

FIELD BOOK

364

2

25

KEUFFEL & ESSER CO.

DRAWING MATERIALS
AND
SURVEYING INSTRUMENTS.
NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 18 FEET WIDE SIDE SLOPES 1 TO 1.

FOR SINGLE TRACK EXCAVATION.

"Copyright, 1895, by Keuffel & Esser Co."

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

Calculated by Julien A. Hall, M. Am. Soc. C. E.

For Keith's Railroad Curve Tables see end of book.

*Finder Please return
for reward. Co. Auditor.*

Walker Mann

INDEX.

Sta to Sta Kind Page to Page.

3585 - 3785⁺⁵⁷ Level Notes 4 - 13.

3424 - 3710 Transit. 23 - 31

3471 - 3484^{+91.8} " " 33 G. N. King

3149 - 3199⁺¹⁴ ✓ . 34 37

S.R.H #80
DL DR

3134+00 16° 09'

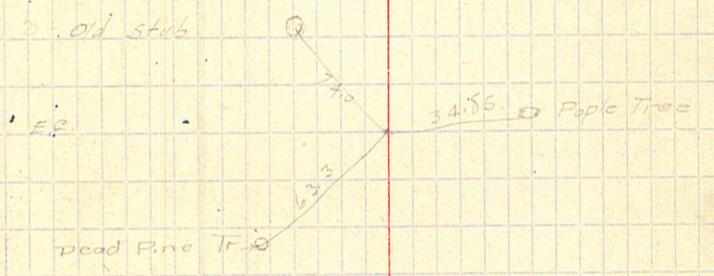
3132+166 ROT

3128+33.5 41° 14'

3123+312 Δ 21° 55'

3121+67.5 ROT

3120+49.5



ΔL ΔR

3140217

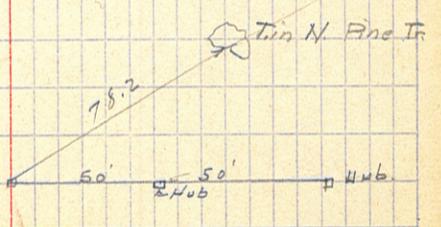
19° 50'

3136490

22° 03'

18° 35'

3216+77 P.D.T



Elev's on Road Crown.

#80

1239.40

35	85		9.5	42.8
	86		7.0	45.3
	87		5.3	47.0
	88		2.8	49.5
	89		0.9	57.3
	0	0.39	1252.25	12.26 1251.86
	90		11.3	52.8
	+34		12.2	51.9
	91		9.0	55.1
	92		6.1	58.0
	93		3.7	60.4
	94		1.1	63.0
	0	0.80	1264.12	12.71 1263.32
	95		9.8	66.2
	96		7.4	68.6
	97		4.8	71.2
	0	2.40	1276.03	12.49 1273.63
	98		12.1	74.0
	99		8.9	77.2
	3600		5.2	80.9
	01		1.6	84.5
	0	0.44	1286.12	7.85 1285.68
	02		7.6	85.9
	03		6.8	86.7
	04		6.2	87.3
	B.M.		8.87	1284.72
		1293.53		

Levels taken

15' x 22' C. 1. Cul.

Elev's on Road Crown.

3605			5.4	88.1
06			4.2	89.3
07			4.6	88.9
08			5.2	88.3
0	6.86	1293.53	0.60	1286.67
09			0.3	87.0
3610			2.4	84.9
11			4.5	82.8
12			7.4	80.0
+50			10.6	76.7
13		1287.27	9.5	77.8
0		1277.31	1.63	1277.31
3614			3.0	75.9
15			4.2	74.7
B.M			5.23	1273.71
16			4.8	74.1
17			5.3	73.6
18			4.8	74.1
19			4.6	74.3
0	4.20	1278.94	12.41	1274.74
20			12.4	74.8
21			12.0	75.2
22			10.5	76.7
B.M.			9.29	12
		87.15		

+50 C.I. Cul. 15x38'

25

15+93 C.I. Cul. 15x24'

20+48 C.I. Cul. 30'x30'

6

Elev's on Road Crown.

3623			7.4	79.7
24			3.1	84.1
0	0.95	1287.15	12.63	1286.20
25			16.4	88.4
26			6.4	92.4
27			2.5	96.3
0	1.58	1298.83	12.67	1297.25
28			9.6	100.3
29			5.6	104.3
30			2.6	107.3
0	0.32	1309.92	11.94	1309.60
31			9.4	112.1
32			5.8	115.7
33			2.0	119.5
0	1.16	1321.54	12.91	1320.38
34			9.8	124.5
35			6.1	127.2
36			3.6	129.7
37			3.5	129.8
38			5.0	128.3
39			7.5	125.8
0	9.77	1333.29	0.73	1323.52
40			0.0	124.3
41			1.0	123.3
42			3.7	120.6
43			6.0	118.3
44			9.0	115.3
0	11.74	1324.25	0.65	1312.51

26+00 C.I.C. 15x30'

19

7

Elev's on Road Crown.

3645			1.4	11.8
46			4.9	08.3
47			8.3	04.9
48			6.4	06.8
B.M.			2.38	1310.78
0	4.91	1313.16	10.67	1308.25
49			9.9	09.0
50			9.4	09.5
51			7.6	11.3
52			4.7	14.2
53			3.6	15.3
0	11.02	1318.92	9.22	1317.90
54			9.2	17.9
55			7.0	20.1
56			5.5	21.7
57			4.2	22.9
58			3.4	23.7
59			4.8	22.3
60			6.3	20.8
61			5.5	21.6
0	5.81	1327.12	2.92	1321.31
62			2.4	21.8
63			2.4	21.8
64			3.4	20.8
65			6.7	17.5
B.M.			8.46	1315.77
0	11.92	1324.23	0.42	1312.31

47+20 C.I. Cul. 15'x26'

17

50+307

C.I. Cul. 15x26'

Elers on Road Crown

3666	2423	1.2	11.5
67		5.6	07.1
68		9.8	02.9
69		7.3	05.4
70		11.4	01.3
0	9.23 1312.73	11.68	1303.50
71		11.7	03.5
72		8.4	06.8
73		5.4	09.8
74		3.3	11.9
75		2.0	13.2
76		3.4	11.8
77		4.6	10.6
78		6.7	08.5
79		10.1	05.1
0	1265. 1315.18	0.70	1302.53
80		1.2	02.6
81		3.7	99.5
82		5.2	98.6
83		5.0	98.2
84		5.3	97.9
85		5.4	97.8
86		5.6	97.6
0	5.84 1303.23	0.15	1297.39

69 v C.I. Cul 15 x 26
5

12

82 + 22 C.I. Cul. 15 x 28

13

9

Elevs on Road Crown

3687			3.1	94.4
88			7.3	90.2
89			10.3	87.2
0	11.68	1297.54	0.25	1285.86
3690			1.1	85.0
91			6.2	79.9
92			11.3	74.8
0	13.00	1286.11	1.55	1273.11
93			3.0	71.7
94			5.1	69.6
95			7.2	67.5
96			10.1	64.6
97			10.3	64.4
0	11.07	1274.66	7.07	1263.59
98			6.9	63.8
99			8.6	62.1
3700			9.9	60.8
01			9.1	61.6
02			7.4	63.3
03			4.0	66.7
B.M			0.27	1270.39
0	2.53	1270.66	12.62	1268.13
04			7.8	73.0
05			3.0	77.8
0	0.05	1280.75	11.00	1280.70

+09 C.I. Cul. 15x26

Elevs on Road Crown.

3706			11.4	81.1
07			9.2	83.5
08			5.7	87.0
09			2.3	90.4
10			1.3	91.7
11			3.0	89.7
0	4.38	1292.69	5.22	1288.31
3712			5.0	88.5
+15				
13			5.2	88.3
14			5.2	88.3
15			6.5	87.0
16			4.6	88.9
17			5.1	88.4
18			3.3	90.2
19			2.5	91.0
20			3.0	90.5
0	4.27	1293.53	0.13	1289.26
21			0.1	89.3
22			1.5	87.9
23			1.7	87.7
24			2.3	87.1
25			3.4	86.0
26			5.2	84.2
27			6.8	82.6
28			7.0	82.4
29			7.3	80.1
0	10.85	1289.39	2.79	1278.54

C.I. Cul. 15 x 30'

15+20 C.I. Cul. 15 x 26'

17+20 C.I. Cul. 15 x 32'

26+90 C.I. Cul. 15 x 26'

37	30		3.4	77.9
31			5.2	76.1
32			5.9	75.4
33			6.2	75.1
34			5.0	76.3
35			4.2	77.1
36			3.7	77.6
37			6.0	75.3
38			10.3	71.0
0	11.73	1281.33	0.44	1269.60
39			3.1	66.9
40			9.0	61.0
0	12.80	1270.04	0.81	1257.24
41			2.4	55.7
42			7.5	50.6
0	13.09	1258.05	0.42	1244.96
43			1.7	43.7
450			4.1	41.3
44			5.2	40.2
45			4.6	40.8
46			7.3	38.1
0	10.52	1245.38	1.18	1234.86
47			1.4	34.6
48			3.6	32.4
49			4.4	31.6
50			5.1	30.9
51			6.3	29.7
0	7.30	1236.04	1.51	1228.74

40+70 C.I. Cul 15x26

C.I. Cul 15x34

44+30 C.I. Cul. 15x28

48+94 C.I. Cul. 15x32³

Elevs on Road #80

3752			0.8	29.5
53			1.2	29.1
54			3.4	26.9
54+44			3.7	26.6
55			4.5	25.8
56			5.6	24.7
57			7.0	23.3
58			8.5	22.8
0	9.22	1230.25	0.60	1221.03
59			1.0	20.6
60			4.4	17.2
61			6.7	14.9
B.M			10.77	1210.88
10	4.49	1221.63	12.18	1217.14
62			9.1	20.2
63			2.9	25.4
0	1.26	1229.32	2.46	1228.06
64			10.0	30.5
65			4.9	35.6
0	0.62	1240.52	12.68	1239.90
66			12.0	40.5
67			5.8	46.7
0	0.25	1252.58	11.83	1252.33
68			11.0	53.1
69			5.9	58.2
70			3.8	60.3
71			3.5	

#44 C.I. Cul. 15 x 32

3757+94 C.I. Cul. 15' x 28'

#33 C.I. Cul. 24 x 32

Elev's on Road C.

			Elev.	
3771			3.5	60.6
72			4.5	59.6
73			4.7	59.4
74			6.4	57.7
0	8.91	1264.16	2.80	1255.25
75			2.6	55.4
76			3.6	54.4
77			4.0	54.0
78			4.6	53.4
79			5.0	53.0
80			3.4	54.6
81			2.1	55.9
0	3.53	1258.05	0.74	1254.52
82			0.5	54.7
83			2.8	52.4
84			5.9	49.3
85			6.2	49.0
+57			4.8	50.4
B. Mt.	4.21	1255.26		1251.05

↑

Levels Run

76+55 C.I. Cul. 15x28'

79+75 C.I. Cul. 15x26'

3784+61 C.I. Cul. 15x53'

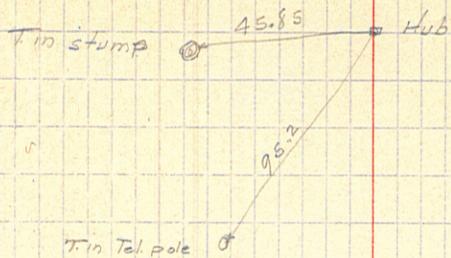
23

5/12-16

Δ L Δ R

3424+168

Fine



24

Δ L Δ R

5/2-1916
G. L. S. H.
D. T.
F. D. M.

3441+30

9' 36"

3440+31.8

21° 33'

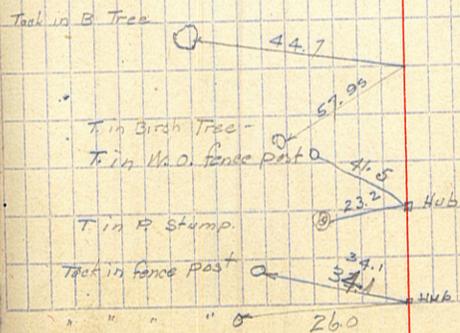
~~3440+35~~

3435+7.5

7° 39'

3434+56

20° 35'



3479+486 62°12'

Sold

34

3471+00

3463+50 33°28' L

27°03'

3462

24°14'

3461

23°36'

3460

23°-13'

3459

22°-55'

3458

22°01'

3457

21°10' L

3456 *

28°23'

3455

23°-37'

3454

18°16' L

3453

12°00' L

3452 *

10°43' L

3451

9°20' L

3450

7°16' L

3449

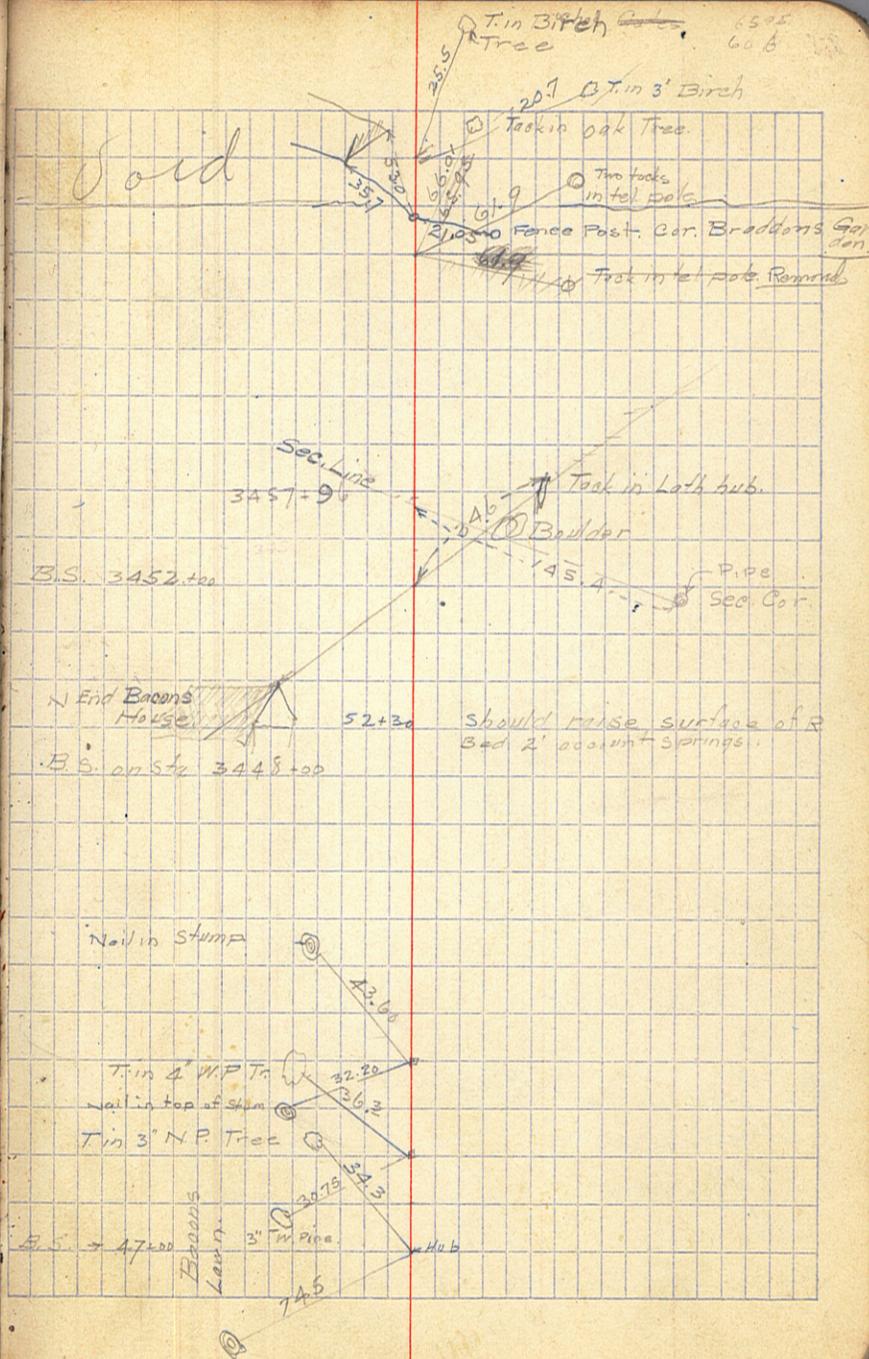
4°26' L

3448 Δ L. Curve

4°26' L

3447 7°47'

Sold



26

Sta. Δ L. Δ R.

3526+24 13° 07'

3519+09

35

3517+84 8° 01'

3512+23.3 P.O.T.

3507

18° 30'
18° 57'

3505+58.8 P.O.T.

3503 17° 28'

3500+79.1

6-41'
7° 28'3495+84.7 14° 05'
14° 53'

3494+43.8 P.O.T.

3490+82.7

28° 24'
30° 58'

3489+00 P.O.T.

3486+50.7

7° 11'
~~9° 20'~~

3485+00

8° 14'

3483+38

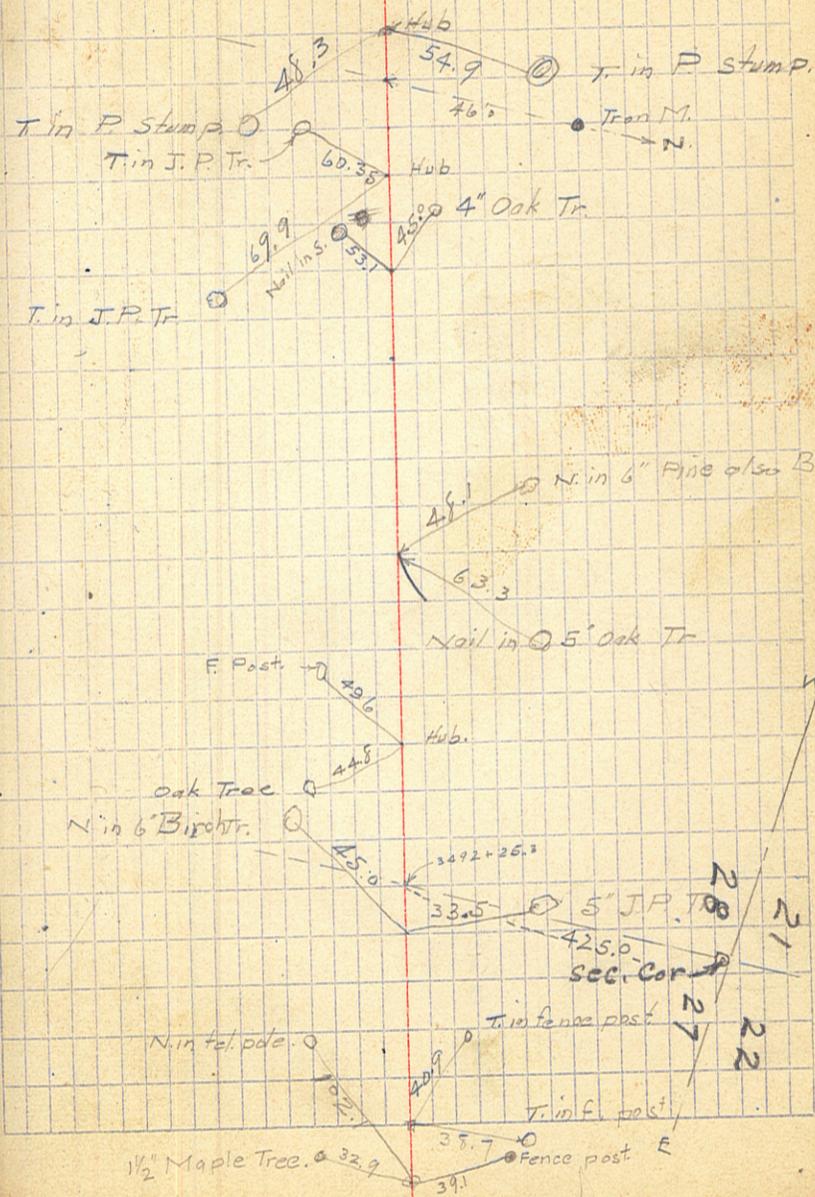
32° 46'

4/27/16

4/28/16

Fair.

Windy & fair.

L.S.H.
O.D.T.
F.B.M.