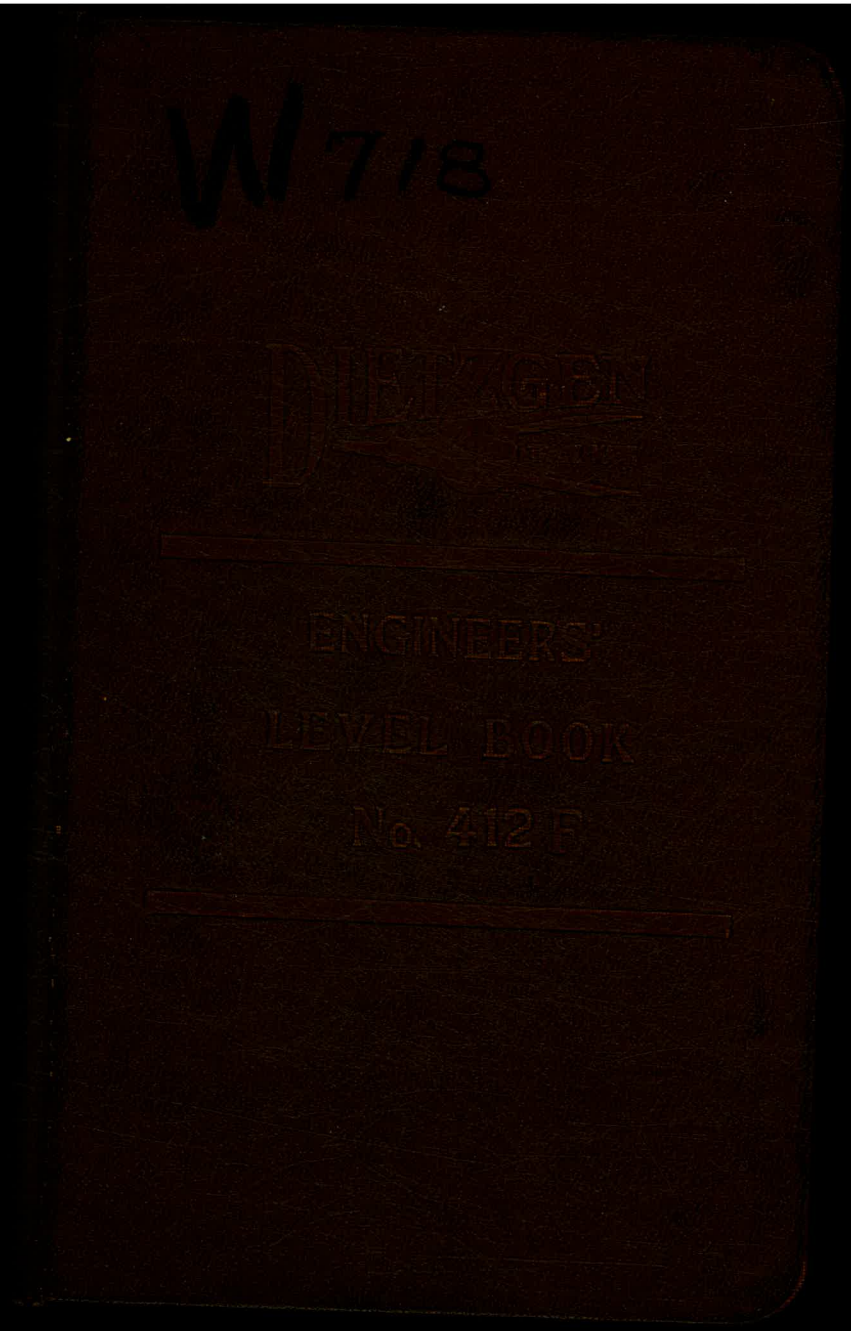
W 718
DIETZGEN
ENGINEERS'
LEVEL BOOK
No. 412 F

#718

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.

54937

Date	Today	By	Notes Date	Bl	Hot	Mob
8/15	24	M.V.				
8/22	26	mov.				

B 7

Rib + Spring Line offsets Rib #561 03

to #720 9-19

Rib alignment from rib 1136 to

1256. 20-23

X-Sec. West Tunnel Portal P. 24

Sta. of W. Portal P. 24

X Sections Ground at Rib 1256 to

1210. W. Tunnel Portal P 25-26 04

05

Spring Line

	Lt	Rt
105	3.63	3.75
106 "	3.55	3.83
107 "	3.53	3.82
108 "	3.67	3.70
109 "	3.70	3.67
110 "	3.68	3.56
111 "	3.63	3.72
112 "	3.65	3.69
113 "	3.67	3.70
114 "	3.65	3.72
115 "	3.68	3.71
116 "	3.69	3.65
117 "	3.73	3.67
118 "	3.75	3.64
119 "	3.69	3.66
120 "	3.70	3.70
121 "	3.61	3.75

Rib Elevations

15

2 Sh 1

	+ 4.40	↑ 553.77	+ or −	Elev 549.37	See F.B. 717 Page
Control 105			+2.40	556.17	556.03
106			+2.43	556.20	"
107			+2.37	556.14	"
08			+2.44	556.21	"
09			+2.45	556.22	"
10			+2.37	556.14	"
11			+2.31	556.08	"
12			+2.38	556.15	556.04
13			+2.42	556.19	"
14			+2.49	556.26	"
15			+2.43	556.20	"
16			+2.39	556.16	"
17			+2.40	556.17	"
18			+2.39	556.16	"
19			+2.57	556.34	"
20			+2.59	556.36	556.05
21			+2.59	556.36	"

	Lt	Spring Line Rt
122	3.54	3.78
123 "	3.67	3.70
124 "	3.67	3.70
125 "	3.66	3.72
126 "	3.68	3.66
127 "	3.59	3.78
128 "	3.60	3.77
129 "	3.62	3.79
130 "	362	3.76
131 "	364	3.70
132 "	358	3.80
133 "	3.69	3.65
34 "	3.76	3.57
35 "	3.85	3.50
36 "	3.82	3.52
37 "	3.75	3.63
38 "	3.73	3.54
39 "	378	3.55

	+	T 553.77	+or-	Elev	3
122			+2.52	556.29	556.05
23 "			+2.50	556.27	"
24			+2.45	556.22	"
25			+2.41	556.18	"
26			+2.44	556.21	"
27			+2.53	556.30	"
28			+2.54	556.31	556.06
29			+2.55	556.32	"
130			+2.56	556.33	"
31			+2.51	556.28	"
32			+2.46	556.23	"
33			+2.45	556.22	"
34			+2.48	556.25	"
35			+2.42	556.19	"
36			+2.38	556.15	556.07
37			+2.44	556.21	"
38			+2.44	556.21	"
39			+2.47	556.24	"

	Lt	Spring Line	Rt
140	3.70		3.51
41	3.68		3.45
42	3.68		3.40
43	3.70		3.37
44	3.75		3.41
45	3.80		3.42
46	3.76		3.47
47	3.84		3.42
48	3.86		3.39
49	3.89		3.34
150	3.82		3.44
151	3.82		3.55
52	3.77		3.54
53	3.70		3.59
54	3.72		3.56
55	3.74		3.62
56	3.82		3.48
57	3.77		3.57

	+	↑ 553.77	+o.-	Elev	4
140	on T.T		+2.64	556.41	556.07
141	"		+2.49	556.26	"
142	"		+2.46	556.23	"
143	"		+2.50	556.27	"
144	"		+2.49	556.26	556.08
145	"		+2.41	556.18	"
146	"		+2.39	556.16	"
147	"		+2.44	556.21	"
148	"		+2.44	556.21	"
149	"		+2.55	556.32	"
150	"		+2.52	556.29	556.09
151	"		+2.44	556.21	"
152	"		+2.46	556.23	"
153	"		+2.40	556.17	"
154	"		+2.40	556.17	"
155	"		+2.41	556.18	"
156	"		+2.41	556.18	556.10
157	"		+2.39	556.16	"

	Lt	Spring Line	Rt
58	3.76		3.49
59	3.80		3.50
60	3.81		3.50
61	3.72		3.57
62	3.67		3.61
63	3.75		3.55
64	3.67		3.62
65	3.70		3.60
66	3.68		3.58
67	3.78		3.60
68	3.71		3.63
69	3.69		3.65
70	3.64		3.66
71	3.75		3.59
72	3.62		3.65
73	3.65		3.60
74	3.58		3.65
75	3.65		3.66

	+ or -	R.b Elev 553.77	+ or -	Elev	5
58			+2.43	556.20	556.10
59			+2.39	556.16	"
60			+2.36	556.13	"
T.P.	-2.23	553.91	+2.37	556.14	
61			+2.28	556.19	"
62			+2.25	556.16	"
63			+2.26	556.17	556.11
64			+2.28	556.19	"
65			+2.31	556.22	"
66			+2.28	556.19	"
67			+2.27	556.18	"
68			+2.27	556.18	"
69			+2.33	556.24	556.12
70			+2.33	556.24	"
71			+2.27	556.18	"
72			+2.40	556.31	"
73			+2.36	556.27	"
74			+2.28	556.19	"
75			+2.32	556.23	556.13

	Spring Line				
	Lf		Rf		
176	3.66		3.64		
77	3.61		3.65		
78	3.60		3.64		
79	3.67		3.60		
80	3.65		3.61		
81	3.72		3.60		
82	3.72		3.59		
83	3.66		3.62		
84	3.71		3.57		
85	3.73		3.59		
86	3.67		3.65		
87	3.70		3.59		
88	3.72		3.57		
89	3.67		3.61		
90	3.67		3.63		
91	3.62		3.71		
92	3.67		3.65		
93	3.68		3.63		

		T			6
		553.31			
176			+2.37	556.28	556.13
77			+2.40	556.31	"
78			+2.41	556.32	"
79			+2.35	556.26	"
180			+2.33	556.24	"
81			+2.33	556.24	556.14
82			+2.35	556.26	"
83			+2.34	556.25	"
84			+2.34	556.25	"
85			+2.30	556.21	"
86			+2.30	556.21	"
87			+2.31	556.22	"
89			+2.35	556.26	556.15
89			+2.40	556.31	"
190			+2.41	556.32	"
78 91	4.46	553.72	-5.16	548.75 ✓	Mon 3 Record 548.76
			+2.65	556.37	Corrected to Observed BM 6 See FB 768 p44
92			+2.62	556.34	
93			+2.62	556.34	"

	Lt		Rt		
194	3.73		3.57		
95	3.68		3.58		
96	3.63		3.67		
97	3.68		3.62		
98	3.68		3.65		
99	3.69		3.62		
200	3.73		3.61		
201	3.74		3.56		
202	3.80		3.47		
03	3.78		3.49		
04	3.86		3.45		
05	3.77		3.50		
06	3.71		3.62		
07	3.67		3.57		
08	3.72		3.58		
09	3.65		3.59		
210	3.63		3.60		
11	3.63		3.55		

		⊼ 553.72			7
194			+2.61	556.33	556.16
195			+2.65	556.37	"
196			+2.66	556.38	"
197			+2.57	556.29	"
198			+2.61	556.33	"
199			+2.56	556.28	"
200			+2.62	556.34	556.17
01			+2.61	556.33	"
02			+2.62	556.34	"
03			+2.67	556.39	"
04			+2.52	556.24	"
05			+2.56	556.28	"
06			+2.58	556.30	556.18
07			+2.60	556.32	"
08			+2.65	556.37	"
09			+2.63	556.35	"
210			+2.64	556.36	"
211			+2.68	556.40	"

	Lt		Rt		
212	3.76		3.56		
13	3.78		3.65		
14	3.68		3.60		
15	3.64		3.63		
16	3.60		3.69		
17	3.64		3.68		
18	3.66		3.65		
19	3.72		3.56		
220	3.74		3.56		
21	3.79		3.56		
22	3.69		3.59		
23	3.68		3.64		
24	3.69		3.63		
25	3.83		3.52		
26	3.77		3.60		
27	3.72		3.65		
28	3.69		3.61		
229	3.70		3.61		

	+or-	↑ 553.72	+or-	Elev	@ 2.56
212 1			+2.66	556.38	556.18
13 "			+2.60	556.32	556.19
14 "			+2.54	556.26	"
End of Gallery 15 1			+2.60	556.32	"
Standard 16 "			+2.46	556.18	556.05
17 "			+2.4	556.14	"
18 "			+2.38	556.10	"
19 "			+2.45	556.17	"
2 20 "			+2.43	556.15	"
21 "			+2.36	556.08	"
22 "			+2.34	556.06	"
23 1			+2.57	556.29	556.20
24 1			+2.55	556.27	"
25 1			+2.52	556.24	556.21
26 1			+2.45	556.17	"
27 1			+2.4	556.14	"
28 1			+2.47	556.19	"
Standard 29			+2.36	556.08	556.07

	Lt	Spring Line	Rt		
230	3.69		3.55		
31	3.68		3.63		
32	3.73		3.64		
33	3.69		3.60		
34	3.61		3.70		
35	3.59		3.72		
36	3.62		3.61		
37	3.71		3.58		
38	3.69		3.62		
39	3.54		3.59		
2.40	3.70		3.57		
551	376		358		
52	370		366		
53	367		370		
54	366		364		

		* 553.72			
230			+2.43	556.15	556.07
231			+2.47	556.19	"
TP	1.88	554.27	+2.43	556.15	
32			+1.97	556.24	"
33			+1.98	556.25	"
34			+2.01	556.28	"
35			+2.00	556.27	556.08
36			+2.05	556.32	"
37			+2.05	556.32	"
38			+2.06	556.33	"
39			+2.12	556.39	"
2.40			+2.09	556.36	"
TP.			+1.88	556.15	Rio 231
					7/31/47
		Continued from FB			
Page BM	5.15	554.42		549.27	Mon #7
551			+2.30	556.72	556.55
52			+2.30	56.72	556.56
53			+2.38	56.80	"
54			+2.29	56.71	"

	47		48		
555	3.68		370		
56	363		3.76		
57	3.62		3.76		
58	3.57		3.80		
59	353		3.81		
560	3.61		3.72		
61	3.69		3.68		
62	3.66		3.74		
63	3.70		3.67		
64	3.70		3.68		
65	3.70		3.70		
66	3.68		3.70		
67	3.68		3.67		
68	3.66		3.70		
69	3.73		3.68		
570	3.77		3.60		
71	3.68		3.67		
72	3.64		3.75		

		X 5544			10
555			+2.29	556.71	556.56
56			+2.29	56.71	"
57			+2.32	56.74	"
58			+2.31	56.73	556.57
59			+2.37	56.79	"
560			+2.34	56.76	"
61			+2.25	56.67	"
62			+2.18	56.60	"
63			+2.21	56.63	"
64			+2.29	56.71	"
65			+2.27	56.69	556.58
66			+2.26	56.68	"
67			+2.24	56.66	"
68			+2.25	56.67	"
69			+2.25	56.67	"
570			+2.29	56.71	"
71			+2.28	56.70	556.59
72			+2.18	56.60	"

	Lt.		Rt.		
573	3.74		3.66		
74	3.65		3.70		
75	3.66		3.69		
76	3.77		3.58		
77	3.73		3.62		
78	3.72		3.62		
79	3.68		3.70		
580	3.67		3.66		
81	3.62		3.69		
82	3.67		3.67		
83	3.64		3.68		
84	3.58		3.74		
85	3.55		3.64		
86	3.65		3.68		
87	3.67		3.68		
88	3.72		3.64		
89	3.66		3.67		
590	3.67		3.67		

		↑ 554.42			11
573			+2.17	556.59	556.59
574			+2.19	56.61	"
75			+2.24	56.66	"
76			+2.28	56.70	"
77			+2.28	56.70	556.60
78			+2.21	56.63	"
79			+2.25	56.67	"
580			+2.23	56.65	"
81			+2.18	56.60	"
82			+2.18	56.60	"
83			+2.10	56.52	556.61
84			+2.12	56.54	"
85			+2.28	56.70	"
86			+2.33	56.75	"
87			+2.31	56.73	"
88			+2.30	56.72	"
89			+2.24	56.66	"
590			+2.25	56.67	556.62

	Lt		Rt		
591	3.71		3.63		
92	3.77		3.60		
93	3.82		3.53		
94	3.73		3.60		
95	3.75		3.59		
96	3.72		3.63		
97	3.74		3.61		
98	3.70		3.67		
99	3.72		3.64		
600	3.72		3.62		
01	3.78		3.58		
02	3.68		3.65		
03	3.66		3.65		
04	3.66		3.66		
05	3.66		3.68		
06	3.66		3.66		
07	3.70		3.64		
08	3.70		3.65		

		T. 554.42			12
591			+2.27	556.69	556.62
92			+2.32	56.74	"
93			+2.33	56.75	"
94			+2.33	56.75	"
95			+2.32	56.74	"
96			+2.44	56.86	556.63
97			+2.42	56.84	"
98			+2.40	56.82	"
99			+2.42	56.84	"
600			+2.47	56.89	"
01			+2.40	56.82	"
02			+2.39	56.81	556.64
03			+2.36	56.78	"
04			+2.40	56.82	"
05			+2.34	56.76	"
06			+2.42	56.84	"
07			+2.33	56.75	"
08			+2.36	56.78	556.65

	Lt		Rt		
609	3.56		3.76		
10	3.63		3.71		
11	3.71		3.62		
12	3.71		3.64		
13	3.65		3.70		
14	3.69		3.67		
15	3.59		3.69		
16	3.59		3.74		
17	3.51		3.80		
18	3.69		3.55		
19	3.70		3.63		
620	3.68		3.64		
21	3.65		3.65		
22	3.51		3.65		
23	3.66		3.64		
24	3.52		3.60		
25	3.51		3.60		
26	3.53		3.65		

		554.42			13
609			+2.32	556.74	556.65
10			+2.41	56.83	"
11			+2.49	56.91	"
12			+2.50	56.92	"
13			+2.58	57.00	"
14			+2.49	56.91	556.66
15			+2.38	56.80	"
16			+2.34	56.76	"
17			+2.34	56.76	"
18			+2.24	56.66	"
19			+2.24	56.66	"
20			+2.27	56.69	"
21			+2.31	56.73	556.59 ~~556.67~~
22			+2.28	56.70	"
23			+2.26	56.68	"
24			+2.27	56.69	"
25			+2.29	56.71	"
26			+2.14	56.56	"

	Lt		Rt		
627	360		3.64		
28	359		3.67		
29	3.53		3.72		
630	3.57		3.65		
31	356		3.68		
32	3.60		3.67		
33	3.62		3.60		
34	358		3.66		
35	3.62		3.64		
36	3.57		3.60		
37	3.65		3.64		
38	3.66		3.64		
39	3.66		3.60		
640	3.58		3.67		
41	364		3.68		
42	356		3.75		
43	3.62		3.64		
44	3.68		3.56		

	+ or −	℄ 554.42	+ or −		14
627		✓	+2.10	556.52	556.60 ~~556.68~~
TP 628	−2.27	554.25	+2.10	556.52	
			+2.24	556.49	"
29			+2.44	56.69	556.68
30			+2.26	56.51	556.60
31			+2.23	56.48	"
32			+2.27	56.52	"
33			+2.40	56.65	556.61 ~~556.69~~
34			+2.36	56.61	"
35			+2.43	56.68	"
36			+2.44	56.69	"
37			+2.49	56.74	556.69
38			+2.34	56.59	"
39			+2.55	56.80	556.70
640			+2.49	56.74	556.62
41			+2.54	56.79	556.70
42			+2.57	56.82	"
43			+2.65	56.90	"
44			+2.48	56.73	556.62

	Lt		Rt		
645	3.65		3.61		
46	3.67		3.58		
47	3.66		3.56		
48	3.68		3.62		
49	3.70		3.60		
650	3.67		3.60		
51	3.69		3.62		
52	3.72		3.57		
53	3.77		3.47		
54	3.78		3.45		
55	3.77		3.57		
56	3.69		3.66		
57	3.65		3.67		
58	3.73		3.61		
59	3.68		3.55		
660	3.62		3.72		
61	3.55		3.78		
62	3.50		3.85		

		↑ 554.25			15
645			+2.58	556.83	556.70
46			+2.58	56.83	556.71
47			+2.47	56.72	556.63
48			+2.50	56.75	556.71
49			+2.53	56.78	"
50			+2.55	56.80	"
51			+2.57	56.82	"
52			+2.39	56.64	556.72
53			+2.27	56.52	556.64
54			+2.31	56.56	"
55			+2.51	56.76	556.72
56			+2.53	56.78	"
57			+2.59	56.84	"
58			+2.56	56.81	556.73
59			+2.54	56.79	"
660			+2.48	56.73	"
61			+2.49	56.74	"
62			+2.46	56.71	"

	Lt		Rt		
63	3.63		3.73		
64	3.65		3.69		
65	3.56		3.68		
66	3.57		3.67		
67	3.56		3.68		
68	3.54		3.72		
69	3.57		3.67		
670	3.59		3.62		
71	3.59		3.60		
72	3.59		3.62		
73	3.57		3.61		
74	3.52		3.68		
75	3.52		3.68		
76	3.65		3.67		
77	3.62		3.61		
78	3.61		3.60		
79	3.62		357		
680	3.66		359		

		π 55425			16
63			+2.48	556.73	556.73
64			+2.55	56.80	556.74
65			+2.42	56.67	556.66
66			+2.42	56.67	"
67			+2.45	56.70	"
68			+2.49	56.74	"
69			+2.47	56.72	"
670			+2.53	56.78	556.67 ~~556.75~~
71			+2.54	56.79	"
72			+2.53	56.78	"
73			+2.51	56.76	"
74			+2.52	56.77	"
75			+2.52	56.77	"
76			+2.63	56.88	556.75
77			+2.56	56.81	556.68 ~~556.76~~
78			+2.50	56.75	"
79			+2.40	56.65	"
686			+2.41	56.66	"

	LH		RH		
681	3.59		3.64		
82	3.55		3.71		
83	3.53		3.68		
84	3.54		3.69		
85	3.44		3.79		
86	3.39		3.86		
87	3.51		3.73		
88	3.58		3.66		
89	3.54		3.69		
690	3.47		3.76		
91	3.51		3.75		
92	3.55		3.71		
93	3.58		3.67		
94	3.50		3.72		
95	3.47		3.71		
96	3.48		3.74		
97	3.50		3.75		
98	3.56		3.68		

681			+2.50	556.75	556.68 ~~556.76~~
82			+2.58	56.83	"
83			+2.56	56.81	556.69 ~~556.77~~
84			+2.53	56.78	"
85			+2.57	56.82	"
86			+2.67	56.92	556.77
87			+2.52	56.77	556.69
88			+2.54	56.79	"
89			+2.58	56.83	556.70 ~~556.78~~
690			+2.50	56.75	"
91			+2.48	56.73	"
92			+2.52	56.77	"
93			+2.66	56.91	"
94			+2.66	56.91	"
95			+2.55	56.80	556.71 ~~556.79~~
96			+2.50	56.75	"
97			+2.47	56.72	"
98			+2.63	56.88	"

	Lt		Rt							18.
						↑ 55425				
699	3.53		3.66		699			+2.65	556.90	556.71 556.79
700	3.63		3.58		700			+2.68	556.93	"
01	3.58		3.68		01			+2.79	57.04	556.72 556.80
02	3.58		3.60		02			+3.01	57.26	"
03	3.56		3.68		03			+3.06	57.31	"
04	3.53		3.69		04			+3.01	57.26	"
05	3.58		3.65		05			+2.84	57.09	"
06	3.45		3.71		06			+2.70	56.95	"
07	3.50		3.71		07			+2.63	56.88	"
08	3.56		3.69		08			+2.57	56.82	556.73 556.81
09	3.57		3.70		09			+2.61	56.86	"
710	3.50		3.74		710			+2.62	56.87	"
11	3.53		3.67		11			+2.65	56.90	"
12	3.63		3.60		12			+2.63	56.88	"
13	3.62		3.57		13			+2.58	56.83	"
14	3.67		3.58		14			+2.60	56.85	.74 556.82
15	3.54		3.70		15			+2.62	56.87	"
16	3.53		3.67		16			+2.68	56.93	"

	Lt		Rt					
17+17	3.59		3.63					
18	3.62		3.59					
19	3.71		3.53					
720	3.77		3.48					

		↑ 554.25			19
			+2.68	556.93	556.74 ~~.82~~
			+2.65	56.90	〃
			+2.61	56.86	〃
			+2.62	56.87	556.75 ~~.83~~
Check BM			−4.69	543.56	to Mon #9 Record 543.54

Bliss King Fahy 7/15/47

Rib Alignment.

Get Rib 1100 for Line

	Lt & Rt		
1111	0.05		Note this rib was left out
1136		0.04	
37		0.01	
38		0.12	
39		0.08	
40		0.02	
41		0.09	
42	00	00	
43	00	00	
44		.03	
45		0.10	
46		0.01	
47		0.05	
48	0.04		
49		0.02	
1150	0.01		
51	0.01		
52		0.01	

	Lt	Rt
1153	0.07	
54	0.14	
55	0.11	
56		0.02
57		0.06
58		0.03
59		0.06
1160		0.01
61	0.05	
62	0.08	
63	0.01	
64		0.15
65		0.08
66		0.09
67		0.08
68	0.01	
69		0.03
1170	00	00

	Lt	Rt
1171	004	
72	0.06	
73	0.01	
74	0.04	
75	00	00
76	006	
77	0.01	
78	0.03	
79	00	00
1180	0.06	
81	0.04	
82		0.01
83		0.09
84	0.06	
85	0.05	
86	0.03	
87	0.05	
88	0.03	

	Lt & Rt
89	0.01
1190	0.03
91	0.03
92	0.11
93	0.01
94	0.04
95	0.01
96	0.02
97	0.02
98	0.05
99	012
1200	00 00
01	0.01
02	00 00
03	0.02
04	0.05
05	00 00
06	0.03

	Lt & Rt
07	0.02
08	010
09	015
1210	0.12
11	0.02
12	0.11
13	00 00
14	0.10
15	0.02
16	00 00
17	0.01
18	0.09
19	00 00
1220	0.02
21	0.02
22	0.03
23	0.02
24	0.09

	Lt ℄ Rt	
1225	0.15	
26	0.09	
27	0.08	
28	0.06	
29		0.05
1230	0.03	
31	0.06	
32	0.08	
33	0.08	
34	0.02	
35	00	00
36	0.01	
37		0.03
38		0.02
39		0.10
1240		0.08
41		0.12
42		0.18

	Lt ℄ Rt	
1243		0.15
44		0.12
45	0.02	
46	0.05	
47	0.08	
48	0.10	
49		0.05
1250	00	00
51	0.01	
52	00	00
53	0.02	
54	0.05	
55	0.03	
56	0.05	

Bloss
King
Fahy
7/15/47
warm

X Section West Tunnel Portal

BM 1.70 558.33 556.63

5½+54.5 W Edge Rib 1.56

5½+56

+60

+45

+75

See F.B. 685 P. 64

BM 3.3 583.4 Cut Stake at Station 580.1

5½+46

5½+40

	Lt		℄		Rt	
			558.33			
580.7	561.8	551.8	551.0	550.8	551.1	552.1	581.2
+29.9	+11.0	+7.0	+0.2	7.5	+0.3	+1.3	30.4
23	9	4.4	4		4	4.5	24'
580.4	556.8	556.8	551.4	550.8	551.2	556.7	562.0	580.6
+23.6	+6.0	+6.0	+0.6	7.5	+0.4	+5.9	+11.2	29.8
23'	9	5	3'		3'	4.5	9	24
580.2	556.8	554.6	551.4	550.9	551.3	555.4	556.8	580.3
+23.3	+5.9	+3.7	+0.5	7.4	+0.4	+4.5	+5.9	29.4
23'	9	5'	3		3'	5'	8	24
579.1		553.1	550.8	550.8	550.8	552.2	553.8	579.0
28.3		+2.3	00	7.5	00	+1.4	+3.0	28.2
28'		9	3		3	5	8'	22
			583.4				
581.2		582.0	580.9		580.6	579.4	582.9	582.9
+0.8		+1.1	2.5		-0.3	-1.8	+2.0	+2.0
25		19			8	17	24'	25'
582.9		583.9	583.4		583.2		583.2
+0.5		+0.5	00		-0.2		-0.2
25'		15'			15'		25'

Bliss 8/21/57
King
Fahr.

X Sections of Ground at Ribs

(To West Tunnel Portal)

BM	1.48	553.10'		554.62
TP.	4.18	555.21'	7.07	551.03'
Rb 1256				
512+54 Z				
512+29 L				
1251				
511+98 R				
1245				
511+73 Z				
1240				
511+48 L				
1235				
TP	4.69	555.37	4.53	550.68
1230				
511+23 L				
1230				
510+98 R				
1225				

Note

25

Lt ℄ Rt

Elev. S. Line

554.0

-3.0	-3.0	-3.1	-3.9	3.9	-3.2	-3.0	3.0	
3.67	2.5	0.5		0.5	1.2	2.2	3.67	

554.0

-2.9	-3.0	-3.0	-3.2	-3.4	-3.5	3.7	3.2	3.0	2.9	2.8
3.67	3.0	1	0.6	0.4		0.7	1	1.3	3.0	3.67

554.0

-3.0	-3.2	-3.0	-3.6	-3.8	-3.6	-3.6	-3.2	-3.1	-3.1
3.67	2.8	1.3	1.0	0.8		0.5	0.9	2.5	3.67

553.9

-3.3	-3.2	-3.4	-4.0	-4.0	-3.9	-3.3	-3.3	-3.1	-3.0
3.67	2.7	1.2	1.0		0.8	1.1	1.9	2.7	3.67

553.9

-2.9	-3.2	-3.6	-3.6	-3.6	-3.1	-3.1	-2.9	
3.67	0.8	0.5		0.8	1.2	2.3	3.67	

553.9

-2.8	-3.1	-3.3	-3.1	-3.3	-3.7	-3.6	-3.3	-3.3	-3.1
3.67	2.0	2.2	1.0	0.5		0.8	1.2	2.5	3.67

553.9

-2.9	-3.1	-3.1	-3.5	-3.7	-3.7	-3.6	-3.3	-2.8
3.67	2.9	0.9	0.5		1.1	1.5	3.0	3.67

555.37

510+73 ℄
Rib #
1220

510+48
1215

510+22.8
1210

Check BM 510+50 Working BM.

467 550.68 See FB 712 P.34

550.68 Record

Elev. S. Line 553.8

-2.8	-3.1	-3.3	-3.3	-3.7	-3.8	-3.7	-3.3	-3.3	-3.0
3.67	2.6	2.1	1.1	0.7		1.0	1.3	2.7	3.67

Elev. S. Line 553.8

-2.9	-2.9	-3.3	-3.3	-3.7	-3.8	-3.7	-3.3	-3.2	-3.0
3.67	2.9	2.3	1.0	0.7		1.0	1.3	2.6	3.67

553.8

-2.9	-3.0	-3.0	-3.0	-3.7	-3.7	-3.5	-3.2	-3.2	-2.9
3.67	2.8	2.3	1.2	0.7		1.0	1.3	2.5	3.67

5/2+65 +

513+00
45.75
5/2+54.25
52 5
1.75

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.