

277

W277

Our Leather Bound Engineers Note Books are carried in the following rulings:

- No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.
- No. 382 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 4 x 4 to the inch, Center Line Red.
- No. 384 MINING TRANSIT BOOK. Left Hand Page as in this Book, Right Hand Page 8x8 to the inch, Center Line Red.
- No. 385 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 8, vertical and 4 horizontal lines to the inch, Center Line Red.

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THE FREDERICK POST CO.
ENGINEERING and DRAFTING SUPPLIES

IRVING PARK STATION

CHICAGO, ILL.

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JAN 1 1986
536

O.R. - S.D. 2nd. Main Pipe Line. 2

Index.

Page

3-63. Final Location. Profile Levels
from Sta. 385+50 to Sta. 630+00.

65-71 Line Change ^(482 to 511) Thru Dunn's Prop.

72-79 Profile of Line Change 482 to 511

Profile Levels of Otay-San Diego
Second Main Pipe Line

Contd. from Book #276 Page #79.

B.M. #67 (#57) 390.93

✓ Same Elev
as in other
book.

1.56 392.49

Top Air Valve 60'R 385+16

390.96
+ .33
- .03

385+50 6.7 385.8 ✓

386 8.4 384.1 ✓

+50 9.9 382.6 ✓

387 12.3 380.2 ✓

T.P. 12.96 379.53 ✓

Req. 387+15

1.77 381.30

+40 2.3 379.0 ✓

+50 3.0 378.3 ✓

+75 4.2 377.1 ✓

388 5.1 376.2 ✓

+25 6.3 375.0 ✓

+50 7.9 373.4 ✓

+75 9.3 372.0 ✓

389 9.8 371.5 ✓

+25 10.4 370.9 ✓

+50 11.0 370.3 ✓

+75 11.6 369.7 ✓

390 12.0 369.3 ✓

T.P. 11.41 369.89 ✓

Req. 390+00

3.27 373.16

9/20/29
✓ JTW

373.16 ✓

390+25		4.3	368.9	✓
+50		4.5	368.7	✓
+75		5.2	368.0	✓
391		5.4	367.8	✓
+50		5.3	367.9	✓
392		5.0	368.2	✓
+50		5.8	367.4	✓
+66		6.2	367.0	✓
393		10.2	363.0	✓
B.M. #68 (#56)		2.45	370.71	✓
0.13	370.84			
+23		9.4	361.4	✓
+47		11.5	359.3	✓
T.F.		13.02	357.82	✓
0.85	358.67			
+68		2.5	356.2	✓
394		5.1	353.6	✓
+47		12.5	346.2	✓
T.F.		13.03	345.64	✓
0.27	345.91			
+65		3.1	342.8	✓
+70		3.4	342.5	✓
395		8.3	337.6	✓
T.F.		12.99	332.92	✓
0.32	333.24			

Top Air Valve 60' R. 393+21

Clear + Calm
7/29/29
Hill
Elliott
Simpson

Req. 393+57

Req. 394+48

Req. 395+13

✓ J.T.N

333.24 ✓

395+29 4.3 328.9 ✓

+48 9.4 323.8 ✓

+62 12.8 320.4 ✓

T.F. 12.81 320.43 ✓

0.85 321.28 ✓

+87 10.2 311.1 ✓

T.F. 12.92 308.36 ✓

0.36 308.72 ✓

Req. 395+62

Req. 395+96

396 1.2 307.5 ✓

+05 3.8 304.9 ✓

+13 4.8 303.9 ✓

+23 8.8 299.9 ✓

T.F. 12.90 295.82 ✓

0.19 296.01 ✓

Req. 396+37

+55 5.4 290.6 ✓

T.F. 12.84 283.17 ✓

0.23 283.40 ✓

Req. 396+76

+85 2.6 280.8 ✓

397 4.9 278.5 ✓

+20 11.5 271.9 ✓

T.F. 12.81 270.59 ✓

0.28 270.87 ✓

Req. 397+27

+44 5.5 265.4 ✓

T.F. 13.01 257.86 ✓

0.24 258.10 ✓

Req. 397+73

✓ m

	258.10 ✓		
398+00		8.1	250.0 ✓
T.F.		12.80	245.30 ✓
	0.36	245.66	
+25		1.5	244.2 ✓
+44		4.2	241.5 ✓
+55		7.4	238.3 ✓
T.F.		12.99	232.67 ✓
	0.71	233.38	
399		1.4	232.0 ✓
+17		5.0	228.4 ✓
T.F.		12.90	220.48 ✓
	1.17	221.65	
+58		4.0	217.7 ✓
T.F.		13.05	208.60 ✓
	0.23	208.83	
400		7.5	201.3 ✓
+18		13.0	195.8 ✓
T.F.		13.01	195.82 ✓
	0.37	196.19	
+45		9.7	186.5 ✓
401		11.7	184.5 ✓
B.M. #69		11.93	184.26 ✓
	11.71	195.97	
+26		11.3	184.7 ✓
+40		11.9	184.1 ✓

Req. 398+19

Req. 398+95

Req. 399+48

Req. 399+79

Req. 400+18

spike in west side of wooden Blow off Box
60' R Sta. 401 + 14

Bottom Canyon

✓
w

	195.97 ✓		
402		11.4	184.6 ✓
+50		11.6	184.4 ✓
+87		9.5	186.5 ✓
403		6.2	189.8 ✓
T.F.		0.11	195.86 ✓
	11.98		207.84 ✓
+14		12.6	195.2 ✓
T.F.		0.39	207.45 ✓
	12.60		220.05 ✓
+50		7.4	212.6 ✓
+59		7.0	213.0 ✓
+62		4.6	215.4 ✓
T.F.		0.26	219.79 ✓
	12.36		232.15 ✓
404		6.6	225.6 ✓
T.F.		0.36	231.79 ✓
	12.85		244.64 ✓
+52		5.7	238.9 ✓
T.F.		0.39	244.25 ✓
	12.93		257.18 ✓
405		4.8	252.4 ✓
T.F.		0.31	256.87 ✓
	12.95		269.82 ✓
+56		5.6	264.2 ✓
T.F.		0.04	269.78 ✓

Req. 403+14 2'L

Req. 403+38

Req. 403+77

Req. 404+23

Req. 404+70

Req. 405+21

Req. 405+80

✓
W.

			269.78 ✓
	12.93	282.71 ✓	
405+81			12.6 270.1 ✓
+87			12.2 270.5 ✓
406			8.5 274.2 ✓
T.F.			0.23 282.48 ✓
	12.83	295.31 ✓	
+61			6.7 288.6 ✓
T.F.			0.05 295.26 ✓
	12.65	307.91 ✓	
407			11.4 296.5 ✓
+22			6.6 301.3 ✓
+32			5.5 302.4 ✓
T.F.			0.21 307.70 ✓
	12.64	320.34 ✓	
+75			9.9 310.4 ✓
408			6.5 313.8 ✓
+25			4.6 315.7 ✓
+50			2.9 317.4 ✓
T.F.			0.62 319.72 ✓
	12.64	332.36 ✓	
409			11.7 320.7 ✓
+26			11.0 321.4 ✓
+44			10.8 321.6 ✓
+49			11.5 320.9 ✓
+66			10.2 322.2 ✓

Feg. 406+36

Feg. 406+93

Feg. 407+60

Feg. 408+79

✓ m

	332.36			
+82		8.5	323.9	✓
410		7.7	324.7	✓
+50			328.3	✓
		4.4	328.0	✓
T.F.		0.27	332.09	✓
12.57	344.66			
411		12.6	332.1	✓
+09		12.0	332.7	✓
+50		6.6	338.1	✓
+66		4.4	340.3	✓
+75		2.6	342.1	✓
T.F.		2.64	342.02	✓
12.74	354.76			
412		8.1	346.7	✓
+27		2.7	352.1	✓
T.F.		1.01	353.75	✓
12.98	366.73			
+68		7.1	359.6	✓
T.F.		0.64	366.09	✓
12.79	378.88			
413		6.4	366.0 372.5	✓
+57		4.5	374.4	✓
+89		5.0	373.9	✓
B.M. # 70 (#54)		2.08	376.80	✓
414+40		5.2	373.7	✓
+77		7.1	371.8	✓

Peg 35' R. 410+32

on Rock 411+75

Peg 412+35

Feb 24 1930.
Peg 413+ (This turn at Sta 413+00)

Top Air valve 60' R 414+40

376.88
- .08

	378.88 ✓		
415		10.7	368.2 ✓
T.F.		12.86	366.02 ✓
	3.59		369.61 ✓
+55		7.7	361.9 ✓
+82		11.2	358.4 ✓
416		12.4	357.2 ✓
+30		13.4	356.2 ✓
+50		13.3	356.3 ✓
+82		13.0	356.6 ✓
417		12.0	357.6 ✓
+50		9.0	360.6 ✓
+75		7.6	362.0 ✓
418		5.1	364.5 ✓
+16		3.0	366.6 ✓
T.F.		2.53	367.08 ✓
	9.21		376.29 ✓
+27		9.2	367.1 ✓
+50		8.1	368.2 ✓
419		6.7	369.6 ✓
+25		7.1	369.2 ✓
+50		7.1	369.2 ✓
+75		8.9	367.4 ✓
+85		10.2	366.1 ✓
420		10.4	365.9 ✓
+40		12.8	363.5 ✓

Req. 415+25

Req. 418+27

376.29 ✓

+75		12.6	363.7	✓
421		12.3	364.0	✓
+20		10.6	365.7	✓
+30		10.1	366.2	✓
+55		7.3	369.0	✓
+90		4.7	371.6	✓
422		4.0	372.3	✓
+25		2.3	374.0	✓
T.P.		2.21	374.08	✓
	2.83		376.91	✓
+65		2.4	374.5	✓
423		3.3	373.6	✓
+20		3.0	373.9	✓
+70		5.3	371.6	✓
424		5.7	371.2	✓
+50		5.8	371.1	✓
+80		4.6	372.3	✓
425		4.5	372.4	✓
+35		4.5	372.4	✓
+50		3.5	373.4	✓
+75		4.1	372.8	✓
+90		3.2	373.7	✓
426		4.0	372.9	✓
+20		4.0	372.9	✓
+40		2.4	374.5	✓

Top Hub. 422+25

✓ m

	376.91 ✓		
+70		4.3	372.6 ✓
T.P.		3.07	373.84 ✓
	3.37		377.21 ✓
A27		5.9	371.3 ✓
+25		6.7	370.5 ✓
+50		9.0	368.5 ✓ 368.2
+75		9.3	367.9 ✓
A28		9.4	367.8 ✓
+50		11.3	365.9 ✓
+75		11.0	366.2 ✓
A29		9.8	367.4 ✓
+25		10.8	366.4 ✓
+70		8.7	368.5 ✓
A30		7.9	369.3 ✓
+50		8.5	368.7 ✓
B.M. #71		3.28	373.93 ✓
		6.3	370.9 ✓
Bonita "V" }		7.0	370.2 ✓
		7.7	369.5 ✓
T.P.		9.65	367.56 ✓
	3.34		370.90 ✓
+65		2.5	367.4 ✓
B.M. #72 #53		0.32	370.58 ✓
		2.8	368.1 ✓
+75		5.1	365.8 ✓
		7.0	363.9 ✓

Top Hub 426+56

Top Air Valve 30' R 430+00
 Top W.S. Pipe
 Top Valve on W.S. Line 30' R. 430+45
 Top Valve on R.S. Line 26' R. 430+45
 Top Hub 430+73⁰

Top Air Valve 30' R. 430+92 370.61
 Top W.S. Pipe
 Gro. Elev.
 Top 28" R.S. Pipe Bonita Line Crossing v w

370.90 ✓

431		5.5	365.4	✓
+25		7.7	363.2	✓
+40		7.3	363.6	✓
+60		10.9	360.0	✓
+75		12.9	358.0	✓
T.P.		12.89	358.01	✓

Peg 431+73

1.55 359.56 ✓

432		3.1	356.5	✓
+15		4.7	354.9	✓
+30		6.7	352.9	✓
+40		6.6	353.0	✓
+75		11.2	348.4	✓
T.P.		12.85	346.71	✓

Peg 432+85

0.44 347.15 ✓

433		2.1	345.1	✓
+66		6.7	340.5	✓
+95		9.8	337.4	✓
434		9.1	338.1	✓
+15		10.4	336.8	✓
+50		13.0	334.2	✓
T.P.		12.92	334.23	✓

Peg 434+50

5.50 339.73 ✓

435		7.3	332.4	✓
+25		5.6	334.1	✓
+50		4.8	334.9	✓

✓ m.

337.73 ✓

+80	3.9	335.8	✓
436	3.6	336.1	✓
+40	3.7	336.0	✓
+80	5.5	334.2	✓
437	6.8	332.9	✓
+15	7.1	332.6	✓
+55	10.0	329.7	✓
+70	11.4	328.3	✓
T.P.	12.84	326.89	✓

0.20 327.09 ✓

438	1.9	325.2	✓
+05	2.6	324.5	✓
+30	6.0	321.1	✓
+75	8.9	318.2	✓
439	10.9	316.2	✓
T.P.	12.80	314.29	✓

2.47 316.76 ✓

+45	3.0	313.8	✓
+60	4.4	312.4	✓
+65	3.7	313.1	✓
+75	3.4	313.4	✓
+90	5.1	311.7	✓
440	5.5	311.3	✓
+50	9.7	307.1	✓
+80	11.8	305.0	✓

Peg 437+72 ✓

Peg 439+36

✓ w

316.76 ✓

441	13.5	303.3	✓
+30	15.3	301.5	✓
+70	16.9	299.9	✓
+80	17.1	299.7	✓
+85	20.6	296.2	✓
+90	17.7	299.1	✓
442	16.8	300.0	✓
+40	14.2	302.6	✓
+45	16.4	300.4	✓
+50	14.3	302.2 302.5	✓
+65	13.0	303.8	✓
+85	11.7	305.1	✓
443	12.0	304.8	✓
+10	12.0	304.8	✓
+20	13.3	303.5	✓
+25	11.7	305.1	✓
T.P.	11.69	305.07	✓
B.M. # 73 (# 52)	11.12	305.64	✓
	13.4	303.4	✓
0.36		305.43	✓
+50	1.0	304.4	✓
+75	1.6	303.8	✓
+95	3.4	302.0	✓
444	4.5	300.9	✓
+30	7.4	298.0	✓

Top 8" C.I. Pipe from Cemetery Res.

Req 443+25
 Top Air Valve 33'R. 443+37
 Top W. S. Pipe

305.73
 $\frac{16.4}{109}$

✓
W

305.43 ✓

+55		10.7	294.7	✓
T.P.		12.93	292.50	✓
	1.65		294.15	✓
+90		5.8	288.4	✓
445		8.6	285.6	✓
+10		9.4	284.8	✓
T.P.		12.98	281.17	✓
	1.39		282.56	✓
+55		4.0	278.6	✓
+70		7.1	275.5	✓
+75		8.8	273.8	✓
+80		10.6	272.0	✓
446		13.2	269.4	✓
T.P.		12.80	269.76	✓
	0.64		270.40	✓
+15		2.6	267.8	✓
+35		6.2	264.2	✓
+45		6.9	263.5	✓
+75		10.3	260.1	✓
+90		11.0	259.4	✓
447		12.3	258.1	✓
+15		12.4	258.0	✓
+30		13.1	257.3	✓
T.P.		13.00	257.40	✓
	0.07		257.47	✓
448		3.7	253.8	✓

Peg 444+66

Peg 445+39

Peg 445+99

} Road

Peg 447+30

257.47 ✓

448 +27		3.9	253.6	✓
+35		5.1	252.4	✓
+47		7.6	249.9	✓
+67		10.6	246.9	✓
+93		12.1	245.4	✓
T.P.		12.91	244.56	✓

Peg 448+99

0.29 244.85 ✓

449		0.5	244.3	✓
+11		2.4	242.4	✓
+45		9.9	234.9	✓
T.P.		12.81	232.04	✓

Peg 449+60

0.31 232.35 ✓

+75		2.9	229.5	✓
450		7.2	225.2	✓
+20		10.2	222.7	✓
T.P.		12.82	219.53	✓

Peg 450+32

0.14 219.67 ✓

+50		3.3	216.4	✓
+75		9.3	210.4	✓
+90		10.1	209.6	✓
451		11.2	208.5	✓
T.P.		12.87	206.80	✓

Peg 451+06

0.74 207.54 ✓

+25		6.2	201.3	✓
+50		10.5	198.0	✓

T
M

	207.54 ✓		
T.P.		12.65	194.89 ✓
	0.89	195.78 ✓	
+70		1.9	193.9 ✓
+85		5.3	190.5 ✓
452		8.5	187.3 ✓
+30		13.1	182.7 ✓
T.P.		12.76	183.02 ✓
	0.89	183.91 ✓	
+45		3.0	180.9 ✓
+60		7.4	176.5 ✓
+85		15.2	168.7 ✓
453		17.1	166.8 ✓
		10.6	173.3 ✓
+10		17.6	166.3 ✓
+15		15.9	168.0 ✓
+35		14.5	169.4 ✓
+50		13.4	170.5 ✓
+70		11.3	172.6 ✓
+85		10.8	173.1 ✓
454		10.0	173.9 ✓
+25		9.2	174.7 ✓
+65		5.2	178.7 ✓
T.P.		2.14	181.77 ✓
	9.91	191.68 ✓	
455		10.1	181.6 ✓
+50		6.4	185.3 ✓

Peg 451+65

Peg 452+30 10.R.

} Bottom Canyon Trestle # 27

Peg 16'L. 454+68

✓ W

	✓				
	191.68				
456		5.6	186.1	✓	
+10		4.9	186.8	✓	
+30		6.1	185.6	✓	
+65		5.1	186.6	✓	
457		6.5	185.2	✓	
B.M.#74 (#51)		6.11	185.57	✓	
		8.9	182.8	✓	
	1.23		186.80	✓	
+10		1.5	185.3	✓	
+50		3.6	183.2	✓	
+85		4.1	182.7	✓	
458		5.3	181.5	✓	
+15		6.0	180.8	✓	
+50		10.4	176.4	✓	
T.F.		12.96	173.84	✓	
	0.48		174.32	✓	
459		5.5	168.8	✓	
+25		8.9	165.4	✓	
T.F.		12.93	161.39	✓	
	0.85		162.24	✓	
+55		3.0	159.2	✓	
460		10.1	152.1	✓	
T.F.		12.84	149.40	✓	
	0.51		149.91	✓	
+30		2.0	147.9	✓	

Top Air Valve 23'R. 457+00
 Top W.S. Pipe

185.70
 $\frac{57}{13}$

cloudy And Cool

7/30/29
 Converse
 Elliott
 Simpson

Req. 458+68

Req. 459+45

Req. 460+19 - 10'R

149.91 ✓
 460 +35 3.3 146.6 ✓
 +55 5.0 144.9 ✓
 +63 6.1 143.8 ✓
 461 10.3 139.6 ✓
 T.F. 12.97 136.94 ✓

Req. 461 +25

0.74 137.68 ✓
 +50 3.4 134.3 ✓
 +80 5.7 132.0 ✓
 462 7.8 129.9 ✓
 +30 10.4 127.3 ✓
 T.F. 12.99 124.69 ✓

Req. 462 +50 2'R

6.02 130.71 ✓
 +50 5.7 125.0 ✓
 +70 9.0 121.7 ✓
 +90 9.9 120.8 ✓
 +95 10.8 119.9 ✓
 463 9.6 121.1 ✓
 +20 9.4 121.3 ✓
 +45 8.2 122.5 ✓
 +65 4.8 125.9 ✓
 464 2.9 127.8 ✓
 +50 4.9 125.8 ✓
 +75 5.6 125.1 ✓
 465 8.7 122.0 ✓
 T.F. 11.71 119.00 ✓

Req. 465 +16

			119.00	✓
	1.40	120.40		
465+47			4.5	115.9 ✓
+85			10.6	109.8 ✓
466+05			9.4	111.0 ✓
+15			8.3	112.1 ✓
+50			7.2	113.2 ✓
+70			6.5	113.9 ✓
467			7.6	112.8 ✓
T.F.			9.83	110.57 ✓
	0.94	111.51		
+15			+1.2	112.7 ✓
+30			0.6	110.9 ✓
+50			3.8	107.0 ✓ 107.7 ✓
+70			9.6	101.9 ✓
+80			8.9	102.6 ✓
468			9.4	102.1 ✓
+05			9.4	102.1 ✓
B.M. #75			3.98	107.53 ✓
			1.2	110.3 ✓
+25			6.5	105.0 ✓
+50			3.1	108.4 ✓
+60			2.6	108.9 ✓
T.F.			3.58	107.93 ✓
	0.90	108.83		
469			2.0	106.8 ✓

Req. 5'L 467+16

Nail in sill Trestle #28 20'R sta 468
Top steel pipe center of Trestle #28

Req 468+80

✓ m.

	108.83 ✓		
469+25		3.0	105.8 ✓
+47		11.4	97.4 ✓
T.F.		12.58	96.25 ✓
	0.92	97.17 ✓	
+57		4.8	92.4 ✓
+74		12.9	84.3 ✓
T.F.		12.82	84.35 ✓
	0.79	85.14 ✓	
T.F.		12.88	72.26 ✓
	4.60	76.86 ✓	
470		5.4	71.5 ✓
T.F.		12.63	64.23 ✓
	0.51	64.74 ✓	
+10		3.3	61.4 ✓
+14		3.4	61.3 ✓
+35		4.1	60.6 ✓
+48		4.2	60.5 ✓
+52		6.4	58.3 ✓
+55		6.6	58.1 ✓
+57 ⁵		4.7	60.0 ✓
+60		6.1	58.6 ✓
471		7.2	57.5 ✓
B.M. # 76		8.20	56.54 ✓
+19		6.7	58.0 ✓
		9.9	54.8 ✓

Req. 469+50

Req. 469+74

Req. 469+98

Req. 470+06

South Edge Pavement
North " "

Top of 4" Line

Top of 36" steel pipe Line Sweetwater Co.

$\frac{56.67}{.13}$

Top west Flange-gate valve 15'R 471+19

Bottom of Blow off well 3'R 471+19

	64.74			
		9.5	55.2	✓
471 +50		7.0	57.7	✓
472		6.9	57.8	✓
T.F.		6.82	57.92	✓
	4.27	62.19		
+50		3.9	58.3	✓
473		4.8	57.4	✓
+30		4.1	58.1	✓
+45		4.8	57.4	✓
+50		6.4	55.8	✓
+60		4.9	57.3	✓
+75		4.7	57.5	✓
474		5.4	56.8	✓
+25		6.1	56.1	✓
+55		5.4	56.8	✓
+75		6.4	55.8	✓
475		5.2	57.0	✓
+15		5.1	57.1	✓
+30		6.4	55.8	✓
+40		5.1	57.1	✓
+55		5.2	57.0	✓
+70		6.0	56.2	✓
+90		5.0	57.2	✓
476		5.0	57.2	✓
T.A.		4.97	57.22	✓

Flow Line 12" pipe in Blow off well GR
471+19

on Hub 472 to 2⁹¹

Req. 476 too

JW

			57.22 ✓
	10.19	67.41 ✓	
+25		8.2	59.2 ✓
+60		6.8	60.6 ✓
477		5.4	62.0 ✓
+25		4.6	62.8 ✓
+35		10.3	57.1 ✓
+55		9.3	58.1 ✓
+65		10.5	56.9 ✓
478		9.8	57.6 ✓
+10		9.5	57.9 ✓
+50		11.1	56.3 ✓
479		11.4	56.0 ✓
+35		10.4	57.0 ✓
T.F.		8.37	59.04 ✓
	3.47	62.51 ✓	
480		6.5	56.0 ✓
+05		4.6	57.9 ✓
+20		3.2	59.3 ✓
+53		3.5	59.0 ✓
		6.3	56.2 ✓
+75		6.0	56.5 ✓
481		5.9	56.6 ✓
+50		5.6	56.9 ✓
+90		5.3	57.2 ✓
482		6.2	56.3 ✓

Feg. 479+35

Top steel pipe 22' R 480+50

Jm

482+25

62.51 ✓

5.5 57.0 ✓

+50

6.6 55.9 ✓

T.P.

6.53 55.98 ✓

7.27

63.25 ✓

+75

7.4 55.8 ✓

483

7.5 55.7 ✓

+20

11.5 51.7 ✓

+30

14.5 48.7 ✓

+55

13.2 50.0 ✓

+60

11.6 51.6 ✓

+65

7.1 56.1 ✓

+82

5.5 57.7 ✓

484

0.6 62.6 ✓

B.M. # 77

(#49)

1.65 61.60 ✓

8.21

69.81 ✓

+25

7.0 62.8 ✓

+50

6.7 63.1 ✓

+75

6.7 63.1 ✓

485

5.7 64.1 ✓

+25

4.4 65.4 ✓

+50

2.4 67.4 ✓

+75

0.4 69.4 ✓

T.P.

0.44 69.37 ✓

12.51

81.88

Feq. 482+50

Edge of water in slough

" " " " " "

Ground El. at wing wall of Bridge

Edge of Road

Nail in N.E. Wing Wall - First Pile
North end Bonita Bridge

61.69
.60
.09

Feq

✓ m

	81.88 ✓			
486		11.2	70.7	✓
+50		7.5	74.4	✓
487		3.0	78.9	✓
+20		1.2	80.7	✓
T.F.		0.36	81.52	✓
	12.76	94.28		
+50		11.3	83.0	✓
488		4.1	90.2	✓
T.F.		0.41	93.87	✓
	12.67	106.54		
+50		7.4	99.1	✓
T.F.		0.35	106.19	✓
	13.05	119.24		
489		6.8	112.4	✓
+25		0.5	118.7	✓
T.F.		0.27	118.97	✓
	12.62	131.59		
+50		8.8	122.8	✓
+90		1.5	130.1	✓
490		0.7	130.9	✓
T.F.		0.66	130.93	✓
	12.86	143.79		
+50		7.6	136.2	✓
+70		4.2	139.6	✓
491		1.9	141.9	✓

Req 487+25 on Rock

Req. 488+23

Req. 488+77

Req 489+28

Req. 490+00

✓ m

	143.79 ✓		
T.F.		0.15	143.64 ✓
	6.70	150.34 ✓	
491 +60		5.0	145.3 ✓
492		4.7	145.6 ✓
+40		4.5	145.8 ✓
+42		5.9	144.4 ✓
+44		12.8	137.5 ✓
+45 ^B		11.9	138.4 ✓
+48		11.9	138.4 ✓
+55		4.5	145.8 ✓
+58		3.9	146.4 ✓
+65		5.7	144.6 ✓
+75		5.0	145.3 ✓
493		5.5	144.8 ✓
+40		7.8	142.5 ✓
+60		8.7	141.6 ✓
+77		3.7	146.6 ✓
T.F.		0.31	150.03 ✓
	12.71	162.74 ✓	
494		10.3	152.4 ✓
+20		5.9	156.8 ✓
T.F.		0.28	162.46 ✓
B.M. #78		1.48	161.26 ✓
	12.39	174.85 ✓	
+50		9.7	165.1 ✓

Feq 491+27

Top 24" steel pipe Sweet Water Water Co.
RUNNING APR. Right Angles to this line

Feq. 493+90

Feq. 494+40
ON N. Edge of 1" IRON pipe 35'R 494+15

✓m.

	✓	174.85		
494+80			1.3	173.5 ✓
T.F.			0.21	174.64 ✓
	✓	13.05	187.69	
B.M. #79			2.80	184.89 ✓
495			9.1	178.6 ✓
T.F.			0.10	187.59 ✓
	✓	13.12	200.71	
+50			11.9	188.8 ✓
+80			6.0	194.7 ✓
496			3.6	197.1 ✓
T.F.			0.13	200.58 ✓
	✓	13.02	213.60	
+50			9.7	203.9 ✓
497			4.4	209.2 ✓
T.F.			0.30	213.30 ✓
	✓	9.62	222.92	
+65			6.3	216.6 ✓
498			4.2	218.7 ✓
+30			3.6	219.3 ✓
+50			4.3	218.6 ✓
499			5.8	217.1 ✓
+50			6.0	216.9 ✓
500			4.7	218.2 ✓
+65			4.2	218.7 ✓
501			4.9	218.0 ✓

Feg. 494+83

Top Air Valve 200'R 494+65

$$\begin{array}{r} 185.04 \\ 184.89 \\ \hline .15 \end{array}$$

Feg. 495+44

Feg. 496+26

Feg. 497+33

✓m.

	222.92			
501+50		6.4	216.5	✓
B.M. #80		2.30	220.62	✓
502		7.0	215.9	✓
+50		5.9	217.0	✓
503		4.7	218.2	✓
T.P.		4.63	218.29	✓
	3.48			
	221.77			
+60		2.5	219.3	✓
504		3.3	218.5	✓
+30		5.3	216.5	✓
+40		7.5	214.3	✓
505		9.2	212.6	✓
+30		11.1	210.7	✓
+50		12.6	209.2	✓
T.P.		13.06	208.71	✓
	4.51			
	213.22			
+75		5.1	208.1	✓
506		5.7	207.5	✓
+60		4.2	209.0	✓
507		4.7	208.5	✓
+25		4.8	208.4	✓
+60		5.1	208.1	✓
508		5.1	208.1	✓
+50		3.3	209.9	✓
+80		2.2	211.0	✓

Nail in Cor. Fce. Post. 35'R 501+20

Peg. 503+00

on P.I. Hub 505+52⁴⁸

	213.22		
509		1.9	211.3 ✓
+30		1.1	212.1 ✓
+50		0.0	213.2 ✓
+70		0.5	212.7 ✓
T.F.	✓	0.06	213.16 ✓

Req 509

12.63 225.79

510		11.7	214.1 ✓
= +36 ⁹⁹ F.O.T.		9.3	216.5 ✓
+36 ⁹⁹ P.T.			

+70		6.3	219.5 ✓
-----	--	-----	---------

511		4.0	221.8 ✓
-----	--	-----	---------

+50		0.5	225.3 ✓
-----	--	-----	---------

T.F.	✓	0.52	225.27 ✓
------	---	------	----------

Req. 511 +50

8.83 234.10

B.M. # 81 (# 45)		0.82	233.28 ✓
------------------	--	------	----------

+75		7.3	226.8 ✓
-----	--	-----	---------

512		6.6	227.5 ✓
-----	--	-----	---------

+15		6.1	228.0 ✓
-----	--	-----	---------

+40		7.1	227.0 ✓
-----	--	-----	---------

513		11.1	223.0 ✓
-----	--	------	---------

T.F.	✓	12.87	221.23 ✓
------	---	-------	----------

Req. 513 +10

0.54 221.77

+60		7.2	214.6 ✓
-----	--	-----	---------

T.F.	✓	12.85	208.92 ✓
------	---	-------	----------

Req 513 +93

0.37 209.29

233.40
28
12

Top Air Valve 60' R 511 +50
Top of W.S. pipe at Air Valve

✓
N

✓
209.29

514	1.6	207.7	✓
+35	8.1	201.2	✓
+45	11.1	198.2	✓
+50	9.6	199.7	✓
T.F.	12.99	196.30	✓

Feq. 514+79

	1.05	197.35	
515	3.6	193.8	✓
+30	6.8	190.6	✓
+50	10.5	186.9	✓
+80	11.7	185.7	✓
T.F.	12.76	184.59	✓

Feq. 515+85

	0.82	185.41	
516	5.8	179.6	✓
+10	7.7	177.7	✓
+25	12.0	173.4	✓
+65	18.1	167.3	✓
+75	17.6	167.8	✓
+87	15.2	170.2	✓
517	13.9	171.5	✓
+25	11.5	173.9	✓
+50	5.6	179.8	✓
	5.2	180.2	✓
B.M. # 82	10.06	175.35	✓
T.F.	1.27	184.14	✓

} Bottom of canyon

Top of w.s. pipe center of Trestle # 31 517+20
Nail in sill of Trestle # 60'R 517+20
Feq. 50'L 517+50

12.52 196.66

✓
m.

	196.66 ✓			
+80		11.1	185.6 ✓	
518		7.1	189.6 ✓	
+30		2.1	194.6 ✓	
T.F.		0.46	196.20 ✓	
	12.52	208.72 ✓		
+75		6.8	201.9 ✓	
519		3.2	205.5 ✓	
T.F.		0.53	208.19 ✓	
	12.77	220.96 ✓		
+40		9.8	211.2 ✓	
+10		6.5	214.5 ✓	
520		3.4	217.6 ✓	
T.F.		0.92	220.04 ✓	
	12.28	232.32 ✓		
+60		9.2	223.1 ✓	
521		5.2	227.1 ✓	
+20		2.0	230.3 ✓	
T.F.		0.82	231.50 ✓	
	12.22	243.72 ✓		
+80		6.6	237.1 ✓	
522		4.5	239.2 ✓	
+30		2.9	240.8 ✓	
B.M. #83		7.20	236.52 ✓	
		9.6	234.1 ✓	
+40		4.1	239.6 ✓	

Cloudy And Cool

7/31/29

CONVERSE
ELLIOTT
SIMPSON

Feg. 518+40

Feg. 519+20

Feg. 520+30

Feg. 521+33

Top Air Valve 60' R. 522+05

Top W.S. pipe At Air Valve

236.64
52
.12✓
m

		243.72			
522 +57			8.0	235.7	✓
5	+63		11.2	232.5	✓
	T.F.		13.07	230.65	✓
	0.58	231.23			
	+80		4.7	226.5	✓
	T.F.		12.61	218.62	✓
5	1.02	219.64			
523			6.0	213.6	✓
	T.F.		13.08	206.56	✓
	0.82	207.38			
	+25		8.3	199.1	✓
5	T.F.		12.97	194.41	✓
	0.66	195.07			
	+56		13.1	182.0	✓
	T.F.		12.98	182.09	✓
	0.41	182.50			
	+87		13.1	169.4	✓
	T.F.		13.10	169.40	✓
	0.70	170.10			
524			5.7	164.4	✓
	+10		8.4	161.7	✓
	T.F.		12.90	157.20	✓
	0.96	158.16			
	+50		2.1	156.1	✓
525			6.0	152.2	✓

Feq. 522+68

Feq. 522+92

Feq. 523+32

Feq. 523+56

Feq. 523+87

Feq. 524+42

	158.16		6.2	152.0	✓
+50			6.5	151.7	✓
526			7.1	151.1	✓
B.M. #84 (#43)			8.62	149.54	✓
+05			7.0	151.2	✓
+10			8.7	149.5	✓
+15			7.9	150.3	✓
+17			10.8	147.4	✓
+28			11.1	147.1	✓
+30			7.7	150.5	✓
+50			7.2	151.0	✓
+80			6.4	151.8	✓
527			1.6	156.6	✓
T.F.			0.66	157.50	✓
	12.36	169.86			
+30			6.0	163.9	✓
+45			5.9	164.0	✓
+50			3.4	166.5	✓
T.F.			0.86	169.00	✓
	12.80	181.80			
528			3.6	178.2	✓
T.F.			0.23	181.57	✓
	12.98	194.55			
+30			7.8	186.7	✓
+60			1.2	193.3	✓

Top w.s. pipe At Blow off valve 526+10
 on inner Blow off Flange 60'R. 526+10

149.63
 54
 .09

Bottom of canyon

" " "

Top sta. stake 527+00

S. Edge Rd.

N " "

Req. 527+60

Req. 528+13

		194.55 ✓		
T.F.			0.46	194.09 ✓
	12.91	207.00 ✓		
529			5.1	201.9 ✓
T.F.			0.19	206.81 ✓
	12.91	219.72 ✓		
+25			11.7	208.0 ✓
+50			6.5	213.2 ✓
+75			2.3	217.4 ✓
T.F.			0.31	219.41 ✓
	12.88	232.29 ✓		
530			10.1	222.2 ✓
+15			6.6	225.7 ✓
+30			5.0	227.3 ✓
T.F.			0.33	231.96 ✓
	12.74	244.70 ✓		
+85			8.0	236.7 ✓
531			5.9	238.8 ✓
T.F.			0.31	244.39 ✓
	13.00	257.39 ✓		
+50			10.2	247.2 ✓
532			2.6	254.8 ✓
T.F.			0.37	257.02 ✓
	12.57	269.59 ✓		
+2.5			10.5	259.1 ✓
+50			6.5	263.1 ✓

Req. 528+6

Req. 529+20

Req. 529+85

Req. 530+50

Req. 531+36

Req. 532+13

	269.59 ✓		
T.F.		0.23	269.36 ✓
	12.89	282.25	
533		11.0	271.2 ✓
+50		1.7	280.5 ✓
T.F.		0.21	282.04 ✓
	12.69	294.73	
534		4.3	290.4 ✓
+50		2.6	292.1 ✓
T.F.		0.09	294.64 ✓
	12.52	307.16	
+50		8.2	299.0 ✓
+80		3.4	303.8 ✓
535		0.6	306.6 ✓
T.F.		0.12	307.04 ✓
	12.70	319.74	
+30		8.6	311.1 ✓
+60		5.6	314.1 ✓
+90		4.1	315.6 ✓
536		4.4	315.3 ✓
+35		8.3	311.4 ✓
+50		10.8	308.9 ✓
T.F.		12.82	306.92 ✓
T.F.		0.56	319.18 ✓
	5.90	325.08	
B.M. #85 (#42)		4.52	320.56 ✓
		7.3	317.8 ✓

Fog. 532 +90

Fog. 534 +23

Fog 535 +03

Fog 536 +61

Top of Air Valve .60'R 536+00

Top of W.S. Pipe At Air Valve

$$\begin{array}{r} 5.6 \\ 320.55 \\ \hline .01 \end{array}$$

✓ 20

			306.92	✓	
	0.12	307.64			
537			5.6	302.0	✓
+25			8.9	298.7	✓
T.F.			12.66	294.98	✓
	1.29	296.27			
+50			2.6	293.7	✓
+65			3.7	292.6	✓
+80			6.0	290.3	✓
538			8.0	288.3	✓
+50			12.0	284.3	✓
+63			12.9	283.4	✓
T.F.			12.91	283.36	✓
	1.51	284.87			
539			5.4	279.5	✓
+50			10.4	274.5	✓
T.F.			11.99	272.88	✓
	7.89	280.77			
+85			9.4	271.4	✓
540			9.2	271.6	✓
+05			9.5	271.3	✓
+20			11.4	269.4	✓
+75			12.7	268.1	✓
+85			11.8	269.0	✓
541			11.6	269.2	✓
+20			12.1	268.7	✓

Req 536+61 From Last Page

Req. 537+43

1
Req. 538+63

on Hub 539+60²⁸

	280.77			
+50		11.4 ²	269.4 ⁶	✓
542		9.5	271.3	✓
+25		8.2	272.6	✓
+50		5.7	275.1	✓
+75		3.1	277.7	✓
543		2.0	278.8	✓
T.F.		1.61	279.16	✓
	12.51	291.67		
+35		11.9	279.8	✓
+45		12.3	279.4	✓
+85		10.0	281.7	✓
544		9.2	282.5	✓
+50		8.0	283.7	✓
545		4.1	287.6	✓
+15		3.4	288.3	✓
+55		2.8	288.9	✓
546		4.3	287.4	✓
+40		4.5	287.2	✓
+80		4.4	287.3	✓
T.F.		4.47	287.20	✓
	12.62	299.82		
547		14.3	285.5	✓
+25		14.5	285.3	✓
+50		13.0	286.8	✓
+90		12.4	287.4	✓

Pcg. 543+00

on Hub 546+82¹²

	299.82	✓		
548			12.9	286.9 ✓
B.M. #86 (#41)			2.11	297.71 ✓
			4.4	295.4 ✓
T.F.			12.86	286.96 ✓
	1.14	288.10 ✓		
+35			5.2	282.9 ✓
+70			14.6	273.5 ✓
+90			13.0	275.1 ✓
549			12.6	275.5 ✓
+10			12.0	276.1 ✓
T.F.			11.96	276.14 ✓
	7.25	283.39 ✓		
+35			9.9	273.5 ✓
+45			11.7	271.7 ✓
+65			17.2	266.2 ✓
B.M. #87			8.67	274.72 ✓
+90			10.2	273.2 ✓
550			7.1	276.3 ✓
+10			4.7	278.7 ✓
+30			0.5	282.9 ✓
T.F.			0.36	283.03 ✓
	12.81	295.84		
+55			7.2	288.6 ✓
			1.4	294.4 ✓
T.F.			0.29	295.55 ✓

Top Air Valve 60'R 547+90 $\frac{297.72}{.71}$
 Top W.S. pipe At Air Valve 547+90
 Peg. 548+00

Peg. 549+12

Bottom of Canyon
 Nail in sill of Trestle #32 60'R 549+85

Peg. 550+30

Top W.S. pipe center of Trestle #32
 Peg. 550+78

✓m.

			295.55 ✓	
	12.68	308.23 ✓		
551			5.5	302.7 ✓
T.F.			0.03	308.20 ✓
	12.62	320.82 ✓		
+40			5.6	315.2 ✓
+65			0.2	320.6 ✓
T.F.			0.27	320.55 ✓
	12.62	333.17 ✓		
+75			10.3	322.9 ✓
552			7.0	326.2 ✓
+15			4.2	329.0 ✓
T.F.			0.34	332.83 ✓
	13.10	345.93 ✓		
+50			10.4	335.5 ✓
+80			6.5	339.4 ✓
553			5.6	340.3 ✓
+30			3.2	342.7 ✓
T.F.			0.31	345.62 ✓
	12.86	358.48 ✓		
+75			6.4	352.1 ✓
554			3.0	355.5 ✓
T.F.			1.55	356.93 ✓
	12.79	369.72 ✓		
+20			11.3	358.4 ✓
+35			10.0	359.7 ✓

Req 551 + 16

Req 551 + 65

Req. 552 + 35

Req. 553 + 46

on Hub 554 + 10.65

369.72 ✓

+70		8.4	361.3	✓
555		8.6	361.1	✓
+30		7.5	362.2	✓
+50		4.9	364.8	✓
+75		1.0	368.7	✓
T.F.		0.14	369.58	✓

Top sta stake 555+75

12.81 382.39 ✓

556		9.1	373.3	✓
B.M. #88 (#40)		0.78	381.61	✓
		3.1	379.3	✓
+30		8.7	373.7	✓
+60		10.3	372.1	✓
557		12.6	369.8	✓
T.F.		12.98	369.41	✓

Top of Air Valve 60'R. 556+00
Top of W.S. pipe At Air Valve

$\frac{61}{381.58}$
-03

0.59 370.00 ✓

+20		2.3	367.7	✓
+50		6.7	363.3	✓
+65		9.6	360.4	✓
+75		12.8	357.2	✓
T.F.		12.78	357.22	✓

Req. 557+06

Req 557+75

0.12 357.34 ✓

558		11.6	345.7	✓
T.F.		12.97	344.37	✓

Req. 558+03

0.65 345.02 ✓

+31		13.0	332.0	✓
-----	--	------	-------	---

✓ m

		345.02 ✓			
✓ T.F.			12.85	332.17 ✓	
	0.71	332.88 ✓			
T.F.			12.80	320.08 ✓	
	0.58	320.66 ✓			
+65			4.3	316.4 ✓	
T.F.			12.88	307.78 ✓	
	0.41	308.19 ✓			
559			5.1	303.1 ✓	
T.F.			13.02	295.17 ✓	
	0.56	295.73 ✓			
+50			11.0	284.7 ✓	
T.F.			12.91	282.82 ✓	
	0.88	283.70 ✓			
+65			2.2	281.5 ✓	
560			11.5	272.2 ✓	
B.M. #89	(#39)		12.89	270.81 ✓	
	11.88	282.69 ✓			
+30			16.2	266.5 ✓	
+40			20.5	262.2 ✓	
+45			18.9	263.8 ✓	
+60			17.9	264.8 ✓	
+85			12.1	270.6 ✓	
			15.8	266.9 ✓	
561			8.7	274.0 ✓	
+15			6.8	275.9 ✓	

Peg 558+31

Peg 558+56

Peg 558+87

Peg 559+20

Peg 559+59

60' R 560+70
Nail in So. Side of Valve Box

Top of W.S. pipe 60' R 560+85

270.89
81
08

✓ w

		282.69 ✓		
561+50			3.7	279.0 ✓
T.F.			0.25	282.44 ✓
	12.57	295.01 ✓		
562			11.2	283.8 ✓
+50			5.0	290.0 ✓
T.F.			0.05	294.96 ✓
	12.81	307.77 ✓		
+85			12.5	295.3 ✓
563			10.2	297.6 ✓
+50			0.4	307.4 ✓
T.F.			0.33	307.44 ✓
	12.79	320.23 ✓		
+65			9.6	310.6 ✓
+90			5.5	314.7 ✓
564			1.3	318.9 ✓
T.F.			0.03	320.20 ✓
	12.89	333.09 ✓		
+20			9.8	323.3 ✓
+40			1.7	331.4 ✓
T.F.			0.08	333.01 ✓
	12.99	346.00 ✓		
+60			7.9	338.1 ✓
+80			1.7	344.3 ✓
T.F.			0.46	345.54 ✓
	12.89	358.43 ✓		

Req. 561+85

Req. 562+81

Req. 563+50

Req. 564+04

Req. 564+445

564+86 Req.

	358.43 ✓		
565		9.5	348.9 ✓
+10		7.4	351.0 ✓
+50		6.0	352.4 ✓
T.P.		1.05	357.38 ✓
	11.54 368.92 ✓		
+80		10.2	358.7 ✓
+95		6.1	362.8 ✓
566		5.5	363.4 ✓
+05		5.9	363.0 ✓
B.M. # 90 (#38)		4.80	364.12 ✓
		7.3	361.6 ✓
T.P.		13.00	355.92 ✓
	0.22 356.14 ✓		
+40		0.9	355.2 ✓
+80		11.0	345.1 ✓
T.P.		12.93	343.21 ✓
	0.66 343.87 ✓		
+90		+0.2	344.1 ✓
567		-2.6	341.3 ✓
+25		10.6	333.3 ✓
+40		13.7	330.2 ✓
+60		17.2	326.7 ✓
+65		15.3	328.6 ✓
+80		13.7	330.2 ✓
568		12.6	331.3 ✓

Feq. 565+75

Top of Air Valve 60'R 566+10
 Top of w.s. pipe At Air Valve
 Feq. 566+38

$\frac{12}{.01}$
 364.11

Feq 566+92

Small Draw

✓ m

343.87 ✓

+15		11.4	332.5 ✓
+30		11.4	332.5 ✓
+45		12.8	331.1 ✓
+55		11.1	332.8 ✓
+80		8.6	335.3 ✓
569		6.7	337.2 ✓
+15		5.1	338.8 ✓
+30		4.5	339.4 ✓
+50		6.2	337.7 ✓
+75		6.8	337.1 ✓
+85		8.1	335.8 ✓
570		10.4	333.5 ✓
T.P.		10.44	333.43 ✓
T.P.		0.49	343.38 ✓
	12.77	356.15 ✓	
B.M. #91	(#37)	1.38	354.77 ✓
		3.7	352.5 ✓
			333.43 ✓
	1.09	334.52 ✓	
+30		4.8	329.7 ✓
+50		8.1	326.4 ✓
+70		11.6	322.9 ✓
		5.4	329.1 ✓
T.P.		11.60	322.92 ✓
	8.99	331.91 ✓	

ON sta. stake 570 +00

Top of Air Valve 60' R 569 +50
 Top of W.S. pipe At Air Valve
 TIP ON sta. stake 570 +00

354.77
 .05

8/1/29
 CONVERSE
 ELLIOTT
 SIMPSON

WARM

Top of W.S. pipe center of Trestle #33
 ON Hub 570 +70³⁵

✓M

	331.91 ✓		
+90		12.5	319.4 ✓
571 \		15.1	316.8 ✓
+15		19.2	312.7 ✓
+20		21.7	310.2 ✓
+25		16.5	315.4 ✓
+45		10.3	321.6 ✓
572		6.8	325.1 ✓
+25		4.3	327.6 ✓
+40		3.8	328.1 ✓
T.P.		0.51	331.40 ✓
12.74	344.14 ✓		
+65		16.7	327.4 ✓
+95		12.9	331.2 ✓
573		12.1	332.0 ✓
+20		6.9	337.2 ✓
B.M. #92		0.32	343.82 ✓
		+2.9	341.0 ✓
T.P.		0.30	343.84 ✓
12.47	356.31 ✓		
+70		5.1	351.2 ✓
574		0.2	356.1 ✓
T.P.		0.66	355.65 ✓
4.95	360.60		
+10		3.1	357.5 ✓
+18		7.2	353.4 ✓

Req. 12'R 572+42

Nail in stringer of Trestle #34 60'R 573+20
 Top of W.S pipe on Trestle #34 60'R 573+20
 Req. 573+45

Req. 573+98

Small DRAW

✓ W

360.60 ✓

574	+24	4.0	356.6	✓
	+30	2.8	357.8	✓
	+38	2.7	357.9	✓
	+50	5.5	355.1	✓
	+80	3.5	357.1	✓
575		2.5	358.1	✓
	+15	1.9	358.7	✓
	+30	4.3	356.3	✓
	+55	8.8	351.8	✓
	+67	11.2	349.4	✓
T.P.		12.56	348.04	✓
	0.91	348.95		
	+75	2.4	346.6	✓
	+82	2.9	346.1	✓
576		8.4	340.6	✓
	+10	9.9	339.1	✓
	+30	13.6	335.4	✓
	+70	23.1	325.9	✓
	+75	21.8	327.2	✓
	+80	21.6	327.4	✓
	+87	23.1	325.9	✓
577		19.4	329.6	✓
B.M. #93		9.77	339.18	✓
		2.9	346.1	✓
	+18	13.7	335.3	✓

on Rock 575+71

S Edge Rd
K " "

spike in sill of Trestle #35 60'R 577+10
Top of W.S. pipe on Trestle #35

✓m

	348.95		
577 +28		12.6	336.4 ✓
+35		9.3	339.7 ✓
T.F.		0.33	348.62 ✓
12.78	361.40		
+90		6.4	355.0 ✓
578		4.0	357.4 ✓
T.F.		0.03	361.37 ✓
12.57	373.94		
+40		5.5	368.4 ✓
+60		0.2	373.7 ✓
T.F.		0.13	373.81 ✓
9.62	383.43		
+85		4.0	379.4 ✓
579		1.9	381.5 ✓
B.M. #94 (#35)		5.79	377.64 ✓
		8.1	375.3 ✓
+20		2.3	381.1 ✓
+35		3.6	379.8 ✓
+55		7.3	376.1 ✓
+58		8.9	374.5 ✓
+67		9.6	373.8 ✓
+70		10.6	372.8 ✓
580		13.1	370.3 ✓
+15		13.7	369.7 ✓
+30		16.4	361.0 ✓

Rock. 577+68

Feq. 578+15

Feq. 578+60

Top of Air Valve 60'R 579+15

Top of W.S. pipe at Air Valve 60'R 579+15

S Edge Rd.

N " Rd.

64
377.60
.04

383.43 ✓

	+45	15.9	367.5	✓
581		14.6	368.8	✓
	+40	12.2	371.2	✓
	+65	11.6	371.8	✓
	+75	11.9	371.5	✓
T.F.		11.96	371.47	✓
	2.06	373.53		✓
582		3.5	370.0	✓
	+20	5.5	368.0	✓
	+50	9.1	364.4	✓
	+85	10.8	362.7	✓
	+95	10.1	363.4	✓
583		10.0	363.5	✓
	+15	10.4	363.1	✓
	+25	11.6	361.9	✓
	+50	11.1	362.4	✓
	+70	10.8	362.7	✓
584		11.0	362.5	✓
	+50	8.3	365.2	✓
	+70	7.3	366.2	✓
585		6.3	367.2	✓
	+25	5.8	367.7	✓
	+35	6.4	367.1	✓
	+70	4.9	368.6	✓
586		4.8	368.7	✓

on Hub 581 + 77⁸²

	373.53 ✓		
+30		2.6	370.9 ✓
T.F.		2.08	371.45 ✓
10.72	382.17 ✓		
+60		8.7	373.5 ✓
+80		7.0	375.2 ✓
587		6.1	376.1 ✓
+30		3.2	379.0 ✓
+45		1.9	380.3 ✓
+85		1.2	381.0 ✓
588		2.0	380.2 ✓
+25		3.6	378.6 ✓
B.M. #95 (#34)		12.32	369.85 ✓
		14.7	367.5 ✓
+35		5.7	376.5 ✓
+50		9.7	372.5 ✓
+57		12.9	369.3 ✓
T.F.		12.78	369.39 ✓
0.34	369.73 ✓		
+85		7.6	362.1 ✓
589		14.0	355.7 ✓
T.F.		12.79	356.94 ✓
0.74	357.68 ✓		
+10		5.4	352.3 ✓
T.F.		12.80	344.88 ✓
0.15	345.03 ✓		

Req. 586+40

Top Air Valve 23'R 588+10

Top of w.s. pipe At Air Valve 588+10.

85
369.81
.04

Req. 588+57

Req.

Req. 589+28

	345.03 ✓		
+30		1.1	343.9 ✓
+50		7.7	337.8 ✓
T.P.		12.95	332.08 ✓
	0.37		332.45 ✓
+77		7.3	325.1 ✓
T.P.		12.93	319.52 ✓
	0.60		320.12 ✓
590		4.0	316.1 ✓
+13		9.9	310.2 ✓
T.P.		12.92	307.20 ✓
	0.60		307.80 ✓
T.P.		12.89	294.91 ✓
	0.12		295.03 ✓
+55		0.1	294.9 ✓
591		13.0	282.0 ✓
T.P.		12.94	282.09 ✓
	0.58		282.67 ✓
+30		7.1	275.6 ✓
+50		10.2	272.5 ✓
T.P.		12.93	269.74 ✓
	1.33		271.07 ✓
+75		3.9	267.2 ✓
592		10.3	260.8 ✓
+15		11.0	260.1 ✓
+30		13.2	257.9 ✓

Feg 589+62

Feg 589+92

Feg 590+23

Feg. 590+55

Feg 591+00

Feg 591+65

271.07 ✓

592 +35	14.9	256.2 ✓
+40	13.3	257.8 ✓
B.M. #96 (#33)	7.32	263.75 ✓
	6.3	264.8 ✓
+80	9.7	261.4 ✓
593	5.1	266.0 ✓
+20	5.7	265.4 ✓
+60	7.1	264.0 ✓
+85	4.1	267.0 ✓
594	2.2	268.9 ✓
T.F.	0.36	270.71 ✓
12.89	283.60	✓
+15	12.8	270.8 ✓
+40	10.6	273.0 ✓
+70	7.5	276.1 ✓
+80	6.9	276.7 ✓
595	7.2	276.4 ✓
+05	7.7	275.9 ✓
+10	9.0	274.6 ✓
+25	4.0	279.6 ✓
+40	0.6	283.0 ✓
T.F.	0.48	283.12 ✓
12.34	295.46	✓
+62	3.4	292.1 ✓
T.F.	0.37	295.09 ✓

Bottom of CANYON

on uppermost Bolt Head (not valve stem) of Blow off Valve 45' R 592 + 40 ON Trestle #36

263.72⁷⁵
.03

S. Edge Paradise Valley Rd
N " " " "

Feq

Small Draw

Feq. 595 + 40

Feq. 595 + 72

✓ m.

1P.				295.09	✓	
	12.32	307.41				
+75			11.6	295.8	✓	
+90			9.0	298.4	✓	
596			6.8	300.6	✓	
T.F.			0.22	307.19	✓	Feq. 596+33
	13.05	320.24				
+50			8.8	311.4	✓	
+80			2.7	317.5	✓	
T.F.			0.22	320.02	✓	Feq. 596+92
	12.87	332.89				
597			10.8	322.1	✓	
+30			2.0	330.9	✓	
T.F.			0.08	332.81	✓	Feq. 6'R 597+40
	12.35	345.16				
+50			9.4	335.8	✓	
+82			1.1	344.1	✓	
T.F.			0.24	344.92	✓	Feq. 597+87
	12.79	357.71				
598			10.9	346.8	✓	
+25			6.9	350.8	✓	
+50			4.8	352.9	✓	
+70			3.9	353.8	✓	
+85			1.5	356.2	✓	
599			0.7	357.0	✓	
T.F.			0.60	357.11	✓	Feq. 599+00

TP.			357.11	✓	
	12.93	370.04		✓	
+10			12.4	357.6	✓
+25			11.6	358.4	✓
+45			8.4	361.6	✓
+60			7.6	362.4	✓
+90			3.7	366.3	✓
600			2.4	367.6	✓
T.P.			0.14	369.90	✓
	12.89	382.79			✓
+40			9.1	373.7	✓
+55			6.9	375.9	✓
+75			4.1	378.7	✓
601			2.1	380.7	✓
+20			1.0	381.8	✓
T.P.			0.91	381.88	✓
	3.07	384.95			✓
+25			2.9	382.1	✓
+65			3.9	381.1	✓
602			7.4	377.6	✓
+30			8.4	376.6	✓
+55			10.9	374.1	✓
+85			11.4	373.6	✓
B.M. #97 (#32)			3.42	381.53	✓
			6.7	378.3	✓
T.P.			12.81	372.14	✓

8/27/4
TTN
Feq 600 + 15

Feq 601 + 25

Top of Air Valve 56 R 603 + 00

Top of W.S. Pipe At Air Valve 603 + 00

Feq 602 + 90

53
381.48
05

✓

372.14 ✓

0.65 372.79 ✓

603 2.4 370.4 ✓

+15 3.0 369.8 ✓

+50 6.9 365.9 ✓

604 12.6 360.2 ✓

T.F. 12.54 360.25 ✓

0.47 360.72 ✓

+10 1.6 359.1 ✓

+65 9.8 350.9 ✓

T.F. 12.94 347.78 ✓

0.64 348.42 ✓

605 6.8 341.6⁹ ✓

+20 12.3 336.1 ✓

T.F. 12.68 335.74 ✓

3.94 339.68 ✓

+40 8.2 331.5 ✓

+72 11.9 327.8 ✓

+75 13.7 326.0 ✓

+85 9.3 330.4 ✓

606 6.9 332.8 ✓

+15 5.1 334.6 ✓

+40 2.7 337.0 ✓

+60 3.0 336.7 ✓

+80 4.7 335.0 ✓

+93 7.6 332.1 ✓

on Hub

Feg. 604 + 78

Feg. 605 + 25

Small Draw

	339.68			
607		11.1	328.6	✓
+08		15.1	324.6	✓
+10		17.4	322.3	✓
+13		14.6	325.1	✓
+20		12.0	327.7	✓
+30		11.5	328.2	✓
+45		19.4	320.3	✓
+55		14.5	325.2	✓
+65		14.8	324.9	✓
+80		12.3	327.4	✓
+85		11.7	328.0	✓
608		10.3	329.4	✓
+17		0.8	338.9	✓
T.F.		0.73	338.95	✓
	1.92		340.87	✓
B.M. # 98		7.92	332.95	✓
		3.2	337.7	✓
T.F.		1.92	338.95	✓
	12.36		351.31	✓
+30		7.6	343.7	✓
+45		3.1	348.2	✓
+55		0.2	351.1	✓
T.F.		0.40	350.91	✓
	12.39		363.30	✓
+80		5.5	357.8	✓

Bottom of canyon

Req. 608+17

spike in Cap of Trestle #37 30'R 608+15
 Top of W.S. pipe on Trestle #37 608+15
 Req 608+17

Req 608+55

✓ m

	363.30			
609		0.2	363.1	✓
T.F.		0.24	363.06	✓
	12.78		375.84	✓
+20		6.6	369.2	✓
+40		4.4	371.4	✓
+52		0.0	375.8	✓
T.F.		0.14	375.70	✓
	12.90		388.60	✓
+65		9.1	379.5	✓
+85		6.0	382.6	✓
610		4.2	384.4	✓
+10		2.7	385.9	✓
+30		1.2	387.4	✓
+50		0.5	388.1	✓
B.M. # 99	(#31)	9.1	379.5	✓
	3.06	6.80	381.80	✓
			384.86	✓
+80		+2.6	387.5	✓
611		+1.9	386.8	✓
+20		0.2	384.7	✓
+50		8.0	376.9	✓
+60		10.6	374.3	✓
+75		15.2	369.7	✓
+85		18.4	366.5	✓
+90		22.3	362.6	✓
		5.6	379.3	✓

Feq. 2'R 609+00

S. Edge Rd.

N. " "

Feq 609+51

→ Top of W.S. pipe At Air Valve 610+85

Top of Air Valve 25'R 610+85

381.82
80
102

Bottom of Canyon

Top of W.S. pipe center of Trestle # 38

40±R 611+75 ✓ m.

	384.86		
611 +92		19.5	365.4 ✓
612		18.6	366.3 ✓
+05		18.6	366.3 ✓
+35		8.2	376.7 ✓
+45		7.0	377.9 ✓
+50		7.4	377.5 ✓
+70		4.1	380.8 ✓
613		4.3	380.6 ✓
+30		4.5	380.4 ✓
+50		4.9	380.0 ✓
T.F.		7.71	377.15 ✓
	3.70	380.85	
+55		2.0	378.8 ✓
+85		0.5	380.3 ✓
+95		1.6	379.2 ✓
614		3.2	377.6 ✓
+10		5.5	375.3 ✓
+30		7.9	372.9 ✓
+40		8.0	372.8 ✓
+55		8.5	372.3 ✓
+70		11.4	369.4 ✓
+90		9.0	371.8 ✓
615		7.6	373.2 ✓
B.M. #100 (#30)		1.48	379.37 ✓
		3.8	377.0 ✓

on P.I. Hub 613+37⁰⁰

Top of Air Valve 33'R 614+70
 Top of w.s. pipe At air valve

379.41
 .37
 .04

✓ M

	380.85 ✓		
+10		5.8	375.0 ✓
+80		1.2	379.6 ✓
+95		1.7	379.4 ✓
616		2.1	378.7 ✓
+10		3.1	377.7 ✓
+20		5.2	375.6 ✓
+40		11.5	369.3 ✓
T.F.		12.84	368.01 ✓
	0.50	368.51 ✓	
T.F.		12.77	355.74 ✓
	0.78	356.52 ✓	
+75		0.8	355.7 ✓
+85		4.4	352.1 ✓
617		10.5	346.0 ✓
T.F.		12.99	343.53 ✓
	0.41	343.94 ✓	
+30		9.7	334.2 ✓
T.F.		12.99	330.95 ✓
	0.46	331.41 ✓	
+50		5.4	326.0 ✓
+75		13.5	317.9 ✓
T.F.		12.86	318.55 ✓
	0.40	318.95 ✓	
618		10.1	308.9 ✓
T.F.		12.95	306.00 ✓

Feg. 616 + 75

Feg. 617 + 06

Feg. 617 + 38

Feg. 617 + 73

Feg. 618 + 08

		0.38	306.38	306.00	✓
618 +30				7.9	298.5 ✓
T.F.				13.00	293.38 ✓
		0.39	293.77		
+60				5.4	288.4 ✓
T.F.				12.91	280.86 ✓
		0.12	280.98		
619				2.4	278.6 ✓
+10				4.5	276.5 ✓
+40				12.2	268.8 ✓
T.F.				12.89	268.09 ✓
		0.40	268.49		
+83				11.5	257.0 ✓
T.F.				12.92	255.57 ✓
		0.38	255.95		
6 520				3.1	252.9 ✓
+20				7.1	248.9 ✓
+50				9.2	246.8 ✓
+80				9.4	246.6 ✓
6 521				9.7	246.3 ✓
+15				9.6	246.4 ✓
+30				10.6	245.4 ✓
+40				19.2	236.8 ✓
+50				11.9	244.1 ✓
+60				9.4	246.6 ✓

Feb. 618+44

Feb. 618+91

Feb. 619+42

Feb. 619+88

Bottom of Paradise Canyon

✓m

	255.95		
+75		7.2	248.8 ✓
622		7.3	248.7 ✓
+30		8.5	247.5 ✓
+37		6.6	249.4 ✓
+55		7.9	248.1 ✓
+75		5.3	250.7 ✓
623		3.4	252.6 ✓
T.F.		0.19	255.76 ✓
T.F.		12.32	243.63 ✓
6.38	250.01		
		8.7	241.3 ✓
#		10.30	239.71 ✓
B.M. 101			
			255.76 ✓
12.60	268.36		
+35		12.0	256.4 ✓
+60		10.6	257.8 ✓
+90		6.2	262.2 ✓
624		5.0	263.4 ✓
+15		2.4	266.0 ✓
T.F.		0.11	268.25 ✓
12.58	280.83		
+75		4.7	276.1 ✓
625		1.1	279.7 ✓
T.F.		0.16	280.67 ✓

center of Rd.

Req. 623 +30

Top of W.S. pipe 23'R 621 +26
 Bolt Head N.E. Cor of Blow off valve 23'R 621 +26

Req. 623 +30

Req. 624 +30

Top of sta. stake 625+00

✓ W

280.67 ✓
 12.44 293.11 ✓
 +10 11.0 282.1 ✓
 +70 0.7 292.4 ✓
 T.F. 0.29 292.82 ✓

Req. 625+72

12.48 305.30 ✓
 626 8.6 296.7 ✓
 +15 5.8 299.5 ✓
 +35 3.0 302.3 ✓
 T.F. 0.11 305.19 ✓

Req. 626+60

12.26 317.45 ✓
 +60 12.3 305.1 ✓
 +95 6.6 310.8 ✓
 627 6.1 311.3 ✓
 +05 5.5 311.9 ✓
 +40 0.6 316.8 ✓
 T.F. 0.39 317.06 ✓

Req. 627+40

12.41 329.47 ✓
 +55 11.5 318.0 ✓
 628 5.7 323.8 ✓
 +50 3.1 326.4 ✓
 +83 0.2 329.3 ✓
 T.F. 0.07 329.40 ✓

Req. 628+83

12.41 341.81 ✓
 629 10.6 331.2 ✓
 +50 6.7 335.1 ✓

	341.81 ✓		
630		2.6	339.2 ✓
+30		0.9	340.9 ✓
T.P.		0.16	341.65 ✓
	12.80		354.45 ✓
+75		11.9	342.5 ✓
631		12.6	341.8 ✓
+30		11.1	343.3 ✓
+43	Rd.	11.2	343.2 ✓
+18.05	631 + 48.05 Back =	10.7	343.1 ✓
Equation	630 + 37.5 Ahead =	0.27	354.18 ✓
B.M. # 102			

Equation of Elevation at Sta. 630+00.

Contd. in Book 279. Page 1.

This is U.S.G.S. Datum.

U.S.G.S. = 6.12

City = 0.0

Req 630+83

Top of Air valve 23'R 633+50

$\frac{354.18}{.06}$ ✓

Aug.

May 1880 - 1880
June 1880 - 1880

Sta. Bell

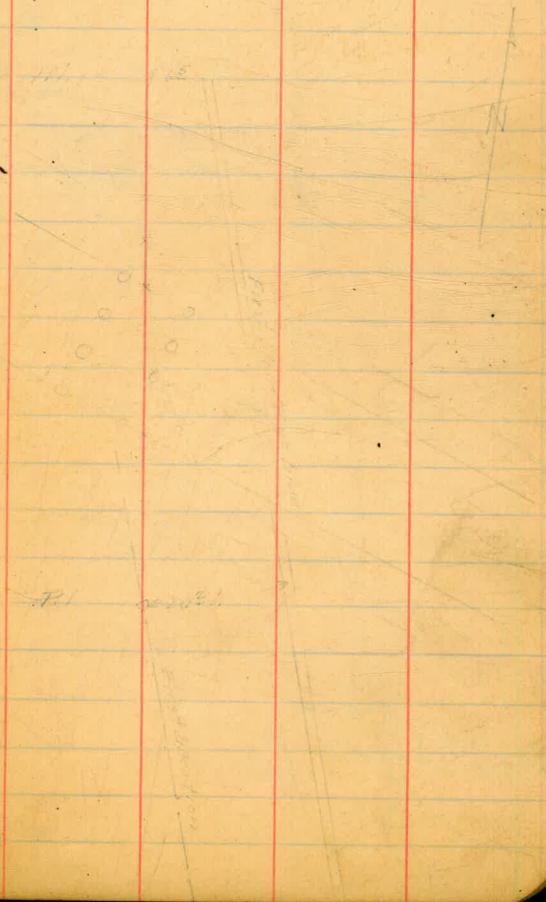
N 12 41 W

1880 - 1880
1880 - 1880

N 11 32 W N 11 W

July 1880 - 1880
August 1880 - 1880

64



Sta. Detl. Bear. Mag. Clear-Windy April 10 1930
 Elliott notes
 Simpson T
 Bailey Hd. Ch.
 Perrimen R.Ch.
 484+76 33° P.I. 3° 31' Lt.

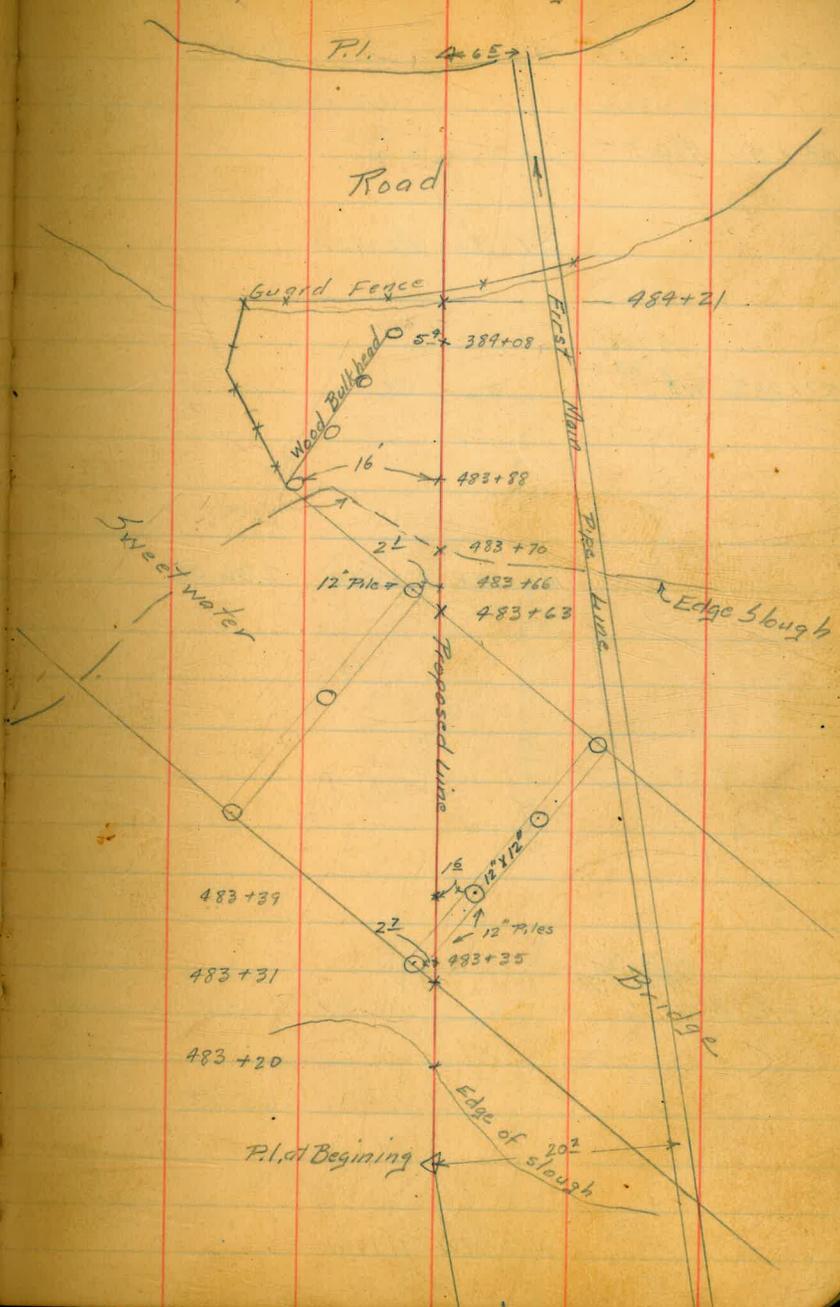
Otay Res. to San Diego 2nd Main Pipe Line
 Proposed Line Change 65

201.84'

N13-S1W N17-15W

7° 22'
 3° 41' Rt
 482+74 55° 3' P.I.
 482+74 55° A Post. =

N17-32W N21-W



Olay Res. to San Diego
Proposed

2101 Main Pipe Line
Line Change

66

Sta Defl. Bear. Mag. Dist.
P.I.-P.I.

488+31² P.O.T

N1-19E N2-45W

487+78¹⁰ P.I.

1°06'
0°33' Lt

N1-52E N3-30W 236.08

485+42⁰² P.I.

38°28'30"
19°14' . P.P.

65.63

N17-22W N19W

Pampas Grass

488+40

9" Fir
0 42-65 →

P.I. 4-65 →

First Main Line

Note: Make special
same as old line

P.I. 4-65 →

Otay Res. to San Diego
Proposed Line Change

2nd Main Pipe Line
Change

67

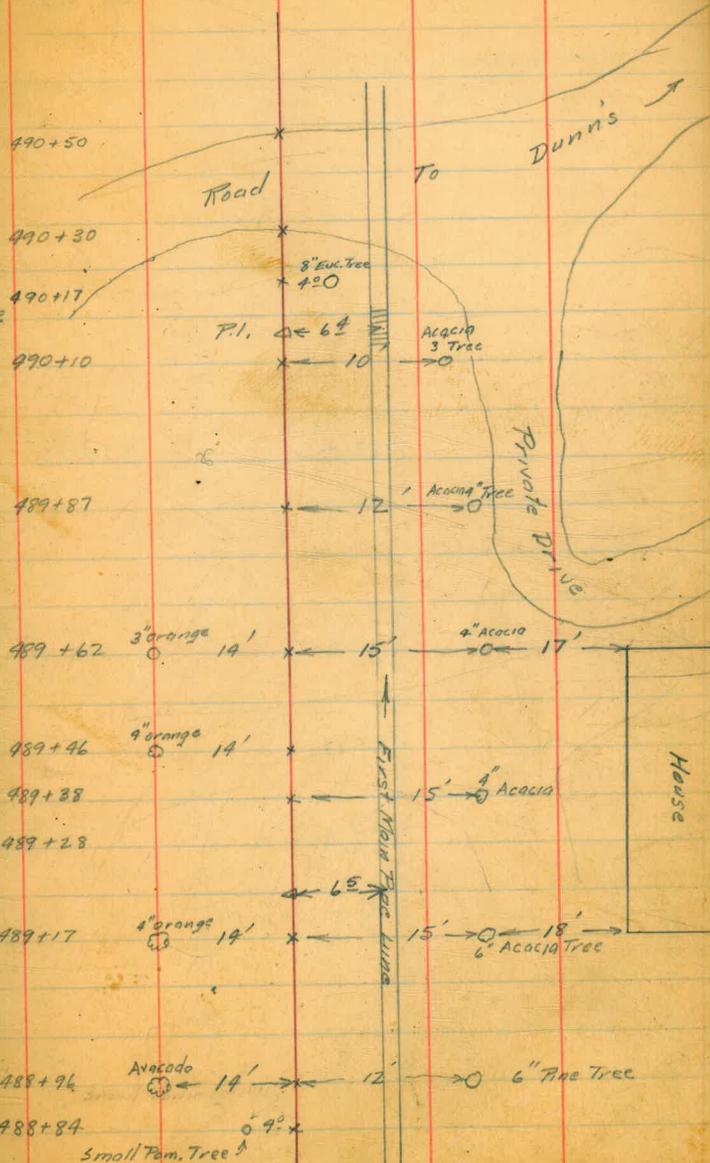
Sta. Defl. Bear. Mag. Dist.
PI-PI

N23-25W N25-30W

49° 28' 20"
24° 44' 47"
490+10 ± P.I.

N1-19E

232.38



Otay Res. to San Diego
Proposed

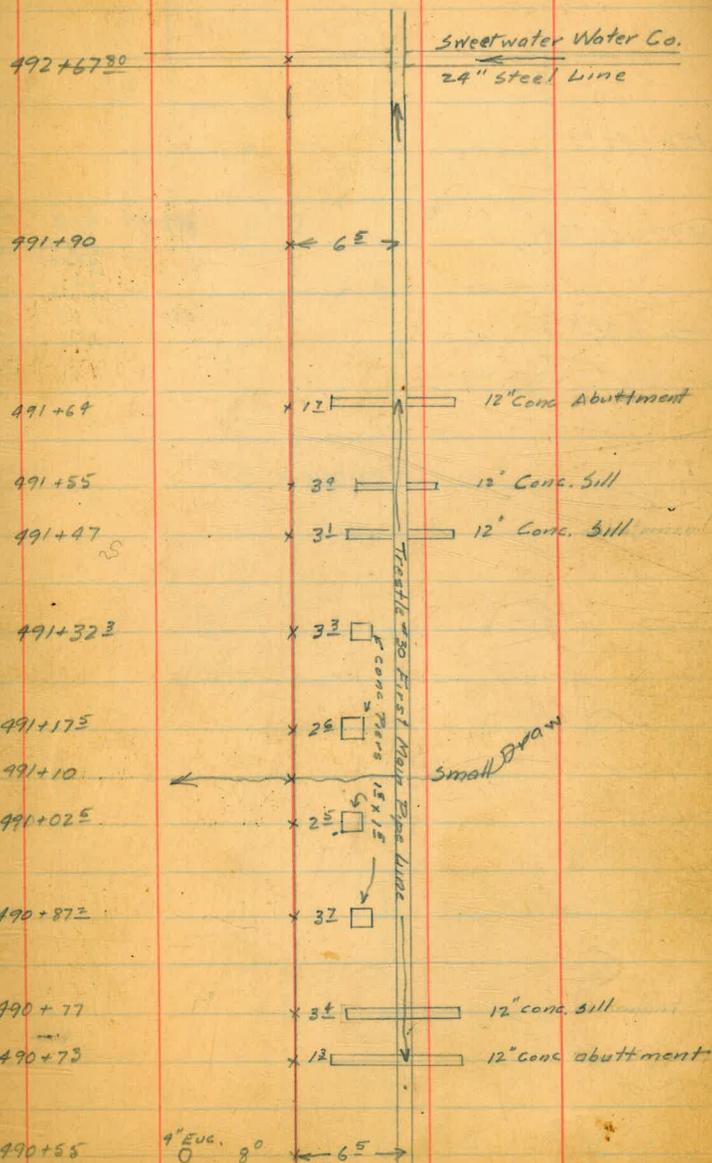
2nd Main Pipe Line
Line Change.

68

Sta Defl. Bear. Mag. Dist.
RI-PI.

N23-25W

754.96'



April 14 1930 Clear-Warm

Elliott Notes
Simpson &
Bailey & Hemmen Ch.

Sta. Defl. Bear. Mag.

Otay Reservoir
Proposed

To San Diego 2nd Main Pipe Line
Line Change

498+99.22

N 13-20W N 15 1/2 W

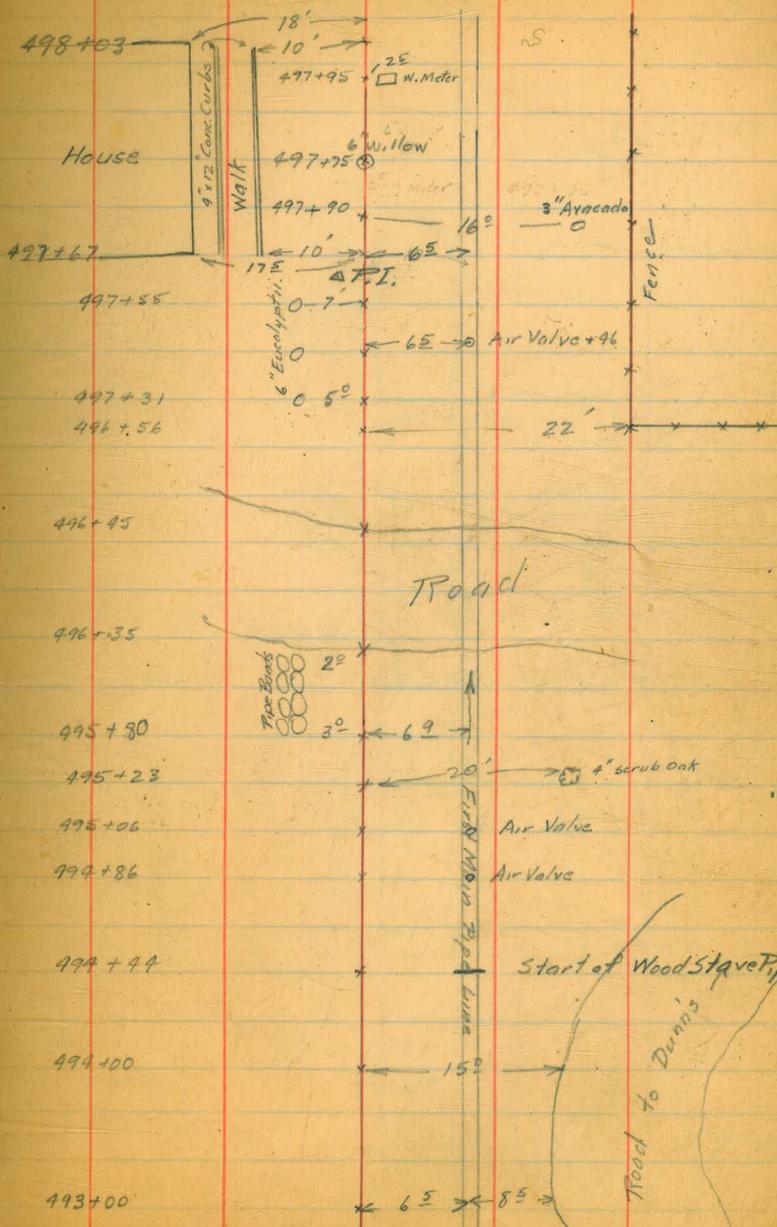
20° 11'
10° 05' RT

497+65.99 P.I.

496+81.16 P.C.

+25-502.2
498+00 - 4019 Δ 10° 05 RT
+75 3° 39' D = 6
+50 2° 49' T = 84.28
+25 2° 04' R = 955.37
497+00 10.19' L = 168.06
0° 39' Ext. = 3.7

N 23-28W



Olay Res. to S.D. 2nd Main Line

70

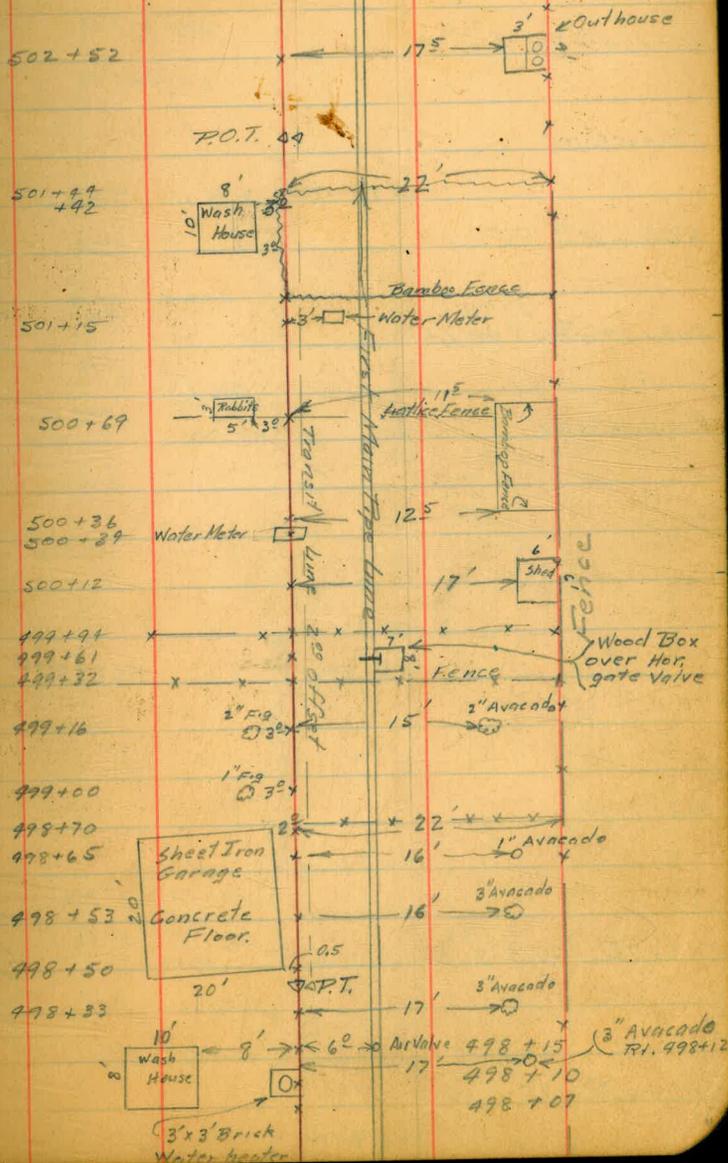
Sta. Defl. Bear. Mag. Dist
PI - PI

501+60⁸³ P.O.T.

26

N 13° 20' W

546.95



Sta	Defl.	Bear	Mag	Dist	PI - PI.
512+83 ⁴³	Original Line	N 5-35 W		5°21'	
512+04 ¹²	P.T. =				
511+59 ⁸⁰	P.I.			5°21'	
511+50				3°36'	
511+15 ⁸⁰	P.C.				
509+18 ⁹³	P.T.			5°24'	
509+100				4°16'	
508+74 ¹⁵	P.I.			2°46'	
508+50				10°16'	
508+28 ⁷³	P.C.				
503+77 ¹⁶					
503+150				3°55 1/2'	
503+125				2°22'	
503+00				1°37'	
502+75				0°52'	
502+46 ³³	P.C.				

N 16-17 W N 19 W 330.89'

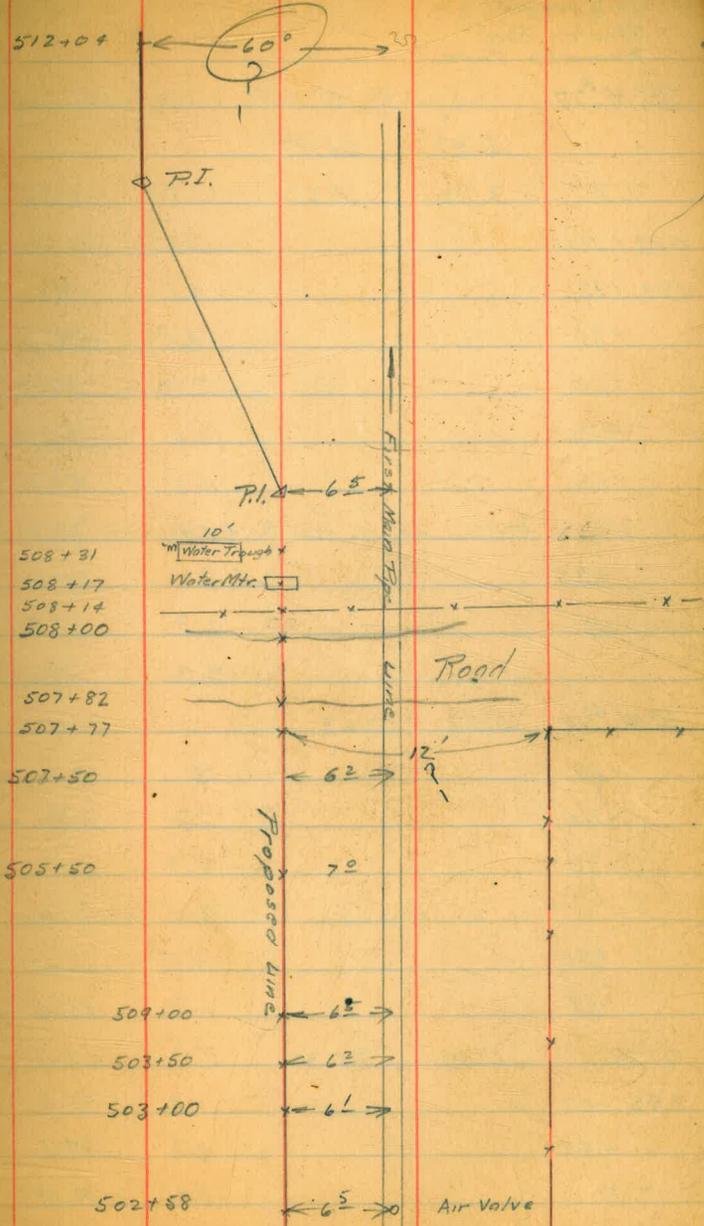
N 5-29 W 562.55'

N 13-20 W

Δ 10°42' R
D = 12
T = 49.80
R = 478.34
L = 89.17

Δ 10°48' L
D = 12
T = 45.22
R = 478.34
L = 90.00

Δ 7°51' R
D = 6
T = 65.56
R = 955.37
L = 130.88



April 17 1930
 Elliott Notes
 Simpson T
 Bailey Rod
 Remmen Tape

Otay Res. to S.D.
 Profile

2nd Main Pipe Line
 of proposed Line Change (see page 65) 72

B.M. #77				61.60
	5.37	66.97		
T.P.	13.09	59.57	-10.49	56.48
482+74.50			3.6	56.0
483+12			4.4	55.2
+20			7.1	52.5
+20			3.3	56.3
+46			13.8	45.8
+63			10.2	49.4
			+0.4	60.0
+85			3.5	56.1
484+10			2.3	57.3
			3.5	56.1
B.M. #77	6.03	67.63		61.60
+19			5.0	62.6
+62			5.7	61.9
+73			5.7	61.9
			6.0	61.6
+82			5.0	62.6
+88			2.2	65.4
T.P.	11.89	79.30	0.22	67.41
485+07			7.5	71.8
+42			0.2	79.1
T.P.			0.20	79.10
	11.09	90.19		

Nail in N.E. Wing Wall Bonita Bridge

Beginning of 5" line

Water surface of slough

Top of steel pipe line Rt.

Bottom of slough

" "

Bottom of 12" transverse bridge timber at sta 483+37 ±

• Top of steel pipe Rt of 489+15

Center Rd.

Top pipe 6" Rt. 489+76 (exposed)

Top of P.I. hub

		90.19		
			10.9	79.3
486			9.4	85.8
+28			1.5	88.7
T.P.	11.87	101.82	0.24	89.95
+50			11.2	90.6
			10.3	91.5
487			7.6	94.2
+41			1.5	100.3
T.P.	12.81	114.26	0.37	101.95
+80			6.6	107.7
			7.9	106.4
T.P.	12.35	126.26	0.35	113.91
			9.2	117.1
488+25			9.5	116.8
+45			6.7	119.6
+80			2.8	123.5
T.P.	11.74	137.17	0.83	125.43
489+00			11.6	125.6
			12.4	124.8
+50			7.2	130.0
490			3.9	133.3
+10			3.5	133.7
+10			5.4	131.8
+28			9.0	133.2
+29			6.0	131.2

Top of steel pipe 65 RT 485+92 (exposed)

Spike on d. 486+90

Top pipe 65 RT of 486+90 (0.5 cover)

Peg 4' RT 487+99

Pipe 65 RT 487+90 (0.5 cover)

Peg 7' RT 488+14

Pipe 65 RT 488+31 (0.5 cover)

Peg 2' LT 489+00

Pipe 65 RT 489+03 (Buried 1')

Top of pipe 65 RT (Buried 3')

Edge Rd.

137.17

490+50			5.1	132.1
+54			6.5	130.7
+59			5.2	132.0
+72			7.8	129.4
+83			9.8	127.4
491+10			17.1	120.1
			4.7	132.5
T.P.	10.89	143.24	4.82	132.35
491+37			17.2	126.0
+70			11.7	131.5
+90			9.4	133.8
492+00			9.8	133.4
			9.6	133.6
+04			8.2	135.0
+25			4.4	138.8
T.P.	12.41	155.12	0.53	142.71
+95			10.6	144.5
+53			6.9	148.7
+63			6.7	148.4
+68			8.9	146.2
"			6.7	148.4
"			9.1	146.0
"			13.7	141.4
+75			4.5	150.6
+85			1.4	153.7

Top pipe 65 Rt

Bottom Draw

Top of pipe in middle of Trestle #30

Plug in top pipe Rt 391+00

Top pipe 65 Rt 492+00 (0.6 cover)

Peg in 492+40

Ground over Sweet water pipe

Top 1st Main pipe line 65 Rt.

Top Sweet water line 205 Rt

" " " " 205 Lt.

		155.12		
T.P.	12.95	167.05	0.52	159.60
493+00			10.9	156.1
"			11.5	155.5
+07			9.2	157.8
+50			5.2	161.8
T.P.	12.72	178.65	1.12	165.93
494			10.2	178.5
+26			6.5	172.2
+44			2.1	176.6
"			5.0	173.7
T.P.	12.69	190.48	0.81	177.84
495+00			5.1	185.4
B.M. #79 T.P. 557	190.46		5.57	184.91
T.P.	12.22	202.45	0.23	190.23
+23			12.1	190.3
+50			8.7	193.7
496+02			1.0	201.4
"			4.4	198.0
T.P.	12.11	213.99	0.57	201.88
+35			9.8	204.2
+45			9.2	204.8
+55			6.9	207.1
T.P.	12.36	225.94	0.91	213.58
497+00			11.1	214.8
			12.9	213.0

Continued on page 77

Peg 1 Rt 492+91

Top pipe 65 Rt. (0.6 cover)

Peg 2 493+81

Top of pipe ^(open trench) at junction of steel + Wood Stave

Peg on 2 494+50

A.V. 65 494+86

Peg 2 495+23

Top of W.S. Pipe 65 Rt. (open trench)

Edge Rd.

" "

Peg 2 Lt. 496+93

Top pipe 65 Rt. (1/2 cover)

this book

O.R.-S.D. 2nd. Main Pipe Line.
Sweetwater Highway Crossing.
Elevations on present R.S. Pipe

10.05
9.0
9.65

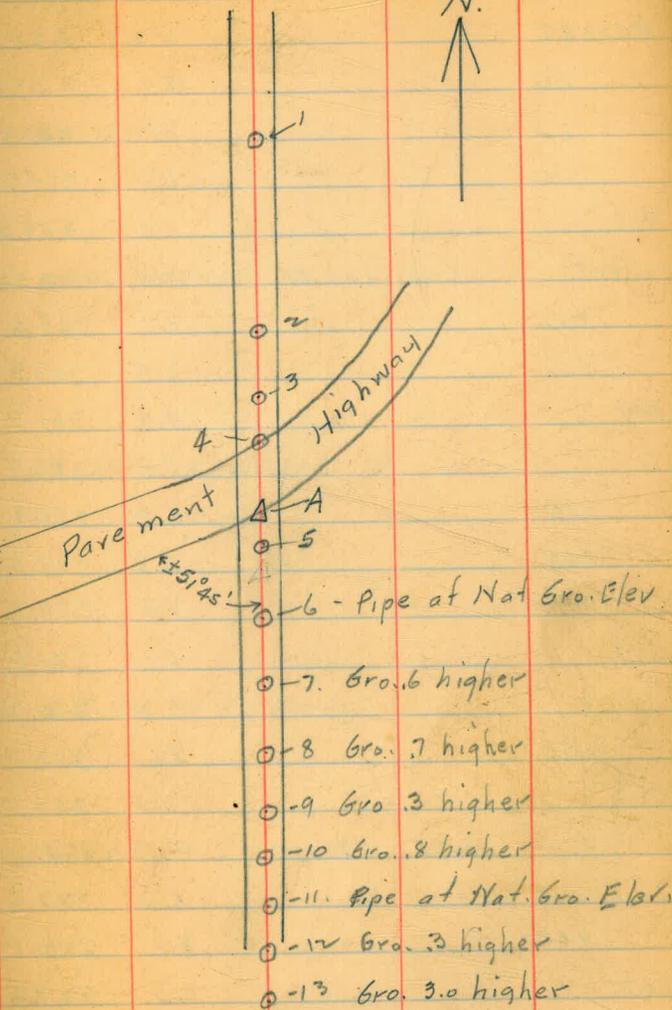
Feb. 14, 1930.
Clear + Cool.
Converse - K
Hill - Rod.

76

B.M. #	Vert. L	Rod.	Dist.	Dif. Elev	Elev.	
	10.09	66.63			56.54	Top W. Flange Gate Valve
A	H.I. = 5.3					
1	0-0	9.65	86.0		57.98	Top Pipe
2	0-0	8.9	86.0		57.7	Gro. Elev.
2	0-0	9.52	40.0		57.1	Top Pipe
	0-0	8.1	40.0		58.5	Gro. Elev.
3	0-0	6.4	33.0		60.2	Gro.
4	0-0	6.34	22.0		60.87	Edge Pavement
A	0-0	5.3			61.3	Edge "
5	0-0	7.8	2.0		58.8	Top Pipe
	0-0	5.3	2.0		61.3	Gro.
6	0-0	5.03	7.0		61.60	Pipe + Gro.
7	+19°42'	H.I.	19.5 0.22 0.41	7.07	73.70	Top Pipe
8	+23°35'	H.I.	34.44 0.64	15.03	81.66	" "
9	+25°20'	H.I.	52.28 0.85	24.75	91.38	" "
10	+26°16'	H.I.	68.36 1.00	33.74	100.37	" "
11	+26°43'	H.I.	79.19 1.06	40.12	106.73	" "
12	+25°38'	H.I.	86.09	41.74	108.17	" "
13			90.09		108.27	" "

Top Pipe
Gro. Elev.
Top Pipe
Gro. Elev.
Gro.
Edge Pavement
Edge "
Top Pipe
Gro.
Pipe + Gro.
Top Pipe
" "
" "
" "
" "
" "
" "
" "

At #13 Pipe is .1 higher than #12
#13 is 4.0 farther than #12



	225.94			
497+35		5.2	220.7	
+50		4.1	221.8	
"		5.5	220.4	Top pipe 6 $\frac{1}{2}$ RT.
+90		1.5	224.4	
498		1.4	224.5	
T.P.	1.02 226.34	0.62	225.32	Top guard stake 498+25
+25		1.7	224.6	
+65		2.4	223.9	
499		4.4	221.9	
		5.4	220.9	Top pipe 6 $\frac{1}{2}$ RT. (0.9 cover)
+50		5.4	220.9	
+65		5.8	220.5	
+90		5.2	220.1	
500		5.1	221.2	
"		6.3	220.0	Top pipe 6 $\frac{1}{2}$ RT. (1' cover)
+50		2.6	223.7	
501		0.3	226.0	
T.P.	5.85 231.85	0.34	226.00	Spike 4, 501+00
+19		4.2	227.6	
+60		3.1	228.7	
502		2.3	229.5	
"		3.0	228.8	Top pipe 6 $\frac{1}{2}$ RT. (open trench)
B.M. #80 T.P.		11.28	220.57	Record 220.62
	12.77 233.39			
+28		1.0		

233.39

502+52			1.9	231.5
+75			1.4	232.0
"			4.6	228.8
503			2.6	230.8
+25			3.7	229.7
+50			8.0	225.4
+55			9.7	223.7
+77			12.2	221.4
T.P.	1.16	222.39	12.16	221.23
504			9.5	217.9
+35			10.0	212.4
T.P.	5.26	215.13	12.52	209.87
+70			7.2	207.9
"			10.3	204.8
			12.3	202.8
505+20			8.5	206.6
+50			8.0	207.1
+75			9.2	205.9
506			6.8	208.3
			9.9	205.2
+50			3.2	211.9
507			0.0	215.1
T.P.	9.28	224.32	0.09	215.04
			12.2	212.1
+25			6.4	217.9

Top pipe Rt. (open Trench)

Top P.T. hub 503+77¹⁶

Peg 509+54

Top pipe Rt. 504+70 (open Trench)

" " " 505+20 " "

Top pipe 65 Rt 506+00 (open trench)

Peg & 507+00

Top pipe Rt 507+00 (open trench)

229.32

507+50		6.7	217.6	
+69		5.7	218.6	
+73		8.8	215.5	
+86		8.1	216.2	
508		7.9	216.4	
+11		5.6	218.7	
+29		4.9	219.4	
+50		3.8	220.5	
+75		3.7	220.6	
509		4.3	220.0	
"		4.6	219.7	
+19		4.8	219.5	
+50		3.4	220.9	
T.P.	11.79	234.97	1.14	223.18
510		9.6	225.4	
+25		8.0	227.0	
+50		7.6	227.4	
BM #81 T.P.		1.67	233.30	Record 233.28
	1.67	234.95		
511		6.7	228.2	
+40		6.9	228.0	
+75		8.8	226.1	
512 +04.7		11.1	223.8	

Center Road.

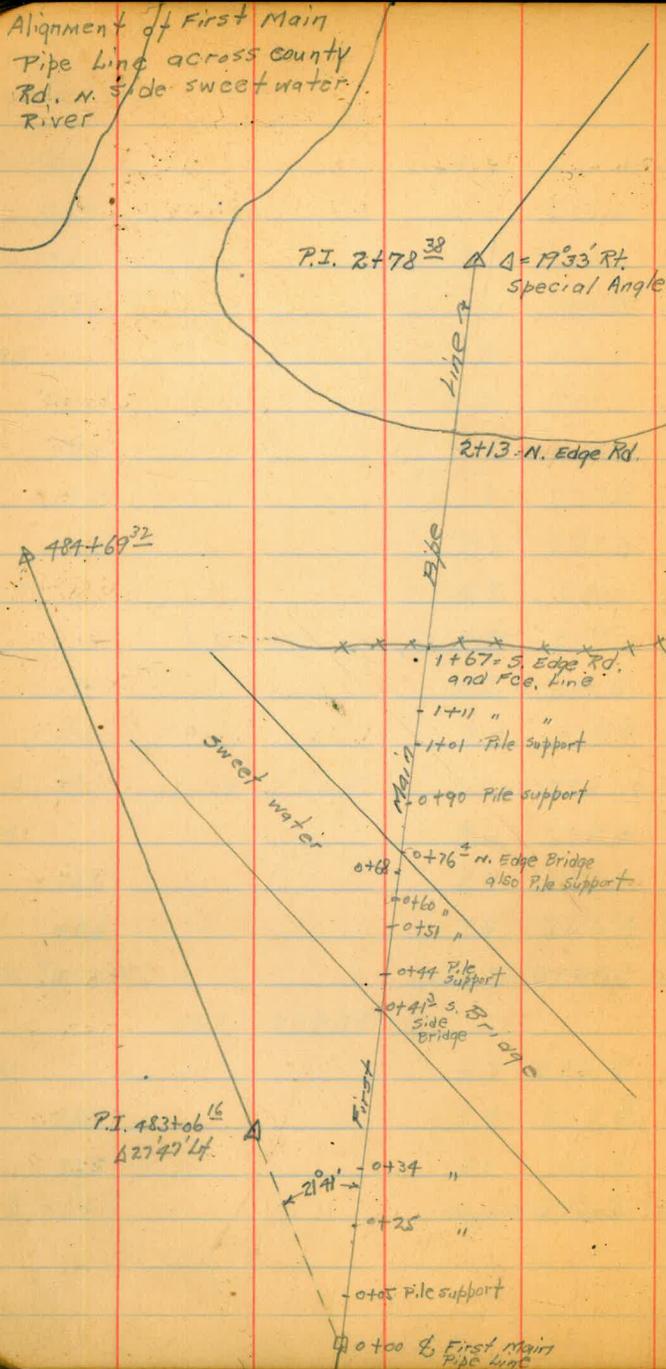
Top pipe 12' Rt. (open trench)

Spike 3' Lt. of 509+75

A.V. 44' Rt 510+64

End of line change

Alignment of First Main
Pipe Line across County
Rd. n. side sweet water
River



80

61.60 8.M. #77

2.52

64.12

0+00	7.7	56.4	Top Pipe
0+41 ³	7.8	56.3	"
1+00	8.15	55.97	"
1+28	8.46	55.66	"
1+28	8.5	55.6	Ground
1+35	8.34	55.78	Top Pipe
1+45	8.18	55.94	Top pipe
1+45	8.2	55.9	Ground
1+55	8.15	55.97	Top pipe
1+55	7.5	56.6	Ground
1+67	1.8	62.3	Ground at S. Edge Rd.
T.P.	2.52	61.60	

11.33

72.93

1+74 ⁵	Grade Break	56.6	Top pipe by Inter.
2+13		11.27	61.66 Top pipe
2+13		11.3	61.6 Ground at N. edge Rd.
2+33		5.8	67.1 Top pipe
2+33		5.8	67.1 Ground
2+53		0.43	72.50 Top pipe
2+53		0.4	72.5 Ground

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

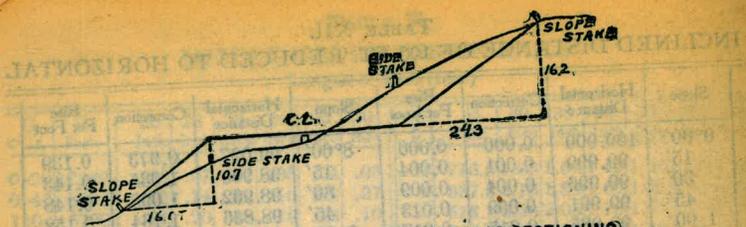
Distance of slope stake from side or shoulder stake for any width roadway slope 1% to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body from side stake to slope stake. If ground is not from side stake and slope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

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 corrections. 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.

	72.93			
T.P.		0.29	72.64	
	12.49	85.13		
2+73		7.35	77.78	Top pipe
2+73		7.4	77.7	Ground
2+78 ³⁸	special A	5.95	79.18	Top pipe
2+83		5.03	80.10	Top pipe
2+83		5.0	80.1	Ground
2+96		4.07	81.06	Top pipe
2+96		4.1	81.0	Ground
T.P.		0.15	84.88	
	10.81	95.79		
3+50		9.95	85.84	Top pipe
3+50		9.2	86.6	Ground
4+00		6.22	89.57	Top pipe
4+00		5.3	90.5	Ground
4+50		2.00	93.79	Top pipe
4+50		0.2	95.6	Ground



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1 1/4 TO 1. ROADWAY OF ANY WIDTH.

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

Computed by L. Leland Locke.

6.8
3/18.7

99.00
 66.00
 33.00
 59.75
 59.75
 65.94
 71.00
 42.29

D. 100
 117.2

N 17 22 W
 3 31
 N 13 51 W
 3 31
 N 14 22 W
 3 31
 N 1 11 W
 3 31
 N 21 44 W
 3 31
 N 23 26 W
 3 31

100.00
 49.80
 50.20
 50.00
 50.00

N
 N 50 W 50.00
 33
 N 1 10 W
 3 31
 N 3 10 W
 3 31

N 13 22 W
 3 31