

# 713

## 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  $1\frac{1}{2}$  see inside of back cover.

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T = 2.5 below 0+00

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Telephone Main 5161

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Bing Special Enamel Waterproof thread.

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Notes		Reduced & Plotted	
PP	Index of B	P.R.	Date
	Date		Map By
1-9	5/8	med	
34	3/2/98	med.	
51	8/9/98	med	
49.50	8/9/98	med	

## Index

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Marlborough (Alignment  
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Reed, Noyes.

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St.

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16" C.P. - Prospect to La Jolla Shores Road

64-73 Del Mar - La Jolla 16" Pipe - Reining. - Elev's  
taken on top of pipe

1

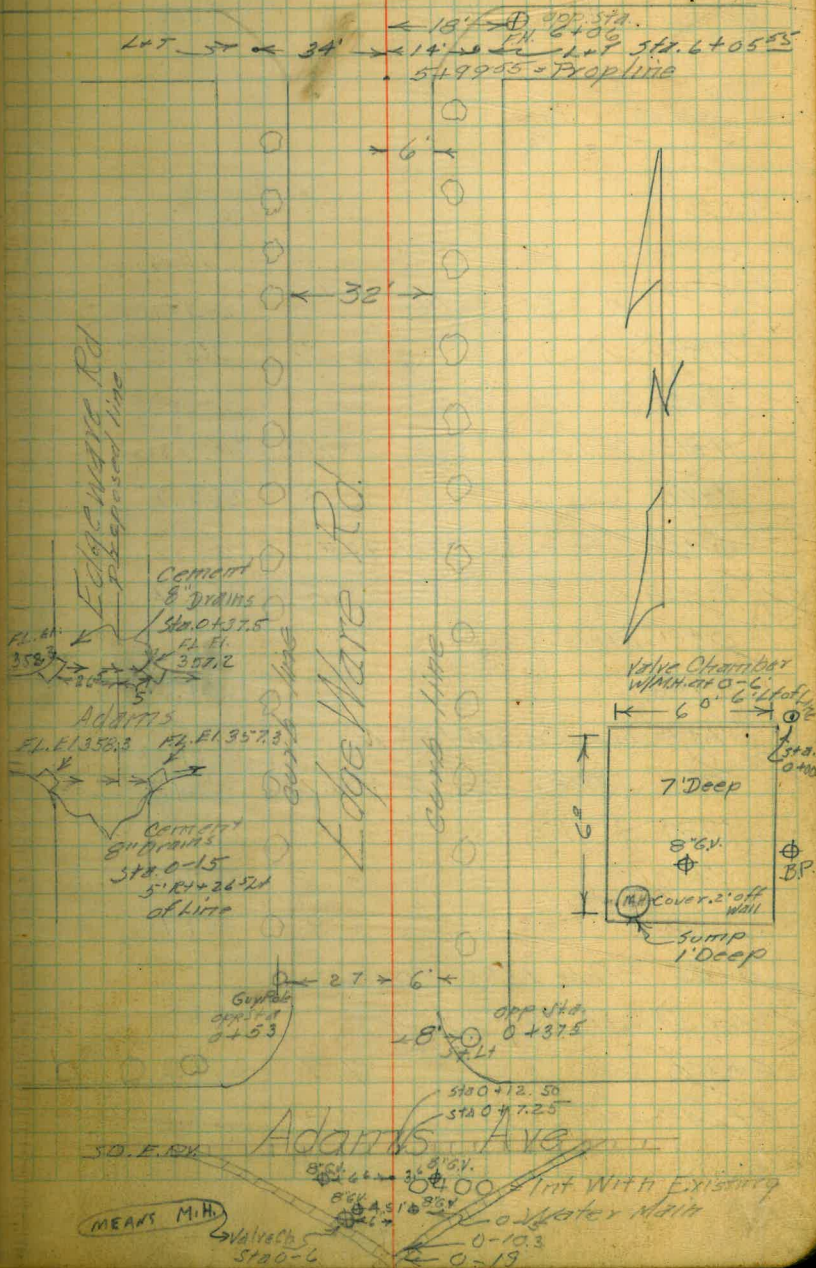
Apr. 5+3, 1997

Rainey  
King T  
Nieman  
Watts

+	H.I.	-	Elev.
6+06	Fire Hydrant 18'E		
	8.01	365.97	
7.P. #1		6.55	357.96
5+50		6.2	358.3
5+00		5.8	358.7
4+50		5.4	359.1
4+00		5.0	359.5
3+50		4.7	359.8
3+00		5.0	359.5
2+50		5.1	359.4
2+00		5.4	359.1
1+50		5.7	358.8
1+00		5.9	358.6
0+53	Guy Pole 27'W		
0+50		6.0	358.5
0+375	St. Lt. 8'E		
0+1250	N Rail S.D.E.R.V. 536	on Rail	359.15
0+725	S Rail S.D.E.R.V. 537	on Rail	359.14
0+00	28"GV 6'W 3'F 5.56		358.95
0-5°	2-8"GV 45'W 19'E		
0-6°	Valve Chamber 6'W		
0-10.3	N Rail of Vol. S.D.E.R.V.		
0-19	S Rail of Vol. S.D.E.R.V.		
	6.01	364.51	
	B.M. L.P. S.E. Cox Adams + Edgeware		358.50

NOTES RECORDED 5/8/47 - P.S.

Jefferson Ave.



2

+ H.I. - ELEV.

4.25 367.61

T.P.#2 2.61 363.36

9+35 8" G.V. 5.5 S.

9+13 St. Lt. 17'S Conduit Crossing

9+00 17'S 2.8 363.2

8+89.5 P.Pole 13'S #D27542T

8+50 3.8 362.2

8+01 P.Pole 13'S

8+00 4.7 361.3

7+95 Gas Co G.V. 15'S N 361.28

7+91 Sewer M.H. 5' N.H. 14.3 351.7

7+89 8" G.V. 6.7 S

7+50 5.8 360.2

7+00 6.9 359.1

6+65 P.Pole 12'S #D1726T

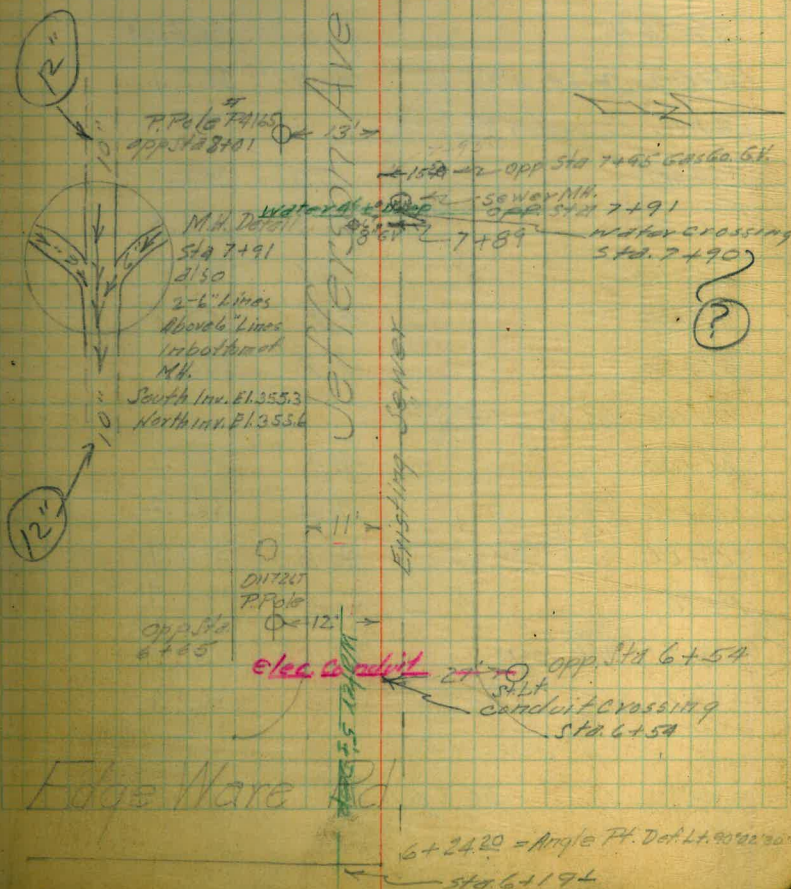
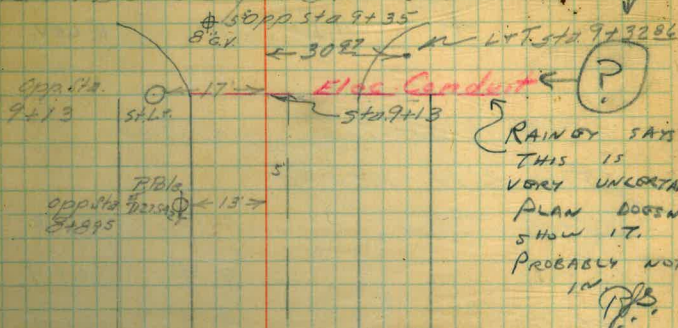
6+54 St. Lt. 27' N

6+50 7.7 358.3

6+24.20 4.90° 02' 30" Lt. 7.8 358.2

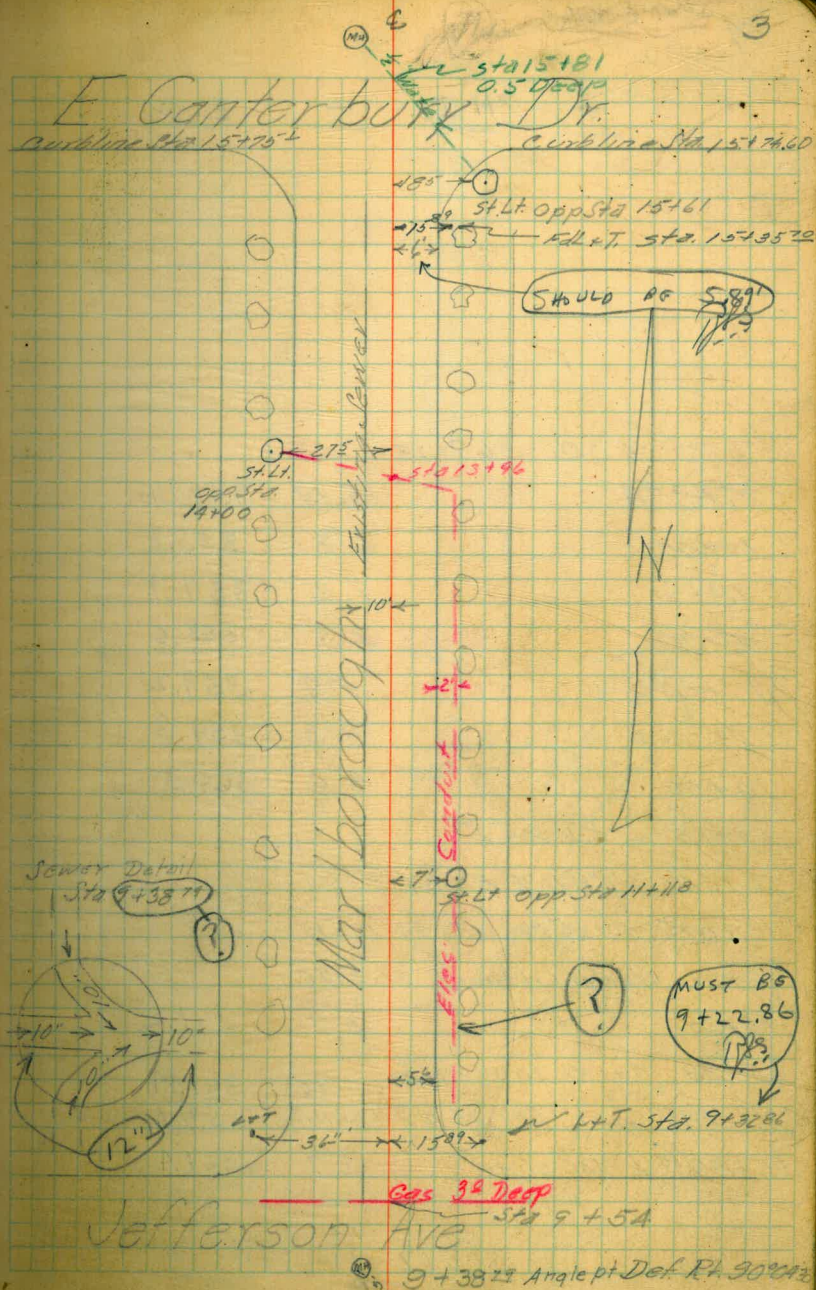
365.97

Marlborough St. Dr.



+	H.I.	-	ELEV.
15+81	$\frac{1}{2}$ " Water Crossing	0.5 Deep	
15+61	St. Lt.	18 $^{\circ}$ E	
15+50		3.7	361.4
15+40		3.4	361.7
14+50		3.2	361.9
	3.03	365.07	
TP <sup>3</sup>		5.57	362.04
14+00	St. Lt.	27 $^{\circ}$ W	5.5
13+96	Conduit Crossing		
13+50		5.3	362.3
13+00		5.3	362.3
12+50		5.1	362.5
12+00		4.9	362.7
11+50		4.7	362.9
11+11 $^{\circ}$	St. Lt.	7 $^{\circ}$ E	
11+00		4.4	363.2
10+50		4.4	363.2
10+00		4.2	363.4
9+50		4.2	363.4
9+43 <sup>23</sup>	Sewer M.H.	10' N	Rim 4.25
		Ink. 15.2	352.4
9+38 <sup>23</sup>	Angle pt	Def. Rt. 30 $^{\circ}$	4.2
			363.4

367.61



A

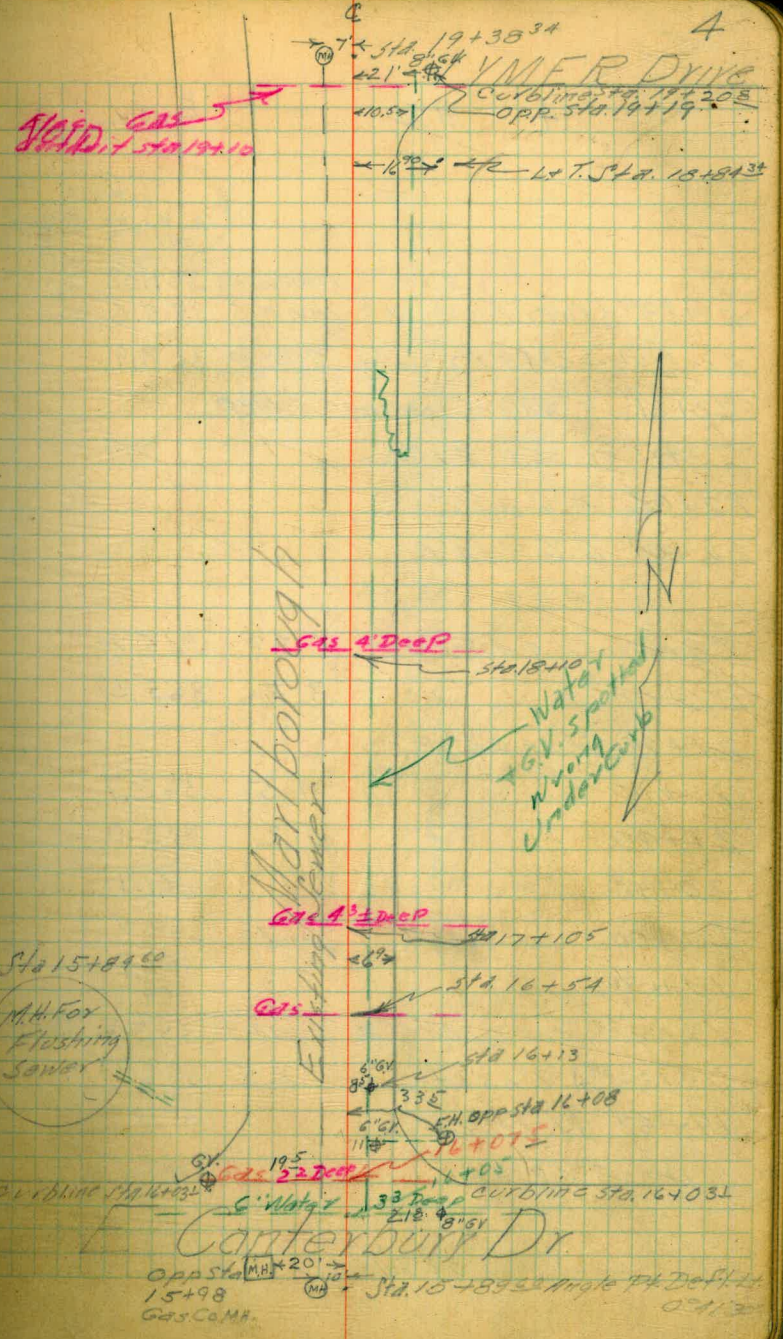
+ H.I. - ELEV.

T.P.	7.30	367.18	
T.P. #A		5.19	359.88
19+00		6.3	358.8
18+50		7.2	357.9
18+00		6.5	358.6
17+50		5.9	359.2
17+00		5.3	359.8
16+50		4.6	360.5
16+13	6" G.V. 85° E		
16+08	6" G.V. 11° E F.H. 33° E		
16+07.5	Gas Crossing 6" G.V. 19° W		
16+05	6" Water Crossing 8" G.V. 2.18° E		
16+00		3.9	361.2
15+98	Gas M.H. 20' W		
15+89.60	Sewer Flush M.H. 10' W	Rim 3.63 L.M.H. 11.3	361.94 353.8
15+89.60	4.0° 41' 30" Lt	3.7	361.4

365.07

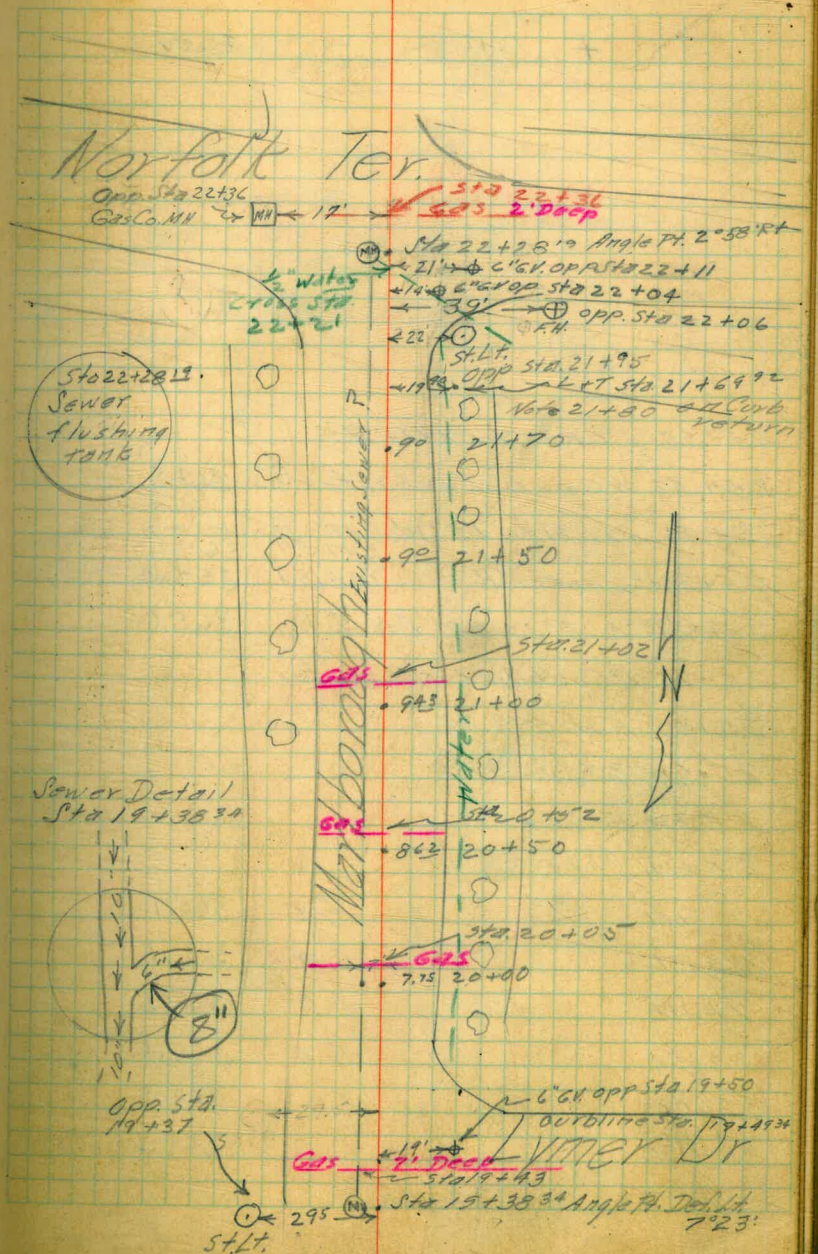
THIS IS  
DRY BOTTOM OF  
M.H. ONLY, SEWER  
MUST BE  
UNDER THIS.

4



	+	H.I.	-	Elev.
				THIS IS NOT TO BE OF M.H. ONLY SEWER MUST BE UNDER THIS
22+28 <sup>19</sup>	7'W	Rim 6.00		367.08
		Inv. 4.5		355.6 ←
22+28 <sup>19</sup>	4 2°58' Pt.		6.2	363.9
22+21	1/2" Water Crossing		0.5 deep	
22+11	6" G.V.		21'E	
22+06	F.H.		39'E	
22+04	6" G.V.		14'E	
		4.29		370.08
T.B.M. Top of H. Norf. Terrace		1.39		365.79
22+00		3.7		363.5
21+95	St. Lt. 22'E			
21+50		4.5		362.7
21+00		5.2		362.0
20+50		6.1		361.1
20+00		6.7		360.5
19+50		7.3		359.9
19+38 <sup>34</sup>	Sewer M.H. 7'W	Rim 7.30 Inv. 13.3		359.88
19+38 <sup>34</sup>	7°23' Lt.		7.5	359.7 change
19+37	St. Lt. 29°5' W			
19+19	8" G.V. 21'E			

367.18



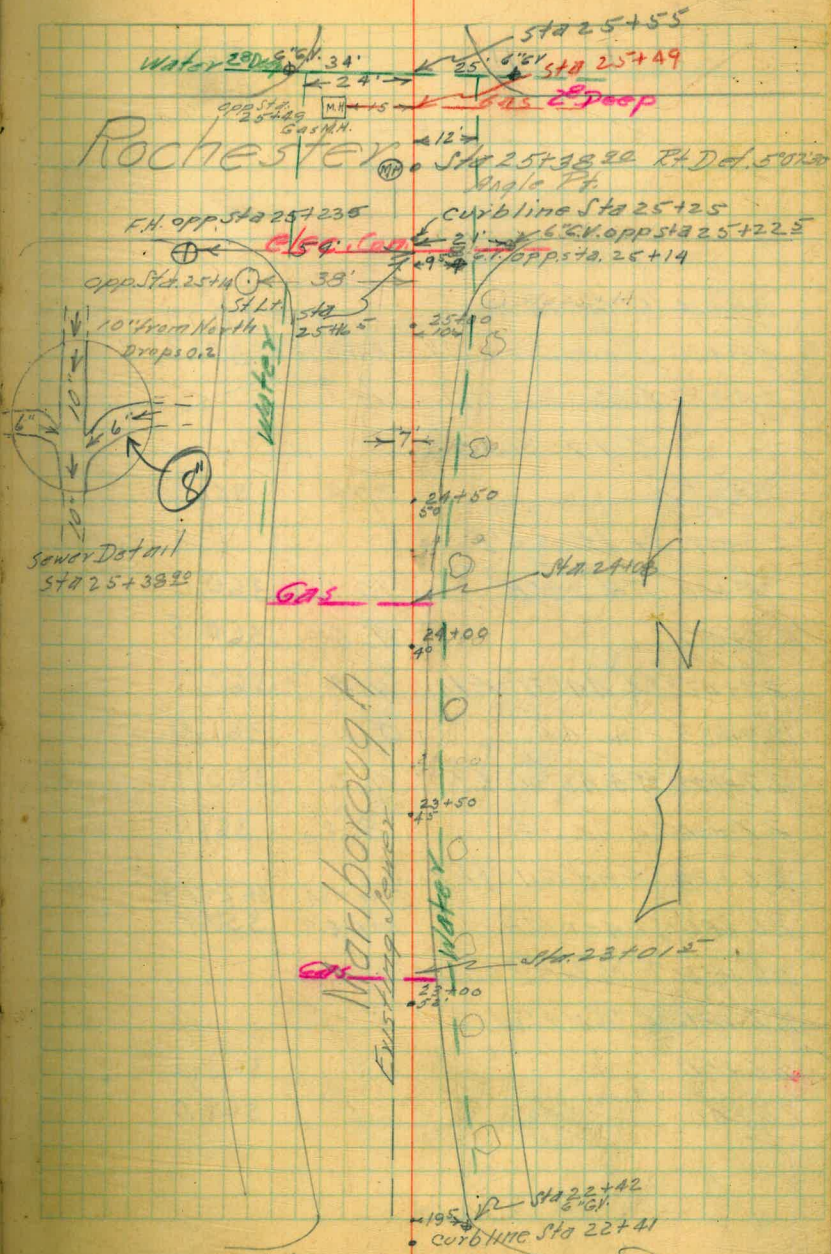


+ H.I. - Elev.

25+55	6" G.V. 25' E 6' 2" V. 34' W		
25+53	N Curb Rochester	5.3	364.8
25+49	Gas M.H. 15' W Gasline Crossing	Rm 5.11	364.97
25+38 <sup>90</sup>	Sewer M.H.	Inv. 15.3	354.8 charge
25+38 <sup>90</sup>	A 5° 07' 30" Rt. 5.1		365.0
25+25	S Curbline Rochester		
25+23 <sup>5</sup>	F.H. 59° W.		
25+22 <sup>5</sup>	6" G.V. 21' E		
25+14	8" G.V. 95° E		
25+14	St Lt. 38' W		
25+00		5.0	365.1
24+50		5.0	365.1
24+00		4.9	365.2
23+50		5.0	365.1
23+00		5.6	364.5
22+50		6.0	364.1

370.08

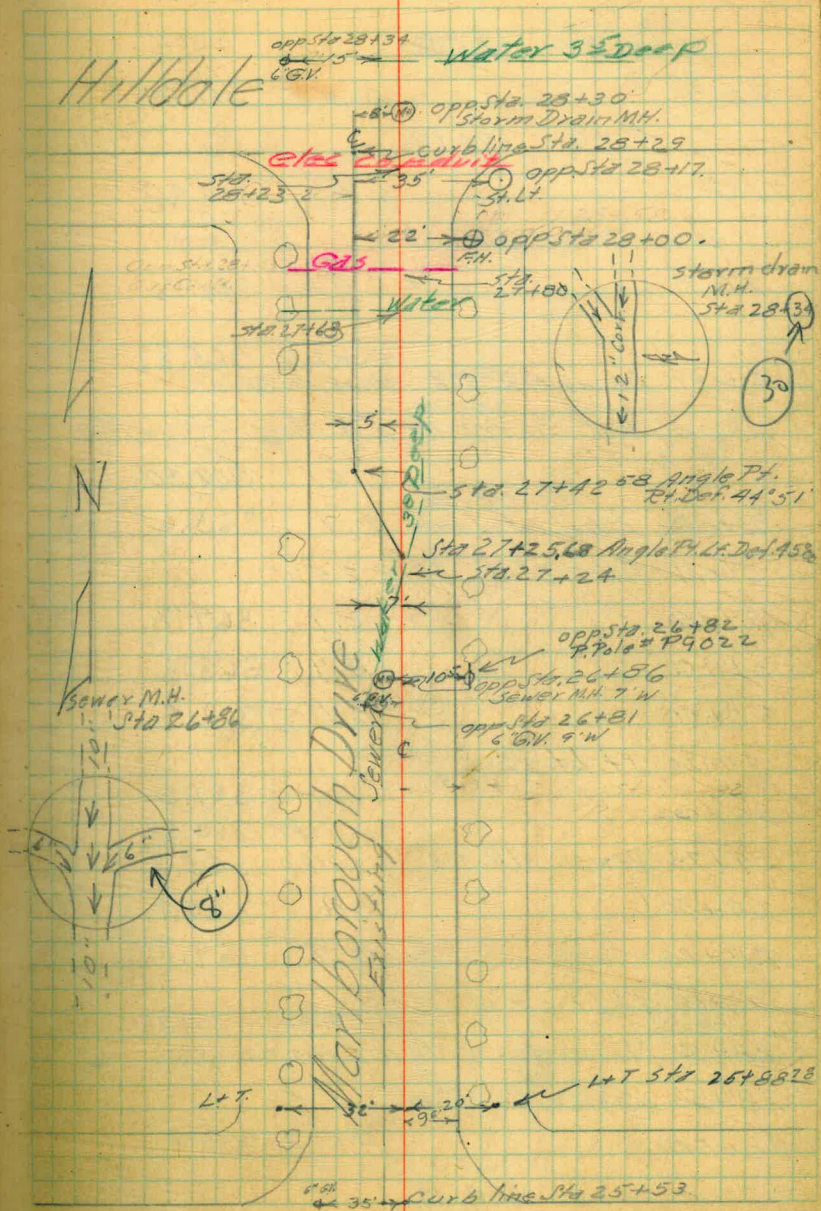
4"?



+ H.I. - Elev.

28+34	6" G.V. 15' W.	Rim 8.8	359.79
28+30	Storm drain M.H.	8' E Inv. 10.2	358.3
28+29	S. Curb Hilldale		
	6.17		368.47
T.P. #5		7.78	362.30
28+17	St. Lt. 35' E		
28+00	F.H. 22' E	10.1	360.0
27+50		9.6	360.5
27+42	5° A 44° 51' Rt.	9.4	360.7
27+35		9.1	361.0
27+25	6° A 45° 00' Lt.	9.2	360.9
27+00		8.2	361.9
26+88	End Oil St. Comp.	Rim 7.34	362.74
26+86	SEWER M.H.	Inv. 14.9	355.2
26+82	P Pole # P9022	10.5E	
26+81	6" G.V. 9' W		
26+50		6.9	363.2
26+00		6.1	364.0

370.08





+	H.I.	-	Elev.
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BM. L.P. S.E. Cor Adams + Edgewood 7.24 ← 358.51 ← Corr 358.50

3.56 365.75

T.P. #10 6.29 362.19

6.09 368.48

T.P. #9 3.11 362.89

365.50

10. Kensington Park Supply  
For Construction Line

cuts

Sept. 19, 1947

Rainey  
King  
Nichow

10

T.M. L.P. SE. Cor. Edgware + Adams 358.50

6.40 364.90

0+00	6.1	358.8		
0+50	6.6	358.3	354.8	3.5
0+75	6.4	358.5	354.7	3.8
1+00	6.3	358.6	354.7	3.9
1+50	6.1	358.8	354.7	4.1
2+00	5.8	359.1	354.7	4.4
2+50	5.5	359.4	354.6	4.8
3+00	5.8	359.1	354.6	4.5
3+50	5.2	359.7	354.6	5.1
4+00	5.8	359.1	354.6	4.5
4+50	5.8	359.1	354.5	4.6
5+00	6.2	358.7	354.5	4.2
5+50	6.8	358.1	354.3	3.6
5+75	6.8	358.1	354.5	3.6
6+00	7.2	357.7	354.5	3.2
6+24 <sup>20</sup> BK.	6.8	358.1	354.4	3.7
6+24 <sup>20</sup> Ahead	6.5	358.4	354.4	4.0
T.M. Set F.H. Cor. Edgware + Jefferson	4.64	360.26		

Kensington Park Supply Line  
for Construction

E.H. cor. Edgewood &amp; Jefferson 360.26

7.53 367.79

6+50	9.4	358.4	354.4	4.0
7+00	8.5	359.3	353.4	3.9
7+50	7.3	360.5	356.5	4.0
8+00	6.2	361.6	357.5	4.1
8+50	5.2	362.6	358.6	4.0
9+00	4.3	363.5	359.6	3.9
9+32 <sup>79</sup> <del>9+33<sup>79</sup></del>	4.3	363.5	359.7	3.8
9+50	4.3	363.5	359.8	3.7
10+00	4.1	363.7	359.3	4.4
T.P.#1	4.46	363.33		
	4.78	368.11		
10+50	4.6	363.5	358.8	4.7
11+00	4.6	363.5	358.5	5.0
11+50	5.0	363.1	358.2	4.9
12+00	5.1	363.0	358.0	5.0
12+50	5.3	362.8	357.7	5.1
13+00	5.4	362.7	357.4	5.3
13+50	5.6	362.5	357.1	5.4
14+00	5.9	362.2	356.8	5.4
14+50	6.1	362.0	356.5	5.5
15+00	6.3	361.8	356.2	5.6
T.P.#2	6.57	361.54		
20	2.82	364.36		

Sept. 22, 1947

Rainey  
King  
Nichol

Kensington Park Supply  
Line  
for Construction

364.36

15+50	3.2	361.2	356.9
15+85	3.1	361.3	357.4
15+89 <sup>60</sup> 4 Pt.	3.1	361.3	357.4
16+00	3.3	361.1	357.4
16+10	3.6	360.8	357.4
16+50	4.3	360.1	356.0
17+00	4.9	359.5	355.5
17+50	5.5	358.9	355.0
18+00	6.1	358.3	354.5
18+50	6.6	357.8	354.0
19+75	6.3	358.1	354.0
19+00	<sup>5</sup> 5.9	358.5	354.7
19+25	<sup>4</sup> 5.9	359.5	355.4
19+38 <sup>34</sup> 4 Pt.	4.7	359.7	355.5
19+50	4.6	359.8	355.6
20+00	4.3	360.1	355.8
20+50	3.5	360.9	356.5
21+00	2.7	361.7	357.2
T.P.#3	2.82	361.54	
8.90	370.44		
21+25	8.3	362.1	357.6
21+50	7.9	362.5	358.5
21+75	7.6	362.8	359.4
22+00	7.2	363.2	359.6

4.3

3.9

3.9

3.7

3.4

4.1

4.0

3.9

3.8

3.8

4.1

3.8

4.1

4.2

4.2

4.3

4.4

4.5

4.5

4.0

3.4

3.6

370.44

22+28 <sup>19</sup> 4 PT	6.8	363.6	359.7	3.9
22+50	6.7	363.7	359.9	3.8
23+00	5.7	364.7	360.2	4.5
23+50	5.0	365.4	360.6	4.9
24+00	4.9	365.5	360.9	4.6
24+50	5.1	365.3	361.1	4.2
25+00	5.7	364.7	361.2	3.5
25+35	5.5	364.9	361.3	3.6
25+38 <sup>90</sup> 4 PT	5.6	364.8	361.3	3.5
25+60	6.0	364.4	360.3	3.1
26+00	6.9	363.5	360.2	3.3
26+50	7.8	362.6	359.3	3.3
27+00	8.9	361.5	358.4	3.1
27+25 <sup>68</sup> BK. 4 PT	9.9	360.5	357.9	2.6
27+25 <sup>68</sup> Ah. 4 PT	9.9	360.5	357.9	2.6
27+42 <sup>58</sup> 4 PT BK.	9.8	360.6	356.7	3.9
T.P.#4	9.94	360.50		
7.72	368.22			
27+65	8.0	360.2	355.0	5.2
28+00	8.3	359.9	355.0	4.9
28+50	8.5	359.7	354.9	4.8
29+00	8.4	359.8	354.8	5.0
29+25	8.4	359.8	354.8	5.0
29+50	8.1	360.1	355.8	4.3

c/s



368.22

29+75	7.7	360.5	356.8
30+00	7.1	361.1	357.1
30+50	5.9	362.3	357.7
31+00	4.6	363.6	358.3
31+50	3.4	364.8	360.8
31+81 <sup>45</sup> End.	2.6	365.6	360.8
T.B.M. F.H. Middle Sex + Marlborough	0.38	367.84	

3.7

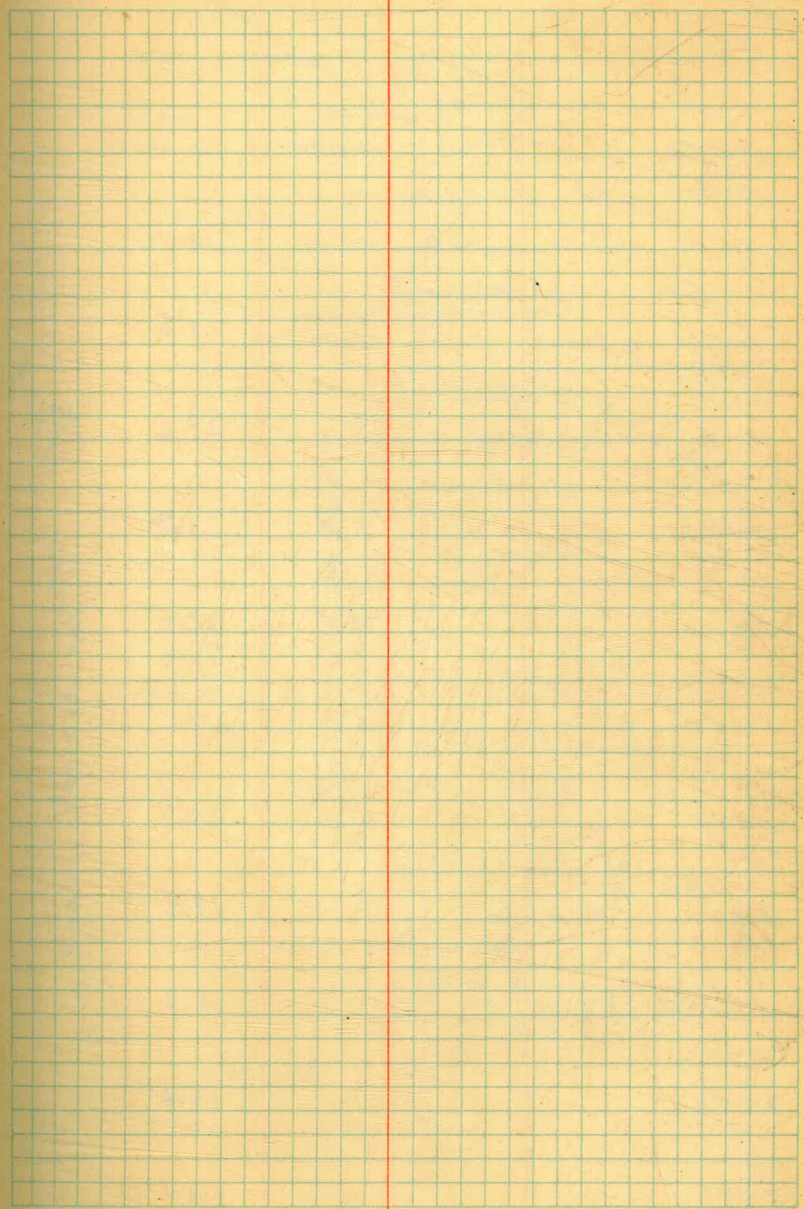
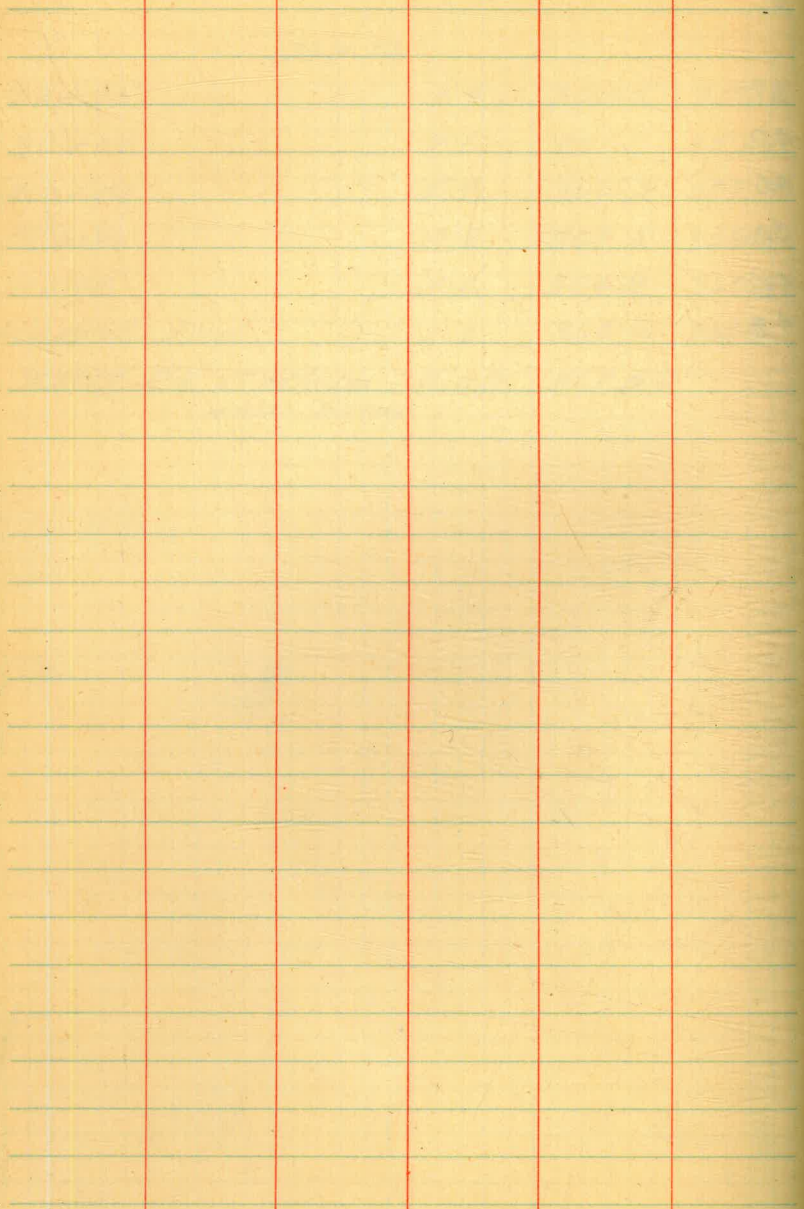
4.0

4.6

5.3

4.0

4.8

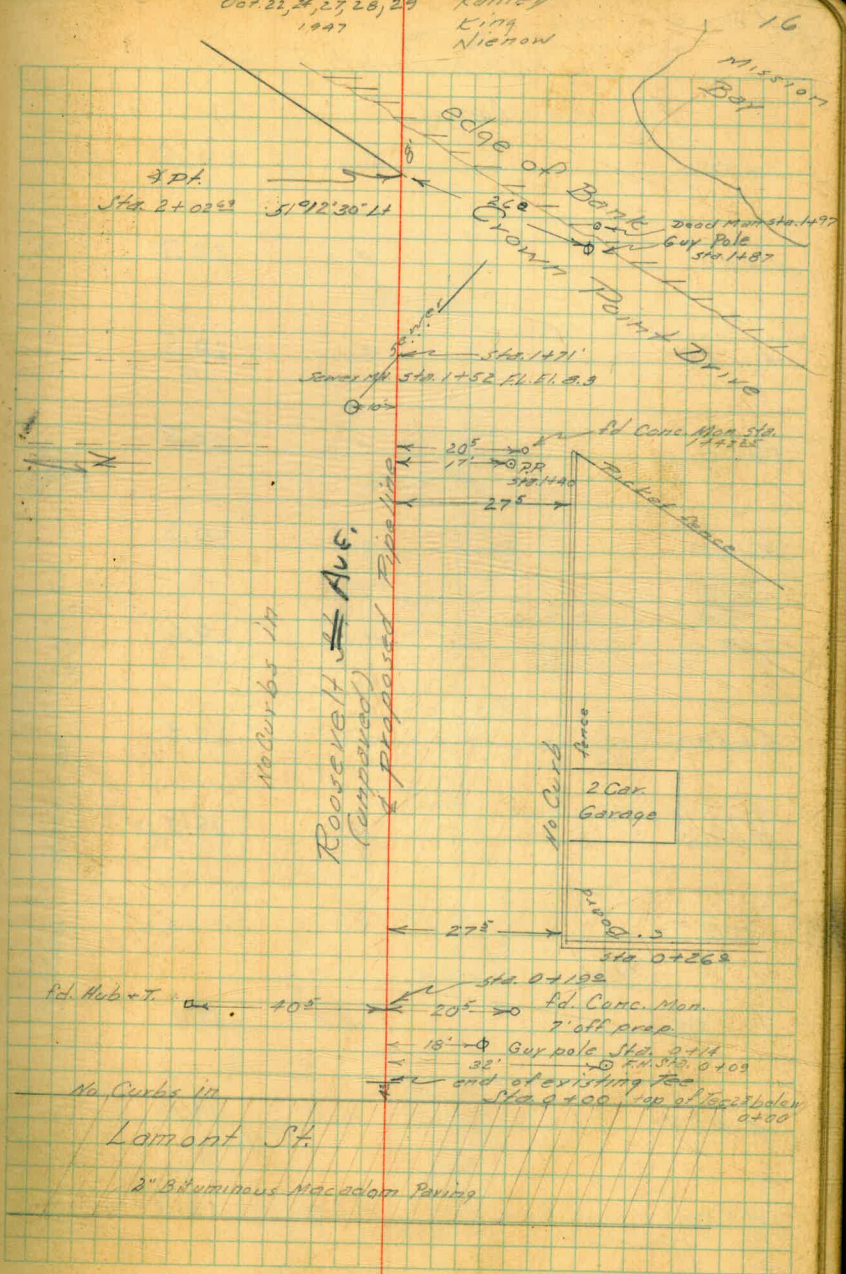


16 Crown Point Pipeline

B.M. No. 7 CT Pacific Beach Drive + Lamont 35.28			
	1.05	36.33	
TR#1		11.87	24.46
	0.94	25.40	
TR#2 on E.H. Lamont + Roosevelt 7.9			
	1.22	24.83	
0-14	6 Road	3.0	21.8
0-4	edge Road	3.2	21.6
0+00		3.4	21.7
0+50		3.9	20.9
1+00		4.7	20.1
1+50		4.8	20.0
2+00		5.0	19.8
2+02 <sup>55</sup>	4 Pt	5.0	19.8
2+50		5.2	19.6
3+00		4.7	20.1

NOTES RECORDED 10/31/47

Oct 22, 23, 27, 28, 29  
1947 Rainey  
King  
Nichow



## Crown Point Pipeline

24.83

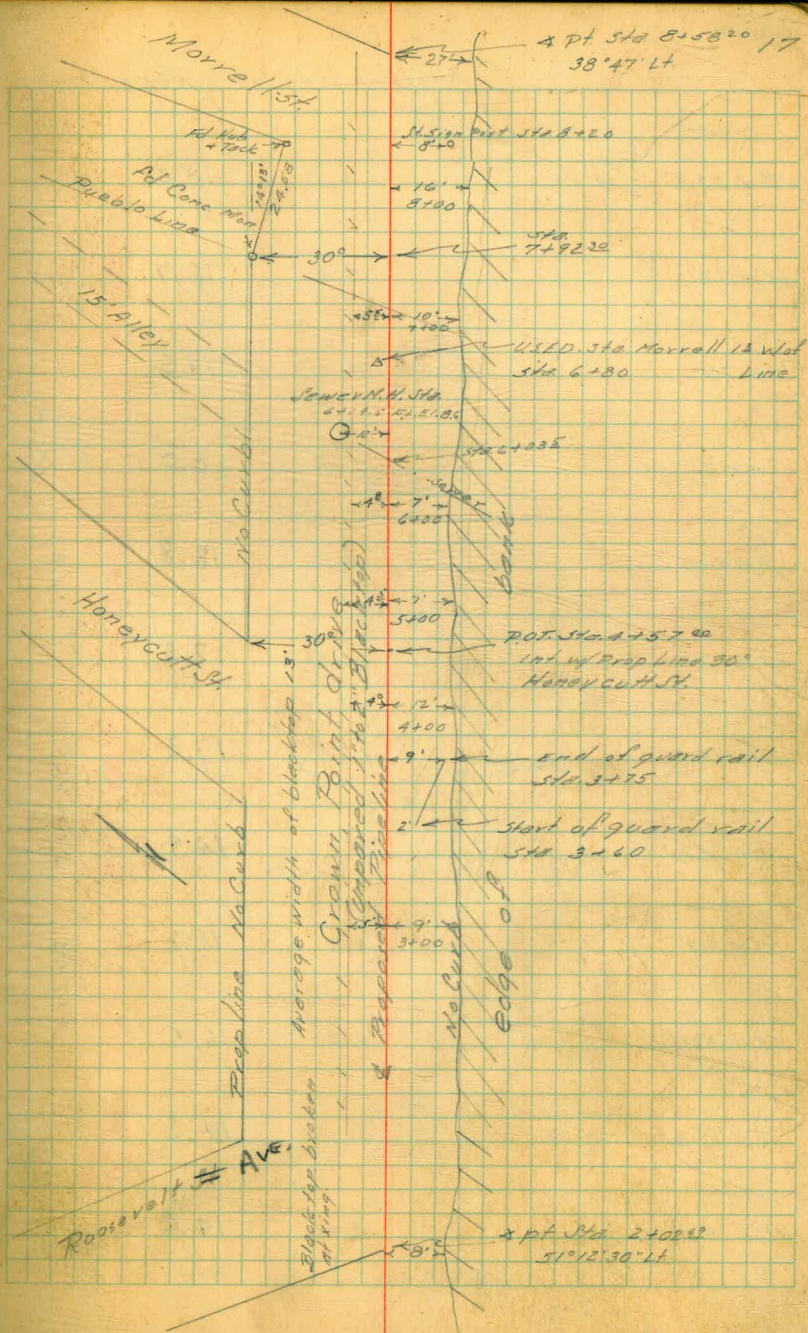
3+50	4.3	20.5
4+00	4.1	20.7
4+50	4.3	20.5
5+00	4.3	20.5
5+50	4.3	20.5
6+00	4.2	20.6
6+50	4.5	20.3
7+00	4.9	19.9
T.P. #3	4.60	20.23
3.22	23.45	
7+50	4.4	19.1
8+00	4.5	19.0
8+50	4.7	18.8

SIS

10/31/47

REDUCED

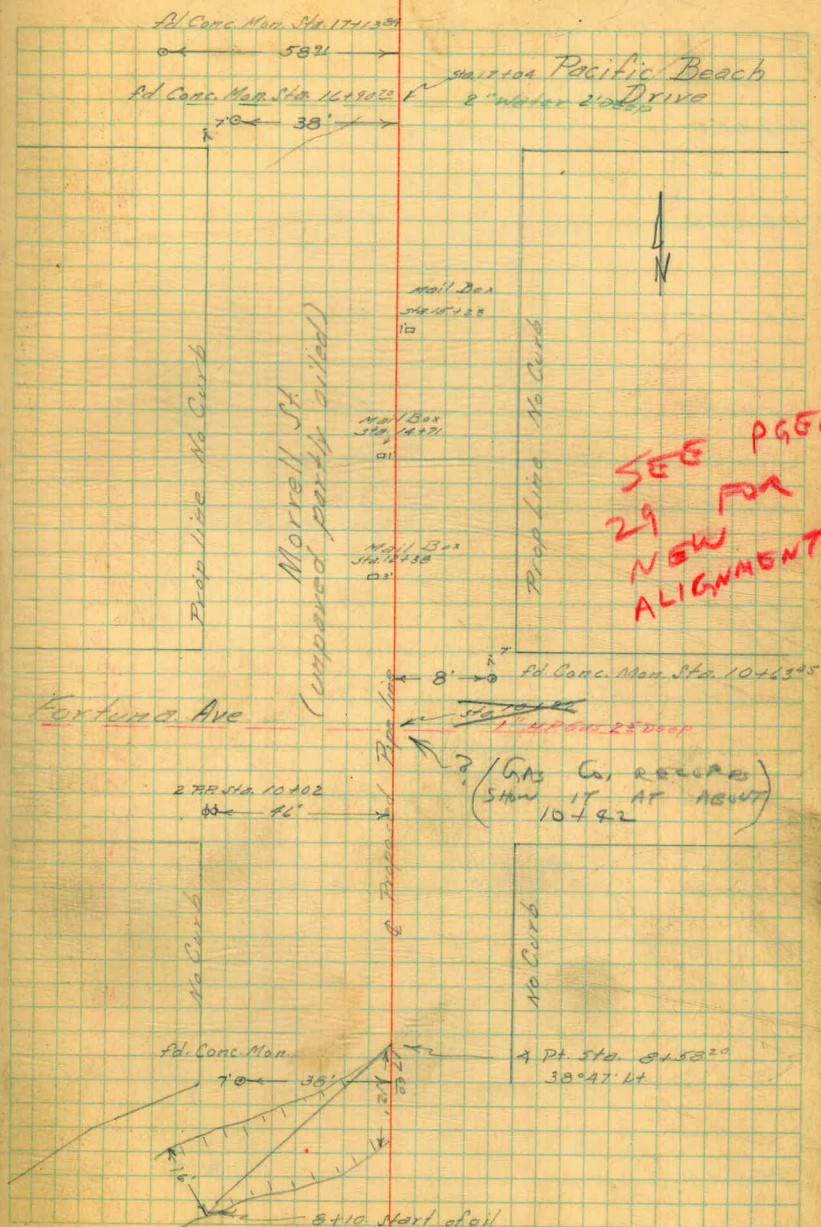
NOTES



## Crown Point Pipeline

	23.45		
8+58.20	2 pt	4.9	18.6
8+73		4.8	18.7
8+78		4.0	19.5
9+00		3.5	20.0
9+50		4.7	18.8
10+00		6.0	17.5
10+08		6.2	17.3
10+17		7.1	16.4
10+38		7.3	16.2
10+50		7.0	16.5
11+00		8.7	14.8
11+50		8.9	14.6

SEE PAGE 32 FOR REVISED PROFILE  
 10/31/47  
 NOTES RECALC'D  
 SEE PAGE 29 FOR NEW ALIGNMENT



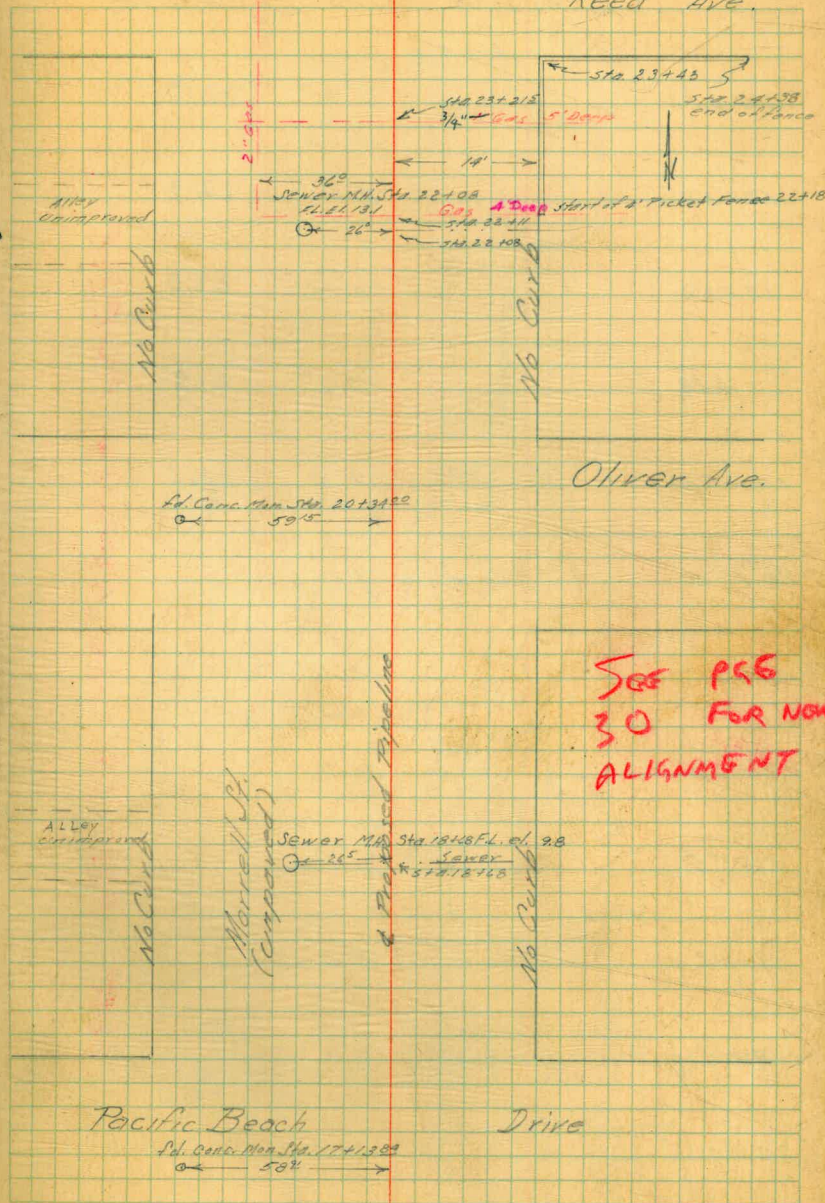
Crown Point Pipeline

Station	Profile	Profile	Profile
	23.45		
12+00	9.3		
12+50	6.2		
13+00	6.2		
T.P.#4	5.87	17.58	
	11.39	28.97	
13+50	9.7		
14+00	8.4		
14+50	7.3		
15+00	6.0		
15+50	5.2		
16+00	4.8		
16+50	5.7		
16+90	5.6	23.7	

SEE PGS. 33 FOR REVISED PROFILE

Ed. Conc. Man. Sta. 20+37.5

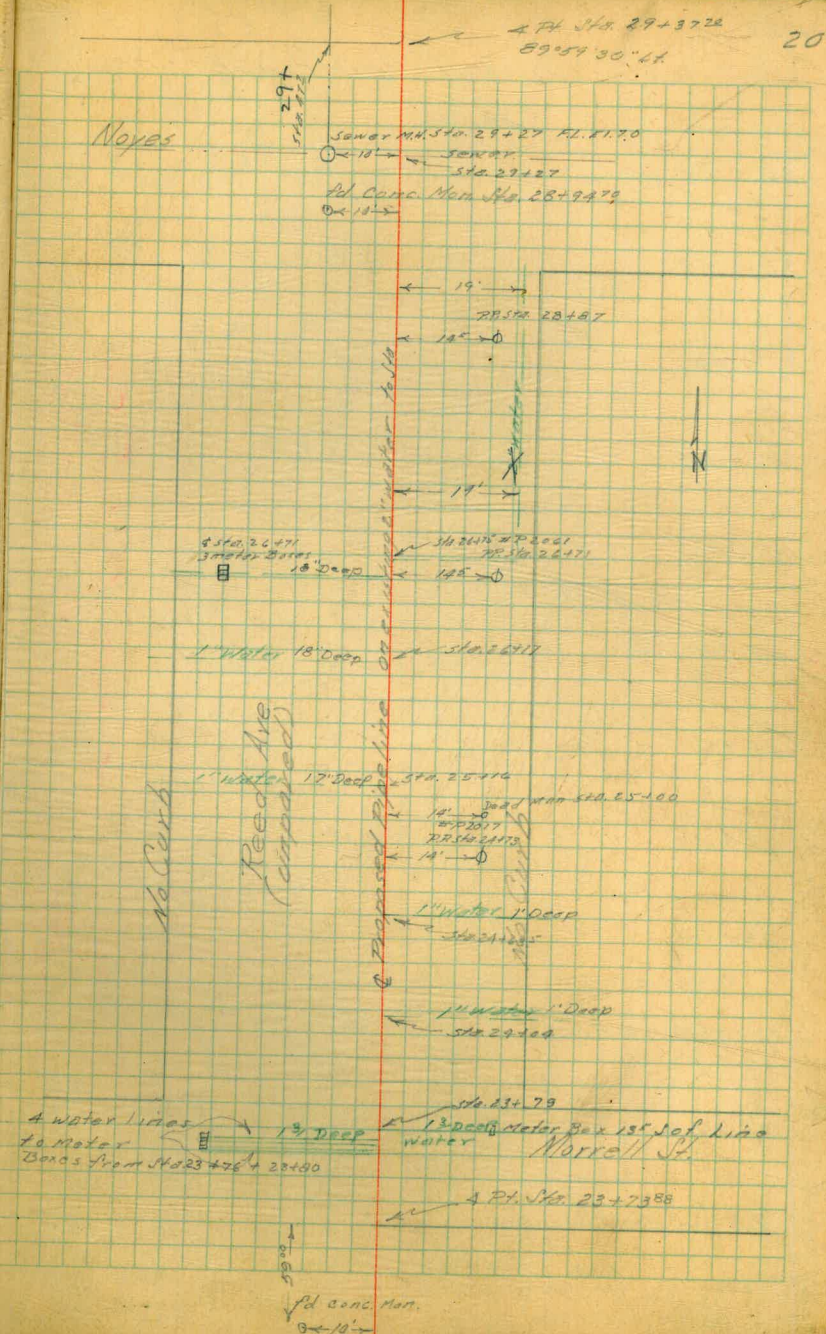
3rd Pk. Sta. 23+73.85  
89°54'30" E



## Crown Point Pipeline

	28.97		
17+00		6.3	22.7
17+26		6.6	22.4
17+32		6.0	23.0
17+39		7.2	21.8
17+50		7.5	21.5
18+00		9.2	
18+50		10.7	
19+00		11.9	
IR#5		9.83	19.14
	4.92	24.06	
19+50		8.6	
19+81		10.8	
20+00		10.4	

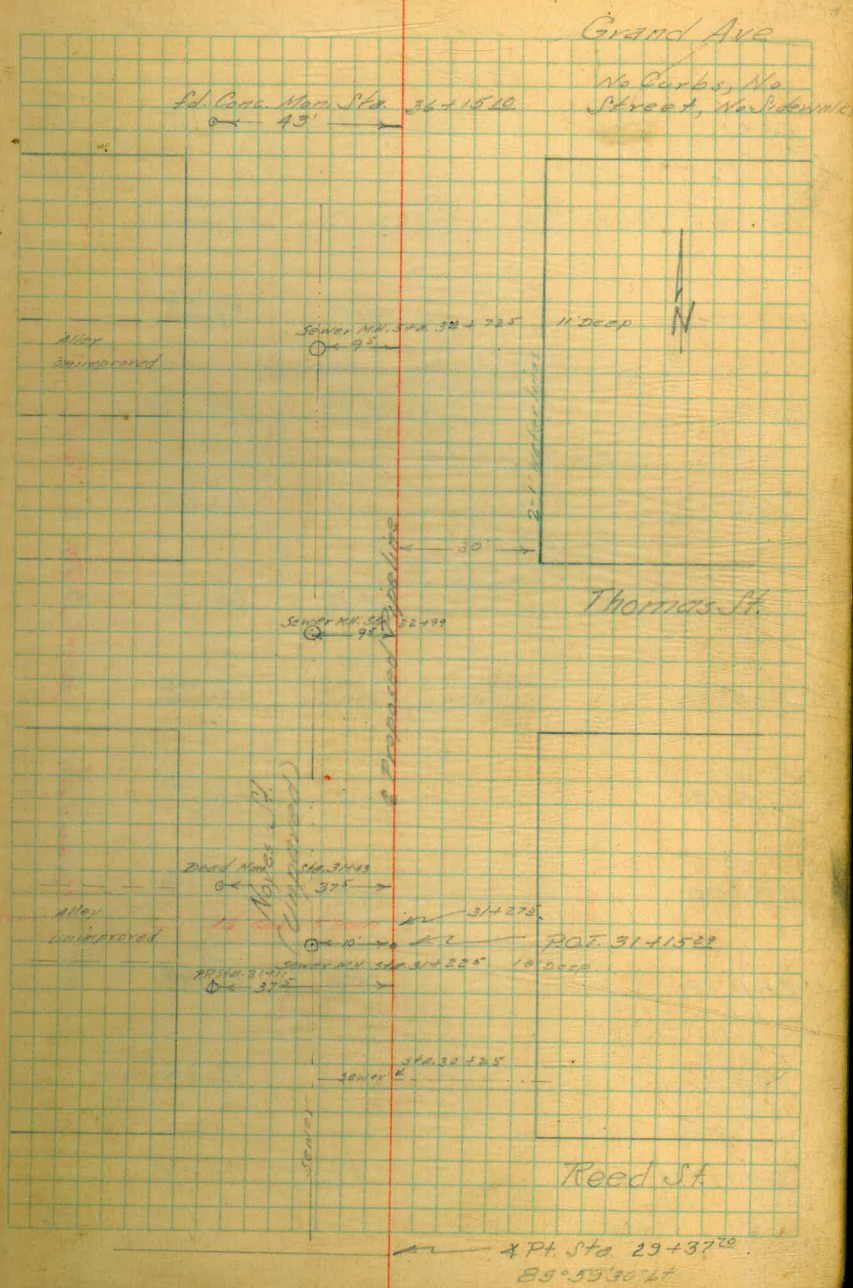
SEE PAGE 34 FOR REVISED PROFILE



## Crown Point Pipeline

Station	Profile	Profile	Profile
20+50	10.0		
20+57	9.9		
21+00	5.9		
21+50	0.8		
T.P. #6	0.98	23.03	
	10.53	33.66	
22+00	8.7		
22+50	6.4		
23+00	5.4		
23+50	4.3		
23+73.88 A Pt.	4.2	29.5	
24+00	5.2	28.46	
T.P. or center line foundation	3.6	28.90	
	1.13	29.03	

SEE PROF. 34+35 FOR  
REVISED PROFILE

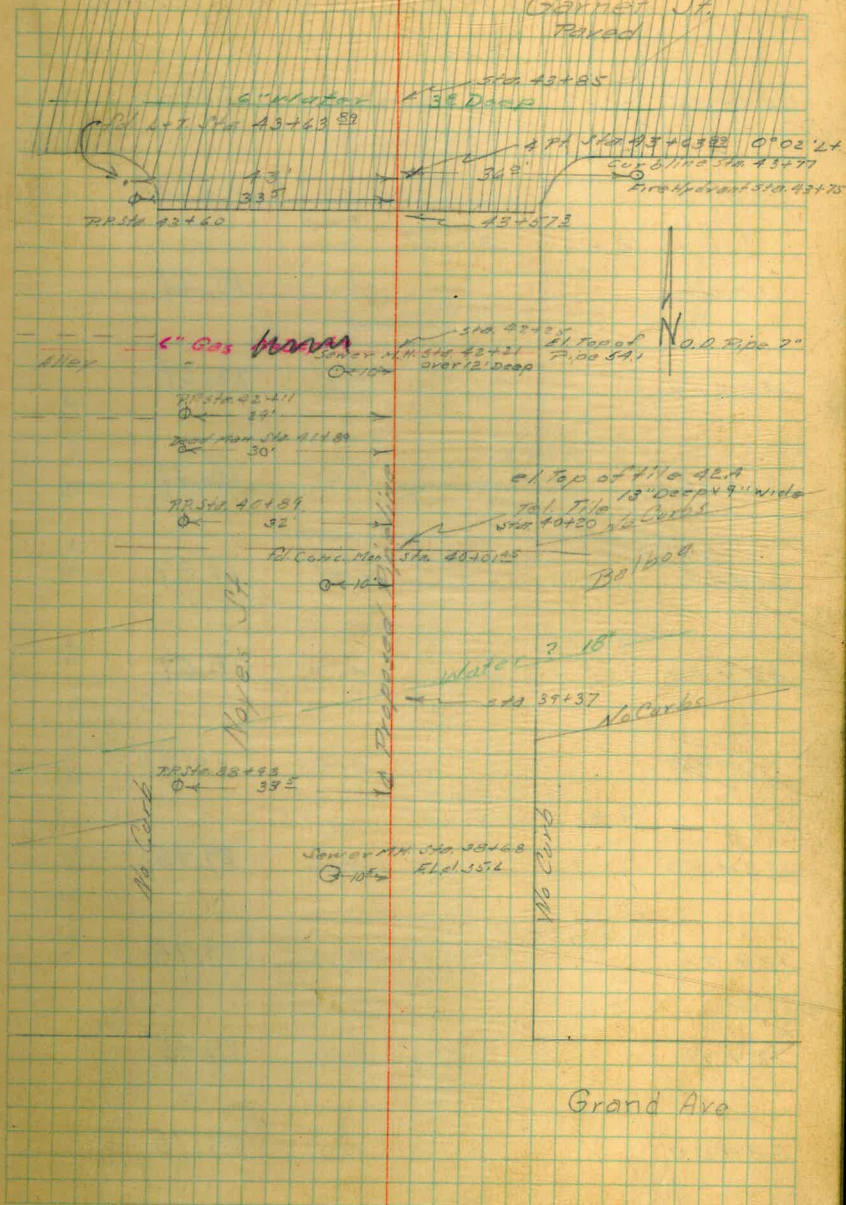




## Crown Point Pipeline

	27.03		
24+50		2.9	26.13
25+00	on exist. 2" water	6.5	22.53
25+50		11.5	17.53
TR #8		12.24	16.79
	0.49	17.28	
26+00		2.1	15.18
26+50		4.0	13.28
27+00		5.3	11.98
27+50		5.9	11.38
28+00		6.6	10.68
28+50		5.8	11.48
29+00		5.0	12.28
29+37.25	3 Pt	4.0	13.28

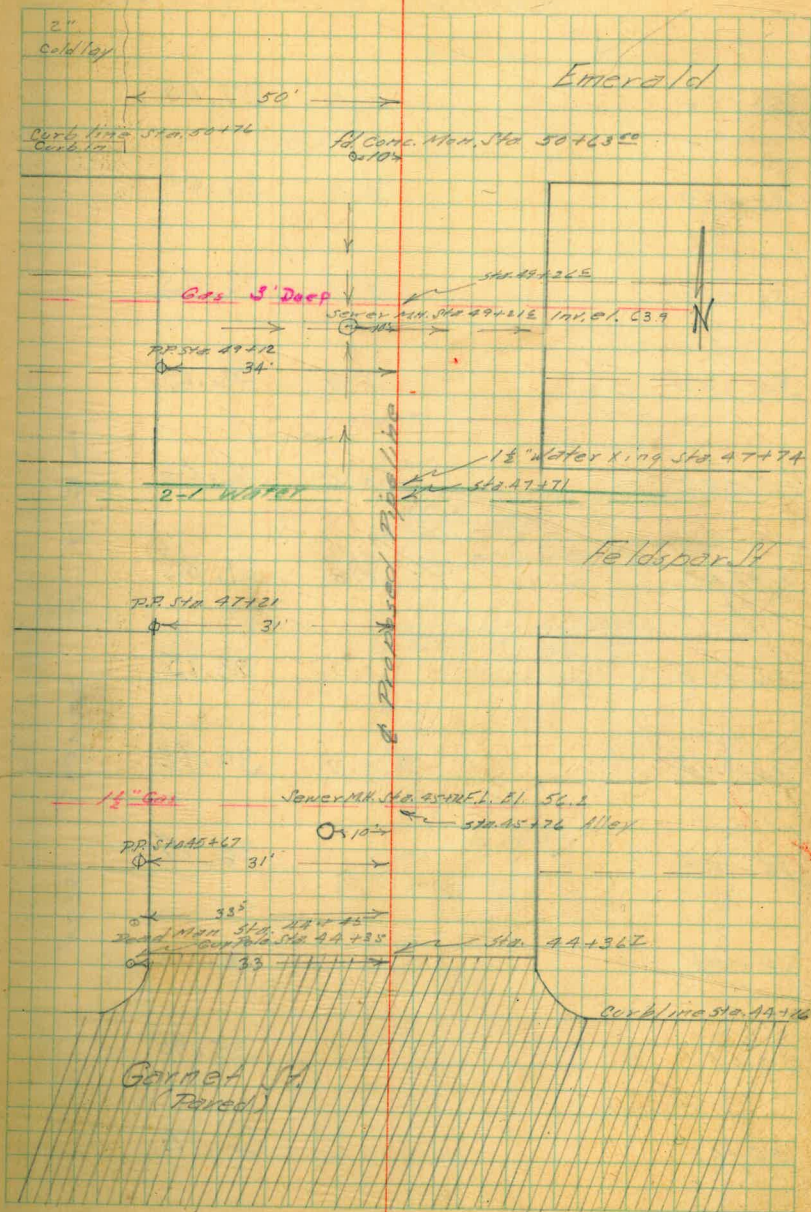
NOTES REVISED BY D.M.L.

Garnet St.  
Tared

## Crown Point Pipeline

	17.28		
29+50		3.4	13.88
T.P. 39		0.53	16.75
	12.62	29.37	
30+00		11.1	18.27
30+50		7.0	22.37
31+00		3.6	25.77
31+50		1.5	27.87
32+00		0.7	28.67
T.P. 40		0.44	28.93
	8.72	37.65	
32+50		8.2	29.45
32+72		7.9	29.75
32+91		8.2	29.45
33+00		7.9	29.75

NOTES RECORDED BY D.M.L.

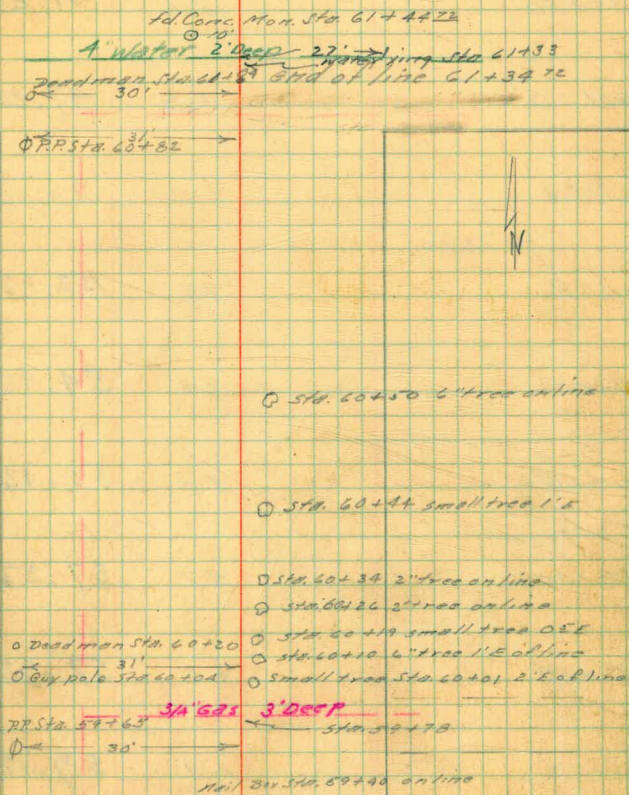




	37.65		
36+73		2.4	35.25
T.P.#11		0.57	37.08
	12.85	49.93	
36+80		11.8	38.13
36+84		12.5	37.43
36+93		12.5	37.43
37+00		11.5	38.43
37+27		10.9	39.03
37+34		7.5	40.43
37+50		8.6	41.33
38+00		6.6	43.33
38+50		5.6	44.33
39+00		6.0	43.93

NOTES RECORDED BY D.M.L.

Chalcedony



Missouri

	49.93		
39+50		5.1	44.83
40+00		2.9	47.03
I.P.#12		0.81	49.12
	12.80	61.92	
40+50		2.6	52.32
41+00		2.5	54.92
41+50		5.8	56.12
42+00		4.7	57.22
42+50		4.0	57.92
43+00		2.8	59.12
43+50		1.5	60.42
43+57 <sup>3</sup>	Sedge apron	1.42	60.50
I.P.#13		0.94	60.98
	5.93	66.91	

BY D.M.L.  
REDCOR  
NOTES

	66.91		
43+968		5.8	61.11
44+175		5.7	60.21
44+362	on N edge apron	6.15	60.76
44+50		6.0	60.91
45+100		5.6	61.31
45+50		4.4	62.51
46+00		3.7	63.21
46+50		2.9	64.01
47+00		1.5	65.41
47+50		0.7	66.21
TR #1A		0.61	66.30
	12.44	78.74	
48+00		11.3	67.44

NOTES RECORDED BY D.M.L.

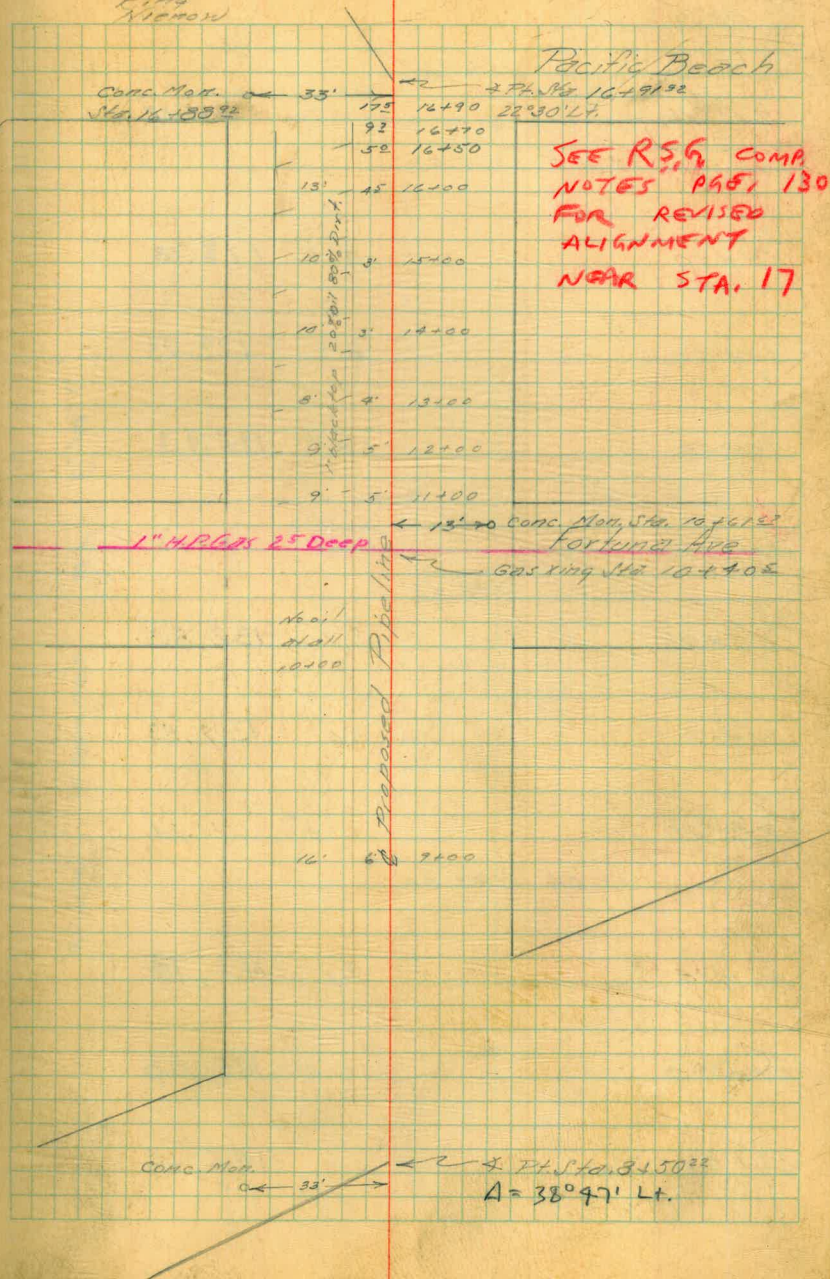
	78.74		
48+50		10.3	68.44
49+00		9.0	69.74
49+50		7.5	71.24
50+00		6.1	72.64
50+50		4.7	74.04
51+00		3.1	75.64
51+50		1.6	77.14
52+15		0.30	78.14
	13.03	91.47	
52+00		12.6	78.87
52+50		10.6	80.87
53+00		8.6	82.87
53+50		6.7	84.77

NOTES REDUCED BY D.M.L.

54+00	21.47	5.0	86.47
54+36 <sup>2</sup>		3.71	87.76
54+56 <sup>2</sup>		3.33	88.14
TR #16		0.68	90.79
	12.90	103.69	
55+00		10.7	92.99
55+50		4.7	98.99
TR #17		0.84	102.85
	13.00	115.85	
56+00		11.8	104.05
56+50		8.6	107.25
57+00		6.1	109.75
57+50		3.6	112.25
58+0.0		0.7	115.15

NOTES RECORDED BY D.M.L.

Nonas, New Alignment Crown Point Pipeline 29  
 Rainey  
 City  
 Vietnam





	115.85		
TR #18		0.47	115.38
	12.85	128.23	
59+50		10.2	118.03
59+00		6.2	122.03
59+50		1.8	126.43
TR #19		0.21	128.02
	12.51	140.53	
60+00		2.7	132.83
60+50		1.0	139.53
TR #20		0.29	140.24
	12.64	152.88	
60+76		2.1	143.78
61+00		2.4	145.48
61+07		6.7	146.18

NOTES REDUCED BY D.M.L.

Comp. Map. 48'  $\rightarrow$   
 X Pk Sta 23+73.29 int. w/ original Pk.  
 89°59'30" RT 23+84.22 Bk 23+73.29 Ak.

Reed Ave.

Comp. Map. Sta. 20+33.41  
 of 48'  $\rightarrow$

Oliver Ave.

SEE R.S.G. COMP.  
 NOTES PGE. 130  
 FOR REVISED  
 ALIGNMENT  
 NORA STA. 17.

Comp. Map. Sta. 17+13.30  
 of 48'  $\rightarrow$   
 1/4" black top (Spot)  
 X Pk Sta. 17+07.50  
 22°30' RT  
 Sta. 17+01  
 X Pk Sta. 16+31.22  
 22°30' RT

Pacific Beach  
 DRIVE

	152.88		
61+34 <sup>3</sup> end		0.7	152.18
TR#1 top of culvert		1.34	151.54
	0.33		151.87
TR#22		12.26	139.61
	0.11		139.72
TR#23		12.79	126.93
	0.24		127.17
TR#24		12.95	114.22
	0.58		114.80
TR#25		12.39	102.41
	0.96		103.37
TR#26		12.44	90.93
	0.18		91.11
TR#27		12.67	78.44
	0.20		78.64
TR#28		11.80	66.84
	1.13		67.97
TR#29		5.79	62.18
	5.21		67.39
BM B.P. NW. Cor. Garth + Hayes	5.16		62.23

## Reprofile Crown Pt. Line

TP#3 P. 17		20.23	
	3.25	23.48	
8+50 <sup>22</sup> S Pt.	4.7	18.8	
9+00	4.2	19.3	
9+50	5.0	18.5	
10+00	6.5	17.0	
10+10	7.1	16.4	
10+27	6.9	16.6	
10+50	7.2	16.3	
11+00	8.6	14.9	
11+50	8.8	14.7	
TP#1	8.43	15.05	
	12.71	27.7 <sup>6</sup>	
12+00	13.1	14.7	

P/S

12/10/47

REPROFILES

NOTES

	27.76		
12+50		12.1	15.7
13+00		10.5	17.3
13+50		8.8	19.0
14+00		7.4	20.4
14+50		6.1	21.7
15+00		4.8	23.0
15+50		4.2	23.6
16+00		3.7	24.1
16+50		4.4	23.4
16+91 <sup>22</sup> 7 Pt.		4.9	22.9
17+00		4.8	23.0
17+07 <sup>60</sup>		4.7	23.1

12/10/47

12/10/47

NOTES RECORDED

	27.76		
17+50		5.8	22.0
18+00		7.5	20.3
18+50		9.1	18.7
19+00		10.0	17.8
19+50		12.4	15.4
T.P. #2		11.84	15.92
	11.36	27.28	
19+80		13.3	14.0
20+00		13.2	14.1
20+50		13.0	14.3
21+00		9.6	17.7
21+50		5.0	22.3
22+00		2.4	24.9

5/11

24/10/42

NOV 20 1942

	27.28		
22+50		0.1	27.2
T.P.#3		0.53	26.75
	7.56	34.31	
23+00		6.2	28.1
23+50		4.9	29.4
23+73 <sup>29</sup> A Pt.		4.6	29.7
23+84 <sup>29</sup> Bk = 23+73 <sup>28</sup>		4.8	29.5
T.B.M. Conc. Found. P.21		6.32	27.90 27.92

S.P.

12/10/47

NOTES RECORDED

# Crown Point for Construction

Top E.H. Roosevelt's Lament

	1.32	24.93	23.61	4' off S+E
0+00			3.6	21.3 18.0
0+50			4.0	20.9 19.5
1+00			4.8	20.1 17.0
1+50			4.9	20.0 16.3
2+02 <sup>29</sup> BK			5.1	19.8 15.6
2+02 <sup>29</sup> AH			5.0	19.9 15.6
2+50			5.3	19.8 15.5
3+00			5.0	19.9 15.4
3+50			4.4	20.5 15.3
4+00			3.9	21.0 15.2
4+50			4.1	20.8 15.1
5+00			4.6	20.3 15.0
5+50			4.5	20.4 14.9
6+00			4.4	20.5 14.8
Men. A. Marcell			4.46	20.47
ck. 4+00			4.2	20.7
				20.47
	3.16	23.63		
6+50			3.2	20.4 14.3
7+00			3.9	19.7 13.8
7+50			4.9	18.7 13.3
8+00			4.9	18.7 12.8
8+50 <sup>32</sup>			5.0	18.6 12.3
8+50 <sup>22</sup> L			4.9	18.7 20.23

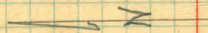
Cuts.

May, 28, 1948

Rainey 36  
E. 1/2  
Daker  
West

R.P.s. to A. Marcell

3.3  
3.4  
3.1  
3.7  
4.2  
4.3  
4.1  
4.5  
5.2  
5.8  
5.7  
5.3  
5.5  
5.7  
6.1  
5.9  
5.4  
5.9  
6.3



E  
Sight S.E. Cor. of  
Linda Vista  
Water Tank

			20.47		
	2.15	22.62			
8+50 <sup>22</sup>			4.1	18.5	12.3
9+00			5.8	18.8	12.1
9+50			4.6	18.0	12.0
			5.2	17.4	15.3
F.H. 9+91		(5)	5.4	17.2	15.3
10+00			6.0	16.6	11.8
10+50			6.6	16.0	11.9
11+00			7.6	15.0	12.0
11+50			8.0	14.6	12.1
12+00			8.5	14.1	12.2
12+50			7.4	15.2	13.0
13+00			5.3	17.3	13.8
13+50			3.2	19.4	14.8
T.P.			3.72	18.90	
	9.40	28.30			
13+75			8.2	20.1	15.3
14+00			7.6	20.7	16.1
14+50			6.6	21.7	17.7
15+00			5.4	22.9	18.9
15+50			4.5	23.8	19.5
16+00			4.4	23.9	19.5
16+50			5.1	23.2	19.5
16+75			5.4	22.9	19.5
17+25			5.9	22.4	19.3
16+91 <sup>22</sup> ck			5.5	22.8	
T.B.M. on pipe 10.5 E 01/11+88			4.13	24.17	

6.2

6.7

6.0

2.1

1.9

4.8

4.1

3.0

2.5

1.9

2.2

3.5

4.6

4.8

4.6

4.0

4.0

4.3

4.4

3.7

3.4

3.1



				24.17	
	0.84	25.01			
		568	2.1	22.9	f01
F.H. 16+2822		2	2.1	22.9	f01
17+27 <sup>62</sup> F.H. 14			2.8	22.2	19.2
17+4330 F.H. split			3.3	21.7	18.8
17+50			3.5	21.5	18.6
18+00			5.4	19.6	17.3
18+50			6.9	18.1	16.0
19+00			7.8	17.2	14.7
19+25			8.8	16.2	14.0
19+50			10.1	14.9	12.7
20+00			11.4	13.6	10.0
20+25			11.0	14.0	10.0
20+75			9.7	15.3	12.6
21+00			7.6	17.4	13.4
21+50			2.7	22.3	15.0
22+00			0.3	24.7	17.7
T.P			0.20	24.81	
	10.62	35.43			
22+50			8.8	26.6	20.4
23+00			7.2	28.2	22.0
23+40			6.0	29.4	22.6
		5	4.3	29.1	3.0
F.H. 23+4029		2	6.3	29.1	56.1
T.P.M. 721			7.53	27.90	corr. 27.92

f01

f01

3.0

2.9

2.9

2.3

2.1

2.5

2.2

2.2

3.6

4.0

2.7

4.0

7.3

7.0

6.2

6.2

6.8

3.0

3.0

B.M. on Foundation		27.92		
1.39	29.31			
T.P.		11.79	17.52	
0.09	17.61			
26+50		3.8	13.8	10.8
27+00		5.8	11.8	9.5
27+50		6.2	11.4	8.8
28+00		6.1	11.5	8.2
28+50		6.4	11.2	8.8
29+00		5.1	12.5	9.4
29+37.70 X Pt.		4.3	13.3	9.5
ck B.M. on P.P.		5.74	11.87	11.89
F.H. 28+81.20	5.00	7.5	10.1	13.0
		7.2	10.4	13.0
			27.92	
2.26	30.18			
23+73.23 BK X Pt.		0.7	29.5	22.6
24+00		1.6	28.6	22.1
24+25		2.9	27.3	21.8
24+75		5.7	24.2	20.0
25+00		7.8	22.4	18.5
25+25		9.9	20.3	17.0
25+50		12.0	18.2	15.0
2.10	19.77	12.57	17.67	
26+00		4.7	15.1	12.7
26+50 CK		6.0	13.8	

3.0  
2.3  
2.6  
3.3  
2.4  
3.1  
3.8  
2.9  
2.6

6.9  
6.5  
5.5  
4.2  
3.9  
3.3  
3.2  
2.4

June 15, 1948

Fairley  
Butler  
West

40

11.87

12.36 24.23

29+37 <sup>2</sup> 24.44 AM	10.8	13.4	9.5	3.9
29+90	7.2	17.0	9.8	7.2
30+20	4.4	19.8	11.5	8.3
30+50	2.0	22.2	14.5	7.7
T.P.	0.05	24.18		

12.31 36.49

31+00	11.8	24.7	17.8	6.9
31+50	8.6	27.9	19.8	8.1
32+00	7.8	28.7	21.0	7.7
32+50	7.0	29.5	22.0	7.5
33+00	6.5	30.0	22.5	7.5
33+40	5.0	31.5	22.8	8.7
33+50	4.8	31.7	23.2	8.5
34+00	3.8	32.7	24.7	8.0
34+50	3.6	32.9	26.2	6.7
35+00	4.2	32.3	27.7	4.6
35+50	4.7	31.8	29.2	2.6
36+00	2.8	33.7	30.7	3.0
T.P. set on Post 40' n of 36+00	2.68	33.81		
ck 36+00 t	2.7	33.8 <sup>OK</sup>		

June 16, 1948 Rainey  
Baker  
West 41

Garnet + Neyes  
B.M. B.P. N.W. Cor 62.23

5.69 67.92

42+25	10.7	57.2	51.9	5.3
42+75	9.5	58.4	55.0	3.4
43+25	8.5	59.4	56.2	3.2
43+75	7.7	60.2	56.5	3.7
44+25	7.5	60.4	56.8	3.6
44+50	7.2	60.7	57.7	3.0
45+00	6.9	61.0	58.6	2.4
45+50	5.7	62.2	59.4	2.8
46+00	5.2	62.7	60.3	2.4
46+50	4.3	63.6	61.1	2.5
47+00	2.9	65.0	62.0	3.0
47+50	1.8	66.1	62.8	3.3
47+90	0.6	67.3	63.6	3.7
T.P.	0.60	67.32		

8.31 75.63

48+50	7.1	68.5	65.3	3.2
49+00	5.7	69.9	66.8	3.1
49+50	4.1	71.5	68.3	3.2
50+00	3.7	71.9	69.8	2.1
50+00 4 ck	3.0	72.6		
10. pt 50+20 T.B.M. set on Rock	0.02	75.61		

67.9

T.B.M.

			75.61		
	7.77	83.38			
50+50			10.0	73.4	71.3
51+00			8.0	75.4	72.8
51+50			6.5	76.9	74.3
51+75			5.0	78.4	75.0
52+00			4.5	78.9	75.9
52+50			2.7	80.7	77.9
53+00			1.0	82.4	79.9
			0.04	83.34	
	11.37	94.71			
53+50			11.0	83.7	81.9
54+10			7.8	86.9	83.8
54+50			6.5	88.2	84.6
54+85			2.6	92.1	85.4
T.P.			0.38	94.33	
	13.00	107.33			
55+05			12.5	94.8	87.5
55+25			8.8	98.5	90.6
55+50			5.9	101.4	94.2
56+00			2.6	104.7	99.6
T.P.			0.10	107.23	
	11.65	118.88			
56+50			11.2	107.7	103.4
57+00			8.4	110.5	106.0

2.1

2.6

2.6

3.4

3.0

2.8

2.5

2.8

3.1

3.6

6.7

7.3

7.9

7.2

5.1

4.3

4.5

June 17, 1948

Rainey  
Baker  
West 43

	118.88				
57+50		5.9	113.0	108.6	4.4
58+00		3.7	115.2	110.9	4.3
58+40		1.5	117.4	112.8	4.6
T.P.		0.01	118.87		
	12.47	131.34			
59+00		9.3	122.0	117.9	4.1
59+50		4.6	126.7	122.3	4.4
59+85		0.3	131.0	125.2	5.8
T.P.		0.32	131.02		
	12.46	143.48			
60+00		10.7	132.8	127.3	5.5
60+50		3.7	139.8	134.4	5.4
T.P.		0.86	142.62		
	11.75	154.37			
60+75		10.5	143.9	138.8	5.1
61+04 <sup>22</sup>		8.7	145.7	142.6	3.1
B.M. edge Culvert	P 31	2.82	151.55	151.54	

## Crown Point for Const

44

T.P. set	12.91	46.80			
	⑤	12.9	33.81	34.3	40.4
FH 36+03 <sup>49</sup>	±	12.9	33.9	34.3	40.4
36+50		11.2	35.6	32.7	3.5
36+75		10.4	36.4	32.8	3.6
37+00		9.1	37.7	33.9	3.8
37+50		6.2	40.6	35.4	5.2
38+00		3.7	43.1	37.3	5.8
38+50		2.6	44.2	39.2	5.0
38+85		2.6	44.2	40.6	3.6
39+00		2.9	43.9	40.9	3.0
39+50		2.1	44.7	41.8	2.9
40+00		0.0	46.8	42.7	4.1
T.P.		0.09	46.71		
	19.24	59.95			
40+50		7.8	52.2	43.6	8.6
40+90		5.7	54.3	44.4	9.9
41+10		5.0	55.0	45.8	9.2
41+65		3.6	56.4	50.6	5.8
41+85		3.3	56.7	51.4	5.3
42+25 ck.		2.79	57.16	57.2	
	8.48	65.64			
		3.43	62.21		

Roseland Drive

Spike in P.P. <sup>Roseland</sup> <sup>Map at 1/2</sup>  
 S side 75° E d 54.06

0.82 54.88

7+55 <sup>23</sup> EC.	4.7	50.2	46.7	3.5
8+00	6.0	48.9	45.0	3.9
8+50	8.2	46.7	43.0	3.7
9+00	9.7	45.2	41.0	4.2
9+50	11.9	43.0	38.0	5.2
T.P.#1	13.10	41.78		

0.21 41.99

10+00	11.8	40.2	35.2	5.0
10+50	5.4	36.6	31.2	5.4
11+00	9.0	33.0	27.5	5.5
11+50	13.2	28.8	23.3	5.5
	12.73	29.26		

0.46 29.72

12+00	5.3	24.4	19.5	4.9
12+50	9.1	20.6	16.2	4.4
13+00	11.9	17.8	13.8	4.0
13+36 <sup>20</sup> EC.	13.5	16.7	12.5	3.7
T.P.	13.02	16.70		

7.10 23.80

13+50	8.0	15.8	12.2	3.6
13+83 <sup>24</sup> EC.	9.4	14.4	11.3	3.1
	9.1	14.7		0.1
	8.7	15.1	14.6	0.5

June 21, 1948 Rainey  
 Baker  
 West



stacked as shown  
on 6486 L

46

spike in RP <sup>Roseland</sup>  
+ Hypothia

54.06

4.09 58.15

5+14 <sup>23</sup> EC.	9.7	48.5	44.6
5+00	8.7	49.5	45.2
4+75	6.4	51.8	47.8
4+50	3.2	55.0	50.8
4+25	0.0	58.2	53.8
T.P.	0.37	57.78	

12.79 70.57

4+11 <sup>22</sup> BC.	10.8	59.8	56.0
3+64 <sup>22</sup> EC.	6.3	64.3	60.7
3+50	4.8	65.8	62.0
3+19 <sup>22</sup> BC.	1.8	68.8	65.2
T.P.	4.39	73.95	1.01 69.56
3+00	4.1	69.9	66.4
2+53.94 EC.	2.2	71.8	68.7
2+25	1.9	72.1	68.8
2+00	2.1	71.9	68.6
1+75	2.6	71.4	68.0
1+42 <sup>22</sup> BC	3.7	70.3	66.9
1+33 <sup>21</sup>	4.0	70.0	66.7
1+18	4.7	69.3	66.0
0+98 <sup>04</sup>	5.5	68.5	65.2
0+50	7.4	66.4	63.2

3.9

4.3

4.0

4.2

4.4

3.8

3.6

3.8

3.6

3.5

3.1

3.3

3.3

3.4

3.4

3.3

3.3

3.3

3.2

June 24, 1948 Rainey  
Baker  
West 47

+Calle De La Plata  
B.M. NE. Cor. Torrey Pines Rd. 54.69  
12.41 67.10  
T.P. #1 0.30 66.80  
7.06 73.86  
0+35 2.5 71.4  
0+50 10.4 63.5  
T.P. #2 12.37 61.49  
0.70 62.19  
1+00 3.6 58.6  
1+49<sup>5</sup> apt. = 1+25 BK 5.1 58.1 54.0  
2+00 8.2 54.0 50.0  
2+50 12.6 49.6 46.2  
T.P. #3 12.58 49.61  
3 1.84 51.45  
3+00 6.5 45.0 42.0  
3+15<sup>2</sup> apt. B.C. 7.5 44.0 41.2  
3+50 8.9 42.6 39.5  
3+75 9.5 42.0 38.9  
4+00 9.7 41.8 38.8  
4+38<sup>52</sup> E.C. 7.7 43.8 40.5  
4+50 6.6 44.9 41.6  
5+00 1.5 50.0 46.4  
T.P. #4 1.52 49.93  
10.85 60.78

6.0

3.0

3.1

3.1

4.0

3.4

3.0

2.8

3.1

3.1

3.0

3.3

3.3

3.6

	60.78			
5+50		6.6	54.2	50.6
5+66 <sup>22</sup> 2PH		5.7	55.1	51.4
5+8.1		5.2	55.6	51.9
6+04 20 F.C.		5.0	55.8	52.2
6+29 <sup>25</sup> B.C.		5.8	55.0	51.9
6+50		6.6	54.2	51.2
6+75		7.5	53.3	50.3
7+00		8.5	52.3	49.3
7+25		9.8	51.0	48.1
F.H. Roseland	⊙	7.1	51.7	51.1
	⊙	10.1	50.7	
ck to B.M.		6.72	54.06	54.04

3.6
3.7
3.7
3.6
3.1
3.0
3.0
3.0
2.9 3.3
2.6
3.0A

Hidden Valley  
for Construction  
From F.B. 703

49

BM. City Engrs.	764	199.00	191.22 OFFSET STAKE, + - Ground Base	Bot. PIPE GRASS
27+50		15.2	183.9	178.4
±		15.2	183.9	
27+96 <sup>33</sup> B.C.		73.6	185.5	180.8
±		73.6	185.5	
28+25		12.2	186.9	182.7
±		12.2	186.9	
28+50		10.9	188.2	184.6
±		11.0	188.1	
28+75		9.6	189.5	185.9
±		9.6	189.5	
29+00		8.3	190.8	187.2
±		8.3	190.8	
29+08 <sup>46</sup> E.C.		7.9	191.2	187.5
29+50		6.4	192.7	189.2
±		6.4	192.7	
30+00		2.3	196.8	191.8
±		2.2	196.9	
T.P.		0.39	198.67	
	12.57	211.29		
30+42 <sup>33</sup>		12.0	199.2	194.1
±		12.0	199.2	
30+75		10.4	200.8	196.1
±		10.2	201.0	

5.5
4.7
4.2
3.6
3.6
3.6
3.7
3.5
5.0
5.1
4.7

	2/1/24	OFFSET STAKE, + & GROUND ELEV.	Bot. PIPE GRADE		
31+00		9.1	202.1	197.6	4.5
ℓ		9.0	202.2		
31+25		7.9	203.3	198.7	4.6
ℓ		7.7	203.5		
31+50		6.9	204.3	199.8	4.5
ℓ		6.7	204.5		
31+75		5.8	205.4	200.9	4.5
ℓ		5.8	205.4		
32+00		5.2	206.0	202.0	4.0
ℓ		5.0	206.2		
32+27.23 F.C.		4.5	206.7	202.7	4.0
ℓ		4.4	206.8		
32+50		4.0	207.2	203.3	3.9
ℓ		4.0	207.2		
33+00		3.7	207.5	204.3	3.2
ℓ		3.6	207.6		
33+32.48 B.C.		3.0	208.2	204.6	3.4
ℓ		3.0	208.2		
33+45.53		2.4	208.7	204.8	3.9
ℓ		2.5	208.7		
B.M.		1.65	209.59	209.60	Corr.

Littlest for  
City Const

B.M.	7.20	61.26		54.06	T.P.
0+50			3.0	58.2	58.0
T.P.	13.09	74.35	0.00	61.26	
1+00			11.3	63.1	63.1
1+50			6.3	68.1	68.1
2+00			1.9	72.5	72.5
T.P.	12.16	86.43	0.00	74.27	
2+50			7.7	78.7	78.7
T.P.	7.96	93.28	1.11	95.32	
3+00			6.6	86.7	86.7
3+13 <sup>43</sup> Δ			5.0	88.3	88.3
3+50			4.2	89.1	89.1
T.P.	0.54	82.76	11.68	81.60	
T.P.	7.08	71.62	11.62	70.54	
T.P.	1.89	61.89	11.62	60.00	
			7.79	54.10	54.06

51

Raney  
King  
Bake  
West

2+00 int w existing line on Roseland  
3.7

3.5

3.5

3.5

3.5

3.5

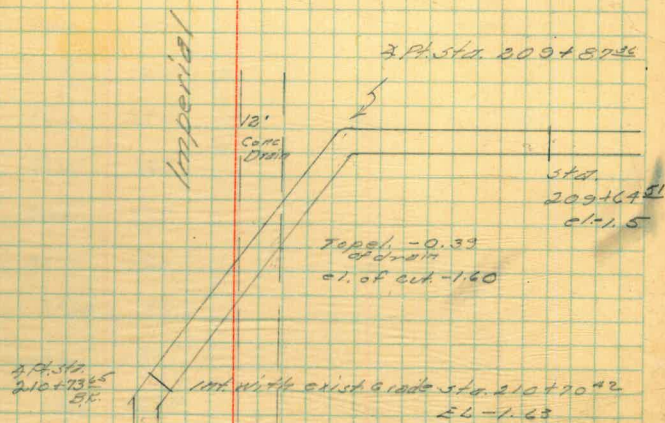
3.5

3.5

209+64 <sup>51</sup>	-1.5	cl. bot pip C. 5.1
209+87 <sup>36</sup> BK	-1.6	C 5.2
209+87 <sup>36</sup> AH	-1.6	C 5.2
209+90 <sup>22</sup>	-1.6	C 5.3
210+06 <sup>22</sup>	-1.6	C 5.2
210+38 <sup>22</sup>	-1.6	C 5.2
210+70 <sup>42</sup>	-1.6	C 5.0

B.M.	5.50	8.50	3.00	17 <sup>ft</sup> 1 m p
East End Bx		8.82	-0.32	
West " "		8.72	-0.22	
Gas Line Top		8.18	+0.32	
Water " Top		7.70	+0.80	
Pav. East		5.0	3.5	
" West		5.0	3.5	

Change in Grade  
Commercial St. Pipeline



Del Mar - La Jolla 16" P.L.

From Prospect To La Jolla Shores - on Torrey Pines Rd,

Ties made to New City Alignment

Sheets 17470-17480-1749 D

King 5-9-51

West

Williams

Lt. P.L.R

TRANSIT #

53

Rt. P.L.R

24450 23.3

24425 24.1

24400 24.2

3475 24.7

3450 25.5

3425 26.7

3400 27.5

2475 27.7

2450 28.1

1425 27.9

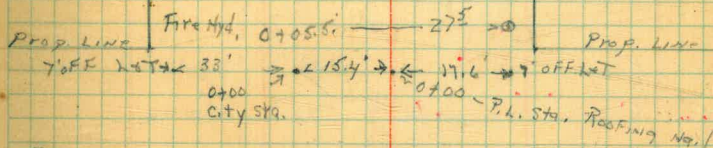
2400 27.8

1475 23.9

1450 21.4

B.C. 1+23.80 18.5

0+40 15.6



Prospect St.

By Pipe Embed 16" P.L.



King  
Wilhays  
West

H. of P.L. P.

R. of P.L. P.

57

12450 - 43'

1249 - 13'

F.H.

12400 - 23'

11400 - 0.3'

43' 10400

5.7' 9450

6' 9400

Approx EC P.L.

6.4' 8475.77 EC

4.5' 8450

8434

Approx P.I. P.L.

8406 2.1'

Approx B.C. P.L. to R.L.

7450 11.5'

7419

Approx. EC. P.L.

7406 19.6'

Approx P.I.

6450 20.6'

Approx B.C. P.L. to R.L.

B.C. 6442 19.7'

6421 25'

Five Hyd.

(check for  
two Hyd.)

5450 - 20.5'

5400 - 20'

EC 4475.06 - 21'

Approx EC P.L.

2 1/2" P.L. by Pipe Fitter

De/Man - La Jolla 16''  
(CONT)

KING 5-9-51  
West  
Williams Lt. of P.L.O.

P.L. Q

55

		INTERSECTION
20+107	0'	
20+00	3 <sup>3</sup>	
19+50	14 <sup>3</sup>	
19+00	22 <sup>2</sup>	
B.C. 18+143	28'	
18+00	31'	
17+50	34'	Approx E.C. P.L.
17+00	33'	
E.C. 16+55.89	31 <sup>4</sup>	
F.H. 16+394	37'	
16+00	26 <sup>2</sup>	
15+50	21 <sup>3</sup>	
15+00	16 <sup>4</sup>	
14+50	12 <sup>5</sup>	Approx B.C. Lt.
14+00	12 <sup>2</sup>	
B.C. 13+87.44	9.5	
13+00	6 <sup>6</sup>	

16'' P.L. by Prop. Finder

Del Mar - La Jolla 16" P.L.  
(Contd)

16" Torrey Pine P.L. — Phone in by  
FB713 ☒ City Sta. King  
5/29/51  
4 Infr Box — NW EUE

13428 28 to L 7x7 Box  
☒ Box.

Del La Play 3776  
Press Reg Box 7x4 1/2  
29' to L ☒  
29 to S Edge Box.

92 22452 1158.4 G.P.  
130 23400  
158 22459.85 EC  
233 22700  
286 21450  
295 21400  
137 20459 H.P. B.C. P.L.  
115 20450

92 16" P.L. by Pipe Fitter

Del Mar - La Jolla 16" P.L.  
(Contd)

King  
west  
Williams

5-7-50  
L+P.L. 2

5-7-50  
L+P.L. 2

20.7 28+00

127' 27+50

6' 27+00

6.4 26+99

26+29 0'

26+00 4°

25+00-5°

0' 24+47

49' 24+00

94' 23+52 M.H.V. G.V.

130' 23+00

155' 22+59.85 E.C.

233' 22+00

286' 21+50

245' 21+00

137' 20+59 App B.C.P.L.

115' 20+50

8 1/2" P.L. by Pipe Finder

Bar. La Jolla 16" P.L.  
Cont'd

King  
West  
Williams 5-9-57  
Lt. P.L. E

Rt. P.L. E

57

33+00 28.0  
32+90 - E.V. - 26.2  
32+50 34.6

32+00 30.0

B.C. 31+80.57 27.1

31+00 16'

Ec 30+61.05 8'

Note: From Sta. 28  
to 31. Gas line to close  
to water to get accurate  
location

Δ on Pk. 32° 06' Rt.

2 16" P.L. by Pipe Fender

0 30+30

7.5 30+00

23' 29+50

~~28.0~~  
26'

29+07.6

~~35.6~~  
25'

28+86.44 B.C.

29.6 28+30

28+21 - E.V. ON city E

28+19.5 F.W. 2' Rt city E

Del Mar - La Jolla 16" P.h.  
(Cont'd)  
ON Torrey Pines Rd.

King  
West  
Williams

5-10-51  
Lt. P.L. 9

Rt P.L. 9

58

47' 41+00

20.6 40+50

1.8 40+00

39+50 12.8

B.C. 38+88.88 17.3

Approx. B.C. P.h. 14

38+00 14.2

37+48 G.V. - 95

37+0.0 8.1

E.C. 36+03.99 3.5

35+50 2.5

35+00 4.1

34+50 8.0

34+00 14.6

33+50 23.6

16" P.h. (by pipe fixture)

Del Mar - LaSolla 16<sup>th</sup> Pk.  
Profile taken on our sta.

King 5-14-51  
West  
Williams

59

B.M.	0.56	152.87		152.31
0+50			1.2	151.7
0+00			1.6	151.3
0+50			5.4	147.5
1+00			9.8	143.1
1+21.1 - ours				
B.C. 1+23.90 - city			11.6	141.3
T.P.	0.21	140.31	12.77	140.10
1+50			1.3	139.0
2+00			5.3	135.0
2+50			9.8	130.5
3+00			12.9	127.4
T.P.	0.16	127.74	12.73	127.50
3+50			3.9	123.8
4+00			7.0	120.7
4+50			8.8	118.9
4+60.60 EC				
4+75.02 - city			9.1	118.6
5+00			13.3	117.4
5+50			12.1	115.6
T.P.	0.56	115.56	12.74	115.00
6+14.22 - city				
6+19.28 EC			1.6	113.9
6+50			3.4	112.1
7+00			5.0	110.5
7+50			6.7	108.8
8+00			8.6	106.9
8+50			10.3	104.6

WT S.E. Cor Prospect & Jorroy Finer Rd.

Del Mar - La Jolla 16" PL

(Cont'd)

115.50

King

5-14-51

West

W. 11, 1975

60.

T.P.	2.70	104.99	13.21	102.29
8+75.77 City				
8+64.98 =			1.1	103.9
9+00			3.5	101.5
9+50			7.0	98.0
10+00			10.4	94.6
B. T.P.	1.68	93.68	12.99	92.00
10+50			2.6	91.1
11+00			5.5	88.2
11+50			7.5	86.2
12+00			10.1	83.6
12+50			11.2	82.5
13+00			10.6	83.1
13+50			10.3	83.4
13+87.46 City				
13+77 B.C.			10.1	83.6
14+00			10.0	83.7
14+50			9.5	84.2
15+00			9.3	84.4
15+50			9.1	84.6
T.P.	11.59	96.72	8.55	86.13
16+00			11.8	84.9
16+50			11.0	85.7
16+55.89 City				
16+51.5			10.9	85.8
17+00			9.9	86.8
17+50			7.5	89.2
18+00			4.7	92.0



De Mar-Losilla 16" PL.

(Cont)

96.72

2.7

2.2

94.0

18+43.00 B.C. 4y 9

18+38.8

18+50

T.P.

5.22

101.67

0.27

96.45

19+00

4.6

97.1

19+50

3.7

98.0

20+00

3.6

98.1

20+50

4.0

97.7

21+00

4.8

96.9

21+50

5.7

96.0

22+00

7.4

94.3

22+50

8.2

93.5

23+00

8.6

93.1

23+50

9.0

92.7

24+00

9.9

92.3

24+50

9.6

92.1

T.P.

2.23

94.26

9.64

92.03

25+00

2.5

91.8

25+50

2.9

91.4

26+00

3.2

91.1

26+50

4.0

90.3

27+00

5.2

89.1

27+50

6.4

87.9

28+00

7.7

86.6

28+50

8.5

85.8

29+00

~~7.3~~~~85.0~~

8.3

84.0

King  
West  
Williams

5-14-51

61

		Del Mar	La Jolla 10"	R.L.
29+07.60 E City		94.26	9.7	84.6
29+24.20			10.5	83.8
29+50			12.5	81.8
30+00			11.38	82. <sup>88</sup> <del>88</del>
T.P.	0.24	83.12	3.2	79.9
30+30 City			4.5	78.6
30+50 =			5.5	77.6
31+00			6.4	76.7
31+50			7.8	75.3
32+00			9.1	74.0
32+50			10.4	72.7
33+00			11.4	71.7
33+50			13.3	69.8
T.P.	0.25	70.19	13.18	69.94
34+00			2.2	68.0
34+50			4.1	66.1
35+00			6.0	64.2
35+50			7.7	62.5
36+00			9.1	61.1
36+50			10.6	59.6
37+00			12.0	58.2
T.P.	0.98	58.73	12.44	57.75
38+50			2.3	56.4
39+00			4.2	54.5
39+24 =			5.1	53.6
38+58.80 E.C. City				

KING  
WEST  
WILLIAMS

5-14-51

4.4 Deep to top pipe

Del Mar - La Jolla 16" P.L.  
(cont.)

58.73

39.50	6.2	52.5
40.00	7.8	50.9
40.50	8.7	50.0
41.00	10.0	48.7
41.50	11.7	47.0
42.00	12.5	46.2

check 40.00 cont.

8.45 : 50.28 : 50.2

REDUCED & CHECKED by EWE  
5/15/51

King  
West  
Williams

5-14-51

63

DEL MAR - LA JOLLA 16" Pipeline  
 TORREY PINES ROAD - RELINING  
 ELEV'S TAKEN TOP OF 16" C.I. PIPE

BM	45	H.I.	- 5	ELEV.	✓
	6.18	102.50		96.32	✓
18+72			9.32	93.18	✓
19+28			7.10	95.40	✓
19+30E			7.14	95.36	✓
19+30E			7.70	94.80	✓
19+30E			7.52	94.98	✓
W	2.74	97.96	7.28	95.22	✓
(Services 20+80, 21+35, 21+55 Not opened yet.)					
23+00E			8.93	89.93	✓
23+31			8.34	89.62	✓
23+45			8.80	89.16	✓
23+56			9.11	88.85	✓
23+65			9.26	88.70	✓
23+77			9.46	88.50	✓
W	2.89	95.05	5.80	92.16	✓
25+79			7.73	87.32	✓
26+96			10.09	84.96	✓
27+06E			10.45	84.60	✓
27+07E TEE					
27+08E			10.51	84.54	✓
W	6.84	88.95	12.94	82.11	✓
28+30			8.91	80.54	✓
30+11			11.96	76.99	✓
30+23			12.46	76.49	✓
W	1.42	78.30	12.07	76.88	✓

(SEE Pg. 66.)

checked by WDR Oct 8/51

AUG. 22 1951  
 BEATTY  
 LEONARD  
 SEAVELLO

B.P. 75' N. on NE Cor. Viking Way & Torrey Pines

Top 16" C.I. PIPE

" " " "

Top 16"x4" Cross

Top 4" C.I. PIPE 2E LT.

Top 4" C.I. PIPE 5E RT.

875  
 828  
 183

Top 16" C.I. PIPE

" " " "

" " " "

" " " "

" " " "

" " " "

E Road Nail 25+00

Top 16" Man @ 1" Ser.

" " "

" " "

" " " at 6" TEE FOR F.H.

" " " } AT ROLL HOLE  
 " " " }

DEL MAR - LA JOLLA 16" PIPELINE  
 TORREY PINES ROAD - RELINING  
 ELEV'S TAKEN TOP 16" PIPELINE C.I.  
 78.30

31+68		5.78	72.52	✓	
31+70		5.81	72.49	✓	
33+06		9.48	68.82	✓	
33+10		9.54	68.76	✓	
33+16E		9.66	68.64	✓	
33+24		9.85	68.45	✓	
33+74Z	9A W 2-1" Ser.	10.96	67.34	✓	
33+84Z	@ 2-1" Ser	11.27	67.03	✓	
34+22Z	2nd 3/4" Ser.	12.39	65.91	✓	
34+40		13.00	65.30	✓	
H	3.03	68.40	12.93	65.37	✓
35+18Z		5.67	62.73	✓	
35+20Z		5.71	62.69	✓	
35+29Z		6.04	62.36	✓	
36+03		8.23	60.17	✓	
36+12		8.44	59.96	✓	
37+18E		12.23	56.17	✓	
H	5.09	61.99	11.50	56.90	✓
37+58E		7.73	54.26	✓	
	6" Tee	8.55	53.44	✓	
	@ Gv.	8.61	53.38	✓	
		7.23	54.76	✓	
38+40Z		9.85	52.14	✓	
38+48Z		10.21	51.78	✓	
H	3.43	56.42	9.00	52.99	✓

checked EPR Oct 1951

8-24-51

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Top 16" Main @ 3/4" Ser

" " "  
 " " "  
 " " "  
 " " "  
 " " "

} AT POLL HOLE

on 6" Tee

on 45° Bend

Top 4" C.I.



DEL MAR - LA JOLLA 16" PIPELINE  
 TORREY PINES ROAD - RELINING  
 ELEV'S TAKEN TOP 16" C.I. PIPELINE

8-22-51

66

Station	Elev	Top 16" C.I. Pipeline	Diff	Check
39+53 <sup>E</sup>	56.42	8.74	47.68	✓
39+77 <sup>Z</sup>		9.27	47.15	✓
39+86 <sup>S</sup>		9.58	46.84	✓
40+18 <sup>4</sup>		10.07	46.35	✓
40+24		10.12	46.30	✓
40+67 <sup>S</sup>		10.86	45.56	✓
41+22		12.92	43.50	✓
HP	5.83	52.55	9.70	46.72 ✓
41+49 <sup>L</sup>		9.20	43.35	✓
41+63 <sup>E</sup>		10.04	42.51	✓
41+80		10.29	42.26	✓
41+97 <sup>1</sup>	on 12" 4 <sup>o</sup> RT.	10.98	41.57	✓
42+26 <sup>E</sup>		11.57	40.98	✓
42+33 <sup>+</sup>		11.88	40.67	✓
HP	6.35	54.70	4.20	48.35 ✓
CK HP			3.95	50.75 = 50.28
CK City BM.			1.26	53.44 = 52.07
				1.34
				52.10 = 52.07
BM	6.53	102.85		96.32 ✓
20+19		7.82	95.03	✓
20+32		8.18	94.67	✓
20+81		9.40	93.45	✓
21+35 <sup>E</sup>		10.07	92.78	✓
21+55 <sup>7</sup>		10.50	92.35	✓
HP	4.20	97.61	9.44	93.41 ✓
CK HP			5.47	92.14 = 92.16

checked EDC Oct 8 51

9.44

CITY ENGR MON.

CK City & Sta. 40+00 (see pg. 63)

Top F.H. RT. City & Rd 42+23

Note F.H. has 1.34 high elevation due to 6" TEE additional for 12" High Line connection.

(B.P. Viking Way NE Cor.)

Top 16" C.I. Pipe

" " " " 3/4" Ser. LT 20+20<sup>E</sup>

" " " " 3/4" Ser. LT 20+80

" " " " 3/4" Ser. LT

" " " " 3/4" Ser. LT

& Rd 25+00

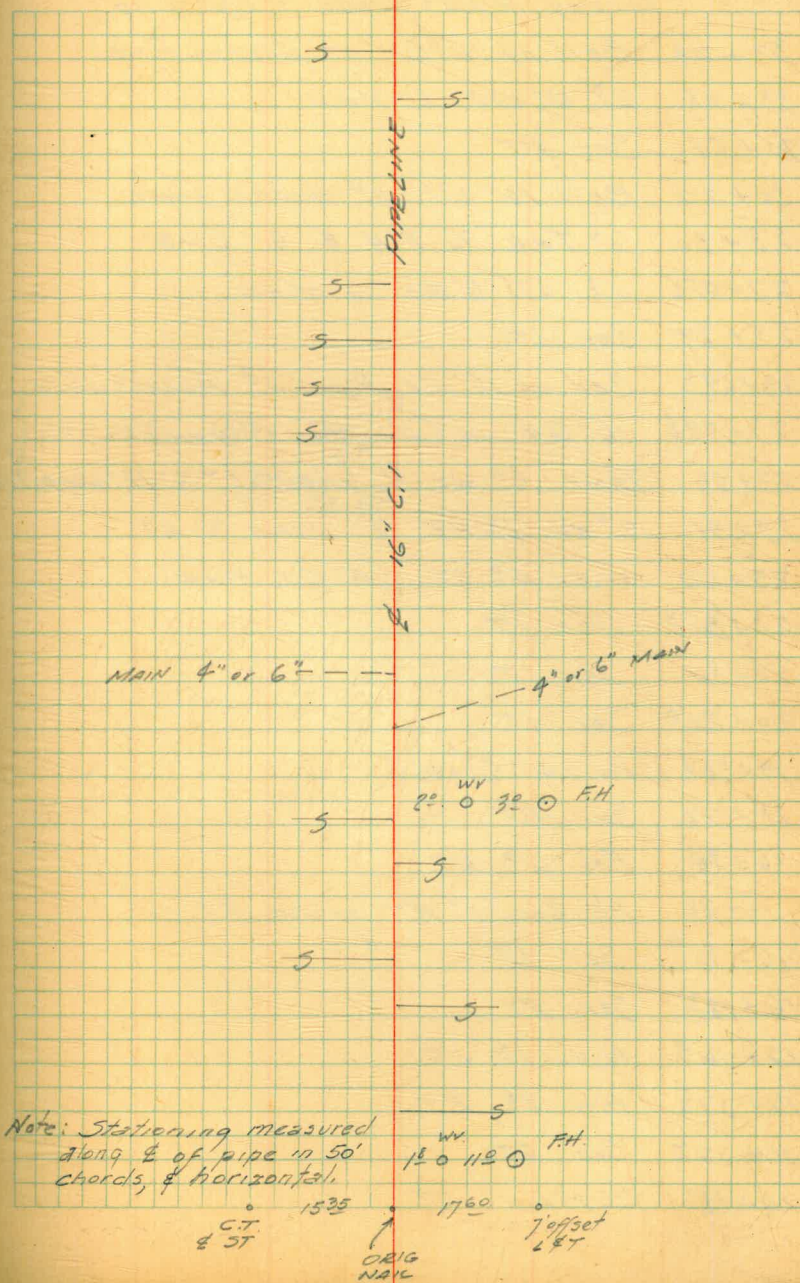
DEL MAR - LA JOLLA 16" P.L.  
 Details - From 16" C.I. PIPELINE  
 Torrey Pines Road - Relining

- 10+63<sup>6</sup> Ser. RT  
 10+56 Ser. LT  
 9+90 P.F. Loc 12 RT of orig. P.F. Loc  
 9+857 Ser. LT  
 9+58 P.F. Loc 16 RT of orig. P.F. Loc  
 9+56<sup>2</sup> Ser. LT.  
 8+99<sup>2</sup> Ser. LT.  
 8+512 Ser. LT.  
 8+228 Ser. LT.  
 7+90 P.F. Loc 1<sup>2</sup> RT of orig. P.F. Loc.  
 7+44 " " Same as " " "  
 7+39 P.F. Loc 18 RT of orig. P.F. Loc  
 6+62 P.F. Loc 05 RT of Orig. P.F. Loc.  
 6+38 4" (or 6") MAIN To LT  
 6+34<sup>5</sup> 4" (or 6") MAIN To RT  
 5+95 W.V. 2° RT F.H. 5° LT  
 5+24<sup>5</sup> Ser. LT.  
 4+70<sup>3</sup> Ser. RT.  
 4+35 P.F. Loc 05 LT of orig. P.F. Loc  
 4+24 Dead Ser. LT.  
 4+108 Ser. RT  
 2+50 P.F. Loc. 06 LT of orig. P.F. Loc.  
 1+83 Ser. RT.  
 0+06 W.V. 18 RT F.H. 128 RT.  
 0+00

NOTE: - 16" P.L. SERVICES; MAINS; ETC.; From  
 0+00 to 18+72, By Pipe Finder &  
 possible REVISION necessary, when dug out.

8-22-51

67



DEL MAR - La Jolla 16" C.I. PL.  
Details - From & 16" C.I. PIPE  
Torrey PINES Road - Relining.

33+24 Bell of 16" C.I. at Access Hole  
33+08 2<sup>5</sup> LT. W.V. 6" MAIN  
31+68 Ser. RT.  
30+20 Bell 16" C.I. at Access Hole  
28+30 6" TEE To F.H. & 6" LINE  
27+07<sup>5</sup> 18 LT. 6" W.V. 6" MAIN  
25+79 Ser. LT.  
23+69<sup>6</sup> Bell on 16" C.I. Pipe at Access Hole.  
23+59<sup>8</sup> 16" G.V. IN Conc. VAL Chamber  
23+53 TEMP. 6" W.V. & 6" OUTLET to 12" Highline  
23+31 2" W.V. 1<sup>0</sup> RT 2" MAIN to RT  
23+00 W.V. 4<sup>0</sup> LT 4" C.I. MAIN  
21+35<sup>2</sup> Ser. LT  
20+80 Ser. LT  
20+20<sup>9</sup> Ser. LT  
19+30<sup>8</sup> 16" x 4" Cross  
18+72 Ser. RT  
16+34 F.H. 6<sup>7</sup> RT.  
16+28 P.F. Loc 1<sup>2</sup> RT of orig P.F. Loc.  
?) 16+21<sup>9</sup> Ser. LT.  
16+18<sup>3</sup> Ser. RT  
13+16<sup>4</sup> W.V. 1<sup>2</sup> LT  
12+37<sup>6</sup> F.H. 8<sup>5</sup> RT  
11+77<sup>2</sup> Ser. RT  
10+83<sup>5</sup> 2" MAIN RT

8-24 58

68

{ 23+68<sup>6</sup> 16" x 6" TEE  
RT  
6" W.V. 2<sup>0</sup> RT 90° Bend  
Up. 52 RT

16" C.I. PIPE



Details  
Torrey PINES - Relining

41+47<sup>2</sup> Ser. RT  
 41+22 2" Ser. RT  
 40+67<sup>5</sup> Ser. RT  
 40+23<sup>8</sup> Ser. RT  
 40+23<sup>5</sup> Ser. RT  
 40+23<sup>1</sup> Ser. RT  
 40+20<sup>6</sup> Ser. RT  
 40+19<sup>5</sup> Ser. RT  
 40+18<sup>2</sup> Ser. RT  
 39+86<sup>5</sup> Ser. RT  
 39+77<sup>3</sup> Ser. RT  
 39+53 Ser. RT  
 38+36<sup>2</sup> Ser. RT  
 37+69<sup>4</sup> 6" TEE LT. 6" MAIN To LT  
 37+58<sup>6</sup> Ser. RT  
 37+18<sup>6</sup> Ser. RT  
 36+14 Ser. LT  
 35+29<sup>2</sup> Ser. LT  
 35+19<sup>2</sup> Ser. LT  
 34+35 Ser. RT  
 34+22<sup>3</sup> Ser. LT  
 34+17 Ser. RT  
 33+85 Ser. RT  
 33+84<sup>5</sup> Ser. RT  
 33+81<sup>5</sup> 1 1/2" Ser. RT

16" C.I. PIPELINE

DEL MAR - La Jolla 16" C.I. Pipeline  
Details  
Torrey Pines Road - Relining

8-24-51

70

42+37<sup>4</sup> C Horiz Gate Val.  
42+33<sup>2</sup> West Edge Conc. Val CHAMBER  
42+33<sup>4</sup> Ser. Top. of 16" C.I. Pipeline  
41+97<sup>1</sup> 12" TEE RT. WAT. VAL 3° RT  
41+82<sup>2</sup> Ser RT.  
41+81<sup>2</sup> 2" Ser. RT.  
41+78 2" Ser RT.  
41+50<sup>3</sup> END OF WORK  
41+49<sup>1</sup> 2" Ser RT. Red. to 1 1/2" (Dead)  
41+48<sup>2</sup> Ser. RT.

16" C.I. PIPELINE

DEL MAR - LA JOLLA  
16" PIPELINE  
Torrey Pines Road Relining  
Elev's Taken at Top 16" C.I. PIPE

BM.	+5	+1	-5	Elev	✓
	3.20	99.52		76.32	✓
R	- 2.58	90.55	11.55	87.97	✓
17+25.5 (Bell)			5.00	85.55	✓
17+20 (cut pipe)			5.32	85.23	✓
			7.21	83.24	✓
16+35			4.21	79.34	✓
16+19			7.36	83.19	✓
16+21 (16"x4" TEE LT)					
16+18.3 1" Ser					
14+57			8.47	82.08	✓
14+49			8.61	81.94	✓
13+15.4			9.82	80.73	✓
13+16.5					
12+39			10.90	79.65	✓
12+37.4					
11+87.5			8.27	82.28	✓
11+71			7.83	82.72	✓
11+72					
11+62			7.22	83.33	✓
11+30.5			5.74	84.81	✓
R	11.20	99.79	1.96	88.59	✓
10+64			11.75	88.04	✓
10+57			11.42	88.37	✓
9+86			6.02	93.77	✓
9+61			4.35	95.44	✓
9+56.5					
9+53			3.85	95.94	✓

Corrected Level  
Ded. 10/9/51

checked FOR Oct 8, 51

Sept 14 1951

BETTY  
LEONARD  
SEAVELLO

71

Top 16" pipe } Pull hole  
" " " }  
" " " } E. end of Tee to Aband. F.H. Conn.  
18" RT to 6" VAL 6" RT to F.H. Ell

Top 16" pipe  
" " "

Top 16" C.I. pipe west of TEE  
16"x6" TEE to LT Flange 6" Gate & 6"x4" Red  
Top 16" C.I. Pipe  
16"x8" TEE to RT 18" RT to 8" VAL 79° RT C of FH  
Top 16" C.I. @ Ser to RT

3/4" Ser to LT  
Top 16" C.I.  
" " " @ 2" Corp Cock to RT

3/4" Ser RT Top 16" C.I.  
1" " LT " " "  
" " "  
3/4" Ser LT  
" " "

DEE MAR - La Jolla 16" PIPE

Elevs Taken on Top of PIPE

Station	11.82	111.36 ✓	0.25	99.54 ✓
8+99			12.04	99.32 ✓
8+515			9.25	102.11 ✓
8+235			7.77	103.59 ✓
6+99			3.80	107.56 ✓
6+845			3.68	107.68 ✓
RP	10.31	120.47 ✓	1.20	110.16 ✓
6+35			11.31	109.16 ✓
5+95				
5+94			8.81	111.66 ✓
5+24			6.62	113.85 ✓
4+70			4.80	115.67 ✓
4+31			3.41	117.06 ✓
4+245				
+23			3.04	117.43 ✓
RP	11.65	131.58 ✓	0.54	119.93 ✓
4+11			13.30	118.28 ✓
RP	12.47	143.76 ✓	0.29	131.79 ✓
1+90			10.41	133.35 ✓
1+885			9.96	133.80 ✓
RP	10.82	154.31 ✓	0.27	143.49 ✓
0+17			6.91	147.40 ✓
0+12			6.69	147.62 ✓
0+11 <sup>2</sup> (End Bell)				
0+00			6.18	148.13 ✓
0-00 <sup>6</sup> End Bell				
RP			2.03	152.28 ✓
CK 0+00 55T (Off)			3.37	150.74 ✓

Checked EDP Oct 8/51

SEPT 14' 1951

72

Top 16" C.I. 3/4" Ser LT

" " " " " LT

" " " " " LT

" " " " " "

" " " " " "

Top 6" @ 16" x 6 TEE RT

33 RT 22 1/2° BEND to LT

16 x 6 TEE 15 RT 6" VAL 5° RT FH

Top 16" C.I. PIPE

" " " " 3/4" Ser LT

" " " " 3/4" " RT

1" Ser LT

" " " " " "

" " " " 1/2 Ser LT

" " " " " "

" " " " 3/4" Ser RT

" " " " " "

" " " " " "

" " " " " "

7' off LT SE Cor (See pg 59)

DE 6 MAR - La Jolla PIPE Line  
TIES From 16" PIPE To E Road

CITY & ROAD STA.	DIST.	16" PIPE STA. (BEATTY)	
23+59 <sup>6</sup>	8 <sup>2</sup>	23+68 <sup>6</sup>	
23+51 <sup>2</sup>	89 RT	23+59 <sup>8</sup>	
23+22	11 <sup>1</sup> RT	23+31	
22+92	12 <sup>7</sup> RT	23+00	
21+50	26 <sup>9</sup> RT	21+50	
21+35	26 <sup>2</sup> R	21+35 <sup>5</sup>	
20+36	7 <sup>5</sup> RT	20+32	
20+24	4 <sup>2</sup> RT	20+19	
19+35	17 <sup>2</sup> LT	19+30 <sup>8</sup>	4 x 16" Cross
<del>20+34</del>	<del>6<sup>6</sup> RT</del>		
19+35	13 <sup>8</sup> LT	19+30 <sup>7</sup>	
17+34	4 <sup>7</sup> LT	17+25	
16+29	8 <sup>6</sup> LT	16+19 <sup>5</sup>	
14+61	12 <sup>4</sup> LT	14+50	
13+27 <sup>8</sup>	8 <sup>2</sup> LT	13+16 <sup>8</sup>	
12+48 <sup>2</sup>	4 <sup>8</sup> LT	12+37 <sup>6</sup>	
11+79 <sup>3</sup>	3 <sup>5</sup> LT	11+69 <sup>3</sup>	
10+75	0 <sup>2</sup>	10+63 <sup>8</sup>	
9+70	4 <sup>3</sup> RT	9+58 <sup>5</sup>	
EC 8+75 <sup>7</sup>	5 <sup>4</sup> RT	8+64 <sup>3</sup>	
8+00	0 <sup>5</sup> LT	7+88 <sup>8</sup>	
7+00	19 <sup>3</sup> LT	6+88	
6+50	21 <sup>3</sup> LT	6+35	
6+14 <sup>22</sup> EC	19 <sup>8</sup> LT	5+98	
4+50	24 <sup>1</sup> LT	4+38 <sup>0</sup>	
1+75	24 <sup>7</sup> L	1+76	
1+23 <sup>90</sup>	18 <sup>8</sup> L	1+22 <sup>9</sup>	
0+00	14 <sup>7</sup> LT	0+00	

9-18-51

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NOTE:

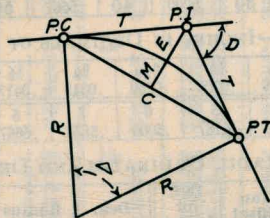
10/24/58 Direction of RT. & LT  
apparently confused  
by backing up on alignment  
RT should be corrected to LT (N/S)  
LT. " " " " RT (S/N)  
+Beatty

RT 12+00 12.7 LT 11+97  
9+50 20' LT 9+37<sup>5</sup>

BMs  
 Adams Ave. & Edgeware Road  
 S.E. 6<sup>th</sup> pt. C.T.L.P. 358.50

# DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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## CURVE FORMULAS

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

## 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  $1^\circ$  curve  $T = 3454.1$  and  $+8\frac{1}{3} = 414.49$  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 =  $7.27 (54.50 \div 100)^2 = 2.16$  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)  $.3 \times C \times D^2$  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  $1^\circ$  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  $D = 5^\circ 30'$ .

5.3  
~~34~~  
 2.1      6561243

2.9.1

60.1      127  
 59.9      .017  
 889  
 127  
 2.159

63.4      2.3  
 57.7  
 5.9      (60.0)

017  
 340 | 5.9000  
 340  
 2500

93 28  
 3.53  
 19.75

89.60  
 12.03  
 5

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5.9  
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 1.9  
 +3  
 3206  
 179

15.35  
 24.67L

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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