

291

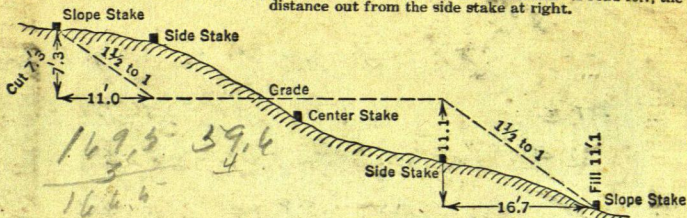
THE

WIND

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes $1\frac{1}{2}$ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	Distance out from Side or Shoulder Stake										Cut or Fill
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

KEUFFEL & ESSER CO., N. Y.

For Curve Tables see end of book

Note

To Caro This book belongs
Walker Minn

If lost finder please
notify the owner at once
please, as the notes here in
may be needed.

208 - 1.3 -

The paper in this book No. 360 is made of 100% high grade rag stock with a **WATER RESISTING** surface sizing.

262
201
189

Index

ANY Township

①

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Continued on pg 40
this Book.

Sept 1948

On January 27-1947 The
County Auditor under the
authority and in accordance
with Section 2219, Masons
Minnesota Statutes 1927

Ordered John W. Curo who
at that time was County Surveyor
of Cass County Minnesota. To
make an Auditors Plat of
(Whipholt) Lot 1 Sec 8-141-29

As he did not do so while in
office, and as I was appointed
County Surveyor It is up to me
to do this work.

filed in G 14 Reg of Deeds Office

4

Whipholt 2) Lot 1 Sec 8 - 141-29

Sept 21-1948

I get the descriptions of
land owned in Lot 1 - Sec 8 - 141-29
from Co. Auditor and try to
fit them into place on a map
of Lot 1. Sec 8 - 141-29

Harold Curo

Sept 22 - 1948

Still Trying to fit pieces together
in Plat of Lot 1 - Sec 8

Harold Curo

Sept 23-1948

Still working on Lot 1 Sec 8
The further I go the worse it
gets.

Whipholt

Lot 1 Sec 8.
141-29

5

June

1949

Friday

As I am working in Lot 2
Sec 8-141-29 & have finished
early Ace & I look over Lot
1 sec 8- it starts to rain and
as I have to go to Wood Lake
after J.W.C. we go in

6 Lot 1 - Sec 8 T141 R. 29
Whipholt

June 20 1949 Monday up
early. I take J.W.C. to work leave
him with Mike who takes
him to Wood Lake

I drive back to Walker
get notes for Lot 1 - Sec. 8 - 141-29
and drive to Aces where I pick
up Ernest Swift who will help
me to day Ed. goes to Arrive @ 9:30

We drive to NE cor lot 1 Sec 8-141-29
where, our old notes Book 'A 2"
page 17 says

@ 53.6 So. of US M.C NE cor Lot 1
Sec 8 - 141-29 - 12" nail in N shoulder
of road

Ties

Pop. 6 N $35^{\circ}43'E$ 23.45 plumed ^{to} spot base

" 7 N $55^{\circ}16'W$ 56.07 Plumed to spot base

12" Cedar Fence Post S $6^{\circ}05'W$ 66.76

7" White Town Poster Post bears

S $44^{\circ}12'E$ 62.18

on June 25. 1936 We set a 1X36" axel
in place of 12" nail

We do not find this

Lot 1 Sec 8

T 141 R. 29

7

Whipholt

June 20-1949

We drive to the SE Cor lot 1
Sec 8-141-29 and look for
the I.M. We dug up half the
road rough chained south
from NE I.M. We find the
SW I.M. and rough chain
East but do not find the I.M.
at SE Cor.

On June 21-1946 JWC + I
pulled this I.M. up and tryed
to strighten it but it broke
in two. see book 268 pg.

To day three years later I
do not seem to find it
quit @ 5 P.M.

7 hrs. work.

June 21-1948

Ed. & I Pack up "Ace" drive to
Whipholt drive @ 8:30 A.M.

Look for old spike hubs

old. Notes of 1946 in

(book 268, page 39 says

work π on line between NW
& SW corners of lot 1 sec 8. 141-29

and chain south (50°44'W) on true
line @ 141.6 hub 60° spike under π
Ties

10" Maple N 56°27'W 58.20

12" Basswood N 31°08'E 45.33

SW Cor stone wall under stone Bldg.
N 9°46'E 72.05

Continue South @ 156.65 hub

60° spike in ϕ of old Co Road #34

@ 196 Hub 60° spike in line with N
end of log bldg. 19.7 ft west from
NW Cor

617 ϕ New #34

1078.4 IM SW Cor lot 1

See page 40 book 268

We look for these hubs. 141.6-
156.65 and 196.

Old Notes Book 268

We chain in from Ties 9 and
find our old 60° spike a 141.6
S of I.M. from 141.6 we chain S
15.03 and find our old 60° spike
hub in the old highway # 34

We find all three spikes

We drive E to N+S E of lot 1 Sec 8-141-29
We find our old RR spike @ intersection
book 268 page 53 N+S E + N line
also sta. 1-2 + 3. Sta 1 is 90° spike

We go to NE Cor. Lot 1 Sec 8-141-29
chain S 48 ft and dig down 2 ft
and find the 1 inch iron = car axel
from which we chain S 5.6 and find
an old 90° spike we chain S 720
and dig for SE Cor cannot
find it we go to SW Cor and chain
E 1249.6 and at intersection
of the measurements dig down
and find the I.M. SE Cor Lot
1 Sec 8-141-29 - 6 inches below
ground

Then SE Corner Lot 1
Site West to flag held @ SW Cor

we set a row of 60^d spikes
on the True South line
of Lot 1 Sec 8-141-29

A still @ S.E. Cor Site Non
flag held on car axle 48 ft S of
I.M. and Read N.W. angle of
Lot 1. Sec 8.

$88^{\circ}17' - 176^{\circ}35' -$

$264^{\circ}51' - 353^{\circ}08' - 50 -$

$88^{\circ}17'$ is it.

A still over S.E. Cor Lot 1 - Sec 8

Take Ties Site Non N.E. Cor

Cor. Fence Post bears $N 63^{\circ}35' W 13.37$

W Birch 6 S $34^{\circ}36' W 65.80$

W. " 5 S $54^{\circ}22' E 52.73$

A still over S.E. Cor we

Run Non True East line

Lot 1. @ 132 ft set 60^d spikes

@ 264 set 60^d spikes set

60^d spike in ϕ New #34

K still over SE cor lot 1 Sec 8-141-29
Run W along S line of Lot 1
@ 247.5 net 609' Apik
+ 82.5'

12

Whipholt
 Lot 1 Section 8 Twp 141 - R. 29

June 22, 1949

Lv Walker Ed + I. starts to rain
 drive to (Aces) raining hard I
 stop for coffee. stops raining
 Ace - Ed - I drive to Whipholt
 arrive @ 9-30 @ N. end of N + S §
 Lot 1

Map. on page 49. Book 268
 shows Too Old.

I can not find anything
 about the N + S § Lot 1 which
 we run in July 1946

Beginning @ SW cor Lot 1
 chain East on True South
 line of lot 1 at 132 set 60°
 spike on line pt. for I.M. +
 33 set 60° spike on true S line
 + 295 set 60° spike on true
 line pt for I.M. + 164.6
 60° spike True intersection
 of N + S § of Lot 1 + S line of Lot 1.
 From intersection hub
 chain E 50 ft set 60° spike
 on true S line + 82 ft set

60⁹ spike + 80.1 set 60⁹ spike
 + 82.5 set 60⁹ spike + 82.5
 set 60⁹ spike + 247.5 = IM
 SE Cor lot 1 Section 8-141-29
 all spikes are on true south line
 of lot 1 and are points for I.M.s
 Lot corners except the 132+33
 spike which is 165 ft E of SW Cor.
 which I set because of Geo.
 Larson Tract south of School.

I set flag at inter section
 of N & S $\frac{1}{2}$ with South line lot 1
 back $\frac{1}{2}$ N to New Highway #34
 and work it on true N & S $\frac{1}{2}$
 of lot 1 Sec 8-141-29

From spike at intersection
 of N & S $\frac{1}{2}$ of lot 1 to the South line
 chain N 40 ft and set 60⁹ spike
 on true N & S $\frac{1}{2}$ pts for I.M.
 NE Cor Tract-S- at 100 set 60⁹ spike
 NW Cor Tract-W- @ 283.55 ft
 N. of NW Cor. of W- = 60⁹ spike in
 $\frac{1}{2}$ tar road.

We set 60¢ spike on N shoulder
 of Highway to mark N & S E lot 1
 @ 545 ft N of NE Cor of
 Tract-S - set 60¢ spike for
 NE Cor Tract-U. We set a 60¢
 spike on top further N & quit
 at 530 -

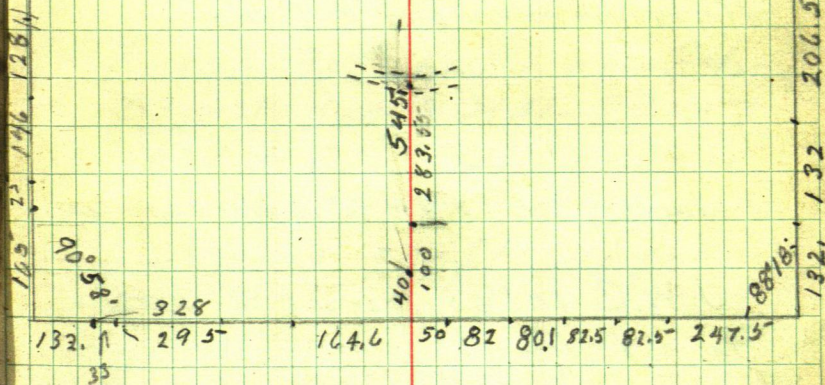
190

146

336

June 23 1949 Thr.

N+SE



16

June 24-1949 Friday
I work at Wood Lake
until 5 PM drive to Walker

June 25-1949 Sat

J.W.C. goes to Girl Lake
I work in office on
Hammergren + Cooper
map

June 26 1949 Sunday

J.W.C. takes night Train
to St. Paul.

June 27-1949 Monday
check description on
property in Whipholt

P.M.

pick up ACE drive to
Whipholt Look for & find
I.M. on church property
the SE I.M. we can not find

Over 90' spike on E. line
of lot 1- Sec 8-141-29-53
ft S. of M.C. Site S on true
line Turn 90° R. and
run West 200 ft. set 60'
spike

quit @ 5-30

June 28 1949

Pick up ACE @ 9.30
drive to Whipholt
ACE & I order shoes

Over SW Cor Lot 1 sec 8
141-29 site E on true S line
Lot 1 - read NE angle
S line + W line Lot 1.

Over SW Cor lot 1 site Non
True W line of lot 1 and chain
N 165 ft. set 60° spike point for IM
+ 25 = 190 set 60° spike point for IM
+ 146 = 336 set 60° spike point for
IM. NW Cor school grounds
+ 128 = 464 ft N 60° spike in
E State Tax. Road # 34

as a line E from spike 165 N
will hit a house I set

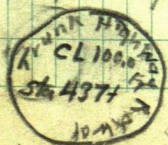
Over spike 190 N of SW Cor Lot 1
site. Non true line Turn 90° 58'
R and hit shed.

Over - hub 132 E of SW Cor

on true line lot 1 site E on true
 line Turn $R 90^{\circ}58'$ and run N
 parallel with East line of lot 1
 165 ft set 60° spike point for I.M.
 Tower 165 site S Turn $R 89^{\circ}02'$
 and run E 33 ft point for I.M. set
 60° spike Tower 33 site S on spike
 165 ft E of SW cor and run N
 25 ft set 60° spike point for I.M.
 lot cor.
 Tower 25 site S and Turn S W angle
 $91^{\circ}02'$ to spains I.M. SW cor Church
 grounds 130.6 ft

Tower NW cor School grounds
 site N on true W. line lot 1 Turn
 $R 90^{\circ}58'$ and run N line of school
 grounds. We quit @ 5 o'clock
 do not get this line finished

Still @ NW cor School
 grounds I.M. marked Turn 15
 Highway Right of way



CL 100.0 ft

Sta. 437+66.1

SP

Sec.

20

bears L $2^{\circ} 24'$ 81.7 ft.

July 14, 1949 Tue

Ace + I Lu His place @ 8-30
drive to Whipholt

Tower RR spike on N + S Φ S side
of road Turn 90° and run E
75 ft set 60 ϕ spike Tower 60 ϕ
spike 75 ft E of Φ Turn 90° and
run N 40.7 set 60 ϕ spike on brinks,

Tower RR spike on Φ run $S 79^\circ E$
 388.23 + set 60 ϕ spike Note this
should of been 375 ft E of Φ
(but checking it in office it is
 381.10 E)

Tower 388.23 continue $S 79^\circ E 621.3$
set 60 ϕ spike

Tower 388.23 the 90 ϕ spike on
the E line 53.3 S of M.C. sets
 $S 78^\circ 28' E 244.53$.

Tsk 11 @ 388.23 I.M. SE Cor Rothman
tract sets $N 39^\circ 20' W 33.60$

an I.M. Set for the NE cor of 375 ft
Tract bet the two hwy. ways sets $S 40^\circ 43' W$
 38.05 We find a 1" Pipe set for NE cor
of 60 ft tract bet highways sets
 $S 38^\circ 12' E 55.75$

At still @ 388.23 run South and
hit the house on the 60 ft Tract

Over 60 ft spike at 200 ft W of
E line. run S to New High way
This spike was set by me at 90°
from the 90 ft spike 53.3 S of MC
on E line Lot 1.

From this 60 ft spike 200 W of E line
we run N 31.3 + at 60 ft spike in
Old road.

Over spike in E Turn 90° and
run W 60 ft set spike 60 ft for line
260 ft W of E line.

a big floating log almost wreck
the docks at wharf
all the boats push it and hold it
away in high wind it gets part of
one dock.

Quit @ 5:00

Work after supper on Dad plat of
Wood Lake

23

Work in office figuring

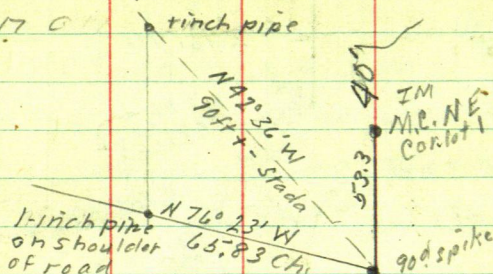
Diagram showing a traverse with bearings and distances:

- Top left: 50° (angle), 40.7 (distance), $579^\circ E$ (bearing), 388.23 (distance).
- Top center: 216.76 (distance).
- Top right: 488.2 (distance), 50° (angle), 49.83 (distance).
- Center: 381.1 (distance), 381.05 (distance), $538^\circ 12' E$ (bearing), 244.53 (distance).
- Bottom left: 382.02 (distance), 381.05 (distance), $55^\circ 75'$ (bearing), 381.05 (distance).
- Bottom center: 209 (distance), 48.5 (distance).
- Bottom right: 53.3 (distance), 50 (distance).

Other labels include "IM" and "Hoomlin".

Acet I drive to xthipholt drive @
10-30 Tower 90' spike 53.3 300f
USMC on the East line of lot 1
1-inch pipe bears N 76° 23' W 65.83 chained
and another 1-inch pipe bears
N 42° 36' W 90 feet stada measurement
as Dr Hampton bought the E
50 foot from Mack as recorded
card A (N° 17151) He claims he
bought another pie shape strip
15-ft along the old Highway to
straighten up his first piece

and had it surveyed and
1 inch iron pipe placed as
shown on



I come to Walker to
look and see if he recorded
his deed, to the pie shape
piece as he is not sure
and his papers are in
the city.

We leave Whipholt @

4 P.M.

help dad on his plat

July 6 - 1949

Go to courthouse to check upon
Hampton's deed.

Dad's new drafting table comes
and it takes us until noon
to get it set up.

So do not get time to check
records, as everything closes at
Noon Saturday

26

July 21-1949

I help J.W.C. with his plat of Wood Lake. We go to Great Northern Depot & get New drafting m. take it to Court House where I help put it together. Then leave and drive to Ace's place. Ace is gone so I pick up Ernest Swift. We drive to Whip Holt arrive at 10-45 & stop at Dr. Hamptons who says the extra 15 ft of land is recorded and they showed it to him at the Court House day before yesterday. furrrie they could not find it for dad.

Over hub 141.6 Foresite South on W. line Lot 1 to hub 60' spike in E tar road from 60' spike in E Tar road Chain N 18 ft & set 60' spike on line

Over 60' spike 18 ft N of E road Site N on True W line Lot 1 & Turn R $90^{\circ}58'$ & run $S 89^{\circ}02' E$ 296 ft & set 60'

spike for old lot cor Now in Right-
of way of New #34.

Still over hub 18' N of & an
old car axet I.M. sets

S88°52'E 294.8

Over hub 296 B.S. N89°02'W
and run South @ 79.33 60°

spike in & Tar road

@ 147.18 S 60° spike hub .70' E

of old 1½ I. pipe @ 292.48 ÷ 2" I Pipe

SW cor Church Grounds

Still over 296 run North @ 141.9

set 60° spike for NW cor Church

Grounds @ 144 N set 60° spike

+ 261.9 - 60° spike in & Old road.

quit @ 5-45

28

Copied

July 22-1949

Frank J. & Hannah M. Mack

W.D. 100

To

Date Sept 13-36

Filed n 22-

36-
Book 75-17

Sept 13-36

Helen A. Hampton

Begr. at N.E. MC. of Lot 1 Sec 8

141.-29 Thence in a westerly
direction along the shore
of Leech Lake 50 ft to a point
Thence south on a line parallel
to the East line of said Lot 1
to the center of Trunk Highway
No. 34 Thence easterly to a
point where the east line of
said Lot 1 intersects the E of
Trunk Highway No-34 Thence
N along the east line of said
Lot 1 to the point of beg.

It is the intention to convey
the East 50 ft. of said Lot 1

Subject to flowage rights
before C.J. Elsenpeter Notary P.

Hannak & Mack

To

Hampton

July 22-1949

W.D.#100 Dated Sept 3-1938

Filed May 3-1939

Book 76 D. - 445

Ack Sept 3-1938

That part of Lot 1 Sec. 8-141-29
described as follows.

Continued on page 624 of record
book, -J-

beg at the NE Cor of Govt Lot 1
an iron monument Brass
capped by the US Indian re-
survey 1918 Here in after
called point of beginning
run south along the sec line
to the intersection of said line
and Highway #34 as at present
constructed Thence west
along Highway #34 approxin-
ately 65 ft to a point Thence
North $5^{\circ}45'$ E 82 ft to a point
Thence N 77° West 6.5 ft to
a point Thence N $4^{\circ}30'$ West
34.5 ft to the quartz rock in the
retaining wall - said retaining
wall being now on the shore of
over

30

July 22-

Leech Lake Thence 60 ft
along the shore line to a
point where a continuation
of the Sec. line N of the point
of beg. intersects the high
water line Thence to the point
of beg.

before R. Cecil Patterson N.P.

July 22

31

Hanna + Mack

to

Archie L. Freeburg + Marie
Freeburg

All that part of Lot 1 Sec 8-141-29
described as follows.

Beg. at a point on the E of
Trunk Highway # 34 -

300 feet east of where said highway
intersects N & S E of said Lot 1

Thence N on a line parallel
to said E of lot 1 to the shore of
Leech Lake Thence Easterly along
said shore line to east boundary
Lot 1 same being Sec. Line
bet. Sec 8-9 Thence S along

said Sec line to the E of highway
#34 Thence Westerly along E
of said Highway to point of beg.

Except west 60 ft deduced
to Katie M. Rockwell & Entry N° 11
of Abs. 1 and to Robert Irene Bailey
Entry # 12 of Abs.

Except also following part
beg. at NE cor. Lot 1. on I.M. U.S

over

32

July 22-1999

Indian resurvey of 1948

called pt of beg. A.M. South
along sec line to intersection
of said line & Highway #34

as now constructed Thence

West along Highway #34

approx 65 ft to a point

Thence $N 5^{\circ} 45' E$ 82 ft to a
point Thence $N 77^{\circ} W$ 65 ft to apoint Thence $N 4^{\circ} 30' W$ 34.5'
ft to the quartz rock in the
retaining wall (on shore of L.)

L

July 22-1949.

I take J.W.C. To Wood Lake
back to Walker put Gas in
the car and copy deeds see
page 28 to 32-This book.
drive to Ace's pick up Ernest
Swift drive to Whipholt
arrive around noon eat dinner
P.M.

Today. A over RR spike
on N+S $\frac{1}{2}$ on S edge of road
from spike hub at NE cor
of lot or tract 545 ft N of S line
on N+S $\frac{1}{2}$ chain N @ 73.15" hub
60° spike + 186.85" = 260' set
60° spike on N+S $\frac{1}{2}$ in $\frac{1}{2}$ of old #
34 @ 293 = 2" I.M. Lot cor 6' feet
W of cor of Buds Place
@ 829 = old RR spike hub on N+S
 $\frac{1}{2}$ Lot 1 on S edge of old-34
We chain S 33 ft from $\frac{1}{2}$ hub
260' set 60° spike on N+S $\frac{1}{2}$
We chain N W along $\frac{1}{2}$ of old
#34 to spike set last night
264 ft N of N W cor of Church
Grounds. 327.4 - Should be 330.

from hub 264 N in \angle old 34
chain NW 298 to intersection
of old road + the West line
of lot 1 - should be. 296.5

as this is 1.5 too long and the
next strip is 2.6 short so I
will correct this line and
that will even the thing up
a bit

Corrections

$$1.5 \div 693.9 = .002161694$$

West for each foot N

$$146 \text{ N goes W } .32$$

$$292 \text{ N } " \text{ W } .63$$

$$433.9 \text{ N } " \text{ W } .94$$

$$693.9 \text{ N } " \text{ W } 1.50$$

The $327.4 + 1.5 = 328.9$ still short
but cannot be helped

$$328.9 \div 2 = 164.45$$

$$164.45 \div 3 = 54.81\frac{2}{3} = \frac{1}{3}$$

$$\frac{2}{3} \text{ of } 164.45 = 109.63\frac{1}{3} \text{ on } \angle \text{ road}$$

Now intersection of N15 \angle + old 34
NW angle $81^{\circ}05'$

July 26-1949

35

Pick up Ernest Swift drive to
Whipholt arrive at Whipholt at 9-15
Tower over 60' spike on N+S $\frac{1}{2}$ Lot 1.
chain N to take from I.M. on N side
of R-of-Way chain N @ 11.90
spike hub on brink @ 38 Water
edge of Leech Lake. @ 35.4 spike

From 60' spike on N+S $\frac{1}{2}$ Lot 1
+ $\frac{1}{2}$ old 34 chain W along $\frac{1}{2}$ old
34, at 109.64 set 60' spike + 54.82 =
164.46 set 60' spike.

Tower 164.46. Site S 81° 05' E
and run south cut out line
set flag @ 164.46 - in $\frac{1}{2}$ old 34
Set flag on S side Lot 1, at hut
set a week or so ago. Work T.
on line between the two points
From South line Lot 1 - chain
North at 78 set 60' spike
point for I.M. @ 190 N set 60'
spike point for I.M. S E Cor
Church grounds from S E Cor
Church grounds chain N 197.4
set 60' spike S edge R-of-Way

100.1 S of $\&$ Tai road @ 100.10
 N of $\&$ we find 2 1/4" I.M. Set
 by High Way Eng. for Rof. Way
 @ 414.04 N of SE Cor Church
 grounds we set a 60# spike
 for NE Cor Church grounds
 + 35.96 N we set 60# spike point
 for I.M. lot Cor. @ 256.6 N
 Spike in $\&$ old 34

Tower 35.96 Hub SW Cor lot the
 SE Cor bears $S 80^{\circ} 04' E 165.75'$
 @ 35.25 E we set 60# spike
 point for I.M. SE Cor of W 1/3
 of Lot.

Tower Hub 156.65 S of M.C. NW
 Cor lot 1 - 33 ft S of Water of
 Leech Lake. We Turn SE ang
 $82^{\circ} 08'$ and chain SE along
 $\&$ old 34 @ 250 ft set 60# spike
 + 280 set 60# spike

quit @ 5-43-

July 27-1949

Pick up Cement Swift drive
to Whipholt arrive @ 10-30

Tower 60' spike on N+S $\frac{1}{4}$ in $\frac{1}{4}$ old
#34 - site son N+S $\frac{1}{4}$ run N $80^{\circ}27'W$
95.7 set 60' spike $4\frac{1}{2}$ ft N of $\frac{1}{4}$ old
34. Tower hub 95.7 BSS $80^{\circ}27'E$
and run North parallel to N+S $\frac{1}{4}$
@ 28.96 set 60' spike edge of R of Way
@ 33.46 spike hub @ 47.36 spike
on brink 71.46 spike on rear wall
not on line 12 ft S of water of Leach
lake

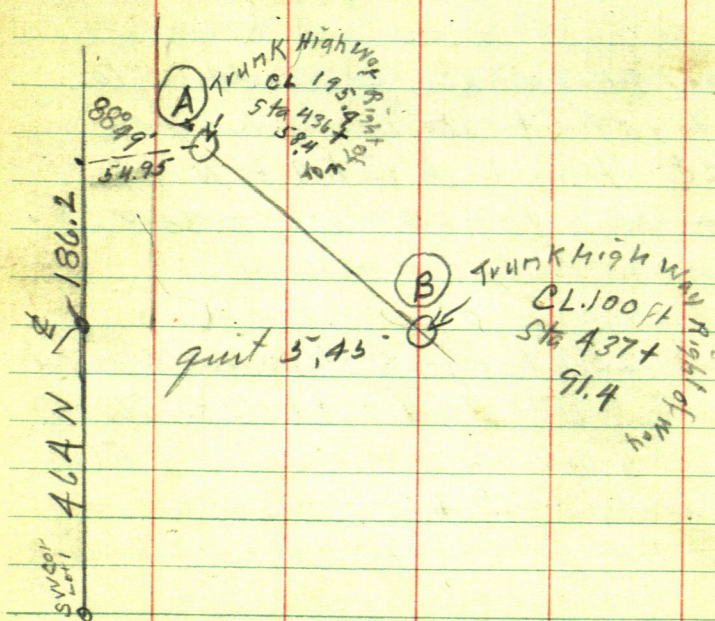
from 95.7 chain west 14.05 to
spike 109.64 set yesterday from
N+S $\frac{1}{4}$ this hub is 1.4 ft N of $\frac{1}{4}$
from hub 109.64 chain S 34.8 set
60' spike S edge of R of Way

Tower 250 E run N Parallel to West
line Lot 1. @ 33.4 set 60' spike
edge of R of Way @ 49.5 spike @ 51.8
hit 2nd house 3.4 ft W of SE COR
off set 5 ft E $49.5 + 24.5 = 74$ brink
 $+ 31 = 105$ foot of hill set spike back 5 ft

West spike on line of MIM
25 ft S of water of Leech Lake

Tower 60° spike 141.2 S of ME
NW Cor. lot 1. Site S on 60°
spike in E Tar road New 34
chain N from E New 34
186.2 at 60° spike on True
West line lot 1

Tower Hub 186.2 N of E
Trunk Highway R-of-Way IM
bears N 88° 49' E 54.95'



July 28-1949

Pick up Ernest Swift drive
to Whipholt drive @ 9-15

Tower A see drawing page 38

B.S. S $88^{\circ}49'W$ on 60' spike

point B bears S $37^{\circ}51'E$ 157.80

A still at A run N parallel to
west line Lot 1 - 120 ft at 60' spike
Tower 60' spike 120 N of Highway IN
Turn 90° run West 22 ft at 60'
spike

Tower NW Cor School Grounds
B.S. South on True West line Lot 1

I.M. marked Trunk Highway

Right of way CL 160.0 ft Sta 436 + 68.9

bears S $47^{\circ}51'W$ 44.55 ft

I.M. marked Trunk Highway Right of
way CL 148.4 Sta. 437 + 29.9

bears S $42^{\circ}40'E$ 48.55

From I.M. Sta 437 + 29.9 to I.M.

Sta 437 + 66.1 is 61.5 ft.

distance chained between
I.M.s marked Sta 436+68.9
and Sta 437+29.9 - is 66.2 ft
a straight line from one Iron
to the other crosses the W line
of lot 1 south of NW cor School Grounds.
32.8 ft.

Turn SW cor lot 1 - Site N on
W line Turn R $90^{\circ}58'$ and run
33.4 ft at 60 ft spike for R of way
Tower hub 165 ft N of SW cor
Turn NE angle $90^{\circ}58'$ run 33.4
at spike for lot cor & R of way
Tower hub 190 ft N of SW cor
Turn NE angle $90^{\circ}58'$ @ 33 ft
60 ft spike right of way & lot cor
SW cor School Grounds.

PM

@ SW cor of Church Grounds
We correct the E line of School
grounds & W line of Church
grounds see page 34 this book

Turn NW cor Church Grounds
on corrected cor continue

corrected line North from NW
Cor Church Grounds run N

230 ft set 60 ft spike for old 34
R of Way & NE Cor 16 1/2 foot Street

2.1 ft N of NW Cor Church
run N

@ 16.5 spike SW Cor Street

@ 76.5 spike SW Cor Carter tract
from 76.5 chain N 55 ft Then
E 60 ft

Tower spike 264 N of SE Cor lot 1
site N on E line of lot one
and run N $72^{\circ}16'E$ 33 ft To
I.M. marked Trunk High Right of Way
CL 198.3 - Sta 449 + 11.1

Still at 264, run S $86^{\circ}25'W$ 32.9
to I.M. marked Trunk highway
CL 198.3 ft. Sta 448 + 43.9

Still @ 264 site N Turn L $88^{\circ}18'$
and run West. 37 ft set spike on Ref
way line (I hope)

Tower I.M. sta 448+43.9
 BS N $86^{\circ}25'E$ on hub 264
 and run N $50^{\circ}24'W$ 127.5
 To I.M. marked Trunk Highway
 Right of Way CL 100.0 ft
 Sta 447+62.7

Tower hub 132 N of SE cor
 Site N and Turn L $88^{\circ}18'$
 @ 33, set 60 ft spike for lot
 cor & right of way

Tower hub 5m S line lot 1
 50 ft E of N & S E run N
 parallel to N & S & 100 ft &
 set 60 ft spike for lot cor,

quit at 6 PM

July 29-1949

I pick up Ace drive to Whipholt
arrive 9 o'clock about

We drive I M at lot corners to
get spikes as we are short of spikes
Tower spike 82 = 132 ft E of N+S

& lot 1 on south side run N parallel
to E Line @ 132 ft at 60° spike
@ 264 ft N at 60° spike

Still @ 132 the I.M. marked
Trunk Highway Right of Way

CL 100.0 ft Sla. 444 + 09.5° bears
N. 0° 58' W 287.9 ft.

Tower 80.1 which is 212.1 E of
N+S & S. side Lot 1. B.S. N 88° 18' W
on S line & run North parallel
to E line @ 132 at 60° spike lot cor

Tower 82.5 = 294.6 E of N+S &
S side run N parallel to E line
@ 132 at spike lot cor

Tower 82.5 which is 247.5
W of S E Cor lot 1 run N parallel
to E line 132 at 60° spike Lot Cor

Tower S E Cor Lot 1 run N 88° 18' W
33 ft at spike for lot cor + R. of way
Cor. road.

44

July 29-1949

Over 90 ft. up 53.6 S of MC
NE cor lot 1. W. run S $31^{\circ}04'E$ 64.2 ft
to I.M. marked

Trunk Highway Right of way
CL 198.3 ft Sta 449+19.3

Over I.M. Sta 449+19.3 B.S.
N $31^{\circ}04'E$ and run S $39^{\circ}20'W$
154.3 ft to I.M. course read to point
1 ft E of I.M. Marked Trunk Highway
Right of way CL 100.0 ft Sta 448+00.6

Over 1" I.M. Dr. Hampton's Lot
NW cor. See page 24 this book
B.S. S $76^{\circ}23'E$ and run N $11^{\circ}07'E$
48.8 ft to I.M. Car axel

Over I.M. 48.8 B.S. S $11^{\circ}07'W$
run N $67^{\circ}57'W$ 6.55 to I.M.
Car axel

Still @ 48.8 quartz rock called
for in Hampton's deed bears
N $7^{\circ}07'W$ 36.5 ft

from car axel 6.55 ft w of K
distance to quartz rock is 33.9 ft.

Tower 90th spike on E line 53.6
ft S of M.C site Santrue E line
Turn 90° and run W 200 ft

Tower 200 - Site E + Turn 90°
run S to New high set 60th spike
in Φ of Tar chain N 100.1 set
60th spike on Ref Way line
from Ref Way spike chain N 181.75
ft to Ref Way of old 34 = 4.7 ft S
of π Φ of old 34 is 28.3 N of π
set 60th spike 31.3 see page 22

Tower 31.3 Turn 90° and run W
60 ft set 60th spike

Tower 60th spike runs parallel
to E line Lot 1 This spike is 375.8
easterly from Φ of old 34 on NTS
 Φ π still @ 60 runs S. parallel
to E line set 60th spike in Φ Tar
New 34 from Φ Tar chain N
100.1 set 60th spike on Ref Way
from Ref Way chain N 206.2
set 60th spike on s edge of Ref way old 34
- June 5-15-

46

Sunday July 31

Work on Plat all AM

PM

Ed. and I go to whip hole
to check over ground.

We set a few I.M. and
Chain the West side of Huddle
and Carter Tract from S side
old Highway #34. Huddle Tract
is 179.3 on West side Carter
Tract is 55.

Turn over 90° right 53.6 S of NE
M.C. site South Turn 90°
and run West 200 ft set 60° right
Turn 200 hub site E and run
N $52^{\circ}25'W$ 151.20 to I.M.

SW Cor of Bothern tracts

The S.E. Cor Bothern Tracts
2" I.M. bears N $37^{\circ}54'W$ 96.8

Turn SW Cor site S $52^{\circ}25'E$

the NW Cor sets North

The SE Cor sets S $75^{\circ}14'E$ 61.28

Turn SE Cor B.S. N $75^{\circ}14'W$
and run N to lake set 60°
right on brink.

48 Govt Lot 11 Sec. 35-142-30

Aug 11-1961

John & I to Govt lot 11-Sec 35-142-30

Tower I M, NW Cor lot 11 run S $68^{\circ}30'E$ 155.8
to I M Tower, 155.8 side N $68^{\circ}30'W$ & run
S $2^{\circ}09'E$ set stakes along line

T still at 155.8 run S $63^{\circ}E$ 162.69 to I M

Tower 162.69 BS N $63^{\circ}W$ and run

S $4^{\circ}30'E$ set stakes along line

T still at 162.69 run S $53^{\circ}30'E$ 175.9

to I M. from this I M chain N $53^{\circ}30'W$

37.31 and set point Tower at 37.31

side N $53^{\circ}30'W$ & run S $22^{\circ}W$.

As ice & rock have moved I M along
shore

Tower NE cor lot 11 BS S $10^{\circ}34'E$ on

US Mon. and run N $63^{\circ}W$ 100 ft set a pole

the top of I M at 162.69 bears N $63^{\circ}30'W$

Tower 162.69 BS $63^{\circ}30'E$ & run N $55^{\circ}41'W$

175.9

$80.3 - 4 = 76.3 +$

at 98.00 hub +

run N $79^{\circ}27'W$

Lot 5 Sec 35-142-3 ①

Mary Jane Phelps

Aug 17-1961

W.D. Aug 20-1934 filed Sept. 10th 1934
in Book 70 of Deeds on page 577 with
different description it all adds up to this
in County Treasurer's Office Books say
W. 728' of E 992' of Gov't Lot 5 Sec 35-142-30
W 728' of E 992' of N 30 rods of NE $\frac{1}{4}$ of SE $\frac{1}{4}$ Sec 35-
Bob + I to Acc. 35-142-30 where I look over
descriptions Thence E. to Acc. line bet. Sec. 35-36
Then US IM MC, NE cor Lot 5 site S on flag at US
IM $\frac{1}{4}$ cor. and run N 80° W

N 80° W = W 10° N

Sine 1736.48 x 268.08 = 466.0 N

Cosine 984808 into 264 = 268.08 = 264' W.

at 268.08 BS S 80° E on flag at US MC and run
N. parallel to E line Acc. 35 at 18.5 ft set for
IM on brink (this pt is 65 ft N of MC.
At still at 268.08 N.W. run South parallel to
E line Sec 35 at 46.5 set 60th spike for pt.
90° W of MC, IM 264 ft, continue S. + 86.2
set iron 7 ft N of road + 80.3 = 166.5 up to
opposite US $\frac{1}{4}$ IM 264' W. continue S parallel
to E line Acc. 35 at 495 ft set IM SE cor
Phelps Tract

Aug 18th 1961

John - Bob + I to Lot 5 Acc. 35-142-30
Then IM - 264 ft W and 80.30 ft N of
US $\frac{1}{4}$ IM. site North and run

run S 79°49' W 180' along road about

$$\text{Sine } 9842.47 \times 180 = 1771.16 \text{ W}$$

264

$$\text{Cosine } 176798 \times 180 = 31.82 \text{ S}$$

177.16

Turn 180 BS N 79°49' E and run

291.07

103.61

N 76°20' W 300. ft

156.72

$$\text{Sine } 9716.87 \times 300 = 291.51 \text{ W}$$

728.00

$$\text{Cosine } 236273 \times 300 = 70.88 \text{ N}$$

Turn 300 BS S 76°20' E + run

N 59°42' W 120'

$$\text{Sine } 863396 \times 120 = 103.61 \text{ W}$$

$$\text{Cosine } 504528 \times 120 = 60.54 \text{ N}$$

Turn 120 BS S 59°42' E + run

S 83°50' W

$$\text{Sine } 994214 \text{ into } 156.72 = 156.63 = 153.72 \text{ W}$$

$$\text{Cosine } 107421 \times 156.63 =$$

Turn 156.63 which is 728.00 ft W of
E line of E 264 ft track and run

N parallel to E line Sec 35 - but

Edward & Elsie Eagles house offset E 15 ft

run N 66.2 ft Turn 66.2 run N 12°18' W

at 70.42 we are back on line + run

N 31.5 - at IM on brink of bank run

S 53.6 set IM .80 of ft N of house + 18"

W of NE cor of house

at a point 163.07 N and 992 ft W of $\frac{1}{4}$ sec

cor axel, on true line + run South parallel

to E line Sec. 35 - at 658.07 we set an IM

495 ft S. and 992' W of $\frac{1}{4}$ bet Sec 35-36

Back to Walker Wake Sketch and Bill

for 8 175 - which Bob take to Mrs Phelps &
get her. Check for the work

Lot 2 - Sec 8 ① T141 R29. 51
Kofstad

June 1949

Calls at our office wants
this lines run out and to
know how many acres there
are in the piece

He owns part of lot 2
Sec. 8 - 141 - 29.

That Part lying south
of New high 34 and west
of creet from Rat lake to
Leach lake.

Lot 2 - Sec 8 - 141-29

June 16 - 1949

Don't I get notes at the court He
drive out and Pick up ACE,
@ 10 A.M. Lv Ace's place drive
to Whipholt at R. B. Rothmans
we find Mr. Kofstad. we drive
to where New highway crosses
W. line of lot 2 Sec 8-141-29
Lv. Car walk S following creek
to SW Cor lot 2 Where we
find U.S. Brass Cap Monument
set for True S.W. Cor of Lot 2
place red flag at I. M. walk
N $\frac{1}{4}$ mile + - look for $\frac{1}{4}$ Cor
find stub of old U.S. B.T.
from which we locate the
US Brass Cap Monument
bent over in the ground
we dig down and find where
it is straight and set red flag.
It rained all night last night
and everything is wet even
us. with a new shower now
and then to keep us that way
Ace goes to SW Cor lot 2 and

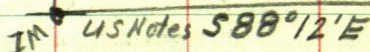
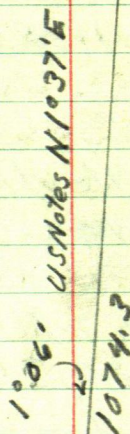
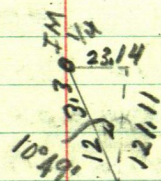
cuts line N Kofstad goes home for cutting tools then goes helps Ace I + Don go to NW Cor which is the $\frac{1}{4}$ Cor on the N. side Sec. 8-141-29 open up the line south to old 34. Then go south to where Ace + Kofstad are working all go to dinner. Ace Don + I eat in car. Kofstad walks home.

P.M.

chaining North on West side Lot 2 Sec. 8-141-29
 beg at hub on top chain south down hill. @ 103.95 hub 60^d spike @ 200 pin + 202.6 = 402.6 I.M. SW cor lot 2 - Sec 8-141-29
 from 402.6 on top chain N + 186.7 = 589.3 hub 60^d spike @ 702.6 pin on S edge of highway R-of-Way clearing + 90 = 792.6 $\frac{1}{2}$ New Highway #34
 702.6 + 181.4 = 884.0 hub 60^d spike + 190.3 = 1074.3 hub 60^d spike S. edge of R of W clearing of old 34.

54

Tower. Hub 1074.3 USIM
 at NW Cor lot 2 Sec 8-141-29
 sets 10°49' Left. 123.3 ft
 @ 35° old 34



8 hours

June 17-1949

Don + I pick up ACE drive to Whipholt arrive @ 9-50 AM. Kofstad was to pay us last night for this work as he was leaving for the City last night and would not be here when we finish his work. He does not show up.

We correct our random line we run yesterday the West line of lot 2. See 8-141-29

.019357537

1195.41 $\overline{) 23.14}$

.019357537 = 1'06"

hub 298.65 N goes W 5.78

" 402.6 N " W 7.79

" 589.3 N " W 11.41

" 884.0 N " W 17.11

" 1074.3 N " W 20.80

1195.41 N cor sets West 23.14

Over SW Cor Lot 2 site N1°37' E on corrected line and run

S $88^{\circ}12'E$ along South
 line of lot 2 - Sec 8 - 141 - 29
 (Courses Taken from
 Gov't resurvey.)
 to the creek @ 93 at 604
 spike hub 40 ft W of creek
 at edge of marsh.

π still @ SW Cor Lot 2 To ke
 Ties Maple S $37^{\circ}52'E$ 23.35
 Balsam 12 N $22^{\circ}W$ 4.00
 Ash 6 S $9^{\circ}W$ 1.80
 Maple 6 S $81^{\circ}45'E$ 17.60
 To spots at base

To over 93 BS N $88^{\circ}12'W$ and
 run N $30^{\circ}30'E$ 148.9 to sta 2
 @ 130 creek bank 10 R. creek 50 wide
 @ 148.9 " " 25' R

To over Sta 2 - BS S $30^{\circ}30'W$
 and run N $45^{\circ}30'E$ 392.2 to
 sta 3 creek bank 60 R.
 @ 200 " " 60 R
 @ 300 " " 30 R
 from here N creek is 15 ft wide
 " " S " is 40 ft + "

①

Sec. 36-142-30

Ace + I drive to section
between Sec. 35-36-142-30

From Brass Capped I.M. we walk
S about 825 ft and look for Brass
capped I.M. @ $S \frac{1}{2}$ Cor between

Sec. 35-36 - My Notes of 1918 resurvey
I just got from Washington D.C. \$10.80

say at $S \frac{1}{2}$ Cor set I.M. From Which

Oak 5 $S 83^{\circ} 45' E$ 11.1k = 40.26 ft

Oak 6 $S 67^{\circ} 15' W$ 12" = 40.92 ft

as we cannot seem to find any
thing we go back to I.M.

Travel I.M. site N on I.M. 165 ft N
and run South. @ 130 I help

Ace eat his lunch. from I.M.

chain South @ 189.5 old 2" wood

hub @ 300 pin @ 490.80 hub on top

60 d spike @ 500 pin @ 826.4 I.M. $\frac{1}{2}$ Cor

sets W 0.60 ft

fig Correction is

.000726 E for each ft S

826.4 / .6

Hub 490.8 S goes E. 36 d aft

we set this hub and backshot on
true line and quit @ 430

Give Ace \$5.00 on acc.

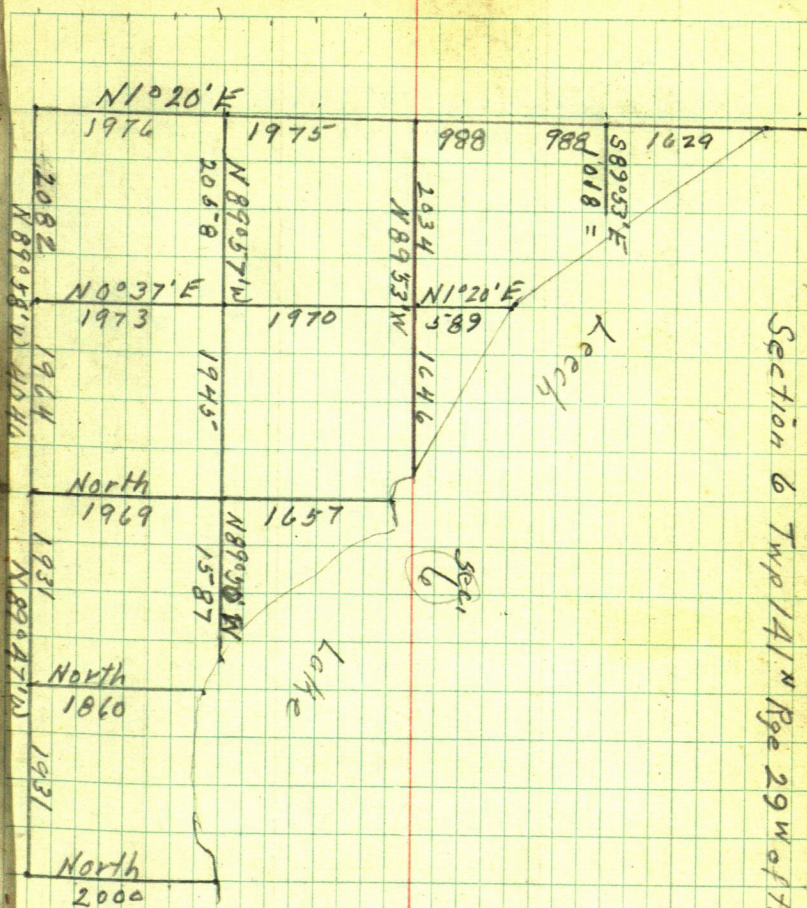
Harold Curo

June 18th about The people who have Cedar Springs Resort E. J. Marion Sr. Phone 3043 W Marion, Jr. calls at my office he says they want their lines surveyed out to be sure Miller's did not give them the wrong land. They want to be able to go into Court if the lines are not where Miller showed them.

On June 19th I send to Washington D.C. for the notes of the re-survey of Section 6-141-29 I send \$5.00 for same.

On July 3rd 1952 I receive a letter from U.S. Dept. of the Interior Bureau of Land Management acknowledging the \$5.00 but they want \$9.00 more before they will send them.

Plat copied from Re-Survey plats in Office of the Reg. of Deeds
 Section 6 Twp 141ⁿ Rge 29^w of the 5th PM Cass Co.



Book 82 of deeds pg. 334
Reference Book K Page 328 67

B. Homestead

All that part Lot 2 - Sec 15-14 2-30

described as follows Commencing
at the U.S. special meander corner
between Gov't Lots 1 & 2 of said Sec 15
thence Westerly on a line between
said Gov't Lots 1 & 2 385.2 feet to the SW
corner of lot 1 of the Plat of Leech Lake
 Lodge Park, thence thence Southerly
parallel to the West line of said lot 2
a distance of 364 feet thence
N $65^{\circ} 30' E$ 402 feet to the shore of
Leech lake, thence Northerly along
said lake shore 390 feet to the S. line
of said Gov't Lot 1. Thence West on
the South line of said lot 1 a distance
of 55 feet to the place of beg.

"C." other tracts of land

Commencing at NW cor. of lot 6 of the
plat of Leech Lake Park 1 - thence W on
a line which is continuation of the
N line of said lot 6 a distance of 30 feet
thence N parallel to the West line of
Gov't lot 1 - Sec 15-14 2-30 a distance of
700 feet thence East parallel to the
S. line of said lot 1 a distance of 454.67'

to the West shore of Leech Lake
 thence Southwly along said ^W shore of
 Leech Lake to its intersection with the
 N line of said lot 6 of L L Park
 thence W on said N line of said lot 6
 a distance of 460.18 ft to place of
 beg. the above being a part of Grant
 lot 1 - Sec 15 being what was formerly
 known & described as Lot 7 to 20 ins
 Leech Lake Park also all of the E 1/2
 maple road of said former Plat of
 Leech Lake Park lying N of said line
 crossing said Maple road & being a
 westerly prolongation of the N line of lot 6
 also Lots 1 to 6 inclusive
 Plat of Leech Lake Park

Ref. Book L page 535-

P.P. Klassen + Gertrude I wife
 to Claude Pullen N 75 ft of Lot 2
 of E 385.2' Book 91 of Deeds
 pg. 201.

Klassen to Thompson
 Book 92 - of Deeds pg. 343

Pullen back to Klassen

Book 100 - Deed page 17

Thompson back to Klassen

Book 100 of deeds page 17

PP. Klassen back to Pullen

Book 100 pg. 14

Klassen to Akre - Book 100 pg. 14

" to Thompson Book 100 - 15

" to Black Book 100 - 16

Akre to Krizan Book 100 - pg. 15

Krizan to " " 100 Vol 2

I drive Stony Point where I
meet P.P. Klassen we go to brass
cap Mon 385.2 ft from M.C.

Over IM Site S $89^{\circ}37'E$ on flag.
@ M.C. and run S parallel to W
line of lot 2. @ 100 + 150 + 339 + 75
and set 60 ft spikes

That IM have hub set about 300 ft 9

Still @ IM run N $0^{\circ}21'E$ 75 ft

Over 150 run S $79^{\circ}57'E$

Still @ 150 offset E 3 ft

Still @ 150 run S $79^{\circ}57'E$ 200
ft pt for IM + 45 ft pt for IM.
+ 180 ft pt for IM

Still on 150 centurie S $0^{\circ}21'00''$

$150 + 198.7 = 348.7$ hub

Over 348.7, Turn 90° Near East 3 ft
on a 3 ft offset

Over 3 ft offset site N on offset
hub @ 150 and centurie S $0^{\circ}21'E$

$339 - 198.7 = 140.3$ hub

+ 75 = 564

Over 564 run N $65^{\circ}30'E$

May 23 - Sat 1963

I go back to Story Point to check the work I did yesterday

Town IM - 385.2 ft W of M.C. bet
Mort lots 1 & 2. site $S 89^{\circ} 37' E$
on M.C. set 60' spike bet on
bank. set flag 35 ft E of M.C.

check course of N & S line

Work Town line bet hub 75 N of NW cor
tract and flag 55 ft E of M.C.

Town hub 75 ft N of NW cor.
site $S 0^{\circ} 21' W$ on NW cor flag sets

$S 81^{\circ} 05' E$ angle SE $81^{\circ} 26'$

run $S 0^{\circ} 21' W$ 150 ft

Turn 150 site N on IM turn SE angle
 $81^{\circ} 26'$ and run $S 81^{\circ} 05' E$ 200 ft
60' spike + 45' spike + — spike on bank.

Still @ 150' site N. Van @ 00 Turn SE

$L 1^{\circ} 33'$ to minus trees 339 ft, + 75' ⁴¹⁴

$$\text{Sine } 0.27049 \times 339 = 9.17$$

$$\text{Cosine } .999634 \times 339 = 338.87$$

$$\text{Sine } .027049 \times 414 = 11.20$$

$$\text{Cosine } .999634 \times 414 = 413.84 \text{ cor}$$

Town 414 or 564 S run N $65^{\circ} 30' E$

Town hub 250 SEaly + 150 S of NW cor
site N $81^{\circ} 26' W$ + run N $0^{\circ} 21' E$ ⁵⁵ S $0^{\circ} 21' W$ 50

Run S parallel to W line 5 ft IM
55 ft N. lot 50 ft wide
N 50 ft making lot 55 ft wide

74

May 14th 1956

John Ranney comes to my
Office. He owns land in Sec
36-142-30

John W Curo & I run the lines
at one time

I check lines and make map
for a road to his property
which he never got built

Now he is ready to run a
road into his place.

he can not find the road map
I made him

He calls me at 8-13th at the
phone and tell him I will
be there between 8-9 to monad
check U.S. Re-survey notes
East

$587^{\circ}34'E$ on a true line bet secs
1 and 36. continuing the monument
from the corner to Sections 1-2-35-36
@ 3300 Leave timber & undergrowth enter
open grass marsh bears NE & S

@ 39.86 set I. P. $36 \times 1'' - 30''$ in ground
for $\frac{1}{4}$ Cor with Brass Cap HKd

$\frac{1}{4}$ 534 1917
4 51

from which

J Pine 10" diam bears N $78\frac{1}{2}^{\circ}$ E 343 lts

R. Oak 8 " " S 32° E 323 lts

4200 L_u Swp bears NE 10° ch & S 3° ch entire

Scattering timber & dense undergrowth
bears NE & SW

@ 4977 - Proportional dist

Set I.P. for A.P. 4, Allotment 1313

& A.P. 3 - Allotment 1693 in sec. 34

Brass cap mkt d

PA 4	AP 3
TR	TR
1313	1693
S	<u>134</u>
S	1
1917	

@ 5780 entire cedars w heavy timber
bears N & S

59.68 proportional distance

Set I.P. 3" x 1" for E $\frac{1}{16}$ Sec

Cor Brass Cap mkt d

E $\frac{1}{16}$ sec 34 1917
S 1

from which Cedar 14 S $22\frac{1}{2}^{\circ}$ W 26

" 14 N $40\frac{1}{2}^{\circ}$ W 30

76

N4S & Sec 36 - 142 - 30

New US Re-survey Notes

6350 L^v Cedar sup N4S6515 L^v heavy timber. continuous through
windfall & brush over level sup

7757 The MC Wind Leach Lake

Set IP

T. 142 N	
R 30	936 MC
S 1	
141 N	1917

from which

Tanik 12 N 33 W 553

Birch 8 S 2 1/2 W 427

at corner to Sections 1-2-35-36

T. 142 N	R 30 W
S 35	536
S 2	S 1
T 141 N	-1917

from which

J.P. 14 N 42 1/4 E 193 Lks

" " 12 S 33 1/4 E 95 "

" " 12 S 23 3/4 W 64 "

" " 8 N 31 1/2 W 113 "

thence S 89° 35' E on true line bet sec 1-36

1175 L^v heavy timber

1996 proportional dist.

Set IP for W 1/4

J.P. 12 N 34 1/2 E 255 Lks

" " 10 S 64 1/2 W 240

336	1917
15	127
321	

Sec 36 See page 33-34 New 142-30 77
U.S. Re-Survey Notes NTS

From $\frac{1}{4}$ Cor on S bdy Sec 36-142-30
previously described

North on a true \odot through Sec 36

7.90 Lv swp bears E & W

10.00 at I.P. $\frac{AP4}{TR. 1549}$ T.R. 1313

15
6
90
150
130
90

1430 an old road bears N 70° W & S 70° E

2000 set I.P. for the C.S. $\frac{1}{16}$ cor. (center S $\frac{1}{2}$)

S $\frac{1}{16}$ | Sec 36 1918

from which

J.P. 6 N $40\frac{1}{4}^{\circ}$ E 1431 ks 94.38

N.P. 9 N $79\frac{1}{2}^{\circ}$ W 20 "

3500 set I.P. for A.P. 1 Allotment 1480 &
A.P. 4, Allotment 1648

$\frac{AP4}{TR. 1648}$ S 36 1918
 $\frac{AP1}{TR. 1480}$

4580 Set I.P. for wit cor to the Special
M.C. on the E of Sec 36

Pop 10 S $80\frac{1}{4}^{\circ}$ E 8

" 10 S $32\frac{3}{4}^{\circ}$ W 33

WC
SMC
C
S36 | S36

4680 intersect M. Line S shore Leech Lake
unsafe to establish S.M.C.

May 15th 1956

Dont & I & Walker about 9 AM
drive to Smoky Point to Cabin
of John Ramey where we pick
him up & drive to Oliver's Cabin
Lv car take tools and walk $\frac{1}{4}$ +
mile E to I.M. W. + M.C. on N + S
E Sec 36 - 142-30. Toward I.M.
site S $32^{\circ}45'W$ on old BT stump
and start a line South
find I.M. 712.8 ft S. Work
Tow line between the two I.M.s
and run South setting 60 ft
spikes on line with BS marked
True N + S E Sec. 36 East Edge of
road 9w

Ramey Lvs around 10-30
goes get Jim Whipple to help
cut line he get back with Jim
at 1-30 with lunch for Dont & I
we continue N + S E South
we run to hit out 0.25 W of S $\frac{1}{4}$
cor at intersection of road
set 60 ft spike on N + S E about
22 ft N of E road at 5 minutes to
4 o'clock

80

Sec 15 Lot 1
Stoney Point 142.30

S 89° 30' E

7.25

WCMC
N 89° 30' W 550

318

349.67

Lot 1 Sec 15 - 142.30

18

17

16

15

14

13

12

11

10

9

8

7

6

5

4

3

1000'

91° 07'

12

385.2

55'

Plat of Leech Lake Park
Vacated

Lot 2

E13

Sec 15 - 142.30

91° 07' angle = 1° 07' W of a 90° to S line

Sine 0.19488 x 1000 = 19.49 W of SE cor

Cosine 999.810 x 1000 = 999.81 ft N @ 90°

To same lot Lot 2

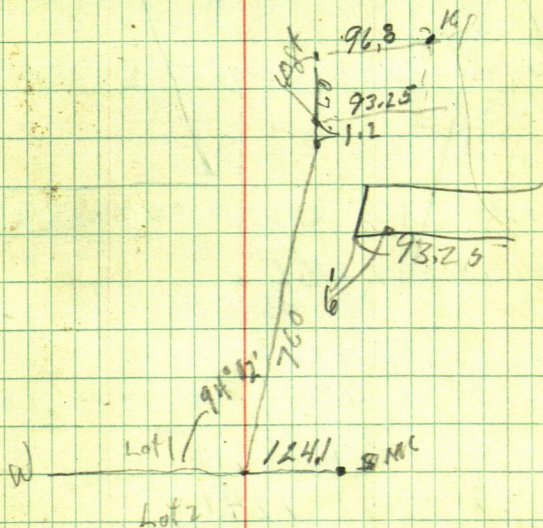
Set pt on S line Lot 2 and run Northaly
to pt on S line of Tract to describe

May 25-1952

Gert & I & Walker drive to
Stony Point

Tower SMC site W on IM 385.2 W
and ran W 124 W to split on S line lat

Tower 124.1512 Wom IM 385.2 Wd
SME Turn R 94°02' 760



84

E.O. Olson Lot 5 Sec. 3
141. 29

Get Telephone call from Whiptoft
from E.O. Olson. Who wants
me to meet him Friday
June 1-1956

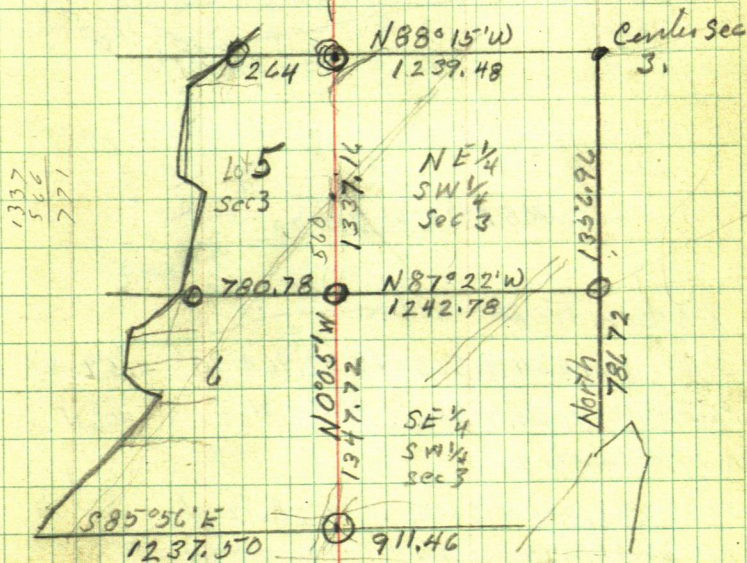
I copy the description
of his property in

Book 105 of Deeds on page 164

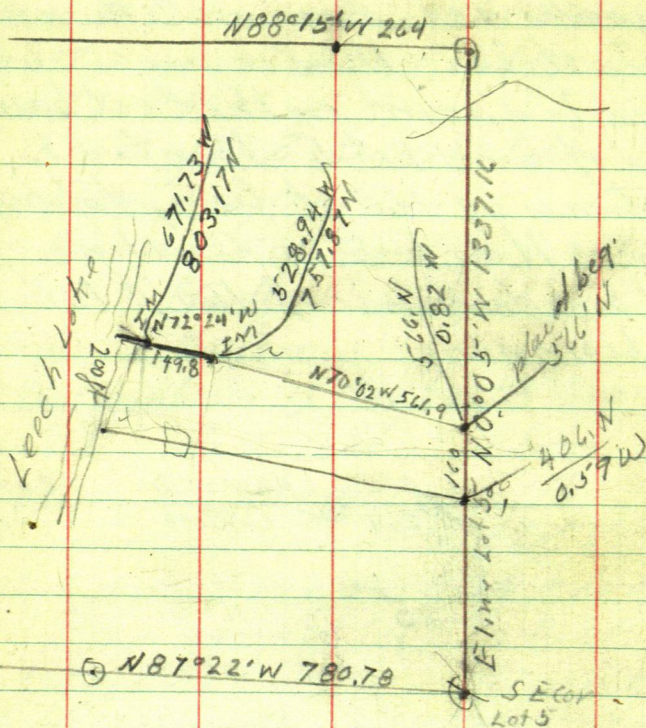
W.D. Bertha W Sowers (single)
fil. d 12/4/50 E.O. Olson

All that portion of Gov't Lot 5 Sec. 3
141-29 described as follows
Commencing at a point on the
East boundary line of said Lot 5
located a distance of 566 ft N of
the SE cor. of said Lot 5 which
point shall be known as the point
of beginning thence $N 70^{\circ} 02' W$ a
distance of 561.9 ft to an I.P.
thence $N 72^{\circ} 24' W$ a distance of 149.8
ft to an I.P. thence continue a
long the same line ($N 72^{\circ} 24' W$) to the
shore of Leech Lake. Thence in a
Southwesterly direction along the
shore line of Leech Lake to a point on
said shore located a distance of
200 ft on a straight line from the

point of intersection of the last mentioned line with the shore line of Lk. thence on a straight line to a point on the East boundary line of said Lot 5 located a distance of 160 ft from pt of beg, thence N on E boundary line of said Lot 5 a distance of 160 ft to the pt of beginning



Lot 5 Sec. 3-141-29
E.O. Olson Whipholt



N 0° 05' W 566 ft - 406 ft

$$\sin 001454 \times 566 = .822,964 \text{ W} = .59 \text{ W}$$

$$\cos 999999 \times 566 = 566. N \quad 406 N$$

$N 70^{\circ} 02' W 561.9$

$$\text{Since } 939891 \times 561.9 = 528.12 \text{ W}$$

$$\cos 117 = 341473 \times 561.9 = 191.87 \text{ N}$$

N 72° 24' W 149.8

Side $953191 \times 149.8 = 142,79 \text{ W}$

$\cos i = 302370 \times 149.8 = 45.30 \text{ N}$

87-22
5
87-17

87-17
15-34
32 34

DESCRIPTION

A tract or parcel of land situated in the North half (N.1/2) of the Northwest 1/4 of section 9 Township 139 Range 32 Hubbard County Minnesota described as follows
Beginning at a point on the North shore of Mow Lake placed at a point 1115.87 feet East and 148.68 feet South from the Northwest corner of said section 9 and running;
thence North 171.40 feet to a point in the centerline of the Township road;
thence N.88°50' E. 445.00 feet

DESCRIPTION

A tract or parcel of land situated in the North half (N.1/2) of the Northwest 1/4 of section 9 Township 139 Range 32 Hubbard County Minnesota described as follows
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thence North 171.40 feet to a point in the centerline of the Township road;
thence N.88°50' E. 445.00 feet

1336.986
1347.544

522. 14. 14. 14. 14.

2008

4060
340

$$\begin{array}{r} 279 \\ 101 \overline{) 28281} \\ \underline{209} \\ 738 \\ \underline{705} \\ 331 \\ \underline{331} \\ 0 \end{array}$$

$$\begin{array}{r} 70 \\ 4 \\ \hline 420 \\ 420 \\ \hline 840 \end{array}$$

14

$$\begin{array}{r} 214 \\ 84 \\ \hline 924 \end{array}$$

239.65
NORTH

1100.00

N2-51E

53-03-40E

S - O - 12 - 40 E

1345.934
15.866

179-47

578.80 ↓
- 0.30.45

578.80

20-31-05E

587-36 E

766.35

3-01-15

No-2-25 W

2681. 218
131.

GOVT 2684.88

2624.534

N2-48-06 E

1916.04
90.832

.72	.11	.88
<u>.17</u>	<u>.15</u>	<u>.53</u>
55.	.01	35

.17

.18

Don and I drive to Olson's they
are out fishing Lady next door
shows us I.M.S.

Now I Mon bank of lake site S 72°
24' E and set spike on beach
From I.M. run S 19° 37' W 200 ft
to spike on bank

S 19° 37' W 200 ft

Sine $335.726 \times 200 = 67.15$ W

Cosine $941.962 \times 200 = 188.39$ S

Sta 0 =

Sta 2 = 160 N 4.23 W

Sta 3 = 351.87 N 528.35 W

Sta 4 = 402.17 N 671.14 W

" 4 213.78 N 738.29 W

$738.29 \sqrt{213.78^2 + 0.0289561} = 1039\frac{1}{2}'$

1566

160

416

Tower NE Cor Lot 5 Sec 3
 Site N 88°15'W on I M NW
 Cor lot 5 and run S 0°05'E
 150 ft pin + 250 pin 300 + 79.4

150

250

400

300

700

784

778.4

771.16

7.24

1337.16

1337.16

566

779.4

771.16

55876

133716

566

5

779.4

566.

1375.4

1337.16

566

771.16

778.4

771.16

7.24

399.0

180.2

119.8

1.0

118.8

7.24

126.04

599.1

160.00

126.04

33.96

406

230

176

6316

14425

77585

June 2nd 1958

Don & I to Lot 5 Sec 3.

from Ist SE cor Lot 5 (They say
this cor has been moved but it
check out within a foot and a half
of the Re-survey monument an
close to corner using N line of Lot
5 as base.

From SE cor lot 5 chain N 230 + 176
Tower spike 406 N of SE cor side South
0°05' E on SE cor and run random
line ~~N~~ 88°20½' W

N 74°12' W

as the line hits trees we offset

0.80 N and run N 74°13' W

@ 33 - hub + 70 = 103 ± road

33 + 250.2 hub = 283.2 hub

283.2 + 139.4 hub = 422.6 hub

422.6 + 209.0 hub = 631.6 hub + 144.25 -

775.85 hub for corner bears S 3°08' E
2.70

3°08'

sin 0.54660 X 2.7 = .15

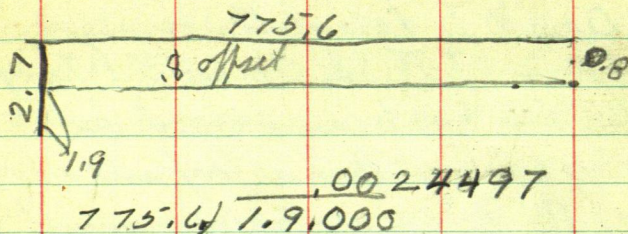
cosine 998.505 X 2.7 = 2.7

775.85

1.5

775.60

Correction



but 33 ft W goes $5.8 + 0.8 = 6.6$

but 283.2 W " $5.8 + 1.69 = 7.49$

but 422.6 W " $5.8 + 1.04 = 6.84$

but 631.6 W " $5.8 + 1.55 = 7.35$

" 773.6 W " $5.8 + 1.90 = 7.7$

Platting Blue-Water
Beach for
John M. Ramsey and
Phonsie B Ramsey his wife
4012 Beard Ave So.
Minneapolis Minn
Telephone

Yi 2811 - Office

Wa 2-1729 - Res.

owns land in Sec 36-142-30
plotting Gov't Lot 9 of said
Section 36 = \$250

92

John Ramsey

Smoky Point

July 6th 1956

Don & I drive to Smoky Point
J.M. Ramsey's wife says John is
waiting on Lot 9 we drive there
John is gone.

go to NW cor Lot 9 S.M.C. - W $\frac{1}{4}$

Sec 36 set in 1918 in U.S. Ramsey
Sheet 12 in pencil on US Notes

John comes back and we all
look for IM on W $\frac{1}{4}$ line - Sec 36
517.74 ft S of IM on shore of LL
find it set flag at it and flag
at Wit M.C. try and work Tran
line between flags too many
big trees on line so run a
random from Wit M.C. South
but same and chain from Wit
M.C. South on W $\frac{1}{4}$ line

miss IM, 1.8 E

@ 133.90 S hub @ 232.9 hub

@ 290.5 hub @ 430.3 hub

@ 515.4 hub

Wit MC 12 from brink water 50

Corrections

515.4 into 1.8 = .003492433

446 133.95 goes W 0.47 to 1, in

" 232.95 " W 0.81 " "

" 290.55 " W 1.01

" 430.35 " W 1.50

" 515.45 " W 1.8

515.4 my ch. = 522.06 US

$$\begin{array}{r} 5154 \\ \hline 7.66 \end{array}$$

July 24-1956

Don - Bob & I to Smoky Point
to continue Platting Lot 9
Sec. 36 - 142-30

As Don & I have set spikes
along the West line of Lot
9, and Turned 90° to same
and run E 100 ft then turned
 90° and run N to lake and
set spike hub along this
line also at set spike at
Angle point of road or Street
line

Then spike on E line lot 1
being SW cor Lot 2 side S
on lot line that we called
N+S look S. on spike 100 ft E
of W line Govt Lot 9

N line of street runs $S 86^\circ 24' E$
 $S 86^\circ 24' E = 3^\circ 36'$

Sine = 062.791

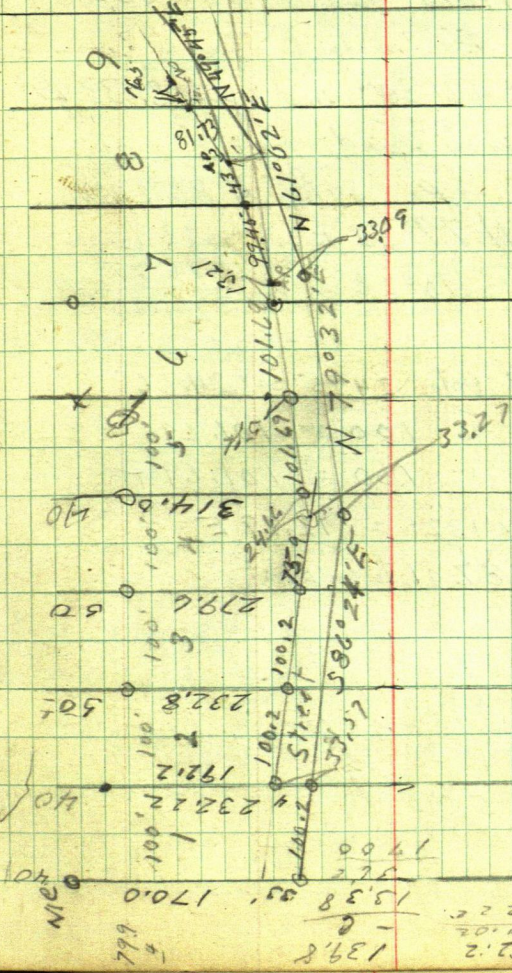
Cosine 998027 into 100 = 100.2

" " " 200 = 200.4

" " " X 75.9 = 75.75 E 1/2

angle point

10 11 12 13



Over angle point site easterly along
stake line take angle. of stationaries

W. Angle $179^{\circ}60'$

55-

991894

$14^{\circ}05'$

$\frac{30}{295}$

991931

2163 55-

$\frac{42'30''}{42'30''}$

21983815-

82

9919075-

$82^{\circ}42'30''$

Cosine 9919075 into 33 = 33.27

Still over A.P. site E Turn

R. or N. $82^{\circ}42'30''$ and run S 33.27
to A.P. of S side road.

Still at A.P. site N $86^{\circ}24'W$
and run N $79^{\circ}32'E$

188.80

75.95-

N $79^{\circ}32'E = 10^{\circ}28'$

24.25

Sine 181.663

Cosine 983361 into 24.25 = 24.66

" " 100 = 101.69

" " 100 = 101.694

13.21 A.P. " X 13.21 = 12.99 E

100 - 12.99 = 87.01 to go East

$180^{\circ} = 179^{\circ}60'$

$8^{\circ}30'$

$317130'$

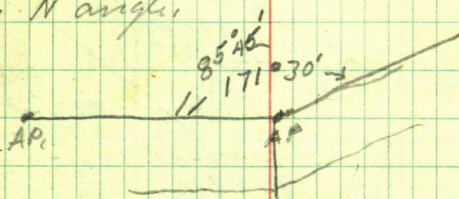
8545

July 26 1952

Don - Ed, Bob + I run in road +
lot line's

Then A.P. BS S $79^{\circ}32'W$ + run
N $61^{\circ}02'E$ to A.P. road

π still at A.P. Var at 00 site when A.P.
take N angle.



$$85^{\circ}45' = 40^{\circ}15'$$

Sine 074108

Cosine 997250 into $33' = 33.09$

$$360 = 359^{\circ}60'$$

$$171^{\circ}30'$$

$$2188.30$$

$$94^{\circ}15'$$

From A.P. run N $61^{\circ}02'E = 28^{\circ}58'$

Sine 484301

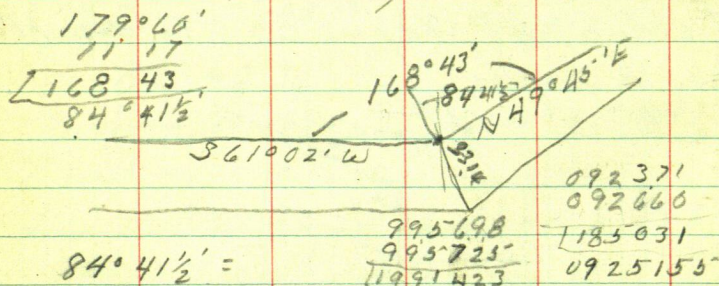
Cosine 874902 into $87.01 = 99.45'$

+ 43.0 = A.P.

$$874902 \times 43. = 37.62 E$$

$$\begin{array}{r} 10000 \\ 37.62 \\ \hline 62.38 \end{array}$$

Tower A/P BS S 61°02'W and
 run N 49°45'E to A/P
 Still at A/P. Var @ 00 site
 W on A/P, N angle to A/P



Sine 0925155 - 9957115

Cosine 9957115 into 33 = 33.14

N 49°45'E = 40°15'

Sine 646124

Cosine 763232 into 62.38 = 81.73

+ 16.5 A/P

763232 x 16.5 = 12.59 E

100.00
 12.59
 87.41

359°40

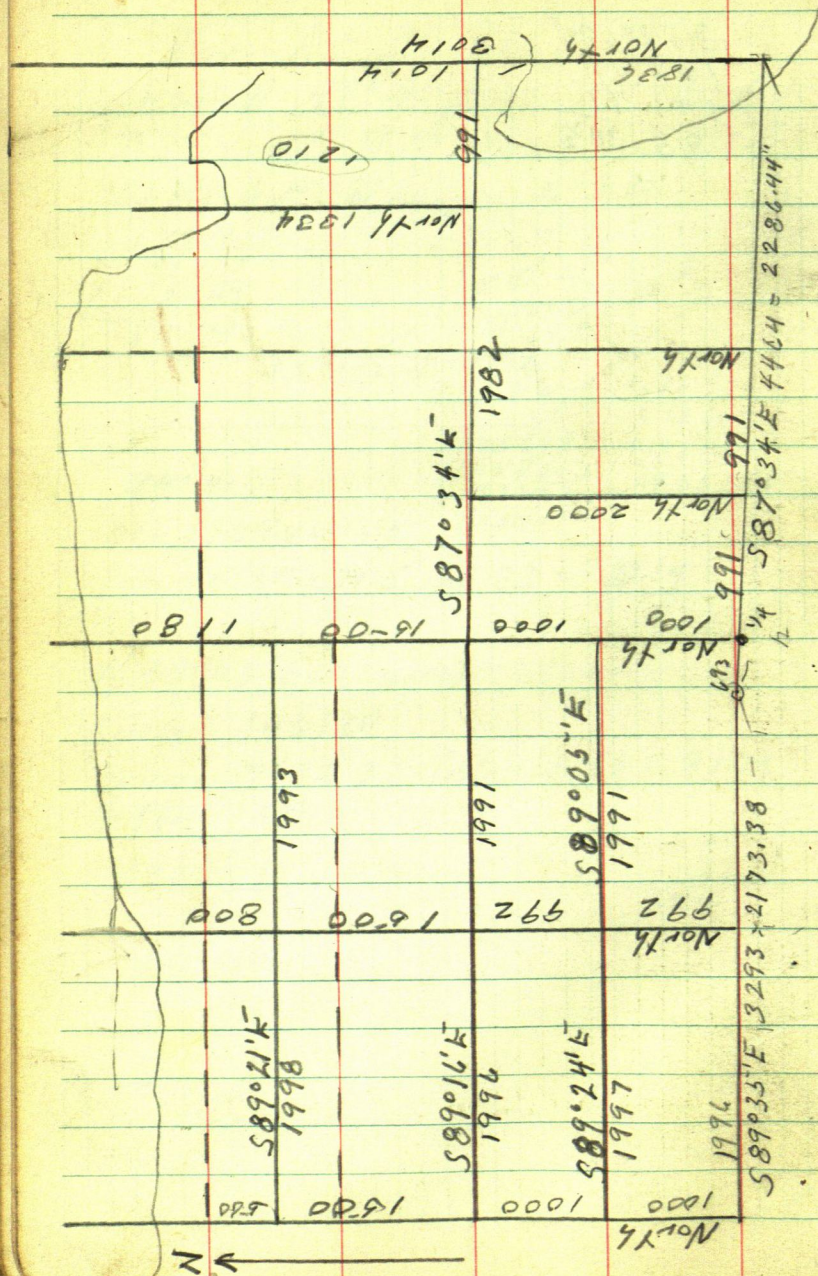
108 45

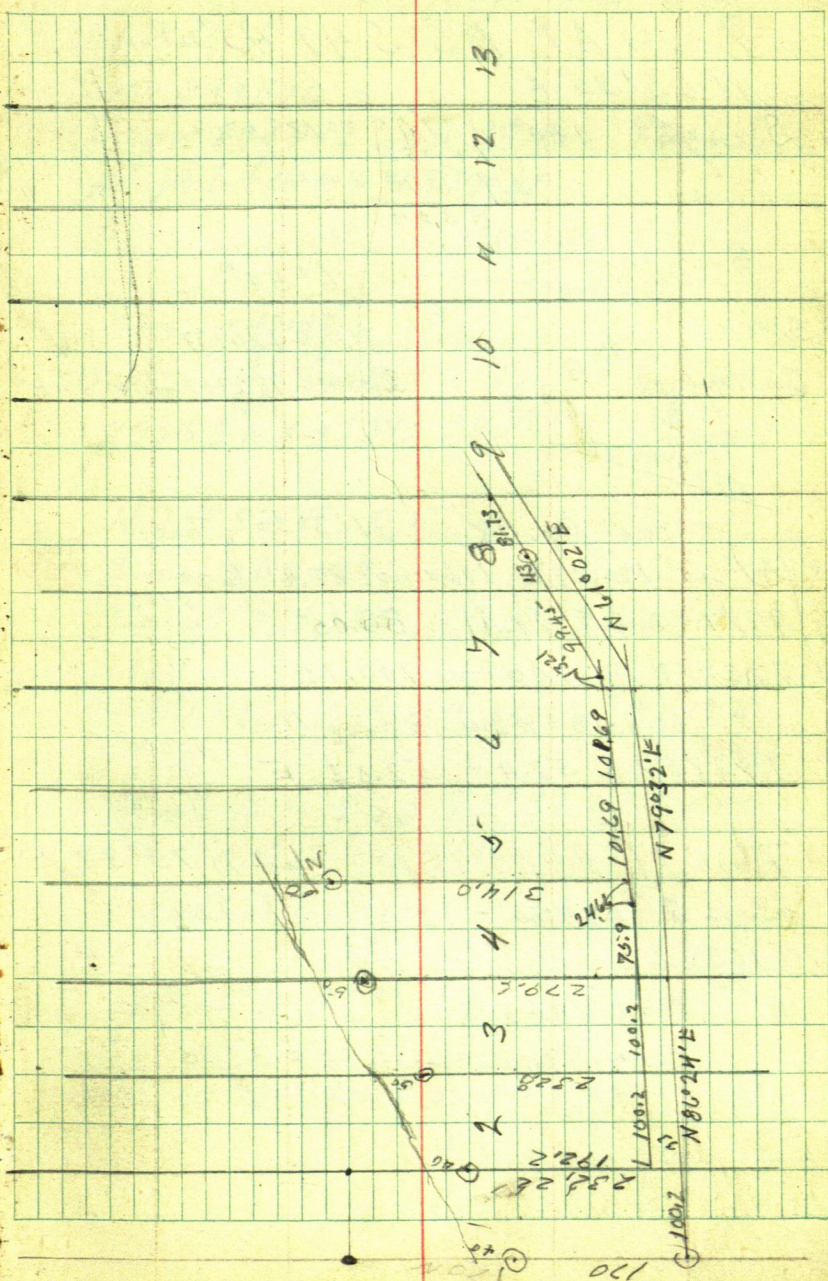
2191 77

95 38½

100

100 Sec 36 142-30





102

July 31-1956

Don - Ed - & John - & I

Tower AP BS S $49^{\circ}45'W$ run
N $63^{\circ}35'E$

$$\text{Sangle. } 180^{\circ} - 179^{\circ}60' - 13^{\circ}52' =$$

$$\begin{array}{r} 13^{\circ}52' \\ 27166.08 \text{ Angls} \\ \hline 83.04 \end{array}$$

 $83^{\circ}06'$

=

 $6^{\circ}54'$

Sine

Cosine

S $83^{\circ}06'$ S $16^{\circ}08'$ N $63^{\circ}35'E$ N $49^{\circ}45'E$

Sine 120137

Cosine 992757 into 33 = 33.24

see Pg. 98

N $63^{\circ}35'$ Tang.

AP is 12.59 E leaving 87.41 to go

992757 into 87.41 = 88.05

992757 " 100 = 100.73

60.4 - 8 = 52.4 along 11100

992757 X 52.4 = 52.02 E

10000

5202

4798 to go

Tower AP BS $63^{\circ}35'W$ + run N $75^{\circ}37'E$ angle S $179^{\circ}60' - 12^{\circ}01' = 167^{\circ}59'$

2168

84

Sine 104528

Cosine 994522 into 33 = 33.18

76
38

17960

89.85

103

1844
16116

24.85

N 63° 36' E

Sine 444896

Cosine 895582 into 87.41 = 97.06

at point con + 43.39 AP

N 49° 45' E

N 63° 36' E

140.45

140.45

- 97.06

43.39

895582 x 43.39 = 38.86

100.00

38.86

61.14

N 75° 37' E

Sine 248408

Cosine 968655 into 61.14 = 63.12

"

"

100

-

103.24

+ 84.85 = AP x 968655 =

82.19 E

17.81 to go

From AP B 55 75° 37' W & run

S 85° 40' E

S Angle 116176'

80° 38'

80° 38' = 9° 22'

Sine 162752

Cosine 986667 into 33 = 33.45

$S 85^{\circ} 40' E$

Sine 075339

Cosine 997141 into 17.81 = 17.86

" " 100 = 100.29

Trans intersection of Street line
with E line lot 9. - Sec 36-142-30
Site $N 85^{\circ} 40' W$ on A.P. the E line
lot 9 runs $S 9^{\circ} 57' E$

$$\begin{array}{r}
 89.58 \\
 3 \\
 \hline
 86.58
 \end{array}
 \begin{array}{r}
 110.3 \\
 5.30 \\
 \hline
 104.50
 \end{array}
 \begin{array}{r}
 110.3 \\
 4 \\
 \hline
 106.3
 \end{array}
 \begin{array}{r}
 150 \\
 92.2 \\
 \hline
 57.8
 \end{array}
 105$$

Checking courses

Tower spike hut on W line lot 9
 site N on NW cor I M Turn R 90°
 hut my old hut

Tower old hut Turn 90 hit SW cor lot
 2 Tower SW cor lot 2 run S 86° 24' E
 179 + 106.3 = 276.3 A.P.

Tower A.P. BS N 86° 24' W run
 N 79° 36' E 150 + 92.2 = 242.2 A.P.

Tower A.P. 242.2 BS S 79° 36' W run
 N 71° 05' E 142.5 to A.P.

Tower A.P. 142.5 BS S 71° 05' W + run
 N 59° 45' E 98.2 ✓

Tower 98.2 A.P. BS S 59° 45' W + run
 N 73° 38' E 140.4 A.P.

Tower 140.4 A.P. BS S 73° 38' W run
 N 85° 40' E 251.2 to A.P.

Tower A.P. 251.2 BS S 85° 40' W run
 S 75° 37' E 104.5 to hut on true E
 line

Tower intersection hut BS N 75° 37' W
 hut on E line bears S 0° 02' W

checking figures in Office

$$S 86^{\circ}24'E = 3^{\circ}36'$$

$$\text{Sine } 062791$$

$$\text{Cosine } 998027 \text{ into } 100 \text{ ft} =$$

$$\text{" } 200 \text{ ft} =$$

Fig. North side Street
from West line Lot 9 E

$$S 86^{\circ}24'E 100.2$$

$$\text{Sine } 998027 \times 100.2 = 100.00 E = 100. E \text{ (SE Cor Lot 1)}$$

$$\text{Cosine } 062791 \times 100.2 = 6.29 S = 176.29 S$$

$$\text{then } N 33.2 \text{ ft} = 100 - E + 143.09 S = \text{SW Cor Lot 2}$$

$$S. 86^{\circ}24'E \text{ along Street line}$$

$$\text{Sine } 998027 \times 276.3 = 275.75 E = 375.75 E$$

$$\text{Cosine } 062791 \times 276.3 = 17.35 S. = 160.44 S$$

$$N 79^{\circ}36'E 242.2$$

$$\text{Sine } 983571 \times 242.2 = 238.22 E = 613.97 E$$

$$\text{Cosine } 180519 \times 242.2 = 43.72 N = 116.72 S$$

$$N 71^{\circ}05'E 142.5$$

$$\text{Sine } 945991 \times 142.5 = 134.80 E = 748.77 E$$

$$\text{Cosine } 324193 \times 142.5 = 46.20 S = 70.52 S$$

$$N 59^{\circ}45'E 98.2$$

$$\text{Sine } 863836 \times 98.2 = 84.83 E = 833.60 E$$

$$\text{Cosine } 503774 \times 98.2 = 49.47 N = 21.05 S$$

N 73° 38' E 140.4

Sine $959478 \times 140.4 = 134,71'E = 968.31'E$

Cosine $281783 \times 140.4 = 39,56N = 18.51N$

N 85° 40' E 251.2

Sine $997141 \times 251.2 = 250,48'E = 1218.79'E$

Cosine $675569 \times 251.2 = 18,98N = 37.49N$

S 75° 37' E 104.5

Sine $968655 \times 104.5 = 101,22'E = 1320.01'E$

Cosine $248408 \times 104.5 = 25,96S = 11.53N$

Checking figures for lot corner on Street

S 86° 24' E 100 ft

Cosine 998027 into $100 = 100.20$ SE cor Lot 2

$100.20 + 100.2 = 200.40$ SE cor lot 3

$276.3 = A.P. - 200.40 = 75.9$ of SE cor lot 3 to A.P.

$998027 \times 75.9 = 75,75$ E to A.P.

100.00
75.75
24.25

Lk. 24.25 East to next lot line

Lot line runs N 79° 36' E to get East 24.25

Cosine 983571 into $24.25 = 24.66$ along stake line

N 79° 36' E to get 100 ft E

983571 into $100 = 101.67$ along Stake line

$+ 101.67 = 203.34 + 24.66 = 228.00$ E of A.P.

dist bet A.P. - $242.2 - 228.0 = 14.2$ left

along stake line to A.P. = 14.2 ft for Next lot

$983571 \times 14.2 = 13,97$ E to A.P.

$100 \text{ ft} - 13.97 = 86.03 \text{ to go E as stake line runs}$
 $N 71^{\circ} 05' E$

Cosine 945991 into $86.03 = 90.94$ along stake line
 as there are 142.5 ft along this line

$142.5 - 90.94 = 51.56 \text{ ft for West lot}$

$945991 \times 51.56 = 48.78$ East to AP

$100 - 48.78 = 51.22$ East from AP. line runs
 $N 59^{\circ} 45' E$

Cosine 863836 into $51.22 = 59.29$ along stake line
 as dist. from A.P. to AP is only 98.2 ft

$98.2 - 59.29 = 38.91 \text{ ft left along stake line to AP}$

$863836 \times 38.91 = 33.61$ East

$100 - 33.61 = 66.39 \text{ E to go}$

$N 73^{\circ} 38' E$

Cosine 959478 into $66.39 = 69.19$ along stake line

dist bet AP. = $140.4 - 69.19 = 71.21$ to AP along stake line

$959478 \times 71.21 = 68.32$ East

$100 - 68.32 = 31.68$ to go East

$N 85^{\circ} 40' E$

Cosine 997141 into $31.68 = 31.77$ along stake line

997141 into $100 = 100.29 + 100.29 + 31.77 = 232.35$

dist bet AP. 73 $251.2 - 232.35 = 18.85$ left

$997141 \times 18.85 = 18.80$

$100 - 18.80 = 81.20$

130
115

2045

289.9-

Bob + I to Bradley's where we
pick up Mr. Bradley Tower hub
on S $\frac{1}{4}$ line W of road.
Book 291 page 123 says Beg
at $\frac{1}{4}$ IM run East at 1968.6
hub + 28 = $\frac{1}{4}$ road

Tower hub 1968.6 into W on flag
at hub 1623.6 and run East
from hub chain E 62.45 = 33 ft E of $\frac{1}{4}$
from pt on E line of R of W. chain
E on $\frac{1}{4}$ line 265.0 ft to IM 10 ft from
Water Tower 265. BS West and run
N 60° 30' W 100 Tower 100 BS S 60° 30' E
20 ft W of water run N 23° 24' E 100 ft
Tower 100 BS S 23° 24' W 10 ft from water
run. West parallel to S $\frac{1}{4}$ line
286.9 to R of W Twp road

1968.6

62+

1968.6

28

1996.6

25286

23315

22951

2 | 252862

1264.31

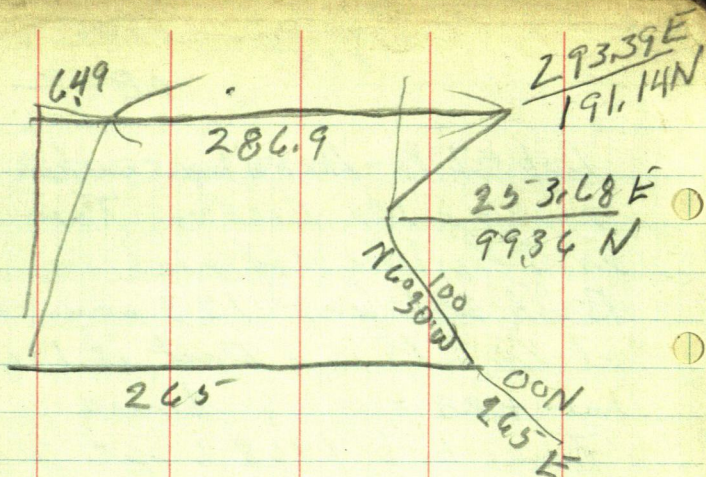
1968.6

6245-

203105-

265-

2296.05-



$$\begin{array}{r}
 293.39 \\
 286.90 \\
 \hline
 6.49
 \end{array}$$

$$.033954169$$

$$S 1057' W$$

$$\sin 034027 \times 191.25$$

$$\cos 999421 \text{ into } 191.14$$

$$19125$$

S 75° 37' E

Grain 968453 into 81.20 - 83.83

Aug. 2nd

Bob + Ed + I to Lot 9

Sec 36 - 142-30

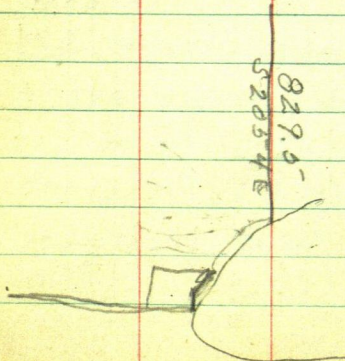
Tower intersection hub of
stake line with E line Lot 9

Site westerly along stake line

Turn Left $104^{\circ}21'$ to E line $104.21 \div 2 = 52^{\circ}10\frac{1}{2}'$ $52^{\circ}10'$

Corner 789798 into 33 = 41.78

Correcting and running true
lot line from intersection of
stake line & E line lot 9 chain W
along stake line 20.67 ft at hub
for SE cor lot 13 & W end of street
Tower SE cor lot 13 site $N 75^{\circ}37' W$



85

\$ 20 on account

65 due

Mrs. Grace Schemck Girl Lake 111

owns NW $\frac{1}{4}$ of SE $\frac{1}{4}$ & S NW $\frac{1}{4}$ - NE $\frac{1}{4}$
Sec 32 - 141-28 Mrs Schemck is
Mrs Bradley mother

Bob & I to Bradleys where we pick
up Mr. Bradley

Tower hub on S $\frac{1}{4}$ line west of road
see page 123 - Book 291 (this Book.)
Page 123 says beg. at $\frac{1}{4}$ I.M. run East
at 1968.6 hub + 28 = 1996.6 Φ road

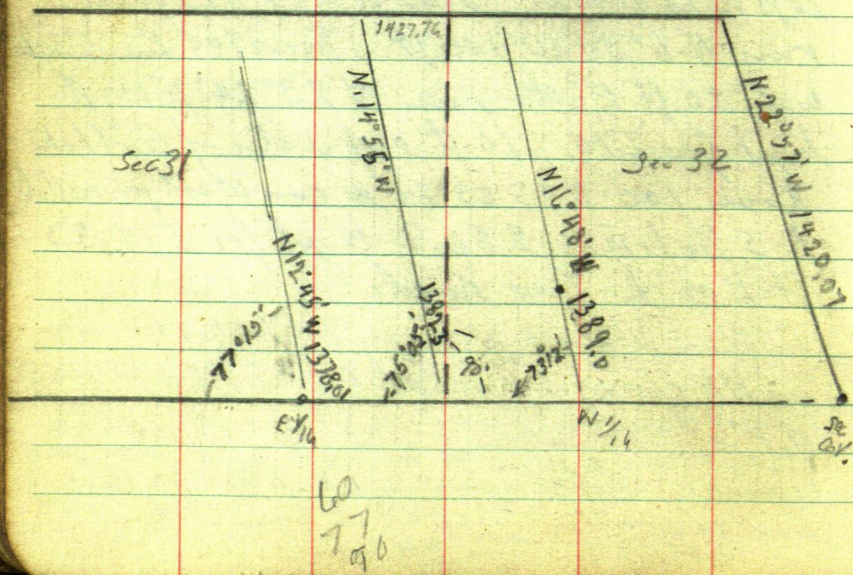
Tower hub 1968.6 backside west on
flag at hub. 1623.6 & run East @ 62.45
hub pt for I.M. 33 ft E of Φ road
Chain East from pt for I.M. 33 ft E of Φ
road at 265 ft I.M. on bank of Girl Lake
10 ft from water Tower 265 BS West &
run N $6^{\circ}30'W$ 100 ft Tower 100 BS S $6^{\circ}30'E$
water 20 ft East run N $23^{\circ}24'E$ 100 ft
to pt for I.M. 10 ft W of water of Girl Lake
Tower 100 BS S $23^{\circ}24'W$ run West parallel
to S $\frac{1}{4}$ line 286.9 to pt for I.M. 33
ft E of Φ Turn Road.

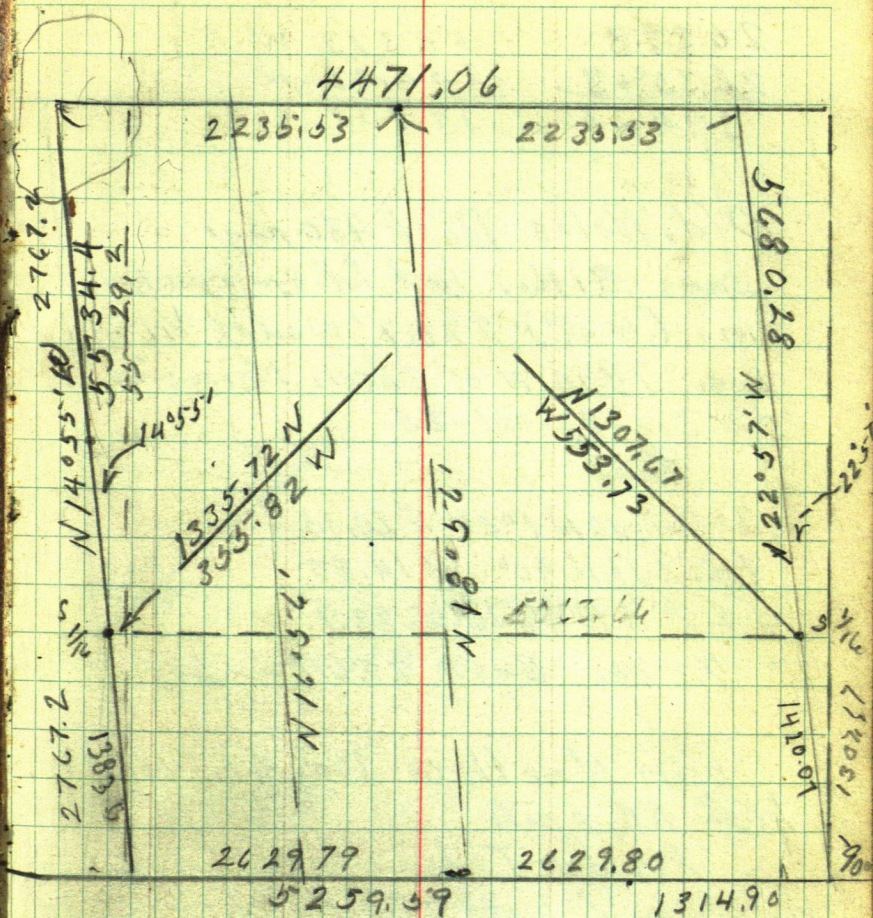
11/8/62 - Bob & I Tower I.M. W shore Girl Lake
on NE cor of 700 ft tract BS S $23^{\circ}24'W$ run
N $11^{\circ}29'W$ 100 ft @ 30 with 12 R. @ 100 W 3 R. Tower 100
BS S $11^{\circ}29'E$ run N $36^{\circ}W$ 100 Water 10 R. Tower 100 BS S $36'E$
run N $16^{\circ}02'W$ 80' @ 40 Water 6 R. @ 80 Water 18 SE
Tower 80 BS S $16^{\circ}02'E$ run N $44^{\circ}55'E$ @ 20 I.M. Water 10 R
+ 120.7 to E line I.M.

Charles K + Sue M Baker
 around the first of Feb-1958
 I pickup Billie Polchow and
 drive to Bakers. where we leave
 my car take his truck and drive
 around looking for corners.
 and do not get home until late
 I fig. where his line should run.

Feb. 17th 1958 at court house
 checking fig on lines in Sec. 32
 141-28.

Old Notes show





N/4°55'W/1382.3

$$\sin 257414 \times 1382.3 \leftarrow 953.82 \text{ W}$$

$\cos \alpha = 966301 \times 1382.3 = 1335.72 \text{ N}$

N 22°37' W 1428.07

$\sin \alpha = 389928 \times 1420107 = 553.73 \text{ W}$

$$\cos 41^\circ 920846 \times 1420.07 = 1307.67 \text{ N}$$

2629.8

553.73 W

2235.33355.82 W

394.27

197.91 E

Old Notes Book 430 page

says 8116.7 hut R.R. spike on true
line (10 S.P.) 226.7' west of $\frac{1}{16}$ in
bog. 7890 W of SE cor. Merry's 40°
SW SW - 32-141-28

Trees

W Oak 10 N $1050'$ E 60.15Pop. 11 N 40° W 14.80Wash 8 N $86^\circ 10'$ W 23.9 $\frac{1}{16}$ cor East 226.7 in bog

run North @ 300 to 430.88
hut R.R. spike

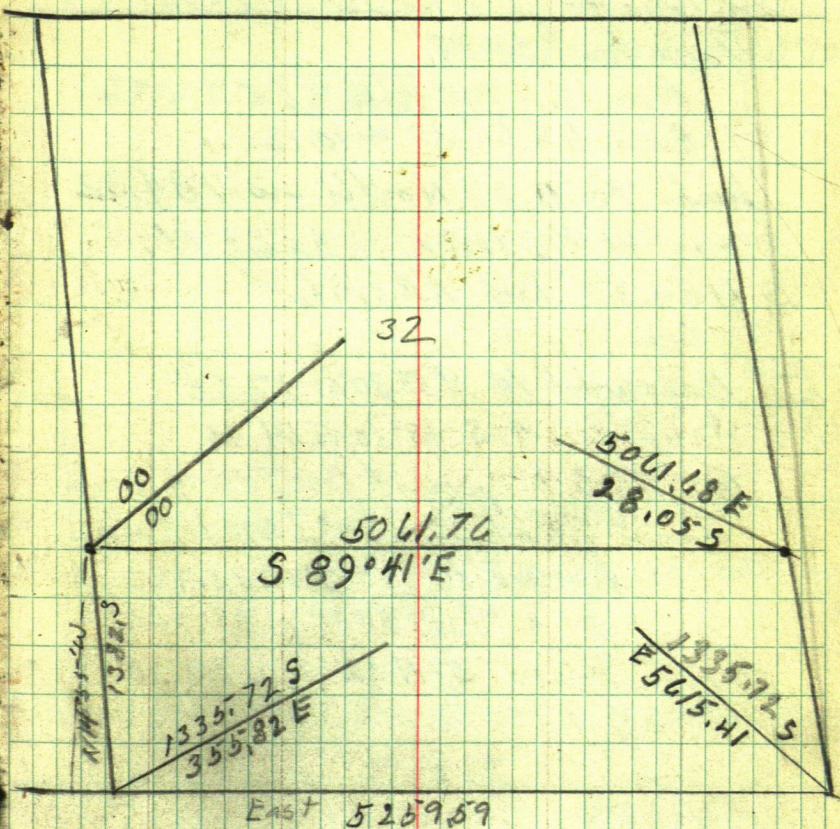
Reed & I drive to Old bridge
Walk $\frac{1}{2}$ mile west then N to hut 430.88

Ties Pop. 14 N 45° W 21.9" 8 N $86^\circ 46'$ E 6.03

continue North @ 730.88 R.R. spike
on true $\frac{1}{16}$ line

T over 730.88 BS South on hut on
10th S.P. 226.7 W of $\frac{1}{16}$ cor

0°20'
 005818 x
 999983 = x



$$5061.68 \div 28.05 = 0.18041638 = 0^\circ 19'$$

0°19'

Sine 005527 x 5061.76 = 27.98

Cosine 999985 into 5061.68 = 5061.76

Tang. 005527 x 5061.68 = 27.98

Turn Left and run N $16^{\circ}48'W$
 on true W $\frac{1}{4}$ line Sec 32-141-28
 Ties to 750.88

Papi 12 N $35^{\circ}40'E$ 3.62

Birch 6 N $61^{\circ}20'W$ 10.12

hub 750.88 North is 784.32
 along W $\frac{1}{4}$ line chain N.

@ 1184.32 hub R.R. spike

Ties

1 cut ^{cluster} Basswood 14 N $5^{\circ}30'W$ 17.62

cluster 4 " " 4 S $43^{\circ}50'E$ 14.45

@ 1389. point for T.M. $\frac{1}{4}$ cor
 Ties set $2\frac{1}{2} \times 30$ " IM 1 ft up,

Red Oak 16 S $1^{\circ}30'E$ 82.3

" " 12 S $21^{\circ}06'W$ 75.75

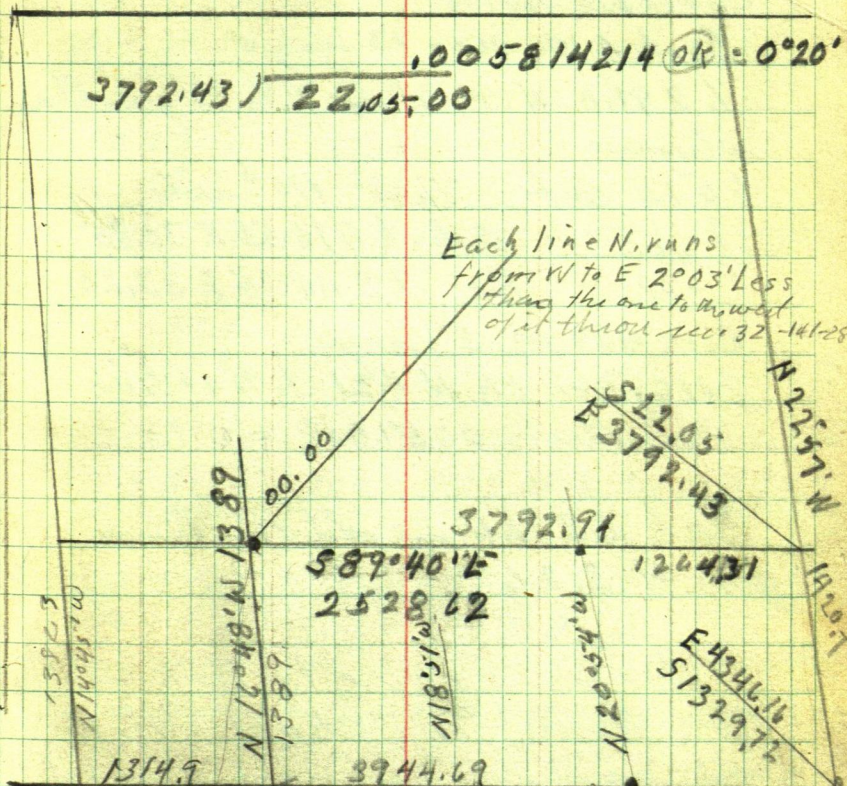
" " 5 N $22^{\circ}30'W$ 29.20

$$\begin{array}{r} 5259.59 \\ 1314.9 \\ \hline 3944.69 \\ 1314.89 \end{array}$$

117

$$3792.43 / 2205.00 = 1.005814214 \text{ (OK)} = 0^\circ 20'$$

Each line N. runs
from W to E 2003' less
than the one to the west
of it then rec. 32-141-28



$$\begin{array}{l} S 1329.72 \\ E 401.47 \end{array} \quad \begin{array}{l} 5259.59 \\ 5160.48 E 1389 \end{array}$$

$$\sin 289032 \times 1389 = 401.47 E$$

$$\cos 957319 \times 1389 = 1329.72 S$$

$$N 22^\circ 57' W 1420.07$$

$$\sin 389928 \times 1420.07 = 553.73 W$$

$$\cos 920846 \times 1420.07 = 1307.67 N$$

118

1182.4
 132.0
 1314.4

Feb 18th 1958

Checkold notes

Book 410- 129-13 rays

6291.4 W. nail in N $\frac{1}{2}$ 16" gum Elms
stump

6515' hnt This 110' spike

6291.4

223.6

588

27.4

Ash. 6 N 16 55 E 30.85

Pop. 8 S 44 30 E 33.20

Book 430 129.5" rays

8116.7 W ch. N 421 to true line

corrected 005186" = 0°18' ±

Hat 6291.4 in old 16" stump
 goes N 3.26

Get Gas drive to Baker's
 Plrs. Baker gone Charles Baker
 out pulling pickup to start it
 wait around 1 hour.

0005186837

8116.7 / 42100

Feb 19-1958

Drive to Baker's Tower 60th spike
in N¹/₂ of old 16" Elm stump
BS W on hub 110th spike at 1575
which is 58.8 ft. E of TM \pm

$$\begin{array}{r} 223.6 \\ + 58.8 \\ \hline 282.4 \end{array} \quad \begin{array}{r} 1314.9 \\ 282 \\ \hline \end{array}$$

282.4 from 1/4 to spike in 16" Elm stump

$$1314.9$$

$$\begin{array}{r} 282.4 \\ 1032.5 \\ \hline 1314.9 \end{array} \quad \text{to E 1/4 on 10th St. Par.}$$

at 282.4 + 120 = 402.4 with catwalk

$$282.4 + 300 = 582.4 + 300 = 882.4$$

run over river in edge of swampy area
and old stump (over flow?)

$$\begin{array}{r} 882.4 + 300 = 1182.4 \text{ per} \\ + 132.5 \\ \hline \end{array}$$

$$1314.9 \text{ hub on old}$$

$$\text{random line (10th St. Par.)} = 5258.9 \text{ W}$$

$$\begin{array}{r} \text{hub in stump is } 6291.4 \\ - 1032.5 \\ \hline 5258.9 \\ \hline 6291.4 \end{array}$$

Corrections -

$$0005186837X \quad 5258.9 =$$

120

Fig

old Notes book 410 page 27
says Total distance of our
random line is 14465.00 and
miss the corner 7.5 ft

correction fig page 31 book 410

$$\begin{array}{r} 14465 \overline{) 0005185} \\ 7.5 \end{array}$$

my fig

$$\begin{array}{r} 14465.0 \overline{) 00051849291} \\ 7.5000 \end{array}$$

$$01.0^{\circ}02'$$

$$000582 =$$

said page 31 says

84.5 E to cor. from hnt 9289.9W

$$9289.9$$

$$84.5 + 1230.4 = 1314.9 - W \frac{1}{14}$$

$$9205.4 W = \text{cor.}$$

$$- 1314.9$$

$$7890.5 W = W \frac{1}{10}$$

$$1314.9$$

$$6575.6 = \frac{1}{4}$$

$$1314.9$$

$$5260.7 = \frac{1}{16}$$

$$- 1314.9$$

$$3945.8 = \text{Corr.}$$

Fig.

5259.6
5258.9
0.7

121

As we have chained E from
spike in 16" Elm stump 1032.5'
and set point on old random line
for E $\frac{1}{4}$ Sec 32 on 10th St. Par.

I am checking fig for correct
distance E old Notes: Book 430 pgs. 4
rays but 8116.7 W is 226.7 W of W $\frac{1}{4}$
in bog

$$8116.7 - 226.7 = 7890. = \frac{1}{4}$$

from 7890 W to spike in stump at

6291.4

15986

1314.9

284.7

1030.2

7890 = W $\frac{1}{4}$

1314.9

6575.1 = $\frac{1}{4}$ South side

6291.4 = spike in stp

284.7 I called it 282.4

12291.4

10325

52589

284.7

1032.5

1314.2

1314.9

1.3

Temp.
May E. $\frac{1}{4}$ Sec. 32-141-28

is at a point 5258.9' W and should
be 5259.6' W which is 0.3' to far E
and should go N 2.73' to true pt for $\frac{1}{4}$
random line 10th St. Par. runs
S 89° 58' W or W 0° 02' S &
Should be 0° 01 $\frac{3}{4}$ ' called 0° 02'

W $\frac{1}{16}$ line @ 750.88 hnt -
Trees

Pop. 12 N $35^{\circ}40' E$ 3.62

Birch 6 N $61^{\circ}20' W$ 10.12

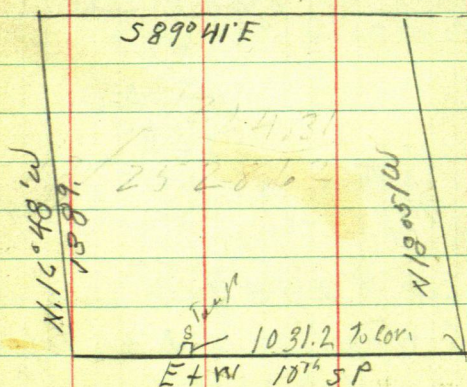
hnt 750.88 called 00 ch N
400 hnt. Trees

Cluster of 5 one cut Basswood 14 N $5^{\circ}36' W$ 17.62

" " 4 " " 4 S $43^{\circ}30' E$ 14.95

@ 604.68 pt for I.M. $\frac{1}{16}$ center SW $\frac{1}{4}$

Then $\frac{1}{16}$ BS S $16^{\circ}48' E$ and ran
S $89^{\circ}40' E$ 2528.62 to center of
SE $\frac{1}{4}$ Sec 32.



Feb 21-1958

Don steps home from school
and goes with me to Bakers
we find Charles Baker out on the
line with his cat.

beg at I.M. 1/4 center of SW 1/4

Don & I chain E at 198.9 hub 60 ft. up
198.9 hub

240

458.9 min

- 2.6

456.3 hub 60 ft. up

458.9

+ 80

+ 190

+ 249.2

978.1 hub 60 ft. up

@ 978.9 min

+ 300

1278.9 min

+ 300

1578.9 min

+ 50

1628.9

- 5.3

1623.6 hub

458.9

80

538.9

190

728.9

249.2

978.1

728.9

250

978.9

1628.9 min

300

1928.9

39.7

1968.6 hub

+ 28. = to road

1968.6

250

2218.6

300

2518.6 min on line

+ 10

2528.6 Temp 1/4 mile

- 233.1 = at for M.C.

124

$$\begin{array}{r} 293.1 \\ 60 \\ \hline 233.1 \end{array}$$

60

293.1

Tower 25-28.4 BS N 89°40' W
 on S $\frac{1}{16}$ line and run S 20°54' E
 along E $\frac{1}{16}$ line Sec 32-141-28
 @ 336.5 sub 60th section Bank

N 20°54' W

Sine 356728

Cosine 934204 into 1315.2

N 18°31' W

Sine 323092

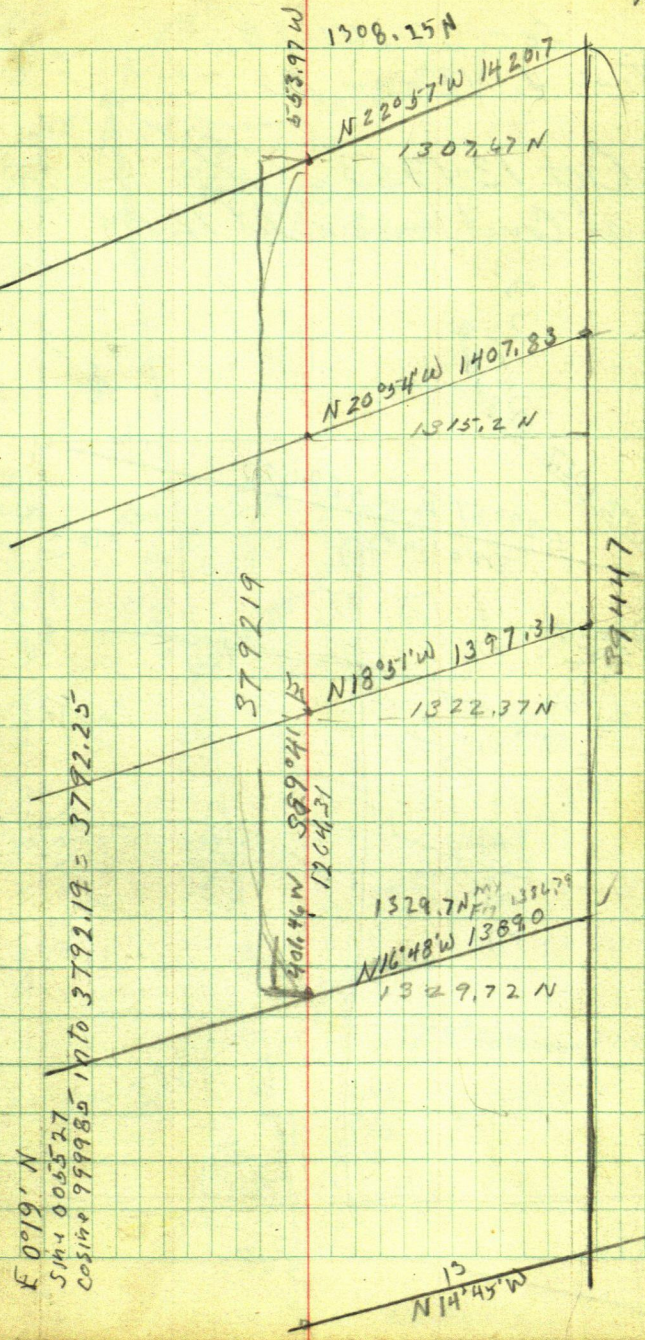
Cosine 946368 into 132237

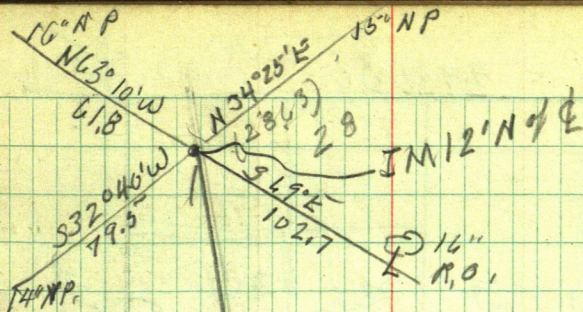
13881

138479

231

1329.7N
 1508.25N
 3792.19 21.405
 E 0°19' N
 Sin 0.03527
 cosine 999985
 100 5656362 = 7019' or 589°41'E +





Record
Book D3
Pg 286

Girt

3680.48

Lake

pt for NW cor lot 6 Sec 33
in Lake

33

32

N 22° 05' W 12.44
N 13° 05' W 13.06

45 ft

1420.07

8" Bass wood

Sec 32
N 47° 43' W 90.10

Sec 33

N 24° 15' E 68.4
IM & road
True Cor.

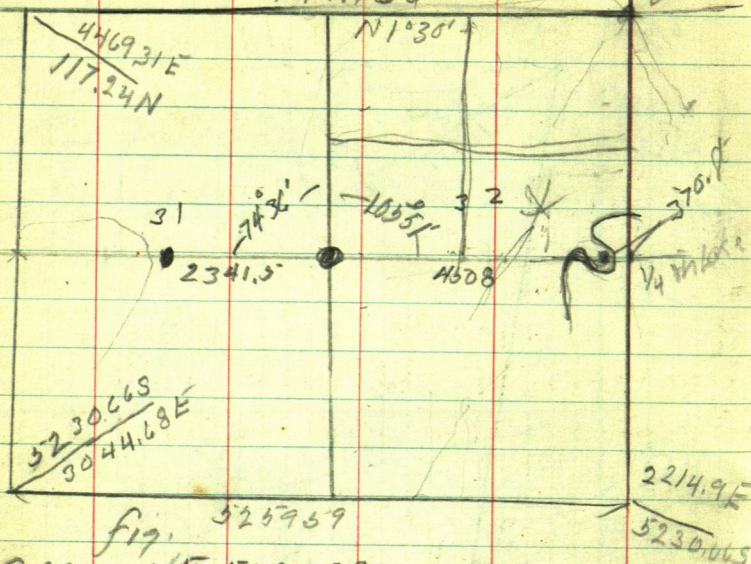
20.9

old fence

128.

4471, 06

66/90



$S 22^{\circ} 57' E 5680.28$

$$\text{Since } 389928 \times 5680.28 = 2214.9 \text{ E}$$

$\cos 14^\circ 9' 20.846'' \times 5280.287 = 5230.665$

West 5259, 59

5239139 W

2214 9 E

N 14° 33' W 5534.4

Since $257414 \times 5534,4 = 1424,63$

005100 966301 X55-34.4 - 5347.9

102623223 = 1030"

4429315 / 117.24.00

1030'

5124 026177

Cosine 999657 into 446931 =

141-28

129

18

17

19

20

30

29

2227.16

2221.32

699.8

324.1

71

157043

223953

Var, 5-006'

724.9

32

33

Description

The South East Quarter of the
NE $\frac{1}{4}$ Section 32-141-28
containing 40 acres \pm according
to U.S. survey

Oct 14-1958

Left & I to Char. Bakers on Girl
Lake. Tower hub 1968.6 on S $\frac{1}{4}$
line BS, S $89^{\circ}40'E$ and run
East along S $\frac{1}{4}$ line 29.5 ft to Road
Tower hub 1998.1 in $\&$ site N $89^{\circ}40'W$
run N $1^{\circ}57'E$ along road, @ 300
min - 269. = 569, but 60' spike
@ 600 min + 25' driveway to corner
600 + 382.1 = 982.1 but 60' spike
+ 200 = 1182.1 min 25' - 1432.1 min
+ 183.00 = 1615.1 Sta

Tower Sta 1615.1 BS S $1^{\circ}57'W$ run
N $2^{\circ}28'E$ 247.6 Sta

Tower Sta 247.6 BS S $2^{\circ}28'W$ run
N $5^{\circ}13'W$ 193.7 Sta

Tower Sta 193.7 BS S $5^{\circ}13'E$ run
N $6^{\circ}11'E$ 478.0 Sta run

N $11^{\circ}49'E$ 278.1 Sta run

N $1^{\circ}53'W$ 669.5 Sta run

N

390

19686

20080

14,821

300

79

295

20080

250

252.4

131

2921

19981

63

14321

2476

1937

16151

Oct 15 - 1958

I drove to Chet Bakers get chet
drove to Sta

Tower Sta

BS S 1057' E run

IM NW corner B2 - 141-28 beam

N 1°21'E 439.3

$$150 + 300 + 219.3 =$$

150

300

450

219.3

669.3

132 NE Cor ^{fig} run S 22°37'E 5680.28
Sine 384928 X 5680.28 = 2214.9 E
Cosine 9208.46 X 5680.28 = 5230.66, S
SE Cor Sec 32 = 00 run

West 3944.69 run.

N 16°48'W 1389.

Sine 289032 X 1389 = 401.47 W -

Cosine 967319 X 1389 = 1329.72 N

S 89°40'E 1998.1 *spike in d*

Sine 999983 X 1998.1 = 1998.07 E

Cosine 005818 X 1998.1 = 11.62 S

run N 1°57'E 569.1 *Wet*

Sine 034027 X 569.0 = 19.36 E

Cosine 999421 X 569.0 = 568.67 N

N 1°57'E 982.1 *hub*

~~Sine~~ 034027 X 982.1 = 33.42 E

~~Cosine~~ 999421 X 982.1 = 981.53 N

N 1°57'E 1615.1 *sta*

Sine 034027 X 1615.1 = 54.96 E

Cosine 999421 X 1615.1 = 1614.16 N

N 2°28'E 247.6 *sta*

Sine 043038 X 247.6 = 10.66 E

Cosine 999073 X 247.6 = 247.37 N

Oct 16 all day & Night fig. 133

N 5°13'W 193.7 *Mo*

Sine 090922 x 193.7 = 17.61 W

Cosine 995858 x 193.7 = 192.90 N

N 6°11'E 478.0 *Mo*

Sine 107710 x 478 = 51.49 E

Cosine 994182 x 478 = 475.22 N

N 11°49'E 278.1 *Mo*

Sine 204781 x 278.1 = 56.95 E

Cosine 978808 x 278.1 = 272.21 N

N 1°53'W 669.5 *Mo*

Sine 032864 x 669.5 = 22.00 W

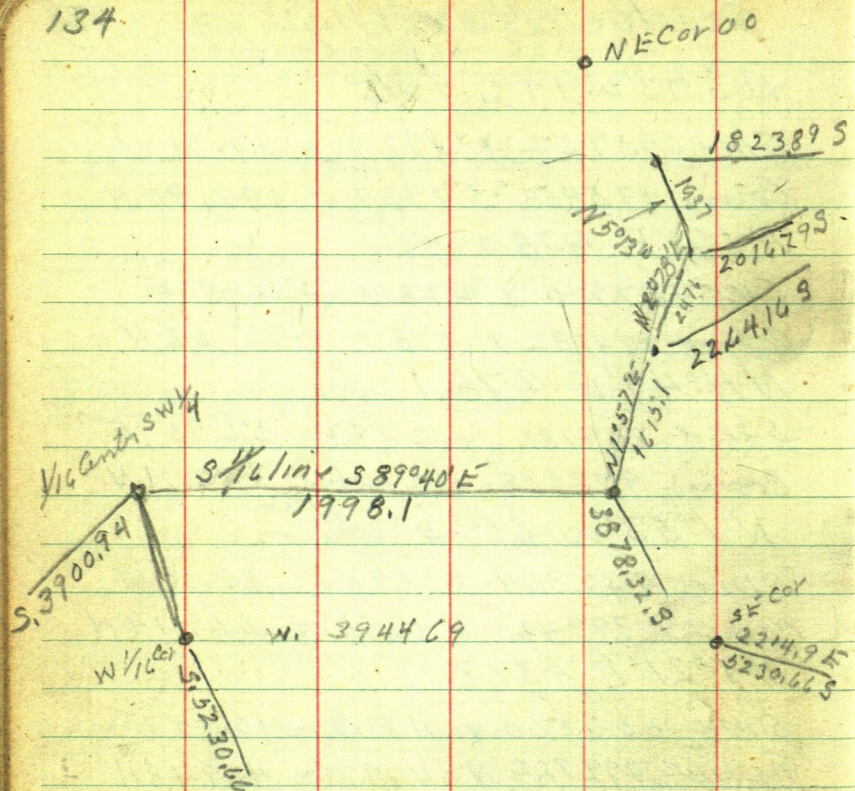
Cosine 999460 x 669.5 = 669.14 N

N 1°21'E 439.3

Sine 023560 x 439.3 = 10.35 E

Cosine 999722 x 439.3 = 439.18 N

134



N 18° 59' W 5286.86 5590.93 3440.794
 N 5° E True line 5286.86/1819.10

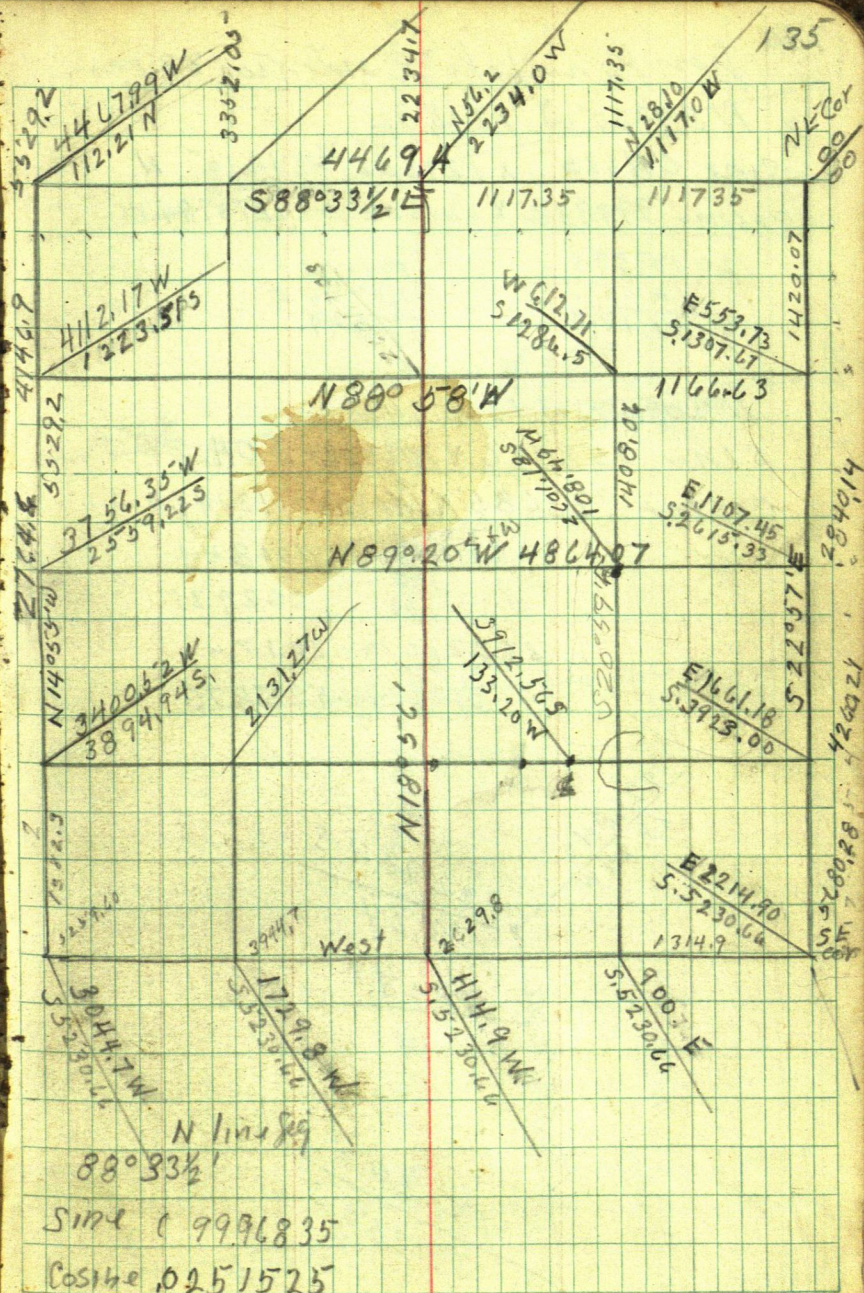
Sine 3252.93
 Cosine 9456.13 into 5286.86

E W & Sec. 32
 4864.07 True line
 4863.79

4863.79 / 56.11 (01153627) = 0° 40'

Sine 011635

Cosine 999932 into 4863.79 =



Sim 0 9996835

$\cos 4e = .0251525$

136 from 1/4 in Lake E side Dec 32 ran

N 89° 20' W 1216.02

Sine 011635 x 1216.02 = 14.15 N

Cosine 999932 x 1216.02 = 1215.94 W

2615.33 S

14.15

2601.18 S

1215.94

1107.45 E

108.49

N 20° 39' W 1314.64

Sine 358096 x 140806 = 504.22

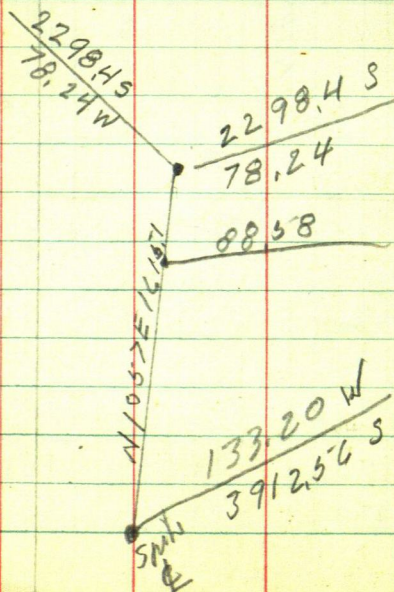
Cosine 933485 x 140806 = 1314.48

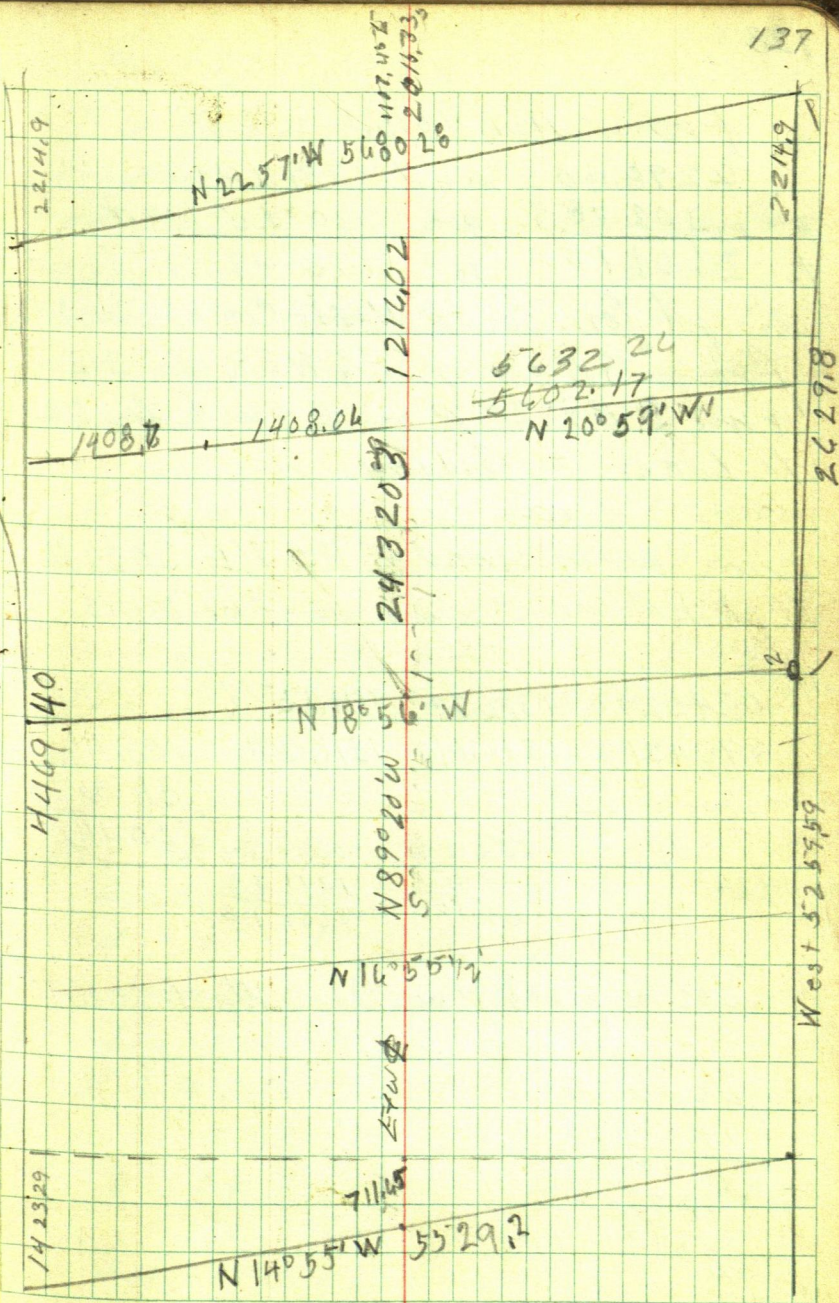
281613 = 100844

262938

563226 = 2017-

525876





from Hub 1615.1 which is
 2298.40 S and 78.24 W
 goes 302.78 S goes 30 25 West
 to 2601.18 to 108.49

pt for. South West Cor of SE $\frac{1}{4}$ NE $\frac{1}{4}$
 from SW cor of SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 32
 run S $89^{\circ}20'W$ on E & W $\frac{1}{2}$ Sec 32
 to Lake. = S. line

or
 run along road S $1^{\circ}57'E$ 302.96
 to pt E of cor. which would be 1311.2 N $\frac{1}{4}$.

$$034027 \times 1312.74 = 44.65$$

$$999421 \times 1312.74 = 1311.38 \quad 108.49$$

$$1615.1$$

$$302.96$$

$$\underline{6312.14}$$

$$133.2 W$$

$$44.65 E$$

$$\underline{88.55}$$

$$3912.56 S$$

$$1311.38$$

$$\underline{2601.18}$$

$$88.35$$

$$(20.14)$$

302.96 S $1^{\circ}57'W$ then West 20.14'

$$433.8$$

$$\underline{180}$$

$$613.8$$

$$\underline{187.8}$$

$$801.6$$

189.8439.8 139
Oct 17th 1958

I & Walker drive to Chet Bokers
on Hill Lake.

on Oct 15th Chet & I walked south
along the E line of Sec. 32 and
found several R.R. spikes hub set by
JW Curo in his survey of Horst lot 5 -
Sec. 32 - 141-28.

on Oct 16th I worked all day
at home figuring angles & locations
of corners in Sec. 32 - 141-28

Baker Took his cat and cleared
out brush along E line Sec. 32 -
to day I set corner R.R. spike hub
with son flag at another R.R. spike
hub Transit Tech. and hit wedge of
flag. at NE cor. Sec. 32 -

from hub under T chain N
433.8 to corner T.M.

@ 410⁺ E Hooker & Longville Road
Ties to 433.8

R.O. 9 S 84° 47' E 6.96 viz Sec line
1. " 9 N 46° 31' W 7.87

433.8 + 180 + 187.8 = 801.6 old RR
spike hub Ties

Poplar 7 S 69° 44' N 9.00'

" 4 S 30° 46' E 14.7

old tie Dead poplar 16 N 73° E 3. ft

140

30.1

$$\begin{array}{r} 210 \\ 113 \\ \hline 287 \end{array}$$

From hub on top chain N
down hill at 160 pmi + 220
+ 250 = 1431.6

801.6

1431.6

1601.0

1420.07

220.0

11.53

250.0

1431.6 hub on top

at 1420.07 set 60' spike pit for
N ³³ 1/6 cor bet sec. 32-31-141-28

This

Cherry 5 N 83° 25' E 21.87

RO 9 S 43° 21' E 29.4

RO 9 S 78° 38' W 31.8

from hub 1431.6 continue S
+ 60 + 302.3 = 362.3

1793.9 old RR spike hub

2840.14

+ 425.1

2375.3

2219.0

old RR spike hub
on top

464.64

113.6

2332.6

old RR Hub on top

35

32.6

42.9

7875

2375.5

hub 60' spike
10 ft from water

240

10275

at 2335.0 set 60' spike pit for IM

1166.23

10275

139.7

Oct 18th 1958

220
2328
4528

141
20765
120
32768
2197
54635

John + I to Girl Lake
Chet has started opening up
N 1/4 line with his cat we met
him on the road

Travel N 1/4 cor bet 32-33-141-28
site N 22° 57' W on flag at old RR right
hub and run N 88° 58' W along
N 1/4 line as figured.

@ 220 pin + 232.8 = 452.8 hub 60' ap
450 + 135 = 585 & road

450 + 300 = 750 + 37.5 = 787.5 hub
60' ap + 240 = 1027.5

at 1166.63 set 60' ap for 1/4 Center
NE 1/4 Sec. 32-141-28

Travel 1166.63 BS S 88° 58' E and
run S 20° 59' E 130 + 77.65 = 207.65

hub. + 120 + 110 = enter meadow
207.65 + 120 + 190 Lu ^{sup} meadow

207.65 + 120 + 219.7 = 546.35 hub.

595 enter meadow sup 745 Lr same

546.35 + 334.5 =

+
546.35
880.85
208.7
1089.55 hub
140.35
1249.90 hub

1408.06
1249.9
158.16 570

142

130
2103Monday Oct 20th 1958

John stays home from school
and goes with me to Hill Lake
Town $\frac{1}{4}$ Center E $\frac{1}{2}$ Sec 32-141-28
site N $28^{\circ}59'E$ on flag on E $\frac{1}{16}$ line
and run S $89^{\circ}20'E$ on E + N E
section 32

819.9

Ties to $\frac{1}{16}$

31.5

851.4

440

132

B/K Oak 14 N $57^{\circ}16'E$ 34.30" " 16 S $82^{\circ}23'E$ 36.37" " 18 S $34^{\circ}23'W$ 15.71

@

E road

@ 264.4 hub

260 + 258.9 = 519.9 hub in E high line

^{258.9}
under wires

519.9 + 151.45 =

151.45

671.35 hub pt for I M

519.9

130

649.9 + 40 = edge of bog -

649.9 + 60 = water

649.9 + 170 = 819.9 pin

20 ft E of water 10 ft E of mud bank water

819.9 + 31.5 = 851.4 hub pt for I M,
10 ft from water

1 X 40" I M at 851.4

Ties to 851.4 I.M.

R 0 8 N

W 11.85

R 0 14.8

W 12.04

from 851.4 chain W 37.6 drive
34K 30" I.M. on line

Stade of bog.

152 N 64° W

135 N 44° W

135 N 36° W

110 N 32° W

60 N 34 W

Mud Lake

40 N 4° W

180 N 26° 15' W

230 N 14° 42' W

270 N 2° 30' E

305 N 11° 30' E

355 N 20° E

453 N 25° E

144 ① Lot 11 Sec 35-142-30

I get a letter from Charles G. Hutchinson 2701 Golden Valley Road Minneapolis 11-Minn. who owns Lot 11-Sec. 35-142-30 according to Re-survey plat Hutchinson wants Lot 11 divided into 4 tracts I write him I will stake the shore line and the S end make 4 copies of a map and write 4 descriptions of said Lot 11 for \$250-\$100 down

I get a telephone call from him March 8th 1959 asking about the letter says go ahead & he will send the \$100 which I get Sunday March 10th 1959

I go to court house and check Lou's plats of sec 35-142-30

Sunday March 9th 1959

Ed + I to Smoky Point and walk West we find IM MC on N + S $\frac{1}{4}$ Sec 35 also IM 234.3 ft \pm S. of MC and IM 397.32 ft S. of MC on N + S $\frac{1}{4}$

from IM 234.3 run compass line West and pass 844.8 ft but can not find IM dup stn we go N to Lake Snow 464' dup find nothing go home.

②

88.68
87.24
1.44

145-

March 10 1959

I pick up L. Oliver at 10 - drive to Smoky Point 638

Turn SE corner of Lot 8 site Son NTS
 & and run N 89° 08' W along true S
 line of said lot 8 according to U.S.
 Re-survey plot of 39.4 hub on top
 + 160 pin - 7.75

	239.4
+ 60 enter sup + 180 L sup	160
	60
+ 270 under Elect. wires pin	270
	108.65
+ 108.65 hub = 638.05	638.05

39.4	199.4	259.4
160	775	180
199.4 pin	191.65 hub	439.4 L sup
60.		

259.4 pin enter sup

270

529.4 pin under Highline wire
 108.65

638.05 hub under T I 19 bears 1° 44' N
 To an 638.05 BS S 89° 08' E & run
 N 87° 24' W 199.80 to IM

Oliver - Ch

US Notes

47.51 the proportional point for cor to Sec. 2-3-34-35
falls in the lake

Thence $S 88^{\circ} 50' E$ on a true line bet
Sec. 2-4-35 across Lake on ice

8.31 true pt. for orig. M.C. of frac. Sec. 2-35
from which the remains of the orig.
B.T. A cedar tree (fallen) 14" diam bears $N 85^{\circ}$
 $E 22 Lks$ dist mtd $T 142^{\circ} N R 30^{\circ} W S. 35 M.C. B.T.$

I do not reestablish cor as pt is below water
8.71 set I.P. 3' long 1" diam 30" in ground for
wit cor to M.C. of frac. Sec. 2-35 brass cap

W.C. $\frac{T. 142^{\circ} N}{S. 35^{\circ}}$ R $30^{\circ} W$
M.C. Sec. 2
T. $141^{\circ} N$ 1917

from which W.O.G. North 44 Lks

Bearing $14 S 41 \frac{3}{4}^{\circ} E 89 Lks$

21.07 Proportional distance

Set an I.M. 3' long 1" diam 30" in ground
for W.Y.6 Sec. Cor with Brass Cap mtd

W.Y.6 $\frac{S 35^{\circ}}{S 2}$ 1917,
from which

J.P.8 $N 58 \frac{1}{2}^{\circ} E 48 Lks$ mtd W.Y.6 S. 35 B.T.

N.P.10 $S 13 \frac{1}{4}^{\circ} W 56 Lks$ " W.Y.6 S. 2 B.T.

25.98 proportional dist.

Set I.M. for angle point 3 allot. 1704 in
Sec 2-

$\frac{S 35^{\circ}}{S 2}$ J.P.8 TR 1704 1917

148

US Notes

3224 old wagon road N4S

40.70 True point for $\frac{1}{4}$ cor bet sec 2-35-Set I.P. 30° in ground. mtd $\frac{1}{4} \frac{S35^\circ}{S2} 1917$

from which old BT

Y P stn $16 N36^\circ W 37 Lks$ " " $14.5 41^\circ W 24 "$

New BT.

W. 03 $N35^\circ E 65 Lks$ mtd $\frac{1}{4} S. 35^\circ BT$ J P 3 $S54\frac{1}{4}^\circ W 86 "$ " $\frac{1}{4} S2 BT$

1996 proportional dist. Set I.P. cor mtd

 $E \frac{1}{16} \frac{S35^\circ}{S2} 1917$ from which NP10 $N45^\circ E 67 Lks$ mtd $E \frac{1}{16} BT$ " " NP10 $S13\frac{3}{4}^\circ E 84 Lks$ mtd $E \frac{1}{16} S2 BT$

3992 proportional dist.

Set I.P. cor to sec 1-2-35-36

 $T. 142 N \quad R. 30 W$
 $S35^\circ \quad S. 36$ $S. 2 \quad S1$
 $T. 141 N \quad 1917$ J.P. 14 $N42\frac{1}{4}^\circ E 196 Lks$ JP 12 $S33\frac{1}{4}^\circ E 95 "$ JP 12 $S23\frac{3}{4}^\circ W 64 "$ JP 8 $N31\frac{1}{2}^\circ W 113 Lks$

Subdivisional lines US Notes 149

from cor to Sec 1-2-35-36 S. bdy of 142-30
North on true line bet sec. 35-36

10.00 set I.P. for A.P. 3 Allot. 1258 + A.P. 2

Allot. 1260	S35	AP 3	1918
		TR 1258	
		AP 2	
		TR 1260	

1030 enter small imp E+W

1150 Lv " " NW-SE

2000 set IP S $\frac{1}{4}$ S $\frac{1}{4}$

S35	36
-----	----

from which 1917

Ook 5° S 83 $\frac{3}{4}$ E 61 Lks

v 6 S 67 $\frac{1}{4}$ W 62 Lks

3250 Set I.P. for Angle Point 4 A. 1657 +

A.P. 1 A 1653

S35	AP 4	S36	1918
	TR 1657		
	AP 1		
		TR 1653	

3500 Set I.P. for A.P. 2 A. 1277

S35	TR	S36	1918
	1657		
	AP 2		
		TR 1277	

3750 enter small imp NW SW

3820 Lv " " SW-SE

4000 Set I.P. for $\frac{1}{4}$ cor

$\frac{1}{4}$

S35	S36
-----	-----

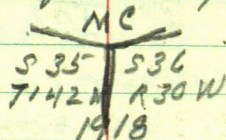
1918

from which Ironwood 12 S 64° E 48

Basswood 6 S $54\frac{1}{2}$ W 48

4252 the South shore of Leech Lake

Set IP for MC of frac Sec 35-36



from which

Maple 10 S $43\frac{3}{4}$ E 18

" 14 S $46\frac{1}{2}$ W 57

Extension Survey

Extension of the section line bet Sec 34 & 35 over land erroneously shown as lake in the orig survey

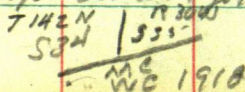
from the theoretical point for the cor to sec. 2-3-34-35 on S bdy of Twp which point is in a small lake

North across Lake

In order to extend the line in its proper position I begin at the true point for the MC on E. side of lake & run N 12° W 18,000 ch thence West 4.35 ch. and at

17.45 the N shore of small lake set up a

1830 to sup set IP for MC bet frac Sec 34-35



from which Oak 7 S 67° E 43

Oak 6 N 23° W 28

2000 set I.P. for S $\frac{1}{16}$ bet Sec 34-35^(2" up)

S $\frac{1}{16}$
 334 | 335⁻
 1918

from which

Pine 4 S 30 $\frac{3}{4}$ ° E 127

Oak 8 N 29 $\frac{1}{4}$ ° W 35⁻

2135⁻ enter map NE-SW

2500 LV " NW-SE

3815⁻ South shore Leech Lake

Set I.P. for MC from Sec 34-35⁻

MC
 334 | 335⁻
 1918

from which

Pine 5 S 54° E 233 LKs

" 6 S 60 $\frac{1}{4}$ ° W 156 "

From $\frac{1}{4}$ bet Sec 2-35

North on a true line through Sec 35⁻

20.06 proportional dist

Set I.P. for C. S. $\frac{1}{16}$ cor Sec 35⁻

C
 S $\frac{1}{16}$ 335⁻
 C 1918

from which

JP 8 N 38° E 50 LKs

R.O 10 N 8 $\frac{1}{4}$ ° W 31 LKs

152

3259 intersect line bet allotments
1313 & 1653 described (later)

AP. 9

TR 64

1918

AP 4

TR 1313

3824 At I.P. (4" up for d wit cor to
the true pt for SMC on $\$ 5.35$

C S M E

$\frac{S}{S35' \text{ } S35'}$

from which 1978

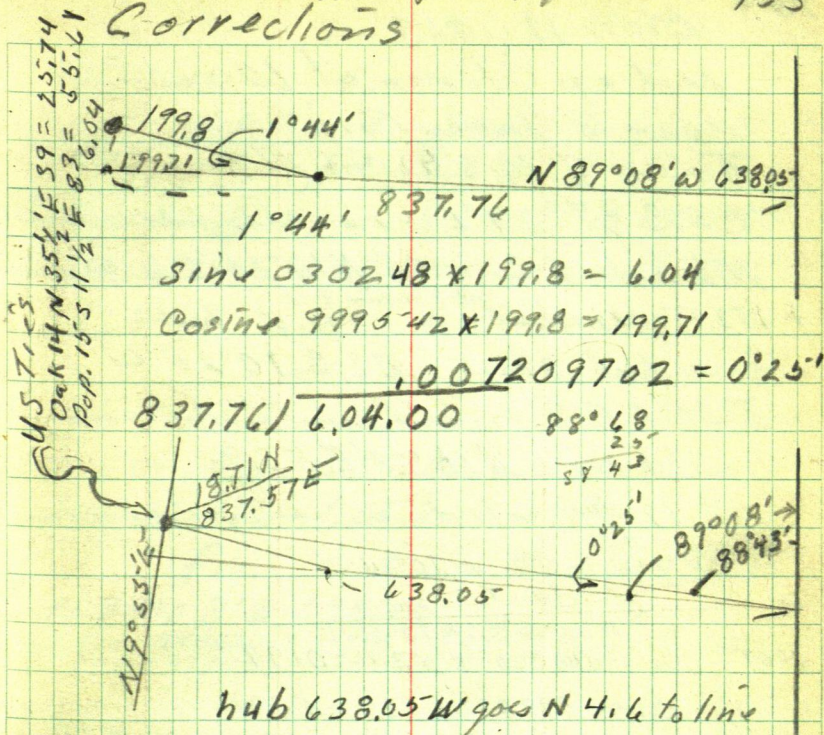
Willow 4 N $80\frac{1}{2}^{\circ}$ E 48 LKs

Pop. 14 S 82° W 48 "

3864 True pt for SMC. at shore line bears N $84\frac{1}{2}^{\circ}$ W
6 S $84\frac{1}{2}^{\circ}$ E

Continued from Pg 145 - Corrections

153



US Notes say distance from 1/4 West
is 1295.58 Carl Steadland says to
call this 1315.21 for 1963 LKs

S. line runs N 88°59'W

$\sin = 999843 \times 1315.21 = 1315.00$ E

$\cos = 017743 \times 1315.21 =$

$1315.00 \div 999886 = 1315.15$ to W 1/4 line

using N 88°43' W

$1315.00 \div 999794 = 1315.27$ to W 1/4 line

0'25"

$837.76 \div 999974 = 837.78 + 477.48$ to go

154 Mar. 11-1959

pick up Oliver at 10 o'clock
drive to Smoky Point

Tower I M S W Cor Allotment No 8

BS 387°24'E + ran along ascent. Sh. 100

Nearby line old N10°25'E to 90° whil

$$+ 172.75 = 262.75 \text{ hub} @ 290 \text{ mm} + 12.5$$

@ 302.5' herb

Tower hub 302.5 BS S 70°26'W

IMAP 3 on old established meander
line bears N 11° 28' E 53.9

at 12-30 go to dinner + fig corrections

$N. \quad \frac{N 11^{\circ} 28' E 33.9}{1003} \quad \checkmark \quad \frac{10^{\circ} 34' 30.1 S}{N 10^{\circ} 25' 12''}$
 $1003' \quad \text{Since } 0.18325 \times 53.9 = 0.99$

$$\cos 999832 \times 53.7 = 53.89$$
$$5389 + 302.5 = 356.39$$
$$0027778557 = 0009\%$$

356.39 / 0.99.000

but 262.75 Ngov E 0.73 1/2 miles

Lat 302.5° N " E 0.84 re-established M.L

PM.

We correct these but, Kover IM AP, 3

RS S $10^{\circ}34'W$ on corrected hub 302.6 I MAP 4

sets N 42° 16' W 69.9

Still at AP 3 run N 10° 34' E 50 ft to

hup on sawall 25. to water

$$\begin{array}{r} 122.75 \\ 90 \\ \hline 262.75 \end{array}$$

$$\begin{array}{r} 290 \\ 12 \\ \hline 302.0 \end{array}$$

$$\begin{array}{r} 302.5 \\ 53.89 \\ \hline 356.39 \end{array}$$

$$114.5 + 135.5 = 250$$

We correct back 262.75

A.P. 4. = 50 from water 6 from Brink

From T.M. A.P. N-4 B.S. S 42° 16' E

on A.P. 3 + run N 64° 26' W 114.5 + 90 =

From 204.5 B.S. S 64° 26' E run N 36° 06' W 125.1

Note 204.5 is in line with E end of house

NE cor. bears S 26° 43' W about 45-

204.5 is about 65 from water

Fig. distance West from N 43 E

N 89° 08' W 138.05

$$\text{Sine } 999896 \times 138.05 = 137.98 \text{ W}$$

$$\text{Cosine } 875126 \times 138.05 = 9.65 \text{ N}$$

N 87° 24' W 199.8

$$\text{Sine } 998971 \times 199.8 = 199.6 \text{ W} = 837.38 \text{ West}$$

$$\text{Cosine } 845363 \times 199.8 = 9.06 \text{ N}$$

N 10° 34' E 356.39 + 50 = 406.39

$$\text{Sine } 183379 \times 356.39 = 65.35 \text{ E} = 772.22 \text{ W}$$

$$\text{Cosine } 989042 \times 356.39 = 350.35 \text{ N}$$

$$183379 \times 406.39 = 74.52 = (763.06 \text{ W})$$

(NE Cor. Lot 11)

N 42° 16' W 69.9

$$\text{Sine } 672582 \times 69.9 = 47.01 \text{ W} = 819.23 \text{ W}$$

$$\text{Cosine } 740023 \times 69.9 = 51.73 \text{ N}$$

N 64° 26' W 204.5

$$\text{Sine } 902084 \times 204.5 = 184.48 \text{ W} = 1003.71 \text{ W}$$

$$\text{Cosine } 431561 \times 204.5 = 88.25 \text{ N}$$

N 36° 06' W 125.1

$$\text{Sine } 589196 \times 125.1 = 73.71 \text{ W} = 1077.42 \text{ W}$$

$$\text{Cosine } 807990 \times 125.1 = 101.08 \text{ N}$$

US distance from N + S & West to $W\frac{1}{4}$
on S. boundary line Sec 35 =

1295.5 West

763.06 = pt on shore old Meander line extend

532.44 to go West

$532.44 W \div 4 = 133.11$ ft for each Tract
along shore line Leech Lake

Using 1315 ft West of N + S & for point
for $W\frac{1}{4}$ as Carl Stoddard think I should
1315. West

763.06 pt on shore old Meander line extend

551.94' to go West

$551.94 \div 4 = 137.98$ for each tract along
shore line Leech Lake

from 10 to 5 = 7 hr

1 " noon

6 hr for Oliver

Using US fig of 1006.5 ft along old
established Meander line The lots & Tracts
should be 68.34 ft wide along S end
using 1295.5 for width of 40,

1684 5689
3'90
9539

157

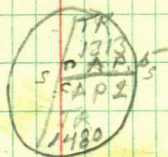
March 12-1959

pick up Larry Oliver drive to Smoky
Point and walk W to reestablished
meander line arrive at 10-30
from hub on top Cham North at 168.4
hub under $\pi + 80 + 240 + 80.5$

80
240
80.5
400.5

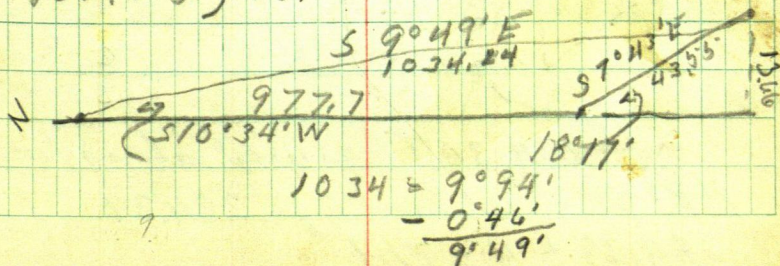
from IM allotment SW cor 1704
S. 400.5 hub + 168.4 = 568.9 S
hub on top + 390 = 958.9 + 18.8 =
977.7 hub

Now hub 977.7 BS N $10^{\circ}34'E$ IM
SE cor lot 11 bears S $7^{\circ}43'E$ 43.55'



angle $18^{\circ}17' \Delta$ 43.55'
Sine $313716 \times 43.55' = 13.66$
Cosine $949517 \times 43.55' = 41.35$

977.7
41.35
1019.05) 13.66.00

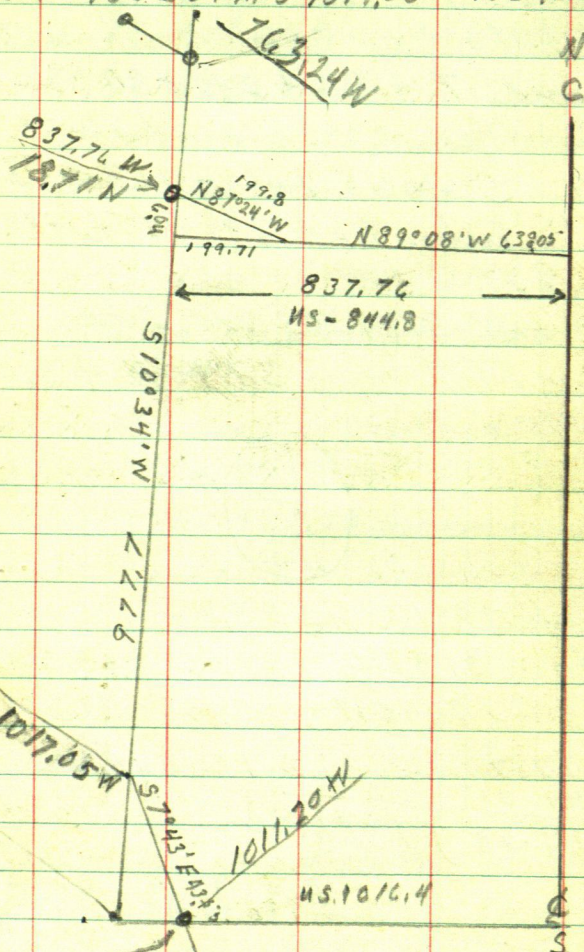


158

9°49'

Sine 170496 X 1.000000

Cosine 985309 into 1019.06 = 1034.24



284.36 ft to go west along line
 N 89°08' W we have to go 284.39
 $284.39 \div 4 = 71.1$

Sect. 14-1959

as the distance from the SW cor
of Sec. 35 to the $\frac{1}{4}$ on S side Sec 35
is distance 2486.20. The $\frac{1}{16}$ should
be placed half way between said
points. According to US resurvey
notes their surveyor placed the $\frac{1}{16}$
1391 ft E of SW cor and only
1295 ft E of $\frac{1}{4}$ following old rules
of placing said $\frac{1}{16}$ half way between
it should have been placed
1343.1 ft from each corner.

as NE corner of Lot 11 sets 763.24
ft W of $\frac{1}{4}$ or N45 E the W $\frac{1}{16}$ line
should go 579.86 ft W

$579.86 \div 4 = 144.96\frac{1}{2}$ W each
tract along lake

as S.E. cor Lot 11 is 1011.20 W the
west line should be 331.9 ft west
 $331.9 \div 4 = 82.97\frac{1}{2}$ ft W for each
lot on 82.98 along S line Lot 11
which runs N89°08'W

John + I to Smoky Point

Tower 60' up NE Cor Lot 11

BS $S 10^{\circ} 34' W$ + run along line on shore
N $63^{\circ} W$

Cosine 891007 into 144.96 = 162.69 ft

at hub 60' up put for IM

Tower 162.69 BS $S 63^{\circ} E$ + runN $55^{\circ} 30' W$

Cosine 824124 into 144.96 = 175.9

Run N $63^{\circ} W$ 162.69run N $68^{\circ} 30' W$

Cosine 830418 into 144.96 = 155.8

Mar 16-1959

Larry + I to Smoky Point Tower IM SE
Cor lot 11 site N $7^{\circ} 43' W$ + run N $89^{\circ} 08' W$ @ 82.98-82.98-82.97-82.97 to SW Cor lot
11

25.10

25

25.0

16

3

82.17

25.0

248.13

331.90

CURVE TABLES.

Published by KEUFFEL & ESSER CO.

HOW TO USE CURVE TABLES.

Table I. contains Tangents and External to a 1° curve. Tan. and Ext. to any other radius may be found nearly enough, by dividing the Tan. or Ext. opposite the given Central Angle by the given degree of curve.

To find Deg. of Curve, having the Central Angle and Tangent: Divide Tan. opposite the given Central Angle by the given Tangent.

To find Deg. of Curve, having the Central Angle and External: Divide Ext. opposite the given Central Angle by the given External.

To find Nat. Tan. and Nat. Ex. Sec. for any angle by Table I.: Tan. or Ext. of twice the given angle divided by the radius of a 1° curve will be the Nat. Tan. or Nat. Ex. Sec.

EXAMPLE.

Wanted a Curve with an Ext. of about 12 ft. Angle of Intersection or I. P. = $23^\circ 20'$ to the R. at Station 542+72.

Ext. in Tab. I opposite $23^\circ 20' = 120.87$
 $120.87 \div 12 = 10.07$. Say a 10° Curve.

Tan. in Tab. I opp. $23^\circ 20' = 118.1$
 $118.1 \div 10 = 11.81$.

Correction for A. $23^\circ 20'$ for a 10° Cur. = 0.16
 $11.81 + 0.16 = 11.97 = \text{corrected Tangent}$.

(If corrected Ext. is required find in same way)

Ang. $23^\circ 20' = 23.33^\circ \div 10 = 2.3333 = \text{L. C.}$

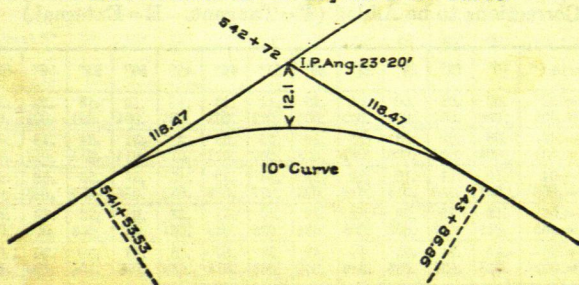
$2^\circ 19\frac{1}{2}' = \text{def. for sta.}$	542	I. P. = sta.	542+72
$4^\circ 49\frac{1}{2}' = \text{" " "}$	+50	Tan. =	118.47
$7^\circ 19\frac{1}{2}' = \text{" " "}$	543	B. C. = sta.	541+53.53
$9^\circ 49\frac{1}{2}' = \text{" " "}$	+50	L. C. =	2.3333
$11^\circ 40' = \text{" " "}$	543+	E. C. = Sta.	543+86.86
	86.86		

$100 - 53.53 = 46.47 \times 3' (\text{def. for 1 ft. of } 10^\circ \text{ Cur.}) = 139.41' =$

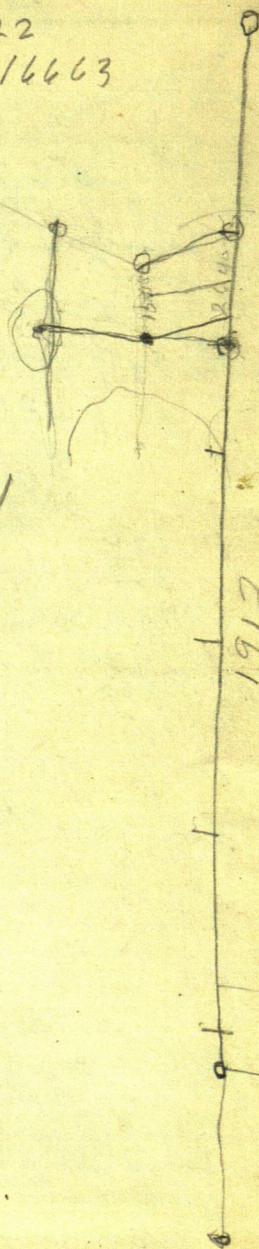
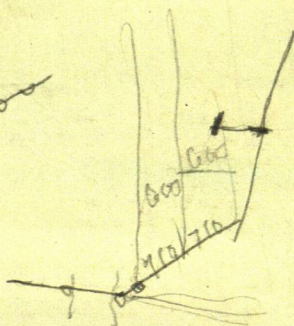
$2^\circ 19\frac{1}{2}' = \text{def. for sta. 542.}$

Def. for 50 ft. = $2^\circ 30'$ for a 10° Curve.

Def. for 36.86 ft. = $1^\circ 50\frac{1}{2}'$ for a 10° Curve.



22
116663



1912
1904

39.5

W. 658.68

10169
69.4
32.29

1080
66
508.68

100
339
175

2480
6480
7121
564
150
4.14
75-

564

300.1
3

4588
35
1080

297.1

2000
1430
570
339
1987
140.3
22
1.13
21.87

200
13
1987
150
3487

160
339
175
564

11663
7855
380.8

390
275
115

360

35960
16555

219405
97002 1/2

3420
3420
376
3

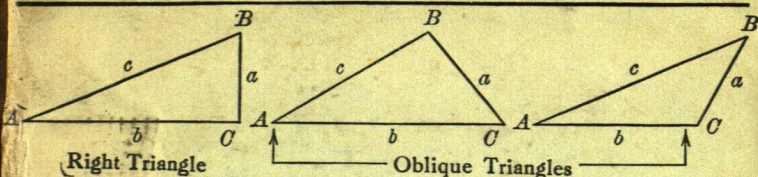
34
1679
33

8395
8395
92345

12181
1321
67101
6711
249
90



TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

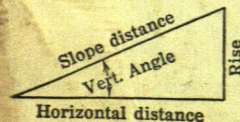
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\operatorname{cosec} = \frac{c}{a}$

Given	Required	
a, b	A, B, c	$\tan A = \frac{a}{b} = \cot B, c = \sqrt{a^2 + b^2} = a \sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b	$\sin A = \frac{a}{c} = \cos B, b = \sqrt{(c+a)(c-a)} = c \sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c	$B = 90^\circ - A, b = a \cot A, c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90^\circ - A, a = b \tan A, c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90^\circ - A, a = c \sin A, b = c \cos A$

Solution of Oblique Triangles

Given	Required	
A, B, a	b, c, C	$b = \frac{a \sin B}{\sin A}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A + B = 180^\circ - C, \tan \frac{1}{2}(A - B) = \frac{(a - b) \tan \frac{1}{2}(A + B)}{a + b}$ $c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a + b + c}{2}, \sin \frac{1}{2}A = \sqrt{\frac{(s - b)(s - c)}{bc}}$ $\sin \frac{1}{2}B = \sqrt{\frac{(s - a)(s - c)}{ac}}, C = 180^\circ - (A + B)$
a, b, c	Area	$s = \frac{a + b + c}{2}, \text{area} = \sqrt{s(s - a)(s - b)(s - c)}$
A, b, c	Area	$\text{area} = \frac{bc \sin A}{2}$
A, B, C, a	Area	$\text{area} = \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL



When the rise is known, the horizontal distance is approximately:—the slope distance less the square of the rise divided by twice the slope distance. Thus: rise=14 ft., slope distance=302.6 ft. Horizontal distance=302.6— $\frac{14 \times 14}{2 \times 302.6}$ = 302.6—0.32=302.28 ft.