

W 672

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide. Side Slopes 1 on 1.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

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

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672
apparently continuation
of 671.

This Field Book is manufactured of a High Grade 50% Rag Paper having a WATER RESISTING SURFACE, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

Indexed to p10-2/8/46

Index

Dulzura Pt. loc. A-S line 4-10
Entered Index Book 2/8/46 mss

Dulzura Tunnel Grades
Tunnel # 1/2 11-

N 57° W.

Ch

H

10

11

12

13

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37

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40

to
of
ex
30

"Sd" Line (orange)
 50 line 0 = 148 "A" line

142 TO 146 (1138) -2° 40' 5.0
 5.0

142 TO 145 (898) POT -2° 40' 5.0
 5.0

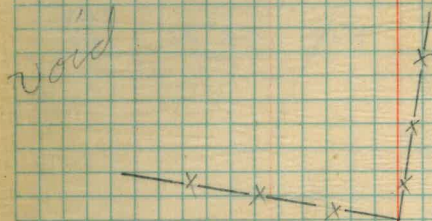
142 TO 144 (535) POT

142 TO 143 (270) N 21 1/2° W 35° 30' 30" R -2° 58' 3.0
 5.0

141 TO 142 (58) POT 0° 0' 4.5
 4.9

El. Point 141

Cont from book #71
 page 78.



"A" line 1060.7

1060.3 POINT 141 ON "A" (red) line (Book 671 Page 78)
 Kroll Shown on Topo Sheet

227
211
20 1/2

~~2 TO 4 (494) POT +0° 37' 4.8
4.8~~

~~2 TO 3 (305) N 22 1/2° W 38° 27' 30" R 4.8
4.8~~

~~2 TO 2 (912) POT -2° 31' 4.9
4.9~~

~~2 TO 1 (410) N 60 3/4° W 39° 10' L -3° 18' 4.9
4.9~~

1889.8
142 TO 144 (1890) POT -0° 30'

1579.5
142 TO 143 (1580) N 21 1/4° W 35° 30' 30" -0° 56' 5.0
5.0

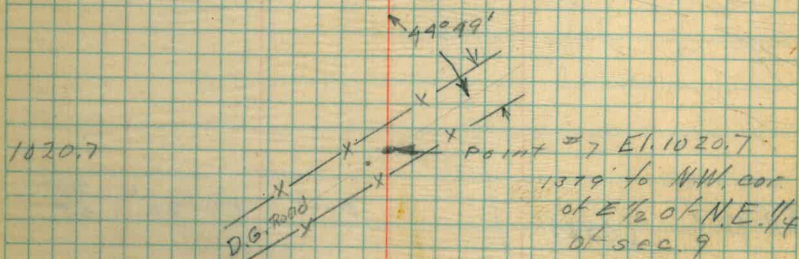
2

cont. on Page 49

65'



Yard



1044.3 W.M.
14# "A" LINE = 0" ON "Sd" line El. 1044.2
HYD. g.c., 1195.1
TOT DIST. 51,146

1034.95
W.M.



7 TO 10 (536) POT 0°20' 4.7
4.7

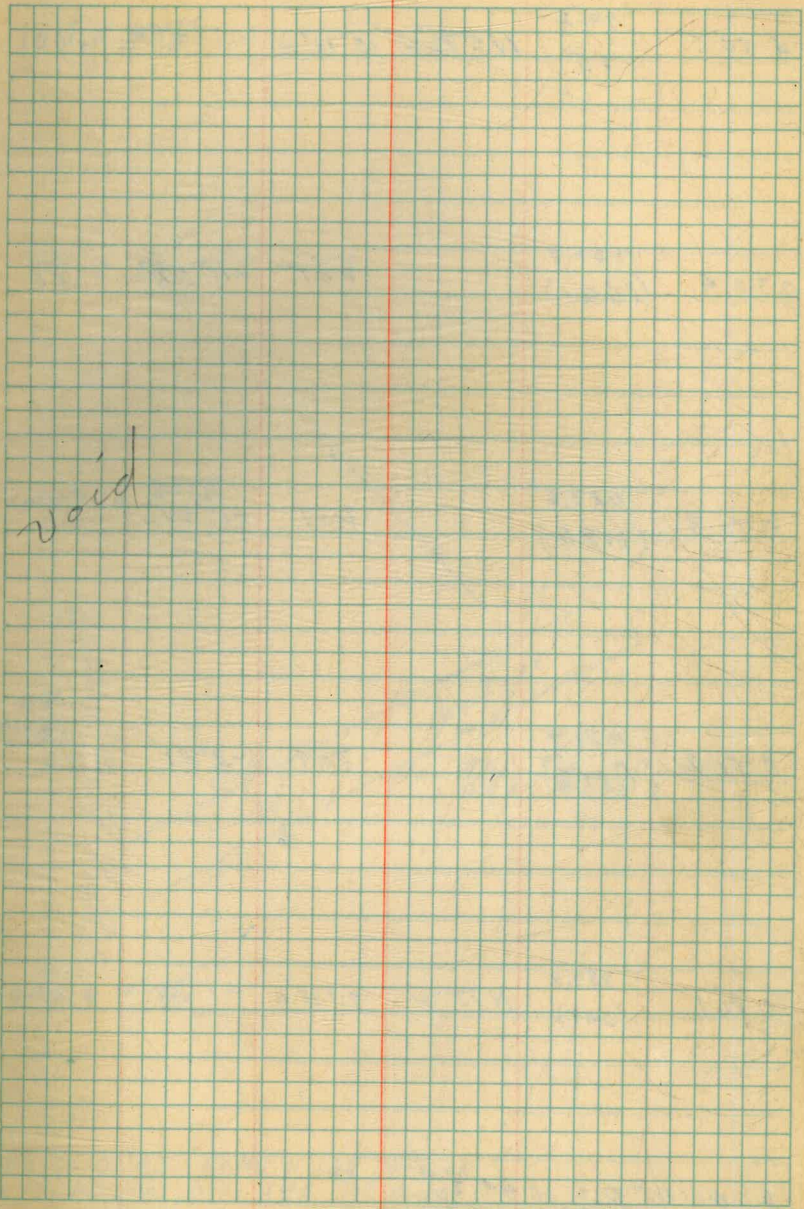
7 TO 9 (375) POT -1°57' 4.7
4.7

7 TO 8 (184) N 70°W 50°25' L -5°27' 4.7
4.7

7 TO 7 (698) POT +0°25' 4.9
4.9

4 TO 6 (520) POT -0°07' 9.9
7.9

4 TO 5 (375) N 19 3/4° W 1°41' R -0°30' 4.9
4.9



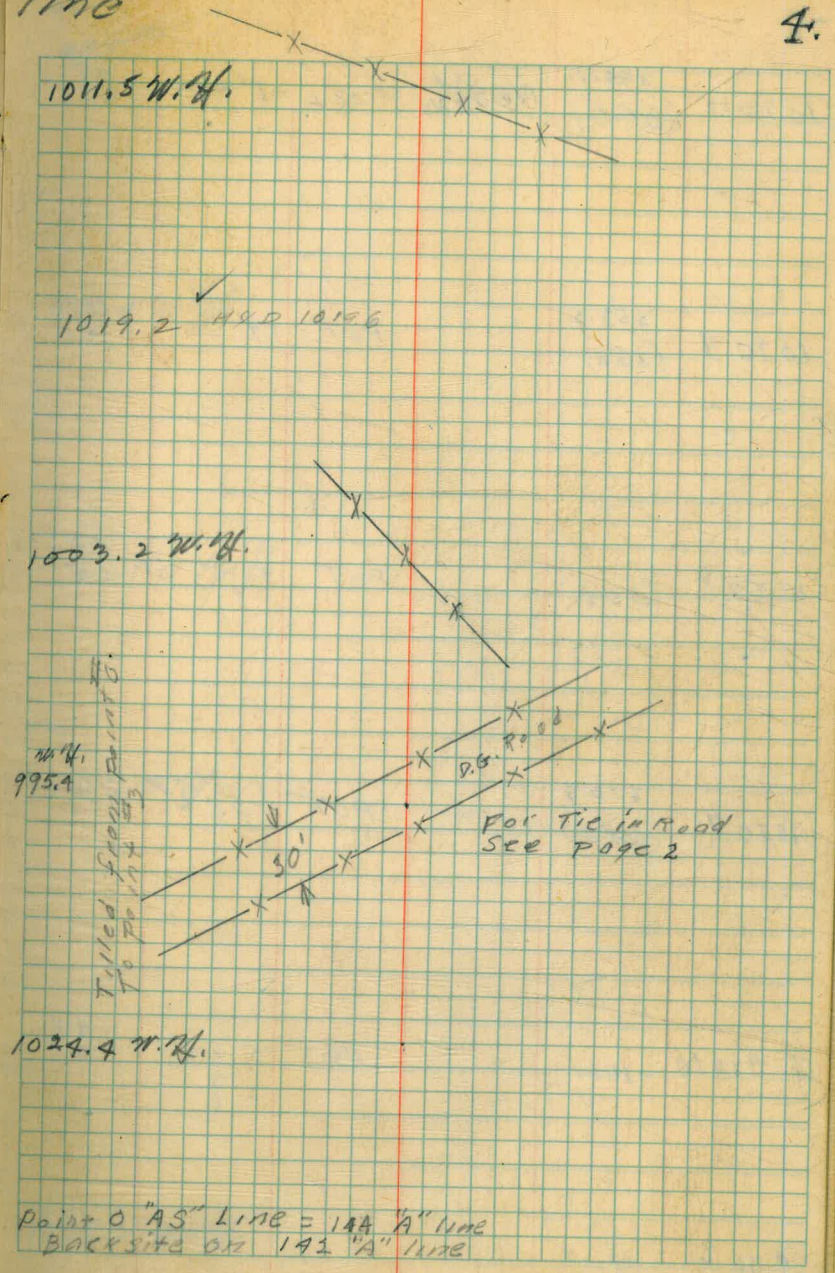
Void

Dulzura Pl. Stadia loc. "A-S" line

4 TO 5	74.2 75	N57°16'W	15°12'R	-5°55'	4.8 4.8
0 TO 4	1620.7 (1621)	POT		-0°53'	5.0 5.0
0 TO 3	1183.6 (1185)	POT		-1°59'	5.0 5.0
0 TO 2	1039.7 (1042)	POT		-2°41'	5.0 5.0
0 TO 1	339.8 (341)	N73°W	51°18'L	-3°20'	5.0 5.0

El point 0 = 1044.2 ✓

4.



10 TO 11 $\frac{344.7}{(345)}$ N65 $\frac{1}{4}$ °W 8° 12' L -1° 40' $\frac{4.5}{4.5}$

10 TO 9 $\frac{253.2}{(260)}$ POT -9° 30' $\frac{16.5}{4.5}$

10 TO 8 (360) POT $\frac{4.5}{4.5}$

10 TO 7 $\frac{673.9}{(680)}$ POT -526' $\frac{11.2}{4.5}$

10 TO 10 1611 POT -0° 29' $\frac{4.8}{4.8}$
-3

9 TO 6 (811) POT $\frac{14.8}{4.8}$

995.7 W. H.

~~995.4~~

951.4 W. H.

?
No Angle

934.6 W. H.



1005.7 ✓

1009.2 W. H.

1380
1102
165.8
16 TO 17 (168) POT -6°30' 5.3
5.3

1092.4
14 TO 16 (1102) POT -5°20' 4.5
4.5

834.0
14 TO 15 (860) N66°W 0°49'E -10°0' 4.5
4.5

1439.9
10
HTO 14 (1440) POT -0°29' 4.5
4.5

804.7
10
HTO 13 (805) -1°10' 4.5
4.5

393.9
10
HTO 12 (400) -7°06' 4.5
4.5

6
872.8 W.H.

891.7

846.5

993.6 ✓

989.3 W.H.

956.7 W.H.

970.8
215 T027 (1000) POT -9° 50' 4.9
4.9

769.2
215 T023 (801) POT -11° 30' 4.9
4.9

312.8
215 T022 320 POT -8° 37' 11.9
4.9

1146.9
1147
118 T021 (1152) POT -3° 49' 4.8
4.8

507.7
19 T020 (540) POT -14° 10' 4.8
4.8

249.15
18 T019 (250) N70°W A°01' -3° 22' 4.8
4.8

1678.4
1679
114 T018 (1680) POT -1° 45' 4.5
4.5

697.5 W.H.

709.3 W.H.

811.4 W.H.

865.8 ✓

795.5 W.H.

923.6 W.H.

942.3 ✓

29T031 (270) POT -10°32' 15.9
261 4.9

29T030 (38) N 71½° W 1°11'30" L -8°0' 4.9
37.3

π28T029 (307) POT -0°21' 11.9
4.9

π21T028 (1650) POT -2°03' 4.9
1647.9
1648

21T027 (1550) POT -2°15' 4.9
1547.7 W.H.

21T026 (1339) POT -5°10' 4.9
1328.2 W.H.

21T025 (1223) POT -4°15' 4.9
1214.7 W.H.

738.6 W.H.

792.9 W.H.

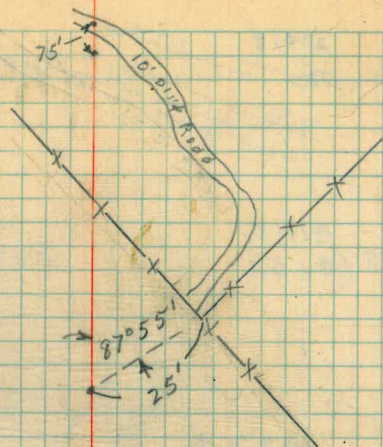
798.1 W.H.
804.9 ?

806.8 ✓

805.0 W.H.

745.7 W.H.

764.9 W.H.



37T036 204.8
205 POT -1° 47' 4.9
4.9

37T035 411.8
(A15) POT -5° 0' 4.9
4.9

34T037 843 W.H.
899
(849) N 78½° W 7° 22' 30" -4° 50' 4.6
4.6

34T033 220.6
(225) POT -8° 0' 14.6
4.6

29T034 1163.3
1164
(1185) POT -7° 47' 4.9
4.9

29T032 428.1
(437) POT -8° 13' 4.9
4.9

564.1 W.H.

534.5 W.H.

574.5 = 570.5 after
check on U.S.G.S.
B.M.

567.8 W.H.
From Pt. 34

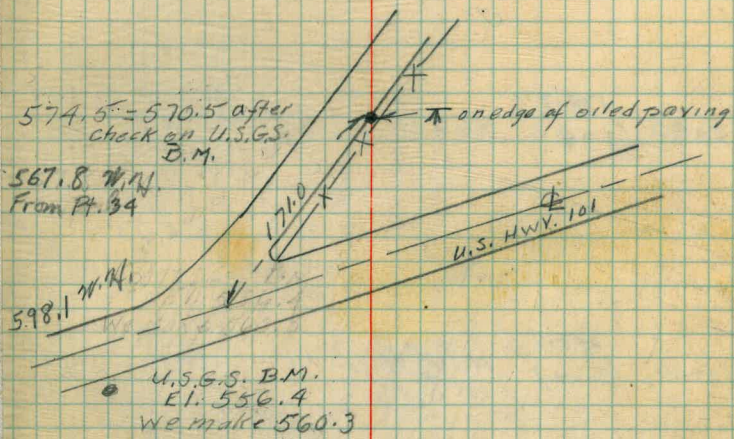
598.1 W.H.

U.S.G.S. B.M.
El. 556.4
we make 560.3

639.1 W.H.

645.9

736.3 W.H.



π 40 to 41 $\frac{310.6}{(312)}$ $S 84\frac{1}{2}^{\circ} W$ $35^{\circ} 0' L - 3^{\circ} 49'$ $\frac{4.9}{4.9}$

π 39 to 40 $\frac{138.7}{(139)}$ $N 62\frac{1}{4}^{\circ} W$ $32^{\circ} 35' - 2^{\circ} 46'$ 5.0

π 38 to 39 $\frac{308.7}{(309)}$ $N 29\frac{1}{4}^{\circ} W$ $6^{\circ} 40' L + 1^{\circ} 50'$ $\frac{4.9}{4.9}$

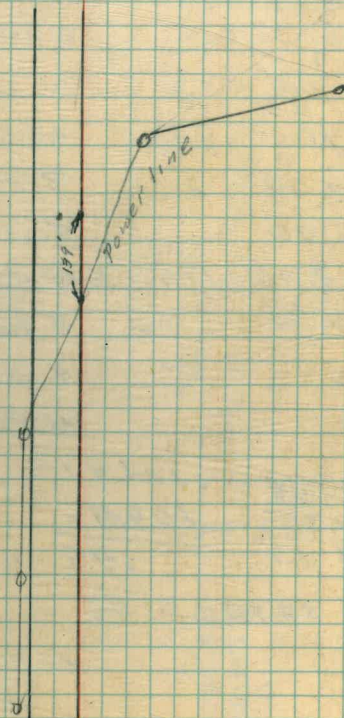
π 37 to 38 $\frac{1126.4}{(1130)}$ $N 22\frac{1}{2}^{\circ} W$ $55^{\circ} 39' R + 3^{\circ} 16'$ $\frac{4.9}{4.9}$

617.3 W.H.
617.2

638.0 W.H.
637.9

644.7 W.H.
644.7

634.8 W.H.
634.8



Tunnel Grades # 1/2

	+	Hi	-	Elev	Assumed Elev
119+06 ⁵⁰	3.99	113.99		110.00	
			4.07	109.92	
			4.78	109.21	
119+24			3.58	100.41	
119+73.70			3.76	110.23	109.99
120+23.60			3.40	110.59	109.78
+72.70			3.78	110.21	109.97
121+23.40 ⁵			3.82	110.17	109.96
+73.60			3.87	110.12	109.95
122+26.80			3.80	110.19	109.94
+75.10			3.79	110.20	109.93
123+29.35			4.10	109.89	109.91
+74.90			4.13	109.86	109.80
124+24.00			3.74	110.25	109.89
+75.00			4.20	109.79	109.58
4.26	114.05	4.20	109.79	109.51	
125+37 ⁴⁸			4.62	109.43	
+05			4.22	109.83	
			4.86	109.19 = 109.21	
		109.91			
125+37 ⁴⁸		109.43			
2+13.13		.48			
	11.72	121.95		110.23	
			11.80	100.15	

West Williams
Varon Pikes
Kemp

10-2-53

(Hot) 119+42
35
55

11

at floor end of covered Conduit
high point in tunnel floor
South end of Tunnel

		119+42	
		78	
⊙ 0 24		119+24	
		49.1	
⊙ 0 61		119+73.7	
		49.9	
⊙ 0 24	113.99	120+23.6	
	1.83	49.1	
⊙ 0 21	115.85	120+72.7	
	109.94	50.75	
⊙ 0 17	599	121+23.45	
		50.12	
⊙ 0 25		121+73.60	
⊙ 0 27		53.20	
F 0 22		122+36.80	
		48.30	
⊙ 0 06		122+73.10	
		49.24	
⊙ 0 56		123+24.35	
⊙ 0 21		50.55	
⊙ 0 22		123+74.90	
		49.10	
Cement Floor	70 31	124+24.00	
		51	
		75.00	
	49	109.91	
	22	109.21	
	27	70	
	114.05		
	4.60		
	109.35	114.21	114.21
		14	443
			109.79
	115	004.54	
	80		109.99
South end of	109.99	165 1.760	109.43
Flume #6	1	260	
	110.15	400	
	109.29	330	56
	16	400	

1621 1600
 6.95 890
 8105 710
 6484
 9726
 10.49545 730
 1030
 10196

H	
4	0
9	1
4	2
9	3
4	4
9	5
4	6
9	7
4	8
9	9
4	10
9	11
4	12
9	13
4	14
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4	28
9	29
4	30
9	31
4	32
9	33
4	34
9	35
4	36
9	37
4	38
9	39
4	40

center line to
her widths of
us in example
to 41.9 = 43.9.

MADE IN U.S.A.

TOP DOWN
REVERSE THEM

(100) 0° 55' 4.9
1575 4.9
12 (227) 5° 20' 6.9
4.9
(121) 10° 22'

1550
1985
565

DISTANCES FROM CENTER OF ROADWAY FOR
CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41.9 + (20 - 16) ÷ 2 or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.

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