

86.



John W. Cress  
Apr 7-1916



①

JRH #80 Nbdy 141/31, Wilson 1 to 45  
 Sec. 32-142-31 Horst 45-68  
 141-29-W. 1/16 Sec 2 73-86  
 County Road - Farset View 87-88  
 County Road bet 8+9-141-29 89-90



②

JRH H 80

Surrey  
Record 399

141-142-31

Engineer work on State  
road No 80 in Twp 141-  
and 142-Rg 31

As the true location of  
the above road has never been  
exactly located thru Sections  
31 & 32 T 142-31 and Sections  
5-6-7 T 141-31 and as the  
corner to Sections 5-6-31 and  
32- of said Twp appears  
to be lost or very much out  
of place we proceed to  
locate same as follows

April 7-1916

E. B. Horst Asst Engineer  
and Harold J. Curo his  
chairman go to an iron  
monument previously estab-  
lished by Co. Sur. Curo from old  
U.S. B.T.S. @ cor. to Twp line  
Cor of Secs 3, 4, 33, 34  
bet Twp 141-31 & 142-31  
and run West  $18^{\circ}$   
at 368' drive large birch  
E. B. Horst



SRH #80

141-142-31

1896 ③

April 7-1916 cont.

port. 372.90 Temp MC Enlin Lake  
look for MC N<sup>o</sup> 24. of T141-31  
where US notes call for port and  
BTS. Uij

Buick 4 N 13° E 28 Lks

" " S 88° E 26. "

all are gone - Continue west on  
ice @ 1765 Lu long lake  
(this distance is short)

At 1778 set square stake in  
mark @ 2120 cross old road  
brs N & S. at 2256.54 Temp  
MC N<sup>o</sup> 25 (T141-31) where US  
notes call for port and BTS Uij

Buick 3 N 39° W 29 Links

" S 70° W 25 "

as this point falls on high  
ground away from lake all  
are gone. Continue west.

@ 2640 look for 1/4 cor bet Sec  
4 and 33 where US notes call  
for WP 24 N 76° E 25. Rhs

Pop 3 S 21° W 21

" all are gone  
Continue west

At 3500 Enlin swamp

E.B. Horst.



(4)

396

SRH H 80

141-142-31

Apr 7-1916  
ends

at 3625 ft to swamp @ 3738

x Gt No RR.

at 4400 sq ft square post on top  
of big hill. Went for night

For dinner we had lunch 35 x

Fred Grindall of Walker auto  
Co drove us out to place of  
beginning

E. B. Horst.



GRH # 80141142-31

Time Sheet

April 1910

7 8 9 17 18 19 23

E B Harold Eng

Harold Jones as chf.

F F Wilson Cook Eng

John W. Curo "

Walter Cuth

Paid

Paid

Paid

EXP

Harold  
april 7 Lunch 35c  
" 8 " 35c

Wilson  
april 18 Lunch 50c  
" 19 " 50c

396

5



396

SRH #80

141-142-31

April 8-1916

(E B Horst Asst Eng'r  
Harold J Curo as Ch & flag

Continue to cut line west  
to about 5300 and look for  
comers search all day for  
all comers and give it up  
lunch for dinner 35¢

We walk both ways from  
Walker

E. B. Horst.



806

SPH #80 Apr 17 1916

7

T 141-31-142-31

F.F. Wilson Port Eugene  
Harold J Cuss & Ch F. Flag  
Continue line west Cut line  
thro very heavy brush and wind  
falls Also transit 100' ch  
or belonging to J W Cuss  
still back sighting on red flag  
at same place of beginning  
at Cor to 3.4, 33, 34

Wilson staying at Halist Chase  
Cuss boarding at home  
We walk to & from our work

J. F. Wilson



April 16<sup>th</sup> 1916

S.R.H. #80

Twp. 141 + 142 Rg 31

Believing we may be able to locate the N.E. cor. of Sec 6, 141, 31 by running from some known corner South we go to an Iron monument previously established by County surveyors. Curs at cor. to Secs 5, 6, 7 + 8 Twp. 141 Rg. 31 from which we run North  $80^{\circ}30'$  Variation E. Cut line through heavy brush and quit for night.

We are staying in dualler and walk both ways on track. Weather fine & warm. Clouding up about 5 P.m. we take out lunch 502

J. F. Wilson  
Asst Engr.



350 S. R. H. #80  
April 19<sup>th</sup> 1916. Twp. 141+142 R. 31.

Harold Curo and F. F. Wilson  
continue west along N. Ry of  
141, 31. through heavy brush  
and wind fall - find no corners.  
we take out lunch 50¢

Weather fine until 4 o'clock P.m.  
when it commences to rain.

Both staying in Walker +  
we walk both ways on track.

F. F. Wilson



10

SRH # 80

April 23<sup>rd</sup> 1916

John W Curo Asst Engr  
Herald J Curo a Ch + flag  
Get up early and read over and  
copy old Gov notes of original  
survey and believing we can  
locate the corner to 5-6-31 + 32  
we buy lunch and walk down  
trench and run North from cor  
to 5-6-7-8- after leaving end of  
Wilson's cutting we run compass  
line to about 2040 where we  
search the whole country for 1/2  
mi 5 + 6. find nothing there  
Continue to approximately pt for  
N.E. cor 1 + 6. but give it up as  
a tough job

Eat our lunch late in P.M. at  
shop in La 31? and walk  
back to Walker

John W Curo



J.R.H. 480

998

(11)

141-142-31

May 3<sup>rd</sup> 1916

EF Wilson as Asst Engr and  
E B Horst as Q. Ch & Flag

Continue West on N. B. dy of 141-  
31 thru heavy brush

Cut about  $1\frac{1}{4}$  miles and quit  
for night

Horst walks back to Walker

Wilson, believing he can stay  
at a farm house walks West  
thru brush to shock which he  
finds locked and after waiting  
till dark walks back to Walker  
where he stays over night at  
Hallet Chose.

2 lunches @ 35° - 70°

J. F. Wilson



May 4-1916

As the distance from Walker is too far to walk we get permission to use a house near sec 32 14<sup>th</sup> 2<sup>nd</sup> 3<sup>rd</sup>. Turner gives Wilson the key and we get some supplies of M.J. Quam.

Hustle all A.M. packing supplies & writing notes.

FF Wilson Asst Eng and as we cannot get a man or charimen H.F. Baldwin agrees to go along and help as a Chariman. We get partly ready in A.M. and leave in P.M. with supplies in Fred Lundall's Auto which takes us within one mile of the house we have arranged to stay at while doing this survey. Then H.F. Baldwin & F. Wilson carry the provisions to the said house and at once commence cutting and running line west hubbing line. and at 6 o'clock P.M. we quit work go to the house and prepare supper.

Continued on page 14



S.R. H #80

Twp. 14/4/H2. R 31

## Time Sheet

May 1916													
	3	4	5	6	7	8	9	10	11	12	13	14	15/16
14	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	0	0	0	0	0
6 1/2			1	1		1	1	1	1	0	1	0	0 1/2
2	1												
17	18	19	20	21	22	23	24	25	26	May 26	May 26	May 26	May 26
8	1	1	1	1	1	1	1	1	1				
4 1/2	1	1	1	1	1 1/2	0							
11.7-6. May	4	9	16	19	5	19							
May	4	9	12	18	19								
May 3rd	70	9	2	4	3	4	1	1	1	1	1	1	1

F.F. Wilson Asst. Eng.

H.F. Baldwin " " " " F.F.

J. Wilson Deman

E.B. Horst May 26 ch.

E.B. Horst

F.F. Wilson Asst. Eng.

H. Wilson Alex. L. Laine.

Walker Auto. Co.

J.W. Curo

M.J. Quann

Zuniches. E.B. Horst.

6



14

S.R.H. #80.

May 4/16

and arrange our sleeping quarters.  
at 10 P.M. Mr St Nelson owner  
of House we are stopping at comes  
home and tells us that John  
W. Curo County Surveyor has  
engaged him to assist in survey  
as Axeman.  
Today Clear & warm.

F. F. Wilson



S.R.H. #80

Friday

May 5th 1916

15

Fair + hot

F. F. Wilson & H. F. Baldwin

after setting pickets so that H. Wilson  
can continue cutting line west  
commence chaining line starting  
at Hub. 4400.

windfall - heavy brush poplar + Birch

5151.6 Hub.

heavy brush Poplar + Birch

5449.7 Hub

5737 enter slough

5900 leave "

6727.9 Hub

7298.7 Hub

7800 enter fresh burnt area

8900 enter strip green jack pine

8999 Hub

9949 leave strip green jack pine +  
enter fresh burnt area

9956.1 Hub

East edge Right way S.R.H. #80

10005 West edge " " " "

10578.7 Hub

Poplar Oak Birch + Pine

10862.9 Hub

11030 enter slough

11075 leave slough



112 69.8 Hub

115 19.1 Hub.

Quit work at 6 o'clock PM  
and go to House + prepare  
our supper.

J. H. Wilson



S.R.H. #80

Saturday May 6<sup>th</sup> / 1916 <sup>17</sup>

Clear and hot

J.F. Wilson, H.F. Baldwin & H.A.

Wilson continue cutting random  
line west hubbing same.

J.F. Wilson & H.F. Baldwin chaining  
up the line from station 11519.1 to 13500  
after lunch & then we all continue  
cutting until 5.30 P.M. when we  
go to house for the night

chainage as follows

Thick brush  
windfall, Poplar  
Birch, Oak & Pine

11519.1

11902.4 Hub

12324.4 Hub

12400 enter slough

12475 leave slough

12756.6 Hub

13140.8 Hub

13425 cross sleigh road

13500

Slightly rolling land covered  
thick heavy brush, Poplar Birch  
Oak and scattering Pine.

J.F. Wilson



18

S.R.H. #80Sunday May 7<sup>th</sup> 1916

J.H. Wilson & H.F. Baldwin  
decide to go to West Boundary  
of the Townships 141 & 142 R. 31 and  
search for Bearing trees to Sec.  
and  $\frac{1}{4}$  corners and to chain  
random line as far as cut out.  
we commence chaining at  
13500 and chain to 15000 as  
follows.

	13500
f 3	13790.8 Hub
X 3	13960 cross Sloan's shuff. Road.
2	14100 " " "
2	14311.5 Hub
2	14555.7 Hub
2	14704.6 Hub
2	14870.3 Hub
2	15000 end of our cutting May 7 <sup>th</sup>

we then go west through the brush  
and find County line between Tps. 142 R. 31  
and 142 R. 32 and going south  
along this line a short distance  
find a wooden post marked in pencil



$\frac{1}{4}$  Post. U.S. notes call for Bearing  
Tree y pine 15 S 85 E 6 lks. = 3.96'  
we find stump which is apparently  
stump of this Bearing Tree. We continue  
south on this line  $\frac{1}{2}$  mile and  
find a poplar post 2" in diam and  
squared top which someone has  
no doubt placed for Cor. to Sec. 1, 6, 31.

36 U.S. notes call for B.T.'s

y pine 19" N 38 W 191 lks = 126.06'  
y pine 28" S 82 W 156 " = 102.96'  
y pine 30" S 18 E 171 " = 112.86'  
y pine 29" N 71 E 225 " = 148.5'

We do not locate these B.T.'s  
satisfactory to us so we go south  
another  $\frac{1}{2}$  mile and search for  
B.T.'s to  $\frac{1}{4}$  Cor. Sec 1 + 6 where  
U.S. notes call for.

y pine 20 S 25 E 77 lks

w pine 25 N 58 W 67 "

We do not find any trace of these B.T.'s  
then we start for our lodgings and  
just reach the house as it commences



20

to pour down rain in torrents.

Today warm & clear till 4.30 P.M.  
when bit clouds up and commences  
to rain about 5.30 P.M.

J. J. Wilson



S.R.H. #80

Monday May 8/1916

Cool & strong wind from N.W.

F.F. Wilson and H.F. Baldwin cut random line East to the last on Boundary of Twp. 142 & 142 Rg 31 and chain same as follows.

15000

thick brush  
Polar Birch  
Junk

15179 Hub

15282.9 Hub

15419.8 Hub

15500 enter slough

15680 leave slough

A 1533 \* 15783 Hub

15810 enter slough

16027 leave slough

16057.5 a Hub the true 1/4

Cor between Secs 31+36 sets South 34.9'

From station 15783 we triangulated slough as per diagram above base 76.4' along W. Bdy of Twp. and calculated the distance AB = 271.5 we place Hub at distance 270.2 + 157.83 so that the post 1/4 sec Cor. 31.36 is due South 34.9' S. we quit work at 5.30 P.M.

F.F. Wilson



Wednesday 9/16  
Clear & Cool.

J.F. Wilson H.K. Baldwin & H.A. Wilson go to line started <sup>North</sup> by J.F. Wilson & Harold Cyrus on April 18th 1916 on a variation of  $8^{\circ}30'$  East from Sec. Cor 5, 6, 7 & 8. We run compass line and chain same to the intersection with random line run west along North Bdy of Twp. 141, 31. with chainage as follows.

0 00 Cor Sec 5, 6, 7, 8, 141, 31.

Heavy Brush

5668 Intersection with Random line run west from Sec. Cor. 4, 5, 32, 33 at 9653 W.

We search for the U.S. B.T.s  
Cor. sec. 5, 6, 34, 35

Poplar 4 N 4 E 68 lks. = 44.88'

Y Pine 14 N 30 W 100 " = 66'

Tam. 6 S 28 W 42 " = 27.72

W pine 18 S  $41\frac{1}{2}$  E 142 " = 93.72

We are unable to find B.T.s & we quit at 5.45 P.M. and go to camp.

Harold comes to camp at 8 P.M. and



S.R.K. #80

23

Tuesday May 9/16

after looking over notes of work done and interviewing him on same gives us advice as to how we should continue. He then returns to Walker with F. Grindall's auto.

J. Wilson



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S.R.H.

# 80

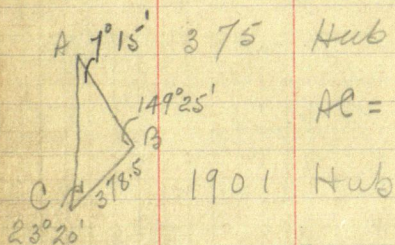
Wednesday May 10/16

J. F. Wilson, H. F. Baldwin & A. J. Wilson  
go to see cor. 29, 30, 31, 32 Twp. 142.  
Rg 31W. and run line south variation  
8°E with chainage as follows.

0.00 I.M. for sec. 29, 30, 31, 32  
thick brush poplar, Oak Birch.

A 7°15' 375 Hub

AC = 1526'



1901 Hub

28035 Hub

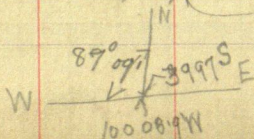
3997 Hub. Intersection with

Random line west from sec cor.

3, 4, 33, 34 at 100.08.9' W

triangulated distance from st. 375  
to st. 1901 as above shown. Calculated  
distance AC = 1526'.

Angle of Intersection of line  
run south from sec. cor. 29, 30, 31, 32  
with Random line run west from  
sec. cor. 3, 4, 33, 34. N 87° 09' W



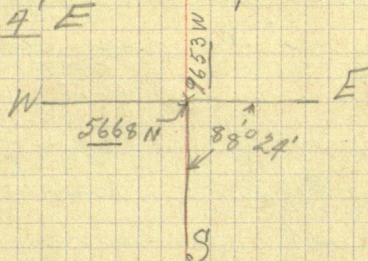


S. R. H. #80

May 10<sup>th</sup>/16

25

also read angle of Intersection of line  
 run N from Sec Cor 5, 6, 7, 8, Twp. 14 R. 3  
 with R. line run west from Sec. Cor. 3, 4, 33, 34  
S. 88° 24' E



It rained hard at 2.30 P.M. so we laid  
 up until 5 P.M. when we continued  
 working to 7.30 P.M. when we quit for  
 the day.

5468  
 3992  
 9660

4200  
 2999  
 7200

J. H. Wilson



26

S.R.K. #80

Thursday May 11<sup>th</sup> / 16

Clear + cool.

H. F. Baldwin goes into Walker +  
F. F. Wilson + L. A. Wilson go to sec. 10.  
1, 6, 7, 12 where W. Euro County Survey  
has placed an I. M. we start a line  
North Variation  $8^{\circ}30' E$  and run  
traverse line north keeping same.  
we cut on this line until 5.30 P.M.  
when we quit for the day.

F. F. Wilson



S.R.H. #80

<sup>27</sup>  
Friday May 12/16

clear + cool.

As H.A. Wilson can not help  
on survey today and as we  
are getting short of supplies I  
go to Walker and get supplies  
from Mr. J. Quam and spend  
the balance of the day writing  
notes after reporting to H.A.  
as to progress being made on  
this survey. I go back to H.A.  
Wilson's after 6 o'clock P.M.

H. Wilson



28 S.R.H. #80

Saturday May 13/16

Clear & warm

J.H. Wilson & H.A. Wilson  
go to sec. Cor. 1, 6, 7, 12 and  
Chain north as far as <sup>the</sup> line  
was run Thursday and  
continue line north looking  
same we use also Transit.  
Chainage as follows

0.00 I.M. Sec. Cor 1, 6, 7, 12

380.5 Hub

1253.3 Hub

1850 enter swamp

2080 leave "

2155.9 Hub

2730.5 Hub.

2850 enter swamp

3150 leave swamp

3978.2 Hub.

40.19.6 fence S. by. Olsen pasture

4100

It commences to rain about 2 P.M.  
gradually increasing in downpour



S.R.H. #80

May 13/16 <sup>27</sup>

So at 5.20 P.M. we quit work and  
go to J. Wilson's Cabin where we  
are staying during this survey.

J. Wilson



30

S.R.H. #80

~~1896~~  
Sunday May 14/16

Heavy cold rain all day.

I spend the day writing notes and making calculations.

H.A. Wilson spends Sunday making a Bird House.

H. Wilson



S.R.H. #80

Monday May 15/16 <sup>31</sup>

It rains heavily all day.  
I spend the day at H. H. Milbourn's  
cabin writing and checking  
notes and calculating the  
true location of Sec. Cor 5, 6, 31, 32.

Chas. Sloane who lives on  
Sec. 36 Twp. 142 Rg. 32 calls at  
cabin and I make inquiries  
of him as to what he knows about  
U.S. B.T's on the County Rice but  
do not get any information of  
benefit to this survey.

H. H. Milbourn



32 S.R.H. #80

Tuesday May 16/16  
Cloudy & cool

F. Wilson & H.A. Wilson  
Continue random line run  
North from Sec. Cor. 1, 6, 7, 12 Twp.  
141 R. 31 + 32 and at where  
we expect to find sec. cor  
1, 6, 31, 36 which is the N.W.  
Cor. of Twp. 141 R. 31 we find cutting  
of several years old and  
Poplar post  $2\frac{1}{2}'' \times 1\frac{1}{2}''$   $3\frac{1}{2}''$  and  
believing we may find U.S.  
B.T's

ypine 19 N 38 W 191 lks = 126.06'  
ypine 28 S 82 W 156 lks = 102.96'  
ypine 30 S 18 E 171 lks = 112.86'  
ypine 29 N 71 E 225 lks = 148.50'

at 5.30 P.M. we quit work and  
go to H.A. Wilson's cabin.

On the way to the cabin we  
meet H. F. Baldwin who takes the  
Olaf Transit we have been using to  
walker and leaves us in its place  
+ 5" with Gurley Transit & returns to  
walker in Grindale's Auto.

H. Wilson



S.P.A. #90

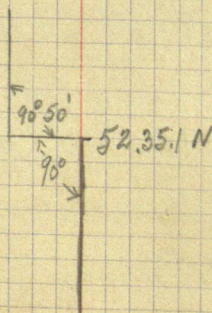
Wednesday May 17/16 <sup>33</sup>

Fair & Storm

J.F. Wilson + S.A. sailon chain  
line cut commencing at 4100.  
as follows.

	4100	
Heavy brush Pine oak, Birch, Log Alder, Hazel, Poplar,	4470.2	Hub
	4568	enter slough
	4668	leave "
	4740	enter slough
	4800	leave "
	4895.1	Hub
	4960	enter slough
	5022	leave "
	5235.1	Hub.

Believing we can run transit line  
N on cutting (old line) with more speed  
we place hub on old line W 27.3' and  
run north on new bearing  $0^{\circ}50'W$





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SRH #80

May 17/16

We continue this transect  
line to its intersection with  
Random line Run West along  
N. By. of Twp. 141. R. 31.

As it is 6 P.M. we quit  
and go to the Cabin.

J. H. Wilson



S.R.H #80

Clear + warm

Thursday May 18/16 <sup>35</sup>

F. H. Wilson Asst. Engineer + H. H. Wilson Ake + chain go to West Bay of Twp. 142, 31. and chain S from the intersection of line run N along N. Bay of Twp. and Random line run West from N.E. Cor. Sec. 4. Twp. 141, 31 with chainage as follows.

Rolling to extremes  
heavy bluish, poplar, Alder,  
hazel, Birch, Oak, scattered,  
maple + pine.

000	Hub. into. of line.
33.5	1/4 cor sec. 36. 31 stands East 33.1'
1348.3	An old post sets E 20' a newer post marked 1/16 stands E 6'
1652.5	cross Olsen's pasture fence.
2659	a poplar post 1 1/2 x 1 1/2 x 4.5' stands on line we find old post 7' E
2685.3	Hub.

We spend some time looking for U.S. 1373. for Sec. Cor 1, 6, 31, 36. We quit at 2 P.m. and we go to Walker. And J.W. Curo County Surveyor +



May 18/16

I work until 9 o'clock P.M.  
calculating the true location of  
Sec. Cor. 5, 6, 31, 32 Twp. 141, 31.

Then return to H.A. Wilson's  
cabin after getting some supplies  
from M.J. Quaw.

H.A. Wilson



S.F.H. #80

37

Friday May 19/16

clear & warm

J.F. Wilson & H.A. Wilson go to station 10488 W on Random line along N. Bay Twp. 141, 31. I set up Gurley Transit and turn angle  $S 86^{\circ} 59' E$  and we start cutting line south.

Curo comes out from walker in Fred Guindall's Auto and Curo & I go over to August Olsen's lot 3+4 Sec. 6 Twp. 141 Rg. 31 leaving H.A. Wilson cutting line S from station 10488 W.

Curo interviews August Olsen and he (Olsen) shows us a post standing in slough about 40' which he says is  $\frac{1}{4}$  post between sec. 6 + 31 we look for old Gov'mt B Ts. 18.

Poplar 4 N 13 W 13 lks = 8.58'

Birch 3 S 27 E 7 lks = 4.62'

But we can find no trace of these U.S. B Ts. nor do we find any old Gov'mt. blazes.

We then go to a point on the line we ran N from Sec. Cor. 1, 6, 7 12 and I show Curo the stumps



May 19/16

which I believe to be the  
stumps of Gov't B.T.'s for  
sec. Cor. 11, 6 31, 36. He after  
checking same confirms my  
belief and instructs me to  
plant post for the true sec  
Cor. and take new B.T.'s.  
We then go back to Olsen's  
& before Euro leaves for  
Walker instructs me to  
run a line N from post  
Olsen thinks is  $\frac{1}{4}$  Cor.  
between Secs. 6 & 31 to an  
intersection with our Random  
line running W. Euro then  
goes to Walker in the auto which  
remained at Olsen's in meantime.

After having dinner A.A. Wilson  
and I continue line started  
S from 10488 W on Random  
line running W and place  
temporary cor. for sec. 5, 6, 31, 32  
at a distance South 860' we  
search for U.S. B.T.'s



S.R.H. #80

May 19/16 39

Poplar 4 N 40 E 68 lks = 44.88'  
y pine 14 N 30 W 100 lks = 66'  
Tam. 6 S 28 W 42 lks = 27.72'  
W pine 18 S 41 1/2 E 142 lks = 93.72'

We could find no trace of these  
B.T.S.

Chainage as follows

000 Hub.

10488 W on Random line

365 N Bdy New Cutting S.R.H. #80

393.5 R New cutting S.R.H. #80

422 S Bdy S.R.H. #80

860 Temporary Cor. See 56, 31/32

We quit work at 530 P.M. and  
go to Dr. Wilson's Cabin.

F. H. Wilson



40 S.K.H. #80

Saturday May 20/16

J.F. Wilson + J.A. Wilson  
go to Sec. Cor 1.6, 31, 36 and  
after checking bearings and-  
measurements from Old B.T.s  
stumps place post at 2659.8  
on line run along W Bdy. of Twp.  
142, 31 which stands East 9°  
and took new B.T.s.  
Bearing of line N Variation  
10° E.

New B.T.s.

W pine 8 S 87°52'W 58.9'  
Norway " 18 N 29°18'W 82.2

In each case measurement  
was taken to head of 8dwt. wire  
nail driven flush in blaze.

We then go to wooden post  
in slough which Olsen believes  
is  $\frac{1}{4}$  cor. between Secs 6 + 31 +  
run  $\frac{1}{4}$  line N Variation 10° E

As post is in slough we  
triangulate distance to dry land.  
we cut line to intersection  
with Random line running W



S.R.H. #80

May 20/16 41

As it is now 6 P.M. we quit  
and go to H. A. Wilson's cabin

I get August Olsen to  
bring us some supplies from  
M. J. Quam's store in Walker.  
and on reaching cabin find  
the supplies which Olsen has  
fetched from town.

J. H. Wilson



42

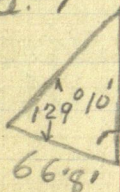
S.R.H. #80

9886

Sunday May 21<sup>st</sup> / 16J. Wilson + Rain

H.A. Wilson chain line  
run N from Post in Slough to  
Random line running west.

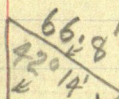
Ac. #1



000 Wooden Post in Slough

275.8 Hub at edge of Slough  
Triangle #1

Ac. #2



542.7 Hub. Triangle #2

7°04'

957.5 Hub Triangle #2

1432.5 Hub Random line  
at 128 26.1 W

Angle of Intersection S 86°31'E

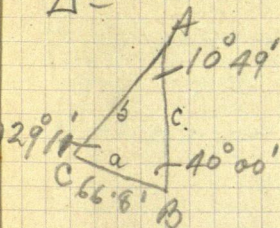
We then go to H.A. Wilson's  
Cabin and have dinner it rains  
all afternoon I write notes.

J. Wilson



S.R.H. #80

May 21/16

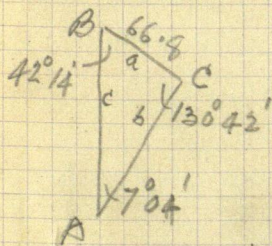
 $\Delta C \#1$ 

$$a \sin C = c \sin A$$

$$c = \frac{a \sin C}{\sin A} = AB$$

$$= \frac{66.8 \times .77512}{.1877} = 275.8'$$

$$AB = \underline{\underline{275.8'}}$$

 $\Delta C \#2$ 

$$a \sin C = c \sin A$$

$$c = \frac{a \sin C}{\sin A} = AB$$

$$AB = 66.8 \times \frac{.75813}{.1221}$$

$$= \underline{\underline{414.8'}}$$

Random line

1432.5N

1282.61W

Warden Post in Slough  
 Augmented Section in 1/4 sec 6, 31



43

S.R.H. #80

May 27/16

J.F. Wilson Asst Engineer spends  
The morning looking for B.T's for  
1/4 Cor sec 5, 32 + sec. Cor 4, 5, 32, 33

1/4 Cor. Poplar 3 N 53 E 11 lks = 7.26'  
Poplar 3 S 9 W 6 lks = 3.96'

Sec. Cor. 4, 5, 32, 33,

Poplar 3 N 61 E 13 lks = 8.58'

Poplar 4 S 27 W 31 " = 20.46'

Poplar 3 N 25 W 13 " = 8.58'

Poplar 3 S 47 E 10 " = 6.6'

But do not find any definite  
trace of same.

At 1 P.M. I walk in to Walker to  
Consult J.W. Curo County Surveyor  
and find that he is at Cross Lake, so  
I walk back to the Cabin 5 miles.

J.F. Wilson



S.R.H. #80

1896

May 23/16

44

I F. F. Wilson spend the morning  
looking for traces of U.S. B.T's and  
in Afternoon I go to Walker. I  
see J.W. Curo and he instructs me  
to stay in Walker until we receive  
plant & notes from the G.N. Ry. as to  
the true location of section Cor.  
A.S., 32, 33.

16057.5'

F. F. Wilson



45

S.R.H. #80

Friday May 26/16

Fine &amp; clear

I Make copy of Plan and notes received from Roadmasters of Great Northern Railway at Park Rapids Minnesota. F.F. Wilson & E.B. Horst walk from Walker S on the G.N. Railway to where our random line started West from N.W. cor of sec 4, 141, 31 and from notes of G.N. Ry we set W.P. and took as the true corner sec. 4, 5, 32, 33 at  $49^{\circ} 33.5' W$  - on random line at a distance  $134.4' S 73^{\circ} 05.5' W$  <sup>to random line</sup> and take new Bearing here as follows

Pop. 4 S  $39^{\circ} 30' E$  17'Pop. 5 S  $87^{\circ} 30' W$  35.4'Pop. 4 N  $42^{\circ} E$  41'Pop. 5 N  $20 W$ 

38.3'

Var.  $8^{\circ} 30' E$ 

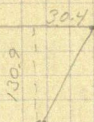
At 6.10 P.M. we quit work and walk back to Walker.

F.F. Wilson



134.4

22608	97411-4.3
134.4	134.4-3
90432	389644
90432	389644
67624	292233
22608	97411
303851.52	130920384



-	4833.5
	30.4
	4863.9



47 S.R.H. #80.

Aug - 6 - 1917 - Twp Line.

E.B. Horst & Earl Crow

Take skeleton Field Notes and  
Compass & chain and drive to  
Twp line between 141-31 and  
142-31 where F.F. Wilson has  
cut a random line from  
Cor at secs 34-33-34 West to  
Range line, intersecting same  
34.9 Ft N of  $\frac{1}{4}$  cor between secs  
31+36-T/142-R.31+32

We cruise for Gort corners all  
day along this line but find  
nothing.

As J.M. Greene has ordered  
the U.S. Complete Field Notes  
we decide to wait for them  
before doing any more work

E.B. Horst.



T 1414 142 R 31

S.R.H. # 80

396

28

Oct. 3-1917.

E.B. Horst & E.L. Tusler boarding  
at Chase Hotel.

Having received U.S. Field Notes  
we cruise along Twp line for  
Gort Corners.

We find a trace of the old Twp  
line where cor of 5-6-31-32  
should be but are unable to  
locate the corner or B.T.s

E.B. Horst.



49

Oct 4-1917.

Horst and Tusler still  
on Twp Line looking for  
corners but find nothing  
we look for cor & B.T.s to  
4-5-32-33. where Wilson  
& Curo set a corner post  
& B.T.s which I do not believe  
is correct  
we find nothing.

E.B. Horst



Oct-5-1917

50

Horst, transit, - Tusler. Rodman  
We set transit on Hub 4400. W.  
on Wilsons Random line and check  
Chainage back to starting point,  
by cutting a base line N-172 Ft  
and one S. 102 Ft at 90° to Random  
and triangulate same, which checks  
4400. ft. both ways within 0.8 Ft. O.K.  
We then go to S.W. Cor of Sec 28  
142-31. which is covered up, after  
finding same we start a random  
sec. line S

E. B. Horst.



51

S.R.H. #80

Oct. 8. 1917. 142-31

11340

Horst + Tusler Took for  $\frac{1}{4}$   
Corner between secs 4 & 33  
and M.C. No 25-141-31  
but find nothing  
E.B. Horst.



S.R.H. # 80.

52

Oct. 9th. 1917.

Horst and Tusler.

Continue cutting random line S.  
between Secs. 32+33-142-31 until  
Noon

P.M. I attend Commissioners  
meeting and Tusler continues  
~~cutting S. on random line~~  
goes Home for clothes.

E.B. Horst.



53

S.R.H. # 80.

Wed. Oct. 10 - 1917.

Harst attending commsrs.  
meeting

El. Tusler continues cutting  
random line s. bet. 32, & 33,

C.B. Harst.



Thursday Oct 11 - 1917

Horst & Tusler continue S. on  
Random line, begun at S.W. cor  
Sec. 28, 142-31.

E.B. Horst.

Friday Oct. 12-1917

Horst and Tusler look for  
1/4 cor between sees 32-33  
where U.S. Notes call for

But find nothing.

We continue S. between sees.  
445 T. 141. R. 31.

E.B. Horst.

Saturday Oct 13-1917.

E.L. Tusler leaves to cook  
for some duck hunters  
and I am unable to get any  
help

E.B. Horst.



Wednesday Oct. 17 - 1917.  
~~Tuesday Oct. 16 - 1917.~~

E.B. Horst transit and  
 Chain

Walter Blackburn axe  
 and chain

begin at S.W. cor of Sec  
 28-142-31 and chain S on  
 line cut by Horst + Tusler

- |   |        |     |    |                      |
|---|--------|-----|----|----------------------|
| " | 107.0  | ft. | S. | Hub                  |
| " | 549.0  | "   | "  | "                    |
| " | 1000.0 | "   | "  | Swamp                |
| " | 1040.0 | "   | "  | Lv. Swamp            |
| " | 1120.0 | "   | "  | Clearing.            |
| " | 1323.4 | "   | "  | Hub                  |
| " | 1400.0 | "   | "  | Lv. Clearing.        |
| " | 1800.0 | "   | "  | ent. swp.            |
| " | 2100.0 | "   | "  | Lv. swp.             |
| " | 2691.6 | "   | "  | Δ + tack             |
| " | 3140.  |     |    | Clearing.            |
| " | 3240.5 | "   | "  | Hub                  |
| " | 3600.0 | "   | "  | swp.                 |
| " | 3800.0 | "   | "  | Lv. Swamp.           |
| " | 4124.3 | "   | "  | WP 22" snag on line. |
| " | 4857.5 | "   | "  | Hub                  |
| " | 5280.0 | "   | "  | Set stake.           |
| " | 5521.4 | "   | "  | Intersect Random     |

Twp line at Sta 5191.6 W

N.E. Angle =  $89^{\circ}00'$



P.M. Rain & Snow

396

Friday-Oct-19-1917.

Horst & Blackburn continue  
line S bet sees. 4 & 5. - 141-31  
Cutting until noon  
P.M. Snowy

Snow all day. Saturday-20.1917.

EB Horst.



141-142-31 S.R.H. Twp line

58

Friday Nov. 16 - 1917

E.B. Horst<sup>with</sup> Henry Wilson and  
Elmer Molyneux as axemen  
Continue cutting S. on Random  
line begun at S.W. cor. Sec.  
28-142-31.

We look for  $\frac{1}{4}$  cor. bet. secs  
4 & 5 but find nothing.

E.B. Horst.

Drove out with Ford car.



S.R.H. Twp. line 142-31.

Saturday Nov. 17-1917

Horst and same crew  
beginning at sta 5300. S  
and chain S on cut out line  
between sees 445-141-31.

at 5603.0 Ft. S. Hub + tack.

" 6259.1 " " " "

" 7000.0 " " " "

" 7475.0 " " spring brook, 2' wide  
Spring 200 Ft. W.

" 7942.3 " " Hub + tack

" 8217.0 " " Triangle Hub  
4 Ft N. of R.R. Cut.

" 8270.0 " " R.R. Track S. Rail  
(at 45-90) shell for point, in tie.

at 8217.0 - S turn S.  $33^{\circ}33'$  W. run  
376.5 Ft. = Hub. B.

also set Hub. C. S. of lake

set over Hub. B. angle =  $130^{\circ}40'$ 

walk around lake Read angle  
at Hub C.  $\angle = 15^{\circ}47'$

Distance between Hubs A + C  
= 1050.2 Ft. = Hub 9267.2 S.

P.M. I work on Notes in office

E.B. Horst.

(chain on track of P.L. = 3180 + 63')



Twp Line  $\frac{142}{141}$  31 SRH #80 10

Tuesday Nov. 20-1917.

E.B. Horst & Ole A Larson go  
to a point Near the Cor of sees  
4-5-8-9 and look for old B.T.s  
We are unable to find anything  
and walk W. on line bet. sees 5-8  
after a careful search we find the  
N.E. B.T. of M.C. No. frac. sees. 5+8  
Plainly marked and E. of 6th lake  
as the sec. cor. is called for 20.67  
chs E. we continue our line S.  
P.M. E.B. Horst & Levi Larson  
continue random line S.

" 9451.2 Fts. set Hub + tack

" 9653.2 " " " " " turn

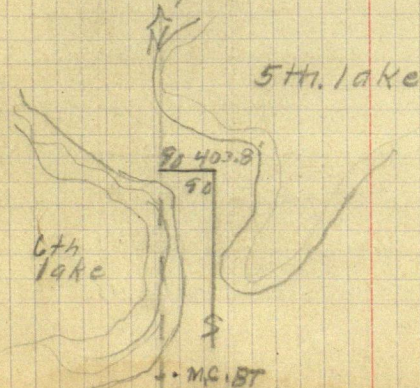
S.  $90^{\circ}00'E$  to miss 6th lake run E.

at 109.6 Fts set Hub + tack

" 403.8 " " " " " turn

$90^{\circ}$  Right and run S. (to miss 5th lake)

E.B. Horst.





Twp line.  $\frac{142}{141} 31$ 

Wed. Nov. 21. 1917

E.B. Horst, Levi Larson,  
and Walter Blackburn  
Continue line S. from 9653.2  
at 9815.0 Ft. S. enter creek

" 9832.0 " " 1v "

" 10589.5 " " Set Hub +

" 10900.0 " " " "

We look for cor to sees 4-5-89  
where U.S. Notes call for four  
Jack pine B.T.s and a post  
and shown as being 4 rods N. of  
a small marsh

the cor has evidently been here  
but the timber is all destroyed  
by fire the stumps even burned  
under ground.



Trp line  $\frac{142}{141}$  31.

62

Thurs. Nov. 22-1917.

Horst & same crew continue S.  
between secs 8-9. 141-31

at 11380.0 Ft. S. Wagon trail.

" 12331.0 " " Hub.

" 13144.5 " " "

" 13300.0 " " marsh

" 13525.0 " " lv. "

" 13652.0 " " Hub

" 13950.0 " " marsh.

" 14035.0 " " offset. W. 120 ft

To pass small lake

" 14390.0 " " offset back on line.

" 14450.0 " " lv marsh

" 14810.0 " " wagon trail

" 14818.8 " " Nail in down N.P. tree

C.B. Horst.



Friday - Nov - 23 - 1917

896

Forst and same crew

at Hub 14818.80-S

Turn Left  $40^{\circ}34'$  run S.E.

at 300 ent Spruce swp

" 430 W. " "

" 681 set Hub and turn

Right  $22^{\circ}04'$  run S.

at 970.0 Ft intersect the

corner to sees 8-9-16-17

(discovered by O.A. Larson

and marked by a popple post.)

at this point I find all the old

B.T. stumps but only the S.E.

stump bearing the marks. the

rest are burned &amp; rotted away

from these I set a  $2" \times 48"$  I.M.

at true cor. and mark New

B.T.s as follows. at  $830'$  Mag. Yarn.Popple. 4-N  $52^{\circ}05'$  E. 56.8 Ft." 4-N  $54^{\circ}40'$  W. 51.3 "" 4-S  $46^{\circ}32'$  W. 51.5 "Birch. 5-S  $53^{\circ}20'$  E. 50.0 "

We return to M.C. No. 31. bet. sees.

578 and set a  $2" \times 48"$  I.M.



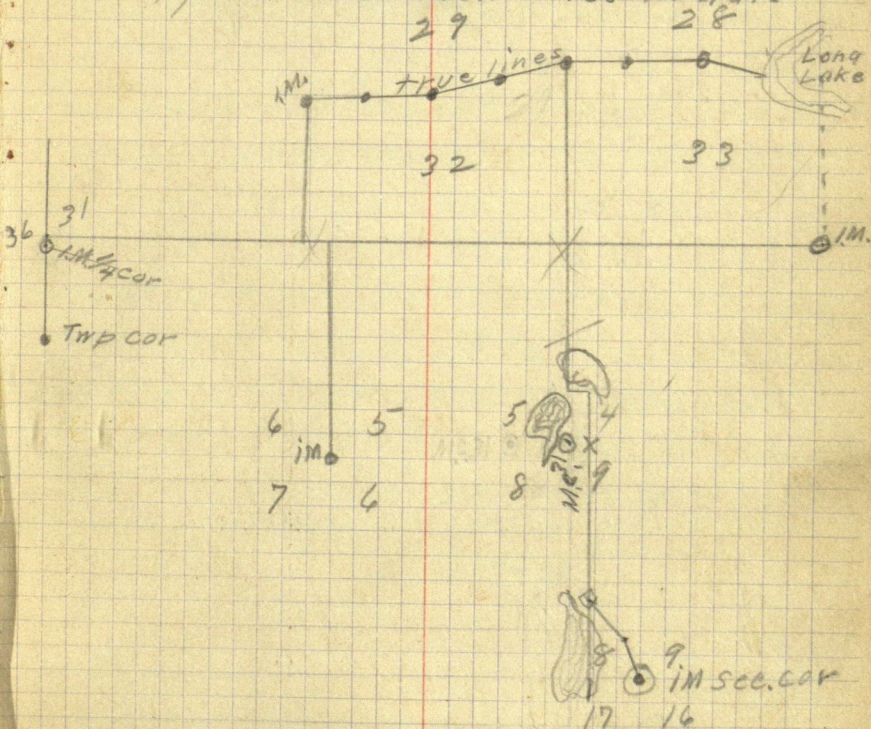
Twp line.  $\frac{141}{142}$  31.

64

from the old B.T.s Birch 8 N 84 E 85.  
and Birch 3 S 21 E 21.

(P.S. the angle from our line to a  
random compass line run by Larson  
bet. Secs. 16 & 17 at cor to S. 9. 16. 17  
is  $16^{\circ}00'$ ) E.B.H.

Diagram of random lines to date



at sta 16237.0 Ft. S. cor to S. 9-16-17  
sets. E. 1153.5 Ft (= total dist E)

E.B.H.



15

S.R.H.

 $\frac{142}{141}$  Rge 31

1396 Saturday Nov 24-1917.

Platting & Computing  
from Notes to find points  
for establishing true coris  
on Twp line. (S.R.H. No. 80)

E. B. Horst.



Friday - November - 30 - 1917.

E.B. Horst and Levi Larson  
look all day for cor. to sees  
4-5-8-9 but find nothing

E.B. Horst.

Saturday - Dec - 1 - 1917.

I look for  $\frac{1}{4}$  cor between sees  
4 + 5 until Noon and find nothing  
I have now spent a good many  
days looking for the old corners  
along the sec. lines and have  
looked at every possible place  
for the corners and have found  
nothing I am positive they are all  
gone therefore I will proceed  
to establish them on the Twp Line  
by proportionate measurement

E.B. Horst.



17

141-142-31- S.R.H. 80.

Thurs- Dec-13-1917.

11:30 AM. E.B. Horst. Computing  
position of corners by  
proportionate measurement  
which are as follows shown  
on next page by Diagram

P.M. E.B. Horst + Walter  
Blackburn setting I.M. at  
corners as shown on next  
Page E.B. Horst.

Friday + Sat. Dec 14 + 15<sup>1917</sup>  
setting I.M.s as above  
described.

E.B. Horst

$\frac{1}{4}$  Cor bet 4+33 at 2594.6 W  
goes N. 46.45 Ft

4+5-32.32 at 5189.2 - N. 92.9 Ft

$\frac{1}{4}$  bet 5-32 at 7783.8 W - S 365.85

5-6-31-32. - 10378.4 W - S 823.6 Ft.

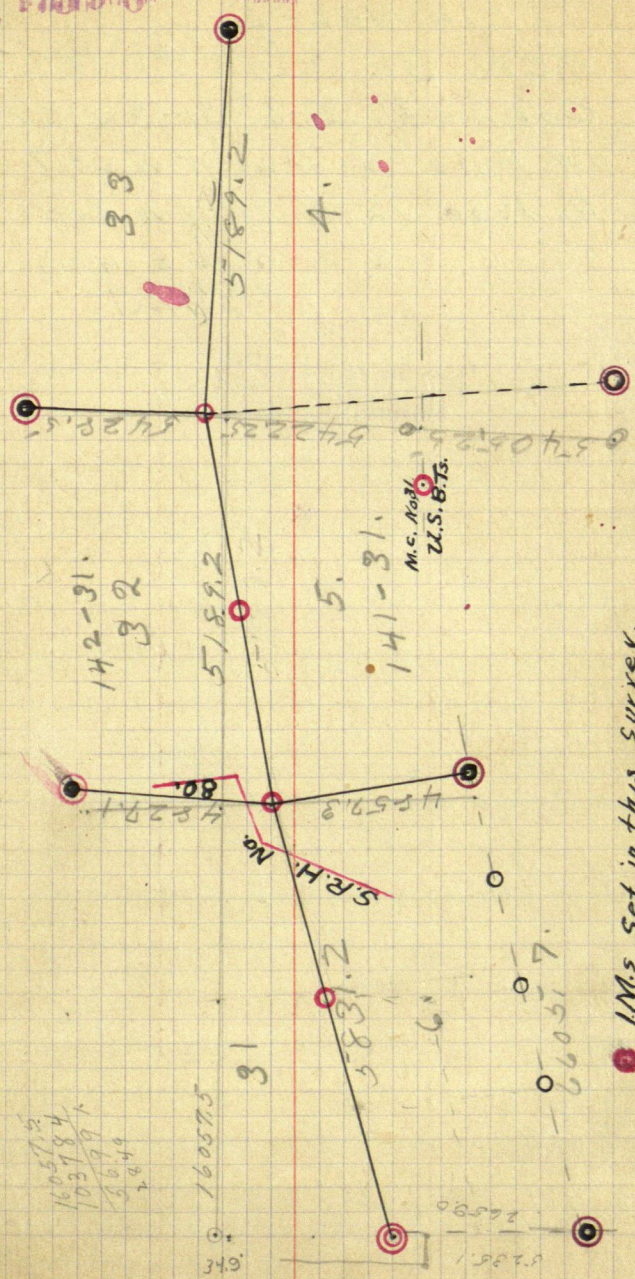
$\frac{1}{4}$  bet 6-31-12973.1 W - S 1666.8 Ft.

E.B. Horst.



Trp Line between sees 4, 5, 6-31-32-33. Trps 1414142  
 N. Rge. 31 W. 5th. P.M. Cass County

16057.5  
 103784  
 26991  
 2849



1 M.s Set in this Survey.  
 " " Previously  
 " " from U.S. B.T.s.

Next Page



141-142-31.

New Bearing trees to  
Cor. of 5-6-31-32 are.

W. Pine 12 N  $47^{\circ}15'$  E 69.7 Ft

N. Pine 12 N  $79^{\circ}00'$  W 34.6 "

" " 12 S  $87^{\circ}00'$  E 40.4 "

E B Met.



$$\begin{array}{r}
 3.0673 \\
 52.351 \overline{) 16057.5} \\
 \underline{157053} \phantom{00} \\
 352200 \\
 \underline{314106} \phantom{00} \\
 380940 \\
 \underline{366457} \phantom{00} \\
 144830
 \end{array}$$

3.

5189.2

$$\begin{array}{r}
 6.04 \\
 2659 \overline{) 16057.5} \\
 \underline{15954} \phantom{00} \\
 10350 \\
 \underline{10636}
 \end{array}$$

$$\begin{array}{r}
 8591 \\
 6.04 \overline{) 5189.2} \\
 \underline{4832} \phantom{00} \\
 3572 \\
 \underline{3020} \phantom{00} \\
 5520 \\
 \underline{5436} \phantom{00} \\
 840
 \end{array}$$



Sec. 32. T. 142 N., R. 31 W.

Feb. 17, 1919.

E. B. Horst commences  
Survey of Sec. 32. as per  
Notice of survey published  
in the Cass County Pioneer  
by order of the County Board of  
Feb. 4, 1919.

I take a compass and steel  
tape and complete field Notes  
Just copied from certified U.S.  
field notes and also take notes  
of Sec. 29 same Twp. and go to  
John Eckers place. John is not  
at home.

I investigate the I.M.s set  
between Secs. 29 & 32 and find  
them all O.K. except the  $\frac{1}{4}$  Cor.  
which is under a foot of ice &  
snow, but Elm B.T. N.W. of cor.  
is still O.K.

The snow being 18" or 20" deep  
in the woods I decide not to  
continue this survey until  
the snow melts away.

Working under such conditions  
would make cost of survey  
Prohibitive.

E. B. Horst.



Monday, March 24, 1919.

E. B. Horst, Engineer.

John Rodekuhr, Axeman.

John Leier, "

Johnson Ake, "

Begin Completion of subdivision  
of sec. 32, T. 142 N., Rge. 31 W. 5th.

P.M. Cass County by beginning  
at the I.M. at the N.W. Cor. of  
sec. 32, previously established  
and run S. between sees 31 & 32  
which I turn from Baldwins

line as given on page 24 (this book)

Set <sup>transit</sup> over I.M. sight to point on line  
and turn  $4^{\circ}52'$  W. from line.

and run S.  $5^{\circ}E.$  of Mag. N. (I will  
take an observation on polaris later  
to determine true course of line.)

We cut line S. to Twp. line ~~with~~  
out chaining and intersect Twp.  
line 0.4 ft. E. of I.M. at S.W. Cor. of  
Sec. 32. Land Hilly. Light brush  
and scattering aspen timber.

Set transit over S.W. Cor. Sec. 32  
and turn N.E. angle from true N.



boundary to I.M. at  $\frac{1}{4}$  cor.  
on S. side of sec. 32.

Angle =  $77^{\circ}57'$ .

Set transit over  $\frac{1}{4}$  cor. and  
back sight on S.W. cor. and  
run E. on Twp. line.

Intersect E. boundary of sec.  
32, 6.0 ft. N. of I.M. at S.E.  
Cor. of sec. 32.

Send to Walker for a chain  
man.

E. B. Horst.

Boarding at John Rodekuhr's.



Sec. 32, T. 142-31

76

Tuesday, March 25, 1919.

Horst, Rodekuhr, Leier, Ake  
and Alfred Green Report for  
duty but are unable to work  
on acct. of rain. E.B. Horst.

Wed. Mar. 26, 1919.

E.B. Horst. Eng'r.

Mearns. Bateman, Chairman.

Alf. T. Green, asst. " "

J. Rodekuhr. Axeman.

J. Leier, " "

J. Ake, " report

for work. John Ake claims he  
knows where the  $\frac{1}{4}$  cor. between  
sees. 31 and 32 is located.

Gov't Notes call for 2-3" Popple  
which are gone and Ake is un-  
able to find anything from which  
we can set a cor.

We look for the S.W. Cor. of see.

32 which Ake thinks he can find.

We look at trees and stumps shown  
by Ake but none check with Notes.

We walk to the I.M. at the  $\frac{1}{4}$  S. cor.



between sees. 29+32 and  
turn S.E. angle  $109^{\circ}54'$  from  
Sec. line and run S. on  $\frac{1}{4}$  line  
thru see. 32.

at	11.0	ft. S.	wire fence.
"	191.0	" "	Hub.
"	585.0	" "	"
"	920.0	" "	"
"	1131.5		Fence.
"	1253.0		set temp. point.
"	1360.0		Hub.
"	1816.0		Point on pop. stp.
"	2317.0		edge of Leiers Clig.
"	2389.5		Hub.
"	2506.0		set temp. pt. near Q.
"	2710.0		Lr clearing.
"	3117.0		Hub.
"	3739.0		Temp pt.
"	4060.0		Hub.
"	4380.		Plowed land.
"	4600	LY.	" "
"	4778.5		Hub.
"	5004.3		intersect 3.5 ft. W. of
			$\frac{1}{4}$ S. cor. between sees. 31+32.
			We walk to the $\frac{1}{4}$ S. cor.



Horst Board at Rodek hut.

subdivision of sec 32.

1919 March

E.B. Horst.

24 D.SL  
25 B.D.  
26 D.  
27 D.  
28 DSL  
29 BDS  
30  
31 D

Mearns Batemans  
Board

8 meals  
1 Lodging.

2 Lodgings 12 meals

March

W.H. Allens Car  
trips to sec. 32.

24 25 26 27 28 29 30 31  
1 1 1 1 1 1 1 1  
2 total 5 trips.

Days

Work on sec. 32. 142-31.  
24 25 26 27 28 29 30 31

March

E.B. Horst.  
Mearns Bateman.  
John Rodek.  
John Leier.  
John Eke.  
A.T. Greene

E.B. Horst. 12 Day Feb. 17, 1919.



between secs. 32 & 33. from  
 which I sight N. on sec. line  
 and turn N.W.  $\angle 104^{\circ}25'$  and  
 run W. on E. & W. Random  $\angle$  at  
 sec. 32,

- gt. 268.0 Wire Fence  
 " 448.0 Hub.  
 " 448.0 Wagon road.  
 " 1150.0 Hub.  
 " 1304.0 Hub.  
 " 1325.0 set temp. point.  
 " 1832.5 Hub.  
 " 2204.5 Hub.

E.B. Horst.



Sec. 32, 142-31

80

Thursday, March 27, 1919.

Horst & same crew continue

W. on E. & W. ~~Q~~.

at 2586.0 enter Leiers clearing.

at 2663.6 P.I. on N. & S. ~~Q~~ at  
2492 ft. S.

at 2830 Lr clearing.

" 2857.5 Hub.

" 3970.0 Set temp pt.

" 4287.0 Hub.

" 4600.5 "

" 4993.0 Pt. on N.P. str.

" 5112.5 Cent. SRH. No. 80.

" 5298.0 P.I. on W. line of Sec.

32, ---2365 N. of S.W. Sec. cor.

Horst, Rodekuhl, Leier, and

Ake. go to E.  $\frac{1}{4}$  S. cor. between

Secs. 29 & 32 sight E. on sec. line

and turn S.E.  $\angle 109^{\circ}49'30''$  and

run S. on E.  $\frac{1}{4}$  line of Sec. 32.

at 114.0 ft. S. Hub

at 266.0 Hub.

" 342.0 Wire fence.

" 455.0 Hub.

" 899.0 Hub.

" 944.0 Wire fence.



See 32, 142-31

81

- at 1086.0 Enter swp.  
" 1279.5 Hub  
" 1360.0 Wire fence.  
" 1435.0 Small Lake.  
" 1605.0 S. side of small lake.  
Discontinue chaining and continue  
line S. Intersect Sec. line at  
Temp. E. & W. Cor.  
Bateman + Green begin at  
S.W. Cor. of sec. 32. and chain  
N. on W. boundary.  
at 439.5 Hub  
" 496.5 Cent. of S.R.H. No. 80.  
" 800.5 Hub.  
" 1140.5 "  
" 1205.0 Set temp. pt.  
" 1370.0 Water Hole.  
" 1636.0 Lr. " "  
" 1841.0 Hub.  
" 2260.0 enter meadow brs  
N.E. & S.W.  
" 2363.0 Pl. E & W. C.  
" 2483.0 Wagon road.  
" 2500.0 Water Hole  
" 2833.0 Lr. meadow.  
" 3006.5 Hub.



at 3278.0 Hub.

" 3618.0 Set temp. pt.

" 3894.5 Hub.

" 4458.5 "

" 4820, DEOR. Secs. 29, 30, 31, 32

Begin at S.W. cor. Sec. 32. and  
Chain E. on Twp. line.

at 650.0 Olsons clearing.

" 933.0 L.V. clearing.

" 1317.0 Set temp. pt.

" 2632.5 1/4 S. cor. I.M.

" 2746.0 Hub.

" 3090.0 "

" 3678.0 "

" 3950.0 Set temp. E. 1/2 cor.

" 4032.5 Hub.

" 4548.0 March.

" 4710.0 L.V. "

" 5041.0 Hub.

" 5213.0 "

" 5265.0 I.M. at SE. cor. Sec. 32

sets S. 6.2 ft.

E.B. Horst.



Sec. 32, 142-31

Friday, March, 28, 1919

Horst with same crew

Begin at W.  $\frac{1}{16}$  Sec. cor. bet.  
Secs. 29 & 32 eight E. to  $\frac{1}{4}$  S.

cor. turn S.E. angle  $105^{\circ}54'$

and run S. on W.  $\frac{1}{16}$  line

set temp. point on E. & W.  $\frac{1}{4}$

Intersect sec. line at 8.4 ft.

W. of temp. W.  $\frac{1}{16}$  cor.

chain N. on true line from

W.  $\frac{1}{16}$  cor. at 373 N. Olsons

garage W. of line

507.3 pt. on line in line with

S. side of N.W. Olsons dwelling.

Horst & Bateman rechain

E. line of Sec. 32 and find

I.M. at  $\frac{1}{4}$  cor. 37 ft. too far S.

and the S.  $\frac{1}{16}$  123.5 ft Too far

S. due to chaining corrections

S. from Hubs instead of N.

I correct S.  $\frac{1}{16}$  cor and turn

N.W. angle  $102^{\circ}43'$  and run

W. on S.  $\frac{1}{16}$  line of 32 and

set P.I.s on N. & S. interior

lines. Quit for Night at S.R.H. No. 86.

EKB Horst.



Sec. 32, 142-31.

89

Saturday, March, 29-1919

Horst & same crew finish S  $\frac{1}{4}$  line of sec. 32 and intersect W. line of 32 at 1191.0 N. of S.W. cor.

We walk to N  $\frac{1}{4}$  Cor. between Secs. 32 & 33 and turn N.W. angle  $107^{\circ}05'$  and run N  $\frac{1}{4}$  line W.

Set P.I. on N & E  $\frac{1}{4}$  lines

Set P.I. on N  $\frac{1}{4}$  & N. & S. Cent. line and turn  $2^{\circ}13'$  more to the right and continue N  $\frac{1}{2}$  line W.

at N & W  $\frac{1}{4}$  lines Set P.I.,

at Sec. line on W. side of Sec. 32 intersect 1 ft. S. of temp. N  $\frac{1}{4}$  cor.

Course of S.R.H. thru Sec. 32

We walk to a point on W. line of Sec. 32, 496.0 ft. N. of S.W. Sec. Cor. in Cent. of S.R.H. No. 80 sight N. on sec. line thence N.  $56^{\circ}42' E.$  453.5 feet on S.R.H.

" N.  $6^{\circ}23' W.$  1864.5 " " "

" N.  $27^{\circ}37' E.$  571.3 " " "

" N.  $8^{\circ}33' W.$  1070.0 " " "

" N.  $14^{\circ}43' E.$  192.7 " " "

" N.  $32^{\circ}36' E.$  840.0 to N. line

of sec. 32 on S.R.H. No. 80

thence N.  $73^{\circ}51' E.$  <sup>493 ft.</sup> 317.5 ft. sec line to W  $\frac{1}{4}$  cor.  
on co. road



Sec. 32 - 142 - 31

Mon. March 31 1919

Marst, Bateman, Rodekuhl,  
Ake and Leter. setting  
Iron Monuments 3" x 48"

at C.N.  $\frac{1}{4}$  cor. I.M. from which  
Nor. Pine 10 N.  $34^{\circ}00'$  W. 76 ft.

Aspen 14 S  $29^{\circ}00'$  W. 27.9 ft.

at C.  $\frac{1}{4}$  S. cor. set I.M. No trees near

at C.S.  $\frac{1}{4}$  cor. set I.M. no trees near

at  $\frac{1}{4}$  S. Cor. between sees 32-5

set I.M. 3 ft. S. to true point from which

W.p. stump 20" sets W. on line 5.4 ft.

Rock 14" x 20" on line E. 24 ft.

at E  $\frac{1}{4}$  Cor. between sees. 32 & 5

set I.M. No timber near.

at S.E.  $\frac{1}{4}$  set I.M.

at C.E.  $\frac{1}{4}$  set I.M.

at N.E.  $\frac{1}{4}$  set I.M. on pole in swamp

" N.W.  $\frac{1}{4}$  Cor. set I.M. No trees near

" C.W.  $\frac{1}{4}$  Cor. set I.M. " " "

" C.S.  $\frac{1}{4}$  Cor. set I.M. " " "

" W.  $\frac{1}{4}$  Cor. between sees. 32 & 5

set I.M. No trees near.

" S.  $\frac{1}{4}$  bet. sees. 31 & 32 set I.M.

"  $\frac{1}{4}$  Sec. bet. sees 31 & 32 set I.M. <sup>No Trees.</sup>

" N.  $\frac{1}{4}$  between sees 31-32 set I.M.



March 31, 1919, Concluded.

This completes field work of survey  
of sec. 32, T. 142, N., Rge. 31 W.

W.H. Allens car takes us to Walker.

E.B. Horst.

Length of E. Boundary 5428.0 ft.

" " S. " 5265.0 "

" " W. " 4824.0 "

" of  $W\frac{1}{2}$  N. " 2609.0 "

" "  $E\frac{1}{2}$  N. " 2732.6 "

Corners on N. boundary established  
from Gov't Bearing trees.

Corners on S. boundary established  
by proportionate measurements from  
known corners N.S.E.+W. of each point  
established at sec. corners.

This method of establishing the Twp.  
line was recommended by W.D. Kidder  
Associate Supervisor of Surveys,

General Land Office Washington, D.C.

after I had personally submitted  
information gathered from extensive  
surveys in the field to him for his  
opinion.

Elmer B. Horst.

Deputy County Surveyor,

Cass County.



87 County Road - Noble  
Pleasant View  
April 15 - 1924  
W.  $\frac{1}{16}$  of Sec. 2 - 141-29.  
Greene & Jude

May 13 - 1924 May 15  
Jude - Revere - Greene.

Mon. S.W.  $\frac{1}{16}$  Cor. Sta. 0

501.8' + State Highway No 34

Sta. 0

S.E.  $\times$   $79^{\circ}57'$

400.60g

753.5 S.W.  $\frac{1}{16}$  Mon.

11+25 bog. 200' West to edge bog

1293.6 = 1444.6

25' to level

Sta. 3+50  $\times$  L  $51^{\circ}46'$  = N.  $51^{\circ}46'$  W. 350'

5+57'  $\times$  R.  $25^{\circ}07'$  N.  $26^{\circ}39'$  W. 207'

6+95'  $\times$  R.  $24^{\circ}17'$  N.  $2^{\circ}22'$  W. 138'

8+83'  $\times$  R.  $38^{\circ}56'$  N.  $36^{\circ}34'$  E 1082.00'

9+70' Bog

10+45 Hill

10+83'  $\times$  L.  $18^{\circ}18'$  (N  $18^{\circ}16'$  E)

11+15 Bog

12 Beaver Dam.

<sup>12+50</sup>  
14+44.6' ( $18^{\circ}16'$ )

North

15+34.7'  $\times$  R.  $0^{\circ}07'$  to  $\frac{1}{16}$  Cor.  $30^{\circ}10'$  N.  $30^{\circ}10'$

16+57.2'  $\times$  L  $35^{\circ}42'$  N.  $5^{\circ}32'$  W.

19+25'  $\times$  R.  $22^{\circ}58'$  N.  $17^{\circ}26'$  E

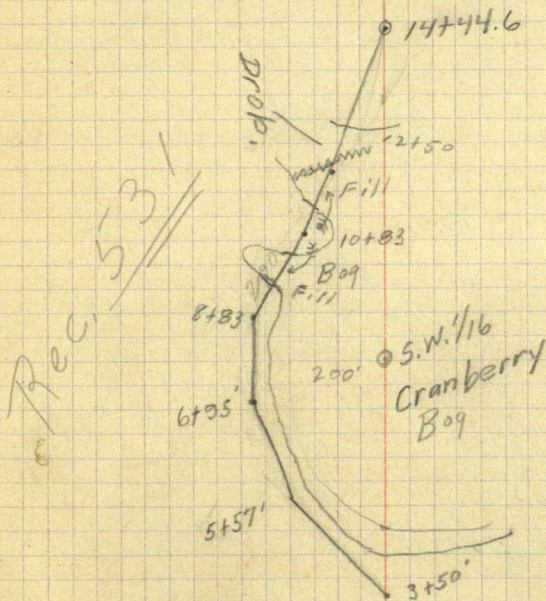
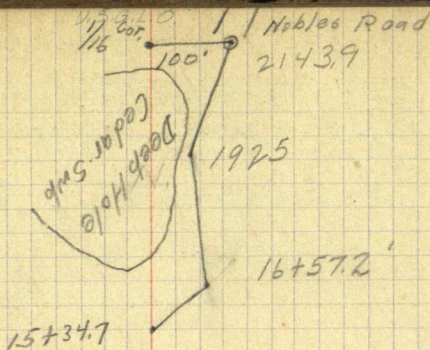
21+43.9 approx.  $\frac{1}{4}$  Line  $\times$  R.  $107^{\circ}43'$  S.  $89^{\circ}$



56 Miles

88

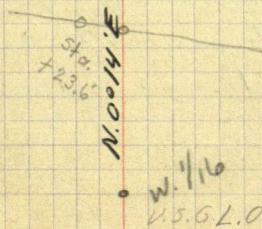
40.3  
17  
23.3  
11.65  
28.65



E.

43' W.

John M. Greene

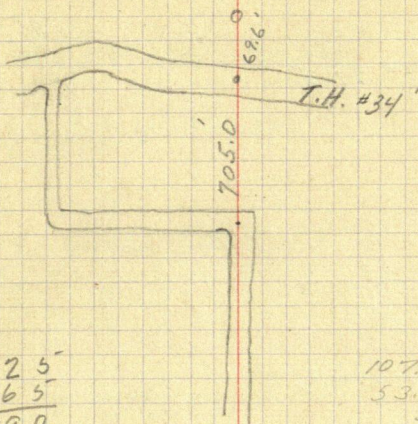








Leech Lake



Sec. 8

$$\begin{array}{r} 625 \\ 165 \\ \hline 790 \end{array}$$

Sec. 9

107.2	214.8
53.7	53.7
5	6
<u>268.5</u>	322.2

160± Q R. on Line bet 1802/139° Barn House

824.3' to fence brace  
854.1' to Hub by road  
14.5' 868.6'  
868.6' 824.3'  
14.5' 34.3'  
883.1'

1235  
980480  
7 12 50  
Town, Line

N. 88° 11' E  
S. 89° 59' E  

---

50

$$\begin{array}{r} 90^{\circ}01 \\ 83^{\circ}11 \\ \hline 6^{\circ}51 \end{array}$$

N.  $90^{\circ}01'W$   
N.  $80^{\circ}W$

$5.89059^{\circ}W$   
 $5.82000^{\circ}W$   


---

 $7^{\circ}59'$

B. 820 W  
163.4

165

✓ N. 8° W  
22.9

3.4

5,83011 W  
5,82000 W



Survey of Part of Town Line  
 Lot 1, Sec. 8, 141-29

143.8 N.  $83^{\circ} 53' E$

165  
 71  
 ---  
 163  
 163  
 ---  
 1153  
 1171  
 ---  
 11

69.6'  
 705.0'  
 North  
 Con. T.H. #34



# Settlement Road Notes

$$\begin{array}{r} 8 \\ 854.1 \text{ Hubs on road} \\ 19.3 \\ \hline \end{array}$$

$$\begin{array}{r} 868.4 = \text{R. Cen.} \\ 264.0 \\ \hline \end{array}$$

$$\begin{array}{r} 604.4 \\ 190.0 \\ \hline 414.4 = \text{East line preachers Lot} \\ 22.9 \\ \hline \end{array}$$

$$\begin{array}{r} 437.3 \\ 3.4 \\ \hline \end{array}$$

$$\begin{array}{r} 433.9 = \text{West line} \\ 163.4 = \text{South line.} \end{array}$$

$$\begin{array}{r} 433.9 \\ 414.4 \\ \hline 21848.3 - 2 \\ 424.1 - 5 \\ 163.4 \\ \hline \end{array}$$

$$\begin{array}{r} 16964 \\ 12723 \\ \hline 25446 \end{array}$$

$$\begin{array}{r} 4241 \\ 16929794 \\ \hline \end{array}$$

$$\begin{array}{r} 43567 \\ 43567 \\ \hline 15737 \end{array}$$

$$\begin{array}{r} 15068 \\ 13068 \\ \hline 26694 \end{array}$$

$$\begin{array}{r} 26694 \\ 26136 \\ \hline \end{array}$$

$$\begin{array}{r} 414.4 \\ 190.0 \\ \hline 604.4 \\ 528.0 \\ \hline 76.4 \\ 66 \\ \hline 142 \\ 71 \end{array}$$

PT =  
P.I. = 585 + 50 N. 83° 53' E to 586 + 93.8 = 1/4 S



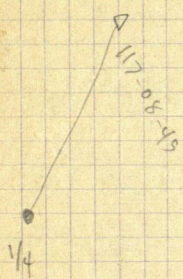
93

## ST CLOUD CHILDRENS HOME

73-12-55 146-25-42	73-12-50	525.327	85-42-00	526.81 FT
246-16-17 132-32-30	246-16-15	505.028	89-01-45	505. <sup>11</sup> 09
121-15-20 242-30-35	121-15-17	411.27	97-23-45	414.72
86-24-56 172-49-50	86-24-55			
196-22-08 32-44-50 196-22-20	196-22-20	997.911	84-38-10	1002.31 <sup>.29</sup>
185-42-58 11-25-50	185-42-55	297.746	89-41-45	297.95
97-50-28 195-41-03	97-50-32	684.484	87-11-10	685.30 <sup>.30</sup>
179-45-0 359-30-25	179-45-12	332.063	97-11-0	334.68 <sup>.70</sup>
179-42-20 359-24-50	179-42-25	243.729	79-58-20	247.51 <sup>.50</sup>
178-31-40 357-03-58	178-31-55	257.033	85-34-43	257.80 <sup>.81</sup>
181-55-59 03-51-21 40	181-55-40	461.906	87-53-10	462.20 <sup>.22</sup>
178-24-10 356-48-20	178-24-10	416.305	89-30-48	416.31 <sup>.32</sup>
117-03-28 234-17-35	117-03-45	648.307	89-50-02	648.31



1/4



117-08-54

178-24-10

181-35-40

178-31-33

179-42-25

179-45-12

97-50-32

185-42-55

NE COR  
SEC 5

196-22-20

4.6

192.50

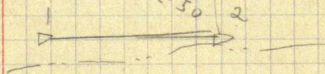
61-14-55

121-15-12

246-16-15

23-12-50

1





287-51-58 215-43-30 369 575	287-51-45	522,441	90-42-13	522.48
158-35-00 317-40-25	158-35-10	1165,755	90-10-10	1165.74 <sup>83.76</sup>
108-58-45 217-57-30	104-58-45	1847,272	90-09-55	1847.28
123-17-35 246-35-18	123-17-40	737,825	91-48-03	738.24
182-53-55 05-48-00	182-54-00	380.104	89-28-45	380.12
180-53-50 1-47-40	180-53-50	564,748	93-04-15	565.57 <sup>.56</sup>
180-14-42 6-29-50	180-14-55	377,433	88-50-35	377.51 <sup>.50</sup>
177-53-50 355-47-47	177-53-53	250,058	81-56-37	252.56 <sup>.54</sup>
194-57-52 129-55-47 368 389	194-57-53	722,847	72-04-12	723.31 <sup>.32</sup>
192-11-25 24-23-0	192-11-31	821,08	88-15-28	821.46
102-06-08 204-12-00	102-06	360.647	89-13-20	360.68 <sup>.67</sup>
236-59-25 113-58-45 260	236-59-23	408,334	99-54-10	414.51 414.50
142-33-34 285-06-55	142-33-27	312,216	99-15-44	316.35 <sup>.33</sup>



22  
 335  
 380  
 565  
 325  
 250  
 200  
 821  
 417  
 4260  
 675  
 4038

NW cor  
SEC

123-17.40

182-54

180-53-50

180-14-55

177-53-53

194-57-53

POND

192-11-30

102-06

236-59-23

142-33-27

SW cor  
SEC 5

108-58-45

158-35-10

114  
287-51-45



95-45-05 191-29-57	95-44-54	766.737	89-39-38	766.75
223-08-40 86-17-22 360 116	223-08-40	1724.464	90-54-25	1724.68 <sup>69</sup>
118-49-32 237-39-14	118-49-37	2089.82	90-26-00	2059.86 <sup>89</sup>
38-31-25 MC 77-2-50	38-31-25	1920.363	90-18-14	1920.38 <sup>40</sup>
185-24-18 10-48-40	185-24-20	1029.504	89-47-50	1029.52 <sup>50</sup>
211-18-58 62-37-45 360 102	211-18-52	947.25	90-35-18	947.31 <sup>29</sup>
62-43-42 MC 125-27-15 60 70	62-43-37	1766.804	90-14-40	1766.82
105-54-45 211-49-40	105-54-50			











101

## ST CLOUD CHILDRENS HOME

N1-18-23 W

N82-34-38 E

88-53-01

101-58-20

203-56-20

188.88

34.59

223.47

151.28

377.75

86.27

325.00

411.27

498.33

909.60

1333.79

909.60

424.19







103

193-28-36

26-57-50

360

386

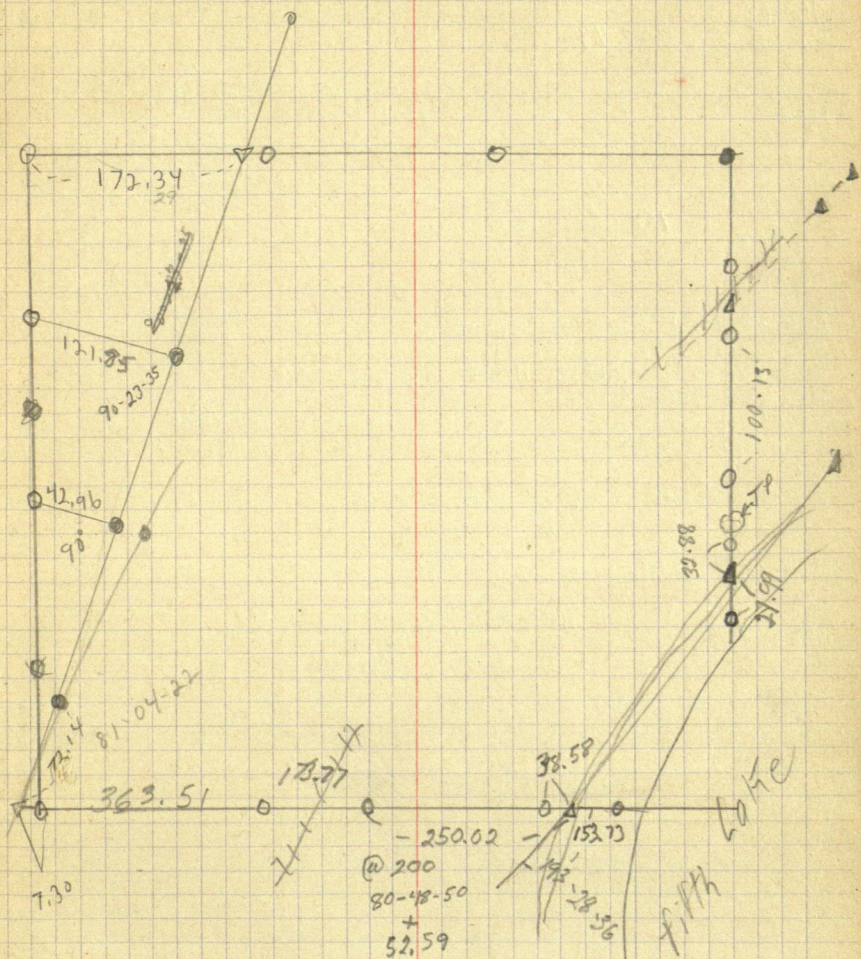
193-28-55

81-04-20

162-05-45

81-04-22







105

LARRY BROSMAN

4<sup>th</sup> LAKE175-49  
351-38

175-49

250  
+ 86.18  
336.18

180°

140  
166.76  
306.76167-36  
335-12

767-36

56.67

CABIN

T @ 2851

SLOPE

490.93

86-34  
173-09

86-34-30

94.59 @

11-36

SW COR

454.48

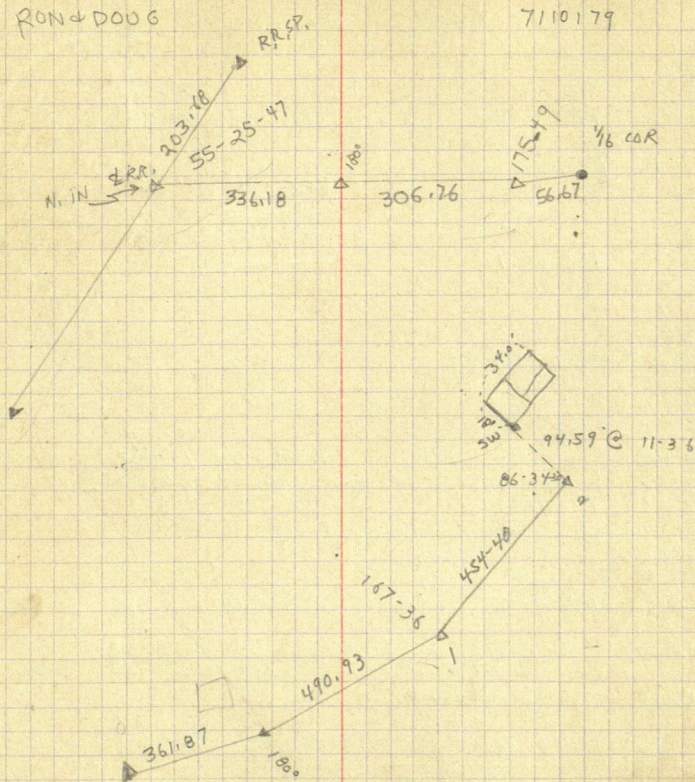
179-59.60  
55-25.47  
739-34.13175-49  
184-10-87  
359-59-37



RON & DOUG

7110179

106





Larry Brosnan

4th Lake

A@2 BS 3

180-55-12

1361-50-00

180-55-00

1.

132.05

98-32-08

40.250

130.587

A@3 BS 4

179-28-30

84.

2

356-56-38

178-28-19

4

81-21-02

310.95

307.413

2

88-16-58

270.05

264.929

~~81-21-02~~

52.327

A@4 BS 3

89-47-40

5.

179-35-18

89-47-39

310.95

270.05

132.05

A@5 BS 4

6. 184-10-46

368-21-14

184-10-37

4.

96-02-48

56.94

56.623

6.

88-06-20

17.358

306.662

306.83

93.516

A@6 BS 5

7. 180-00-12

360-00-14

180-00-07

7.

337.08

95-00-12

102.745

335.796

A@7 BS 6

8. 124-25-02

248-49-50

124-24-55

8.

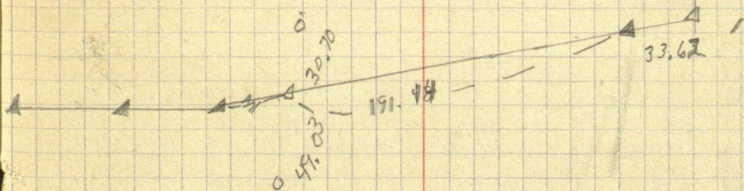
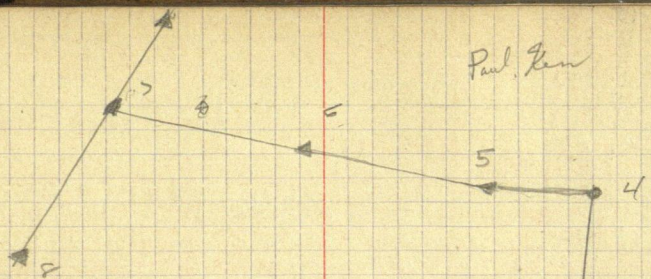
89-05-16

314.92

95.987



Paul, Kern





T @ A BS B

2706.47  
824.92

T @ C BS A  
B

H1 = 104.38

H1 4.38

70 A PIP 100.00

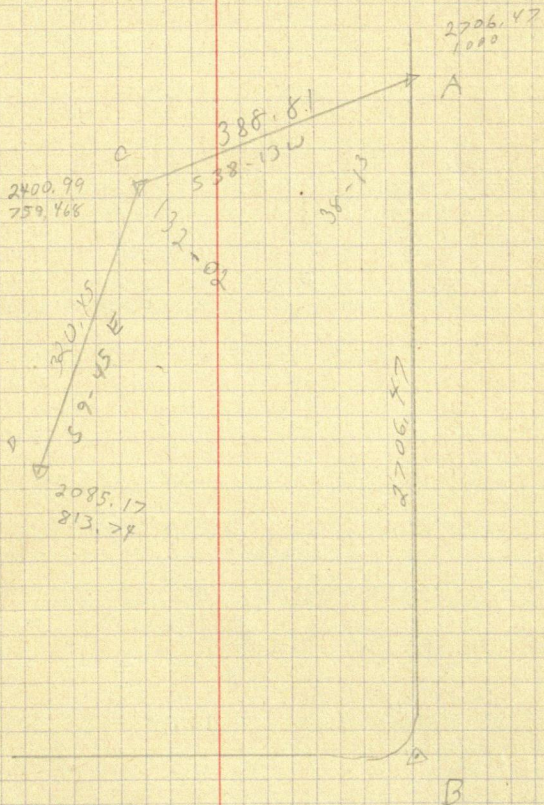
M T

GLEU 015T

1 172-15	7.25	8.46	9.66	95.92 105.53	241
2 208-10	3.00	3.98	4.92	V 0-56 110.50	192
3 222-15	1.00	1.98	2.92	2-25	192
4 223-30	7.22	8.8	9.39	100.58	117
5 235-		2.2	3.02	102.18	164
6 254	4.1	4.78	5.5	99.60	140
7 274	3.25	4.62	5.41	99.76	156
8 270	3.19	3.98	4.77	100.40	158
9 307-40	4.02	4.77	5.52	99.61	150
10 330-30	4.04	4.66	5.27	99.72	123
11 351-20	5.17	5.65	6.13	98.73 99.67	96
12 9-00	4.1	4.71	5.32	98.16 144	122
13 28-15	5.5	6.22	6.94	N OF OLD RD	144
14 41-30	6.52	7.16	7.82	97.22	130
15 62-20	6.95	9.55	10.16	94.83	121
16 95-00	12.4	13.10		91.28	140
17 111-15	11.1	12.12	13.12	92.26	202
18 126-30	10.8	11.57	12.34	92.81	154

(D) 132.02







APD AS C

41 = 108.80

0 0.00	6.80				
33-25	12.47	12.97		95.93	100
88-30	9.3	9.25	10.20	99.05	90
114-08	9.0	9.7	10.35	99.10 2	135
117-45	5.4	5.6	5.29	103.20	39
175-05	1.98	2.32	2.23	106.48	75
278-30	1.57	1.98	2.38	106.82	81
297-20	9.63	10.43	11.25	98.37	162
309- —	12.0	13.01		95.79	202



see 32 Mar. 28, 1919.

S.R.H. Course.

Begin at W sec. line of see 32.  
ft. N of S.W. cor.

Thence N.  $56^{\circ}42'E$ . 453.5 ft.

N.  $6^{\circ}23'W$ . 1864.5

N.  $27^{\circ}37'E$ . 571.3

N.  $8^{\circ}33'W$ . 1070.0

N.  $14^{\circ}43'E$ . 192.7

N.  $32^{\circ}36'E$ . 840.0 to sec. line  
between sees. 29+32

N.  $73^{\circ}51'E$ . 493.0 ft. on sec.  
line (County Road) to  $W\frac{1}{4}$  S. cor.



4078  
2683  
395

823.6  
72.2  
2.5  
916.5 (6.1)  
17492

165  
165  
1816  
1995

8815  
53

96536  
3200  
4373

160573-60 (6.1)  
9453  
1.011  
64045

2683  
17375

70  
9267.2  
184.8

18560  
9952  
604

9451.2

64041

9267.2  
386.0

3 (14032.5)  
58526

9653.2  
10916

9762.8 Pop 3 N 53 E 11 } 1/4 { 5 + 32 }  
403.8 " " S 9 W 6 } 1/4 { 5 + 32 }

10057.0

132009  
12826.1 184  
373.9

5191.6

89060

2593.4

76.55

7785.0

131.5

5335.0

2 (5786.8)

4078

2593.4

1251.0

4078

2683

1295



# 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.