.4	306.4	301.4
18+00			2.8	312.0	306.9
T.P.	13.20	327.28	0.73	314.08	
+50			9.7	317.6	312.8
19+00			4.3	323.0	318.9
T.P.	13.02	339.50	0.80	326.48	
+50			10.9	328.6	324.7
20+00			5.5	334.0	330.3
T.P.	13.11	352.26	0.35	339.15	
+50			12.3	340.0	335.9
+75			9.6	342.7	338.8
+75			13.2	339.1	338.8
21+00			6.7	345.6	341.7
T.P.					
+50	13.16	364.49	0.93	351.33	347.3
22+00			7.7	356.8	352.5
+50			3.3	361.2	357.7
T.P.	10.84	374.76	0.57	363.92	
23+00			10.1	364.7	360.4
+50			7.5	367.2	362.7
24+00			6.0	368.8	364.6
+50			3.8	371.0	366.7
T.P.	8.43	381.98	1.21	373.55	
25+00			9.0	373.0	370.2
			11.3	370.7	
but 2 45° Bend					
25+10.91			10.0	372.0	370.8
25+10.81 1/2 45° Bend			8.0	374.0	370.8

12/19/55
\$ PIPE

68.

C5	0		9.1	305.7	
C5	1		3.6	311.2	
C4	8	377.3	10.3	317.0	
C4	1		4.6	322.7	
C3	9		11.2	328.3	
C3	7		5.5	334.0	
C4	1	352.3	12.8	339.5	
C3	9				
C0	3	TOL			
		(5) \$ F.H.			
C3	9		7.1	345.2	
C4	0		1.4	350.9	
C4	3	364.5	8.4	356.1	
C3	5		3.8	360.7	
C4	3	374.8	10.8	364.0	
C4	6		8.7	366.1	
C4	2		6.4	368.4	
C4	3		4.0	370.4	
C2	8	Turn on Pipe Ad wall			
		Flow Line Sewer 25+00	373.3	373.55	
				- 3.6	
C1	2	Flow Line 24		370.00	
		Storm Drain			
C3	2				

Sewer King @ 25+17

381.98

12.26 393.99 0.25 381.73

25+32.01BK 25+31.8BK
20+34.51AH 25+41.8AH

10.4 383.6 377.0

25+50 ① +57 7.8 286.2 378.7

+75 ④ +82 7.7 386.3 382.3

+82 ④ +95 4.5 389.5 384.3

12.08 406.06 0.01 393.97

26+12.5 +195 9.9 397.1 392.6

+25 +32 4.7 401.4 396.0

+37.5 +44.5 0.9 405.2 397.9

12.24 418.02 0.28 405.78

+42.5 +69.5 5.0 413.0 407.1

+81.25 BK +88.05 2.3 415.7 412.4

+81.25 AH +88.05 1.6 416.4 412.4

27+00 +07 1.9 416.1 412.4

+50 +57 5.4 412.6 407.6

2 380 410.97 11.35 406.67

28+00 07 0.2 410.3 402.8

+50 ① +57 1.6 408.9 398.8

29+00 +07 4.0 406.5 396.5

+50 +57 10.1 400.1 396.0

+70 +77 10.6 399.9

12.93 397.54 = 397.54

399.9
-395.0 Existing 12"

12/19/55

69.

C6 6 3940 11.8 392.2

C7 5 12.3 381.7

C4 0 7.8 386.2

C4 6 4.7 389.3

C4 5 9.1 397.0

C5 4 4.8 401.3

C5 3 1.0 405.1

C5 2 418.0 5.2 412.8

C3 3 1.9 416.1

C4 0 416.1

C3 2 1.9 416.1

C5 0 5.4 412.6

C7 5 410.5 3.2 402.3

C10 1 7.3 403.2

C10 0 8.9 401.6

C4 4 10.7 399.8

No CUT 10.7 399.8

2" Sub pipe See page 42 EB 904

54th St Comb

	262	410.69		408.07	
	0.45	398.22	12.92	397.77	
5+00			1.9	394.3	388.7
+25			9.0	389.2	387.0
	0.64	386.09	12.77	385.45	
+50			5.4	380.7	
	0.67	374.4	12.52	373.57	
5+75			2.6	371.6	
6+00			11.6	362.6	
	2.09	363.48	12.85	361.39	
+125			3.9	359.6	
+59			10.3	353.2	
+67			10.6	352.9	
+74			10.8	352.7	
+82			10.3	353.2	
	3.43	366.33	0.58	362.90	
			3.34	362.99	
			2.34	363.99	
	6.69	420.09		413.40	
	1.15	411.34	9.90	410.19	
4+00			2.8	408.5	396.3
+50			3.3	408.0	392.3
	0.41	398.65	13.10	398.24	
5+00			1.8	396.9	388.7
+25			8.9	389.8	387.0

VOID beneath
Wiang

West
William's
Varon G. 400
Kellhofer.

70

	Sta	A+00		
			⊕	
	C 7 ⁶		1.9	396.3
	C 2 ⁸		9.1	389.1
			5.3	380.8
			2.7	371.5
			11.8	362.4
		363.5	4.3	359.2
			10.4	353.1
			10.8	352.7
			10.7	352.8
			10.2	352.3
	BM	BP	NE	Cor
				54 th + Adams
	C 12 ²		4.4	406.9
	C 15 ²		6.2	405.1
	C 8 ²	-	1.9	396.8
	C 2 ⁸	-	8.9	389.8

398.65

12.74

	0.58	386.49		385.91	
5+50			5.3	381.2	372.0
	0.47	374.51	12.45	374.04	
+75			2.4	372.1	367.0
6+00			11.4	363.1	357.0
	3.53	365.72	12.32	362.19	
112 ⁵			5.7	360.0	354.0
+59			12.0	353.7	346.1
+67			12.4	353.3	345.7
+74			12.5	353.2	345.8
+82			12.1	353.6	346.7
	0.46	363.86	2.26	363.44	=363.46
10+48 ²⁵	0.21	354.56	9.51	354.35	350.7
+75			1.7	352.9	349.0
11+00			3.6	351.0	347.4
+25			6.2	348.4	345.2
+50			9.2	345.4	341.5
+75	0.45	341.85	13.16	341.40	337.6
12+00			5.5	336.4	331.2
+25			11.9	330.0	325.0
	0.61	329.56	12.90	328.95	
+50			7.5	322.1	318.9
	0.70	317.20	13.06	316.50	
+75			4.4	312.8	308.0
			10.51	306.69	=306.61

71

C4E			5.2	381.3	
C5 [±]			2.5	372.0	
C6 [±]			11.6	362.9	
C6 ⁰			6.1	359.6	
C7 [±]	365.7	12.0		353.7	
C7 ⁰		12.5		353.2	
C7 ⁴		12.5		353.2	
C6 ²		12.0		353.7	
Cont page 65					
C3 ^Z		354.6		354.4	
C3 ^E			1.8	352.8	
C3 ^S			3.5	351.1	
C3 ^B			5.9	348.7	
C3 ⁹			8.9	345.7	
C3 ⁸			13.0	341.6	
C5 ^B			5.2	336.7	
C5 ⁰			11.7	330.2	
C3 ^B			7.4	322.2	
C4 ^B			4.5	312.7	
EO Hub Sec page 67					

54" ST Connection 8" AC

	0.80	369.20		363.40	
0+37	0.43	352.63	12.00	352.20	347.0
+50			6.1	346.5	342.0
	0.41	340.00	13.04	339.59	
+75			3.0	337.0	332.5
	0.17	327.34	12.83	327.17	
+125			4.3	323.0	319.6
+25			8.9	318.4	314.6
+45			16.3	311.0	304.3
+55					
+75			12.1	315.2	310.9
+87.5			6.2	321.1	316.0
2+00	12.44	339.04	0.72	326.62	323.6
+25			1.8	337.3	332.4
	11.95	350.59	0.42	338.64	
+50			3.1	347.5	344.0
	12.13	362.06	0.66	349.93	
+62.5			9.3	352.8	349.4
	12.58	373.76	0.88	361.19	
+87.5			10.5	363.3	358.5
3+00			5.3	368.5	365.0
	12.53	385.69	0.60	373.14	
+25			7.0	378.7	374.0
	12.78	398.96	0.01	385.68	
+50			9.4	389.1	386.0

W.D.S.T.
Williams
Vaironfokis
Kalliofou

72

12/27/55

C5	2		12.6	351.6	
C4	5		6.5	346.1	
C4	5		3.3	336.7	
C3	4	327.3	4.4	322.9	
C3	8		9.3	318.0	
C6	7	VERT BEND	16.1	311.2	Blow OFF
			17.3	310.0	
C4	3		12.1	315.2	
C5	1		6.1	321.2	
C3	0		0.3	327.0	
C4	2		1.2	337.9	
			2.5	348.1	
C3	5				
C3	4		8.7	353.4	
C4	8		10.4	363.4	
C3	5		9.9	368.9	
C4	7		6.6	379.1	
C3	1		9.4	389.1	

	398.46			
3+62 ²		4.2	394.3	390.8
+75 ^{12.45}	12.45	410.93	0.48	397.98
4+00		8.0	402.1	398.4
+12 ²		8.3	407.1	401.3
	8.25	418.45	0.73	410.20
4+50		5.1	413.4	408.0
+62 ²		4.1	414.4	410.2
5+00		2.3	416.2	411.6
+09		2.2		
		0.32	418.13	
		9.60	408.85	=409.0

West
V. 11. 2003
Vaironokis

73

C3	<u>5</u>	4.3	394.2
C3	<u>4</u>	0.3	398.2
C4	<u>0</u>	5.5	404.9
C5	<u>8</u>	1.6	408.8
C5	<u>4</u>	418.5	5.4
C4	<u>2</u>	4.9	413.6
C4	<u>6</u>	2.8	415.7
		2.2	416.3

on climbing spikes West side of PP 5+15

7+50 Gorney

Check Depth of 54th St Pipe Line
Sta 26+88.5 to 29+77

	2.17	418.70		416.53	
26+83			5.64	413.06	
26+83			2.2	416.5	
	0.46	418.51	0.65	418.05	418.03 Corrected Elev
	0.60	407.67	11.44	407.07	
28+83			8.28	399.39	
28+83			3.18	404.5	
29+35			10.41	397.26	
29+35			7.8	399.9	
			10.05	397.62	= 397.59

West Williams
Voronofsky
Kellhofer 397.59

2" IR prop pipe enter lots 26+37.50

Top of 12" AC 26+80 is AV
Top of Ground

This □ Top NWly Side Case AV Chamber

Top 12" AC pipe
Top of Ground

Top 12" AC pipe
Top of Ground

ELEV. Top of 6" AC Water
ACADEMY ST

BM	5.18	131.21		126.03
IP	1.07	125.56	6.72	124.49
IP	0.50	117.22	8.84	116.72
Top Conc Pav't			6.51	110.21
Top 6" AC Pipe			10.16	107.06
IP	7.87	124.89	0.20	117.02
Top Conc Pav't			2.83	122.06
Top 6" AC Pipe			5.65	119.24
IP	8.67	133.41	0.15	124.74
Top conc pav't			0.58	132.83
Top 6" AC Pipe			4.06	128.95
IP	4.47	129.21	8.67	124.74
IP	8.60	136.97	0.84	128.37
IP	8.50	145.24	0.23	136.74
IP	0.14	136.38	9.00	126.24
CK BM.			10.43	125.95 = 126.03

MAR. 29 1956
130 = 84
West

75

L & T. 7' SE Cor Chalcedony & Lament

} Inter. 48" Storm Drain on Academy
& 6" AC Water on Chalcedony.

} Inter. 48" Storm Dr. on Academy
& 6" AC water on Law. St.

} Inter. 48" Storm Dr on Academy
& 6" A.C. Water on Beryl.

(See 3466 A-D)

Profile 54th St Pipe Line

Sta 26+92 to 29+70

	0.60	418.63		418.03
26+92			2.4	416.23
27+00			3.1	415.53
+50			6.5	412.13
28+00			9.6	409.03
+50			12.8	405.8
TP	2.26	409.13	12.26	406.37
29+00			5.3	403.8
+50			8.8	400.3
29+66 ⁵	4' 11"	Ed 2" IP	Bdry Cor RE 29	
+70			9.3	400.0
	10.39	419.17	0.35	408.78
			1.15	418.02 = 418.03

Reduced DM 8/3/56

West
Williams
Kellhofer

76

8/2/56

TBM Chris D wly Side Air Valve Chamber 26+80

$\frac{2.3}{10' RL}$

$\frac{2.7}{10' RL}$

$\frac{2.8}{10' RL}$

$\frac{2.8}{10' RL}$

$\frac{7.2}{10' RL}$

$\frac{6.1}{10' RL}$

$\frac{12.8}{10' RL}$

$\frac{6.1}{8' RL}$ Top of Slope

$\frac{16.9}{10' RL}$

$\frac{5.5}{12' RL}$ Top of Slope

$\frac{9.2}{10' RL}$

$\frac{+3.5}{15' RL}$ Top of Slope

$\frac{9.4}{10' RL}$

$\frac{8.5}{6' RL}$

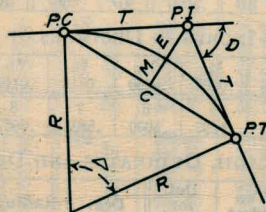
$\frac{5.9}{9' RL}$

$\frac{10.3}{10' RL}$

$\frac{8.6}{10' RL}$

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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



CURVE FORMULAS

- Radius— $R = \frac{50}{\sin. \frac{D}{2}}$ (1) Degree of Curve— D and $\sin. \frac{D}{2} = \frac{50}{R}$ (2)
- Tangent— $T = R \tan \frac{\Delta}{2}$ (3) Length of Curve— $L = 100 \frac{\Delta}{D}$ (4)
- Middle ordinate— $M = R(1 - \cos. \frac{\Delta}{2})$ (5) $= R \text{vers } \frac{\Delta}{2}$ (6)
- External— $E = T \tan \frac{\Delta}{4}$ (7) $= R \div \cos. \frac{\Delta}{2} - R$ (8) $= R \text{exsec } \frac{\Delta}{2}$ (9)
- Long Chord— $C = 2 R \sin. \frac{\Delta}{2}$ (10) Δ —Central Angle

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.—Sta. 161+60.35 to find Sta. of P. C. and P. T. $\Delta = 62^\circ 10'$ $D = 8^\circ 20'$. From Table IV for 1° curve $T = 3454.1$ and $\div 8\frac{1}{3} = 414.49$ ft. From Table V correction = .36 or $T = 414.85$ ft. P. C. = Sta. P. I. — $T = 157 + 45.50$. Also from (4) $L = 746.00$ and P. T. = Sta. P. C. + $L = 164 + 91.50$.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft. = 7.27 ft. Distance = $158 - \text{Sta. P. C.} = 54.50$, hence offset = $7.27 \frac{54.50}{100} = 2.16$ ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $\frac{(54.50)^2}{2 \times 688.26} = 2.16$ ft.

Deflections.—Deflection angle = $\frac{1}{2} D$ for 100 ft., $\frac{1}{4} D$ for 50 ft., etc. For c ft. = (in minutes) $.3 \times C \times D^\circ$ or = defl. for 1 ft. from Table III $\times C$. For Sta. 158 of above curve = $.3 \times 54.5 \times 8\frac{1}{3} = 136.2'$ or $2^\circ 16.2'$, or = $2.50 \times 54.5 = 136.2'$ from Table III. For Sta. 159 deflection angle = $2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 115.37. For from Table IV for 1° curve $E = 960.6$ for $8^\circ 20' = 960.6 \div 8\frac{1}{3} = 115.27$ and from Table V correction = .10 or $E = 115.37$ ft. Or suppose $\Delta = 32^\circ$ and E is measured and found to be 42 ft. What is D ? From Table IV $E = 230.9$ and $\div 42 = 5.5$ or $D = 5^\circ 30'$.

Please Return to
City of San Diego Water Dept.
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Telephone Main ~~5161~~

7-9-7511

Ext 313

$$\begin{array}{r} 2+24 \\ 99 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 411 \\ 757.7100 \\ \hline 109 \end{array}$$

$$\begin{array}{r} 414 \\ 3 \\ \hline 41 \end{array}$$

$$\begin{array}{r} 40.65 \\ 6746 \\ \hline 40.65 \\ 33730 \\ 40476 \\ \hline 269840 \\ 27422490 \end{array}$$

$$\begin{array}{r} 24.01 \\ 184 \\ \hline 1517 \\ 5226 \\ \hline 5124 \\ 3387 \\ \hline 3371 \\ 380 \\ \hline 1.7 \end{array}$$

$$\begin{array}{r} 31+78.56 \\ 1.44 \end{array}$$

$$\begin{array}{r} 27.94 \\ 84 \\ \hline 8710 \\ 3269 \\ \hline 33.65 \\ 780 \\ \hline 29183 \end{array}$$

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 = 47.9. For slopes of 1 on 1 see inside of front cover.