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along San Diego River, in
relation to Pipe Line. 77-78

Profile Levels El CAPITAN DAM SITE
 To Existing Lakeside San Diego
 Pipe Line near Lakeside.

Simpson
 Hammermeyer
 McCarty

9/21/31

clear - Hot.

1

570.56 = old B.M. #2 Nail in sycamore tree 20' Rt. Sta. 11+50

	3.01	573.57 ✓	
T.P.			2.04 571.53 ✓
	2.85	574.38 ✓	
T.P.			0.61 573.77 ✓
	4.13	577.90 ✓	
T.P.			9.02 568.88 ✓
	10.23	579.11 ✓	
-7+00			1.2 77.9 ✓
			6.2 72.9 ✓
-6+17 ²			7.4 71.7 ✓
-6+00			7.7 71.4 ✓
			8.6 70.5 ✓
-5+53			7.3 71.8 ✓
-5+00			4.7 74.1 ✓
			10.6 68.5 ✓
-4+67 ² A			5.4 73.7 ✓
			25.0 554.1 ✓
T.P.			0.60 578.51 ✓
	6.13	584.64 ✓	
B.M. & T.P. #1			0.19 584.45 ✓ set new
	0.77	585.22 ✓	
T.P.			10.36 574.86 ✓
	4.63	579.49 ✓	
			11.0 68.5 ✓

County Road Sta?

Road Bed opp sta 7+00

Road opp -6+00

Rd opp -5+00

IN stream Bed about on axis of dam 250' Rt. of L.
 of Pipe Line Survey

B.M. Nail in 48' Live Oak Tree 25' L of Sta. -6+35

Rd. opp. -4+67²

	579.49 ✓		
T.P.		1.33	578.16 ✓
	3.40	581.56 ✓	
-4+31		3.9	77.7 ✓
-4+05 ^{ES} A		3.9	77.7 ✓
-4+00		5.0	76.6 ✓
		8.6	73.0 ✓
-3+82		6.4	75.2 ✓
-3+56		3.0	78.6 ✓
		5.3	76.3 ✓
-3+33		1.8	79.8 ✓
-3+00		6.7	74.9 ✓
		7.2	74.4 ✓
-2+65		4.9	76.7 ✓
-2+36		5.1	76.5 ✓
-2+13		11.0	70.6 ✓
-2+00		11.6	70.0 ✓
		11.6	70.0 ✓
T.P.		9.99	571.57 ✓
	6.49	578.06 ✓	
-1+86		5.7	72.4 ✓
-1+71 ^{ES} E.C.		5.5	72.6 ✓
-1+31 [±]		5.2	72.9 ✓
-1+07		3.2	74.9 ✓
-0+91 [±]		5.2	72.9 ✓
		8.1	70.0 ✓

Rd opp. -4+00

Rd opp. -3+56

Rd opp. -3+00

Rd opp. -2+00

Rd opp. -0+91[±]

Note: Surface Boulder
about 6'x6'x10' in d
at sta -3+22, not
shown on profile

578.06

-0+77	4.9	73.2 ✓
-0+70	7.3	70.8 ✓
-0+50	4.9	73.2 ✓
-0+16	0.0	78.1 ✓
-0+00	1.9	76.2 ✓
	5.0	73.1 ✓
T.P.	5.12	572.94 ✓

5.84 578.78 ✓

	27.8	551.0 ✓
0+72 ¹²	2.1	76.2 ✓
1+00	4.2	74.6 ✓
	9.6	69.2 ✓
+34	6.3	72.5 ✓
+50	5.7	73.1 ✓
+75	6.4	72.4 ✓
2+00	7.6	71.2 ✓
	8.7	70.1 ✓
+25	7.3	71.5 ✓
+51 ⁴³	6.9	71.9 ✓
T.P.	6.92	571.86 ✓

1.96 573.82 ✓

+90	1.3	72.5 ✓
3+05	1.8	72.0 ✓
+12	4.1	69.7 ✓
+21 ⁶	2.4	71.4 ✓

Rd. opp. 0+00

in River channel 130'± Rt of sta. 0+00

Rd. opp. sta. 1+00

Note: surface boulder
4'x6'x8' on R. at sta
0+28, not shown on
profile

Rd. opp. 2+15

573.82 ✓

	4.8	69.0 ✓
3+50	2.0	71.8 ✓
+75	2.2	71.6 ✓
4+00	3.4	70.7 ✓
+25	3.4	70.7 ✓
+50	3.6	70.2 ✓
	6.6	69.2 ✓
+75	2.1	71.7 ✓
5+00	2.5	71.3 ✓

Rd. opp. 3+20

T.P. & B.M. #2

3.22

570.60 ✓ = check on
570.56

B.M. Nail in 18" sycamore 17' Rt. sta. 4+07

10.09

580.65 ✓

Rec. El. = 570.56

+21 ³	9.9	70.8 ✓
+38	7.5	73.2 ✓
+48	11.2	69.5 ✓
+66	10.6	70.1 ✓
+76	7.0	73.7 ✓
	12.0	68.7 ✓
+95	4.5	76.2 ✓
6+00	8.9	71.8 ✓
+25	10.7	70.0 ✓
+45	10.7	70.0 ✓
+50	4.6	76.1 ✓
	10.4	70.3 ✓
+75	4.1	76.6 ✓
7+00	4.7	76.0 ✓

Rd. opp. 4+50

66.5

2.7

= Rd. opp. 5+75

Rd. opp. 6+50

580.65 ✓

7+35		7.2	73.5 ✓
+50		10.3	70.4 ✓
+57		8.0	72.7 ✓
+75		12.7	68.0 ✓
+78		9.3	71.4 ✓
+85		8.5	72.2 ✓
8+00	+5.0		585.6 ✓
T.P.		12.92	567.73 ✓
	4.37		572.10 ✓
		6.2	65.9 ✓
+08		0.0	72.1 ✓
+16		1.3	70.8 ✓
+28		5.6	66.5 ✓
+50		1.0	71.1 ✓
+63		5.8	76.3 ✓
9+01 ³⁹ A		3.3	68.8 ✓
		6.3	65.8 ✓
+52		2.6	69.5 ✓
10+00		5.4	66.7 ✓
		8.1	64.0 ✓
+20		8.0	64.1 ✓
+40		12.3	59.8 ✓
		25.8	546.3 ✓
+55		9.8	62.3 ✓

at Foot of Large Boulder

Top of Large Boulder (by Hand Level)

Rd. opp. 8+00

at Foot of Large Boulder

Rd. opp. 9+25

Rd. opp. 10+00

in River channel 200'± Rt. of sta. 10+00

572.10

10+77	7.4	67.7 ✓
11+00	6.9	65.2 ✓
	8.6	63.5 ✓
+33 ⁸ Ext	5.4	66.7 ✓
T.P.	5.41	566.69 ✓

3.83 570.52 ✓

+73 ²⁸ E.C.	4.5	66.0 ✓
12+00	3.8	66.7 ✓
	6.2	64.3 ✓
+25	2.6	67.9 ✓
+50	6.3	64.2 ✓
+75	6.4	64.1 ✓
13+00	4.6	65.9 ✓
	6.4	64.1 ✓
T.P.	3.07	567.45 ✓

5.61 573.06 ✓

B.M. #3	0.34	572.72' Set new
+50	1.5	572.71' ← use
		71.6 ✓
+64	3.4	69.7 ✓
+75	1.7	71.4 ✓
	4.4	68.7 ✓
14+00	3.8	69.3 ✓
+20	5.1	68.0 ✓
+50	5.4	67.7 ✓
+75	5.3	67.8 ✓

Rd opp. 11+00

Rd opp. 12+00

Rd. opp. 12+75

B.M., Highest point of Large Boulder (nixions), 22'
 Rt. of sta 13+37

Rd. opp. 13+75

573.06

15+00	2.2	70.9 ✓
	5.0	68.1 ✓
+25	1.8	71.3 ✓
+50	4.4	68.7 ✓
+75	3.6	69.5 ✓
16+00	3.1	70.0 ✓
	3.1	70.0 ✓
T.P.	2.07	570.99 ✓

Rd. opp. 15+00

Rd. opp. 16+00

12.72 583.71 ✓

+25	8.3	75.4 ✓
+50	5.8	77.9 ✓
17+00	2.2	81.5 ✓
	9.3	74.4 ✓
+25	2.7	81.0 ✓
+44	0.2	83.5 ✓
+50	2.9	80.8 ✓
	4.8	78.9 ✓
T.P.	0.77	582.94 ✓

Rd. opp. 17+00

Rd. opp. 17+50

12.02 594.96 ✓

+75	10.5	84.5 ✓
18+00	8.4	86.6 ✓
+25	7.2	87.8 ✓
	12.8	82.2 ✓
+55	4.4	90.6 ✓
+75	2.0	93.0 ✓

Rd. opp. 18+25

594.96 ✓

19+00	5.4	89.6 ✓
+25	+0.3	595.3 ✓
	4.6	90.1 ✓
+50	0.3	91.7 ✓
+71 ^{1/2}	1.3	93.7 ✓
20+00	3.3	91.7 ✓
+25	3.8	91.2 ✓
+75	9.1	85.9 ✓
21+00	10.3	84.7 ✓
+25	10.6	84.1 ✓
+50	10.2	584.8 ✓
	54.5	540.5 ✓
T.P.	12.58	582.38 ✓
0.10	582.48 ✓	
	1.8	80.5 ✓
	9.1	73.1 ✓
21+75	1.6	580.9 ✓
T.P.	11.18	571.30 ✓
0.75	572.05 ✓	
22+00	+6.0	578.0 ✓
+03	0.3	71.8 ✓
+38	4.2	67.9 ✓
+76	7.1	65.0 ✓
23+14	9.1	63.0 ✓
	4.4	67.7 ✓

Rd. opp 19+35

in River channel 100[±] Rt. of sta. 20+00
 T.P. ON Boulder Rt Side of Rd. sta 19+60

Rd opp 20+50

" " 21+50

Rd. opp. 22+40

	572.05		
23+85		11.7	60.4 ✓
24+00		11.2	60.9 ✓
+08 ⁶⁸ B.C.		10.5	61.6 ✓
+25		10.9	61.2 ✓
		11.4	60.7 ✓
T.P.		12.69	559.36 ✓
10.11	569.47 ✓		
+50		8.6	60.9 ✓
+75		8.6	60.9 ✓
		10.4	59.1 ✓
25+01		8.2	61.3 ✓
		10.9	58.6 ✓
+50		7.8	61.7 ✓
+73		5.8	63.7 ✓
26+00		4.9	64.6 ✓
		0.59	568.88 = check on
B.M. # 4 @ T.P.		0.59	568.88 set new
0.04	568.92 ✓		
		7.8	61.1 ✓
+17		5.9	63.0 ✓
+22		8.3	60.6 ✓
+41		9.0	59.9 ✓
+66		8.5	60.7 ✓
27+00		10.0	58.9 ✓
T.P.		12.40	556.52 ✓

Rd opp 23+60

Rd opp 24+25

Rd opp 25+25

Old B.M. # 4 El. = 568.84

B.M. Nail in S. side of 24" Oak Tree 18L of sta 25+53 ✓

Rd opp 26+00

		556.52 ✓
0.56	557.08 ✓	
	1.7	55.7 ✓
27+51	0.9	56.2 ✓
+93	2.4	54.7 ✓
	4.7	52.4 ✓
28+35 ⁶¹	3.0	54.1 ✓
+75	2.8	54.3 ✓
29+00	4.5	52.0 ✓
+28	4.1	53.0 ✓
+50	4.2	52.9 ✓
	6.2	50.9 ✓
+75	4.6	52.5 ✓
30+00	5.2	51.9 ✓
T.P.	5.12	551.96 ✓
4.76	556.72 ✓	
	22.3	534.5 ⁺ ✓
+33	5.0	51.7 ✓
+38	2.3	54.1 ✓
+50	5.0	51.7 ✓
+75	6.9	49.8 ✓
+89	2.8	53.9 ✓
31+00	5.2	51.5 ✓
+16	1.2	55.5 ✓
+33 ⁶⁸	1.7	55.0 ✓

Rd. opp 27+00

Rd opp 28+05

Rd. opp 29+50

ex E.C. Hub 30+09⁰²

= in River channel 12.5' R of sta 30+00

556.72 ✓

31+50	6.8	49.9 ✓
	7.5	49.2 ✓
	8.8	47.9 ✓
+75	5.0	51.7 ✓
32+00	6.1	50.6 ✓
+16	7.0	49.7 ✓
+60	5.1	51.6 ✓
+68	3.0	53.7 ✓
+95 ⁵	5.9	50.8 ✓
	7.6	49.1 ✓
T.P.	7.66	547.06 ✓

2.63 551.69 ✓

33+11	+2.5	554.3 ² ✓
+31	1.3	50.9 ✓
+53	0.2	51.5 ✓
	2.4	49.3 ✓
+67	+0.3	552.1 ⁰ ✓
+98 ⁵	5.7	46.0 ✓
34+25 ⁹	5.9	45.8 ✓
	8.2	43.5 ✓
+64	5.2	46.5 ✓
T.P.	7.67	544.02 ✓

0.85 544.87 ✓

+66	0.5	44.4 ✓
+72	2.2	42.7 ✓

Rd opp 30+50
" " 31+50

Rd. opp. 32+95

Rd. opp. 33+31

Rd opp 34+25

on Boulder 15 Rt 34+75 at N. edge of Rd.

Note: Adjusted level
Here

Simpson
Summer Meyer
ME party

9/22/31

clear. Hot.

12

544.87 ✓

34+93	2.2	42.2 ✓
+98	+0.4	545.3 ✓
35+13	3.6	41.3 ✓
+57	4.9	40.0 ✓
	3.8	41.1 ✓
+65	3.2	41.7 ✓
+70	4.9	40.0 ✓
36+00	3.5	41.1 ✓
+05	5.7	39.2 ✓
+15	6.2	38.7 ✓
+16	4.8	40.1 ✓
+50	5.9	39.0 ✓
+72	5.6	39.3 ✓
+75	3.5	41.1 ✓
	6.3	38.6 ✓
	6.0	38.9 ✓
37+00	4.2	40.7 ✓
B.M. & T.P. #5	4.07	540.80 ✓ Set new
1.59	542.39 ✓	
+25	1.8	40.6 ✓
	4.0	38.4 ✓
+50	0.8	41.6 ✓
+75	1.9	40.5 ✓
	5.6	36.8 ✓
38+00	2.2	40.2 ✓

Rd opp. 35+90

Rd. opp. 36+25

" " 36+50

B.M. 5, nail in 10" Tree 17' Rt of Sta 37+50

Rd opp. 37+35

Rd opp. 37+90

542.39 ✓

38+25	2.7	39.7 ✓
+50	3.0	39.4 ✓
	4.7	39.7 ✓
+91	2.8	39.6 ✓
39+17	2.7	39.7 ✓
+32	1.7	40.7 ✓
+52	2.9	40.0 ✓
+75	1.4	41.0 ✓
+94	1.1	41.3 ✓
	+2.2	544.7 ✓
	5.9	36.5 ✓
	13.4	529.1 ✓
T.P.	5.66	536.73 ✓

3.37 540.10 ✓

40+05	0.6	39.5 ✓
	4.4	35.7 ✓
+25	1.7	38.4 ✓
+30	1.0	39.1 ✓
+50	1.7	38.4 ✓
+75	0.6	39.5 ✓
+80	2.1	38.0 ✓
41+00	3.0	37.1 ✓
+25	3.3	36.8 ✓
+35	3.0	37.1 ✓
+50	2.9	37.2 ✓

Rd opp. 38+50.

Foot of large Boulder

Top of "

Rd. opp 39+60

IN River channel 125'± Rt. of 40+00

Rd opp. 40+20

540.10

	4.1	36.0 ✓
41+67	3.7	36.4 ✓
+70	2.6	37.5 ✓
+90	5.4	39.7 ✓
42+20	5.7	39.4 ✓
+21	4.3	35.8 ✓
	6.0	34.1 ✓
+52	6.8	33.3 ✓
+58	0.2	39.9 ✓
+63	1.5	38.6 ✓
+64	3.7	36.4 ✓
+75	3.5	36.6 ✓
+78	2.1	38.0 ✓
43+00	2.0	38.1 ✓
	7.5	32.6 ✓
	6.9	33.2 ✓
T.P.	6.64	533.46 ✓
9.88	540.34 ✓	
+50	5.2	38.1 ✓
+75	6.5	36.8 ✓
	6.2	37.1 ✓
44+00	4.4	38.9 ✓
+20	3.0	40.3 ✓
+50	3.0	40.3 ✓
+75	3.3	40.0 ✓

Rd. opp. 41+50

Rd opp 42+25

Foot of large Boulder

Top " " "

" " " "

Foot of large Boulder

Rd opp 42+70

" " 43+20

Rd. opp 43+65

Note: Loose Boulder

(3'x6x4') on g. at sta

42+41, not shown

in profile

543.34 ✓

	5.1	38.2 ✓
44+92	3.9	39.9 ✓
45+00	5.9	37.9 ✓
+25	6.2	37.1 ✓
+75	6.8	36.5 ✓
46+00	7.0	36.3 ✓
	6.8	36.5 ✓
T.P.	7.01	536.33 ✓

Rd. opp. 44+75

Rd. opp. 46+00

4.16 540.49 ✓

B.M. #6	0.80	539.69 ✓ = check
46+50	4.4	36.1 ✓
47+00	4.5	36.0 ✓
+25	5.1	35.9 ✓
	4.5	36.0 ✓
+50	4.3	36.2 ✓
48+00	4.8	35.7 ✓
+55	4.5	36.0 ✓
	4.5	36.0 ✓
T.P.	2.62	537.87 ✓

on old B.M. #6 nail in oak tree 25' Rt. of sta. 46+50

Rec. El. = 539.62 (use for new B.M.)

Rd. opp. 47+25

Rd. opp. 48+50

3.27 541.14 ✓

+75	1.9	39.7 ✓
49+00	2.6	38.5 ✓
+20	0.8	40.3 ✓
	3.0	38.1 ✓
+60	6.1	35.0 ✓

Rd. opp. 49+20

541.14 ✓

	6.2	34.9 ✓
50+00	6.8	34.3 ✓
+25	7.0	34.1 ✓
+50	6.9	34.2 ✓
	16.8	524.4 ³ ✓
+75	6.9	34.2 ✓
51+00	6.4	34.7 ✓
+25	7.4	33.7 ✓
+50	7.2	33.9 ✓
	8.0	33.1 ✓
T.P.	7.92	533.22 ✓

2.41 535.63 ✓

+75	1.3	34.3 ✓
52+00	0.9	34.7 ✓
	3.6	32.0 ✓
+40	2.1	33.5 ✓
+75	2.7	32.9 ✓
53+00	2.8	32.8 ✓
+18	5.5	30.1 ✓
+35	1.8	33.8 ✓
	5.9	29.7 ✓
	8.0	27.6 ✓
T.P.	0.34	535.29 ✓

11.89 547.18 ✓

+90	7.1	30.1 ✓
-----	-----	--------

Rd. opp 49+70

IN River channel 110' Rt. of Sta. 50+00

Rd. opp 51+50

Note: Loose Boulder

4'x5'x6' on d. at Sta.

51+54, not shown

in profile

Rd opp 52+30

Rd opp 53+70

" " 54+60

547.18 ✓
 54+25 8.4 38.2 ✓
 +50 7.9 39.3 ✓
 +75 9.1 38.1 ✓
 55+00 10.1 37.1 ✓
 1.11 546.07 ✓ check on

old B.M. #7 - Rec. El. = 546.03

T.P. 12.13 535.05 ✓
 3.31 538.36 ✓

+45 4.0 31.1 ✓
 +96 3.5 31.9 ✓
 7.7 30.7 ✓
 7.4 31.0 ✓

Rd. opp. 55+60

" " 56+00

56+35 7.7 30.7 ✓
 +75 7.6 30.8 ✓
 57+00 5.7 32.7 ✓

Rd. opp. 57+00

7.1 31.3 ✓
 +35 5.4 33.0 ✓
 +75 5.6 32.8 ✓
 +90 6.8 31.6 ✓

58+15 4.4 34.0 ✓
 +50 4.0 34.4 ✓
 6.9 31.3 ✓

Rd. opp. 58+00

+75 3.6 34.8 ✓
 59+00 2.8 35.6 ✓
 6.7 31.7 ✓

Rd. opp. 59+00

B.M. & T.P. #7 1.13 537.23 ✓ set new

B.M. Nail in 18" Oak Tree 31' W of sta 56+90

		537.23 ✓	
	0.32	537.55 ✓	
T.P.		6.17	531.38 ✓
	4.33	535.71 ✓	
59+25		1.9	33.8 ✓
+55		2.0	33.7 ✓
+75		3.7	32.0 ✓
60+00		2.1	33.6 ✓
		5.2	30.5 ✓
+15		1.4	34.3 ✓
		15.3	520.5 ✓
+50		2.1	33.6 ✓
+75		0.5	35.2 ✓
T.P.		3.70	532.01 ✓
	7.43	539.44 ✓	
61+00		4.0	35.4 ✓
		7.4	32.0 ✓
+35		5.3	34.1 ✓
+75		4.6	34.8 ✓
62+25		4.0	35.4 ✓
		4.5	34.9 ✓
+45		2.5	36.9 ✓
T.P.		0.53	538.91 ✓
	8.91	547.82 ✓	
+53		4.0	33.8 ✓

Rd. opp. 59+85

in River channel 80' Rd. of sta. 60+00

Rd. opp. 61+00

Rd. opp. 62+25

	547.82 ✓		
62+75	3.1	44.7 ✓	
63+00	1.4	46.1 ✓	
+20	1.1	46.7 ✓	
	7.5	40.3 ✓	Rd. opp. 62+85
	5.0	42.8 ✓	" " 63+45
+50	1.7	46.1 ✓	
+70	1.5	46.3 ✓	
64+00	3.7	44.1 ✓	At. Foot of Large Boulder
+05	+0.6	548.5 ✓	Top " " "
+10	2.4	45.9 ✓	Foot " " "
+35	3.1	44.7 ✓	
	5.3	42.5 ✓	Rd. opp. 64+35
+58	0.9	46.9 ✓	
	3.6	43.2 ✓	Rd. opp. 64+65
+70	0.4	47.4 ✓	
65+00	+0.3	548.2 ✓	
T.P.	3.28	544.54 ✓	
	7.02	551.56 ✓	
+20	3.2	48.4 ✓	
	7.3	47.3 ✓	Rd. opp. 65+25
+48	1.5	50.1 ✓	
+70	2.9	48.7 ✓	
66+00	5.3	46.3 ✓	
+50	4.5	47.1 ✓	
	5.4	46.2 ✓	Rd. opp. 66+40

	551.56 ✓		
66+75		6.2	75.9 ✓
67+00		6.7	^{11.9} 75.0 ✓
+50		9.6	72.0 ✓
+85 ⁶		11.6	70.0 ✓
B.M. #8		3.13	548.43 ✓ Set new
T.P.		12.37	539.19 ✓

B.M., nail in 16" oak tree, 22' L of sta. 66+77

	0.19 -	539.38 ✓	
68+25		2.8	36.6 ✓
		0.0	39.4 ✓
+60		5.4	34.0 ✓
+75		3.8	35.6 ✓
+95		7.9	31.5 ✓
		7.8	31.6 ✓
69+25		9.2	30.2 ✓ ✓
+75		10.9	28.5 ✓ ✓
		10.9	28.5 ✓
70+00		11.5	27.9 ✓ ✓
T.P.		11.16	528.22 ✓

Rd. opp. 67+80

Rd opp 69+00

Rd opp 69+75

	6.00	524.22 ✓	
		18.8	515.5 ✓
T.P.		6.00	528.22 ✓
	7.75	535.97 ✓	
+50		8.8	27.2 ✓ ✓
71+00		8.9	27.1 ✓ ✓
		8.8	27.2 ✓

IN River channel 250'± R+ of sta. 70+00

Rd. opp. 71+00

535.97 ✓

71+50 6.9 29.1 ✓

72+08 3.8 32.2 ✓

+25 1.9 34.1 ✓

+50 1.3 34.7 ✓

1.6 34.9 ✓

+75 1.2 34.8 ✓

73+00 2.9 33.1 ✓

+35 4.1 31.9 ✓

5.8 30.2 ✓

+57 3.1 32.9 ✓

+80 2.5 33.5 ✓

5.4 30.6 ✓

74+00 4.2 31.8 ✓

T.P. 6.78 529.19 ✓

1.97 531.16 ✓

+25 0.6 30.0 ✓

2.0 29.2 ✓

+50 2.8 28.4 ✓

3.8 27.4 ✓

75+00 2.4 28.8 ✓

+30 2.4 28.8 ✓

3.0 28.2 ✓

+75 5.1 26.1 ✓

76+35 7.4 23.8 ✓

7.4 23.8 ✓

Rd opp. 72+50

Rd opp. 73+45

Rd. opp. 73+80

Rd opp. 74+25

Rd opp. 74+50

Rd opp. 75+30

Rd opp. 76+35

531.16 ✓

76+75	7.9	23.3 ✓
77+00	8.0	23.2 ✓
+25	8.1	23.1 ✓
	8.4	22.8 ✓
+50	7.5	23.7 ✓
+70	6.1	25.1 ✓
+80	2.2	29.0 ✓

B.M. #9 & T.P.

6.08 525.08 ✓ set New

1.35 526.43 ✓

6.3 20.1 ✓

5.9 20.5 ✓

5.4 21.0 ✓

T.P.

5.55 520.88 ✓

10.19 531.07 ✓

19.0 512.2 ✓

7.0 27.1 ✓

5.2 25.9 ✓

5.6 25.5 ✓

4.9 26.2 ✓

T.P.

4.93 526.14 ✓

8.05 534.19 ✓

8.5 25.7 ✓

6.3 27.9 ✓

5.1 29.1 ✓

Rd opp. 77+25

Rd, opp 77+80

B.M., Nail in Fork of 30" oak tree, 30' Rt of Sta. 77+08

Rd. opp. 78+65

Rd. opp 79+50

" " 80+00

in River channel 60" Rt of Sta. 80+00

Rd. opp. 80+60

" " 81+30

" " 82+40

" " 83+30

Rd. opp 83+80

" " 84+25

" " 84+75

534.19 ✓

0.8 33.7 ✓

7.33 526.86 ✓ = check

Rd. opp. 85+40

on U.S.G.S. Gaging station marked El. 529.85

Brass plug set in large Boulder 30' Rt. of sta. 84+20

B.M. #9

525.08 ✓ Nail in Fork

of 30" oak tree, 30' Rt. of sta. 77+08

9.85 534.93 ✓

78+05

4.7 30.2 ✓

+30

7.1 27.8 ✓

+60

5.9 29.5 ✓

Foot of Large Boulder

T.P.

1.49 533.44 ✓ ← on Rock sta. 78+62

10.73 544.17 ✓

T.P.

1.57 542.60 ✓

8.27 550.87 ✓

3.49 547.38 ✓ = check

on old B.M. #10 Nail in oak tree 25' L. of sta. 78+50

Rec. El. = 547.37

533.44 ✓ ← T.P. Rock

78+62

4.51 537.95 ✓

78+70

0.6 32.7 ✓

+79

6.6 31.9 ✓

79+00

7.5 30.5 ✓

+30

7.7 30.3 ✓

+40

4.4 33.6 ✓

+65

6.9 31.1 ✓

537.95

79+85	8.6	29.7 ✓
80+00	12.0	26.0 ✓
+10	8.2	29.8 ✓
+49	4.1	33.9 ✓
+60	8.4	29.6 ✓
T.P.	0.26	537.69 ✓

9.07 546.76 ✓

+72	12.1	37.7 ✓
81+04	8.8	38.0 ✓
+45	9.2	37.6 ✓
+69	6.5	40.3 ✓
+75	12.2	37.6 ✓
T.P.	5.54	541.22 ✓

6.12 547.34 ✓

82+07	5.2	42.1 ✓
+17	8.7	38.6 ✓
+24	6.4	40.9 ✓
+45	12.2	35.1 ✓
+73	7.1	40.2 ✓
+95	6.6	40.7 ✓
83+15	13.17	541.17 ✓
83+38	5.3	42.0 ✓
T.P.	8.89	538.45 ✓

1.69 540.14 ✓

+62	0.0	40.1 ✓
-----	-----	--------

Nail in oak stump on ♀ at sta 80+50

ON P.I. Hub sta. 83+49 ⁵²

Jimpson
Sommermeyer
McCarthy

9/23/31

clear - warm

25

540.14

83+70	13.8	26.3 ✓
+87	2.8	37.3 ✓
+94	8.5	31.6 ✓
84+32	5.4	34.7 ✓
+40	10.8	29.3 ✓
+79	1.5	38.6 ✓
+91	3.0	37.1 ✓
+94	8.2	31.9 ✓
85+00	8.3	31.8 ✓
+17	3.1	37.0 ✓
T.P.	0.95	539.19 ✓

13.26 552.45 ✓

+41	5.3	47.2 ✓
+78	1.8	50.7 ✓
86+09 e.c.	6.5	46.0 ✓
	4.1	48.1 ✓
T.P.	1.24	551.21 ✓

12.48 563.69 ✓

+18	11.2	52.5 ✓
+50	8.5	55.2 ✓
+78	5.2	58.5 ✓
+95	10.6	53.1 ✓
87+40	3.0	60.7 ✓
+65	1.9	61.8 ✓
	13.4	50.3 ✓

Rd. opp. 86+90

Rd. opp. 87+70

563.69 ✓
 88+00 3.8 59.9 ✓
 +18 7.9 55.8 ✓
 +25 11.4 52.3 ✓
 T.P. 12.75 550.94 ✓

Peg 6' L 88+70

0.28 551.22 ✓

+70 6.4 44.8 ✓
 2.6 48.6 ✓
 13.2 38.0 ✓

Rd. opp. 88+00

" " 89+00

89+00 9.1 42.1 ✓
 +07 7.0 44.2 ✓
 +35 8.3 42.9 ✓
 +60 9.0 42.2 ✓
 +70 10.8 40.9 ✓
 T.P. 12.70 538.52 ✓

0.47 538.99 ✓

4.0 35.0 ✓

Rd. opp 89+40

B.M. # 10 5.57 533.42 ✓ Set New

B.M., Nail in 24" oak Tree, 25' R 89+50

+95 10.2 28.8 ✓

12.4 26.6 ✓

Rd. opp. 90+10

90+50 15.9 23.1 ✓

30.2 508.9⁸ ✓

IN River Channel 70'± Rt. of Sta. 90+00

+92 11.8 27.2 ✓

91+18 11.9 27.1 ✓

T.P. 13.04 525.95 ✓

ON PI Hub 91+18³

1.43 527.38 ✓

527.38

	6.0	21.4 ✓
	9.1	18.3 ✓
91+43	3.1	24.3 ✓
+63	5.1	22.3 ✓
+92 ^E	6.8	20.6 ✓
92+22	7.3	20.1 ✓
	9.7	17.7 ✓
T.P.	9.82	517.56 ✓

.12.35 529.91 ✓

+50	9.3	20.0 ✓
+75	8.7	21.2 ✓
93+00	8.6	21.3 ✓
+25	7.8	22.1 ✓
	11.4	18.5 ✓
+50	7.6	22.3 ✓
+89	1.8	28.1 ✓
94+27	2.7	27.0 ✓
	4.6	25.3 ✓
+60	0.5	29.4 ✓
95+00	4.1	25.8 ✓
	0.9	29.0 ✓
	4.0	25.9 ✓
+50	5.1	24.8 ✓
+94	2.3	27.0 ✓
T.P.	2.52	527.39

Rd. opp. 90+75
" " 91+60

Rd. opp. 92+22

Rd. opp. 93+00

Rd. opp. 93+90

Rd. opp. 94+48

" " 95+00

a.N. P.I. Hub 95+93⁸¹

Note: Loose Boulder
6'x6'x5', on Δ at sta
94+16, not shown
in profile

527.39

1.06 528.45 ✓

96+22³ 2.4 26.1 ✓

3.7 24.8 ✓

5.8 22.7 ✓

4.8 23.7 ✓

97+00 4.1 27.4 ✓

+48 3.6 27.9 ✓

4.7 23.8 ✓

98+00 6.9 21.6 ✓

+50 9.6 18.9 ✓

9.9 18.6 ✓

T.P. 10.27 518.18 ✓

2.31 520.49 ✓

99+00 3.0 17.5 ✓

+50 3.5 17.0 ✓

4.6 15.9 ✓

100+00 1.6 18.9 ✓

+15 1.5 19.0 ✓

+50 2.5 18.0 ✓

B.M. #11 3.00 517.49 ✓ Set New

101+00 3.3 17.2 ✓

+25 2.9 17.6 ✓

4.1 16.4 ✓

+50 1.9 18.6 ✓

+75 4.5 16.0 ✓

Rd. opp. 95+90

" " 96+40

Rd. opp. 97+50

Rd. opp. 98+50

Rd. opp. 99+50

B.M., Nail in N. side of 6" oak Tree 18' Rt. of Sta. 100+40

Rd. opp. 101+10

	520.49		
102+00		4.5	16.0 ✓
		5.4	15.1 ✓
+25		4.1	16.1 ✓
T.P.		3.86	516.63 ✓
	0.73	517.36 ✓	
103+00		0.3	17.1 ✓
+25		2.0	15.9 ✓
+50		3.1	14.3 ✓
104+00		4.9	12.5 ✓
		5.0	12.9 ✓
105+00		6.4	11.0 ✓
106+00		6.6	10.8 ✓
		6.6	10.8 ✓
107+00		8.3	09.1 ✓
+19		7.9	09.5 ✓
T.P.		7.72	509.64 ✓
	5.42	515.06 ✓	
+40		6.8	08.3 ✓
		12.2	502.9 ✓ 503.0
+65		7.0	08.1 ✓
108+00		5.9	09.2 ✓
+50		4.9	10.2 ✓
109+00		4.9	10.2 ✓
+50		5.0	10.1 ✓
110+00		4.8	10.3 ✓

Rd. opp. 102+10

on E.C. Hub 102+41³⁹

Rd opp. 104+00

Rd. opp. 106+00

(ix5)
on High point of Boulder 23' Rt. 107+50in River channel 50'± Rt.
of Cape Horn, sta. 107+25Note: ♀ runs along edge
of Road Here

	515.06 ✓			
110+50		4.8	10.3 ✓	
B.M. # 12 & T.P.		0.63	514.43 ✓	set new B.M., nail in ^{S.W.?} Fork of 40" oak tree, 5' Rt of 110+28
	0.46	514.89 ✓		
+84		4.0	10.9 ✓	
		4.7	10.2 ✓	Rd. opp. 110+84
111+10		4.6	10.3 ✓	
+50		4.8	10.1 ✓	
112+00		5.0	09.9 ✓	
+50		5.2	09.7 ✓	
113+00		5.9	09.0 ✓	
		6.0	08.9 ✓	Rd. opp. 113+00
+50		6.0	08.9 ✓	
114+00		6.2	08.7 ✓	
+50		6.4	08.5 ✓	
115+00		6.6	08.3 ✓	
T.P.		6.06	508.83 ✓	on Marker 115+00
	3.36	512.19 ✓		Note: See Page 76 for water line King L
		4.1	08.1 ✓	Rd opp 115+00
+50		4.3	07.9 ✓	
116+00		4.4	07.8 ✓	
+50		4.6	07.6 ✓	
117+00		4.6	07.6 ✓	
+50		4.7	07.5 ✓	
		4.4	07.8 ✓	Rd. opp. 117+00
118+00		4.7	07.5 ✓	

512.19

118+50	4.6	07.6 ✓
119+00	4.6	07.6 ✓
	5.1	07.1 ✓
+50	5.3	06.9 ✓
120+00	6.1	06.1 ✓
+50	6.2	06.0 ✓
121+00	6.5	05.7 ✓
	6.8	05.9 ✓
B.M. # 3 T.P.	3.86	508.33 Set new

1.18 509.51 ✓

+37	3.6	05.9 ✓
122+00	4.2	05.3 ✓
+50	4.2	05.3 ✓
123+00	4.4	05.1 ✓
	4.5	05.0 ✓
+50	3.7	05.8 ✓
124+00	3.9	05.6 ✓
+50	4.3	05.2 ✓
125+00	4.5	05.0 ✓
	4.6	04.9 ✓
T.P.	4.74	504.77 ✓

2.85 507.62 ✓

Rd. opp. 119+00

Rd. opp. 121+00

B.M. Nail in 30" oak tree 40' Rt. of 118+70

Rd. opp. 123+00

Rd. opp. 125+00

507.62

125+50	3.1	09.5 ✓	
126+00	3.1	09.5 ✓	
+50	3.8	03.8 ✓	
127+00	4.0	03.6 ✓	
	4.2	03.7 ✓	Rd. opp. 127+00
+50	4.3	03.3 ✓	
128+00	4.7	02.9 ✓	
+50	4.8	02.8 ✓	
129+00	5.1	02.5 ✓	
	4.8	02.8 ✓	Rd. opp. 129+00
+40	4.9	02.7 ✓	
130+00	5.3	02.3 ✓	
+50	5.6	02.0 ✓	
131+00	5.4	02.2 ✓	
	5.5	02.1 ✓	Rd. opp. 131+00
+50	5.4	02.2 ✓	
132+00	5.6	02.0 ✓	
+23	5.7	01.9 ✓	
B.M. # 14	4.00	503.62 ✓	Set New B.M., Nail in 30" oak Tree 12' N of Sta. 131+63
T.P.	6.08	501.54 ✓	
	4.75	506.29 ✓	
+50	4.5	01.8 ✓	
+75	4.4	01.9 ✓	
133+00	4.5	01.8 ✓	
	4.9	01.9 ✓	Rd. opp. 133+00

506.29

133+25	4.8	501.5 ✓	
+38	4.7	01.6 ✓	
+60	3.6	02.7 ✓	
+94		501.6	Top of 12" concrete water pipe
134+00	4.8	01.5 ✓	
+50	5.1	01.2 ✓	
	4.9	01.9 ✓	Rd. opp. 134+35
135+00	4.0	02.3 ✓	
+55	2.2	04.1 ✓	
	1.8	04.5 ✓	Rd. opp. 135+55
+75	0.9	05.9 ✓	
T.P.	0.56	505.73 ✓	

12.10 517.83 ✓

136+00	11.0	06.8 ✓	
+25	9.2	08.6 ✓	
+50	7.9	09.9 ✓	
+75	5.5	12.3 ✓	
137+00	3.1	14.7 ✓	
	6.0	11.8 ✓	Rd. opp. 137+00
+25	2.9	14.9 ✓	
+60	2.4	15.9 ✓	
T.P.	0.35	517.48 ✓	

11.03 528.51 ✓

138+00	9.5	19.0 ✓	
	10.6	17.9 ✓	Rd. opp. 138+00
+20	7.7	20.8 ✓	

528.51 ✓

138+40	6.5	22.0 ✓
	7.8	20.7 ✓
+60	7.1	21.7 ✓
+80	6.1	22.4 ✓
139+00	4.7	23.8 ✓
+20	3.8	24.7 ✓
	3.8	24.7 ✓
+30	3.9	24.6 ✓
+75	4.2	24.3 ✓
140+00	4.0	24.5 ✓
+25	3.4	25.1 ✓
+50	3.7	24.8 ✓
	4.1	24.4 ✓
+75	4.0	24.5 ✓
141+00	5.3	23.2 ✓
	5.1	23.1 ✓
+25	6.2	22.3 ✓
+50	7.9	20.6 ✓
142+00	11.3	17.2 ✓
T.P.	12.53	515.98 ✓

7.47 523.45 ✓

B.M. #15 & T.P.

3.33 520.12 ✓ set New

B.M. Nail in 14" oak Tree, 40' Rt of Sta. 141+60

3.33 523.45 ✓

T.P.

7.47 515.98 ✓

0.59 516.57 ✓

Rd. opp. 138+50

Rd. opp. 139+25

Rd. opp. 140+50

Rd. opp. 141+00

516.57 ✓

142+50	2.7	13.9 ✓
143+00	5.7	10.9 ✓
+50	8.2	08.9 ✓
144+00	9.2	07.1 ✓
+50	9.5	07.1 ✓
T.P.	9.64	506.93 ✓

2.55 509.48 ✓

145+00	3.2	06.3 ✓
+50	3.6	05.9 ✓
146+00	4.5	05.0 ✓
+50	5.0	04.5 ✓
147+00	4.8	04.7 ✓
+50	4.4	05.1 ✓
+75	4.2	05.3 ✓
148+00	4.2	05.3 ✓
+25	4.5	05.0 ✓
+50	4.8	04.7 ✓
T.P.	4.64	504.84 ✓

2.61 507.45 ✓

149+00	3.9	03.6 ✓
+50	5.7	01.8 ✓
150+00	6.6	00.9 ✓
+50	6.9	00.6 ✓
151+00	5.8	01.7 ✓
+50	4.2	03.3 ✓

507.45 ✓

152+00	3.4	09.1 ✓
+50	2.4	05.1 ✓
+87	1.8	05.7 ✓
153+25	2.6	07.9 ✓
T.P.	2.12	505.33 ✓

3.38' 508.71 ✓

B.M. # 16	7.62	501.09 ✓ Set New
+46	4.5	07.2 ✓
+75	4.9	03.8 ✓
154+00	4.8	03.9 ✓
+25	4.7	04.0 ✓
+50	4.6	07.1 ✓
+75	4.6	07.1 ✓
155+00	5.2	03.5 ✓
T.P.	4.74	503.97 ✓

1.80 505.77 ✓

+25	2.5	03.3 ✓
+50	2.4	03.4 ✓
+82	2.4	03.7 ✓
156+05	2.5	03.3 ✓
+28	2.8	03.0 ✓
+50	2.6	03.2 ✓
+85	3.3	02.5 ✓
157+00	3.9	01.9 ✓
+46	4.7	01.1 ✓

B.M. nail in S.E. symore of [clump of 3] 37' R. of s/o 153+35

505.77 ✓

157+98	4.3	501.5 ✓
158+22 ^S	4.2	01.6 ✓
+46 ^S	4.8	01.0 ✓
+80	5.5	00.3 ✓
159+13	5.9	499.9 ✓
+25	5.9	499.9 ✓
+50	5.5	500.3 ✓
T.P.	4.45	501.32 ✓
6.51	507.83 ✓	
+75	7.5	500.3 ✓
160+19	7.4	500.4 ✓
+60	7.8	500.0 ✓
161+00	8.1	499.7 ✓
+50	8.0	499.8 ✓
162+00	6.9	500.9 ✓
+50	5.1	502.7 ✓
+53	4.9	499.6 ✓
+77		502.9 ✓
163+00	5.4	502.7 ✓
+25	6.0	501.8 ✓
+50	7.4	500.4 ✓
164+00	10.3	497.5 ✓
+20	11.0	496.8 ✓
+50	11.1	496.7 ✓
+75	10.7	497.1 ✓
165+00	10.3	497.5 ✓

Note: see page 76 for
sewer line Xing L.

3" iron water pipe.

507.83

165+25	10.1	197.7 ✓
+50	9.7	198.1 ✓
+75	9.5	198.3 ✓
166+00	8.8	199.0 ✓
B.M.#17	2.94	504.89 ✓ set new
T.P.	8.85	498.98 ✓

B.M. nail in W. side of 24" oak tree [in center of traveled Rd]
15' Rt. of 162+90

11.13 510.11 ✓

+22	9.5	500.6 ✓
+71		501.3 ✓
167+00	6.6	503.5 ✓
+19	5.9	04.2 ✓
+50	5.3	04.8 ✓
+75	5.1	05.0 ✓
168+00	5.0	05.1 ✓
+25	5.2	04.9 ✓
+50	5.4	04.7 ✓
+77	6.0	04.1 ✓
169+00	6.4	03.7 ✓
+36 [±]	6.7	03.4 ✓
+67	6.6	03.5 ✓
170+00	6.6	03.5 ✓
+50	7.0	03.1 ✓
T.P.	7.08	503.03 ✓

2.92 505.95 ✓

T.P. 2.87 503.08 ✓

0.41 503.49 ✓

on Guard Marker 171+40"

Simpson
Sommer Meyer
M. Scarty

9/24/31

clear - warm

39

503.49

171+00		1.1	502.4 ✓
+40		1.6	01.9 ✓
+75		2.3	01.2 ✓
172+00		3.4	00.1 ✓
+50		5.2	998.3 ✓
173+00		7.0	96.5 ✓
+50		8.2	95.3 ✓
+90		9.0	94.5 ✓
174+30		9.6	93.9 ✓
T.P.		9.38	494.11 ✓
+77	0.23		
+84			
175+00		2.0	92.3 ✓
+50		3.3	91.0 ✓
176+00		4.1	90.2 ✓
+50		4.8	89.5 ✓
177+00		5.2	89.1 ✓
+19.5			
+50		5.0	88.6 ✓
178+00		5.0	89.3 ✓
+50		5.4	88.9 ✓
B.M. #18 & T.P.		2.89	491.45 ✓
	1.44		
179+00		4.4	88.5 ✓
+30		4.7	88.2 ✓
+75		3.8	89.1 ✓

492.3 Top of 3" iron pipe.

92.9 ✓

92.3 ✓

91.0 ✓

90.2 ✓

89.5 ✓

89.1 ✓

488.6 Top of Cor. iron sewer pipe

89.3 ✓

89.3 ✓

88.9 ✓

check on

old B.M. # ^{nail} 22 on Power Pole 6' Lf of sta. 178+50

(Rec. El. 491.37)

[Use For New B.M. #18]

note: See Page 76 for sewer
line King L.

492.89 ✓

180+15	3.5	989.4 ✓	
+35.5		988.3 ✓	Top of 3" iron sewer pipe.
+50	4.0	88.9 ✓	
181+00	4.4	88.5 ✓	
+50	4.1	88.8 ✓	
182+00	3.3	89.6 ✓	
+50	3.3	89.6 ✓	
183+00	3.6	89.3 ✓	
+50	1.8	91.1 ✓	
T.P.	0.37	492.89 ✓	

4.71 497.23 ✓

184+00	3.6	93.6 ✓	
+50	3.0	94.2 ✓	
185+00	3.0	94.2 ✓	
+50	3.2	94.0 ✓	
186+00	3.8	93.7 ✓	
+50	4.0	93.2 ✓	
187+00	4.0	93.2 ✓	
+50	3.8	93.1 ✓	
188+00	4.3	92.9 ✓	
+50	5.9	91.3 ✓	
189+00	7.2	90.0 ✓	
+50	8.8	88.1 ✓	
B.M. #19	2.72	494.51 ✓	set new B.M., Two Nails in Power Pole #73941, 6' hgt. 188+35
T.P.	8.48	488.75 ✓	

3.75 492.50 ✓

492.50 ✓

190+00	5.5	487.0 ✓
+50	6.8	85.7 ✓
191+00	7.1	85.9 ✓
+50	7.8	84.2 ✓
192+00	7.8	84.7 ✓
+50	6.0	86.5 ✓
	1.63	490.87 ✓
193+00	3.5	89.0 ✓
+60	1.8	90.7 ✓
194+00	3.0	89.5 ✓
+27		187.7 ✓
+50	5.3	87.2 ✓
195+00	6.3	86.2 ✓
+50	6.7	85.8 ✓
196+00	6.8	85.7 ✓
T.P.	6.34	486.16 ✓

4.05 490.21 ✓

+50	4.0	86.2 ✓
197+00	3.1	87.1 ✓
+50	3.1	87.1 ✓
198+00	4.0	86.2 ✓
+50	4.8	85.9 ✓
199+00	5.5	84.7 ✓
+50	5.6	84.0 ✓
+75	5.1	85.1 ✓
200+00	4.9	85.3 ✓

check on old B.M. # 24, Nail in power pole # 73938, 6' L 192+80

Rec. El. 490.91

Top of 14" coner. water pipe (not in use)

490.57
47
485.9

490.81 ✓

200+25	4.5	485.7 ✓
+50	4.3	85.9 ✓
+69 [±] EC	4.2	86.0 ✓
201+00	4.0	86.2 ✓
+50	2.7	87.5 ✓
202+00	1.2	89.0 ✓
+40	0.5	89.7 ✓
T.P.	0.54	489.67 ✓

0.70 490.37 ✓

+50	0.7	89.7 ✓
203+00	1.5	88.9 ✓
B.M. #20	0.47	489.90 ✓ set new
+50	3.3	87.1 ✓
204+00	6.5	87.9 ✓
+50	7.6	82.8 ✓
205+00	7.8	82.6 ✓
+50	7.9	82.5 ✓
+87		481.3 ✓
T.P.	7.82	482.55 ✓

B.M., SPIKE IN TEL. POLE #29167, 20' RT. 202+98

Top of 2" iron water pipe

4.91 487.46 ✓

206+00	4.4	83.1 ✓
+50	4.4	83.1 ✓
207+00	4.3	83.2 ✓
+60	2.6	84.9 ✓
208+00	3.7	83.8 ✓
	5.4	82.1 ✓

Flow line of 12" conc. culvert, 2' L of 208+13

	487.46				
		6.3	81.2	Flow line	of 12" conc. culvert 20' R of 208+13
208+50		4.8	82.7		
209+00		4.6	82.9		
+16			480.6	Flow line	14" cor. iron culvert (1.1' lower at N. end)
+50		5.2	82.3		
210+00		5.8	81.7		
+50		6.8	80.7		
211+00		7.3	80.2		
T.P.		6.01	481.45		
	2.68	484.13			
+30		4.0	80.1		
+50		3.7	80.4		
+75		3.6	80.5		
212+00		3.7	80.4		
+25		3.9	80.2		
+56		4.6	79.5		
213+00		5.0	79.1		
+50		5.4	78.7		
214+00		5.3	78.8		
		6.9	77.2	Flow	line of 12" G.I. culvert 4' L of 214+03
		7.6	76.5	"	" " " " " 26' R. " "
+50		5.1	79.0		
+86 ²		4.5	79.6		
215+25		3.8	80.5		
+62 ⁵		3.6	80.5		
216+00		3.4	80.7		

484.13 ✓

B.M. # 21 B.T.P.

3.21

480.92 ✓ Set New

B.M. ; spike in 40" oak tree, 20' Rt. 215+18

4.61

485.53 ✓

Oak tree is in center of county Rd.

216+26	5.0	80.5 ✓
+50	5.0	80.5 ✓
+75	5.1	80.1 ✓
217+00	5.2	80.3 ✓
+25	5.8	79.7 ✓
+50	6.6	78.9 ✓
+61	7.0	78.5 ✓
+68	7.2	78.3 ✓
218+22 ²	8.7	76.8 ✓
+77 ³	9.5	76.0 ✓
219+00	9.3	76.2 ✓
	11.0	74.5 ✓ Flow line
	11.7	73.8 ✓ " "
+50	8.4	77.1 ✓
T.P.	8.77	476.76 ✓
	10.95	487.71 ✓
+83 ⁴	9.4	78.3 ✓
220+00	8.8	78.9 ✓
+22		479.7 Top of
+25	7.6	80.1 ✓
+50	6.3	81.4 ✓
+75	5.0	82.7 ✓
221+00	3.5	84.2 ✓
+25	1.8	85.9 ✓

215+18
187+50
27.68

215+18
1650
198.68

of 12" G.I. culvert 7' L. 218+82
" " " " 23' L. " "

2" water pipe

	487.71		
221+33 ² E.C.	1.2	486.5	✓
T.P.	0.26	487.45	✓
11.98	499.43		
+65	10.9	488.5	✓
222+00	8.4	91.0	✓
+30	6.5	92.9	✓
+60	4.4	95.0	✓
+75	3.3	96.1	✓
223+00	1.9	97.5	✓
+25	0.7	98.7	✓
T.P.	0.08	499.35	✓
4.58	503.93		✓
+50	4.6	99.3	✓
+70 ¹	4.2	99.7	✓
B.M. # 22	1.05	502.88	Set New
224+00	3.9	500.0	✓
+50	3.6	500.3	✓
225+00	4.4	499.5	✓
+26	4.5	99.4	✓
+55	4.7	99.2	✓
+83	4.9	99.0	✓
226+00	5.0	98.9	✓
+19 ⁵	4.9	99.0	✓
+40	5.1	98.8	✓
+60	5.4	98.5	✓

B.M., Spike in 30" Oak Tree, 20' Rt Sta. 223+80

503.93 ✓

T.P.		5.38	498.55 ✓
	0.29		498.84 ✓
226+84 ⁸		0.7	998.1 ✓
227+00		1.1	97.2 ✓
+50		2.8	96.0 ✓
+74 ²		3.4	95.4 ✓
228+00		4.2	94.6 ✓
+25		4.9	93.9 ✓
+53 ¹		5.5	93.3 ✓
+98 ⁹		5.9	92.9 ✓
229+00			991.5 Top of
229+25		6.1	92.7 ✓
+50		6.5	92.3 ✓
+75		6.7	92.1 ✓
230+00		7.0	91.8 ✓
T.P.		7.02	991.82 ⁸ ✓

4" iron water pipe

0.41 492.23 ✓

B.M. #23		7.11	485.12 ✓ check on
+16 ⁵		0.7	991.5 ✓
+50		1.5	90.7 ✓
+81		2.6	89.0 ✓
231+12 ²		4.1	88.1 ✓
+43 ⁷		5.8	86.7 ✓
		6.7	85.5 ✓ Flow line
		9.2	83.0 ✓ " " " "
+78		6.8	85.4 ✓

old B.M. #29, Hub nailed to Tel. Pole, 40' Rt. of 229+95

Rec. El. 485.13-

[Use For New B.M. #23]

6" ²
 of 6" steel culvert 6' h of sta 221+37²
 " " " " 20' R " " 221+54

	492.23 ✓		
232+00		7.1	985.1 ✓
+30		7.1	85.1 ✓
+50		7.4	89.8 ✓
+77			483.4 ✓
T.P.		8.15	484.08 ✓
	0.47		484.52 ✓
+70		0.3	87.2 ✓
+85 ⁶		0.9	83.6 ✓
233+00		1.4	83.1 ✓
+50		3.1	81.4 ✓
234+00		5.4	79.1 ✓
+40		7.0	77.5 ✓
+68		8.3	76.2 ✓
235+06		10.0	74.5 ✓
+42		12.1	72.1 ✓
T.P.		12.47	472.05 ✓
	0.61		472.66 ✓
236+00		2.0	70.7 ✓
+50		4.2	68.5 ✓
237+00		5.6	67.1 ✓
+50		6.3	66.4 ✓
238+00		7.1	65.6 ✓
+50		7.4	65.3 ✓
239+00		7.6	65.1 ✓
T.P.		7.36	465.30 ✓
	6.22		471.52

Top of 3" iron waterpipe

	471.52			
239+50		6.4	465.1 ✓	
+91 ⁷		6.3	65.2 ✓	
240+00		5.7	463.45 ✓	Top of 2" iron water pipe
240+25			65.8 ✓	
+50		5.2	66.3 ✓	
+75		4.9	66.6 ✓	
241+00		5.0	66.5 ✓	
+50		4.9	66.6 ✓	
242+00		5.6	65.9 ✓	
+50		6.3	65.2 ✓	
+95 ⁵ A		7.0	69.5 ✓	
		8.8	62.7 ✓	Flow line of 16" conc. culvert 4' h of sta. 2+2+89
		9.3	62.2 ✓	" " " " " 23' R " " " "
B.M. #24 & T.P.		5.69	465.83 ✓	Set New B.M. Nail in East Side of Power Pole 6' h of sta 2+2+95
	1.74		467.57 ✓	
243+50		3.6	64.0 ✓	
244+00		4.0	63.6 ✓	
+50		4.1	63.5 ✓	
245+00		4.0	63.6 ✓	
+50		4.5	63.1 ✓	
246+00		4.7	62.9 ✓	
+43 ⁵ A		5.0	62.6 ✓	
247+00		4.7	62.9 ✓	
+50		4.3	63.3 ✓	
248+00		4.0	63.6 ✓	
+50		3.7	63.9 ✓	

	467.57 ✓		
T.P.		3.27	464.30 ✓
	8.81	473.11 ✓	
249+00		8.3	464.8 ✓
+50		6.9	66.2 ✓
250+00		6.3	66.8 ✓
+50		5.7	67.4 ✓
+86		4.9	68.2 ✓
251+00		4.9	68.2 ✓
+25		4.8	68.3 ✓
+50		5.1	68.0 ✓
+75		5.6	67.5 ✓
252+00		6.3	66.8 ✓
+25		7.3	65.8 ✓
+56		8.4	64.7 ✓
253+00		9.3	63.8 ✓
+50		10.5	62.6 ✓
254+00		11.2	61.9 ✓
+41 ²		12.4	60.7 ✓
+60		12.6	60.5 ✓
+80		12.7	60.4 ✓
255+00		12.5	60.6 ✓
B.M. # 25 & T.P.		9.41	463.70 ✓ Set new
	0.92	464.62 ✓	
		1.50	463.12 ✓ check on
+20		4.2	60.9 ✓

B.M., nail in 12" Sycamore tree, 36 ft. of sta. 254+86

OK B.M. #

Rec. El. = 463.13

467.62 ✓

255+38	4.2	460.7 ✓
+75	4.4	60.2 ✓
256+19	4.5	60.1 ✓
+50	4.8	59.8 ✓
+80	4.7	59.9 ✓
257+00	4.6	60.0 ✓
+25	4.3	60.3 ✓
+60	3.9	60.7 ✓
+89	3.9	60.7 ✓
258+00	4.8	59.8 ✓
+60	5.7	58.9 ✓
259+03	6.3	58.3 ✓
+50	6.6	58.0 ✓
T.P.	6.51	458.11 ✓

4.18 462.29 ✓

260+00	4.1	58.2 ✓
+36 [±]	4.1	58.2 ✓
+55	4.1	58.2 ✓
+72 ⁵	4.0	58.3 ✓
261+00	4.1	58.2 ✓
+58 ³⁵	4.8	57.5 ✓
+89	4.9	57.4 ✓
262+19	4.9	57.4 ✓
+65	4.9	57.4 ✓
263+00	5.1	57.2 ✓

462.29 ✓

263+50 5.3 57.0 ✓

264+00 6.2 56.1 ✓

+50 7.0 55.3 ✓

+77' 7.3 55.0 ✓

265+00 7.6 54.7 ✓

+25 7.9 54.4 ✓

+50 8.2 54.1 ✓

B.M. # 26 B.P.

8.13 454.16 ✓ Set new

B.M., Nail in 18" sycamore, 35' R sta. 265+83

3.68 457.84 ✓

+75 4.0 53.8 ✓

266+00 4.3 53.5 ✓

+25 4.4 53.4 ✓

+65 4.6 53.2 ✓

267+00 4.6 53.2 ✓

+50 4.7 53.1 ✓

268+00 4.5 53.3 ✓

+49' 4.1 53.7 ✓

+75 3.8 54.0 ✓

13.2 47.6 ✓

in River channel 100'± Rt. of sta. 268+50

269+00 3.8 54.0 ✓

+25 4.1 53.7 ✓

+50 4.6 53.2 ✓

+66' 5.0 52.8 ✓

270+00 5.5 52.3 ✓

+36 5.9 51.9 ✓

	457.84 ✓		
T.P.		5.66	452.18 ✓
	6.51	458.69 ✓	
270+56 ^E		6.9	451.8 ✓
+76 ⁶		7.0	51.7 ✓
271+00		7.0 ⁸	51.7 ✓
		8.6	50.1 ✓ FLOW
		9.1	49.6 ✓ "
+27		6.8	51.9 ✓
+63		6.5	52.2 ✓
+98		6.1	52.6 ✓
272+50		5.5	53.2 ✓
273+00		5.3	53.4 ✓
+50		5.2	53.5 ✓
274+00		5.2	53.5 ✓
+52 ⁷		5.4	53.3 ✓
+75		5.3	53.4 ✓
275+00		5.3	53.4 ✓
+25		5.1	53.6 ✓
+50		4.9	53.8 ✓
T.P.		4.55	454.14 ✓
	5.45	459.59 ✓	
276+00		5.6	54.0 ✓
+13 ⁷		5.5	54.1 ✓
+50		4.7	54.9 ✓
277+02 [†]		2.8	56.8 ✓

line of 12" G.I. culvert 4' h of sta. 271 to 4
 " " " " " 26' Rt. " " " "

459.59 ✓
 B.M. # 27 & T.P. 1.55 458.04 set new

B.M., Nail in 36" oak Tree 27' Rt. of Sta. 277+03

1.71 459.75 ✓
 277+25 2.6 457.2 ✓
 +50 2.7 457.1 ✓
 +75 3.3 456.5 ✓
 278+08^S 3.7 456.1 ✓
 +50 4.6 455.2 ✓
 6.8 453.0 Flow line
 7.8 452.0 " " " " " "
 279+00 4.4 455.4 ✓
 +50 4.9 454.9 ✓
 280+00 5.6 454.2 ✓
 +50 6.3 453.5 ✓
 281+00 7.2 452.6 ✓
 +23^E 8.1 451.7 ✓
 +65^E 9.0 450.8 ✓
 T.P. 8.89 450.86 ✓

of 16" conc. culvert 3 ls. of sta. 278+61
 " " " " 22 Rt. " " " "

1.86 452.72 ✓
 282+07² 2.7 450.0 ✓
 +50 3.4 449.3 ✓
 283+00 4.3 448.4 ✓
 +50 4.4 448.3 ✓
 284+00 4.7 448.0 ✓
 +50 4.8 447.9 ✓
 285+00 5.3 447.4 ✓

	8	452.72		
285+50			5.6	497.1 ✓
286+00			5.0	497.7 ✓
+50			4.6	498.1 ✓
287+00			3.6	499.1 ✓
+22 ³			3.3	499.4 ✓
+50			3.2	499.5 ✓
+75			3.2	499.5 ✓
T.P.			3.02	499.70 ✓

2.83 452.53 ✓

288+00			3.0	499.5 ✓
+25			3.3	499.2 ✓
+48 ¹			3.7	498.8 ✓
289+00			4.8	497.7 ✓
+50			5.2	497.3 ✓
290+00			5.2	497.3 ✓
+38 ⁵			5.2	497.3 ✓
+68				495.0
+77			5.6	496.9 ✓
291+14 ⁸			6.0	496.5 ✓

Top of 20" riveted steel pipe (from Logansaca flume)

48.94
48.88
0.06

B.M. #28 BTP

0.68 449.62 ✓

3.59 448.94 ✓ check on old B.M. #35, nail in 36" sycamore, 23' RT of sta. 290+86

Rec. El. = 448.88

[Use For New B.M. #28]

+50			3.7	445.9 ✓
292+00			3.9	445.7 ✓
+16 ²			4.0	445.6 ✓
+50			4.2	445.4 ✓
293+00			4.6	445.0 ✓

Simpson
Semmermayer
McCarthy

9/25/31

Part cloudy - warm

55

∞

449.62

293+50	4.6	445.0 ✓
294+00	4.3	45.3 ✓
+38	5.0	44.6 ✓
+75 ⁵	5.7	43.9 ✓
295+00	5.9	43.7 ✓
+50	6.2	43.9 ✓
296+00	6.6	43.0 ✓
	3.86	446.06 ✓

1.01

447.07 ✓

+50	4.6	42.5 ✓
297+00	4.8	42.3 ✓
+50	5.0	42.1 ✓
298+00	4.8	42.3 ✓
+12 Δ	4.8	42.3 ✓
+50	5.0	42.1 ✓
299+00	5.2	41.9 ✓
+47 Δ	5.0	42.1 ✓
300+00	5.4	41.7 ✓
+50	5.6	41.5 ✓
301+00	6.1	41.0 ✓
+24 ⁷	6.1	41.0 ✓

B.M. # 29 & T.P.

7.24 439.83 ✓ set new

3.79

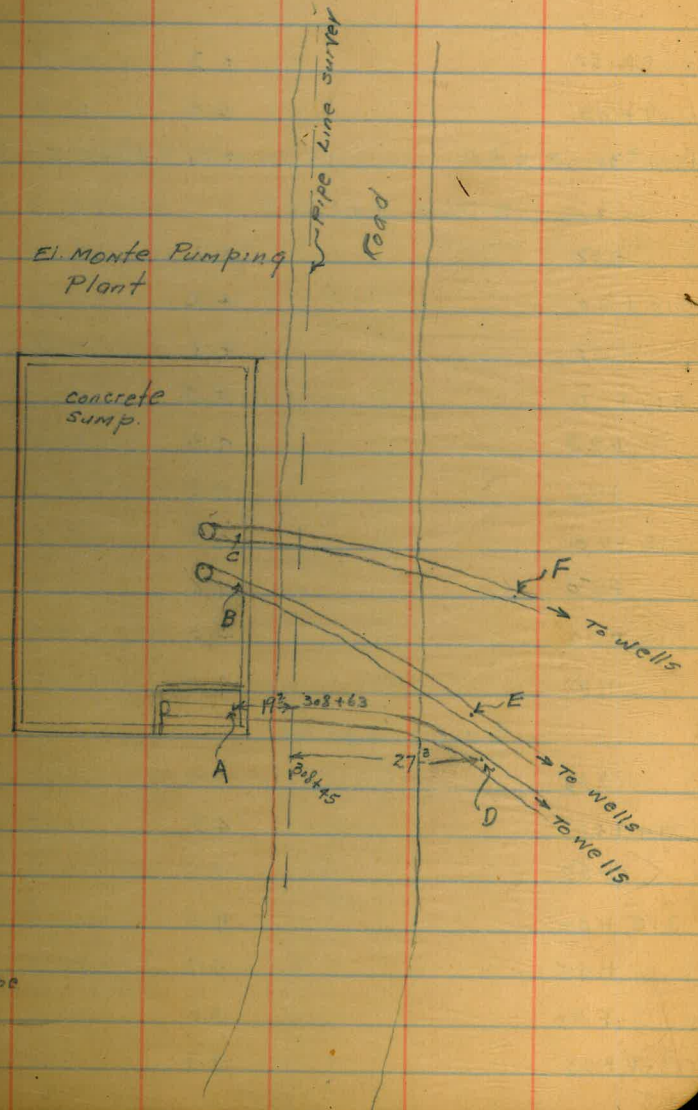
443.62 ✓

+85 ³ Δ	2.6	41.0 ✓
302+45 ¹	3.0	40.0 ✓

Nail in stump 25' R of sta 295+90

B.M. Spike in Tel. Pole # 33052, 50' Rt. of sta 301+40

	443.62 ✓		
303+00	3.7	439.9 ✓	
+62 ⁵	4.5	39.1 ✓	
304+00	4.9	38.7 ✓	
+66 ⁶	5.2	38.4 ✓	
305+02	5.0	38.6 ✓	
+37 ⁵	4.7	38.9 ✓	
306+00	4.7	38.9 ✓	
+34	4.6	39.0 ✓	
+50	4.5	39.1 ✓	
+75	4.6	39.0 ✓	
307+00	4.7	38.9 ✓	
T.P.	4.40	439.22 ✓	
	3.74	442.96 ✓	
+25	4.0	39.0 ✓	
+50	4.2	38.8 ✓	
+73	4.3	38.7 ✓	
308+00	4.5	38.5 ✓	
D.	7.8	35.2 = Top of 12" steel Pipe 27' Rt. of 308+45	
A.	6.6	36.4 = Top of 12" steel Pipe 19' L. of 308+63	
	10.7	32.3 = Bottom of Sump.	
B.	6.3	436.7 = Top of 12" East Iron Pipe 19' L. of 308+87	
C.	6.3	36.7 = Top of 16" steel Pipe 19' L. of 308+98	



442.96

E.		7.8	435.2	Top of 12" Cast Iron pipe 44' Rt. of 308+48
F.		9.2	53.8	Top of 16" steel pipe 75' Rt. of 308+51
308+50		4.3	38.7	
309+00		4.2	38.8	
B.M. #30 & T.P.		4.01	438.95	check on old B.M. #38, U.S.G.S. Gaging station, 19 ⁵ L. 309+23.
	2.76		441.71	Rec. E. 438.93 [Use for New B.M. #30]
+50		3.7	38.0	Brass Plug set in concrete monument
310+00		4.2	37.5	
+50		4.3	37.7	
311+00		4.5	37.2	
+23		4.5	37.2	
+60		4.6	37.1	
312+00		4.9	36.8	
+50		4.8	36.9	
313+00		5.3	36.7	
T.P.		4.56	437.15	
	3.25		440.40	
+50		3.9	36.5	
314+00		4.2	36.2	
+50		4.2	36.2	
315+00		4.5	35.9	
+45		4.4	36.0	
+80		3.6	36.8	
316+00		4.7	35.7	

	440.40		
316+50		5.2	438.2 ✓
317+00		5.4	35.0 ✓
+50		5.5	34.9 ✓
+72			32.1
318+00		5.5	34.9 ✓
+50		5.6	34.8 ✓
319+00		5.6	34.8 ✓
T.P.		4.95	435.45 ✓
	5.31	440.76 ✓	
+50		5.9	34.9 ✓
320+00		5.9	34.9 ✓
+50		5.6	35.2 ✓
321+00		5.4	35.4 ✓
+50		4.9	35.9 ✓
322+00		4.5	36.3 ✓
+50		3.0	37.8 ✓
323+00		1.6	39.2 ✓
B.M. # 31 & T.P.		0.79	439.97 ✓ set new
	6.54	446.51 ✓	
+50		7.7	38.8 ✓
324+00		7.4	39.1 ✓
		9.3	37.2 ✓ Flow line of 12" a.I. culvert 2' R of 324+42
		10.5	36.0 ✓ " " " " " 32' " " " "
+50		7.5	39.0 ✓
325+00		7.3	39.2 ✓
+325			440.0 ✓ Top of 2" steel water pipe
+50		5.5	41.0 ✓ Rd same as L. Here

Top 2" pipe across road. (Not in use. Abandoned)

B.M. Spike in Power Pole # 74094, 9' W of Sta 323+17

446.51 ✓

325+70
+90
326+00
+36.3
+60

Void
See Book 327
Page 39

3.4

443.1 ✓

442.15 Top of 2" steel water pipe

2.4

441.1 ✓

" 12" concr. sewer pipe

1.2

440.0 ✓

43.3 ✓

Rd. opp. 326+00

4.4

42.1 ✓

327+00

1.4

45.1 ✓

Rd. opp. 327+00

4.5

42.0 ✓

+50

4.0

42.5 ✓

328+00

5.0

41.5 ✓

Rd. same El. as 4. Here

+30³

4.9

41.6 ✓

T.P.

5.00

441.51 ✓

7.89

449.40 ✓

+75

7.1

42.3 ✓

329+00

6.8

42.6 ✓

+25

6.4

43.0 ✓

+50

6.2

43.2 ✓

+75

5.7

43.7 ✓

8.6

40.8 Flow line of 18" G.I. culvert 19' 6" of sta. 328+93

9.5

39.9 " " " " " 13' 7 1/2" of sta. 328+75

330+00

5.0

44.1 ✓

+50

3.5

45.9 ✓

331+00

1.2

48.2 ✓

T.P.

0.31

449.09 ✓

13.00

462.09 ✓

+50

11.6

50.5 ✓

332+00

9.3

52.8 ✓

462.09

~~332+45 5.9 156.2 ✓~~

~~333+00 3.4 59.7 ✓~~

~~+50 1.7 60.4 ✓~~

~~B.M. #32 & T.P. 0.32 461.77 ✓ set new~~

~~11.89 473.66 ✓~~

~~334+00 11.5 62.2 ✓~~

~~+50 8.9 64.8 ✓~~

~~335+00 6.8 66.9 ✓~~

~~+50 4.8 68.9 ✓~~

~~336+00 2.5 71.2 ✓~~

~~+50 0.3 73.1 ✓~~

~~T.P. 0.21 473.45 ✓~~

~~10.59 484.04 ✓~~

~~337+00 8.4 75.6 ✓~~

~~+55⁷ 5.8 78.2 ✓~~

~~+89³ 7.9 79.1 ✓~~

~~338+22⁸ 4.9 79.1 ✓~~

~~+60 5.3 78.7 ✓~~

~~339+00 6.0 78.0 ✓~~

~~+50 6.8 77.2 ✓~~

~~340+00 8.5 75.5 ✓~~

~~+50 10.9 73.1 ✓~~

~~341+00 12.6 71.4 ✓~~

~~T.P. 12.89 471.15 ✓~~

~~0.64 471.99 ✓~~

B.M. Spike in Power Pole # 78774, 32' W of sta. 333+77

471.79

341+50	1.6	470.2 ✓
342+00	3.2	68.6 ✓
+19' A	3.5	68.9 ✓
+60	4.8	67.0 ✓
343+00	6.0	65.8 ✓
+50	7.3	64.5 ✓
+75	7.2	64.6 ✓
344+00	8.0	63.8 ✓
+50	7.8	64.0 ✓
T.P.	7.78	464.01 ✓
0.73	464.74 ✓	
345+00	1.6	63.1 ✓
+50	2.3	62.4 ✓
346+00	4.0	60.7 ✓
+50	4.9	59.8 ✓
347+00	5.1	59.6 ✓
+50	5.6	59.1 ✓
+92	6.6	58.1 ✓
	9.8	57.9 ✓ Floor
	5.6	59.1 ✓ Floor
348+07	10.1	57.6 ✓
+16	9.9	57.8 ✓
+23	4.9	59.8 ✓
+48 ⁵	5.9	58.8 ✓
B.M. #33 + T.P.	4.59	460.15 ✓ set New

17 Branch Rd. to Lake Side

line of wooden Bridge 10' h of sta. 348+03
of " " " " " "

B.M. Spike in Power Pole #7439, 42 h of sta. 348+25

Simpson
Summer Meyer
McCarty

9/26/31

62

	4.79	464.94 ✓	460.15 ✓
349+00		5.8	459.1 ✓
+50		5.6	59.3 ✓
350+00		5.3	59.6 ✓
+50		4.8	60.1 ✓
351+00		4.5	60.7 ✓
+50		3.9	61.0 ✓
352+00		3.1	61.8 ✓
+50		2.3	62.6 ✓
353+00		2.6	62.3 ✓
+27		2.4	62.5 ✓
+50		1.7	63.2 ✓
T.P.		1.70	463.24 ✓
	0.15	463.39 ✓	
+75		0.4	63.0 ✓
354+00		1.4	62.0 ✓
+75		1.8	61.0 ✓
+46	Cont. from	2.3	61.1 ✓
355+00	Book #327	3.7	59.7 ✓
+50		4.6	58.8 ✓
		5.30	458.09 ✓
356+00		5.7	57.7 ✓
+50		6.8	56.6 ✓
357+00		7.5	55.9 ✓

note: notes erased here
account of line change

check on old B.M. #42 Rec. Fl. 458.04

463.39 ✓

357+50	8.2	155.2 ✓
358+00	9.1	54.3 ✓
+50	9.9	53.5 ✓
T.P.	9.44	453.95 ✓

1.08 455.03 ✓

359+00	2.1	52.9 ✓
+50	2.9	52.1 ✓
360+00	3.6	51.4 ✓
B.M. # 34	3.54	451.49 set new
+50	4.1	50.9 ✓
361+00	4.7	50.3 ✓
+50	5.3	49.7 ✓
362+00	5.7	49.3 ✓
+50	6.0	49.0 ✓
363+00	6.1	48.9 ✓
+50	6.2	48.8 ✓
364+00	5.7	49.3 ✓
T.P.	5.44	449.59 ✓

1.84 451.43 ✓

+60 ⁵	0.8	50.6 ✓
365+00	1.6	49.8 ✓
+25	2.2	49.2 ✓
+50	4.0	47.1 ✓
+75	6.8	44.6 ✓
366+00	8.3	43.1 ✓

B.M., Nail in Tel. Pole # 25097, 31' Rk. of sta. 360+47.

	451.43		
366+50		11.3	140.1 ✓
367+00		12.8	38.6 ✓
T.P.		12.81	438.62 ✓
	1.22		439.84 ✓
+50		2.3	37.5 ✓
368+00		2.7	37.1 ✓
+50		1.9	37.9 ✓
+96 ⁺		2.4	37.7 ✓
369+50		4.7	35.1 ✓
370+00		6.8	33.0 ✓
B.M. #35		6.77	433.07 ✓
			Hub nailed To 12" Euc. Tree 8' N of sta. 370+80
+50		8.8	31.0 ✓
371+00		10.0	29.8 ✓
+50		10.9	28.9 ✓
T.P.		12.14	427.70 ✓
	0.45		428.15 ✓
372+00		2.2	26.0 ✓
+50		5.2	23.0 ✓
373+00		8.4	19.8 ✓
+50		10.1	18.1 ✓
374+00		11.8	16.4 ✓
T.P.		11.54	416.61 ✓
	1.20		417.81 ✓
+50		2.9	14.9 ✓
375+00		3.8	14.0 ✓

	417.81 ✓			
375+50		4.5	413.3 ✓	
376+00		5.4	12.4 ✓	
+50		5.8	12.0 ✓	
377+00		6.4	11.4 ✓	
+50		7.3	10.5 ✓	
378+00		7.8	10.0 ✓	
+50		8.7	09.1 ✓	
379+00		9.2	08.6 ✓	
T.P.		9.06	408.75 ✓	
	2.48	411.23 ✓		
+50		3.0	08.2 ✓	
380+00		3.3	07.9 ✓	
+60		3.7	07.5 ✓	
381+00		3.5	07.2 ✓	
+50		3.0	08.2 ✓	
382+00		4.2	07.0 ✓	
+50		6.2	05.0 ✓	
383+00		7.2	04.0 ✓	
+10 ¹ Δ		7.4	03.8 ✓	
+50		7.9	03.3 ✓	
384+00		8.0	03.2 ✓	
		9.7	01.5 ✓	Flow line of 18" G.I. culvert 5' h of sta. 384+26
		10.3	00.9 ✓	" " " " 25' Rt. " " " "
+50		8.1	03.1 ✓	
385+00		8.3	02.9 ✓	

411.23^v

385+50

7.7

403.5^v

7.38

403.85^v = check on old B.M. # 44 Rec. #1 = 403.78

B.M. # 368 T.P.

7.37

403.86^v set new B.M., spike in Tel. pole # 25085, 23' R of Sta 385+60

13.02

416.88

386+00

11.9

405.0^v

+50

8.5

08.4^v

387+00

5.3

11.6^v

+50

2.0

14.9^v

T.P.

0.19

416.69

12.11

428.80

388+00

11.6

17.2^v

+50

9.7

19.1^v

+80

7.4

21.4^v

389+00

7.6

21.2^v

+50

6.9

21.9^v

390+00

5.6

23.2^v

+50

4.4

24.4^v

391+00

2.8

26.0^v

+20

2.1

26.7^v

+65

1.1

27.7^v

392+00

0.3

28.5^v

T.P.

0.04

428.76^v

7.42

436.12^v

+50

7.0

29.2^v

393+00

6.5

29.7^v

436.18 ✓

	5.77	430.41	check on	old B.M. # 45	Rec. El. 430.40
393+50	5.7	730.8 ✓			
394+00	5.1	31.1 ✓			
+50	4.8	31.4 ✓			
395+00	4.0	32.2 ✓			
+50	4.0	32.2 ✓			
396+00	3.4	32.8 ✓			
+25	3.4	32.8 ✓			
+57 A	4.3	31.9 ✓			
B.M. # 37 & T.P.	3.23	432.95	Set New	B.M. Nail in Tel. Pole # 25080	30' Rt. of Sta. 396+02
	1.87	434.82 ✓			
397+00	4.1	30.7 ✓			
+50	5.2	29.6 ✓			
398+00	6.1	28.7 ✓			
+50	6.9	27.9 ✓			
399+00	8.3	26.5 ✓			
+50	9.8	25.0 ✓			
400+00	11.5	23.3 ✓			
T.P.	11.04	423.78 ✓			
	0.29	424.07 ✓			
+50	2.1	22.0 ✓			
401+00	3.7	20.4 ✓			
+50	4.6	19.5 ✓			
402+00	5.8	18.3 ✓			
+50	6.8	17.3 ✓			

	729.07 ✓		
403+00		7.4	716.7 ✓
+50		7.8	16.3 ✓
T.P.		7.95	416.12 ✓
8.08	779.30 ✓		
404+00		8.6	15.6 ✓
+50		8.3	15.2 ✓
405+00		7.1	17.1 ✓
+25		6.2	18.0 ✓
+50		5.6	18.6 ✓
406+00		4.5	19.7 ✓
+50		4.4	19.8 ✓
+97		5.7	18.8 ✓
407+10		6.1	18.1 ✓
+20		6.2	18.0 ✓
+30		6.6	17.6 ✓
+40		6.9	17.3 ✓
+40			414.2 ✓
+50		7.0	17.2 ✓
+70		7.2	17.0 ✓
+80		7.6	16.6 ✓
+90		7.8	16.9 ✓
+95 ³ E.C.		7.9	16.3 ✓
408+00		8.0	16.2 ✓
		7.00	717.30 ✓ check on
B.M. #38 & T.P.		7.31	416.89 ✓ set new
1.42	718.31		

Top 8" Water Main.

old B.M. #47 Rec. El 417.16

B.M., Small R.R. spike in Guy Pole 42h 407+34

418.31 ✓

408+35	2.9	415.4 ✓
+69 ⁶	3.7	14.6 ✓
409+00	5.2	13.1 ✓
+25 ⁹	6.5	11.8 ✓
+74	8.8	09.5 ✓
410+00	10.2	08.1 ✓
+38	11.0	07.3 ✓
+50	11.3	07.0 ✓
+75	11.9	06.4 ✓
T.P.	11.49	406.82 ✓

4.07 410.89 ✓

411+00	4.6	06.3 ✓
+25	4.7	06.2 ✓
+50	4.9	06.0 ✓
+75	4.8	06.1 ✓
412+00	4.8	06.1 ✓
+50	5.1	05.8 ✓
413+00	5.2	05.7 ✓
+50 ⁵	5.4	05.5 ✓
414+00	5.3	05.6 ✓
+50	5.6	05.3 ✓
415+00	5.1	05.8 ✓
+50	4.8	06.1 ✓
T.P.	4.87	406.02 ✓

4.22 410.24 ✓

410.24 ✓

416+00	3.7	906.5 ✓
+50	4.4	05.8 ✓
+58 ²	4.4	05.8 ✓
417+00	4.7	05.5 ✓
+49 ⁵	4.8	05.4 ✓
+75	4.9	05.3 ✓
418+00	4.8	05.4 ✓
+25	4.6	05.0 ✓
+50	4.1	06.1 ✓
+84 ³ E.C.	3.8	06.4 ✓
419+00	3.5	06.7 ✓
+49 ⁶	1.7	08.5 ✓
+62 ³	408.1	
+71	0.4	09.8 ✓
+97 ²	0.9	09.3 ✓
T.P.	0.62	409.62 ✓

0.46

410.08 ✓

420+30	1.2	08.9 ✓
+40 ³	406.5	
+60	2.4	07.7 ✓
+80	4.0	06.1 ✓
421+00	4.9	05.2 ✓
+50	6.9	03.2 ✓
422+00	8.1	02.0 ✓
+50	8.5	01.6 ✓
423+00	8.3	01.8 ✓
+56 ⁵	8.6	01.5 ✓

Top 4" Water Line.
 Conc. Pavement to Lake side end Ramona
 " " " " " " " " " " " "

Top 2 1/2" Water Line.

410.08

12.04 398.04 Top of existing 36" steel pipe at Dead End.

T.P.

8.34 401.74

3.18

404.92

4.79 400.13 = check on Co. B.M. #21, El. 400.22. 6' R/L of sta. 435+85

Notes reduced & checked 9/22/31
L.H.H.

Profile And Cross-sections on Road
Survey, Alternate Line #1.

July-1-1935.
Mill-Simpson
Soper-Remmen

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445.2 ✓

100.00 = Assumed Elev. For Sta. 114+00 on Alternate Line #1

450.9 ✓

5.72 105.72

114+86.26 B.C. #1

114+84.47 B.C. #2

115+00 use same as Alternate Line #2

+50 " " " " " "

RT

116+00	441.7 9 ² 50	Lf. 444.8 8 ² 32	445.8 5 ² 25	445.9 5.0	445.8 5 ² 3	455.1 +4 ² 8	462.1 +11 ² 28
--------	-------------------------------	--------------------------------------	-------------------------------	--------------	------------------------------	-------------------------------	---------------------------------

+50	443.0 7 ² 40	444.1 6 ² 25	446.0 4 ² 21	446.5 4.4	446.4 4 ² 8	447.4 3 ² 9	456.4 +5 ² 35
-----	-------------------------------	-------------------------------	-------------------------------	--------------	------------------------------	------------------------------	--------------------------------

117+00	444.1 6 ² 32	444.6 6 ² 27	446.4 4 ² 20	447.3 3.6	447.2 3 ² 13	448.3 2 ² 14	450.4 0 ² 30
--------	-------------------------------	-------------------------------	-------------------------------	--------------	-------------------------------	-------------------------------	-------------------------------

+50	444.1 6 ² 30	444.7 6 ² 21	446.7 4 ² 16	447.4 3.5	447.5 3 ² 13	451.4 +0 ² 16	455.4 +4 ² 30
-----	-------------------------------	-------------------------------	-------------------------------	--------------	-------------------------------	--------------------------------	--------------------------------

T.P. 3.36 ~~102.36~~ 117.56

7.60 455.16 109.96

118+00	443.6 11 ² 30	444.6 10 ² 18	446.7 8 ² 14	447.6 7.6	447.4 7 ² 14	455.2 0 ² 18	461.4 +6 ² 35
--------	--------------------------------	--------------------------------	-------------------------------	--------------	-------------------------------	-------------------------------	--------------------------------

+50	444.3 10 ² 30	445.4 9 ² 14	446.9 8 ² 11	447.7 7.5	447.8 7 ² 19	455.0 0 ² 24	459.0 +3 ² 35
-----	--------------------------------	-------------------------------	-------------------------------	--------------	-------------------------------	-------------------------------	--------------------------------

	✓ 255.16 109.96	Lf.	✓ 248.1	✓ 248.2	✓ 249.0	✓ 251.7	✓ 255.0
119+00	445.3 9 ² 25	446.2 8 ² 10	448.1 7 ¹ 7	448.2 7.0	449.0 6 ² 24	451.7 3 ⁵ 26	455.0 0 ² 35
+50	445.5 9 ² 30	447.0 8 ² 8	448.3 6 ² 6	448.8 6.4	450.7 4 ⁵ 29	451.8 3 ⁴ 35	
120+00	445.8 9 ⁴ 30	447.2 8 ⁰ 9	448.3 6 ² 6	448.9 6.3	450.2 5 ⁰ 30		
+50	446.3 8 ² 30	447.7 7 ⁵ 16	448.4 6 ⁸ 14	449.4 5.8	449.8 5 ⁴ 19	451.1 4 ¹ 21	451.8 3 ² 30
121+00	445.0 10 ² 30	445.9 9 ³ 23	447.9 7 ³ 20	448.8 6.4	448.8 6 ⁴ 11	452.1 3 ¹ 13	457.1 +1 ⁹ 25
+50	444.9 10 ³ 40	445.7 9 ⁵ 30	447.2 8 ⁰ 26	448.1 7.1	448.0 7 ² 4	452.6 2 ⁶ 6	461.6 +6 ⁴ 30
122+00		446.6 8 ⁶ 30	446.9 8.3	451.7 3 ⁵ 3	461.4 +6 ² 30		
+50		447.2 8 ⁰ 31	447.1 8 ¹ 3	451.9 3.3	461.2 +6 ⁰ 30		

155.16
109.96

Lf.

℄

Rt.

123+00

447.8
7²
32

447.7
7²
2

449.2
6.0

453.5
12
30

+50

447.5
7²
35

448.1
7¹
1

448.8
6.4

451.8
3²
30

124+00

447.5
7²
30

448.3
6²
14

447.8
7.4

451.6
3²
8

458.6
+3²
30

+50

446.0
9²
30

448.0
7²
26

448.5
6²
13

448.3
6.9

448.3
6²
1

449.5
5²
2

459.5
+4²
30

125+00

445.8
9²
38

446.4
8²
28

448.8
6²
25

449.1
6.1

448.9
6²
2

452.5
2²
5

460.1
+4²
30

125+28.74 End of Alternate Line #1

See Cross-section in Previous Notes.

124+72.44 Co. Survey #606

5.1 150.1
~~124.9~~ = check on ℄ sta. 125+00 (Orig. Co. Survey #606)

9/25/31

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Water Lines, Drains Etc. Crossing
 of Pipe Line Survey

508.33 = B.M. #13

3.96 512.29

5.85 506.44 = Top of 2" Water Line crossing at sta. 114+96

504.89 = B.M. #17

1.87 506.76

8.25 498.51 = Top of

(concrete)
6" Sewer line 3' L of sta. 160+79 [COW BARN DRAIN]

10.60 = " "

" " " 21' R of sta. 160+79

491.45 = B.M. #18

2.43 493.88

5.30 488.58 Top of

8" G.I. sewer pipe 3' L of sta. 177+15 COW BARN

6.30 " "

" " " 25' R of " " " DRAIN

High Water Marks along San Diego
River below El Capitan Dam Site,
in Relation to Pipe Line Elevations.

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Station	4 Elev.	Elev. H.W.M.	
32+16	549.7	546.7	Below Road
33+98.5	546.0	546.5	Above Road
36+15	538.7	543.0	" "
36+75	541.4	542.4	" "
40+50	538.4	540.0	" "
41+90	534.7	538.7	" "
44+75	540.0	535.0	Below "
51+50	533.9	532.0	" "
53+00	532.8	530.8	Above Road
54+50	539.3	529.3	" " ?
55+96	534.9	529.0	Below Road

High Water Marks Contd.

Station	Elev.	Elev. H.W.M.		
60+50	533.6	528.4	Below	Road
71+00	527.1	524.2	"	"
77+50	523.7	520.7	"	"
79+85	529.4	518.6	"	"
92+75	521.2	515.5	"	"
95+00	525.8	515.2	"	"
97+00	524.4	514.8	"	"
107+00	509.1	511.0	Above	"

At Cape Horn.

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder
stake for any width roadway, slope, &c. to be
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 the

IMPROVED TABLES

AND

INFORMATION

To find Tangent and Extensal for curve of
any other degree, divide by degree of curve and
add correction found in column of correction.
Degrees of curve with a given L may be found
by dividing tangent (or extensal) and L by
given tangent (or extensal).
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.

52.8

14
311.2

52.8

739.2

|