ENGINEERS
MINING
TRANSIT BOOK
No. 422 F

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)÷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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These - Copied - Notes Contd from
FB 396 - Pg. 80

			565.93
3830		5.7	560.2
3880			
820		5.6	60.3
880			
810		2.6	63.3
880			
800		2.1	63.8
880			
790		2.2	63.7
880			
780		2.6	63.3
880			
770		3.8	62.1
880			
760		4.4	61.5
880			
750		3.9	62.0
880			
740		4.2	61.7
880			
730		4.6	61.3
880			
720		5.0	60.9
880			
710		5.4	60.5
880			
3700		6.1	59.8
3880			
3710		5.9	60.0
3870			
720		4.9	61.0
870			
730		4.6	61.3
870			
740		4.5	61.4
870			
750		4.2	61.7
870			
760		4.2	61.7
870			
770		2.7	63.2
870			
780		1.8	64.1
870			
790		1.6	64.3
870			
800		1.8	64.1
870			
3810		2.9	63.0
3870			

Original Notes - Contd From
F.B. 348 Pg. 80

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May 21, 1932

Reduced & Checked
6/4/32
R.E.L.

Copied From FB 350

Began 11/7/32

X

56593

3820			
3870		5.9	560.0
830			
870		5.9	560.0
840			
870		5.9	60.0
850			
870		5.8	60.1
860			
870		5.7	60.2
870			
870		5.7	60.2
880			
870		5.5	60.4
890			
870		5.5	60.4
900			
870		5.4	60.5
910			
870		5.2	60.7
920			
870		5.0	60.9
930			
870		5.0	60.9
3940			
3870		3.0	62.9
3940			
3860		1.9	64.0
930			
860		5.2	60.7
920			
860		5.3	60.6
910			
860		5.3	60.6
900			
860		5.5	60.4
890			
860		5.8	60.1
880			
860		5.5	60.4
870			
860		5.8	60.1
860			
860		5.8	60.1
850			
860		5.9	60.0
840			
860		6.0	59.9
3830			
3860		6.1	59.8

X

565.93

3820		
3860	6.3	559.6
810		
860	2.5	63.4
800		
860	2.3	63.6
790		
860	1.8	64.1
780		
860	1.6	64.3
770		
860	2.1	63.8
760		
860	3.5	62.4
750		
860	4.0	61.9
740		
860	4.4	61.5
730		
860	4.5	61.4
720		
860	5.0	60.9
3710		
3860	6.4	59.5
3720		
3850	5.2	60.7
730		
850	4.6	61.3
740		
850	3.9	62.0
750		
850	3.7	62.2
760		
850	2.8	63.1
770		
850	2.0	63.9
780		
850	1.6	64.3
790		
850	2.1	63.8
800		
850	2.3	63.6
810		
850	2.5	63.4
820		
850	5.3	60.6
830		
850	6.2	59.7
3840		
3850	6.2	59.7

X

565.93

3850		
3850	6.1	559.8
860	6.1	59.8
850		
870	6.0	59.9
850	6.1	59.8
880		
850	5.5	60.4
890	5.4	60.5
850	5.4	60.5
900	5.2	60.7
850	5.7	60.2
910	1.6	64.3
850	1.2	64.7
920	5.2	60.7
850	5.5	60.4
930	5.4	60.5
850	5.5	60.4
3940	5.5	60.4
3850	5.5	60.4
3940	6.3	59.6
3840	6.4	59.5
930	6.3	59.6
840	6.4	59.5
920	6.4	59.5
840	5.1	60.8
910	2.5	63.4
840	24	63.5
900		
840		
890		
840		
880		
840		
870		
840		
860		
840		
850		
840		
840		
840		
830		
840		
830		
840		
810		
840		
3800		
3840		

X

		565.93		
3790				
3840			2.3	563.6
780				
840			1.8	64.1
770				
840			1.9	64.0
760				
840			2.5	63.4
750				
840			3.3	62.6
740				
840			3.9	62.0
730				
840			4.5	61.4
720				
840			5.6	60.3
3710				
3840			6.5	59.4
TP			5.00	560.93
	6.71	567.64		
3720				
3830			7.6	600
730				
830			6.3	61.3
740				
830			5.7	61.9
750				
830			5.0	62.6
760				
830			4.4	63.2
770				
830			4.0	63.6
780				
830			3.7	63.9
790				
830			3.9	63.7
800				
830			4.1	63.5
810				
830			4.5	63.1
820				
830			8.3	59.3
830				
830			8.2	59.4
840				
840			8.2	59.4
3850				
3830			8.3	59.3

X

	567.64		
3860			
3830		8.2	559.4
870			
830		7.8	59.8
880			
830		7.2	60.4
890			
830		7.4	60.2
900			
830		7.2	60.4
910			
830		7.0	60.6
920			
830		7.1	60.5
930			
830		6.1	61.5
3940			
3830		1.8	65.8
3940			
3820		1.5	66.1
930			
820		5.9	61.7
920			
820		7.4	60.2
910			
820		7.1	60.5
900			
820		7.2	60.4
890			
820		7.3	60.3
880			
820		7.3	60.3
870			
820		8.3	59.3
860			
820		8.4	59.2
850			
820		8.5	59.1
840			
820		8.5	59.1
830			
820		8.4	59.2
820			
820		5.0	62.6
810			
820		4.3	63.3
800			
820		4.1	63.5
3790			
3820		4.1	63.5

X

567.64

3780			
3820		3.7	563.9
770			
820		4.1	63.5
760			
820		4.4	63.2
750			
820		5.0	62.6
740			
820		5.7	61.9
730			
820		6.8	60.8
3720			
3820		8.5	59.1
3710			
3810		9.2	58.4
720			
810		9.2	58.4
730			
810		7.4	60.2
740			
810		6.0	61.6
750			
810		5.1	62.5
760			
810		4.7	62.9
770			
810		4.2	63.4
780			
810		3.9	63.7
790			
810		4.2	63.4
800			
810		4.2	63.4
810			
810		4.4	63.2
820			
810		5.3	62.3
830			
810		8.6	59.0
840			
810		8.7	58.9
850			
810		8.7	58.9
860			
810		8.5	59.1
870			
810		8.5	59.1
3880			
3810		7.4	60.2

X

			567.64
3890			
3810		7.1	560.5
900			
810		7.2	60.4
910			
810		7.4	60.2
920			
810		7.7	59.9
930			
810		4.9	62.9
3940			
3810		0.2	67.4
3940			
3800		+0.3	67.9
930			
800		4.2	63.4
920			
800		7.8	59.8
910			
800		7.6	60.0
900			
800		7.2	60.4
890			
800		7.2	60.4
880			
800		7.4	60.2
870			
800		8.7	58.9
860			
800		8.7	58.9
850			
800		8.8	58.8
840			
800		8.8	58.8
830			
800		8.5	59.1
820			
800		5.4	62.2
810			
800		4.5	63.1
800			
800		4.3	63.3
790			
800		4.1	63.5
780			
800		4.1	63.5
770			
800		4.3	63.3
3760			
3800		4.8	62.8

	567.6		
3750			
3800		5.5	562.1
740			
800		6.5	561.1
730			
800		8.3	59.3
720			
800		9.2	58.4
3770			
3800		8.8	58.8
3770			
3790		8.2	59.4
720			
790		9.2	58.4
730			
790		9.2	58.4
740			
790		7.0	60.6
750			
790		5.6	62.0
760			
790		5.0	62.6
770			
790		4.0	63.6
780			
790		4.1	63.5
790			
790		4.2	63.4
800			
790		4.3	63.3
810			
790		4.4	63.2
820			
790		5.5	62.1
830			
790		8.6	59.0
840			
790		9.1	58.5
850			
790		8.9	58.7
860			
790		8.9	58.7
870			
790		8.1	59.5
880			
790		7.9	59.7
890			
790		7.3	60.3
3900			
3790		7.3	60.3

567.64

3910 3790		7.9	559.7
920 790		7.4	602
930 790		3.1	64.5
3940 3790		+1.3	68.9
3940 3780		0.9	66.7
930 780		3.8	638
920 780		7.2	60.4
910 780		8.0	59.6
900 780		7.5	60.1
890 780		7.4	602
880 780		7.8	59.8
870 780		8.1	59.5
860 780		9.1	58.5
850 780		9.1	58.5
840 780		9.1	58.5
830 780		9.2	584
820 780		5.5	62.1
810 780		4.7	62.9
800 780		4.6	630
790 780		4.4	632
780 780		4.4	632
770 780		4.6	630
760 780		5.3	62.3
750 780		6.0	61.6
3740 3780		7.9	59.7

X

	567.64		
3730			
3780		9.1	558.5
720			
780		9.3	58.3
3710			
3780		8.6	59.0
3720			
3770		9.4	58.2
730			
770		8.7	58.9
740			
770		8.4	59.2
750			
770		6.4	61.2
760			
770		5.7	61.9
770			
770		4.8	62.8
780			
770		4.4	63.2
790			
770		4.4	63.2
800			
770		4.6	63.0
810			
770		4.8	62.8
820			
770		5.9	61.7
830			
770		9.4	58.2
840			
770		9.0	58.6
850			
770		9.3	58.3
860			
770		9.2	58.4
870			
770		8.2	59.4
880			
770		7.8	59.8
890			
770		7.8	59.8
900			
770		7.9	59.7
910			
770		6.1	61.5
920			
770		4.8	62.8
3930			
3770		1.8	65.8

X

	567.64		
3940			
3770		3.0	564.6
3940			
3760		+3.4	71.0
930			
760		+2.4	70.0
920			
760		+1.2	68.8
910			
760		2.1	65.5
900			
760		7.4	60.2
890			
760		8.2	59.4
880			
760		8.0	59.6
870			
760		8.6	59.0
860			
760		9.4	58.2
850			
760		9.5	58.1
840			
760		9.3	58.3
830			
760		9.5	58.1
820			
760		7.1	60.5
810			
760		5.2	62.4
800			
760		4.8	62.8
790			
760		4.8	62.8
780			
760		4.7	62.9
770			
760		4.9	62.7
760			
760		5.7	61.9
750			
760		7.0	60.6
3740			
3760		8.4	59.2
3750			
3750		7.9	59.7
760			
750		6.1	51.5
3770			
3750		4.9	62.7

X

	567.64		
3780			
3750		4.8	562.8
790			
750		4.8	62.8
800			
750		4.8	62.8
810			
750		5.4	62.2
820			
750		6.1	61.2
830			
750		9.7	57.9
840			
750		9.6	58.0
850			
750		9.6	58.0
860			
750		9.6	58.0
870			
750		8.9	58.7
880			
750		8.2	59.4
890			
750		8.1	59.5
900			
750		4.3	63.3
910			
750		0.3	67.3
3920			
3750		+1.5	69.1
3920			
3740		+0.8	68.4
910			
740		1.0	66.6
900			
740		4.2	63.4
890			
740		6.6	61.0
880			
740		8.8	58.8
870			
740		9.0	58.6
860			
740		9.1	58.5
850			
740		9.7	57.9
840			
740		9.8	57.8
3830			
3740		9.8	57.8

X

	567.64		
3820			
3740			
810		7.4	560.2
740		5.8	61.8
800		5.1	62.5
740		4.9	62.7
790		4.7	62.9
740		5.4	62.2
780		6.2	61.4
740		8.9	58.7
770		8.6	59.0
740		6.6	61.0
760		5.5	62.1
740		4.8	62.8
3750		4.9	62.7
3730		5.2	62.4
760		6.5	61.1
730		7.4	60.2
770		10.0	57.6
730		10.0	57.6
780		9.9	57.7
730		9.7	57.9
790		8.9	58.7
730		7.5	60.1
800		4.2	63.4
730		0.0	67.6
810			
730			
820			
730			
830			
730			
840			
730			
850			
730			
860			
730			
870			
730			
880			
730			
890			
730			
3900			
3730			

X

	567.6		
3900			
3720		+0.9	568.5
890			
720		2.3	65.3
880			
720		6.7	60.9
870			
720		9.0	58.6
860			
720		9.1	58.5
850			
720		10.0	57.6
840			
720		10.1	57.5
830			
720		10.1	57.5
820			
720		7.6	60.0
810			
720		6.2	61.4
800			
720		6.4	61.2
790			
720		5.2	62.4
780			
720		4.9	62.7
770			
720		5.6	62.0
3760			
3720		7.1	60.5
3750			
3710		8.3	59.3
760			
710		7.8	59.8
770			
710		5.9	61.7
780			
710		5.6	62.0
790			
710		6.6	61.0
800			
710		6.4	61.2
810			
710		6.8	60.8
820			
710		9.1	58.5
830			
710		10.3	57.3
3840			
3710		10.2	57.4

	567.64		
3850			
3710		10.1	557.5
860			
710		9.0	58.6
870			
710		8.8	58.8
880			
710		4.0	63.6
3890			
3710		+ 0.4	68.0
3880			
3700		1.0	66.6
870			
700		5.9	61.7
860			
700		9.3	58.3
850			
700		9.5	58.1
840			
700		10.5	57.1
830			
700		10.5	57.1
820			
700		10.1	57.5
810			
700		7.3	60.3
800			
700		6.7	60.9
790			
700		6.0	61.6
780			
700		6.3	61.3
770			
700		6.7	60.9
760			
700		6.9	60.7
750			
700		7.1	60.5
3740			
3700		7.4	60.2
3750			
3690		6.4	61.2
760			
690		6.5	61.1
770			
690		6.8	60.8
780			
690		6.7	60.9
3790			
3690		6.9	60.7

X

	567.64		
3800			
3690		7.2	560.4
810			
690		7.8	59.8
820			
690		10.6	57.0
830			
690		10.6	57.0
840			
690		10.3	57.3
850			
690		9.4	58.2
860			
690		7.0	60.6
870			
690		1.9	65.7
3880			
3690		0.2	67.4
3750			
3680		7.0	60.6
760			
680		6.8	60.8
770			
680		7.8	59.8
780			
680		7.5	60.1
790			
680		8.2	59.4
800			
680		7.9	59.7
810			
680		8.4	59.2
820			
680		10.8	56.8
830			
680		10.7	56.9
840			
680		9.8	57.8
850			
680		8.9	58.7
860			
680		5.4	62.2
3870			
3680		1.5	66.1
3870			
3670		0.4	67.2
860			
670		3.0	64.6
3850			
3670		6.3	61.3

X

	57.64		
3840			
3670		9.8	57.8
830			
670		10.7	56.9
820			
670		11.1	56.5
810			
670		11.0	56.6
800			
670		8.2	59.4
790			
670		7.5	60.1
780			
670		7.3	60.3
770			
670		7.9	59.7
760			
670		8.3	59.3
3750			
3670		8.4	59.2
3750			
3660		7.1	60.5
760			
660		6.5	61.1
770			
660		6.8	60.8
780			
660		8.2	59.4
790			
660		8.9	58.7
800			
660		10.3	57.3
810			
660		11.2	56.4
820			
660		10.2	57.4
830			
660		9.8	57.8
840			
660		7.8	59.8
850			
660		4.5	63.1
860			
660		2.4	65.2
3870			
3660		0.5	67.1
3870			
3650		0.8	66.8
3860			
3650		1.1	66.5

X

	567.64		
3850			
3650		3.3	564.3
840		6.1	61.5
830		9.8	57.8
820		10.1	57.5
810		10.6	57.0
800		11.5	56.1
790		11.6	56.0
780		10.0	57.6
770		9.5	58.1
760		7.4	60.2
750		7.1	60.5
3740		6.9	60.7
3650			
3750		8.6	59.0
3640			
760		9.6	58.0
770		10.7	56.9
780		11.8	55.8
790		11.0	56.6
800		10.2	57.4
810		10.1	57.5
820		9.6	58.0
830		6.3	61.3
840		5.5	62.1
850		2.4	65.2
3860			
3640		0.9	66.7
3860			
3630		0.8	66.8

	57.64		
3850			
3630		2.9	564.7
840			
630		5.2	62.4
830			
630		7.1	60.5
820			
630		7.3	60.3
810			
630		9.7	57.9
800			
630		9.5	58.1
790			
630		10.2	57.4
780			
630		11.1	56.5
770			
630		12.0	55.6
3760			
3630		10.8	56.8
3770			
3620		12.0	55.6
780			
620		9.1	58.5
790			
620		10.9	56.7
800			
620		10.0	57.6
810			
620		8.9	58.7
820			
620		6.0	61.6
830			
620		5.8	61.8
840			
620		4.1	63.5
3850			
3620		0.9	66.7
3850			
3610		1.0	66.6
840			
610		2.7	64.9
830			
610		4.2	63.4
820			
610		5.6	62.0
810			
610		6.6	61.0
800			
610		9.3	58.3

		567.64		
3790				
3610			10.7	556.9
780				
610			10.7	56.9
3770				
3610			10.8	56.8
3780				
3600			11.0	56.6
790				
600			9.1	58.5
800				
600			7.7	59.9
810				
600			5.9	61.7
820				
600			5.2	62.4
830				
600			3.2	64.4
3840				
3600			0.7	66.9
BM			11.77	55587 Check on BM 555.86
BM	12.91	573.79		560.88
3850				
4400			6.9	66.9
860				
400			6.1	67.7
3870				
4400			1.1	72.7
3850				
4410			5.9	67.9
860				
410			6.2	67.7
870				
410			5.5	68.3
3880				
4410			0.6	73.2
3860				
4420			2.2	71.6
3870				
4420			1.1	72.7
3860				
4430			1.1	72.7

May 24, 1932

X

		573.79		
3870				
4390			2.9	570.9
T.P.			0.36	573.43
	10.15	583.58		
880				
390			9.5	574.1
890				
390			8.5	75.1
900				
390			6.9	76.7
910				
390			5.4	78.2
920				
390			3.5	80.1
3930				
4390			2.2	81.4
3940				
4390			1.0	82.6
3930				
4380			3.6	80.0
920				
380			4.2	79.4
910				
380			5.2	78.4
900				
380			7.3	76.3
890				
380			8.7	74.9
3880				
4380			10.6	73.0
3880				
4370			11.0	72.6
890				
370			10.8	72.8
900				
370			8.7	74.9
910				
370			6.0	77.6
920				
370			4.1	79.5
930				
370			2.4	81.2
3940				
4370			1.6	82.0
3950				
4360			0.8	82.8
940				
360			1.7	81.9

583.58

3930 4360		2.7	580.9
920 360		4.4	79.2
910 360		6.9	76.7
900 360		8.7	74.9
3890 4360		10.3	73.3
3890 4350		13.2	70.4
3890 4340		14.8	68.8
3890 4330		14.5	69.1
3900 4350		9.5	74.1
910 350		7.9	75.7
920 350		5.4	78.2
930 350		3.7	79.9
940 350		2.1	81.5
3950 4350		1.1	82.5
3960 4340		0.4	83.2
950 340		1.4	82.2
940 340		2.8	80.8
930 340		4.3	79.3
920 340		6.7	76.9
910 340		9.0	74.6
3900 4340		10.3	73.3
3900 4330		10.8	72.8
910 330		9.8	73.8
920 330		7.5	76.1
3930 4330		7.4	78.2

583.58

3940 4330	3.4	580.2
950 330	2.0	81.6
3960 4330	0.8	82.8
3970 4320	0.2	83.4
960 320	1.4	82.2
950 320	2.7	80.9
940 320	4.3	79.3
930 320	6.2	77.4
920 320	8.7	74.9
910 320	10.6	73.0
3900 4320	12.3	71.3
3900 4310	13.0	70.6
910 310	10.8	72.8
920 310	9.7	73.9
930 310	7.6	76.0
940 310	5.2	78.4
950 310	3.4	80.2
960 310	2.0	81.6
3970 4310	0.8	82.8
3970 4300	1.8	81.8
960 300	2.7	80.9
950 300	3.9	79.7
940 300	6.0	77.6
930 300	8.5	75.1
3920 4300	10.5	73.1

583.58

3910 4300		10.9	572.7
3900 4300		14.0	69.6
3910 4290		12.8	70.8
920 290		11.0	72.6
930 290		9.0	74.6
940 290		6.7	76.9
950 290		5.2	78.4
960 290		3.3	80.3
3970 4290		2.1	81.5
3970 4280		2.7	80.9
960 280		3.6	80.0
950 280		5.3	78.3
940 280		8.1	75.5
930 280		10.4	73.2
920 280		11.7	71.9
3910 4280		14.1	69.5
3920 4270		12.5	71.1
930 270		10.4	73.2
940 270		8.0	75.6
950 270		5.7	77.9
960 270		4.1	79.5
3970 4270		3.3	80.3
3970 4260		3.8	79.8
960 260		4.7	78.9
3950 4260		6.4	77.2

583.58

3940 4260		8.6	575.0
930 260		10.7	72.9
3920 4260		12.5	71.1
3920 4250		12.6	71.0
930 250		10.7	72.9
940 250		8.9	74.7
950 250		7.1	76.5
960 250		5.2	78.4
3970 4250		4.2	79.4
3970 4240		5.0	78.6
960 240		5.8	77.8
950 240		7.6	76.0
940 240		9.2	74.4
930 240		10.6	73.0
3920 4240		13.2	70.4
3930 4230		11.8	71.8
940 230		9.9	73.7
950 230		8.3	75.3
960 230		6.4	77.2
3970 4230		5.4	78.2
3970 4220		6.6	77.0
960 220		7.6	76.0
950 220		9.0	74.6
940 220		10.3	73.3
3930 4220		12.4	71.2

583.58

3920			
4210		14.8	568.8
930			
210		12.5	71.1
940			
210		10.7	72.9
950			
210		9.5	71.4
960			
210		8.4	75.2
3970			
4210		6.7	76.9
3970			
4200		7.4	76.2
960			
200		8.6	75.0
950			
200		7.9	73.9
940			
200		10.6	73.0
3930			
4200		12.5	71.1
3930			
4190		13.2	70.4
940			
190		11.0	72.6
950			
190		10.2	73.4
960			
190		9.4	74.2
3970			
4190		8.1	75.5
3970			
4180		8.4	75.2
960			
180		9.5	74.1
950			
180		10.4	73.2
940			
180		12.3	71.3
3930			
4180		14.5	69.1
3880			
4400		9.5	74.1
890			
400		8.3	75.3
900			
400		7.0	76.6
3910			
4400		5.3	78.3

X

583.58

3920 4400	3.5	580.1	
3930 4400	2.1	81.5	
3930 4410	2.6	81.0	
920 410	4.3	79.3	
910 410	6.4	77.2	
900 410	7.7	75.9	
3890 4410	9.5	74.1	
3880 4420	13.4	70.2	
890 420	10.4	73.2	
900 420	9.0	74.6	
910 420	6.7	76.9	
920 420	4.7	78.9	
3930 4420	3.4	80.2	
3930 4430	3.7	79.9	
920 430	7.8	75.8	
910 430	11.6	72.0	
900 430	8.4	75.2	
890 430	8.5	75.1	
880 430	8.4	75.2	
3870 4430	9.4	74.2	
Check	8.58	575.00	Record 575.00

Toe of Slope Hub at 575

X

May 25, 1932

Simpson
Elliott
Soper
Remmen

Notes
Ø
Tape

B.M.	12.77	573.65		560.88
T.P.	10.16	582.43	1.38	572.27
3930				
4190			11.8	70.6
940				
190			9.8	72.6 dup
950				
190			9.0	73.4 dup
960				
190			8.2	74.2
970				
190			6.9	75.5
3980				
4190			5.7	76.7
3970				
4180			7.3	75.1
960				
180			8.4	74.0
950				
180			9.3	73.1 dup
940				
180			11.2	71.2
3930				
4180			13.3	69.1
3930				
4170			13.0	69.4
940				
170			11.0	71.4
950				
170			9.4	73.0
960				
170			8.8	73.6
3970				
4170			7.9	74.5
3970				
4160			8.7	73.7
960				
160			9.1	73.3
950				
160			10.1	72.3
940				
160			11.3	71.1
3930				
4160			13.3	69.1
3930				
4150			14.8	67.6
940				
150			12.1	70.3

X

582.43

3950			
4150		10.7	71.7
960			
150		9.5	72.9
3970			
4150		8.8	73.6
3970			
4140		9.1	73.3
960			
140		9.8	72.6
950			
140		10.9	71.5
3940			
4140		12.5	69.9
3940			
4130		12.8	69.6
950			
130		11.4	71.0
960			
130		10.3	72.1
3970			
4130		9.6	72.8
3970			
4120		10.0	72.4
960			
120		10.8	71.6
950			
120		11.7	70.7
3940			
4120		13.6	68.8
3940			
4110		14.5	67.9
950			
110		12.1	70.3
960			
110		11.3	71.1
3970			
4110		10.6	71.8
3970			
4100		11.5	70.9
960			
100		11.7	70.7
950			
100		12.5	69.9
3940			
4100		14.4	68.0
3940			
4090		14.6	67.8
950			
090		12.9	69.5

582.43

3960			
4090		12.8	69.6
3970			
4090		12.7	69.7
3970			
4080		14.1	68.3
960			
080		14.7	67.7
950			
080		13.9	68.5
3940			
4080		16.8	65.6
3980			
4080		13.1	69.3
980			
090		11.9	70.5
980			
4100		11.0	71.4
980			
110		10.2	72.2
980			
120		9.1	73.3
980			
130		8.6	73.8
980			
140		8.1	74.3
980			
150		7.8	74.6
980			
160		7.4	75.0
980			
170		7.1	75.3
980			
180		6.0	76.4
980			
190		5.8	76.6
980			
200		5.4	77.0
980			
210		4.8	77.6
980			
220		3.9	78.5
980			
230		3.5	78.9
980			
240		2.9	79.5
980			
250		2.2	80.2
980			
260		1.9	80.5

X

		582.43		
3980				
4270			0.8	581.6
980				
280			0.7	82.2
TP	9.13	591.25	0.31	582.12
980				
290			8.6	82.7
980				
300			8.1	83.2
980				
310			7.8	83.5
980				
320			7.1	84.2
3980				
4330			6.6	84.7
3970				
4330			7.3	84.0
3970				
4340			7.0	84.3
3980				
340			6.1	85.2
980				
350			5.7	85.6
970				
350			6.7	84.6
960				
350			7.5	83.8
960				
360			7.5	83.8
970				
360			6.3	85.0
980				
360			5.1	86.2
980				
370			4.9	86.4
970				
370			6.1	85.2
960				
370			7.1	84.2
950				
370			8.1	83.2
940				
380			9.2	82.1
950				
380			7.8	83.5
960				
380			6.6	84.7
3970				
4380			5.7	85.6

59/.25

3980		
4380	4.6	586.7
3980		
4390	4.5	86.8
970		
390	5.7	85.6
960		
390	6.8	84.5
950		
390	7.7	83.6
940		
400	8.6	82.7
950		
400	7.3	84.0
960		
400	6.3	85.0
970		
400	5.2	86.1
980		
400	4.1	87.2
980		
410	4.0	87.3
970		
410	5.1	86.2
960		
410	6.1	85.2
950		
410	7.5	83.8
940		
410	9.0	82.3
940		
420	9.2	82.1
950		
420	7.8	83.5
960		
420	6.5	84.8
970		
420	5.4	85.9
980		
420	4.2	87.1
980		
430	4.6	86.7
970		
430	5.6	85.7
960		
430	6.9	84.1
950		
430	8.3	83.0
3940		
4430	9.8	81.5

591.25

4000			
4420		2.1	589.2
4000			
4400		2.2	89.1
4000			
4380		2.4	88.9
000			
360		3.1	88.2
020			
360		1.3	90.0
000			
340		4.0	87.3
020			
340		2.0	89.3
000			
320		5.0	86.3
020			
320		2.7	88.6
000			
300		6.1	85.2
020			
300		3.9	87.4
040			
300		2.6	88.7
060			
280		2.3	89.0
040			
280		3.6	87.7
020			
280		5.7	85.6
000			
280		7.4	83.9
000			
260		8.8	82.5
020			
260		6.8	84.5
040			
260		5.1	86.2
060			
260		3.2	88.1
080			
260		1.3	90.0
4100			
4240		0.4	90.9
080			
240		3.1	88.2
060			
240		5.2	86.1
040			
240		6.0	85.3

X

591.25

4020 4240	8.4	82.9
000 240	10.0	81.3
000 220	11.3	80.0
020 220	9.4	81.9
040 220	7.6	83.7
060 220	5.7	85.6
080 220	4.0	87.3
100 220	2.0	89.3
4120 4200	1.8	89.5
100 200	3.7	87.6
080 200	5.4	85.9
060 200	7.1	84.2
040 200	8.7	82.6
020 200	10.9	80.4
000 200	12.6	78.7
000 180	13.3	78.0
020 180	11.8	79.5
040 180	9.9	81.4
060 180	8.0	83.3
080 180	6.8	84.5
100 180	5.3	86.0
120 180	3.2	88.1
140 180	1.5	89.8
160 160	1.3	90.0
140 160	3.1	88.2

591.25

4120			
4160		4.7	86.6
100			
160		6.5	84.8
080			
160		8.1	83.2
060			
160		9.6	81.7
040			
160		11.4	79.9
020			
160		12.7	78.6
4000			
4160		14.3	77.0
4000			
4140		15.5	75.8
020			
140		14.0	77.3
040			
140		12.7	78.6
060			
140		11.1	80.2
080			
140		9.3	82.0
100			
140		7.9	83.4
120			
140		6.4	84.9
140			
140		4.9	86.4
4160			
4140		3.4	87.9
4180			
4120		4.9	86.4
160			
120		5.8	85.5
140			
120		6.8	84.5
120			
120		8.3	83.0
100			
120		10.0	81.3
80			
120		11.0	80.3
060			
120		12.8	78.5
040			
120		14.2	77.1
020			
120		15.9	75.4

		591.25		
4000				
4120			17.1	574.2
T.P.	0.26	578.82	12.69	578.56
4000				
4100			6.1	72.7
020				
100			4.8	74.0
040				
100			4.1	74.7
060				
100			2.7	76.1
4080				
4100			0.9	77.9
4110				
4090			0.4	78.4
4100				
090			1.3	77.5
090				
090			1.8	77.0
080				
090			2.8	76.0
070				
090			3.8	75.0
060				
090			3.9	74.9
050				
090			4.6	74.2
040				
090			5.6	73.2
030				
090			5.7	73.2
020				
090			5.8	73.2
010				
090			6.1	72.7
000				
090			6.6	72.2
3990				
4090			7.5	71.3
3990				
4080			9.0	69.8
4000				
080			7.8	71.0
010				
080			7.7	71.1
020				
080			7.3	71.5
030				
080			7.2	71.6

578.82

4040		
4080	7.5	571.3
050		
080	7.0	71.8
060		
080	6.5	72.3
070		
090	6.1	72.7
080		
090	5.1	73.7
090		
080	4.0	74.8
100		
080	3.2	75.6
110		
080	1.5	77.3
120		
080	2.4	76.4
4130		
4080	5.9	72.9
4110		
4070	7.1	71.7
100		
070	6.4	72.4
090		
070	5.3	73.5
080		
070	7.1	71.7
070		
070	8.6	70.2
060		
070	8.4	70.4
050		
070	8.8	70.0
040		
070	9.1	69.7
030		
070	9.1	69.7
020		
070	9.5	69.3
010		
070	9.5	69.3
000		
070	10.0	68.8
3990		
070	10.6	68.2
980		
070	11.4	67.4
970		
070	11.7	67.1

578.82

3960		
4070	12.4	566.4
950		
070	13.1	65.7
950		
060	14.0	64.8
960		
060	13.2	65.6
970		
060	12.0	66.8
980		
060	11.8	67.0
990		
060	11.5	67.3
4000		
4060	11.1	67.7
010		
060	10.9	67.9
020		
060	10.5	68.3
030		
060	10.1	68.7
040		
060	9.7	69.1
050		
060	9.9	68.9
060		
060	10.7	68.1
070		
060	13.0	65.8
080		
060	12.9	65.9
090		
060	12.7	66.1
100		
060	12.7	66.1
110		
060	14.8	64.0
120		
060	13.4	65.4
130		
060	12.1	66.7
140		
060	12.8	66.0
160		
050	10.9	67.9
150		
050	11.0	67.8
140		
050	11.5	67.3

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X

578.82

4130			
4050		12.0	566.8
120			
050		12.5	663
110			
050		12.5	663
100			
050		13.8	65.0
090			
050		14.8	64.0.
080			
050		13.2	65.6
070			
050		13.0	65.8
060			
050		13.0	65.8
050			
050		13.2	65.6
040			
050		13.3	65.5
030			
050		12.9	65.9
020			
050		11.5	67.3
010			
050		11.0	67.8
4000			
050		11.2	67.6
3990			
050		11.7	67.1
980			
050		14.0	64.8
970			
050		15.2	63.6
960			
050		13.2	65.6
3950			
4050		14.4	64.4
3950			
4040		14.9	63.9
960			
040		13.6	65.2
970			
040		15.9	62.9
980			
040		12.9	65.9
990			
040		13.5	65.3
4000			
4040		12.7	66.1

X

578.82

4010		
4040	13.8	565.0
020		
040	14.0	64.8
030		
040	13.9	64.9
040		
040	14.2	64.6
050		
040	15.6	63.2
060		
040	15.2	63.6
070		
040	14.7	64.1
080		
040	15.1	63.7
090		
040	13.6	65.2
100		
040	12.8	66.0
110		
040	12.4	66.4
120		
040	11.9	66.9
130		
040	11.2	67.6
140		
040	10.8	68.0
150		
040	10.4	68.4
160		
040	10.4	68.4
170		
040	10.1	68.7
180		
040	10.1	68.7
190		
040	9.6	69.2
4200		
4040	10.4	68.4
4210		
4030	7.8	71.0
200		
030	8.0	70.8
190		
030	8.6	70.2
180		
030	9.4	69.4
4170		
4030	9.3	69.5

		578.82		
4160			9.3	569.5
4030				
150			9.7	69.1
140			10.2	68.6
130			10.6	68.2
120			11.6	67.2
110			12.1	66.7
100			12.5	66.3
090			13.0	65.8
080			13.6	65.2
070			13.8	65.0
060			14.1	64.7
050			13.7	65.1
040			13.5	65.3
030			15.5	63.3
020			15.9	62.9
010			15.2	63.6
000			14.3	64.5
990			14.6	64.2
980			14.6	64.2
970			14.6	64.2
960			14.9	63.9
3950			15.2	63.6
4030				
3950			15.7	63.1
4020				
T.P.			1089	567.93
	7.13	575.06		

575.06

3960			
4020		11.5	563.6
970			
020		11.0	64.1
980			
020		11.2	63.9
3990			
020		10.9	64.2
4000			
020		11.5	63.6
010			
020		10.7	64.4
020			
020		10.4	64.7
030			
020		10.5	64.6
040			
020		10.5	64.6
050			
020		10.5	64.6
060			
020		10.4	64.7
070			
020		9.6	65.5
080			
020		9.0	66.1
090			
020		8.3	66.8
100			
020		7.5	67.6
110			
020		7.5	67.6
120			
020		7.0	68.1
130			
020		6.0	69.1
140			
020		5.4	69.7
150			
020		4.4	70.7
160			
020		4.6	70.5
4170			
4020		4.4	70.7
130			
010		4.8	70.3
120			
010		5.5	69.6
110			
010		5.7	69.4

575.06

4100		
4010	5.9	589.2
090	7.1	68.0
010		
080	8.3	66.8
010		
070	9.4	65.7
010		
060	9.8	65.3
010		
050	10.2	64.9
010		
040	10.5	64.6
010		
030	11.0	64.1
010		
020	11.0	64.1
010		
010	11.1	64.0
010		
4000	11.6	63.5
010		
3990	11.9	63.2
010		
980	11.8	63.3
010		
970	11.7	63.9
010		
960	11.5	63.6
010		
3950	11.6	63.5
4010		
3950	11.6	63.5
4000		
3960	11.5	63.6
000		
970	11.7	63.4
000		
980	11.8	63.3
000		
3990	11.6	63.5
000		
4000	11.4	63.7
000		
010	10.8	64.3
000		
020	10.9	64.2
000		
4030	10.5	64.6
4000		

X

575.06

4040		
4000	10.2	564.9
4050	9.2	65.9
4000		
060	8.4	66.7
000		
070	6.3	68.8
000		
080	4.9	70.2
000		
090	4.5	70.6
000		
100	3.5	71.6
000		
110	2.4	72.7
000		
120	2.9	72.2
000		
130	2.9	72.2
000		
140	1.5	73.6
000		
150	1.3	73.8
000		
160	0.2	74.9
000		
160	2.2	72.9
010	2.8	72.3
150	3.8	71.3
010	0.0	75.1
4140	0.5	74.6
4010	1.4	73.7
4130	1.6	73.5
3990	2.6	72.5
120	3.3	71.8
990	4.1	71.0
110	4.6	70.5
990	5.7	69.4
100		
990		
090		
990		
080		
990		
070		
990		
060		
990		
050		
990		

X

575.06

4040		
3990	7.5	567.6
030		
990	10.1	65.0
020		
990	10.7	64.4
010		
990	10.9	64.2
4000		
3990	11.2	63.9
3990	11.3	63.8
3990		
980	11.8	63.3
990		
970	12.2	62.9
990		
960	12.2	62.9
990		
950	12.4	62.7
990		
950	12.3	62.8
980		
960	12.2	62.9
980		
970	12.1	63.0
980		
980	11.9	63.2
980		
3990	11.6	63.5
980		
4000	10.9	64.2
980		
010	10.4	64.7
980		
620	9.1	66.0
980		
030	6.3	68.8
980		
040	5.2	69.9
980		
050	4.0	71.1
980		
060	3.7	71.4
980		
070	3.2	71.9
980		
080	2.7	72.4
980		

		575.06			
T.P.			2.75	572.31	
	1229	584.60			
T.P.			6.05	578.55	Used Previous El 578.56
	1286	591.42			
4100					
4100			12.3	579.1	
120					
100			10.8	80.6	
140					
100			9.8	81.6	
150					
100			9.0	82.4	
160					
100			8.3	83.1	
170					
100			7.8	83.6	
180					
100			8.3	83.1	
190					
100			8.4	83.0	
200					
100			9.3	82.1	
210					
100			10.1	81.3	
220					
100			10.0	81.4	
230					
100			9.8	81.6	
220					
110			4.1	87.3	
210					
110			4.6	86.8	
200					
110			5.2	86.2	
190					
110			6.1	85.3	
180					
110			6.7	84.7	
170					
110			7.2	84.2	
160					
110			7.5	83.9	
150					
110			7.6	83.8	
140					
110			8.3	83.1	

		591.42		
4120				
4090			12.2	579.2
130				
090			11.2	80.2
140				
090			10.2	81.2
150				
090			10.2	81.2
160				
090			12.5	78.9
170				
090			11.7	79.7
180				
090			12.8	78.6
190				
090			13.1	78.3
240				
120			3.8	87.6
220				
120			2.7	88.7
200				
120			3.9	87.5
180				
140			2.6	88.8
T.P.	12.83	603.89	0.36	591.06
200				
140			13.3	90.6
220				
140			12.9	91.0
240				
140			11.6	92.3
260				
140			10.0	93.9
280				
140			7.9	96.0
300				
140			7.8	96.1
320				
140			7.1	96.8
340				
140			7.2	96.7
320				
160			4.0	99.9
300				
160			5.0	98.9
280				
160			6.0	97.9

603.89

4260			
4160	8.4	595.5	
240			
160	8.7	95.2	
220			
160	10.0	93.9	
200			
160	10.7	93.2	
180			
160	12.5	91.4	
160			
180	12.6	91.3	
180			
180	11.0	92.9	
200			
180	9.2	94.7	
220			
180	7.9	96.0	
240			
180	6.6	97.3	
260			
180	5.7	98.2	
280			
180	3.9	600.0	
300			
180	2.2	01.7	
280			
200	3.0	00.9	
260			
200	3.3	00.6	
240			
200	4.3	599.6	
220			
200	5.7	98.2	
200			
200	7.3	96.6	
180			
200	9.3	94.6	
160			
200	11.1	92.8	
140			
200	12.5	91.4	
120			
220	12.8	91.1	
140			
220	11.0	92.9	
160			
220	9.4	94.5	
4180			
4220	7.5	96.4	

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X

4200	603.89		
4220		5.5	598.4
220		3.6	600.3
220		2.1	01.8
240		1.7	02.2
220		3.7	00.2
220		5.7	598.2
240		7.8	96.1
200		9.6	94.3
240		11.2	92.7
180		12.4	91.5
240		10.4	93.5
160		8.4	95.5
240		6.1	97.8
140		4.2	99.7
240		2.2	601.7
120		0.8	03.1
240		3.1	00.8
100		5.3	598.6
260		7.3	96.6
120		8.8	95.1
260		10.4	93.5
140		12.6	91.3
260		13.5	90.4
160		11.6	92.3
260		9.5	94.4
180			
260			
200			
260			
200			
280			
180			
280			
160			
280			
140			
280			
120			
280			
100			
280			
080			
280			
060			
300			
080			
300			
4100			
4300			

X

603.89

4120		
4300	7.4	596.5
140		
300	5.9	98.0
160		
300	3.5	600.4
180		
300	1.6	02.3
160		
320	2.9	01.0
140		
320	4.6	599.3
120		
320	6.1	97.8
100		
320	8.0	95.9
080		
320	10.1	93.8
060		
320	12.2	91.7
040		
320	13.8	90.1
040		
340	13.0	90.9
060		
340	11.2	92.7
080		
340	8.8	95.1
100		
340	7.0	96.9
120		
340	4.8	99.1
140		
340	2.8	601.1
160		
340	0.9	03.0
140		
360	1.6	02.3
120		
360	3.6	00.3
100		
360	5.7	598.2
080		
360	7.9	96.0
060		
360	10.2	93.7
4040		
4360	12.0	91.9

	0	603.89		
4020				
4380			13.4	590.5
040				
380			11.2	92.7
060				
380			9.3	94.6
080				
380			7.1	96.8
100				
380			5.2	98.7
120				
380			3.0	600.9
140				
380			0.7	03.2
120				
400			2.2	01.7
100				
400			4.3	599.6
080				
400			6.4	97.5
060				
400			8.5	95.4
040				
400			10.7	93.2
020				
400			12.8	91.1
020				
420			12.7	91.2
040				
420			10.4	93.5
060				
420			8.5	95.4
080				
420			6.2	97.7
100				
420			3.9	600.0
120				
420			1.5	02.4
100				
440			3.6	00.3
080				
440			5.9	598.0
TP			0.67	603.22
	13.02	616.24		
4120				
4440			15.7	600.5
140				
440			11.4	04.8

X

		616.24		
4160				
4440			9.4	606.8
180				
440			7.0	09.2
200				
440			4.4	11.8
220				
440			2.3	13.9
220				
420			2.6	13.6
200				
420			4.6	11.6
180				
420			7.4	08.8
160				
420			9.5	06.7
140				
420			11.8	04.4
T.P.			9.80	606.44
	12.21	618.65		
140				
400			14.6	604.0
160				
400			12.6	06.0
180				
400			10.1	08.5
200				
400			8.0	10.6
220				
400			5.3	13.3
240				
400			3.1	15.5
260				
380			1.9	16.7
240				
380			4.3	14.3
220				
380			6.5	12.1
200				
380			8.7	09.9
180				
380			11.1	07.5
160				
380			13.6	05.0
160				
360			14.5	04.1
4180				
4360			12.2	06.4

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Stake N 4160 E 4400

May 26, 1932

Simpson — Transit
Elliott — Notes
Soper — Rod
Remmen — Tape

X

	618.65		
4200			
4360		10.1	608.5
220			
360		7.8	10.8
240			
360		5.6	13.0
260			
360		2.9	15.7
280			
360		0.0	18.6
280			
340		1.0	17.6
260			
340		3.7	14.9
240			
340		6.7	11.9
220			
340		9.7	08.9
200			
340		11.5	07.1
180			
340		13.8	04.8
180			
320		15.0	03.6
200			
320		12.5	06.1
220			
320		10.5	08.1
240			
320		8.0	10.6
260			
320		5.6	13.0
280			
320		2.6	16.0
300			
300		2.4	16.2
280			
300		4.6	14.0
260			
300		7.0	11.6
240			
300		9.4	09.2
220			
300		12.5	06.1
200			
300		14.2	04.4
220			
280		13.6	05.0
4240			
4280		11.2	07.4

618.65

4260		
4280	8.8	609.8
280	6.8	11.8
280		
300	5.2	13.4
280		
320	3.2	15.4
280		
340	1.2	17.4
280		
360	1.3	17.3
260		
340	3.3	15.3
260		
320	5.4	13.2
260		
300	7.7	10.9
260		
280	9.2	09.4
260		
260	10.7	07.9
260		
240	12.6	06.0
260		
220	14.9	03.7
260		
240	14.7	03.9
240		
260	13.3	05.3
240		
280	12.0	06.6
240		
300	10.3	08.3
240		
320	8.3	10.3
240		
340	6.0	12.6
240		
360	4.1	14.5
240		
380	3.6	15.0
220		
360	6.3	12.3
220		
340	8.1	10.5
220		
320	10.4	08.2
220		
4300	13.1	05.5
4220		

		618.65				
4280						
4220			14.6	604.0		
260						
220			15.9	02.7		
300						
200			14.7	03.9		
320						
200			12.8	05.8		
340						
200			10.9	07.7		
360						
200			9.1	09.5		
380						
200			7.4	11.2		
TP*A			12.63	606.02		
	1308	619.10				
TP			0.27	618.83		
	12.78	631.61				
BM			16.8	629.93	Record 629.94	Check
TP*A	0.47	606.44		606.07		
4320						
4180			3.5	02.9		
340						
180			1.8	04.6		
380						
160			1.9	04.5		
360						
160			4.1	02.3		
340						
160			5.6	00.8		
360						
140			7.1	599.3		
380						
140			5.8	600.6		
390						
140			6.1	00.3		
400						
140			9.9	596.5		
410						
140			11.2	95.2		
4420						
4140			10.4	96.0		

606.44

4430		
4140		
440	7.1	599.3
140	4.1	602.3
450	0.8	605.6
140		
450	1.7	04.7
130		
440	4.3	02.1
130		
430	7.2	599.2
130		
420	10.0	96.4
130		
410	12.2	94.2
130		
400	11.9	94.5
130		
390	9.4	97.0
130		
380	8.2	98.2
130		
370	8.2	98.2
130		
360	9.0	97.4
130		
350	10.6	95.8
130		
340	11.9	94.5
130		
330	13.0	93.4
130		
320	12.0	94.4
130		
310	11.9	94.5
130		
300	12.0	94.4
130		
290	12.4	94.0
130		
280	13.1	93.3
130		
270	13.6	92.8
130		
260	14.5	91.9
130		
4250	15.1	91.3
4130		

57

		606.44		
T.P.			12.82	593.62
	0.73	594.35		
4250				
4120			6.1	588.3
260				
120			5.7	88.7
270				
120			4.1	90.3
280				
120			3.2	91.2
290				
120			2.3	92.1
300				
120			1.6	92.8
310				
120			2.2	92.2
320				
120			2.6	91.8
330				
120			2.8	91.6
340				
120			1.5	92.9
350				
120			0.0	94.4
360				
110			0.8	93.6
350				
110			2.2	92.2
340				
110			4.7	89.7
330				
110			6.7	87.7
320				
110			6.6	87.8
310				
110			5.6	88.8
300				
110			5.2	89.2
290				
110			5.2	89.2
280				
110			6.2	88.2
270				
110			8.2	86.2
260				
110			10.1	84.3
250				
110			9.6	84.8

	594.35		
4240			
4110		8.7	585.7
230			
110		6.9	87.5
240			
100		13.5	80.9
250			
100		14.6	79.8
260			
100		13.0	81.4
270			
100		12.6	81.8
280			
100		11.4	83.0
290			
100		11.2	83.2
300			
100		9.2	85.2
310			
100		9.1	85.3
320			
100		9.7	84.7
330			
100		10.3	84.1
340			
100		8.6	85.8
350			
100		7.0	87.4
360			
100		4.5	89.9
370			
100		2.6	91.8
380			
100		2.6	91.8
390			
100		4.4	90.0
400			
100		7.9	86.5
410			
100		6.7	87.7
420			
100		3.5	90.9
430			
100		1.6	92.8
400			
090		9.6	84.8
390			
090		6.7	87.7
4380			
4090		4.6	89.8

X

		594.35		
4370				
4090			5.1	589.3
360				
090			7.2	87.2
350				
090			10.5	83.9
340				
090			12.3	82.1
330				
090			12.9	81.5
320				
090			13.1	81.3
310				
090			12.6	81.8
300				
090			12.9	81.5
290				
090			13.5	80.9
280				
090			14.4	80.0
270				
090			15.5	78.9
260				
090			16.6	77.8
250				
090			18.1	76.3
350				
080			13.4	81.0
360				
080			10.5	83.9
370				
080			9.0	85.4
380				
080			8.8	85.6
390				
080			10.6	83.8
400				
080			13.1	81.3
TP	0.19	581.78	12.76	581.59
240				
090			5.5	76.3
230				
090			5.3	76.5
220				
090			4.9	76.9
210				
090			3.2	78.6
200				
090			3.5	78.3

581.78

4140		
4080	10.3	571.5
150		
080	13.7	68.1
160		
080	14.6	67.2
170		
080	14.3	67.5
180		
080	13.0	68.8
190		
080	10.9	70.9
200		
080	10.2	71.6
210		
080	10.1	71.7
220		
080	10.1	71.7
230		
080	9.3	72.5
240		
080	8.6	73.2
250		
080	7.6	74.2
260		
080	6.2	75.6
270		
080	5.3	76.5
280		
080	4.4	77.4
290		
080	3.9	77.9
300		
080	4.0	778
310		
080	3.1	78.7
320		
080	3.5	78.3
330		
080	3.2	78.6
340		
080	2.2	79.6
390		
070	2.7	79.1
380		
070	1.0	80.8
370		
070	1.7	80.1
4360		
4070	3.3	78.5

	581.78		
4350			
4070		4.0	577.8
340			
070		4.8	77.0
330			
070		5.7	76.1
320			
070		6.1	75.7
310			
070		5.9	75.9
300			
070		6.2	75.6
290			
070		6.7	75.1
280			
070		7.0	74.8
270			
070		7.3	74.5
260			
070		8.2	73.6
250			
070		9.7	72.1
240			
070		11.5	70.3
230			
070		11.5	70.3
220			
070		12.8	69.0
210			
070		13.5	68.3
200			
070		14.0	67.8
190			
070		15.7	66.1
180			
070		17.2	64.6
170			
070		16.0	65.8
160			
070		15.6	66.2
150			
070		15.4	66.4
140			
070		17.6	64.2
130			
070		17.6	64.2
120			
070		17.8	64.3
4150			
4060		15.5	66.3

581.78

4160			
4060		15.6	566.7
170			
060		15.5	66.3
180			
060		15.0	66.8
190			
060		16.6	65.2
200			
060		16.9	64.9
210			
060		16.0	65.8
220			
060		13.7	68.1
230			
060		13.3	68.5
240			
060		13.0	68.8
250			
060		11.5	70.3
260			
060		9.9	71.9
270			
060		8.9	72.9
280			
060		8.5	73.3
290			
060		8.5	73.3
300			
060		8.6	73.2
310			
060		8.5	73.3
320			
060		8.9	72.9
330			
060		8.5	73.3
340			
060		7.8	74.0
350			
060		7.5	74.3
360			
060		7.1	74.7
370			
060		6.7	75.1
380			
060		5.7	76.1
390			
060		5.8	76.0
4400			
4060		7.7	74.1

4400	581.78		
4050		11.0	570.8
390			
050		11.0	70.8
380			
050		10.0	71.8
370			
050		9.4	72.4
360			
050		9.5	72.3
350			
050		9.8	72.0
340			
050		9.5	72.3
330			
050		10.1	71.7
320			
050		10.5	71.3
310			
050		10.5	71.3
300			
050		10.9	70.9
290			
050		9.9	71.9
280			
050		10.6	71.2
270			
050		11.8	70.0
260			
050		12.6	69.2
250			
050		13.1	68.7
240			
050		14.1	67.7
230			
050		14.4	67.4
220			
050		16.7	65.1
210			
050		16.2	65.6
200			
050		15.1	66.7
290			
050		13.8	68.0
280			
050		14.2	67.6
270			
050		13.9	67.9
4210			
4040		13.3	68.5

581.78

4220		
4040	15.3	566.5
230		
040	16.3	65.5
240		
040	16.5	65.3
250		
040	16.5	65.3
260		
040	14.3	67.5
270		
040	14.4	67.4
280		
040	12.2	69.6
290		
040	12.9	68.9
300		
040	11.9	69.9
310		
040	11.6	70.2
320		
040	11.4	70.4
330		
040	11.3	70.5
340		
040	11.0	70.8
350		
040	10.5	71.3
360		
040	10.5	71.3
370		
040	11.8	70.0
380		
040	11.7	70.1
390		
040	10.8	71.0
4400		
4040	11.0	70.8
400		
030	13.6	68.2
390		
030	13.4	68.4
380		
030	13.9	67.9
370		
030	13.8	68.0
360		
030	13.9	67.9
4350		
030	13.9	67.9

581.78

4340			
4030		11.0	570.8
330			
030		13.1	68.7
320			
030		11.4	70.4
310			
030		15.0	66.8
300			
030		15.0	66.8
290			
030		14.9	66.9
280			
030		15.6	66.2
270			
030		15.7	66.1
260			
030		16.0	65.8
250			
030		15.3	66.5
240			
030		14.3	67.5
230			
030		12.3	69.5
220			
030		11.9	69.9
180			
020		10.5	71.3
190			
020		10.6	71.2
200			
020		10.1	71.7
210			
020		8.7	73.1
220			
020		8.1	73.7
230			
020		7.9	73.9
240			
020		10.0	71.8
250			
020		11.2	70.6
260			
020		12.5	69.3
270			
020		12.5	69.3
280			
020		13.1	68.7
4290			
4020		12.9	68.9

581.78

4300		
4020	12.7	569.1
310		
020	13.2	68.6
320		
020	13.6	68.2
330		
020	12.7	69.1
340		
020	13.2	68.6
350		
020	13.0	68.8
360		
020	13.2	68.6
370		
020	12.1	69.7
380		
020	10.1	71.7
390		
020	10.1	71.7
400		
020	9.9	71.9
400		
010	9.8	72.0
390		
010	9.5	72.3
380		
010	9.8	72.0
370		
010	10.1	71.7
360		
010	10.4	71.4
350		
010	11.1	71.7
340		
010	10.9	70.9
330		
010	10.7	71.1
320		
010	10.7	71.1
310		
010	10.3	71.5
300		
010	10.4	71.4
290		
010	10.4	71.4
280		
010	9.7	72.1
4270		
4010	8.5	73.3

581.78

4260		
4010	7.1	574.7
250		
010	5.3	76.5
240		
010	4.8	77.0
230		
010	5.6	76.2
220		
010	8.0	73.8
210		
010	7.7	74.1
200		
010	7.3	74.5
190		
010	8.4	73.4
180		
010	8.2	73.6
4170		
4010	8.7	73.1
4170		
4000	6.2	75.6
180		
000	5.7	71.6
190		
000	5.4	76.4
200		
000	6.3	75.5
210		
000	5.8	76.0
220		
000	5.0	76.8
230		
000	5.2	76.6
240		
000	4.2	77.6
250		
000	3.2	78.6
260		
000	3.7	78.1
270		
000	5.0	76.8
280		
000	5.4	76.4
290		
000	5.6	76.2
300		
000	6.6	75.2
4310		
4000	7.3	74.5

581.78

4320 4000	6.8	575.0
330 000	7.1	74.7
340 000	7.7	74.1
350 000	7.7	74.1
360 000	7.1	74.7
370 000	6.9	74.9
380 000	6.8	75.0
390 000	7.4	74.4
4400 4000	8.1	73.7
4400 3990	3.6	78.2
390 990	3.3	78.5
380 990	2.8	79.0
370 990	3.3	78.5
360 990	2.9	78.9
350 990	2.3	79.5
340 990	3.1	78.7
330 990	2.5	79.3
320 990	1.8	80.0
310 990	2.6	79.2
300 990	1.5	80.3
290 990	1.8	80.0
280 990	1.8	80.0
270 990	1.9	79.9
260 990	1.9	79.9
4250 3990	2.4	79.4

4240		581.78		
3990			2.8	579.0
230				
990			2.9	78.9
220				
990			3.3	78.5
210				
990			3.9	77.9
200				
990			3.5	78.3
190				
990			3.5	78.3
180				
990			4.0	77.8
170				
990			4.3	77.5
160				
990			5.6	76.2
150				
990			6.4	75.4
4140				
3990			6.6	75.2
4100				
3980			6.0	75.8
110				
980			6.7	75.1
120				
980			6.3	75.5
130				
980			4.9	76.9
140				
980			5.1	76.7
150				
980			5.1	76.7
160				
980			4.5	77.3
170				
980			4.0	77.8
180				
980			3.4	77.4
190				
980			2.9	78.9
200				
980			2.1	79.7
210				
980			2.5	79.3
4220				
3980			1.8	80.0

		581.78		
4230				
3980			1.7	580.1
240				
980			0.8	81.0
250				
980			0.5	81.3
260				
980			+1.0	82.8
270				
980			0.0	81.8
280				
980			0.3	81.5
4290				
3980			0.0	81.8
TP "A"			7.01	574.77
TP "B"			1.01	580.77
				629.94 = BM
	226	632.20		
4240				
4440			16.1	616.1
260				
440			13.5	18.7
280				
440			10.7	21.5
300				
440			10.0	22.2
320				
440			6.5	25.7
4340				
4440			3.5	28.7
4340				
4420			2.6	29.6
320				
420			5.6	26.6
300				
420			8.5	23.7
280				
420			10.7	21.5
260				
420			13.3	18.9
240				
420			15.9	16.3
4260				
4400			14.1	18.1

Rock N 4280
E 3990

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	632.20		
4280			
4400		11.4	620.8
300			
400		8.9	23.3
320			
400		6.6	25.6
340			
400		3.1	29.1
360			
380		1.1	31.1
340			
380		4.0	28.2
320			
380		7.1	25.1
300			
380		10.2	22.0
280			
380		13.1	19.1
300			
360		10.8	21.4
320			
360		7.9	24.3
340			
360		5.6	26.6
360			
360		3.8	28.4
380			
340		1.2	31.0
360			
340		4.2	28.0
340			
340		7.3	24.9
320			
340		9.2	23.0
300			
340		11.7	20.5
300			
320		13.5	18.7
320			
320		12.0	20.2
340			
320		9.7	22.5
360			
320		6.5	25.7
380			
320		3.8	28.4
400			
320		+0.2	32.4
4400			
4300		2.8	29.4

X

		632.20		
4440				
4230			8.5	623.7
430				
230			10.2	22.0
420				
230			11.6	20.6
400				
220			16.3	15.9
410				
220			14.0	18.2
420				
220			13.2	19.0
430				
220			11.9	20.3
440				
220			12.0	20.2
450				
220			13.4	18.8
460				
220			17.1	15.1
470				
220			12.5	19.7
480				
220			9.6	22.6
490				
220			6.9	25.3
500				
220			3.6	28.6
500				
210			4.7	27.5
490				
210			6.6	25.6
4480				
4210			9.5	22.7
TP			2.26	629.94
	12.53	642.47		
360				
440			10.3	32.2
380				
440			9.3	34.2
380				
420			2.9	39.6
360				
420			8.2	34.3
360				
400			9.5	33.0
380				
400			4.5	38.0
		X		

642.47

4400		
4400	+0.4	642.9
400		
380	6.3	36.2
380		
380	9.0	33.5
380		
360	10.6	31.9
400		
360	6.2	36.3
420		
360	+0.3	32.8
420		
340	2.2	40.3
400		
360	6.6	38.9
420		
320	5.4	37.1
440		
320	0.8	41.7
440		
300	4.9	37.6
420		
300	9.6	32.9
460		
280	6.6	35.9
480		
280	4.0	38.5
500		
260	11.0	31.5
490		
260	12.3	30.2
480		
260	9.9	32.6
470		
260	8.7	33.8
460		
260	9.8	32.7
450		
260	12.1	30.4
490		
240	18.1	24.4
500		
240	12.9	29.6
510		
240	8.9	33.6
4520		
4240	5.9	36.6

X

		642.47			
4520					
4220			10.5	632.0	
510			11.8	30.7	
220					
500					
? 220			15.7	26.8	
BM			12.53	629.94	Record 629.94
	0.13	630.07			
510					
210			1.2	28.9	
520					
210			0.0	30.1	
470					
210			10.6	19.5	
460					
210			14.1	16.0	
450					
210			17.1	13.0	
440					
210			13.4	16.7	
430					
210			12.4	17.7	
420					
210			12.4	17.7	
400					
200			16.6	13.5	
410					
200			16.4	13.7	
420					
200			15.1	15.0	
460					
200			14.9	15.2	
470					
200			10.9	19.2	
480					
200			7.8	22.3	
490					
200			5.5	24.6	
500					
200			4.5	25.6	
510					
200			3.2	26.9	
520					
200			1.8	28.3	
520					
190			3.7	26.4	
4510					
4490			4.9	25.2	

X

630.07

4500			
4190	6.3	623.8	
490			
190	7.5	22.6	
480			
190	9.0	21.1	
470			
190	12.0	18.1	
470			
180	12.9	17.2	
480			
180	10.7	19.4	
490			
180	9.5	20.6	
500			
180	8.4	21.7	
510			
180	7.0	23.1	
520			
180	6.1	24.0	
540			
170	7.9	22.2	
530			
170	8.6	21.5	
520			
170	8.4	21.7	
510			
170	9.4	20.7	
500			
170	10.6	19.5	
490			
170	12.0	18.1	
480			
170	12.8	17.3	
480			
160	15.5	14.6	
490			
160	14.6	15.5	
500			
160	13.3	16.8	
510			
160	12.2	17.9	
520			
160	11.4	18.7	
530			
160	11.0	19.1	
540			
160	10.5	19.6	
T.P.	12.96	617.11	

X

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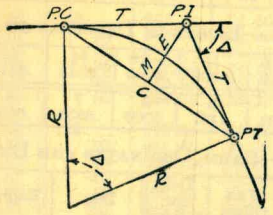
T.P.	0.37	617.48		617.11
4430				
4200			3.3	614.2
440				
200			5.0	12.5
450				
200			6.9	10.6
460				
190			3.1	14.4
450				
190			7.1	10.4
440				
190			10.1	07.4
430				
190			6.1	11.4
420				
190			5.4	12.1
410				
190			5.4	12.1
360				
180			10.9	06.6
380				
180			9.4	08.1
400				
180			8.8	08.7
410				
180			7.4	10.1
420				
180			9.3	08.2
430				
180			11.3	06.2
440				
180			10.8	06.7
450				
180			6.8	10.7
460				
180			3.8	13.7
470				
160			3.8	13.7
460				
160			6.0	11.5
450				
160			8.6	08.9
440				
160			12.0	05.5
4430				
4160			16.6	00.9

X

Original Notes Cont'd in FB # 351

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES



CURVE FORMULAS

Radius=R=$\frac{50}{\sin. D/2}$ (1) Degree of Curve=D and sin. $\frac{D}{2}=\frac{50}{R}$ (2)

Tangent=T=R tan $\frac{\Delta}{2}$ (3) Length of Curve=L=$100\frac{\Delta}{D}$ (4)

Middle ordinate=M= R(1—cos. $\frac{\Delta}{2}$) (5) =R vers $\frac{\Delta}{2}$ (6)

External=E=T tan $\frac{\Delta}{4}$ (7) =R ÷ cos. $\frac{\Delta}{2}$ —R (8)=R exsec $\frac{\Delta}{2}$ (9)

Long Chord=C=2 R sin. $\frac{\Delta}{2}$ (10) Δ=Central Angle

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.=Sta. 161 +60.35 to find Sta. of P. C. and P. T. Δ=62° 10′ D=8° 20′. From Table IV for 1° curve T=3454.1 and ÷8⅓=414.49 ft. From Table V correction=.36 or T=414.85 ft. P. C.=Sta. P.I.—T=157 +45.50. Also from (4) L=746.00 and P. T.=Sta. P. C. +L=164 +91.50.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft.=7.27 ft. Distance=158—Sta. P. C.=54.50, hence offset=7.27 (54.50 ÷100)²=2.16 ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus (54.50)² ÷(2 x 688.26)=2.16 ft.

Deflections.—Deflection angle=½ D for 100 ft., ¼ D for 50 ft., etc. For c ft.=(in minutes) .3 x C x D° or=defl. for 1 ft. from Table III x C. For Sta. 158 of above curve=.3 x 54.5 x 8⅓=136.2′ or 2° 16.2′, or=2.50 x 54.5=136.2′ from Table III. For Sta. 159 deflection angle=2° 16.2′ +8° 20′ ÷2=6° 26.2′, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 91.37. For from Table IV for 1° curve E=960.6 for 8° 20′=960.6 ÷8⅓=91.27 and from Table V correction=.10 or E=91.37 ft. Or suppose Δ=32° and E is measured and found to be 42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

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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