

242

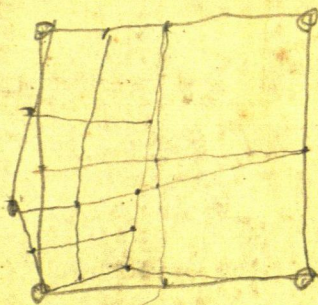
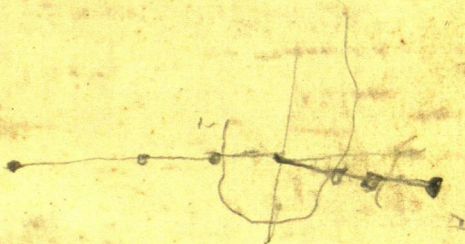
DILLIEN

ENGINEERS
FIELD BOOK

No. 103

242

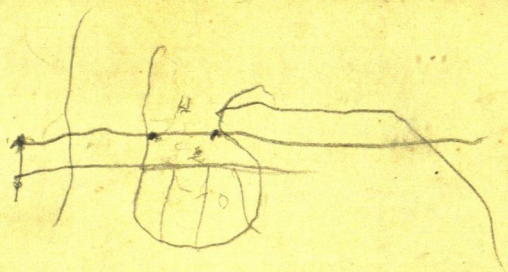
Duban - De Laney



589

60

120



April 30-1939 Sunday
Duban-DeLaney
Lawsuit

Gov Lot 7- Sec 23-138-27

" " 1 " 26-138-27

See Book 228

Harald and I in Harald's
Car Lv Jenkins 9-30 AM

At 10 AM. Meet at Duban
and Mr Hunt on
Fox Lake Creek bridge.

11 AM. ar and talk with
Mrs Duban

11.10 Ar and talk with
Mrs DeLaney and her
men show me about what
she claims to own by
long time possession

Reg @ I m - pipe wit
M C. But Sec 22-23

138-27 on N shore of
East Fox Lake 214.6

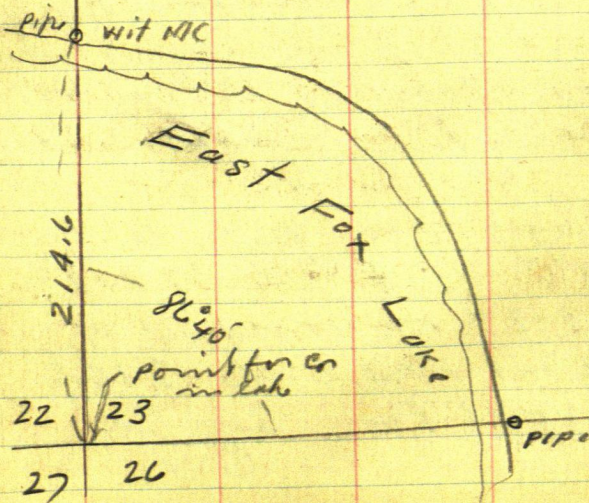
ft North Farm See Co
Over

4

138-27²

Apr 30-1939 - continued
See Plat

True line assumed as
True North for this survey
N 2° 32' E



Note: In this survey the True West line of Sec 23 138-27 will be assumed as North.

Be@ 1m - 214.6 N From pt for Cor 22-23-26-27-138-27 in East Fox Lake we chain North; on W side Lot 7

@ 214.6 1m - + 57.8 = 272.4
Hub = R.R. spike on side hill + 84.5
= 356.9 Hub under π + 55.1 = 412.00 Hub 0.50 So of So side
Bunk Ho. 5.4 W of SE Cor
6.6 E from SW Cor

Ho 12x12 π @ 356.9 Th NE Cor bears N 7° E 66.75 ft

R.R. Spike Hub 3 ft N of N side of Ho is 8.6 W of NE Cor and 3.4 E from NW Cor

Ho on line

From 356.9 Ch 50 11.9 to 345 N = Hub in E main road All Hubs on

R.R. spikes

6

4

Road 2

Sta

0 = Hub & road 345 N of
 pt for See Cor Magnetic
 Var of line See line records
 4° E 2-10 PM

Sta

0 Run S 71° E 175 to Sta 1
 in & road

1 East 170 to Sta 2 in &
 road Sta 2 is 20 ft E from
 old dim ditch running N.

2 Run N 75° E 125 to Sta 3
 = & road

Sta 2 Chain West 73 ft to pt on
 E Bank of Hill where Al
 and Mrs Dublin think they
 might fix or East line
 of land they may sell
 Mrs Delaney = Sta 2A.
 2A is in wheel track
 Cannot drive spike

From Sta 2. Chain North 100 ft
to lake - water in low wet land
From Sta 2A it is about 160
ft north to water

π still @

Sta 2. Chain S 52° W 190 ft
to broken over 3" poplars
in marshy edge of lake
@ 200 water

Sta

Sta 3. π @ Sta 3 - A 12" Birch
tree bears N 1° W 124 ft and
a Twin Birch 6 x 14 inches
14" Birch N 4° W 104 ft
Note: These two birch
trees may mark N bdy
of land claimed by Mrs
De Laney

3 Run East 137.2 to Sta 4
Sta 4 is 4 ft N of E road

8

6

π @ S 1/4 4 BS West

4 Run S 70° E along $\frac{1}{2}$ road
@ 50 an old road leader
SW @ 185 set Hub Sta 5
& road at Forks

π @ 4- Large 18 in Sack pine
bears N 29° 40' E

and a 7" Oak bear

N 18° E both about 300 ft
away

The bend of old road bear
S 42° W about 150 ft

4 PM- Al Duban and
wife decide to stop my
survey on their "land"

Al says you cannot go
to the survey that road
but you may survey the
Garden patch

5 minutes later he says
you cannot survey the
Garden

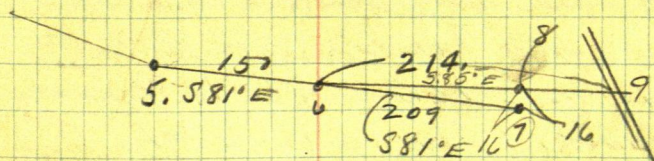
7
 T over Sta 5

5 run $S 81^{\circ} E$ 150 to Sta 6
 in & road in cut

Road from here crosses
 Left out of sight. from Sta
 5 to T extend my line
 thro Sta 6 - $S 81^{\circ} E$ 209 ft
 to a point on West shoulder
 of new grade = Sta 7.

From Sta 7 ch N. 16 ft
 to & E-W road Sta 8

Then chain from Sta 6 -
 Thro Sta 8 - 214 ft to & $S 85^{\circ} E$
 new grade NW SE Sta 9
 214 ft



May 4th 1939

Note: Sta 9 Scales exactly North
 from Iron pipe @ MC. N.
 and it is 147 ft N of MC.

over Sta 5 in 'wye'

Course of E branch bears
 $N 45^{\circ} E$ 24. East 33.

and the West branch:

$N 60^{\circ} W$ 24 ft. $N 15^{\circ} W$ 18 ft

Edge of water in marsh
 South 100. - 1 foot of hill
 marsh & under 20 ft and to
 clear water

SW edge of lake of foot
 of hill in marsh S $45^{\circ} W$
 150 to 250

Sta 5 run $N 14^{\circ} E$ 110.7 to Sta 10

& road Hub in line with
 to side of Crooked garden
 fence Continue $N 14^{\circ} E$

130 = 240.7 = Sta 11 & road

Nat'l: Bet Sta 10-11 the
 road bulges about 20¹⁵ ft

E and T chain across
 east edge of garden patch
 bet 10-11.

De Laney - 9 Duban

11

T still @ Sta 5 Take 18' JP
N $13^{\circ}25'W$ again from
Sta 5 chain N $14^{\circ}E$ @ 110.7
Sta 10 - 7 steps from SE cor
of plowing $110.7 + 21.3 = 132$
To plowing

T over Sta 11 BS on Sta 5
S $14^{\circ}W$ Sta 12 bears SE - 65 ft
to a pt in & road 69 ft from
Sta 10 - we do not take
the angle

T @ Sta 11 run N $16^{\circ}W$ on &
road @ 50 field 10' L at 65'
old crooked fence L
@ 201.5 Hub Sta 13.
where road crooks R.

T @ 11 old 18" JP bears
N $77^{\circ}20'W$

Notes: The 7" Oak & 18" JP
are trees th 2 wire fence
is stapled to on a side of
Garden Patch

12

Apr 30 - 1939 cont'd

10

Out about 6 PM - Carry
outfit to Car -

Mrs DeLaney remembers
that Attorney Ryan wants
surveyed the wood yard
and pig pen

It is too late to
night. Home in Jenkins
hall -

Note: At noon we drove
to Bob Dudley store and took
our lunch

James W. Cress

14

May 3rd Wed

9 AM Harald and I in
my car Lr Jenkins 100m

On Delaney Cottage - Light rain

Pig Pen

Hoc π @ Sta 0. P96 - BS 80

on line line Run

N 77° E 140.5 To Sta 14

N 73° E 143.5 " " 15

drive RR. spikes at both stations
near Pig Pen

π over Sta 14.

SW Cor Pig pen bears N 34° W 14.3

= 10" Oak

NW Cor Same Course 43.8 = 9" Dead oak.

3 ft Crook - west in west side of
pig pen Dead 12" Birch stump -

NE Cor bears N 9° 23' W 51.5 to E

18' poplar tree - partly dead

SE Cor N 5° 38' E 23.4 = 8" Dead poplar

East side N 8° 41' E 32.9 to 9" Oak
on East point of Pig pen

0.0 N 77' E
 140.5
 Pig Pen

True Sec Line
 214.0

222.7

Pt for cor
 in lake

305.3 to MC

True Line

Wood Pile

T @ Sta 14

NE Cor N 31° W 48. ft

SE Cor N 34° W 14.3

South End: N 70° W 15

NW Cor Wood pile N 50° W 82

West Cor N 62° W 82

Chip yard

N 62° W 82

West 80

S 77° W 40

Brink of Hill

N 9° W 55 Near Pig Pen

N 73° E 50 ft - Cluster of Birch trees on brink

15 ft from Foot of hill and 30 ft from water in marsh

100 ft from open water

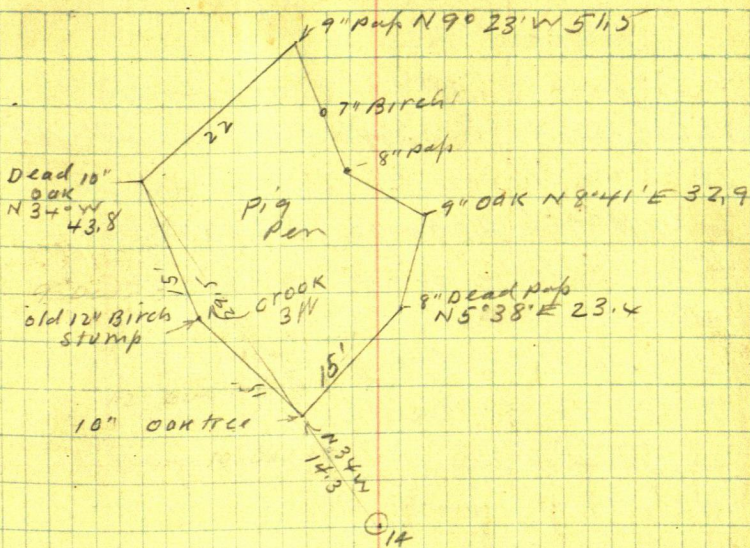
South end of Dump - Glass ball iron ore

S 70° E 50 - S 40° E 40 ft

Another pile of old scrap iron lies 30 ft S of Sta 14

Scale 20" 20' = 1"

17



Pig Pen 40 ft long n-s x 30 ft wide.
E-W about

22 x 30

Foot of Hill

West end of Fall begins in $\frac{1}{4}$ road
50 ft West of Sta 2 and runs East
20 to 50 from Sta 2

Path begins 40 ft West
from Sta 2 and runs SE

More Brink

π @ Sta 14 Brink bear

S 50° E 123 = 8 ft front?

15 ft N of road ?

N 45° W NE ?

S 33° E 16 ft 20 ft S of road

and from here SW to

So side of old House

Still raining a little

Quit at 12:30 PM

Drive to Al Dubanier

Al says no survey till he
hears from his lawyer

I call on Harry Keefe
who will be one of the witnesses
Home to Jenkins

Jahna W. Cress

Duban-Delaney

19

April 3-1939 continued

1-30 PM Harold picks up
Wilfred Miller - They fix my
Nail puncture and Lu for
Linh Hale

Martha and I to Walker
at 5-30
Over rail at Walker

20

May 4-1939 Thurs

all day in Walker
planning

Road Pg 6 - S 71° E 175 to Sta 1

71° = 19° Tang = 3443

Sta 1 - East 170 to Sta 2.

Sta 2 N 75° E 125 to Sta 3 = 4 road

75° = 15° Tang = 268 in 1000

Pg 8 East 1372 to Sta 4

Sta 4 Run S 70° E 185 to Sta 5

@ 50 old road runs SW

70° = 20° Tang = 364 in 1000

Pg 9 Sta 5 Run S 81° E 150 to Sta 6 & road

81° = 9° Tang = 158.4 in 1000

Pg 10 N 45 E 24.

635N

Bay
viewNECOR 580N FROM S. LINE
120E FROM VV. LINE

⑧

635-
420.4

□ 7

□ 0

3.4 9.6 NECOR 424N FROM S. LINE
8.6E FROM VV. LINE

12x12 BUNK HO

⑤

6.6 5.4



WORKSHOP OF 9.0x9.0

A

8 NECOR
BUNK HO

③

345N

57°E 175

②



GOOF

East 170

CHICKEN
HO 20x20

①

100

214.6

286°40'

pt for
CORN
LAKE

23

26

- ① Chicken Ho 20x20 NECor 238 N From
So line and 110 E From W line
- ② Boof Cabin 18x22 NECor 302 N From
So line and 65.8 E From W line
- ③ Mink Ho 8x29 NECor 352 N From
So line and 95 E From W line
- ④ Work Shop ^{or garage} 12x20 NECor 396 N From
So line and 45 E From W line
- ⑤ Bunk Ho ^{ON LINE} 12x12 NECor 424 N From
So line and 8.6 E From W line
- ⑥ Out Ho 4x5 NECor 435 N From
So line and 30 E From W line
- ⑦ Out Ho 5x5 NECor 508 N From
So line and 30 E From W line
- ⑧ Bay View Cabin 20x22 NECor 586 N From
So line and 120 E From W line

Over

24

Pig Pen 141 E
423 N

Wood Pile 127 E
428 N

Chip yard 423 N
126 E

Scrap pile 410 N
205 E

Garden NE Cor 494.11 N From
So line and 810.7 E From W line

Fill - East end - Q Road 385 E
From W line and 270 to 80 N
From So line To 280 N

Sta 0 = ^{4 Road} On West Bdry line Gov Lot 7
345 ft N From pt for seccor
= SW cor Lot 7, in Lane

Sta 1 = 4 road 165.466 E and
 $56.98 + 9.63 = 66.61$ From 345
Leaves 278.39 N of so line

^{130 To water}
Sta 2 = 4 road = $165.47 + 170 = 335.47$
East From west line and 278.39
minus 9.89 = 268.50 N From so line

Sta 3 = 4 road $119.74 + 335.47 =$
 455.21 E From w line and
 $268.50 + 32.35 = 300.85 - 6.97 =$
 293.88 N From so line

Sta 4 = 4 road $455.21 + 137.2 = 592.41$
East From west line and
 $293.88 - 7.99 = 285.89$ N From
so line

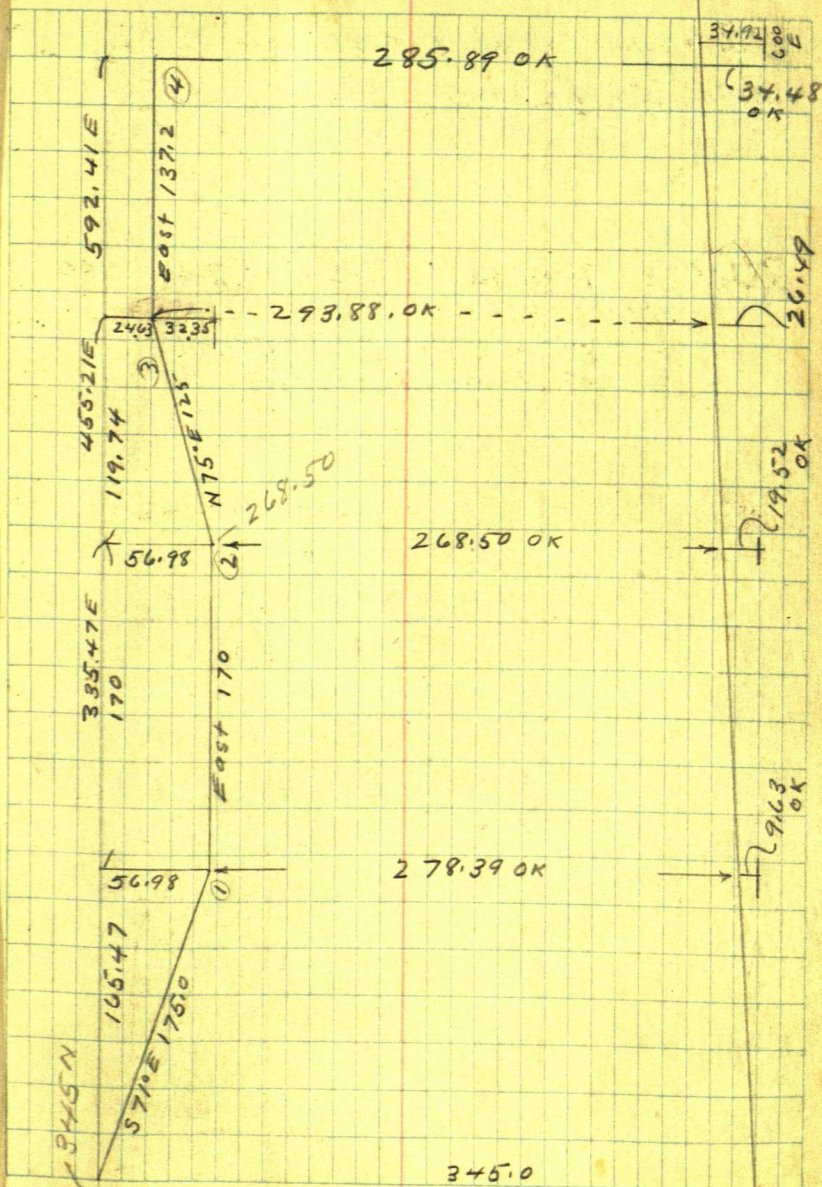
Sta 5 = 4 road $592.41 + 173.84 =$
 766.25 E From west line and
 $285.89 - 63.27 = 222.62 - 10.12 =$
 212.50 N From so line

26

Sta 7 is 1126.5 East and 147
North From SW cor
Sec 23-138.27 - & New Road

Sta 10 is $766.25 + 58.23 = 824.48$ OK
East from West line and
 $212.50 + 233.55 = 446.05$ OK
North From So Line

TONG $3^{\circ}20' = 0582 \times 600 = 34.92$
 $582 \times 165.47 =$



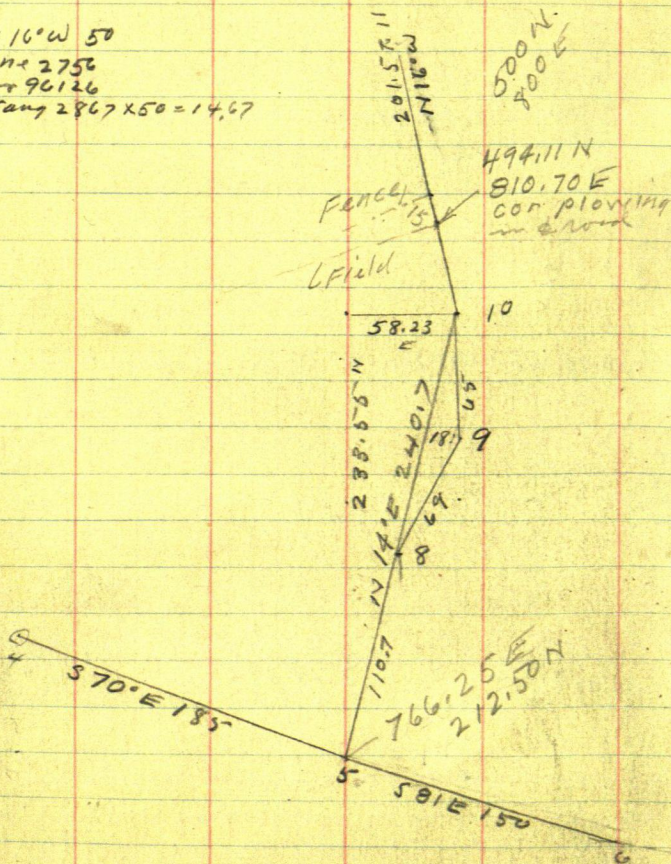
St 5 N 14° E 240.7 To St 10

Sine $2419 \times 240,7 = 58,235$
 COS $97030 \times 240,7 = 233,55$ N
 Tang $2493 \times 233,55 = 58,22$

N 16° W 50

 $\sin 27.5^\circ$

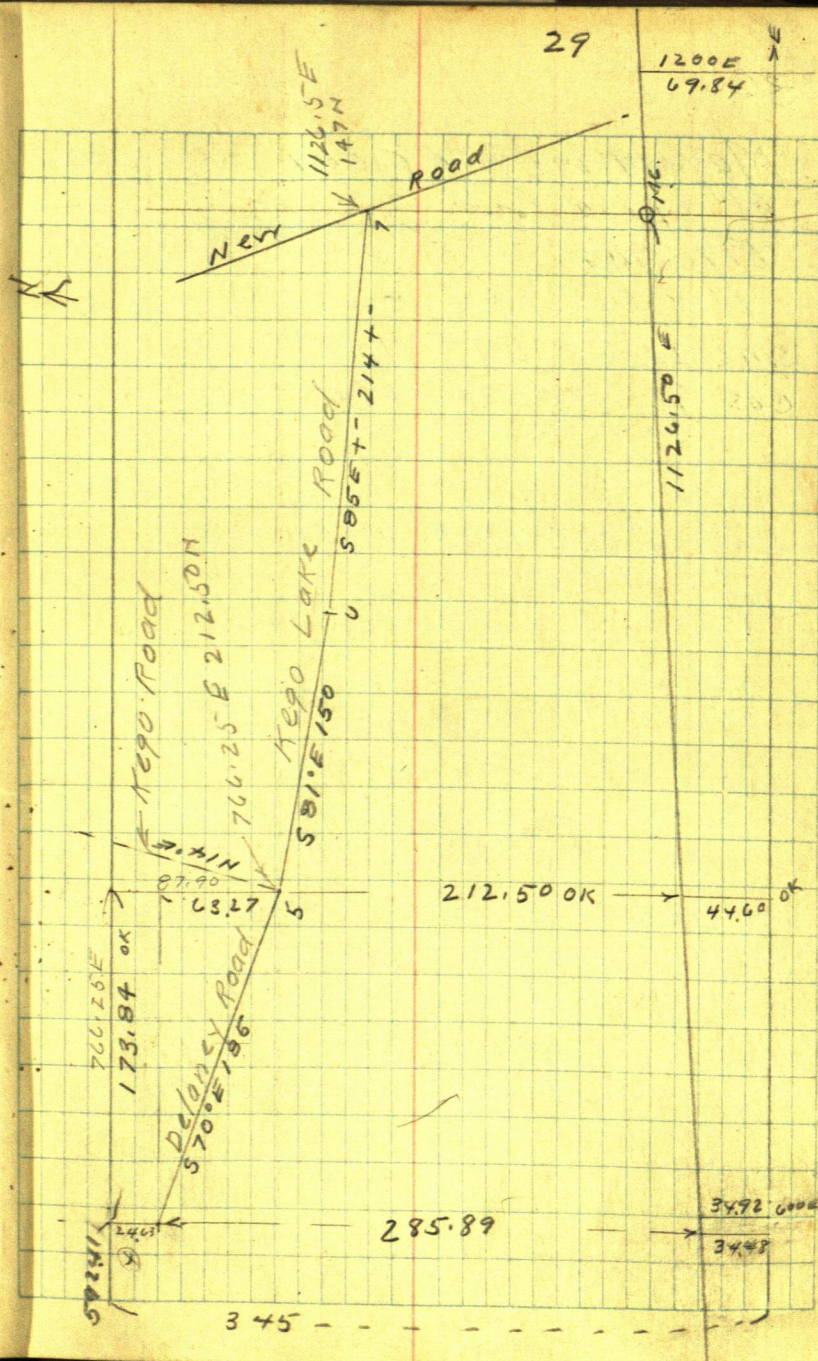
Cor 96126

$$\text{Tang } 2867 \times 50 = 14.67$$


29

1200E
69.84

NE



30

May 19-1939 Friday

Ht @ H.O. Bed

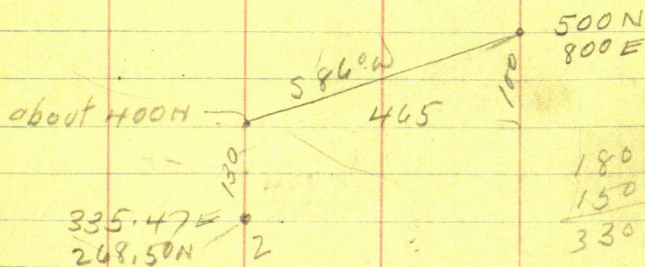
Figuring:

N 16° W P 911

$$\sin 2756 \times 50 = 13.78 \text{ W}$$

$$\cos 96126 \times 50 = 48.063 \text{ N}$$

Lake Shore 130 N From Sta 2



$$\begin{array}{r} 150 \\ 180 \\ \hline 330 \\ 165 \times 165 \end{array}$$

96126 31
5

S/10 = 446.05 N

48.06

494.11 NE CO Field

48.0630

2756

5

13.780

S/10 = 824.48 E

13.78

810.70

268.50 N

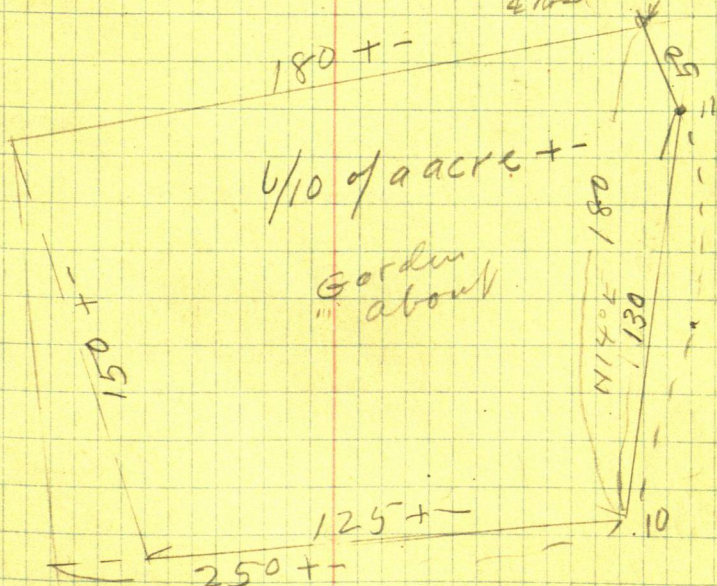
130

398.50

810.70 E To Cor 1

494.11 NE Field

4 1/2 mi



32

$$\begin{array}{r}
 165 \\
 165 \\
 \hline
 825 \\
 990 \\
 \hline
 165 \quad 25 \\
 \hline
 272
 \end{array}$$

$$\begin{array}{r}
 165 \\
 165 \\
 \hline
 825 \\
 990 \\
 \hline
 165 \\
 \hline
 272 \quad 25
 \end{array}$$

$$\begin{array}{r}
 62 \\
 4356 \overline{) 272.25} \\
 \underline{241 \quad 36} \\
 10890 \\
 \underline{8712} \\
 2178
 \end{array}$$

May 23-1939

See Book 243 Page 14

not
important
Oct 2-1944
C.D.R.

Callon Al Duban who may
not pay \$9 being $\frac{1}{2}$ the cost of
one day in court at Beaumont

My Bill to May Delaney

Engineer work and Expense
in preparing plot for Court

\$35. One half of expense for
one day in court \$9.

35.00

9.00

Mrs Delaney gives
me a check

44.00

9.00

Bal due me 35.00

34

August 30-1939

Light rain Harold and I
drive to Pine River

Met

who says

Quint and party want sawney

Vane Jones is not foreman

Met Mayon

Back to Jenkins

11 AM - Harold has sick

Mortha and I call on Wadd

King - Bull gone

Call on May Delaney who

pays me \$35 cash in full

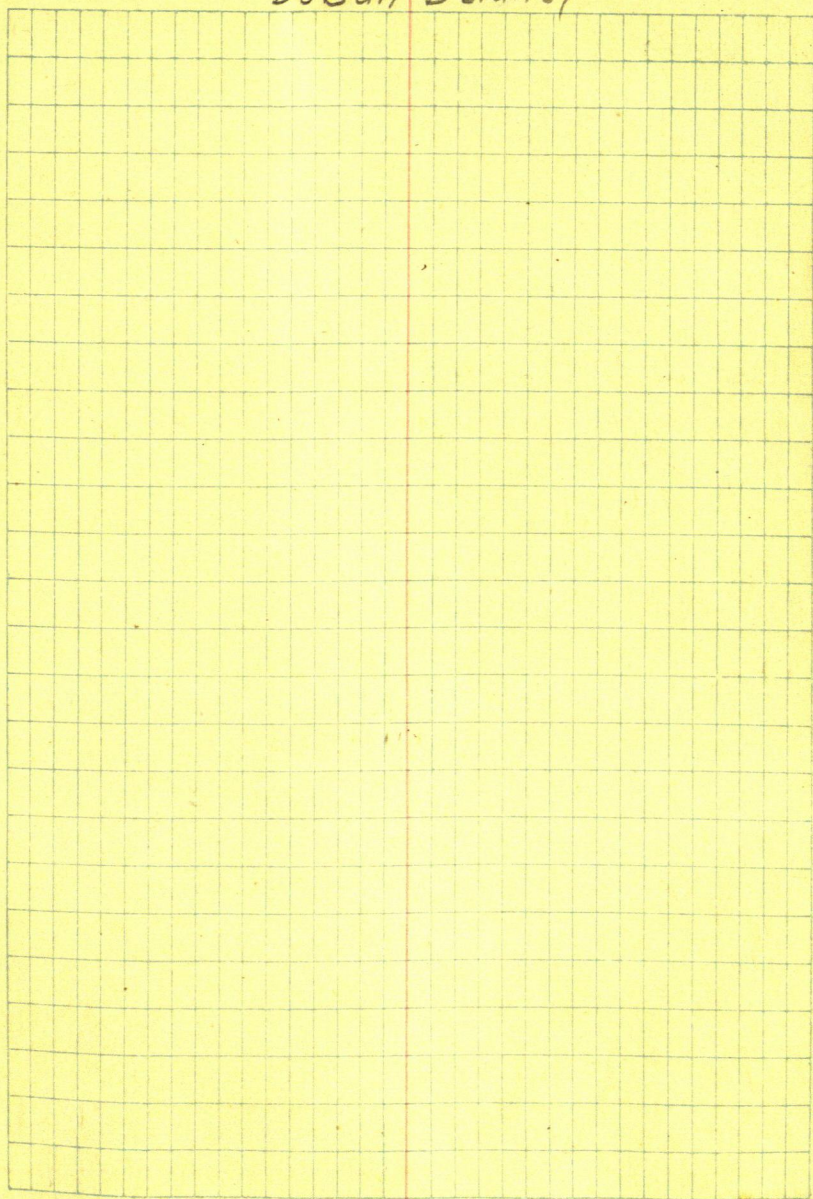
Al Deban still owes

me \$9 but he will never pay

1-20 PM Back in Jenkins

DuBan Delaney

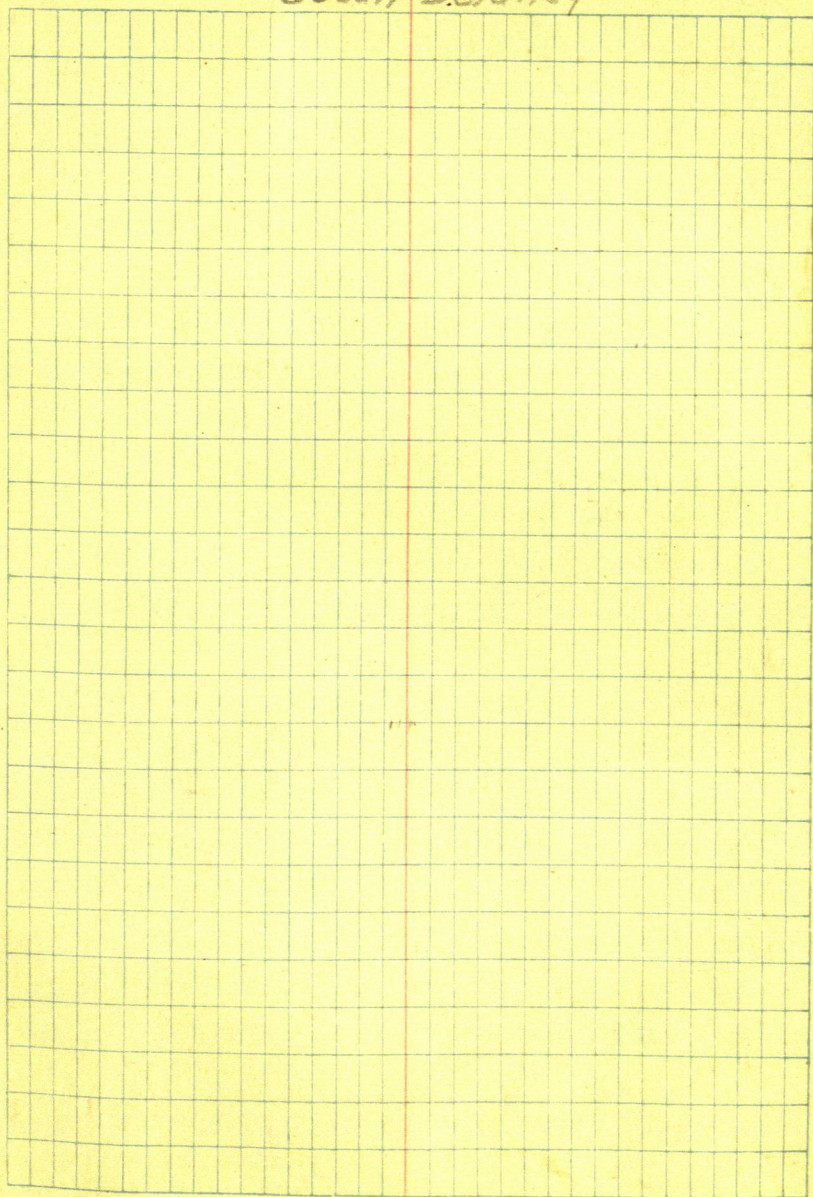
35



36

Duban-Delaney

Duban-DeLoney



38

①
Duban-Delaney

①

39

Duban-Delaney

Judicial Monument

Oct

1944

L.T. Pollock and John W Curo
Lv Jenkins-

Call on Al Duban - Al is away
but will come over when he
returns Mrs Duban tells m

Stop Car at Delaney Resort
^{now} called Fox Heights Lodge.

May Delaney - now Mrs
"Jim Chandler" gets dinner
for us (James A. Chandler)

Pollock and I go over the
ground and find all old
Hubs called for in my old
Field Books 228 and this
Book 242.

Work till late and eat supper
with Mr and Mrs Chandler
Then home to Jenkins

John W Curo

40

Judicial Mon

Between "

Gov Lot 7-Sec 23-138-27 and

" " 1 " 22- " "

Oct 30-1944

Jim Chandler and his Son
Stanley K. Chandler - hon'
medical discharge from the
Army

Jim want me at once to set
Sud Monuments and locate his
lines and run his road &

I tell Jim I will be there
to night or early to-morrow
morning

Co. Harold and I work for
Haylord Daly.

Kater Garage calls Elmer
widmark - of Ford Garage
Brainerd for wheel balls

I also call Elmer twice
31° & 44° & 65° Balls come

to P. Riv with Paperman

P puts in balls

\$4.65 Harold & I to Hack - get
tripon & level rod from Miss Deak
Button - then on to Walker & back to
Jenkins John W. Cress

42

Judicial Mon

Oct 31-1944. Tues

Harold + I Lt Jenkins 8-15 AM

Call on Al Duban 9 AM

Al is fearfully quirelsome
but I try to reason with him

Finally find it impossible
to get a grant of co-operation
from Al and drive on 180 roads
west and eat breakfast at

Mr + Mrs Chandley + son

Harold and I continue on
preliminary - Al Duban comes
to Delaney don yard about
10-15 AM - Brings Copy of
Court order - which checks
with the one I have.

I walk home with him and
point out that the road where
it is today is the exact spot

I tell Duban I am going to
run out 2 of road so that I will know
where it really existed before he
had trouble over his property lines

He blows up and thunders about
"none of your business" + soon

Copy

State of Minnesota District Court
 Co. of Crow Wing 15th Judicial District

Mabel G Delaney Plaintiff

VS

Albert and Clara Judgement
 M. Duban Defendants

The above matter having duly come on for trial before the above Court, the Hon. D. H. Fullerton, presiding, and Messrs. Ryan Ryan & Ryan appearing as attorneys for plaintiff, and Henry Marks, Esq., appearing as attorney for defendants; and the court having thereafter made and filed its findings of fact, Conclusions of Law and Order for judgement. and the Court having subsequently made and filed its Amended Findings of Fact, conclusions of Law and Order for Judgement,

OVER

NOW, THEREFORE, on motion of
Messrs. Ryan, Ryan & Ryan,
attorney for plaintiff,

IT IS HEREBY ORDERED, ADJUDGED and
DECREED, that plaintiff is the owner
of that portion of Government Lot
7, Sec 23, Twp 138^N R. 27^W, Crow
Wing Co, Minnesota, described
as follows, to-wit:

Commencing at a point 150
ft North of the S. line and 200
ft East of the West line of said Gov
Lot 7; thence West to the Northerly
shore line of East Fox Lake;

thence in a Westerly direction
along the shore of said East Fox Lake
to the west line of said Gov Lot 7:

thence North along said West
line of said Gov Lot 7 to a point
where said westerly line of said

Gov Lot 7, intersects the
southerly shore line of E
Fox Lake:

thence in a south-easterly
direction on and along the
south shore of said East Fox Lake

to a point where a line 350 ft
E of & parallel with the west line
of said Government Lat 7 intersects
the said southerly shore of said

E Fox Lake; thence in a southerly
direction along said line 350
feet east of and parallel to the
west line of said Gov Lat 7,

a distance of 180 ft to a point
approximately in the center of
that certain roadway,

commonly known as the "Delaney
Road"; thence in a south westerly
direction a distance approx 180
feet to the point of beginning,
and that the location of the
boundary line between that
portion of said Gov Lat 7

owned by plaintiff and that
portion of said Lat owned by
defendant is located and
defined as follows. to-wit:-
own

Commencing at a pt on
the southerly shore of E Fox Lk
350 ft E of the W line of said
Gov Lot 7, thence South on
and along a line 350 ft East
of and parallel to the west line
of said Gov Lot 7, a distance
of 130 ft to a pt approx in the
center of that certain roadway,
commonly known as the
Delaney Road.

thence in a South-westerly
direction, a distance of approx
180 ft to a point 150 ft N of the
S line and 200 ft E of the W
line of said Gov Lot 7;

thence to the northerly shore-
line of East Fox Lake;

That the West line of said Gov Lot
7, hereinbefore referred to shall
be permanently located and
defined by the erecting upon
the land of two concrete
monuments bearing the
inscriptions

Judicial Land Mark

which monuments shall be placed and located as follows:

One at a point fifty ft (50') northerly from the water's edge on the northerly shore line of East Fox Lake. One at a point fifty feet (50') southerly from the water's edge on the southerly shore line of East Fox Lake.

and

both to be located upon the westerly line of said Gov Lot 7 as located and delineated upon that certain plat received in evidence herein as plaintiff exhibit "A".

It is further adjudged & decreed that plaintiff have and recover of the defendants and each of them the sum of \$74.82, By the Court W.A.M. Johnstone
Clerk By Nellie Nyquist. Dep
May 24-1940

48

118158

State of Minnesota

District Court

Certificate of Transfer

Filed for record May 24
1940 at 5 PM

Book 97 of Deeds Pg 361

Signed EW Jenkins
Reg of deeds

RR & R.

Nat'l. the above captioned by
Harold J. Curo and John
W. Curo at Delany Heron
Fox Heights Oct 31-1944
in PM.

Nat'l. mrs: I find no mention
of the roadway.

John W. Curo
Oct 31-1944

The survey

As buildings are in line on
the west Sec line of Lot 7 - Sec
23-138-27 Harold and I begin
at my old 2x48" iron pipe on
the north shore of the southerly
part of East Fox land and run
what we will call

North all Hubs = 60° spikes
@ 39.85 Hub under π 53 ft N
of water's edge $39.85 + 25.95 =$
65.80 Hub

$39.85 + 154.35 = 194.20$ Hub

$39.85 + 174.25 = 214.10$ "

$214.10 + 163.5 = 377.60$ Hub
on Hi Bank

My old IM bear

N 22° 20' W 45.60

8 ft 20 of water's edge

Sin 379994 x 45.6 = 17.33 W

Cor 924989 x 45.6 = 42.18 N

Tang 410810 x 42.18 = 17.33

$377.6 + 42.18 = 419.78$ N

IM W 17.33

on

419.78) 17.33 (= 0.04128352

2'22'

Correction = 0.04128352W

39.85 goes W 1.65

65.80 " W 2.72

194.20 N " W 8.02

214.10 " " W 8.84

377.6 " " W 15.59

419.78 " " 17.34

See Plat Pg 22

420.40 =

420.14 today

420.41

420.14

↓ 26 1086
oh

2'22' Sine 041294

Cor 999147) 419.78 (420.14)

Tang 041330

Dapper with Chandler

Evening: Chandler + wife with
their car drives me 3 miles so
+ E to meet 2 members of Town
Board

Call on Gus Potz who goes
with us to call on Hugo
Bruchilo - only 2 members
of Town Board

we need one more to make
a corum (3) also Town
Clerk

Tomorrow morning they
will call a meeting to have
"Delaney Road" surveyed

I will make the survey
for \$1. one dollar

Coming home we call on

Justice of the Peace who will
make the 3rd member

Back at camp, Chandler
pays Harald and I in a
good thirty dollar a week
cabin and I figure

52

$$86^{\circ}40' =$$

Tang $3^{\circ}20'$

$$058243 \times 200 = 11.65$$

$$\begin{array}{r} 8960 \\ 8640 \\ \hline 320 \end{array}$$

50
3685

Jud L nel mk

wali

251.45

214.60

2002

Lat 7
Fox Lake

86°40'

SW COR

IN E

200

150 N

150 N

11.65

3°20'

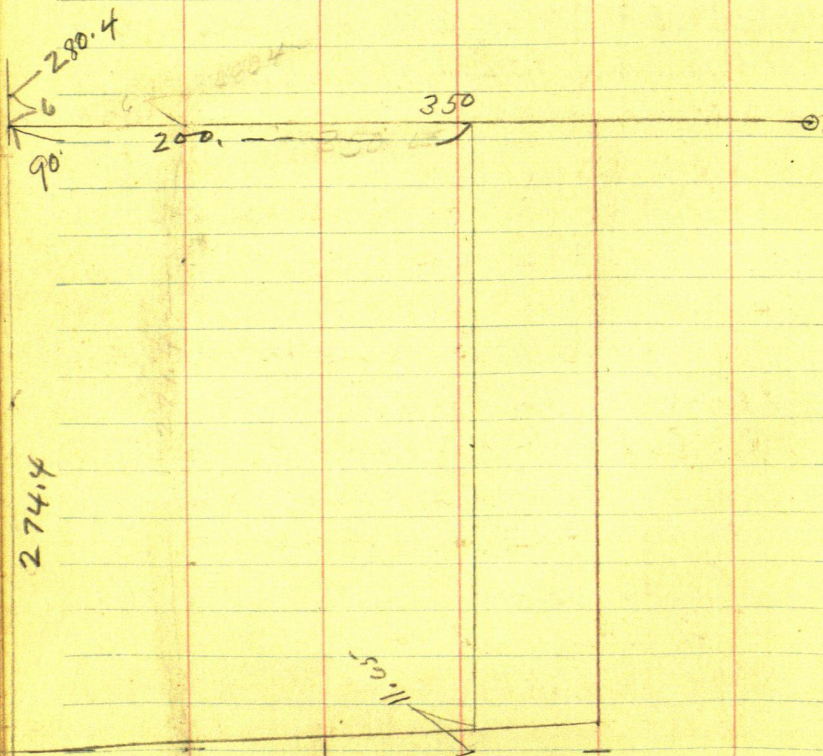
From IM 214.60 N from SW Cor
Lat 7-Ch N 39.85 \rightarrow 254.45 N
10 corrected Hub 53 ft
north of wall. Then to 30 ft
set Hub Pt for Judicial
Landmark 251.45 N of Cor
and 50 ft N of wall

at 65.80 + 214.6 = 280.40 N Turn 90° E
Hub line set Hub 6 ft to 274.4 N

54

$$\begin{array}{r}
 65.8 \\
 214.6 \\
 \hline
 280.4 \\
 6 \\
 \hline
 274.4
 \end{array}$$

From 274.4 N Run 90° E 350.
To a point



Nov 1-1944

up early Harold and I eat
breakfast with Chandler

X over Hub on True Sec Line

274.4 North of SW Cor Lot 7

Turn 90° R and run East @ 350 Haul

on line N S Line bet Duban &

Delaney X over 350 & run N

North 16.6 Haul in & road

from which cut in

North on line line parallel
with sec line

@ 44.5 line cuts 0.40 off the
road at base of 14" Pop which
leaves heavy cut

At 79 ft E edge of 10" Red Oak
lean slightly west

Straight up along east edge of
line for 4 ft where line cut
0.3 0.15 of a foot E at 0.

pt 4 ft up

Same at base

@ 110 pt for IM @ 120 end
soft mark @ 130 only shows
in

© 9 AM Town Board on
Hugh B. Buckle
Guest Polz

T. L. Clements (Clem) Judge
William L. Hunt Clerk

Town Sta & Road Run
N 75° E 100. ft to sta 1. & Road
Tree 14 NW

Pop 14 NW 18.25 18.60
Buck 7 SW 18.25 spot 1 to

Tot O. Run N $78^{\circ} 10'$ E

@ 157.2 Hat & Road

6" Buck NW 22.4

5" Bullerunt SW 23.6

π 000 Run N $84^{\circ} 30'$ E 250.6

π over 250.6 BS S $78^{\circ} 10'$ W

m 0" S $84^{\circ} 30'$ W

Red Oak 5" N $68^{\circ} 34'$ W 36.40

" " 9" S $61^{\circ} 20'$ W 24.05

π still @ 250.6 Run

N 83° 13' W 60.8 ft @ road 60.80 ft

N Side of 18" JP beam S 17.00

T. pt spot 2 1/2 ft up

15.60 T. base at ground

π @ 250.60 Run S 78° 12' E 32.1/2

" " " S 71° 24' E 90.0 ft

@ road 8.50 ft to of 12" Red Oak

@ 160 W end Y of road NE

@ 182 @ Road N

S 72° 42' E 219.4 ft in Road

8 ft to spike in Road

4" W Oak beam S about 20° E

17.0 no spot ally while Oak

here

π @ 250.6 Run

278.2 T.

Habit @ road EXactly 16.50 ft

from Base of Twin Red Oak

10 and 10 channel at base

S 74° 13' E

π @ 278.2 Run S 85° 35' E

260.2 T. Habit @ plate Run

@ S 85° 35' E 80 ft @ sag 3'S

58

Tower 260.2 @ Temp Road WPA
Kego Lake Road BS N85°35'W
Road bears S 19° E 400 +-
an N about the same

Trees
28" JPS 1°03'W 48.85
To One spat 1 1/2 up
Red Oak 5" N 77° 16 W 92.90
One spat 1 ft up

Quit at 12 noon
Nat'l Town Board held a
meeting this morning before
they left and appear as
Inspectors on Delaney Road

274.4
16.6
291.0

150
1165
161.65

Pl of Bag is 200 E and

69
23

291.00 N
161.65 N
129.35 S

59

150 W

129.35 S

150

129.35

North

Sec Line

291.00 N
350.0 E
From Sec Cor
in Lake

90°

350

16.6

150
274.4
86.40

200 E
161.65 N
From SW Cor

Sec Line

11.65

200

$$150.00) 129.35 (= 862333) \\ = 40.46'$$

Sine 652980

Cor 757375) 15 (=

Tang: $862162 \times 15 = 129.320K$

We Set Judicial Land
Mark 50 ft N of water

8 Red Oak N $0^{\circ} 25' W$
78.48

Q Road S $80^{\circ} W$ 40 ft
S $88^{\circ} 30' W$

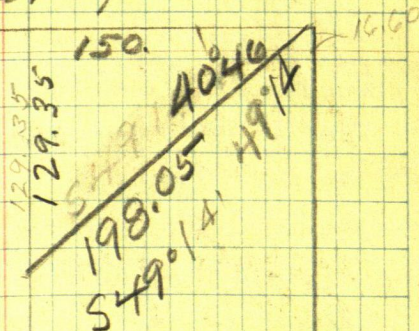
North 110 ft to
Set 2 x 60" pipe 20 ft
S of water
sticks up 2 ft in low
ground

Q Road S 150 set
1 x 36" pipe

Ties to O.O. & Road
 24" WPS 70' 40" W 61.75'
 Red Oak NO' 25' W
 78.48

On the S. side of land
 and N. side of Lake
 Was set 2x48" pipe 50 ft
 N of water ☐ Can top 6"
 thick mtd Judicial Land
 Mark No 1. Set by Cus

Nov 1-1944



On N side of land 50
ft so of water on top of
hill we set $1\frac{1}{2} \times 4$ ft
Galv pipe in square
Cem Top 6" thick 16×16
mhd Judicial Landmark
No 2. Set by Cemo
Nov 1-1944

Chandler & Son with
Gert Patz worked all
pm helping set pipe

Jim Pays Gert
May gave me ch \$27.50
in full being 12.50 for
Jud Mon and 15 for
road survey and to set
line of his property

Out 5 PM
Drove to Jenkins
Cloudy

From
S 57 53 S 58 W
22.85 T. 3m
2 ft from water

From

198.05 Tru

8" Red Oak S 59° 30' E

11.45

64 Fox Lake Lot 3 Sec 27-138-27

Two Cobins

vern wobig. Minneapolis, Minn.
Ardeth. J. Carlson, Rosemont
Minn

Ernest Jorkelson

Phone 7F311

Emily Minn

Sec. 34 - S $\frac{1}{2}$ Lot 2 - 142-30

Ind Abolment No 1277

Sat June 4-1955

Don and I drive to
Stop at Otto ^{farm Garage}
who goes with us to Torkelsons as
he owns land North of Torkelson's
and wants his surveyed and platted
and would like to get a road on the
Vla line

Torkelson's man had not shown
up when we got there so we
look for corners which we can
not find and go back to office
to check old field books

I told Torkelson I would be
back and get the line before next
Sat. June 11th 1955 if it does not
rain too much

It rains every day of the
whole week.

June 10th 1955

I get a call from Torkelson.
I tell him I will be there tomorrow
the 11th as his man will be
there.

Sat

Ed + I drive to Fox Lake and
 flag at IM $\frac{1}{4}$ W side Sec. 27
 drive to East side Sec. 27 find
 the Highway has dug out the
 four witness monuments to the
 $\frac{1}{4}$ so we can not locate the $\frac{1}{4}$
 on the E side Sec. 27

We go N to M.C. and open up the
 what look like an old line S

I drive to Delaney's place and
 set flag at IM Judicial mon back
 to K at MC S side Fox Lake bet
 Sec 26-27 something is wrong
 I find it the line over lake is
 in a different Sec. and the line
 turns at the Sec. Corner which
 comes in Fox Lake just for
 sight home late

Monday get call from
 Forkelson he has company and
 says not to come until Wed. the 15th

Wed. June 15-1955

Ed + I Lv Walker drive to Fox Lake
at Pine River they tell me it will
cost between \$100 and \$150 to fix
my car at Fox Lake Ed + I do not
stop at Torkelson drive to Delaneys
find old RR spike on old true line
N between Sec. 26-27 extended
set flag drive back to me. Tower
MC. site N on flag. + run S @ top of
hill we find J W Curo's old 60 ft
but 93.54 to IM MC. MC is 4661.14
according to old notes The 1/4 cor is
@ 2606.7

4661.14

2606.7

2054.44

So from MC we have to go South 2054.44
to 1/4

$$93.54 + 220 = 313.54 \text{ min}$$

68

282.15

4718

4441

57

June 16-

Gert - Ed + I to Fox Lake from
 pin 313.54 chain South Ed + I
 + 280 + 74.4 = 354.14 -
313.134
 667.94

667.94 hub 60 d. spike + 282.15 -

282.15

930.09 +

280

1230.09 +

200

1430.09 +

280

1710.09 +

212.85

1922.94

hub W of road in ditch 2' ± from
 W wheel track

W 1/4 line runs N 20° 40'

225

322

3747

253240

13'

8
 4800
 1245
 2755
 4000
 1120

0° 13'

S 174° 003782 Y 2582E

4409
2645.4
2645.4
2909.94

890.0
87 20 3/4
2

87 20 3/4
1200
7200
720
792

1015
60
11615

69

P.T. 707.185.9

PC 719 + 34.4

T. 734.5

@ 2626.9 .5

T. 747.3

2640
13.20
792
2112
2606
47.18

WP 24 - N 29° W 72 stp

WP 12 N 63° E 84.4

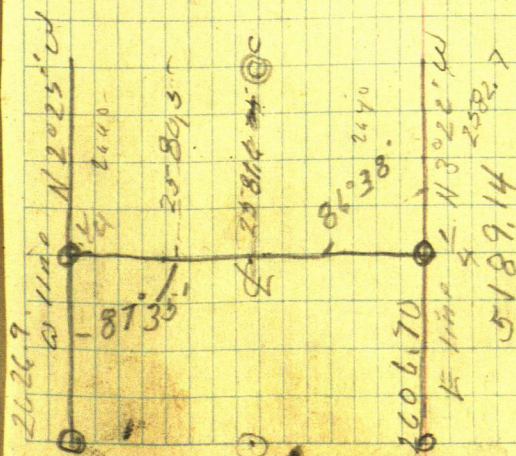
WP 5 S 54° W 79.4

1/4 N rid 27 IM

JP 12 - 137.7 NW

IM S 45° W 45

1133
615
873.5
863.5
73
1713
866.5
873.5
1133
866.5



8900
8654
3.22
22.5
1547

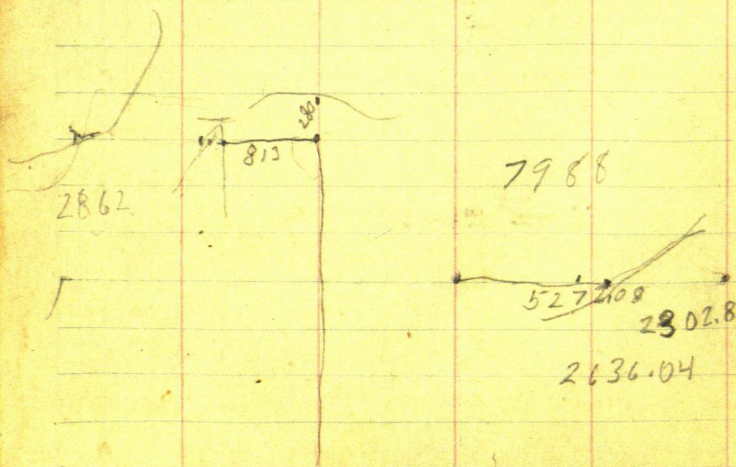
Old Notes

Page 74 - Book 228

From Temp Cor. 22-23-26-27
138-27 on ice chainNorth on ice @ 280 L vice FW @ 290 hut
@ 340.8 hut on top all huts RR spikesWest 90° - 813 hut on point RR spike
50 ft S of N end of point set on W
seawall (at 780 enter low seawall
@ 825 enter ice @ 2862.00 W set
RR spike on shore 20 ft west and 10 ft N of
water Trees to 2862.

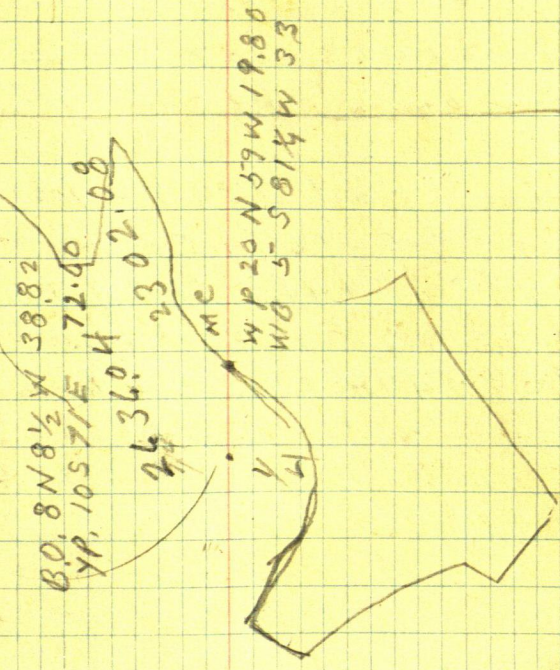
Birch 7N 40° ± W 3.40

" 8S 80° ± W 9.45



22 23 24 25

2636
2302
334



ASP. 6 N 29 E
36.3
Cush 4 S 71 E
17.82
M.S. 11 S 1/4 E

W

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

72	515.99	2478.7	1834.5	2778.7
	63.7	126	44.2	281.2
	3223.6	2604.7	1878.7	3059.9
	Sat.			

Ed + I Look for $\frac{1}{4}$ N rd.
 sec. 27 can not find anything
 from hub on top on E + W &
 Sec 27 - 138 - 27 chain used
 down him 734.5 I M $\frac{1}{4}$ bet
 Sec. 27 - 28 from hub 734.5
 E chain East 734.5 + 100 + 100 = 934.5
 934.5 + 300 = 1234.5 + 300 = 1534.5 +
 300 = 1834.5 + 44.2 1878.7 apks
 hub in $S\frac{1}{2}$ tar road + 300 = 2178.7
 + 300 = 2478.7 apks in tar to hold
 distance not on line + 126 = 2604.7
 in line with fence South
 2478.7 + 300 = 2778.7 apks in
 $S\frac{1}{2}$ tar Not on line to hold distance
 + 281.2 = 3059.9 but 60' apks in
 $S\frac{1}{2}$ tar road on line + 300 = 3359.9
 pm + 300 = 3659.9 + 300 = 3959.9
 + 300 = 4259.9 + 300 = 4559.9 +
 300 = 4859.9 + 300 = 5159.9 + 63.7 =
 5223.6 E 60' apks not for $\frac{1}{4}$ Cor.
 End sec 27

1305.9

1234.5

71.4

4/5223.6

1305.9

~~39 12.7~~

322

~~225~~15472 53 $\frac{1}{2}$ ~~2 25~~14782 39 $\frac{1}{4}$

52234

13059

39177

June 20-55

Bob- Ed + I to Sec 27-138-27
stop at Otto's he has sold the
whole point but the buyer
wants it plotted as planned.
drive onto spike in Tar 1305.9
E of $\frac{1}{4}$ bet 27-28

Turn 1305.9 site won E+W
run N $2^{\circ}39\frac{1}{4}'$ W on temp W $\frac{1}{4}$ line
N W angle

beg at 60° spike & S $\frac{1}{2}$ Tar
1305.9 E of $\frac{1}{4}$ bet 27-28 on E+W
E Sec 27 Chanc N @ 17 N edge of
Tar. @ 46.6 hub all hub 60° spikes
3 ft S of fence @ $220 + 4.7 = 226.7$ min
 $+ 30 = 256 \pm$ enter bog @ 486 \pm Lx bog
@ 526.7 min $+ 90 = 616.7$ hub on top
under T

- June 21-55 -

get Gas load car with grub get Bert + Kids
drive to Sec. 27-138-27 put things
in house in Sec. 22 - on point
have dinner drive to Otto's with
Don Otto takes his pickup and I
follow him until we get into the
NW $\frac{1}{4}$ of Sec 28 where I leave my
car and we ride with Otto we go
to NW $\frac{1}{4}$ IM between Sec. 28-29 then
on North and a little east when
road gets bad Lr his pickup and
walk We find the NE Cor of Sec 29
being IM and the 4 witness IMs
find where CCC boys has cut a
old line South of the True line
intend to use the CCC line to
get out of heavy cutting mark
a few hrs back to car and Otto go
home Don + I go back to cabin
Bert + I go try to get her a swimming
suit No can do. The boys swim +
catch a few pan fish Don + I go
to W $\frac{1}{4}$ line Sec 27 where Ed + I
Left off and continue cutting line
to road - back to camp

76 $\begin{array}{r} 1200 \\ 10337 \\ \hline 1453 \end{array}$

$\begin{array}{r} 6167 \\ 139 \\ \hline 33 \end{array}$

$\begin{array}{r} 10557 \\ 70 \\ \hline 7125 \end{array}$ $\begin{array}{r} 10557 \\ 1443 \\ \hline 12000 \end{array}$

June 22 1955

Don - Ed & I go to hub on top
at 616.7 N Temp $\frac{1}{16}$ Center $\frac{1}{2}$
Sec 27-138-27 and continue
W $\frac{1}{16}$ line North.

$616.7 + 139 = 755.7$ cross fence
@ 765 enter bog. $755.7 + 300 =$
 1055.7 pin in bog. $+ 70 = 1125$
cross fence @ 1200 stake @ 1320
Lv bog. @ 1330 pin $+ 70 = 1400 -$
 $8.1 = 1391.9$ hub. $+ 301.4 = 1693.3$
hub 2 ft S of S wheel track of road SWNE

We leave this line for now
drive to NW $\frac{1}{4}$ bet sec 28-29 138-27
Lv car Walk to NE cor sec 29
pick up old CCC line which runs
E+W 1st S of Sec line as
Otto does not want to open up
a line to the NE cor Sec 29
for the County to find the IM
We will run E+W on old CCC
line being our random line

Old Notes

1315.93

1315.93

1315.93 E

2631.86 E

3942.79 E

5233.72 E
5233.72 E

Book 150 page 56 says

@ 3942.79 E Turn 90° + run S 90.75 ft and
Add US Mon Marked $\frac{1}{16}$ for E $\frac{1}{16}$ N side Sec. 29

B.T.s. Oak 8 N 59° 38' W 42.55'

N.P. 12 S 63° 25' W 65.60

page 58 - Curo + Hamlin go to hub 1315.93
E Then 90° south 36.25 and put in hub
for True W $\frac{1}{16}$ N side 29 B.T. viz

Pine stump 14 N 43° 50' W 88.8

" " 30 S 40° 10' W 116.65

@ 2640 E chain west 8.14 to 2631.86 E
Then 90° run south 60.50 ft to $\frac{1}{4}$ N. side 29

Ties Oak stump green 9 North 41.75

" " " 7 S 45° W 21.45

78

N 1°42' W 144.1

Sine 029666 X 144.1 = 4.27

Cosine 999560 X 144.1 = 144.04

$$\begin{array}{r}
 1660.3 \\
 2141 \\
 \hline
 18744 \\
 1566 \\
 \hline
 20310
 \end{array}$$
N 20°24' ^E 143.

Sine 348572 X 143 = 49.85

Cosine 937282 X 143 = 134.03

$$\begin{array}{r}
 90 \\
 140 \\
 230 \\
 130 \\
 79 \\
 386 \\
 65 \\
 \hline
 3735 \\
 2133 \\
 \hline
 5868
 \end{array}$$

$$\begin{array}{r}
 1016.8 \\
 1253 \\
 \hline
 11421 \\
 330 \\
 \hline
 14721 \\
 14 \\
 \hline
 14621 \\
 18 \\
 \hline
 60
 \end{array}$$

$$\begin{array}{r}
 213.3 \\
 \underline{132} \\
 129.3 \\
 \underline{148} \\
 144.1
 \end{array}
 \quad
 \begin{array}{r}
 15.9 \\
 \underline{15.9} \\
 144.1
 \end{array}
 \quad
 \begin{array}{r}
 1326 \\
 \underline{1310} \\
 16
 \end{array}
 \quad
 \begin{array}{r}
 5868 \quad 79 \\
 \underline{250} \\
 2368 \quad 190
 \end{array}$$

2 1326 W cor $\frac{1}{4}$ IM sets N
Compass reading - 164 \pm

at $\frac{1}{4}$ we find the IM

Tower spike on random line the $\frac{1}{4}$
Set N $1^{\circ}42'$ W 150 - 5.9 = 144.1

Tower 60' spike on random
NE cor sea 29 bears N $20^{\circ}24'$ ^E W
150 - 7 - 143 ft beg. our chaining
from hub on top chain W down
hill 213.3 to 60' spike

Sat.

beg @ 213.3 chain E 90 + 160 + 130 -
6.5 = 586.8 hub on top + 130 + 120 =
836 cross old road

586.8 + 130 + 300 = 1016.8 pin + 125.3 =
1142.1 hub on top + 330 = 1472.1 +
190 = 1662.1 - 1.8 = 1660.3 + 214.1 =
1874.4 hub + 156.6 = 2031.0 hub

80/24.3925
 116
 2555.25

40
 76
 116

575

198110
 30

201115
 260

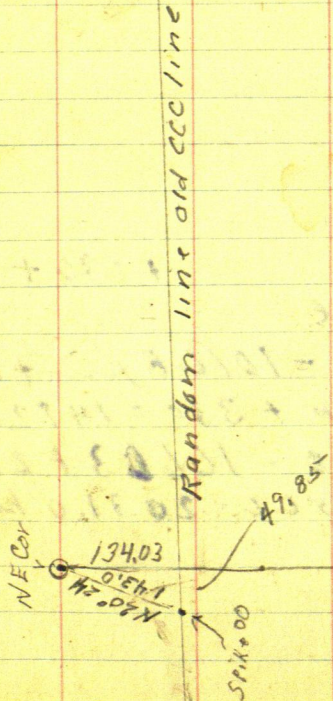
226115
 8.1

226925
 170

243925

13403
 2008
 11393

2031.0
 49.85
 1981.15
 00



12
 116
 m. 101 N
 1111

Peninsula Park

81

Myrtle Wannebo

From old CCC line our Random

 $E \frac{1}{16}$ bears $N 10^{\circ} 42' W 144.1$
 $\text{Sine } .029666 \times 144.1 = 4.27 \text{ W}$
 $\text{Cosine } .999560 \times 144.1 = 144.04 \text{ N}$

 @ NE Cor Sec. 29 bears $N 20^{\circ} 24' E 143.$
 $\text{Sine } .348572 \times 143 = 49.85$
 $\text{Cosine } .937282 \times 143 = 134.03$

 from $E \frac{1}{16}$ to NE Cor = 1315.93

144.04

134.03

40.01

.007606787

1315.93 / 10,01,000

 hub under π 2031.0 E 15.1981.15
 E of Sec Cor

 @ 2640 a line run from $E \frac{1}{16}$ thru Sec Cor
 should be 113.95 ft N of our random line

Leg @ 1981.15 chain E 30 = 2011.157

 $250 = 2261.15 + 8.1 = 2269.25 \text{ hub} + 170$
 $2439.25 - 5.15 = 2434.10 \text{ hub}$
 $2439.25 + 116.0 = 2555.25 \text{ hub}$

829

180

2489.15

35.5625

2854

182.3

142.9

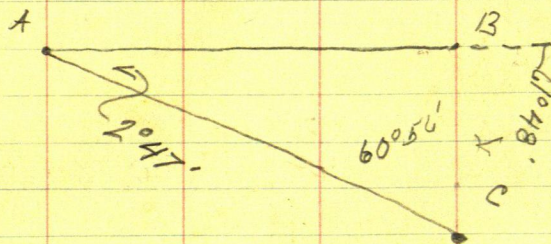
2871.45

2698.15

$$2555.25 + 142.9 = 2698.15 \text{ hub} \\ + 165 = 2854 \text{ \& old road}$$

$$2689.15 + 182.3 = 2871.45 \text{ hub} + \\ 229.7 = \\ \hline 3101.15 \text{ hub}$$

on top. + 238.0



hub B is 10 ft E of water

Travel A site on B Turn R or S $2^{\circ}47'$ to C

Travel B site on A Turn L $119^{\circ}12'$ to C

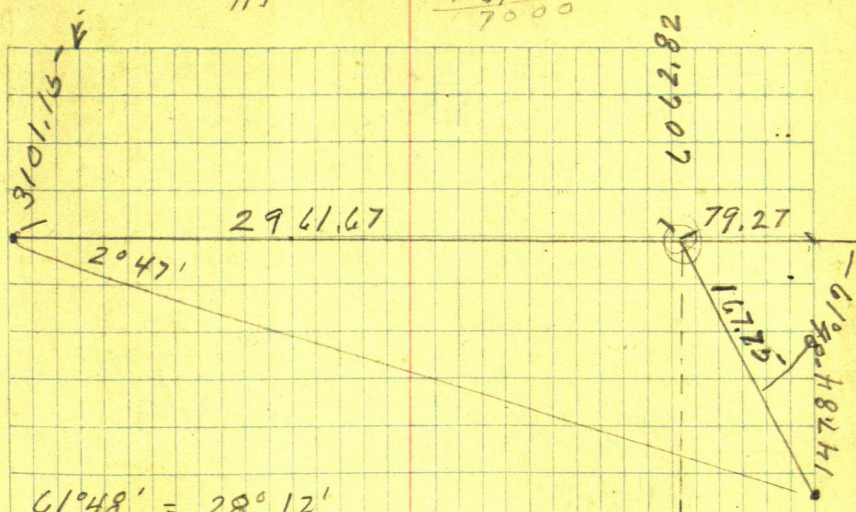
Travel C site on A Turn R, $60^{\circ}56'$ to B

From B to C is 167.75 ft

$$\begin{array}{r} 179\ 60 \\ 60\ 48 \\ \hline 119\ 12 \end{array}$$

$$\begin{array}{r} 170 \\ 2.25 \\ \hline 167.75 \\ \hline 7000 \end{array}$$

83



$$61^{\circ}48' = 28^{\circ}12'$$

$$\text{Sine } 472551 \times 167.75 = 79.27$$

$$\text{Cosine } 881303 \times 167.75 = 147.84$$

$$2^{\circ}47'$$

$$\text{Cotang } 20.569115 \times 147.84 = 3040.94$$

$$\begin{array}{r} - 79.27 \\ \hline 2961.67 \end{array}$$

$$3101.15$$

$$2961.67$$

$$\hline 6062.82$$

$$5280 \text{ over } 1/4 \text{ in } 28$$

$$+ 263604 \text{ to } 1/4 \text{ in } 27$$

$$791604 \text{ distance to } 1/4$$

$$\text{we have } 606282 \text{ in } 27$$

$$185322 \text{ to go}$$

$$30$$

$$1553$$

84 23

26

22

27

21

28

2302.08

45,5272.08

1848.

1122.45

1320.45

924.45

396

2640.45

5248,9845

1305

5227.2045

US Notes

8062 Sec Cor to Sec 22-23-26-27 on ice
West bet Sec 22-27 138-27

@ 3488 Lks = 2302.08 MC W. side

Y. P. 20 N 59 W 30 Lks

W Birch 5 S 81 $\frac{1}{4}$ W 50 Lks

@ 3994 = 2636.04 set $\frac{1}{4}$ bet 22-27

Blk Oak 8 N 8 $\frac{1}{2}$ W 58 Lks = 38.82

Y. Pin 10 S 71 E 110 = 72.60

@ 6288 = 4150.08 = MC

Asp. 6 N 29 E 55 = 36.30

Ash 4 S 71 E 27 = 17.82

@ 7988 = 5272.08 Cor to Sec 21-22-27-

28-138-27 on ice

2636.04 = $\frac{1}{4}$

230208 = MC

334

4150

2302

1848

89°40
26
34

NE Cor
50029

11/16

1315.93

10' 7 1/2"

East

6062.82

N 89° 34' E

87.91

46.12

6062.82
+ 40150
6103.32

Correction 007606787
x 6062.82

46.11858036934

5280
1122
6402

13403
46.12
8791

@ 9564.0045 enter lake
@ 3101.15 my chain enters lake

6103.32 87
 74.8

 6178.12

From point on Random overlook
 pt B. which is 6062.82 E of NE Cor
 Sec. 29 chain E 40.5 to 6103.32
 hub on top $+ 74.8 = 6178.12$ hub
 T at 6103.32 BS S $89^{\circ}34'$ W & run
 N 87.60 to line = N line Sec. 29 Extended

T over 6178.12 BS S $89^{\circ}34'$ W run
 N. 87.03 to line = N line Sec 29 Extended

T over corrected line set hub on
 brink as the line E hits a tree we offset
 S 1.00 ft and run East on a line =
 N line Sec 29 Extended East
 as we run this line we keep hitting
 trees we set N 1.00 foot but can not
 get by trees so we set S. $.50$ of a foot
 and run cut side of Boxwood and
 continue E. on .5 of a foot south

We continue line = N line Sec 29
 extended to shore of E Fox Lake
 set $60'$ spits on shore $3'$ N + $10'$ W
 of water shore line run N $67^{\circ}20'$ E $60'$ ft
 we run shore line West viz
 Continued on pg 89 this back

88

16516
1993

1750.9

251.9

2001.9

$$\begin{array}{r} 10986 \\ 254.25 \\ \hline 13528.5 \\ 88.75 \\ \hline 14416.0 \end{array}$$

$$\begin{array}{r} 60 \\ - 6.6 \\ \hline 53.4 \end{array}$$

$$\begin{array}{r} 90 \\ - 12.5 \\ \hline 77.5 \end{array}$$

00760 6787

6103.32

152 13574

228 20361

228 20361

1760.67870 2

456.40722 4

5350005

134.03

46.43

87.60

134.03

47.00

87.03

Now 6103.32 BS S 89° 34' W + run
N 87.60 ft. set 60' spike on N line

Dec 29 Extended

From 60' spike chain W 53.60 to
hub on brink from 60' spike chain
E on a 1 ft offset S. @ 300 pin +
130.4 = 430.4 hub offset back N. 5' offset
+ continue E on a .576 offset S. of line
+ 141.2 = 571.6 hub + 300 = 871.6 pin
+ 44 = 915.6 hub set back on line
+ 183 = 1098.6 hub + 254.25 = 13528.5 hub
@ 1310 & old road. @ 1352.85 offset 5/10 N
+ 88.75 = 1441.60 hub + 200 = 1641.6 hub
offset back on line @ 1651.6 pin + 99.3 =
1750.9 hub + 100 + 151 = 2001.9 hub
on shore of E Fox lake 10 ft W and 3 ft N
of water

173°
S 40
174.60

13 352.6 13 89

Tower 2001.9 BS W on line + run
shore line S 74° 49' W 273.7 to sta ① W 6 L
Tower ① BS N 74° 49' E + run S 67° 10' W
390.6 Sta ② W 5 L @ +120 under water
Tower ② BS N 67° 10' E run S 72° 13' W
263.1 to Sta ③ Water 6 L

Elt I

Tower Sta 3 BS N 72° 13' E + run
S 69° 43' W 251.4 to Sta ④

T still @ 3 take up land

180 S 78° 22' W

40 N 71° 15' W

110 N 52° 30' W

215 N 82' W

from 3 to 4 W 10 L for 200' @ 225 W 22 L @ Sta 4 W 18

Tower Sta ④ BS N 69° 43' E on 3 run
N 67° 52' W @ 30 W 30 L @ 1390 edge
of water @ 300 edge of water @ 352.6
Sta ⑤ W 15 L

Tower 5 BS S 67° 52' E + run S 83° 17' W
174.6 @ 85 W 5 L @ 174.6 Sta ⑥ W 50 L
Tower 6 run S 33° 53' W @ 130 W 10 L @ 218.9
Sta ⑦ W 15 L Tower ⑦ run S 13° 02' W 261.5
to Sta 8 at old fence W 80 or 10 ft L

90

$$\begin{array}{r} 10.55 \\ 5.55 \\ \hline 64.45 \end{array}$$

(5)

2.5

37.1

170

300

18693

from hut on brink 53.6 W of hut see page 88. chain West 37.1 to 60.9 ^{up to} 3 ft. E of Water

Tower 37.1 site E on line (N line see 29 extended) + run shore line

S 29° 44' E 101.2 to Sta (B) on random line

At still @ 37.1 run N 20° 26' W 185

1/2 way water 15' L @ 185 W 3' L

Tower B on random line BS N 29° 44' W + run S 27° 01' E 166.95 to C W 2' R

Tower C BS N 27° 01' W run S 19° 55' E 376.4 (D) W 7' R note this was along shore line

Tower D run S 0° 30' W 125 ft ± to old fence

Tower 185 BS S 20° 26' E shore 45' N 0° 34' E — on point

run N 22° 18' E 64.45 on point

Tower 64.45 pt is S 68° W 15 ft

At still at 64.45 - 2 ft from water run

S 68° 54' E 200 - 6.9 = 193.1 W 18 L

Tower 193.1 run N 64° 40' E @ 150 water 4 R @ 247.5 - W 2' L

200 93.1
69
1931

200

42
12

211.8

91

N $88^{\circ}08'E$ 149.3 W 3L run
S $77^{\circ}50'E$ along water edge 353'
@ 412.7 sta @ 390 in line with
water shore NE site N $68^{\circ}30'E$ 18 ft
from W for 300' \pm

Then

Ed + I go to hub 1693.3 see page
76 this book & continue Nor W $\frac{1}{16}$ line
set hub on line over lake

π still at 1693.3 run R. N $18^{\circ}47'E$
300.75 π over 300.75 BS $518^{\circ}47'W$
spike over lake bears N $25^{\circ}28'W$ 386.4

π over hub over lake on W $\frac{1}{16}$ line
BS S and continue W $\frac{1}{16}$ line N
Intersect W $\frac{1}{16}$ with N line Sec 29
extended

π over intersection hub take angle
site West W $\frac{1}{16}$ line run $51^{\circ}18'E$

* from point hub over lake chain N
@ 211.8 hub on top + 141.8 = 353.6 N
to intersection hub

from hub 6103.32^E see page (88)
chain E 75.8 to intersection hub

Fig W $\frac{1}{16}$ line

hub 1693.3 run

N $18^{\circ}47'E$ 300.75Sine 321990 \times 300.75 = 96.84Cosine 946743 \times 300.75 = 284.73N $25^{\circ}28'W$ 386.4Sine 429986 \times 386.4 = 166.15Cosine 902836 \times 386.4 = 348.86

1693.3

284.73

348.86

2326.89

353.6

2680.49

90

89 10

17 9 10

89°35'

$$\begin{array}{r} 1320 \\ 1290 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 1290.25 \\ 25.804 \\ \hline \end{array}$$

Working in office N/min - Sec 27

July 5th 1955 on E+W Random

Sub. 6103 E goes S 100

but 430.4 E of but 6103 goes S 119

last, 5-7/16 E' of a " " " 5119

u 9134 F k " " " S133

at intersections of $W\frac{1}{4}$ with
N line goes S 100+ -

as the $W\frac{1}{4}$ line to intersection

is 2680.49 and as the N/ino comes

5. 100 ft leaving 2580.49 ft

$$2) 25,80,49 \overline{) 1290,25}$$
$$2) 25,80,49 \overline{) 1290,25}$$

94

138-27

Babcocks Ties to Sec. Cor.
 Cor to 14-15-22-23 Feb 19-1922
 pop. 4N 57° E 18
 Birch 4N 61 W 9
 Oak 2 S 44 W 15
 " 5 S 38 E 12

S $\frac{1}{16}$ lot 14-15
 Pop 5 N 73 E 6
 " 3 N 17 W 12

$\frac{1}{4}$ lot 14-15
 N.P. 14 N 87 E 10.5
 " " 16 N 10 W 12

N $\frac{1}{16}$ lot 22-23 - 138-27
 N.P. 3 N 53 E 15
 Birch 4N 32 W 13.5

N $\frac{1}{16}$ lot 14-15
 J P 4N 38 E 9
 " " 6N 57 W 15
 Cor to 10-11-14-15
 J P 4N 56° E 13
 " " 5N 18 W 19.5
 " " 7 S 76 W 12
 " 2 S 40 E 7.5

July 7th 1955

Ed & I get ready to go to Fox Lake
get gas go to Office for books
starts to rain - rain most of AM
at 10-45 I go get Bert & take her
to work. Ed & I drive out to Silver
Spring Resort he says no big hurry

Ed & I decide to go to Fox Lake
it might not be raining there
Lo Walker sharp 12-NOON arrive
at Otto's a little after 1 PM drive
to cabin in S part of Sec. 22 eat
lunch drive back to work stop
and look for J.W.C. old RR spike
find it!

Note this spike was set 90° to E line
of Sec. 27 - from NE cor. on line
see book 228 it sets 2862. Whom
see Cor.

We go to hub marked 571.6 on our
random N line - Sec. 27

Tower 571.6 Turn 90° run S 119 ft
set 60 d spike on what we will
call true N line - sec. 27

Tower intersection hub W 1/4 with
random N line & site S on W 1/4 line

96

$$\begin{array}{r} 25,80.50 \\ 1290.25 \\ \hline \end{array}$$

at 100 ft set 60 ft spike on
what we will call true N line
Sec 27

Over 100 ft spike site Non
W $\frac{1}{16}$ intersection hub N $239\frac{1}{2}$ '
W corrected hub at 571.6 bears
S $89^{\circ}10'E$

N line of Sec 27 will be
S $89^{\circ}10'E$ using the E & W Φ
as E & W

Still at pt for W $\frac{1}{16}$ N side Sec 27
run W set hub on brink

Ed & I go son W $\frac{1}{16}$ line

Over hub 1391.9 site on flag at
hub 1693.3 see page 76 this book
as the sup is wet from rains

Iron N $89^{\circ}35'W$ to hub
then S parallel to W $\frac{1}{16}$ line

1391.9 want 1290.25
 $\begin{array}{r} 1290.25 \\ 101.65 \\ \hline \end{array}$

Ed & I over night at Fox Lake
rains held most all night

$$\begin{array}{r} 40 \\ 70 \\ \hline 110 \end{array}$$

$$\begin{array}{r} 572.1 \\ 33 \\ \hline 568.8 \end{array}$$

$$\begin{array}{r} 41.6 \\ 150 \\ \hline 60.5 \\ 272.1 \end{array}$$

$$\begin{array}{r} 572.1 \\ 149.7 \\ \hline 721.8 \end{array} \quad 97$$

July 8-1955

Edt I at Fox Lake

Turn hub 1391.9 into $N 2^{\circ} 39' \frac{1}{2} W$
on hub 1693.3 and run $N 89^{\circ} 35' W$
parallel to $N \frac{1}{4}$ line

Note) this is an offset line as
the $\frac{1}{4}$ Cor Center of $NE \frac{1}{4}$ corner
in a wet swp.

Set hub over swp E on ridge and
continue $N \frac{1}{4}$ line E to E. Fox Lake
set 60' spike point for IM 10 ft from
water on $N \frac{1}{4}$ line from which we
chain West 250' set stake in
edge of swp pt for IM NW Cor of
Tract

Turn spike 10 ft W of water pt of beg.
Site $N 89^{\circ} 35' W$ along $N \frac{1}{4}$ line
IM at SE Cor of tract set $S 37^{\circ} 10' E$

move $T 250' W$ on $N \frac{1}{4}$ line site
 $N 89^{\circ} 35' W$ on $N \frac{1}{4}$ line and run

$S 37^{\circ} 10' E$ @ 61.6 hub + 150 + 60.5 =

272.1 hub + @ 372 cross fence

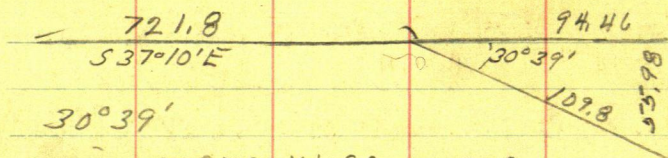
272.1 + 300 pin 572.1 - 3.3 = 568.8

hub 572.1 + 150 - 0.3 = 721.8 hub

Turn 721.8 IM bears $R 30^{\circ} 39' 110 - 0.2$

109.8

98 320.45

$$\begin{array}{r} 39.01 \\ 12.01 \\ \hline 27.00 \end{array}$$


$$\text{Sine } 509792 \times 109.8 = 55.98$$

$$\text{Cosine } 860297 \times 109.8 = 94.46$$

$$\begin{array}{r} 721.8 \\ 94.46 \\ \hline 816.26 \end{array} \sqrt{55.98.00} \quad .06858108 = 3^{\circ}55'$$

Hub 61.6 goes southerly 4.22

" 272.1 " " 18.66

" 568.8 " " 39.01

" 721.8 " " 49.50

" 521.6 " " 35.77

$$\begin{array}{r} 35.77 \\ 14.30 \\ \hline 21.47 \end{array}$$

as we started this line
250 ft W of IM on lake
when we should have been
only 200 we figure correction

$$\begin{array}{r} .061255 = 3^{\circ}30' \\ \hline 816.26 \end{array} \sqrt{50.00.00}$$

Hub 61.6 E is 754.66 W & goes N 46.23

" 272.1 " 544.16 " 33.53

" 568.8 " 247.46 " 15.16

" 721.8 " 94.46 " 5.79

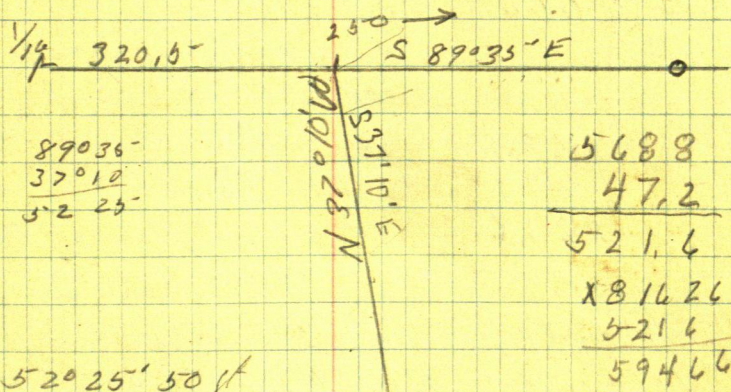
1866-
775-
2641

2641
1866-
775-

3663 99
422
3241

July 9th 1955 Sat.

Ed + I Tower 1391.9 + chain 3
101.65 to 1290.25 + set I M for
1/4 Center NW 1/4 on NW Cor Lot 3
Sec 27-138-27



52025' 50 ft

$$\text{Sine} = 792467 \times 50 = 39.62$$

$$\text{Cosine} = 609915 \times 50 = 3049$$

$$\odot 4853845 = 2047$$

$$816.24 / 39.62.00$$

$$754.66 \times .04853845 = 36.63 \text{ L}$$

$$544.16 \times \text{"} = 2641$$

$$247.46 \times \text{"} = 12.01$$

$$94.46 \times \text{"} = 4.58$$

$$294.66 \times \text{"} = 14.30$$

$$\text{Run } S 24^{\circ}05' E 32.05$$

100

$$\begin{array}{r} 518. \\ 29.1 \\ \hline 488.9 \end{array}$$

$$\begin{array}{r} 521.6 - \\ 36 \\ \hline 5780 \end{array}$$

$$\begin{array}{r} 61.6 \\ -32.5 \\ \hline 29.1 \end{array}$$

@ 370.5' E of $\frac{1}{4}$ IM + 200 IM
+ 10 water

Then 370.5 run S $24^{\circ}05'E$
@ 32.05' but which is 90° to
hub 61.6

$$\begin{array}{r} 568.8 \\ 47.2 \\ \hline 521.6 \end{array}$$

$$\begin{array}{r} 816.26 \\ 521.6 \\ \hline 294.66 \end{array}$$

Then over intersection hub
Site along back line S $24^{\circ}05'E$
and run N $70^{\circ}09'E$

intersection point is S $24^{\circ}05'E$
488.9 ft run N $70^{\circ}09'E$
222.8 ft to SE Cor Tract Water 7 ft

$$\begin{array}{r} 518 \\ 61.6 \\ \hline 456.4 \\ 32.5 \\ \hline 488.9 \end{array}$$

$$\begin{array}{r} 816.26 \\ 488.9 \\ \hline 327.36 \end{array}$$

From NW Cor Lot 3 - Sec 27-138-27
run S89°35'E 370.5'

$$\sin 999974 \times 370.5 = 370.49 \text{ E}$$

$$\cos 007272 \times 370.5 = 2.69 \text{ S}$$

S 24°05'E 488.9

$$\sin 408065 \times 488.9 = 199.50 \text{ E}$$

$$\cos 912963 \times 488.9 = 446.34 \text{ S}$$

N 70°09'E 222.8

$$\sin 940585 \times 222.8 = 209.56 \text{ E}$$

$$\cos 339639 \times 222.8 = 75.65 \text{ N}$$

370.49 E

199.50

569.99 E

209.56

779.55 E

2.69 S

446.34

449.03 S

75.65

373.38 S

Mon. July 12 - 55

Ed + I to Fox Lake

Tower 16 93.3 S. to N on $\frac{1}{16}$ line
run N $16^{\circ}09'E$ 300.75

Tower 300.75 Sta 8 ng 89
bears N $58^{\circ}45'E$ 20.25 ft

Shore on W Fox at apik $5\frac{1}{2}$ ft from
water edge bears, S $84^{\circ}38'W$
24.2 ft.

T still @ 300.75 run N $13^{\circ}01'W$
130.9 ft

Tower 130.9 BS S $13^{\circ}01'E$ Lake
shore run S $2^{\circ}21'E$ and N $20^{\circ}50'W$
Stake in center of road way bears
N $31^{\circ}18'E$ 260 ft.

T apik in Φ road 260 ⁴⁵
BS S $31^{\circ}18'W$ + run N $20^{\circ}50'W$
N $17^{\circ}10'W$ - 196.10

Turn 90° @ 30 hub @ 217 water

Tower 196.10 BS S $17^{\circ}10'E$ run
N $17^{\circ}10'E$ $120 + 170 = 290 + 2.1 = 292.1$
hub under T turn 90° at hub both sides
of this line 30 ft. + continue this line
to lake

as we are getting too far from
Otto's stakes we move T back

$$\begin{array}{r} 292.1 \\ 195.7 \\ \hline 96.4 \\ 292.1 \end{array}$$

$$\begin{array}{r} 196.1 \\ 96.4 \\ \hline 292.5 \end{array}$$

$$\begin{array}{r} 16.76 \\ 1.8 \\ \hline 16.52 \end{array}$$

$$\begin{array}{r} 1847 \\ 23903 \\ \hline 1208 \end{array}$$

$$292.1 - 195.7 = 96.4$$

From shore of W Fox Lake run N 31° 8' E
260 to stake set for E road 5 of old road
run N 17° 10' E 196.10 hub (taken out)
+ 96.4 = 292.5

Then 292.5 set N 17° 10' E + run
N 0° 18' E 240 - 0.4 = 239.6

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

$$16.52$$

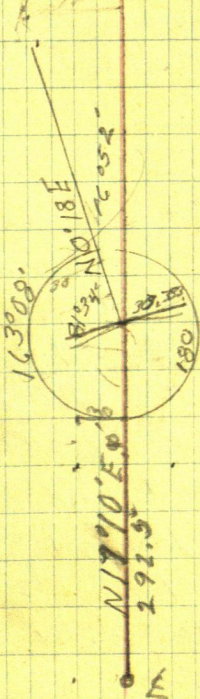
$$2 \overline{) 16.308}$$

$$81^{\circ} 34'$$

$$81^{\circ} 34' - 20^{\circ} 26'$$

$$60 \sin = 989187$$

$$\text{into } 30 = 30.33'$$



Then 239.6 continue N 0° 18' E 90 - 45.5 =

$$90 - 45.5 = 85.45' - 48' \text{ from water}$$

$$\begin{array}{r} 45.5 \\ 85.45 \\ \hline 85.45 \end{array}$$

$$\begin{array}{r} 100 \\ 100 \times 20 \\ 775 - 455 \\ \hline 322.50 - 45 \\ \hline \end{array}$$

$$\begin{array}{r} 100 \\ 85 - 45 \\ \hline 84.55 \\ \hline \end{array}$$

$$\begin{array}{r} 148.3 \\ 45 \\ \hline 193.3 \\ \hline \end{array}$$

$$\begin{array}{r} 70 \\ 221 \\ \hline 67.75 \\ \hline \end{array}$$

Otto comes we change
everything

Still at 239.6 run new
road S $40^{\circ}56'W$
N $40^{\circ}56'E$

From 1 ft from water chain
S $40^{\circ}56'W$ 4.5' hub @ 84.55' hub
under T. @ 100' hub + 100 = 200' hub
+ 100 = 300' ?

Tower 100 Turn 90° run Wly @ 30' spk
From 30 chain Wly 148.3' hub
on brink + 45 = 193.3 water 1.5'

Tower 200 Turn 90° run
Wly @ 30' hub. + 150 = 3.1 = 146.9
hub on brink + 38.4 = 185.3 water 1.5'
distance Nly to spike 100.

Tower 300 Turn 90° run Wly
30' hub + 105.25' hub on brink +
79 = 184.30 water 1 ft

Tower A.P. Sit. N $40^{\circ}56'E$ stake in
road bears S $140^{\circ}47'W$

From 300 A.P. is S $40^{\circ}56'W$ 67.75'
100 - 67.75 = 32.25'

$$\begin{array}{r} 1.7 - 150 \\ 1487 \quad 2.2 \\ \hline 97.7 \\ 829 \\ \hline 80 \end{array}$$

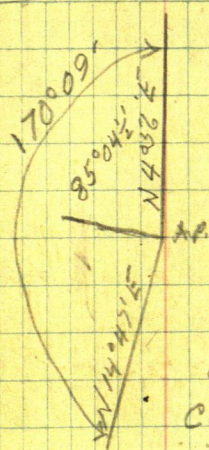
$$\begin{array}{r} 150 \\ 31 \\ 1469 \\ 384 \\ \hline 1853 \end{array}$$

$$\begin{array}{r} 16525 \quad 97 \\ 79 \\ \hline 184 \quad 1825 \\ 105.25 \end{array}$$

$$\begin{array}{r} 105 \\ 63 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 14^{\circ} 47' \quad 13^{\circ} \quad 167' \\ - 4^{\circ} 54' \quad 4 \quad 56 \\ \hline 9^{\circ} 51' \end{array}$$

$$\begin{array}{r} 179^{\circ} 60' \\ 9^{\circ} 51' \\ \hline 170^{\circ} 09' \\ 85^{\circ} 04\frac{1}{2}' \\ 85^{\circ} 04\frac{1}{2}' \\ \hline 170 \quad 90 \end{array}$$



$$85^{\circ} 04\frac{1}{2}' = 4^{\circ} 55\frac{1}{2}'$$

Cosine 9963075
into 30 = 30.11

Tower 32.25 Turn 90° run Wly 30 +

97.7 hub on brink + 82.9 = 180.6

63.1 bet stake along lake

Still at 32.25 run Ely. 30'

$$\begin{array}{r} 180.6 \\ 204872.64 = 11^{\circ} 35' \\ \hline 37.00 \end{array}$$

$$11^{\circ} 35'$$

Cosine 979634 into 30 = 30.62

$$\begin{array}{r} 100 \\ 631 \\ \hline 34.9 \end{array}$$

Move hub 32.25 - Sly 37 ft Turn 90
run @ 30 hub + 100 + 11.2 = 111.2 hub + 62.4 =
173.6 bet bet core on Lake 100.7

106

$$\begin{array}{r} 100 \\ 75.8 \\ \hline 24.2 \end{array}$$

$$\begin{array}{r} 138.75 \\ 35.15 \\ \hline 173.90 \end{array}$$

set this and the other hub Nly
0.7 of a foot Tower hub on 30 ft
Wly from & run Sly along
back line of lots 100 ft
Tower 100 Turn 90 run 140-125-
138.75 hub on brink $+30 + 3.15 = 173.9$
100 along shore

Back on Back line 80-4.2=
75.8 to hub in & road 90°
Wly, 30 ft Tower 30 ft again
Turn 90° run Southwly

Tower & stch BS S 31° 18' W
stch for SE cor lot 6 in road
bears S 32° 02' W 38.5 ft
& road bears N 19° 25' W
A Pin & 11 N 19 38 W

38.5 from & stch

Tower SE cor lot 6 over road
BS N 32° 02' E 76 S line lot 6
runs S 70° 46' W 30.6 edge of road line
and NE cor Lot 12

road cuts off part of Lot 13
30.6 Wly + 70 ft Northerly

Try Aloe Tower Φ BS S $31^{\circ}18'W$
 split at SE cor Lot 6 bears S $32^{\circ}04'W$
 AP bears N $19^{\circ}29'W$
 Stone Lot 6 runs S $70^{\circ}45'W$
 Tower AP BS S $19^{\circ}29'E$ on Φ
 Φ road runs S $29^{\circ}20'W$

Re Run our lines

Aloe Tower 1693.3 hub on W K line
 extended site N $2^{\circ}39\frac{1}{2}'W$ on hub on lot 6
 ran N $16^{\circ}08'E$ 300.75

Tower 300.75 BS S $16^{\circ}08'W$ ran N
 $13^{\circ}02'W$ 130.9 Tower 130.9 BS
 S $13^{\circ}02'E$ ran N $31^{\circ}15'E$ 260 Φ stake
 Tower 260 BS S $31^{\circ}13'W$ ran N $19^{\circ}33'W$
 to AP

Tower AP BS S $19^{\circ}33'E$ on Φ stake ran
 N $29^{\circ}30'W$ 300+

Elt I Tower met 4 ft S
of lot cor at edge of water
BS S 29°30'E along E road
run. shore line

N 69°21'E 100 ft

Take point N 73°58'W 200

Tower 200 run S 59°40'W 17 ft

S 38°40'W 35 - S 20°19'W 60.2

Tower 60.2 BS N 20°19'E run

S 12°35'E 78.7

Tower 12 BS N 12°35'W run

S 25°31'E ± 123.5 to lot cor.

1st of lot on point

lot Tower 100 Ely of E BS S 61°21'W
run. N 49°20'E 45.6 W 2 L

Tower 45.6 run. N 62°56'E 54.4

2nd lot cor C

Tower 54.4 BS S 62°56'W run

3rd N 69°53'E 35 ft N 84°30'E 65 ft

4th Tower 65 run E 0°13'S 100
or S 89°47'E

Tower 100 run S 75°51'E 200

5th @ 100

6th @ 200

100
256
54.4

63-

60
46

Town 200 run S $82^{\circ}58'E$ at 175
Lot 7: 100

Town 175 run N $68^{\circ}57'E$ 125
4+8 @ 25 @ 123 Lot 9
run N $69^{\circ}53'E$ 100 Lot 10

N 69 48 E 100 — S 26 48 E 592.4

Move over to E Fox leg at pt chain
Westerly along shore 100-100-100
100+60+40+50+50+100-100-
100-100-132.5 = 11 Lots

run courses

Town & stake site S $31^{\circ}15'W$ +
run E Fox Lake stake line SW cor lot
10 bears N $47^{\circ}28'E$ 159.4
run N $81^{\circ}07'E$ 100 run S $81^{\circ}32'E$ 100
Town 100 run S $68^{\circ}17'E$ 100 Town 100
run S $58^{\circ}42'E$ 100 run S $59^{\circ}15'E$ 50
S $84^{\circ}17'E$ 50 — run N $73^{\circ}32'E$ 40
N $62^{\circ}06'E$ 60 N $64^{\circ}57'E$ 100
N $69^{\circ}03'E$ 100 N $74^{\circ}22'E$ 100
N $68^{\circ}50'E$ 100

Tower 130.9 (see pg 107) BSS $13^{\circ}02'E$
 run out lot 12 ~~12~~ which is
 125 along lake shore

Tower 300.75 F.S. N $13^{\circ}02'W$
 run N $13^{\circ}26'W$ 146.7 to SW cor
 Lot 12 Water West 5'

Tower SW cor Lot 12 BSS $13^{\circ}26'E$
 + run. S $89^{\circ}10'E$ parallel to N
 line Sec. 27. - 138 - 27

45.5 ft S.E. cor lot 12

Tower 45.5 run N $15^{\circ}08'E$ 170.6
 to NE cor Lot 12 N side lot 12 is
 142.5 ft.

Tor

From NE cor lot 29 on W Fox
run Southerly random to SE cor
lot 1.

From hub on top chain Nerty
@ 162.4 hub @ 246.0 NE cor lot 29
2 ft from water

From hub on top chain Southerly
 $260 - 575 = 254.25$ hub.

SE cor lot 1 bears $40^{\circ}59' L$ 92.5 ft

246.0	500.25	246.0
<u>254.25</u>	<u>92.15</u>	<u>162.4</u>
500.25	592.40	83.6

$40^{\circ}59' 92.5'$

Sine $086866 \times 92.5 = 8.04$

Cosine $996220 \times 92.5 = 92.15$

$592.40 + 8.04 = 600.44$

Int 83.6 goes Early 1.13

" 246 " " 3.34

" 500.25 " " 6.79

Fig Shore W. Fox lake

Stake in \odot is called 00 runN $19^{\circ}33'$ W

Sine

Cosine

N $29^{\circ}30'$ W 347.75

Sine

Cosine

N $69^{\circ}21'$ E 100

Sine

Cosine

N $49^{\circ}20'$ E 45.6

Sine

Cosine

N $62^{\circ}56'$ E 54.4

Sine

Cosine

N $69^{\circ}53'$ E 35

Sine

Cosine

N $84^{\circ}30'$ E 65

Sine

Cosine

S $89^{\circ}47'$ E 100

Sine

Cosine

S 75° 51' E 200

Sine

Cosine

S 82° 58' E 175

Sine

Cosine

N 63° 57' E 126 sta 9

Sine

Cosine

114

Fig Shore E. Fox Lake
 From State in \angle run
 $N 47^{\circ} 28' E$ 159.4

Sine
 Cosine

$N 81^{\circ} 07' E$ 100

Sine
 Cosine

$S 81^{\circ} 32' E$ 100

Sine
 Cosine

$S 68^{\circ} 17' E$ 100

Sine
 Cosine

$S 58^{\circ} 42' E$ 100

Sine
 Cosine

$S 59^{\circ} 15' E$ 50

Sine
 Cosine

$S 84^{\circ} 17' E$ 50

Sine
 Cosine

$N 73^{\circ} 32' E$ 40

Sine
 Cosine

$N 62^{\circ}06' E 60$

Sine

Cosine

 $N 64^{\circ}57' E 100$

Sine

Cosine

 $N 69^{\circ}03' E 100$

Sine

Cosine

 $N 74^{\circ}22' E 100$

Sine

Cosine

 $N 68^{\circ}50' E 100$

Sine

Cosine

4213

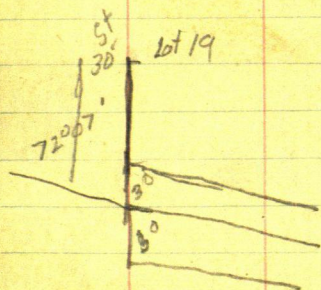
72° 07'

Tower SE cor lot 1 BS S $68^{\circ}50'W$
 an SW cor lot 1 the E side of
 Lots 1 and 29 run N $26^{\circ}40'W$

Backon Φ road

Tower hub 300 S of W Fox on
 W line Lot 19 run N to Φ
 E & W road. From 300^{ft} hub
 chain N 27.8 hub in Φ
 W end of E & W road

Tower 27.8 hub with N $29^{\circ}30'$
 W along W line Lot 19 Φ of road
 runs N $78^{\circ}23'E$



$$\begin{array}{r} 89^{\circ}60' \\ 72^{\circ}07' \\ \hline 17^{\circ}53' \end{array}$$

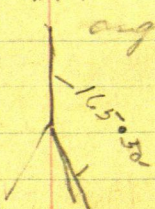
$$\begin{array}{r} \text{Cosine} \quad 31.52 \\ 951684 \quad \hline 30 \end{array}$$

$$N 78^{\circ}23'E \quad 190 - 2 = 188 + 27.7$$

$$21.5.7 \text{ A.P. run } S 87^{\circ}28'E$$

$$82.55$$

$$165^{\circ}50'$$



$$82^{\circ}55'$$

$$\begin{array}{r} \text{Cosine} \quad 30.23 \\ 99237 \quad \hline 30 \end{array}$$

$$550 - 2.8 = 547.2$$

N 84° 35' E

$$190 - 3.7 = 186.3$$

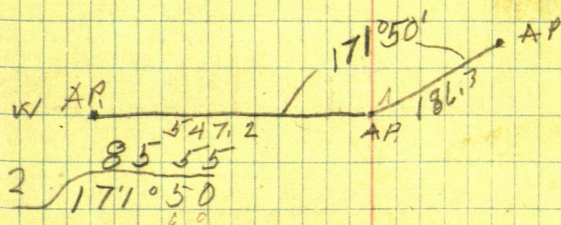
N 60° 05' E

to end of Plat

July 18th

Left 4 Don + I to Fox Lake

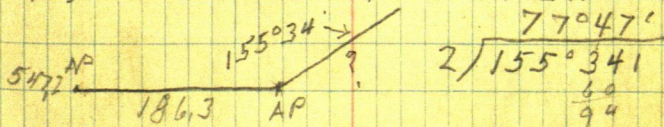
Tower 547.2 site Western & Varo
oo. set hub on this & to work from
about 300 ft E of A.P.



$$85°55' - 30 \text{ ft.}$$

$$\text{Cosine } 997462 \text{ into } 30 = 30.08$$

Tower^{AP} 186.3 E site W on & hub 547.2



$$77°47' - 30$$

$$\text{Cosine } 977354 \text{ into } 30 = 30.70$$

116

Back of Lot 29

350
70

$$120 + 6.6 = 126.6$$

Lot 1 & 2 are 67.8 across N end

170
80

117

250
49
245.1

Checking

Tower 130.9 on lake shore BS
S $13^{\circ}02'E$ run N $31^{\circ}13'E$ 260 ft
Tower 260 BS S $31^{\circ}13'W$ run N
N $20^{\circ}01'W$ - 245.9 to A.P.

T still @ 260 run N $47^{\circ}22'E$ sta 1
159.4

Sine

Cosine

Tower 159.4 run N $81^{\circ}01'E$ 100 sta 2

Sine

Cosine

Tower 100 BS S $81^{\circ}01'W$ run S $81^{\circ}40'E$ 100 sta 3

Sine

Cosine

Sta 4 bears S $75^{\circ}03'E$ —

Tower 4 - BS N $75^{\circ}03'W$ on (2) Sta 3 bears
S $68^{\circ}26'W$ 100

Sine

Cosine

Sta 5 bears S $58^{\circ}50'E$ 100

Sine

Cosine

Sta 6 bears S $59^{\circ}03'E$

Traverse 6 - BS $N 59^{\circ} 03' W$ on 4
Sta 5 bears $N 59^{\circ} 26' W$ 50

Sine

Cosine

Sta 7 bears $S 84^{\circ} 29' E$ 50

Sine

Cosine

Sta 8 bears $N 85^{\circ} 41' E$

Traverse 8 Sta 7 bears $S 73^{\circ} 23' W$ 50

Sine

Cosine

Sta 9 bears $N 61^{\circ} 56' E$ 50

Sine

Cosine

Sta 10 bears $N 63^{\circ} 43' E$

Traverse 10 Sta 9 bears $S 64^{\circ} 46' W$ 100

Sine

Cosine

Sta 11 bears $N 68^{\circ} 54'$ 100

Sine

Cosine

Sta 12 bears $N 71^{\circ} 34' E$

Tower 10 being corner lot 3+4
old RR right of way by J.W.C. bears
N $67^{\circ}39'$ E 35.3

Tower 12 B.S. S $71^{\circ}34'$ W
Sta 11 bears

Sine

Cosine

Sta 13 bears S $74^{\circ}14'$ W

Sine

Cosine

Sta 14 end of plat bears N $68^{\circ}41'$ E 100

Sine

Cosine

Tower 14 B.S. S $68^{\circ}41'$ W E line of Plat
runs N $26^{\circ}49'$ W 5

1953-

Now re-established A.P. in E
 245.9 BS S $20^{\circ}01'E$ SW cor
 Lot 19 bears N $30^{\circ}03'W$ 120.6 +
 6.35 = 126.95 SW cor lot 19 + 40.75 = ^{200 ft} 200 ft

Now SW cor lot 19 to N
 side of 60 ft road runs
 N $77^{\circ}50'E$ 228.9 To A.P.

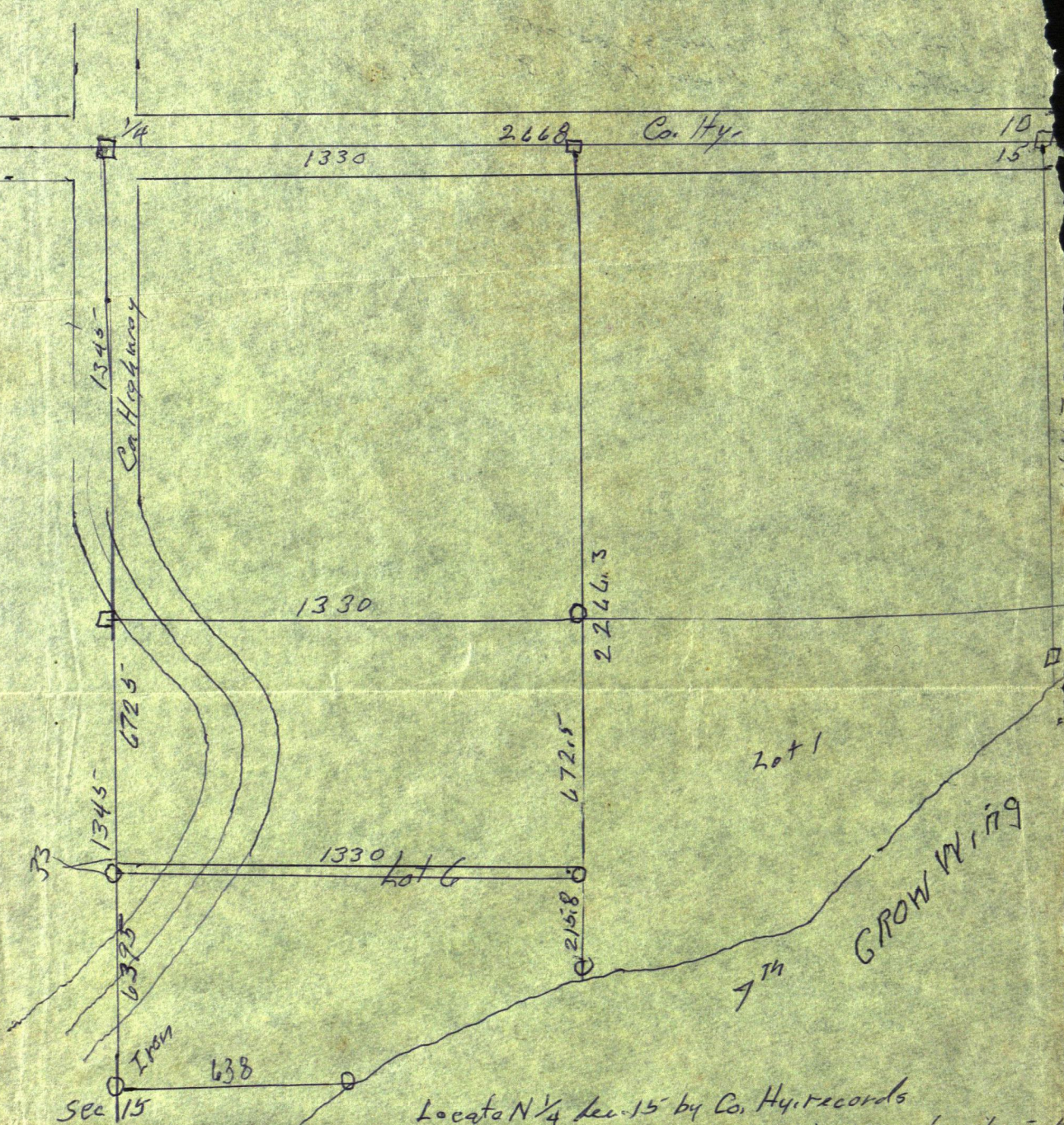
Now A.P. BS S $77^{\circ}50'W$
 run N side street or road
 S $87^{\circ}59'E$ 549.7 to A.P.

Now A.P. BS N $87^{\circ}59'$ run
 N $84^{\circ}11'E$ 177.6 to A.P. lot 28-29

Now A.P. lot 28-29 BS S $84^{\circ}11'W$
 run N $59^{\circ}48'E$ 126.6 SE cor lot 29
 which is 286.0 ft S.E. from NE cor
 lot 29.

Now spike 4.5 S.E. from NW
 cor lot 19 BS S $30^{\circ}03'W$ to NE cor
 lot 19 bears N $68^{\circ}47'E$
 spike on point bears N $74^{\circ}26'W$
 200 ft.

Sec 15 T140 R33



Locate N $\frac{1}{4}$ Sec 15 by Co. Hy. records
 Bea pole NE 53.8 - Tel. Pole NW 53.4 set up in 1949
 run S. 18.30' on $\frac{1}{4}$ Co. Hy. #13 1048.3 hub + tack Lv $\frac{1}{4}$ 13
 1357.0 hub 1583.1 hub 1823.4 hub 2013.0 hub 2069 hub $\frac{1}{4}$
 2259 hub 2463.4 hub quite for night
 @ 2640 temp $\frac{1}{4}$ @ 2701.1 hub 2985.3 hub 3287.7 hub 333
 3603.6 hub - 4595 hub 4703.4 hub 4973.8 hub 5380.3 hub
 Random. is 33.5 ft west of S $\frac{1}{4}$ cor IM.
 goes to W $\frac{1}{4}$ N set in Coroad at 1330 ft recorded in 1949. Since
 offset 50 ft east of brush & deep snow 976. hub 1250.2 angle
 50' 1345 $\frac{1}{4}$ cor 1517 hub 1812.8 hub 1845. hub 1987.5 hub 2050.5 N
 lot 6 iron set here 2266.3 hub M.C. for W $\frac{1}{4}$ line on N shore of 7th C.
 Correct 2640 on N & S $\frac{1}{4}$ B Ts for Center Sec 15 Oak 6 N 39.45 E
 N. " 4 S 82.40' A

on center $\frac{1}{4}$ run E Var. $6^{\circ}30'$ @ 88.7 hnt @ 306.0 hnt 477.6 hnt 638.0 hnt for Me
W $\frac{1}{2}$ Sec 15 on west shore of 7th Crow Wing Lake
parcel in lot 6 Sec 15-140-33 Oareet.
N $\frac{1}{4}$ center N $\frac{1}{2}$ Sec 15 joined N. Oak, 8 west 11.8 st

Planner.
103.4



$$S 87^{\circ} 34' W \ 617.35^-$$

$$\sin 99910 \times 617.35 = 616.79 W - 326.08 W$$

$$\cos 141 \ 04246 \times 617.35 = 262.13 S$$

$$S 45^{\circ} 30' W \ 152.9$$

$$\sin 71325 \times 152.9 = 109.06 W$$

$$\cos 141 \ 70091 \times 152.9 = 107.17 S$$

$$S 30^{\circ} 36' W \ 389.1$$

$$\sin 50904 \times 389.1 = 198.07 W$$

$$\cos 141 \ 86074 \times 389.1 = 334.91 S$$

$$S 42^{\circ} 04' W \ 305.35^-$$

$$\sin 64999 \times 305.35 = 204.58 W$$

$$\cos 141 \ 742.37 \times 305.35 = 226.68 S$$

$$N 85^{\circ} 31' W \ 171.4$$

$$\sin 99694 \times 171.4 = 170.88 W$$

$$\cos 141 \ 07817 \times 171.4 = 13.40 S$$

$$N 46^{\circ} 31' W \ 321.5^-$$

$$\sin 72557 \times 321.5 = 233.27 W$$

$$\cos 141 \ 68814 \times 321.5 = 221.24 N$$

$$S 21^{\circ} 05' W \ 122.1$$

$$\sin 35973 \times 122.1 = 43.92 W$$

$$\cos 141 \ 93306 \times 122.1 = 113.93 S$$

$$S 15^{\circ} 20' W \ 137.8$$

$$\sin 26443 \times 137.8 = 36.44 W$$

$$\cos 141 \ 96440 \times 137.8 = 132.89 S$$

$$S 11^{\circ} 27' W \ 93.8$$

$$\sin 19851 \times 93.8 = 18.62 W$$

$$\cos 141 \ 98010 \times 93.8 = 91.93 S$$

$$S 22^{\circ} 36' W \ 103.2$$

$$\sin 38430 \times 103.2 = 39.46 W$$

$$\cos 141 \ 92321 \times 103.2 = 95.28 S$$

17664 E
 18111 E - 357.75 E
 11538 E - 473.13 E
 10746 E - 580.59 E
 10053 E - 681.12 E
 28879 E - 969.91 E
 5486 E - 1024.77 E
 27649 E - 1301.26 E
 685 E - 1308.11 E
 - 17.57 W - 1290.54 E
 19491 E - 1485.46 E
 840 E - 1493.85 E
 105.45 E - 1599.30 E
 - 10852 W - 1490.78 E
 24664 E - 1737.42 E
 - 34982 W - 1387.60 E
 58736 W - 800.24 E
 7637 W - 723.87 E
 10125 W - 552.62 E
 14123 W - 411.39 E
 168.20 W - 243.19 E
 286.20 W - 43.01 W
 1167 W - 54.68 W
 .64 E - 54.04 W
 676 E - 47.28 W
 1285 W - 60.13 W

17664 N - 17664 N
 8283 - 168.36 N 47.83 N
 8362 N - 251.98 N 8283
 28843 N - 540.41 N 3955 N
 10526 N - 645.67 N 8362
 384140 S - 261.27 N 1231.7
 72402 S - 462.75 S 1231.7
 39536 S - 858.11 S 1231.7
 38654 S - 1244.65 S 1231.7
 29858 S - 1543.23 S 1231.7
 252184 S - 1796.07 S 1231.7
 262.47 S - 2058.54 S 1231.7
 36610 S - 2424.64 S 1231.7
 621.80 S - 3046.44 S 1231.7
 134.36 S - 3180.80 S 1231.7
 111.64 S - 3292.44 S 1231.7
 19009 S - 3482.53 S 1231.7
 13246 S - 3614.99 S 1231.7
 37570 S - 3990.69 S 1231.7
 270.73 S - 4261.42 S 1231.7
 32.95 S - 4294.37 S 1231.7
 146.46 N - 4147.91 S 1231.7
 121.54 S - 4269.45 S 1231.7
 13785 S - 4407.30 S 1231.7
 9356 S - 4500.86 S 1231.7
 10240 S - 4603.26 S 1231.7

1323.9
 6976
 125414
 990
 26414

237.75
 2976
 688.5
 990
 1323.9

82.881
 066
 84.8811
 7.576
 48.7721
 7.576
 68281

124465
 124464
 248930
 497860
 1189W
 16820
 18009
 28620
 46629
 1167
 45462
 45398
 6766
 44722
 128
 4600

38.

S 87° 34' W 617.35

$$\text{Sine } 99910 \times 617.35 = 616.79 \text{ W} - 328.22 \text{ W}$$

$$\text{Cosine } 04246 \times 617.35 = 262.135 - 4471.45 \text{ S}$$

S 72° 04' W 617.35

306.96 E

$$\text{Sine } 95142 \times 617.35 = 587.36 \text{ W}$$

$$\text{Cosine } 30791 \times 617.35 = 190.09 \text{ S}$$

S 45° 30' W 152.9

$$\text{Sine } 71325 \times 152.9 = 109.06 \text{ W}$$

$$\text{Cosine } 70091 \times 152.9 = 107.17 \text{ S} - 4578.62 \text{ S}$$

437.28 W

S 29° 58' W 152.9

230.59 E

$$\text{Sine } 49950 \times 152.9 = 76.37$$

$$\text{Cosine } 86632 \times 152.9 = 132.46 \text{ S}$$

S 30° 36' W 389.1

$$\text{Sine } 50904 \times 389.1 = 198.07 \text{ W}$$

$$\text{Cosine } 86074 \times 389.1 = 334.91 \text{ S} - 4913.53 \text{ S}$$

S 15° 05' W 389.1

129.34 E

$$\text{Sine } 26022 \times 389.1 = 101.25 \text{ W}$$

$$\text{Cosine } 96555 \times 389.1 = 375.70 \text{ S}$$

S 42° 04' W 305.35

$$\text{Sine } 66999 \times 305.35 = 204.58 \text{ W}$$

$$\text{Cosine } 74237 \times 305.35 = 226.68 \text{ S} - 5140.21 \text{ S}$$

S 27° 33' W 305.35

118.9 W

$$\text{Sine } 46252 \times 305.35 = 141.23 \text{ W}$$

$$\text{Cosine } 88661 \times 305.35 = 270.73 \text{ S}$$

N 85° 31' W 171.4

$$\text{Sine } 99694 \times 171.4 = 170.88 \text{ W}$$

$$\text{Cosine } 07817 \times 171.4 = 13.40 \text{ N} - 5126.81 \text{ S}$$

S 78° 53' W 171.4

180.09

$$\text{Sine } 98135 \times 171.4 = 168.20 \text{ W}$$

$$\text{Cosine } 19224 \times 171.4 = 32.95 \text{ S}$$

N 46° 31' W 321.5

$$\text{Sine } 72557 \times 321.5 = 233.27 \text{ W}$$

$$\text{Cosine } 68814 \times 321.5 = 221.24 \text{ N} - 4905.57 \text{ S}$$

N 62° 06' W 321.5

466.29 W

$$\text{Sine } 89021 \times 321.5 = 286.20 \text{ W}$$

$$\text{Cosine } 45554 \times 321.5 = 146.46 \text{ N}$$

S 21° 05' W 122.1

$$\text{Sine } 35973 \times 122.1 = 43.92 \text{ W}$$

$$\text{Cosine } 93306 \times 122.1 = 113.93 \text{ S} - 5019.50 \text{ S}$$

S 5° 02' W 122.1

454.62 W

$$\text{Sine } 09556 \times 122.1 = 11.67 \text{ E}$$

$$\text{Cosine } 99542 \times 122.1 = 121.54 \text{ S}$$

S 15° 20' W 137.8

$$\text{Sine } 26443 \times 137.8 = 36.44 \text{ W}$$

$$\text{Cosine } 96440 \times 137.8 = 132.89 \text{ S} - 5152.39 \text{ S}$$

S 0° 16' E 137.8

453.98 W

$$\text{Sine } 00465 \times 137.8 = 6.64 \text{ E}$$

$$\text{Cosine } 99999 \times 137.8 = 137.8 \text{ S}$$

S 11° 27' W 93.8

$$\text{Sine } 19851 \times 93.8 = 186.2 \text{ W}$$

$$\text{Cosine } 98010 \times 93.8 = 91.93 \text{ S} - 5244.32 \text{ S}$$

S 4° 08' E 93.8

447.22

$$\text{Sine } 07208 \times 93.8 = 6.76 \text{ E}$$

$$\text{Cosine } 99740 \times 93.8 = 93.56 \text{ S}$$

S 22° 36' W 103.2

$$\text{Sine } 38430 \times 103.2 = 39.66 \text{ W}$$

$$\text{Cosine } 92321 \times 103.2 = 95.28 \text{ S} - 5339.60 \text{ S}$$

138272 W

S 7° 09' W 103.2

460.09 W

$$\text{Sine } 12447 \times 103.2 = 12.85 \text{ W}$$

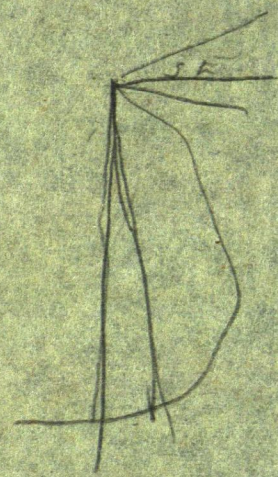
$$\text{Cosine } 99222 \times 103.2 = 102.40 \text{ S}$$

1668.095

47

1621.095

69112
28879
96991



183,	55325	25038N
17265E	4955	5775
35565	577	244.61
133'61	446.42	75.47
48926	320'08	320.08
17903	126.34	
46829	713.28	
12445	839.62	
79274	124.55	
47855E	1003.77	
97129E		
13585W		
183544		
16435		
99979		

83544E	839625
16435E	4560'95

99979E	129571
9457W	372385

90522E	1668.095
94182W	283.675

81040E	1951.76
9615E	391.465

90655	2343.22
6152W	255.29

84503	2598.515
421E	380.985

84924	2979.49
27008W	570.505

57916	3549.99
57847	640.61

65763	4190.60
36692W	1420

2907.1	420480
661679	

90750	
-------	--

61679W
29071
32608

~~S 72°14' E 121~~
~~S 74°51' W~~
 East 183
 S 72°14' E 181.3
 Sine 95231 x 181.3 = 172.65 E - 355.65 E
 Cosine 30374 x 181.3 = 55.32 S 55.32 S
 N 69°39' E 142.5
 Sine 93759 x 142.5 = 133.61 E - 489.26 E
 Cosine 34775 x 142.5 = 49.53 N - 5.77 S
 N 35°34' E 307.8
 Sine 58165 x 307.8 = 179.03 E - 668.29 E
 Cosine 81344 x 307.8 = 250.38 N 241.61 N
 N 58°46' E 145.55
 Sine 85506 x 145.55 = 124.45 E - 792.74 E
 Cosine 51802 x 145.55 = 75.47 N 320.03 N
 S 21°48' E 480.8
 Sine 37137 x 480.8 = 178.55 E - 971.29 E
 Cosine 92849 x 480.8 = 446.14 S 126.34 S
 S 10°47' W 726.1
 Sine 18710 x 726.1 = 135.85 E - 835.44 E
 Cosine 98234 x 726.1 = 713.28 S 839.62 S
 S 19°49' E 484.8
 Sine 33901 x 484.8 = 164.35 E 999.79 E
 Cosine 94078 x 484.8 = 456.09 S 1295.71 S
 S 14°15' W 384.2 N 1/2 IM
 Sine 24615 x 384.2 = 94.57 W 905.22 E
 Cosine 96923 x 384.2 = 372.38 S 1668.09 S
 S 18°29' W 299.1
 Sine 31703 x 299.1 = 94.82 W - 810.40 E
 Cosine 94842 x 299.1 = 283.67 S 1951.76 S
 S 13°48' E 403.1
 Sine 23853 x 403.1 = 96.15 E - 906.55 E
 Cosine 97113 x 403.1 = 391.46 S 2343.22 S
 S 13°33' W 262.6
 Sine 23429 x 262.6 = 61.52 W 845.03 E
 Cosine 97217 x 262.6 = 255.29 S - 2598.51 S
 S 0°38' E 381
 Sine 01105 x 381 = 41.21 E - 849.24 E
 Cosine 99994 x 381 = 380.98 S 2979.49 S
 S 25°20' W 631.2
 Sine 42788 x 636.2 = 272.22 W - 577.02
 Cosine 90383 x 636.2 = 575.02 S 3534.51 S
 S 6°59' E 645.4
 Sine 12158 x 645.4 = 78.47 E - 655.49 E
 Cosine 99258 x 645.4 = 640.61 S 4195.12 S
 S 87°47' W 367.2
 Sine 99925 x 367.2 = 366.92 W 288.57 E
 Cosine 03868 x 367.2 = 14.20 S 4209.32 S
 N 74°51' E 183 8960
 Sine 96524 x 183 = 176.64 E
 Cosine 26135 x 183 = 47.83 N
 S 87°23' E 181.3
 Sine 99896 x 181.3 = 181.11 E 357.75
 Cosine 04565 x 181.3 = 8.28 S
 N 5°40' E 142.5
 Sine 80970 x 142.5 = 115.38 E
 Cosine 58684 x 142.5 = 83.62 N
 N 20°26' E 307.8
 Sine 34912 x 307.8 = 107.46 E 580.59
 Cosine 93708 x 307.8 = 288.43 N
 N 43°41' E 145.55
 Sine 69067 x 145.55 = 100.53 E 681.12
 Cosine 72317 x 145.55 = 105.26 N
 S 36°53' E 480.8
 Sine 60065 x 480.8 = 288.79 E 969.91
 Cosine 79951 x 480.8 = 384.40 S
 S 4°20' E 726.1
 Sine 07556 x 726.1 = 54.86 E 1024.77 E
 Cosine 99714 x 726.1 = 724.02 S
 S 34°58' E 482.45
 Sine 57310 x 482.45 = 276.49 E 1301.26 E
 Cosine 81949 x 482.45 = 395.36 S
 S 1°01' E 386.6
 Sine 01774 x 386.6 = 6.86 E 1308.11 E
 Cosine 99984 x 386.6 = 386.54 S
 S 3°22' W 299.1
 Sine 05873 x 299.1 = 17.57 W 1290.54 E
 Cosine 99827 x 299.1 = 298.58 S
 S 28°55' E 403.1
 Sine 48354 x 403.1 = 194.91 E 1485.45 E
 Cosine 87532 x 403.1 = 362.84 S
 S 1°50' E 262.6
 Sine 03199 x 262.6 = 8.40 E 1493.85
 Cosine 99949 x 262.6 = 262.47 S
 S 16°04' E 381
 Sine 27676 x 381 = 105.45 E 1599.3
 Cosine 96094 x 381 = 366.10 S
 S 9°54' W 631.2
 Sine 17193 x 631.2 = 108.52 W 1490.70
 Cosine 98511 x 631.2 = 621.80 S
 S 22°28' E 645.4
 Sine 38215 x 645.4 = 246.64 E 1244.14 E
 Cosine 92410 x 645.4 = 134.36 S
 S 72°18' W 367.2
 Sine 95266 x 367.2 = 349.82 W 894.32 E
 Cosine 30403 x 367.2 = 111.64 S

A 74°51'E 183

$$\text{Sine } 96524 \times 183 = 176.64 \text{ E}$$

$$\text{Cosine } 26135 \times 183 = 47.83 \text{ N}$$

S 87°23'E 181.3

$$\text{Sine } 99896 \times 181.3 = 181.11 \text{ E} = 35775 \text{ E}$$

$$\text{Cosine } 04565 \times 181.3 = 8.28 \text{ S} = 39.55 \text{ N}$$

N 54°04'E 142.5

$$\text{Sine } 80970 \times 142.5 = 115.38 \text{ E} = 47313 \text{ E}$$

$$\text{Cosine } 58684 \times 142.5 = 83.62 \text{ N} = 123.17 \text{ N}$$

N 20°26'E 307.8

$$\text{Sine } 34912 \times 307.8 = 107.46 \text{ E} = 58059 \text{ E}$$

$$\text{Cosine } 93708 \times 307.8 = 288.43 \text{ N} = 411.60 \text{ N}$$

N 43°41'E 145.55

$$\text{Sine } 69067 \times 145.55 = 100.53 \text{ E} = 681.12 \text{ E}$$

$$\text{Cosine } 72317 \times 145.55 = 105.26 \text{ N} = 516.84 \text{ N}$$

S 36°55'E 480.8

$$\text{Sine } 60065 \times 480.8 = 288.79 \text{ E} = 969.91 \text{ E}$$

$$\text{Cosine } 79951 \times 480.8 = 384.40 \text{ S} = 132.46 \text{ N}$$

S 4°20'E 726.1

$$\text{Sine } 07556 \times 726.1 = 54.86 \text{ E} = 1024.77 \text{ E}$$

$$\text{Cosine } 99714 \times 726.1 = 724.02 \text{ S} = 591.56 \text{ S}$$

S 34°58'E 482.45

$$\text{Sine } 57310 \times 482.45 = 276.49 \text{ E} = 1301.26 \text{ E}$$

$$\text{Cosine } 81949 \times 482.45 = 395.36 \text{ S} = 986.92 \text{ S}$$

S 1°01'E 386.6

$$\text{Sine } 01774 \times 386.6 = 6.86 \text{ E} = 1308.12 \text{ E}$$

$$\text{Cosine } 99984 \times 386.6 = 386.54 \text{ S} = 1373.46 \text{ S}$$

S 3°22'W 299.1

$$\text{Sine } 05873 \times 299.1 = 17.57 \text{ W}$$

$$\text{Cosine } 99827 \times 299.1 = 298.58 \text{ S}$$

S 28°55'E 403.1

$$\text{Sine } 48354 \times 403.1 = 5339.60$$

$$\text{Cosine } 87532 \times 403.1 = 5295.84$$

33.76

5232.48

1323.96 S

2647.92

5295.84

S 4315'E 92.1

$$\text{Sine } 68518 \times 92.1 = 63.08 \text{ E}$$

$$\text{Cosine } 72837 \times 92.1 = 67.68 \text{ S}$$

1412

5296

193176 S

165792

29384

137346 S

29858

167204 S

165792

1412

165792 S

13

2647.92

990

165792

264792

264792

264792

264792

264792

264792

264792

264792

264792

264792

264792

264792

264792

264792

264792

264792

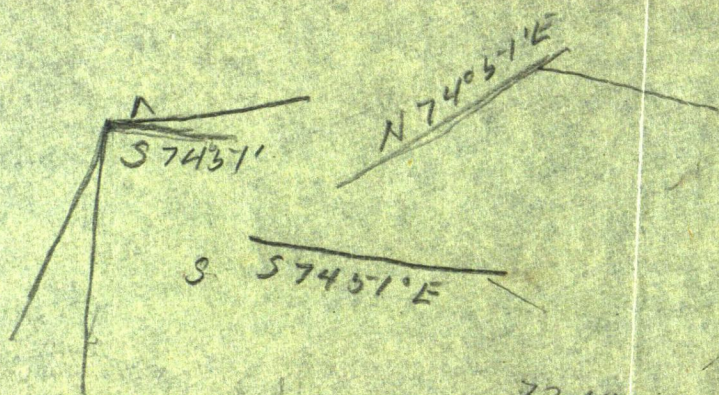
264792

264792

264792

264792

264792



72.14
 15.89

 $58^{\circ} 23' E$

299
 264
 35

244

34
 10

330
 334

100
75
92.5
100.0

720
150
8.20

90
70
160
153.7

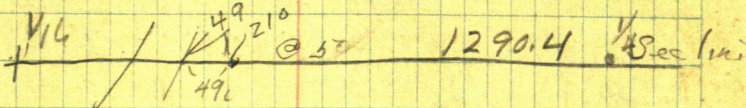
R6
Lot
71

210
49
161 121

July 28 1955

Ed + I to Brainerd then to Fox Lake

Tower hub on Sec line N 1/4 Sec 27 site W on pt for W 1/4 + chain E East on Sec line



at 210 pin - 49 = 161 E side of road

@ 210 pin + 300 = 510 pin + 260 = 770 pin + 150 = 920 pin 300 = 1220 pin + 20.9 = 1240.9 intersection hub on Sec line on E line of plot

Tower intersection hub, site N early along E line of plot Var @ 00 Turn L NW angle 62°19'

It still a intersection hub site N 89°45' W along Sec line the E line of Plot bears N 26°50' W

From NE Cor lot 1 to intersection hub 153.7 - intersection hub to SE cor 92.5 From N 1/4 Var W on Sec line 130 - 75 = 122.5 pt on shore 4.4 N early from cor to lot 16-17

37
15
92.5
1100

201	310
50	2.1
311	3089

Next - John Bob & I drive
to Ottos ~~move~~ the plat
he wants description of
a tract he has sold We go
to Fox lake

from hub on top John & T
chain E @ 40 min + 60 = 100 W
edge of swp. + 31 = 131.0 IM
N W Cor Lot 3 -

From N W Cor lot 3 ran West
131.1 hub on offset line + 108 =
239 & road @ 261 min + 55 = 316
waters edge @ 307.9 hub
Called 308

Tower hub s edge of old road
on W 1/4 line 1693.3 continue
W 1/4 line N to lake shore
From 1693.3 chain N 52.7
hub 3 ft from water

Monday Aug 29 1953

Town of Fifty lakes will not except
plat as the road is only 60 ft wide
they want 66 ft.

Ed. Bob - Gent & I to Fox Lake Gent
& Bob go fishing

Ed & I - Town SW cor Lot 19

site N on lot line Turn 90 chain 66 ft
at spike also at spike south NE angle
of old lot line 107035'

Town SE cor lot 19 Turn 90° run N 6'

Town IP Turn 90° run N 6 ft Nat IP
site E Turn 90 run N 6 ft.

Town first 6 ft from IP site E at flag at
SE cor 19 -

SW cor lot 19 goes N 6.1

Lots, 95 - 75 - 60.5 + .7

From IP chain East by 30 + 75 - 75 = 90

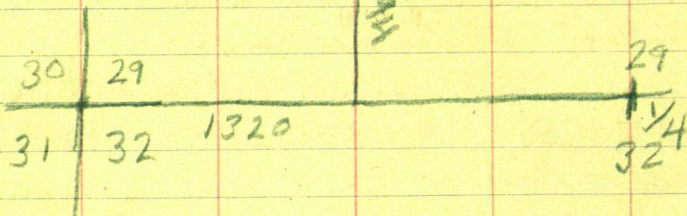
100 - 110 - ~~was~~ 70 is 69.7 + ^{was} 27.6 is 255.9

was 150

was 126.6 is 126.6

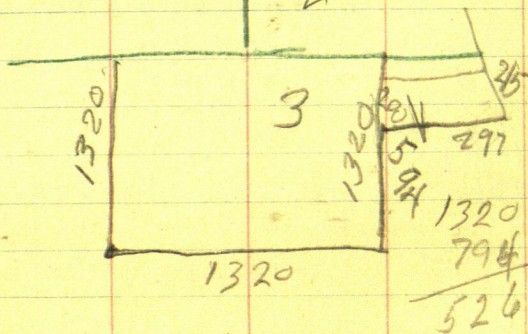
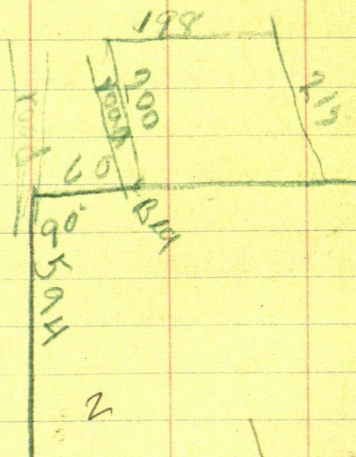
124

143-25



60 Bag 297

594



Original deed recorded
Sept 5-1953-at 9 AM. - Book 111 pg. 61

125

Charles E Kelleher Lot 3 - Sec 29-143-26

Commencing at the $\frac{1}{4}$ cor. bet Sec 29
30-143-25-1 thence Due E 1320 ft
thence due North 594 thence due
East 60 ft to pt of beginning at
a point on the East side of
Forest service truck trail # 112
thence due East 297 ft to a point
on the shore of Lake Vermillion
thence 215 ft in a Northwesterly
direction along said shore,
thence due West 198 ft to the
East edge of truck trail # 112
thence South easterly along said
truck trail 200 ft to the place of
beg. containing 1.1 acres more
or less.

Address

Charles E Kelleher

556 - So. Robert St.

St Paul - T - Minn.

July 26 - 1963

I take Gent to work drive to
Remer see Forest Ranger
drive to Vermillion Lake Lot 3
Sec. 29-143-25 Charles
Kelleher. Copy his deed on page
125 this book 242

Joseph M. Schutta has gone home
I talk to land owners and find
out that Peet Myers ran N $\frac{1}{4}$
line of section 29 about 1958 and
set an iron on lake shore one in
driveway also one on top of hill

I drive to Ball Club and on to
Cross Lake to see Peet. he is not
in and the forest surveyor will not
be in until 5 PM Peet will not be
back before Monday.

I drive to Walker pick up Gent
on to Akeley.

Monday July 29-1963

Bob + I + Akeley drive to Walker get Gas and eat hot cokes at Bills drive to Cass Lake. Peet Myers has no Notes of his survey. says he started at intersection of Range line road and E + W road at approx NW cor Section 19-143-25 and run 1 mile East found or had no corners to work from. used intersection of roads for starting point temp NW cor sec. 19 - run E distance as Notes call for found nothing but run South two miles and tied into I.M. at SW cor sec. 29. set a $\frac{3}{4}$ " pipe for temp corner to sections 19-20-29-30 then he set point for N $\frac{1}{4}$ cor bet. 29-30 and run East and set I.M. at intersection of his N $\frac{1}{4}$ line and Lake Vermillion also at edge of forest trail road at driveway into Birchwood terrace Resort there was an iron on top of hill between the two irons he is not sure if he set an Iron for N $\frac{1}{4}$ Cor bet sec. 29-30 or not. We drive to Lake Vermillion find I.M. at E edge

of Forest road and at take shore
on N $\frac{1}{4}$ line run by Myers
also find I.M. at NW cor sec 29
set by Myers.

Myers says he is not sure his I.M.s
are right or not he run the N $\frac{1}{4}$
line as it is the S line of Forestry
land and the owner of the land S
of said N $\frac{1}{4}$ line was starting to
build and Myers run the line to
keep him from building on forestry
land. Johnson sold two tracts of
Land in Lot 3 - sec. 29 - 143-25 then
sold the rest of said Lot 3 then
bough back the S 100 ft of Lot 3 for
a cabin where he now lives

The owner of Birchwood Terrace
wants the land between Johnsons
S 100 ft and Charles E Kelleher track
Laid out in 100 ft tracts if I will
do the work for him.

I plan to start at the NW corner
of sec 29. run East to forestry
road then along forest + trail road S
and West + S to the SW cor of said
sec 29.

Mrs Kelleher calls up Mr. Schutta and they bring up a copy of their deed which reads as follows

Joseph Michael Schutta and Florence Schutta husband and wife

Commencing at the quarter corner common to Secs. 29-30 Twp 143 Rge 25 west of the 5th P.M. thence 1320 ft due East; thence 990 ft due North to the point of beginning; Thence 132 ft due East to a point on the shore of Vermillion lake approx 230 ft along said shore in a southeasterly direction thence 182 ft due west to the edge of the forest service tract trail No 112 thence approx 247 ft in a Northwesterly direction along said Tract trail No 112 thence due East 86 ft to the pt of beginning containing 60 acre More or Less

Address

Mrs Joseph Schutta

633 - 2nd Ave NW

New Brighton 12 Minn

130

1870
445
146

29.8
1908
4808

ntd leg:
E 132 ft.

Schulla
247 f

182 W
198 W

Due N.
500 f
504 N.

E 297

500 f
504 N.

30 29
V4 Due E
1320'

293
110
183

131

July 30th 1963

Bob + I Lv Akeley 7-30

stop at Walker for Gas - 2.00

on to Lake Vermillion sec. 29-143-26

We go to Peet Myers I M NW corner
sec 29

Tris to Peet's I M NW corner sec. 29

Maple 4 S 65° ± E 13.4

" H S 15° ± W 19.5

W Birch 10 N 80° ± W 7.1

Maple 4 N 15° ± E 14.00

run Easterly 183, sta 2 wood 3/4 pop
in a logging road

Towny Sta 2 BS West run

S 72° 14' E 121.0 + 60.3 = 181.30 Sta 3

Towny Sta 3 BS N 72° 14' W run

N 69° 39' E 142.5 Sta 4

Towny H BS S 69° 39' W run

N 35° 34' E 290 + 17.8 = 307.8 Sta 5

Towny 5 BS S 35° 34' W run

N. 58° 46' E 145.55 ipth 4 ft W of W side
of dirt of road Need to roads 25° Sta 6

Towny 145.55 BS S 58° 46' W + run

S 21° 48' E 290 + 190.8 = 480.8 Sta 7

5 ft E of E edge of road,

290 489.8
200
490

290
100
390

384.2
2.5
2090

Tower 480.8 BS N $21^{\circ}48'W$ run
S $10^{\circ}47'W$ 724.1 to Sta 8 west of road

Tower Sta 8 BS N $10^{\circ}47'E$ run.

S $19^{\circ}49'E$ 484.8 sta 9 E $\frac{1}{2}$ of road

Tower 484.8 BS N $19^{\circ}49'W$ I Mon N $\frac{1}{4}$

line sec 29 cut by Peet Myers Forest
service bears S $14^{\circ}15'W$ 384.2 sta 10

Tower Sta 10 IM BS N $14^{\circ}15'E$ run

S $18^{\circ}29'W$ 299.1 Sta 11

Tower Sta 11 IM bears S $28^{\circ}06'E$
92.1

Katill at Sta 11 run S $13^{\circ}48'E$ 403.1 Sta 12

Tower Sta 12 BS N $13^{\circ}48'W$ run 12

S $13^{\circ}33'W$ 262.6 Sta 13

S $0^{\circ}38'E$ 381.8 Sta 14

start for home 10 part 3

Sta	Course	dist	Side	Bearing	N	E	S	W
1	East	183.00				183.00		
2	S 72° 14' E	181.3	95° 23'	305° 14'		172.65	55.32	
3	N 69° 39' E	142.6	93° 59'	347° 5'	49.55	133.61		
4	N 35° 34' E	307.8	55° 16.5"	81° 34'	250.38	179.03		
5	N 58° 42' E	145.53	85° 50.6"	57° 52'	75.47	124.45		
6	S 21° 48' E	480.8	37° 37'	92° 849'		178.55	446.42	
7	S 10° 47' W	726.1	18° 10'	98° 234'		713.28		135.85
8	S 19° 49' E	484.8	33° 01'	94° 078'		164.35	456.09	
9	S 14° 15' W	384.2	24° 15'	96° 923'		372.38		94.57
10	S 18° 29' W	299.1	31° 03'	94° 842'		283.17		94.82
11	S 13° 48' E	403.1	23° 53'	97° 113'		76.15	391.46	
12	S 13° 33' W	262.6	23° 429'	97° 217'		255.29		61.52
13	S 0° 38' E	381.	011° 05'	99° 994'		4.21	380.98	
					375.40	1236.00	3354.89	386.76

Sta 10 is I.M. on N 1/6 line and 15

905.52 E + 1668.09 S of I.M. at NW corner 29

From Sta 11 run S 28° 06' E 92.1 to I.M. Schulte NW cor. I.M.

S 14° E 4710' X 92.1 = 43.38
 COS 14° 88213 X 92.1 = 81.24

134

K

E

S

N

Courses, Distance sin, cosine

Sta

14

13

6

7

9

9

0

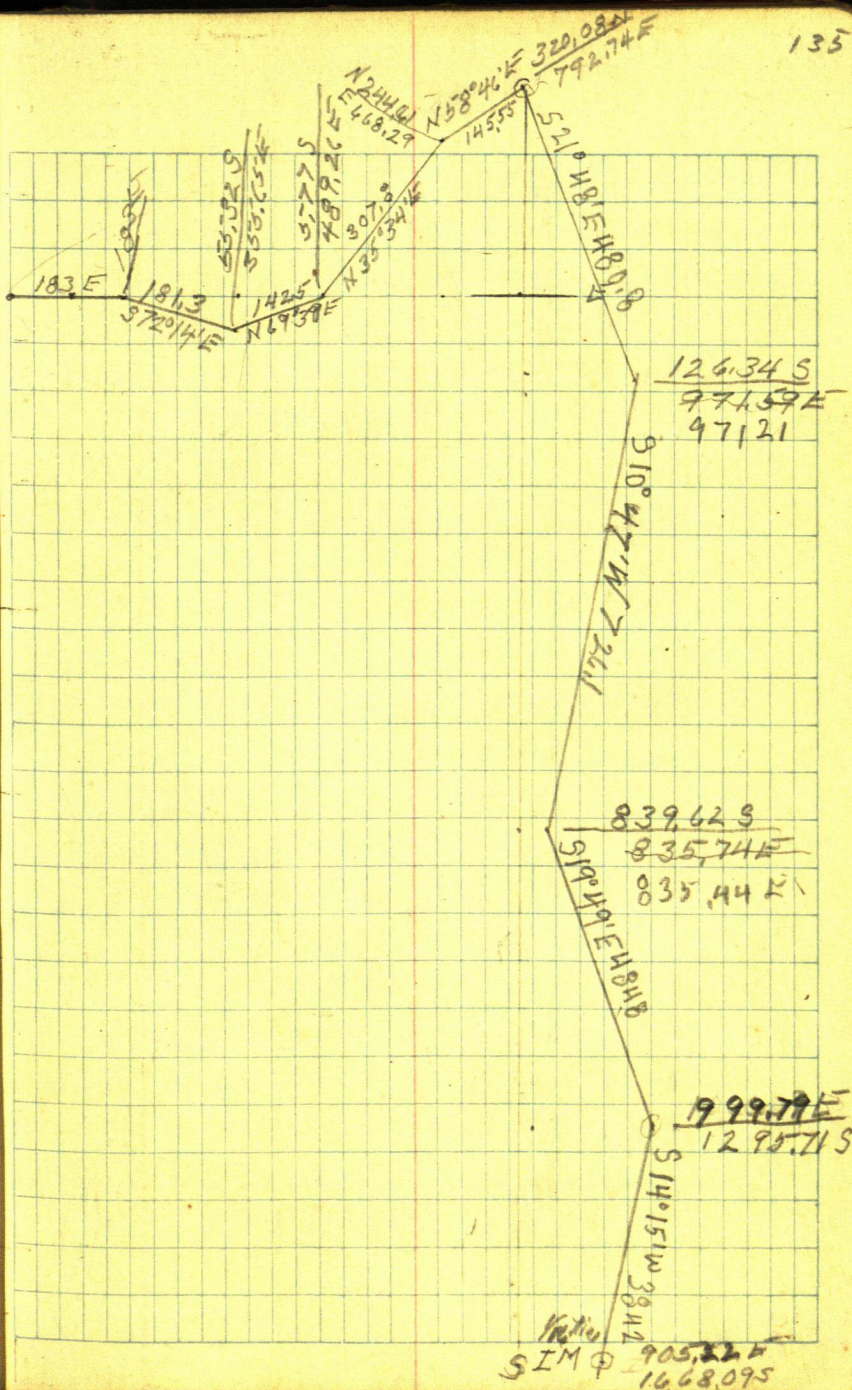
1

2

3

4

5



136

20
465
15'35"

290

1794

E 925.32
S 1068.09

IMMEDIATELY

71

810.70E
1951.76S

518029'00"
299.1

0.10350

169.
99.1
1529

290
99.1
389.1

28.90
28
77.2
198.0

137

Aug 1-1963

Bob + I fix tire Lv Akely 10-30
get gas and air in tire at Walker
on to Vermillion Lake Sec 29-143-25
arrive on job 12+10

Tower Sta 14 BS N $0^{\circ}38'W$ run
S $25^{\circ}20'W$ 631.2 Sta 15

Tower 15 BS N $25^{\circ}20'E$ run
S $6^{\circ}59'E$ 645.4 to end of Tower road (16)
Thru up tower road

S $87^{\circ}47'W$ 367.2 Sta (17)

Tower 17 BS N $87^{\circ}47'E$ run
S $87^{\circ}34'W$ 617.35 Sta (18)

Tower 18 BS N $87^{\circ}34'E$ run
S $45^{\circ}30'W$ 152.9 Sta 19

Tower 19 BS N $45^{\circ}30'E$ run
S $30^{\circ}36'W$ 389.1 Sta (20)

Tower 20 BS N $30^{\circ}36'E$ run
S $42^{\circ}04'W$ 305.36 (21)

Tower 21 BS N $42^{\circ}04'E$ run
N $85^{\circ}31'W$ 171.4 Sta 22

Tower 22 BS S $85^{\circ}31'E$ run
N $46^{\circ}31'W$ 321.5 Sta (23) on real line \pm

Tower 23 BS S $46^{\circ}31'E$ run

138

998
6139.8
2
$$\begin{array}{r} 110.2 \ 130 \\ 7 \quad 29 \\ \hline 103.2 \ 122 \end{array}$$

S 21° 05' W 122.1

Tower 122.1 BS N 21° 05' E run

S 15° 20' W 137.8

Tower 137.8 BS N 15° 20' E run

S 11° 27' W 93.8

Tower 93.8 BS N 11° 27' E IM cor
axel

bears S 22° 36' W 103.2 //

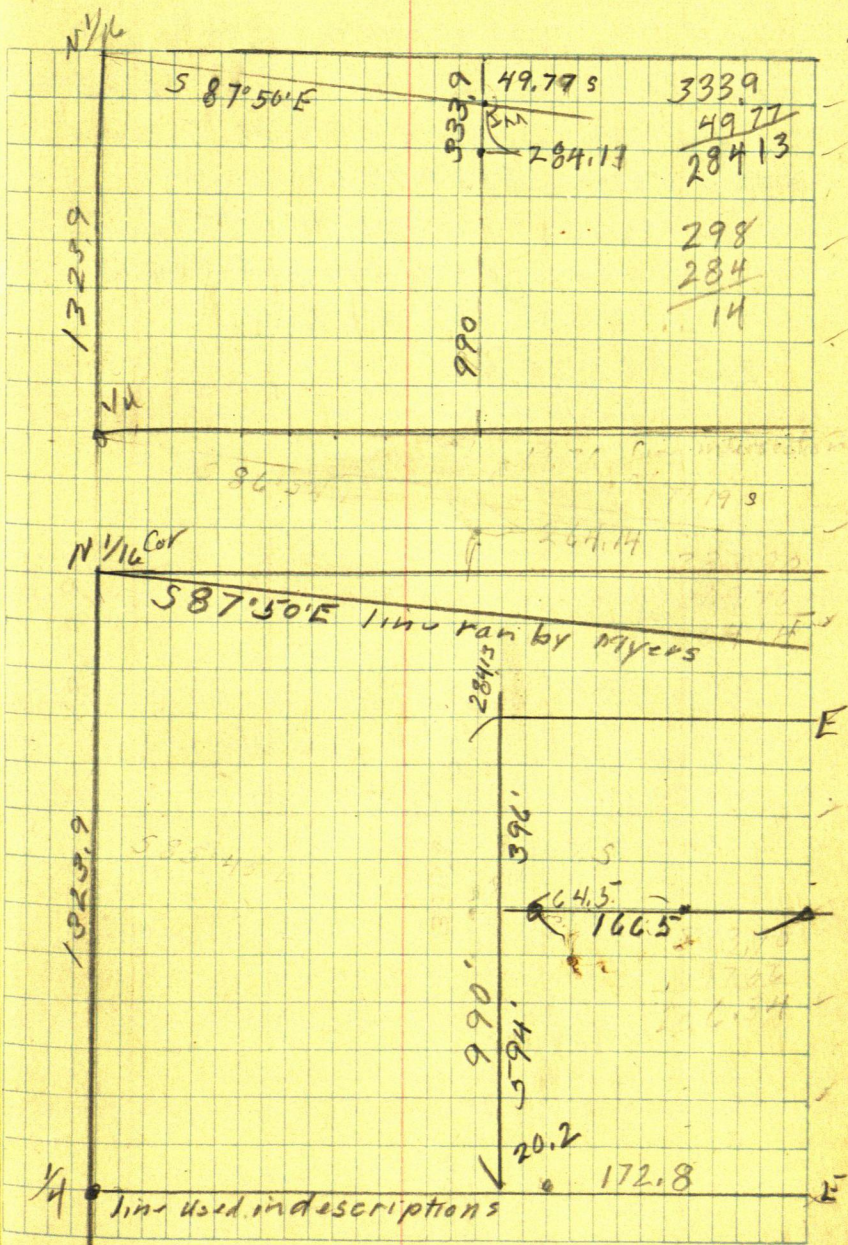
Lv for Home 5-50 P.M.

N 74° 51' E

169.5

Sec 29-143-25

139



F. 9

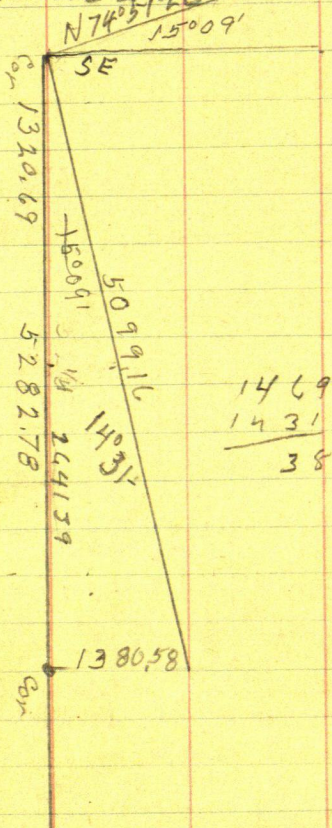
From NW cor sec 29-143-25 but
random travers 1 mi S of the SW
cor sec. 29 into 5099.16 S and
1380.58 W. S15°09'W

$$\sin 26135 - X 5282.78 = 1380.66$$

Cosine 9652415099.161528278

2441.39 dist 8 to $\frac{1}{4}$

$$2 \overline{) 5282.78}$$



Sta 845,03 E + 2598,51 S 13

142

$$\begin{array}{r} 290 \\ 100 \\ \hline 390 \\ 3.4 \\ \hline 386.6 \end{array}$$

7.55 off

290

$$\begin{array}{r} 200 \\ \hline 490 \\ 7.15 \\ \hline 482.45 \end{array}$$

390

$$\begin{array}{r} 34 \\ \hline 386.6 \end{array}$$

Tower Sta 1 - B S S $74^{\circ}51'W$

run. S $87^{\circ}23'E$ to Sta 2

Tower Sta 2 run N $54^{\circ}04'E$ to Sta 3

Tower Sta 3 run N $20^{\circ}26'E$ to Sta 4

Tower Sta 4 run N $43^{\circ}41'E$ to Sta 5 edge of pond

Tower Sta 5 run S $36^{\circ}55'E$ to Sta 6

Tower Sta 6 run S $4^{\circ}20'E$ to Sta 7

Tower Sta 7 run S $34^{\circ}58'E$ 482.45 to 8

Tower 8 run S $1^{\circ}01'E$ 386.6 to 9 IM

Tower 9 " S $3^{\circ}22'W$ to Sta 10

IM bears S $43^{\circ}15'E$
 Tower 10 S $28^{\circ}55'E$ to Sta 11

Tower 11 S $1^{\circ}50'E$ to Sta 12

S Tower 12 S $16^{\circ}04'E$ " 13

Tower 13 S $9^{\circ}54'W$ " 14

Tower 14 S $22^{\circ}28'E$ " 15 F.R.

Tower 15 S $72^{\circ}18'W$ " 16

Tower 16 S $71^{\circ}04'W$ " 17

Tower 17 S $29^{\circ}58'W$ " 18

Tower 18 S $15^{\circ}05'W$ " 19

Tower 19 S $27^{\circ}33'W$ " 20

Tower 20 S $78^{\circ}55'W$ 21

Tower 21 N $62^{\circ}06'W$ 22 on Sec line I

Tower 22 S $5^{\circ}29'W$ 23

Tower 23 S $0^{\circ}16'E$ 24

S 40° 08' E Sta 25
S 7° 09' W to sec cor

Fig.

Cor sets S. 5510 and 2775 E
4320 E of $\frac{1}{4}$ cor. and 594 ft N then
60 ft E = 1380 ft E + 594 N of $\frac{1}{4}$
or

$\frac{1}{2}$ 5510 ft = 2755 ft S of NW cor
Sec 29 and = $\frac{1}{4}$ cor - 594 = 2161 ft S

Sta 12 is 2024.88 S and goes S 136.12 ft

Using the Forest Service $\frac{1}{16}$ center NW $\frac{1}{4}$
The dist between sec cors would be
5493.84 + the $\frac{1}{4}$ would be at 2746.92
S - 594 = 2152.92 S.

Sta 12 2024 88 S
Not beg - 12804 S of Sta 12

Correction random time

549384 / 2775 10050511 W for each ft S
202488 S X 0050511 = 10.23 + 1501.26
= 1511.49 E =

Sta. 12 is 15-11.49 E + 20 24.88 S of NW cor
 I want 1380.00 E + 215292.5 for pt of beg.
 = 131.49 E + 128.045 of Sta 12
 to pt of beg.

I Mat post is 131688 E
 should be 1239.00 to edge of road
 then 81 ft E to pt of beg = 1320. E
 I Mat post is 1739.12 South
 should be 1756.92 South
 so it is! 17.80 to far North

The $\frac{1}{4}$ cor corner 2746.925

	1739.12	24.7
1320	1373.46	900
990	<u>355.76</u>	247
<u>330</u>		

Peets N $\frac{1}{4}$ line run S 87° 50' E

990
 594
396

See page 125 145

" 129 13

IM on N 1/2 line

10

1315.05 E

1373.46 S

11239 E

539226222

1320

81

1401

1314.80 E
1672.94 S

11

5430.15 E

921

921

5280.55 E

40311

1378.24 E

1739.12 S

N 80° E

1320 E

990 N

1320

60

1380

12

1516.49 E
2024.88 S

5105.0 E

1521.21 E
2287.35 S

13

1378 24

1320

58 24

5160.4 E

14

1628.51 E
2453.47 S

Bob + I to Vermillion Lake
work Tom line bet IMs on N 1/4 line
set by Peet Myers Coreshake Forest service

π back on Sta 10 - IM. course of N 1/4
line is S 87° 50' E

Over IM. course of N 1/4
property N 80° E changed to N 83° 10' E

π over Sta 12. run N 23° 18' W 116

Sine 39553' x 116 = 45.88 IN

Cosine 91845' x 116 = 106.54 N

π still on Sta 12 run. S 1° 40' E 84. ft

run N 80° E at 10 ft IM leg. + 109.7

IM

π back over Sta 116 sit. S 23° 18' E

run N 63° E at

203.6 along road of Schutte
tract

from IN run S 83° 10' W 13.00'

2940
904
2036

147

200

116

84

2024885

10654

19.1834

191834

173912

179.22

Monday Aug. 1963

Bob + I to Vermillion Lake Tower

IM on N $\frac{1}{4}$ line set by Pete Myers

site E on N $\frac{1}{4}$ line Var on 90° run
S1°02'W 299.1 ft

Tower 299.1 BS N1°02'E IM point of
beg. bears S38°24'E 85.2

Tower 85.2 BS N38°24'W lot line runs
N79°47'E 104.6 to IM +20 to bog
+100 to open water \pm

IM point of beg of Charles
property bears S33°31'E 297.8

N line runs N60°49'E 63.15
sub 10 + open water + 75

IM at pt of beg Schutter tract bears
N31°30'W 253.6

IM at SW cor Char. tract bears S19°27'E

148-
249.5
405

294
260.3
3517

2916
2192
868

1.4

96
40

292 1290
2298 27
762 1317

Still at Char NE cor

Take house

SW cor S70°47'E 57.4 20x16

NW cor N86°07'E 35.7

NE cor N78°46'E 51.9

Shed

SW cor N78°37'E 68.25

NW cor N71°44'E 76.2 10x8

NE cor N70°10'E 86.2

run N16°53'W 151.25

Over 151.25 BS S16°53'E

Take buildings

36x

SW cor S26°18'E 38.4

26

NW cor S34°06'E 12.40

NE cor com. porch. N85°24'E 40.5

Total

SW cor N84°45'W 22.1

SE cor N76°56'W 19.0

4x4

NE cor N69°43'W 22.3

Turn I Mon S line BS N19°27'W

S line runs N77°44'E

to IM 75 ft

Water

1110
180

130995

10724

17960

8654

93.06

60

72

528

149

Sat. Oct 10 1963

Bob & I to Vermillion Lake Tower
hole in stump where Iron pipe
was set run South @ 303.7 wood
hub @ 510.7 hub 60' spike continues
+ 300 = 810.7 pin + 160 = 970.7 hub 60' spike
continues S on random

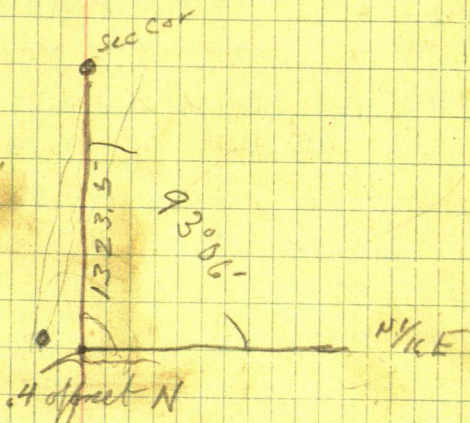
970.7

300

1270.7

528

1323.5 intersection



Tower intersection of random line
the N 1/4 line is on a 4/10 offset N.

Old state point bears N 79° 52' W 26.80

Angle 586° 54' E

from intersect hub 60' spike chain E on
N 1/4 @ 300 pin + 180 = 480 + 30 = 510 +
300 = 810 + 300 = 1110 pin + 180 = 1290.
to IM in driveway

Bob + I to Vermillion Lake
 Tower Peter Myers I M on N $\frac{1}{4}$ line
 Sec 29-143-25 site E on said $\frac{1}{4}$ line
 Vir set a S $87^{\circ}50'E$ + run South
 284.11 ft set 60° spikes on E edge of
 Forest tract road #112 Turn 90° +
 run East hit S. edge of 6" Birch tree
 set 2 - 60° spikes on this line
 Note will have to offset N 2 ft to get
 through branches of pine tree
 head for home - 230

See page 139

Sat. Nov 2nd 1963

Bob + I to Lake Vermillion
 Tower point 990 ft N of line E of
 $\frac{1}{4}$ site N run S $27^{\circ}55'E$ 448.15 ft
 to a point 594 ft N + E of $\frac{1}{4}$
 chain Northerly along E side of
 Forest tract road 200 ft set spike
 T still at 990 N this spike bears
 S
 offset but 990 N 2 ft + run E
 Tower 594 into N W on spike 990
 run E to shore
 Tower 200 N of 594 site N a)

run E to to 6

$27^{\circ}53' E$

sin

Cosine 88363 into 96 =

44816

Then 2 ft N offset of Schutta, N
line old IM sets S $17^{\circ}10' E$. $90 + 12 =$
91.2.

160

AG²⁵
825
125

80
556

1356 80
67.8
55.6

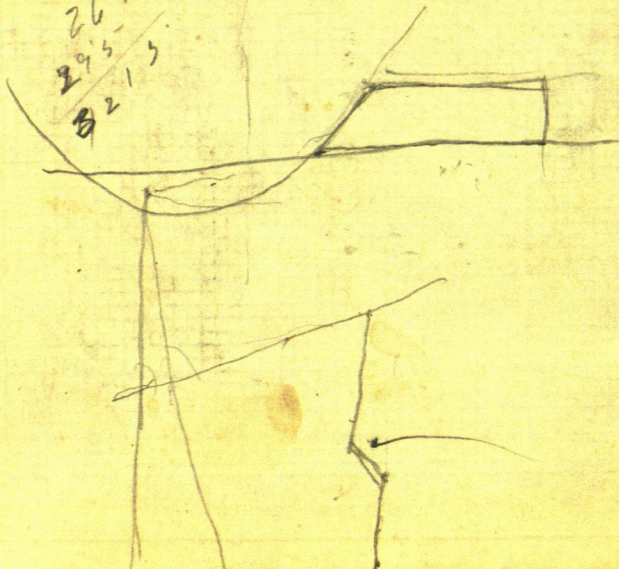
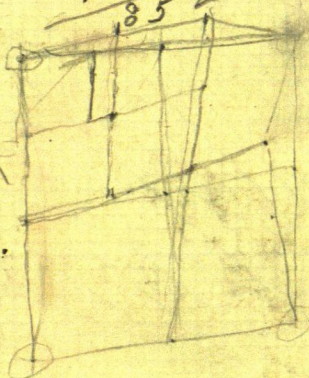
1212 290
295.0
209.8
852

15
6
71
90
090

8.4 off

180.4
74
172.6

265
295
3215



$$\begin{array}{r} 295 \\ 295 \\ \hline 590 \end{array}$$

$$\begin{array}{r} 50 \\ 8.8 \\ \hline 41.2 \end{array}$$

$$\begin{array}{r} 150.1 \\ 290 \\ 290 \\ \hline 730.1 \end{array}$$

$$\begin{array}{r} 586.8 \\ 130 \\ \hline 716.8 \\ 300 \\ \hline 1016.8 \end{array}$$

$$\begin{array}{r} 590 \\ 412 \\ \hline 6312 \end{array}$$

$$\begin{array}{r} 726.1 \\ 80 \\ \hline 730.1 \end{array}$$

$$\begin{array}{r} 290.0 \\ 180.3 \\ \hline 109.7 \end{array}$$

$$\begin{array}{r} 290.0 \end{array}$$

$$\begin{array}{r} 721 \\ 6 \\ \hline 4326 \\ 4326 \\ \hline 4773.86 \end{array}$$

250

$$\begin{array}{r} 482 \\ 290 \\ \hline 192 \end{array}$$

$$\begin{array}{r} 9.5 \text{ off} \\ 220.3 \\ \hline 210.7 \end{array}$$

203.7
510.7 kwh

$$\begin{array}{r} 200 \\ 500 \\ \hline 2987 \end{array}$$

$$\begin{array}{r} 944 \\ 20 \\ \hline \end{array}$$

$$\begin{array}{r} 744 \\ 280 \\ \hline 354.4 \end{array}$$

$$\begin{array}{r} 240 \\ 34 \\ \hline 236.6 \\ 70 \end{array}$$

$$\begin{array}{r} 194.8 \\ 56.7 \\ \hline 3251.5 \\ 8 \end{array}$$

2031

150

$$\begin{array}{r} 8750 \\ 1425 \\ \hline \end{array}$$

$$\begin{array}{r} 543619 \\ 543910 \\ \hline 687529 \end{array}$$

$$\begin{array}{r} 043765 \\ 3408 \\ \hline \end{array}$$

$$\begin{array}{r} 330120 \\ 1740600 \\ 131295 \\ \hline 14905 \end{array}$$

580

3735

68735

110

130 day

290 m

30 day

2766

226

260

226

$$\begin{array}{r} 298.7 \\ 210 \\ \hline 88.7 \end{array}$$

526.7

90

6167

$$\begin{array}{r} 40265 \\ 3735 \\ \hline \end{array}$$

$$\begin{array}{r} 3) 251.5 \\ 24 \\ \hline 11 \end{array}$$

9

2.5

5223.60

2604.7

53.7

223.7

251.5

2237

278

5280

236

5614

537

218

83.5

84

84

16.8

194.8 DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½.

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be $41.9 + (20 - 16) \div 2$ or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.