

W  
631

**DEFENSE PUBLIC WORKS**  
*Civic Center* *San Diego*  
**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 ft. wide. Side Slopes 1 on 1.  
 For Single Track Embankment.

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

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

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This Field Book is manufactured  
 of a high grade 50% Rag Paper  
 having a WATER RESISTING surface.

## INDEX

Page	HARBOR FRONT PIPE LINE.
1.	COPY SURVEY NOTES - HARBOR DEPT
2.	"
3.	"
4.	"
5.	"
6.	"
7.	"
8.	"
9.	Location Survey NTS From Crosby St. & W. of ATRSE
10.	Same
11.	"
12.	"
13.	"
14.	N. from N. Line Crosby St.
15.	PIPE Line SURVEY - Intersection Harbor Dr. & Bc. Blvd.
16.	Location Survey Pipe Line (ties Rother)
31	" " " " Crosby St.
35	" " " " 28 <sup>th</sup> St.
39	" " " " 32 <sup>nd</sup> St
43	" " " " Division St.
44	" " " " "A" Line to Main St.
46	" " " " Division St.
47	" " " " Utilities - 28 <sup>th</sup> St.
50-76	Levels - Harbor Front Pipe Line.

COPY OF SURVEY  
 Williams Base Line - Harbor Dep't  
 Field Book No 54  
 Copied 1/8/42  
 H.S. Gierlich

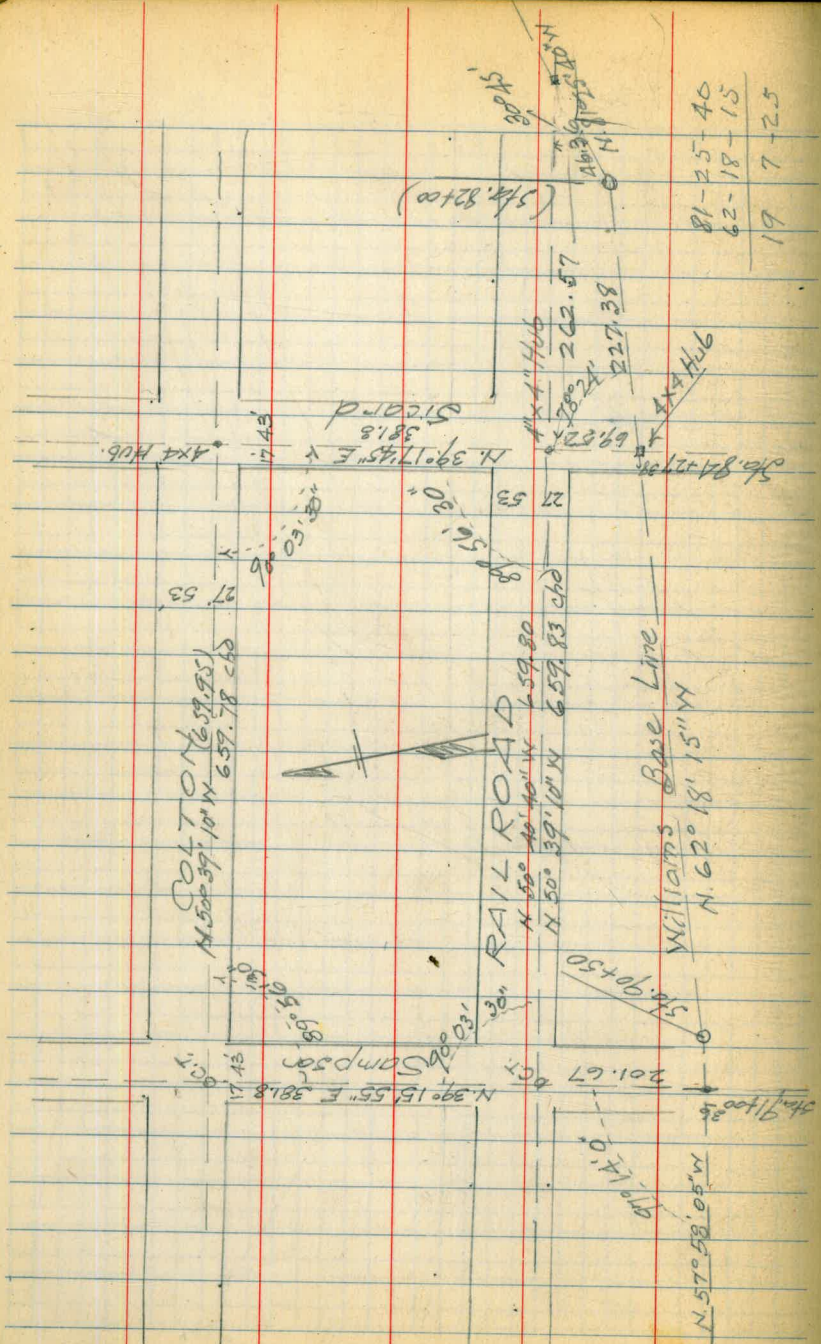
Coordinates -  
 S.E. corner Lowell  
 and Rosecrons

62-18-15  
 89-15-58  
 101-33-70  
 119-59-40  
 101-34-10  
 78-25-50 X  
 62-18-15  
 57-58-05  
 4-20-10

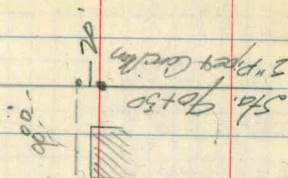
N 62° 18' 15" N  
 849.95 Chd.

2" Pipe + Cond. Mon  
 98+50

N 57° 58' 25" W  
 4° 19' 58"

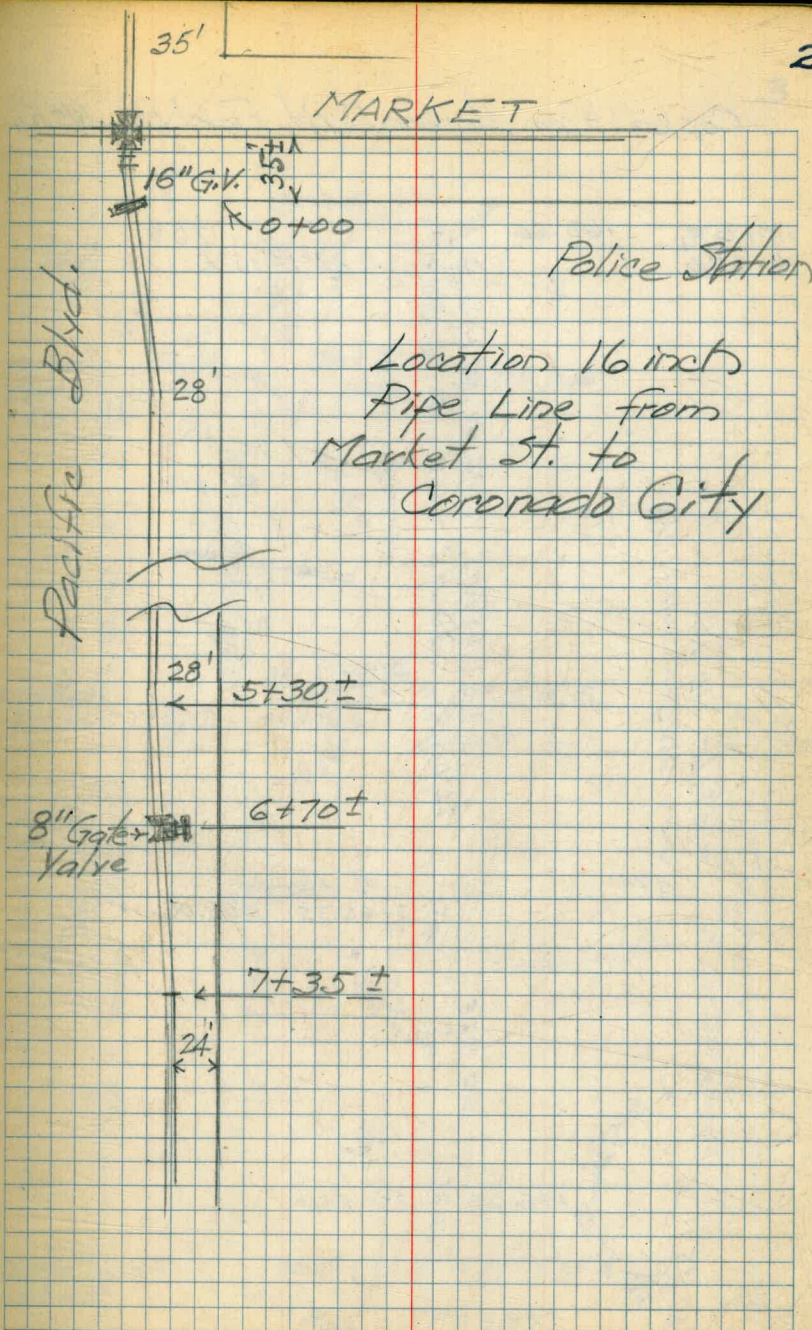
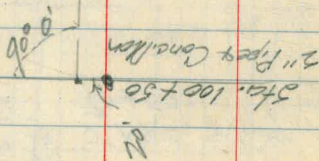
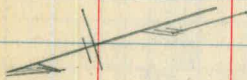


Copied from Harbor Dept Field Book #54



Garage

999.85 dip  
N 57° 58' 05" W



MARKET

Police Station

Location 16 inch  
Pipe Line from  
Market St. to  
Coronado City

Pacific Blvd.

35'

16" G.V.  
0+00

28'

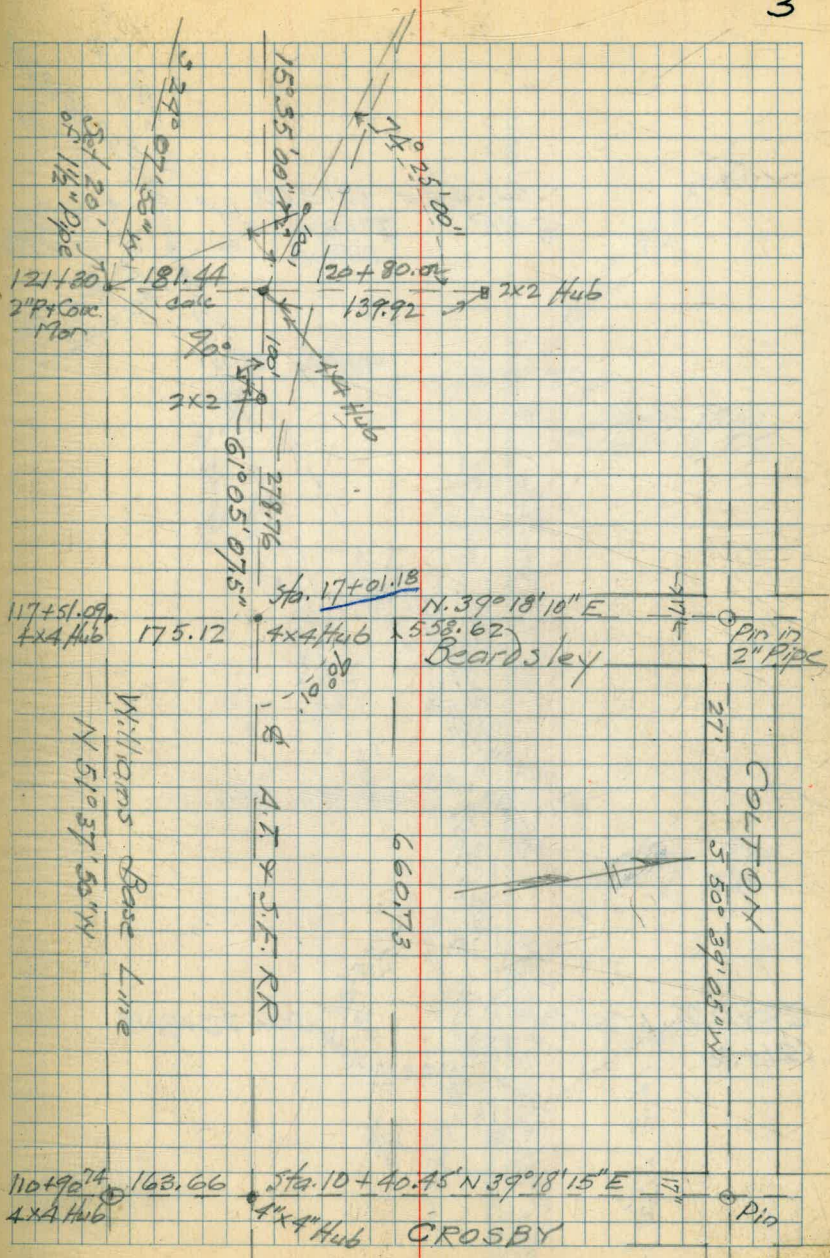
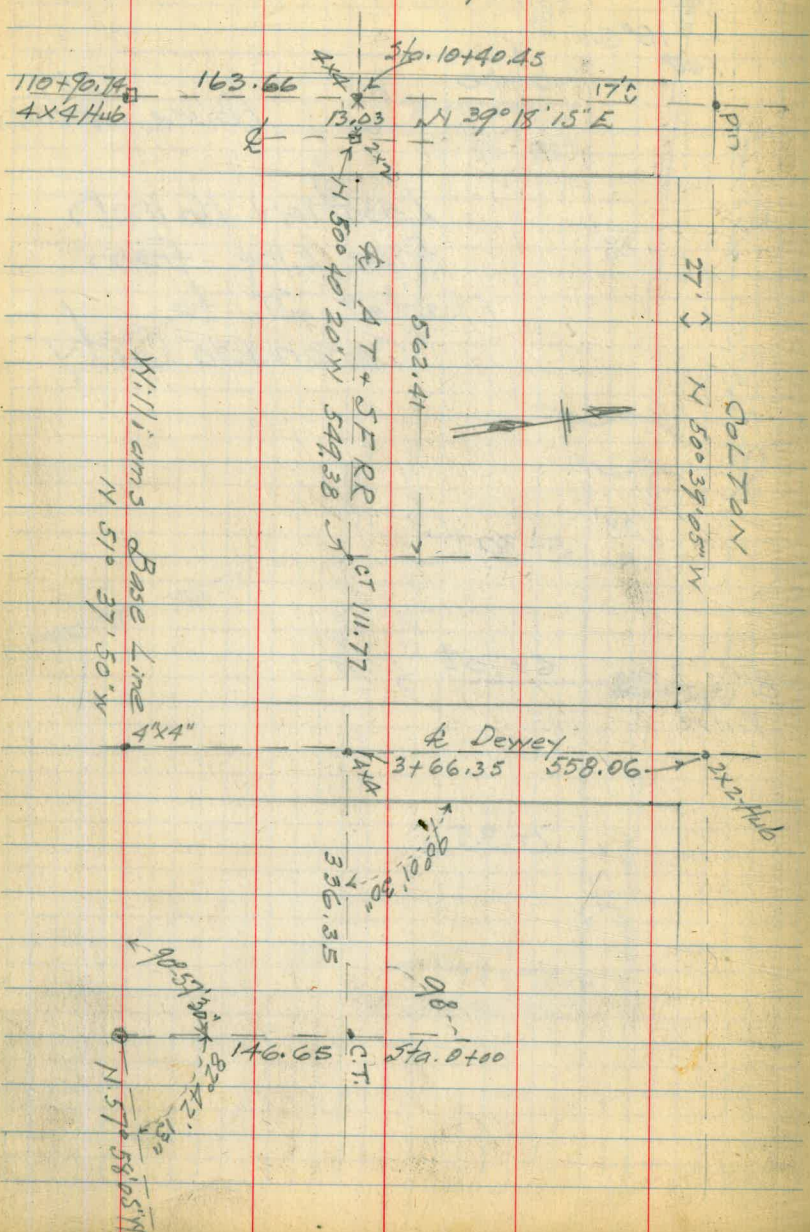
28' 5+30±

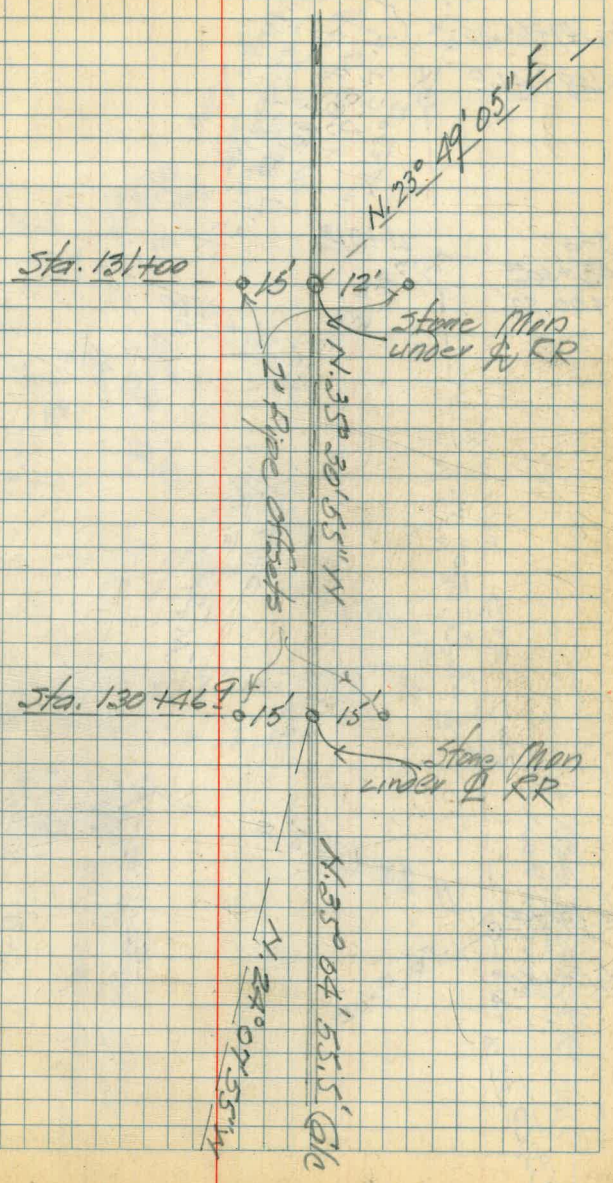
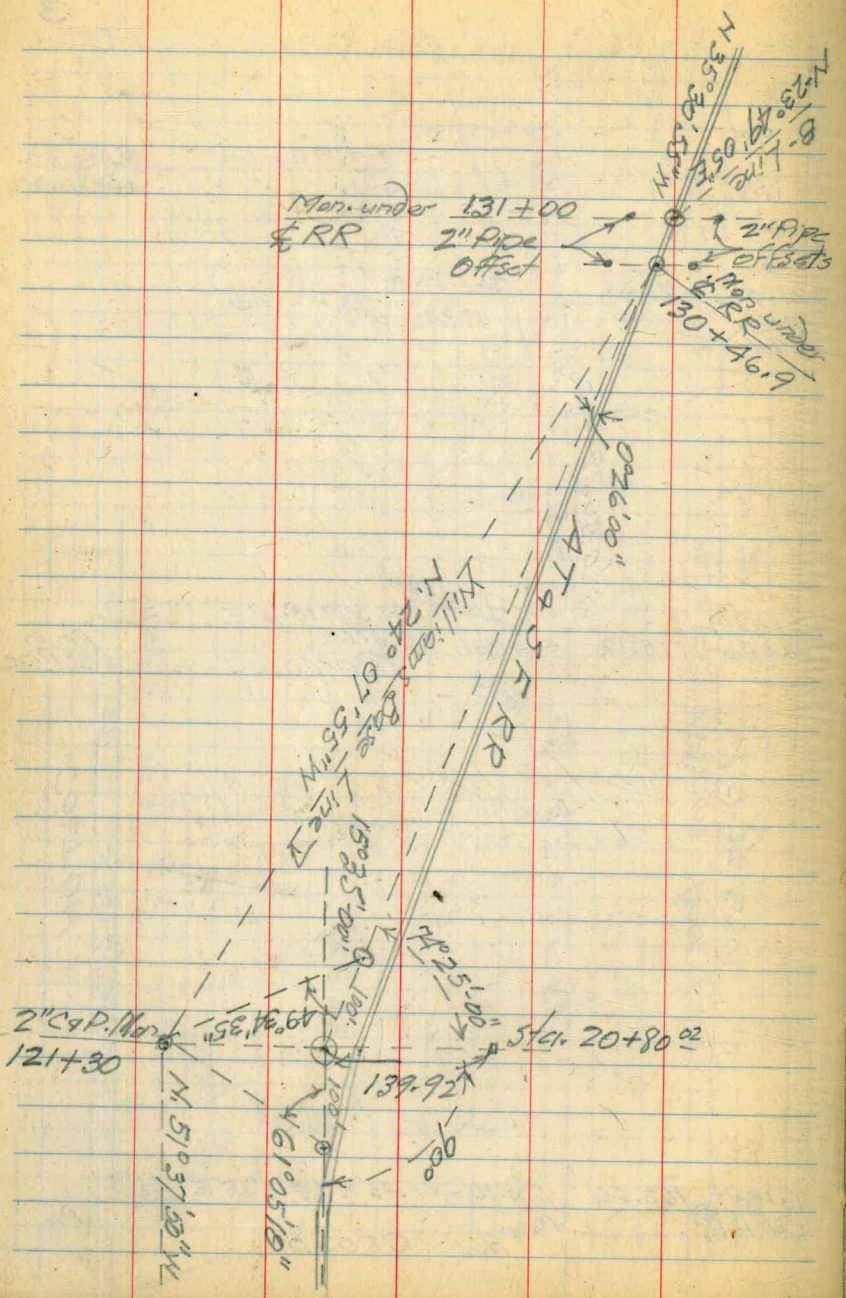
8" Gate Valve 6+70±

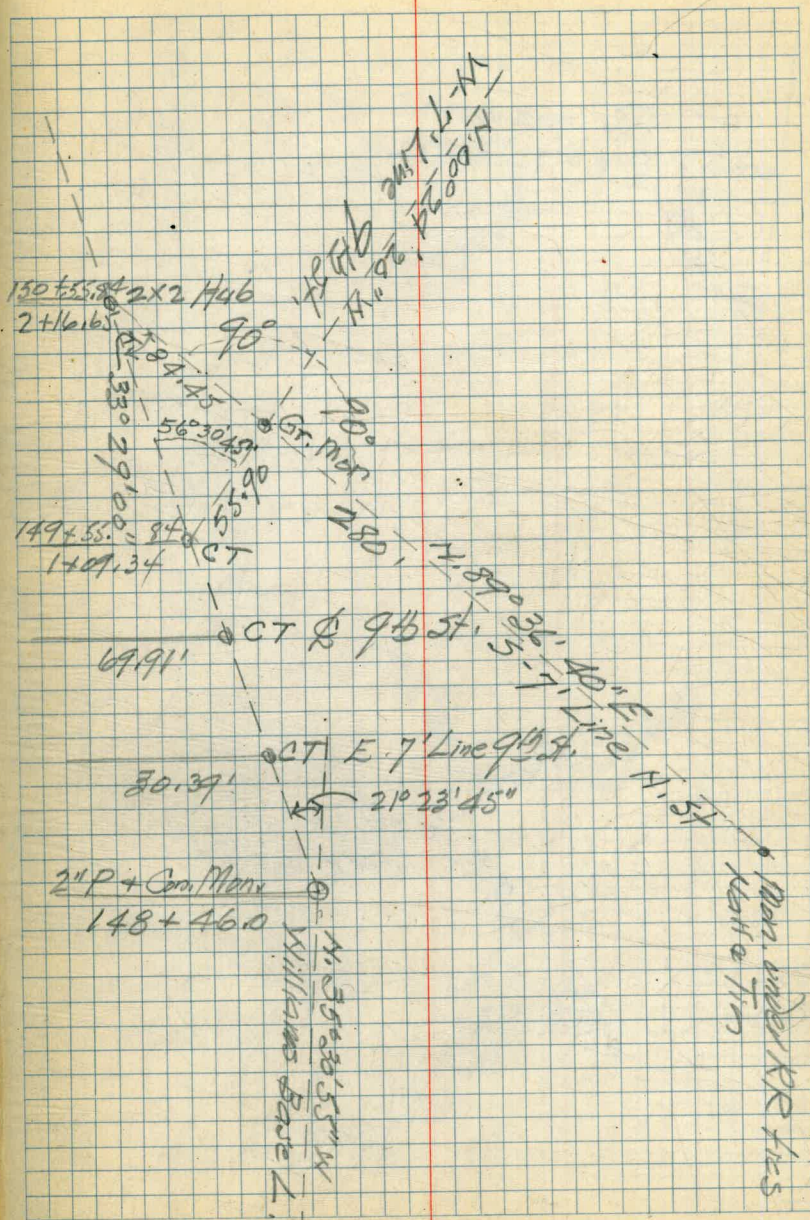
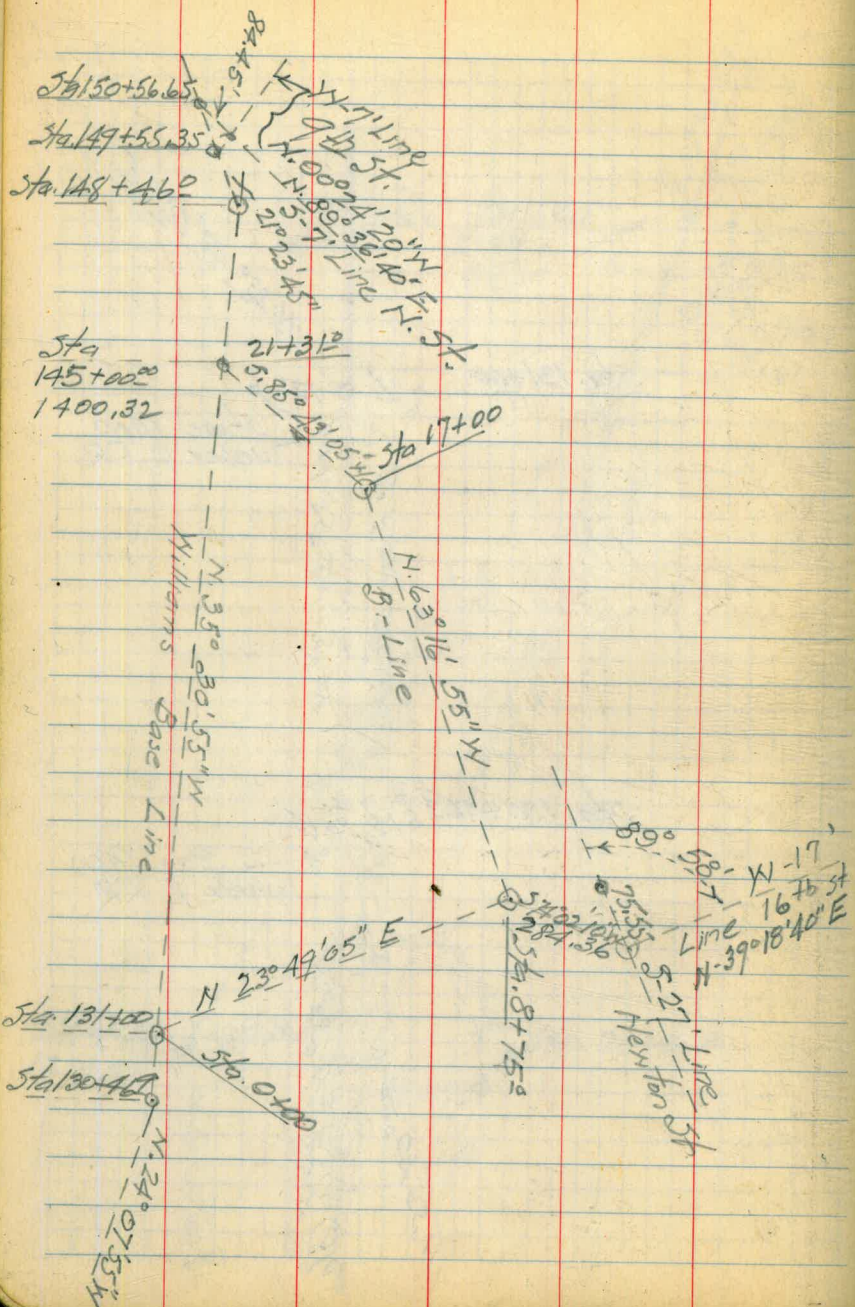
7+35±

24'

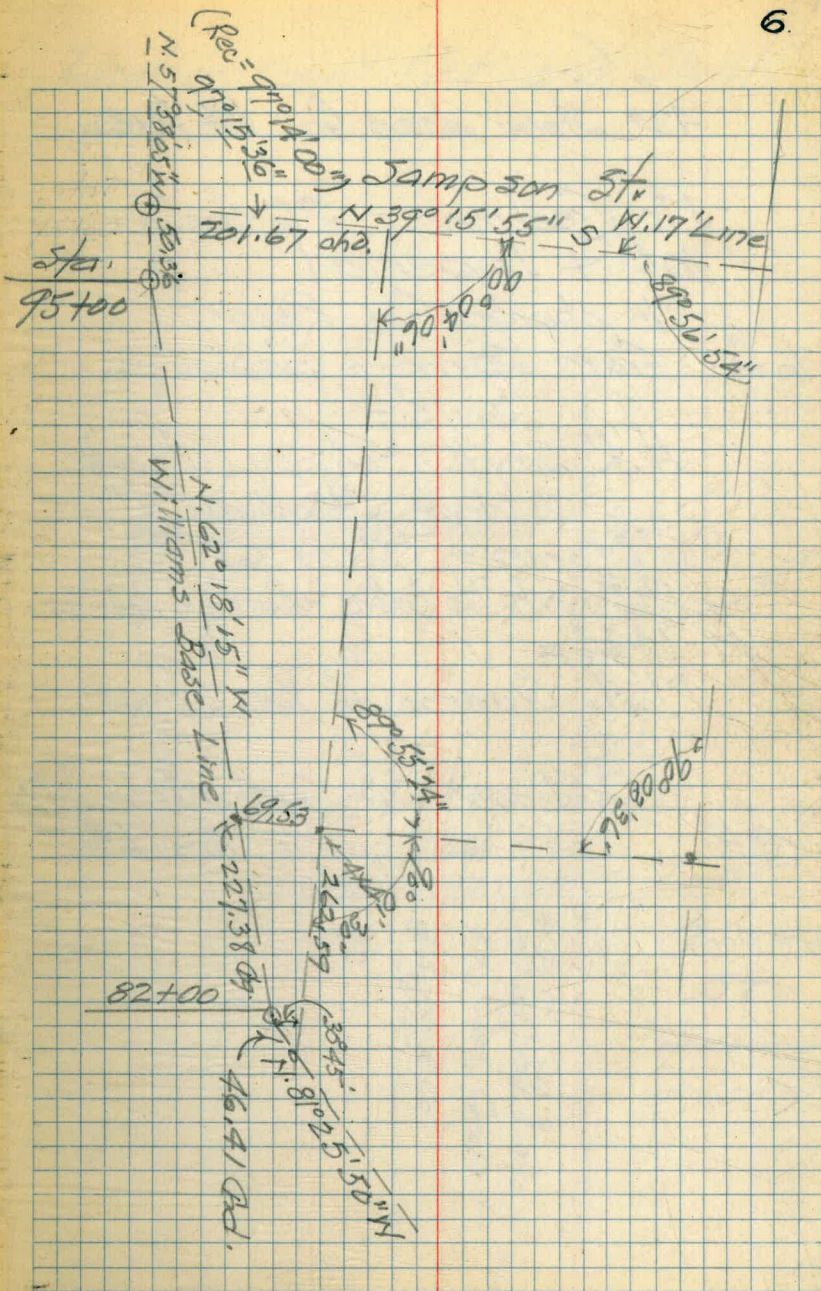
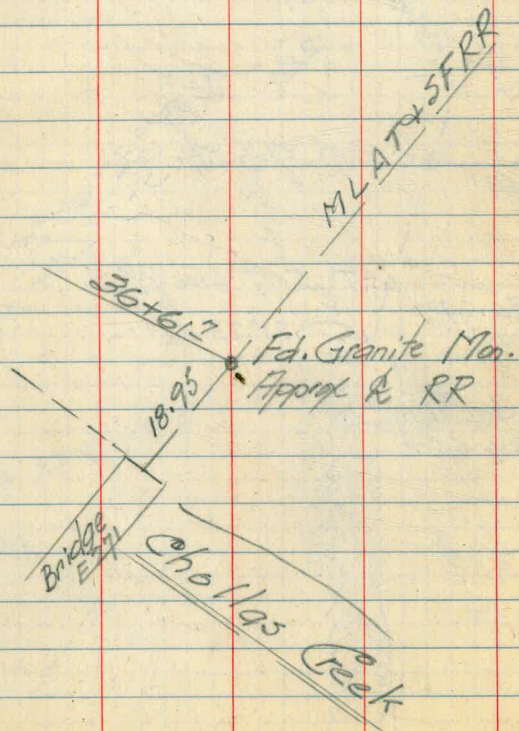
Copied From Harbor Dept Field Bk. No 54











42" storm drain @ 1st Ave.

Mr. Creelmar - 2D-Gas Co.  
10th + Imperial

In charge Gas Record.

Info - from Sperry - Gas Co.

" " Davis -

" H.R. Smyth - Union Oil Co  
Childers - Standard Oil

R.W. Marsh - Texas Co.

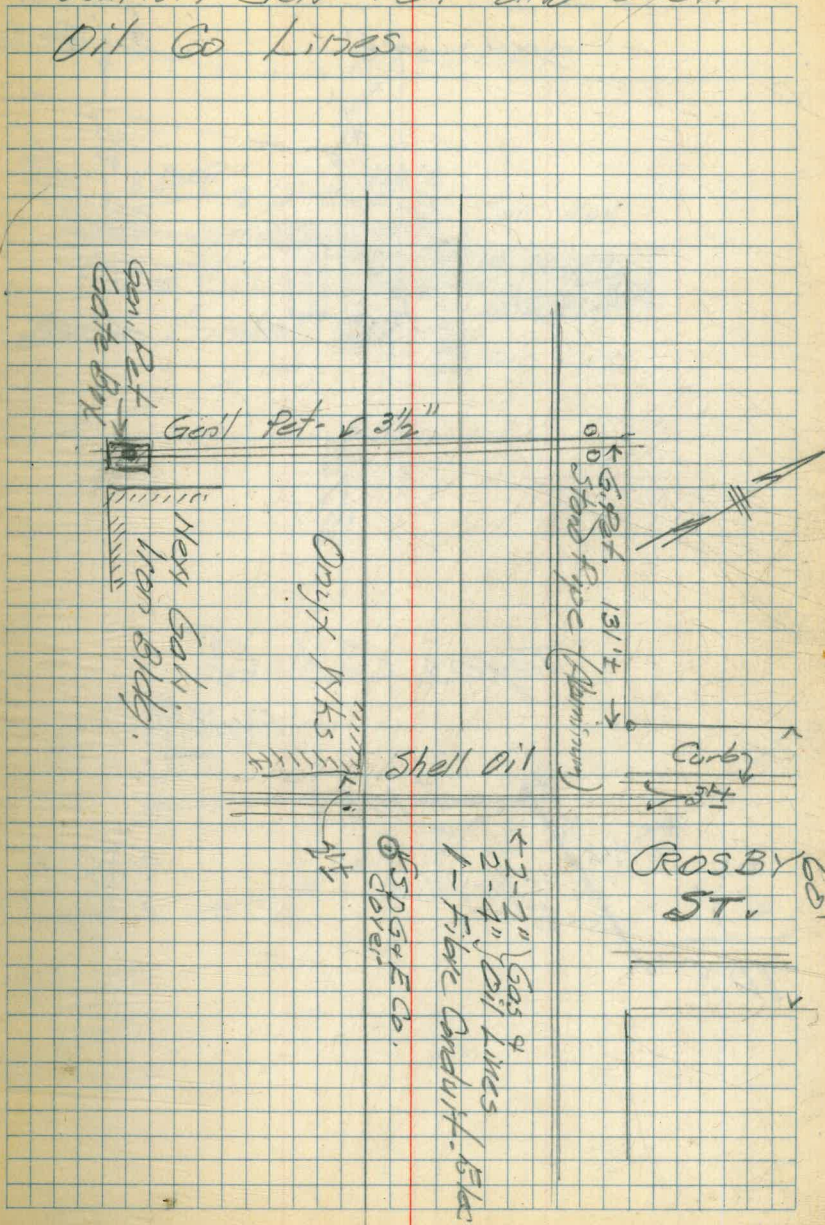
H.W. Whittemore - Benson Lumber

M-6194 =

M.H. Quamma - Van Camps

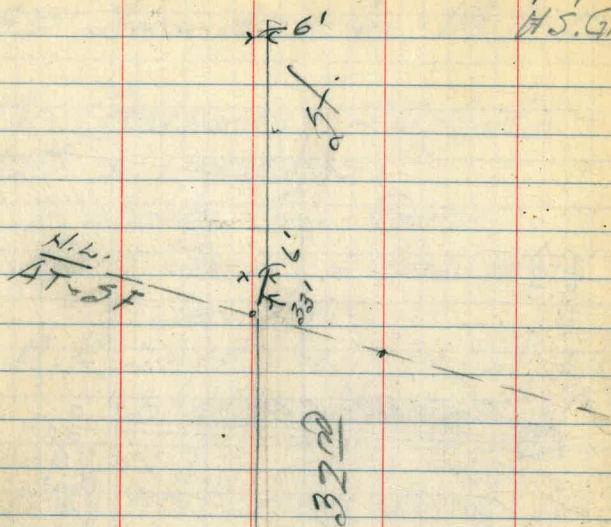
Glennier - 3D-Gas Co. Electric Bldg  
5 + 6th

### Location Gen'l Pet and Shell Oil Co Lines

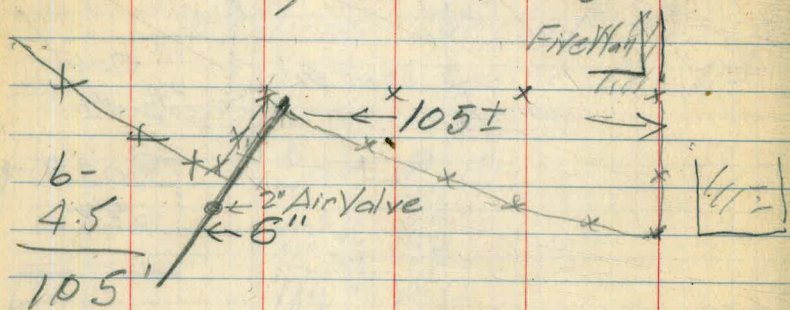


J.D. Gas & Elect.

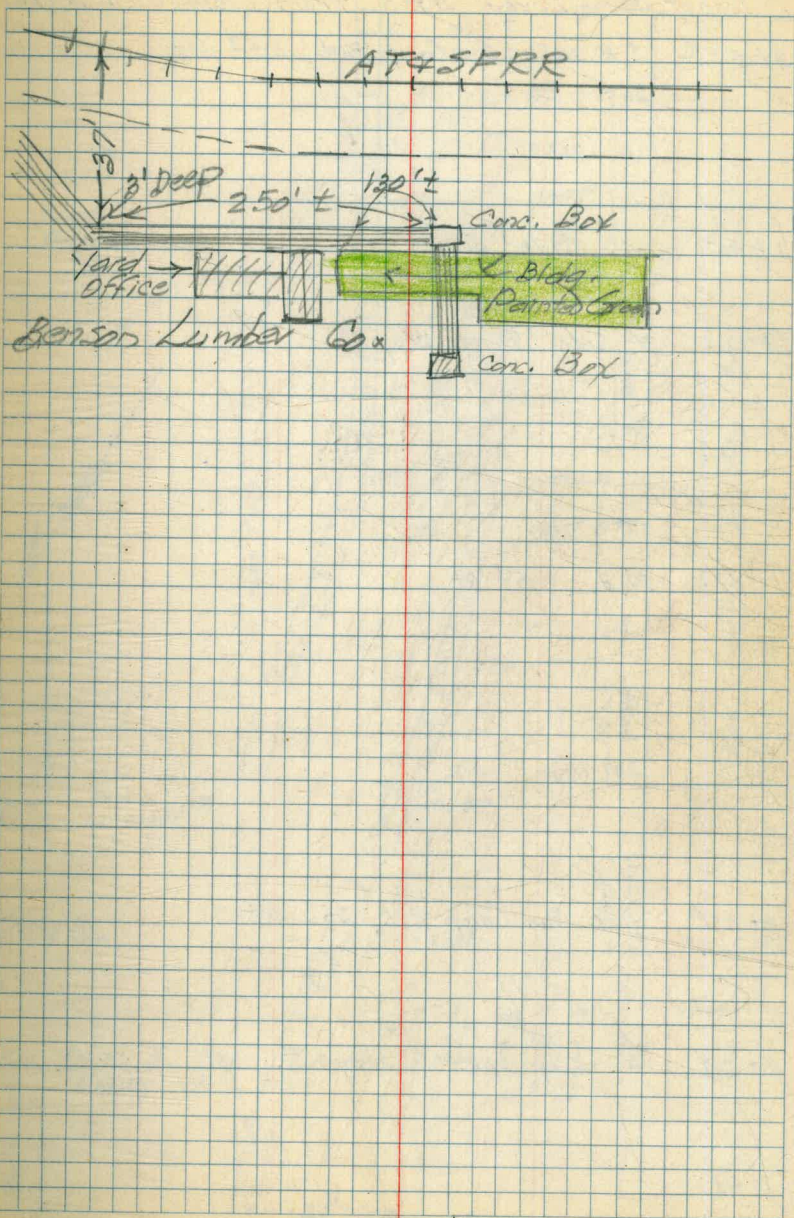
1/12/42  
H.S. Gierlich



Texas Oil Co.



8



Location Survey N+S. from Crosby St. + A.T. + S.F.P.  
 3+55<sup>E</sup> S.E. Cor Van Camp Bld. 25<sup>2</sup> Rt

1+95 S. Side Drive

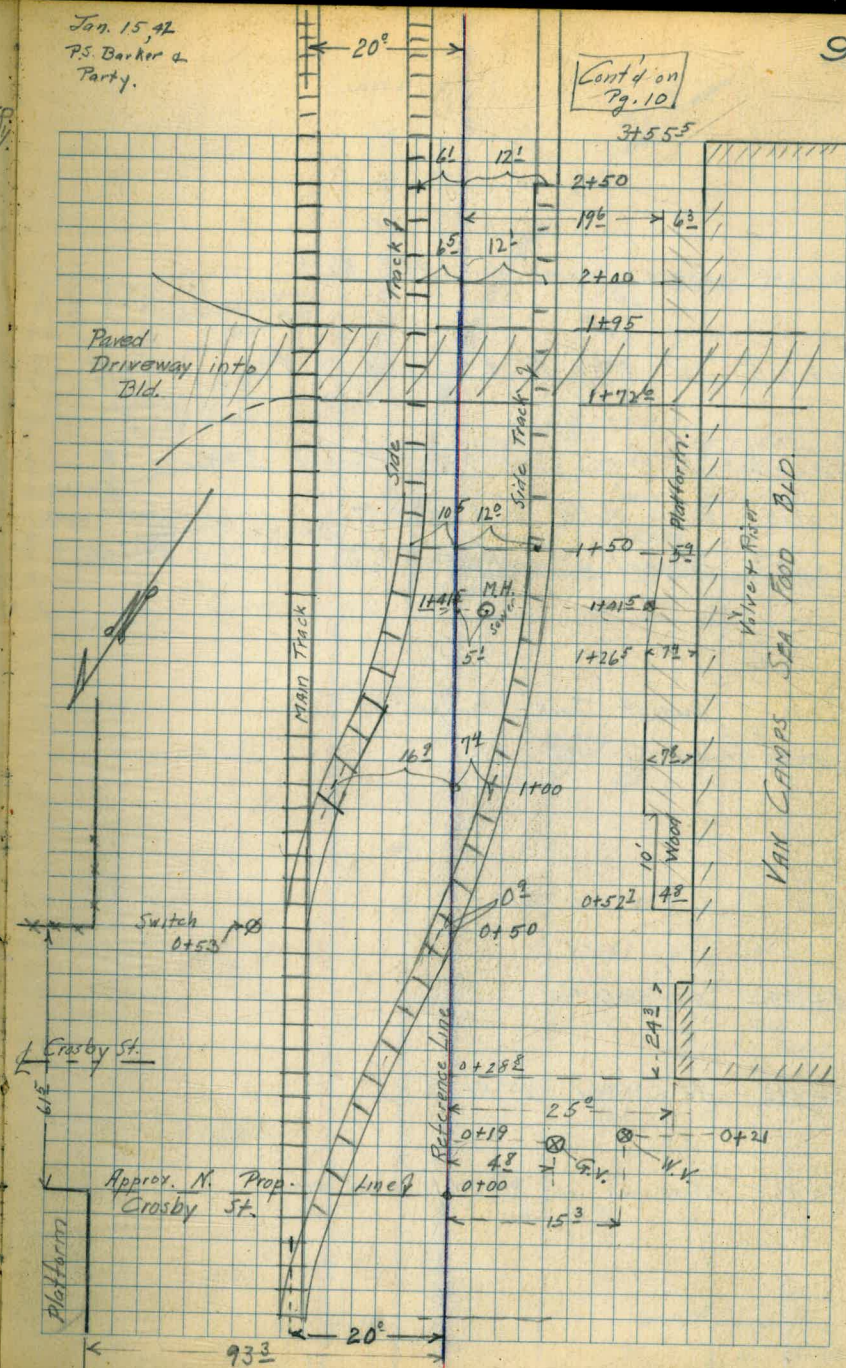
1+72<sup>E</sup> N Side Drive Way

1+41<sup>E</sup> M.H. 5<sup>1</sup> Rt.

0+28<sup>E</sup> Cor. Van Camp Bld. 25<sup>2</sup> Rt

0+00 N. Prop Line Crosby St.

Jan. 15, 94  
 P.S. Barker &  
 Party.



6+38 Fence begins 47 Rt. West.

6+25 12<sup>2</sup> Rt to  $\pm$  Spur to Y

5+93<sup>50</sup> 38' O. Dia Conc. Pipe Crosses E-W

5+61<sup>5</sup> Water Meter 2' Rt - West

5+60<sup>2</sup> Blanked of end of 8' C.I. 37 Rt. - West

5+16 End of Track - Bumper

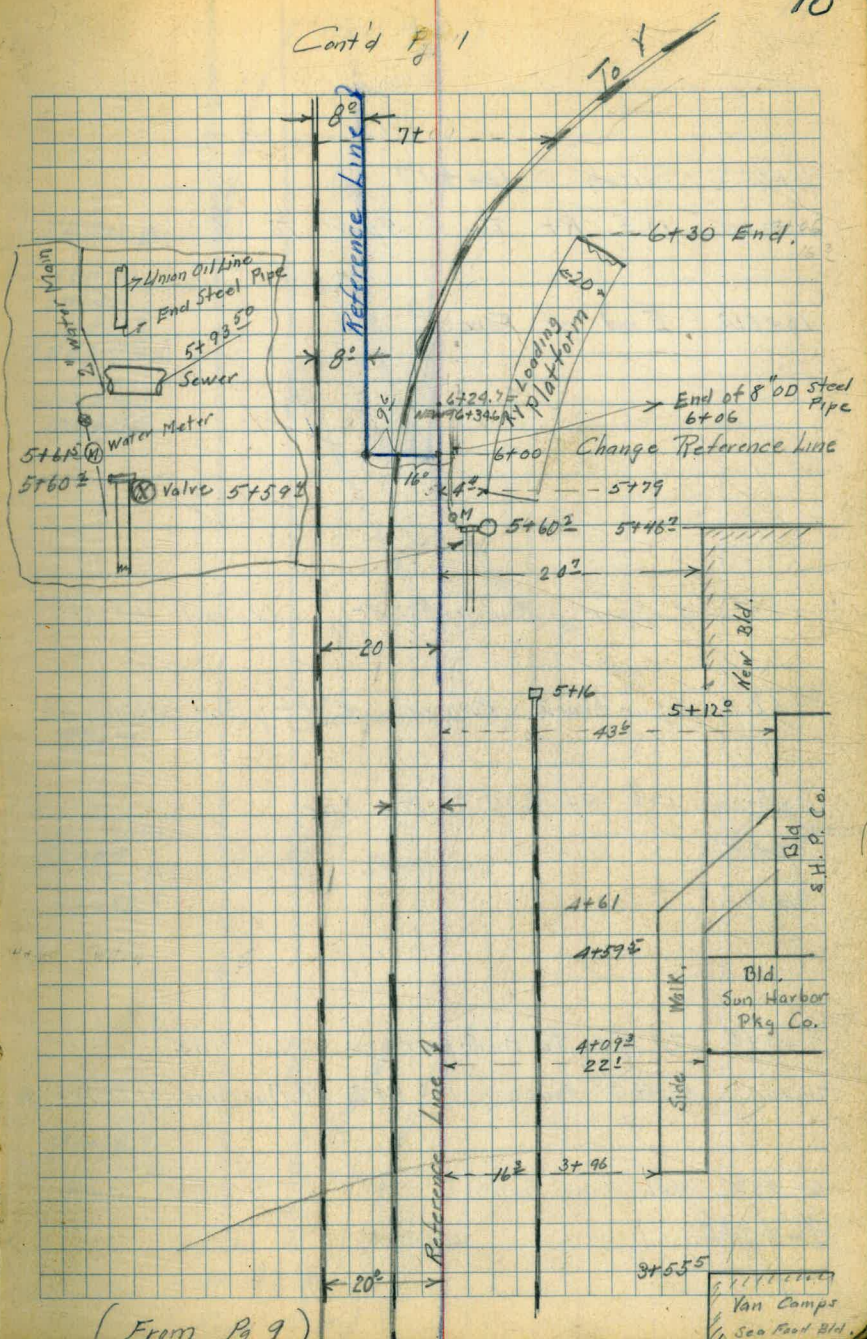
5+12 SE Cor Bld. 43<sup>5</sup>

4+61 S. End Side Walk.

4+59<sup>5</sup> SE Cor. Bld.

4+09<sup>2</sup> NE Cor Bld. 22<sup>2</sup> Rt

3+96 Side walk 16<sup>3</sup> Rt Walk is 5<sup>2</sup> wide



(From P. 9)

11+06<sup>6</sup> Switch 101+17  
11+00 12<sup>5</sup> Rt to & Spur to Y

10+81<sup>3</sup> End of Fence

10+35 & Spur; Bumper 5<sup>2</sup> Rt; End rail 2<sup>5</sup> Rt

8+60 Spur track. Bumper 4<sup>0</sup> Rt; End rail 2<sup>0</sup> Rt.

8+10 17<sup>2</sup> Rt to U.O. Pipe Line

7+98<sup>2</sup>

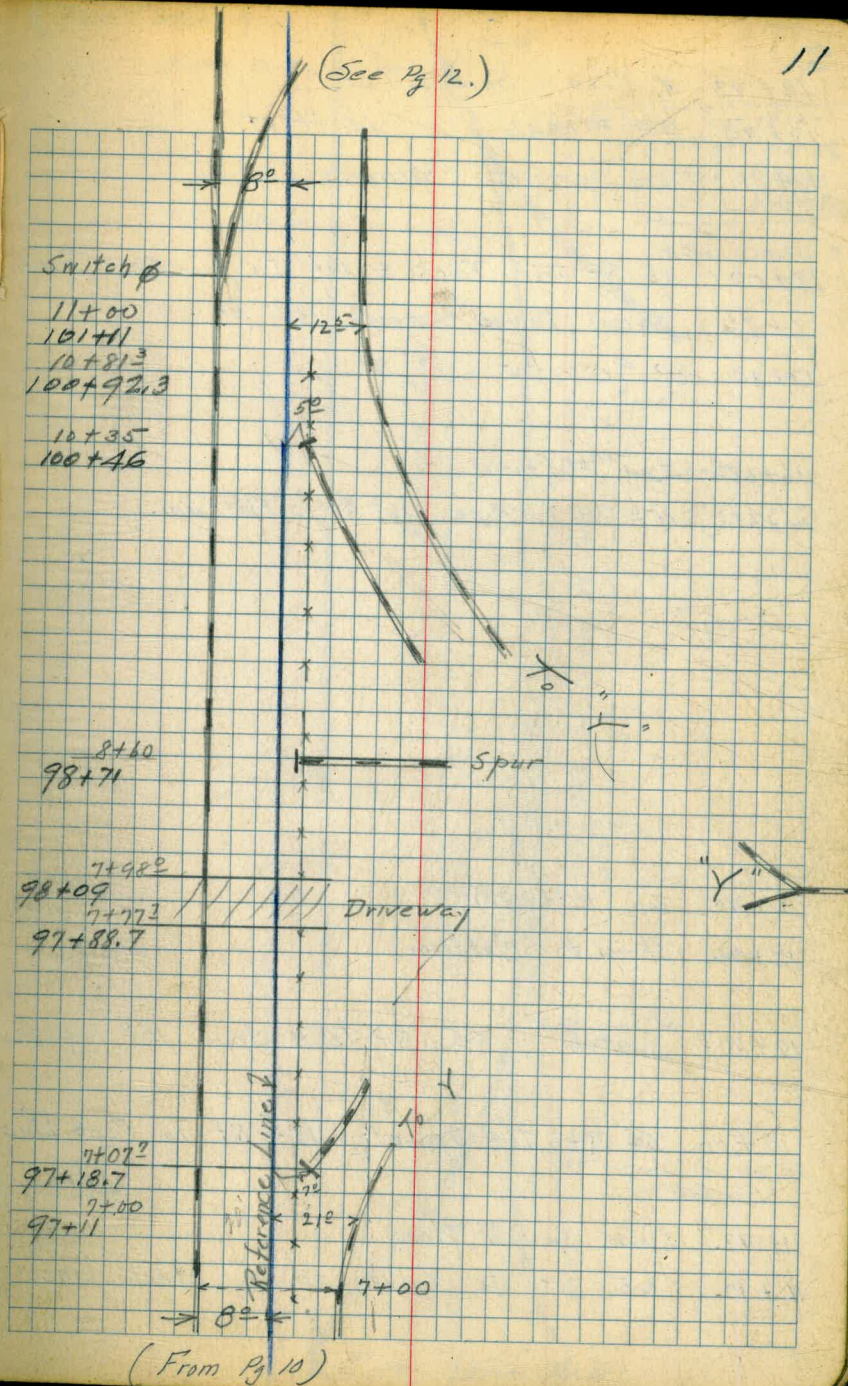
7+77<sup>2</sup>

7+07<sup>2</sup> 7<sup>0</sup> Rt to Bumper on Spur line

7+00 4<sup>6</sup> Rt to Fence; 17<sup>0</sup> Rt to U.O. Pipe Line; 21<sup>0</sup> Rt to & Spur

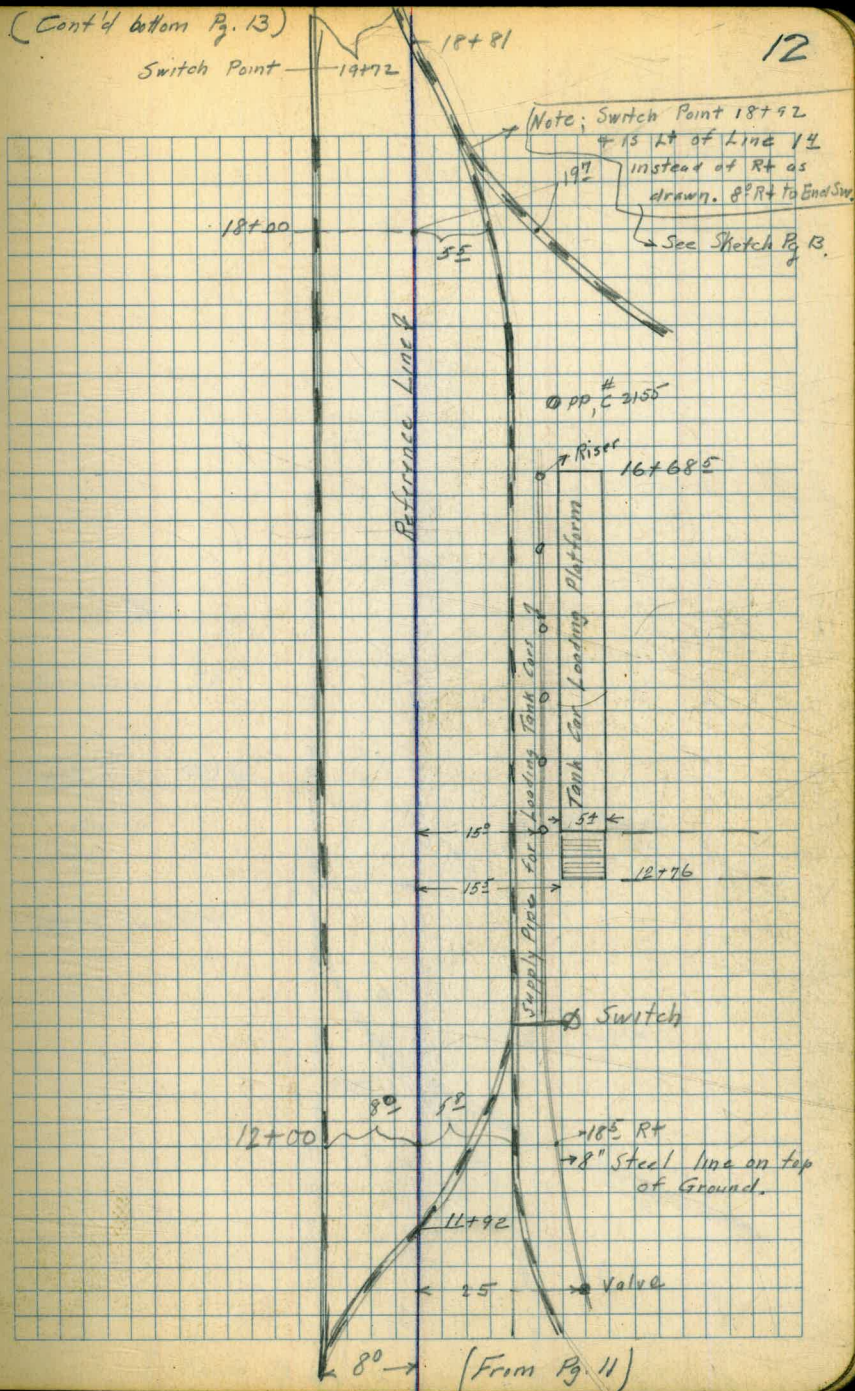
6+83<sup>6</sup> Main Line Switch

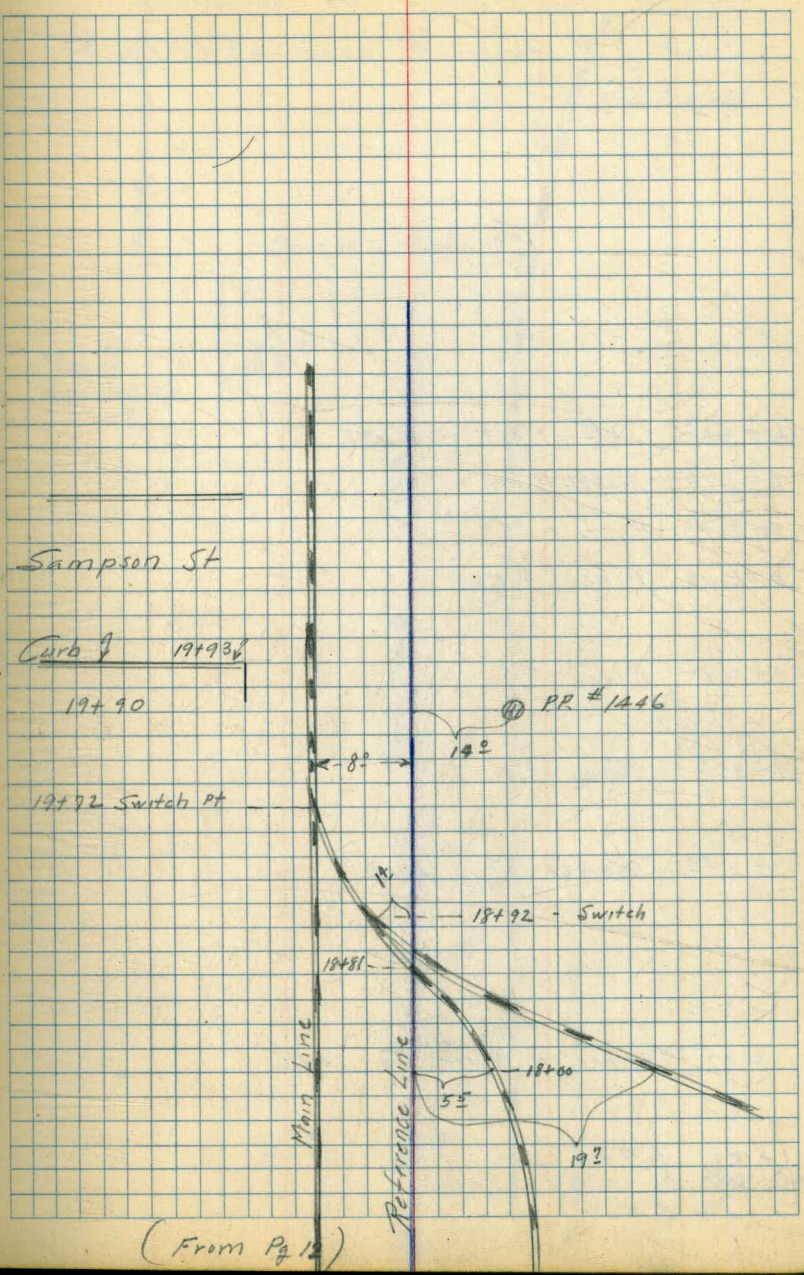
96+94<sup>6</sup>



19+93 N. Curb - Sampson St.  
 19+90 P.P. # 1446 14 ft rt.  
 18+81 Track crosses Reference Line  
 18+00 5° Rt to  $\phi$  Track & 19° to  $\phi$  Spur Track,  
 17+82 Detail Devise extends 16° Rt.  
 17+30 P.P. # C2155 16' Rt.  
 16+68<sup>5</sup> End Platform.  
 16+68<sup>5</sup> 15° Rt to Pipe; 16° Rt to Platform.  
 12+90 Top Platform  
 12+76 Stairs to Platform  
 12+60<sup>3</sup> Switch; 5° Rt to  $\phi$  Spur. 15° to pipe  
 12+00 5° Rt to  $\phi$  Spur; 18° Rt to Pipe Line  
 11+92 Cross Switch Track  
 11+12 25' Rt to Valve on 8" Steel Line

(Cont'd bottom Pg. 13)







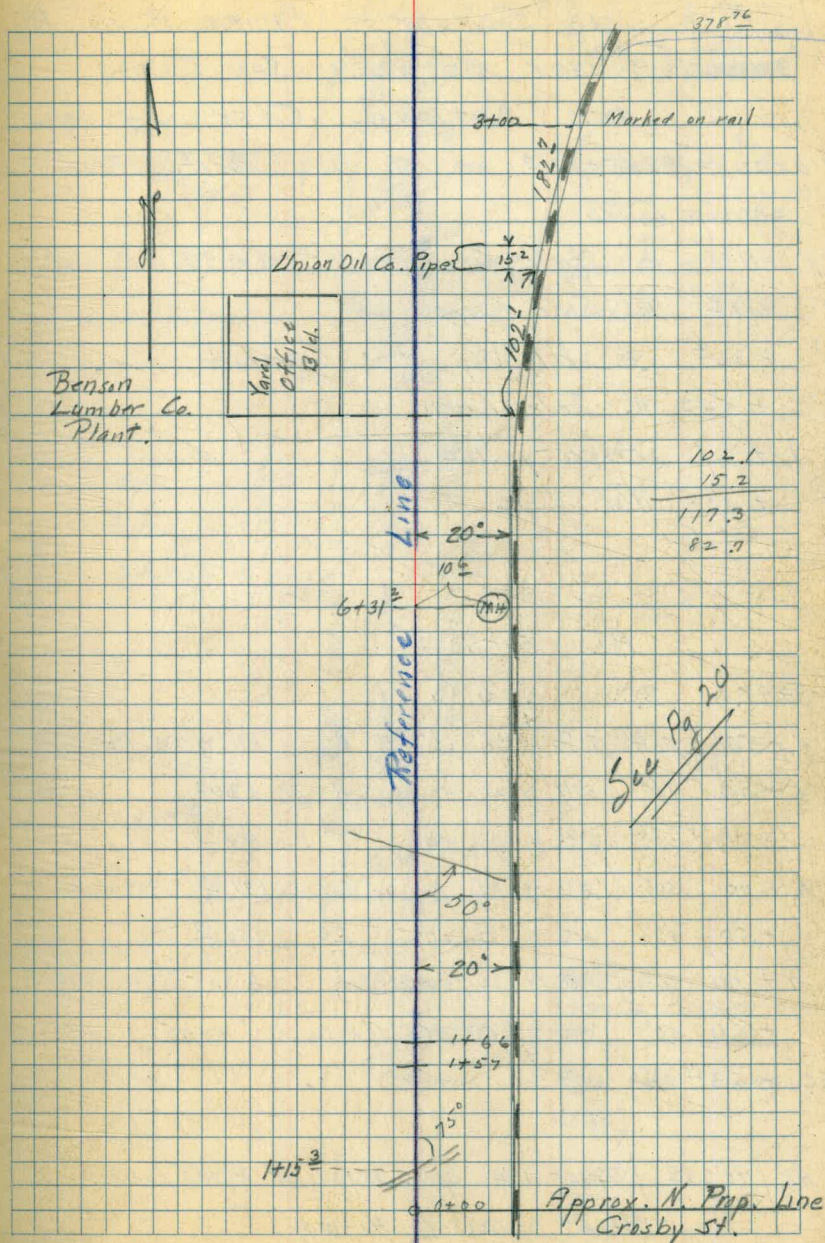
Pipe Locations on Reference  
Line N. from N. Line of Crosby St.

- ✓ 6+31<sup>2</sup> 10<sup>6</sup> RT - East
- ✓ 6+22<sup>2</sup> Water Line
- ✓ 5+98<sup>1</sup> Pipe ?
- ✓ 5+64<sup>4</sup> Pipe ?
- ✓ 5+34<sup>2</sup> Pipe ?
- ✓ 4+98<sup>8</sup> Pipe ?
- 3+25<sup>3</sup> Texaco Pipe Line
- 1+57 Phone + Power to 1+66
- ✓ 1+15.3 G.P. Oil Line

Jan 15<sup>th</sup>  
P.S.B.  
H. Gerlich.

See Pg 20

14



PIPE LINE SURVEY - PACIFIC BLVD to  
BOUNDARY BETWEEN SAN DIEGO  
AND NATIONAL CITY.

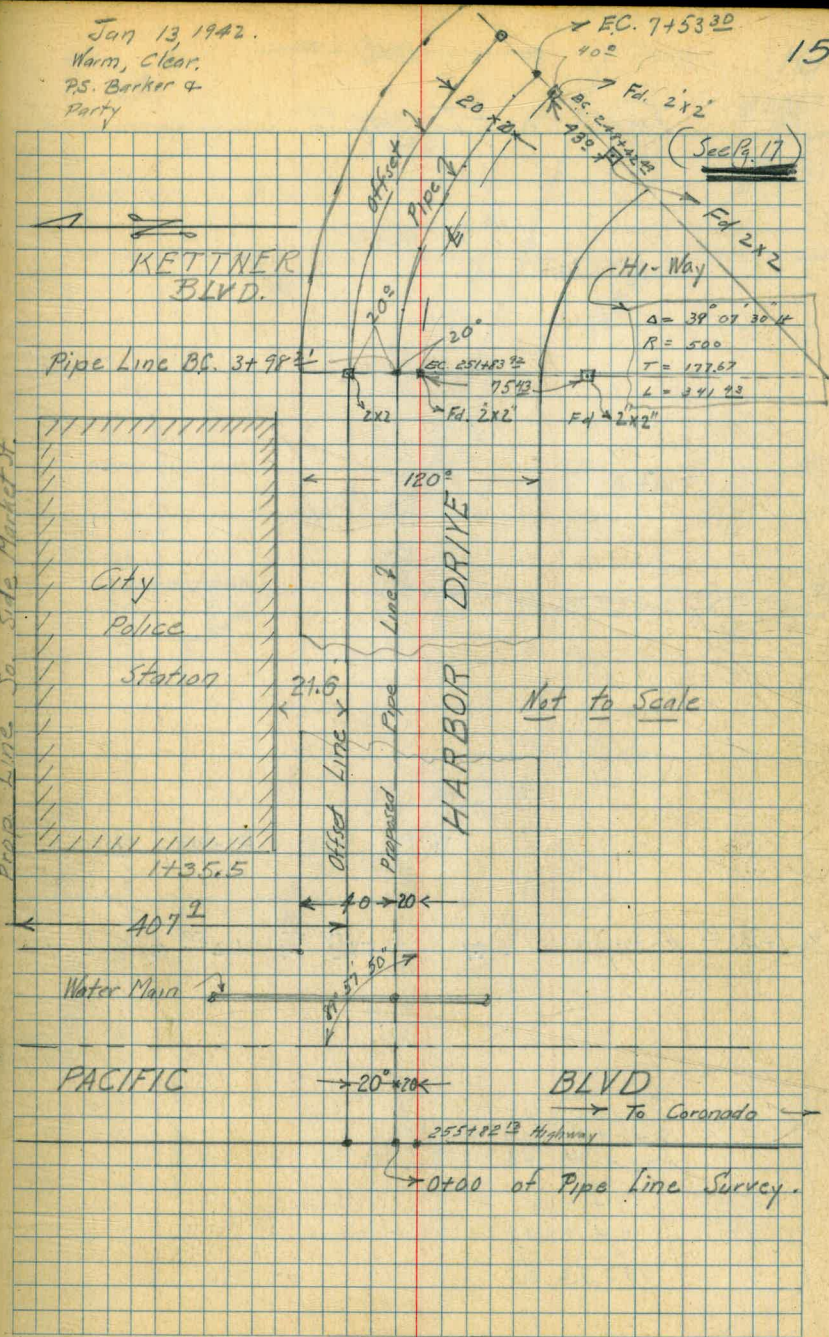
- ✓ 0+00 = 255+82<sup>13</sup> on N. Side Pacific Blvd.
- ✓ +06 = Curb
- ✓ +11<sup>35</sup> & Street Car track N+S
- ✓ +19<sup>8</sup> E. Side Curb
- ✓ +32<sup>3</sup> & Hi-Way to Coronado
- ✓ +54<sup>4</sup> W. Side Curb
- ✓ 1+21 Property line
- ✓ +35<sup>8</sup> Bld. Line

PI. 5+90<sup>98</sup>

3+98.21	BC.	2° 51' 11"		
4+50	51 <sup>29</sup> 53 <sup>74</sup>	5 36 26	Δ	39° 07' 30" RT
5+00	50° 51 <sup>89</sup>	8 21 41	R	520°
+50	50° 51 <sup>89</sup>	11 06 56	T	184 <sup>77</sup>
6+00	50° 51 <sup>89</sup>	13 52 11	T <sub>0</sub>	191 <sup>87</sup>
+50	50° 51 <sup>89</sup>	16 37 26	L	355 <sup>09</sup>
7+00	50° 51 <sup>89</sup>	19 22 50	d <sub>1</sub>	3,305
+50	50° 51 <sup>89</sup>	19 33 45	d <sub>50</sub>	2° 45' 15"
EC. +53 <sup>30</sup>	33° 34 <sup>2</sup>			

At 9+29<sup>0</sup> Offset on opp. side of Pipe Line.  
Offset is now & Hi-way

Jan 13 1942.  
Warm, Clear.  
P.S. Barker &  
Party



Ties to PI 5790<sup>08</sup>

2572

RP's for Hi-way  $\phi$

241+42<sup>23</sup> Hi-way  $\phi$  57<sup>87</sup>  $\phi$  62<sup>50</sup> 36<sup>93</sup>

248+42.49

241+42.23

7+0026

7+5730

14+53.56

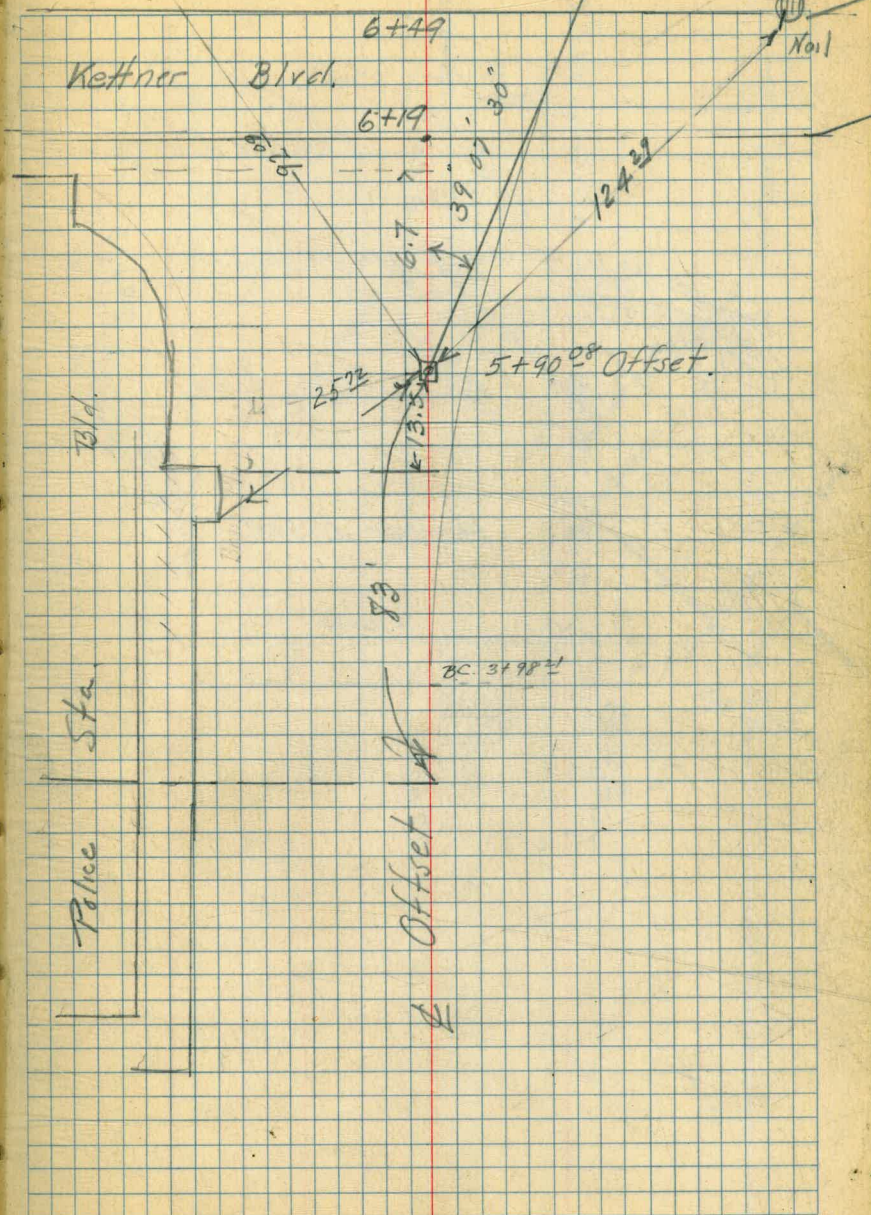
#C 501 Nail

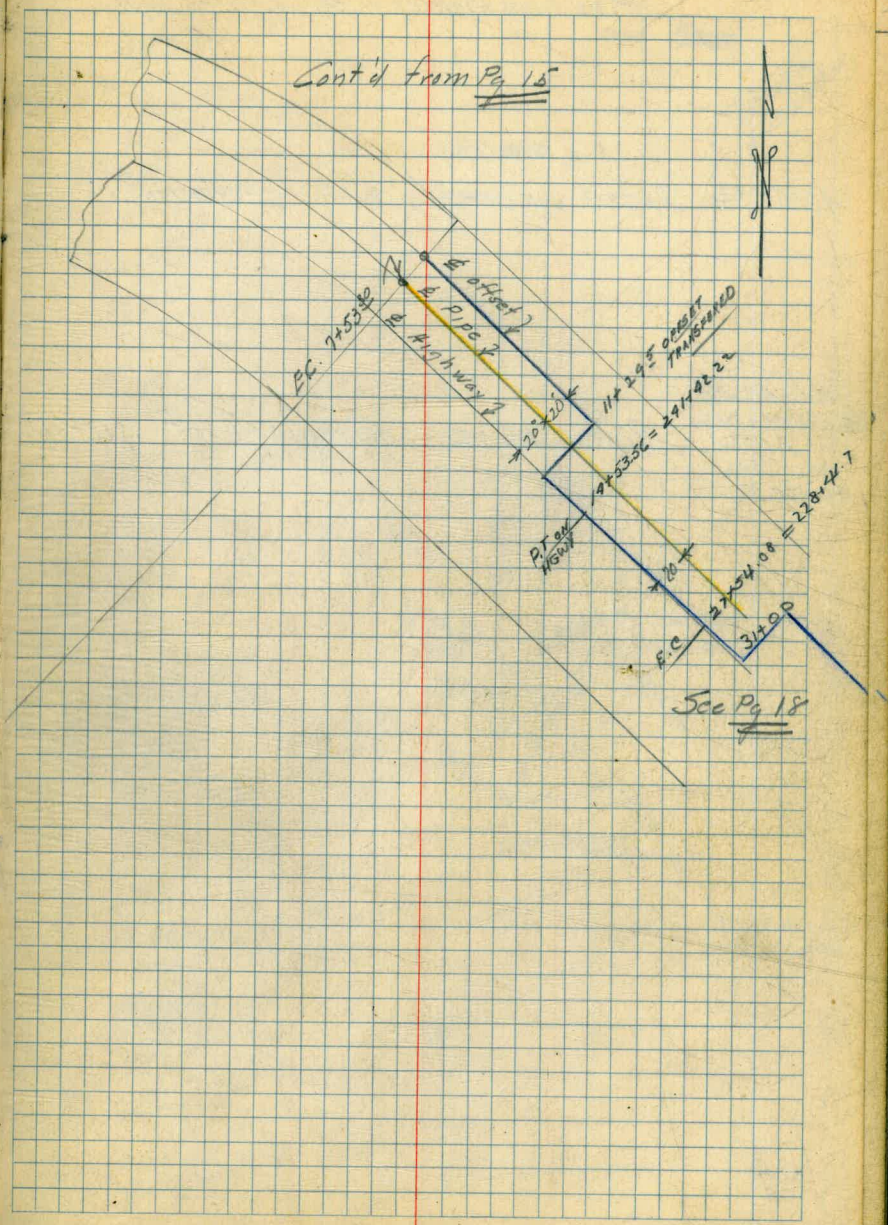
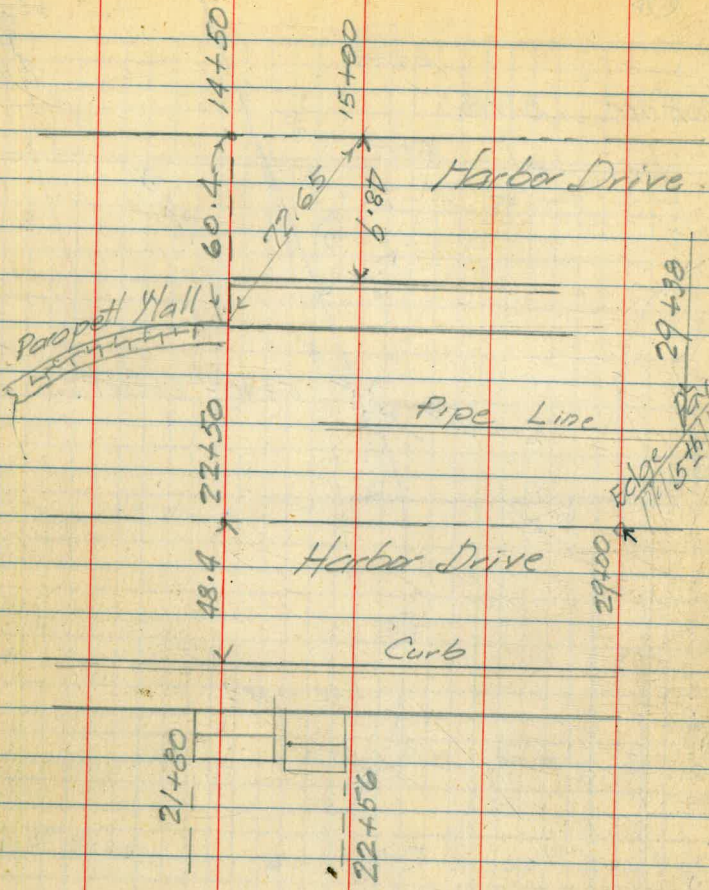
Es.  
7+5330

16

#C 457

Nail





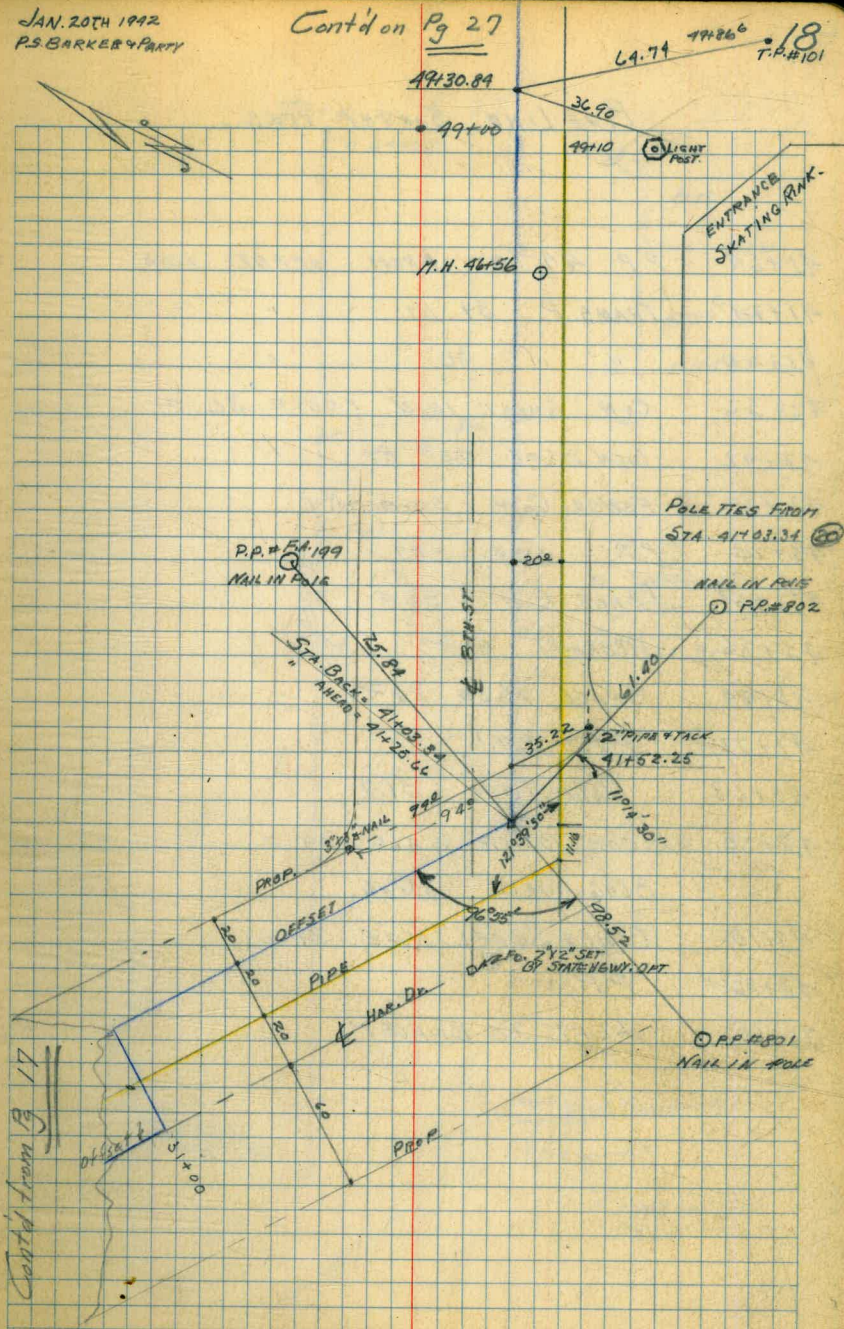
PIPE LINE SURVEY - 8TH ST & HARBOR DR.

41+52.25 INTER. (ON OFFSET) WITH PROPERTY LINE PRODUCED

Note: Pipe leaves Pavement at 40+79

JAN. 20TH 1992  
P.S. BARKER & PARTY

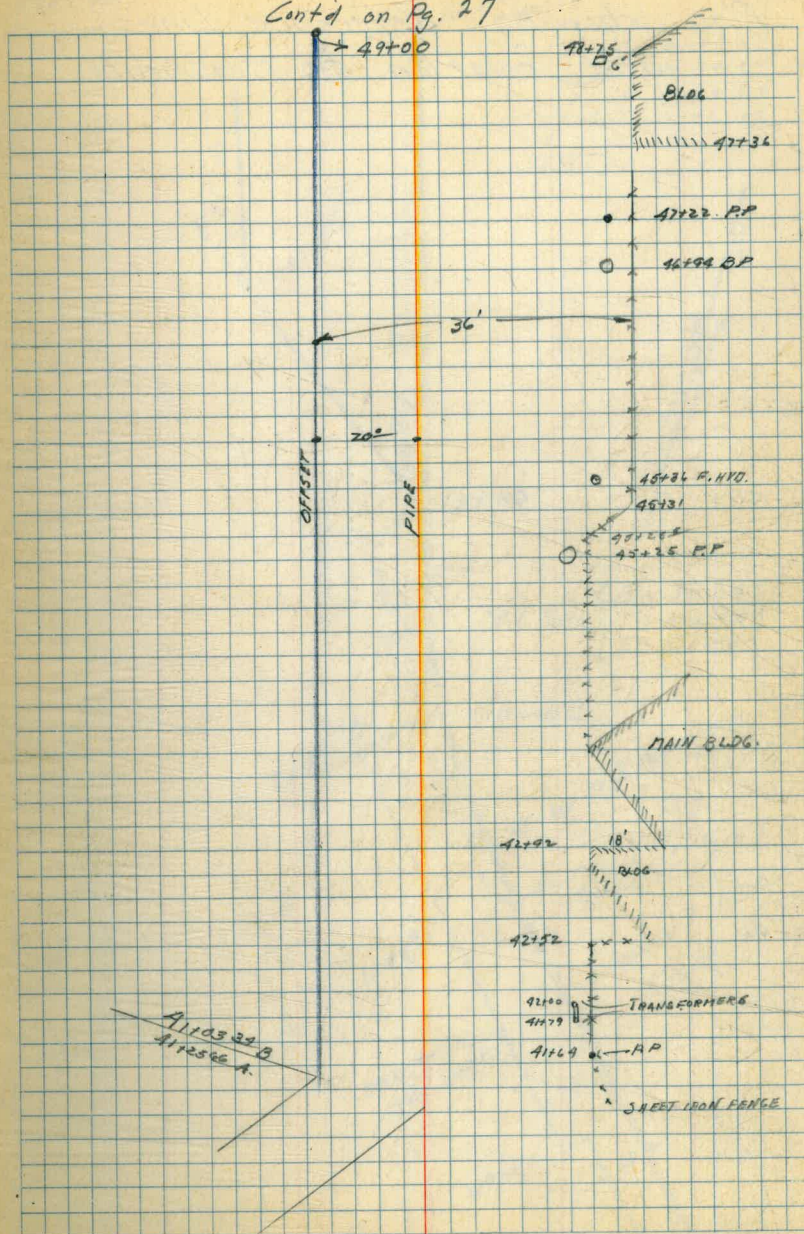
Cont'd on Pg 27



PIPE LINE SURVEY TIES.

41+64	P.P	49 <sup>2</sup> RT	FROM	OFFSET	LINE
41+79 <sup>3</sup>	TRANS. P.	39 RT	"	"	"
42+00	"	"	35'	"	"
42+52	COR. SHEET IRON	FENCE	30 RT		
42+92	COR. BLDG	30 <sup>4</sup> RT			
43+23	FENCE COR	30.4 RT			
45+25	P.P	28.6 RT			
45+25 <sup>5</sup>	FENCE COR	30.4			
45+36	HYDRANT	31 <sup>3</sup>	✓		
46+94	BRACE POLE	29 <sup>2</sup>			
47+72 <sup>2</sup>	P.P.	29.1			
48+68	PALM TREE	31.7			
48+75	COR. BRICK WALL	29.0			
1	BLDG. WALL	36.0			
49+10	CONCY STEEL POLE	31'			
18+86 <sup>6</sup>	P.P				
50+60	LEFT TO BRACE P.				

Cont'd on Pg. 27



Plan showing Reference Lines  
and relation to Monuments

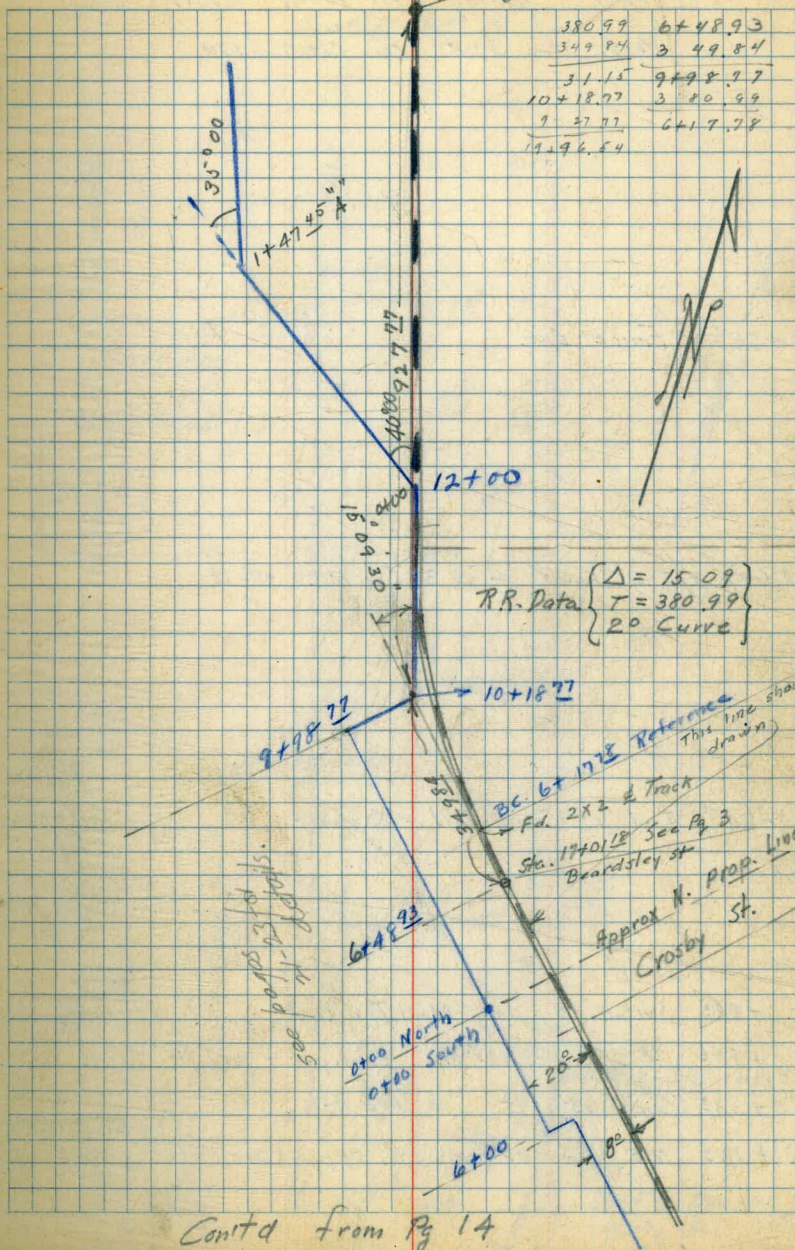
Jan. 16, 1942.  
P.S. Barber &  
Party  
Clear - Warm

Fd. Conc. Mon. Sta. 131+00  
Sec. Pg. 4

20

1974660

380.99	6+48.93
349.84	2 49.84
31.15	9+98.77
10+18.77	3 20.99
9 27.77	6+17.78
17.96.54	



Location Survey N. from Crosby St.  
West of Santa Fe Main Line

✓ 2+66<sup>±</sup> Fence Cor.

✓ 2+19 N End Fence & S.E. Cor Bld. 90° Lt

✓ 1+59 End of Crane Rail & Support

✓ +88<sup>±</sup> Switch E. side Main Track

✓ 0+50<sup>±</sup> & Spur 18<sup>±</sup> Lt. Bumper & end of Spur.

✓ 0+33<sup>±</sup> Curb 13' Lt + 10<sup>±</sup> Rt

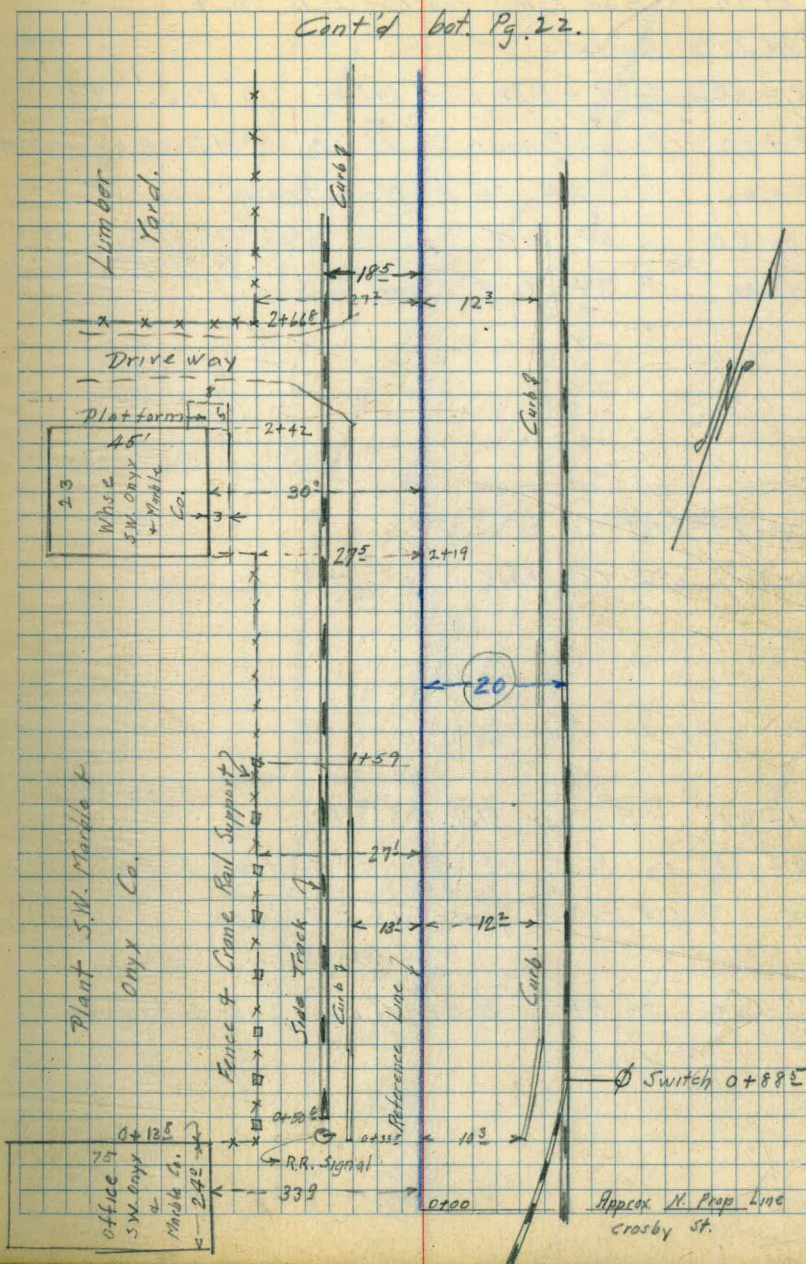
✓ 2+13<sup>±</sup> NE Cor. office SW. Onyx + Marble Co.   
 { 27'-Lt To Fence Cor  
 { 33'-Lt To Bld.

Jan, 16, 1942.

RS. Barker &  
Party.

21.

Cont'd bot Pg. 22.

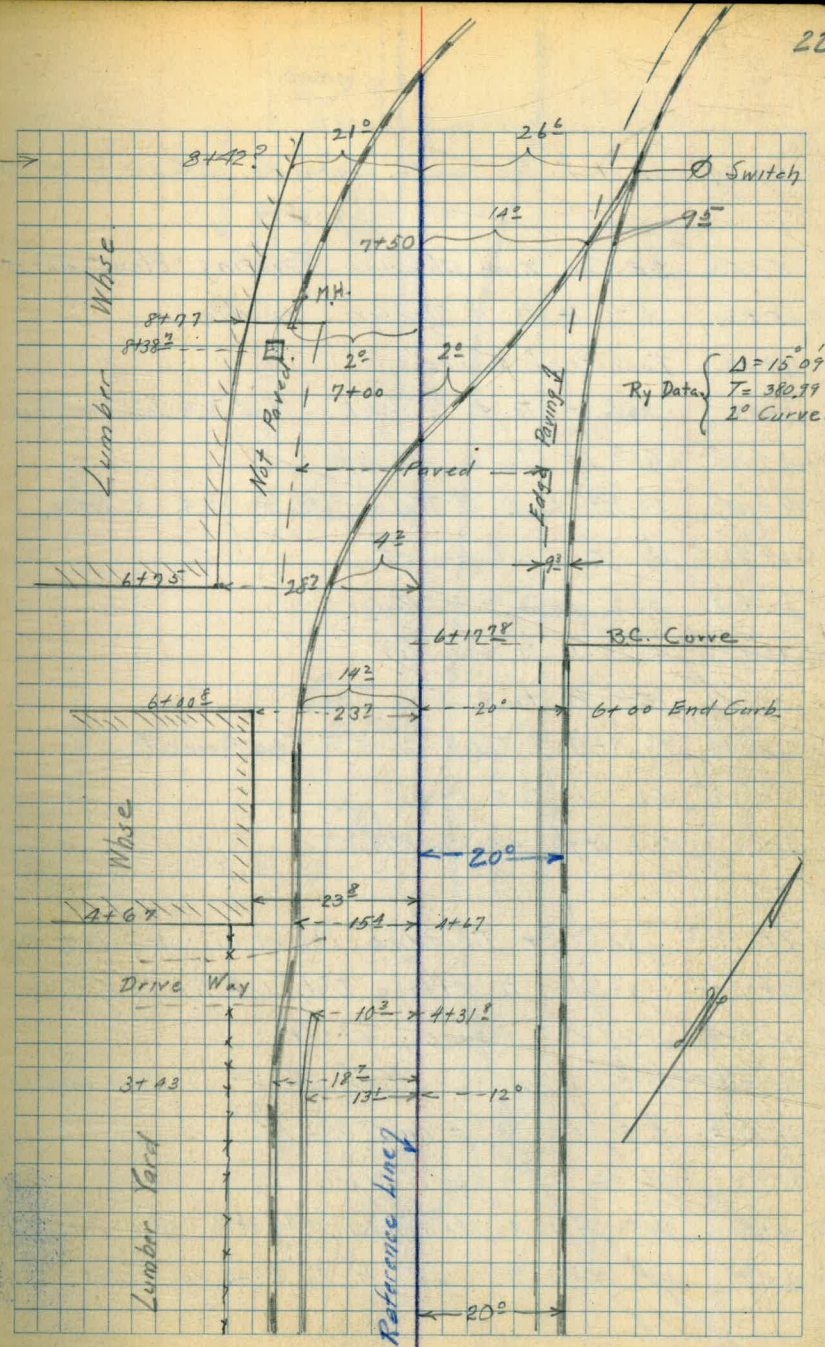




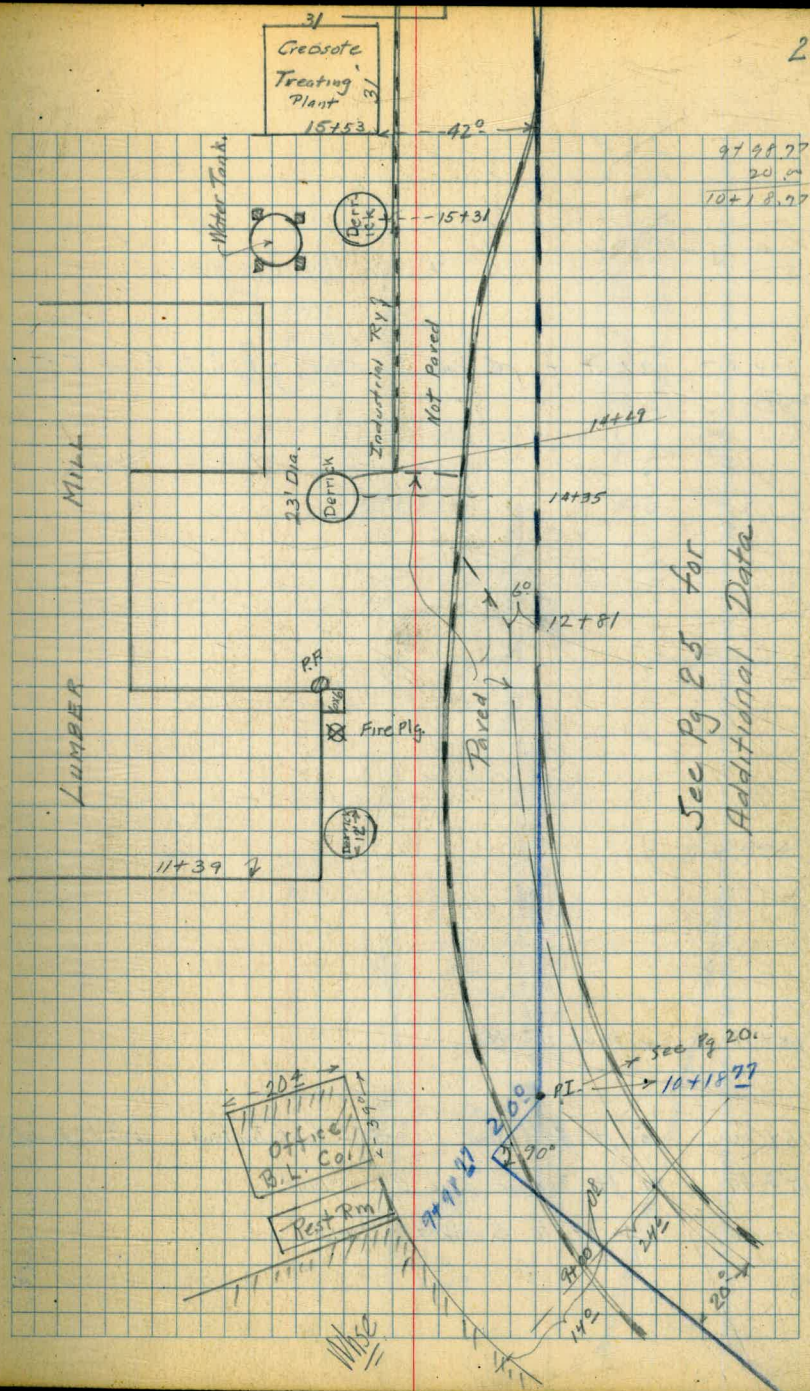
- ✓ 8+74 S. End Side Track. 2° Lt to  $\phi$
- ✓ 8+42 Switch-
- ✓ 8+38<sup>2</sup> Valve + Pipe Line 14° Lt 10" dia. M.H.
- ✓ 8+00 Edge Pavement 15° Lt; 16° Rt to edge Pavement
- ✓ 8+00 25° Rt to  $\phi$  Main track.
- ✓ 7+50 14° Rt to  $\phi$  Spur + edge Pavement; 7° Lt To other side Pavement
- ✓ 7+00 2° Rt to  $\phi$  Side Track

- ✓ 6+75 S.E. Cor. Lumber Whse 28° Lt
- ✓ 6+49 10° Lt to Side track.
- ✓ 6+10<sup>S</sup> N.E. Cor. Whse 23° Lt

- ✓ 4+67 S.E. Cor. Bld. 23° Lt
- ✓ 4+31<sup>S</sup> End Curb. 10° Lt ; 15° to track  $\phi$  (Lt)
- ✓ 4+00 17° Lt to  $\phi$  Spur ; 11° Lt to Curb
- ✓ 3+43 18° Rt to  $\phi$  Spur (B.C.) 13° Lt to Curb



- ✓ 15+99 31' Lt to Cor Zinc Ch. Treating Ho. 23° N45 by 28 E-W.
- ✓ 15+53 S.E. Cor. Zinc Chloride Treating Plant; 42° Lt
- ✓ 15+31 62 Lt to  $\phi$  Derrick 12' dia.
- 14+49 Industrial Tracks
- 14+7 15° Lt to  $\phi$  S. Track 36 Lt to  $\phi$  Industrial Track.
- ✓ 14+35 61° Lt to  $\phi$  Derrick
- ✓ 13+00 13° Rt to  $\phi$  M. Track; 15 Lt to  $\phi$  S. Track.
- ✓ 12+81 6° Lt Cor Pavement
- ✓ 12+41 39° Lt to Fire Plug.
- ✓ 12+46 47° Lt to Cor. Mill
- ✓ 12+00 15° Lt to  $\phi$  Side Track.
- ✓ 12+00 7° Rt to  $\phi$  Track. 2° Lt to Edge Pavement
- ✓ 11+76 41 Lt to  $\phi$  Derrick
- ✓ 11+39 46° Lt to S.E. Cor. Mill
- ✓ 9+98.27 36° Rt to edge Pavement; 45° to  $\phi$  M.T.
- ✓ 9+98.27 33 Lt to Office Bld. 102 Rt to  $\phi$  S. Track
- ✓ 9+88 S.E. Cor office; 43 Lt
- ✓ 9+84 NE. Cor Rest Rm. 53 Lt of Reference line
- ✓ 9+72.5 SE. Cor Rest Rm. 62 Lt
- ✓ 9+72 62 Lt to NE Cor Whse
- ✓ 9+00 34° Rt to  $\phi$  Main Track. 24° Rt to edge Pav.
- ✓ 9+00 14° Lt to Bld. 0° Lt to  $\phi$  Side Track.



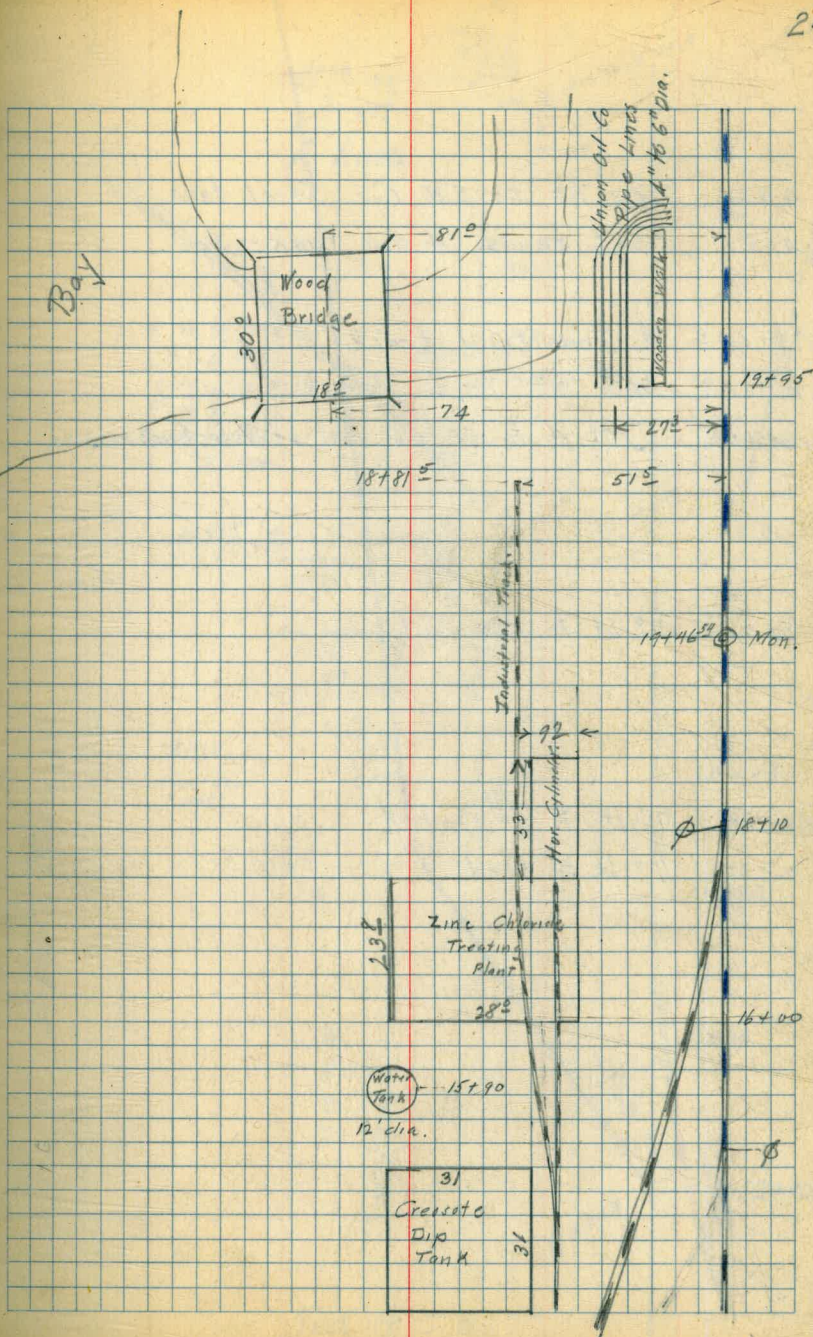
19+95 22 ft to & Walk by Pipe ; 27<sup>3</sup> to  $\phi$  of 5 Pipes

18+10 Switch 11<sup>0</sup> ft

16+00 15 ft to  $\phi$  Spur. 35<sup>3</sup> to  $\phi$  Ind track. 42<sup>3</sup> to  $\phi$  ind. Tr.

✓ 15+99 31 ft to Cor. Zinc Ch. Plant.

✓ 15+90 64 ft to & Water tank

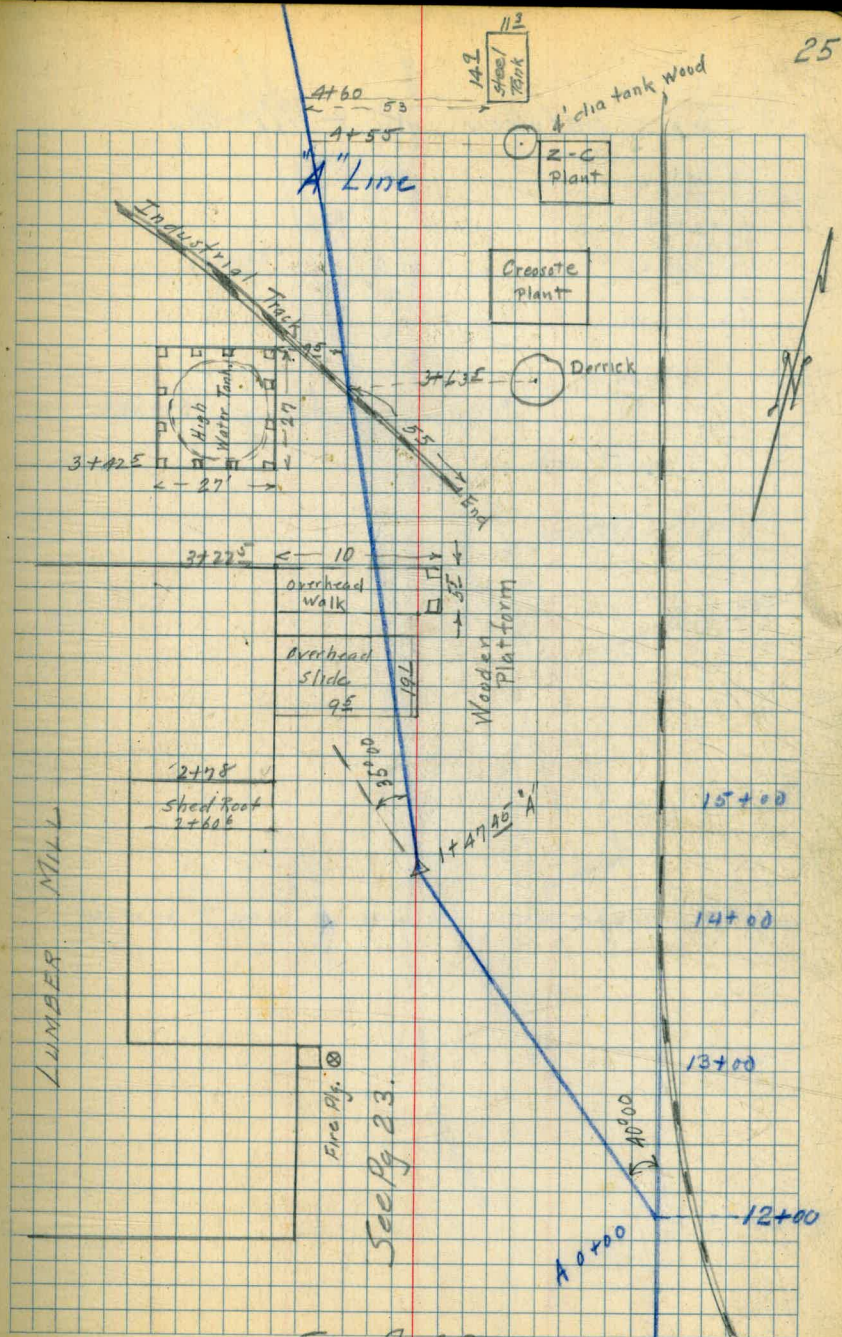


- 4+60 53 Rt to SW Cor Steel tank
- ✓ 4+55 58<sup>2</sup> to 4' dia tank - wood.
- ✓ 3+67<sup>4</sup> 4 Industrial track
- ✓ 3+63<sup>0</sup> 50<sup>2</sup> Rt to 4 Derrick
- ✓ 3+42<sup>5</sup> 10<sup>2</sup> Lt to SE Cor. Past of Water tank

✓ 3+22<sup>5</sup> 7<sup>0</sup> Lt to cor Mill

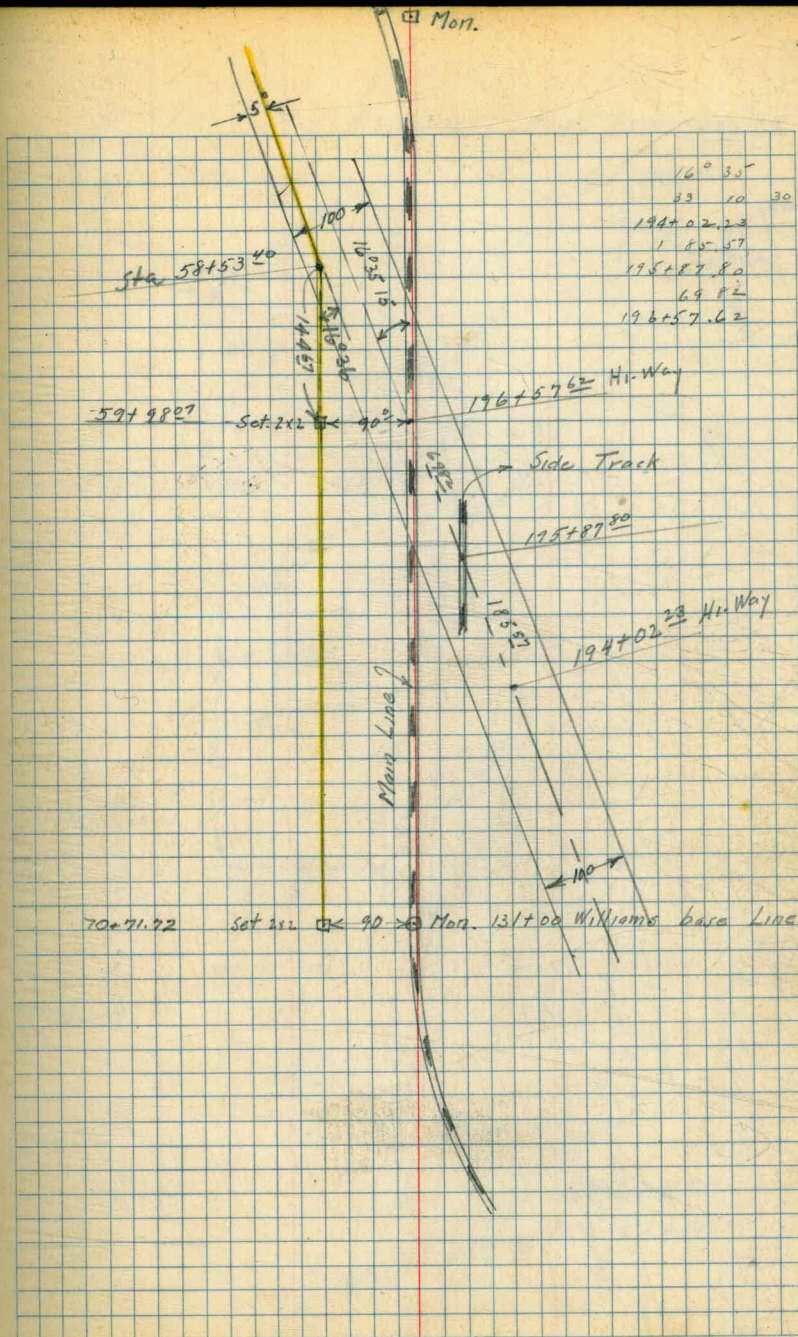
✓ 2+78 7<sup>4</sup> Lt to SE Cor Mill

✓ 2+60 7<sup>4</sup> Lt to Shed



See Pg 23.

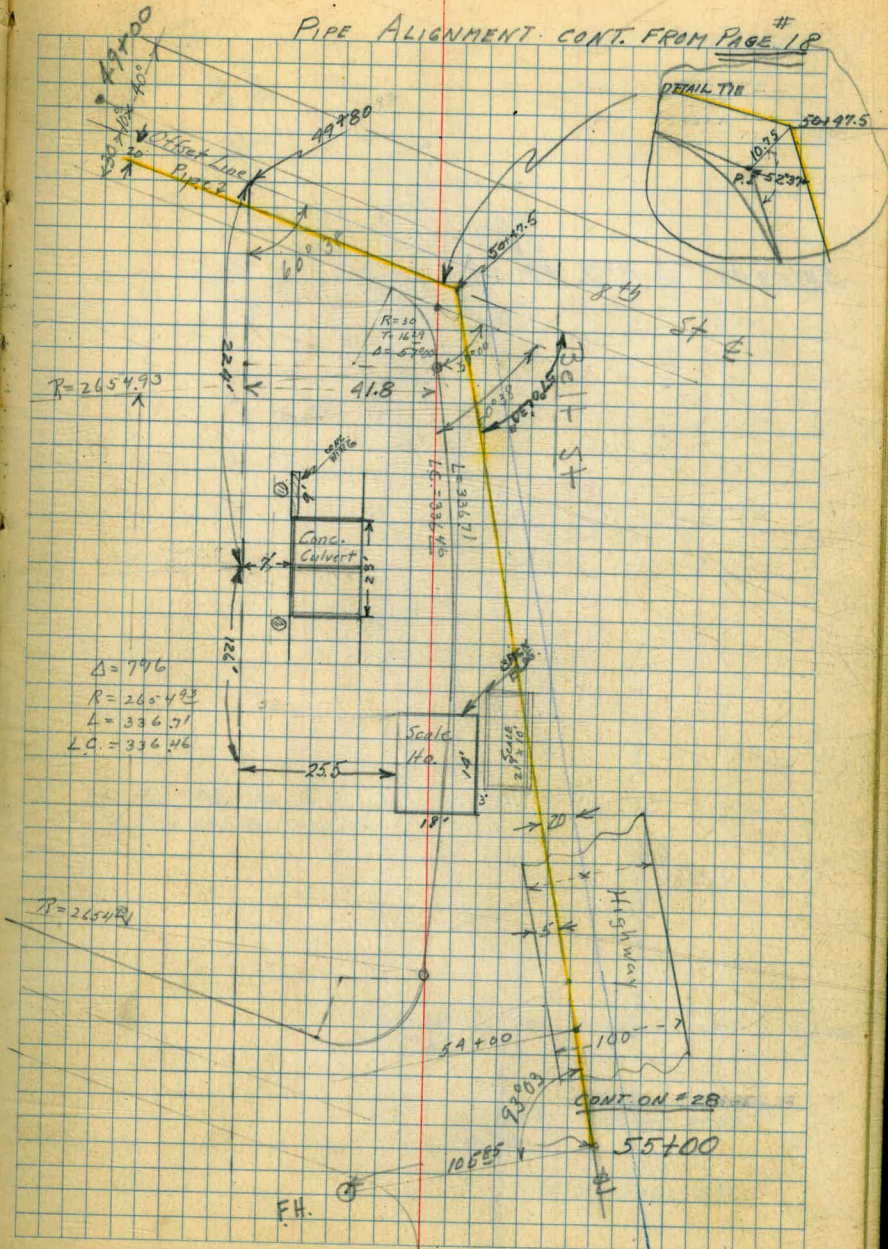
Ties between Ry + Hi-Way



JAN. 23, 1942  
P.S. BARKER & PARTY

29.

PIPE ALIGNMENT - CONT. FROM PAGE 18 #

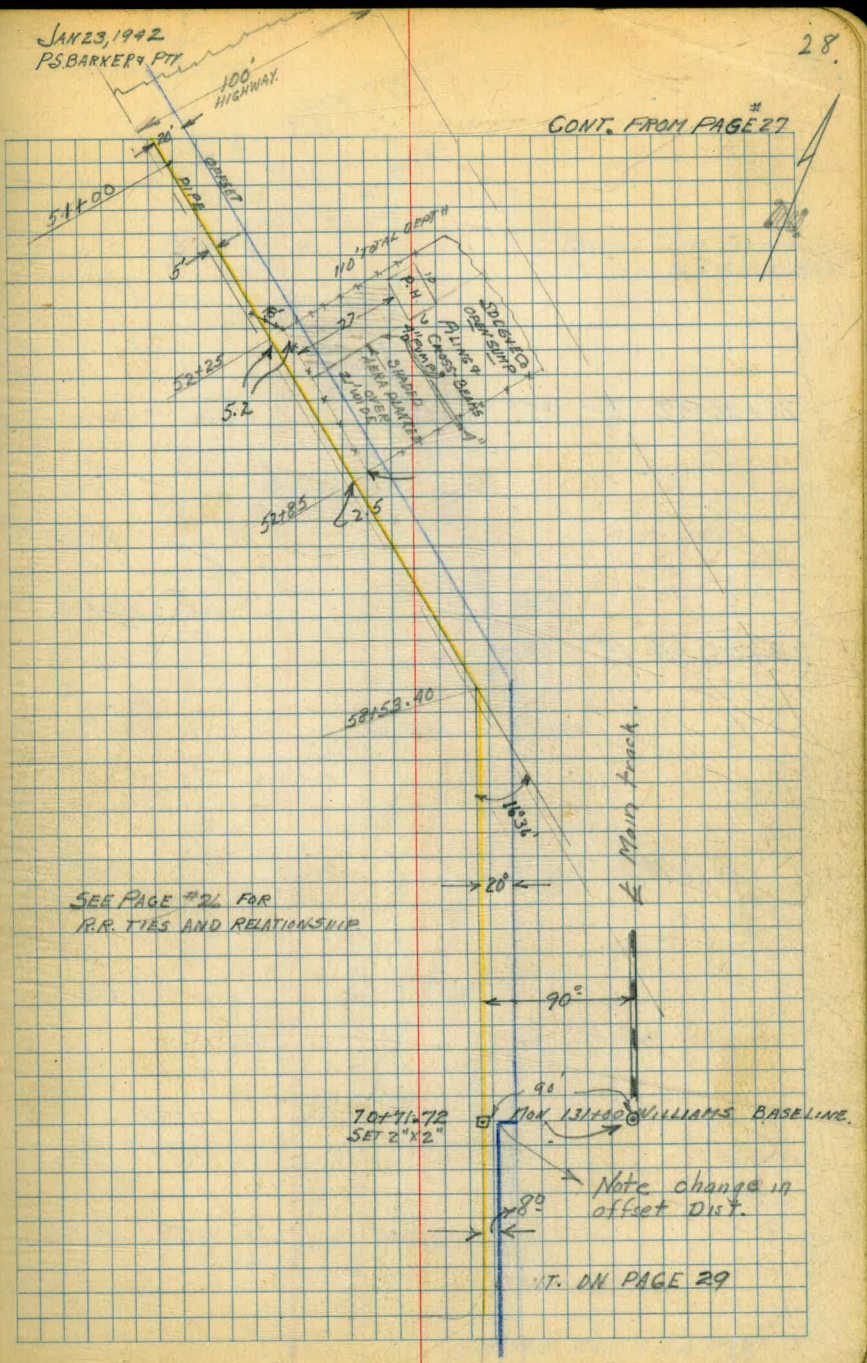


58153.40  $\Delta 16^{\circ}36'$  RT.

JAN 23, 1942  
P. S. BARKEP'S PT.

28.

CONT. FROM PAGE 27



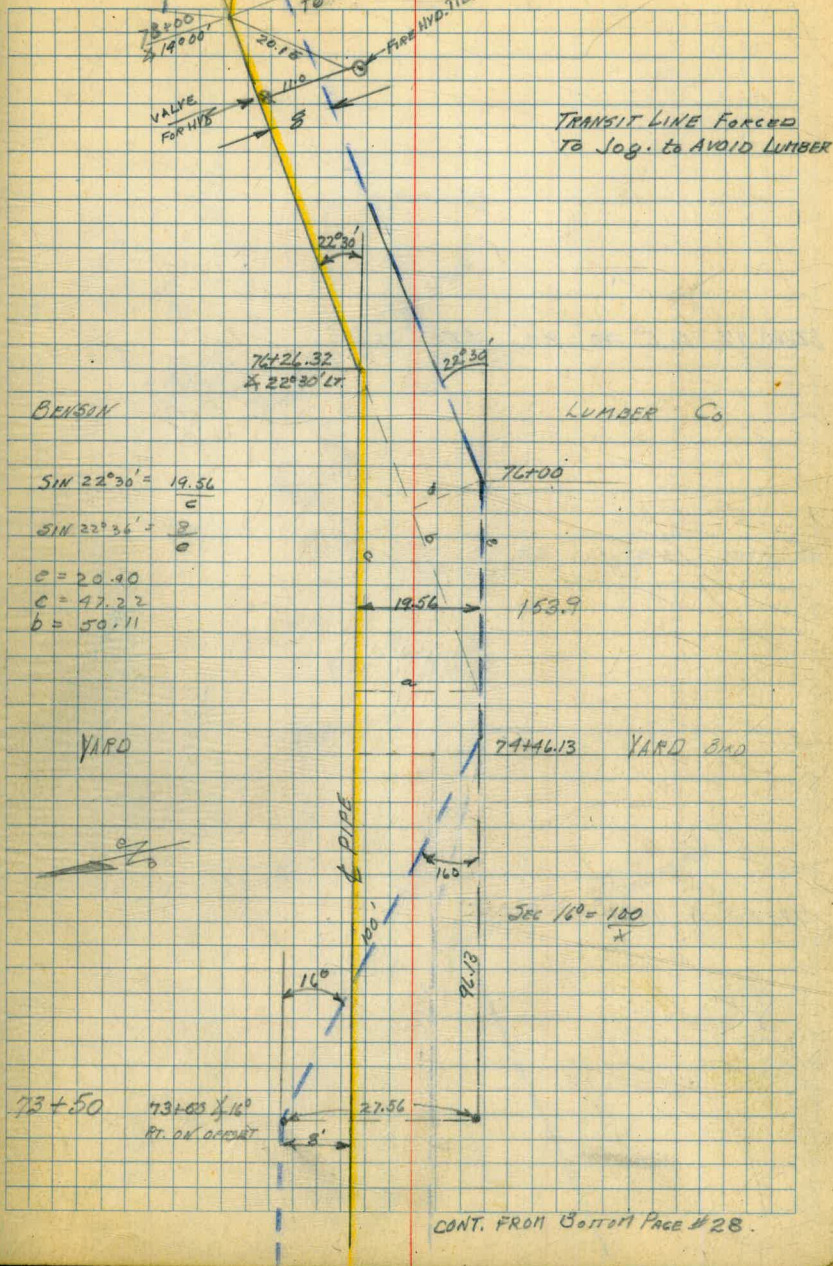
JAN 24, 1942  
P.S. BARKER & PTM

CONTIN. PAGE 30

29

76+26.32  $\times$  22°30' LT

78+00  $\times$  19° RT





JAN 21, 1942  
P.S. BARKER & P.Y.

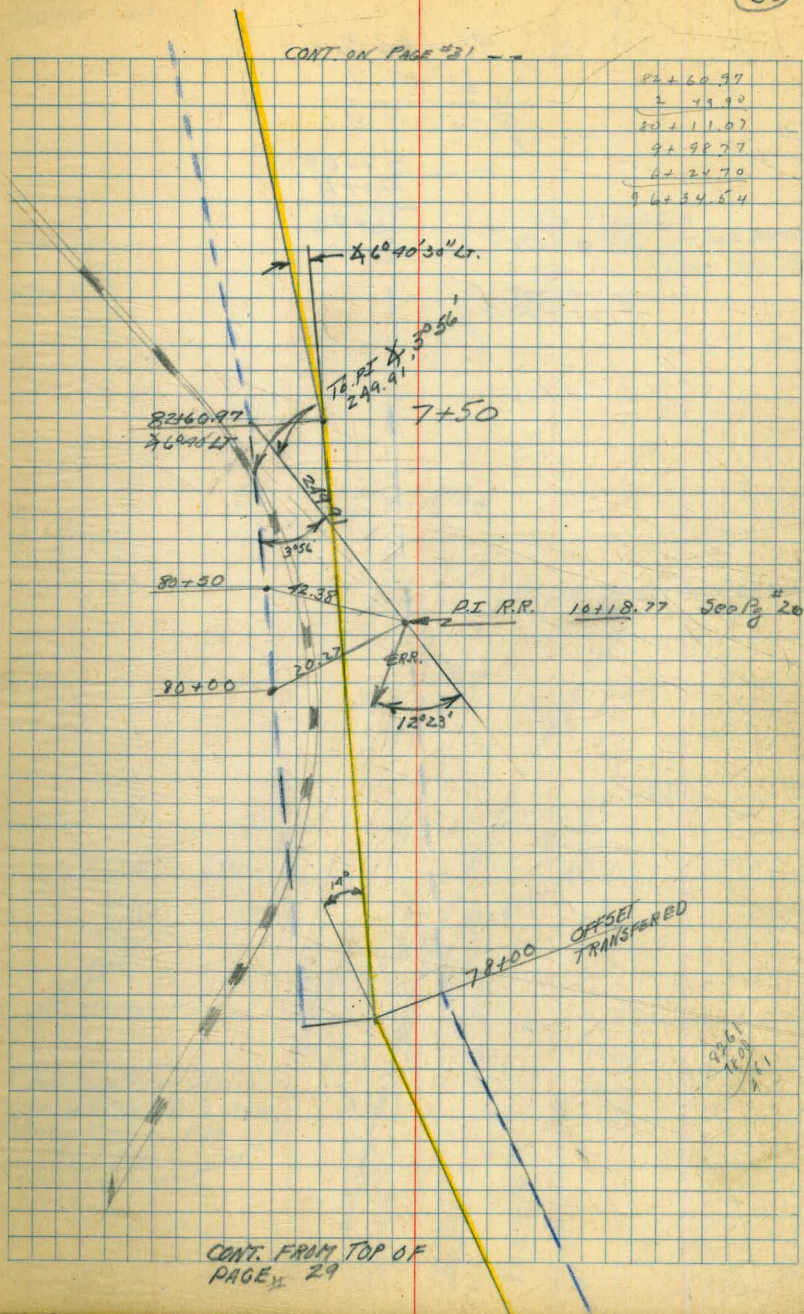
30

CONT. ON PAGE 21

82+60.97
2 49.90
80+11.07
9+99.77
6+24.70
96+34.54

82+60.97  $\Delta 6^{\circ} 40' 30''$  LT.

78+00  $\Delta 14^{\circ}$  RT.



CONT. FROM TOP OF  
PAGE 29

$$\begin{array}{r} 96+34.6 \\ 6+24.7 \\ \hline 90+09.9 \end{array}$$

$$\begin{array}{r} 97-03 \\ 90+11 \\ \hline 6+92 \end{array}$$

$$\begin{array}{r} 82+60.97 \\ 7.50 \\ \hline 90+10.97 \end{array}$$

JAN 26, 1942  
P.S. BARKER & PARTY.  
CLOUDY-COOL

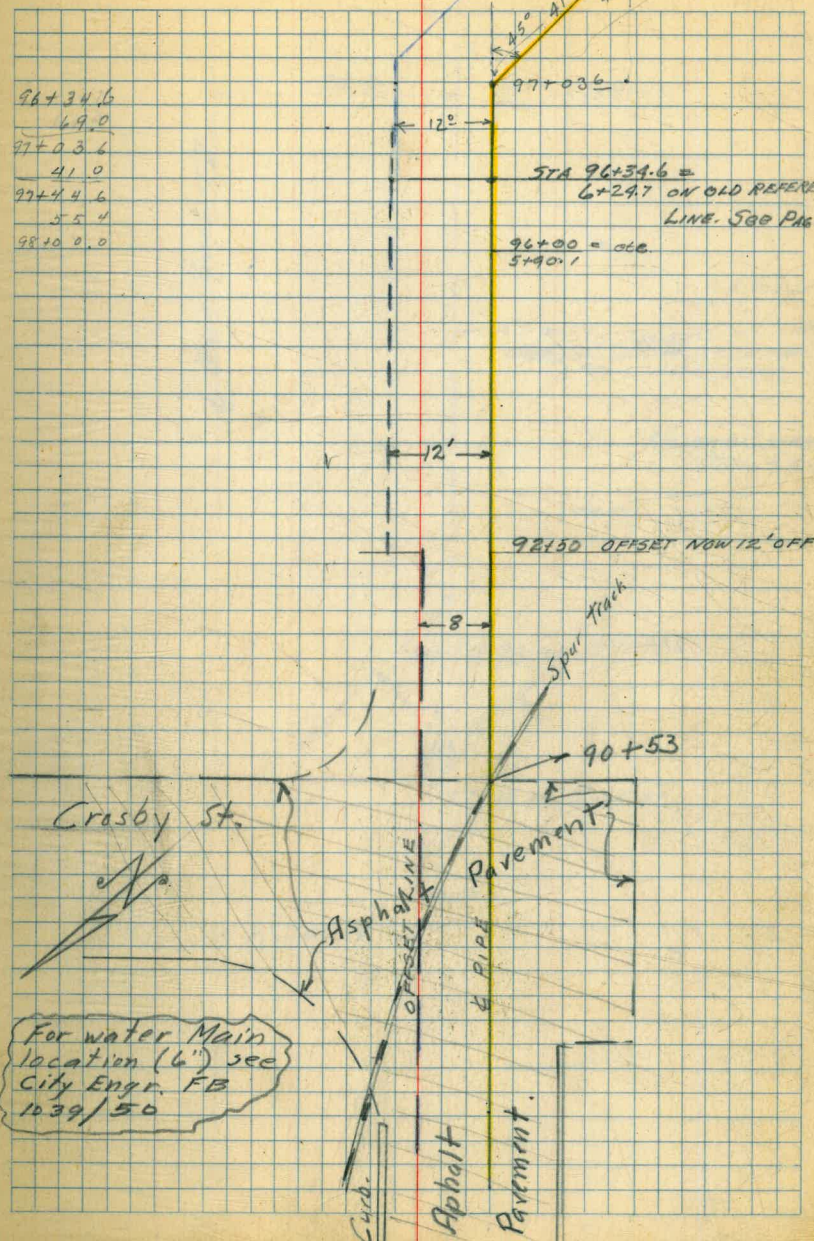
CONT. ON  
#32

(31)

$$\begin{array}{r} 96+34.6 \\ 69.0 \\ \hline 97+03.6 \\ 41.0 \\ \hline 97+44.6 \\ 55.4 \\ \hline 98+00.0 \end{array}$$

STA 96+34.6 =  
6+24.7 ON OLD REFERENCE  
LINE. SEE PAGE #10

96+00 = 000  
5+90.1



For water Main  
location (6") see  
City Engr. FB  
1039/50

JAN 26, 1992  
P. BARKER & PNTY

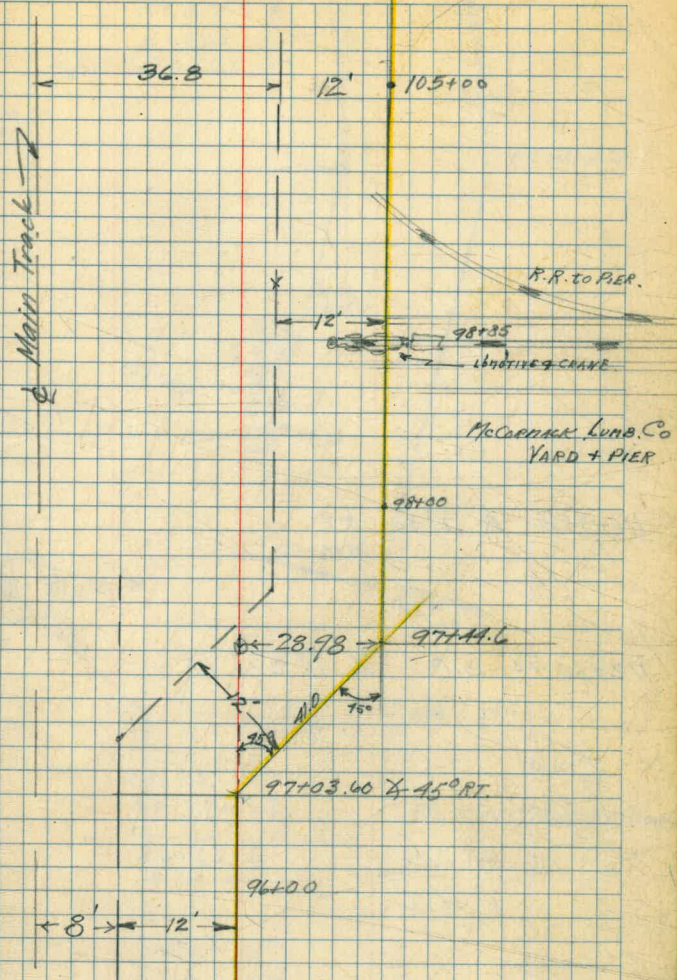
CONT. PAGE 33

10+55.5 SET 2"x2" HUB

(32)

JIMPSON

ST.



JAN 26, 1942  
BARKER PT.

CONT. ON PAGE #34

(33)

$$\Delta = 26^{\circ}22'30''$$

$$R = 2018.7 \text{ E}$$

$$L = 929.27$$

$$HSG = TD = 473.017$$

110+88.60  $\times$  7°08' RT

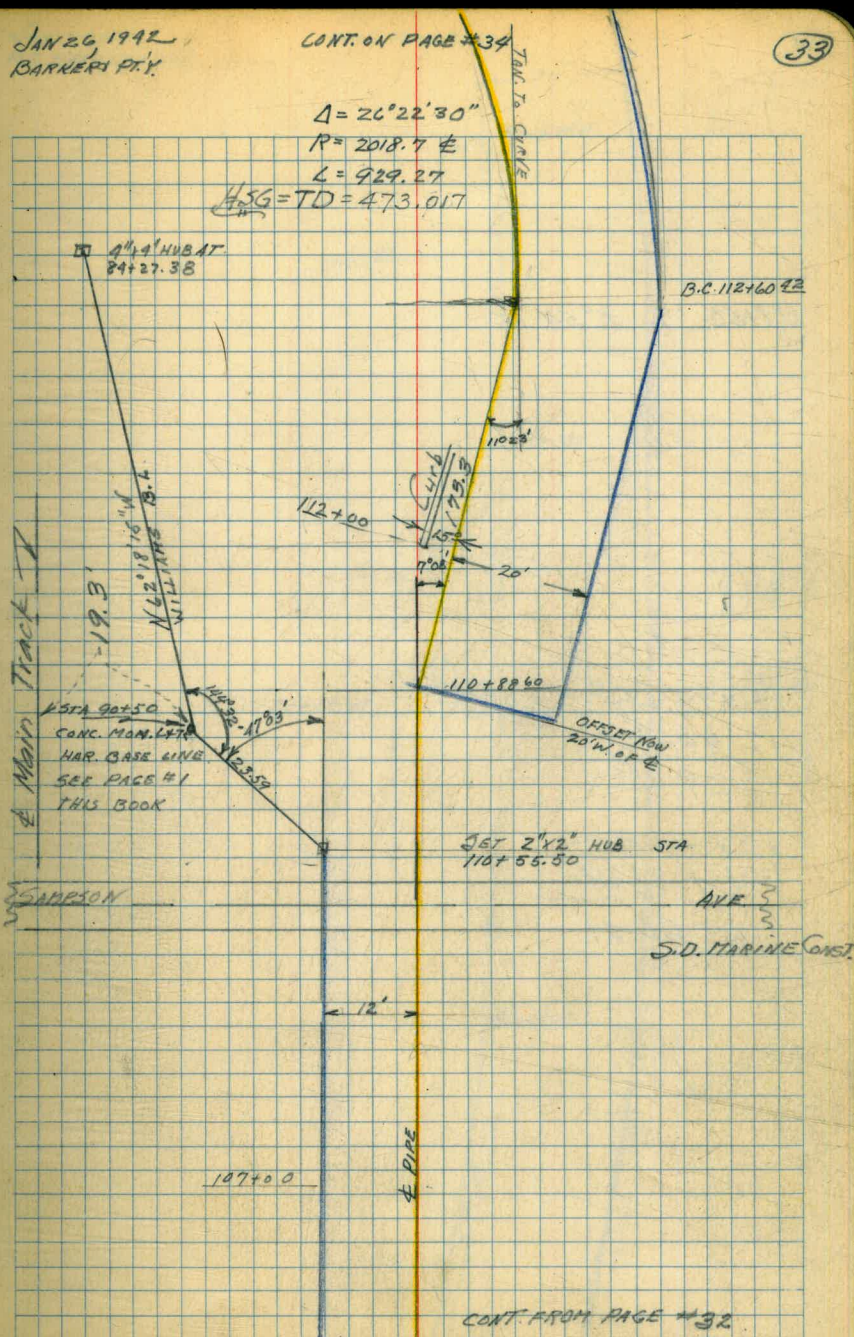
112+60.42 B.C.  $\times$  11°23' LT

	90+50.00
112 60.42	84+27.38
<hr/>	

110 88.60	6 22.62
<hr/>	

1 71.82

90+50
82+00
<hr/>
8+50



CONT. FROM PAGE #32

JAN. 28, 1942  
P.S. BARKER & PLY.

CONT. PAGE # 35

(34)

128+50 X 2°54' LT.

121+89.69  
112 60.42  

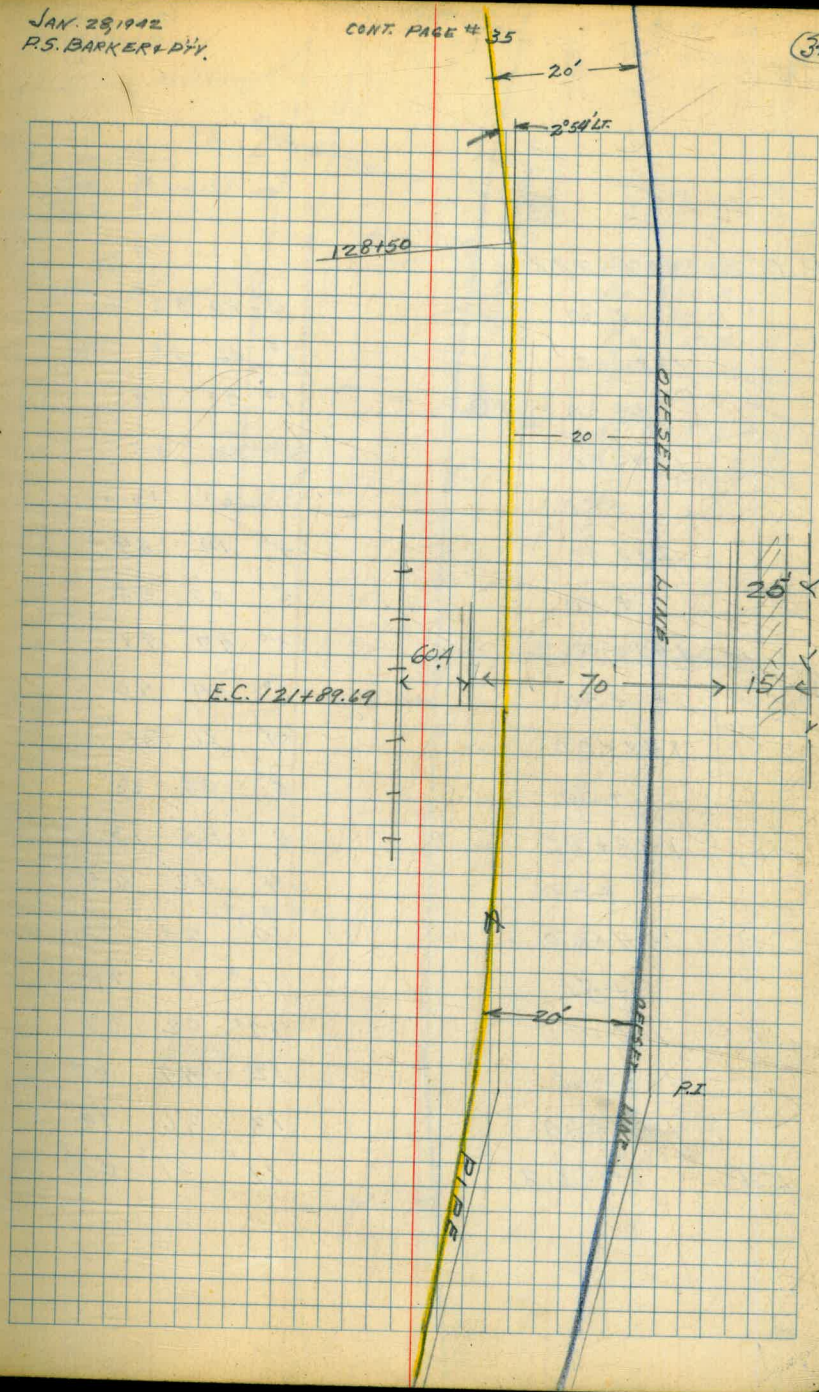
---

929.27

128+50 -  
121+89.69  

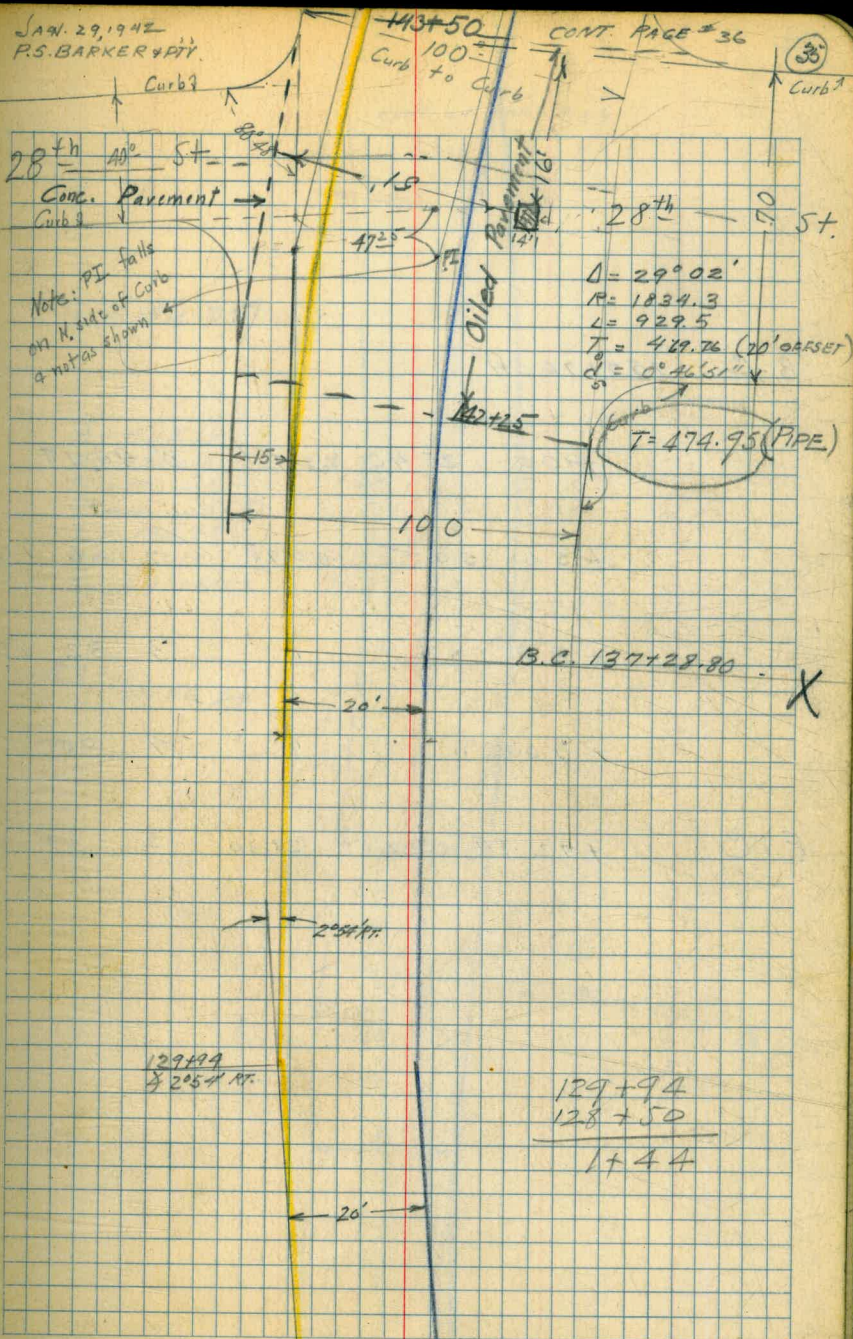
---

6+60.31



B.C.	137+28.8	
	+50	0° 19' 52"
	138+00	1° 06' 43"
	+50	1° 53' 34"
	139+00	2° 40' 25"
	+50	3° 27' 16"
	140+00	4° 14' 07"
	+50	5° 00' 58"
	141+00	5° 47' 49"
	+50	6° 34' 40"
	142+00	7° 21' 31"
	+50	8° 08' 22"
	143+00	8° 55' 13"
	+50	9° 42' 04"
	144+00	10° 28' 55"
	+50	11° 15' 46"
	145+00	12° 02' 37"
	+50	12 49 28
	146+00	13 36 19
E.C.	+58.3	14° 31' 00"

JAN. 29, 1942  
P.S. BARKER & PIV.



B.C. 155176.54

+00 23.46 23.91 0° 40.19

+50 50<sup>6</sup> 50.98 2 06 16

+00 " " 3 32 13

+50 " " 4 58 10

F.C. +72.89 22.89 23.30 5 37 31

32

CONT. ON PAGE 239

F.C. 157172.89

$\Delta = 11^{\circ} 15' 27''$

$R = 1000.0$

$T_0 = 100.46$

$T = 98.49$  Pipe

$L = 196.35$

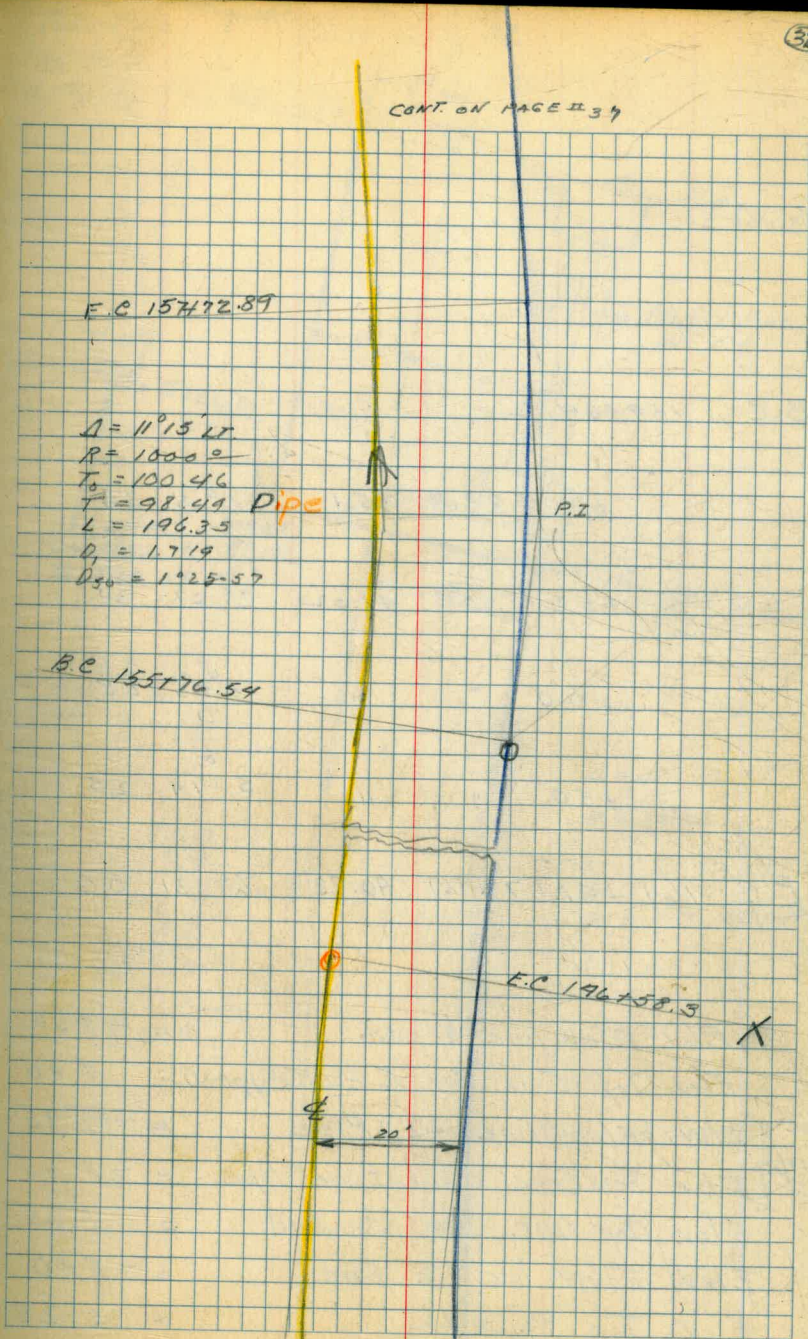
$D_1 = 1.719$

$D_{50} = 1.25-57$

B.C. 155176.54

F.C. 196158.3

20'



B.C 159+64.2

+00 35.8 35.1 1° 01 34

+50 50° 49.02 2° 27 31

+00 " " 3° 53 28

+50 " " 5° 19 25

E.C 161+91.67 91.67 40.82 6° 31 06

Elev. Flow line N. end. = -8.50

Elev. Top Conc. Box N. End Syphon = 4.80

Sta 162+16 { Elev. Flow line 42" Pipe = -12.95

{ Elev. Top Conc. Jacket over Pipe = -8.45

Elev. Top Conc. Box So. End = 5.38

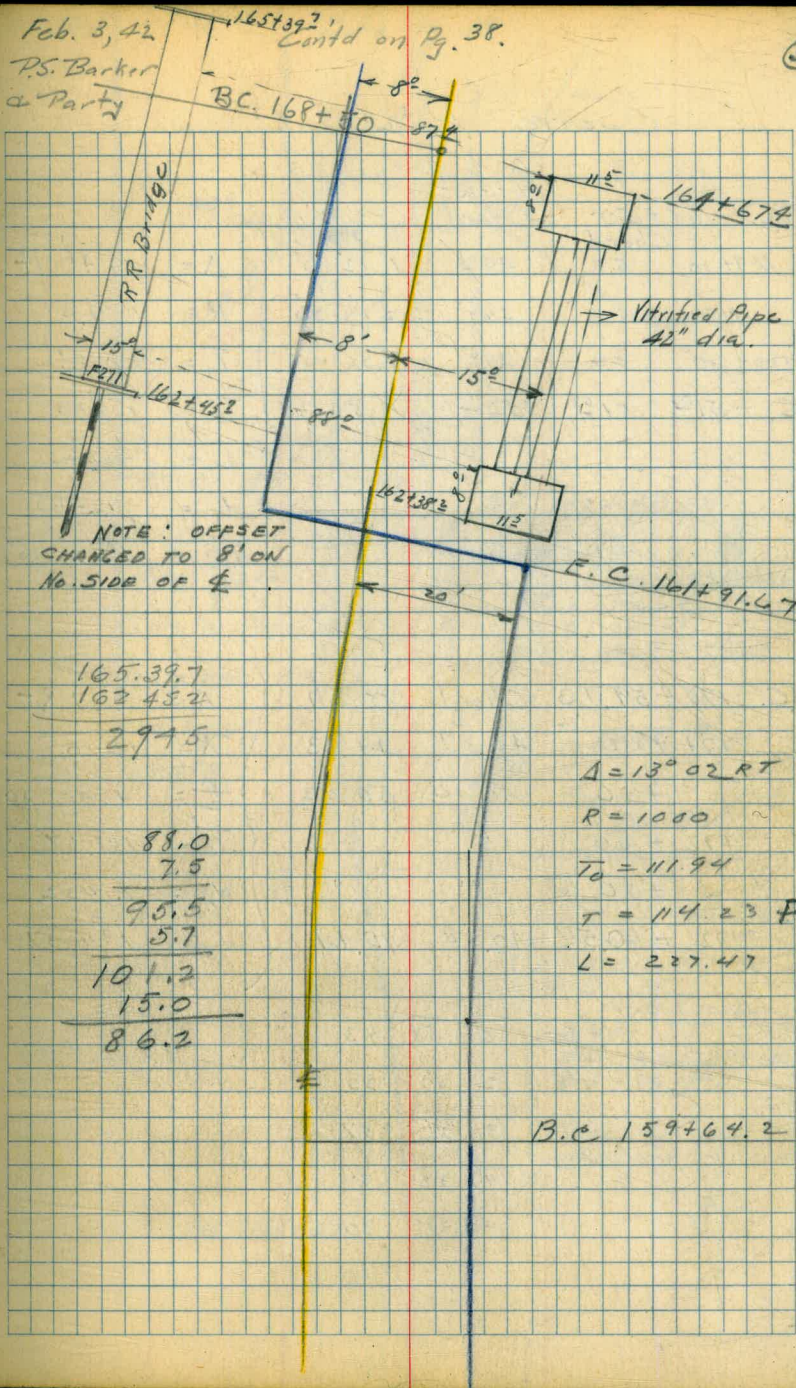
Elev. Flow line So. End = -8.80

Elev. Top Ry. Bridge = 2.25

Feb. 3, 42  
P.S. Barker  
& Party

165+39.2  
Contd on Pg. 38.

(37)





# Curve Data

BC	168+50	Offset	Chord		
169+00	50	49 <sup>67</sup>	1° 12' 15"	$\Delta = 9^{\circ} 41' 14''$ $R = 1189.5$ $T = 100.81$ $T_0 = 100.13$ $L = 201.03$ $d_1 = 1.445$ $d_{50} = 1^{\circ} 12' 15''$	
+50	50	49 <sup>67</sup>	2° 24' 30"		
170+00	50	49 <sup>67</sup>	3° 36' 45"		
EC. +51 <sup>03</sup>	51 <sup>03</sup>	50 <sup>70</sup>	4° 50' 30"		

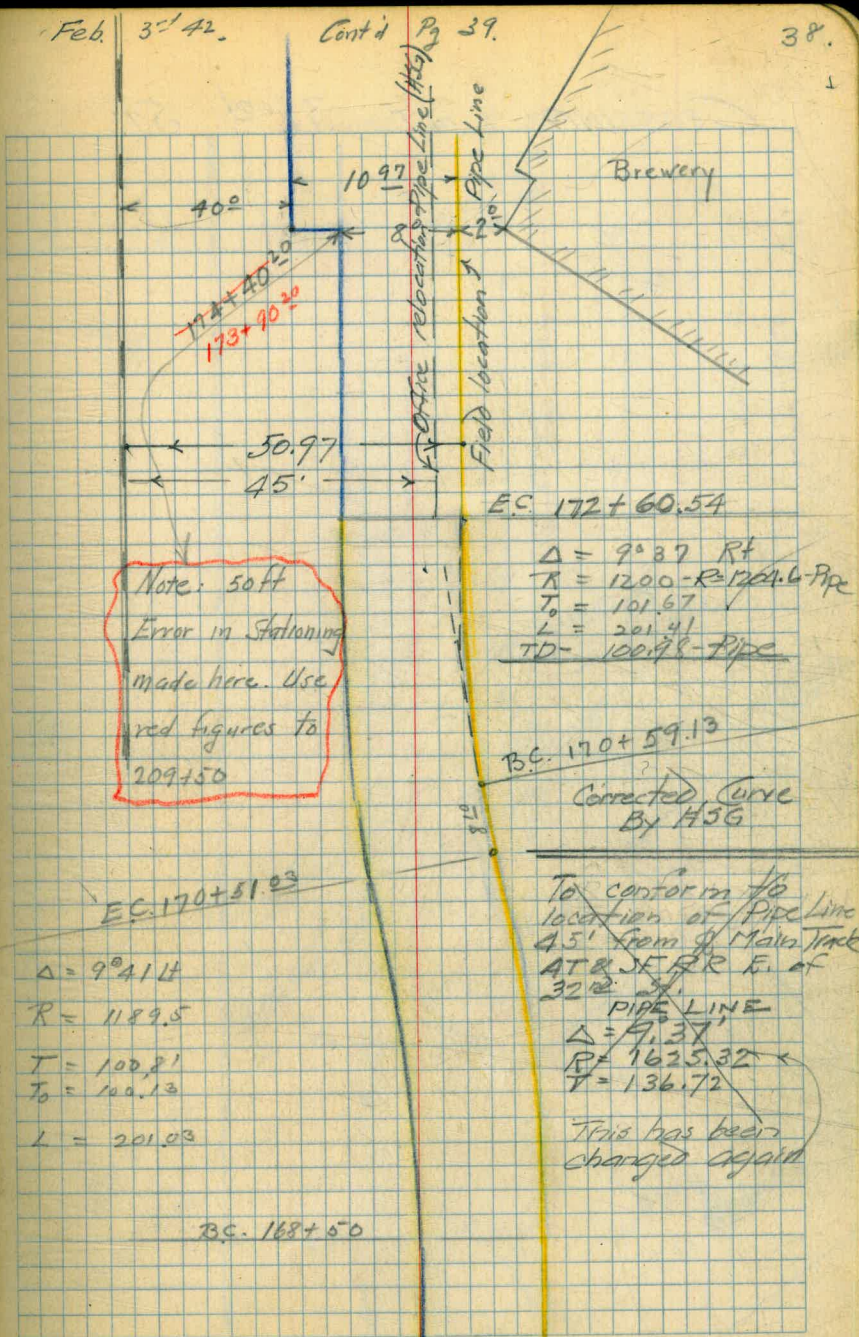
BC	170+59.13	Chord	off Ch		
171+00	40.87	41.13		$\Delta = 9^{\circ} 37' R+$ $R = 1200$ $\frac{\Delta}{2} = 4^{\circ} 48' 30''$ $T_0 = 101.67$ $d_1 = 1.432$ $d_{50} = 1^{\circ} 11' 37''$	
+50	50.00	50.33			
172+00	"	"			
+50	"	"			
172+60.54	10.54	10.61			

1 <sup>st</sup> Def	0° 58' 43"
	2 10 20
	3 21 57
	4 30 34
	4 48 30

Feb. 3<sup>rd</sup> 42.

Cont'd Pg 39.

38.



Note: soft  
Error in Stationing  
made here. Use  
red figures to  
209+50

$\Delta = 9^{\circ} 37' R+$   
 $R = 1200 - R_{1724.6} \text{ Pipe}$   
 $T_0 = 101.67$   
 $L = 201.91$   
 $TD = 100.98 - \text{Pipe}$

BC. 170+59.13  
Corrected Curve  
By HSG

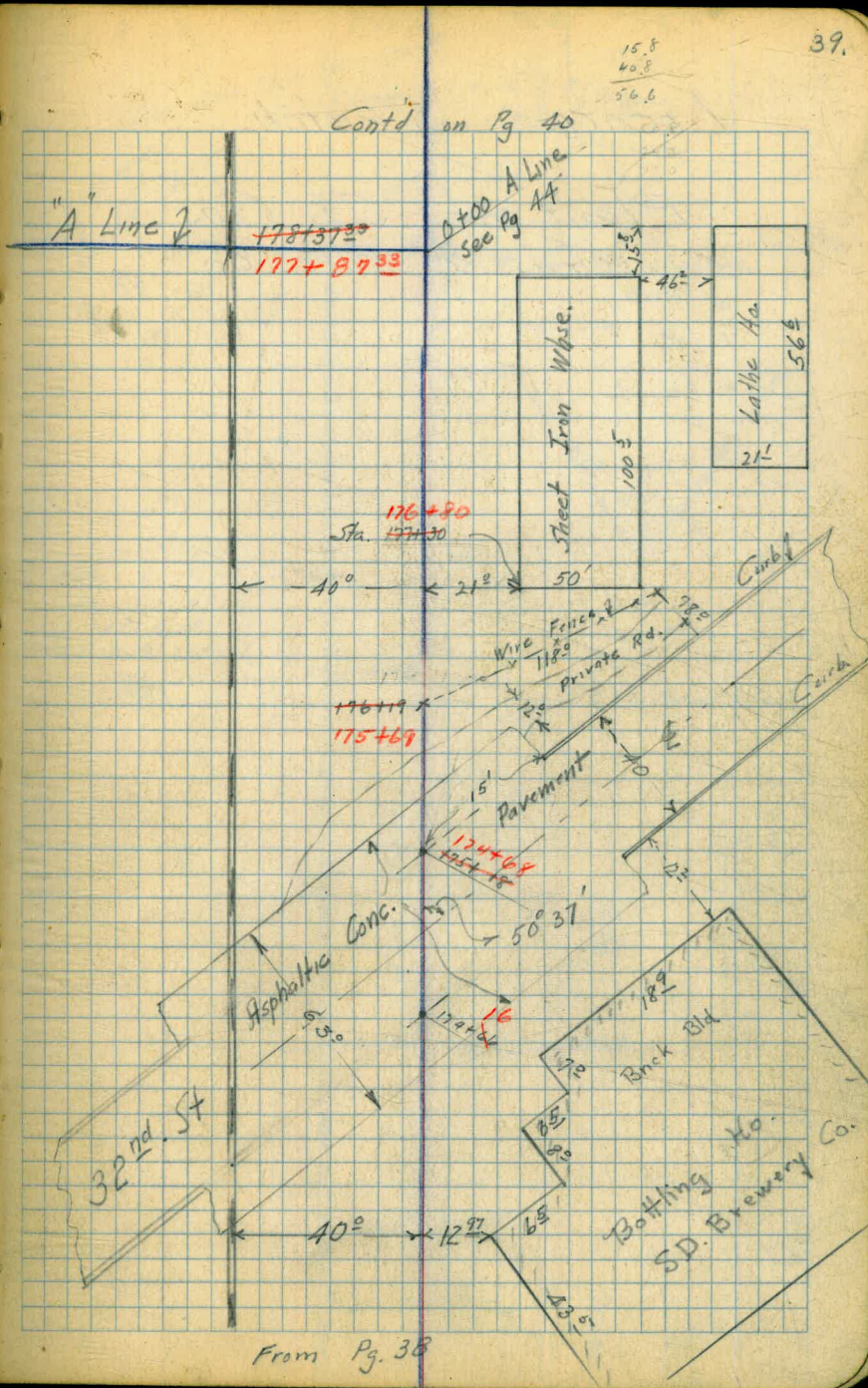
To conform to  
location of Pipe Line  
45' from of Main Track  
AT & JEFFR E. of  
32<sup>nd</sup> St.  
PIPE LINE  
 $\Delta = 9.37$   
 $R = 1625.32$   
 $T = 136.72$

This has been  
changed again

BC. 168+50

$\Delta = 9^{\circ} 41' 14''$   
 $R = 1189.5$   
 $T = 100.81$   
 $T_0 = 100.13$   
 $L = 201.03$

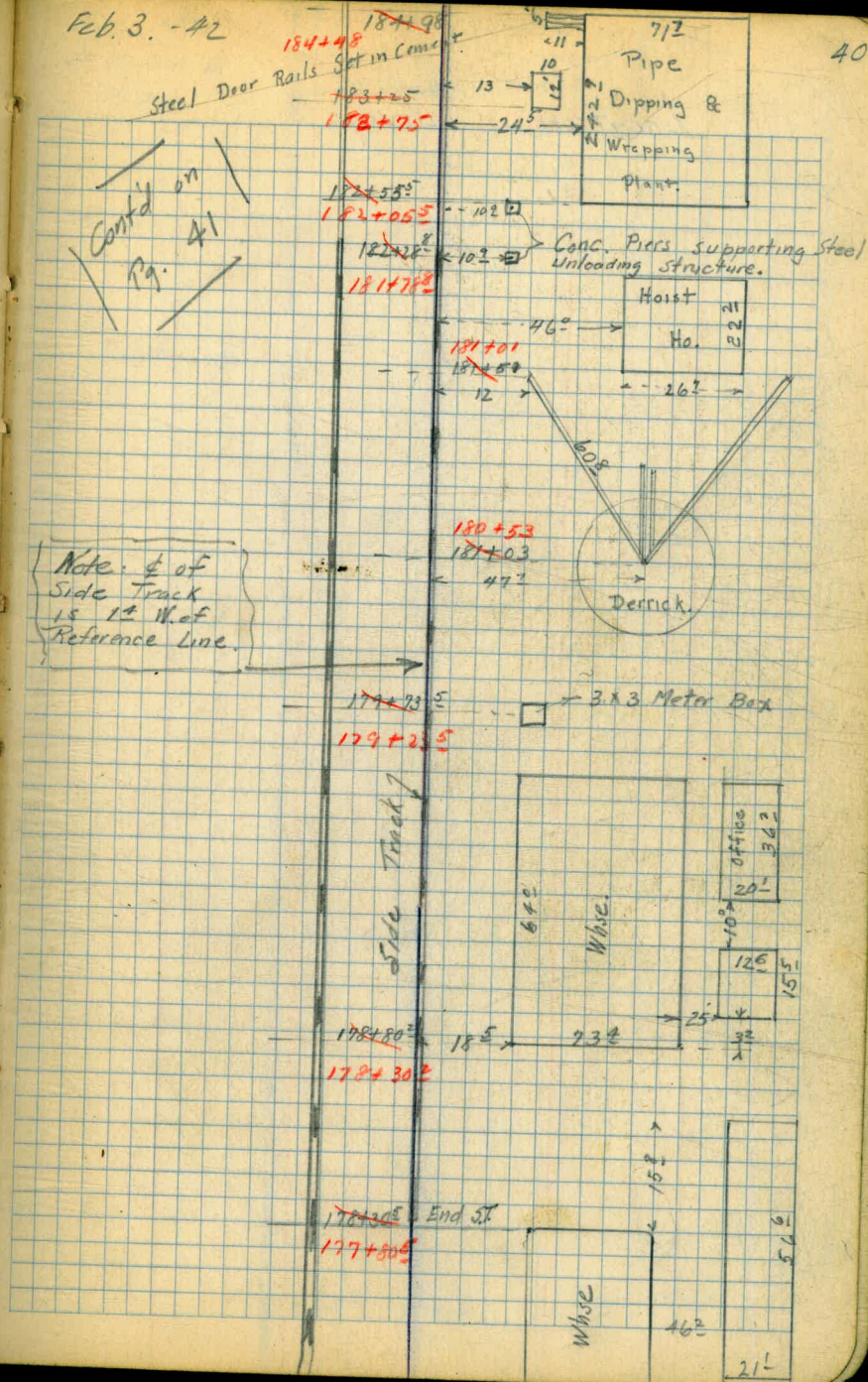
CROSSING AT 32<sup>nd</sup> ST.



# Location Sketch.

Plant of S.D. Cons  
Gas & Elec. Co.

Feb. 3. - 42

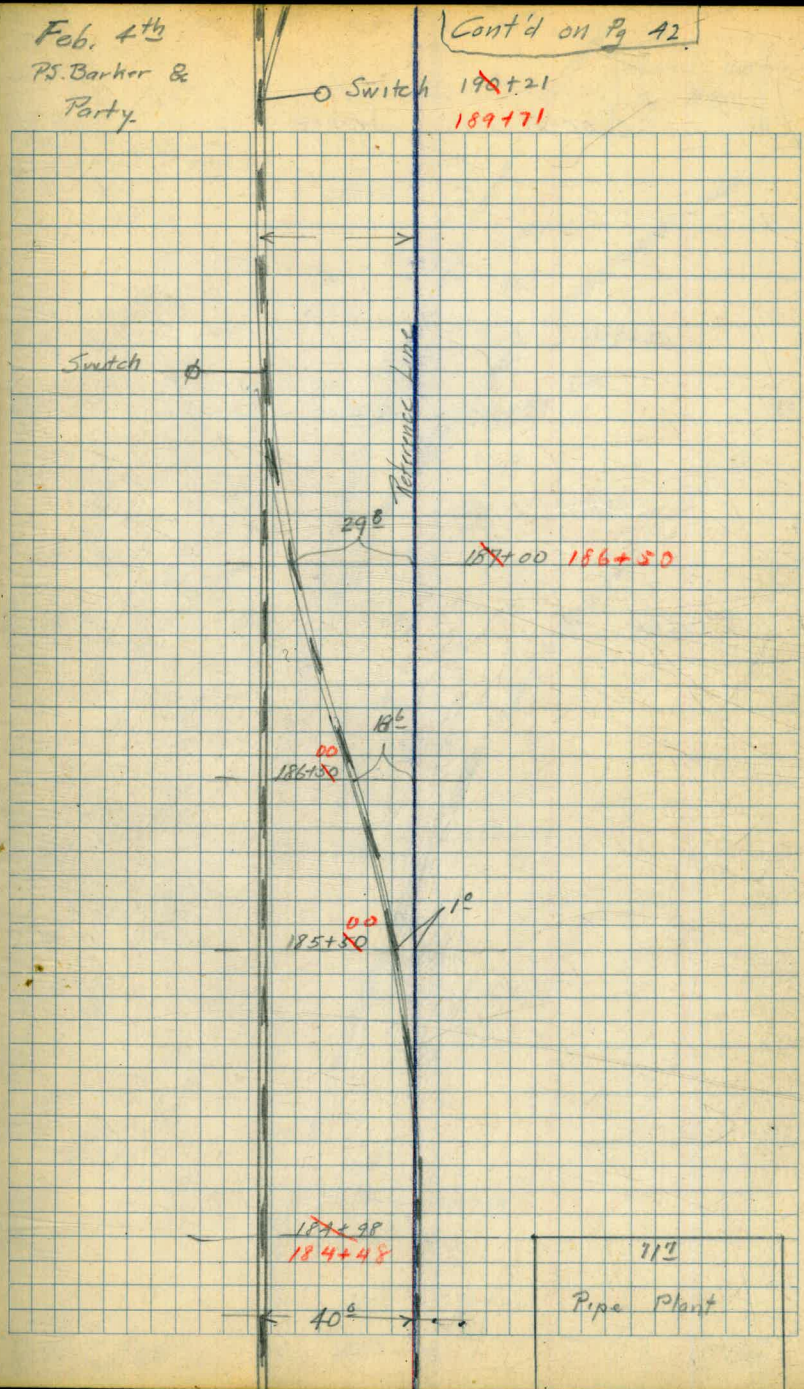


Location Survey

Feb. 4<sup>th</sup>  
P.S. Barker &  
Party.

Cont'd on Pg 42

41.



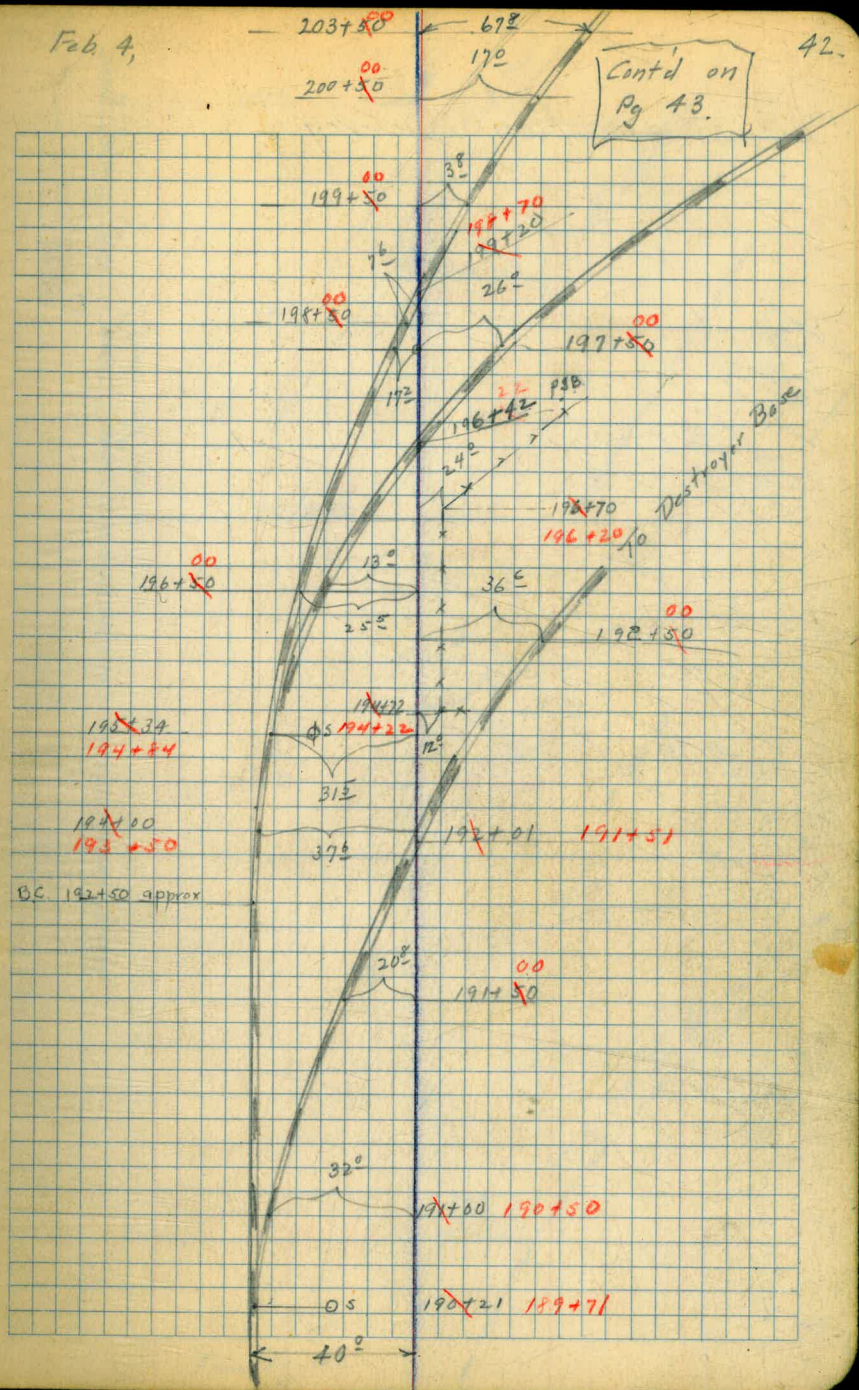
# Location Survey.

196+22  
5

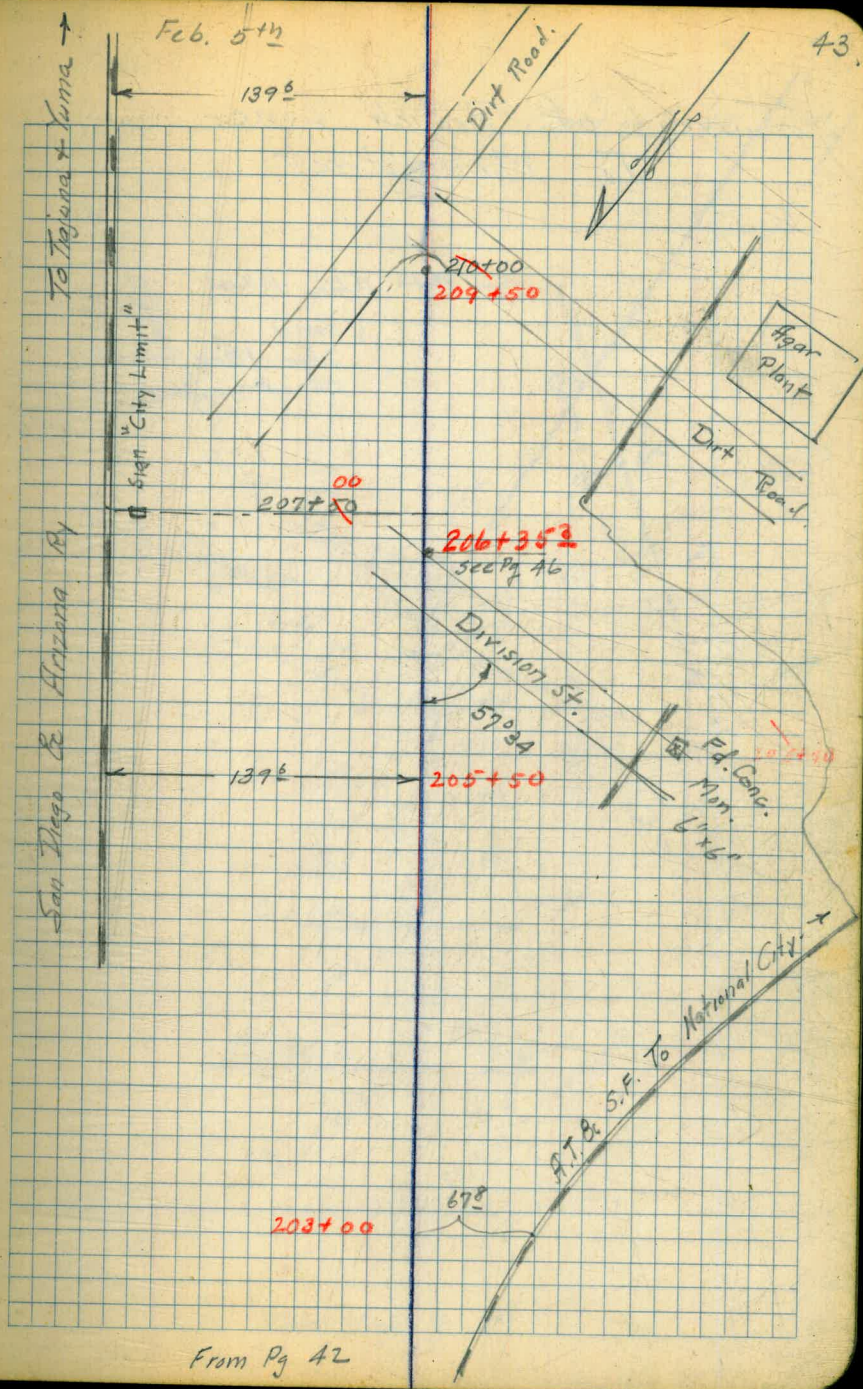
196+17  
60

Next loc approx 196-77

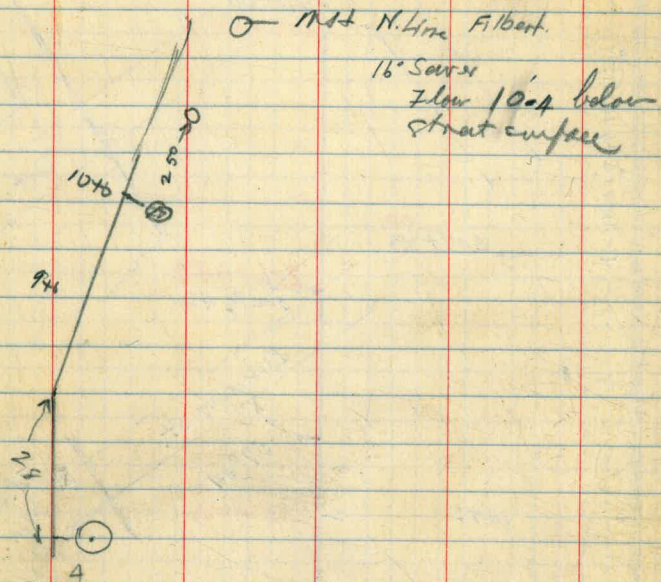
Feb 4,



Location Survey

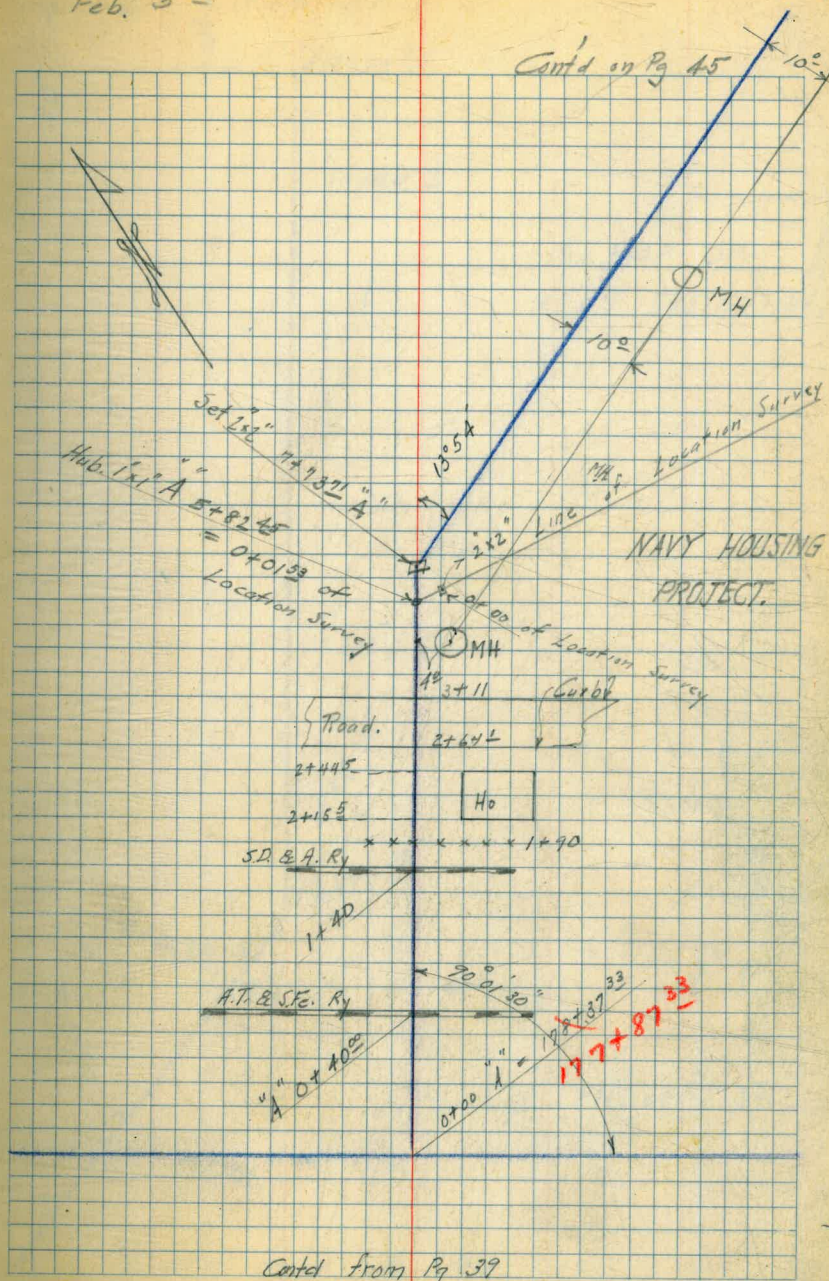


# Survey of Branch Line To Main Street.



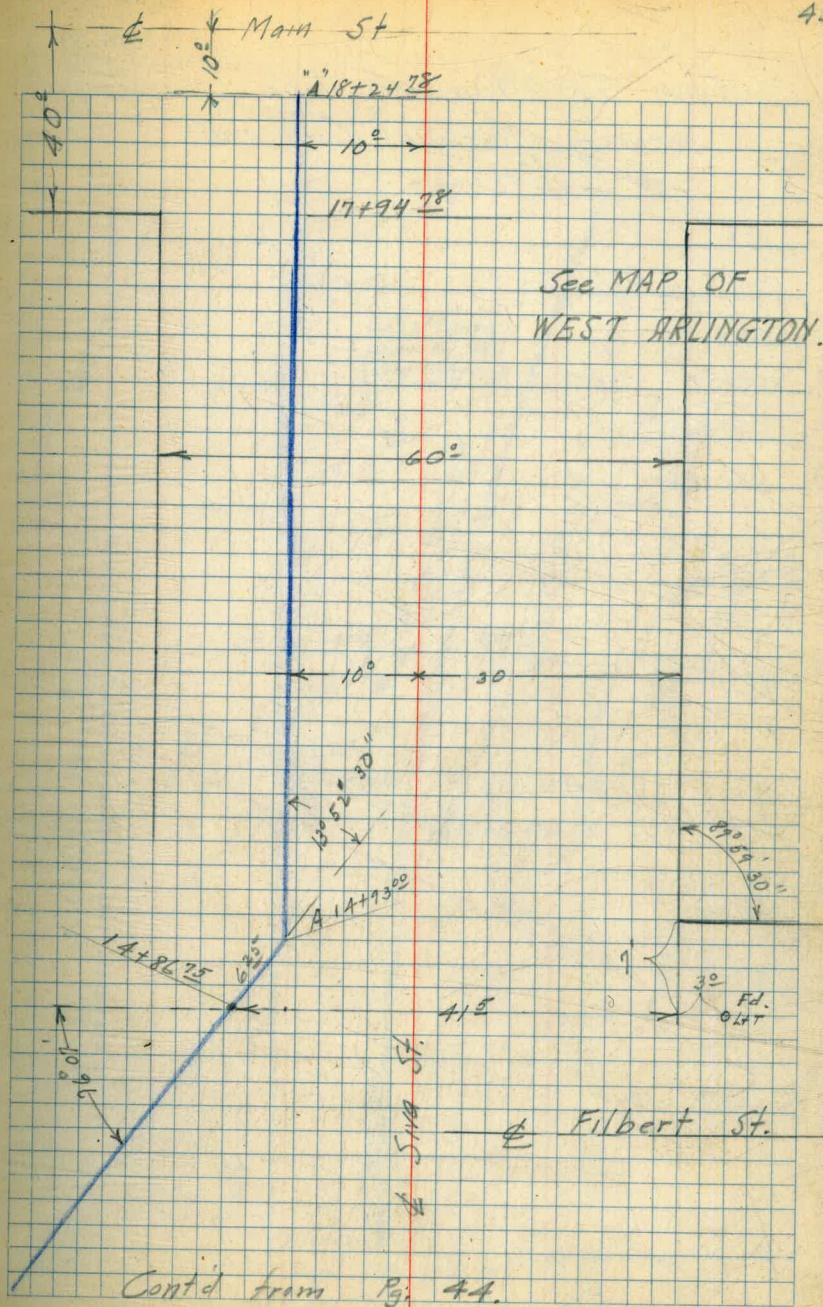
Feb. 5<sup>th</sup>

44.



Feb. 5<sup>13</sup>

45.





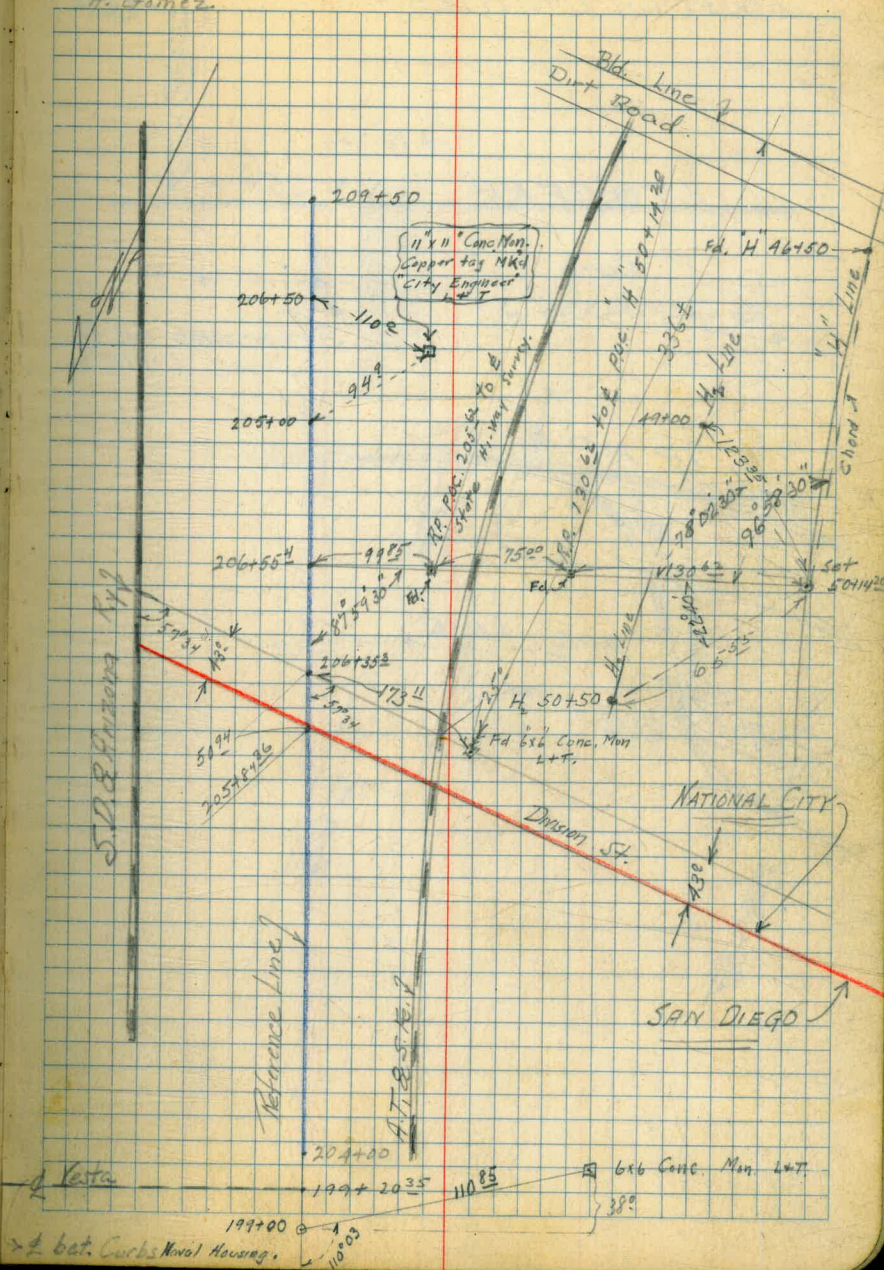
Ties To Division line  
between National City and  
San Diego.

199+50  
6.15  
104+48.85  
23.50  
199+20.35

Feb. 6, 42.

R.S. Barker.  
E. Messersmith  
A. Gomez.

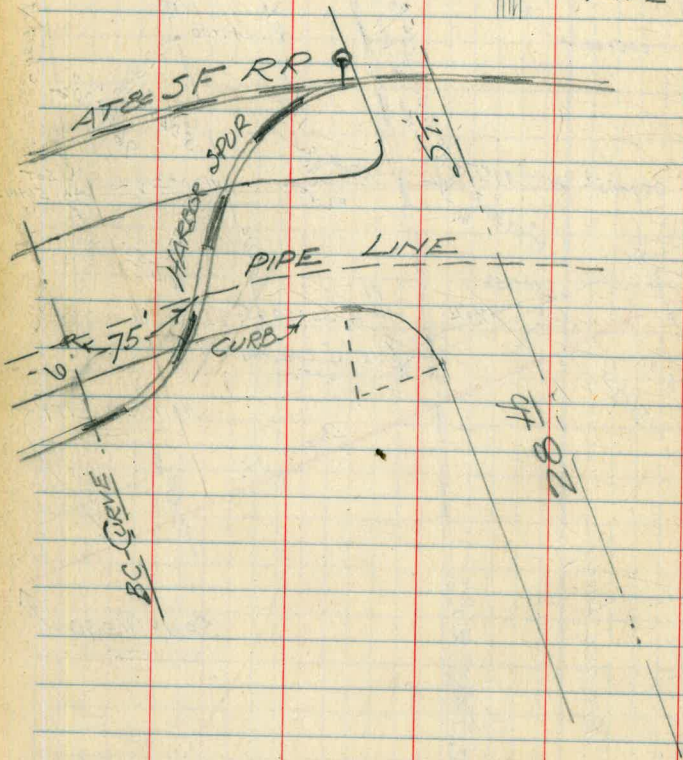
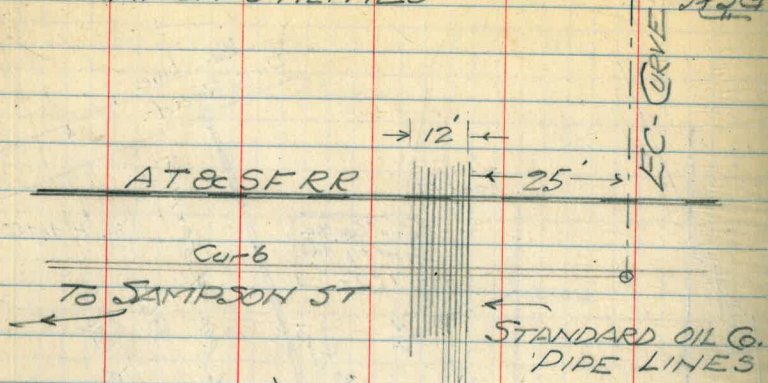
46.

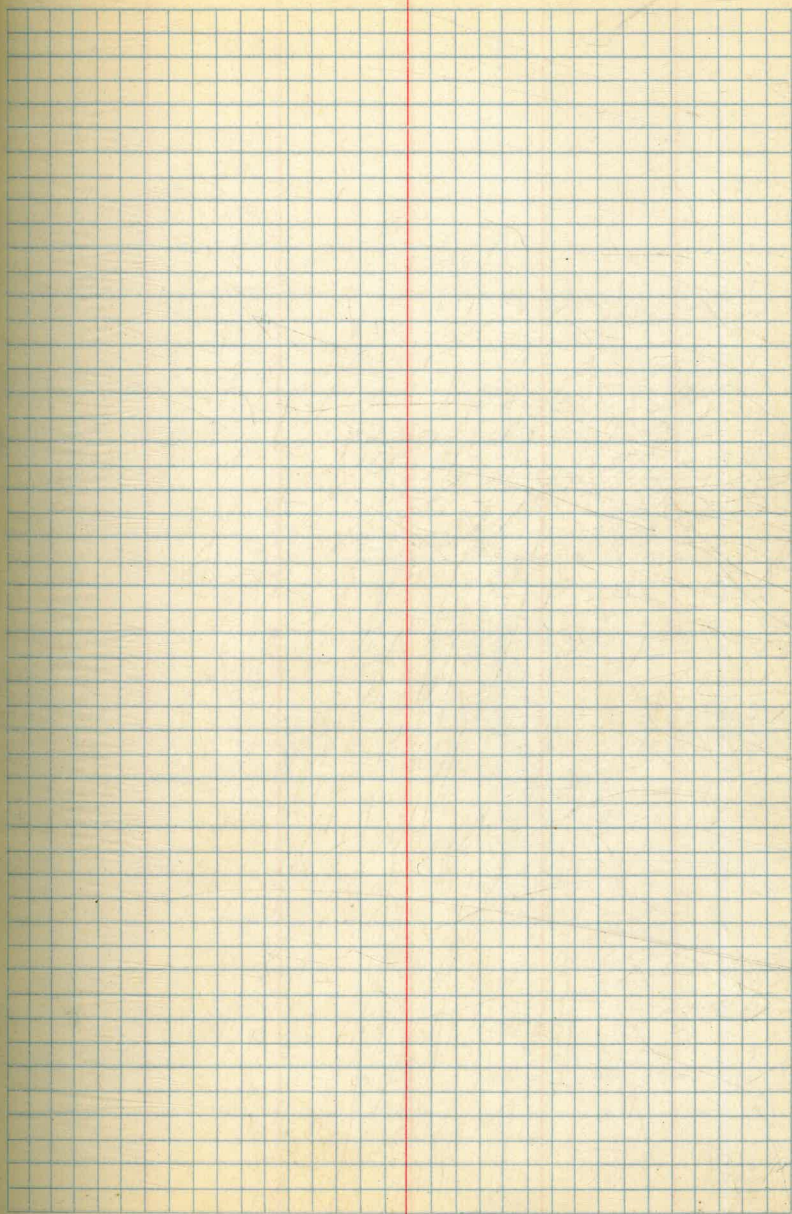
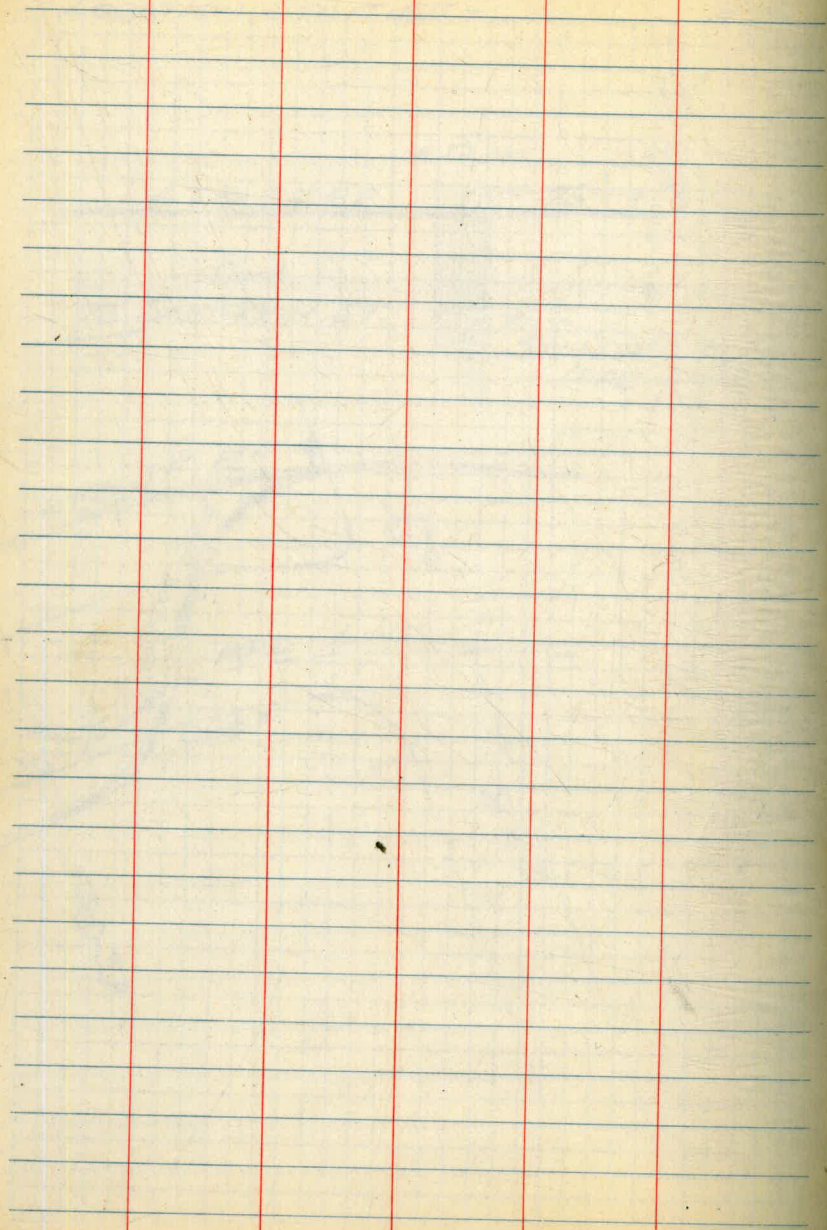


LOCATION UTILITIES -

MAR-27-1942

H.S.G.





Blank lined page with horizontal blue lines and vertical red margin lines.

Blank graph paper with a grid of blue lines and a vertical red margin line.

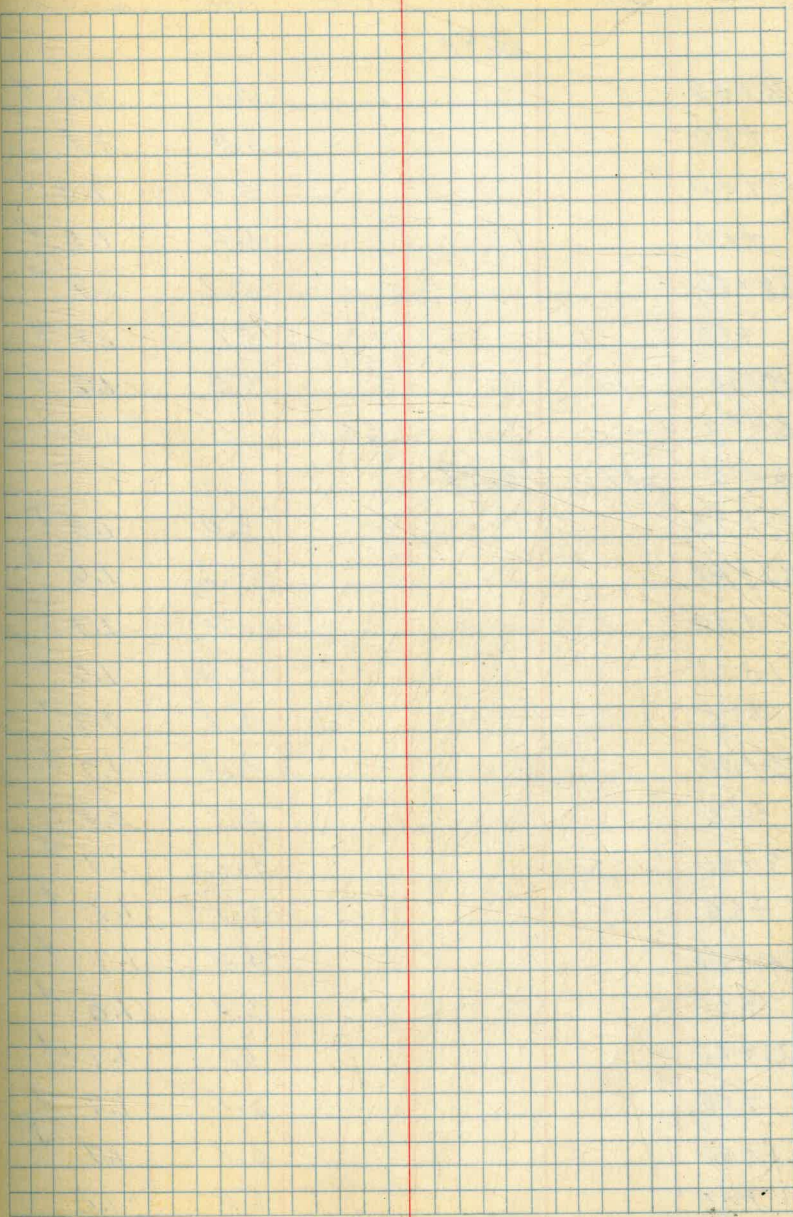
## HARBOR FRONT-

FROM PACIFIC BLYD TO DIVISION ST.

ALL Sta are  $\frac{1}{2}$  of Pipe Line

Sta	BS	HI	FS	Red	Elev
0+00					5.27
TP #1	5.55	10.825			
0+96				6.6	4.23 ✓
1+00				6.5	4.33 ✓
+30				5.3	5.53 ✓
2+00				5.4	5.43 ✓
+50				5.5	5.33 ✓
3+00				5.8	5.03 ✓
+50				5.8	5.03 ✓
4+00				5.6	5.23 ✓
TP #1			5.79		5.03
TP #2	4.16	9.195			
4+50				4.4	4.8 ✓
5+00				4.6	4.6 ✓
+50				4.6	4.6 ✓
6+00				5.2	4.0 ✓
+50				5.7	3.5 ✓
7+00				5.3	3.9 ✓
+50				5.5	3.7 ✓
8+00				5.8	3.4 ✓
+50				5.4	3.8 ✓
9+00				5.5	3.7 ✓
TP #2			5.18		4.01

Sta	B.S.	Hi.	F.S.	Rod	Elev.
#3	4.50	<sup>8.51</sup> 8.525			
B.M.#1	on Rock wall			5.51	3.01
		8.525			
9+50				5.0	3.53 ✓
10+00				4.9	3.63 ✓
+50				5.0	3.53 ✓
11+00				5.1	3.43 ✓
+50				5.3	3.23 ✓
B.M.#105 Fire Pulp NE Cor of Market & Kettner					
B.M.#105					3.98
#1	4.15	8.13			
TP#1			4.44		3.69
#2	5.14	8.83			
B.M.#1	on top of Rock wall				
TP#2			5.81		3.02
#3	3.78	6.80			
12+00				4.1	2.7 ✓
+50				4.1	2.7 ✓
13+00				3.9	2.9 ✓
+50				4.5	2.3 ✓
14+00				4.8	2.0 ✓
+50				4.9	1.9 ✓
15+00				4.9	1.9 ✓
+50				5.0	1.6 ✓

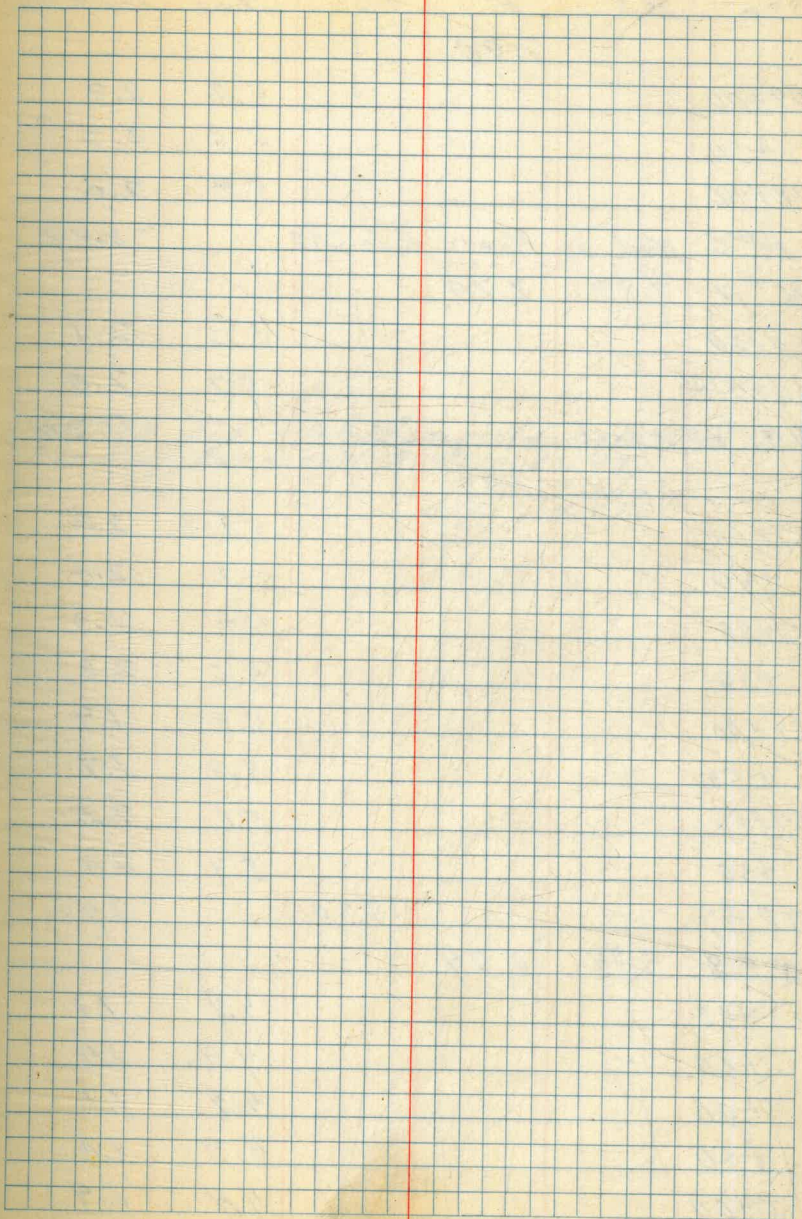


Sta.	B.S.	Hi.	F.S.	Red	Elev.
		6.80			
16+00				5.0	1.8 ✓
+50				5.0	1.8 ✓
17+00				5.0	1.8 ✓
+50				5.0	1.8 ✓
18+00				5.1	1.7 ✓
+50				5.1	1.7 ✓
19+00				5.2	1.6 ✓
TP #3			5.20		1.60
<del>TP #4</del>	5.17	6.77			
19+50				5.0	1.8 ✓
20+00				5.2	1.6 ✓
+50				5.1	1.7 ✓
21+00				5.2	1.6 ✓
+50				5.1	1.7 ✓
22+00				5.1	1.7 ✓
+50				5.1	1.7 ✓
23+00				5.1	1.7 ✓
+50				5.1	1.7 ✓
24+00				5.1	1.7 ✓
+50				5.0	1.8 ✓
25+00				5.1	1.7 ✓
+50				5.1	1.7 ✓
26+00				5.1	1.7 ✓
+50				5.0	1.8 ✓

Sta	B.S.	Hi.	FS.	Rod	Elev.
		6.77			
29+00				5.1	1.7
+50				5.2	1.6
29+00				5.1	1.7
+50				5.1	1.7
29+00				5.2	1.6
T.P. #4			5.41		1.36
T.P. #5	5.62	6.98			
29+50				5.3	1.7
30+00				5.3	1.7
+50				5.4	1.6
31+00				5.0	2.0
+50				5.0	2.0
32+00				5.0	2.0
+50				5.1	1.9
33+00				5.3	1.7
+50				5.3	1.7
34+00				5.3	1.7
+50				5.2	1.8
35+00				5.2	1.8
+50				5.2	1.8
36+00				5.3	1.7
+50				5.2	1.8
37+00				5.3	1.7
+50				5.3	1.7



Sta.	B.S.	Hi.	F.S.	Rod	Elev.
		6.99			
38+00				5.3	1.7
+50				5.3	1.7
39+00				5.3	1.7
+50				5.2	1.8
40+00				5.3	1.7
+50				5.3	1.7
41+03 = 41+25 <sup>66</sup> a head				5.3	1.7
T.P.#5			5.11		1.87
* #6 603		7.90			
41+50				5.8	2.1
42+00				5.6	2.3
+50				5.6	2.3
43+00				5.6	2.3
+50				5.5	2.4
44+00				5.2	2.7
+50				5.1	2.8
45+00				4.8	3.1
+50				4.8	3.1
46+00				5.0	2.9
+50				5.1	2.8
47+00				5.2	2.7
+50				5.4	2.5
48+00				5.1	2.8
+50				5.1	2.8



Sta.	B.S.	Hl.	I.S.	Rod	Elev.
		7.90			
49+00				5.0	2.9
+50				5.6	2.3
49+80				5.9	2.0
T.P. #6	Nail in Power Pole	5.02			2.88
A #7	4.82	7.70			
50+00				5.6	2.1
50+47.3				5.7	2.0
B.M. #70	checking in on	2.86			4.84
	7.70				
51+00				5.3	2.4
+50				5.3	2.4
52+00				5.4	2.3
+50				5.5	2.2
53+00				5.8	1.9
+50				5.8	1.9
54+00				5.1	2.6
+50				5.3	2.4
T.P. #7			5.30		2.40
A #8	3.94	6.34			
55+00				5.2	1.1
+50				4.9	1.4
56+00				4.8	1.5
+50				4.9	1.4
57+00				4.4	1.9

B.M. #70 Top Fire Plaza N.E. Cor. 8th & N. St.  
 Loading Platform Elev. = 13.82  
 = 2.01  
 City = 4.81

Sta.	B.S.	Hi.	F.S.	Rod	Elev.
		6.34			
57+50				4.2	2.1
58+00				4.8	1.5
+50				5.0	1.3
58+53.42				4.9	1.4
59+00 <sup>②</sup>				5.4	0.9
" $\neq$				5.3	1.0
59+50 <sup>②</sup>				5.7	0.6
" $\neq$				5.4	0.9
60+00 <sup>③</sup>				5.6	0.7
" $\neq$				5.6	0.7
60+50 <sup>③</sup>				5.9	0.4
" $\neq$				5.8	0.5
61+00 <sup>②</sup>				5.6	0.7
" $\neq$				5.8	0.5
61+50 <sup>③</sup>				5.0	1.3
" $\neq$				5.9	0.4
62+00 <sup>②</sup>				4.1	2.2
" $\neq$				5.5	0.8
62+50 <sup>③</sup>				4.2	2.1
" $\neq$				5.4	0.9
63+00 <sup>②</sup>				4.8	1.3
" $\neq$				5.4	0.9
T.P. #8			4.78		1.56
T.P. #9	4.09	5.65			

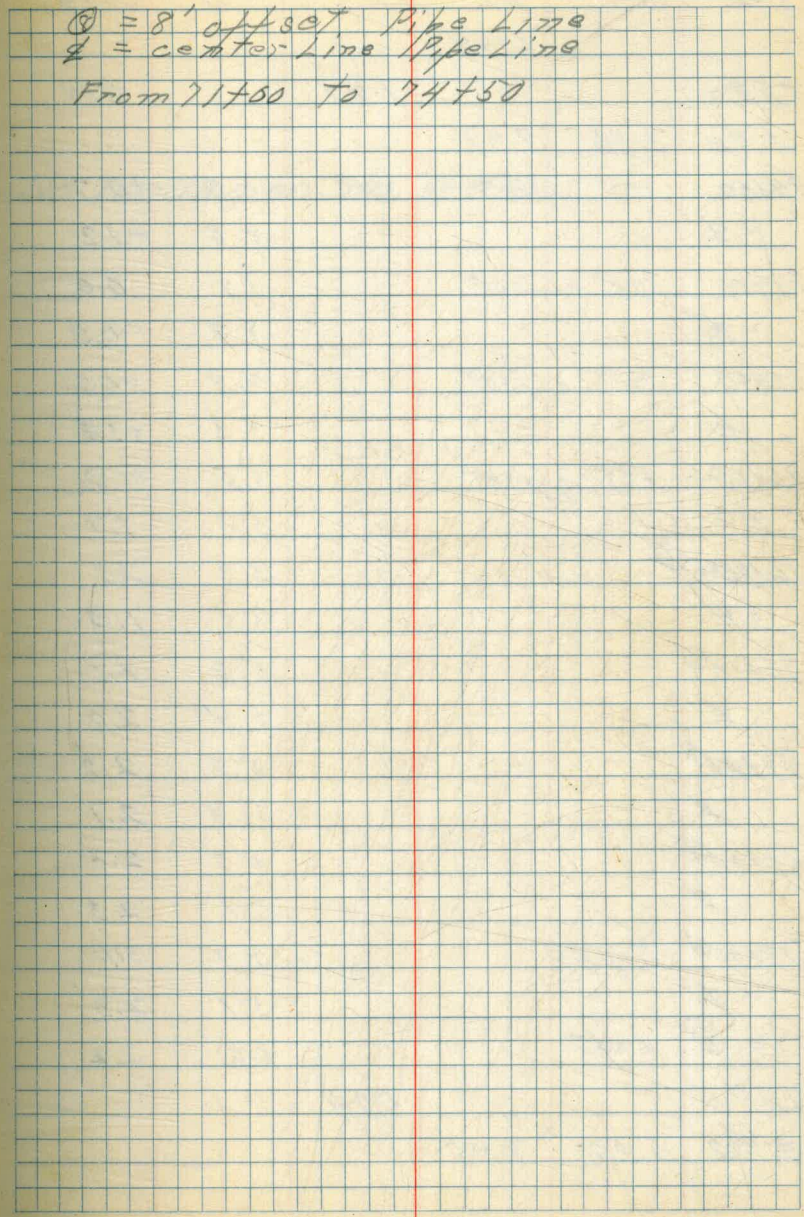
$\neq$  = Center Line of Pipe Line  
<sup>②</sup> = 20' Left of Pipe Line  
 From Sta. 59+00 to 71+00

Sta.	B.S.	H.I.	F.S.	Red	Elev.
		5.65			
63+00	of M. R.R. T.			3.7	2.0
63+50	⊙			4.1	1.6
"	⊘			5.2	0.5
64+00	⊙			3.9	1.8
"	⊘			4.6	1.1
64+50	⊙			4.5	1.2
"	⊘			4.3	1.4
65+00	⊙			4.7	1.0
"	⊘			4.7	1.0
65+50	⊙			4.9	0.8
"	⊘			5.0	0.7
66+00	⊙			5.0	0.7
"	⊘			5.0	0.7
66+50	⊙			4.9	0.8
"	⊘			4.4	1.3
67+00	⊙			5.1	0.6
"	⊘			4.9	0.8
67+50	⊙			5.3	0.4
"	⊘			4.7	1.0
68+00	⊙			5.0	0.7
"	⊘			4.4	1.3
69+50	⊙			5.1	0.6
"	⊘			4.3	1.4

M. R. R. T. = Main Railroad Track.

Sta.	B.S.	Hi.	F.S.	Red	Elev.
		5.65			
69+00	⊙			5.8	0.9
"	⊘			4.2	1.5
69+50	⊙			4.9	0.8
"	⊘			4.4	1.3
70+00	⊙			5.2	0.5
"	⊘			3.7	2.0
70+30	⊙			3.6	2.1
"	⊘			4.8	0.9
70+50	⊘	M. R.R.T.		3.9	1.8
TR#9			3.63		2.02
#10		4.46	6.48		
71+00	⊙			4.3	2.2
"	⊘			4.6	1.9
71+50	⊙			4.1	2.4
"	⊘			4.1	2.4
72+00	⊙			4.0	2.5
"	⊘			4.0	2.5
72+50	⊙			5.2	1.3
"	⊘			5.1	1.4
73+00	⊙			5.7	0.8
"	⊘			5.3	1.2
73+50	⊙			5.4	1.1
"	⊘			5.0	1.5

⊙ = 8' offset Pipe Line  
 ⊘ = center Line Pipe Line  
 From 71+00 To 74+50

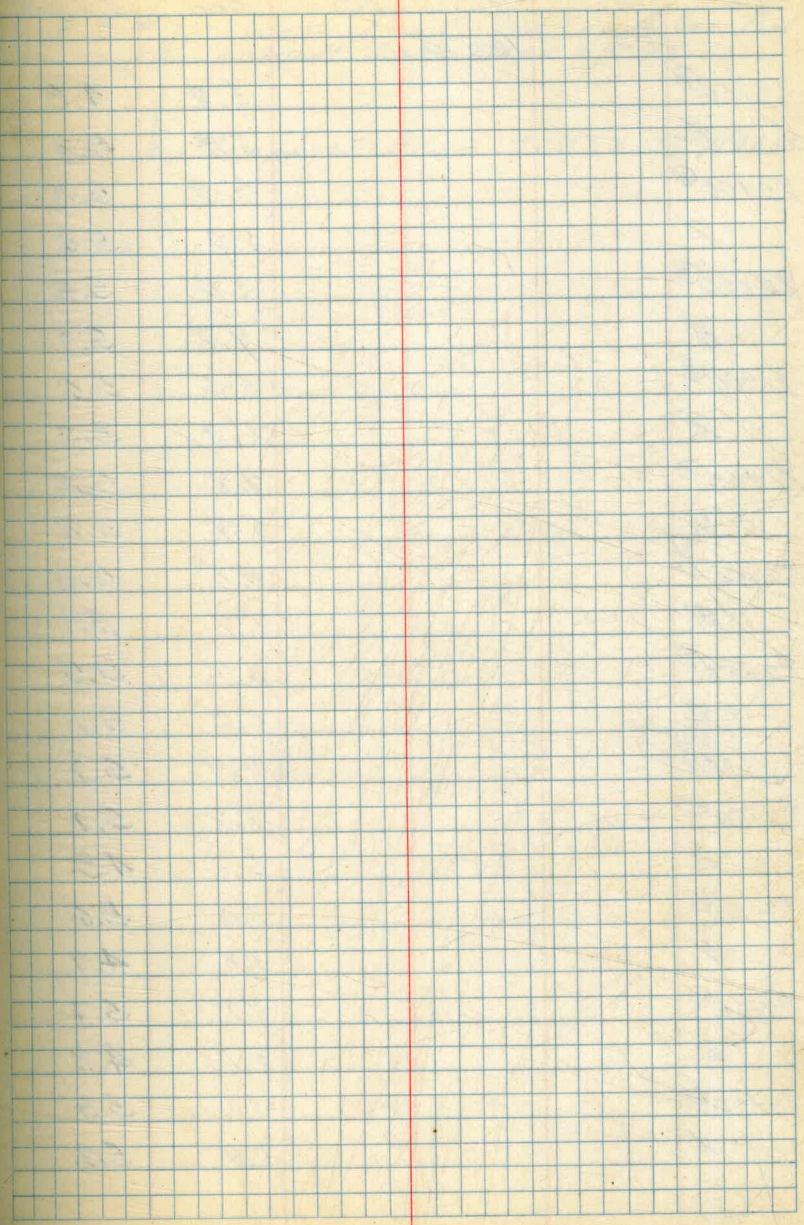


Sta.	B.S.	Hi.	I.S.	Red	Elev.
		6.48			
T.P.#10			1.87		4.61
A#11	2.76	7.37			
74450	19.5 offset			6.7	+0.7
" $\phi$				8.6	-1.2
75700	19.5 offset			7.4	0.0
" $\phi$				8.3	-0.9
75750	19.5 offset			6.8	+0.6
" $\phi$				5.5	+1.9
76100	19.5 offset			5.5	+1.9
" $\phi$				5.7	1.7
762682 <sup>Ⓢ</sup>				5.3	2.1
" $\phi$				5.5	1.9
76450 <sup>Ⓢ</sup>				5.3	2.1
" $\phi$				5.4	2.0
77400 <sup>Ⓢ</sup>				5.2	2.2
" $\phi$				5.3	2.1
77450 <sup>Ⓢ</sup>				5.1	2.3
" $\phi$				5.1	2.3
78100 <sup>Ⓢ</sup>	Right			4.3	3.1
" $\phi$				5.1	2.3
" <sup>Ⓢ</sup>	Left			5.2	2.2
T.P.#11			5.24		2.13
A#12	6.32	8.45			

No reading on Sta. 74400.

Sta	D.S.	HI	F.S.	Red	Elev.
		8.45			
28750 <sup>Ⓢ</sup>				6.0	2.5
" ♀				6.1	2.4
79700 <sup>Ⓢ</sup>				5.7	2.8
" ♀				5.7	2.8
79750 <sup>Ⓢ</sup>				5.5	3.0
" ♀				5.5	3.0
80700 <sup>Ⓢ</sup>				5.4	3.1
" ♀				5.3	3.2
80750 <sup>Ⓢ</sup>				5.3	3.2
" ♀				5.3	3.2
81700 <sup>Ⓢ</sup>				5.2	3.3
" ♀				5.2	3.3
81750 <sup>Ⓢ</sup>				4.9	3.6
" ♀				5.0	3.5
82700 <sup>Ⓢ</sup>				4.8	3.7
" ♀				4.9	3.6
82750 <sup>Ⓢ</sup>				4.5	4.0
" ♀				4.8	3.7
82760 <sup>22</sup> Ⓢ				4.5	4.0
" ♀				4.7	3.8
83700 <sup>Ⓢ</sup>				4.6	3.9
" ♀				4.7	3.8
83750 <sup>Ⓢ</sup>				4.7	3.8
" ♀				4.9	3.6

Sta.	B.S.	Hi	I.S.	Red	Elem.
57a		8.45			
84+00				4.9	3.6
"				5.0	3.5
84+50				4.8	3.7
"				4.9	3.6
85+00				4.8	3.7
"				4.8	3.7
85+50				4.7	3.8
"				4.6	3.9
86+00				4.5	4.0
"				4.6	3.9
86+50				4.4	4.1
"				4.5	4.0
T.P.#12			4.40		4.05
X#13	6.51	10.56			
87+00				6.3	4.3
"				6.4	4.2
87+50				6.3	4.3
"				6.3	4.3
88+00				6.1	4.5
"				6.2	4.4
88+50				6.0	4.6
"				6.1	4.5
89+00				5.9	4.7
"				6.1	4.5





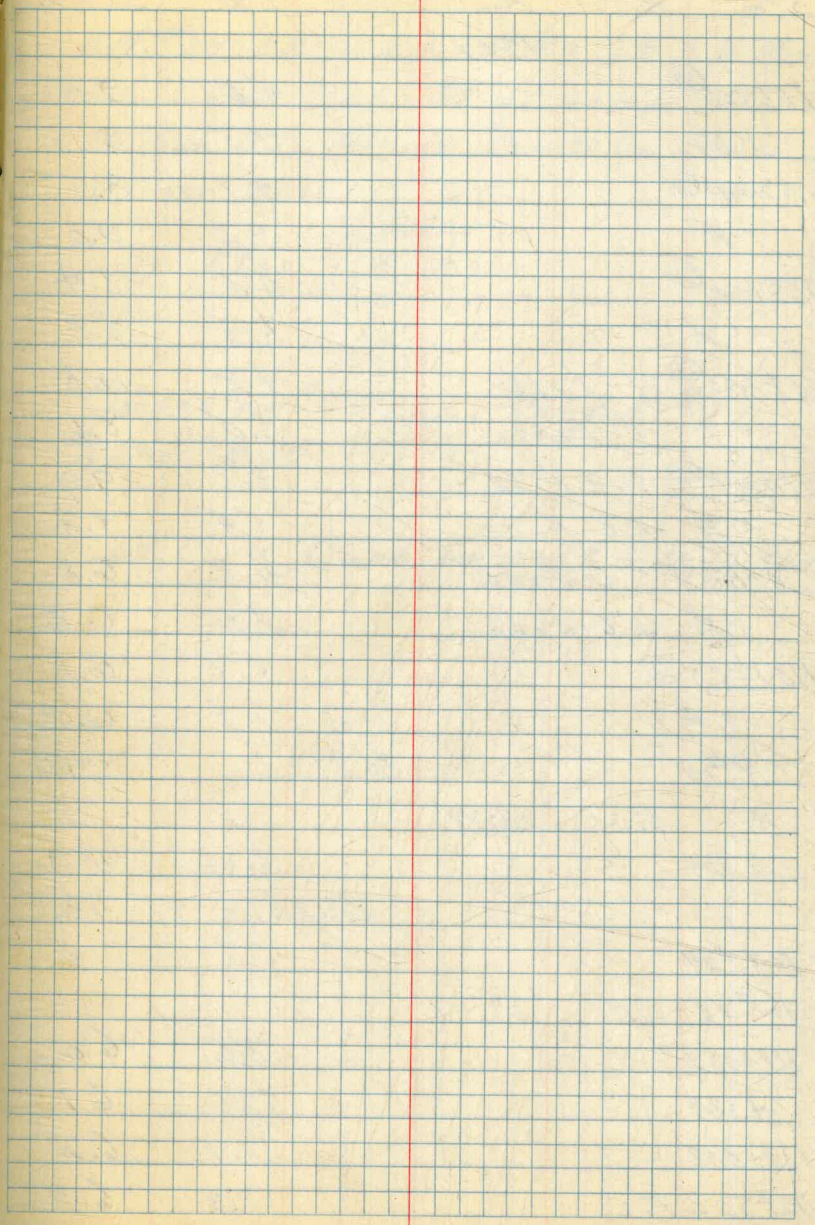
Sta.	B.S.	Hi.	F.S.	Red	Elev.
		10.56			
89+50 <sup>Ⓢ</sup>				5.8	4.8
" 2				5.9	4.7
90+00 <sup>Ⓢ</sup>				4.8	5.8
" 2				5.0	5.6
90+50 <sup>Ⓢ</sup>				5.0	5.6
" 2				4.9	5.7
91+00 <sup>Ⓢ</sup>				5.0	5.6
" 2				5.3	5.3
91+50 <sup>Ⓢ</sup>				4.8	5.8
" 2				5.4	5.2
92+00 <sup>Ⓢ</sup>				4.6	6.0
" 2				5.1	5.5
92+50 <sup>Ⓢ</sup>				5.1	5.5
" 2				5.5	5.1
" 12				4.9	5.7
93+00 <sup>Ⓢ</sup>				5.2	5.4
" 2				5.7	4.9
93+50 <sup>Ⓢ</sup>				5.0	5.6
" 2				5.9	4.7
94+00 <sup>Ⓢ</sup>				4.9	5.7
" 2				5.7	4.9
94+50 <sup>Ⓢ</sup>				5.1	5.5
" 2				5.4	5.2

B.M. #3 overhead of Van Camp Sea Food Co. on the cement base, Elev. = 5.75

⑫ = 12' offset from 92+50 to 110+55.5

Sta	B.S.	I.I.	F.S.	Red	Elev.
		10.56			
95+00 <sup>(2)</sup>				4.9	5.7
" 2				5.2	5.4
TP#13			4.92		5.64
TP#14	7.41	13.05			
95+50 <sup>(2)</sup>				7.0	6.1
" 2				7.2	5.9
96+00 <sup>(2)</sup>				6.9	6.2
" 2				7.0	6.1
96+50 <sup>(2)</sup>				6.8	6.3
" 2				6.9	6.2
97+00 <sup>(2)</sup>				6.1	7.0
" 2				6.8	6.3
97+50 <sup>(2)</sup>				6.5	6.6
" 2				6.6	6.5
98+00 <sup>(2)</sup>				6.7	6.4
" 2				7.0	6.1
98+50 <sup>(2)</sup>				6.6	6.5
" 2				7.0	6.1
99+00 <sup>(2)</sup>				6.4	6.7
" 2				6.7	6.4
99+50 <sup>(2)</sup>				6.4	6.7
" 2				6.5	6.6
100+00 <sup>(2)</sup>				6.0	7.1
" 2				6.1	7.0

Sta.	B.S.	Hi.	F.S.	Red	Elev.
		13.05			
100+50 <sup>②</sup>				5.8	7.3
" 2				6.4	6.7
101+00 <sup>②</sup>				4.1	9.0
" 2				4.6	8.5
101+50 <sup>②</sup>				3.9	9.2
" 2				4.0	9.1
102+00 <sup>②</sup>				1.3	11.8
" 2				2.2	10.9
102+50 <sup>②</sup>				1.9	11.2
" 2				1.7	11.4
TP #14			1.94		11.11
A #15	2.50	13.61			
103+00 <sup>②</sup>				2.7	10.9
" 2				2.5	11.1
103+50 <sup>②</sup>				4.2	9.4
" 2				4.6	9.0
104+00 <sup>②</sup>				4.4	9.2
" 2				4.6	9.0
104+50 <sup>②</sup>				4.5	9.1
" 2				4.5	9.1
105+00 <sup>②</sup>				4.5	9.1
" 2				3.4	10.2
105+50 <sup>②</sup>				4.6	9.0
" 2				4.5	9.1



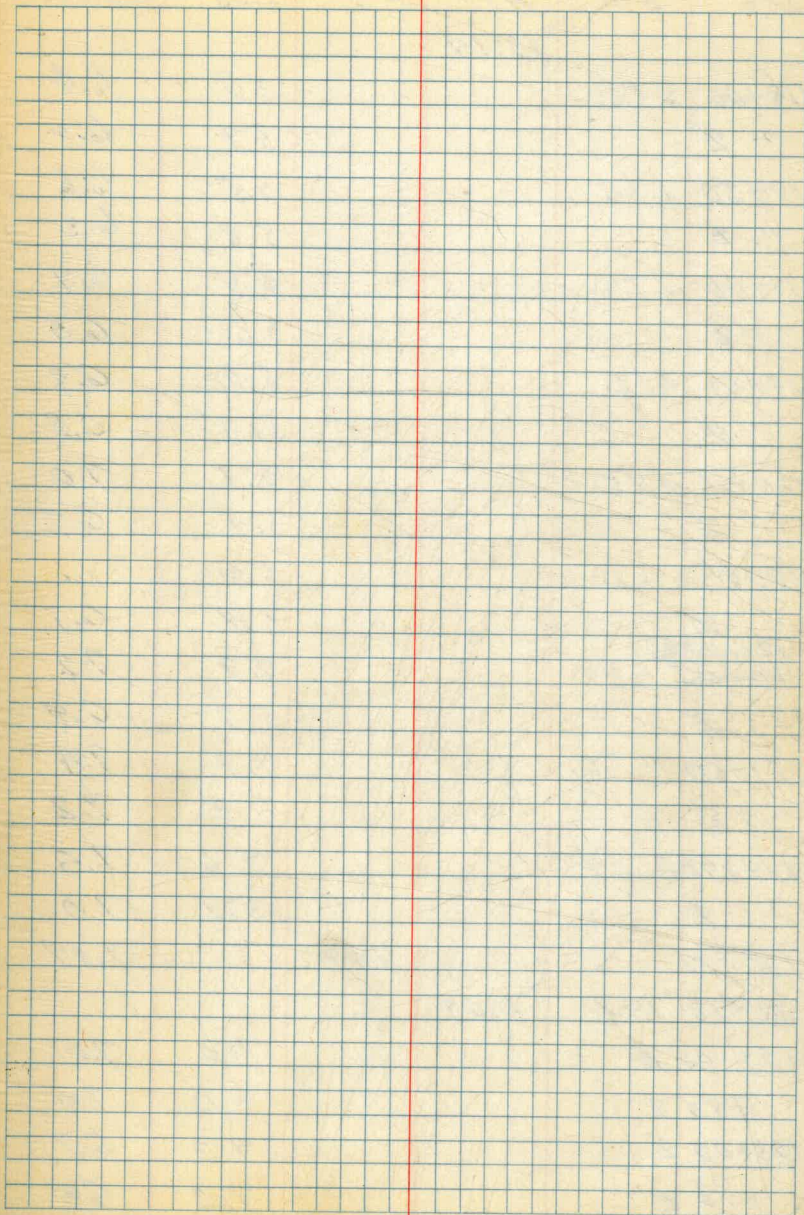
Sta	B.S.	Hi	F.S.	Rod	Elev.
		13.61			
106+00 <sup>Ⓢ</sup>				4.6	9.0
" 2				4.5	9.1
107+00 <sup>Ⓢ</sup>				5.1	8.5
" 2				4.6	9.0
108+00 <sup>Ⓢ</sup>				5.2	8.4
" 2				5.3	8.3
109+00 <sup>Ⓢ</sup>	1' FILL			1.8	11.8
" 2	1' FILL			5.0	8.6
110+00 <sup>Ⓢ</sup>	4.3 FILL			3.7	9.9
" 2	1.6 FILL			5.4	8.2
110+50 <sup>Ⓢ</sup>	4.0 FILL			6.8	6.8
" 2	2.6 FILL			7.0	6.6
110+55.5 <sup>Ⓢ</sup>				6.8	6.8
" 2				7.1	6.5
T.P.#5			4.71		8.90
⌵	5.01	13.91			
B.M.#24				5.85	8.06
			Diff.	+	10.
B.M.#24					8.16
⌵ #16	5.41	13.57			
111+00 2				7.6	6.0
FSO 2				7.5	6.1
112+00 2				7.4	6.2
112+50 L.T.C.				7.3	6.3

B.M.#24 L.P. in W.B.L.M.#9 at R.R. Markers  
 Sec. 23. East Side Ft. of Sampson St.  
 N.E. Cor. S.D. Marine Const. Co. Lease.  
 Harbor Elev. = 17.165  
 - 9.01  
 City Elev. = 8.155

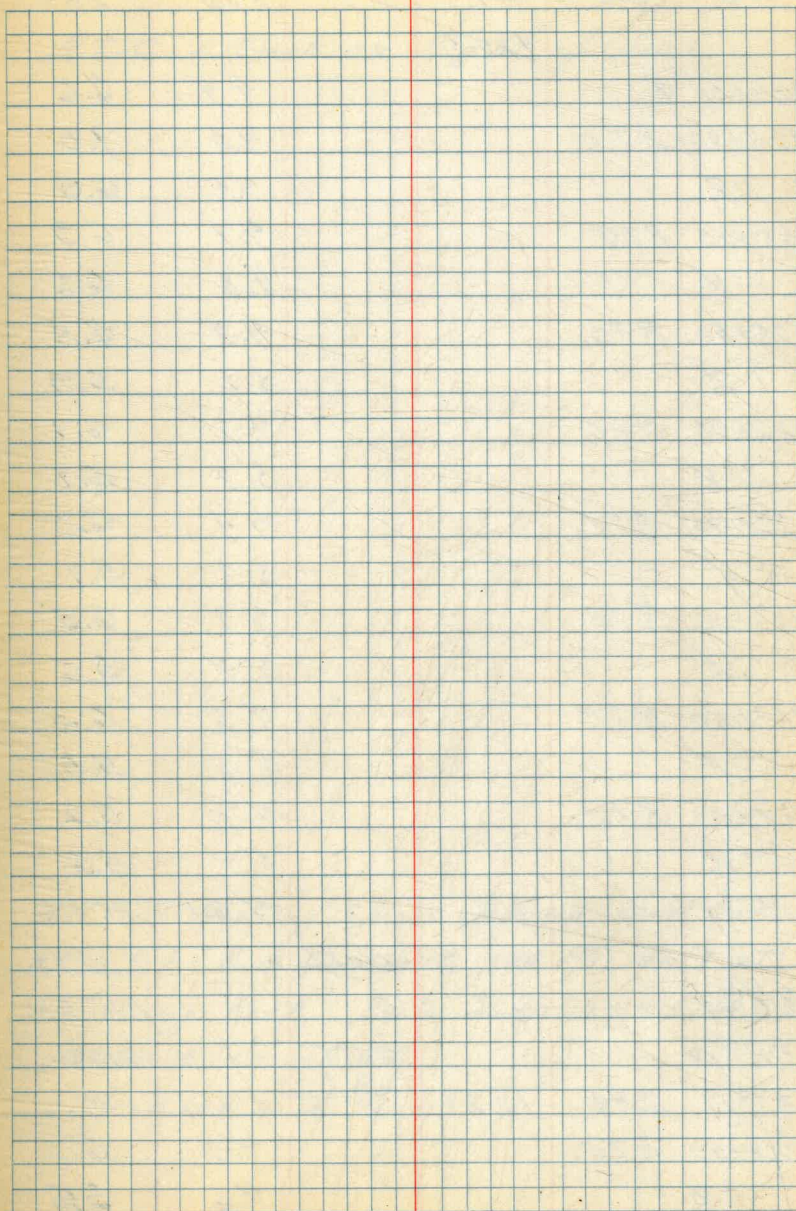
Corrected Elev. to B.M.#24  
 Elev. 8.16

L.T.C. = Curb on Left Side of Road

S72	B.S.	Hi.	F.S.	Red	Elev.
		13.57			
112750	φ			6.8	6.8
113700	L.T.C.			6.7	6.9
	" φ			7.1	6.5
113750	L.T.C.			6.6	7.0
	" φ			7.2	6.4
114700	L.T.C.			6.7	6.9
	" φ			7.5	6.1
114750	L.T.C.			6.8	6.8
	" φ			7.8	5.8
115700	L.T.C.			6.9	6.7
	" φ			7.6	6.0
115750	L.T.C.			7.0	6.6
	" φ			7.8	5.8
116700	L.T.C.			7.2	6.4
	" φ			7.5	6.1
116750	L.T.C.			7.3	6.3
	" φ			7.4	6.2
117700	L.T.C.			7.2	6.4
	" φ			7.3	6.3
117750	L.T.C.			7.1	6.5
	" φ			7.3	6.3
T.P. #6			4.78		8.79
W #17	3.35	12.14			



Sta.	B.S.	Hi.	F.S.	Red	Elev.
		12.14			
118+00	L.T.C.			5.7	6.4
"	±			5.9	6.2
118+50	L.T.C.			5.5	6.6
"	±			5.8	6.3
119+00	L.T.C.			5.4	6.7
"	±			5.6	6.5
119+50	L.T.C.			5.2	6.9
"	±			5.3	6.8
120+00	L.T.C.			5.1	7.0
"	±			5.4	6.7
120+50	L.T.C.			5.0	7.1
"	±			5.4	6.7
121+00	<sup>(L.C.)</sup> L.T.C.			4.9	7.2
"	±			5.2	6.9
121+50	L.T.C.			4.7	7.4
"	±			4.9	7.2
BC: 121+89.52	L.T.C.			4.6	7.5
"	±			5.1	7.0
T.P. #17			3.07		9.07
A #18	1.96	11.03			
122+00	±			4.0	7.0
+50	±			4.0	7.0
123+00	±			4.3	6.7
+50	±			4.2	6.8

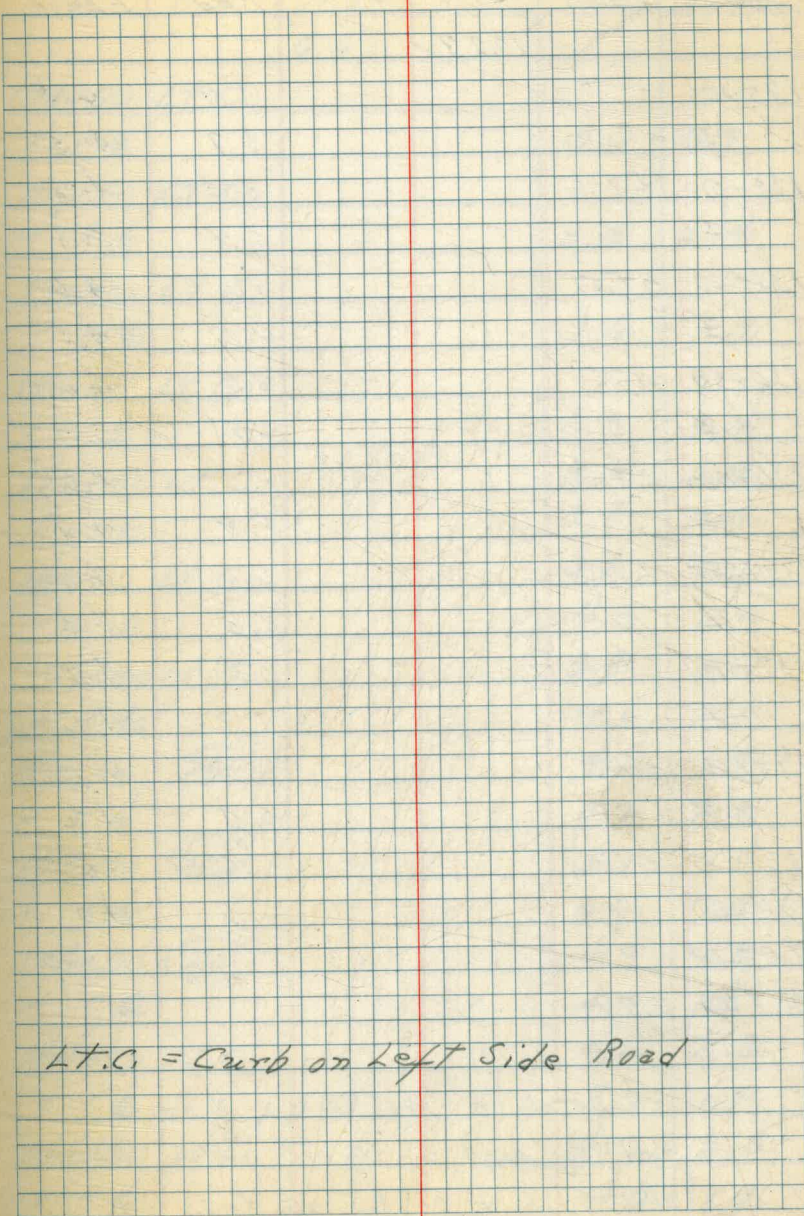


Sta.	B.S.	Hi.	F.S.	Red	F. Lev.
		11.03			
124400	♀			4.4	6.6
124450	R.T.C.			4.0	7.0
"♀				4.5	6.5
125400	R.T.C.			4.1	6.9
"♀				4.8	6.2
125450	R.T.C.			4.2	6.8
"♀				5.1	5.9
126400	R.T.C.			4.3	6.7
"♀				5.3	5.7
126450	R.T.C.			4.4	6.6
"♀				5.3	5.7
127400	R.T.C.			4.5	6.5
"♀				5.4	5.6
127450	R.T.C.			4.6	6.4
"♀				5.5	5.5
128400	R.T.C.			4.8	6.2
"♀				5.4	5.6
B.M. #14	checking on			4.31	6.72
				Deff.	+ .04
B.M. #14					6.76
T.P. #18			4.78		6.25
T.P. #19	3.98	10.23			
128450	R.T.C.			4.0	6.2
"♀				4.6	5.6

R.T.C. = Curb on Right of Road

B.M. #14 Head of Spike Top of N. W. Cor.  
 At S. E. R. R. Curbert, 100 FT. West at  
 Whistling Post. Betw. Sabeley & 27th St.  
 Harbor Elev. = 15.97  
 $\quad \quad \quad - 9.01$   
 City Elev. = 6.96

Sta.	B.S.	Hi.	F.S.	Red	Elev.
		10.23			
129+00	R.T.C.			3.9	6.3
"	ϕ			4.7	5.5
129+50	R.T.C.			3.8	6.4
"	ϕ			4.7	5.5
130+00	R.T.C.			3.7	6.5
"	ϕ			4.3	5.9
130+50	R.T.C.			3.8	6.4
"	ϕ			4.1	6.1
131+00	R.T.C.			4.0	6.2
"	ϕ			4.0	6.2
131+50	R.T.C.			4.1	6.1
"	ϕ			3.0	7.2
132+00	R.T.C.			4.3	5.9
"	ϕ			3.3	6.9
132+50	R.T.C.			4.6	5.6
"	ϕ			4.9	5.3
133+00	R.T.C.			4.8	5.4
"	ϕ			5.4	4.8
133+50	R.T.C.			5.0	5.2
"	ϕ			5.4	4.8
134+00	L.T.C.			5.2	5.0
"	ϕ			5.0	5.2
134+50	L.T.C.			5.3	4.9
"	ϕ			5.0	5.2



L.T.C. = Curb on Left Side Road



Sta.	B.S.	H.I.	F.S.	Red.	Elev.
		10.23			
135+00	L.T.C.			5.4	4.8
"	✓			5.7	4.5
135+50	L.T.C.			5.6	4.6
"	✓			6.4	3.8
136+00	L.T.C.			5.6	4.6
"	✓			6.1	4.1
136+50	L.T.C.			5.6	4.6
"	✓			6.4	3.8
137+00	L.T.C.			5.6	4.6
"	✓			5.8	4.4
B.C. 137+28 <sup>00</sup>	L.T.C.			5.6	4.6
"	✓			5.8	4.4
137+50	L.T.C.			5.5	4.7
"	✓			5.7	4.5
138+00	L.T.C.			5.5	4.7
"	✓			6.0	4.2
138+50	L.T.C.			5.6	4.6
"	✓			6.2	4.0
T.P. #19			5.63		4.60
T.P. #20	2.07	6.67			

Cont'd in Peg Book 2, Pg 22  
 and Peg book 3, Pg 10.  
 Also Peg book 1 Pg. 25 to 33

70

Sta.	B.S.	H.I.	F.S.	Red.	Elev.
		6.67			
139+00	L.T.C.				
✓	✓			3.0	3.7
139+50	L.T.C.				
✓	✓			3.3	3.4
140+00	L.T.C.				
✓	✓			3.6	3.1
140+50	L.T.C.				
✓	✓			3.3	3.4
141+00	L.T.C.				
✓	✓			3.4	3.3
				3.8	2.9
141+50	L.T.C.				
✓	✓			3.6	3.1
				4.3	2.4
142+00	L.T.C.				
✓	✓			3.8	2.9
				4.6	2.1
142+50	(20)				
✓	✓			4.8	1.9
				4.7	2.0
143+00	(20)				
✓	✓			5.1	1.6
				4.9	1.8
143+50	(20)				
✓	✓			4.9	1.8
				4.9	1.8
144+00	L.T.C.				
✓	✓			4.4	2.3
				5.0	1.7
144+50	L.T.C.				
✓	✓			4.2	2.5
				4.8	1.9

Sta.	B.S.	H.I.	F.S.	Rod	Elev.
		6.67			
145+00	Lt.C.			4.2	2.5
"	⊘			4.7	2.0
145+50	Lt.C.			4.0	2.7
"	⊘			4.6	2.1
146+00	Lt.C.			3.9	2.8
"	⊘			4.5	2.2
E.C.					
146+58 <sup>20</sup>	Lt.C.			3.8	2.9
"	⊘			4.4	2.3
⊙ T.P.#20			3.79		2.88
B.M.#9 Harbor			1.63		5.04
		We Diff.		+	.06
B.M.#9					5.10
T #21	3.55	6.43			
147+00	Lt.C.			3.6	2.8
"	⊘			4.2	2.2
147+50	Lt.C.			3.7	2.7
"	⊘			4.1	2.3
148+00	Lt.C.			3.8	2.6
"	⊘			4.0	2.4
148+50	Lt.C.			3.9	2.5
"	⊘			4.1	2.3
149+00	Lt.C.			4.0	2.4
"	⊘			4.3	2.1
149+50	Lt.C.			4.0	2.4
"	⊘			4.5	1.9

Sta.	B.S.	H.I.	F.S.	Rod	Elev
		6.43			71
150+00	Lt.C.			4.0	2.4
"	⊘			4.4	2.0
150+50	Lt.C.			3.9	2.5
"	⊘			4.5	1.9
151+00	Lt.C.			3.8	2.6
"	⊘			4.4	2.0
151+50	Lt.C.			3.7	2.7
"	⊘			4.2	2.2
152+00	Lt.C.			3.6	2.8
"	⊘			4.3	2.1
152+50	Lt.C.			3.5	2.9
"	⊘			4.1	2.3
153+00	Lt.C.			3.4	3.0
"	⊘			4.1	2.3
153+50	Lt.C.			3.3	3.1
"	⊘			4.0	2.4
154+00	Lt.C.			3.2	3.2
"	⊘			3.7	2.7
154+50	Lt.C.			3.2	3.2
"	⊘			3.9	2.5
155+00	Lt.C.			3.3	3.1
"	⊘			4.2	2.2
TP #21			3.32		3.11
T #22	3.67	6.78			
155+50	Lt.C.			3.7	3.1
"	⊘			4.7	2.1

Sta.	B.S.	H.I.	F.S.	Rod	Elev.
		6.78			
BC 155+76 <sup>54</sup>	H. CURB			3.8	3.0
"	"			4.7	2.1
156+00	H. CURB			3.8	3.0
"	"			4.8	2.0
156+50	"			5.4	1.4
157+00	"			5.1	1.7
157+50	"			4.8	2.0
157+72 <sup>89</sup>	EC			4.6	2.2
158+00	"			3.1	3.7
50	"			4.5	2.3
159+00	"			4.9	1.9 ✓
50	"			4.8	2.0 ✓
159+64 <sup>3</sup>	" BC			5.1	1.7 ✓
160+00	"			5.1	1.7 ✓
+50	"			5.8	1.0 ✓
161+00	"			6.3	0.5 ✓
161+50	"			6.6	0.2 ✓
161+91 <sup>48</sup>	EC			7.5	-0.7 ✓
TP #22			4.53		2.25
BM #23	7.58	9.83			
162+00	"			10.8	-1.0 ✓
+50	"			10.2	-0.4 ✓
163+00	"			12.3	-2.5 ✓
+50	"			11.2	-1.4 ✓
164+00	"			10.6	-0.8 ✓
+50	"			9.3	+0.5 ✓

Sta	B.S	H.I.	F.S	Rod	Elev. <sup>72</sup>
		9.83			
165+00	"			9.7	+0.1 ✓
+50	"			7.2	2.6 ✓
166+00	"			4.7	5.1 ✓
+50	"			4.2	5.6 ✓
167+00	"			3.7	6.1 ✓
+50	"			3.6	6.2 ✓
168+00	"			3.9	5.9 ✓
BC = +50	"			3.8	6.0 ✓
169+00	"			4.5	5.3 ✓
TP #23			5.75		4.08
BM #24	7.40	11.48			
169+50	"			8.9	2.6 ✓
170+00	"			9.3	2.2 ✓
170+51 <sup>23</sup>	EC			9.5	2.0 ✓
170+59 <sup>13</sup>	BC			9.4	2.1 ✓
171+00	"			10.7	0.8 ✓
+50	"			6.9	4.6 ✓
172+00	"			7.1	4.4 ✓
+50	"			5.8	5.7 ✓
172+60 <sup>24</sup>	BC			5.9	5.6 ✓
173+00	"			5.0	6.5 ✓
+50	"			3.5	8.0 ✓
BM #1	Check		7.73		3.75
BM #1	Harbor =				1.5
					3.90
BM #3	Check		2.76		8.72
BM #3	Harbor =				1.6
					8.88

Sta.	B.S.	H.I.	F.S.	Rod	Elev.
		11.48			
BM#3					8.88
TP#24			2.76		8.72
BM#3 - Harbor					8.88
TP#25	9.89	18.77			
173+90 <sup>±</sup>				10.7	8.1
174+00				10.8	8.0
+50				11.2	7.6
175+00				8.3	10.5
+50				5.2	13.6
176+00				2.0	16.8
+50				1.4	17.4
177+00				2.5	16.3
+50				7.3	11.5
177+87 <sup>83</sup> = "A" Line to Main St.				6.3	12.5
TP#25			6.30		12.47
TP#26	6.77	19.24			
178+00				6.7	12.5
+50				6.6	12.6
179+00				5.6	13.6
+50				5.7	13.5
180+00				5.4	13.8
+50				5.2	14.0
181+00				4.7	14.5
+50				5.2	14.0
182+00				5.2	14.0

Sta.	B.S.	H.I.	F.S.	Rod	Elev. <sup>73</sup>
		19.24			
182+50				5.5	13.7
183+00				5.6	13.6
+50				5.6	13.6
184+00				5.7	13.5
+50				5.7	13.5
185+00				5.8	13.4
TP#26			5.79		13.45
TP#27	4.12	17.57			
185+50				4.9	12.7
186+00				3.6	14.0
+50				4.2	13.4
187+00				4.6	13.0
+50				4.5	13.1
188+00				4.8	12.8
+50				4.8	12.8
189+00				5.2	12.4
+50				6.2	11.4
190+00				6.3	11.3
+50				7.2	10.4
191+00				7.6	10.0
+50				8.1	9.5
192+00				7.6	10.0
+50				8.7	8.9
193+00				8.7	8.9
+50				8.7	8.9
TP#27			8.72		8.85
TP#28	2.71	11.56			

Sta	B.S.	H.I	F.S	Rod	Elev.
		11.56			
193+78				3.7	7.9
193+85				7.3	4.3
193+88				9.0	2.6
194+00				8.2	3.4
+50	10 the water				
195+00				6.3	5.3
+50				8.0	3.6
196+00				6.3	5.3
+50				4.8	6.8
197+00				4.5	7.1
191+50	Top Rail on line			1.6	10.0
196+50	" " " "			4.3	7.3
198+50	" " " "			4.6	7.0
197+50				5.5	6.1
198+00				5.3	6.3 5.3
+50				4.7	6.9
199+00				4.9	6.7
+50				6.7	4.9
200+00				4.1	7.5
+50				4.8	6.8
201+00				5.0	6.6
+50				4.4	7.2 7.1
T.P.#28			3.51		8.05
T.#29	3.76	11.81			
202+00				4.3	7.5
+50				7.1	4.7

Sta	B.S	H.I	F.S	Rod	Elev.
		11.81			
203+00				8.3	3.5
+50				10.6	1.2
203+63	Water Edge			11.5	0.3
204+00	In the Water				
+18	Water Edge			11.5	0.3
+50				8.5	3.3
205+00				4.1	7.7
+50				3.8	8.0
206+00				4.2	7.6
+50				6.3	5.5
207+00				9.0	2.0 2.1
+50				11.7	0.1
208+00	Note Minus			12.5	-0.7
+50				12.1	-0.3
209+00				11.2	+0.6
+50				11.1	+0.7
T.P.#29			11.07		0.74
LINE "A" FROM STA-177+87 <sup>32</sup> TO MAIN ST.					
STATION 0+00 ON LINE A = Sta. 177+87 <sup>33</sup>					
ON THE MAIN LINE.					
TP#25	ON MAIN LINE				12.47
T.#1	3.76	16.17			
0+00				3.7	12.5
0+38	Top Rail AT & S.F. R.R			6.0	10.2
0+50				7.6	8.6
1+00				9.5	6.7

Sta	B.S.	H.I	F.S	Rod	Elev.
		16.17			
1+38	Top Rail-SD&AERR		11.1		5.1
1+50			13.6		2.6
2+00			8.8		7.4
+50			9.7		6.5
3+00			10.4		5.8
+11	On Top of curb		10.1		6.1
+50			9.0		7.2
4+00			8.5		7.7
+50			8.1		8.1
5+00			8.2		8.0
+50			8.1		8.1
Δ 5+			8.1		8.1
TIP#1			8.09		8.08
TK#2	1.25	9.33			
6+00			1.0		8.3
6+15			0.9		8.4
+35			10.2		-0.9
+50			10.6		-1.3
7+00			10.6		-1.3
+50			10.5		-1.2
Δ 7+73 <sup>76</sup>			10.8		-2.5
8+00			10.4		-1.1
+50			11.8		-2.5
9+00			12.0		-2.7

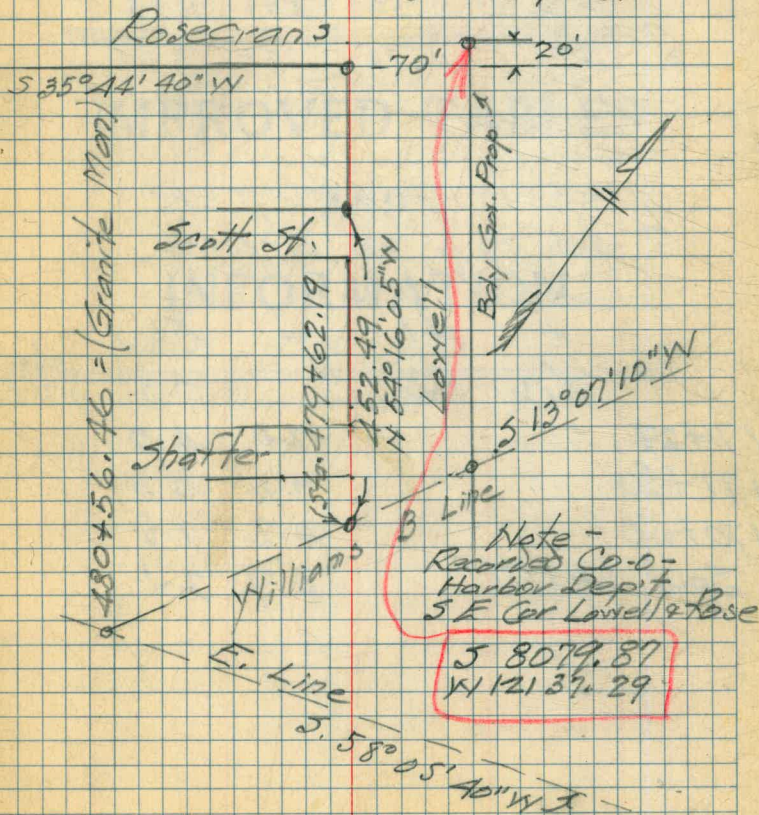
Sta.	B.S.	H.I.	F.S.	Rod	Elev
		9.33			
9+50				11.5	-2.2
10+00				11.2	-1.9
+50				10.4	-1.1
11+00				10.0	-0.7
+50				10.2	-0.9
12+00				11.0	-1.7
+50				10.5	-1.2
TP#2			9.62		-0.29
⚓#3	7.00	6.71			
13+00				8.4	-1.7
+50				7.2	-0.5
14+00				5.7	+1.0
+50				5.4	+1.3
Δ+93				5.8	+0.9
15+00				5.6	+1.1
+50				5.8	+0.9
16+00				6.2	+0.5
+50				6.2	+0.5
17+00				6.2	+0.5
+50				5.7	+1.0
18+00	"A" Line -			2.0	+4.7
18+24 <sup>28</sup>	End of Line "A" in		MAIN ST.		
TP#3				1.44	5.27

CO-ORDINATES-

1/9/42  
H.S. Gierlich

SE Corner Lovell and Rosecrans

NAVY  
 N-167.285  
 VY-1884.264  
 Harbor Dept  
 Co-ord 480+56.46 } S-8681.63  
 Williams Baseline } W-11575.41  
 US Army  
 } S 8679.20  
 } W 11573.60



35	HI	FS	BM#2	8.06
BM#24 to agree with given Elev				8.16
5.41	13.57			
0	3.35	12.14	4.78	8.79
0 Top FH.			3.07	9.07
9.89	18.77		8.88	BM#3
6.77	19.24	6.30	12.47	
4.17	17.57	5.79	13.45	
0	2.71	11.56	8.72	8.85

VENTURI METER  
7 dia. 12 L up stream

	+	HI	-	Elev	Sta.
	5.2	6.0		0.8	171+00
171+27			2.0	4.0	
171+50			2.0	4.0	
170+50			4.2	1.8	
Spur 169+50			3.9	2.1	

110 + 55

111 + 00

+ 50

112 + 00

+ 50

DIRECTIONS FOR USE OF TABLES

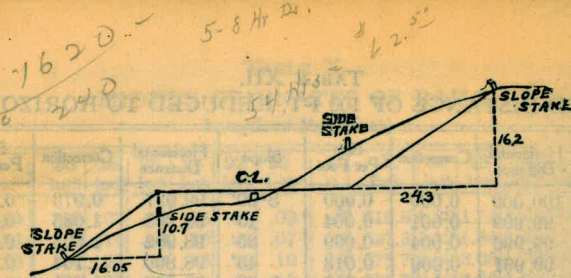
Distance of slope stake from side or shoulder stake for any width roadway, slope 1% to 1%. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance

## IMPROVED TABLES AND INFORMATION

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of correction. Degree of curve with a given  $L$  may be found by dividing tangent (or external), opposite  $L$  by given tangent (or external).

The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.



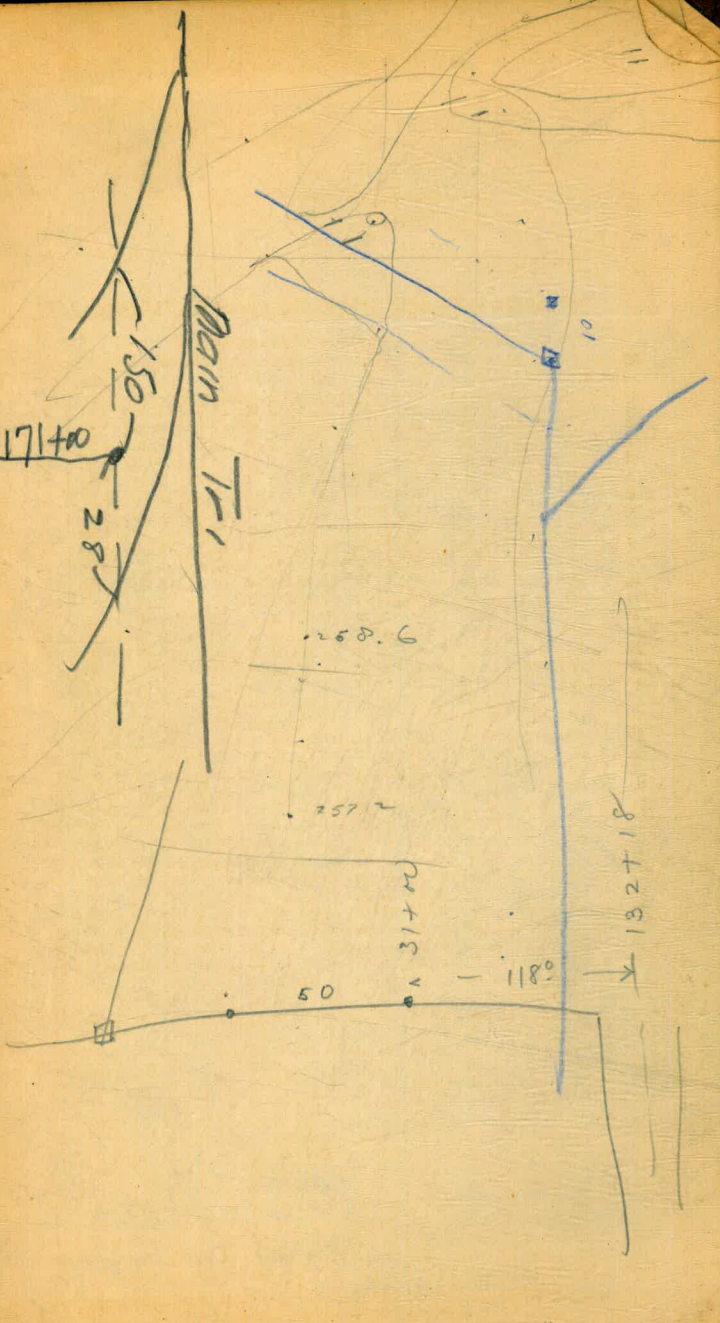


DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

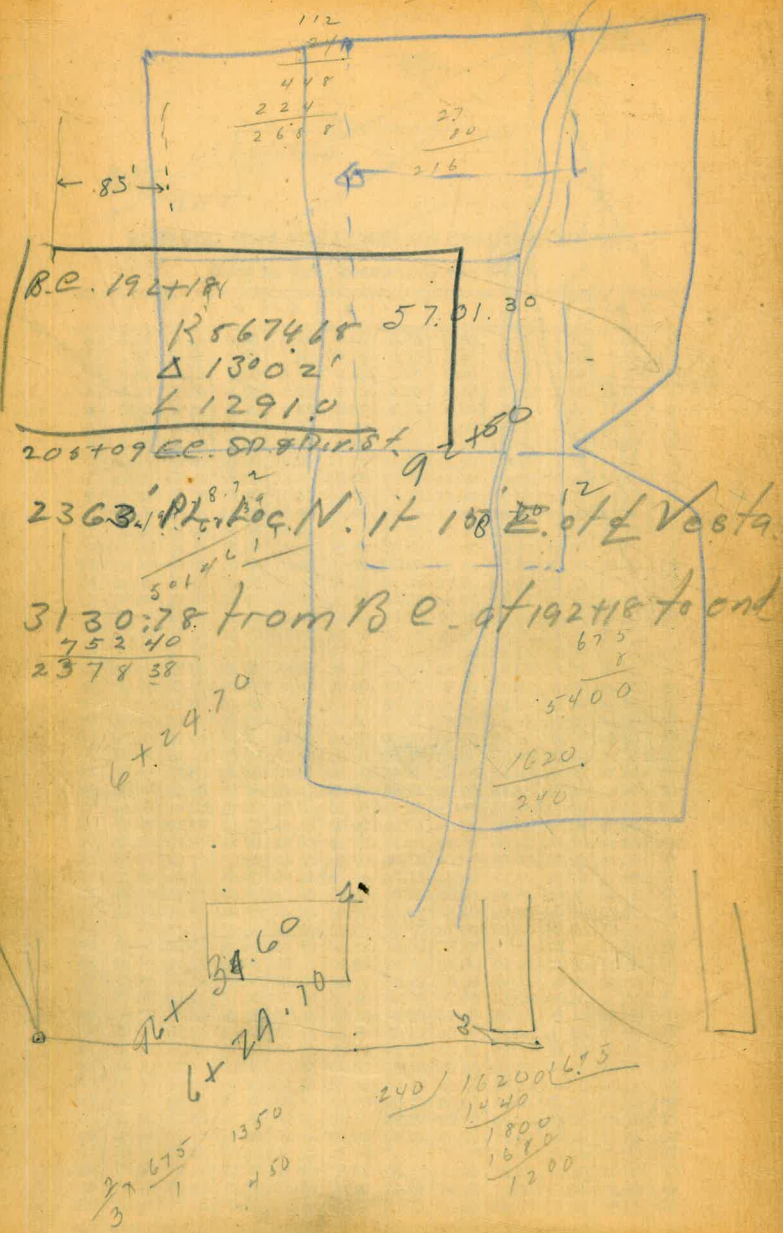
SLOPE 1/2 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0 00	0 15	0 30	0 45	0 60	0 75	0 90	1 05	1 20	1 35	0
1	1 50	1 05	1 20	1 35	1 50	1 65	1 80	1 95	2 10	2 25	1
2	3 00	3 15	3 30	3 45	3 60	3 75	3 90	4 05	4 20	4 35	2
3	4 50	4 65	4 80	4 95	5 10	5 25	5 40	5 55	5 70	5 85	3
4	6 00	6 15	6 30	6 45	6 60	6 75	6 90	7 05	7 20	7 35	4
5	7 50	7 65	7 80	7 95	8 10	8 25	8 40	8 55	8 70	8 85	5
6	9 00	9 15	9 30	9 45	9 60	9 75	9 90	10 05	10 20	10 35	6
7	10 50	10 65	10 80	10 95	11 10	11 25	11 40	11 55	11 70	11 85	7
8	12 00	12 15	12 30	12 45	12 60	12 75	12 90	13 05	13 20	13 35	8
9	13 50	13 65	13 80	13 95	14 10	14 25	14 40	14 55	14 70	14 85	9
10	15 00	15 15	15 30	15 45	15 60	15 75	15 90	16 05	16 20	16 35	10
11	16 50	16 65	16 80	16 95	17 10	17 25	17 40	17 55	17 70	17 85	11
12	18 00	18 15	18 30	18 45	18 60	18 75	18 90	19 05	19 20	19 35	12
13	19 50	19 65	19 80	19 95	20 10	20 25	20 40	20 55	20 70	20 85	13
14	21 00	21 15	21 30	21 45	21 60	21 75	21 90	22 05	22 20	22 35	14
15	22 50	22 65	22 80	22 95	23 10	23 25	23 40	23 55	23 70	23 85	15
16	24 00	24 15	24 30	24 45	24 60	24 75	24 90	25 05	25 20	25 35	16
17	25 50	25 65	25 80	25 95	26 10	26 25	26 40	26 55	26 70	26 85	17
18	27 00	27 15	27 30	27 45	27 60	27 75	27 90	28 05	28 20	28 35	18
19	28 50	28 65	28 80	28 95	29 10	29 25	29 40	29 55	29 70	29 85	19
20	30 00	30 15	30 30	30 45	30 60	30 75	30 90	31 05	31 20	31 35	20
21	31 50	31 65	31 80	31 95	32 10	32 25	32 40	32 55	32 70	32 85	21
22	33 00	33 15	33 30	33 45	33 60	33 75	33 90	34 05	34 20	34 35	22
23	34 50	34 65	34 80	34 95	35 10	35 25	35 40	35 55	35 70	35 85	23
24	36 00	36 15	36 30	36 45	36 60	36 75	36 90	37 05	37 20	37 35	24
25	37 50	37 65	37 80	37 95	38 10	38 25	38 40	38 55	38 70	38 85	25
26	39 00	39 15	39 30	39 45	39 60	39 75	39 90	40 05	40 20	40 35	26
27	40 50	40 65	40 80	40 95	41 10	41 25	41 40	41 55	41 70	41 85	27
28	42 00	42 15	42 30	42 45	42 60	42 75	42 90	43 05	43 20	43 35	28
29	43 50	43 65	43 80	43 95	44 10	44 25	44 40	44 55	44 70	44 85	29
30	45 00	45 15	45 30	45 45	45 60	45 75	45 90	46 05	46 20	46 35	30
31	46 50	46 65	46 80	46 95	47 10	47 25	47 40	47 55	47 70	47 85	31
32	48 00	48 15	48 30	48 45	48 60	48 75	48 90	49 05	49 20	49 35	32
33	49 50	49 65	49 80	49 95	50 10	50 25	50 40	50 55	50 70	50 85	33
34	51 00	51 15	51 30	51 45	51 60	51 75	51 90	52 05	52 20	52 35	34
35	52 50	52 65	52 80	52 95	53 10	53 25	53 40	53 55	53 70	53 85	35
36	54 00	54 15	54 30	54 45	54 60	54 75	54 90	55 05	55 20	55 35	36
37	55 50	55 65	55 80	55 95	56 10	56 25	56 40	56 55	56 70	56 85	37
38	57 00	57 15	57 30	57 45	57 60	57 75	57 90	58 05	58 20	58 35	38
39	58 50	58 65	58 80	58 95	59 10	59 25	59 40	59 55	59 70	59 85	39
40	60 00	60 15	60 30	60 45	60 60	60 75	60 90	61 05	61 20	61 35	40
41	61 50	61 65	61 80	61 95	62 10	62 25	62 40	62 55	62 70	62 85	41
42	63 00	63 15	63 30	63 45	63 60	63 75	63 90	64 05	64 20	64 35	42
43	64 50	64 65	64 80	64 95	65 10	65 25	65 40	65 55	65 70	65 85	43
44	66 00	66 15	66 30	66 45	66 60	66 75	66 90	67 05	67 20	67 35	44
45	67 50	67 65	67 80	67 95	68 10	68 25	68 40	68 55	68 70	68 85	45
46	69 00	69 15	69 30	69 45	69 60	69 75	69 90	70 05	70 20	70 35	46
47	70 50	70 65	70 80	70 95	71 10	71 25	71 40	71 55	71 70	71 85	47
48	72 00	72 15	72 30	72 45	72 60	72 75	72 90	73 05	73 20	73 35	48
49	73 50	73 65	73 80	73 95	74 10	74 25	74 40	74 55	74 70	74 85	49
50	75 00	75 15	75 30	75 45	75 60	75 75	75 90	76 05	76 20	76 35	50

Computed by L. Leland Locke.



112 14 x .20 144) 280 (20



DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.  
 Roadway 16 feet wide. Side Slopes 1 on 1 1/2  
 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.