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55.228
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3

196860

80314

100000 / 4015.7

0024

4015.7

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140019

2635.20

1381

90.2

14009
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1380.7

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45.25
30.00
15.25

386
6
510



Standard Engineer's Field Book

Description

No.	Size	Rulings
1307	7 1/4 x 4 5/8	"Level"
1308	"	"Field"

Specify by Number, the Book desired

This book contains a superior 50% rag content paper having a high degree moisture resisting surface. Waterproof ink is used and it is sewed with Bing Enamel Waterproof Thread. The binding material is also waterproof.

Made in U. S. A.

BOORUM & PEASE COMPANY
BROOKLYN, N. Y.

370.20
- 3.6425
366.55

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3.64
36.64

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SEC PG 29 +

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Albert Kautz
Wadena Minn.

①

Wed May 20th 1959

Donald Curo & I load tools
in Four wheel drive Pickup
and drive to Albert Kautz

Wadena Minn Sec. 2 Twp 135
N R. 35. have to take detour and
get to Kautz around noon have
dinner. P.M.

Albert Kautz & I put on rubbers
and he takes and shows me the
layout of his land and ditches

We drive to see Mrs Howard
to see if Elmer Tiffany notes or
plats of his work when he run
out this for Albert in 1937.

Howard's work was through
out of court because they said

Howard was no a Registered Surveyor

Mrs Howard tells me John Howard
and Elmer was one and the same
person. I can not understand
this as John Howard was a Registered
Surveyor. We don't find any sketch
but I copy His notes on page 2-13.

②

Albert Kautz

AS Hall Jr.
JE Howard
9-21-56W $\frac{1}{2}$ SE $5\frac{1}{2}$ SW Sec. 2 - 135 = 35

0.35 100.35 100

7.67

92.68

T.P.

7.67 92.68

2.17 94.85

217

94.85

0-00

56 89.3

T.P.

5.90 88.95

537

94.32

5.37 94.32

247

91.84

10+30

4.8 89.5

3.8 90.5

T.P.

2.48 91.84

268

94.52

2.68 94.52

6.2 88.3

7.3 87.2

Return

T.P.

268 91.84

B.M. 24" Elm 100' SE of Culvert ^{on} road

Bottom of Ditch at point leaving Kautz land
Ditch leaves fence 1310' North of SE cor
of 40

6+00 South along Kautz fence

end of Ditch made by Kautz Dam

Natural ground at end of Ditch

i.e. of culvert on S Road

600 ft South of road

4

HI

T.P.

2.99

94.83

91.84

18+40

6.52

88.31

18+00

5.8

89.0

17+00

5.8

89.0

16+00

5.2

89.6

15+00

5.2

89.6

14+00

5.2

89.6

13+00

5.2

①

2.29

94.13

2.99

91.84

12+00

4.4

89.7

11+00

4.3

89.8

10+40

4.3

89.8

10+35

4.3

89.4

10+00

5.0

89.1

9+00

5.3

88.8

8+00

5.5

88.6

7+00

5.5

88.6

②

7.22

96.19

5.16

88.97

6+00

7.7

88.5

5+00

7.9

88.3

4+00

7.8

88.4

3+00

7.7

88.5

2+00

7.7

88.5

Fence line Culm.

Check Levels ran for Albert Kautz
Wadena Minn on Sept 21-1956

SW $\frac{1}{4}$ - SE $\frac{1}{4}$ Sec

ditch	89.8		
	4.3	National Ground	
	4.2	89.9	"
	4.5	89.6	"
	4.4	89.7	"
	6.5	89.7	"
	6.7	89.5	"
	6.8	89.4	"
	6.5	89.7	"
	6.7	90.0	"
96.2			

6

1+00		7.0	89.2
------	--	-----	------

0+00		6.8	89.4
------	--	-----	------

96.19

①	7.02	98.70	45.1	91.68
---	------	-------	------	-------

①	5.32	101.47	24.3	95.15
---	------	--------	------	-------

(0.02
error)

BM			14.5	100.02	100.
----	--	--	------	--------	------

BM	244	102.44		100
----	-----	--------	--	-----

	7.62	94.82	flow line
--	------	-------	-----------

	4.0	98.4
--	-----	------

	7.39	95.05	flow line
--	------	-------	-----------

Drainage Ditch to NE from 0-00

	3.23	94.91	91.68
--	------	-------	-------

0+00		5.4	89.5	0.1 89.4
------	--	-----	------	-------------

1+00		6.2	88.7
------	--	-----	------

+33-		6.7	88.2
------	--	-----	------

+53-		2.3	92.6
------	--	-----	------

2+00		6.7	88.2
------	--	-----	------

2+25		5.8
------	--	-----

3+00		6.2
------	--	-----

4+00		6.3	88.6
------	--	-----	------

5+00		6.3
------	--	-----

918

44 Top dam

6.0

90.2

Bottom of Ditch

Spike in 24" Elm

36" culv. across road

Top road

24" culvert under road

at first or Westmost Dam

Bottom at ditch at W. Dam

Ditch at East Dam

Top of East Dam

Dam ditch east of dam

begin Ditch

4.6. Nat Ground

4.7 ' "

4.8 ' "

4.6 ' "

8

94.91

①

4.30

94.71

430

90.41

6+00

6.2

88.5

7+00

6.3

88.4

8+00

6.4

88.3

9+00

6.2

88.5

10+00

6.5

88.2

11+00

7.0

87.7

90°			
4.7	Nat Gr.		
5.0	89.7	Nat. Gr.	
4.6	90.3	"	"
4.8	89.9	"	"
5.1	89.6	"	"

channel from N.W. 5.0, 89.7

Drop from ditch at
Albert Krouse dam To
junction at ditch to NE =

	89.5-
	87.7
Elev. junction	<hr/> 1.8 Ft.

24" Culv. → 95.05
 36" Culv. ↗ 94.82 — ditch

road

B.M. 100

⊙ ← spikes in
 24" elm

culv. 88.31

88.17 11
Ditch

Ditch

9216 00-1
Down

8400

89.4

816

88.3

x

Aracuta

89.4

x

89.8



12

K Lowenø

9-24-56

0+00 6.24 94.55 88.31

5+00

Bot. Ditch

7.1

87.5

10+00

9.0

85.6

14+00

9.7

84.9

Bottom of culvert on South side of
Kavitz land Nat Ground

6.0 88.6

8.0 - 86.6

10.0 - 84.6

Rockwood Twp
Leaf River Twp

12 15
13-85

500
54

2000C Cub,
70' x 96" Diam each

High
Water

Farm
144. Kutz

Road

Pvt Road

98.9

42.5

900
100
Culm Floor
Elev 97.2

155 2 11 25

Elev 98.08 at Service of
3 1/2" water in ditch junction
Elev 96.8 Bottom of Ditch

Ditch
400' - Elev. in ditch bottom
98.00

98.2
98.1
98.0
97.9
97.8
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Thurs. May 21 1959

15

Rains in A.M. P.M. Don & I go to S line sec. 2. work Tom & road set hubs.

from hub on top chain west down hill along & road. at 725' W fence run south @ 752' W culvert - 900' pin
1200' W pin 1500' pin + 210' = 1710' to

pt of intersection of & of road North from hub on top 1710' E of N road

Chain E down hill - 300' + 150' + 276.2' hub. at intersection of cross roads. + 270.5'

fence south which I am told is on line from spike at intersection continue E 300' + 300' = 600' + 169.5' = 769.5' to hub between

Culverts

Have spike hub bet. culverts on & road S line sec. 2 - site W along &

mark Light with spike 60' in NW side bears N 79° 54' E 199' stads

USE spike in light pole as Bench Mark

Rain all P.M. I make a

copy of Carl Nedberge's of Detroit lakes map. of a part of this work.

Nedberge is a Reg. Surveyor and did nothing but make a Map for Courts to look at which is all wrong Nedberge just look land over & make maps

16

BM

+ S

HI

- S

rod

chr

100

5.43

105.43

5.43

Note: this was the beginning of
our work from road on 5/12/12 Sec. 2-138-33-
South, using a light pole
as B.M.

8.32

8.32

97.11

9.05

9.05

96.38

9.10

9.10

96.33

8.04

8.06

97.37

8.13

8.13

97.30

8.68

8.68

96.75

7.32

7.32

98.11

9.58

9.58

95.85

7.63

7.63

97.80

7.73

7.73

97.70

9.34

9.34

96.09

5.53

5.53

99.88

T.P.

ROCK WOOD TWP
Leaf River Twp

12 1.5

South

St. 00 spit in & bet culverts

Bottom of cement culvert N of road

" steel " N of road

" " " S of road

" cement " S of road

Ditch south of road bottom at life fence ^{S 40° 13' W}

85 ft S 36° 14' W Bottom

Nat. meadow west of ditch

Bottom of ditch 180 ft S 40° 03' W

Nat. meadow W of Ditch

Nat. " " " "

Bot Ditch S 41° 05' W 270 ft

T.P. ^{Stake 1} 285' S 42° 14' W

Stake 4 Location for T.P. 515' S 42° 15' W

18

B.M.

+S

HI

+S

rod

Elw.

4.03

103.91

403

6.88

6.88

97.03

5.04

5.04

98.87

6.99

6.99

96.92

4.92

4.92

98.99

6.69

6.69

97.22

5.13

5.13

98.78

6.77

6.77

97.14

5.85

5.85

98.06

5.41

5.41

98.30

5.53

5.53

98.38

at T.P.

+ 30 steps \pm Bottom of Ditch

Nat meadow W of Ditch

Bottom of Ditch 33 steps

Nat meadow

Bottom 38 steps

Nat. Meadow

end of open ditch

240' S $32^{\circ}30'W$ old ditch

T.P.

370' Location for T. L. S $32^{\circ}09'W$

20 Fri May 22-1959

plan to take elev. over meadow
as there is no ditch extended
from where we left off last night

BP	+ S	HI	- S	Prod	Elev.
98.38		102.76		4.38	98.38
				6.25	96.51
				6.40	96.36
				6.97	95.79
				7.44	95.32
				6.91	95.85
				5.33	97.43
				5.70	97.04
				5.38	97.38

in Nat Meadow N 24° E 45 ft stada

" " " N 35° W 42 ft

" " " N $48^{\circ}30'$ W 60 ft

85

N $77^{\circ}30'$ W 85 ft

" " " N 79° W 130'

on dam top S $82^{\circ}40'$ W 120'

open in B. Dam S $57^{\circ}10'$ W 70

on top S $47^{\circ}45'$ W 37 ft

22					
BN	+ S	HJ	- S	Root	Elev
		102.76		630	96.46
				790	94.86
				643	96.33
				9.50	93.26
				8.77	93.99
				6.77	95.99
T.P.					
			6.44	6.44	96.32
Sta			5.37	5.37	97.39
		HJ			
		102.13		3.81	
				606	96.07
				5.34	96.79
				6.80	95.33
				7.53	94.60

Nat Meadow

S 40° W

190

bottom 1/4 wide ditch

S 18° W 210

Nat Meadow

S 36° 45' W 220'

hole N of Dam

S 28° W 335'

S 12° 30' W 335'

S 2° 30' W 375'

Top of Dam, Elev 96.32

S 14° 20' W

Sta on dam

S 5° 23' W 257 + 257

on sea wall on Bay side dam

98 ft #571° 45' W

on top

158' S 65° 20' W

~~S 22° 30' W 335'~~

75'

S 22° 35' W 335'

S 12° W 335'

24

HI

102.13

768 94.45

6.81 95.32

Move T back on S. road Snd Sta 2
 to hub between culverts 6' E of 36" Sta at
 9 ft W of current 24x36" culvert
 into W on E road,
 get HI from BM on Light Pole

105.34

57.34

715 98.19

793 97.41

747 97.87

757 97.77

7.74 97.60

7.52 97.82

Sta 1a
 Run N. 63° 38' E 375 ± 1/2 Sta

345

Nat Meadow

S 5° 15' W 345

S 8° 45' E 365

Nat camp N of Road

N 51° 30' E 70

Nat. camp near end of ditch

N 10° 45' E 50

Nat

N 33° 25' W 60

180

Nat

N 15° 20' W 180

in old ditch

N 5° 45' E 170

N 19° 10' E 175

26

Tower No BS as hub in road S 63°38'W

HI

103.34

334

4.89 9845

290 10044

3.00 100.34

104.72

4.38

433

100.32

~~4.40~~ 100.32

104.65

4.33

6.00 9865

6.37 98.28

9

6.35 98.30

Tower only No BS S 1°38'W continues

TP 4.49 102.79 4.49

Continues run along E Al. Dam

Nat sup \rightarrow N $3^{\circ}40'$ E 135

TP. on S end of Dam N $59^{\circ}34'$ E 445

47

St. on top of Dam & N $55^{\circ}07'$ E 476

" " " " &

on top of Dam & ^{rw} N $10^{\circ}38'$ E 391

Sta. \rightarrow

TP

w of Dam Nat sup S $70^{\circ}W$ 70

" " N $24^{\circ}20'$ W 160

" " " " N $60^{\circ}W$ 315

Time Sheet.

Working for. Albert Hautz

Wadama Minn.

May 20-21-22-23-24-25-

195-9

Harold Curo 1 1 1 1

Don. Curo 1 1/2 1

Car 1 1 1

Expence.

5 days @ 60.00 = 250

25

\$ 275

1-33	A. KAUTZ	2-135-35	
34-63	K. HANSON	3-34-141-33	✓
65-69	M. E. McTAY	LOT 7 LAKEVIEW	4-10-140-35 ✓
70-77		17-18-19-20	140-34 ✓
78-87	H. SCHLEICHER	LT 3 BLK 3	PARK RAPIDS RIVERSIDE PARK ✓
88-90	NEVIS VILLAGE	50-50	-34-141-33 ✓
93-115	B. McMANARA	15-16-17	OWASSA BEACH ✓
		6L-6-7-8	6-140-32 ✓
116-	A. MCSS	23-24-25-26	-144-32 ✓
117-130	HOLASEK	LT 156L 9	139-33 ✓
		1-2-8	
131-135	E. L. SMITH	8-19-140-33	✓
136-139	G. A. BALDUS	BLK 5 HIGHLAND PARK	NEVIS
140-147	STROUT RLY	15-140-33	✓
148-155	W. H. COWAN	2-29-143-32	✓
156-157	B. ICE	OUTLOT 5 LONG LAKE PARK	
158-159	B. HOFFMAN	4-16-140-31	✓

30

HI

102.79

472

45.16

484

97.95

Move π to π , BS S 1°03'W-

HI

97.95

4.46

4.46

102.49

6.48

95.93

5.74

96.67

5.77

96.64

5.82

96.59

32.5

98.84

Sta

417

98.24

95.71

4.04

98.37

Took the 103.90

at a.p. of Al. 5.7mm

5.82

98.08

730

96.68

Sta

N 1° 03' E 295

T.P.

T.P.

on Dam

West of Dam. Nat. sup. 110' S 20° 45' W

50 S 75° 30' W

100' 60' ~~S~~ 22° 30' W

NW Cor. of open water ditch

200 N 6° W

T.P.

Sta

N 2° 10' E 264

N 22° 30' W 275

between dams

105' N 74° 30' E

7.55 96.35

780 96.10

770 96.20

780 96.10

840 95.50

865 95.25

790 96.00

890 95.9

880 95.10

Creek ^{red ink bottom of creek} 640 ft E of 40 cor.

It on creek bank creek water 6 ft high
at 245 flag near fence

105.60

520

8

8.45 at 97.15

TP

99.60

6.00 99.60

103.92

432

Note elev. at intersection
of ditches 95.37

7.55 at intersection
9.00 Elev 94.92

B of D. N 68° E 330 ft

B of D. ^{from} N 67° E 450

B of D. N 67° E 545

B of D. 640 N 67° 15' E 720

B of D. N 67° 30' E 720

B of D. N 67° 30' E 850

N 68° E 9, 80 ±

N 68° 15' E 1060 ±

N 68° E

Creek runs S 30° E ±

bank 5 ft deep near fence on day cut 200 ft

meadow 355' S by at fence
at fence creek turns S 32° E+ ditch 280 ft ± S by from fence
430 ft S by " " All in Bottom of Ditch
Ditch 5 ft wide

Fri. May 30th 1959

I get a phone call from
Kenneth N. Hanson

1810 16th Street Rh. CE 30157

Moorhead Minn.

His father, Carl Hanson

Nevis Minn.

Kenneth is in Park Rapids and
owns land on Spider Lake
1 mile N. of Nevis wants some
tracts staked out on said lake

Gov't lot 3. Section 34-141-33

except West 30 or 35 rods he

is not sure which I drive
to Nevis and we look for the
1/4 on W. side of Sec. 34 set by
Wilbur but do not seem to find
anything. Orig Owner of
Property said he had Todd
Survey for him years ago &
that there has been several
surveys made no two coming
out the same, too late to get
in court house at Park Rapids
so will go check old Survey Records
Monday, June 1st

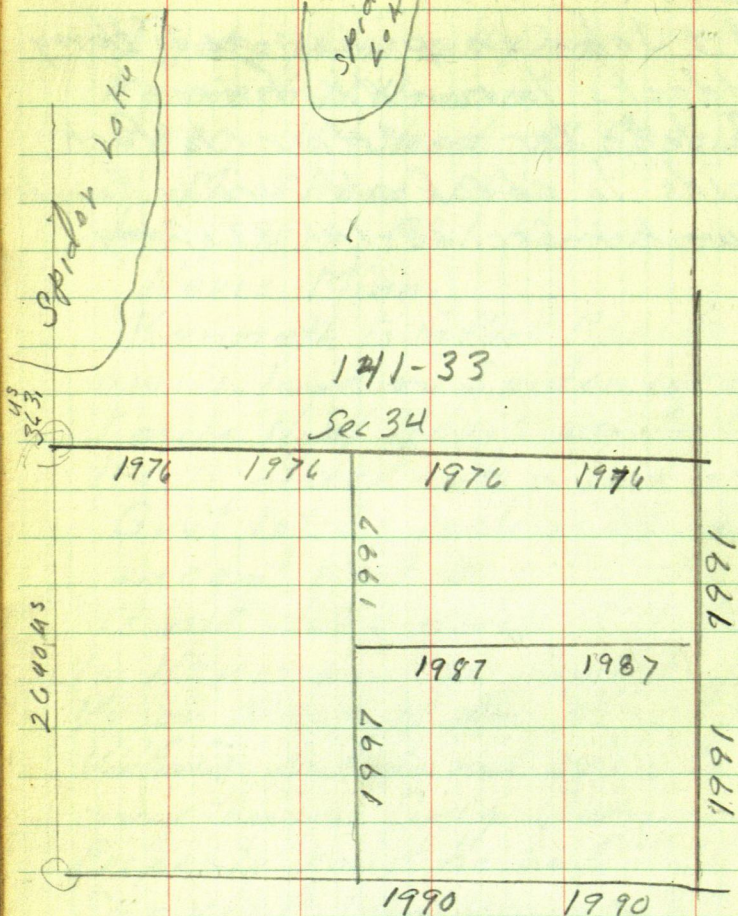
June 1st 1959

Ed & John in pickup go to Harry Paddocks to run $W\frac{1}{2}$ line

I take cor and drive to Park Rapids to check old Survey Records of work in Sec. 34-141-33 if any

36

June 4

Spider
Lake

Sec. 34 Town of Mantrap surveyed

in May 1909 plat on page 7 Book A

All Gov't bearings were found except $\frac{1}{4}$ cor on West which was located from M.C. on S shore of Spider Lake. Owing to $\frac{1}{4}$ on N being in lake the center of sec. was not equidistant bet E & W $\frac{1}{4}$. Mark stakes were set at the corners numbered in Red

Chas E Spencer Co. Sur

Record N! 177 page 378-

Seci 27-33-34-35-141-33

37

June 10 - 1959

Don + I to Spider Lake look
for I M $\frac{1}{4}$ between Sec 33-34
141-33. do not locate it drive
to Nevis looking for young Hanson
tall thin we will stop and get him
after dinner

Don + I drive to Park Rapids
where I talk to Wilcox get
ties to said I M $\frac{1}{4}$

R Oak 7 N $72^{\circ}15'E$ 11.6 78 ft. Not
R Oak 6 S $75^{\circ}16'W$ 20.5 Road,

get dinner drive back to Spider
Lake where we locate I M and said
Oak Ties also one of Wilcox but
Not I.M.

I drive into Nevis while Don
opens up Sec 1 into N to Lake.
I pick up Dennis Hanson
back to Spider Lake

Tower I M $\frac{1}{4}$ site Non hub
and run S to N edge of road
58.7 hub

Tower 58.7 site N + run N $87^{\circ}29'E$
483.35 hub N side of road

Turn 483.35 BS $887^{\circ}29'W$ run
 $N 49^{\circ}30'E$ 45.7 to heart of 8" White oak
 tree \square

$N 87^{\circ}29'E$ 483.35

Sine 999035 \times 483.35 = 482.88

Cosine 043910 \times 483.35 = 21.22

$N 49^{\circ}30'E$ 45.7

Sine 760406 \times 45.7 = 34.75

Cosine 649448 \times 45.7 = 29.68

482.88 21.22

34.75 29.68

517.63 50.90

30 rod = 495.0

517.63

35 rod = 577.5

Turn at 483.35 run $N 27^{\circ}E$

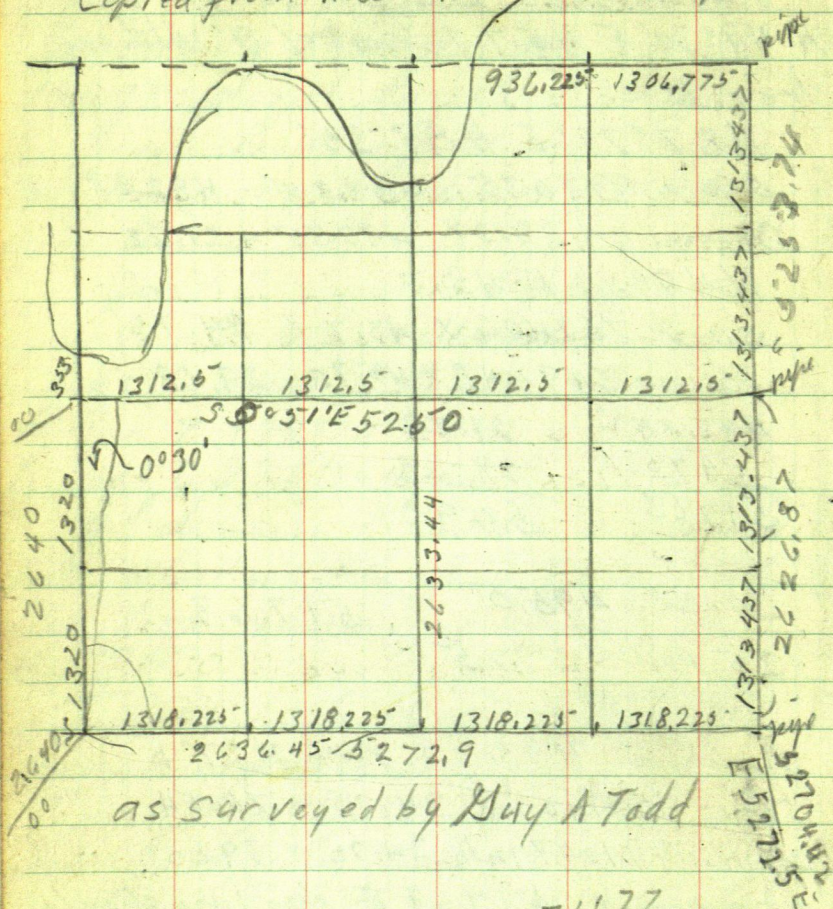
Sine 453990 into 34.75 = 76.54

Cosine 891007 into 34.75 = 39.00

at a point 517.63 E our line should
 cut 1.36 S of a pt E at 517.63 ft

Sec 34 141-33

Copied from Record Book in Park Rapids



as surveyed by Guy A Todd

$$\begin{array}{r} 71177 \\ 262487 \overline{) 229000} \\ \underline{229000} \\ 008927597 \end{array}$$

8718

June 11th 1959

41

fig lines from plat on page 40
Assume E line as N & S and
S line as E & W

According to said sketch the
E side is 13.13 short from E & W &
South also

The E & W center line Sec 34 is
5250 and the South line is
5272.9 difference

22.9 & short

The E line N & S the W line
runs

$$2640 \text{ into } 22.9 = 008674242 = 0^{\circ}30'$$

$$5250 \text{ into } 13.13 = 002500952 = 0^{\circ}09'$$

$$\text{Sine } 002618 \times 5250 = 13.74$$

$$\text{Cosine } 999996 \times 5250 = 5250$$

$0^{\circ}30'$

$$\text{Sine } 008727 \times 262687 = 22.92$$

$$\text{Cosine } 999962 \times 262687 = 2626.77$$

$$.014780952 = 0^{\circ}51'$$

$$5250 \times 77.6$$

$$0^{\circ}51' 77.6$$

$$\text{Sine } 014835 \times 5250 = 77.88 - S$$

$$\text{Cosine } 999890 \times 5250 = 5249.42 E$$

Guy Todds old Notes

Record No 177 Book A page 378.
Hubbard County Record Book of
Surveys. 1919 July.
field Notes of survey

Beg. at $\frac{1}{4}$ S side Sec. 34 chain
West 26.40 in order to find SE
cor. Sec 33 141-33. We do
not find any corner but find
Old Gov't B.T.s

Beg at SE cor sec 33 run
North on 9° Var. at 2640 turn
 $\frac{1}{4}$ thence to M.C. we locate
M.C. by B.T.s

Beg at SE cor sec 33 Turn
 $90^{\circ}30'$ R and run East Var $8^{\circ}30'$
at 2640 set turn $\frac{1}{4}$ at 5280 set
turn SW cor Sec 35-141-33
we intersect E line 18 ft N at
5279.9 E correct $\frac{1}{4}$ S side sec 34
run N Var $10^{\circ}20'W$ at 5280 set
turn N.E. corner. Turn cor is 26.25 S
and 25.25 E to cor.

5280

2625

525375 cor sets E 25.25

$$.0034091555 = 0.0121$$

$$5279.9 \sqrt{180.000}$$

Angle of S line with West
line sec 34 is $90^\circ 42' = 5279.9$
 $0^\circ 42' S$

$$\sin 012217 \times 5272.9 = 64.423$$

$$\cosine 999925 \times 5272.9 = 5272.50 E$$

$$N 1^\circ 58' E \quad 523374 -$$

$$\sin 031992 \times 5253.75 = 168.08$$

$$\cosine 999488 \times 5253.75 = 5251.06 N$$

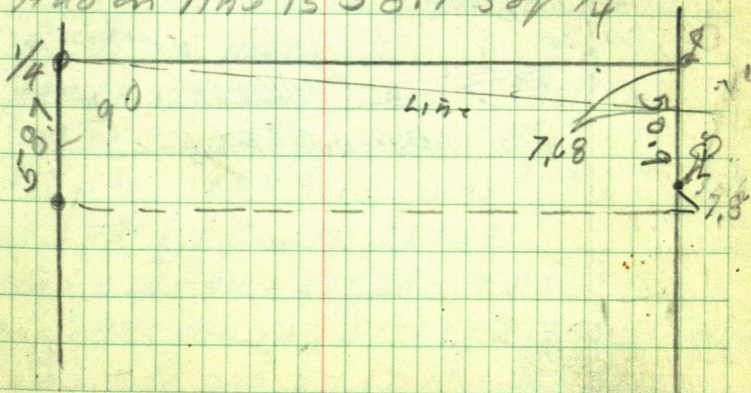
The E & W Φ run $W 0^\circ 31' S$

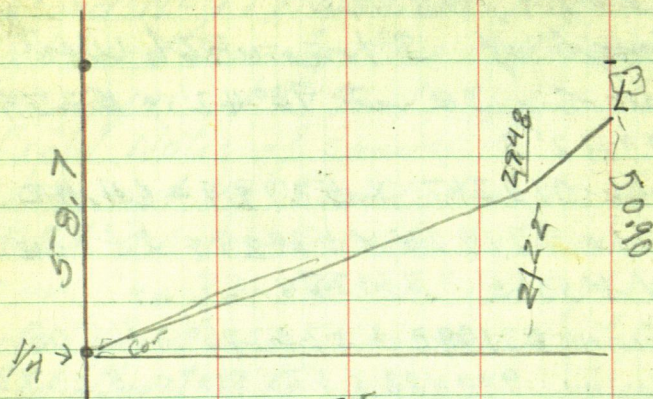
$$\sin 014835 \times 517.63 = 7.68 S$$

$$\cosine 999890 \times 517.63 =$$

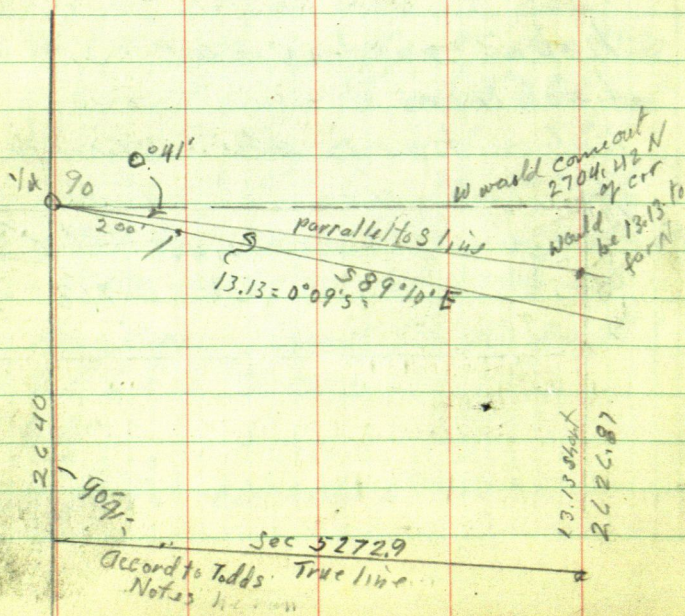
Hub in road is 50.90 S of $\frac{1}{4}$
at Oak tree

Hub on line is 58.7 S of $\frac{1}{4}$





Line E of 1/4 ^{Cor.} will come out
 7.8 N of tree
 and line come out 768 S of pt.
 E. 8 E of tree



S. $89^{\circ}10' E$

$$\sin = 0.14544 \times 5250 = 76.30$$

$$\cos = 999894 \times 5250 = 5249.44$$

$$26.2687 \text{ into } 23.06 = .0087785 = 0^{\circ}30'$$

$$\sin = 0.08727 \times 262687 = 22.92$$

$$\cos = 999962 \times 262687 =$$

from $\frac{1}{4}$ We run South 58.7
thence $N 87^{\circ}29' E 483.35$

$$\sin = 999035 \times 483.35 = 482.88 E$$

$$\cos = 0.43910 \times 483.35 = 21.22 N$$

thence $N 49^{\circ}30' E 45.7$ to ϕ oak tree

$$\sin = 760406 \times 45.7 = 34.75 E$$

$$\cos = 649448 \times 45.7 = 29.68 N$$

This oak tree sets $\frac{1}{4}$ Sub 58.7 S of $\frac{1}{4}$

East

North

482.88

21.22

58.7

34.75

29.68

or

- 50.9

517.63

50.90

7.8 South of $\frac{1}{4}$

at $S 89^{\circ}10' E$ from $\frac{1}{4}$ 517.63

$$\sin = 0.14544 \times 517.63 = 7.53$$

$$\cos = 999894 \text{ into } 517.63 = 517.68 \text{ along line}$$

line would cut 51.17 N of $\frac{1}{4}$ 58.7

46

Jan 15th 1969 Don John & T

as Oak tree is 50.9 N

We want 51, 17

50.9

line runs .27 = N of E of Oak tree

from spike hub on fence line

Chain N along W line of property

We are surveying 38.4 + 2 from Oak P

122.65 Hub 40' spike + 289:

289

411.65 hub on seawall 25 ft from Water

+ 1.2

412.85: hub. runs N 62°50'E 100 ft.

Tower 100 BS S 62°50'W run

N 52°56'E 100' Water 20 N

Tower 100 BS S 52°56'W runs

N 39°50'E 100 - 25 to water

Tower 100 BS S 39°50'W run

N 30°13'E 100 Water 15 N

Tower 100 BS S 30°13'W run

N 27°07'E 100 Water 15

Tower 100 BS S 27°07'W run

N 25°46'E 100 water 20

We drive back to main road at oak tree

20
see page 39

47

Sta 483.35 is N 21.22 from hut
58.7 S of $\frac{1}{4}$ we run west from
hut 483.35 we run E 34.75 and find
our old spike and continue E from
517.63 + 110.05

$\begin{array}{r} 110.05 \\ 627.48 \end{array}$ E hut 483.35 is E 482.88
and N 21.22

run East 34.75 + 110.05 = 144.80 E
this checks out 627.68 E and is
N of Hub 58.7 S. 21.22

21.22

37.48 S of $\frac{1}{4}$

as Φ run S 89°10'E at 627.68 East
since $014544 \times 627.75 = 9.13$ S

cosine 999894 into 627.68 = 627.75

as spike hut 627.75 is 37.48 S of $\frac{1}{4}$

we will have to go N 37.48 to be E of $\frac{1}{4}$

as Φ runs S 89°10'E at 627.68 E

The line would be 9.13 S of East

so hut 627.68 E goes N 37.48

then S

9.13

28.35 to E of WE

Hub 34.75 is 37.48 S of $\frac{1}{4}$ and line
runs S 89°15'E at pt - 517.63 the line
onto S. 7.53 -

37.48

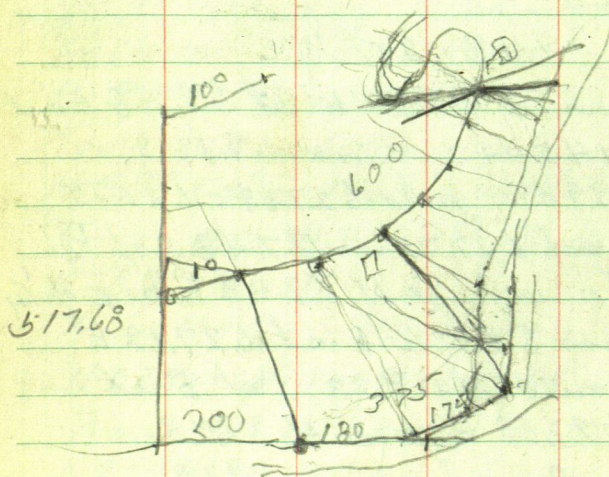
7.53

29.95

48

June 16-1956

Don John & I to Spitzer Lake run
 E & W & as the cor of property
 we are staking out corner in
 center of 10" white oak tree
 marked by owners for line on
 corner we do not want to cut
 this tree beg at 40 ft pile on E
 side of tree on E & W & about
 0.70 E of pt for corner we choose
 East at 200 from oak tree hub



$$\begin{array}{r}
 180 \\
 175 \\
 \hline
 355
 \end{array}$$

180
170

41,285
38,4
451.25

49

f19

499.82. 111.01.0 :2221

S89°10'E 200 ft

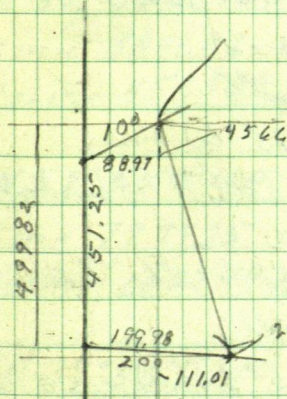
$$\sin \times 999894 \times 200 = 199.98$$

$$\cos \sin \times 0.14544 \times 200 = 2.91$$

N 62°50'E 100

$$\sin \times 8896.82 \times 100 = 88.97$$

$$\cos \sin \times 4565.80 \times 100 = 45.66$$



451.25 199.98
4566 88.97
2.91
499.82 111.01

$$499.82 / 111.01 = 4.498$$

back to E & W Tower hub 18011-4 = 376.1
Turn 376.1 from W line
Turn Land run N 87°23'E along R of way
line 33 ft from E road ± = 160 + 15.45
hub wedge of new road.

175.45

PM dinner in Nov 13

Tower 175.45 BS S 87°23'W run
west edge of new road.

50

200.35

209.35
3170
-6

W edge of New road run

N $4^{\circ}33'W$ 206.35Took 206.35 BS S $4^{\circ}33'E$ runN $7^{\circ}27'W$ 164.0Took 164.0 BS S $7^{\circ}27'E$ runN $2^{\circ}03'E$ at 139.3 hub in $\frac{1}{4}$ pt. road

at 156.1 Sta. 600

Took ^{156.1} BS S $2^{\circ}03'W$ run

Note: N edge of road in Twin Bears

N $7^{\circ}43'W$ 22 pacesN $12^{\circ}15'E$ 299.80 lbTook 299.8 BS S $12^{\circ}15'W$ runN $27^{\circ}26'E$ 195.35 at 87.8 intersect
line from lakeWe leave this and go to Sta 600
on lake shore, page 46Took 600 BS S $25^{\circ}26'W$ and

Start a line East hit side of

Two big Oaks S. side Turn $0^{\circ}15'$

Ror S 286.2 N of stake line on shore

June 17th 1959^u

raining John Thomson comes to the house to see me about his property on Blackwater Lake. I run a road easement see Book 233

Work on Sketch of Lot 3 Sec 34-141-33 and figure courses of Tract lines and locations of stakes from Hammers W. line. Lake shore

$$N 62^{\circ} 50' E 100 \quad 457.25 N$$

$$\text{Sine } 889682 \times 100 = 88.97 E$$

$$\text{Cosine } 456580 \times 100 = 45.66 N - 496.91$$

$$N 52^{\circ} 56' E 100$$

$$\text{Sine } 797935 \times 100 = 79.79 E \quad 168.74$$

$$\text{Cosine } 602744 \times 100 = 60.27 N \quad 557.18$$

$$N 39^{\circ} 50' E 100$$

$$\text{Sine } 640557 \times 100 = 64.06 E \quad 232.82$$

$$\text{Cosine } 767911 \times 100 = 76.79 N \quad 633.97$$

$$N 30^{\circ} 13' E 100$$

$$\text{Sine } 503271 \times 100 = 50.33 E \quad 283.15$$

$$\text{Cosine } 864128 \times 100 = 86.41 N \quad 720.38$$

52

location of stakes on shore line
from Hansen's W line continued

N 27° 07' E 100

$$\sin 453804 \times 100 = 45.58 \text{ E } 328.73$$

$$\cos 890080 \times 100 = 89.01 \text{ N } 809.39$$

N 25° 46' E 100

$$\sin 434707 \times 100 = 43.47 \text{ E } 372.2$$

$$\cos 900572 \times 100 = 90.06 \text{ N } 899.45$$

Back stake line at angle points from
Hammers W line

S 89°10'E 200

$$\text{Sine } 999894 \times 200 = 199.98 \text{ E}$$

$$\text{Cosine } 014544 \times 200 = 2.91 \text{ S}$$

S 89°10'E 376.1

$$\text{Sine } 999894 \times 376.1 = 376.04 \text{ E}$$

$$\text{Cosine } 014544 \times 376.1 = 5.47 \text{ S} - 5.47 \text{ S}$$

N 87°23'E 175.45

537.33

$$\text{Sine } 998957 \times 175.45 = 175.27 \text{ E}$$

$$\text{Cosine } 045654 \times 175.45 = 8.01 \text{ N } 2.54 \text{ N}$$

N 4°33'W 206.35

$$\text{Sine } 079329 \times 206.35 = 16.37 \text{ W } 534.96$$

$$\text{Cosine } 996848 \times 206.35 = 205.70 \text{ N}$$

208.24

N 7°27'W 164.0

$$\text{Sine } 129661 \times 164 = 21.26 \text{ W } 573.70$$

$$\text{Cosine } 991558 \times 164 = 162.62 \text{ N } 370.86$$

N 2°03'E 156.1

$$\text{Sine } 035772 \times 156.1 = 5.58 \text{ E } 519.28$$

$$\text{Cosine } 999360 \times 156.1 = 156.00 \text{ N}$$

526.86

54

Back stake line continues

N $12^{\circ} 15' E$ 299.8Sine $212178 \times 299.8 = 63.61$ E 582.89Cosine $977231 \times 299.8 = 292.97$ N

819.83

N $27^{\circ} 26' E$ 87.8Sine $460716 \times 87.8 = 40.45$ E 623.34Cosine $887548 \times 87.8 = 77.93$ N

John & I go to Nevis to see Mr
Hanson show him a sketch of
how I think the Tract lines should
run. He thinks the line between
Tracts 3 & 4 will hit the house

So John & I drive out to duck

Tower Sta N of prt. road BS S $2^{\circ} 03' W$
and run N $88^{\circ} 27' W$ 224.3 ft to hub

Tower hub 224.3 BS S $88^{\circ} 27' E$

The corners of the house set as
follows SE cor N $32^{\circ} 36' W$ 40.00 ft

SW cor N $75^{\circ} 50' W$ 35.9

building is 20 X 28.

78 66
69 20
1 46

6548 108
6352 555
20 56

at A.P. 6 N 12° 15' E 299.8 = NE cor Tract 6
is 582.89 E and 819.83 N

NW cor tract 6 is 372.10 E 899.46 N

being 899.45 - 582.89

819.83

372.10

79.62 N

210.79 W

3777219 = N 69° 20' W

210.79 S 79.62.0

(71006) read

from NE cor Tract 6 run S 12° 15' W
125 ft -

Sine 212178 x 125 = 26.52 W

Cosine 977231 x 125 = 122.15 S

SW cor tract 6 is 809.39' N + 328.63 E

SE " " 6 is 697.68 N + 556.37 E

809.39

556.37

697.68

328.63

.4903735 = 26° 08'

111.71 N

227.74 W

227.74 / 111.71

N 63° 52' W

(N 66° 48' W) read

from SE cor tract 6 run S 12° 15' W 130

Sine 212178 x 130 = 27.58 W

Cosine 977231 x 130 = 127.04

SW cor Tract 5 is 720.38 N + 283.05 E

SE cor " 5 is 570.64 N + 528.78 E

720.38 N 528.78 W

570.64

283.05

31021

149.74 N 245.73 W

.6609368 =

245.73 / 149.740

N 58° 39' W

56

517,43



$$\begin{array}{r} 154.1 \\ 50.9 \\ \hline 103.3 \end{array}$$

$$\begin{array}{r} 154.1 \\ 51.1 \\ \hline 103.0 \end{array}$$

$$50.9 \quad 57$$

from Sta H run N 2°03'E 50.9

$$\text{Sine } 0.35772 \times 50.9 = 1.82$$

$$\text{Cosine } 999360 \times 50.9 = 50.87$$

NW cor Tract 4 is 633.97N + 232.72E

SW cor " 4 is 421.73N 515.52E

$$\begin{array}{r} 633.97 \\ 421.73 \\ \hline 1055.70 \end{array}$$

$$\begin{array}{r} 515.52 \\ 232.72 \\ \hline 748.24 \end{array}$$

$$282.80W$$

$$212.24N$$

$$.750495 = 36^{\circ}53'$$

$$282.80 / 212.24$$

N 53°07'W

NW cor Tract 3 is 357.19N + 168.76E

SW " 3 is 215.4N + 561.33E

$$\begin{array}{r} 357.19 \\ 215.4N \\ \hline 572.59 \end{array}$$

$$\begin{array}{r} 551.33 \\ 168.76 \\ \hline 720.09 \end{array}$$

$$\begin{array}{r} 572.59 \\ 554.65 \\ \hline 1127.24 \end{array}$$

$$.6897502 = 34^{\circ}36'$$

$$554.65 / 382.57$$

N 55°24'W

58

240
18.3

83°21'

258.3

N 71°06' W

fig. N 69°20' W

7106

1213

8321'

240 + 18.3 =

240

183

2583

6

10.5

285.3

N 66°48' W

fig N 63°02' W

260 + 25.25 =

5

150

317.75

F.N

fig 58°39' W

read N 61°40' W

180° - 10°13'

4

3

1448'
34
966

Lot 4

25.9 + 111.85 + 180 =

N road called

111.85 + 180

- 130

110.65 + 180

N 73°04' 3

25.9

110.3

104.3

2

111.85
180
291.85
227
213.75S 66°05' 2' W
149.66

3

S 66° 52' W 149.66

Sine 919593 x 149.66 = 137.63 W

Cosine 392872 x 149.66 = 58.8 S

N 73° 04' W 104.3

Sine 956644 x 104.3 = 99.78 W

Cosine 291259 x 104.3 = 30.38 N

11185

180

259

317.75

317.75

588

30.38

406.93

137.63 W

99.78 W

37.85

406.93 / 37.85 = 10.72

0.9301354 = 5° 19'

519 mts

Check Back line

Tower hut on E & W & BS
 N 89° 10' W run N 87° 20' E

to

Tower Sta BS S 87° 20' W
 run N 4° 33' E to Sta

Tower Sta BS S 4° 33' W run
 N 7° 27' W, to Sta

Tower Sta BS S 7° 27' E run
 N 2° 01' E to Sta

Tower Sta BS S 2° 01' W
 run N 12° 14' E

June 19, 1959 Fri.

Check corners along stak. line
 along shore

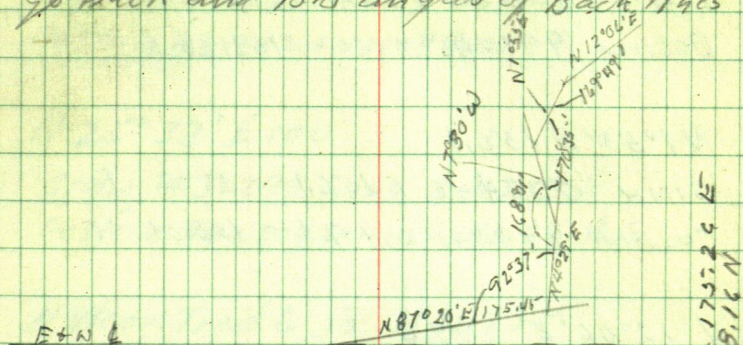
Tower N W car track - 1 BS S
 & run N 62° 42' E 100

N 52° 48' E - N 39° 42' E

N 30° 08' E - N 27° 02' E

N 25° 33' E

as things do not check out we don't
go back and take angles of Back 1415



S 89°10'W 577.68

$\sin 999894 \times 517.68 \quad 517.645$

$$\cos 0.14544 \times 3.1768 = 7.5^{-3} \text{ S}$$

Since $999894 \times 717.68 \quad 717.60 \text{ L}$

$\cosine \ 0.14544 \times 717.68 = 10.445$

$$916, \quad 999894 \times 893,78 = 893,69 \text{ F}$$

Posing 0145-44 x 893.78 13,00 S

$$N 4^{\circ} 29' E \quad 206,35' = 14,13 E$$

$\sin 078169 \times 206.35^\circ N$

positive 996940 x 206,35 = 205,72

996940

N^o 7020' E 173, 43

998917 x 175740 = 173526 K-

$\cos 46.5^\circ = \frac{173-43}{9.16} = 9.16$

N 70°30' W 164 =

Sine $130526 \times 164 = 2141$ W

Cosine $991445 \times 164 = 162.60$ N

N 1°55' E 156.1

Sine $033446 \times 156.1 = 5.22$ E

Cosine $999441 \times 156.1 = 156.01$ N

N 12°06' E 299.8

Sine $209619 \times 299.8 = 62.84$ E

Cosine $977783 \times 299.8 = 293.14$ N

Like shore

N 62°42' E 100

Sine $888617 \times 100 = 88.86$ E

Cosine $458650 \times 100 = 45.87$ N

N 52°48' E 100

Sine $796530 \times 100 = 79.65$ E

Cosine $604699 \times 100 = 60.46$ N

N 39°42' E 100

Sine $638768 \times 100 = 63.88$ E

Cosine $769400 \times 100 = 76.94$ N

N 30°08' E 100

Sine $502014 \times 100 = 50.20$ E

Cosine $864860 \times 100 = 86.49$ N

N 27° 02' E 100

$$\sin 45.4509 \times 100 = 45.45 \text{ E}$$

$$\cos 89.0742 \times 100 = 89.07 \text{ N}$$

N 25° 33' E 100

$$\sin 43.1299 \times 100 = 43.13 \text{ E}$$

$$\cos 90.2209 \times 100 = 90.22 \text{ N}$$

NW cor Tract 6 is 1131.73 E

NE " 6 is 888.80 E

242.93

NW cor Tract 6 in 892.77 N

NE " 6 " 822.31

70.46

$$242.93 / 70.46 (29004239 = 1607')$$

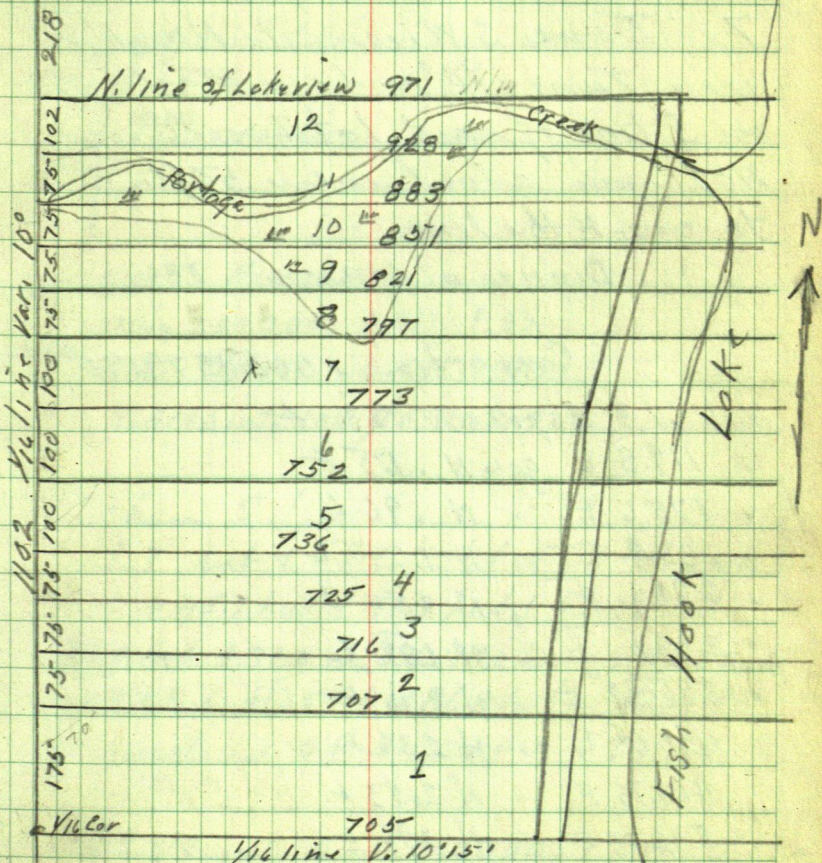
$$\sin 277.594$$

$$\cos 96.0698 \text{ into } 242.93 = 252.87$$

Miss M. E. McKay Lot 7 of Plat of Lakeview 65

S 20 Acres Lot 4 Sec 10 Twp 140 - R 9 - 35 -
 Surveyed 1912 by O. S. Keay Co Surveyor
 Copied 1925 by E. B. Miller Co. "

1/4 Cor. 10 79 1/4 line



3/4" IM at Lot Cor's

July 24th 1959

Ed & I to Lot 7 Plat of Lakewood
in Govt Lot 4 Section 10 Twp
140 Rge. 35 Hubbard County

We find the $\frac{3}{4}$ inch irons at the
NW and SW corners of said lot
7. Tower SW iron site Non NW
iron Turn 90° and run East
on S line of said lot 7 setting
40⁺ spikes about every 50 ft.
to mark the line

Dinner at Winnieys 1.80

Correction . 005457919 = 0.99%

hub 41.3 E goes N. 33° L

" 119.8 E goes N. 65° L

" 175.6 E " N. 96° L

" 236.9 E " N 1.29° L

" 282.1 E " N 1.54° L

" 333.0 E " N 1.82° L

" 385.35 E " N 2.10° L

" 431.75 E " N 2.36° L

" 463.75 E " N 2.53° L

542.75 E " N 2.96° L

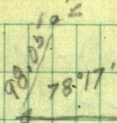
586.55 E " N 3.20

645.55 E " N 3.52

731.85 E " N 2.99

Howard IN

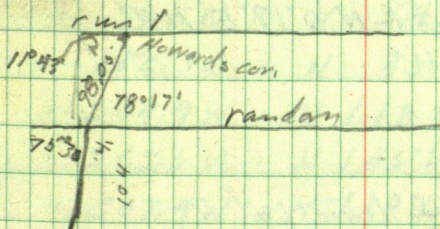
67



$$78^{\circ}17' = 11^{\circ}43'$$

$$\sin 203072 \times 98.05 = 19.914$$

$$\cos 11^{\circ}43' = 979164 \times 98.05 = 96.01$$



$$75^{\circ}30' = N14^{\circ}30'E$$

$$\sin 250380 \times 4.13 = 1.03$$

$$\cos 11^{\circ}43' = 968148 \text{ into } 4 \text{ ft} = 4.13$$

$$968148 \text{ into } 104 \text{ ft} = 107.42$$

Chain S line

$$61.3 \text{ hnt} + 58.5 \text{ hnt} + 55.8 \text{ hnt} + 61.3$$

$$\text{hnt} + 45.2 \text{ hnt} + 50.9 \text{ hnt} + 52.35 \text{ hnt}$$

$$46.4 \text{ hnt} + 32.0 \text{ hnt} + 79.0 \text{ hnt} + 43.8 \text{ hnt}$$

$$+ 59.0 \text{ hnt} + (35 - 2) + 86.3 \text{ hnt on bank of}$$

$$\text{Fishhook Lake } 4 \text{ ft } S \text{ of corner} = 731.85$$

$$732.88 \text{ into } 4.00 = .005457919 = 0^{\circ}19'$$

68

July 23-14

$$\begin{array}{r} 90 \\ 3.8 \\ \hline 86.2 \end{array}$$

Edt I to Fishhook Lake

fig corrections and correct S line

Lot 7, Plat of Lakeview

Tower hut on S line

fig

West line runs N 0° 19' E 100'

Sine .003327 x 100

Cosine 9999.85 x 100 =

Tower hut on S. line Lot 7

turn 90° hit house

Turn 10° back to main house

Sine 1736.48

Cosine 9848.08 into 100 = 101.54 Stamp in way

turn 11°

Sine 190809

Cosine 981427 into 100 = 101.87

Chain N line Lot 7.

41.1 hut + 58.43 hut + 56.8 hut + 48.6 hut
 + 57.7 hut + 44.8 hut + 45.0 hut in edge
 of map. + 8.4.2 hut over ramp + 58 hut

as this line was run parallel with
S. line both 90° to W line correction
should be the same.

005457919

hub 41.1 W goes N .22 ✓

" 99.5 W " N .54 ✓

" 154.3 W " N .85 ✓

" 204.9 W " N 1.12 ✓

" 262.6 W " N 1.45 ✓

" 307.4 W " N 1.68 ✓

" 352.4 W " N 1.92

open
wings 436.6 W " N 2.38

59
" 494.6 W " N 2.70

July, 28th 1959

I go to Court House to check over
copies of Old Survey Record I
got in Park Rapids July 23rd 1959

Old Notes Book A page 141

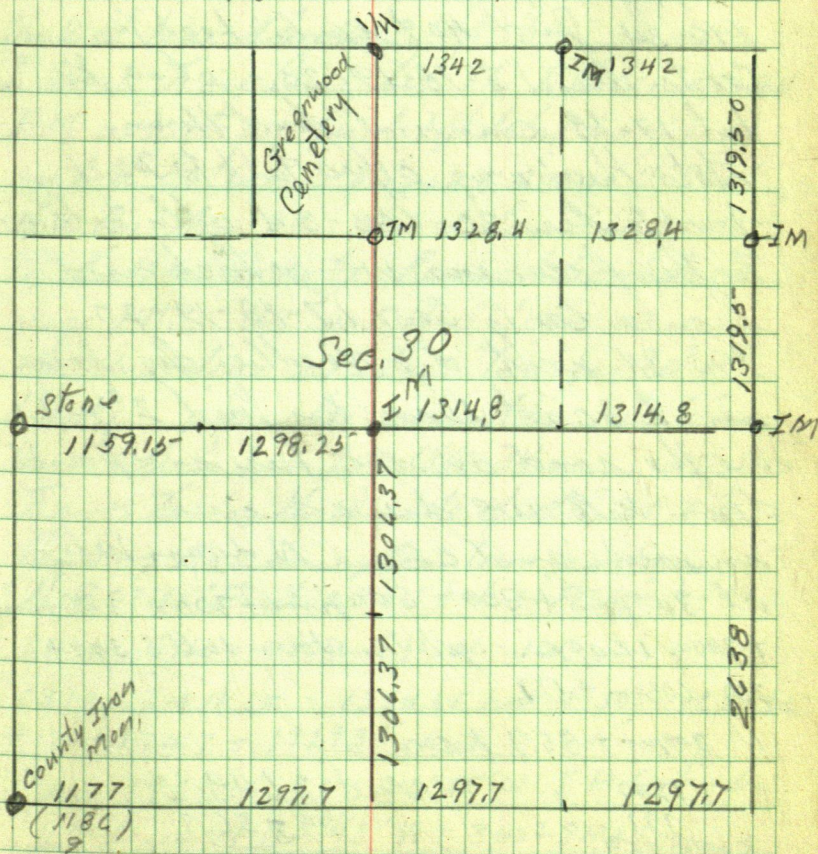
County Record Book of Survey Hubbard Co.
part of said Notes

We go to the $\frac{1}{4}$ Cor. bet. Sec's 17-18 -140-34
where County Records call for a gas pipe
We find the gas pipe in pile of stone
we use this for true $\frac{1}{4}$ cor. and run
South on 7° Var. at 660 hnt at 1320 hnt
at 2653 the corner to Secs. 17-18-19
& 20 -140-34 sets East 17.5' ft at this
corner The County Records call for an
iron we dig in the road and find the
old iron which we use as the true cor. to
Secs. 17-18-19 & 20 correct back

Then beg. at this corner get found
we run South on 8°45' Var at 660
hnt at 1320 hnt at 1980 hnt at 2644
the $\frac{1}{4}$ cor on the West side Sec 20-140-34
sets East 3.7' ft at this corner the
County Records call for a gas pipe
which we find and use for the true corner
Guy A Todd.

old Record continued from
Book A page 399, Hubbard County
Record Book of Surveys

We locate $\frac{1}{4}$ bet. 19-30 measure 33 ft
N of NE fence cor part of Cemetery and
Locate $\frac{1}{4}$ in NW Wheel tract State Highway
and put in New B.T. JP 6 S 36° 20' E 65 ft
Sec. 30 - 140 - 34



72

I can not find anything in
Sec. 20-140-34

July 29th 1959

Rain

July 30th 1959

Ed + I to Park Rapids

look for $\frac{1}{4}$ cor bet Sec. 19-20

140-34 find 40' split Look for

Cor to Sec. 17-18-19-20 - also $\frac{1}{4}$

bet 17-18 can not find thin

Go to Highway office talk to Mack.

back to Sec. 20-140-34 after talking

to land owners we go back and

locate Cor to Sec. 17-18-19-20

140-34 with dip Needle. dig down

in E road 10 inches find 2" pipe

as the road on the line is up and

down till we drive a split

in road, and then N down till

at 300 pin + 300 = 600 pin + 300 = 900 pin

+ 300 = 1200 pin go to top down till S 300 +

300 = 600 pin + 171,

N 300 pin + 85.9 to cor.

1200

171

385.9

2356.9

North 2644

2356.9

287.1

July 31-1959

Don & I to Sec 20-140-34 Park
Rapids we go E and find IM at
Center Sec. 20 - rough chain W 2665.08
as recorded in Record Book of Survey
Hubbard Co. as this pt comes in field
and not in road. We go North along
the West line Sec. 20-140-34

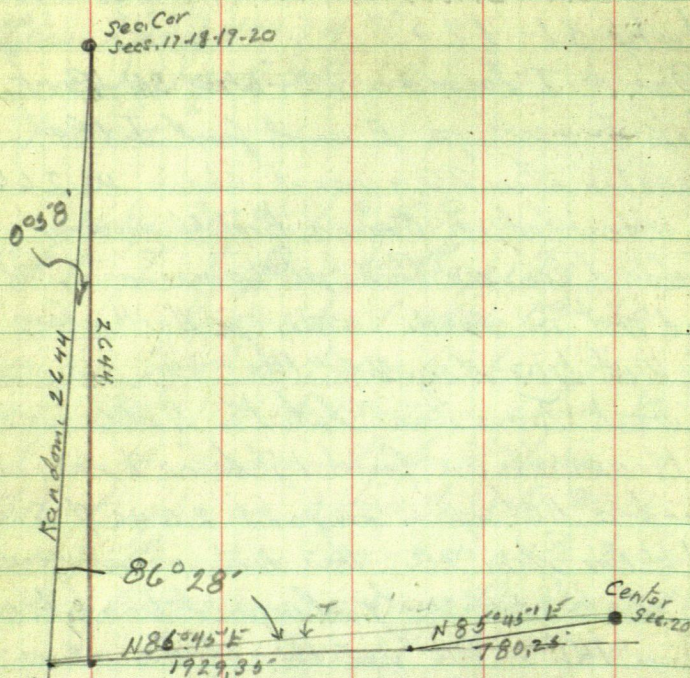
I work Town line bet the NW Cor Sec 20
IM which we find 1 ft below top of road
and a 40 ft spike on road 2644 ft S. of
NW Cor Sec. 20. This distance is recorded
in Hubbard County Record book A on
page 141. We use this line as a
random line as it is too far W of
the $\frac{1}{4}$ we also use it as line to run
the E & W of Sec 20-140-34

Travel Temp $\frac{1}{4}$ W side of Sec 20 site
N along Random Section and run
 $N 86^{\circ}45'E$ at 262.1 hnt at 300 pin + 300 =
 $600 \text{ pin} + 110 = 710 \text{ pin} + 300 = 1010 \text{ pin} + 300 =$
 $1310 \text{ pin} + 14.65 = 1324.65 \text{ hnt} + 300 = 1624.65$
 $+ 130 + 174.7 = 1929.35 \text{ hnt}$

Travel 1929.35 BS $S 86^{\circ}45'W$ IM Center Sec
20 less $N 85^{\circ}45'W - 300 + 300 = 600 \text{ pin} +$
 $+ 80.25 = 180.25$ IM Center Sec 20
780.25

$$\begin{array}{r} 1624.65 \\ 130 \\ \hline 1754.65 \\ 174.7 \\ \hline 1929.35 \\ 255 \\ \hline \end{array}$$

$$\begin{array}{r} 1929.35 \\ 780.25 \\ \hline 2709.60 \\ 2665.08 \\ \hline 444.52 \end{array}$$



from hub 1929.35 the Center of Sec. 20 bears
Left 1° 780.25 ft.

$$\text{Sine } 0.17452 \times 780.25 = 13.62$$

$$\text{Cosine } 999848 \times 780.25 = 780.13$$

$$1929.35$$

$$780.13$$

$$2709.48 \text{ into } 13.62 = 0.05026795$$

recorded distance from $\frac{1}{4}$ to Center of Sec. 20
2645.08 from 2709.48 = 44.4

$$2644 \text{ into } 44.4 = 0.16794241 = 0^{\circ}58'$$

$$\text{Sine } 0.16871 \times 2644$$

$$\text{Cosine } 999858 \times$$

75

Correction of W line Sec 20

140-34

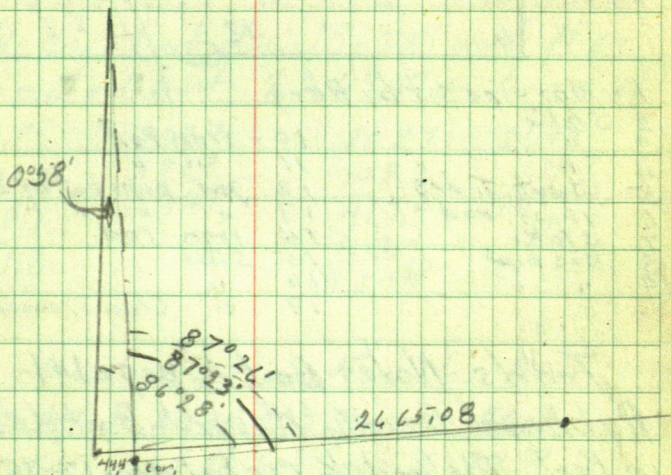
the line goes E. 016794241 for each foot South

hub

hub 2644 S goes E 44.33 to corner

Correction E & W $\pm .005026795$

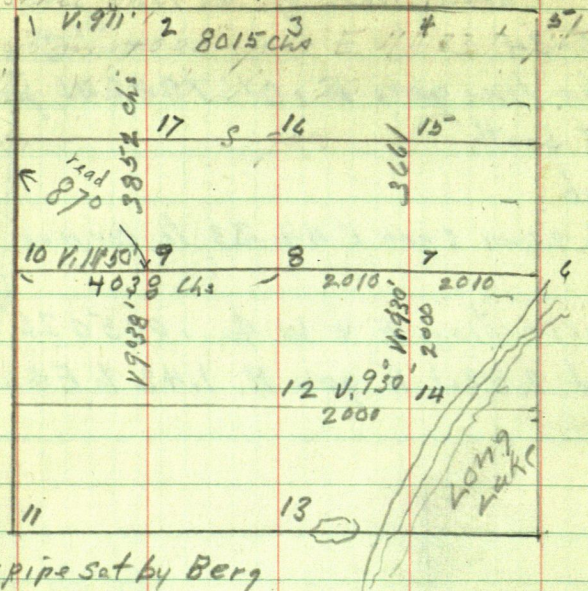
hub 282.1 E goes N. 1.42 to E & W \pm Sec 20



266508 into $2.52 \div 0009456$

Hub 282.1 W. 15 2427.38 E and goes N. 1.42 then S. 2.3, or S. 0.90 to line

Sec. 20-140-34 as recorded 1907



- | | | |
|---|----------------------|-------------------------|
| 1 | Gas pipe set by Berg | |
| 2 | Stake | |
| 3 | " | 10 - iron rod |
| 4 | " | 11 " " |
| 5 | Left Trees | 12 gas pipe set by Berg |
| 6 | iron rod | 13 " " " " " |
| 7 | Stake | 14 iron rod |
| 8 | Gas pipe | 15 Stake |
| 9 | " " | 16 " |
| | | 17 " Chan Spencer |

Todd's Notes Book A page 141

Hubbard County Record Book of Surveys
in Part. We find $\frac{1}{4}$ Cor bet sec. 17-18-140-34
Co. records call for Gas Pipe we find same
in pile of stone chan. S 2653, where Co
records call for Iron we find same in road
being Cor to sec. 17-18-19-20-140-34
run south at 2644, where Co records
call for Gas pipe we find this cor.

Sunday Aug 2nd 1969

Don & I to Sec. 20, 140-34
 from pt on Random bet Sec 19-20
 2644 ft S. chain N. 380.5 to hub
380.5
 2263.5 south Correction: 016794241
 2263.5 S goes E 38.01

We correct hub 2263.5 and
 hub 2644.

Now corrected hub 2644, which is
 the $\frac{1}{4}$ cor. bet Sec. 19-20, into N on
 corrected hub 2263.5 and ran N

208.7	2087	2087	2644
380.5	<u>1718</u>	2087	<u>2087</u>
2087	369	417.4	<u>24353</u>
<u>171.8</u>		417.4	240
369		<u>8348</u>	
87			

We chain along real random line

N. 208.7 = 2435.3 S goes E 40.9
 N 417.4 = 2226.6 S goes E 37.39
 N 834.8 = 1809.2 S goes E 30.38

2644	2644
417.4	<u>8348</u>
<u>2226.6</u>	18092
440	<u>1440</u>

Thu 23rd 1961

Park Rapids 79

Ed-John & I to Park Rapids
River side Park Add.

Harry C 2nd Frieda Schleicher

All that part of lot 3 of Blk 3

River side Park Add-to Park Rapids

Habland County except that part thereof

lying east of the following described

line to-wit Beg. at a point on the S

boundary of said lot 3 - 187 ft E of

the Westerly line thereof thence in a

Northerly direction to the Northerly

boundary line of said lot 3 at a point

170 ft E of the westerly line of said

lot being an area of $48/100$ of an acre

\pm which land so excepted is subject

to an easement & Right of access to and

from Fish Hook River over & across

said excepted Tract of land for the

purpose of maintaining an outlet

for drainage of domestic waste as

nearly as practicable to the existing

drain thereon which easement

and right of access are hereby included

in this conveyance to the grantee

herein

at Park Rapids we look
for corners. Ed takes putty
to garage for grease I talk to
with land owners all have different
stories of how Wilsie surveyed here
I go talk to McCullen Highway
Engineer he shows me where the
center of Sec. 25 should be and
asked me to set I.M. as someone
seem to have taken the old I.M. out

May 24-1961

81

Ed. John & I to Riverside Park
Add. to Park Rapids

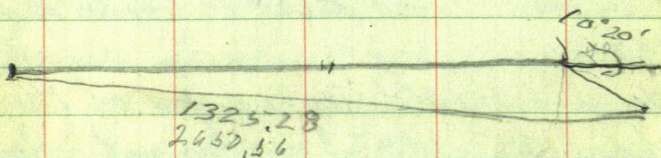
Turn over one of Wilkie's I.M. site. We on
another of Wilkie's iron's and run
Random line East to Center of sec 25-
140-35.

We find the old iron pipe at the Center
of sec. 25-140-35 almost a foot
below the ground and 2.3' W of Wilkie's
wooden hub. our line is hitting S. of cor
we work on line between Center of sec. 25-
140-35 and I.M. set near W line of lots of Plat
of Riverside Park. and run west on this
line miss I.M. at what we think is $\frac{1}{4}$ bet
Sec. 25-26 (1.90 ft) our spikes West of
I.M. are on a .4 offset South

82

Sat Jan 3rd - 1961

Ed - John + I to Park Rapids
 Town hub at E edge of Hy 71
 site E on random line and ran
 E 10°20' N 40.77



2008

1325.28

40.11

120.48

1285.17

12048

1325.28

10°20' 40.77

Sine $1.79375 \times 40.77 = 7.31$ Cosine $983781 \times 40.77 = 40.11$

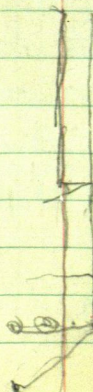
.0055158135.0k

1325.28 / 7.31000

1285.17 Correction 13.0055158135 N
 for each ft W

hub 1285.17 W goes N 7.09

1115.28 W goes N 6.15



40.77

2

132528

83

Chain E

$$\begin{array}{r} 265056 \\ 4011 \\ \hline 261045 \end{array}$$

40.11

+ 210100

$$\begin{array}{r} + 25011 \\ + 300 \\ \hline \end{array}$$

530.11 km

710.0

650.11 km

120

770.11 km

231.9

1002.01

2098

121181

265056

210

244056

265056

100201

164855

265056

121181

143875

210

111528

1204.5

1217.8

1204.5

7.3

444.9

781.1

1083

2174

150

12868

781.1

2174

150

11485

60.2

1208.7

132

140

1488.7

60

430

1978.7

1177

3155.7

60

3085.7

1204.5

132

116

132

60

1544.5

12118

3327

002757927 + H

265056 / 7.31.000

Hub 2610.45 W goes N 7.20

2440.56 W. goes N 6.73

164855 W " N 4.55

1438.75 W " N 2.97

336.7

210,
300
100
120
231.9
209.8

1171.7

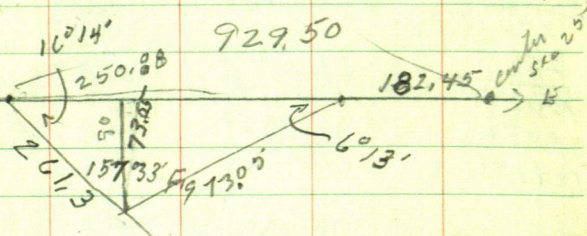
210
400
120
231.9
209.8

1271.7

210
400
120
231.9
209.8

1271.7
4011

131181



16'14"

$$\sin 279.550 \times 266.3 = 73.05$$

$$\cos 157.331 \times 266.3 = 250.88$$

6'13"

$$\begin{array}{r} \text{Column } 9.180284 \times 6 \quad 73.05 = 678.62 \\ \quad \quad \quad 250.88 \\ \hline \quad \quad \quad 929.50 \end{array}$$

$$\begin{array}{r}
 2 \\
 1211.8 \\
 336.7 \\
 929.5 \\
 \hline
 1478.0 \\
 182.45 \\
 \hline
 2660.45 \\
 1211.8 \\
 336.7 \\
 \hline
 1348.5
 \end{array}$$

$$\begin{array}{r}
 1211.8 \\
 1209.5 \\
 \hline
 7.3 \\
 2660.45 \\
 1211.8 \\
 \hline
 1448.65
 \end{array}$$

$$\begin{array}{r}
 \cancel{1211.8} \\
 1204.5 \text{ E} \\
 132 \\
 .16 \\
 132 \\
 60 \\
 \hline
 1544.5 \text{ E}
 \end{array}$$

$$\begin{array}{r}
 9295.0 \\
 1824.5 \\
 \hline
 1111.95 \\
 336.7 \\
 \hline
 1448.65 \\
 78 \\
 \hline
 5435.95
 \end{array}$$

$$2660.45$$

$$\begin{array}{r}
 210. \\
 300 \\
 100 \\
 120 \\
 2319 \\
 2098 \\
 \hline
 11717 \\
 401 \\
 \hline
 12118
 \end{array}$$

$$\begin{array}{r}
 002785244 \\
 2660.45 - 7,31,000 \\
 27476554
 \end{array}$$

hub 1111.95 W goes N 3.06 N - 4 -
 " 1448.65 " " N 3.98 N - 4 -
 " 1544.5 W " N 4.24' - 14 =



IM goes W 7.3 to 1544.5 W thence N 4.24' to line thence N 40 ft

but 1448.65 goes W 4 ft thence N 3.97 to line thence

86

From hut 1204.5 gus E 132+16+132+40+

430
60
132
14
132
770
132
14
132
60
340

40 | 3401 | 5
770

03766233
770 $\overline{) 29.00}$
2310
590
77
3766233
 $\times 340$

340. = 12.80 + 40
40
52.80

7.3 \times 03766233 = .27 + 40 = 40.27

12119

185 75
105 -
111
321
1115
4325

210

2660.46

300

1211.8

100

1448.66

120

929.5

132

2319

18245

116

2098

1111.95

132

1

60

340

11717

92958

4011

18245

1211.81 E to IM

1111.95

3367

1548.51 I stands X = 1111.95 W of center

1111.95

2660.46

1204.5 should be

1211.81 E

340

3367

should be - 1544.5 E 1548.51 are E

1171.7

40.11

1211.8

IM 9.20 ft E of spike at NW cor lot 3 BIK

3. of Riverside Park Park Rapids

IM 8.8 ft E of 120d spike at SW cor Lot 3 BIK 3

Riverside Park Add to Park Rapids

Sept. 25th 1961

I get a phone call from Alf
Lumber Yard at Nevis

The Village wants some
surveying done

Sept 26-1961

John - Bob + I to Nevis - Mr Alf
tell me that the Village is
going to buy 20 acres of land
for dump grounds. being the
West 20 acres or $\frac{1}{2}$ of SE $\frac{1}{4}$ of
SW $\frac{1}{4}$ Sec 34-141-33

We drive out and look things
over, as the South line of this
property is the 10th SP line and
as there are no corners that they
know of We drive to Park Rapids
check with the Hubbard County
Engineers Office they have no records
of corners anywhere near there

I go to Court House and look
over old Surveys in the County
Record Books of surveys.

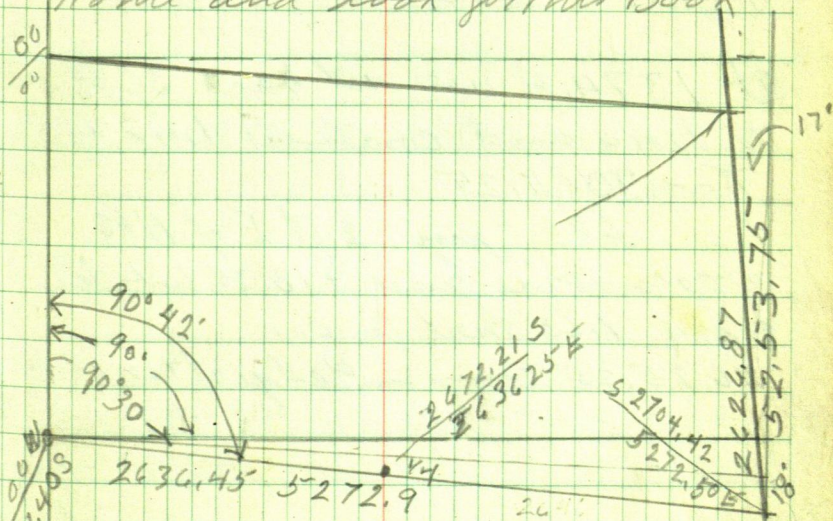
Find where in 1919 Guy Todd
surveyed sec. 34-141-33

Pump grounds in sec 34-141-33

We used this for Harrison's
Survey on Spider Lake Plat
See page 40 His Notes on page 42
this Book

We come back from Park Rapids
and we follow old fence to the
SW cor of sec. 34 and Look for
the gas pipe Todd set for cor. but
do not find it.

Home and look for this Book



$$5272.9 \text{ into } 18 = .003413681 - 0.1215$$

$$0.42' =$$

$$\text{Sine } .012217 \times 2636.45 = 32.215 \times 5272.9 = 6442$$

$$\text{Cosine } 999925 \times 2636.45 = 2636.25 \quad 5272.5$$

Nevis Village

Sept 29-1961

Bob + I to Sec. 34-141-33

Tower SE cor lot 1 of Hansons Plat
site E turn 90° - - spike in roadTower SE cor lot 2 site W + turn 90
- spike in road

5-17.68	89.768
	476.75-

200

1374.40 on 30 ft offset S

180

430.85-

2005.25- hut

897.68 E we want 26.25 E

9.20

at 1374.4 we set back 30 ft
to line and continue line E

Tower 2005.25-

+ 600 pins 2 ft E of NTS

woven wire fence + 18.35 link 60

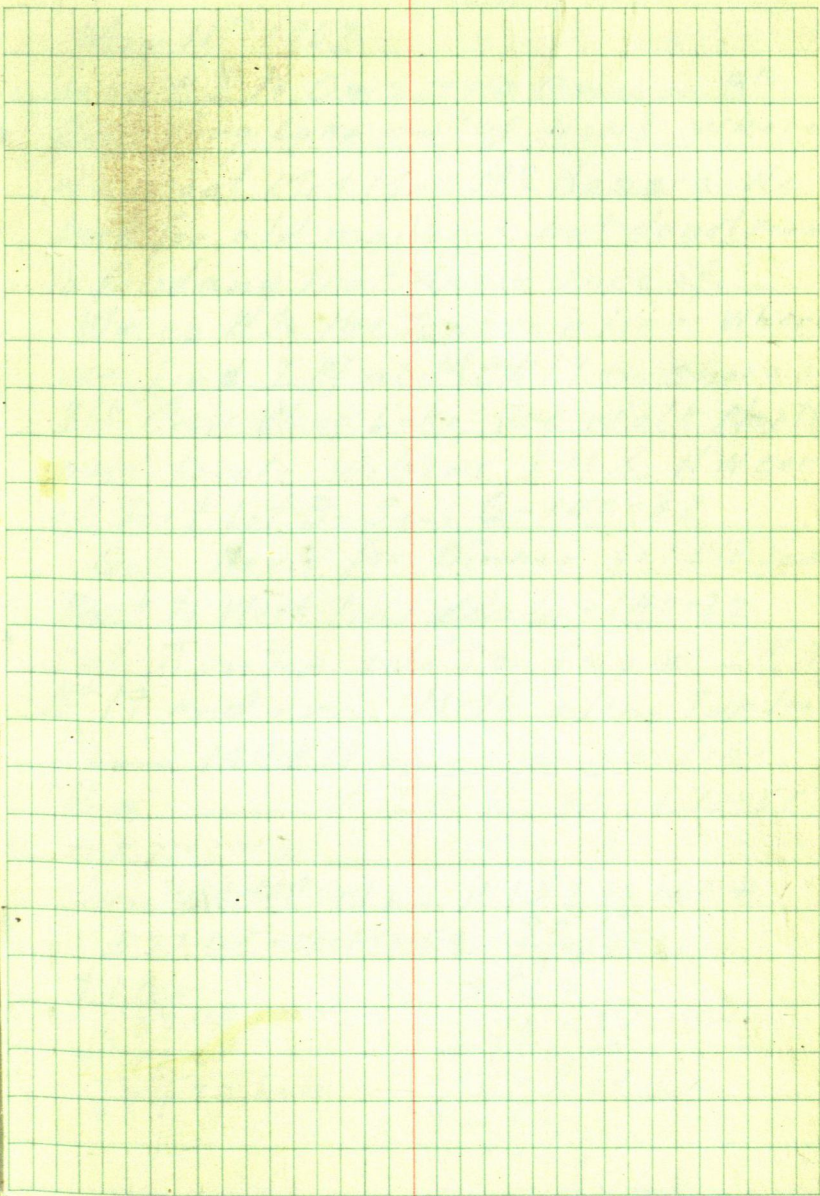
& spike 1.65 short for cor

26.25.25 corner in Wedge after road

20.34

2

91



92

79.65

B.W. McNamara Survey Gov't Lot 6-7-8
Lots 15-16-17 plat of Owasswa Beach 140-3293
Hubbard County

May 11th 1962

John + I to Owasswa Beach on 8th
Crow Wing Lake out of Nevis where
we meet Mr + Mrs McNamara We
look for old marker's but don't seem
to find any that we are sure of.

We go N to the township line where
we find IM at MC#19 on shore of
8th Crow Wing Lake we walk North
and locate Wilsie's IM $\frac{1}{16}$ NW cor
of Gov't Lot 8- Sec. 6-140-32

Go to Nevis for Dinner get 5/6 spikes
Back to West line Sec 6-140-32
Set T on top site S on flag at IM MC
No 19 and run North along twp line
from MC#19 run random line
N. @ _____ ft IM $\frac{1}{16}$ sets $L 72^{\circ} 57'$
or $N 72^{\circ} 57' W$

from IM MC chain N 152.00 hub +

$$527.05 + 50 = 577.05 \pm \frac{95.25}{247.25} \text{ hub}$$

$$\begin{array}{r} + 180 \\ \hline 607.05 \text{ run} \\ + 72.65 \\ \hline 679.70 \text{ hub} \end{array}$$

$$\begin{array}{r} + 260 \\ \hline 307.25 \text{ run} \\ + 150.00 \\ \hline 457.25 \text{ run} \\ + 50 \\ \hline 507.25 \text{ run} \\ + 19.8 \\ \hline 527.05 \text{ hub} \end{array}$$

94

BW McNameara
Rt. 2 Box 143B.

wayzata minn

Tower hub on vandern

679.70 ft N of Wit MC #19

The I.M. $\frac{1}{4}$ cor bears N $72^{\circ}57'W$

268.00 ft.

N

 $72^{\circ}57'$ Sine $95605 \times 268 = 256.22$ Cosine $29321 \times 268 = 78.58$ $18^{\circ}46'$

679.70

679.7

78.58

758.28

Correction

.337893

758.28, $\sqrt{256.22.0}$

Correction .337893 W for each ft N

Hub 152.00 N goes W 51.36

Hub 247.25 N " W 83.54

Hub 327.05 N " W 178.09

Hub 679.70 N " W 229.77

Corrected hub 327.05 will be

527.05

527.05

4118

4467

115.23

80.35

N of NW cor lot 1
N side of street = 50 ft corrected hub

From MC NW cor lot 1 bears N411.8"
NE cor lot 2

bears N59°14'E 144.12

Sine

cosine

NE cor lot 4 bears N78°53'E 214

I will figure to use N side of street
from pt on town line 80.35 ft S of corrected
hub 527.06

run N59°14'E 131.48

Sine $85926 \times 131.48 = 112.98 E$

cosine $51154 \times 131.48 = 67.26 N$

run N78°53'E 217.11

Sine $98124 \times 217.11 = 212.04 E$

cosine $19281 \times 217.11 = 41.86 N$

run N70°58'E 109.9

Sine $94533 \times 109.9 = 103.89 E$

cosine $32612 \times 109.9 = 35.84 N$

run N83°28'E 392.74

Sine $99351 \times 392.74 = 390.19 E$

cosine $11378 \times 392.74 = 44.69 N$

run N73°03'E 296.06

Sine $95656 \times 296.06 = 281.42 E$

cosine $29154 \times 296.06 = 67.31$

angle point of Rock bet lots 13-14
sets 1100.52'E & 256.96 N
+ 1.55 E to 33'S to 164 cor. 97

run N $67^{\circ}41'E$ 346.31

Sine

Cosine

Angle Point N side of road ~~W~~ of E
line lot 17

Lake shore from Wit MC 9.6 W
of pt for MC N^o 19

run S $83^{\circ}01'E$ 144.9

Sine

Cosine

run N $73^{\circ}27'E$ 111.8

Sine

Cosine

run N $70^{\circ}09'E$ 115

Sine

Cosine

run N $53^{\circ}56'E$ 141.3

Sine

Cosine

Cor bet 5-6

Drough from page 96 -

run N $67^{\circ}41'E$ 346.31

$$\text{Sine } 92570 \times 346.31 = 320.37 E$$

$$\text{Cosine } 37973 \times 346.31 = 13.80 N$$

run N $61^{\circ}59'E$ 618.30

$$\text{Sine } 88281 \times 618.3 = 545.84 E$$

$$\text{Cosine } 46973 \times 618.3 = 290.48 N$$

Angle Point N side of road bet lots 23-

$$24 \text{ turn } \frac{1}{2} \text{ of } 141^{\circ}36' = 70^{\circ}48'$$

$$\text{Sine } 94438 \times \sin 33^{\circ} = 34.94$$

$$\text{NE Cor lot 23 Cosine } 32887 \times 34.94 = 11.49$$

run N $23^{\circ}35'E$ 185 ft

$$\text{Sine } 39741 \times 185 = 73.42 E$$

$$\text{Cosine } 91764 \times 185 = 169.76 N$$

run S $28^{\circ}31'E$ 506.82 to SE Cor lot 25

$$\text{Sine } 47741 \times 506.82 = 241.96 E$$

$$\text{Cosine } 87868 \times 506.82 = 435.33 S$$

S $64^{\circ}25'W$ 138.15

$$\text{Sine } 90196 \times 138.15 = 124.61 W$$

$$\text{Cosine } 43182 \times 138.15 = 59.65 S$$

S $80^{\circ}11'W$ 73 ft

$$\text{Sine } 98536 \times 73 = 71.93 W$$

$$\text{Cosine } 17050 \times 73 = 12.45 S$$

run S $71^{\circ}28'W$ 102

$$\text{Sine } 94814 \times 102 = 96.71 W$$

$$\text{Cosine } 31786 \times 102 = 32.42 S$$

run S $79^{\circ}28'W$ 243.5

Sine $98315 \times 243.5 = 23640W$

Cosine $18281 \times 243.5 = 44575$

run S $60^{\circ}38'W$ 115.0 =

Sine $87150 \times 115.0 = 100.22 W$

Cosine $49040 \times 115 = 56.40 S$

run S $55^{\circ}20'3''W$ 257.5 = SE cor 16

Sine $78855 \times 257.5 = 179.72 W$

Cosine $61497 \times 257.5 = 154.66 S$

run S $78^{\circ}30'W$ 113.1

Sine $98107 \times 113.1 = 110.96 W$

Cosine $19366 \times 113.1 = 21.90 S$

run S $56^{\circ}25'W$ 87.4 SW cor lot 15

Sine $83308 \times 87.4 = 72.81$

Cosine $55315 \times 87.4 = 48.33$

SW cor lot 15 is 1300.24 E

and 147.67 S

NE cor lot 13 is 1102.07 E + 223.94 N
of NW cor of Plott

run N $67^{\circ}41'E$ 105.7

Sine $92510 \times 105.7 = 97.78 E$

Cosine $37973 \times 105.7 = 40.13 N$

NE cor Lot 14 is 1199.85 E +
264.09 N

NE cor of lot 25 is 2051.64 E
+ 698.00 N

SE cor lot 25 is 2293.60 E and
262.67 N

NW cor lot 15 is 1199.85 E +
264.09 N

SW cor lot 15 is 1300.24 E +
167.67, S

1300.24

1199.85

100.39 E

264.09

167.67

431.76 S

$$431.67 \overline{) 100.39} \quad \begin{array}{r} .23256 \\ 513066 \end{array}$$

$$\begin{array}{r} 178.09 \\ 49.9 \\ \hline 128.19 \end{array}$$

32006

128.19

288054

32006

256048

64012

32006

4102849!

3295785

887333

788760

98593

186640

06453

36465

32265

38718

25812

38718

19359

23527

259.65

3

25465

110

3646

2584

98595

1893

3295785

887333

788760

98593

186640

06453

36465

32265

38718

25812

38718

19359

23527

99792

36465

3498960

5987520

3991688

15987522

2993765

36389

94740

12819

852660

94740

757920

189480

94740

121447

16706

1893

50118

150354

133648

16706

31624

May 12-1962

John & J to Acc 6-140-32 correct
 but 527.05 N on our Random line
 from but 527.05 on random
 set up at edge of road 49.9 ft
 from but 527.05 on random.

Fig

from point on W line 80.35' N of
 NW corner Street Run 1'

W 18°40'S 128.19 - total

Sine 32006 X 128.19 41.03 S

Cosine 94740

121.45' W

Sta. 1 run N 80°23'E 189.3

Sine 98595 X 189.3 = 186.64 E

Cosine 16706 X 189.3 = 31.62 N

Taper 189.3 BS S 80°23'W run

N 86°18'E 364.65

99792 X 364.65 = 363.89 E

06453 X 364.65 = 23.53 N

Taper 364.65 BS S 86°18'W run
 N 76°46'E 535.7

97345 X 535.7 = 521.48 E

22892 X 535.7 122.63 N

= 217.10 N + 1193.46 E

spike under T goes N 46.99 ft
and E 6.39

0.1362 H N 7°46' E

47.42

46.99

6.39.0

46.99

16.910

140.97

281.30

26.994

113.60

93.98

196.20

47.42

46.9900

396.332

735.680

693.581

420.990

396.332

246.58

22
46.99

3

140.97

246.99

6

26.994

246.99

4

187.96

990.83

4

396.332

6990.83

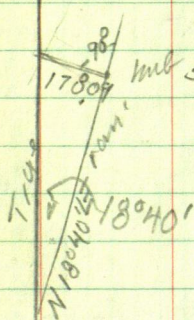
4

693.581

Lower NE cor Lot 15 run S $13^{\circ}06'E$
to lake

Truck on NE cor Lot 15 run
N $67^{\circ}41'E$

Checking Angle-Corner
and distances
from random W line sec 6
140-32



527.05 N

411.8

115.25 N of

115.25 N of NW Cor lot 1 of Plat

run S $61^{\circ}20'E$ 128.19' to point

N edge of road =

S $61^{\circ}20'E$ 428.19

Sine $87743 \times 128.19 = 112.48 E$

cosine $47971 \times 128.19 = 61.49 S$

run N $80^{\circ}23'E$ 189.3

Sine $98595 \times 189.3 = 186.64 E$

cosine $16706 \times 189.3 = 3162 N$

run N $86^{\circ}18'E$ 364.65

Sine $99792 \times 364.65 = 363.89 E$

cosine $66453 \times 364.65 = 23.53$

run N $76^{\circ}46'E$ 535.7

Sine $97345 \times 535.7 = 521.48 E$

cosine $22892 \times 535.7 = 122.63$

$$= 1184.49 E + 231.54 E$$

Checking Plat along street
& Lot line

$$N 59^{\circ} 14' E 144.12 \text{ NE cor lot 2}$$

Sine

Cosine

$$N 78^{\circ} 53' E 214 \text{ NE cor lot 4}$$

Naide Street

$$N 59^{\circ} 14' E 131.48$$

$$\text{Sine } 85926 \times 131.48 = 112.98 E$$

$$\text{Cosine } 51154 \times 131.48 = 67.26 N$$

$$N 78^{\circ} 53' E 217.11$$

$$\text{Sine } 98124 \times 217 = 213.04 E$$

$$\text{Cosine } 19281 \times 217 = 41.86 N$$

$$N 70^{\circ} 58' E 109.9$$

$$\text{Sine } 94533 \times 109.9 = 103.89 E$$

$$\text{Cosine } 32612 \times 109.9 = 35.84 N$$

$$N 83^{\circ} 28' E 392.74 \text{ NE A.P. bet 10-11}$$

$$\text{Sine } 99357 \times 392.74 = 390.22 E$$

$$\text{Cosine } 11378 \times 392.74 = 44.69 N$$

$$N 73^{\circ} 03' E 296.06$$

$$\text{Sine } 95656 \times 296.06 = 283.20$$

$$\text{Cosine } 29154 \times 296.06 = 86.31$$

as the A.P. of

as A.P. on S side of St. is 166' longer
this would be

N $73^{\circ}03'E$ 297.61 to N.E. cor lot 13

Sine $95656 \times 297.61 = 28468 E$

Cosine $29154 \times 297.61 = 8677 N$

run N $67^{\circ}41'E$ along S. side street
from N.E. cor lot 13 which is.

I go to Park Rapids to check figures
on the copy I made of the Plat of
O.W. ASSO Beach. and get distances.

I missed while making said copy.

(Yesterday May 14th I took Gertrude
to Dr. in Bemidji while there I

buy a Underwood-Olivetti Calculator
\$682.64)

I put plat on my Drafting Board
and change angles in courses

May 16th Bad storm last
night this morning sky clear

I go to Office to check the figures

I did by hand from page 94 to 106
this Book with my New Calculator

Calculator figs

MC East on shore line

S 83°01'E 144.9

$$\text{Sine } 99258 \times 144.9 = 143.82 \text{ E} = 143.82 \text{ E}$$

$$\text{Cosine } 12158 \times 144.9 = 17.62 \text{ S} = 17.62 \text{ S}$$

N 75°27'E 106.8

$$\text{Sine } 96793 \times 106.8 = 103.37 \text{ E} = 247.19 \text{ E}$$

$$\text{Cosine } 25122 \times 106.8 = 26.83 \text{ N} = 9.21 \text{ N}$$

N 70°09'E 115

$$\text{Sine } 94058 \times 115 = 108.17 \text{ E} = 355.36 \text{ E}$$

$$\text{Cosine } 33956 \times 115 = 39.05 \text{ N} = 48.26 \text{ N}$$

N 53°56'E 141.3

$$\text{Sine } 80833 \times 141.3 = 114.22 \text{ E} = 469.58 \text{ E}$$

$$\text{Cosine } 58873 \times 141.3 = 83.19 \text{ N} = 131.45 \text{ N}$$

S 86°02'E 109

$$\text{Sine } 99760 \times 109 = 108.74 \text{ E} = 578.32 \text{ E}$$

$$\text{Cosine } 66918 \times 109 = 7.54 \text{ S} = 123.91 \text{ N}$$

N 73°48'E 113.5

$$\text{Sine } 96029 \times 113.5 = 108.99 \text{ E} = 687.31 \text{ E}$$

$$\text{Cosine } 27899 \times 113.5 = 33.95 \text{ N} = 157.86 \text{ N}$$

N 74°08'E 121.7

$$\text{Sine } 96190 \times 121.7 = 117.06 \text{ E} = 804.37 \text{ E}$$

$$\text{Cosine } 27340 \times 121.7 = 33.27 \text{ N} = 191.13 \text{ N}$$

N 63°48'E 245.3

$$\text{Sine } 89687 \times 245.3 = 237.94 \text{ E} = 1042.31 \text{ E}$$

$$\text{Cosine } 44229 \times 245.3 = 117.34 \text{ N} = 308.47 \text{ N}$$

N 73°47'E 127.8

$$\text{Sine } 96021 \times 127.8 = 122.71 \text{ E} = 1165.02 \text{ E}$$

$$\text{Cosine } 27927 \times 127.8 = 35.69 \text{ N} = 344.14 \text{ N}$$

N 62°53'E 87.4

$$\text{Sine } 89008 \times 87.4 = 77.79 \text{ E} = 1242.81 \text{ E}$$

$$\text{Cosine } 45680 \times 87.4 = 39.84 \text{ N} = 384.00 \text{ N}$$

N 56°25'E 187.4 at 100 cor. lots 14-15

$$\text{Sine } 83308 \times 100 = 83.31 \text{ E} = 1326.1 \text{ E}$$

$$\text{Cosine } 55.315 \times 100 = 55.32 \text{ N} = 399.48 \text{ N}$$

$$\times 187.4 = 156.12 \text{ E} = 1398.93 \text{ E}$$

$$\times 187.4 = 103.66 \text{ N} = 487.66 \text{ N}$$

Shore line

N 78°50'E 113.1 = Cor to 16-17

$$\begin{aligned} \text{Sine } 98107 \times 113.1 &= 11096 E = 1509.89 E \\ \text{Cosine } 19366 \times 113.1 &= 21.90 N = 809.56 N \end{aligned}$$

N 52°03'E 101 = Cor to lots 17-18

$$\begin{aligned} \text{Sine } 78855 \times 101 &= 79.64 E = 1589.53 E \\ \text{Cosine } 61497 \times 101 &= 62.11 N = 571.69 N \end{aligned}$$

from MC #19 run North 411.80

N 59°14'E 144.12

$$\begin{aligned} \text{Sine } 85926 \times 144.12 &= 123.123.84 E = 123.84 E \\ \text{Cosine } 51154 \times 144.12 &= 73.72 N = 485.52 N \end{aligned}$$

N 78°53'E 214

$$\begin{aligned} \text{Sine } 98124 \times 214 &= 209.99 E = 333.83 E \\ \text{Cosine } 19281 \times 214 &= 41.26 N = 526.78 N \end{aligned}$$

N 70°58'E 108

$$\begin{aligned} \text{Sine } 94533 \times 108 &= 102.10 E = 435.93 E \\ \text{Cosine } 82162 \times 108 &= 35.22 N = 562.00 N \end{aligned}$$

N 83°28'E 392

$$\begin{aligned} \text{Sine } 99351 \times 392 &= 389.46 E = 825.39 E \\ \text{Cosine } 11378 \times 392 &= 44.60 N = 606.60 N \end{aligned}$$

N 73°03'E 300.2

$$\begin{aligned} \text{Sine } 95656 \times 300.2 &= 287.16 E = 1112.55 E \\ \text{Cosine } 29154 \times 300.2 &= 87.52 N = 694.12 N \end{aligned}$$

N. 67°41'E 105.7 N. cor. lots 14-15

$$\begin{aligned} \text{Sine } 92510 \times 105.7 &= 97.78 E = 1210.33 E \\ \text{Cosine } 37973 \times 105.7 &= 40.14 N = 734.26 N \end{aligned}$$

N 67°41'E 349

$$\begin{aligned} \text{Sine } 92510 \times 349 &= 322.86 E = 1435.41 E \\ \text{Cosine } 37973 \times 349 &= 132.53 N = 826.65 N \end{aligned}$$

N 61°59'E 26.70 to NE cor. Lot 17

$$\begin{aligned} \text{Sine } 98281 \times 26.7 &= 23.57 E = 1458.98 E \\ \text{Cosine } 46973 \times 26.7 &= 12.54 N = 839.19 N \end{aligned}$$

from MC #19 we ran

N 18°40'E 527.05

$$\text{Sine } 32006 \times 527.05 = 168,69E$$

$$\text{Cosine } 94740 \times 527.05 = 499.33N$$

$$168,69E$$

$$499.33N$$

N 71°20'W 49.9

$$\text{Sine } 94740 \times 49.9 = 47.28W$$

$$\text{Cosine } 32006 \times 49.9 = 15.97N$$

$$121,41E$$

$$515.30N$$

N 80°23'E 189.3

$$\text{Sine } 98595 \times 189.3 = 186.64E$$

$$\text{Cosine } 16706 \times 189.3 = 31.62N$$

$$308.05E$$

$$546.92N$$

N. 86°18'E 364.65

$$\text{Sine } 99792 \times 364.65 = 363.89E$$

$$\text{Cosine } 06453 \times 364.65 = 23.53N$$

$$671.94E$$

$$570.42N$$

N 76°46'E 535.7

$$\text{Sine } 97346 \times 535.7 = 521.48E$$

$$\text{Cosine } 22892 \times 535.7 = 122.63N$$

$$1193.42E$$

$$693.08N$$

from N 7°46'E 47.42 Tamp NW cor Lot 15

$$\text{Sine } 13514 \times 47.42 = 6.41E$$

$$\text{Cosine } 99083 \times 47.42 = 46.99N$$

S 13°06'E to lake

T spike in road. 535.7 B.S.

S 76°46'W on spike + run N.

N. 24°15'E 45.17 ft to NE cor lot 14

From NE cor lot 14 the S cor lot 14
bears S 21°31'E 317.03 ft

NE cor. lot 17 to SE cor lot 17 run

S. 26°01'E 297.66'

From spike 535.7 in road

run N53°03'E

19E cor 15

run

FIRST CLASS

Permit No. 1032

Lansing, Michigan

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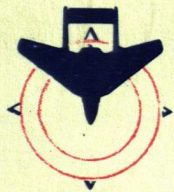
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ABRAMS AERIAL SURVEY CORPORATION

P. O. BOX 536

LANSING 3, MICHIGAN

Via Air Mail



- ☐ Please send me a complimentary copy of your illustrated book on Aerial Mapping.
- ☐ I am considering some mapping work. Please have an Abrams Representative contact me.

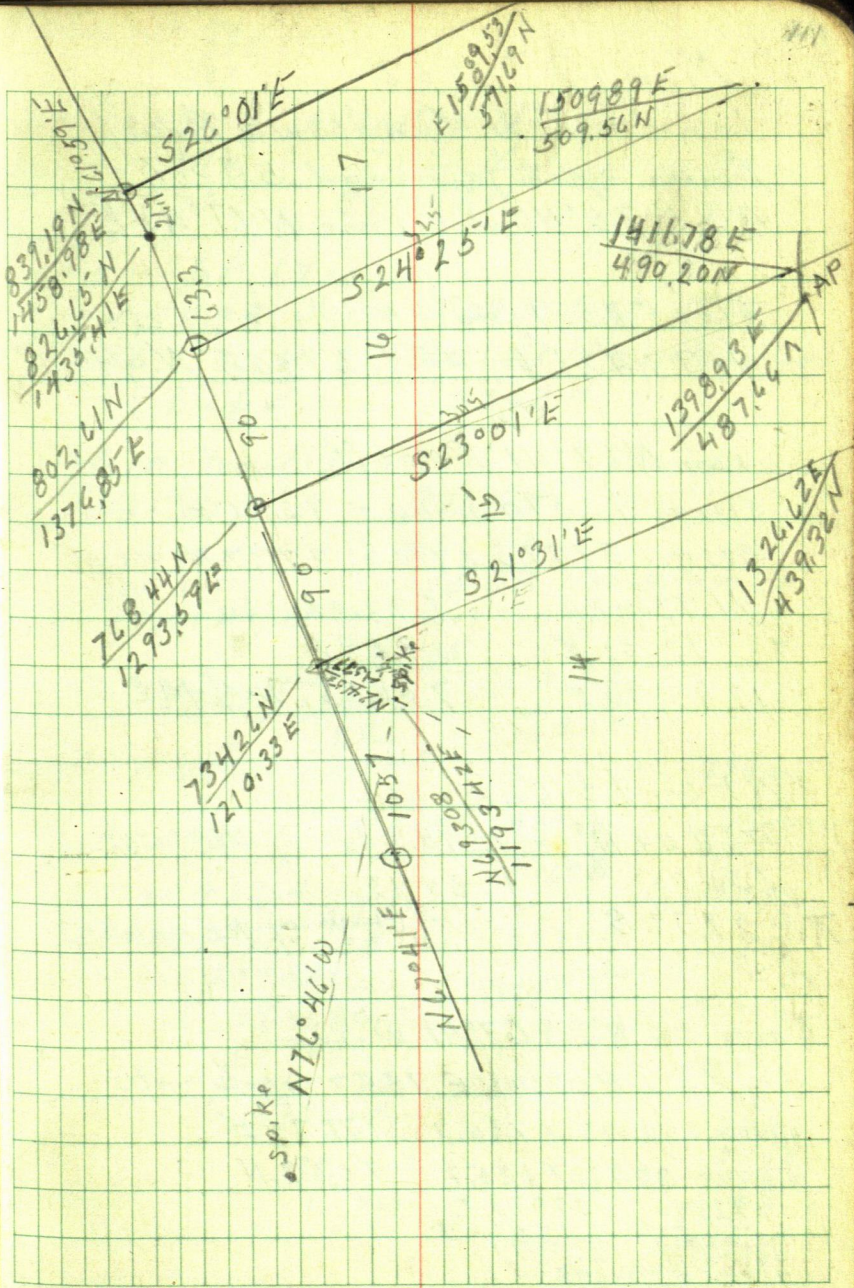
Name _____ Title _____

Please Type or Print

Organization _____

Address _____

City _____ Zone _____ State _____



May 17th 1962

John + I to Owassee Beach

Tower spike in road 535.7

BS S 76°46'W & run N 67°41'E

100 ft

Sta. 535.7 ~~res~~ 367°41'W run

1193.42' E and 693.08' N of MC

run N 67°41'E 100 ft

Sine 92510 x 100 = 9251 E

Cosine 37973 x 100 = 37.97 N

1193.42 E	693.08
+ 9251 E	37.97
1285.93 E	731.05 N of MC

NE cor lot 15 15

768.44 N + 1293.59 E of MC

731.05 1285.93

To 37.39 S

7.66 W of NE cor lot 15

T

Tower 100 BS S 67°41'W run

continue N 67°41'E 185.7 up to on top

Sine 92510 x 185.7 = 171.79 E

Cosine 37973 x 185.7 = 70.52 N

92510	37973	717
1857	1857	1857
647570	265811	331
462550	189845	
740080	303734	
92510	37973	
171.79	70.52	

90
 797
 1897

1285.93 E & 731.05 N
 171.79 E 70.52 N
 1457.72 E 801.57 N

NE corner 17.5

145898 E & 83919 N of MC
 145772 E 80157 N of spike on top
 1.20 E 3762 N

AP in Street 15

1435.41 E 826.65
 145898 E 80157
 1435.41 E 2508 N of spike on top
 23.57 W of AP

0335
 297.62 / 126.00
 3 11286
 11286 13140
 11286

N 1055.1 E 18540

33
 3762
 3
 18810
 663
 99944
 7
 499720
 699608
 522
 99944
 6
 599664
 321
 99944
 4
 399776

03345 x 3764 = 37.64
 999.44 / 3762000
 299832
 763680
 699608
 640720
 599664
 410560
 399776
 10784

99944
 2
 499720
 99944
 3
 299832
 321
 99944
 4
 399776
 323
 03345
 3764
 13380
 20070
 23413
 10035
 12690

Flower spit in road.

731.05° N + 1285.93° E of MC

NE corner lot 15 is

76844 N + 129359 E of MC

73105 N 128593 E

3739 7.66

204817 = 11°35'

3 ⁴ 3739	3739	766.0
5	2	7478
18695	7478	18200
23739	532	14956
4	3739	32440
14956	8	29912
425	29912	25286
3739		22434
22434		28460

N 11°35' E 373

Sine = 20079 X 38.17 =

Cosine 97963

22	38.17 =	
97963	3739000	20079
3	293889	3817
293889	800110	140553
442	783704	20079
97963	144060	16632
7	97963	60237
685741	660970	48241
6752	587778	
97963	73192	
8		
783704		
492963		
6		
587778		

$$120487 = 11035'$$

$$\begin{array}{r} 3739 \\ \hline 766.0 \end{array}$$

$$\begin{array}{r} 7478 \\ \hline 7478 \end{array}$$

$$\begin{array}{r} 3739 \\ \hline 18200 \end{array}$$

$$\begin{array}{r} 14956 \\ \hline \end{array}$$

$$\begin{array}{r} 32440 \\ \hline \end{array}$$

$$\begin{array}{r} 18695 \\ \hline 29912 \end{array}$$

$$\begin{array}{r} 3739 \\ \hline 25280 \end{array}$$

$$\begin{array}{r} 14956 \\ \hline \end{array} \quad \text{Since } 20079 \times 3817 =$$

$$\text{Cosine } 97963$$

$$\begin{array}{r} 3739 \\ \hline 85 \end{array}$$

$$\begin{array}{r} 29912 \\ \hline \end{array}$$

$$38.17$$

$$197263 / 3739.000$$

$$\begin{array}{r} 3 \\ \hline 293889 \end{array}$$

$$\begin{array}{r} 293889 \\ \hline 806110 \end{array}$$

$$\begin{array}{r} 783704 \\ \hline \end{array}$$

$$\begin{array}{r} 97963 \\ \hline 164060 \end{array}$$

$$\begin{array}{r} 97963 \\ \hline \end{array}$$

$$\begin{array}{r} 685541 \\ \hline 66097 \end{array}$$

$$\begin{array}{r} 697963 \\ \hline 56 \end{array}$$

$$\begin{array}{r} 20079 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 3817 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 783704 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 140553 \\ \hline \end{array}$$

$$\begin{array}{r} 20079 \\ \hline \end{array}$$

$$\begin{array}{r} 160632 \\ \hline \end{array}$$

$$\begin{array}{r} 60237 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 76641 \\ \hline \end{array}$$

ALLEN HESS Steamboat Lake
Guthrie Minn.

Phone UL 4-7183

Aug 1962

John + I Lv Walker at 12-15
drive to Franks Place where
I call Hess - (304) drive to corner
and wait for Hess

at corner to Sec 23-24-25-26
144-32 (US Brass cop.) in cement
We also find a 1 inch iron at
NE cor lot set by some
surveyor 65.9' E of sec. cor.

Travel IN NE cor Lot site
Won flag at sec. cor and
ran E find iron monument
on lake shore (US Brass cop in
cement)

from Sec. cor chain East
223.00 ft put pt for I.M.

Travel 223.00 BS Won flag at sec.
Cor. Run S $28^{\circ}35'E$ 203.2 - water
S W angle, $118^{\circ}35'$ 8 ft

$$\begin{array}{r} 223.00 \\ - 65.9 \\ \hline 157.1 \end{array}$$

$$\begin{array}{r} 230.00 \\ - 7 \\ \hline 223. \end{array}$$

$$\begin{array}{r} 210.29 \\ - 7. \\ \hline 203. \end{array}$$

$$\begin{array}{r} 1835 \\ - 90 \\ \hline 2835 \end{array}$$

157

Holasek Lot 1 Sec 9
on Lots 1-2 - Sec 8 - 139-33

Bob + I

Go to R. 4th Crow Wing Lake
Sec 8-9 - look for cor to Sec
4-5-8-9 - 139-33

Bob + I to Park Rapids where
we get Abstract of land in
Sec 8-9-139-33

Look for corners no find

Time Sheet

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

Harold Cuno 11 11 11 11 11

Car

Exp

Robert 11 1 1

John 1 11 11

Erney 11

Ed 1

Wayne 1

118

Albina H Holasek

lots 1 & 2 - Sec 8 - 139-33 &

Lot 1 Sec. 9 - 139-33 -

Fred Holasek

To Mrs Joseph Dudycha

2 2502 Plymouth Road South
Minneapolis 26 - Minn

Albina Holasek

15606 Minnetonka Mills Rd

Hopkins Minn.

9/7/62

Bob & I to Park Rapids
where we leave Holasek's Abstract
with Reg. of Deeds drive to Sec
8 - 139-33 look for corners
find I.M. taken out by road grader
in center of Sec. 8.

find I.M. NE cor. sec. 8 -
run a random line West
from NE cor. Sec. 8 - 139-33
from spike on random line
about 600 ft from Tar Highway
chain our random line E

@ 300 pins - 600 pins - 900 pins + 175.8
= 1075.8 but 60 ft spike in @ road

$$1075.8 + 200 = 1275.80 \text{ pin} + 150.$$

$$\begin{array}{r} 150 \\ 1275.80 \text{ pin} \\ + 300 \\ \hline \end{array}$$

$$\begin{array}{r} 1725.80 \text{ pin} \\ + 501.70 \\ \hline \end{array}$$

$$2227.50 \text{ hub at intersection Tadder}$$

near K

$$+ 500$$

$$\begin{array}{r} 2227.50 \text{ pin} \\ + 211.40 \\ \hline \end{array}$$

$$+ 211.40$$

$$2938.90 \text{ hub on hill near house}$$

9/8/62

John & I to Sec. 8-139-33
from hub 2938.90 E continue
chaining East.

$$2938.9 \quad 3338.9$$

$$\begin{array}{r} + 400 \\ \hline \end{array} \quad \begin{array}{r} - 22.7 \\ 3316.2 \text{ hub} \\ \hline \end{array}$$

$$3338.9 \text{ pin}$$

$$+ 300$$

$$3638.9 \text{ pin}$$

$$+ 400$$

$$4038.9 \text{ pin}$$

$$+ 212.85$$

$$4251.75 \text{ hub}$$

$$4251.75 \text{ hub}$$

$$+ 500$$

$$4751.75 \text{ pin}$$

$$+ 142.8$$

$$4894.55 \text{ IM Sec. Cor}$$

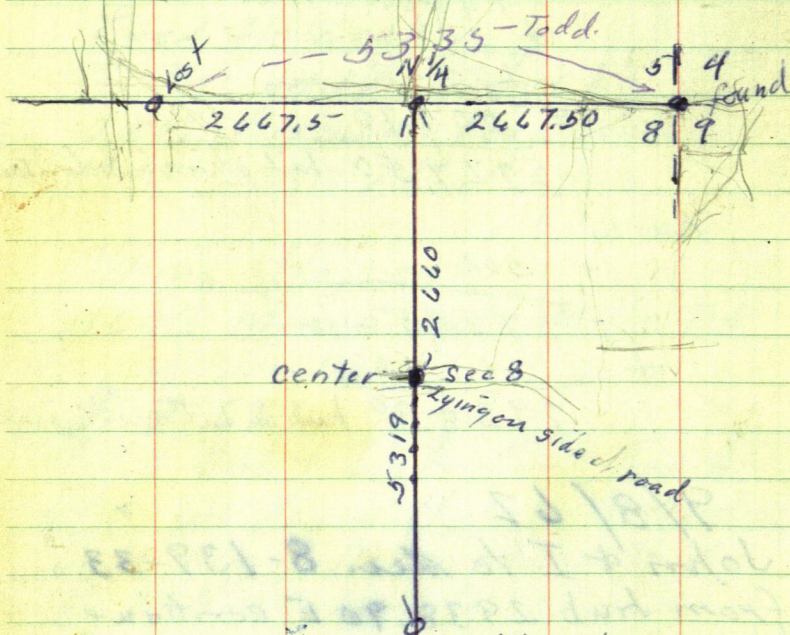
$$4894.55$$

$$4251.75$$

$$\hline 64280$$

$$4894.55$$

120

$$\begin{array}{r} 4894.55 \\ 2227.5 \\ \hline 2467.05 \end{array}$$


Above is copy of Todd old survey record of 1920 recorded in Book A on page 550 in ~~the~~ Hubbard County Books of Surveys made in Hubbard Co.

5335

4894.55

X 440.45

33500

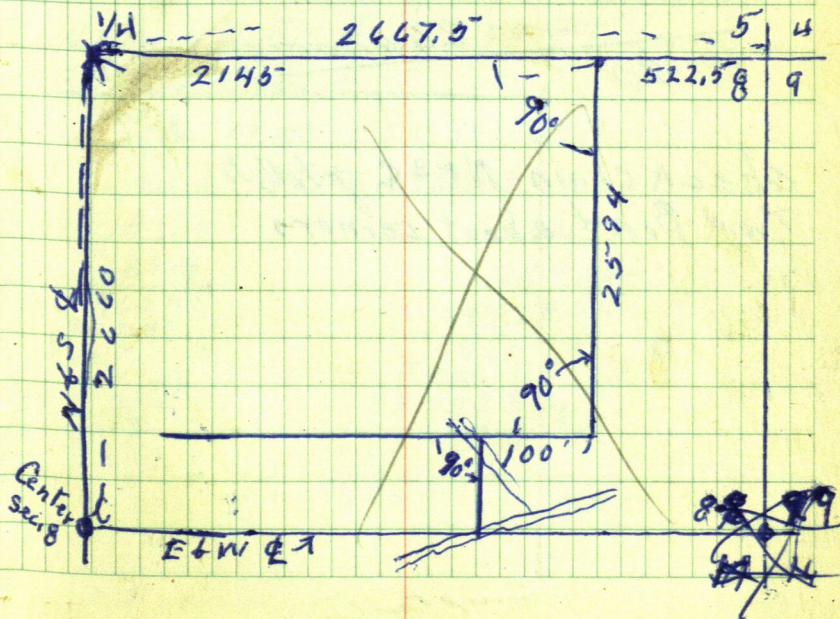
1949
3
445

2702.3
2660
423

121

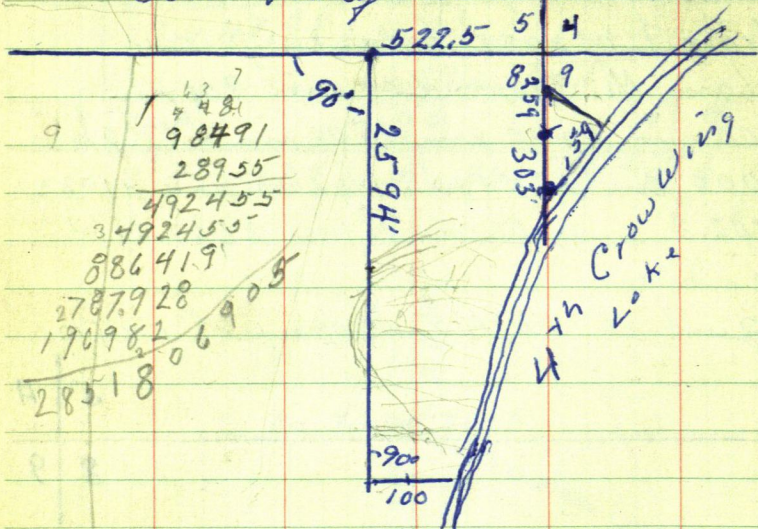
From temp. center sec. 8
being ϕ of road between fences
chain N. 300 pin 600 pin 900 pin
1100 pin 1400 pin 1500 pin - 1700 pin
2000 pin 2300 pin 2600 pin + 1023 -
2702.3 3 spikes on N line 2667.05 W
of center.
quit at 12:45 because of rain

5	4
8	9



122

9/11/62 election day
Bob - Emory & I to Sec 8



check chain No 3 & go talk to
Twp Board about corners

Temp Center

149954
 10074977 0.26' ^{297.5} 123
 389.7

$$2667.50 \sqrt{2000.000}$$

Correction = .0074977

but 4251.75 E = 442.80 W and gals
 54.82

$0^{\circ} 51' 30''$
 $.014996 \times 442.8 = 9.64$
 $2667.5 \sqrt{4000}$

9/12/12

Ermy - John + I to Sec 8 - 139.33

Tower NE cor Sec 8 sit Non our random
 line turn L $0^{\circ} 26'$ to temp true N line
 sec 8. distance 48.2

Tower 48.2 sit along our temp true
 N line Sec 8 T M. 259 & S bears
 $S 9^{\circ} 58' E$ 289.55

Sine 17308 X 28955 = 50.11

Cosine 98491 X 28955 = 8

$$\begin{array}{r} 17308 \\ 28955 \\ \hline 3286540 \\ 865.46 \\ 155772 \\ 138464 \\ 84616 \\ \hline 50.113 \end{array}$$

$$\begin{array}{r} 98491 \\ 28955 \\ \hline 2492455 \\ 492455 \\ 886419 \\ 7837928 \\ 1969826 \\ \hline 285.186 \end{array}$$

124

23372

240.2

,35

$$\begin{array}{r} 23372 \\ 53 \\ \hline 268 \end{array}$$

Turn NE Cor lot 8 site W on random
turn L $0^{\circ}51'30''$ IM 259± bears $S9^{\circ}35'E$

Side 16648 X 289.2

Cosine 98604 X 289.2 = 28516.5

$$\begin{array}{r} 9860.4 \\ 289.2 \\ \hline 197208 \\ 887436 \\ \hline 1788832 \\ 197208 \\ \hline 285162 \end{array}$$

$$\begin{array}{r} 16648 \\ 2892 \\ \hline 33296 \\ 149832 \\ \hline 133184 \\ 33296 \\ \hline 48146 \end{array}$$

9/13/62

John & I to Sec 8 139-32

Continue W line of E 522.5 ft
of at 33' spike R+W line road
@ 268.2 hub +

202

470.2 hub

262.9

733.1 hub.

364.25

1097.35 hub

186

1283.35 hub

103.55

1386.90 dist offset 1.9 ft W

268.2

202

470.2

262.9

331

364.25

1097.35

186

1283.35

103.55

1386.90

1.9

ft W

110 140
 $\frac{92}{202}$ 129.9
 269.9

190.
 $\frac{4}{186}$

10955.20
 $\frac{6}{282}$
 37

260.2
 $\frac{6}{125}$

set spike ahead between large trees
 on line but set on 1.9 affect W

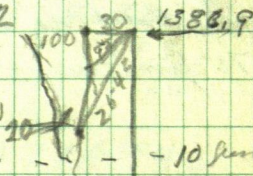
9/14/62

John & I to see 8-139-33

1386.9
 $\frac{33}{1353.9}$

As this N & S line seems to be
 going into swamp and we can
 not find Holasek we think it
 best to stop there and run lakeshore
 From 1386.9 side N & Turn E 90°
 set spike at foot of bank and edge of
 bog. 30 ft. bog extend 100 ft. east to lake
 Tst. 11 at 1386.9 edge of bank + bog
 N 41° 20' E 95.1

Tst. still at 1386.9 spike on point
 bears N 44° 20' E 254.2



Turn 254.2 BS S 44° 20' W
 run N 19° 25' E 146.25 - - - 10 feet west

Turn 146.25 BS S 19° 25' W 190.9
 run N 12° 23' E at 20' bog 15 R. @ 190.9 sta 35 W

Tower 190.9 BSS 12°23'W run.
 N 31°16'E 311.53' about 2 ft S of E + W
 fence 10 W of water 40 E to open water

Tower 311.55 BSS 31°16'W run.
 N 29°27'E at 100 water 10 E end of bag
 @ 210 into 15 from water 25 from bag

Tower 210 BSS 29°27'W run
 N 33°06'E 206.4 to spike on fence
 line ± 13 from water 20 from bag
 from sta 210 spike on rec line bears
N 47°23'W 31.75 ft.

Check chain from pt 259 S + 48.2 W
 of rec. cor IM into E 43.9.
 set offset spikes W of rec. cor 20 ft
 on 20 ft W of IM 259 S of cor.
 chain S. 79.1 + 48.6 turn SE angle
 91° - 20 ft. parallel to first offset
 from spike back on line chain S- 30.3 to
 spike on line this spike is N 47°23'W
 31.75 from our shore line sta. 210.

9/15/62

Ed - John, Wayne & I to see 8

Tower hut 1386.9 + 200 ft about
 at 50 mt w. edge of ramp then along
 hit ramp. Wedge of ramp about 200 m. w. edge of

Tall over 1386.9 Turn R and run

S 12° 29' W ~~238.85~~ - 238.85

Sine 21616 x 238.85 = 51.63 W

Cosine 97636 x 238.85 = 233.20 S

$ \begin{array}{r} 238.85 \\ \times 21616 \\ \hline 143310 \\ 238850 \\ \hline 143310 \\ 238850 \\ \hline 477709 \\ 5162 \end{array} $	$ \begin{array}{r} 238.85 \\ \times 97636 \\ \hline 1488180 \\ 781088 \\ 22781088 \\ 1292908 \\ 1952725 \\ \hline 233203 \end{array} $	$ \begin{array}{r} 51.6300 \\ \hline 1620.103 \end{array} $
--	---	---

Tower 238.85 BS N 12° 29' E run.

S 15° 35' W 164.9

Sine 26864 x 164.9 = 44.30 W

Cosine 96324 x 164.9 = 15884 S

$ \begin{array}{r} 26864 \\ \times 164.9 \\ \hline 161184 \\ 107456 \\ 241776 \\ \hline 443087.36 \end{array} $	$ \begin{array}{r} 96324 \\ \times 164.9 \\ \hline 15884 \end{array} $	$ \begin{array}{r} 44.30 \\ - 15884 \\ \hline 1778.945 \\ - 95.93 W \end{array} $
--	---	---

128 Sta 2 under π is 392.04-S- & 95.93 W of
hub 1386.9

Tower 164.9 BS N $15^{\circ}35'E$ run

S. $5^{\circ}20'E$ 284.5

Sine 09295 X 284.5 = 26.44 E

Cosine 99567 X 284.5 = 282.77 S

99567	95.93	09295	1386.9
2845	2644	2845	391.93
497835	6949	46475	1778.83
398208	6593	371.80	282.77
796534		743.60	2061.60
199134		18590	69.49 W
282768		2644	2062.21

pt under π is 69.49 E of line and
2062.21 S of N line see 8-139-33

frg shore line 4 CW Lake See 8
N $44^{\circ}20'E$ 254.2

Sine 69883 X 254.2 = 177.64 E

Cosine 71529 X 254.2 = 181.83 N

N $19^{\circ}25'E$ 146.25

Sine 33244 X 146.25 = 48.62 E 226.26 E

Cosine 94313 X 146.25 = 137.93 N 319.76 N

N $12^{\circ}23'E$ 190.9

Sine 21445 X 190.9 = 40.94 E 267.20 E

Cosine 97673 X 190.9 = 186.46 N 506.22 N

N $31^{\circ}16'E$ 311.55

Sine 51902 X 311.55 = 161.70 E 428.90 E

Cosine 85476 X 311.55 = 266.30 N 772.52 N

19.7 200. + 6.8 ¹²⁹

9/16/62

Work on Sketch of Land in Sec 8
139-33

9/17/62

John - Bob + I to Sec 8 - 139-33
where we chain and mark lot
tract corners at Necor bet Tracts
7 & 8 to the ties

Jack Pine 16 N about 45° E 19.70'

Jack Pine 16 S " 45° E 21.00'

Lot 13 is 156.8 on West side

This to 1386.9

Elm 10 N 85° ± W 17.65'

J.P. 4 N 10° ± W 35.20

See contour from page 128 this Book

N 29° 27' E 210

Sine 49106 X 210 = 10325 E 532.15 E

Cosine 87079 X 210 = 182.87 N 955.39 N

N 33° 06' E 206.4

Sine 54610 X 206.4 = 112.72 E 644.87

Cosine 83772 X 206.4 = 172.91 N 1128.30 N

150

10/4/62 259.95

$$\begin{array}{r} 170.1 \\ 7 \\ \hline 163.1 \\ 170 \\ \hline 333.1 \end{array}$$

$$\begin{array}{r} N 915.31 \\ E 56.17 \end{array}$$

$$\begin{array}{r} N 76^{\circ} 22' E \quad 916.78 \\ 62.4 \end{array}$$

N 15° 18' E 256.95

Sine 26387 X 256.95 = 67,80E

Cosine 96456 X 256.95 = 247,84 N

N 21° 51' W 333.1

Sine 37218 X 333.1 = 123.97 W

Cosine 92816 X 333.1 = 309.17 N

N 76° 22' E 62.40

Sine 97182 X 62.40 = 60.64 E

Cosine 23571 X 62.40 = 147 N

358.3 N

123.97 W

247.84 N

6780E

309.17 N

56.17 W

1.47 N

6064E

916.78 N

56.17 W

4.47E

sec. 19

sec. 20

at 916.78 N the 1/4 Cor sets

4.47 E

M.C.N. 52

$$\begin{array}{r} 916.78 \\ 4.47 \\ \hline 916.784.47.000 \end{array}$$

.004876

E. L. Smith

170

90.25-11995-131

part of Gov't Lot 8 Section 19
140-33beg at MC N^o 53 on N shore 5th
Crow Wing Lake bet Dec. 1920.

run North @

from spike hut on top chain South
down hill @ 25.6 hub + 12 + 20 + 29.

29 from MC N 61. ft hut

20	+	25.6
12		
61		86.6 hubs

North down hill + 75.5

162.1 hub

+ 82.25

244.35	spike hut 1.5 ± W
113.95	

358.30 spike under T AP

Tower 358.30 N run N 15° 18' E

256.95

Tower 256.95 B S S 15° 18' W run

N 21° 51' W 170 + 1631 - 333.1

Tower 333.1 B S S 21° 51' E

IM

sets N 76° 22' E 62.40

IM is marked

14 S
19/20

Correction for our line

is 004876 E for each ft N

Hub. LIN goes E 0.30

" 86.6 N. goes E 0.42 ft 250

" 162.1 N goes E 0.79 ft

" 244.35 N " E 1.19 ft

" 358.30 N " E 1.75 N

OK

Hub 244.35 goes E 1.19 and
North 5.65 to NE cor of tract

We will set hub 358.30 N-E 1.75

" " " " 244.35 N-E 1.19

Then corrected 358.3 F.S. on corrected
hub. 244.35, and chain N from
corrected hub. 244.35 a distance
of 5.65 ft set point for NE cor
of tract

Then NE cor site. S on rec line
and run S 72°30'E. 119 ft

110
75
40
225

134

10/5/62

John & I to 4th Grading
 we set the NE cor. 250 ft N
 of MC 53 bet nei 19-20-140-33
 run S $72^{\circ}30'W$ 119

Tower 119.00 BS N $72^{\circ}30'E$
 and run S $45^{\circ}50'W$ 180 at hub
 from 250 N run S $72^{\circ}30'W$ 94.4
 set hub

Tower 94.4 run South parallel
 to Ac line =

94.4 = strip 90 ft W on the E 90 ft of
 tract

Tract is 242.61 ft wide

- 90

2 | 152.6 ft Left

76.3

this will leave 2 tracts 76.3 wide
 each

Tower 180 BS N $45^{\circ}50'E$ chain
 106.4 ft

E L Smith

Rt 2

Nevis Minn

71732

1064

286928

430392

71732

71732

41 231 41

95372

944

381488

381488

858348

900311

134

G. A. Baldus

Block 5 of Highland Park Add
to Village of Nevis - Hubbard
County

I got to Park Rapids copy Plat
of said Highland Park check
survey records

Apr. 18th 1963

137

Bob. & I to Highland Park Add
to Village of Nevis

we find I.M.s at NE + NW cor of Lot 1
also NW cor Lot 2 of Block 4 of said
Plat find B.T. $\frac{1}{4}$ Center of sec
but have no notes for
them

Turn NW cor of Lot 2 B1K4 of said
Plat F.S. East on NE cor Lot 1 of
said B1K4 chain E 66 ft across
James Street and set a 40° spike
on E side of said st.

Turn spike on E side of James St
set W or flag at NW cor of Lot 2 B1K4
Turn 90° and run N at 187.00 ft
set a 40° spike and run North
on E side of James Street of said
plat + 180.40 back 40° spike

1308

fig.

744 E side

718 W "

26. long in 1000 ft = $1^{\circ}29\frac{1}{2}'$ $1^{\circ}29\frac{1}{2}'$

Sine 02603 X 1066.4 = 27.76 N

Cosine 99966 into 1066 = 1066.4

718

2776

74576

744

176

74576

36740

378.36 to go.

718

66

784

2776

81176

78700

180.4

367.40 but under π

1

66

198

66

132

81174

36740

44436

37836

24436

34436

75

66

141

7836

66

14436

100

366

34436

15.64

at 811.76 pt for NW cor Lot 1
 Bk 5 of said Plat we hit a
 large Pinetree so can not set
 this spik on line

Strout Realty

June 14th 1963 I get a letter from C. R. Stewget wants a line ran does not say where I drive to Nevis to see him. He is out.

On June 22nd 1963 I stop in Nevis to see him. He takes me out in his car. The line they want is the S line of Sec. 15-140-33 from SE cor of said Sec. 15- West to E $\frac{1}{4}$ cor. Wilkie cut 22 acres off the N end of this tract which is Gov't Lot 4 Sec. 15-140-33 - Wilkie did not find the SE cor Sec. 15- - they want a line ran from E line West to West line of said Lot 4 far enough South to take in a fence S of buildings.

I tell him it will cost \$75 he says he will not hold me to that and will pay up to 150 to get this line.

Monday June 24th 1963

Gert starts working for Bill Mat Walker - 12-8-30 I take her to Walker the go to Park Rapids to check Records

Book B Book of survey's page 424

Wilkie Notes as recorded

Went to & found S $\frac{1}{4}$ corner Sec 15-140-33

I PT. thence East on $6^{\circ}30'$ Var. stada over

Crow Wing River 428.3 distance to river

312.5 at Sta 2 hub 584.5 & county Hwy

598. Sta 3. hub 658.6 E bdy Hg, #13.

Sta 4 757.7. turn N. 10° acct of Buildings

road sag. NE. 890. Sta 5-1151.1 connect

S 10° - 698 ft. at 1320 Temp $\frac{1}{4}$ Cor hub 1466

E side Pnt. road. Sta 6 hub 1667.2 Sta

7-1998.9 - Sta 8-2262.3 Sta 9-2685

on temp sec cor to sec. 14-15-22-23

Gov't Notes call for N.P. 10 S 22 W 27.6

J.P. 12 N 17 W 21.3

found old stps. fence on line set an
angle from fence post for corner This

P.P. 7 N 23 W 48.8 J.P. 10 N 78 $^{\circ}$ 20' W 67.6

P.P. 8 S 63 $^{\circ}$ 10' W 37.3 or 39.3.

69.4

hub 2685 E goes 5676

2685
1245
269745

June 24th / 1963 Tue.

Bob & I to Sec. 15-140-33 Gov't lot 4

We walk E and try and find MC #8

try to locate the S. line of Sec 15 by

old cuttings of Wilkie survey line

142

$$\begin{array}{r} 248.9 \\ 14386 \\ \hline 16875 \end{array}$$

$$\begin{array}{r} 585 \\ 92.3 \\ \hline 677.3 \end{array}$$

Walk North over bridge and follow
Crow Wing River and find the
IM $\frac{1}{4}$. Wilkie's Notes say 312
ft from $\frac{1}{4}$ E to River we find
the IM about 30 ft from river.

Walk back to road cross bridge
and pick up old cuttings on
E side of river, open up
line to the Co. Road #13.

Starts to rain so we go back
to Akeley.

Wed June 26.

Bob & I to lot Sec. 15-140-33

try and find Wilkie's hubs and the IM
E $\frac{1}{16}$ bet Sec 15-22 can find nothing
We open up the line a random line
from road to River set A west of
Co. Road #13 take Stada reading to
IM $\frac{1}{4}$ = 585 ft. we set a spike hub
at edge of N/W West & East and
continue our Random line East

$585 + 92.3 = 677.3$ hub $+ 161.3 = 838.6$
hit 16" N.P. offset S. 1 ft. hit another tree
at back 20 making it a 30 offset

$$\begin{array}{r} 269743 \\ 2685 \\ \hline 1245 \end{array}$$

1613

6273

7686 26th 1963 - Sub + I to Sec. 15-140-33

838.6 + 60 = 898 & put road NW-SE

838.6 + 300 = 1138.6 pin + 300 = 1438.6 pin

at 1438.6 - 46.4 = 1392.0 hub @ 1428 & road

NK-S - 1438.6 + 248.9 = 1687.5 hub on top

1687.5 - Box cuts off end of chain with

+ 290.0 hook

2685.0 wire chain

844.1

2021.6

2021.6 hub

663.4

2021.6

quit at 4 o'clock Too hot

Fri June 27th 1963

Continue S line Sec. 15-140-33 East

at 2021.6 + 161.4 = 2183.0 hub

2183.0

106.5

Now 2653.1 IM

2289.5 hub

See cor from fence post

110.0 pin

to cor L or S 13°10'

130.0 pin

45.55 ft.

123.6

2653.1 hub

2653.1

4435

13°10'

45.55

Sine 22778 X 45.33 = 10.38

13°10'

Cosine 97371 X 45.33 = 44.35

2653.1

4435

2697.45

10.38

144

as my chain is 2697.45

* Wilsie's chain is 2685.00

12.45 difference

as I am not sure of distance
over swp from I M $\frac{1}{4}$ to road

I will use Wilsie's measurement

.0038663,

2685 \div 10.380

corrections =

.0038663 of a foot for each foot E

Hub 1438.6

- 12.45

1 1426.15

Hub 1392.0 E is 1379.55 E and
goes S 5.33 to line

Hub 838.6 E is 826.45 E and
goes S 3.20

Hub 1687.5 E is 1675.05 E and
goes S 4.48 to line

Hub 1379.55 E goes S 5.33 to
line then W 37.05 to pt for E

$\frac{1}{4}$ cor S side Sec 13-140-33

We correct our line

Tower 1379.55 Turn 90° run South
at 79.1 hub

+ 213.0

792.1 hub

202

494.1

+ 59

500.0

Tower 500 Turn 90°

run S 37.05 set 2 1/2 x 30"
IM = 500 ft south of E 1/4 L

run E parallel to Sec line

500 ft S of mid S line Sec. 5

37.06

+ 174.4

211.45 hub

+ 199

410.45 hub

211.60

622.05 hub

June 28th 1963

Bob & I to Sec. 15-140-33 continue
E on a line 500 ft S and parallel with
S. line Sec 15-140-33

622.05

65.3

687.35 hub + 30 enter swp. or bog

+ 290

977.35 pin

80.5

1057.85 hub

@ 1050 L v bog

138

1057.85

138.5

1196.35 hub

146

1342.5

1190.35 hut

152.15

@ 1342.5 East and 500.00 South of
E $\frac{1}{4}$ bet Sec 15- 140.33 drive
a 2 x 40" pipe
at 500 ft South of E $\frac{1}{4}$ drive a 2 $\frac{1}{2}$ x
30" pipe

Turn spike 500 S of S line Sec 15-
and W of $\frac{1}{4}$ spike in E Gravel road
Take Stake to IM 500 ft S of $\frac{1}{4}$
354. ft run West
354 W of Gravel road.

145.5

499.5 hut

1096

609.1 at 2 x 42" IM an R/W
Hg No 13

Hubbard
County Record Book of Surveys

147

Book C page 425

beg. 1452.0 ft. East of Sec. $\frac{1}{4}$ Cor
B.S. on South Sec. 15 line

thence Int. Angle $142^{\circ}20'$ dist
231.1 ft. Def L $28^{\circ}25'$ - 136.8 ft

Beg 1452 E of $\frac{1}{4}$

Int Angle $142^{\circ}20'$ 231.1 ft

Def R. $4^{\circ}45'$ 128.80'

" L $24^{\circ}20'$ 370.00 ft

" L $15^{\circ}50'$ 187 " 187

" L $12^{\circ}50'$ 463.00

Def R. $70^{\circ}40'$ 264.5

" L $28^{\circ}25'$ 136.8

" R. 11° 219.4

" L 66° 116 to pt on Meander

line 33 ft W of MC #8

14.8

Sec 29-143-32

1/22/64

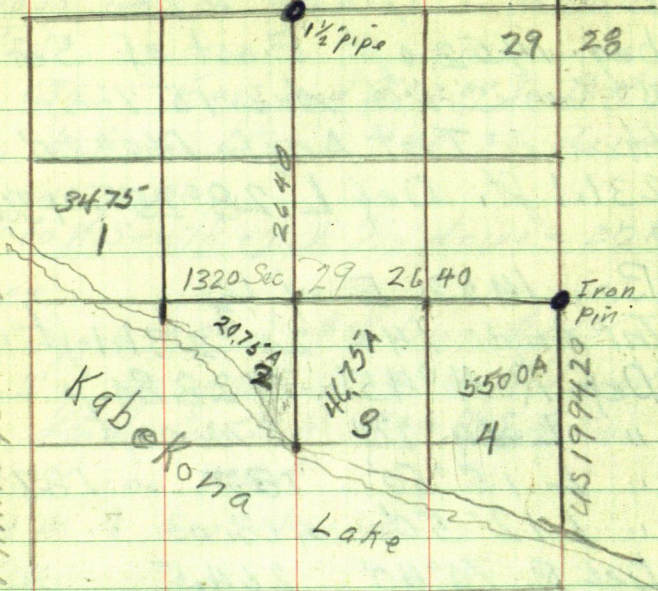
W^m Cowan - Lot 2 - sec 29 Less SW cor

20 21

1 1/2" pipe

29 28

Wm. S. Cowan Co.
235 Sexton Bldg.
Minneapolis 15, Minn.



1/4 N side sec 29 - 1 1/2" pipe 4" down
in E road N & S - 5 ft N of E road E & W
Ties - spike in P.P. S.W. 52.8
" " (Prace) P.P. SE 54.5
in line with Fence East

1/4 E. side 29. = iron pin 4" down
3 ft. N of E road
JP8 SW 54.3
" " SE 37.4
N 84° 43' W 300

Jan 22 1964

149

NE Cor 29

20-21-28-29 Ties

N.P. 14 N 65° 15' W 158

N.P. 10 S 45° 20' W 91

1/4 bet Sec. 20-29 - 143-32

N side Sec 29 later ties

mail in bottle cap in Oak 6 NE 73.5

" " " " " fence Post SE 54.09

" " " " " P.P. SW 55.13

iron pipe 1.0 ft. down

Plat of SIOUX Liribs Subdivision

1962 - Gov't Lot 3 Sec 29 - T143 R32

Know all men by these presents that S M & Irma Wertz husband & wife are the owners of the following described property, that part of Gov't lots - beg at a point 1656.3 ft S 1° 12' E of the NE corner of said lot which pt is also 58.4 ft N 1° 12' W of an established M.C. 8 ft from water's edge of Kabe Kona Lake, thence N 77° 10' W 400 to apt, thence N 74° 18' W 100 ft to a pt thence N 70° 50' W 542.3 ft to apt, thence due N 542.2 ft to a pt thence S 71° 35' E 1358.6 ft to apt thence S 1° 12' E along E line Lot 3 - 432.5 ft to pt of beg (14.7 ac)

Sec 29 - Lot 2 - 143-32

Feb 3

Bob John + I to Lot 2 we look
for IMs on Wilsie's Survey we
find IM MCor N+S & Sec 29
also IM bedrail 38.6 W we
find IM N Cor tract 1 on W
R/W road can not work T on
line trees

Turn IM on E R/W line
Turn 90° run W 66 ft at pt
Turn N Cor tract 1 to 2 site
S on pt just set on R/W line
IM NW tract 2 (65.7) bears
N 56°18'W 65.5'
NW Cor tract 3 bears N 56°27'W
+ 75 ft -
NW Cor tract 4 bears N 56°27'W
+ 100') chain N on R/W line 39.50 spk

Feb. 4 - 64

Bob - John + I to lot 2 Sec 29
143-32

Turn NW Cor tract 4 BS
S 56°27'W IM on shore bears
S 39°06'W
T still at NW Cor tract 4 run

$\begin{array}{r} 40 \\ 59.9 \end{array}$
 $\begin{array}{r} 85.2 \\ 163.5 \\ \hline 87 \end{array}$
 $\begin{array}{r} 163.5 \\ 645 \\ \hline 800 \end{array}$
 $\begin{array}{r} 85.2 + \\ 170 \\ \hline 255.2 \end{array}$
 $\begin{array}{r} 151 \\ 645 \\ \hline 796.5 \end{array}$

N $56^{\circ}56'W$ - 100 to Water's Iron +
 124.8 set pt.
 T. still at NW Cor tract 4 run N $33'$
 stake
 from NW cor tract 4 chain W 124.8
 from T. Mon shore S W cor 5 chain 100
 W set pt 666. It along shore
 465 along back of lots

Tower 465 BS $S 56^{\circ}28'E$ Pt on shore
 666 bears $S 34^{\circ}01'W$ 248.7 - 15 to Lot
 go back to Φ Sec 29 from IM $33'E$ of Φ
 chain W $33'$ set pt from top of Bank
 work T on line bet said pt + MC IM
 set spike on Φ on top chain $S. 99.9$
 $+ 300 \text{ pin } 300 \text{ pin } 300 \text{ pin} = 999.9 +$
 $140.5 = 1140.4 \text{ hunk} + 160.$
 $\begin{array}{r} 160 \\ \hline 1300.4 \end{array}$

Wain + Albert Morton + I from
 $\frac{1}{4}$ cor N chain $S 2635 = 20.3 S$ of
 $1400.9 N$ of MC from $\frac{1}{4}$ cor E chain S
 2640.8 which is $2 \text{ ft } E$ of Φ as shown
 on Plat from 1400.9 run N runs
 $\frac{1}{4}$ cor $10 \text{ ft } E$,

152

Feb 29 1964

Ed & I to sec 19-143-32
 from pt for center of sec 29
 Work T on line bet center and
 $\frac{1}{4}$ on E side sec 29 and run
 West at 33 spikes but pt for IM
 on R/W line Cut line W & but until
 we hit fence running South go to
 center & chain W @ 33' edge of
 R/W ~ 130.1 hub @ 300 pin

300	775.6
+ 72.4	+ 156.9
<hr/> 372.4 hub	932.5 hub
+ 103.2	300
<hr/> 475.6 hub	<hr/> 1232.5 pin
300	
775.6 pin	
- 56.9	
<hr/> 718.7 hub	

Tower 1320 site E + run S
 @ 90° @ 381.1 hub on top
 + 56.9 pt on seawall 10' water

2969

240

56.9

293.2

190.2

103.2

2924

220

724

153

16

1320.1

1232.5

87.5

296.9

149

1560

48

300

87.5

212.5

Charles C Jungnickel & Lillian R
wife to

Leo J. Vogt & Julia A Vogt.

All that part of Gov't lot 3 Sec 29
Twp 140 Rge 33 described as follows
Commencing at the NE cor of said lot
3 thence running South along the
E line of said lot a distance of 400
ft. thence at right angle west a dist.
of 200 ft to a point of beg. of the tract
herein described thence continuing
west on the same bearing for a dist
of 100 ft thence running N or a line
parallel to the E line of said lot 3
to the waters edge of 5¹⁴ C. W Lake
thence SE only along Waters edge
of 5¹⁴ C W Lake to a pt which is
due N of pt of beg. thence S
to pt of beg.

The boundary line is considered as
a N & S line in this description

W.D.

Dated 7 Sept 1962 filed Sept 15 62
Recorded in book 112 of Deeds on
page 315.

156

BRAD ICE

LONG LAKE PARK
PART OF OUTLOT 5

115-45

231-31

115-45-30

64

64-15

83-57

167-52

83-56

112

217-35

75-10

217-35

360

435

136-33

273-06

136-33

244-47

129-34

244-47

360

489

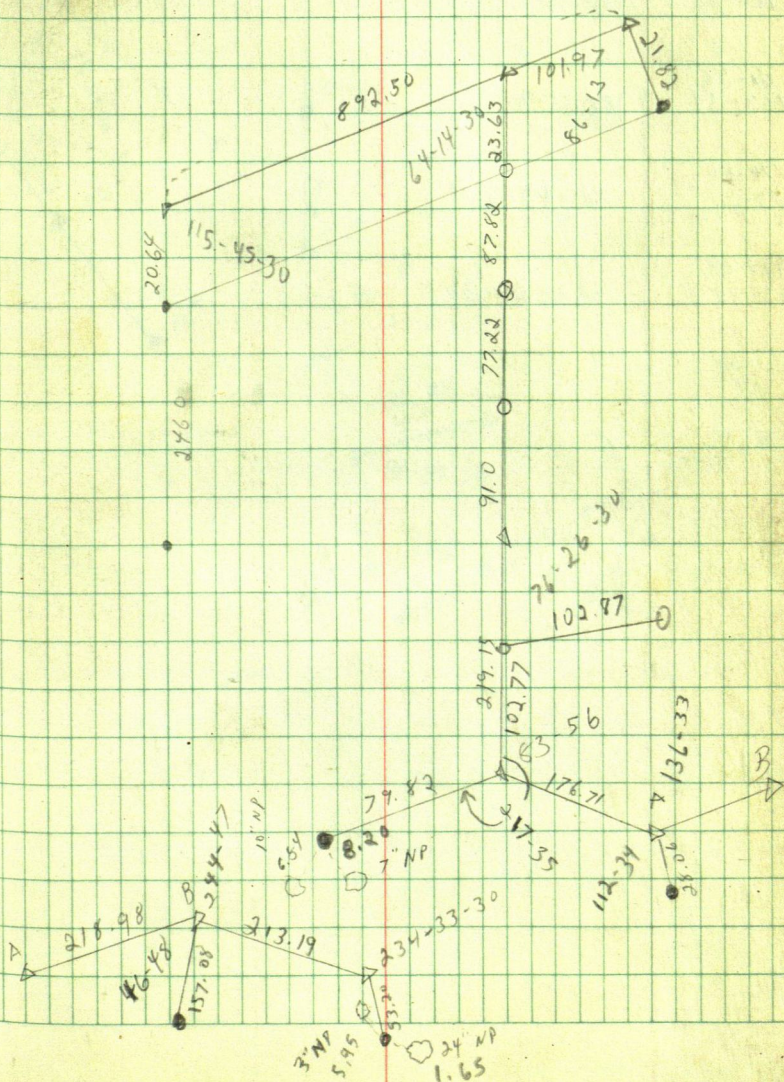
234-34

109-07

234-33-30

360

464-07



BYRON HOFFMAN

134-15
268-30

134-15

82-00
164-00

82-00

81-56
163-51

81-55-30

78-50
157-39

78-49-30

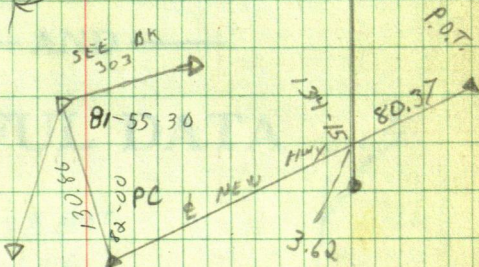
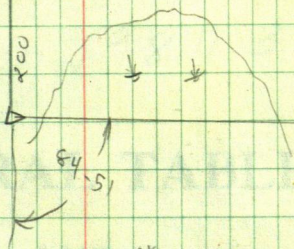
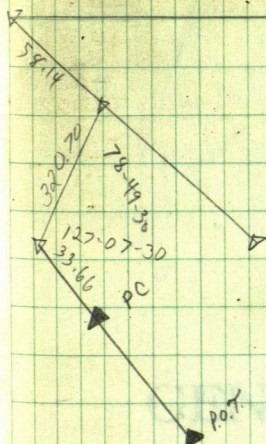
127-08
251-15

127-07-30

3

$\frac{1}{4}$ COR 56C 16

TEN MILE



26864

1649

241776

107456

161184

26864

44298736

GENERAL TABLES

— AND —

USEFUL DATA

23885

21616

173310

23885

173310

23885

17770

516298160

511

$$\begin{array}{r} 291 \\ 219.9 \\ \hline 81.1 \end{array}$$

76°30

$$\begin{array}{r} 296 \\ 150.5 \\ \hline 145.5 \end{array}$$

2000	0.250	0.250	0.250
1900	0.240	0.240	0.240
1800	0.230	0.230	0.230
1700	0.220	0.220	0.220
1600	0.210	0.210	0.210
1500	0.200	0.200	0.200
1400	0.190	0.190	0.190
1300	0.180	0.180	0.180
1200	0.170	0.170	0.170
1100	0.160	0.160	0.160
1000	0.150	0.150	0.150
900	0.140	0.140	0.140
800	0.130	0.130	0.130
700	0.120	0.120	0.120
600	0.110	0.110	0.110
500	0.100	0.100	0.100
400	0.090	0.090	0.090
300	0.080	0.080	0.080
200	0.070	0.070	0.070
100	0.060	0.060	0.060
0	0.050	0.050	0.050

Table X. Minutes in Decimals of a Degree.

1	0.017	0.017	0.017
2	0.033	0.033	0.033
3	0.050	0.050	0.050
4	0.067	0.067	0.067
5	0.083	0.083	0.083
6	0.100	0.100	0.100
7	0.117	0.117	0.117
8	0.133	0.133	0.133
9	0.150	0.150	0.150
10	0.167	0.167	0.167

Table XI. Inches in Decimals of a Foot.

1	0.083	0.083	0.083
2	0.167	0.167	0.167
3	0.250	0.250	0.250
4	0.333	0.333	0.333
5	0.417	0.417	0.417
6	0.500	0.500	0.500
7	0.583	0.583	0.583
8	0.667	0.667	0.667
9	0.750	0.750	0.750
10	0.833	0.833	0.833

Haniel E Sorenson &
Warren G

Govt Lot 2 sec 29 - Twp 140-33

5th Crow Wing - S side

Sta | +s | HI | -s | elev | Red heads

BM
0
1
7P
2
3
BM2
4
+75
5
+25
7P

140
55
1345
300 00
116.65
116.65

1345
120
1385
75
100

140
15
1385
183 35
00.00

150
120.3
270.3
9.3
261.3

Sec 20 - 140 - 34

Plot of Lakeview in Todd Twp

130.4
6.4
123.6

297
230.4
46.6

300
896
2104
2064

129.75
3
126.75
350

109.5
3

70.47
45.3

49.55
219.64
150.3

239.9
234.4
209.8

290
180.4
109.6
1900
210

66
7'8.36
144.36

83389
330.67
250.67
1794
5

139.45

60-3-597

1324- 7262
416.0

1710 280.4
724.2 279.2

130 3102
.65 50.7

2436
270
2706
2640
46

1410
450
276

80
34 80
345
76.75

14386
466
13920
14386

2136.7
270
2406

9838
4.78
102.76

14386

450
276.2

89.7
7
83382
250167

94.11
449
100.60

726.2



3985
38388
383389
750501

1710
726.2
2436.2
270
2706.7
2640
56

90. 9632
84 581
10213

81.6
80

350
100

180
42
1758

39.5

350
126

83389 3300000
250147
798330
750501
47829

476