

77

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MINING  
TRANSIT BOOK  
363

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Property of John W. Curo.

County Surveyor

Walker Minn.

$$\begin{array}{r} 26 \\ 26 \\ \hline 6 \end{array}$$

Chas Sterns

attorney



38.2

$$\begin{array}{r} 27 \\ 189 \\ \hline 349 \\ 729 \\ \hline 1568 \\ 3 \\ \hline 4707 \\ 69 \\ \hline 32700 \\ 700 \end{array}$$



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Bay Lake Co Road 142-28 Baldwin 3 to 64  
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Buck 6" No. 40 East

N.P. 30 So. 22 East 28 Links

OAK 5" So. 72 West 59 "

" 6" No. 51 " 30 "

" 5" So. 33 East 31 "

N.P. 30 " 22 West 57 "

S.W.P. 33 No 35 " 28 "

W.P. 34 " 30 East 40 "

Poplar 5 " 82 " 19 "

Oak 6 " 51 West 40 "



# Time Sheet for Boy Lake Road Month of May 1916.

24 25 26 27 28 29 30 31

Baldwin Jarold F.

Tusler Ernest L.

Clark Dave

Aiton Herbert

Reinke Wm. M.

L.E.M. X for Bond

7.00

Baldwin

Tuslers

Maintenance Bill 11.00 + Bond 8.50 = 19.50

" " " Aiton 11.00

" " " Reinke, 2 days 20.00

Tuesday Bill for Baldwin 40.00 + 10.00 = 50.00

" " " Tusler 16.00 + 6.00 = 22.00

" " " Reinke 4.00 + 4.00 = 8.00

" " " L.E.M. X 7.00 + 4.00 = 11.00

" " " Reinke 4.00 + 1.00 = 5.00

22.50  
3.00

= 288



4.

## — Boy Lake

Wed. May 24<sup>th</sup> 1916. — Fine Day.

Breakfast 6.30 A.M. Mix farm.

Baldwin &amp; Tusler taking Transit and other surveying tools etc. Start from Mix place to start survey off the Boy Lake Road.

We go to  $\frac{1}{4}$  Cor bet secs. 10 & 15  
Twp. 142 Rg. 28 where we find  
Gov't. B.T.A. we continue  $\frac{1}{2}$  mile  
west to sec. Cor. 9-10-15-16.  
where U.S. notes call for full B.T.A.

Maple 6 N 27 E 24 = 15.84 ft.

Iron Wood 12 N 31 W 18 = 11.88 " gone

Bass " 5 S 56 W 21 = 13.86 "

" " 9 S 38 E 13 = 8.58 " gone

We find the Maple and 5" Bass Wood.

We now go to Dave Clark's place sec.  
15 - 142 - 28 and who agrees to  
board us while we are working  
nearby.Baldwin & Tusler have dinner at  
Clark's & hire Dave Clark &  
Hert. Aiton as brush cutters.

P.M. Baldwin - Alox Transit &amp; chain

Tusler - Flag &amp; chain

Clark - Axeman

Aiton - " M. J. Baldwin



Road—

5.

Wed. May 24<sup>th</sup> Continued.

288

Weather continues fine.

Jusler & Clark go to fetch Transit etc from cache about a mile north.

Baldwin with Anton go to Cr. 9-10-15-16. where Baldwin sets, but at true Cr. from B.T.s which now stand as follows.

Maple 6 N 73 E 14.67 ft.

Bass Wood 12 S 72 W 12.83 " { U.S. notes call this 13.75" Bass Wood

The roots of the Ironwood U.S. B.T. remain and the stump of a Basswood which some cruiser has marked B.T. stands

N 50 W - 33

We start Random line East on  $8^{\circ}30'$  Var.

At 1080.1 E 2 hut

" 1700.8 E 2 hut

" 2173.0 E " "

" 2437.2 E " "

Handwritten note: "The line found some 100 paces from here"

At 2702.0 E True  $\frac{1}{4}$  Cr sets South 1.10 ft. as this is so near true line

we will set no correction stakes on this half mile. Quit for Night.

Baldwin & Jusler go to Clark's for night. H. J. Baldwin.



6.

## - Boy Lake

Thursday May, 25<sup>th</sup> 1916.Shower 6<sup>30</sup> AM. Fair Day. strong wind.Breakfast at Clark farm 6<sup>30</sup> AM.

All Day { Baldwin - Abc Transit & Chain  
 Insler - Flag arc & chain  
 Clark - Abcman.  
 Aiton - "

Going to  $\frac{1}{4}$  Cor. between sec. 10 & 15.  
 where U.S. notes call for foll. B.T.s.

Elm 13 N  $10^{\circ}$  W 8 = 5.28 ft

Maple 6 S 16 W. 23 = 15.18 "

From these B.T.s. we set a hub at  
 true  $\frac{1}{4}$  Cor. These B.T.s. now stand as follows.

U.S. notes  
 call this an Elm

Basswood 13 N  $20^{\circ}$  W 6.40 ft.

Maple 6 S  $26^{\circ}$  E 18.10 "

We deflect  $30^{\circ}$  North and start a Random  
 line East, on  $9^{\circ} 00'$  Var.

at 225.2 E a hub.

" 933.7 E a "

" 1260 E Schoolhouse sits 70' North.

" 1401.7 E a hub.

" 1565.8 E " "

" 1879.6 E " "

" 2041.8 E " "

This is fairly " 2130 E Enter Tamarac Swamp.

well drained " 2670 Cross drainage Ditch.

H.F. Baldwin

Very fair place for  
 road after our places

11288



Road —

288

7

Thursday May 28 Continued.

At Cor 10-11-14-15 U.S. notes call for foll. B.T.s.

Jan 6 N 80 E 26 = 17.16 ft. (stamp)

W.P. 8 N 25 W 65 = 42.90 " (stamp) Mainly marked.

Jan. 5 S 43 E 62 = 40.92 " gone

Spruce 4 S 70 W 89 = 58.74 " (gone)

1. Tamarac Corner Post with scribe marks sets correct distance from B.T.s. We quit for dinner.

P.M. At 2702.2 East the True Sec Cor

10-11-14-15 sets South 36.3 ft.

Correction — [013441]

Hub at 225.3 E goes South 3.03 ft. ✓

" " 933.7 E " " 12.55 " ✓

" " 1401.7 E " " 18.84 " ✓

" " 1565.8 E " " 21.05 " ✓

" " 1879.6 E " " 25.27 " ✓

" " 2041.8 E " " 27.44 " ✓

after starting a random line north from Sec. Cor. 10-11-14-15 on 3° 30' Var. Baldwin and Aiton correct East Random line as shown above.

Jusis and Clark Continue North on random line bet. secs. 10 and 11. 142-28.

At 076.0 N a hub.

" 350 N leave Tamarac Swamp.

" 498.6 N a hub.

" 710.2 N

Quit for night. Baldwin & Jusis at Clark's overnight  
J. Baldwin.



## - Boy Lake

Friday May 26<sup>th</sup> 1916.Shower 5.30 A.M. Mists in forenoon June in P.M.  
Breakfast at Clark's 6.30 A.M.

Bachwin Also Transit &amp; Chain

Jusler Flag axe &amp; Chain.

Clark Axeman

Aiton Axeman

We take lunch and continue Random  
Line between Secs. 10 and 11.

At 960 N Cross Logging Road E &amp; W.

" 1263.3 N a hub.

" 1600 N across a logging Road NW &amp; SE

" 1870.3 N a hub

" 2514.8 N " "

" 2630 N fence E &amp; W

" 3106.8 N a hub

" 3700 N Cross Logging Road NW-S

" 3800.0 N a hub.

" 4641.0 N a hub in Clearing

At 5279.0 N. the True Sec. Cor. E-3-10-11.

sets West 90° 154.30 ft. where U.S. notes

call for Bipler 15 S 40 E 3 = 1.98 ft roots stump

" 12 N 45 W 4 = 2.64 " roots stump

Maple 4 S 30 E 18 = 11.88. Gone

" 4 N 20 W 32 = 21.12 " roots marks showing

We set hub at true Sec. Cor. from remaining B.T.

N.F. Bachwin

280

This is a fair place for  
Road - some low places



Road —

288

9.

Set New B.T.s. with Tack. Maple 7 S 53 E 78.° ft.

Soft Maple 8° N 78 W 37.4° ft.

The stumps of two old B.T.s set by Cruisers remain but I ignore them in setting Corner.

We start a Random line north bet. secs 2 & 3.

on 10° Var. Insler and Aiton continue

Random North bet. Secs. 2 & 3.

Baldwin & Clark go to 1/4 Cor. bet. Secs.

10 & 11 where U.S. Notes call for full B.T.s.

W.P. 20 N 33 E 15 = 9.90

<sup>No scrub maple</sup> <sup>Probably</sup>  
Burnt stump of B.T.

W.P. 18 N 37 W 22 = 14.52

Lays flat on the ground  
B.T. stumps are showing.

We set stake marked 1/4 Cor. from B.T.s

The old B.T.s now stand as follows.

20 W.P. Stamp sets N 38 E

18 W.P. lying on ground sets N 33 W

A New B.T. with tack in center of Blaze sets as foll.

Hard Maple 6° S 60 W 38.50 ft.

At 2639.5 N on our Random line the true  
1/4 Cor. sets West (90° turned with Survey Compass)

96.30 ft.

We quit for night. Baldwin & Clark & Insler  
reaching Clark house at 6<sup>00</sup> P.M.

Baldwin & Insler remain at Clark's over  
night.

In evening Baldwin figures corrections  
for Random line bet. sec 10 & 11 - 142 - 28  
as shown on foll. page H. F. Baldwin



## — Bay Lake

Friday May. 26<sup>th</sup> Continued.Corrections for Random Line North  
let. sec. 10 & 11. - Twp 142. R. 98.

$$2639.5 \div 96.30 = [0.36484]$$

$$2639.5 \div 58.00 = [0.21974] + 96.30 \text{ ft.}$$

Hub at 498.6 goes West 18.21 ft.

" " 710.2 " " 25.90 "

" " 1263.3 " " 46.08 "

" " 1870.3 " " 68.23 "

" " 2514.8 " " 91.66 "

Stake " 2639.5 " " 96.30 " Set from  
B.T.S.

hub " 3106.8 " " 108.76 "

" " 3800.0 " " 121.94 "

" " 4641.0 " " 140.26 "

Stake at 5279.0 " " 154.30 " Set from  
B.T.S.

H. J. Baldwin



Road —

11.

Saturday

May. 27<sup>th</sup> 1916.

1288

Fine Day

Strong Wind from south west.

Breakfast at Clark's 6:30 A.M.

Juster and Aiton taking lunch for all of us go to where they quit last night and continue Random Line North bet. secs. 2 & 3. trip 142. Rg 28.

Baldwin and Clark taking Gurley Compass and 100 ft. chain. Correct Random Line between secs. 10 & 11 as shown on opp. page. When this line is corrected we chain North on random line bet 2 & 3. Chaining north from Cr. 2-3-10-11.

At. 739.1 N a hub.

" 1115.5 N a hub.

" 1680.2 N " "

" 2211.9 N " "

Mostly low  
rock & will  
have to be well  
drilled

We quit for dinner.

P.M. Continuing north bet. secs 2 & 3 working same crew as in A.M.

At. 2378.4 N a hub.

" 2586.5 N a Cruiser's 1/4 Cor sets 100 ft West

" 2673.7 N a hub.

" 2750 N Logging Road bears N.W. x S.E.

" 3030.30 N a tack on W.P. root. in Wagon Trail.

" 3200 N a Saw Mill sets East 300 ft.

N.J. Baldwin.

This is mostly low wet  
land & must be drilled  
to have good road.



12.

- Bay Lake

Saturday May 27<sup>th</sup> Continued.

Continuing North let. Secs 2 &amp; 3.

This will be  
Expensive  
to build

Fair place for road

280

- |   |    |        |   |                                 |
|---|----|--------|---|---------------------------------|
| { | At | 3300   | N | Enter Tamarac Swamp.            |
|   | "  | 3450   | N | Leave " "                       |
|   | "  | 3580.° | N | a hub                           |
|   | "  | 4219.° | N | a hub on Wagon Road.            |
|   | "  | 4400.° | N | a hub                           |
| { | "  | 4450   | N | Cross Wagon Road west of north. |

This is all heavy cutting. Small brush & some big trees.

We quit for night.

Baldwin & Insler go to Clark's for night, reaching there 6.30 P.M.

It is an long walk we must quit earlier tomorrow.

H. F. Baldwin.



Road. -

13.

Sunday May 28<sup>th</sup> 1916.

288

Fine Day all the time.

Breakfast at Clark's at 7.00 A.M.

Baldwin - Insler - Clark - Aiton.  
go to Random Line bet. secs. 2 & 3.  
Continuing North.

At " 5109.0 N the True Sec Cor sets  
West (90° turned with Transit) 220.0 ft.

At Cor 2-3-34-35 U.S. Notes call  
for. Ash 12 N 20 E ~~18~~<sup>8</sup> = 5.20 ft. - Gone.

Ironwood 6 N 45 W 20 = 13.20 " - Gone.

Ash 8 S 75 E 18 = 11.88 " Stamp stands  
- B.T. plainly showing.

Spurce 5 S 35 W 20 = 13.20 " - Gone.

One of these B.T.s remains. In order to  
find the B.T. scribe marks on this tree  
we have to chop in 3 or 4 or inches.

I set a hub with tack from B.T. standing  
as follows. Ash 8 S 75 E 18 = 11.88 ft.

By time we have found this B.T. & set  
Corner and tied in to Random Line  
we quit for dinner.

P.M. We start Random Line East in 8° 30' Var  
at 220.0 E = 5103.4 N is P.I. of  
Random Line S.W. Angle 91° 27'.

At 200.0 E Cross Road runs nearly north

721.0 E a hub

1509.1 E a hub

N.J. Baldwin

Good place for Road.



## Boy Lake

Sunday May 28<sup>th</sup> Continued.

While Insler and Clark & Aiton  
are continuing East on Random  
Line Baldwin goes to look for  
B.T.s. between Secs. 2 & 3 - 142-28  
We quit for night. Baldwin & Insler  
go Mix for the night & supper.

At Mix place we find letters from  
Curo containing some of the  
Transcript field notes of U.S.  
survey of Twp. 142 Rg 28.

H. J. Baldwin

282

Kind-  
none



Road -

15.

Monday May 29<sup>th</sup> 1916.

288

Beautiful Day - Warm.

Breakfast at Mix farm. 6.30 A.M.

Baldwin - Fuster - Clark - Aiton. continued  
East on Random Line at north of Twp. 142  
Rg. 28. bet secs 2 & 35.

At 2334.0 E a hub.

" 2654.8 E the True  $\frac{1}{4}$  Cor bet  
secs. 2 & 35. Sets North 34.8 ft. [01311]  
At this  $\frac{1}{4}$  Cor. the U.S. Notes call for full B.T.

Ironwood 6 N 3 E 10 = 6.60 ft. Gone  
Sugar Maple 12 S 50 W 40 = 26.40 " B.T. scrub marks  
plainly showing.

By Chopping into the Maple thry or four  
inches we see the old scribe marks B.T.  
are plain. I reset this corner at distance  
and course as called for in U.S. Notes.  
The Ironwood stood where is now a  
waggon road & has been grubbed out.

At 2666.7 E a hub.

We continue line east. Quit for dinner.  
P.M. Fuster & Clark & Aiton continue  
Random Line East.

At 3015.1 E a hub. } hard to find

" 4392.0 E " " } part of this.

Baldwin remains in house & figures  
corrections & then takes Clark.

H. J. Baldwin



## Boy Lake

Monday, 29<sup>th</sup> of May Continued -  
 & goes to Random Line bet.  
 secs 2 & 3 where we correct  
 line as follows.

5109.<sup>0</sup> N and Chain = 5245.<sup>02</sup> W.S. Chain

5245.<sup>02</sup> goes 136.<sup>02</sup> South to 5109.<sup>0</sup>

at 5109.<sup>0</sup> true Cor sets West 220.<sup>0</sup> ft

[.043061]

Stub at 739.<sup>1</sup> goes West 31.83 ft

" " 1115.<sup>5</sup> " " 48.<sup>03</sup> "

" " 1680.<sup>2</sup> " " 72.<sup>34</sup> "

" " 2211.<sup>9</sup> " " 95.<sup>26</sup> "

Temp. Cor. at 2640 goes South to 2571.<sup>5</sup>

1/4 Cor at 2571.<sup>54</sup> thence West 110.<sup>73</sup> ft.

Stub at 3030.<sup>5</sup> goes West 130.<sup>50</sup> ft

" " 3580.<sup>0</sup> " " 154.<sup>56</sup> ft.

" " 4400.<sup>0</sup> " " 189.<sup>47</sup> ft

Stake " 5109.<sup>0</sup> " " 220.<sup>0</sup> ft

to True Sec Cor.

Insel & Aiton are continuing East  
 on Random Line bet. secs. 2 & 35.

Bachman & Insel at Mix's overnight

If the day is fine tomorrow & no  
 rain tonight Clark & Aiton will  
 not work with us but must  
 do their planting. H.F. Bachman.



Road.

288

17.

Tuesday May. 30<sup>th</sup> 1916.

Beautiful Weather Warm all day.

Breakfast at Mix farm 6.20 A.M.

Baldwin hires Bill Reinke to cut brush.

Baldwin - Aloc. Transit & chain.

Insler - Flag & chain.

Reinke - Axeman.

Continuing East on Random Line bet.  
Secs 2 & 35.

At	4850	E	Cross Log Road - Creek Nbs
"	5129.2	E	a hub. } this was cut out
"	5519.6	E	" " } yesterday but not
"	5938.4	E	the True Sec. Cor. } chain.

1-2-35-36 sets North 91.0 ft. E

At this Cor. the U.S. notes call for follow.

Birch 12 N 66 E 7 = 4.60 ft

" 8 N 64 W 13 = 8.58 "

" 6 S 20 W 16 = 10.56 "

Spence 5 S 64 E 10 = 6.60 "

These trees are gone but the Cor. Post has been established by a later survey & it is accepted by the natives as correct. since this Country was open for Homesteads. While we tie in this corner to Random line Reinke drives his axe into log & cuts in two and 100' steel chain. Baldwin sends him to Ramer to have chain mended.

N. F. Baldwin.



Tuesday May 30<sup>th</sup> Continued.

Baldwin & Insler start a Random Line East from Sec Cor. 1-2-35-36. along Trwp. line on  $8^{\circ} 30'$  Var.

At 241.6 E Stuck at P.I.

N & S Random Line bet. Secs. 1 & 2 S.W. angle  $89^{\circ} 11'$ .

We quit for dinner.

P.M.

Baldwin & Insler take Gurley Compass and pace East along Trwp line bet. Secs 1 & 36 to Trwp Cor. 1-6-31-36 where we find the True Cor. The U.S. Notes call for full B.Ts.

White Oak 5 S 12' = 7.92 ft.

Birch 5 N 40 E 17 Gone.

W.P. 36 West 9 = 5.94 ft.

The stump of the 36" W.P. & 5" W. Oak remain but no scribe marks visible.

This country was burned last summer. Guy Mix is willing to testify that he saw scribe marks on W.P. before the fire. This without doubt is the True Trwp. Cor. Both stumps check out for distance with present wooden corner.

Baldwin & Insler return & continue to cut Random line East bet. Secs 1 & 36.

Baldwin & Insler at Mix's overnight

Reinke returns with 100' chain mended. H. J. Baldwin.



Road.

19.

Wednesday. May. 31<sup>st</sup> 1916.

288

A.M. Cloudy. light shower in A.M. 3 P.M. heavy shower [Rain continues till 5 P.M.]  
Breakfast at Mix's 6.15 A.M.

Baldwin - Aloe Transit & Chain

Tusler - Flag & chain

Reinke - Areman.

Chaining East on Random line bet. Secs. 1-36

At 405.6 E a hub Wagon Road 3' Rt

" 747.7 E a " " " 15' Left.

" 1372.4 E " " " " 6' Rt.

" 2068.6 E " " " " 8' Left.

" 2246.7 E " " " " 30 "

" 2430 E Enter Wet Meadow.

" 2610 E Leave " "

" 2616.6 E a hub

" 3038.0 E a hub.

Good Place for Road -

When the rain strikes us about 3 P.M. we quit work. It continues to rain & we go to house where we remain balance of day.  
Baldwin & Tusler at Mix's over night.

N. J. Baldwin.



## - Boy Lake

Thursday - June 1<sup>st</sup> 1916.7<sup>00</sup> AM Cloudy threatens rain. 9<sup>00</sup> AM Sun comes out P.M. Rain.Breakfast at Mix 6<sup>20</sup> AM.

2

Baldwin - Aline Transit &amp; chain

8

Tusler - Flag &amp; chain &amp; axe.

2

Reinke - Axeman

Going to Random Line between Secs. 1 &amp; 36 we continue East.

at	3275.0°	E	a hub.	} Fair place for Road Some good ditches made
"	3699.5°	E	" "	
"	4263.0°	E	" "	
"	4800.0°	E	" "	
"	5319.4°	E	True Twp. Cor. Sets	
with	59.40	ft		

We quit for dinner.

P.M. Baldwin makes out some hills to Cass Co.

Tusler starts out to work but as it begins to rain he returns bringing in Transit. About 4<sup>30</sup> P.M. we go out & start correcting Random line bet secs 1 & 36. as shown on page. We quit for

night. When in house during rain Baldwin figures Corrections.

Baldwin &amp; Tusler at Mix over night

A. J. Baldwin



Time Sheet for Boy Lake Road.

--Month of June 1916.

Road-

288

21.

[illegible]



Friday June 2<sup>nd</sup> 1916.

Fine Day Cool in Morning but gets hot in P.M.  
Breakfast at Mix 6.15 A.M.

Inslar & Reinke go to  $\frac{1}{16}$  Cor bet secs  
1 & 36 & start Random Line north toward  
river. Baldwin comes over towards noon  
& helps chain up as follows See fig. page 25.

at 386.5 N. a hub

" 770.7 N. " "

*part for Dinner*  
This chainage starts from Random Line & not from  $\frac{1}{16}$  Cor.

P.M. Inslar with Bob Mix go to Random  
Line running North from  $\frac{1}{16}$  Cor  
bet. secs 1 & 36 & cut brush & chain  
North Baldwin has chain correcting  
other Random Line.

After Baldwin & Reinke finish correcting  
Rogers Road they correct Random  
Line by secs 2 & 35 as follows.

Hub @ 220.0 goes North 2.88 ft.

" " 721.0 " " 9.45 "

" " 1509.1 " " 19.78 "

" " 2334.0 " " 30.60 "

Stake 2654.8 " " 34.80 " to

True  $\frac{1}{4}$  Cor. bet. secs 2 & 35. [01311]

Continuing East Baldwin & Reinke  
correct Random as shown on opp page.

A. J. Baldwin



Road-

288

23

Friday June 2<sup>nd</sup> 1916 Continued

Habit 3015.1 E goes North  $6.16 + 34.8 = 40.96$

" " 4392.0 E " "  $2.974 + " = 64.54$

" " 5199.2 E " "  $42.35 + " = 77.15$

Stake " 5938.4 E " "  $56.2 + 34.8 = 91.0$

to true Sec. Cor. 1-2-35-36,  $[.01712] + 34.8$

Baldwin charges his time to Rogers Road and Reink to Bay Lake Road as the work was done in about this proportion.

Baldwin & Insler at Mingo over night  
Receive mail from Caro & notice to go for mail at Bay River tomorrow.

On Random Line East bet secs 1 & 36

Hut @ 405.6 E goes North 4.53 ft.

" @ 747.7 E " " 8.53 "

" " 1372.4 E " " 15.33 "

" " 2068.6 E " " 23.11 "

" " 2246.7 E " " 28.10 "

Stake " 2659.7 E " " 39.70  $\frac{1}{4}$  Cor.

Hut " 3038.0 E " " 33.93 "

" " 3275.0 E " " 36.58 "

" " 3699.5 E " " 41.32 "

" " 3989.55 E " " 44.55  $\frac{1}{16}$  Cor

Stake " 5319.40 E " " 59.40 "

[.01117]



288

Saturday June 3<sup>rd</sup> 1916.

Cloudy A.M. Light showers. Heavy showers about 3 P.M.

Breakfast at Mox 6<sup>00</sup> A.M.Baldwin busy making out bills  
writing notes etc.Insler with Rinke continues Random  
Line North on East 1/16 line sec <sup>39</sup> 1-143-25

at 1675.3 N a hub

" 2002.0 N " " here we deflect  
26° 00' N.E. and start in to chain on  
this course with this hub as Zero

at 329.3 N.E. a hub

" 770 N.E. Old Log Station 180' left

" 780 N.E. Root house 2' left.

" 830 N.E. Log Ice house 30' Rt.

" 856.6 N.E. a hub Boat pier 25' Rt.

This hub is on South shore of Bay River.

The River here is about 300' across and  
the north shore is a swamp of  
dead Cedar about 3 ft. under water.  
Unless the water goes down we will  
have to wade. The water is cold.We will survey the road that is on  
dry land and leave this to the  
last when the weather is warmer.Baldwin comes down we all quit  
& return for dinner. N.F. Baldwin.



Road -

288

35.

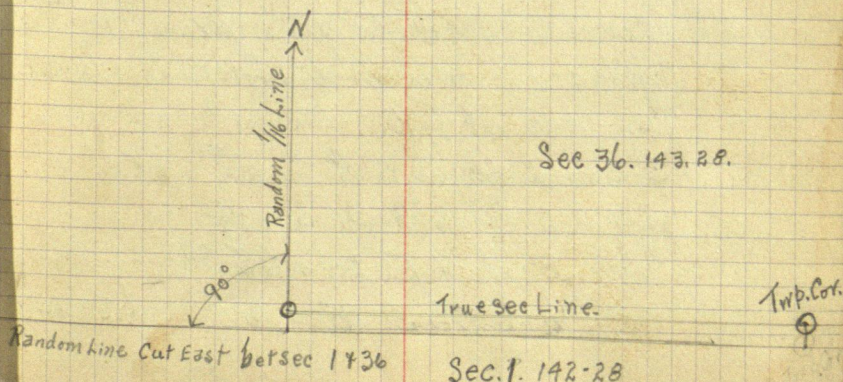
Saturday June 3<sup>rd</sup> Continued.

P.M. Baldwin & Insler at Mix pack up outfit and after dinner carry to Camp #3 where Robert Mix with Reink take us to Boy River. Fare \$1.00.

Arrived at Boy River we go to Post Office for mail. Receive County bill from Curo, which with Bills for Boy Lake Road & Rogers Road we sign before Notary. Baldwin pays. Notary fees 75¢ 2 bills for self & 1 for Insler.

We post above Bills to Curo together with Note Book on Rogers Road. parcel post insured for \$5.00 Postage paid by Baldwin. 10¢

Baldwin & Insler go to Hotel and wait for Henry Shower to be over. Rain continues for some time until it is too late to go out Cruising. We remain at Hotel in Boy River over night. H. L. Baldwin -





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Sunday June 4<sup>th</sup> 1916.

Cloudy in AM. Clears &amp; Fine rest of day.

Breakfast in Hotel at Boy River 7.<sup>30</sup> A.M.

Baldwin & Linder taking lunch & Gentry  
Compass & Field notes & 50' tape,  
walk up Soo line track towards  
Federal Dam. We find no one in  
Boy River that knows anything  
about corners on south side of  
Soo line tracks.

We see Pierson a homesteader on  
south side of track but can not or  
will not tell us much.

Mr. Lettman who lives on north side  
of track shows us  $\frac{1}{4}$  Cr in sec. 13.  
Twp. 143 Rg. 28. Here with Gentry Compr.  
we pass  $\frac{1}{4}$  mile West mostly through  
Tamarac Swamp to blazed sec. line  
bet secs. 13 and 14.

We pass south to sec. Cr. 13-14-23-24.  
Twp 143-28 where U.S. Notes call  
for foll. B.T.s.

Line 10 S 50 W 9 = 5.94 ft

" 10 N 36 W 20 = 13.20 "

" 8 N 9 E 39 = 25.74 "

" 6 S 73 E 25 = 16.50 (Gone)

H. J. Baldwin



Road-

288

27

Sunday June 4<sup>th</sup> Continued.

Three of these B.T.s remain with scribe plainly showing. Now stand as foll.

Jan 10 S 42 W 55

" " N 31 W } Correct dist. from B.T.s.  
12.7

" 8 N 11 E 25.8

We find an old Corner Post which sets O.K. for Course & distance. After cutting a little brush around Corner to make it more easily found we walk north  $\frac{1}{2}$  mile to  $\frac{1}{4}$  Cor. bet Secs 13 & 14. where U.S. Note call for foll. B.T.s.

Fix 12 S 73 N 48 = 31.68 ft. Decayed Stamp remains

" 5 N 10 E 62 = 40.92 " Tree stands scribe marks stump

We set a hub at true  $\frac{1}{4}$  Cor. at above distance from B.T. & stump, both of which check with above notes for bearing.

Bredwin & Insler now walk out to So Line track which we follow back to Boy River Hotel, where we arrive shortly after 5<sup>00</sup> P.M.

Bredwin & Insler remain at Hotel over night, both made inquiries for men to cut brush, but all men willing to work, are busy. We can use two or three good men to good advantage.

N. J. Bredwin.



288 Monday June 5<sup>th</sup> 1916.

Cloudy - Clears - Quite Warm in P.M.

Breakfast in Boy River Hotel. 6:15 A.M.

After Breakfast we try to hire men as Bush Cutters but no success.

Baldwin writes letter to Caro.

We find no one willing to work for us but one boy who has a sore hand & cannot use axe - They are paying 25 & 30¢ per hour. Working trees pulp wood etc.

Baldwin & Insler take lunch & walk up track we meet a man by name of Atherton who is building shack on North half of N.E.  $\frac{1}{4}$  Sec 35 Twp 143 Rg 37. We walk to his shack with Atherton about  $\frac{3}{4}$  of a mile on old logging road. all the way is wading to foot tops or over.

We go to shack & rest up & write notes, and eat our lunch.

Baldwin & Insler directed by Atherton go to  $\frac{1}{4}$  Cor 1st sec 30 Twp 143 Rg 37 and sec 35 Twp 143 Rg 38. This is on a ridge of high ground with the big swamp North & East.

A. J. Baldwin.



Road.

Page

288

29

Monday June 5<sup>th</sup> Continued-

P.M. Weather Fine. Warm.

At this  $\frac{1}{4}$  Cr. U.S. notes call for full B.T.

Sugar 10 N 30 E 17 = 11.88 ft. Gone.

" 12 S 75 W 11 = 7.26 Still Stands.

From the 12" B.T. we set a hut with tack at True  $\frac{1}{4}$  Cr.

Atherton can work for us in a few days but at present is busy making his shack habitable, so we decide to run these lines later & work near Federal Dam for the present.

We return through the big swamp to Los Line Tracks & Insler walks to Boy River to get out fit & go via train to Federal Dam June 19<sup>th</sup>.

Baldwin walks up track towards Federal Dam & tries at farm houses for men to work & a place to board.

Mr. Way. is willing to work when the line is near his home. We find a place to board at Mr. Harmon's (B.A.).

After making arrangements for board etc. Baldwin walks to Federal Dam & meets Insler. We take part of survey outfit & pack to Harmon's. Baldwin & Insler have supper & lodging at Harmon's.

H. F. Baldwin



Tuesday June 6<sup>th</sup> 1916.

A.M. Fair but threatens. P.M. Shower about 3.30. <sup>Continues</sup> Rain.

Breakfast at Harmon's 6.15 A.M.

Baldwin - also Transit

Inslar - Flag & Chain

Way - Axeman

Going to 1/4 Cr. lot secs 13 & 14 Twp. 14 S

Rg 28. where Baldwin & Inslar established

June 4<sup>th</sup> 1916 See page 27 this Book.

This 1/4 Cr. sets. at N.W. corner of a  
lay meadow. We chain South 8° 30' 10"

At 100 S Leave Meadow

" 186.3 S a hub on top of Ridge

" 300 S Enter Swamp of Cedar & Tom.

" 405.4 S a hub in " " "

" 831.6 S " " " " " "

" 1225.6 S " " " " " "

" 1648.7 S " " " " " "

" 2103.7 S " " " " " "

It rains and we quit for day in  
the field. We reach home about  
4.30 P.M. wet. The rain continues  
at intervals balance of P.M.  
Baldwin writes field notes  
Baldwin & Inslar stay at  
Harmon's overnight.

N. J. Baldwin

This will be an expensive  
half mile of road.  
Some of it very wet today.



Road.

31.

Wednesday June 7<sup>th</sup> 1916. 1288

Cloudy & threatens Rain but continues Fair.

Breakfast at Harmon's 6.15 A.M.

Baldwin - Insler - Way - [Comet road works up] Harmon.

We go to Random line & continue south  
bet secs 13 & 14.

At 2646.6 S. True Sec Cor. 13-14-  
23-24. Sets East 20.6 ft. This Cor.  
sets in Swamp Baldwin & Insler located  
this Cor when Crossing June 4. 1916 See page  
27 this book. [007784] East.

Hub at 186.3 S goes East 1.45 ft.

" " 405.4 S " " 3.16 "

" " 831.6 S " " 6.47 "

" " 1225.6 S " " 9.54 "

" " 1648.7 S " " 12.83 "

" " 2103.7 S " " 16.27 "

" " 2646.6 S " " 20.60 " Sec. Cor.

From Sec. Cor. 13-14-23-24. We start  
a new Random Line south on  $8^{\circ}30'$  Var.  
Chaining south bet. secs 13 & 24.

At 300 S Leave Swamp Cedar & Tamar

" 441.4 S & hub.

" 719.6 S & "

" 850 S Enter Swamp not required

We quit for Lunch

A. J. Baldwin



32.

Boy Lake.

288

Wed. June 7<sup>th</sup> Continued.

P.M.

After lunch Baldwin walks up to Herbert Forsberg's place N.W.  $\frac{1}{4}$  Sec 24. 143-28. He agrees to work for us in P.M.

Baldwin-Tasler-Way-Harmon-Forsberg.  
Continuing South bet Secs 23 & 24-

At.	1400	S	Leave wet ground Enter high land	
"	1424.6	S	a hub.	} Very Good place to build a Road
"	1700.0	S	" "	
"	2449.5	S	" "	
"	2634.2	S	" "	

About 3 P.M. Baldwin & Armstrong leave and go to Random line South from  $\frac{1}{4}$  Cor bet Secs 13 & 14 and correct huts as shown on page 31.

Tasler-Way & Forsberg continue South bet Secs 23 & 24.

Upon reaching Harmon's we find Howard Swenberg who brings letter from Caro saying he is to work on this survey.

Baldwin-Tasler-Swenberg at Harmon's for supper & lodging.

N.F. Baldwin.

Swenberg has been hunting up I.M.O. for use in survey of Boy Lake Road.



Road.

33

Thursday June 8<sup>th</sup> 1916. 288

Rain in A.M. until about 9<sup>00</sup> Fair in P.M.

Breakfast at Harmon's 6<sup>15</sup> A.M.

Do not go out to work <sup>Baldwin writes notes</sup> on account of rain. Baldwin, Insler & Swenberg remain at Harmon's, waiting for weather to clear.

We have an early dinner & leave about 12 o'clock for Random Line bet Secs 23-24. which we continue South

Baldwin - Alce Transit & Chain.

Swenberg - Flag & Chain.

Insler - Ape & Chain.

Way - Axeman.

Insler -

At	3254.0	S	a hub.	} Good place to build a good Road cheap.
"	3586.6	S	" "	
"	4072.0	S	" "	
"	4805.7	S	" "	
"	5200.	S	Enter Swamp.	
"	5480	S	Leave "	
"	5576.0	S	a hub.	
"	5800	S	Enter Swamp	

We look about for sec Cor. 23-24-25-26 but this country has been burnt off a couple of times & we find no B.T.S. so continue Random South. Baldwin, Insler and Swenberg. Supper & lodging @ Harmon's. Reach home 6<sup>00</sup> P.M. N. J. Baldwin



288

Friday June 9<sup>th</sup> 1916.A.M. Rains at 5<sup>30</sup> A.M. Threatens but only light shower

P.M. Rains 1.45 to 3.00 P.M. then clears.

A.M. Baldwin & Swenberg go to Swenberg's Place and get 27 Iron Monuments with caps which belong to Cass County and take Swenberg's team and take the I.M.s to Fox Line Depot at Federal Dam.

Baldwin waits for train to see if there is a letter from Caro. None comes. Swenberg takes team back. We reach Harmon for dinner at 12.30 P.M.

Jusler takes Way and Forberg and goes to Random Mt. 15 & 16 and continues South.

At 5995.0 S a hub.

Easy place to build road.	{	"	6300	S leave Swamp
		"	6459.3	S a hub.
		"	6650	S Enter Cedar Swamp
		"	6988.0	S a hub.

Quit for night at about 7300 S.

This is very hard cutting.

The rain starts before 2 o'clock and lasts more than an hour  
Quit work for day. H. J. Baldwin



Road -

35.

Friday June 9<sup>th</sup> 1916.

288

After dinner at Herman's Baldwin & Swanberg walk to work with Tusher that. Rain strikes us when we are on the way and we stay in shack until rain is over. Tusher and May are returning west to the skin. It is now too late to return to work today as we have so far to walk.

Baldwin sends Swanberg to Federal Dam to ship 16 I.M.s. via S.S. Freight to Boy River to be set on the Island. Freight Pd. by Baldwin. 26¢  
Baldwin & Tusher reaching Herman's 3.30 P.M. Baldwin writes notes  
Baldwin - Tusher - Swanberg at Herman's for supper & lodging  
H.F. Baldwin



Saturday June 10<sup>th</sup> 1916

288

Fine Day - Fair &amp; Warm.

Breakfast at Hammond 6.15 A.M.

Baldwin - Alce Transit &amp; chain

Insler - Ace and Flag.

Swanberg - Flag &amp; chain.

Way - Axeman.

Forberg - Axeman.

We all take lunch and leave  
for Random bet secs 25 & 26.

at 7.00 A.M. We continue south

at 7305.0 S 2 hds in burnt space -

7600 S Leave Swamp -

" 8360.7 S 2 hds on high ground

" 9176.0 S " " "

" 9450 S Enter Water <sup>buried up</sup> <sub>from dry line</sub>

We cruise some time trying to find  
1/4 Cor. or B.T. bet 25 & 26. as  
we do not find this we continue  
Random Line south to try & find  
B.T. or Cor of 25-26-30-36.

The water for 1100 ft. is waist  
deep, this is full of dead tamarac  
to marsh at edge of River.

At 10560.0 S we set stake  
on Random Line and hunt  
East & west for B.T. to Cor.

N.J. Baldwin.

Good place to find  
land cheap



Road-

37.

Saturday June 10<sup>th</sup> Continued- ~88

As we are all the time wading waist deep in the water & the footing is a springy bog we are at a disadvantage. We find no B.T.s. but at about 10380 Son Random Line a Cruisers line of flazed trees N & S and E & W intersect about 200 ft. East of Random. Being unable to find the B.T.s. we return to dry land.

We now look for  $\frac{1}{4}$  Cr bet 25196 again, and about 180 ft west of Random Line, we find a  $\frac{1}{4}$  Post square up but so badly burnt no strike marks show. Two Cedar trees here check for course and distance very near to present  $\frac{1}{4}$  Post.

We quit for night and arrive at Hymel's 6.15 P.M. where Baldwin-Inglis & Swanberg remain for night.  
H. J. Baldwin.



Sunday June 11<sup>th</sup> 1916.

288

Fine day - Hot.

Baldwin - Insler & Swanberg remain  
at Harmon's all day.

No Work.

H. L. Baldwin.



Road-

288

39

Monday June 12<sup>th</sup> 1916.

Fair day - Hot.

Breakfast 6.15 A.M. at Harmon's.

Inslar walks to Bay River on way to the Island to set I.M.S.

Baldwin - Swanberg - Way & Forstberg take lunch and walk to  $\frac{1}{4}$  Cr. on Range line bet. sec. 25 & 30.

We have a hard time to find Cr. Baldwin & Inslar set same Cr. a week ago but walked to it from Bay River. It takes whole forenoon looking for Cr.

P.M. Starting from  $\frac{1}{4}$  Cr bet 25 & 30 we start Random line West on  $8^{\circ} 30' 1/2$ .

At 202.3 W a hub.

" 285 W Cross Log Road Cut last year

This road runs S.E. to Range line thence south to the River.

At 300 W Enter Swamp. Spruce, Tam. Cedar.

" 600.0 W a hub in Swamp.

" 1227.2 W a hub " "

We quit work for night. This cutting is all in thick Cedar Swamp.

Baldwin & Swanberg have Supper & Lodging at Harmon's.

H. F. Baldwin.



Monday June 12<sup>th</sup> Continued.

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Inslar leaves Harmon's after breakfast & walks to Boy River.

Engage Ray Mix with motor boat to haul self & 16 Iron Monuments across to Camp #3. fare \$1.00

Mix team hauls I.M.s to Mix farm where Inslar takes dinner.

P.M. Inslar going with Mix & team distributes I.M. to be set later. Team returns from Wallis place about 3.00 P.M.

Inslar dives I.M. at sec. Cor. 9-10-15-16. also at  $\frac{1}{4}$  Cor bet secs - 10-15.

Inslar now goes to Clark's for supper & lodging.

N. J. Bachman.



Road.

288 41.

Tuesday June 13<sup>th</sup> 1916.

Rain - 6<sup>00</sup> A.M. Clears 7<sup>00</sup> A.M.

Tusler has breakfast at Clark's.

Tusler & Clark take lunch & go to

Sec. Cor. 10-11-14-15. and drive I.M.

also  $\frac{1}{4}$  Cor. bet. Secs. 10 & 11. and Sec. Cor.

2-3-10-11. At  $\frac{1}{4}$  Cor bet Secs 2 & 3.

Set I.M. and R.B.T.s as follows.

R. Oak 22" due East 42.6 ft.

Maple 10" S 75 W 32.2 "

They now drive I.M. at Sec. Cor. 2-3-34-35.

Elm 24 S 50 W 42.6 ft. This has old B.T. Scribe Mark

Bass Wood 10 N 11 E 39.3 ft. with Tack.

At  $\frac{1}{4}$  Cor bet 2-35. drive I.M. & set new B.T. with Tack.

Maple 8 N 43 E 32.4 ft.

At Sec. Cor. 1-2-35-36 drive I.M.

"  $\frac{1}{4}$  Cor. bet 1-36 drive I.M. and set New B.T. with Tack.

Spruce 8 N 26 E 44.0 ft.

At East  $\frac{1}{16}$  Cor. bet Secs 1-36 where Bay Lake Road  
turns North to Camp #3. drive I.M.

Also at N.E. Cor. Twp. 14 R. Rg. 28. drive I.M.

Tusler also set 4 I.M.s on Rogers Road. The Cost of

Setting 16 I.M.s is Tusler 2 days 4<sup>00</sup> & days Board 2<sup>00</sup>

Mix Team  $\frac{1}{2}$  day 2<sup>00</sup> mix boat Livery 2<sup>00</sup> Clark 1 day 2<sup>00</sup>

total cost 12<sup>00</sup> 4 of these I.M.s are on Rogers Road so

will charge Tusler June 13<sup>th</sup> & Board 2<sup>00</sup> + 1<sup>00</sup> = 3<sup>00</sup> to Rogers

Road. Balance charge to Bay Lake Road. Return to Bay River Ford 1<sup>00</sup>

Tusler walks to Harmon's ex. 1/2 day of Clark. N. J. Baldwin.



288 Tuesday June 13<sup>th</sup> Continued.

Heavy Rain at 6<sup>00</sup> A.M. - Clears - balance of day fair.

Breakfast 7.45 A.M. at Harmon's

Start to work taking lunch about 8<sup>00</sup> A.M.

Baldwin - Also Transit & Chain.

Swanberg. Flag & Chain.

Way. Axeman.

Fishberg.

Going to Random line about Center Sec. 25 - 143 - 28 Chaining West.

At 1651.2 W a hub in Swamp.

" 1700 W Leave timber enter <sup>Low wet land</sup> brushy Willows.

" 2184.6 W a hub Wetland Willows. <sup>Down dead Cedar</sup>

" 2910.0 W a hub land higher & drier.

" 3300 W land high & dry.

" 3547.3 W a hub " "

" 3700 W Enter Clearing.

" 3980 W Shook sets North 50 ft.

" 4030 W leave Clearing Enter <sup>Willows</sup> Swamp.

" 4250 W Leave Swamp Enter high land.

We quit for night. Reach Harmon's about 6<sup>00</sup> P.M. Find Inset here Baldwin - Inset - Swanberg at Harmon's for supper & Lodging.

H. J. Baldwin



Road.

288

43.

Wednesday June 14<sup>th</sup> 1916.

Rain at 6.00 A.M. Clears about 10.00 Heavy Shower 11.30 part fair rest of Day.

Breakfast at Harmon's 6.30 A.M.

Baldwin & Tuster compile & Baldwin copies notes for past two days in forenoon.

We have an early dinner & plan to leave for work but heavy shower 11.30 to noon.

We leave for Random Line through sec 35 a little after 12 o'clock. Continuing West

At. 4349.0 W a hub. on high land.

" 4600.0 W a " " " "

" 5390.0 W the True  $\frac{1}{4}$  Cor. bet Secs

25 & 26 sets North (90°) 159.90 ft.

Correction North [0.02966] per. ft West.

We continue Random Line West to P.I. of N.E.

Random bet 25 & 26. N.E. angle  $86^{\circ} 53'$ .

P.I. 5615.9 W = 8069.2 S

We tie in this  $\frac{1}{4}$  to Random line South bet. 25 & 26. as follows See fig. Page 45 this book.

at 7897.4 S the  $\frac{1}{4}$  Cor. sets East 216.00 ft.

We take Transit & tools to Log Road

that will be on way to Range Line, & walk home, arriving at Harmon's 6.00 P.M.

Baldwin - Tuster - Swanberg, have supper & lodging at Harmon's.

J. L. Baldwin.



Thursday June 15<sup>th</sup> 1916Rain in A.M. Showers till 10<sup>30</sup> A.M. [Cloudy in P.M. but No Rain]Breakfast at Harmon's 6<sup>00</sup> o'clock.

Baldwin - Insler &amp; Swanberg at Harmon's waiting for weather to clear.

A.M. Baldwin writes notes and figures corrections for Random Line through Sec. 25. as follows. See fig. opp. page.

Kut @	202.3	W corrects North	5.99 ft.
"	600.0	W " "	17.80 "
"	1227.2	W " "	36.40 "
"	1651.2	W " "	48.97 "
"	2184.6	W " "	64.80 "
"	2910.0	W " "	86.31 "
"	3547.3	W " "	105.21 "
"	4349.0	W " "	128.96 "
"	4600.0	W " "	136.44 "
"	5390.8	W " "	159.90 "

to  $\frac{1}{4}$  Cr. bet. Secs 25 & 26. where H.S. Notes call for foll. B.T. A.

Cedar 10 N 36 W 24 = 15.86 ft.

" 14 N 80 E 25 = 16.50 ft.

The 10" Cedar is on the ground badly burnt No scribe marks showing but this is undoubtedly the B.T. The burnt & rotted roots of the 14" B.T. remain and a  $\frac{1}{4}$  Cr. Post badly burnt sets about 5 ft away. N.J. Baldwin.



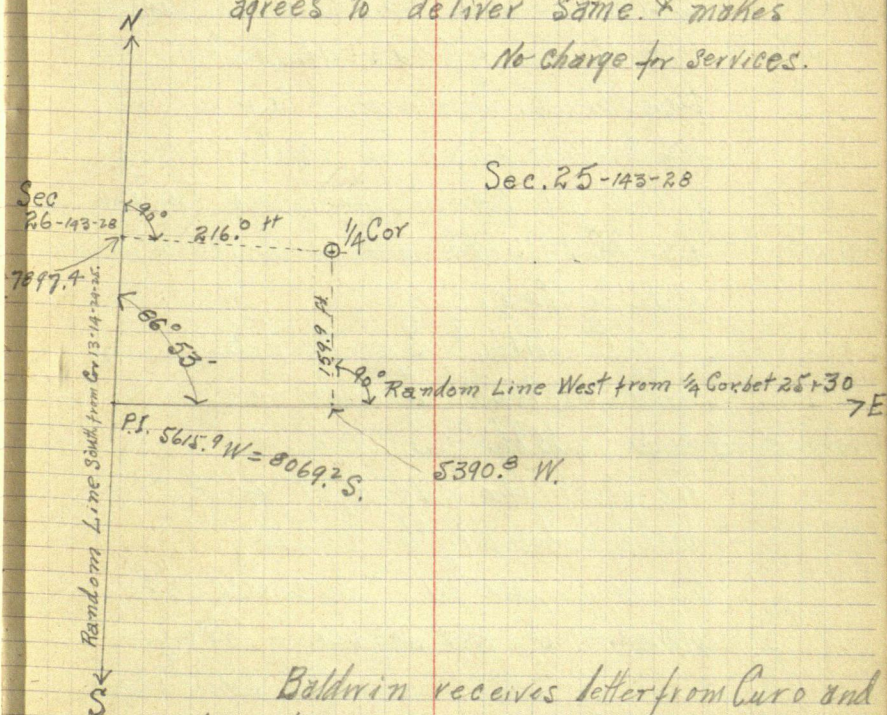
Road-

288 88

45.

Thursday June 15<sup>th</sup> Continued.

Baldwin writes letter to Curo & goes to Federal Dam. to post same, get mail and make arrangements to have I.M.s hauled down from Soo Line Depot. Mr Shoemaker kindly agrees to deliver same & makes  
No charge for services.



Baldwin receives letter from Curo and form for release from damages for, change of Bay Lake Road from center Sec 14 to follow Sec Line North to Cor 11-12-13-14 thence West bet Sics 11 & 14 and continuing to Federal Dam as before Stated in petition, if Baldwin Says 1/4 line through Sec 14. be impracticable for Road.

H.J. Baldwin -



Thursday - June 15<sup>th</sup> Continued.

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Tusler - Swanberg - Forsberg. After dinner go to the  $\frac{1}{4}$  Cor on Range line bet 25 & 30 and start Random line south on  $\frac{1}{4}$  Var. Turned  $90^\circ$  with transit.

Baldwin with May corrects  $\frac{1}{4}$  Line through sec. 25 as shown on page 44 this book. Beginning at hub 2547<sup>3</sup> W we correct East to  $\frac{1}{4}$  Cor. bet 25 & 30 where we chain South on Random bet 25 & 30 on which Tusler & crew are cutting.

High Land and place for road	AP	215.9 S.	2 hub.
	702.2 S.	.	.
	1191.0 S.	.	.

We quit for night at 4.30 P.M. & reach home at 6 o'clock.

Baldwin - Tusler - Swanberg at Harmon's for supper & lodging.

N. F. Baldwin



Road.

288

47.

Friday - June 16<sup>th</sup> - 1916.

Rain slightly in A.M. no rain in P.M. but Cloudy.

Breakfast at Farmer's 6.20 P.M.

Jupier - Swanberg - Way - Forstberg - go to  
Range Line & Continue Random south  
through very heavy cutting bet. secs. 25 & 30.  
Baldwin Cruising for B.T.s. along Random  
bet. secs. 23 & 24 and 25 & 26.

We all take lunch with us.

Baldwin finds old Cor. & B.T. to 1/4 Cor  
bet. secs. 25 & 26 - then goes & takes lunch  
with rest of crew.

P.M. All continuing south bet. 25 & 30

Very hard cutting! Progress slow

Not a very  
good place  
for Road  
rather swampy

{ At 1628.20 S a hub in heavy cedar & balsam  
" 1998.6 S " " " " "  
" 2540 S Enter Water backed up from <sup>pond</sup> river.  
" 2673.8 S in " " " "

the True Sec. Cor. 25-30-31-36 sets

West 84.5 ft. Crestion West [03160]

The south 130' of this line is in Water about  
waist deep. U.S. notes call for full B.T.s.

Tam 8 N 40 E 16 = 10.56 ft. Stump & Scribner's B.T. clearly showing.

" 5 N 78 W 11 = 7.26 " " " " " "

" 7 S 30 W 20 = 13.20 " " blazed but no scribe marks.

" 8 S 45 E 22 = 14.52 " Dead Tree stands all Marks showing.

N. J. Baldwin



Friday June 16<sup>th</sup> Continued.

288

Old U.S. B.T.s. now stand as follows.

Tam. Stamp 2 N 48 E 11.56 ft.

" " 5 N 73 W 7.76 "

" " 7 S 16 W 13.30 "

Dead Tam. 8 S 26 E 14.53 "

New B.T. Dead Cedar 6" N 75 W 1.50 ft.

At this corner we set 4" Cedar post 6 ft. long - marked True Cr. with water proof pencil.

We all return home taking tools - Transit etc.

Reach Harmon's for supper 6.30 P.M.  
Baldwin - Insler - Swenberg overnight  
at Harmon's H. F. Baldwin.



Saturday - June 17<sup>th</sup> 1916.

Breakfast 6.15 A.M. at Harmon's.

Day Cloudy & cool but no Rain.

Inster - Swenberg - & Woy go to 1/4 Cor.

bet. 13 & 14. and start Random Line

West on 8° 30' Var turn 90° to South Random line

Chaining West through sec. 14.

at 410.6 W a hub.

" 991.2 W a "

" 1353.4 W a "

Go to Harmon's for lunch.

at 1717.2 W a hub.

" 2100 - W cross old Road.

" 2152.8 W a hub.

" 2300 W Enter Cedar Swamp - Not Wet.

Quit for night.

Baldwin with Inster take lunch and 4  
Iron Monuments, and go to Range Line  
bet. Rps. 27 & 28 - Secs. 25 & 30. leaving.

I.M.s near Cor. Posts along route.

at 1/4 Cor. bet. secs 25 & 30 we drive I.M.  
and correct Random south as foll.

Hub @ 215.9 S goes W 6.91 ft.

" " 702.2 S " " 22.19 "

" " 1191.0 S " " 37.64 "

Stake " 1336.9 S " " 42.25 " to 1/4 Cor.

Here we place Birch Cor. Post 3" square. It looks as if Road  
should run S.W. from this Cor. Post. N.J. Baldwin.

Old Land and Good place  
for Road



288

Saturday June 17<sup>th</sup> Continued

Hub@ 1628.2 S goes W 51.45 ft.

" " 1998.6 S " " 63.16 "

At each of these two hubs we set stake marked True Sec. Line but we do not mark them Road Center as it looks as if Road should run S.W. from  $\frac{1}{4}$  Cr.

We now walk about  $\frac{3}{4}$  mile West along random West through sec 25 & East bench.

P.M. Finish Correcting Random  $\frac{1}{4}$  line through sec. 25. and We

set I.M. at  $\frac{1}{4}$  Cr. bet. sec. 25 & 26.

Now going to  $\frac{1}{4}$  bet. secs. 23 & 24 where U.S. Notes call for Toll. B.T.

Maple 6 N 70 W 6 = 3.96 ft Gone

" 5 S 12 E 23 = 15.18 " Stub standing

This 5" B.T. the stub shows Scribe marks from which we set a Cr. Post.

At 2644.4 S the True  $\frac{1}{4}$  Cr bet Secs. 23 & 24 sets East 87.8 ft.

Correction East per ft. [0.03320].

Baldwin figures corrections as shown on opp page.

A. J. Baldwin



Road.

11 28 8

51.

Saturday

June 17<sup>th</sup>

Continued.

Hub @	441.4	S	goes East	14.66 ft.
" "	919.6	S	" "	23.59 "
" "	1424.6	S	" "	47.20 "
" "	1700.0	S	" "	56.44 "
" "	2449.5	S	" "	81.32 "
Stake "	2644.4	S	" "	87.80 [03320]

We correct 3 cuts north from 1/4 Cr.  
and quit for night arriving at Hamlin's  
5.40 P.M. where Insler & Swamley are  
already. Supper & lodging here.  
H. L. Baldwin.



Sunday June 18<sup>th</sup> 1916.

288

Fine Day-

No Work in Field. Baldwin writing  
notes and figuring Corrections nearly  
all P.M.

A. J. Baldwin



Road.

288

53.

Monday June 19<sup>th</sup> 1916-

Fine Day Hot.

Breakfast at Harmon's 6.15 A.M.

Inster - Forberg - May - go to  $\frac{1}{4}$  in sec.  
14-143-28 and continue West on Random.

At 2567.3 W a hub - in Cedar - Dry ground.

" 2962.5 W a hub " " " "

" 3300 W ground wet Will have to be bedding.

" 3496.9 W a hub " " " " "

" 4250 W Enter Birch - poplar - higher ground.

" 4254.8 W a hub in " " " "

" 4485 W Enter Tam. Swamp.

" 4870.0 W a hub - higher ground North 60' ft.

Quit for night.

Baldwin & Swenberg go to Random Line  
bet. Secs 23 & 24 & finish correcting North  
to Sec. Cr 13-14-23-24 where we drive  
I.M.

We now go one mile South where we  
have been unable to find M.S. Bto. to  
Cr 23-24-25-26. No old corner post  
is here this has been burnt a couple of  
times. So at a point half way bet  
 $\frac{1}{4}$  Cr. bet. sec 23 & 24 and  $\frac{1}{4}$  Cr. bet.  
sec 25 & 26 on our Random line South  
151.90 ft. East. of 5270.9 We drive I.M.  
for True Sec. Cr. A. J. Baldwin.



54.

## Boy Lake

88

Monday June 19<sup>th</sup> Continued

Hub@	3254.8 S	is South of 1/4 Cr	610.4 ft.	goes E	14.89 + 87.80 = 102.69
" "	3586.6 S	" " " "	942.2 "	" " " "	22.99 + " = 110.79
" "	4072.0 S	" " " "	1427.6 "	" " " "	34.83 + " = 122.62
" "	4885.7 S	" " " "	2161.3 "	" " " "	52.74 + " = 140.54
" "	5270.9 S	" " " "	2626.5 "	" " " "	64.10 + " = 151.90
" "	5576.0 S	" " " "	2931.6 "	" " " "	71.44 + " = 159.24
" "	5995.0 S	" " " "	3350.6 "	" " " "	81.76 + " = 169.56
" "	6459.3 S	" " " "	3814.9 "	" " " "	93.10 + " = 180.90
" "	7305.8 S	" " " "	4661.4 "	" " " "	113.76 + " = 201.56
" "	7897.4 S	" " " "	5253.0 "	" " " "	128.90 + " = 216.00

Correction East [0244] + 87.80 ft.

Baldwin and Swanberg correct as shown above.

At 1/4 Cr. h.t. sec. 23 &amp; 24 we drive a standard I. M. with Cap and set new B.T. with tick as follows:

Balsam, 8 S 43 E 18.85 ft.

We return to Harmon's 6.15 P.M.

Baldwin - Insler & Swanberg  
 at Harmon's for supper & lodging.  
 This was Primary Election  
 but neither Way nor Insler  
 cared to vote, tho' I gave  
 them opportunity. W. J. Baldwin



Road.

288

55

Tuesday June 20<sup>th</sup> 1916.

Beautiful Day - Warm.

Breakfast at Harry's 6.15 A.M.

Baldwin - Inger - Swanberg - May - Forsberg  
all taking lunch. go to Random line  
through Sec. 14 - 143 - 28 and continue  
West. At 5241.3 W The True  $\frac{1}{4}$  Cor.  
bet. secs 14 & 15 sets. North 93.7 ft.  
Here U.S. notes Call for full B.T.

Spurc 6 N56 W 19 = 1254 ft. <sup>plainly</sup> <sup>Sherry</sup> <sup>marks</sup>

" 5 S88 E 6 = 3.96 " Gone.

We set a 4" Square Cedar Cr. Post.  
5 ft. long. in true position from  
remaining B.T. and set two new  
B.T.s with tack as follows -

8" Tam. S 76° W 15.50 ft.

9" " S 72½° E 27.90 "

We now walk north  $\frac{1}{2}$  mile to Sec.  
Cor. 10-11-14-15 where only one of  
U.S. B.T.s remain - namely -

Cedar 6" N77 W 48 = 31.68 ft.

This tree was ok'd by dep. Co. Surveyor  
Horsk in April 1916.

We set hut in true position of Sec.  
Cor. and start Random line south  
on 9° Var. also set hut in Road  
North. Quit for dinner. J. J. Baldwin.



288

Tuesday June 20<sup>th</sup> Continued.P.M. - We chain north along road  
bet secs 10 & 11 3400 ft.

Chaining south bet. 14 &amp; 15

At 553.8 S 3 hub.

" 1155.5 S " "

" 1600 S Enter Clearing

" 1738.2 S 3 hub. in.

" 2230 S Enter Swamp Willows.

" 2600 S " Tamarac.

" 2635.2 S the True 1/4 Cor

sets East 200 ft.

Going back we set true Correction stakes  
half way.It is now 4 o'clock & too late to  
run north so we set Transit at  
True Cor 10-11-14-15 and turn  
S.E. angle 90° 34' & run East.

Chaining East along Trp. Road

At 2105.3 E 3 hub.

" 3506.9 E " "

" 4202.8 E Cross E Soo Line Tracks.

" 5291.5 E 3 hub.

All B.T.s to this sec. Cor. are gone.

We quit for night. Baldern.

Insler & Swankberg at Harmon's for  
supper & lodging. H. J. Baldern -



Road-

288

57.

Wednesday June 21<sup>st</sup> - 1916.

Beautiful Day.

Breakfast at Harmon's 6.15 A.M.

Baldwin - Inoué - Swenberg - May - Forsberg.

all taking lunch go to Random.

Let. sec 10-11 which we continue North

at 1330.2 N a hub in Road.

" 3466.6 N a " " "

" 5278.8 N the True Sec. Cr.

2-3-10-11 sets E 10.6 ft. [00201]

The old U.S. B.T.s. have been shot out

when the Road was built. But a

Cor. Post checks out with roots of

a Poplar for course & distance

also there are number of old

line trees further north which

show this Cor. Post to be O.K.

E.B. Hart Apr. 20-1916 put his name on

this Post.

We continue this Random Line

North at 5280 N Enter brush.

at 5964.8 N a hub

We quit at 11.30 & have lunch, rest one hour.

P.M. at 6541.1 N a hub. 6600 N in Cattle guards.

" 6611.9 N cross E. Soo Line Ry.

At P.I. Road S.E. angle 31° 14'

A.T. Baldwin.



28 8

Wednesday June 21<sup>st</sup> Continued.  
 Baldwin goes to Federal Dam  
 while men continue North, Post  
 letter to Curo & get mail.  
 Baldwin also goes to depot  
 looking to see a Blue print  
 of 100 line yards at Federal Dam.  
 Depot agent says there is not  
 a blue print there but Right  
 of Way is 100' from E.

Continuing North on Random bet.  
 Secs 2 & 3. Cross siding track 66 30 N  
 at 78 90.0 N the True  $\frac{1}{4}$  Cr bet  
 Secs. 2 & 3 sets East 19.20 ft.

This Cr. is Marked by Standard I.M.  
 with Cap. and checks O.K. with  
 stump of old U.S. B.T. as follows.

Spaced 8" S 62 E 10 = 6.60 ft.

Returning to Sooline Tracks walking  
 towards Federal Dam we set  
 stakes at three diff points  
 marked Center of Boy Lake Road.  
 at Rt angles to E. Ry. at a distance  
 of 133 ft.

We all return arriving at Harmon's  
 5.40 P.M. Baldwin - Insler & Swanberg -  
 remain here for supper & lodging.

H. J. Baldwin.



Road -

288 59

Thursday - June 22<sup>nd</sup> 1916.

Cloudy - Rain 10 o'clock.

Breakfast at Nemo's 6:15 AM

Baldwin & Wray. taking I.M. &

Correct Line bet secs. 10 & 11

and secs 2 & 3 -

as shown on next page -

I.M. at 1/4 Cor bet 10 & 11 sets 5.30 ft E

Random Line North -

I.M. Sec. corr. 2-3-10-11 sets 10.6 ft E. of

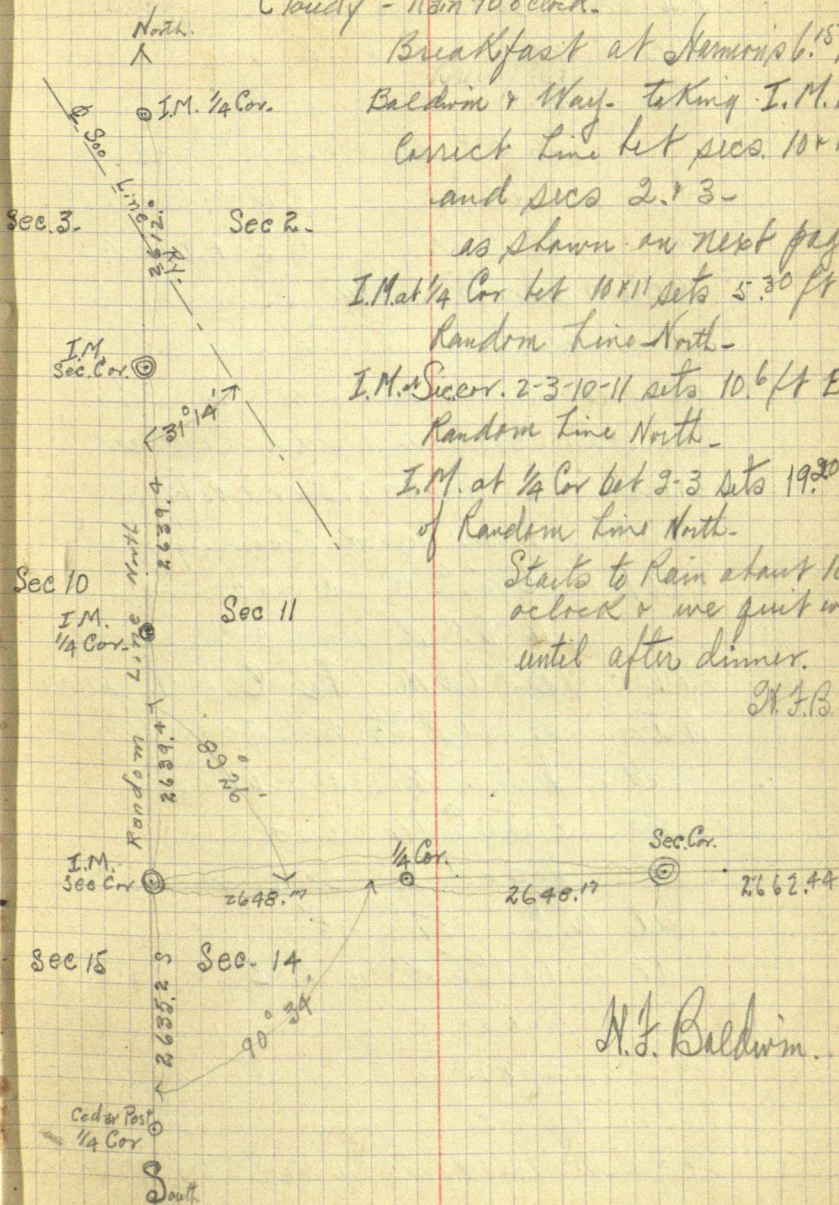
Random Line North -

I.M. at 1/4 Cor bet 2-3 sets 19.20 E

of Random Line North.

Starts to Rain about 10  
o'clock & we quit work  
until after dinner.

H.F.B.



H.F. Baldwin.

Scale 1" = 2000 ft.



1288 Thursday. June 22<sup>nd</sup> Continued.

Hub at 1330.<sup>2</sup> N goes E 2.67 ft.

Stk " 9639.4 N " E 5.<sup>30</sup> "  $\frac{1}{4}$  Cor.

Hub " 3466.<sup>6</sup> N " E 6.<sup>97</sup> "

" " 5278.<sup>8</sup> N " E 10.<sup>60</sup> "

" " 5964.<sup>8</sup> N " E  $2.26 + 10.60 = 12.86$  ft.

" " 6541.<sup>1</sup> N " E  $4.17 + 10.60 = 14.77$  "

After breakfast Tusler with Swanberg and Forsberg takes Transit & goes to  $\frac{1}{4}$  Cor let sec. 13 & 14.

Already established and continue North the Random previously run South. From  $\frac{1}{4}$  Cor chaining North  
at 635.<sup>0</sup> N a hub.

" 1000 N quit work acct Rain.  
P.M. Baldwin - Tusler - Swanberg and Way go to Random let. 13 & 14. And continue North.

at 1132.<sup>8</sup> N a hub.

" 1586.4 N P.I. & Soo Line Ry.

Angle N.E. 137° 48'

at 1633.<sup>5</sup> N. a hub -

" 2666.<sup>9</sup> N " "

" 2667.<sup>8</sup> N the I.M. sets East 111.<sup>0</sup> ft.

see top of page.

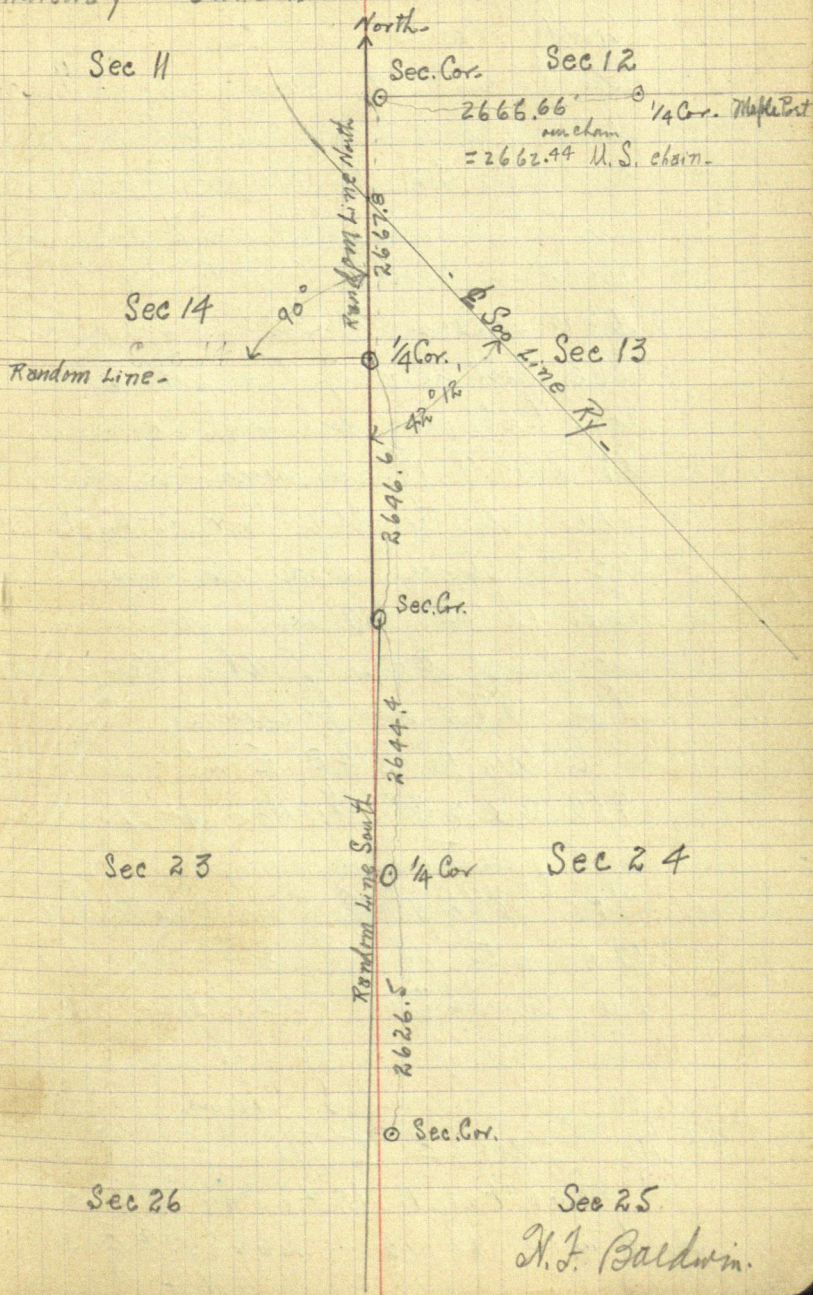
It rains part of P.M. but we work hoping to finish to tomorrow. H. J. Baldwin  
Baldwin - Tusler - Swanberg - overnight @ Harmon's



Road-

11 28 8 61.

Thursday June 22<sup>nd</sup> Continued.





1288

Friday June 23<sup>rd</sup> 1916.

Cloudy Rains slightly

Breakfast at Harmon's. 6.<sup>30</sup> A.M.Insler & Swanberg from Cor. on Random  
Line near Sec. Cor. 11-12-13-14 North  
to State Road - dist. 5234.<sup>2</sup> ft. N.Baldwin & Way go to  $\frac{1}{4}$  Cor. bet.  
10 & 11 where U.S. B.T.s. are goneWe put in with transit I.M. at  $\frac{1}{4}$   
Cor. half way bet. sec. corners.at 2639.<sup>4</sup> N. as shown page 60 this bk.In order to fix Cor 11-12-13-14.  
we continue Transit line East  
bet. 12 & 13.  $\frac{1}{2}$  mile where  
we find one of the original  
U.S. B.T.s as follows.Cedar.  $10^{\circ} S 48^{\circ} E$  25 = 16.50 ft.  
We set a 4" Wooden Cor. Post. in  
true position.At 7963.<sup>0</sup> E the true  $\frac{1}{4}$  Cor bet  
12-13 sets North 3.30 ft.By Proportion 80 ch. 12 lks = 5287.<sup>92</sup> ft." " 40 ch. 17 " = 2662.<sup>44</sup> "

" " U.S. Chain 7950.36

7950.36 goes E to 7963.<sup>0</sup> E. Our chain" mile bet sec 11 & 14 = 5296.<sup>34</sup> E " "and  $\frac{1}{2}$  " 12 & 13 = 2666.<sup>66</sup> E " "

A. J. Baldwin.



Friday June 23<sup>rd</sup> Continued.

Baldwin goes to Federal Dam to get any mail from Coronado there.

P.M. At \$296.34 E bet 11x14. and 2.20 ft. North of Random we drive I.M. for Sec. Ctr. 11-12-13-14.

at 2648.17 E we drive I.M. for 1/4 Cor bet. 11x14. Way works with us until 2.30 P.M. This the last of 27 I.M.s got at Swanberg's place.

We get our Survey outfit etc. to Federal Dam 75¢ charge.

Swanberg goes to Lees Lake.

Baldwin and Insler go to Bemidji.

Fare 83¢ each = \$1.66 pd. by Baldwin.

At Bemidji we have supper at Markham Hotel 50¢ each = \$1.00 pd. by Baldwin.

Fare Bemidji to Walker M. & I. Fare 69¢ each = \$1.38 pd. by Baldwin.

At Walker we went to Chase Hotel where we stay for Lodging & Breakfast.

H. J. Baldwin.



64  
288

Saturday June 24<sup>th</sup> 1916.

Fine Day -

Baldwin at Chase Hotel & Lumber -

Baldwin goes to County Surveyor's office  
& works all day writing notes &  
making out Bills for work done  
on Bay Lake Road, Recording etc.  
J. F. Baldwin



141-28  
Williams Co Road.

317 65

Friday November 24 - 1916

E.B. Horst with field Notes, Plats  
and survey outfit leaves Walker  
for Stackpack on 9-28 train.

R.R. fare \$0.33

as I am unable to get out of town  
before noon I get dinner at Gerrity's  
Hotel \$0.35

(I have Chet Fleischer make a new  
flag pole \$1.25)

P.M. Chas Wood with Ford car  
takes Horst and survey outfit  
also to I.M. to Geo C Williams  
farm in sec 30 T141R28. where  
I make arrangements to board  
while on survey of a County road  
to begin at old R.R. grade between  
secs 19 and 20 and run S on sec lines  
to cor of secs 29-30-31-32 connecting  
with an E and W road, all in 141-28.  
We arrive at G.C. Williams 3-30 P.M.

I take U.S. Notes and Compass and  
Walk to corner of secs 28-29-32-33  
where I find an I.M. for sec cor.

I return to Geo Williams for supper  
and overnight E.B. Horst.

317



317

Saturday Nov 25-1916

Horst, transit with Harry Williams flagman and Frank Williams and Jonas Buckhite as axemen walk to I.M. at cor to secs 28-29-32-33 and start line W at  $8^{\circ}45'$ . (see cor established by Middleton)

P.M. Horst, Frank Williams and Jonas Buckhite continue W on line we cut about 3000 ft but do not chain any to day land very rolling.

E.B. Horst.

317



141-28

317

67

Sunday Nov. 26-1916.  
Went at Geo Williams  
all day

317



Monday Nov 27-1916

Horst, transit, and chain,  
Frank Williams flag + eye  
Jonas Buckhite eye  
Continue random line W  
between sees 29-32 and sees  
30 + 31 - 141-28

Horst + Williams chain W from  
I.M. at cor to sees <sup>2 1/2 x 4 1/2' ends capped</sup> 28-29-32-33  
at 102.5 ft W set Hub

" 502.0 ft W cross New Twp <sup>road</sup>

" = <sup>Horch-Langer</sup> 1342.0 " " cut swamp

" 1518.0 " " leave swamp

" 1589.2 " " set Hub

" 2647.59 " " look for 1/4 cor

between sees 29 + 32 Z.S. Notes call  
for post and following B.T. &

N. Pine 10 N 37° E 36 = 23.76 ft.

Birch 7.5 10° W 51 = 33.66 ft.

we find nothing but I think  
we are too far south. all timber  
badly burned. Continue W.

at 3638.7 ft W set Hub <sup>variation</sup> changes to 9° 30'

" 4396.8 " " set Hub W of lake

var 10°

E.P. Horst



141-28.

69

Nov. 27-1916

317

at. 4441.0 ft W enter lake. (Ice)  
" 5222.0 " " set spike in ice  
" 5400.0 " " leave lake and  
enter Jamek swamp  
" 5509.0 ft W leave swamp  
" 5670.4 " " set Hub. var 10°  
" 6069.0 " " enter swamp  
" 6600.0 " " quit chaining for  
today and cut line about 800 ft more  
and quit for night

Note as U.S. Notes do not call for B.T.s  
or post at cor of secs 29-30-31-32  
which falls in lake and we find  
nothing but a flayed line tree S of  
lake, so we proceed to establish  
this cor by proportionate measure-  
ment in 4 lines E.B. Horst.

317



317

Tuesday Nov. 28-1916

Horst transit and chain

Geo C Williams Chain &amp; flag

Jonas Buchheit eye

Continue W between sec 30-31

at 6886.0 ft W leave swamp

" 7100.0 " " set Hub

" 7747.4 " " set Hub near 9°.

" 7835.0 " " enter swamp

" 7935.0 " " " lake

" 8785.0 " " leave lake enter swamp

" 8860.0 " " leave swamp

" 8882.8 " " set Hub on Range

line.

I set transit over last Hub  
and back sight E on random  
line I turn N.E. angle  $93^{\circ}25'$   
to Geo W Millers Hub on true  
range line and run N to  
N.W. cor of sec 31 distance  
= 649 ft

at sta 8921.5 ft W true cor

sets N 647.84 ft

P.M. we all look for  $\frac{1}{4}$  cor between  
secs 30 & 31 where U.S. Notes call  
for Post and following B.T.s

317

C.B. Horst.



141-28.

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317

Nov 22-1914

N. Pine.  $17540^{\circ}E$  47 lbs = 31.02 ft.

N. Pine.  $14N12^{\circ}E$  40 lbs = 26.40 ft.

We are unable to find any evidence of 1<sup>st</sup> corner and give it up.

To obtain a starting point for a N and S line <sup>W. 29-30</sup> I figure a correction for a straight line between the corner to Secs 28-29-32-33 and N.W. cor of sec 31.

The U.S. Chain for these 2 miles = 10563.94 ft. My Chain = 8921.5 ft  
one foot U.S. Chain = .844364 of a foot my chain.

$647.84 \text{ ft} \div 8921.5 \text{ ft} = .072616$  of a foot N for each foot W

at sta 4471.06 ft W I set a spike  
324.67 ft N on ice in lake, being on straight line between sec corners at N.E. of sec 32 and N.W. of sec 31

Quit for night

E. B. Horst.

317



Wednesday Nov 29-1916

Horst. Transit, Geo Williams  
flag, Frank Williams and  
Johas Buchhite appear

We begin at post on ice  
at sta 4471.06 ft W. and 324.67  
ft N of random line

I turn S.W. angle  $106^{\circ}17'$  and  
run line S toward S.E. cor of  
sec 31. Variation about  $20^{\circ}53'$   
we cut about  $3/4$  mile and  
quit for night

P.M. Frank Williams does not  
work

E.B. Horst.



141-28

317 73

Thursday Nov 30-1916

Thanksgiving day

Nobody works

E. B. Horst.

317



Friday Dec 1st 1916.

Horst transit + chain

Geo Williams Chain + etc

Jonas Buckhite flag + etc

Frank Williams etc

from Hub set on straight

line by proportionate Chain

Williams L.C. and I chain.

line out yesterday.

beginning at Hub in lake.

at 300.0 ft I leave lake

" 409.0 " " set Hub

" 1681.9 " " " "

" 2533.9 " " " "

" 2979.8 " " " "

" 3237.4 " " " "

" 3468.5 " " " "

" 3818.0 " " enter woman lake

" 4713.0 " " leave woman lake

" 4850.0 " " set Hub in timber

" 5367.4 " " set Hub N of lake

to which I take bearings

Popple 5 S.E. 1.6 ft. } by chain

Popple 8 N 8.1 ft. } only

I take H. Todds Notes and



Williams  
1916 Time Sheet for survey of County Road.

Nov 1916 - Nov	24	25	26	27	28	29	30
E. B. Horst.	1	1	0	1	1	1	0
Geo. C. Williams	0	0	0	0	1	1	
Harry Williams	0	1/2	0	0	0	0	0
Jonas Buckheit	0	1	0	1	1	1	
Frank Williams	0	1	0	1	0	1	

1916 December	1	2	3	4	5	6	7	8	9	10
E. B. Horst.	1	1	0	1	1	1	1	1	1	
Geo. C. Williams	1	1	0	1	1	1	1/2	1	1	
Frank Williams	1	1	0	0	1	1	1/2	1	1	
Jonas Buckheit	1	1	0	0	1	1	0	1	1	

with auto  
Dec 4 th Geo Williams

317

The Williams Co Road

317

75



817

Dec 1st 1946

go to temporary  $\frac{1}{4}$  cor on S  
 side of sec 32 <sup>= N 132 deg E sec 32 - 140-28</sup> set by Todd.  
 at sta 23760 ft W on town line  
 I chain W to sta 26316.45 on  
 Todds random line  
 from this point I chain N at  
 90° angle 531.56 ft where I  
 cut hole in ice and set temp  
 S.E. cor to sec 31 (cedar post)  
<sup>N 132 deg E sec 31 - 140-28</sup>  
 I set transit on our N+S line  
 between sec 31+32 and produce  
 line to cor  
 at 5395.0 enter swamp  
 " 5492.0 enter lake. Woman  
 " 5515.0 ft S. S.E. cor to sec  
 31 just set sets W 0.3 ft.  
 we take trail back to  
 sta 0.00 S. and quit  
 for night

E.B. Horst.

817



141-28

79

Saturday, Dec. 2, 1916. 317

Hoist and same crew begin at  
Hub on ice. (for kump cor)  
and run line N between sees  
29 and 30 at var.

at 601 ft N leave lake enter swamp  
" 887 " " leave swp " highland  
" 966.5 " " set Hub  
" 1053.0 ft N cross Hackensack  
and Longville road.  
" 1898.0 ft N enter field  
" 2050.0 " " leave field  
" 2106.9 " " set Hub on high hill  
" 2700.0 " " set post and look  
for 1/4 cor where U.S. Notes call for  
 $WP 18 N 80 E 27 L 115 = 17.82 ft$

We find no B.T. and continue N  
at 3089.0 set Hub

" 3660.0 ft N enter swamp.  
" 3862.0 " " leave swamp  
" 4374.1 ft N set Hub  
" 4977.5 " " set Hub and look  
for cor to sections 19-20-29-30 where  
U.S. Notes call for following B.T.s  
E. B. Horat.

317



Dec. 2 - 1916.

W. Pine.  $20 S 18 W 24 = 15.84$  ftW. Pine.  $30 N 44 W 28 = 18.48$  ftW. Pine.  $28 N 46 E 72 = 47.52$  ftW. Pine.  $20 S 42 E 33 = 21.78$  ft

We find NW-SW-and S.E. B.T. stumps  
 SW-and S.E. stumps plainly marked  
 we can not find the N.E. stump  
 one stump is 10 ft too far away  
 and one is 7 ft too close to check  
 as the N.E. B.T. and neither one  
 checks for course

I set the corner by measurement  
 from the 3 other stumps.

We return to Hub 4977.5 N and  
 continue line N to sta 5448.5 ft N  
 at this Hub I sight S on random  
 line and turn from S to W  
 angle =  $101^{\circ}12'$  distance to corner  
 = 542.0 ft. By Lat & Dep.  
 at sta 5553.8 ft N cor to secs  
 19-20-29-30 sets N 531.68 ft  
 quit for night.

E.B. Horst.



141-28

817

79

Sunday December 3-1916.

Horst at Geo Williams all  
day. fine day no snow on  
the ground up to this date  
very mild weather (reference).  
E.B. Horst.

817



Monday Dec 4th 1916.

I hire Geo. C. Williams to  
take me to Walker with his  
car to see J. W. Curo in regard  
to establishing cor to sections  
29-30-31-32 also to get Todde  
Notes of his survey of Town  
line between 1404141-1928  
We return 6-30 P.M.

E. B. Horst.



Tuesday, December 5, 1916.

Horst transit + chain

Geo C Williams ex. flag + chain

Frank Williams and Jonas

Buckhite axemen.

at cor to secs 19-20-29-30.

established by me, I start random  
sec line N between secs 19-20

at 10°30' variation.

at 747.5 ft N set Hub.

" 1098.0 " " " "

" 1623.5 " " " "

" 1780.0 " " enter swamp.

" 2020.0 " " leave "

" 2249.5 " " set Hub.

" 2534.0 " " enter swamp.

" 2733.0 " " leave " and

look for 1/4 cor between sections  
19 + 20 where U.S. Notes call for  
first and N. Pine.  $18^\circ N 28^\circ E 1/8 = 77.88^\circ$

I am unable to find any signs of  
cor or B.T. and we continue our  
line N about 600 ft and quit  
for night E.B. Horst.



Wednesday Dec-6-1916.

Horst and same crew  
Continue N between sees  
19 and 20

at 3586.0 ft N enter swamp

" 3977.0 " " leave swamp

" 3992.0 " " center of old  
railroad grade SE. angle =  $112^{\circ}55'$

" 4108.0 ft N set Hub

" 5358.1 " " " " and

look for cor to sees 17-18-19-20  
where U.S. Notes call for post and

Popl. 4 N  $10^{\circ}$  E 39 lbs = 25.74 ft

Popl. 4 N  $38^{\circ}$  W 15 lbs = 9.90 ft

W. Pine. 30 S  $25^{\circ}$  W 102 lbs = 67.32 ft

Popl. 4 S  $25^{\circ}$  E 40 lbs = 26.40 ft

a Mr. Toland shows us where  
an old stake stood several yrs  
ago, it is gone now, this  
information served as a delus-  
ion more than as a help.

after running to an intersection  
a couple of blazed tree lines we  
find a piece of the stump of  
the N.E. B.T. bearing part of



141-28

83

Dec -6- 1916.

817

the old scribe marks we also find a part of the S.E. Popple B.T. bearing some marks the W. Pine B.T. lying on the ground bears no marks and we find it has decayed to a depth of 8 inches. these 3 trees check good with Notes and from them I set a  $2\frac{1}{2} \times 48$  in capped I.M. (which I had brought from the Range line) for the true corner to 17-18-19-20 with following New B.T.s.

Popple 5 N  $58^{\circ}30'$  E 72.2 ft. IN sec 17

" 6 N  $55^{\circ}20'$  W 35.3 ft. " " 18

" 4 S  $27^{\circ}00'$  W 94.7 ft. " " 19

" 8 S  $36^{\circ}00'$  E 80.5 ft. " " 20

Returning to Hut 5358.1 ft N I turn S.E. angle from random line to sec cor angle =  $92^{\circ}35'$  distance = 160.5 ft

at sta 5365.4 ft N true sec cor sets E 160.34 ft.

$160.34 \div 5365.4 = .029884$  of a foot E for each foot N

quit for night

817

CR Horst



317 Thursday Dec -7-1916.

A.M. Rain

Horst writing Notes and  
figuring correction lines

P.M. Horst, Geo Williams  
and Frank Williams

Correct line between secs 19+20  
see line = 5365.4 cor sets

E 160.5 ft. Correction E 5029884

Hut 4147.0 N goes E 120.94 ft  
to center of old R.R. grade.

Hut 3300.0 N goes E 98.62 ft  
1/4 cor 2682.7 N " E 80.17 ft

where we set 2 1/2 x 48 capped I.M.

Hut 2249.5 N goes E 67.22 ft

" 1623.5 N " E 48.52 ft

" 1098.0 N " E 32.83 ft

" 747.5 N " E 22.34 ft

at cor to secs 19-20-29-30 I pull

up wood post and set a

2 1/2 x 48 inch capped I.M.

with following Bearing  
trees

C.B. Horst.



141-28

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85

Dec-7-1916

W. Pine stump  $20^{\circ}N 39^{\circ}30'E$  40.3 ft <sup>2-20</sup>

W. Pine stump  $24^{\circ}S 42^{\circ}E$  68.4 ft <sup>2-29</sup>

N. Pine  $5^{\circ}S 28^{\circ}W$  31.7 ft (Var  $8^{\circ}47'$ )

No other trees near.

quit for night

E. B. Horst.

317



317

Friday Dec-8-1916.

Worst transit &amp; chain

with Geo C Williams Frank  
Williams and Jonas Buckheit  
cut true sec line between sec  
29 and 30. figured from true cor  
on ice in lake, we set Hub

317

966.5 ft Non random line West

89.98 ft on true line

Hub 2106.9 N we set W 199.80 ft

on true line we produce this  
line N to sec cor and S to lake

at 611.0 ft N of true cor I set a

2 x 48 in I.M. (Boiler flue) in S side  
of swamp and 20 ft N of lake

at 2767.2 ft from sec corners

I set 1/4 cor between sec 29 & 30  
on true line being a 2 1/2 x 48 in  
I.M. in E side of small Jamick  
swamp.

at 1752.33 ft N of S.E. cor of sec

30 I set a 2 1/2 x 48 inch I.M.

being the point of intersection  
of sec line and Leech Lake  
Reservation line (S boundary)  
to which I take following

317



141-28

87

317

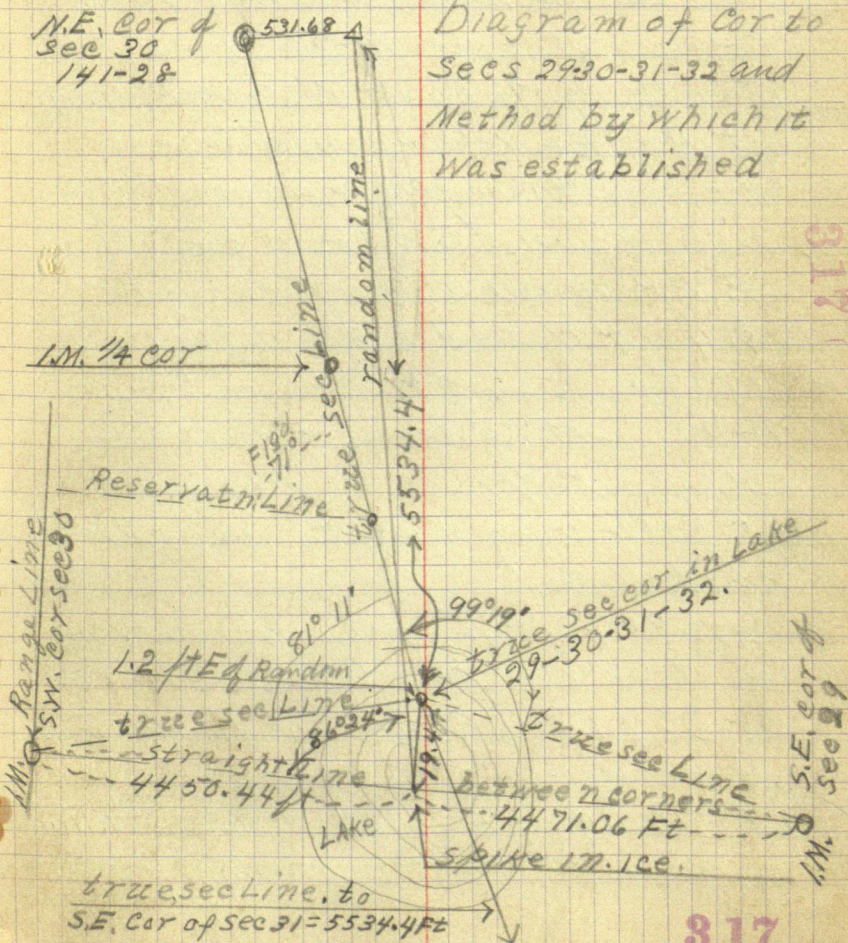
Dec-8-1916

Bearings, at Variation.

quit for night  
E.B. Horst

N.E. cor of  
sec 30  
141-28

Diagram of cor to  
Secs 29-30-31-32 and  
Method by which it  
was established



317



317

Saturday Dec-9th-1916

Forst, transit with same crew

I send Jonas Buckhite to bring M.s from range line to Geo Williams

We go to spike on ice near corner to secs 29-30-31-32

at sta 4471.06 ft W and 324.67 ft N of E & W random line.

I turn 90° angle from a straight line between S.W. cor of sec 30 and S.E. cor of sec 29 and chain N 19.4 ft W and set a spike in ice for true cor to secs 29-30-31-32 setting transit over true cor I set M.C.s on true lines at following points being 2X48 inch I.M.s

at 699.8 ft W of true cor set I.M.

on true sec line between 30 and 31

at 324.1 ft S of cor set I.M. on true line between secs 31-32

at 724.9 ft E of true cor set I.M.

on true line between secs 29 & 32

317



141-28

89

317

Dec 9-1914

We go W. to sta 6710.18 ft W on random line and chain N 496.0 ft N and set  $2\frac{1}{2} \times 48$  inch I.M. for  $\frac{1}{4}$  cor between sees 30 and 31 with following bearings

Norway Pine 4 N  $14^\circ$  W 6.4 ft

N. " Pine 6 S  $65^\circ$  W 11.2 ft

at sta 2235.53 W on random line we chain N 172.04 ft and set  $2\frac{1}{2} \times 48$  inch capped I.M. for true  $\frac{1}{4}$  cor between sees 29 and 32 (no true near)

We take I.M. and go S. between sees 31 and 32 to sta 2747.8 ft S we chain E 2.7 ft and set  $2 \times 48$  inch I.M. for true  $\frac{1}{4}$  cor between sees 31 and 32

at sta 5367.4 ft S we chain W 0.2 ft and set a  $2\frac{1}{2} \times 48$  inch capped I.M. on true S. line 115 ft N of true S.E. cor of see 31 and S.W. cor of see 32 with following bearings

Popple 5 S.E. 1.7 ft

Popple 8 N 8.1 ft

being a witness corner to true see corner. See cor in lake

E.B. Horst.

317



141-28

317

Dec 9-1916

we walk E to S.E. cor of sec  
 32 on Twp line between Towns  
 140 and 141-28 pull up  
 wood post set by H.S. Todd  
 and set a  $2\frac{1}{2} \times 4\frac{1}{2}$  inch capped  
 I.M. with following bearings  
 Bass wood 8 S  $71^{\circ}$  W 73.9 ft  
 Oak Post N.E. 46.7 ft. Marked W.P.  
 Oak Post N.W. 46.7 ft. Marked W.P.  
 Gault's B.T.'s grubbed out  
 quit for night

E.B. Horst,

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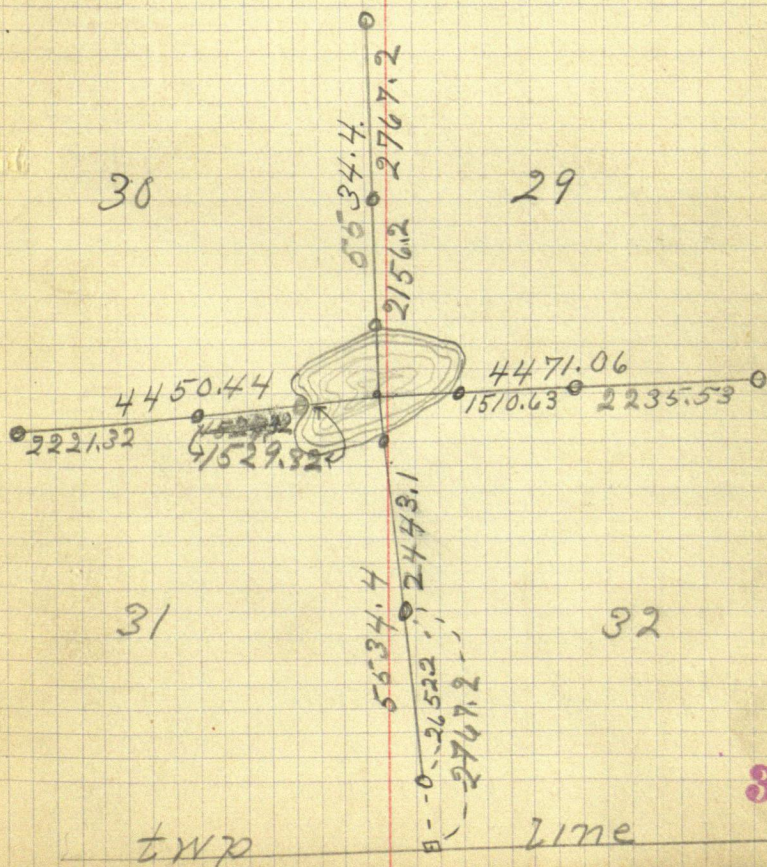
141-28

817

91

Sunday Dec 10 - 1916

I get survey outfit packed  
 and after dinner Geo C Williams  
 with car takes me to Hackensack  
 I take midnight train to Walker  
 supper at Hackensack Rd \$0.35  
 Williams Charge \$4.00  
 R.R. fare to Walker \$0.33.  
 C. H. Horst





Monday Dec 11-1916.

817

I take 3.02 A.M. train to  
Walker. Train is 1 hr + 20 min  
late arrive at Walker at about  
5 a.m. R.R. fare \$0.33 cts.

I work all day checking  
notes and calculations  
of survey E.B. Horst.

817



94

141-30 + 141-31

Saturday April 28-1917.

360

E. B. Horst transitanan  
with outfit and  
A. J. Erickson with ford  
car drive to the cor of  
secs 7+18 T140-Rge 30 and  
secs 12+13 T141 Rge 31  
where Herman Fordson  
Albert Hansen and  
Clarence Buierisdorfer  
join us we walk N  
over brushed road to  
cor of secs 6+7 T141-Rge 30  
and secs 1+12 T141 Rge 31  
where we find a wood  
post marked and driven  
into the ground for the  
sec cor. I check this up  
with the remains of the  
U.S. bearings at this point  
and find the cor to be O.K.  
U.S. Notes call for

N. Pine 30 N  $12^{\circ}30'$  E 71 lks = 46.86 ft

W. Pine 30 N  $1^{\circ}00'$  W 32 " = 21.12 ft

E. B. Horst



T. 141 N Rgs 30+31 W

3600

95

G. Pine 24 S  $29^{\circ}30'W$  166 lbs = 109.56 ft

G. Pine 20 S  $14^{\circ}E$  82 lbs = 54.12

snag of the N.E. tree still remains  
and stumps of the N.W. and S.W.  
trees still remain.

I send a man N to 74 cor  
between sees 1+6 to erect a  
flag.

I set transit on line between  
above corners and set a Hub  
on sec line 592.0 ft N of sec  
cor also a Hub N of a small  
lake lying on sec line  
setting transit on Hub 592.0  
ft N Backsight S reverse  
telescope and turn Left

$54^{\circ}37' -- 113.1$  ft

thence Left  $16^{\circ}57' -- 96.8$  ft.

" Left  $12^{\circ}50' -- 114.2$  ft

" Left  $62^{\circ}05' -- 329.2$  ft to  
sec line angle =  $37^{\circ}15'$  to sec  
line

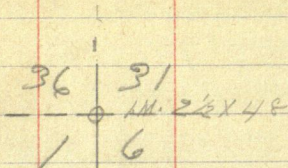
finish at 4 P.M. and return  
to Walker

Diagram on next page

E.B. Horst.



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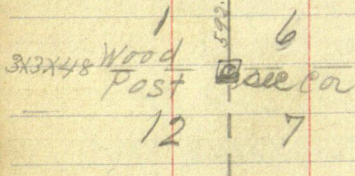
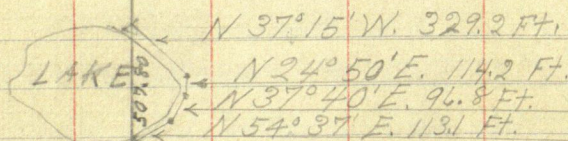
3601

sec. 1.  
141-31.

sec. 6. 141-30.

• 1/4 cor 1M. 2 1/2 x 48.

← Variation 10° 00' E  
North





# Latitudes & Departures to above Pages.

Course.	Dist.	Cosine	Sine	North	South	East	West
N 64° 39' E	113.1	.57904	.81530	65.50	—	92.21	—
N 37° 40' E	96.8	.79158	.61107	76.62	—	59.15	—
N 24° 50' E	114.2	.90753	.41998	103.64	—	47.96	—
N 37° 15' W	329.2	.60529	.79600	262.04	—	—	199.26
South.		0.00	0.00	0.00	507.80	—	—
		Totals,		507.80	507.80	199.32	199.26

86011



98 Sec-19- 141-Rge 28.

Tuesday May 22-1917.

E.B. Horst. working for Cass County.

Leave Walker on 9-28 train for Hackensack fare .28 cts  
Chester Garrity with car takes Horst and outfit to John Tolands farm where I intend to board while on survey.

Both have dinner at Tolands P.M. I look for men to assist on survey.  
all busy farming.  
E.B. Horst.



P.M. Charles Farnsworth assisted in place of John Toland.

E.B. Horst.



19-141-28

99

Wednesday, May 23-1917,

E.B. Horst. transit

John Toland axe and flag  
William Stem axe

We walk to S side of sec 19, T14N,  
Rge 28 near point for  $\frac{1}{4}$  cor  
between secs 19+30 where  
U.S. Notes call for Post and

Popples  $10 N 21^{\circ} E 37. = 24.42$  Ft

Jack Pine  $75^{\circ} E 47. = 31.02$  Ft.

We are unable to find same and  
proceed to run sec line W from  
cor to secs 19-20-29-30 established  
by me from U.S. B.T.S and marked  
by a  $2\frac{1}{2} \times 48$ " I.M. Capped

With transit over this cor I sight  
S on true sec line between secs 29-30  
and turn S.W. angle  $98^{\circ} 44'$  and  
set Hub about 1000 Ft. W.

transit on same point I sight  
N on true sec line between secs 19-20  
and turn N.W. angle to Hub  
angle  $= 89^{\circ} 15'$  we run line N to  
Silver lake but do not chain

Note  $\leftarrow$

E.B. Horst.



19-141-28.

Thursday May 24-1917

Horst. transit &amp; chain.

Emery Toland, chain &amp; flag

William Stern. age

Horst & Toland begin to chain  
at cor to sec 19-20-29-30

and chain W. on random line

742.0 W Cross farm road

982.1 " set Hub.

1404.0 " set Hub 18 ft E of small lake

= Hub A of triangle

set Hub B on line across lake

transit on Hub B sight on Hub

A turn  $90^\circ$  N.E. angle chain

base line N 282.3 ft + set Hub C.

with transit on Hub C turn angle  
from A to B  $\angle = 63^\circ 47'$ 

Distance across lake = 573.3

 $1404 + = 573.3 = 1977.3 =$  Hub B.

from Hub B. E. to lake = 300 ft

Continue W.

2264.5 W. set Hub

3047.4 W. " "

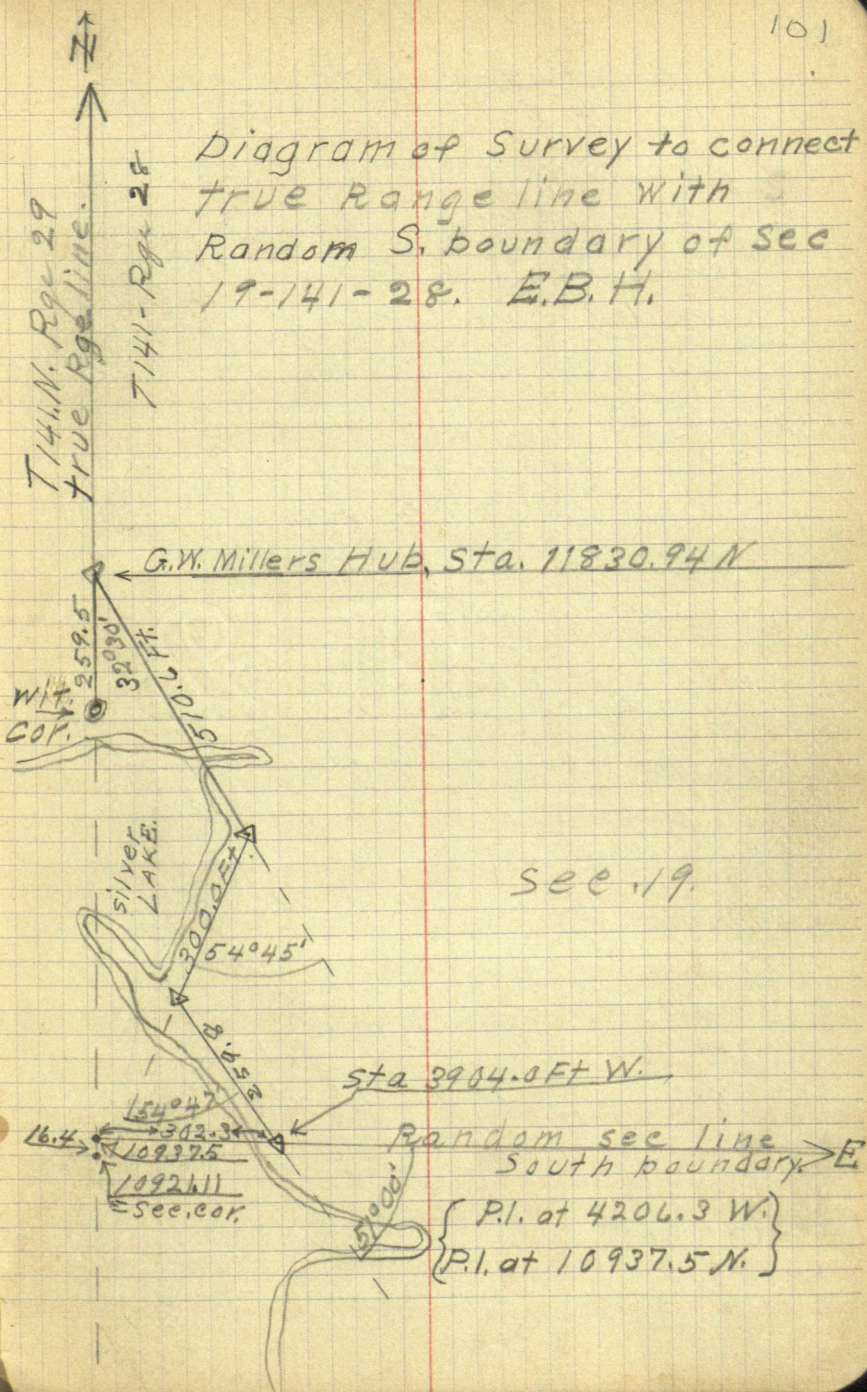
3594.8 W. " "

3904.0 W. " " 40 ft E of lake

E.B. Horst.



Diagram of Survey to connect  
true Range line with  
Random S. boundary of sec  
19-141-28. E.B.H.





19-14-28

May 24 - 1917.

Beginning at sta 11830.94 N  
on Rge line of Geo W. Millers  
survey we connect Rge line  
and S boundary of sec 19  
as per diagram on preceding  
page.

We then look again for  
B.T.s to  $\frac{1}{4}$  cor between secs  
19 + 30 until evening and  
give it up.

E.B. Horst.

Note. Chas Farnsworth  
assisted in P.M.

E.B.H.



19-141-28

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Friday May 25-1917

Horst, transit & Chain  
Emery Toland, flag & chain.  
Chas. Farnsworth and William  
Stem axemen

We walk to cor of secs 17-18-19-20  
marked by a  $2\frac{1}{2} \times 48$ " capped I.M.  
set by E.B. Horst. from U.S. B.T.s.  
300 ft S. of cor I set a Hub  
on true line between secs 19-20  
with transit over the cor I  
sight S to corrected Hub and  
then S.W. angle of  $90^{\circ}10'$  and  
run random sec line W  
159.8-W. set Hub

581.5 " " "

919.0 " " "

1359.1 " " " on J.P. Hill.

2050.0 " enter Island Lake swamp

2200.0 " leave " " "

2275.0 " set Hub on point

2297.0 " cross wire fence.

2325.0 " enter I. Lake swamp

2640.0 " set stake look for  $\frac{1}{4}$  cor

No. B.T.s continue W

E.B. Horst.



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19-141-28.

May 25-1917.

3055.7 W set Hub, leave swamp  
 3475.1 " " "  
 4114.4 " " "  
 4300.0 " enter swamp  
 4440.0 " leave "  
 4499.7 " set Hub  
 4755.6 " " " on Range

line road corner to Secs  
 13-18-19-24. Twp 5 141 Rges 28

& 29 =  $2\frac{1}{2}$  by 48" I.M. Sets

N 94.0 ft

S.E. angle of random line  
 to true range line =  $84^{\circ}10'$

.019766 = Tan of  $1^{\circ}08'$  = correction  
 for N. Boundary  
 E.B. West.



Saturday May 26-1917

Horst and same crew, begin  
at 1.M. 1/4 cor on Rge line bet.  
secs 19+24 to which I take  
following bearings

W.P. stump. 20 N 50°30' W 27.9 Ft.

Tamck 4 N 27°22' E 42.4 Ft.

I sight S on Range line to  
Get. W. Millers Post and turn  
S.E. angle 82°25' and run E  
thru center of sec 19-141-28  
404.9 Ft. E. set hub on old  
R.R. grade N.E. angle of line to  
grade = 20°12'

783.2 ft. E. set Hub.

1508.0 " " " "

1910.0 " wire fence.

2174.0 " " set Hub

2335.0 " " enter marsh.

2575.0 " " leave "

2642.0 " " set Hub.

2668.0 " " center of Toland road

3100.0 " " marsh

3300.0 " " leave marsh

3412.0 " " enter swamp

E.B. Horst.



19-141-28

May 26-1917.

3400.0 ft E leave swamp

4066.8 " " set. Hub.

$\frac{1}{4}$  cor between secs 19  
 + 20 a  $2\frac{1}{2}$ " X 48" I.M. sets  
 left  $9^{\circ}38'$  --- 420.0 ft

at 4480.9 ft E cor sets

70.3 ft. cor = .015688 =  $0^{\circ}54'$ 

We walk to point for  $\frac{1}{4}$   
 cor between secs 19 + 30

U.S. Chain for S. boundary  
 of sec 19 = 5262.18 Ft.

My chain = 4206.3 ft

one foot U.S. ch = .79934 ft my ch.

$\frac{1}{4}$  Cor sets at sta 2110.26 ft  
 West and 8.23 ft S. of random  
 line

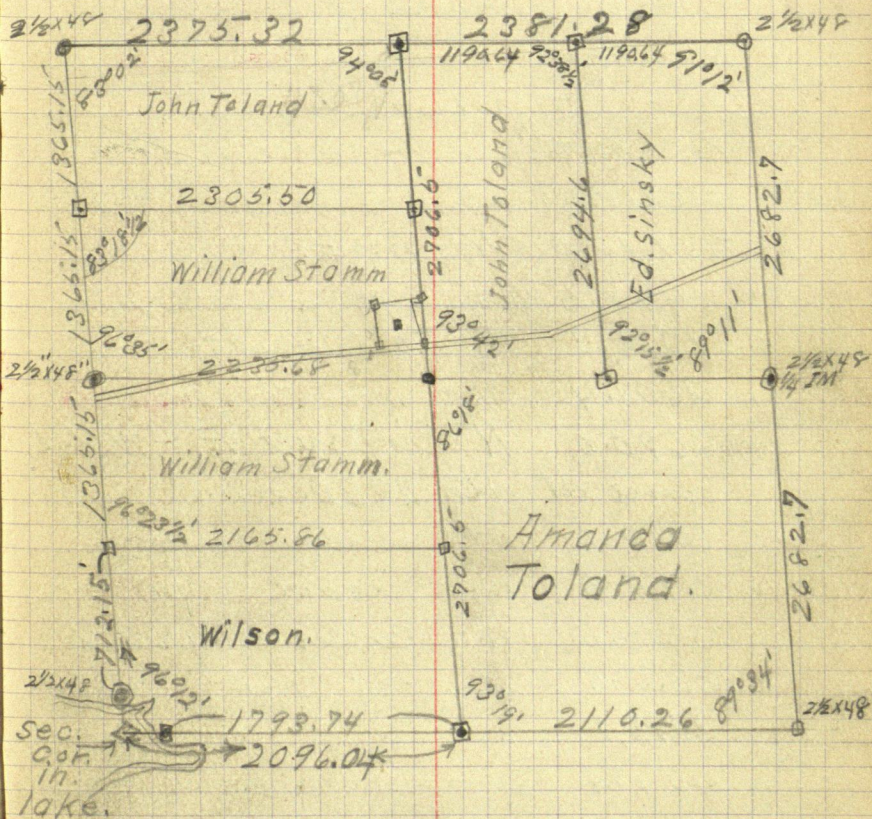
at Hub 1977.3 I set Hub on  
 true line.

With transit on true  $\frac{1}{4}$  cor  
 I sight E to correct Hub  
 and turn NE. angle  $93^{\circ}34'$   
 and run N thru sec 19  
 about  $\frac{1}{2}$  mile.

E. B. Horst.



Sec 19 - T. 141. N, Rge. 28. W.





S. 19 - 141 - 28

Monday May 28 - 1917.

Horst, transit & chain  
 Emery Toland flag & chain  
 William Stem. axe.  
 Chas Farmworth, axe.  
 We continue  $\frac{1}{4}$  line N thru  
 section 19.

at 140.0 N Hub.  
 " 448.5 " "  
 " 2218.3 " set Hub.  
 " 2609.4 " " "  
 " 2670.0 N intersect E + W  $\frac{1}{4}$   
 line at sta 2230.2 W.  
 " 3000.0 " enter swamp  
 " 3115.0 " leave "  
 " 3135.0 " center of grade  
 " 3307.5 " set Hub.  
 " 3895.1 " " "  
 " 4567.1 " " "  
 " 4900.6 " "  
 " 5240.0 enter Tamick swamp  
 " 5366.4 " intersect  
 N line of sec 19 (Random line)  
 at sta 2391.6. S.W. ang =  $93^{\circ}05'$

E. B. Horst.



May 28-1917.

at sta 2381.28 ftW on random  
N. boundary line I chain N 47.07  
ft and set a 4"X4"X36" Popple  
post for true  $\frac{1}{4}$  cor between  
secs 18 + 19 T 141 Rge 28.

with transit on Hub 5366.4  $\frac{1}{4}$  cor  
sets N  $14^{\circ}55'$  E 48 ft. at sta  
5413.0 N  $\frac{1}{4}$  cor sets E 12.4 ft  
 $\frac{1}{4}$  cor sets in N.E. Part of swamp.

We walk E on N sec. line to sta.  
2190.64 W. where I set Hub on line  
and chain N 23.53 ft and set a 4"X4"  
X 36" Popple post for true E  $\frac{1}{16}$  cor  
between secs 18 + 19.

Pop. 4 N 9.0 ft.  
3 W 8.2 ft.

From Hub on random line  
I turn <sup>offset E 0.6 ft at 1st Hub.</sup> S.W. Angle  $91^{\circ}30\frac{1}{2}'$  and  
run E  $\frac{1}{16}$  line S intersecting  
true E + W  $\frac{1}{4}$  line 6.0 ft W of center  
of E  $\frac{1}{2}$  of sec. 19.

I set a 4"X4"X 36" pop. post for  
center of E  $\frac{1}{2}$ . E.B. Horst.



19-141-28

Tuesday May 29-1917

Horst. transit + chain.  
 Emery Toland, flag + chain.  
 William Starnes and Char.  
 Danielson, appraiser.

At center of sec 19. I intersect  
 true E+W and N+S  $\frac{1}{4}$  line  
 and set a  $2\frac{1}{2}$ " x 48" I.M.  
 for true center of sec 19.

At sta 1353.25 N on N+S  $\frac{1}{4}$   
 Random line I chain E 3.1 ft and set  
 a 4x4x36 Oak post for  
 center of S  $\frac{1}{2}$  of sec 19  
 from Hub on random  
 I turn NW angle  $86^{\circ}21\frac{1}{2}'$   
 and run S  $\frac{1}{16}$  line W  
 offset S to true line at 1st  
 Hub. Continue W on true line  
 and intersect Range line  
 0.9 ft N of S  $\frac{1}{16}$  cor sec 19  
 being a wood post set in  
 1913 to which I take bearings  
 W. Pine stump 24 N  $85^{\circ}$  E 80.9 ft.  
 W. " " " 20 W 15.8 ft.  
 E.B. Horst.



19-141-28

111

May 29 - 1917.

At sta. 4059.75 Non  $N 4 S \frac{1}{4}$   
line I set Nut on random  
and chain E 8.3 ft and set a  
4'x4'x36" Oak post for center  
of  $N \frac{1}{2}$  sec 19.

I turn  $94^{\circ} 01\frac{1}{2}'$  S.W. angle from  
random line and run  $N \frac{1}{4}$  line  
line W., offset N on true line  
at 1st Nut continue W and  
intersect Range line 4.8 ft N  
of  $N \frac{1}{4}$  cor between secs 19 & 24

I set a cedar post in road  
with following bearings  
{ Red Oak 4 N.E. 34.3 ft }  
{ Popple 4 N.W. 52.7 ft }

Beginning at sta 143.3 ft S  
of  $\frac{1}{4}$  cor between secs 19 & 24  
where Rge line intersects old  
grade (State Road No. 11) we  
run line over old grade  
chain E on grade 1000. ft

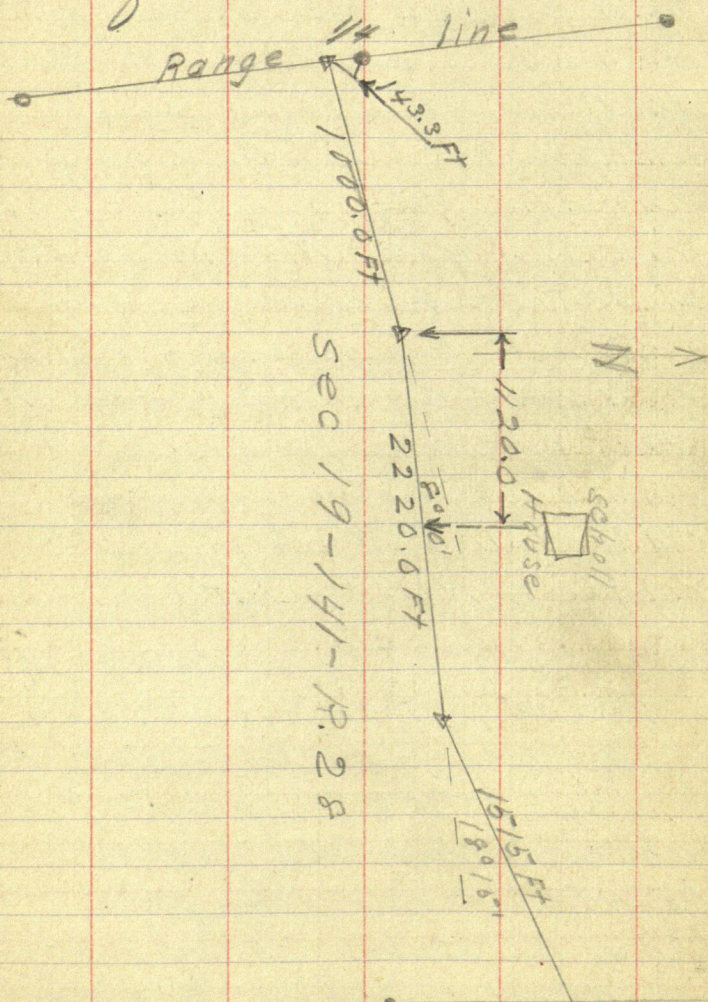
thence Right  $8^{\circ}$  at 1120 ft  
in front of School House.  
at 2220 turn left  $18^{\circ} 15'$

E. B. Horst.



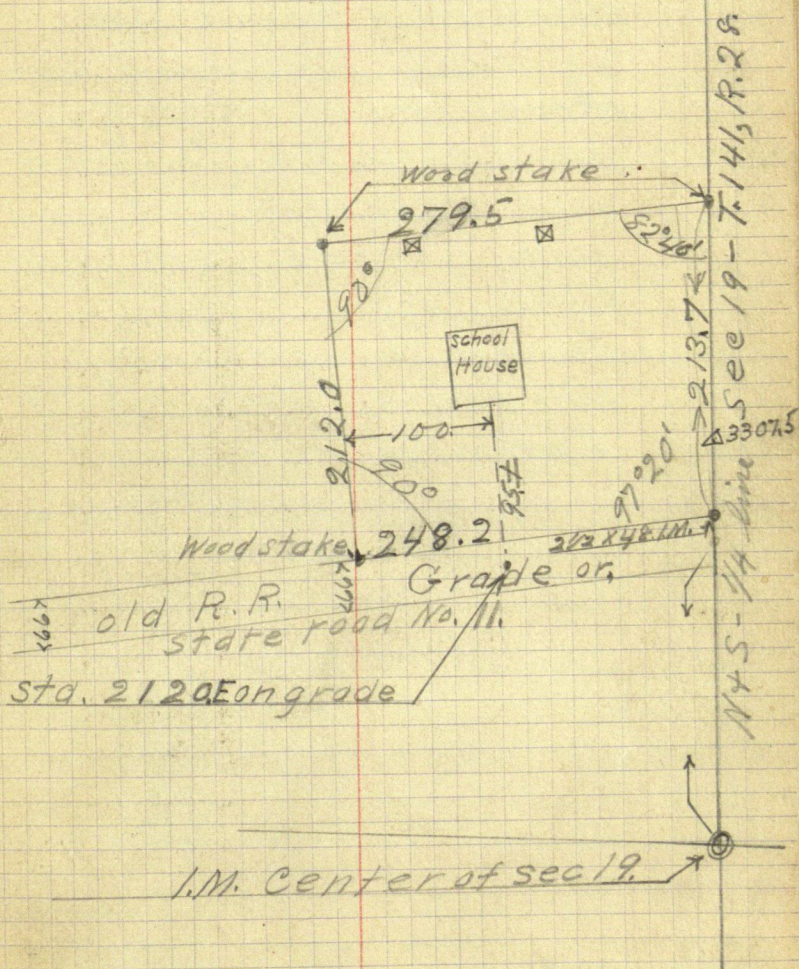
112

At 15.15 ft intersect  
E line of sec 19 - 1218.5 ft  
S of N.E. cor





# Diagram of location of Silver Lake School House.





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19-141-28

May 30-1917

Horst transit + chain.

Emery Toland flag + chain

William Stamm axe

We locate position of School  
House from center of sec 19  
as per diagram above  
and I take outfit and  
ride to Hackensack with  
Peter Soff.

Sivery Charges \$2.50

R.R. Fare to Walker = \$0.28

Dinner at Hackensack .50 etc

E. R. Horst



Latitudes and Departures of Sec. 19-141-28

Station	Distance	Bearing	Cosine	Sine	North	South	East	West
to sw cor N. corner 19	546.6	South	000	000	00	546.6	00	00
SW to S.E.	4206.3	S 89° 48' E	10800.	99415	—	454.3	4181.7	—
S.E. to N.E.	5366.4	N 5° 46' E	99494	10048	5338.3	—	539.1	—
N.E. to N.W.	4756.6	N 83° 02' W	212.9	99262	576.9	—	—	4721.5
					5915.2	59149	4720.8	4721.5

E.B. Horst.



TRUE      Ran      N.

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10<sup>th</sup> Standard Parallel on

Sta	O.D	S.E. Cor.	
2631.7	2640	52.9	Temp. S. 1/4 36
5263.3	5280	105.9	" Cor 35-36
7895.0	7920	158.8	" S. 1/4 35
10526.6	10560	211.7	" Cor. 34-35
13158.3	13200	264.7	" S. 1/4 34
15789.9	15840	317.6	" Cor. 33-34
18424.6	18480	370.5	" S. 1/4 33
21053.2	21120	423.4	" Cor 32-33
23684.8	23760	476.3	" S. 1/4 32
26316.5	26400	529.3	" Cor. 31-32
28948.1	29040	582.2	" S. 1/4 31
31579.7	31680	635.15	S.W. Cor. 31



South side kego Twp - 141-28

E 8.3

16.7

25.

33.4

41.7

50.1

58.4 (Not set) E. 416 345.0 - 54.2

W. 416 398.2 - 62.6

66.8 N. 424.7 - E. 66.8 Pop. 8" S. 65W. 9.5

" 8" S. 45E. 13.5

75.2

83.5

91.9

100.3



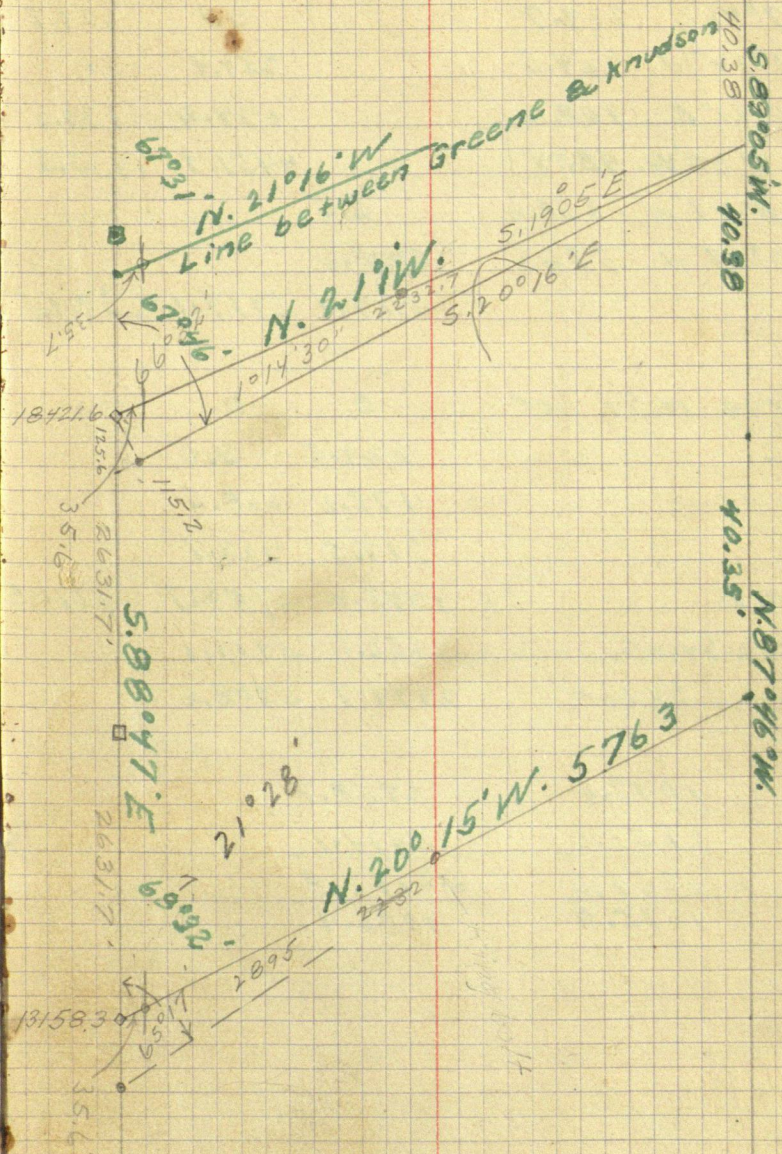
118.

		N	S.	E	W
N. 5° 08' W.	82.54'	82.20			7.40
S. 88° 45' E	67.19		1.47	67.19	
S. 86° 41' E	67.58		3.91	67.58	
N. 89° 05' W.	40.38		.65	40.38	
				31.62	
	199.37				199.37
				206.77	206.77
	1.90			1.90	
				208.67	

North	289.5	67° 31'	92399	3300000.	35.7
	1959.1			277197	
N. 12° 09' E	708.0			528030	
N. 34° 42' E.				461995	
				660350	
				646793	
				135570	

92565	330000	35.6
	277695	
	523050	
	462835	
	602250	







120

N. &amp; S. 1/4 Line

	N	S	E
S. 87°46'E. 229.7		9.1	229.7
S. 11°14'W. 264.5		259.4	.
S. 11°21'E 708.0		634.2	139.3
N. 73°30'W. 4854		4451.4	1935.5
N. 88°47'W 258.6	5.5		
N. 20°15'W 5763	5408.6		
	5414.1	5414.1	2304.5

True N. 1/4 Cor	0	0	
W.C.	229.5	9.0	
Hub	178.2	268.5	
Hub	317.5	962.7	
Old K.B.	1098.6	2758.7	1016.5
S. Reg. 1/4 Cor.	2253.0	5414.1	
True S. 1/4 Cor.	1994.4	5408.6	

1098.6	2758.7
2253.0	5414.1
2   3351.6	2   8172.8
1675.8	4086.4



Sec. 34

W

N. 1/4 Cor.

121

S. 87° 46' E.

51.5

2330'

2330

258.6

1994.4

2304.6

2868

82.1

770

Old King Bolt

S. 89° 31' E

N. 90° 15' W

N. 90° 30' W

N. 90° 45' W

N. 90° 60' W

N. 90° 75' W

N. 90° 90' W

N. 90° 105' W

N. 90° 120' W

N. 90° 135' W

N. 90° 150' W

N. 90° 165' W

N. 90° 180' W

N. 90° 195' W

N. 90° 210' W

N. 90° 225' W

N. 90° 240' W

N. 90° 255' W

N. 90° 270' W

N. 90° 285' W

N. 90° 300' W

N. 90° 315' W

N. 90° 330' W

N. 90° 345' W

N. 90° 360' W

N. 90° 375' W

N. 90° 390' W

N. 90° 405' W

N. 90° 420' W

N. 90° 435' W

N. 90° 450' W

N. 90° 465' W

N. 90° 480' W

N. 90° 495' W

N. 90° 510' W

N. 90° 525' W

N. 90° 540' W

N. 90° 555' W

N. 90° 570' W

N. 90° 585' W

N. 90° 600' W

N. 90° 615' W

N. 90° 630' W

N. 90° 645' W

N. 90° 660' W

N. 90° 675' W

N. 90° 690' W

N. 90° 705' W

N. 90° 720' W

N. 90° 735' W

N. 90° 750' W

N. 90° 765' W

N. 90° 780' W

N. 90° 795' W

N. 90° 810' W

N. 90° 825' W

N. 90° 840' W

N. 90° 855' W

N. 90° 870' W

N. 90° 885' W

N. 90° 900' W

N. 90° 915' W

N. 90° 930' W

N. 90° 945' W

N. 90° 960' W

N. 90° 975' W

N. 90° 990' W

N. 90° 1005' W

N. 90° 1020' W

N. 90° 1035' W

N. 90° 1050' W

N. 90° 1065' W

N. 90° 1080' W

N. 90° 1095' W

N. 90° 1110' W

N. 90° 1125' W

N. 90° 1140' W

N. 90° 1155' W

N. 90° 1170' W

N. 90° 1185' W

N. 90° 1200' W

N. 90° 1215' W

N. 90° 1230' W

N. 90° 1245' W

N. 90° 1260' W

N. 90° 1275' W

N. 90° 1290' W

N. 90° 1305' W

N. 90° 1320' W

N. 90° 1335' W

N. 90° 1350' W

N. 90° 1365' W

N. 90° 1380' W

N. 90° 1395' W

N. 90° 1410' W

N. 90° 1425' W

N. 90° 1440' W

N. 90° 1455' W

N. 90° 1470' W

N. 90° 1485' W

N. 90° 1500' W

N. 90° 1515' W

N. 90° 1530' W

N. 90° 1545' W

N. 90° 1560' W

N. 90° 1575' W

N. 90° 1590' W

N. 90° 1605' W

N. 90° 1620' W

N. 90° 1635' W

N. 90° 1650' W

N. 90° 1665' W

N. 90° 1680' W

N. 90° 1695' W

N. 90° 1710' W

N. 90° 1725' W

N. 90° 1740' W

N. 90° 1755' W

N. 90° 1770' W

N. 90° 1785' W

N. 90° 1800' W

N. 90° 1815' W

N. 90° 1830' W

N. 90° 1845' W

N. 90° 1860' W

N. 90° 1875' W

N. 90° 1890' W

N. 90° 1905' W

N. 90° 1920' W

N. 90° 1935' W

N. 90° 1950' W

N. 90° 1965' W

N. 90° 1980' W

N. 90° 1995' W

N. 90° 2010' W

N. 90° 2025' W

N. 90° 2040' W

N. 90° 2055' W

N. 90° 2070' W

N. 90° 2085' W

N. 90° 2100' W

N. 90° 2115' W

N. 90° 2130' W

N. 90° 2145' W

N. 90° 2160' W

N. 90° 2175' W

N. 90° 2190' W

N. 90° 2205' W

N. 90° 2220' W

N. 90° 2235' W

N. 90° 2250' W

N. 90° 2265' W

N. 90° 2280' W

N. 90° 2295' W

N. 90° 2310' W

N. 90° 2325' W

N. 90° 2340' W

N. 90° 2355' W

N. 90° 2370' W

N. 90° 2385' W

N. 90° 2400' W

N. 90° 2415' W

N. 90° 2430' W

N. 90° 2445' W

N. 90° 2460' W

N. 90° 2475' W

N. 90° 2490' W

N. 90° 2505' W

N. 90° 2520' W

N. 90° 2535' W

N. 90° 2550' W

N. 90° 2565' W

N. 90° 2580' W

N. 90° 2595' W

N. 90° 2610' W

N. 90° 2625' W

N. 90° 2640' W

N. 90° 2655' W

N. 90° 2670' W

N. 90° 2685' W

N. 90° 2700' W

N. 90° 2715' W

N. 90° 2730' W

N. 90° 2745' W

N. 90° 2760' W

N. 90° 2775' W

N. 90° 2790' W

N. 90° 2805' W

N. 90° 2820' W

N. 90° 2835' W

N. 90° 2850' W

N. 90° 2865' W

N. 90° 2880' W

N. 90° 2895' W

N. 90° 2910' W

N. 90° 2925' W

N. 90° 2940' W

N. 90° 2955' W

N. 90° 2970' W

N. 90° 2985' W

N. 90° 3000' W

N. 90° 3015' W

N. 90° 3030' W

N. 90° 3045' W

N. 90° 3060' W

N. 90° 3075' W

N. 90° 3090' W

N. 90° 3105' W

N. 90° 3120' W

N. 90° 3135' W

N. 90° 3150' W

N. 90° 3165' W

N. 90° 3180' W

N. 90° 3195' W

N. 90° 3210' W

N. 90° 3225' W

N. 90° 3240' W

N. 90° 3255' W

N. 90° 3270' W

N. 90° 3285' W

N. 90° 3300' W

N. 90° 3315' W

N. 90° 3330' W

N. 90° 3345' W

N. 90° 3360' W

N. 90° 3375' W

N. 90° 3390' W

N. 90° 3405' W

N. 90° 3420' W

N. 90° 3435' W

N. 90° 3450' W

N. 90° 3465' W

N. 90° 3480' W

N. 90° 3495' W

N. 90° 3510' W

N. 90° 3525' W

N. 90° 3540' W

N. 90° 3555' W

N. 90° 3570' W

N. 90° 3585' W

N. 90° 3600' W

N. 90° 3615' W



12<sup>N</sup>

# TRUE LINE AROUND W. 1/2

	N	S.	E.
N. 89°05'E	2665.0	42.6	2665
S. 87°46'E	2663.0	103.8	2663
S. 20°15'E	5763.0	5408.6	1994.4
N. 88°47'W	5263.4	111.7	
N. 21°01'W	5740.0	5358.1	
	1435	5512.4	5512.4 7322.4

S. 88°47'E	987	20.9	987
N. 21°01'W	5740.0	5358.1	
S. 89°05'W.	999.4	16.0	
		5358.1	36.9 987
S. 21°16'E		36.9	
		53212	

June 29 - 1927

Sta. 0 I.M.

921.6 Birch stp. 2" Hub

1338.5 Picket

2060.0 Hub 2063.6 I.M.

2168.0 Hub

2224.4 Hub

2232.7 Hub X R. 78°42' I.M. 67.8' to R. Sp. W. Pine 12" S. 20° W. B. To Chair Pine 24" N.

3/4 Lot Line N. 21°16'W - I.M. - Sta. 0

947.5 Hub

I.M. - 0 + 35.7'

1435.0 I.M.

1667.9 to I.M.



## Sec. 34 &amp; E. 1/4 Sec. 33

W.

B.T.s S. 1/4 Cor. Sec. 33

W. Oak 14" N. 16° 15' W 106.5'  
 W. Pine 16" N. 70° 30' W 94'

5263.4

2059.0

7322.4

2059.0

999.4

3058.4

992.0

2071.4

S. 1/4 Cor. Sec. 34

N.P. 10" S. 79° 35' W 31.8'  
 Pop. 8 S. 29° 12' W 11.9'

N. 86° 47' W

N 87° 36' W Tadde Twp. Rdn. Line

11.4'  
 75° 37' E 54.8' S. 78° 55' W to Stk. on pt.

Greene	Kennedy	Booth	Kennedy's Cut
22	1/2	1/2	27
23	1	1	29
24	1	1	30
25	1	1	20
26	1	1	20
27	1	1	20
28	1	1	20
29	1	1	20
30	1	1	20
31	1	1	20
32	1	1	20
33	1	1	20
34	1	1	20
35	1	1	20
36	1	1	20
37	1	1	20
38	1	1	20
39	1	1	20
40	1	1	20



124

125.7 Flowage to Cor 33-34

4.8 S. of Todds Cor

677' Road

1840 C.C.

2501.2 Hub on N. & S. R.  $\frac{1}{4}$  Line2757.6

5258.8 To Cor 32-33

2629.4 to  $\frac{1}{4}$  Cor S. side 332757.6128.2 instead of 125.6" but set cor

1667.9 I.M.

At Sta. <sup>24</sup>1691.9 on  $\frac{3}{4}$  Line (in Lake)

S 63° 15' W. 135'

S. 89° 03' W. 251.1'

S. 87° 40' W. 147.9'

S. 78° 02' W. 328.0'

S. 54° 47' W. 53.9 to bolt on pt.

Going East

N. 62° 45' E 147.8

N. 30° E. 295.4

N. 51° 38' E 124.7

N. 77° 58' E 131.2

S. 86° 06' E. 104.4

N. 71° 20' E. 201.8  $\frac{1}{4}$  M.C. Iron Mon. Sec. 3



125

at 125.6"

33



$107\frac{3}{4}$  126 140-28 51210 660  
 For Sickles 40 33  
 Sub-division Sec 4 726  
 Mon. Aug. 15 Greene 4.05 dinner 209.5

N.W. Cor. Sec. 4 run S.  $3^{\circ}30'E$ . 559.1

$\frac{1}{4}$ S. Ran. Cor. Hub S.  $0^{\circ}00'E$  2150.4

$559.1$   
 $2150.4$   
 $2709.5$  From B.T. Tree N.  $52^{\circ}25'E$  18" North Hill  
 East 14.3

N. Line Sec. 4

Aug. 18 Greene  
Bartlett  
Bodan

4533.8 + 693 =

45226.8

1920.4

613.7

1306.7

2613.4

1306.7

693.0

1920.4

613.7

Sta. 0 S.E. Cor. 33

4533.8

6 + 13.7  $\frac{1}{16}$  Sec. 4

33920.1

13 + 14.6  $\frac{1}{16}$  Sec. 33

1306.7

18 + 40.6 Clark's l.m.

19 + 20.4  $\frac{1}{4}$  Cor. Sec. 4

26 + 26  $\frac{1}{4}$  Cor. Sec. 33

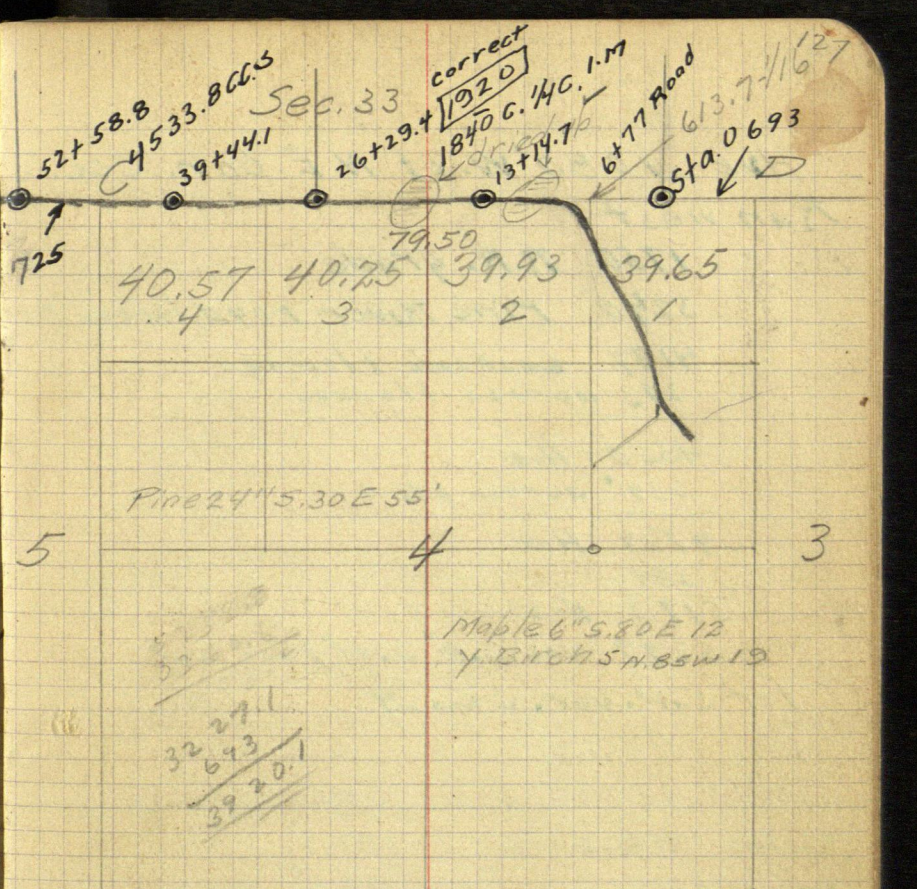
32 + 27.1  $\frac{1}{16}$  Cor. Sec. 4

3260.6 = Culvert

3614 =  $\frac{3}{4}$  l.m. of Knudson Lot

4533.8 = N.W. Cor. Sec. 4







128

Hub 1080' W. of N.E. Cor. Sec. 3  
 Ran west

1750 R.R. grade

3240 Pine River road (stage road)

4177 Eastside flowage

373 across flowage

4550 Hub

239' across pt.

4789 Hub

384

5173 Hub

5277 was 3.8' S. of post set

for S.W. Cor. Sec. 34

//

South from E. 1/4 Sec. 4 - 613.7' W.

South	406.5	South	406.5	East	West
S. 29° 43' E.	371.2	322.4	184.0		
S. 26° 00' E.	586.3	527.0	257.0		
S. 4° 46' E.	761'	75.8	6.3		
S. 37° 26' W.	736.9'	585.1	447.9		
		1916.8	447.3	447.9	

2640  
 South 1916.8  
 718.8  
 2635.6

2635.6 Hub

X 90° Run East

570.2' N. 72° 44' E - Fire Tower

1320 Hub Temp. 1/4 Cor. 3-4

1957.7' E. side grade - Pine River



$$\begin{array}{r} 49571-8 \\ 371.2-4 \\ \hline \end{array}$$

$$\begin{array}{r} 86849-8 \\ 371.2-4 \\ \hline \end{array}$$

$$\begin{array}{r} 79142 \\ 49571 \\ 346997 \\ 148713 \\ 184007552 \\ \hline 322383488 \end{array}$$

$$\begin{array}{r} 43837-7 \\ 5863-4 \\ \hline \end{array}$$

$$\begin{array}{r} 90631-1 \\ 5863-4 \\ \hline \end{array}$$

$$\begin{array}{r} 13151.1 \\ 263022 \\ 350696 \\ 219185 \\ \hline 257016331 \end{array}$$

$$\begin{array}{r} 271893 \\ 543786 \\ 725048 \\ 453155 \\ \hline 531369553 \end{array}$$

$$\begin{array}{r} 08310 \\ 76.1 \\ \hline \end{array}$$

$$99654$$

$$\begin{array}{r} 831 \\ 4986 \\ 5817 \\ \hline 632391 \end{array}$$

$$\begin{array}{r} 761 \\ 345 \\ 3805 \\ 3044 \\ 2283 \\ \hline 262545 \end{array}$$

$$\begin{array}{r} 60784-7.4 \\ 736.9-7 \\ \hline \end{array}$$

$$\begin{array}{r} 79406-8 \\ 7369-7 \\ \hline \end{array}$$

$$\begin{array}{r} 547056 \\ 364704 \\ 182352 \\ 425488 \\ 447917296 \\ \hline 585142814 \end{array}$$

$$\begin{array}{r} 714654 \\ 476436 \\ 238218 \\ 555842 \\ \hline 585142814 \end{array}$$



130

Aug. 19  
Aug. 20 - FridayGreene  
Bodah  
Bartlett  
S W

2640 1957.7

S. 28° 18' W. 600' 528.3 284.5

S. 24° 16' W. 1850 1686.5 760.3

S. 33° 20' W. 946.2 790.5 519.9

1957.7 W 3005.3 1564.7

1306.7 E 2640.0 651.0

651.0 W 5643.3 913.7

West 90' Hub.

East 363.2 "

1136.0 " 40 279.0 fol. M.

N. 10° 25' E 279.0

E. 50.4 N. 274.4

West South East

N. 10° 25' E 279.0 1006.0 0.0

S. 33° 20' W 328.4 180.4 274.4

S. 33° 56' W. 1200 669.9 995.6

S. 3° 37' E 510 509.0 32.0

S. 26° 45' W. 360 162.0 321.5

S. 10° 11' E. 520 511.8 91.9

S. 8° 42' W 770 116.5 761.1

S. 53° 06' W 1210 967.6 726.5

S. 10° 57' W 650 123.5 638.2

S. 1° 58' W. 980 33.6 980.0

S. 51° 24' W. 400 312.6 249.6

S. 39° 36' W 510 325.1 393.0

S. 63° 55' W 940 844.3 412.4

4741.5 6773.7 123.9



54464	83867	06279	99803
<u>12</u>	<u>12</u>	<u>510</u>	<u>510</u>
108928	167734	6279	99803
54464	83867	31395	499015
<u>653568</u>	<u>100640</u>	<u>3207290</u>	<u>5089963</u>
45010	89298	17680	98425
<u>360</u>	<u>360</u>	<u>520</u>	<u>520</u>
27006	535788	3536	196850
<u>13503</u>	<u>267894</u>	<u>8840</u>	<u>492125</u>
1620360	3214728	919360	5118100

15126	98849	79968	60042
<u>770</u>	<u>770</u>	<u>1210</u>	<u>121</u>
105882	6691943	79968	60042
105882	6691943	159936	120084
116470	20761137	79968	60042
18995	98179	9676128	7265042
<u>650</u>	<u>65</u>	03432	
94975	490895	98	
113970	589074	27456	
1234675	6381635	30888	
		3363360	

62388	78152	63742	77051
<u>4</u>	<u>4</u>	<u>510</u>	<u>51</u>
24955200	312608	63742	77051
		318710	385255
89816		3250842	3929601

94	43968
<u>359264</u>	<u>94</u>
808344	175872
8442704	394812
	4123992

55823	82969
<u>12</u>	<u>12</u>
111646	165938
55823	82969
669876	995628



13<sup>th</sup> Aug.

- Tues

3/4 day

Greene

Bodah

Merritt Jordan

Sta. 0 = 3-4-9-10

1006 = Hub on E. road

1320 Picket

2640 Hub

3960 "

5280 " S. 85° 20' E 68.1 to Stake

5348 " 5.5' North of Wooden

5280 " Run North

S. 88° 07' to Open Line

S. 86° 40' W to Bird House

853.5 S. 76° 11 1/2' W to B. H.

1320 Hub

2666.9 Int. E. & W. Line to R. 1/4 Cor. 185° W.  
= N. 89° 55' W.

S. 1/4 Cor. Sec. 5

W. Cor. West 200

W. Pine 18 S. 40° W. 70

1/4 Cor. 8-9

Tam. 6 N. 60° E 58

Cor. 8-9-16-17

B. Ash 5 S. 45° E 75

R. Maple 8 N. 35° W. 36

" " 7 S. 55° W. 22

S. 41° 30' W 1206.3' 799.3 903.5

S. 1° 13' W 172.8

N. 1° 13' E 2597.3 + 7.1 = 2599.4

N. 1° 13' E 2598.6 - 172.8 = 2425.8

N. 87° 04' E 51.5' to I. M. Cor. 8-9-16-17

S. W. Red Maple still

standing, but B. T. S.

N. 0° 44' W. 2624 Snow hub.

2633 Hub + cross line

913 Snow Hub

2627.3 Int.



1957.7  
1307.6  
650.1  
284.5  
365.6

4°40' = 68.1

35 133

216  
237.6

875  
38  
913

08136  
681-6  
8136  
65088  
42816  
559061.6

99668  
681

75  
47.5  
122.5

Stake.

2598.6  
172.8  
2425.8  
2633.0  
2627.3  
7686.1



1015  
66262 672.8  
60262  
101800  
66262  
355,380

66262.4  
12063.3  
19878.6

74896  
12063.3

224688  
449376  
1497920  
74896  
903470

397572  
1325240  
66262  
999.318506

2598.6  
172.8  
2425.8  
172.8  
2.4

rotted out.

+ Final Bearing N. 0°59'W. 5402.5  
122.5 E. 705280



M.C. #60

W. Pine 12" North 5 = 330

W. Birch 8 N. 70 W. 50 = 33'

M.C. #61. N. Pine 12 N. 70 E 20 = 132

N. Pine 10 N. 45 W 40 = 264

5-6-7-8 W. Birch 10 S. 35 E 30

W. Pine 12 N. 70 E 28

W. Birch 8 N. 40 W. 22

N. 89°35'E

S. 5°27'E to Bird House 188.5

N. 85°58'E to Hub in Jones Road

2607.2

2607.2

52

2666.4559.1

5245.76

5273.6

2148.1

65.572

1605

1605 10524.49630

8944

8025

9190

8025

11650

14235

4150

7686.1

7676.6

2425.8

5250.8

5273.6

10524.4



M.C. 60 9.6 6.00 5 2108  
12.8 1.M. 396 218.4 chained -  
7 3.30 S.  
88053 8  
M.C. 61 N. 88°43' W  
1.M.

Monday -

Setup at N.W. 1/16 Cor. 1.M.

1306.7 + 0, run S. 2°50'E. 2680.2

N.W. Cor	S. - E.	S. - E.
	0. - 0	259.5 - 5332.8
N.W. 1/16	1306.7 - 0	1569.5 5341.2
N. 1/4 Cor.	2613.4 - 0	2879.5 5349.6
N.E. 1/16	3920.1 - 0	4189.5 5358.0
N.E. Cor	5226.8 - 0	5499.5 5366.5

1 chain = 66.2455' 66.2'

2649.8  
2682.9 ✓  
5332.7

2649.8200  
3312275  
268299275

67.2 67.2  
79.87 5366.5 40  
4792.2 2688.0  
57430  
55909 51  
15210  
15974 7.8 3960  
2362 390



136

$$\begin{array}{r}
 86^{\circ}10' \\
 76^{\circ}11\frac{1}{2}' \\
 \hline
 9^{\circ}58\frac{1}{2}'
 \end{array}$$

$$\sin 76^{\circ}11\frac{1}{2}' : X :: \sin 9^{\circ}58\frac{1}{2}' : 853.5$$

17322

$$\begin{array}{r}
 971095-4 \\
 853.5-3 \\
 \hline
 2291.6
 \end{array}$$

$$\begin{array}{r}
 4855475 \\
 2913285 \\
 4855475 \\
 7768760 \\
 8288295823 \\
 69288 \\
 135949 \\
 121254 \\
 146955 \\
 138576 \\
 83798 \\
 692880 \\
 4510
 \end{array}$$

4784.8

$$\begin{array}{r}
 4784.8-4 \\
 06714 \\
 \hline
 191392
 \end{array}$$

$$191392$$

$$47848$$

$$334936$$

$$\begin{array}{r}
 287088 \\
 321251472
 \end{array}$$

$$2666.9$$

$$375.3$$

$$2291.6$$

$$853.5 : 2291.6 :: 9^{\circ}58\frac{1}{2}' : X$$

$$.1765$$

$$114580$$

$$137496$$

$$15512$$

$$2291.6$$

$$259.56740$$

853



North 853.5'

76°11'1/2"

559.1  
 2150.4  
 2666.9  
 5376.4  
 44.1  
 5332.3  
 2.3  
 5334.6

5.76°11'1/2" W.

4916.1

5.86°10' W. 4784.8

9058 1/2'

4773.3

6775.1  
 903.5  
 7678.6

76°11'  
 11°40'  
 87°51'

Bird House

5.88'

413.8

1. M. (O)



Proportion for Cor. 4-5-8-9  
 Given Cor. 4 & 5 on 10th Standard Parallel  
 Cor. 5  $\Delta$  6  $\Delta$  7  $\Delta$  8, set from orig. B. to  
 Cor. 8  $\Delta$  9  $\Delta$  16  $\Delta$  17 " " " B. to  
 Cor. 3  $\Delta$  4  $\Delta$  9  $\Delta$  10, " by guess & by G. to  
 but 2640 from North  $\frac{1}{4}$  Cor. of 10.

### Government notes

Sec. 5-8 and 4-9 159.92 chains =  
 4-5 and 8-9 160.50 chains =  
 or 1 chain = 66'

Cor goes North 44.1'  
 East 39.8

N. 86° 10' E 215.3' feet from Bird H.

N. 25° 53' W 206.4' " to

S. 85° 08' W 145.9'

S. 88° 42' W 413.8 Sec. 6, S. 6° 20' E to B. H. 188, 5'

N. 88° 42' E 413.8

N. 83° 42' E 364.5

N. 39° 45' E. 299.6'

N. 40° 55' E 853.0



4784.8  
215.3  
4569.5

139

44.1

39.8

83.9

5366.5 5330.5  
5260.3 5260.3  
10626.8 10590.8

B.Ts.

B.Ts

and established by court and wage.

$$= 159.92 = 5280 + 4773.3 + 17.9 + 4138$$

$$= 5280 + 5205 = 10485$$

$$1 \text{ chain} = 65.564$$

$$80 \text{ " } = 5245.1 \quad 79.92 = 5239.9$$

Cor. goes East 40'

10592.8'

See Corr. Below Page 144

North South West

South 44.1

44.1

West 39.8

39.8

S. 86°10'W. 4569.5

304.8 4559.2

N. 25°53'W. 206.4 185.7

90.1

S. 85°08'W. 145.9

12.3 145.4

S. 88°42'W. 413.8

9.4 412.9

185.7 370.6 5247.4

185.7  
184.9

N. 87°59'E

$$159.92 = 5280 - 39.8 + 5485.6$$

$$= 10725.8$$

$$1 \text{ chain} = 67.07$$

$$80 \text{ chains} = 5365.6$$

$$1341.4$$

$$79.92 = 5360.2$$

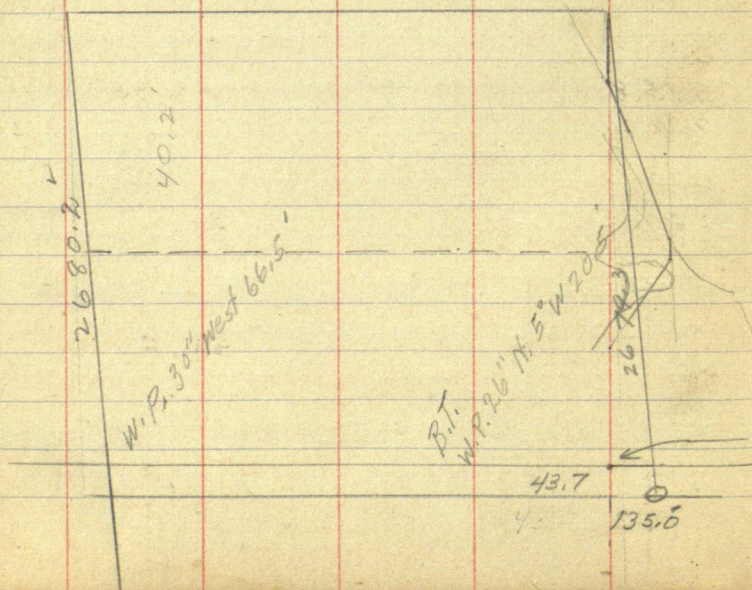
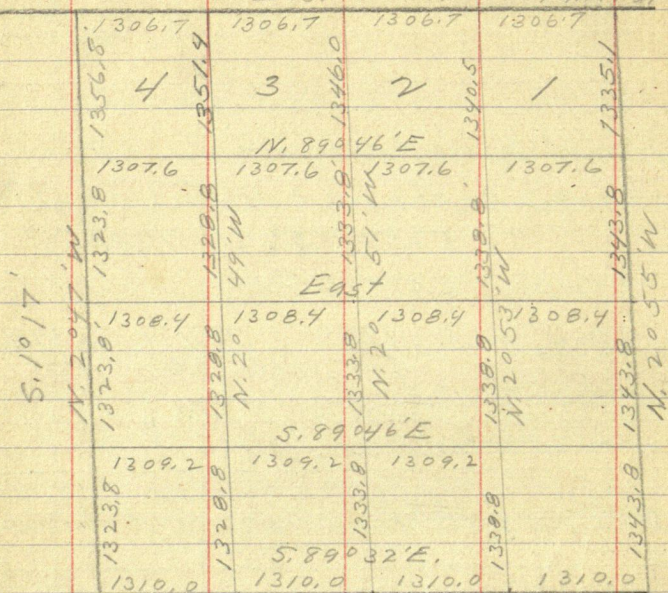
$$1340$$



Sec. 4-140-28

East

10<sup>th</sup> Stan. Far





S. 20°53'E 446.4  
S. 29°43'E 325.9

141

South 406.5

South East West  
406.5

S. 29°43'E. 371.2

322.4 184.0

S. 26°00'E 586.3

527.0 257.0

S. 40°46'E 76.1

75.8 6.3

S. 37°26'W 736.9

585.1 447.9

South 718.8

718.8

2635.6 447.3 447.9  
126

585.1 736.9  
585.1  
15180  
11702  
34780  
35106

965  
126  
5790  
1930  
965  
1215-90

121.5

6074 965  
6074  
6

79406 965  
79406  
170940  
158812  
121280  
79406  
418740  
20.5  
22.45  
36.7  
147.3

0 — 0.0

406.5 — 0.0

445.8 — 22.45

728.9 — 184.0

1255.9 — 441.0

1331.7 — 447.3

1916.8 — 0.0

63.2 377.8

67.0 380.3

96.5

2635.6 — 0.0

132.6

2679.3 — 0.0

135.0



M.C. #63 I.M. Wit. Post 25.8'E

Sec. Cor. 8-9-16-17 NW &amp; 89°48'

S. 88°03'W TRUE LINE S. N. to Hub 2°15'  
S. 89°28'W along R. Sec. Line. S. to true M.C.

1320 set hub 30" for temp 1/16

1966.8 Total rec. Dis.

1862.2

11.4' to beach

2599.4 x 51.6 E. to I.M.

S. 89°28'W 1873.6

S.W. &amp; 88°12'

N. 7°50'E 300'

N. 1°13'E

N. 1°50'W. 407'

88°12'

N. 4°03'E. 350.6

S. 89°25'W 25.6 - Bens

N. 13°06'W 283.5

32.2

315.7

N. 38°54'W. 331.1

N. 38°54'W 388.8

10.5

368.1

50.5

1149.0

N. 60°22'W 268.5

N. 84°18'W.

N. 89°50'W.

S. 67°13'W. 228.1

S. 79°55'W 241.0

N. 81°44'W. 147.1

N. 59°13'W 161.0

2695.3  
2640  
55.3



3/4

N

S

E

W

S. 89° 28' W. 1873.6

174.4

1873.6 - 174 1873.6

N. 7° 50' E. 300.

297.2

40.9

279.8 1838.7

N. 1° 50' W. 407

406.8

13.0

686.6 1845.7

N. 4° 03' E. 350.6

349.7

24.8

1036.3 1820.9

N. 13° 06' W. 315.7

307.5

71.6

1343.8 1892.5

N. 38° 54' W. 1149.0

894.2

721.5

2238.0 2614.0

N. 60° 24' W. 268.5

132.6

233.5

2370.6 22847.5

S. 67° 13' W. 228.1

88.3

210.3

2202.3 3057.8

S. 79° 55' W. 241.0

42.2

237.3

2240.1 3295.1

N. 81° 44' W. 147.1

21.2

145.6

2261.3 3440.7

N. 59° 13' W. 161.0

82.4

138.3

2343.7 3579.0

N. 49° 42' W. 217.8

140.9

166.1

2484.6 3745.1

N. 30° 36' W. 244.8

210.7

124.6

2695.3 3869.7

N. 29° 06' W. 400.8

350.8

194.9

3045.5 4064.6

N. 27° 54' W. 269.2

237.9

126.0

3283.4 4190.6

N. 21° 16' W. 300

279.6

108.8

3563.0 4299.4

N. 39° 12' W. 510.4

395.1

323.2

3758.1 4622.6



2663.4  
2640  
5303.4

5245.1  
153.5  
5091.6

2663.4  
2640  
5303.4

N. 0° 50' W.

S.W. Cor 7-8-16-17 N. 0° 44' W.

1319.1 old picket in cranberry bog.

2627.6 Clarks old cor. scribed

2636.0 <sup>2.5 feet west</sup> Greenes hub. 2640 pin.

2648 Set square temp 1/4 Cor

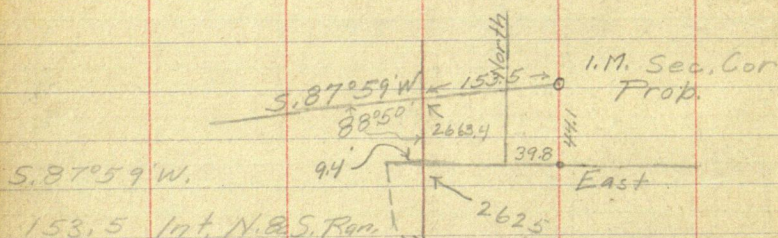
900+9 -4.5 E. of old Hub = 3546

1440 Hub. 1140

2625 old line X 9.4 to Hub west

2640. Hub

2663.4 S.W. X 88° 50' 153.5'



S. 87° 59' W.

153.5 Int. N. & S. Rgn.

1312 Pop. Hub.

2640 pin

2663.4 = 2216.2 Lake @ A

X B = 42° 44'

side a = 269

X C ext. 58° 43'

side c = 1037' + 197.6 = 1234.6

2216.2

1234.6

3450.8

680.7

4131.5

1354.1

5485.6 Sec. Cor. 8' south Cor. 0° 05'

S. 87° 54' E. S.E. X 88° 46' to M.C.

91° 46' to Sec. Cor.

Sec. Cor. to M.C. S. 3° 19' E.



	N	S	E	W
N. 24° 15' W.	1579	143.9		648
N. 14° 25' W.	318.1	308.1		4102.0
N. 48° 27' W.	174.1	128.5		4102.0
N. 54° 13' W.	384.7	224.9		4687.4
N. 54° 28' W.	225.4	131.0		792
N. 30° 12' W.	217.8	216.4		4410.1
N. 87° 54' E	5332.1	195.4		4766.6
S. 0° 50' E	5303.4			312.1
				4763.5
				5796.2
				1834
				4894.5
				5379.6
				18.2
				5110.9
				5391.8
				5306.3
				59.7
				2.9
				-17.4

Line bet. 5 and 7. S. 87° 25' W.  
 Line bet 17 and 20 S. 88° 12' W.  
 Mean Line 7-17 S. 88° 03' W.  
 East 8 West 14 Line Sec. 7 - S. 87° 58 1/2' W.  
 S. 1/16 Line Sec. 7 S. 88° 01' W.

N 59° 37' W. 677' to M.C. N 89° 16' E. to Sec. 6.

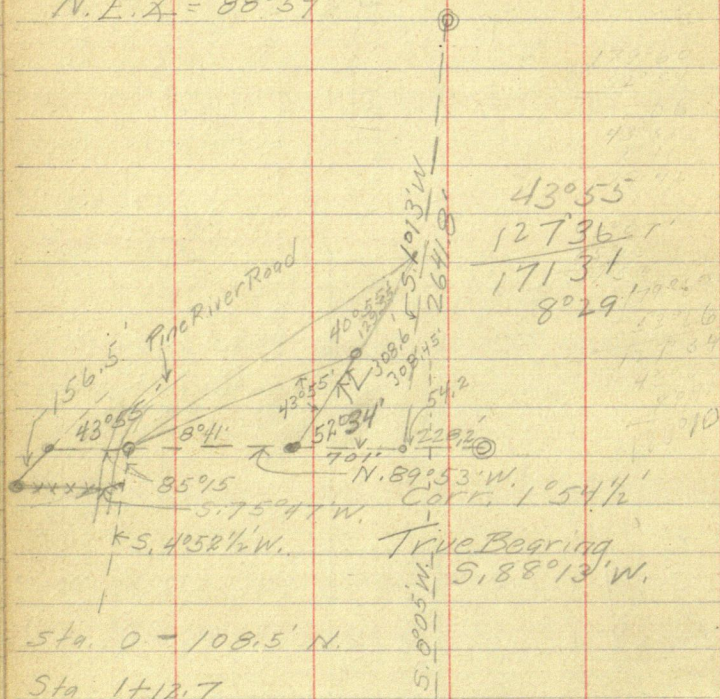


S.W. Cor. Sec. 16.

Run S.  $1^{\circ}13'N$  2641.8 from W.  $\frac{1}{4}$  Cor. 1.M.

Ran. Hub S.  $89^{\circ}53'E$ . to Sec. Cor. 1.M.

N.E.  $\angle = 88^{\circ}54'$



Sta. 0 - 108.5' N.

Sta 1+12.7

8+94.8	OB, West side Heffron L.
<u>14 22.2</u>	3135.6
2317.0	3018.0
<u>701</u>	117.6
3018.0	
<u>228.2</u>	
clerk's 3246.2	3246.2
3174.6	3135.6 computed
<u>71.6</u>	110.6



$52^{\circ}34'$   
 $40^{\circ}55'$   
 $11^{\circ}39'$

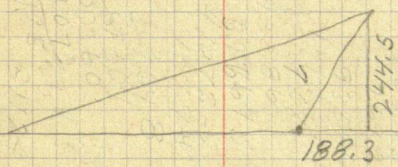
$52^{\circ}34'$   
 $43^{\circ}55'$   
 $8^{\circ}39'$

$308.6$   
 $129.6$   
 $438.2$   
 $438.0$

$\sin 8^{\circ}39' : 308.6 :: \sin 43^{\circ}55' : X$

$69361-7-2$   
 $308.6-8$   
 $416166$   
 $554888$   
 $2080830$   
 $214048046$   
 $1504$   
 $6364$   
 $6016$   
 $3488$   
 $3008$   
 $4800$   
 $4512$   
 $2884$

$65496-3$   
 $438.2-8$   
 $130992$   
 $523968$   
 $196488$   
 $261984$   
 $287003472$



$1423.4$   
 $1421.0$   
 $1422.2$

$\sin 11^{\circ}39' : 438.2 :: \sin 40^{\circ}55' : X$

$20193$   
 $287003472$   
 $20193$   
 $85073$   
 $80772$   
 $643014$   
 $13740386$   
 $262871$   
 $20193$   
 $942$

$654777$   
 $2445-6$   
 $3273885$   
 $2619108$   
 $2619108$   
 $1309554$   
 $1600929765$

$1170.9$   
 $1639.3$   
 $40.2$   
 $1620.1$   
 $188.3$   
 $1431.8$



140-28  
Correction of East Line Sec. 7

N. 0°50'W, 5303.4

N. 87°59'E 133.3

Corr. 0°22' N. 0°28'W True Line  
0°14'  
N 0°42'W E. 1/16 Line

E. 1/4 Cor. 2651.7 N. 87°59'E 16.6  
Mag. Bear S. 81°W.

S. 89°28'W Ran. Lin Diff. 1°25'  
S. 88°03'W True Line 1862.2

Corr. offset = 46.1'

N. Line 1341.4

Mean on 1/4 Line 1331  
S. Line 1320 Total 3800±

Set 1 1/2" X 48" flue pipe for 1/4 Cor. 7-8

B. Ts as follows Birch 6" N. 49°50'W  
Birch 8" N. 55°44'W

1331 set Hub

3436 set Hub X Left 5°52' 148.2"

109-1.M. 4'N.

41.3 back to Hub 140.8' X Shoreline X 55°30'

930 Hub X 0

1/4 Cor = 0

2036 2103 46

3436 1/4 Cor. S. 87°58' 1/2 W

1331 1/16 Cor

S. 82° 6 1/2' W

2506 Hub marked 930  
3436 Hub

N. 86° W

3583.4 "

0 41.3' S. 30°30' E.

3691.8 " on bank  
4 S. of 1.M.

3723.4 X

3723.4  
2662  
1161.4



2651.7  
1.5  
2/2650.2  
1325.1

N. 87°59'E  
N. 88°03'E  
0041  
1325.1  
32.6  
1292.5

1331 1325.5-7  
1320 00116.8  
2/2651 7953.0  
1325.5 1325.5  
1325.5 153768.0

E. & W. 1/4 Line  
S. 87°58 1/2' W

1331' 83

Lot 3

113  
161.0  
147.1  
217.8  
228.1  
241.0

S. 30°30'E 41.3  
217.8  
161.0  
147.1  
241.0  
228.1  
1036.3

315.7  
N. 30°30'E  
315.7

40.3  
150.2  
350.6  
300  
407

1325.1

N. 88°01' W

S. 89°28' W  
32.6

1320'

S. 88°03' W

W.C.M.C. Elm 6" Var. 8° S. 1° E 20'  
126.7' N. 75°30'E 18'  
S. 2°46' W. 46.1' to M.C. from Ram. Hub



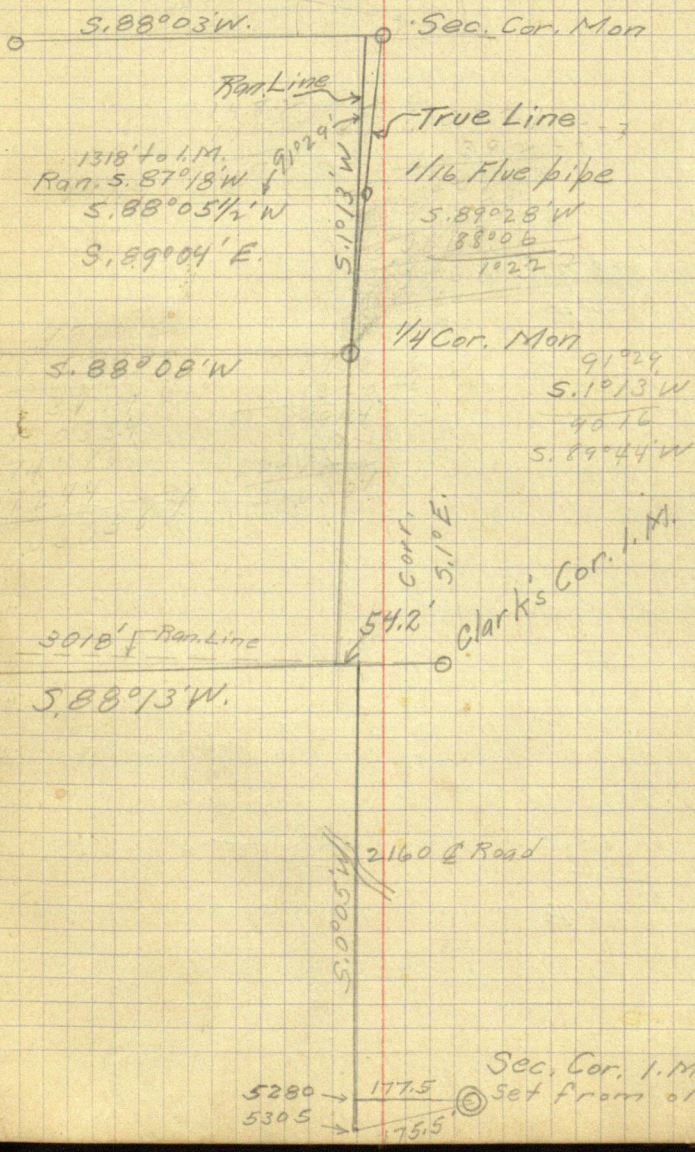




88°31'  
1°13'  

---

5 87°18'W





2 X 5, 89°28'W = 1°04'

5.88°05'W

5.87°18'W

0°48'W

1298.7

1258.5

40.2

1.3'

101.4

1.3

131.8

13

89°45'

5.87°18'W

2°27'

1258.5

36.9

1295.4

43.5

24.5

19.0

Intersection 1258.5 south Line 1.3' N.  
1268.9 East Corr. 0°03'

S.E. 4 90°20'

S. 10°20' W.

N 89°42' E.

91°29'  
S. 1°13' W.

90°16'

5.89°44' E

5.1°15' W

1°04'

5.0°11' W

5.0°08' W

31.5 = 1°49'

40.2 1268.9

1206

629

402

2270

5.89°45' W

88°05'

40°40'

N

1268.9

02908 - 1

101312

1142010

25378

368796126

47.1 10°5'

26.7 1258.5 = 1°13'

1068

1905

1869

360

5.0°02' W

90°20'

90°18'

N. 89°42' E

1°07'

12585.3

01949-5

113265

50340

113265

12585

24528163

90°23'  
S. 1°15' W

S 89°08' E = 52'

1°49'

90°57'

N. 89°03' E

5.0°02' W

90°23'

90°21'

N. 89°31' E

1°49'

87°50'



64  
1004

1873.6

S. 89°28'W - Part Line

N = 89.8  
E = 2640

N. 88°03'E.

W.G. MC.  
32.6

02908  
24.5  
14340  
11632  
5816  
1712460

1215  
43.5  
125855  
1268.9 W.

1318  
49.9  
12689

1298.7

S =  
Cor. goes to 179  
" " E 23.2

N. 88°05½'E

1294.8

S = 1210.8  
E = 2586.6

1860

Force

S. 89°45'W  
89°37'  
S. 0°08'W

90°  
20' S. 89°45'W  
03' 1049  
90°23' S. EX Hub.

S. 89°46'W  
03'  
S. 89°49'W  
S. 0°09'W

N. 10°15'E

Sec. 17

N. 88°08'E

S = 2511.8  
E = 2533.3

S. 1°16'W

02908  
186  
174.48  
23264  
2908  
510888

91°29'  
N. 1°13'E  
90.16  
S. 89°44'W.

N. 0°44½'W

1. Mon. to be moved to this pt.

S = 5238.4  
W = 12.2

S = 5157  
E = 2595.4

N. 88°13'E.



916.4 S. 87° 59' W

41.3 S. 30° 36' E

217.8 S. 49° 42' E.

161.0 S. 59° 13' E

147.1 S. 81° 44' E.

241.0 N. 79° 55' E.

228.1 N. 67° 13' E

181.6 N. 0° 42' W

1161.4 S. 87° 56' W

203.5 N. 30° 36' E.

400.8 N. 29° 06' W.

269.2 N. 27° 54' W

300.0 N. 21° 16' W.

389.3  
121.1

510.4 N. 39° 17' W 6331

157.9 N. 24° 15' W

318.1 N. 14° 25' W.

174.1 N. 42° 27' W

384.7 N. 54° 13' W

225.4 N. 54° 28' W.

217.8 N. 3° 12' W

2666.0 N. 87° 54' E

6336331

476

774

39.4

6910.4

648.0

6331

10490

15324

5.610



N.

S.

E.

W.

32.4

916.4

35.5

21.

140.9

166.1

82.4

138.3

21.2

145.6

42.2

237.3

88.3

210.3

181.6

2.2

312.1

312.4

918.6

918.6

175.2

40.5

1161.4

1161.4

350.2

1183.6

237.9

194.9

279.6

126.0

395.1

301.3  
93.8

108.8

143.9

323.2

308.1

210.7

12.4

64.8

128.5

351.5

21

79.2

224.9

175.2

116.3

117.5

131.0

312.1

216.4

183.4

97.7

12.2

2688.5

2666.0

2787.1

40.5

2648.0

1344.2

45.9

1161.4

2797.1



Base Line for this traverse 18.8  
N. E. Cor. Sec. 5 & S. W. Cor. Sec. 33

	S	E	W	
	5		729.5	9.0
S. 78° 11' W	91'	18.6	89.1	18.6
S. 62° 41' W	499.6	229.3	443.8	247.9
S. 0° 03' E	1160.7	1160.7	1.0	1408.6
S. 19° 24' E	507.8	478.9	168.7	1887.5
S. 5° 37' E	234.6	233.5	22.9	2121.0
S. 14° 07' W	220.3	213.7	53.8	2334.7
S. 8° 51 1/2' W		380.7		2715.4
S. 8° 50' W	388.5	383.9	60.7	2718.6
S. 38° 41' W	222.5			
S. 39° 04' W	221.2	171.8	139.3	2890.4
S. 58° 40' W	421.8	219.3		
S. 36° 13' E	205'	161.2	360.4	3109.7
S. 43° 47' W	818.0	660.0	483.3	3769.7
S. 7° 20' E				
S. 7° 25' E	183.6	182.1	23.7	3951.8
S. 24° 57' W				
S. 24° 52' W	154.6	140.2	65.1	4092.0
S. 1° 25' E				
S. 1° 20' E	1291.8	1291.8	30.1	5383.8
N. 87° 54' E	1341.4		1341.4	5336.1
N. 1° 30' W	1323.7	(1325)	34.6	4011.1
N. 1° 30' W	1323.7	(1325)	34.6	2686.1
N. 1° 30' W	2680.5	(2683.6)	70.2	2.5
		5383.8	2071.1	2081.1
	S	E	W	
S. 3° 30' E	559.1	558.0	34.1	558.0
South	2150.4	2150.4		2708.4
N. 52° 25' E	18.0		(14.3)	2686.1
East	185.0		185.0	2697.4
S. 60° 04' E				2708.4
South	2624.2	2624.2	3.0	5332.6
S. 88° W	80.0	2.3	80.0	5334.9
S. 88° W	1341.4	5334.9	222.1	139.4
N. 1° 20' W	1291.8	5333.6	219.1	219.4



feet south of

729.5

818.6

1262.4

1261.4

1092.7

1069.8

1123.6

1174.3

1184.3

1323.6

1684.0

1200.7

1177.0

1242.1

1212.0

129.4

139.4

104.8

70.2

34.1

34.1

70.2

48.4

219.1

219.1

139.1

70.2 = E  
1263.8 = W  
104.8 = E  
1232.9 = W

1/4 Cor. 2686.1  
5.88042'W 1334 3715.4  
1/16 Cor. 4011.7 4050.2  
5.88018'W 1337.7

5381.3

N

(11.0)

Cor 2697.4  
- 48.4

34 5-2686.1

42'W E- 70.2

1/4-S.E.1/4

5-140-28

Kinkel

1334

1341.4

7.4

18'W

37.7

S-4011.7

E-104.8

1.19105-8

795-3=6

525525

1071945

833735

94688475

76586

9470000

76586

181140

153172

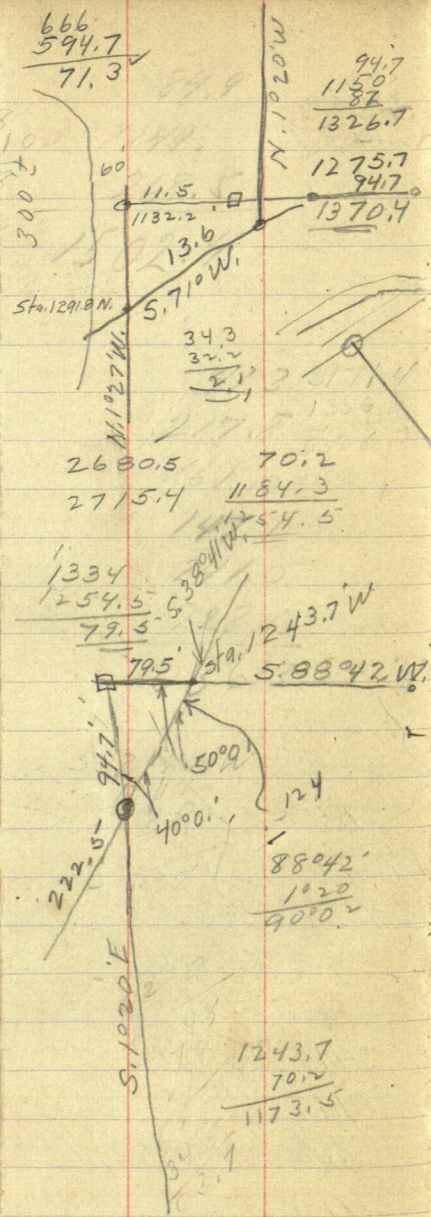
279680

124

N. 1/2 30'W  
1325



## 5

5



1333  
1326.7  
6.3

Old 1/4 Cor 2697.4  
48.4

1243.7

1334

5-2686.1

1/4

S. 88° 42' W E- 70.2

S-2715.4  
W-1263.8

○ 2718.6  
1184.3

N.E. 1/4-S.E. 1/4

Sec. 5-140-28  
clarence Kinkel

1333  
N. 1020' W

N. 1030' W  
1325

1334  
1341.4  
7.4

○ 4092  
1242

S. 88° 18' W

S-4050.2  
W-1232.9

1337.7

S-4011.7  
E-104.8

70.2  
48.4  
21.8

1.19105-8  
795-3=6  
525525  
1071945  
833735  
94688475

124  
64301 7950000  
64301  
151990  
128602  
233880

124  
76586 9470000  
76586  
181170  
153172  
279680

75



Sam. Bills Clark & Mix

to up into Rogers Road Note P.K.

June 12<sup>th</sup> night at  
June 13<sup>th</sup> Clarks  
Clark & Sam

5.7 1/4 bet Secs 1-2 - 142 78

5.6 W Oak 9 N 35 E 33.8

5.0 W Birch 12 S 57 E 33.6

5.14 1/4 bet 11-12

5.5 Maple 6 S 85 W 31.7

5.14 " 16 S 75 E 37.0

140-28  
Line bet 4 & 5

5.8 N. S. E. W.

5.3

5.34 S. 3°30' E. 559.1 558.0 34.1

5.5 South 2150.4 2150.4

5.36 East 185.0 185.0

5.7 S. 5.0°04' E 2624.2 2624.2

5.2 S. 5.88° W 80.0 2.3 80.0

5.1 S. N. 1°30' W 2647.4 2647.4 69.2

5.0 N. 1°30' W 2680.5 2680.5 70.2

5.3 N. 1°30' W 2680.5 2680.5 70.2

5.3 N. 1°30' W 2680.5 2680.5 70.2

5.3 N. 1°30' W 2680.5 2680.5 70.2

5.3 N. 1°30' W 2680.5 2680.5 70.2

5.3 N. 1°30' W 2680.5 2680.5 70.2

5.3 N. 1°30' W 2680.5 2680.5 70.2

5.3 N. 1°30' W 2680.5 2680.5 70.2

5.3 N. 1°30' W 2680.5 2680.5 70.2

5.3 N. 1°30' W 2680.5 2680.5 70.2

5.3 N. 1°30' W 2680.5 2680.5 70.2

5.3 N. 1°30' W 2680.5 2680.5 70.2

5.3 N. 1°30' W 2680.5 2680.5 70.2

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5.3 N. 1°30' W 2680.5 2680.5 70.2

5.3 N. 1°30' W 2680.5 2680.5 70.2

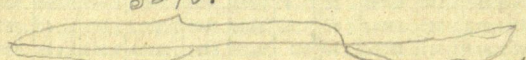
5.3 N. 1°30' W 2680.5 2680.5 70.2



2671.6 W  
 5291.4 E  
7963.0  
 7950.36  
12.64

2662.44  
 5287.92  
7950.36

[.0016]

5296.34  
  
 2648.17      2666.66

5296.30  
 91.40  
4.94  
 5296.30  
 3.5  
375  
 225  
2625  
 3.75  
3000

5233.1

at 7963.0 the true  $\frac{1}{4}$  Gr sets N 3.30 ft.

11614  
 0349  
104526  
 46456  
 34842  
905328



4

$$\begin{array}{r} 1370 \\ 50.9 \\ \hline 1319.1 \end{array}$$

23.4

$$\begin{array}{r} 2640 \\ 12.4 \\ \hline 276 \end{array}$$

2640

$$\begin{array}{r} 2640 \\ 2460 \\ \hline 180 \end{array}$$

$$\begin{array}{r} 180 \\ 300 \\ 170 \\ \hline 650 \\ 950 \\ 970 \\ 1370 \\ 1324 \\ \hline 1324 - 46 - 50.9 \text{ back to old } 1320 \end{array}$$

$$\begin{array}{r} 1370 \\ 1500 \\ 1550 \\ 1850 \\ 1910 \\ 2370 \\ 2640 - 12.4 \text{ clarks} \end{array}$$

2640 - 4 Greene 2.5w

$$\begin{array}{r} 2627.3 \\ 2633 \\ \hline 5260.3 \\ 2640 \\ \hline 2620.0 \end{array}$$

$$\begin{array}{r} 11614 - 4.5 \\ 1736 - 8 \\ \hline 69684 \\ 34842 \\ 81298 \\ 11614 \\ \hline 20161904 \end{array}$$

$$\begin{array}{r} 2035 \\ 5089 \\ \hline 18225 \\ 16280 \\ 101750 \\ \hline 10356025 \end{array}$$

$$\begin{array}{r} 8622 \\ 2035 \\ \hline 43110 \\ 25866 \\ 172440 \\ \hline 17345770 \end{array}$$



33	72	28	24
6	6	6	6
<u>198</u>	<u>432</u>	<u>168</u>	<u>144</u>
198	432	168	144
<u>2178</u>	<u>4752</u>	<u>1848</u>	<u>1584</u>

SWang 101°12' 5448.6'

542 N.W. 6.000

37  
6  
222  
222  
2442

47  
252  
82  
3102

187° 59'  
78° 44'  
89° 15'

41372° 19'  
93° 05'

24702  
2833

212381.28  
3170.64

146 43560  
438

58  
33  
33  
33

85° 30' 35'  
62°  
62°  
1350  
9  
450  
396  
5400

609



DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES  $1\frac{1}{2}$  TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

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

MADE IN GERMANY.