

1909

~~NO 1~~

70

FIELD BOOK.

No. 400 T.

County No 2

~~67~~

EUGENE DIETZGEN CO.,

Drawing Materials and Surveying Instruments.

NEW YORK.

CHICAGO.

SAN FRANCISCO.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 20 FEET WIDE. SIDE SLOPES 1 TO 1.

FOR SINGLE TRACK EXCAVATION.

"Copyright, 1902, by Eugene Dietzgen Co."

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	0
1	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	1

PAGE

INDEX

7

1	Proposed Cty. Road from Trenton to Bear River bridge.
7	Green's Drain Survey
35	Survey of Drain Ditch fro Cty. Poor Farm
49	Survey of Clarkston County Road

22	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	22
23	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	23
24	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	24
25	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	25
26	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	26
27	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	27
28	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	28
29	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	29
30	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	30
31	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	31
32	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	32
33	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	33
34	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	34
35	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	35
36	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	36
37	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	37
38	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	38
39	49.0	49.1	49.2	49.3	49.4	49.5	49.6	49.7	49.8	49.9	39
40	50.0	50.1	50.2	50.3	50.4	50.5	50.6	50.7	50.8	50.9	40

Calculated by F. E. Paradis, C. E.

1
Proposed County road from
Trenton to Bear River bridge.

Line A

Sta Angle Dist. Remarks

At Point on Section line

F.S. $0^{\circ} 00'$ East

A $R 135^{\circ} 57'$

Station A is a point $\frac{1}{2}$ mile east of Trenton school house, it is in the main road at a point where it turns south.

At Sta. A

B $0^{\circ} 00'$ $9\text{ ch } 10\text{ ft}$ F.S.

Section line $L 70^{\circ} 55'$

A $0^{\circ} 00'$ 55 ft Fence line between public road & Karsens

pipe $L 90^{\circ}$ 33 ft

At Hub on fence line between A & B

A $0^{\circ} 00'$ B.S.

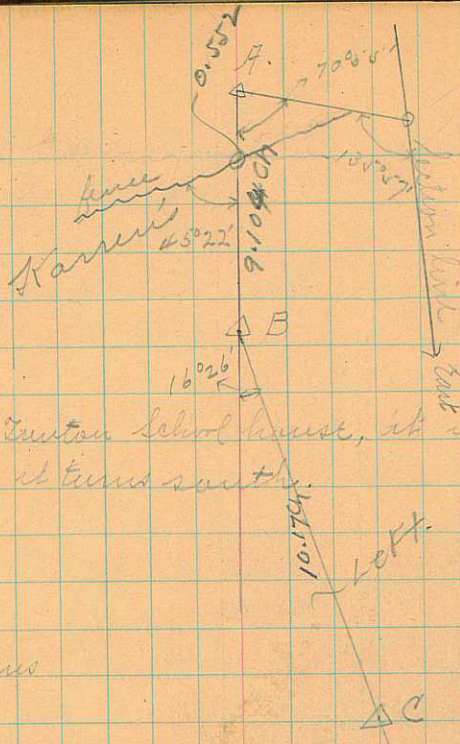
Fence line $R 45^{\circ} 22'$ fence line between public road & Karsens

At Sta B

A $0^{\circ} 00'$ B.S.

C $L 16^{\circ} 26'$ $10\text{ ch } 17\text{ ft}$

pipe $L 98^{\circ} 13'$ 333 ft There are two pipes one on each side of center line



Sta. Angle Dist Remarks
At Sta C.

B 0° 00' B.S.

C+C₁ L 27° 46' ^{411 revised} 23 ch 85.72 Opposite road running north & south 1/2 mile south

At Sta C+C₁

C 0° 00' B.S.

fence line 0° 00' 10 ch 88.58 On fence line bet. near Kamens & Horners

At Hub on fence line

C+C₁ 0° 00' B.S.

fence line R 88° 22'

C+C₂ 0° 00' 6 ch 44.8

At Sta C+C₂

C+C₁ 0° 00' B.S.

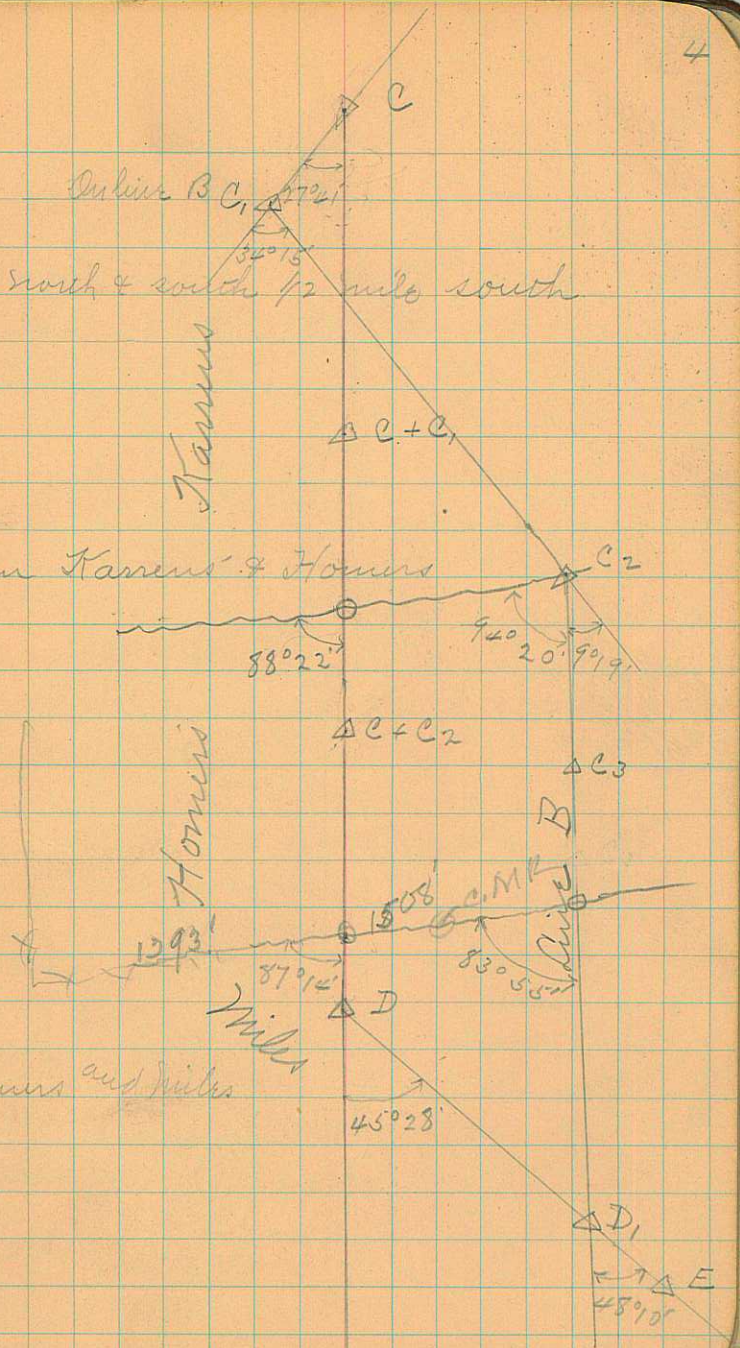
fence line 0° 00' 22 ch 39.6 On fence line between Horners and Miles

D 0° 00' 24 ch 92.38

At Hub on fence line

D 0° 00' 2 ch 05.38 F.S.

fence line R 87° 14'



Sta Angle Dist Remarks
At Sta D

C+C2 0° 00' B.S.

E L45° 22' 11ch 2.8

D1 L45° 28' 2ch 7.15l
Pipe L102° 44' 35.8 ft
Remarks: Point where line B connects with line F
Two pipes one on each side of center line

At Sta E

D 0° 00' B.S.

F L25° 41' 19ch 26.1l

Fence line L25° 41' 11ch 16.5l
Pipe L102° 51' 33.8 ft
Remarks: One fence between Miles and Spackman
Two pipes

At Hook on fence line

F 0° 00' F.S.

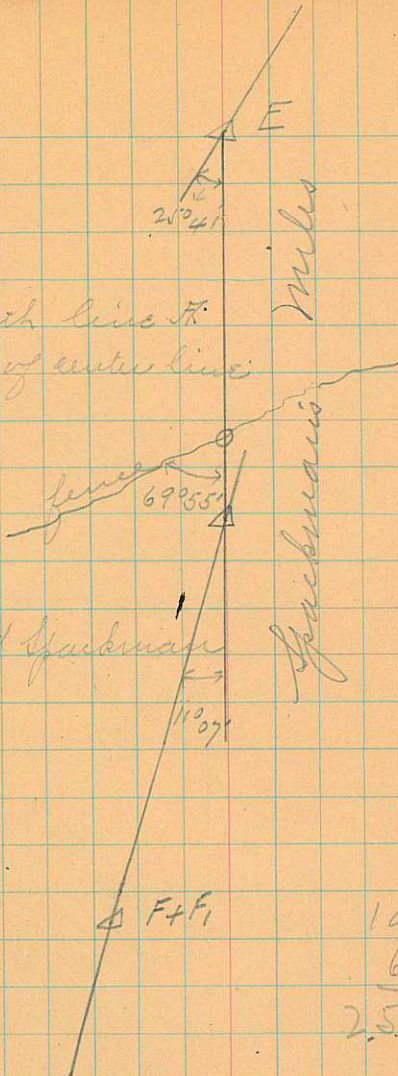
fence line R69° 55'

At Sta F

E 0° 00' B.S.

F+F1 R11° 07' 6ch 46.3l

Pipe R94° 33' 33.3 ft
Remarks: Two pipes



19.26
646
25.72

Henry Spackman
Sarah Ann

\$50 per acre.
50¢ per rod.

Sta	Angle	Dist	Remarks
at Sta F+F _i			
F	0° 00'		B.S.
G	0° 00'	64.85l	
at Sta G			
F+F _i	0° 00'		B.S.
H	R 33° 40'		
Bridge	R 33° 40'	104.47l	To concrete wall at west side of bridge
pipe	R 106° 50'	34.5ft	Two pipes

△ F+F_i

△ G

→ 33° 40'

△ H

Center of bridge on
Bear River

Sta Angle Dist Remarks
Line B.

For sketching of line see pp. 4

Line B begins at C. on line A

at Sta C

B $0^{\circ} 00'$ B.S.

C₁ $0^{\circ} 00'$ 82.6 l

at Sta C₁

C $0^{\circ} 00'$ B.S.

C₂ $L 34^{\circ} 15'$ 34 ch 21.4 l C₂ is on fence line between Warner's & Homers

at Sta C₂

C₁ $0^{\circ} 00'$ B.S.

C₃ $R 9^{\circ} 19'$ 16 ch 5.4 l

fence line $94^{\circ} 20'$

at Sta C₃

C₂ $0^{\circ} 00'$ B.S.

D₁ $0^{\circ} 00'$ 17 ch 33.6 l

fence line $0^{\circ} 00'$ 13 ch 26.1 l

D₁ is located on line A between Sta D^{and} E
Fence between Homers^{and} Miles

At Hub on fence line

Sta	Angle	Dist	Remarks
D ₁	0° 00'	4ch 75 l	F.S.
fence	R 83° 55'		

At D₁ Sta

C₃ 0° 00'

B.S.

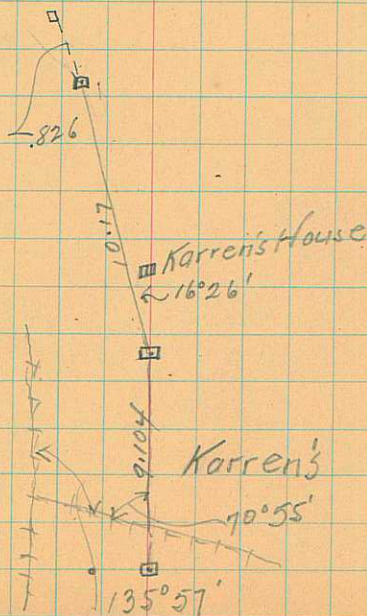
E L 48° 10'

E Sta on line

a

13

14



I began on the cor. of the west highway
 Westely street in Mobile and ran south
 J. Nelson & Fred Peterson, Oct. 25, 1909.

Sta	Sta	W	N
1st S. W.	780.8 0.11.1 st E	95.5	97.5
2nd S. W.	776.2 1 st S. 1 st E	92.5	97.5
3rd S. W.	771.8 2 nd S. 1 st E	98	98
4th S. W.	765.8 3 rd S. 1 st E	97.5	97.5
5th S. W.	761.4 4 th S. 1 st E	94	99
6th S. W.	761. 5 th S. 1 st E	98.4	98.4
7th S. W.	761. 6 th S. 1 st E	10.2	10.2
8th S. W.	760. 7 th S. 1 st E	16	16
9th S. W.	760. 8 th S. 1 st E	19.4	19.4
10th S. W.	760. 9 th S. 1 st E	23.2	23.2
11th S. W.	760. 10 th S. 1 st E	26	26
12th S. W.	760. 11 th S. 1 st E	29.4	29.4
13th S. W.	760. 12 th S. 1 st E	32	32
14th S. W.	760. 13 th S. 1 st E	35.4	35.4
15th S. W.	760. 14 th S. 1 st E	38	38
16th S. W.	760. 15 th S. 1 st E	41.4	41.4
17th S. W.	760. 16 th S. 1 st E	44	44
18th S. W.	760. 17 th S. 1 st E	47.4	47.4
19th S. W.	760. 18 th S. 1 st E	50	50
20th S. W.	760. 19 th S. 1 st E	53.4	53.4
21st S. W.	760. 20 th S. 1 st E	56	56
22nd S. W.	760. 21 st S. 1 st E	59.4	59.4
23rd S. W.	760. 22 nd S. 1 st E	62	62
24th S. W.	760. 23 rd S. 1 st E	65.4	65.4
25th S. W.	760. 24 th S. 1 st E	68	68
26th S. W.	760. 25 th S. 1 st E	71.4	71.4
27th S. W.	760. 26 th S. 1 st E	74	74
28th S. W.	760. 27 th S. 1 st E	77.4	77.4
29th S. W.	760. 28 th S. 1 st E	80	80
30th S. W.	760. 29 th S. 1 st E	83.4	83.4
31st S. W.	760. 30 th S. 1 st E	86	86
32nd S. W.	760. 31 st S. 1 st E	89.4	89.4
33rd S. W.	760. 32 nd S. 1 st E	92	92
34th S. W.	760. 33 rd S. 1 st E	95.4	95.4
35th S. W.	760. 34 th S. 1 st E	98	98
36th S. W.	760. 35 th S. 1 st E	101.4	101.4
37th S. W.	760. 36 th S. 1 st E	104	104
38th S. W.	760. 37 th S. 1 st E	107.4	107.4
39th S. W.	760. 38 th S. 1 st E	110	110
40th S. W.	760. 39 th S. 1 st E	113.4	113.4
41st S. W.	760. 40 th S. 1 st E	116	116
42nd S. W.	760. 41 st S. 1 st E	119.4	119.4
43rd S. W.	760. 42 nd S. 1 st E	122	122
44th S. W.	760. 43 rd S. 1 st E	125.4	125.4
45th S. W.	760. 44 th S. 1 st E	128	128
46th S. W.	760. 45 th S. 1 st E	131.4	131.4
47th S. W.	760. 46 th S. 1 st E	134	134
48th S. W.	760. 47 th S. 1 st E	137.4	137.4
49th S. W.	760. 48 th S. 1 st E	140	140
50th S. W.	760. 49 th S. 1 st E	143.4	143.4
51st S. W.	760. 50 th S. 1 st E	146	146
52nd S. W.	760. 51 st S. 1 st E	149.4	149.4
53rd S. W.	760. 52 nd S. 1 st E	152	152
54th S. W.	760. 53 rd S. 1 st E	155.4	155.4
55th S. W.	760. 54 th S. 1 st E	158	158
56th S. W.	760. 55 th S. 1 st E	161.4	161.4
57th S. W.	760. 56 th S. 1 st E	164	164
58th S. W.	760. 57 th S. 1 st E	167.4	167.4
59th S. W.	760. 58 th S. 1 st E	170	170
60th S. W.	760. 59 th S. 1 st E	173.4	173.4
61st S. W.	760. 60 th S. 1 st E	176	176
62nd S. W.	760. 61 st S. 1 st E	179.4	179.4
63rd S. W.	760. 62 nd S. 1 st E	182	182
64th S. W.	760. 63 rd S. 1 st E	185.4	185.4
65th S. W.	760. 64 th S. 1 st E	188	188
66th S. W.	760. 65 th S. 1 st E	191.4	191.4
67th S. W.	760. 66 th S. 1 st E	194	194
68th S. W.	760. 67 th S. 1 st E	197.4	197.4
69th S. W.	760. 68 th S. 1 st E	200	200
70th S. W.	760. 69 th S. 1 st E	203.4	203.4
71st S. W.	760. 70 th S. 1 st E	206	206
72nd S. W.	760. 71 st S. 1 st E	209.4	209.4
73rd S. W.	760. 72 nd S. 1 st E	212	212
74th S. W.	760. 73 rd S. 1 st E	215.4	215.4
75th S. W.	760. 74 th S. 1 st E	218	218
76th S. W.	760. 75 th S. 1 st E	221.4	221.4
77th S. W.	760. 76 th S. 1 st E	224	224
78th S. W.	760. 77 th S. 1 st E	227.4	227.4
79th S. W.	760. 78 th S. 1 st E	230	230
80th S. W.	760. 79 th S. 1 st E	233.4	233.4
81st S. W.	760. 80 th S. 1 st E	236	236
82nd S. W.	760. 81 st S. 1 st E	239.4	239.4
83rd S. W.	760. 82 nd S. 1 st E	242	242
84th S. W.	760. 83 rd S. 1 st E	245.4	245.4
85th S. W.	760. 84 th S. 1 st E	248	248
86th S. W.	760. 85 th S. 1 st E	251.4	251.4
87th S. W.	760. 86 th S. 1 st E	254	254
88th S. W.	760. 87 th S. 1 st E	257.4	257.4
89th S. W.	760. 88 th S. 1 st E	260	260
90th S. W.	760. 89 th S. 1 st E	263.4	263.4
91st S. W.	760. 90 th S. 1 st E	266	266
92nd S. W.	760. 91 st S. 1 st E	269.4	269.4
93rd S. W.	760. 92 nd S. 1 st E	272	272
94th S. W.	760. 93 rd S. 1 st E	275.4	275.4
95th S. W.	760. 94 th S. 1 st E	278	278
96th S. W.	760. 95 th S. 1 st E	281.4	281.4
97th S. W.	760. 96 th S. 1 st E	284	284
98th S. W.	760. 97 th S. 1 st E	287.4	287.4
99th S. W.	760. 98 th S. 1 st E	290	290
100th S. W.	760. 99 th S. 1 st E	293.4	293.4
101st S. W.	760. 100 th S. 1 st E	296	296
102nd S. W.	760. 101 st S. 1 st E	299.4	299.4
103rd S. W.	760. 102 nd S. 1 st E	302	302
104th S. W.	760. 103 rd S. 1 st E	305.4	305.4
105th S. W.	760. 104 th S. 1 st E	308	308
106th S. W.	760. 105 th S. 1 st E	311.4	311.4
107th S. W.	760. 106 th S. 1 st E	314	314
108th S. W.	760. 107 th S. 1 st E	317.4	317.4
109th S. W.	760. 108 th S. 1 st E	320	320
110th S. W.	760. 109 th S. 1 st E	323.4	323.4
111th S. W.	760. 110 th S. 1 st E	326	326
112nd S. W.	760. 111 st S. 1 st E	329.4	329.4
113th S. W.	760. 112 nd S. 1 st E	332	332
114th S. W.	760. 113 rd S. 1 st E	335.4	335.4
115th S. W.	760. 114 th S. 1 st E	338	338
116th S. W.	760. 115 th S. 1 st E	341.4	341.4
117th S. W.	760. 116 th S. 1 st E	344	344
118th S. W.	760. 117 th S. 1 st E	347.4	347.4
119th S. W.	760. 118 th S. 1 st E	350	350
120th S. W.	760. 119 th S. 1 st E	353.4	353.4
121st S. W.	760. 120 th S. 1 st E	356	356
122nd S. W.	760. 121 st S. 1 st E	359.4	359.4
123rd S. W.	760. 122 nd S. 1 st E	362	362
124th S. W.	760. 123 rd S. 1 st E	365.4	365.4
125th S. W.	760. 124 th S. 1 st E	368	368
126th S. W.	760. 125 th S. 1 st E	371.4	371.4
127th S. W.	760. 126 th S. 1 st E	374	374
128th S. W.	760. 127 th S. 1 st E	377.4	377.4
129th S. W.	760. 128 th S. 1 st E	380	380
130th S. W.	760. 129 th S. 1 st E	383.4	383.4
131st S. W.	760. 130 th S. 1 st E	386	386
132nd S. W.	760. 131 st S. 1 st E	389.4	389.4
133rd S. W.	760. 132 nd S. 1 st E	392	392
134th S. W.	760. 133 rd S. 1 st E	395.4	395.4
135th S. W.	760. 134 th S. 1 st E	398	398
136th S. W.	760. 135 th S. 1 st E	401.4	401.4
137th S. W.	760. 136 th S. 1 st E	404	404
138th S. W.	760. 137 th S. 1 st E	407.4	407.4
139th S. W.	760. 138 th S. 1 st E	410	410
140th S. W.	760. 139 th S. 1 st E	413.4	413.4
141st S. W.	760. 140 th S. 1 st E	416	416
142nd S. W.	760. 141 st S. 1 st E	419.4	419.4
143rd S. W.	760. 142 nd S. 1 st E	422	422
144th S. W.	760. 143 rd S. 1 st E	425.4	425.4
145th S. W.	760. 144 th S. 1 st E	428	428
146th S. W.	760. 145 th S. 1 st E	431.4	431.4
147th S. W.	760. 146 th S. 1 st E	434	434
148th S. W.	760. 147 th S. 1 st E	437.4	437.4
149th S. W.	760. 148 th S. 1 st E	440	440
150th S. W.	760. 149 th S. 1 st E	443.4	443.4
151st S. W.	760. 150 th S. 1 st E	446	446
152nd S. W.	760. 151 st S. 1 st E	449.4	449.4
153rd S. W.	760. 152 nd S. 1 st E	452	452
154th S. W.	760. 153 rd S. 1 st E	455.4	455.4
155th S. W.	760. 154 th S. 1 st E	458	458
156th S. W.	760. 155 th S. 1 st E	461.4	461.4
157th S. W.	760. 156 th S. 1 st E	464	464
158th S. W.	760. 157 th S. 1 st E	467.4	467.4
159th S. W.	760. 158 th S. 1 st E	470	470
160th S. W.	760. 159 th S. 1 st E	473.4	473.4
161st S. W.	760. 160 th S. 1 st E	476	476
162nd S. W.	760. 161 st S. 1 st E	479.4	479.4
163rd S. W.	760. 162 nd S. 1 st E	482	482
164th S. W.	760. 163 rd S. 1 st E	485.4	485.4
165th S. W.	760. 164 th S. 1 st E	488	488
166th S. W.	760. 165 th S. 1 st E	491.4	491.4
167th S. W.	760. 166 th S. 1 st E	494	494
168th S. W.	760. 167 th S. 1 st E	497.4	497.4
169th S. W.	760. 168 th		

17 I set up over hubs on ON 1st E. St and set my
 vernier on sub on 1st E & 1st S. st. as a beginning
 J.G. Nielsen Inst. Fred Peterson, Jacob Smith, John Peterson
 Bantle Green dist. Oct. 26. 09.

Sta	Inst at	Angle	Distance
ON. 1 st E. St.	ON. 1 st E. St.		0+00
1 st S. 1 st E.			6+23.7
ON. O.W. St.		90° 55'	12+50.6
	1 st E. 1 st S. St.		
2 nd E. 1 st S. St.		90° 30' ✓	6+13
OW. 1 st S. St.		180° 25'	
1 st E. 2 nd S. St.		270° 37'	12+50.6
	1 st E. 2 nd S.		
1 st E. 1 st S. St.			6+13
2 nd E. 2 nd S.		90° 10' ✓	
1 st E. 3 rd S. St.		180° 25' ✓	18+91.9
OW. 2 nd S. St.		270° 00' ✓	
	1 st E. 3 rd S.		
1 st E. 2 nd S.			63.72
2 nd E. 3 rd S.		89° 15' ✓	
1 st E. 4 th S.		179° 47' ✓	25+24.1
OW. 3 rd S.		269° 05' ✓	
	1 st E. 4 th S.		
1 st E. 3 rd S.			63.92
2 nd E. 4 th S.		89° 25'	
1 st E. 5 th S.		179° 38'	31+63.3
OW. 4 th S.		269° 15'	
	1 st E. 5 th S.		
1 st E. 4 th S.			63.67
2 nd E. 5 th S.		89° 45' ✓	
1 st E. 6 th S.		179° 45'	37+98.5
OW. 5 th S.		269° 55'	

Set. Inst. on this hub.

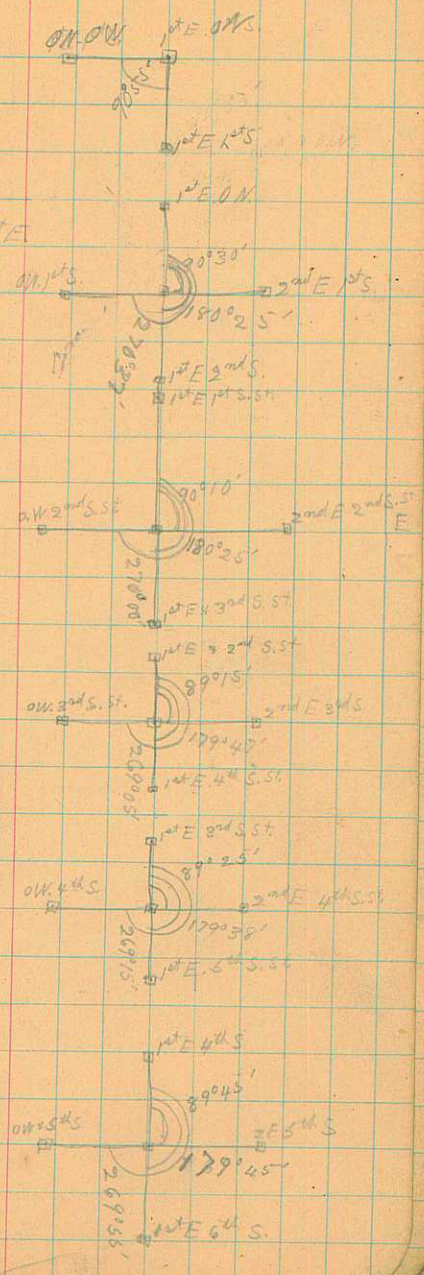
Back Sight on Hub of ON. 1st E.

Back Sight on 1st E. 1st S. St.

Back Sight on 1st E. 2nd S. St.

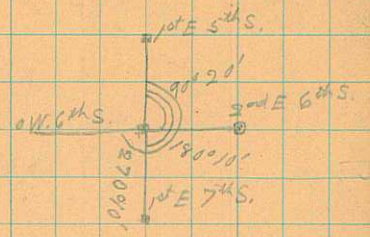
Back Sight on 1st E. 3rd S. St.

Back Sight on 1st E. 4th S.

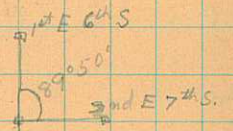


Sta	Inst at	Angle	Distance
	1 st E 6 th s		
1 st E 6 th s			6+9.5
2 nd E 6 th s		90° 20'	
1 st E 7 th s		180° 10'	44+29
4 th E 6 th s		270° 10'	0+50
	1 st E 7 th s		760.2
1 st E 6 th s			7+60.2
2 nd E 7 th s		89° 50'	
	2 nd E 7 th s		700.4
1 st E 7 th s			
1 st E 6 th s		90° 15'	15+22.6
3 rd E 7 th s		180	
	3 rd E 7 th s		
2 nd E 7 th s			
3 rd E 6 th s		90° 40'	
4 th E 7 th s		179° 20'	
	4 th E 7 th s		
3 rd E 7 th s			
4 th E 6 th s		90° 55'	

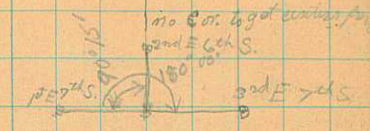
Back Sight on 1st E 6ths.



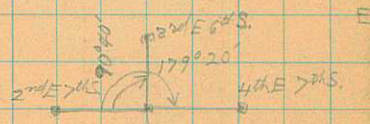
Back Sight on



Back Sight on 1st E 7ths.



Back Sight 2nd E 7ths



Back Sight on 3rd E 7ths.



$$\begin{array}{r} 34.81 \\ 24.85 \\ \hline 9.96 \end{array}$$

$$\begin{array}{r} 34.81 \\ 24.85 \\ \hline 9.96 \end{array}$$

$$\begin{array}{r} 24.85 \\ 11.10 \\ \hline 13.75 \\ 55.00 \\ \hline \end{array}$$

$$\begin{array}{r} 24.85 \\ 10.10 \\ \hline 13.75 \\ 55.00 \\ \hline \end{array}$$

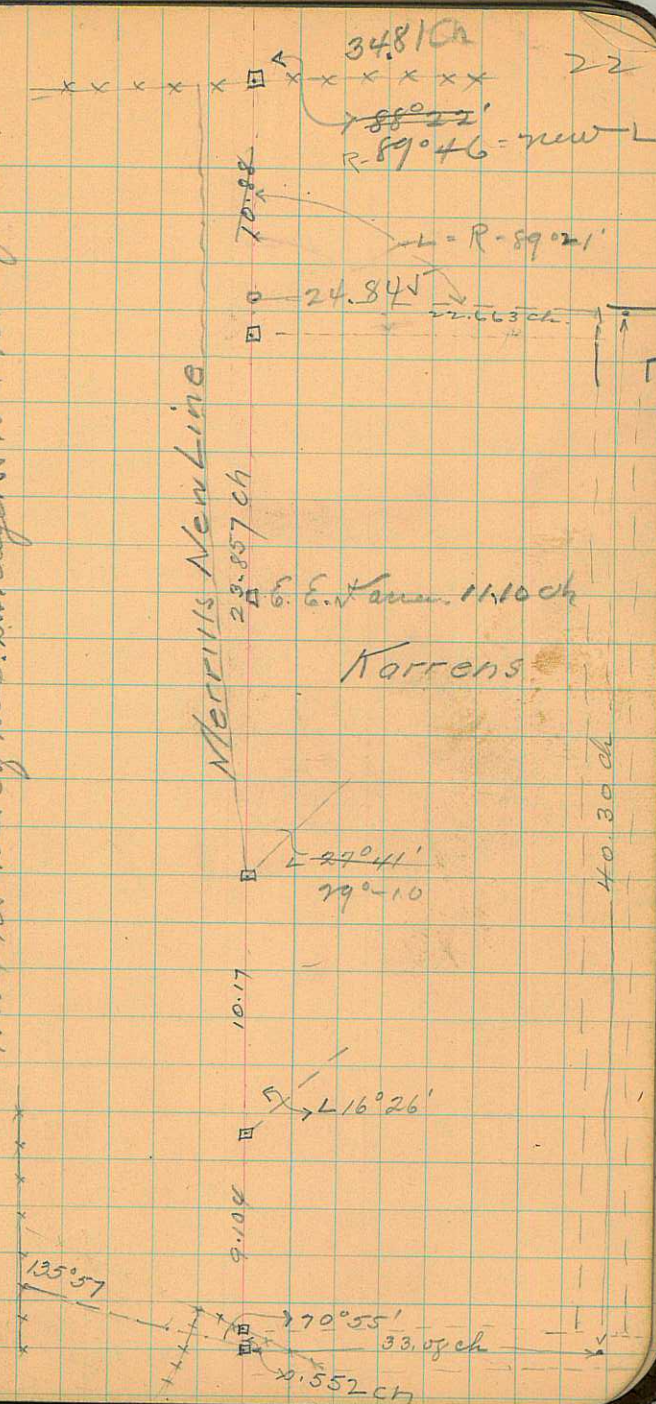
59.30

$$\begin{array}{r} 10.84 \\ 23.86 \\ \hline 34.70 \end{array}$$

$$\begin{array}{r} 13.75 \\ 41.25 \\ \hline 55.00 \end{array}$$

23.86

Ed.
North 105 rods. c. of road. Dr. Cregar's road to north junction



34.81 ch

~~788.22'~~

R-89°46' = new L

L = R-89°21'

24.84 ch

Merrill's New Line

29.857 ch

24.8 ch

Korrens

40.30 ch

L 27°41'

79°10'

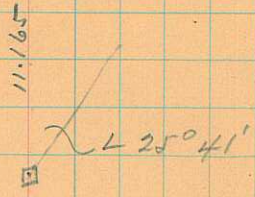
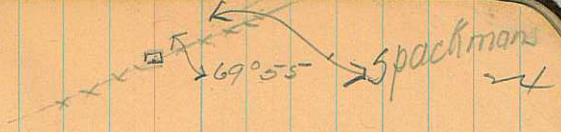
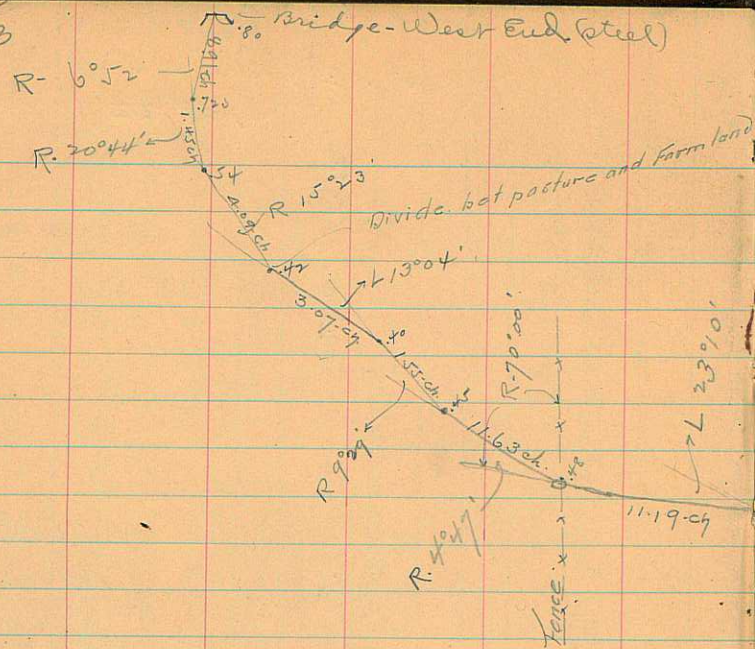
L 16°26'

70°55'

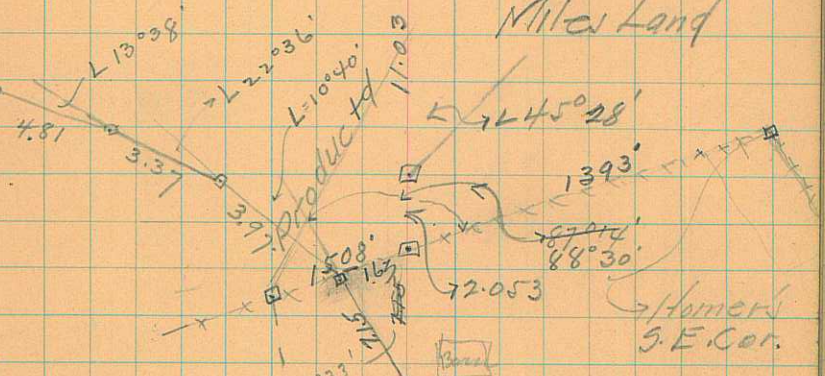
33.07 ch

20.552 ch

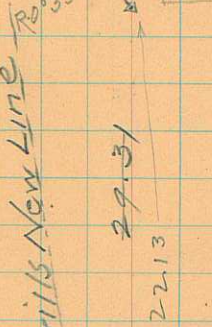
23



Miller Land



Merrill's New Line



Homer's

89°46'

West Abutment Bridge

ROW 104'
500'
75'

10.47

R 33°40'

685

Crown of Hill.

6.463

R. 11°07'

8.096

27 Surrey Made Mar. 14 - 010 on
Green's Drain.

28

7.7

Sta	+ AS	-	Elv.
			100.0
	2.3	102.3	
0		10.3	92.0
1+20		7.7	94.6
2+0		5.2	97.1
3+0		5.6	96.7
3+74		3.2	99.1
3+79		6.0	96.3
3+84		3.2	99.1
4+0		5.1	97.2
4+15		7.4	94.9
5+0		8.2	94.1
6+0		8.6	93.7
7+0		10.6	91.7

Picket fence
B.M. on top of scant/Kendo

Opposite culvert.
Edge of water +

S. Bar II
Center of Ditch

Beg of Gutter

29 Survey made on causer on
 Poor farm Nov 20 - 10

30

Sta	+	Sta	-	Ele	Or.	Cor or Ill
				100.0		Corner of fence on lot Merchants N.W. Cor
	0.7	100.7				
0			1.3	98.9	98.9	100' E of road.
1			2.0	98.2	98.3	
2			2.0	98.2	97.7	+5.7
3			3.0	97.2	97.1	+1.1
4			4.3	95.7	96.5	-1.6
5			4.7	95.5	95.9	-1.4
6			5.0	95.2	95.3	-1
7			5.3	94.9	94.7	+2
8			6.3	92.9	94.1	-1.2
9			5.9	94.3	94.0	+3
10			6.7	93.5	93.9	-1.4
11			6.4	93.8	93.8	0
12			5.8	94.2	93.7	+7
13			6.1	94.1	93.6	+5
13+75=0 on N.E. line			6.7	93.5	93.5	0
1			6.5	93.7	93.4	+3
2			6.7	93.5	93.3	+2
3			6.7	93.0	93.2	+3
4			6.3	93.9	93.1	+8
5			7.1	93.1	93.0	+1
6			6.7	93.5	92.9	+6
7			5.7	94.5	92.8	+16.7
8			4.4	95.5	92.7	+2.8

Corner of fence on lot Merchants N.W. Cor

100' E of road.

S=0.006

S=0.1

Edge main ditch where it turns SW + NE
 Run N.E.

Other line branches W.

Sta	+	NS	-	Elv	Cr.	Current
		100.2				
1. 9			5.1	95.1	92.6	2.5
10			5.00	95.2	92.5	2.7
11			4.8	95.4	92.4	3.0
12			5.1	95.1	92.3	2.8
13			4.7	95.5	92.2	3.3
14			4.9	95.3	92.1	3.2
15			5.5	94.7	92.0	2.7
16			6.2	94.0	91.9	2.1
17			6.1	94.1	91.8	2.3
18			7.0	93.2	91.7	1.5
H = 4a						
5 a			7.0	93.2	93.	+ .2
6 a			7.2	93.0	92.9	+ .1
7 a			7.3	92.9	92.8	+ .1
8 a			6.7	93.5	92.7	+ .8
9 a			7.4	92.8	92.6	+ .2
10. a			7.1	93.1	92.5	+ .6
11. a			6.8	93.4	92.5	1.0
12. a			6.8	93.4	92.3	1.1
13. a			7.0	93.2	92.2	1.0
14 a			7.4	92.8	92.1	0.7
End of line. Near N.E. cor Farm						
0 = Sta row main line			1.8	98.2	98.3	- .1
1			1.7	99.0	98.2	+ .8
2			2.1	98.1	98.1	0
End of line.						

Sta	+	NS	-	Elv	In	Auto. Fall
		100.2				
3			3.0	97.2	98.0	- .8
4			2.6	97.6	97.9	-.3
5			2.6	97.6	97.8	-.2
6			1.8	98.4	97.7	+0.7
7			1.6	98.6	97.6	+1.0
8			3.2	97.0	96.0	+1.0
9			4.8	95.4	94.4	+1.0
10			4.2	96.0	95.2	+0.8
11			4.0	96.2	95.2	+1.0
12			5.7	94.5	93.5	+1.0
13			6.4	93.8	93.0	+0.8

35 Survey of Drain Ditch for County
Poor Farm from House to Ditch on
E. side of County Road W of House

Nov-11-10- A.H.C.

Sta	+5	H.I.	-5	Elev.	Rem.
-----	----	------	----	-------	------

100'

- On cement sill outside window

3.7

103.7

11.4

92.3

7.1

99.4

11.5

90.25

- In ditch on E Side Co. Road to Greenville

Bottom of cellar = 6.3 ft below
cement sill on outside window.

36

Sta + H.S. - Elev. R R C L

Sta	H.S.	Elev.	R	R	C	L
	6.6	106.6				
		7.4	99.2			
0				5.8 ✓	4.9 ✓	5.9 ✓
1				6.0 ✓	5.6 ✓	6.2 ✓
2				5.6 ✓	5.0 ✓	5.4 ✓
3				5.1 ✓	4.7 ✓	5.3 ✓
4				5.0 ✓	4.5 ✓	5.2 ✓
5				5.1 ✓	4.5 ✓	5.0 ✓
6				5.1 ✓	4.5 ✓	5.0 ✓
7				4.9 ✓	4.6 ✓	5.1 ✓
8				4.8 ✓	4.4 ✓	5.0 ✓
9				4.6 ✓	4.4 ✓	4.6 ✓
10				4.5 ✓	4.5 ✓	5.0 ✓

6.2 ✓ 100.4

Top of culv. on W side
of road on E side
Bottom of ditch N side

SW in Pond

37 Survey made July 7-11 on Co road
N of Crumquell's Lane

B.M. N.W. Cor. Crumquell's

Sta + HS - Elev. - Elev. N Elev. S

Sta	HS	Elev.
0	100.00	100.0
0+0	0.4	99.6
1+0	3.3	96.7
2+0	5.5	94.5
3+0	7.8	92.2
4+0	10.0	90.0
5+0	12.4	87.6
T.P. on 5.	11.8	88.2
1.5	89.7	
6+0	4.5	85.2
7+0	7.0	82.7
8+0	9.2	80.5
9+0	11.4	78.3
T.P. on 9.	10.9	78.8
1.7	80.5	
10	4.3	76.2
11	6.6	73.9
12	9.1	71.4
13	10.3	70.2
14	12.8	67.9
T.P. on 13	9.9	70.8
1.6	72.4	
15	6.7	65.7
16	8.0	64.0
17	10.2	62.2

Elev. N	Elev. S
98.4	99.4
77.3	76.2
94.8	94.0
92.5	91.6
90.1	89.4
87.6	87.0
85.3	84.5
82.6	82.4
80.4	79.9
78.0	77.8
75.5	75.4
73.8	73.5
71.3	71.3
69.9	69.8
67.6	67.7
65.7	65.7
64.0	63.7
62.1	61.9

Considerable work to here

Street
Cmrr.

Sta	+	AS	-	Elev. C.	-	Elev. N.	-	Elev. S.	
		72.4							
18			12.2	60.2	12.1	60.3	12.3	60.1	
TRon. 18			11.7	60.7					
	2.3	63.0							
19			5.3	57.7	4.7	58.3	4.8	58.2	Center in ditch
20			7.6	55.4	7.2	55.8	6.9	56.1	" " "
21			9.3	53.7	9.3	53.7	9.2	53.8	" " "
+50			9.6	53.4	9.8	53.2	9.6	53.4	On Bank Canal
			9.2	53.8					E center E. Twin Bridge

43 Elevations Taken Clay 5/94 Bldg
May 3

Sta + NS - EIV
100.00

0.52 100.52

10.65 }
10.68 } 89.84
10.75 }
10.50 }

0.86 99.66

10.3

10.5

10.60

10.85

100.00

6.91 106.91

3.75 103.16

20.997 = 100.000

20.900 of

S. end of wing of west pier
Inn N pier and S. side West pier
" " " " " " "
N end of wing of west pier
Bottom of center gables.
N end of wing E pier
Inn E pier + N wing
" " " " S " "
S end of wing East pier.

Grade: 4" higher.

99.66

89.84

9.82

45 Level taken on Newton Pond
Aug 11-1911

46

Sta	+	HT	-	Elv.
-----	---	----	---	------

6.82		106.82		
------	--	--------	--	--

			5.50	101.32
--	--	--	------	--------

			3.70	
--	--	--	------	--

			6.7	
--	--	--	-----	--

Bm on Stone.

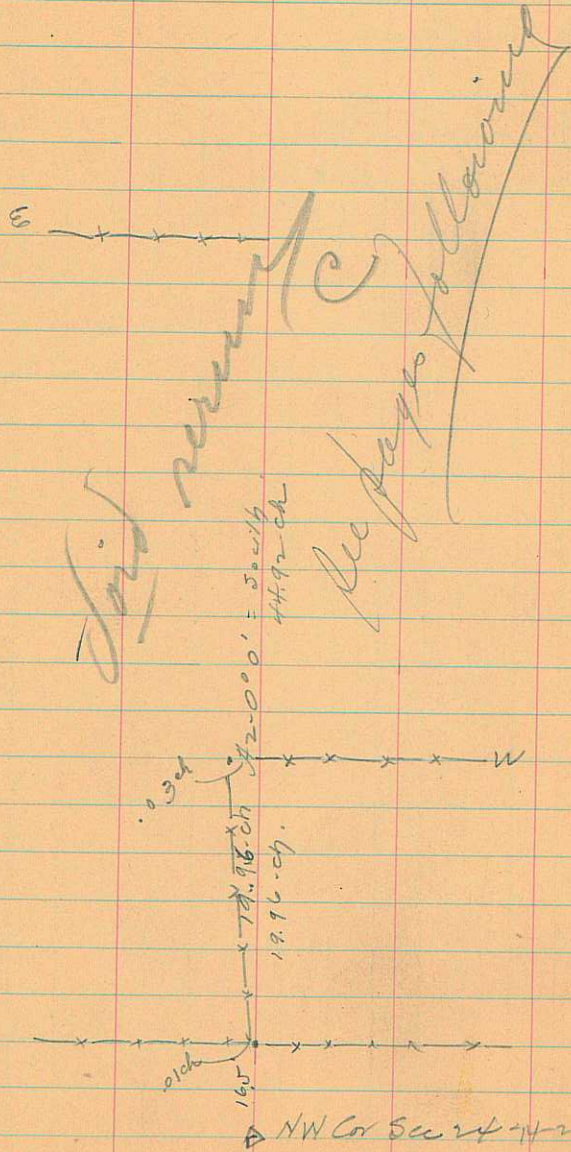
H. H. marks.

Low on plane glass

H. H. marks

47 Survey of County Road, in Clarkston
begin at N.W. cor of Sec. 24 T14N-R-2W.

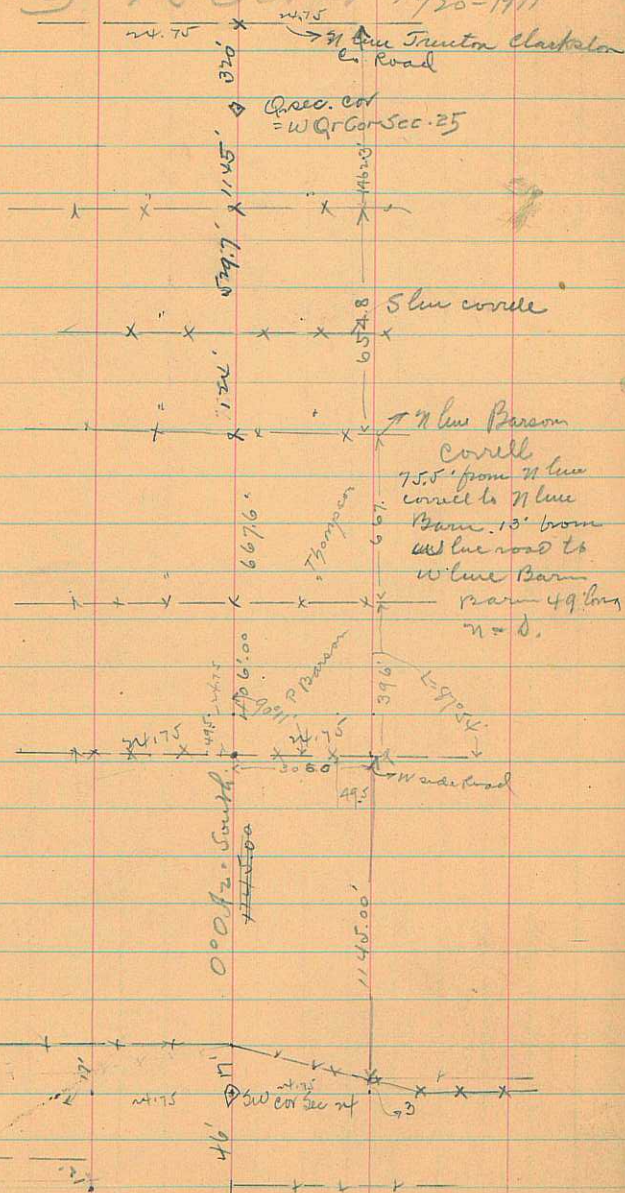
48



149 Survey of Clarkston
County Road 10/20-1911

Oct. 20-21 - Chambers
Hanson
Roy, Stewart
Carlson

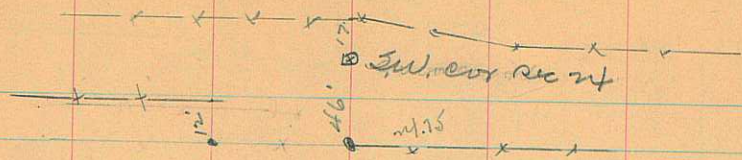
Total 3 Days
= Oct 14-20-21
50



6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

306'
24.75'
281.25'

South



9600.20

S



part of sec 24

AZ = 117.9° 50'



part of sec 24

41.15

41.15

1310.2

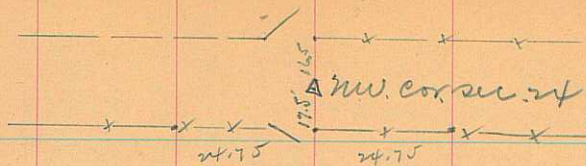


part of sec 24

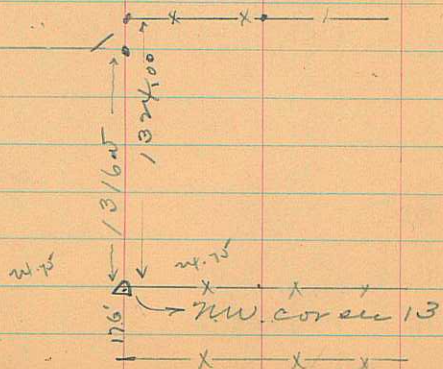
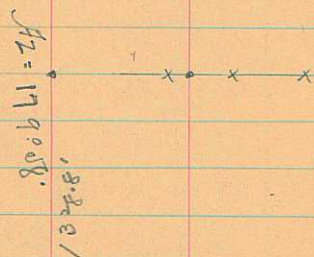
NW cor Sec 24

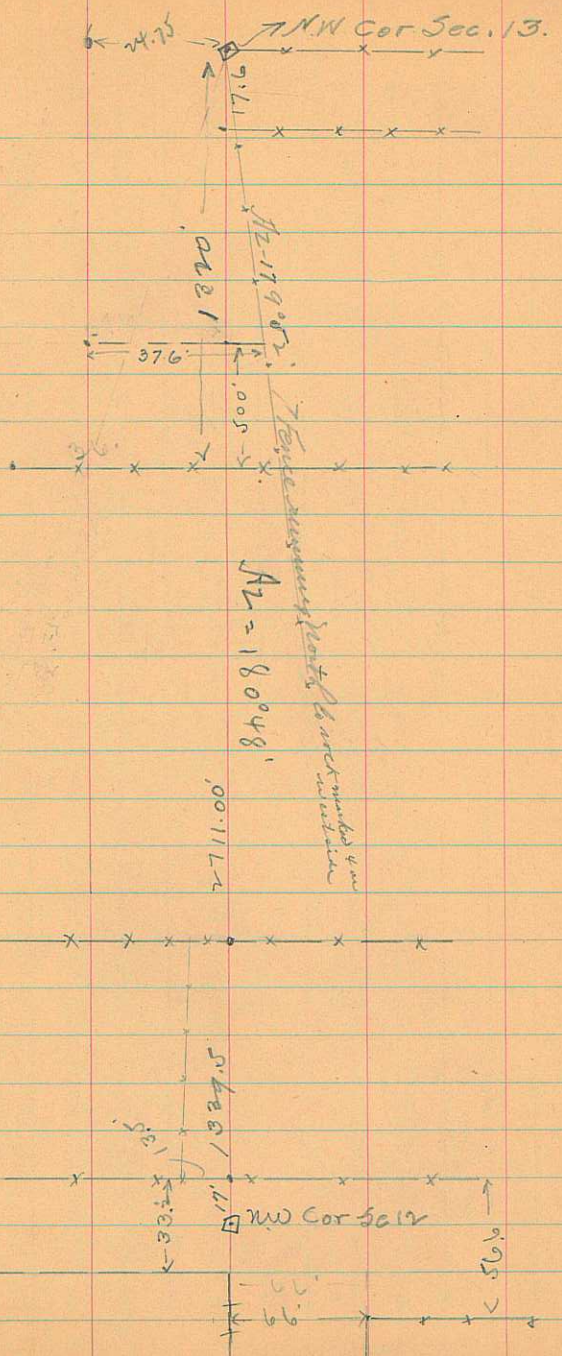
115.16.5

$$\begin{array}{r} 46 \\ 25 \\ \hline 111 \end{array}$$



5.
↑





$$\frac{21.5}{28.}$$

57 Survey of and Center Grades of
 Benson N. Cut-off Road. - Continued from
 page 75. Cache County Book No. 1.

28

Sta	+ 3	H.I.	- 3	Elev.	Gr	\$ Fill
Forward.		110.55				
78			4.8	105.7	107.4	1.7
77			4.4	106.1	107.	.9
76			4.7	105.8	106.6	.8
75			5.3	105.2	106.2	1.0
74			6.2	104.3	105.8	1.5
T.P.			5.90	104.65		
	3.22	107.87				
73			4.2	103.7	105.4	1.7
72			4.7	103.2	105.3	2.1
71			5.0	102.9	105.1	2.2
70			5.7	102.2	105.0	2.8
69			5.6	102.3	104.9	2.6
68			6.2	101.7	104.8	3.1
67			6.5	101.4	104.6	3.2
T.P.			6.07	101.80		
	5.98	107.78				
66			5.7	102.1	104.4	2.3
65			5.2	102.6	104.2	1.6
64			5.3	102.5	104.1	1.6
63			5.4	102.4	104.0	1.6
T.P.			6.37	101.41		
	4.86	106.27				
62			4.6	101.7	102.8	2.1
61			5.4	100.9	103.7	2.8
60			5.5	101.8	103.6	2.8

on W. Pipe at Cor. D. side ditch

59

Cont

Sta +5 17.1 -5 Elev. Gr

106.27

57 5.5 100.8 103.5

58 5.3 101.0 103.3

57 4.5 101.8 103.1

56 3.2 103.1 103.

55 3.2 103.1 102.9

54 102.8

60

±
Fill

2.7

2.3

1.3

Gr.

"

±

50' N of D twin Bridge.

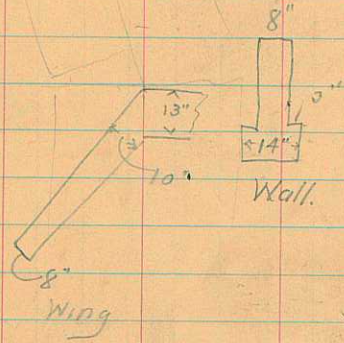
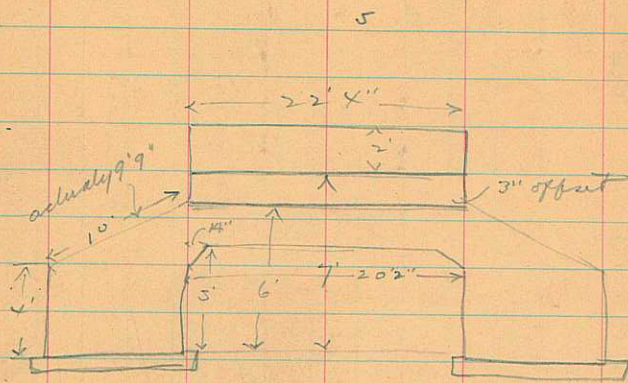
100

B.S. H.I. F.S. Elev

1.913 100

101.91

Clarkston Creek Bridge



Clarkston Culvert

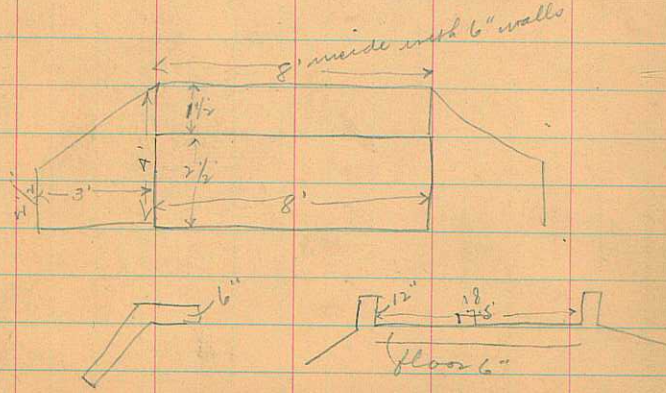


TABLE IV.—MINUTES IN DECIMALS OF A DEGREE.

1'	.0167	11'	.1833	21'	.3500	31'	.5167	41'	.6833	51'	.8500
2	.0333	12	.2000	22	.3667	32	.5333	42	.7000	52	.8667
3	.0500	13	.2167	23	.3833	33	.5500	43	.7167	53	.8833
4	.0667	14	.2333	24	.4000	34	.5667	44	.7333	54	.9000
5	.0833	15	.2500	25	.4167	35	.5833	45	.7500	55	.9167
6	.1000	16	.2667	26	.4333	36	.6000	46	.7667	56	.9333
7	.1167	17	.2833	27	.4500	37	.6167	47	.7833	57	.9500
8	.1333	18	.3000	28	.4667	38	.6333	48	.8000	58	.9667
9	.1500	19	.3167	29	.4833	39	.6500	49	.8167	59	.9833
10	.1667	20	.3333	30	.5000	40	.6667	50	.8333	60	1.0000

TABLE V.—INCHES IN DECIMALS OF A FOOT.

1-16	3-32	1/8	3-16	1/4	5-16	3/8	1/2	5/8	3/4	7/8
.0052	.0078	.0104	.0156	.0208	.0260	.0313	.0417	.0521	.0625	.0729
1	2	3	4	5	6	7	8	9	10	11
.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167

TABLE VI.—RADI, ORDINATES AND DEFLECTIONS.

Deg.	Radius	Mid Ord	Tan Def.	Chd. Def.	Def for 1 Foot	Deg.	Radius	Mid Ord	Tan Def.	Chd. Def.	Def. for 1 Foot
0° 10'	34377.	.036	.145	.291	0.05'	7° 0'	819.0	1.528	6.105	12.21	2.10'
20	17189.	.073	.291	.582	0.10	20'	781.8	1.600	6.395	12.79	2.20
30	11459.	.109	.436	.873	0.15	30	764.5	1.637	6.540	13.08	2.25
40	8594.4	.145	.582	1.164	0.20	40	747.9	1.673	6.685	13.37	2.30
50	6875.5	.182	.727	1.454	0.25	50	716.8	1.746	6.976	13.95	2.40
1 10	5729.6	.218	.873	1.745	0.30	20	688.2	1.819	7.266	14.53	2.50
20	4911.2	.255	1.018	2.036	0.35	30	674.7	1.855	7.411	14.82	2.55
30	4297.3	.291	1.164	2.327	0.40	40	661.7	1.892	7.556	15.11	2.60
40	3819.8	.327	1.309	2.618	0.45	50	637.3	1.965	7.846	15.69	2.70
50	3437.9	.364	1.454	2.909	0.50	20	614.6	2.037	8.136	16.27	2.80
2 10	3125.4	.400	1.600	3.200	0.55	30	603.8	2.074	8.281	16.56	2.85
20	2864.9	.436	1.745	3.490	0.60	40	593.4	2.110	8.426	16.85	2.90
30	2644.6	.473	1.891	3.781	0.65	50	573.7	2.183	8.716	17.43	3.00
40	2455.7	.509	2.036	4.072	0.70	20	546.4	2.292	9.150	18.30	3.15
50	2292.0	.545	2.181	4.363	0.75	30	521.7	2.402	9.585	19.16	3.30
3 10	2148.8	.582	2.327	4.654	0.80	40	499.1	2.511	10.02	20.04	3.45
20	2022.4	.618	2.472	4.945	0.85	50	478.3	2.620	10.45	20.91	3.60
30	1910.1	.655	2.618	5.235	0.90	20	459.3	2.730	10.89	21.77	3.75
40	1809.6	.691	2.763	5.526	0.95	30	441.7	2.839	11.32	22.64	3.90
50	1719.1	.727	2.908	5.817	1.00	40	425.4	2.949	11.75	23.51	4.05
4 10	1637.3	.764	3.054	6.108	1.05	50	410.3	3.058	12.18	24.37	4.20
20	1562.9	.800	3.199	6.398	1.10	20	396.2	3.168	12.62	25.24	4.35
30	1495.0	.836	3.345	6.689	1.15	30	383.1	3.277	13.05	26.11	4.50
40	1432.7	.873	3.490	6.980	1.20	40	370.8	3.387	13.49	26.97	4.65
50	1375.4	.909	3.635	7.271	1.25	50	359.3	3.496	13.92	27.84	4.80
5 10	1322.5	.945	3.718	7.561	1.30	20	348.5	3.606	14.35	28.70	4.95
20	1273.6	.982	3.926	7.852	1.35	30	338.3	3.716	14.78	29.56	5.10
30	1228.1	1.018	4.071	8.143	1.40	40	319.6	3.935	15.64	31.29	5.40
40	1185.8	1.055	4.217	8.433	1.45	50	302.9	4.155	16.51	33.01	5.70
50	1146.3	1.091	4.362	8.724	1.50	20	287.9	4.374	17.37	34.73	6.00
6 10	1109.3	1.127	4.507	9.014	1.55	30	274.4	4.594	18.22	36.44	6.30
20	1074.7	1.164	4.653	9.305	1.60	40	262.0	4.814	19.08	38.16	6.60
30	1042.1	1.200	4.798	9.596	1.65	50	250.8	5.035	19.94	39.87	6.90
40	1011.5	1.237	4.943	9.886	1.70	20	240.5	5.255	20.79	41.58	7.20
50	982.6	1.273	5.088	10.18	1.75	30	231.0	5.476	21.64	43.28	7.50
6 20	955.4	1.309	5.234	10.47	1.80	40	222.3	5.697	22.50	44.99	7.80
30	929.6	1.346	5.379	10.76	1.85	50	214.2	5.918	23.35	46.69	8.10
40	905.1	1.382	5.524	11.05	1.90	20	206.7	6.139	24.19	48.38	8.40
50	881.9	1.418	5.669	11.34	1.95	30	199.7	6.360	25.04	50.07	8.70
6 30	859.9	1.455	5.814	11.63	2.00	40	193.2	6.583	25.88	51.76	9.00