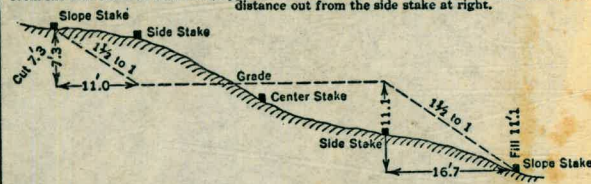


W
598

5
298

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING
Roadway of any Width. Side Slopes 1/2 to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	Distance out from Side or Shoulder Stake										Cut or Fill
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

KEUFFEL & ESSER CO., N. Y.

10,892-2. y. cc, ys. cm.

MICROFILMED

JAN 13 1965

The paper in this book No. F370A

is made of 50% high grade rag stock

with a WATER RESISTING surface sizing.

In denard page 97-50 - 7/18/96 mod.

INDEX

Realignment El Monte P.L. 1-5

Profile of Realignment 6-25

Realignment Sta. 189+53.20 to

Alverado Filter Plant Site 26-31

Profile of Same 32-46

Profile Line Change "T" Line

EL MONTE P.L. ST 2113+85 TO 132+75.60 47-50

Cont. From BK 596 pg. 22
Realignment Elmwood P.L.
from sta. 641+89.86 to sta.
689+53.26

7-20-44

Byler
King
Otten
Stephens

1.

645 11°06'

+50 9°19'

644 7°32'

+50 5°44'

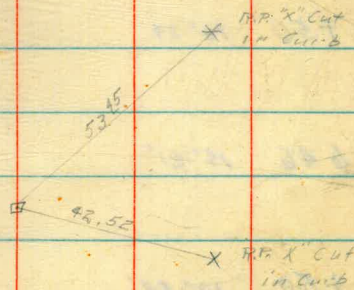
643 3°57'

Δ 43°06' LK
R 800
T 315.93
L 601.79

+50 2°09'

642 0°22'

641+89.86 B.C.



656+76.9

A.V. # 52 - 20' Rt.

976+50 El. Copitan std.

648+13.2

A.V. # 51 - 20' Rt.

647+99.5 = 647+84.17 = E.C. of curve on old Shelton Line

2"x2" hub

2"x2" hub

2"x2" hub

100°

10°

10°

647+91.45 = E.C. 21°33'

+50 20°04'

647 18°16'

+50 16°29'

646 14°21'

+50 12°54'

661+53²

M.H. 20' Right

5°03'30"

661+50 = Shelton Sta. 661+33²

660+94³⁵

+69.00 E.C. 12°21'

+50 11°26'

660 9°01'

A 29°42' RT.

R 59.3

T 129.84

L 255.64

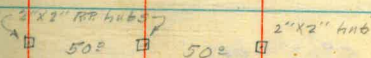
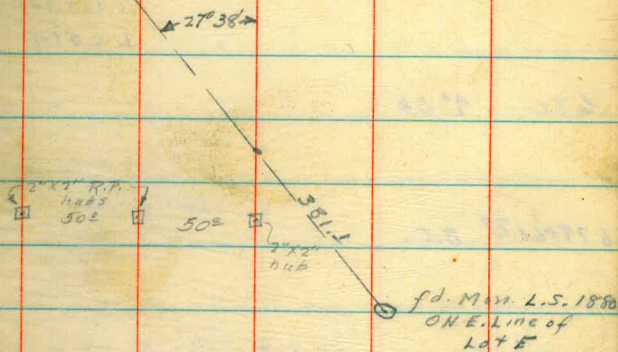
+50 6°36'

659 4°11'

+50 1°46'

658+13³⁶ B.C.

fd. Com. Mon.
L.S. 1880-NAG
SEE PAGE 5



+50 9° 29'

Δ 59° 03' Lt.
R 266.5
T 135.94
L 251.4

680 9° 06'

679+612²⁹ B.C.

2" X 2" R.P.

□ 50° □ 50° □ 2" X 2"

678+89¹⁰ L Rt. 4° 40'

3" X 2" R.P.

□ 30° □ 50° □ 2" X 2"

+85.56 E.C. 4° 13'

Δ 8° 26' Rt.
R 593
T 43.72
L 87.28

2" X 2" R.P.
hubs
□ 50° □ 50° □

+50 2° 30'

AV. # 53 - 20' Rt.

674 0° 05'

673+98²⁸ B.C.

2" X 2" hub

□ 50° □ 50° □

3" X 2" R.P.
hubs667+59⁸⁹ L 5° 03' Rt.

3" X 2" R.P.
hub
Note - this
R.P. driven
at angle

□ 50° □

3" X 2" hub

□ 50° □

3" X 2" R.P.
hubs

□ 50° □

ALSO SEE BOOK 580 PAGE 2

Revised from Book 580 Continued This
Book Page 26

5.

SEE BOOK 630 PAGE 16

9-19-49
W.D.B.

689+30 AHEAD = STA. ON OLD SKELTON LINE
689+5326 BOOK EQU.

686+983'

fd. CONC. MARK. L.S. 1890
BY N.D.G.

81°36'

S.E. CORN. LOT
E OF LOT 70

1030.54'

211.72'

fd. 3x4

89°53'

683+95'

End of Trestle

682+423

End of trestle 20' RT.

LINE TO
LOT 70
M.M.

+13 49 E.C. 27°01'30"

2x2 R.P.S

30°

50°

2x2

682 25°36'

+50 20°11'

681 19°51'

Profile LINE
See BK. 596 Page 67

8-1-44

Byley
King
offen
Stephens

±

56.

	10.51	368.85	358.34
691+8985 BC.	13.4	355.5	✓
642	12.0	356.9	✓
+23	7.3	361.6	✓
+46	7.2	361.7	✓
+50	9.1	359.8	✓
+57	13.2	355.7	✓
+80	12.6	356.3	✓
+92	8.1	360.8	✓

B.M. X in end of Abutment near sta.

$$\frac{+10.5}{28} + \frac{+8.8}{15} = \frac{+8.0}{10} \quad \frac{-3.8}{6} \quad \frac{-3.7}{12} \text{ edge pav.}$$

$$\frac{+9.0}{20} + \frac{+8.2}{15} = \frac{+6.2}{6} \quad \frac{-4.7}{7} \quad \frac{-4.7}{12} \text{ edge pav.}$$

$$\frac{+3.3}{18} \quad \frac{-8.2}{10} \quad \frac{-8.3}{14}$$

$$\frac{+4.1}{18} \quad \frac{+1.3}{10} \quad \frac{-1.0}{7} \quad \frac{-7.2}{14} \quad \frac{-7.0}{18}$$

$$\frac{+7.7}{26} + \frac{+5.2}{15} = \frac{+2.7}{11} \quad \frac{+2.5}{6} \quad \frac{-5.0}{6} \quad \frac{-5.0}{16}$$

$$\frac{+10.8}{25} \quad \frac{-0.2}{17}$$

$$\frac{+9.0}{25} + \frac{+0}{17} = \frac{+0.3}{5} \quad \frac{0.0}{8} \quad \frac{+2.6}{16} \quad \frac{+1.0}{20} \text{ Rubble gutter}$$

$$\frac{+5.4}{26} + \frac{+5.4}{21} = \frac{-1.5}{7} \quad \frac{-4.0}{14} \quad \frac{-2.9}{19} \text{ Rubble gutter}$$

368.85 ✓

643 9.2 359.7 ✓

+08 10.8 358.1 ✓

+17 10.1 358.8 ✓

TP 0.27 368.58 ✓

13.05 381.63 ✓

+50 12.1 369.5 ✓

+68 7.4 374.2 ✓

+85 6.1 375.5 ✓

+90 3.2 378.4 ✓

344 0.9 380.7 ✓

TP 12.15 393.23 ✓ 0.55 381.08 ✓

4

47

$$\begin{array}{r} +7.0 \\ 25 \end{array} \quad \begin{array}{r} +7.0 \\ 23 \end{array} \quad \begin{array}{r} -1.9 \\ 7 \end{array} \quad \begin{array}{r} -2.0 \\ 16 \end{array} \quad \begin{array}{r} -1.3 \\ 21 \end{array} \quad \begin{array}{r} -2.6 \\ 25 \end{array} \quad \text{gutter}$$

$$\begin{array}{r} +9.3 \\ 30 \end{array} \quad \begin{array}{r} +0.5 \\ 10 \end{array} \quad \begin{array}{r} +3.0 \\ 16 \end{array} \quad \begin{array}{r} +7.7 \\ 24 \end{array}$$

$$\begin{array}{r} +8.4 \\ 32 \end{array} \quad \begin{array}{r} +0.2 \\ 11 \end{array} \quad \begin{array}{r} +2.0 \\ 14 \end{array} \quad \begin{array}{r} +4.4 \\ 25 \end{array}$$

$$\begin{array}{r} -1.0 \\ 25 \end{array} \quad \begin{array}{r} +2.0 \\ 25 \end{array}$$

$$\begin{array}{r} -1.0 \\ 25 \end{array} \quad \begin{array}{r} +2.0 \\ 25 \end{array}$$

$$\begin{array}{r} -1.0 \\ 25 \end{array} \quad \begin{array}{r} +1.0 \\ 25 \end{array}$$

$$\begin{array}{r} -0.9 \\ 25 \end{array} \quad \begin{array}{r} +1.0 \\ 25 \end{array}$$

$$\begin{array}{r} -0.8 \\ 25 \end{array} \quad \begin{array}{r} +1.1 \\ 25 \end{array}$$

393.23 ✓✓

+50 3.0 390.2 ✓

TP 12.90 405.66 ✓✓ 0.17 392.76 ✓✓

⁶ 345 8.2 397.5 ✓

+28 4.0 401.7 ✓

+50 1.6 404.1 ✓

TP 8.60 413.26 ✓✓ 1.00 409.66 ✓✓

⁶ 346 8.0 405.3 ✓

+50 7.7 405.6 ✓

⁶ 347 6.7 406.6 ✓

+50 6.2 407.1 ✓

+91.65⁵ E.C. 6.2 407.1 ✓

413.26 ✓

648 6.3 407.0 ✓

TP/B.M. 0.68 408.61 ✓ 5.33 407.93 ✓

+50 3.2 405.4 ✓

649 7.3 401.3 ✓

+50 11.5 397.1 ✓

TP 0.74 396.66 ✓ 12.69 395.92 ✓

650 4.7 392.0 ✓

+50 11.9 384.8 ✓

TP 0.05 383.63 ✓ 13.08 383.58 ✓

651 7.7 375.9 ✓

+35 13.4 370.2 ✓

W. Ring cover A.V. # 51

$\frac{-0.2}{20}$ $\frac{+0.1}{20}$

$\frac{-1.9}{25}$ $\frac{+1.0}{25}$

383.63

¥10.

TP 2.44 373.60 ✓ 12.47 371.16 ✓

651+50 65 367.1 ✓

 $\frac{+1.0}{25}$ $\frac{-3.7}{17}$ $\frac{+2.0}{25}$

+75 13.6 360.0 ✓

 $\frac{+7.9}{25}$ $\frac{+2.9}{13}$ $\frac{+2.3}{25}$

+95 12.4 361.2 ✓

 $\frac{+5.6}{20}$ $\frac{+3.2}{8}$ $\frac{-5.4}{13}$ $\frac{-3.6}{25}$

652 12.8 360.8 ✓

 $\frac{+5.6}{20}$ $\frac{+2.0}{9}$ $\frac{-7.0}{20}$

+19 19.7 353.9 ✓

 $\frac{+6.8}{27}$ $\frac{+1.0}{17}$

+50 8.7 364.9 ✓

 $\frac{-8.2}{34}$ $\frac{-4.0}{16}$ $\frac{+2.0}{9}$ $\frac{+2.0}{12}$ $\frac{-1.4}{18}$

+66 3.6 370.0 ✓

 $\frac{-4.0}{21}$ $\frac{-0.2}{11}$ $\frac{-1.1}{20}$ $\frac{-0.3}{25}$

653 2.5 371.1 ✓

 $\frac{+0.6}{25}$ $\frac{+3.0}{17}$ $\frac{-1.2}{20}$

373.60 ✓

TP 12.85 386.27 0.18 373.42 ✓

653+50 9.1 377.2 ✓

654 3.4 382.9 ✓

TP 6.89 392.51 0.65 385.62 ✓

+50 6.3 386.2 ✓

655 4.6 387.9 ✓

+50 5.2 387.3 ✓

656 4.0 388.5 ✓

+50 4.4 388.1 ✓

392.51 ✓

TP/B.M. 0.53 389.39 ✓ 3.65 388.86 ✓

B.M. W. Cover 1119 A.V. #52

657 0.4 389.0 ✓

+50 0.7 388.7 ✓

658 2.9 386.5 ✓

+13³⁶ B.C. 3.0 386.4 ✓

+50 3.1 386.3 ✓

659 4.3 385.1 ✓

+50 4.5 384.9 ✓

660 8.9 380.5 ✓

389.39 ✓

TP 0.81 378.21 ✓ 11.99 ✓ 377.40 ✓

660+50 3.2 375.0 ✓

+69.00 E.C. 5.4 372.8 ✓

661 8.4 369.8 ✓

+25 11.2 367.0 ✓

+50 13.8 364.4 ✓

TP 0.26 366.63 ✓ 11.84 ✓ 366.39 ✓

TP/BM.0.02 369.20 ✓ 2.15 ✓ 369.18 ✓

B.M. N.W. Cor. M.H. Cover ring

662

364.20 ✓

662+50

11.3 352.9 ✓

TP

0.13

351.33 ✓

13.00 ✓

351.20 ✓

663

?

5.8 345.5 ✓

+50

11.3 340.0 ✓

TP

1.85

340.30 ✓

12.88 ✓

338.45 ✓

664

3.5 336.8 ✓

+50

6.7 333.6 ✓

665

9.3 331.0 ✓

+50

10.7 329.6 ✓

340.30 ✓

15

666 12.8 327.5 ✓

+50 16.5 323.8 ✓

667 14.8 325.5 ✓

+50 13.6 326.7 ✓

TP 0.77 329.05 ✓ 12.02 328.28 ✓

+59⁸⁸ 3.63 325.42 ✓

B.M. on L. HUB

668 9.5 319.6 ✓

TP 0.50 316.58 ✓ 12.97 316.08 ✓

+50 10.5 306.1 ✓

316.58 ✓

TP 0.16 303.84 ✓✓ 12.90 303.68 ✓✓

669 15.3 288.5 ✓

$$\frac{-50}{25} \quad \frac{-26}{10} \quad \frac{+1.0}{20}$$

TP 0.05 291.29 ✓✓ 12.60 291.29 ✓✓

TP 0.77 279.06 ✓✓ 13.00 278.29 ✓✓

+25 3.1 276.0 ✓

$$\frac{-9.1}{25} \quad \frac{-9.1}{20} \quad \frac{+4.1}{20}$$

+50 9.3 269.8 ✓

$$\frac{-7.0}{25} \quad \frac{-5.0}{20} \quad \frac{-4.0}{6} \quad \frac{+2.1}{4} \quad \frac{+5.1}{20}$$

TP 0.29 266.68 ✓✓ 12.67 266.39 ✓✓

+82 5.5 261.2 ✓

$$\frac{-8.3}{25} \quad \frac{-1.0}{10} \quad \frac{+3.1}{20}$$

670 9.4 257.3 ✓

$$\frac{-6.5}{25} \quad \frac{-1.0}{7} \quad \frac{+4.1}{20}$$

TP 0.52 254.11 ✓✓ 13.09 253.59 ✓✓

259.11 ✓
 670+50 9.6 244.5 ✓

TP 1.04 242.37 ✓✓ 12.78 241.33 ✓✓

671 3.0 239.4 ✓

5.39 236.98 ✓

TP 3.84 233.44 ✓✓ 12.77 229.60 ✓✓

+45 5.4 228.0 ✓

+50 8.1 225.3 ✓

+60 13.8 219.6 ✓

672 11.8 221.6 ✓

257.0

6617

$\frac{-11.4}{25}$ $\frac{+5.1}{20}$

$\frac{-6.2}{25}$ $\frac{+1.9}{6}$ $\frac{+3.1}{20}$

on ginney Shelton Sta. 671 El. 237.0

$\frac{-5.9}{25}$ $\frac{+2.6}{20}$

$\frac{-3.6}{25}$ $\frac{-3.0}{10}$ $\frac{+3.1}{3}$ $\frac{+4.4}{20}$

$\frac{+3.3}{25}$ $\frac{+1.3}{17}$ $\frac{0.0}{5}$ $\frac{+4.7}{20}$

$\frac{+2.4}{25}$ $\frac{-3.0}{5}$ $\frac{-3.0}{20}$

233.44 ✓

18

672+15

9.1

224.3 ✓

 $\frac{+8.3}{25}$ $\frac{+2.0}{4}$ $\frac{-1.3}{4}$ $\frac{-4.4}{6}$ $\frac{-5.4}{20}$

+30

6.1

227.3 ✓

 $\frac{0.0}{15}$ $\frac{+0.4}{8}$ $\frac{-3.0}{20}$

+50

6.7

226.7 ✓

 $\frac{+7.0}{25}$ $\frac{+5.6}{14}$ $\frac{0.0}{20}$

+83

0.3

233.1 ✓

 $\frac{+6.3}{25}$ $\frac{+5.1}{18}$ $\frac{-4.6}{9}$ $\frac{-4.9}{20}$

TP

12.93

246.16 ✓

0.21 ✓

233.23 ✓

673

11.5

234.7 ✓

 $\frac{+6.6}{25}$ $\frac{+3.7}{12}$ $\frac{-5.0}{13}$ $\frac{-5.4}{20}$

+50

6.1

240.1 ✓

 $\frac{+8.7}{25}$ $\frac{+5.9}{14}$ $\frac{-4.1}{12}$ $\frac{-4.8}{20}$

TP

/ B.M.

7.08

249.24 ✓

4.00 ✓

242.16 ✓

ON ♀ W. Cover ring A.V. * 53

+98²⁸

B.C.

2.0

247.2 ✓

 $\frac{+8.0}{25}$ $\frac{+3.0}{13}$ $\frac{+2.5}{9}$ $\frac{-7.9}{21}$ $\frac{-7.9}{25}$

249.24 ✓

674150 1.5 247.7 ✓

$$\begin{array}{r} +10.1 \\ 25 \\ -9.8 \\ 16 \\ -10.0 \\ 20 \end{array}$$
+85⁵⁶ E.C. 3.8 245.4 ✓
$$\begin{array}{r} +7.3 \\ 25 \\ +3.7 \\ 13 \\ -7.1 \\ 18 \\ 7.1 \\ 20 \end{array}$$

675 4.5 244.7 ✓

$$\begin{array}{r} +9.7 \\ 25 \\ +6.0 \\ 17 \\ -9.8 \\ 20 \end{array}$$

+50 7.2 242.0 ✓

$$\begin{array}{r} +9.3 \\ 25 \\ -8.9 \\ 15 \\ -9.6 \\ 20 \end{array}$$

676 9.3 239.9 ✓

$$\begin{array}{r} +9.6 \\ 25 \\ -8.1 \\ 15 \\ -8.5 \\ 20 \end{array}$$

+50 6.5 242.7 ✓

$$\begin{array}{r} +8.9 \\ 25 \\ -11.0 \\ 19 \\ -11.0 \\ 25 \end{array}$$

677 9.1 240.1 ✓

$$\begin{array}{r} +11.5 \\ 25 \\ +6.3 \\ 12 \\ -7.8 \\ 15 \\ -9.4 \\ 25 \end{array}$$

+50 6.9 242.3 ✓

$$\begin{array}{r} +9.7 \\ 25 \\ -9.8 \\ 15 \\ -11.0 \\ 25 \end{array}$$

678 11.9 237.3 ✓

$$\begin{array}{r} +9.9 \\ 25 \\ +2.0 \\ 2 \\ -6.4 \\ 12 \\ 8.0 \\ 25 \end{array}$$

19

249.24 ✓
 TP 2.38 239.52 ✓ 12.10 237.14 ✓

678+35 10.2 229.3 ✓

$$\frac{+11.1}{25} \quad \frac{-5.7}{12} \quad \frac{-6.7}{25}$$

+50 4.2 235.3 ✓

$$\frac{+7.5}{25} \quad \frac{-8.0}{15} \quad \frac{-9.0}{25}$$

+89.10 L 3.2 236.3 ✓

$$\frac{+5.0}{25} \quad \frac{-8.7}{14} \quad \frac{-8.9}{25}$$

679 4.9 234.6 ✓

$$\frac{+5.8}{25} \quad \frac{-7.5}{12} \quad \frac{-8.4}{25}$$

+56 8.5 231.0 ✓

$$\frac{+4.8}{25} \quad \frac{-1.0}{6} \quad \frac{-4.7}{15} \quad \frac{-6.0}{25}$$

+61.79 B.C. 8.16 231.36 ✓

$$\frac{+3.6}{25} \quad \frac{-1.2}{7} \quad \frac{-4.5}{14} \quad \frac{-6.0}{25}$$

680 11.7 227.8 ✓

$$\frac{+2.6}{25} \quad \frac{-4.3}{15} \quad \frac{-4.9}{25}$$

TP 0.22 226.96 ✓ 12.78 226.74 ✓

226.96 ✓✓

680+50

4.7

222.3 ✓

$$\frac{+1.7}{25}$$

$$\frac{+6.7}{17}$$

$$\frac{+2.1}{8}$$

$$\frac{-4.0}{20}$$

$$\frac{-4.4}{25}$$

681

11.0

216.0 ✓

$$\frac{+1.0}{25}$$

$$\frac{0.0}{15}$$

$$\frac{+1.7}{7}$$

$$\frac{-5.0}{19}$$

$$\frac{-4.8}{25}$$

TP

0.00

214.56 ✓✓

12.90

214.56 ✓✓

+50

6.8

207.8 ✓

$$\frac{+2.5}{25}$$

$$\frac{+0.8}{13}$$

$$\frac{+1.0}{5}$$

$$\frac{-4.9}{18}$$

$$\frac{-4.8}{25}$$

TP

1.00

202.63 ✓

12.93

201.63 ✓

682

5.7

196.9 ✓

$$\frac{+2.4}{25}$$

$$\frac{+0.8}{15}$$

$$\frac{+1.6}{9}$$

$$\frac{-4.6}{20}$$

$$\frac{-4.7}{25}$$

chk. to Shelton's journey

+13¹⁹ E.C.

8.65

193.98 ✓

$$\frac{+3.5}{25}$$

$$\frac{+1.0}{13}$$

$$\frac{+1.8}{9}$$

$$\frac{-4.2}{16}$$

$$\frac{-4.0}{25}$$

TP

0.33

190.12 ✓✓

12.84

189.79 ✓✓

+50

4.1

186.0 ✓

$$\frac{+2.4}{25}$$

$$\frac{-1.6}{18}$$

82+13¹⁹

#

21

190.12 ✓

+80 10.9 179.2 ✓

$$\frac{+2.5}{25} \quad \frac{-0.6}{20}$$

683 10.9 179.2 ✓

$$\frac{+1.9}{25} \quad \frac{-4.4}{14} \quad \frac{-4.7}{20}$$

+39 11.9 178.2 ✓

$$\frac{2.1}{25} \quad \frac{-2.6}{2} \quad \frac{-7.7}{11} \quad \frac{-0.1}{15} \quad \frac{-0.1}{20}$$

+50 14.8 175.3 ✓

$$\frac{+3.8}{25} \quad \frac{+2.9}{4} \quad \frac{0.5}{3} \quad \frac{+1.0}{7} \quad \frac{+3.2}{10} \quad \frac{+5.0}{20}$$

+84 12.1 178.0 ✓

$$\frac{3.2}{25} \quad \frac{+3.0}{19} \quad \frac{0.0}{14} \quad \frac{+9.9}{11} \quad \frac{+11.1}{20}$$

+88 7.8 182.3 ✓

$$\frac{-2.0}{25} \quad \frac{-4.9}{19} \quad \frac{-4.6}{3} \quad \frac{+8.0}{12} \quad \frac{+8.0}{20}$$

684 2.6 187.5 ✓

$$\frac{-6.9}{25} \quad \frac{-10.2}{8} \quad \frac{-1.8}{4} \quad \frac{+5.1}{12} \quad \frac{9.1}{20}$$

TP 12.63 20 1.32 ✓ ✓ 1.43 188.69 ✓ ✓

+25 6.5 194.8 ✓

$$\frac{-10.3}{25} \quad \frac{-10.3}{20} \quad \frac{-5.9}{17} \quad \frac{-1.0}{7} \quad \frac{+2.7}{4} \quad \frac{+3.0}{20}$$

201.32 ✓

+50

0.8 200.5 ✓

 $-\frac{3.7}{25}$ $+\frac{1.1}{3}$ $+\frac{1.1}{20}$

TP

13.07

214.14 ✓

0.25

201.07 ✓

+75

9.3 204.8 ✓

 $-\frac{5.0}{25}$ $-\frac{0.2}{6}$ $+\frac{1.1}{10}$ $+\frac{1.0}{20}$

685

5.5 208.6 ✓

 $-\frac{4.2}{25}$ $\frac{0.0}{6}$ $+\frac{2.8}{6}$ $+\frac{3.1}{20}$

+25

2.3 211.8 ✓

 $-\frac{5.7}{25}$ $-\frac{4.0}{12}$ $+\frac{1.0}{20}$

TP

12.85

226.66 ✓

0.33

213.81 ✓

+50

8.3 218.4 ✓

 $-\frac{6.4}{25}$ $-\frac{3.0}{9}$ $+\frac{2.1}{11}$ $+\frac{1.5}{23}$

686

0.4 226.3 ✓

 $-\frac{7.5}{25}$ $+\frac{2.1}{20}$

TP

12.77

239.08 ✓

0.35

226.31 ✓

239.08 ✓
686750 4.9 234.2 ✓

TP 12.54 251.36 ✓✓ 0.26 238.82 ✓✓

687 6.3 245.1 ✓

+22 0.0 251.4 ✓

TP 12.20 263.42 ✓✓ 0.14 251.22 ✓✓

+50 8.1 255.3 ✓

+65 6.1 257.3 ✓

688 4.9 258.5 ✓

TP 12.84 275.84 ✓✓ 0.42 263.00 ✓✓

24

$$\frac{-8.1}{25} \quad \frac{+2.6}{7} \quad \frac{+3.5}{20}$$

$$\frac{-7.7}{25} \quad \frac{+2.9}{5} \quad \frac{+1.3}{20}$$

$$\frac{-9.3}{25} \quad \frac{-3.1}{6} \quad \frac{+2.9}{7} \quad \frac{+3.6}{16}$$

$$\frac{-8.0}{25} \quad \frac{-9.8}{18} \quad \frac{+1.3}{3} \quad \frac{+2.8}{18}$$

$$\frac{-6.0}{25} \quad \frac{-5.0}{11} \quad \frac{+4.9}{8} \quad \frac{+5.1}{18}$$

275.84 ✓

688+50

15.4 260.4 ✓

$\frac{-8.9}{25}$ $\frac{+3.7}{8}$ $\frac{+7.0}{20}$ TOP PIPE

689.

8.3 267.5 ✓

$\frac{-9.0}{25}$ $\frac{+3.7}{8}$ $\frac{+5.7}{20}$

TP

12.87 288.59 ✓ 0.12 275.72 ✓

+40

13.2 275.4 ✓

$\frac{-7.2}{25}$ $\frac{+1.8}{4}$ $\frac{+3.0}{20}$

+53²⁰ = 689+30

7.3 281.3 ✓

$\frac{-6.7}{25}$ $\frac{+1.7}{4}$ $\frac{+3.2}{20}$

TP

4.75 283.84 ✓

(8' off)
on ginney at Stelton Sta. 689+30 El. 283.8

~~TP~~

~~12.61 301.08 0.12 288.47~~

~~690~~

~~8.0~~

Continued Page 32 This Book

~~*~~

~~B.C.~~

~~LARRY HILL'S LINE REVISION TO FILTER PLANT SITE.~~

Realignment Elmonte P.L. 9-19-44
689+9629 to Filter Plant Site

Byler
King
Allen
Stephens

26.

← revision

← Shelton location

Shelton 5 B.C.

689+30⁰⁰

+6562 EC. 7°03'30"

+50 6°45'

693 5°48'

+50 4°51'

Δ 14°07' RT.

T 185.73

L 369.57

R 1500'

692 3°53'

+50 2°56'

691 1°59'

+50 1°02'

690 0°4'30"

689+9601 BC.

≠

27

Bridge spike
R.P. 2"x2" hub
R.P. 50' 50' 2"x2" hub

+76⁶⁵ L.C. 7° 17'

+50 6° 47'

700 5° 50'

+50 4° 52'

699 3° 55'

Δ 19° 34' 47"
R 1500'
T 191.73
L 381.37

+50 2° 58'

698 2° 01'

+50 1° 03'

697 0° 06'

2"x2" hub } Bridge spike
50' 50' Bridge spike

696+9928 B.C.

724+58⁹⁰

P.O.T.

2" x 2" hub

□

50°

2" x 2" R.P. hubs

□

50°

□

29.

721+25³¹

P.O.T.

2" x 2" hub

□

50°

Bridge spike

□

50°

□

718+50

P.O.T.

2" x 2" R.P. hubs

□

50°

□

50°

□

2" x 2" hub

702+74³

P.O.T.

2" x 2" HUB R.P.

□

50°

□

50°

□

2" x 2" hub

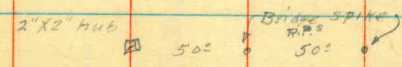
739+7389



301

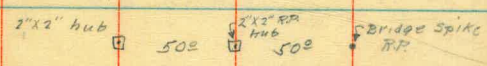
737+33³⁵

P.O.T.

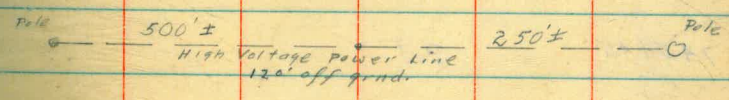


730+51¹⁹

P.O.T.



728+68



727+00

P.O.T.

nail

Profile Next Page

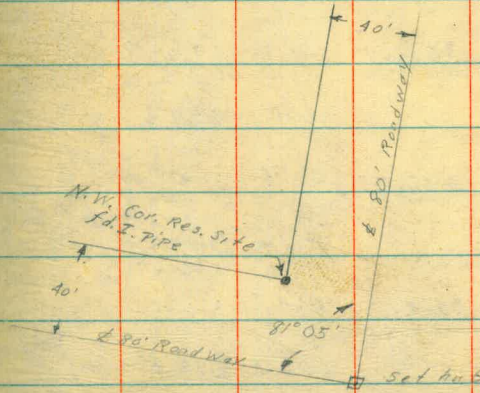
748+98⁴⁷

745+45

P.O.T.

743+82³⁵

P.O.T.



nail

2"x2" hub □ 50 □ 3"x2" P.P. hubs □ 50 □

Profile of Realignment Sta.
689+53²⁵ to filler plant site 9-21-49

Dyer
King
Helen
Stephens

\$

32

	12.46	296.30		283.84
689+50			9.2	287.1
TP	9.94	306.59	0.15	296.15
689+96 ²⁵ B.C.			6.8	299.3
TP/B.M.	12.23	317.38	0.94	305.15
690+50			9.1	309.3
TP	12.93	329.55	0.46	316.92
691			6.8	323.1
TP	11.18	340.89	0.14	329.71
+50			9.3	331.6
692			6.6	334.3
+50			4.4	336.5
693			3.2	337.7
TP/B.M.	10.99	343.69	8.18	332.71
+45			3.4	340.3
+50			4.0	339.7
+65 ⁶² E.C.			3.87	339.8

B.M. Sheltons 8' offset girney Shelton Sta. 689+30

$\frac{-8.6}{25}$	$\frac{-4.8}{12}$	$\frac{+1.5}{7}$	$\frac{+2.0}{20}$
$\frac{-7.4}{25}$	$\frac{-6.2}{18}$	$\frac{+1.1}{9}$	$\frac{+0.9}{20}$

Set B.M. Top 45' offset hub R.P. to B.C. Rt. side

$\frac{-6}{25}$	$\frac{-2.5}{6}$	$\frac{+2.6}{8}$	$\frac{+3.8}{18}$	$\frac{+3.1}{25}$
-----------------	------------------	------------------	-------------------	-------------------

$\frac{-6.3}{25}$	$\frac{+3.8}{16}$	$\frac{+3.6}{25}$
-------------------	-------------------	-------------------

$\frac{-1.4}{25}$	$\frac{+2.0}{20}$
-------------------	-------------------

$\frac{-1.2}{25}$	$\frac{+1.0}{20}$
-------------------	-------------------

$\frac{-2.1}{25}$	$\frac{+3.0}{20}$
-------------------	-------------------

Set B.M. on R.P. to E.C. Sta. 693+65⁶² 100' Lt.

$\frac{-2.4}{20}$	$\frac{+1.6}{20}$
-------------------	-------------------

$\frac{-2.0}{25}$	$\frac{+2.2}{20}$
-------------------	-------------------

$\frac{-1.8}{25}$	$\frac{+2.2}{20}$
-------------------	-------------------

343.69 ✓

694			3.7	340.0 ✓
+50			3.7	340.0 ✓
695			6.7	337.0 ✓
+09			5.1	338.6
TP	12.75	356.01 ✓	0.43	343.26 ✓
6 750			12.1	343.9 ✓
696			8.6	347.4 ✓
+50			5.6	350.4 ✓
+94 ²⁸	B.C.		4.15	351.86 ✓
697+90			2.8	353.2 ✓
+50			2.0	354.0 ✓
TP	12.67	368.68 ✓	0.0	356.01 ✓
+70			12.1	356.6 ✓
+92			13.0	355.7 ✓
698			11.7	357.0 ✓
+12			10.4	358.3 ✓
+25			11.2	357.5 ✓

4

33.

$-\frac{2.2}{25}$	$+\frac{2.4}{25}$	
$-\frac{3.2}{25}$	$+\frac{3.5}{25}$	
$+\frac{0.6}{25}$	$+\frac{3.5}{25}$	
$\frac{0.0}{25}$	$+\frac{0.8}{25}$	
$-\frac{0.6}{25}$	$-\frac{1.0}{10}$	$+\frac{0.2}{25}$
$-\frac{0.6}{25}$	$-\frac{1.0}{10}$	$+\frac{0.2}{25}$
$-\frac{1.0}{25}$	$+\frac{0.8}{25}$	
$+\frac{0.9}{25}$	$\frac{0.0}{25}$	
$+\frac{2.0}{25}$	$+\frac{2.0}{17}$	$+\frac{1.7}{16}$ $+\frac{1.5}{25}$

368.68 ✓

+50	9.6	359.1 ✓
+67	9.2	359.5 ✓
+78	7.2	361.5 ✓
699	7.1	361.6 ✓
+22	5.2	363.5 ✓
+50	5.5	363.2 ✓
700	4.6	364.1 ✓
+25	2.6	366.1 ✓
+50	2.7	366.0 ✓
TP/ +76 ^{SEC.} 7.06	373.36 ✓	2.38 ✓ 366.30 ✓
TP/B.M. 2.89	373.06 ✓	3.19 ✓ 370.17 ✓
701	4.9	368.2 ✓
+12	5.7	367.4 ✓
+35	2.6	370.5 ✓
+50	4.2	368.9 ✓
702	4.4	368.7 ✓
+50	3.6	369.5 ✓

$\frac{+2.5}{25}$	$\frac{+2.6}{17}$	$\frac{+1.7}{16}$	$\frac{1.5}{25}$
$\frac{+1.3}{25}$	$\frac{-0.8}{8}$	$\frac{+0.5}{20}$	
	$\frac{-0.5}{25}$	$\frac{+1.6}{12}$	
	$\frac{-1.1}{25}$	$\frac{+1.0}{13}$	
$\frac{+1.2}{25}$	$\frac{+1.8}{15}$	$\frac{-1.0}{25}$	

Set B.M. top 100' R.P. spike H. of E.C.

373.06 ✓

70279 ³ L		3.68	369.38 ✓
703		5.5	367.6 ✓
+25		6.3	366.8 ✓
+50		9.4	363.7 ✓
+56		10.6	362.5 ✓
704		11.6	361.5 ✓
+25		12.5	360.6 ✓
TP	1.85	361.85	13.06 360.00 ✓
+50		3.5	358.4 ✓
705		4.8	357.1 ✓
+50		6.5	355.4 ✓
+87		7.0	354.9 ✓
706		6.0	355.9 ✓
+18		4.4	357.5 ✓
+50		4.8	357.1 ✓
707		4.2	357.7 ✓
+21		3.8	358.1 ✓

35.

on P.C.T.

$\frac{-1.0}{25}$	$\frac{+1.2}{25}$
$\frac{-2.1}{25}$	$\frac{+1.0}{25}$
$\frac{-1.0}{25}$	$\frac{+2.0}{25}$
$\frac{-0.9}{25}$	$\frac{+2.0}{25}$
$\frac{-2.3}{25}$	$\frac{+2.1}{25}$
$\frac{-1.0}{25}$	$\frac{+0.5}{25}$
$\frac{-1.3}{25}$	$\frac{+1.7}{25}$
$\frac{-2.7}{25}$	$\frac{+1.8}{25}$
$\frac{-1.0}{25}$	$\frac{+1.5}{25}$
$\frac{-1.5}{25}$	$\frac{+3.5}{25}$
$\frac{-2.0}{25}$	$\frac{+1.0}{25}$
$\frac{-2.3}{15}$	$\frac{0.8}{8}$
$\frac{-0.3}{15}$	$\frac{+1.4}{15}$

	361.85 ✓							
707+35		2.3	359.6 ✓			$\frac{-1.0}{15}$	$\frac{+0.8}{10}$	
+50		2.3	359.6 ✓			$\frac{-1.0}{15}$	$\frac{0.0}{15}$	
+60		3.1	358.8 ✓			$\frac{0.0}{25}$	$\frac{0.0}{25}$	
708		3.1	358.8 ✓			$\frac{0.0}{15}$	$\frac{0.0}{15}$	
+50		2.4	359.5 ✓			$\frac{+2.6}{20}$	$\frac{0.0}{15}$	
709		2.1	359.8 ✓					
TP	9.35	369.18 ✓	2.02	359.83 ✓				
+17		7.3	361.9 ✓					
+35		8.4	360.8 ✓			$\frac{+1.2}{15}$	$\frac{-1.4}{15}$	
+50		8.4	360.8 ✓			$\frac{2.0}{15}$	$\frac{-1.5}{15}$	
+70		9.2	360.0 ✓					
710		8.5	360.7 ✓			$\frac{+0.9}{15}$	$\frac{-0.8}{15}$	
+18		8.2	361.0 ✓					
+50		8.1	361.1 ✓					
711		8.8	360.4 ✓					
+18		10.2	359.0 ✓			$\frac{+2.9}{20}$	$\frac{+2.6}{10}$	$\frac{+1.1}{5}$ $\frac{+1.0}{12}$
+32		8.3	360.9 ✓			$\frac{-0.5}{13}$ $\frac{-2.8}{8}$	$\frac{-0.5}{5}$	$\frac{+0.3}{15}$

369.18 ✓

4

37

+50			7.9	361.8 ✓
712			6.1	363.1 ✓
+13			5.4	363.8 ✓
+30			1.4	367.8 ✓
+50			0.6	368.6 ✓
TP	1262	381.80 ✓	0.00	369.18 ✓
713			9.8	372.0 ✓
+22			7.1	374.7 ✓
+50			6.6	375.2 ✓
+65			6.1	375.7 ✓
+85			3.7	378.1 ✓
714			3.4	378.4 ✓
+14			3.6	378.2 ✓
+50			2.0	379.8 ✓
+62			0.9	380.9 ✓
TP	11.77	392.32 ✓	1.25 ✓	380.55 ✓
715			10.9	381.4 ✓

$$\frac{-2.3}{20} \quad \frac{+1.3}{20}$$

$$\frac{-1.0}{20} \quad \frac{+2.0}{20}$$

$$\frac{+1.3}{20} \quad \frac{-0.7}{7} \quad \frac{+1.2}{20}$$

392.32 ✓

+22		10.2	382.1 ✓
+50		8.9	383.4 ✓
+65		9.4	382.9 ✓
716		9.0	383.3 ✓
+15		8.7	383.6 ✓
+30		6.9	385.4 ✓
+50		7.7	384.6 ✓
717		7.3	385.0 ✓
TP /			
+450	10.61	396.35 ✓	6.58 385.74 ✓ ✓
718		9.7	386.7 ✓
+40		9.5	386.9 ✓
+50		10.85	385.50 ✓
TP / B.M.	0.20	395.14 ✓	1.91 394.94 ✓ ✓
+85		12.6	382.5 ✓
TP	0.86	383.40 ✓	12.60 382.54 ✓ ✓
719		5.5	377.9 ✓
+20		12.5	370.9 ✓

£

38-

+1.5	-1.3
17	20

+2.6	-0.7	-0.7
20	8	20

+2.8	-1.7
20	20

on Pat. hub

Set B.M. top R.P. hub 100' Lt. Sta. 718+50

+3.3	-3.1
20	20

+7.6	-7.3
25	25

+5.4	-7.7
25	25

383.40 ✓

+30		19.3	364.1 ✓
+50		11.7	371.7 ✓
TP	12.97	396.33	0.04 383.36 ✓
720		7.9	388.4 ✓
+50		0.1	396.2 ✓
TP	12.92	408.51	0.24 396.09 ✓
+60		10.1	398.4 ✓
721		9.5	399.0 ✓
+25 ³¹		7.31	401.20 ✓
+50		7.4	401.1 ✓
+83		4.3	404.2 ✓
722		5.0	403.5 ✓
+50		4.6	403.9 ✓
+75		3.7	404.8 ✓
+88		2.0	406.5 ✓
723		2.4	406.1 ✓
+09		3.0	405.5 ✓

$$\frac{+7.3}{25} \frac{+5.3}{10} \frac{0.0}{5} \quad \frac{-0.4}{11} \quad \frac{+4.3}{25}$$

$$\frac{-4.7}{25} \quad \frac{-2.0}{18} \quad \frac{+4.0}{25}$$

$$\frac{-1.0}{25} \quad \frac{+1.3}{25}$$

$$\frac{-1.0}{15} \quad \frac{0.0}{2.0}$$

$$\frac{0.0}{10} \quad \frac{0.0}{10}$$

$$\frac{+1.0}{15} \quad \frac{-0.9}{10}$$

$$\frac{-0.3}{15} \quad \frac{-1.0}{20}$$

$$\frac{-0.8}{15} \quad \frac{0.0}{15}$$

		468.51 ✓		
+50			2.6	405.9 ✓
+81			0.7	407.8 ✓
724			1.5	407.0 ✓
+23			2.7	405.8 ✓
+50			2.0	406.5 ✓
+58 ⁹⁰	Pot		2.37	406.14 ✓
TP/B.M.	3.39 377	404.79 405.38	7.11	400.8 401.40 ✓
+82			0.6	404.2 ✓
725			0.1	404.7 ✓
+20			1.9	402.9 ✓
+50			2.0	402.8 ✓
726			5.0	399.8 ✓
+12			6.7	398.1 ✓
+50			8.8	396.0 ✓
+75			12.3	392.5 ✓
TP	0.38	392.16 392.76	13.01	391.78 392.38 ✓
727			3.5	388.7 ✓

90

	$\frac{+2.0}{15}$	$\frac{0.0}{15}$
	$\frac{+0.8}{16}$	$\frac{-0.8}{10}$
	$\frac{+0.8}{15}$	$\frac{-1.0}{15}$
	$\frac{+3.3}{25}$	$\frac{-1.7}{20}$
	$\frac{+3.3}{25}$	$\frac{-3.7}{25}$
	$\frac{+4.8}{25}$	$\frac{-5.0}{25}$
	$\frac{+5.3}{25}$	$\frac{-7.0}{15}$
	$\frac{+7.6}{25}$	$\frac{-7.8}{25}$

on Pot hub.

Set B.M. on T.P. 100' Rt. of Pot.

on large rock 250. +83

392.16
~~372.76~~

71.

+20			7.9	384.3 ✓
TP	0.10	379.71 380.77	12.55	379.61 380.21
+50			7.8	371.9 ✓
+75			13.1	366.3 ✓
TP	0.51	367.66 368.26	12.56	367.15 367.75
+85			5.4	362.3 ✓
728			8.0	359.7 ✓
			13.89	353.77 354.37
+19			10.3	357.4 ✓
+22			12.6	355.1 ✓
+32			7.0	360.7 ✓
+41			4.2	363.5 ✓
TP	12.52	378.15 378.75	2.03	365.63 366.23
+50			11.6	366.6 ✓
+65			9.2	369.0 ✓
TP	12.69	390.22 390.82	0.62	377.53 378.13
729			9.7	380.5 ✓

$$\frac{+5.2}{25} \quad \frac{-6.8}{25}$$

$$\frac{+12.0}{25} \quad \frac{+5.5}{12} \quad \frac{-3.0}{8} \quad \frac{-9.0}{25}$$

$$\frac{+8.3}{25} \quad \frac{+6.0}{15} \quad \frac{-7.8}{25}$$

$$\frac{+8.0}{25} \quad \frac{+5.8}{15} \quad \frac{-7.0}{25}$$

$$\frac{+6.0}{25} \quad \frac{-2.8}{25}$$

On Shelton pinney 731+00

$$\frac{-2.4}{25} \quad \frac{-3.5}{10} \quad \frac{-1.4}{15} \quad \frac{-2.4}{25}$$

$$\frac{+5.0}{25} \quad \frac{+2.8}{17} \quad \frac{0.0}{10} \quad \frac{0.0}{5} \quad \frac{+2.0}{10} \quad \frac{+5.0}{25}$$

$$\frac{-4.8}{25} \quad \frac{+6.0}{25}$$

$$\frac{-6.0}{25} \quad \frac{+2.0}{8} \quad \frac{+9.8}{25}$$

$$\frac{-5.4}{25} \quad \frac{+3.0}{12} \quad \frac{+5.9}{25}$$

$$\frac{-7.4}{25} \quad \frac{-6.0}{20} \quad \frac{+5.5}{25}$$

$$\frac{-7.5}{25} \quad \frac{+5.5}{25}$$

390.22 ✓
~~392.82~~

72

729+20 4.8 385.4 ✓

$\frac{-5.1}{25}$ $\frac{+5.8}{25}$

TP 12.44 402.28 ✓
402.88 0.38 389.84 ✓
~~390.44~~

391.92 ✓
10.36 ~~392.52~~

3.77 398.51 ✓
~~399.11~~

on the top of dune sta. 732+50
" " " " " 733+00

+50 10.0 392.3 ✓

$\frac{-4.4}{25}$ $\frac{-1.3}{15}$ $\frac{+3.0}{25}$

+85 4.4 397.9 ✓

$\frac{-4.2}{25}$ $\frac{+1.8}{25}$

TP 13.09 415.16 ✓
415.76 6.21 402.07 ✓
~~402.67~~

730 15.1 400.1 ✓

$\frac{-1.3}{25}$ $\frac{+2.5}{25}$

+51.5 8.09 407.07 ✓

$\frac{-5.6}{25}$ $\frac{+2.3}{25}$

+75 5.2 410.0 ✓

$\frac{-3.8}{25}$ $\frac{+1.6}{25}$

731 5.5 409.7 ✓

$\frac{-2.6}{25}$ $\frac{+1.5}{25}$

+25 3.8 411.4 ✓

$\frac{-3.1}{25}$ $\frac{+0.7}{25}$

+50 3.8 411.4 ✓

$\frac{-1.4}{15}$ $\frac{+1.4}{15}$

+68 2.1 413.1 ✓

$\frac{-2.3}{15}$ $\frac{+0.3}{15}$

732 1.5 413.7 ✓

$\frac{-1.0}{15}$ $\frac{+0.5}{25}$

+36 1.6 413.6 ✓

$\frac{-1.2}{15}$ $\frac{+1.2}{15}$

TP / +50 12.66 427.07 ✓
428.19 0.23 414.93 ✓
415.53 ✓

$\frac{-0.8}{15}$ $\frac{+0.6}{15}$

427.59 ✓
428.19

43

+82		11.6	416.0 ✓
733		9.2	418.4 ✓
+25		9.3	418.3 ✓
+50		8.1	419.5 ✓
734		5.2	422.4 ✓
+50		3.2	424.4 ✓
735		1.5	426.1 ✓
TP	12.13	439.19 439.79	0.53 427.06 ✓ 427.66 ✓
+50		11.1	428.1 ✓
736		7.8	431.4 ✓
+50		5.6	433.6 ✓
737		2.3	436.9 ✓
+33 ²⁵		1.10	438.1 ✓
TP/B.M.	10.76	443.83 444.43	6.12 433.07 ✓ 433.67 ✓
+50		5.4	438.4 ✓
+78		4.2	439.6 ✓
738		5.4	438.4 ✓

$$\begin{array}{r} -1.6 \\ \hline 15 \end{array}$$
$$\begin{array}{r} +0.0 \\ \hline 10 \end{array} \begin{array}{r} -0.6 \\ \hline 15 \end{array}$$

on Pt. Hub

Set B.M. on R.P. 100' Rth. of Pt.

443.83
~~444.43~~

44

738+50

7.7 436.1 ✓

$\frac{+1.6}{15}$ $\frac{-1.0}{15}$

739

8.7 435.1 ✓

$\frac{+1.8}{15}$ $\frac{-1.3}{15}$

+50

9.3 434.5 ✓

$\frac{+1.9}{15}$ $\frac{-2.0}{15}$

740

9.9 433.9 ✓

$\frac{+1.6}{15}$ $\frac{-2.5}{15}$

+40

10.2 433.6 ✓

$\frac{+3.2}{15}$ $\frac{-1.3}{15}$

+50

9.5 434.3 ✓

$\frac{+2.2}{15}$ $\frac{-1.4}{15}$

741

8.4 435.4 ✓

$\frac{+2.3}{15}$ $\frac{-1.0}{15}$

+50

6.7 437.1 ✓

$\frac{+2.3}{15}$ $\frac{-1.7}{15}$

TP

5.56 ~~442.86~~ ✓
443.46 6.53 ~~437.50~~ ✓
437.90 ✓

742

5.2 437.7 ✓

$\frac{+2.2}{15}$ $\frac{-0.6}{15}$

+20

4.3 438.6 ✓

$\frac{+1.3}{15}$ $\frac{-1.3}{15}$

+50

5.5 437.4 ✓

$\frac{+2.0}{15}$ $\frac{-0.3}{15}$

743

5.7 437.2 ✓

+50

8.3 434.6 ✓

$\frac{+2.5}{15}$ $\frac{-1.0}{15}$

+82²⁵ P.O.T.

10.20 432.7 ✓

$\frac{+2.3}{15}$ $\frac{-1.7}{15}$

744

11.8 431.1 ✓

TP

0.92 ~~431.60~~ ✓
432.80 12.18 ~~430.68~~ ✓
431.58 ✓

431.60 ✓
432.20

45

744+50

3.8 427.8 ✓

 $\frac{+2.8}{15}$ $\frac{-2.0}{15}$

+62

4.8 426.8 ✓

 $\frac{+1.8}{15}$ $\frac{-2.0}{15}$

745

8.9 422.7 ✓

 $\frac{+2.8}{15}$ $\frac{-2.2}{15}$

+25

12.2 419.4 ✓

 $\frac{+3.0}{15}$ $\frac{-3.0}{15}$

TP

0.95 419.48
420.08 13.07 418.53
419.13 $\frac{+2.3}{15}$ $\frac{-1.9}{10}$ $\frac{-5.6}{20}$

+50

6.0 413.5 ✓

TP

0.28 407.10 ✓
407.70 12.66 406.82
407.42 $\frac{+5.0}{25}$ $\frac{+3.0}{15}$ $\frac{-3.6}{15}$ $\frac{-5.6}{25}$

746

9.5 397.6 ✓

 $\frac{+1.3}{25}$ $\frac{+0.4}{8}$ $\frac{-2.0}{15}$ $\frac{-4.0}{25}$

+27

20.2 386.9 ✓

 $\frac{+5.0}{25}$ $\frac{+3.9}{14}$ $\frac{+1.0}{6}$ $\frac{-1.1}{15}$ $\frac{-1.5}{25}$

+35

26.4 380.7 ✓

 $\frac{+1.2}{25}$ $\frac{0.0}{15}$ $\frac{-2.2}{6}$ $\frac{+0.3}{4}$ $\frac{-0.9}{18}$ $\frac{-2.1}{25}$

+38

23.4 383.7 ✓

 $\frac{-4.1}{25}$ $\frac{+0.3}{13}$ $\frac{-0.9}{15}$ $\frac{-1.2}{25}$

+50

22.0 385.1 ✓

 $\frac{+2.8}{25}$ $\frac{-3.0}{25}$

+88

5.6 401.5 ✓

 $\frac{+4.3}{25}$ $\frac{-4.9}{25}$

747

2.3 404.8 ✓

 ~~$\frac{+5.7}{25}$~~ ~~$\frac{-3.7}{25}$~~

TP

12.94 419.40 ✓
420.00 0.64 406.46
407.06

+25

8.3 411.1 ✓

 $\frac{+5.3}{25}$ $\frac{-3.2}{25}$

+50

4.7 414.7 ✓

 $\frac{+2.8}{15}$ $\frac{-1.9}{20}$

		419.40 ✓ 420.00		
TP	12.73	431.87 ✓ 432.47	0.26	419.14 ✓ 419.74
748			10.4	421.5 ✓
+50			4.3	427.6 ✓
TP	12.79	444.16 ✓ 444.76	0.50	431.37 ✓ 431.97
788+989			9.88	434.28 ✓

+2.0	-2.0
15	15
+3.0	-2.0
15	15

Check Levels to B.M.

TP	12.62	456.38 ✓ 456.98	0.40	443.76 ✓ 444.36
TP	11.13	466.92 ✓ 467.52	0.59	455.79 ✓ 456.39
TP	11.53	478.32 ✓ 478.92	0.13	466.79 ✓ 467.39
TP	9.15	486.38 ✓ 486.98	1.09	477.23 ✓ 477.83
TP	4.92	486.00 ✓ 486.60	5.30	481.08 ✓ 481.68
			0.24	485.76 ✓ 486.36

on Mon. NE. Cor. Filter plant site
 on B.M. Nail in 2x2" - 25' Pt of Sta. 1+50
 on "P" line Book 517
 Page 70
 E. 485.72

Profile "T" LINE EIMONTE P.L.
Sta 113+26³² To Sta 132+7

7-17-46
Clear-HOT

Nelson T-Notes
Leonard 97
Estoh

+ H.I
2.19 411.14 408.95

Nail in P.P. N.W. cor. Woodside & River St

(See Book 699 Page 48 for
ALIGNMENT)

P.I 32
113+26 4.6

113+50 6.4

P.I
113+85 8.1

114 8.7

T.P 4.89 405.79 10.29 400.90

+50 4.9

115 4.8

+32 3.6

+50 5.1

T.P 0.20 404.33 1.66 404.13

116 3.8

+50 4.2

117 4.7

+50 5.2

T.P 2.81 403.41 3.73 400.60

edge fish pond

118 4.5

403.41

118+50		4.9	
119		4.9	
+50		5.2	
120		5.6	
+50		5.9	
121		5.8	
Top	0.40	401.37	2.94 400.97
+32		3.1	
+35		4.7	
+42	edge pave	3.9	
+50		3.5	
+63	edge pave	3.8	
+71		4.0	
+73		3.1	
+79		4.3	
122		4.6	
+50		4.6	

401.37

1	123		5.1		
1	+04		5.0		
	+21		2.8		
	+38		2.5		
	+50		5.4		
1	+57	creek bottom	7.2		
1	129		7.0		
	+19	creek bottom	6.8		
	+32		3.2		
	+50		3.1		
	+61		3.9		
	+75		5.2		
	125		5.4		
	+50		6.6		
	T.P.	7.25 402.02	6.60	394.77	
	T.P. on B.M.	5.58 402.05	5.55	396.47	=396.44
	126		5.5		

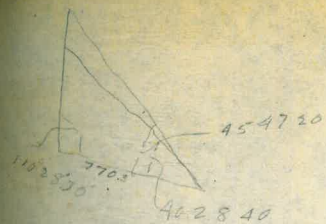
49

402.05

50

126+50			4.9	
127			6.1	
+50			7.2	
128			7.1	
+50			7.5	
T.P	3.94	399.94	6.05	396.00
129			4.3	
+50			2.7	
130			3.0	
+5			4.8	
131			6.6	
+01			7.2	
+50			7.6	
132			7.5	
+50			8.2	
132+75.6			8.4	
133+00			8.7	
T.P	7.12	403.91	3.15	396.79
T.P	7.51	410.12	1.30	402.61

C.K. B.M.
 $-1.20 = 402.05$
 $= 408.95$



$40^{\circ} 29'$
 $80^{\circ} 57'$
 12126
 $45^{\circ} 47' 30''$
 913430
 434120
 3713742

B
 a
 C

$\frac{c}{a}$

$\frac{a^2}{c^2}$

$\frac{C}{1}$
 $-B)$

$+B)$

by the
 9.4 ft.
 10' =

slope
 the
 flow-
 .0041.

dist-
 14 ft.
 ft.

S. A.

L.S. 1880

N.O.B.

7704

15419

23112

810 36 def. angle
S.E. Cor. Lot E of Lot 70

316.8

100 @ 18° 19'

100 @ 18° 19'

40 @ 18° 19'

25

6.486

104

6.582

390.82

773

383.09

6.486

836

6.450

2.4

77° 07'

679 6055

2514

682 1195

9541 40

3) 145 05

135 65

673 78.28

8728

674 8556

09.3

6934 6562

6914 8178

18354

287.84

11.82

295.44

74

294.67

12.41

307.08

20

306.84

1283

3177.40

218.31

12.15

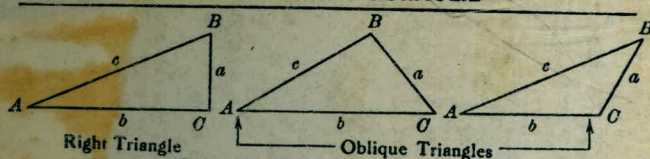
3379.6

33

40.32

3319

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\text{cosec} = \frac{c}{a}$

Given	Required	Formula
a, b	A, B, c	$\tan A = \frac{a}{b} = \cot B$, $c = \sqrt{a^2 + b^2} = a \sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b	$\sin A = \frac{a}{c} = \cos B$, $b = \sqrt{(c+a)(c-a)} = c \sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c	$B = 90^\circ - A$, $b = a \cot A$, $c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90^\circ - A$, $a = b \tan A$, $c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90^\circ - A$, $a = c \sin A$, $b = c \cos A$

Solution of Oblique Triangles

Given	Required	Formula
A, B, a	b, c, C	$b = \frac{a \sin B}{\sin A}$, $C = 180^\circ - (A + B)$, $c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a}$, $C = 180^\circ - (A + B)$, $c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A + B = 180^\circ - C$, $\tan \frac{1}{2}(A - B) = \frac{(a - b) \tan \frac{1}{2}(A + B)}{a + b}$ $c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a + b + c}{2}$, $\sin \frac{1}{2}A = \sqrt{\frac{(s - b)(s - c)}{bc}}$ $\sin \frac{1}{2}B = \sqrt{\frac{(s - a)(s - c)}{ac}}$, $C = 180^\circ - (A + B)$
a, b, c	Area	$s = \frac{a + b + c}{2}$, $\text{area} = \sqrt{s(s - a)(s - b)(s - c)}$
A, b, c	Area	$\text{area} = \frac{b c \sin A}{2}$
A, B, C, a	Area	$\text{area} = \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL

Horizontal distance = Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance = 319.4 ft. Vert. angle = 5° 10'. From Table, Page IX. $\cos 5^\circ 10' = .9959$. Horizontal distance = $319.4 \times .9959 = 318.09$ ft.
Horizontal distance also = Slope distance minus slope distance times (1 - cosine of vertical angle). With the same figures as in the preceding example, the following result is obtained. $\text{Cosine } 5^\circ 10' = .9959$. $1 - .9959 = .0041$. $319.4 \times .0041 = 1.31$. $319.4 - 1.31 = 318.09$ ft.
When the rise is known, the horizontal distance is approximately: -the slope distance less the square of the rise divided by twice the slope distance. Thus: rise = 14 ft. slope distance = 302.6 ft. Horizontal distance = $302.6 - \frac{14 \times 14}{2 \times 302.6} = 302.6 - 0.32 = 302.28$ ft.