

Book III

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide, Side Slopes 1 on 1.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.6 + (20-16) ÷ 2 or 2 ft. added to 30.6 = 32.6. For slopes of 1 on 1½ see inside of back cover.

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Otist King
Miss Elva Tess
839 N Van Buren St.
Auburn, IND. 14-July 1950.
E. 300' of above Xmap

Ties to Cor Sec ^{15/14}/_{22/23} 140-29
30" x Oak N 70 W 55'
17" x Pine 500E 26 W
9" Maple N 45E 398'

This Field Book is manufactured of a High Grade 50% Rag Paper having a WATER RESISTING SURFACE, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

King Beach. Page 89
6-15-140-29 " 80

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70 ✓ *Spide* Page 293 ✓
75 ✓ " " 424 ✓
86 ✓ " " 539 ✓
85 ✓ " " 344 ✓

625 H
52
6.48
85° 08' 116
2170° 16'
2255° 24' = 85° 08'

Spain Book 1949

99000
43500
55500
175
344
519
258 x 190 = 49000 = 1¹/₂ Act

Col EC. West.
3007 - 3044 St. Do.
M. Petersburg, Fla.
20 June 1950. Clear & cool
rain early AM.

A 190' strip in the SE cor of the SE 1/4 NE 1/4 Sec 17-140-29, extending from the south line of said SE 1/4 NE 1/4 North to the Hackensack Conquille road. This encloses a tract of 1 Acre more or less all in SE 1/4 NE 1/4 S. 17-140-29.

The east 190 feet of the SE 1/4 NE 1/4 Sec. 17-140N R29N 5th in Mer. Minn. lying south of the Hack. Conquille road, etc.
15 August 1950, etc.
Burton & Minn 78' to 50' out - 54' then E 330' (1/4 mi) to thence 246' to line. Set 1ms take a N line on 1/4 NW 1/4 Sec 17-140-29.

Most distant
E. Rose
E. Rose
MCS

Survey for part of NE 1/4 Sec 17-140-29
100' out 1/40 Roy Rose, Col. West. Start at
C. Sec 17 & run N 83° 30' E of 6784' hub for
triangular base Kerr Lake, turn 90° South set
hub at 72'; set hubs close across lake.
Turn 85° 08' for triangulation. Pit across
Kerr Lake = 845'. Hubs at 1524', 1719' &
2418', & 2640'. At about 2660' & 45' North
we find an old Pine stump with a section of
log cut off that shows as B.T.
The records call for: 6" U. Pine N65E 154
7" U. " N63W 102.

The 7" Pine blown over, but a large section
of it is still there. Both stumps are
about 20' diam.

1400 15 Oct. Col. West & I check records at
Walker (4M) & set 1 x 36" iron stake as
per the above B.Ts. This also agrees
with 4 sets to survey of Sept. 1919.

Record # 423 Page 308
20. June 1950
Start of 1/2 1916 run N 62° W 1745' feet to
NW cor = 39'. From same of run 583° 45' W
along E-N 1/2 line 190' to PK 1/2 in road thence
N parallel with E sec. line 344' to NW cor 39.

Dean Anderson

Sec.

25

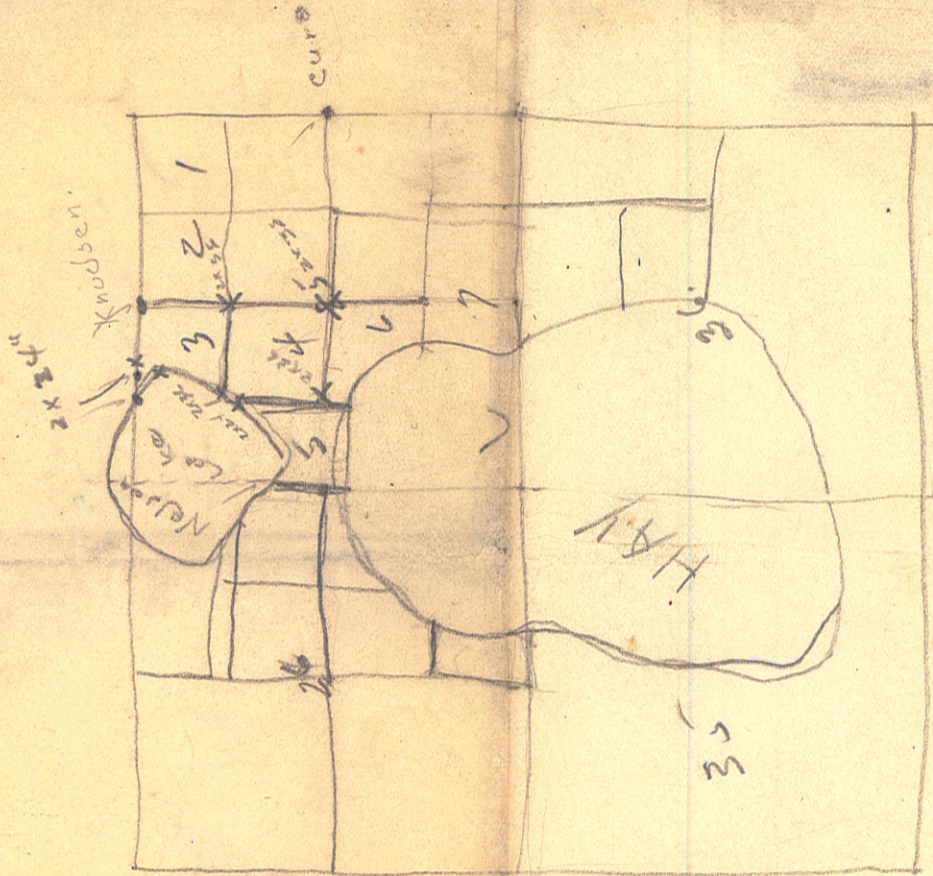
Twp.

137

R.

29

secs. 25-26, 33 & 36. -187-



1265

1319 between lakes.

C sec. 25

6" B/L Oak 345°E 10'

4" B/L Oak. N 0°E 4'

N 1/4 NE cor Lot 4

5" J. Pine N 75°W 10'

5" J. Pine 345°W 18'

1312' 1/4 cor 25 W to 1/4 cor by Cur.

1031' 1/4 shore line in Lot 3, (232' in 4.)

Make sketch of Lot 3 & send to

Hidden Acres

Requet Lakes, Minn.

Glenn to assist in P.M. →

29 Oct. Cloudy & cool
1 Nov " " & mild
2 " " " & cold
3 " " " Am 2 Sun PM mild

29 October. Roy, Glenn, Henry & I brush
West & setting hubs & chaining. at 3960'
Temp 44 cor. at 4163' 26' N. At 5187'
intersect West sec. line. (by cur.) Out 4 PM 1000

1300. 1 Nov. Roy & I to Jenkins, open west sec.
line. Find ex-hub nail & disc. Certified photo
copy of notes came. These call for:
N.P. 18' 37 1/2 W. } distances accidentally
N.P. 20' 56 1/2 W } omitted.

We find stumps that will fit.

Fail to find BTs for 1/4 cor 26/25 & M.C.
at Hay Lake.

0830 2 Nov. Roy, Bob Glenn & I chain from Nelson
Lake to 535' Sup. 765' to Sup. 955' to 1065'
our E-W R line, 1319' old bed Hay Lake.

Henry Muddle & Dave banab go to Area
1/4 25 & turn 89° 45' run 5187' W 5187'
feet to Hay Lake, High bank E of shore.

Find 5 stumps marked from 1/4 25

Calculate positions of C sec. 1/4 25/26

We go to N side Nelson Lake & find NW
for sec. line M.C. 23/24

0930 3 Nov. Roy, Glenn, Henry & I check
west section line. Decide to accept
as is. Notes not conclusive. Distances
to BTs for M.C. not given. Topography
does not fit notes.

Harris.

25 Oct	me	Roy Bunt	Bob. Virg		
	15	7.50	7.50	0	0
21 "	15	7.50	7.50	0	0
22 "	15	7.50	7.50	0	0
27 "	7.50	3.75	0	0	0
28 "	15.00	7.50	0	0	7.50
29 "	15	7.50	0	0	0
1 Nov.	7.50	3.75	0	0	0
2 "	15.00	7.50	0	3.75	0
3 "	15.00	7.50	0	0	0
4 "	15	7.50	0	0	0
5 "	15	7.50	0	0	0

15.00 ch 2
Roy Bunt
7.50

Bring Bob & Cassius car back
 196 unless moving W. line west. 6
 1825 feet south.

His of cor should go west.
 Good notes col. of 186¹².
 from Helmut to S of log aug. thin.

330 acres ~~and~~ 2 c. of E to lake.

3240 2300
 560 2900
 3240 2300

3129
 2263

58
 1233
 2935

2400
 2382
 18

3750
 750
 226195

550
 22.50
 7.50
 151.25

18000
 11250
 22080

1350
 833
 427350

68731

236
 3.50
 1.50
 1.50
 3.50
 7.50
 7.50

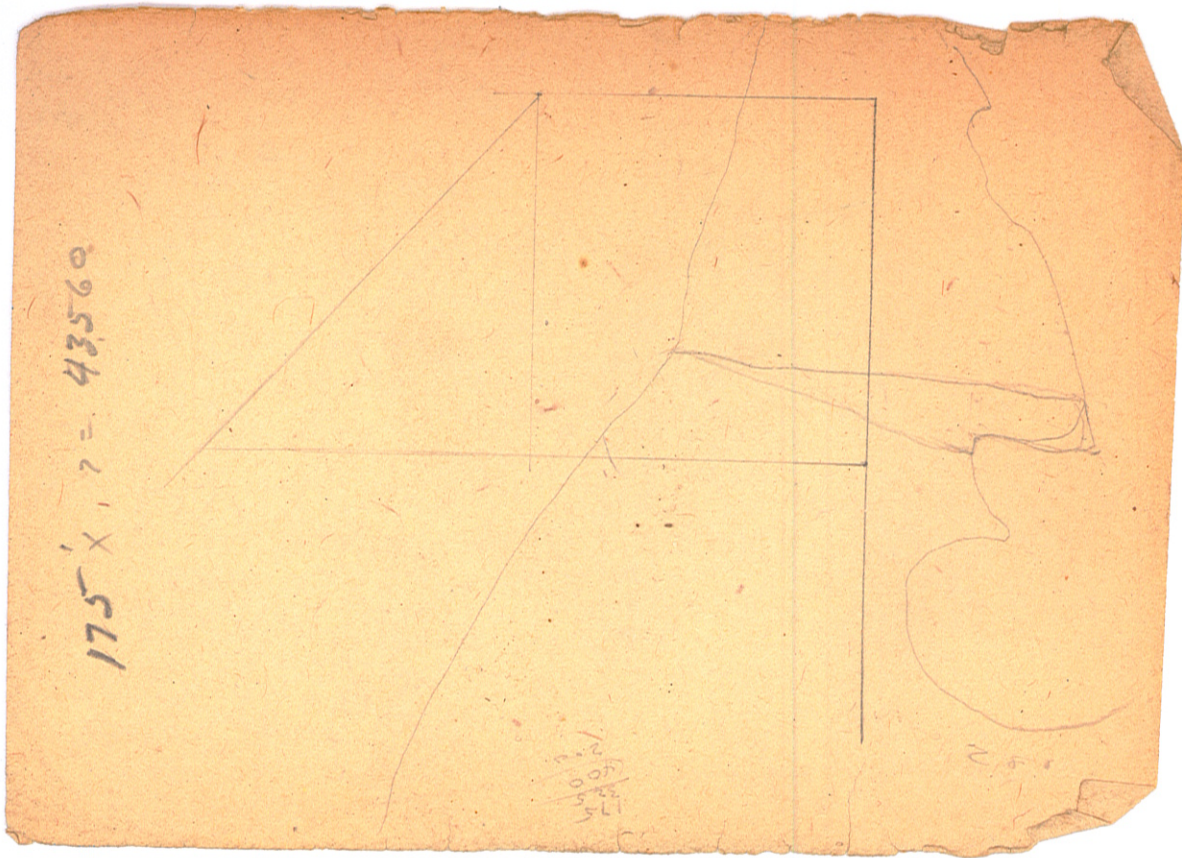
3750

236
 3.50
 297.50
 299.00

236
 3.50
 1.50
 1.50
 3.50
 7.50
 7.50

150
 219.75
 120.00
 60.50
 22.25
 11.25
 5.50
 218.75
 9.25
 1224
 2
 3
 4
 150
 75
 2250
 1540
 25425

236
 273
 213



175' x 175' = 43560

175' x 175' = 43560

207.67
 212
 $X: 207.12: 13.19; 1284 1065$
 $1284 X = 2730.3$
 $X = 212.64$
 35
 29
 $6 ch = 330$
 465
 535
 230
 11612
 5.43621
 3.10857
 2.32764
 756
 8
 19

35.80
 23.68
 2.52
 66

1622
 202

186.12 from Nelson take to 4 swamp Kent.
 330 across page.

We put 2.30 across page on lamp.
 & hit expert 535 to from Nelson.

1096.20 from Nelson to 4 25/26

1065
 36
 5787
 2540
 $2647 = 13235$
 25401

~~25337~~
 ~~13235~~
 ~~26540~~

2540
 1323
 3863

3960
 3863
 9967
 212540
 1275

5187
 5048
 41486
 207486
 248976

3960
 3863
 1000

25 12.00
 12.50
 18.00
 12.50

.0048

5187

3864
 3960
 5187 x = 25
 1 = .0048

2840
 20048
 20320
 10160
 12.1920 ✓

conclusion at

8865
 12122
 2000
 21072
 10536
 22432

2540 ✓
 1324 ✓
 3864 ✓
 13288 ✓

20
 2648
 131

2740
 20048
 21920
 10960
 131520

2634
 8865
 1313
 12060

8865 ✓
 5188 ✓
 2540 ✓
 26478 ✓
 132385 ✓

4 Nov. cloudy & cool. 4:40. Sun. mid PM

5 Nov. clear E. Warm.

Set 2' x 36" IM for C sec. 25. also some
for NE cor Lot 4. Brushed 1255^{5'}
W from above $\frac{1}{4}$ to Lake. Set 2' x 36" IM
90' W to Highwater line. Quit 6 PM.

⁰⁹⁰⁰ 4 Nov. Roy, & I set 2 x 36" IM for SW
cor quit Lot 4. Glenn came along
& we set high flag over $\frac{1}{4}$ cor on N
sec. line, by Curro; Met Mr. Soda who owns
E of Lots 3 & 4. I left for Brainerd
1100. Flew over area to check lines.
Back 1200. Roy brushed N sec. line to
Lake westward. Roy & Glenn attempt
to run W $\frac{1}{4}$ line. (we try with lights).

⁰⁸³⁰ 5 Nov. Roy & I chain 1312²⁴ W $\frac{1}{4}$ ²⁴ to
 $\frac{1}{4}$ by curro. Set over $\frac{1}{4}$ IM & run south
on Random line for line between ^{lots} 4 & 5
set hub across Lake. Chain 615⁰ from
M.C. on N sec. line East, set hub. between
hub run due south 325' to 2 x 24" IM on
Lake shore, we set. also set one 26' so.
from N sec. line. 58⁵ between stakes ^{we have} on
shore. 2 at sec. line 90⁰⁰
Chain W $\frac{1}{4}$ cor approx. in 26 W. to $\frac{1}{4}$ cor.
no good. Siggla in for line between
NW $\frac{1}{4}$ cor & W $\frac{1}{4}$ cor on E-W $\frac{1}{4}$ line. Large
Jack Pine in Way. - line close.
Chain 232³ shore line in Lot 4. & 1031⁴ in
Lot 3. Set 2 x 36" IM for S $\frac{1}{4}$ Govt Lots.

5168
2570

2648
1324

2980
1320
3864

1272

3881
3853

28 = 15' 06" = 2' 28"

4/5/88

9080
8940

1313 1313

1255

2568

1284 x 1313 = 39 Act.

③

11250
543
10805

11250 12.5

10650

440

11065

140
80

11200

all that portion of boat
at 3 pm 12-140-29 April
July of the a. line described
as follows: "Bay of the
M.C. where the N-S E line
intersects the North shore of
Woman's Is., on 1.M., runs July
along and about 150' to a
lot ~~between~~ the island
lot of Bay, from the stream
N 60° W 320' across straight
to shore of Woman's Is. A. Lind.

6mch 50.

Sec. 27-190-2F

Goot Lot ~~5~~⁵⁰ 858 ⁵⁰ 1A.

Alexander Raymond

Vital:

56 Act

See for CBAustin

Survey into Goots Plot.

Goot Lot 2-22-139-29

Bolton.

Raymond

Lot 5 Ac 27-140.28

58.58 Ac. Lot 8 - 51.55

NE cor 27 # 387,

NW cor 27 # 609.

396. Ac 21 - 139.29

~~Lot~~ 8 MC $\frac{1716}{2021} + \frac{16}{21}$

436. Road. 8 MC

12.

N 60° W 320' to shore
N 34° W 242'

Run M.C. 150' SW. along shore
5 ft. pt. of beg.

Check survey for A. Fenth 1-34-141-26

21 Oct 550' or 547' actually

Set 2608 3/4 sec 30' to West line.
34-142-26

31 Dec. Burton & 1 to Ramer. Chain
from E sec 3 of N line 2609'
set 1/2 stk. at 1200'. This line
with Adolphus SE constk & 3/4 stk
on 3 sec line --

20

6 July 1950. clear & warm. CBO
WJBT.

N 20° W. (N 25° 30' W Mag Br). 150' to
M.C.

Burton & 1 to Lindblom's. P. 303 of
wood stk in center opening to M.C. on
N-5/4 line. then ran N 25° 30' W
(magnetic) to H. edge on point
in bay. Approx 35 Act

14 Dec. 1949. cold & clear.

L. Vincent 13
R.B.J.
W.S.J.

20 Survey of Part of Gout Lot
3 sec. 12. 140-29

L. Vincent, Burton & 1 to Honey Pt.
Start at I.M. for M.C. N-5/4
line. Chain 150' South westerly
along shore Nomanu Lake to Pt.
Pt. of beginning. Run two
lines, one N 34° W 242' across
Honey Point, other N 60° W
320' to shore across Honey point.
Encloses 30 & 35 acres.

clear & warm. 20 MAY 1950 CBO
WJBT.

25 Survey of Part of Gout Lot 7 sec 27
140-28

We find I.M. for M.C. ^{on NW cor Lot 7}
also West line Gout Lot 7. E I.M. for
M.C. North across Nobebo Lake
SW cor. Lot 8. set sec 4 Lot 7 W line
run South to top of hill set hub
turn 90° run East 464' set stk hub.
Continue another 270' to 734'
set hub. set over 464' hub. turn
90° run N to Lake set 2 1/2 x 28" I.M.
same at 734' hub.

Govt Lot 2-22-139-~~29~~
(F.O. Bolton) check the cost
P.R. 9/11/49
Ponto Lake
17 Feb 50

114.50	109.55	110.3	
3.50	5.95	4.2	
111.00	114.50	4.3	
114.50			
2.60	112.65	4.6	114.5
111.90	1.15	109.9	6.6
114.50	111.50	108.8	109.9
2.1		4.8	
112.40	114.5	109.7	
114.50	111.1	109.5	114.5
2.3		5.6	8.8
112.20	114.5	108.7	106.2
114.50	112.8	114.5	112.65
5.40		2.4	
109.50	108.4	106.7	110.25
114.50	105.7	114.5	112.65
9.1		10.3	1.15
105.40	114.5	102.5	111.50
114.50	104.7	104.5	
170.5		10.8	
104.00	114.5	10.6	
13.40	11.7	10.6	
118.80		114.5	
5.95	114.5	3.9	
08.55	110.6	3.6	
4.10	102.7	100.6	
120.65	114.5		
120.75	12.9		

Pine River Hosp.

L.F.

R.T.

Points E.

Sta	4.6	4.1	3.6	4.8	6.6
0+00	$\frac{4.6}{70}$	$\frac{4.1}{35}$	$\frac{3.6}{35}$	$\frac{4.8}{70}$	$\frac{6.6}{71}$ walk
0+50	$\frac{4.2}{70}$	$\frac{3.6}{34}$	$\frac{2.6}{26}$	$\frac{3.4}{42}$	$\frac{5.4}{70}$
0+80	$\frac{3.8}{70}$	$\frac{3.3}{36}$	$\frac{1.7}{17}$	$\frac{3.0}{24}$	$\frac{5.6}{70}$
1+00	$\frac{2.6}{70}$	$\frac{2.2}{35}$	$\frac{2.3}{23}$	$\frac{4.2}{35}$	$\frac{8.3}{70}$
1+40	$\frac{2.4}{70}$	$\frac{2.8}{39}$	$\frac{5.0}{50}$	$\frac{7.1}{32}$	$\frac{8.8}{70}$
1+80	$\frac{3.8}{70}$	$\frac{6.3}{35}$	$\frac{9.1}{91}$	$\frac{10.5}{25}$	$\frac{11.5}{70}$
2+00	$\frac{4.5}{70}$	$\frac{7.6}{35}$	$\frac{10.5}{105}$	$\frac{12.0}{30}$	$\frac{11.4}{70}$

T.P.	5.95	4.10	Elev
4.10	112.65	108.55	Carb. wall
	2.4		side walk along Olds.
	1.15		steps to office

Sta	B.S.	I.L.	F.S.	Elev.
0+00		114.50		116.00
0+50				116.90
0+80				112.40
1+00				112.20
1+40				109.50
1+80				105.40
2+00				104.00
B.M. Hi H ₂ O.	14.50			100 Assumed.
T.P.	4.10	112.65	5.95	108.55 Top carb. wall
Walk			2.4	110.25
Threshold step.			1.15	111.50

45
197 ch. Don.
8 x 2 m.

3 March cold & clear.

4 " mild & clear

Ross &

Clarence Hieble

Gaston Sparr

M.J.S.

Survey Lots 6-13100. Tol. P.R.

15

For Hospital site.

3 March 1950. Clarence, Ross & I locate corners to Blocks 9 & 10 & chain for alley stakes. find alley 3/4 block of M. Crommets. Run Barclay Ave side of Block 10, set 3/4 at 50' for lot 14-13. 80d spike at 250' for lot 566. Get 3815 instead of 3814 frontage. at 250' turn 90° to 140' to alley. Turn 90° right 1/4 M. at Crommets. set 3/4 at 200' for cur 13-14. set spikes back 30' from front & at 70' for Blue line.

also see page 16

517' MC. to E-W $\frac{1}{4}$ line. } E line.
 351' E-W $\frac{1}{4}$ line to R/W # 84 }
 594' MC. section to to $\frac{1}{4}$ cor.
 487' $\frac{1}{4}$ cor. to to R/W # 84.

16 May 50 Elevations for Hosp. P.R.

clouds & cold rain slightly.

Sta	B.S.	I.I.	F.S.	elev.
B.M.	3.38	111.93		108.55
0+00	4.1			107.8
0+25	4.4			107.5
0+50	4.8			107.1
0+75	5.2			106.7
1+00	5.5			106.4
1+25	7.4			104.5
1+50	8.1			103.8
1+75	8.5			103.4
2+00	8.5			103.4

T.P.T. # 214
Top curb.

2 April 50 Clear cool. Frank Hoffmann
 Burton Spaw
 W. S. L. # 11 &
 20

Survey of Part of Govt Lot 5
 NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 20 - 140 - 28. (For West
 300' of Lot 5 & that part of NW $\frac{1}{4}$ SW $\frac{1}{4}$
 lying N $\frac{1}{2}$ W of a S.C.)
 1400 & April. Burton & I to Hunters Bay
 Lodge. Frank Hoffmann joined us
 to West to MC. on W sec. line.
 lighted $\frac{1}{2}$ cor 19/20, turned 90° Lt.
 ran 300' to Pt. set over. at sight
 MC. turn 90° S. (H) 57' to shore
 set 1" 36" 11". Continue to. at 517'
 intersect E-W $\frac{1}{4}$ line. at 868' intersect
 R/W # 84, set 1" 36" 11".
 set over $\frac{1}{2}$ cor sight MC., plunged
 run south 487' to R/W # 84 set with.

(W. W. to.)

864⁵ going to. Rango Lino Flag Euc. Δ
C 7072 Road 920 - 169°21 April 50. 13662 Flag to Hub. across ~~the~~ ^{the} ~~land~~ ^{land}

(353°) Hub to Hub in line on bank. Not needed.

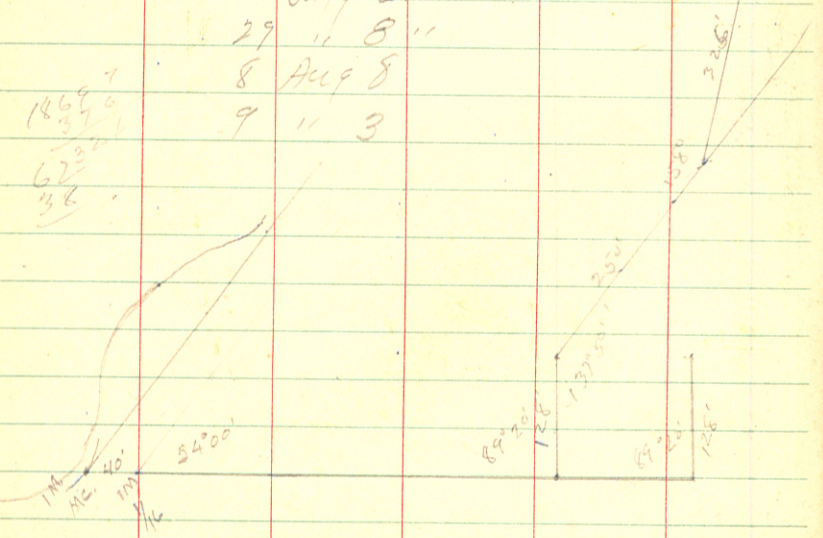
459° Δ pt Δ across point. 70' Δ P + R 20.1921° Δ " " Δ across road to 0. -70' Δ ^{Bay} ~~did~~ ^{across}

20/1869²

37^e

50' N to Black H₂O. Random N83°40'E
 210'E Enter Sup. 350' L & Sup. 437' & Road
 4435 Hub. (Sup 30' N on line & SE 25'E)
 1342' hub 15' short at fence
 int. L. Road W to N. 89°20' run 128' P.I.
 3-E to N.E. 137°50' run 250. P.I. Sw to N.E. 158°10'
 run 326°. Turn 171°20' Sw to N.E. & run 280' -10'
 .028' offset per 1' d = 1°36' (269°) and
 5th on Rd 123' N. 88°24' L & P & Road to
 On Random to East Lot line. int. L. 91°15' W to N.
 91°55' int. L. on back East lot line to cor 1-2.

Drafting 28 July 5 hrs
 29 " 8 "
 8 Aug 8
 9 " 3
 1869²
 37^e
 62
 36



19 June 50 C/A Warm. 11 July Clay & Warm
 20 " " " " 13 July Clear & cool.
 10 July " " " "

W.J. S. J. K
 CBS. 23

Survey of East Lot 6-140-29 for
 plat. Trinko's Northern Dream; recording 5/20

19 Burton & I to Trinko's. walk to corner
 Brookmeyer's fence & look for 1/4 or 35/36.
 B.T.'s 20" oak N 13°45' W 30'± found.
 24" W.P. S 28°45' W 17'± found; blaze & scribe
 No I.M. or posts. Found BT for M.C. 35/36
 on south shore Blackwater Lake
 We set over an I.M. for N 84°20' E 35'± I.M. & run
 N 84°E. At 437' feet intersect road.
 continued east.
 20 July. Burton & I continue east,
 carrying chainage ahead. 210' enter
 Sup. 350' L & Sup. 437' & road 1342' hub.
 15' W of fence & 37'± south of 1/4 cor 35/36.
 start traverse of road.
 11 July. Burton & I look for M.C. north side
 of lake. No find. Ray Johnson & Pine Haven people not
 sure. We finish traverse on road. Start
 at M.C. 35/36 & run 35°45' E. rain 1000.
 13 July. John Staley, Burton & I to Black H₂O. Continue
 south. Hub at 1140±, (1380±) 1596± & 1860±.
 At 1869± intersect E-W.P. line 50'± W of 1342' hub. &
 intersect at 1292±. Int. L. 90°25'. At 1342' turn W-E
 84°20' ± 37'± to 1/4. .028' offset per 1' d = 1°36'
 Correction for E line ∴ .027 per ft. d = 1°33'

Next Page.

137
137
137

125
250
750
8250
18903
25553

2040

W
C
MC
35/36

12320
1020
1020
1020
1020

1372
50
1292

19 49 60
1
34
48 24

Box # 607 6 sec 35-140-29

E 1/2 1154/320

Rec. # 209. Mountain Mt. 76-24* 1911

4 35/36 BTJ. WP. stamp 24" 528°45'W 17'40"

20" N13°45'W 30'40"

1830. 30' N to MC. on Blanchester.

602 shows between 35 in
ties 20" pop.

N 64° 27' W 32' E, 11" pop.

79' 45' N 30° 32' E, 23' 50'

2 x 48 1 M.

531 55'

506° 04'

79' 9"

Twin Cord

30" WP.

616

3 W 1/6 on 34. N G.

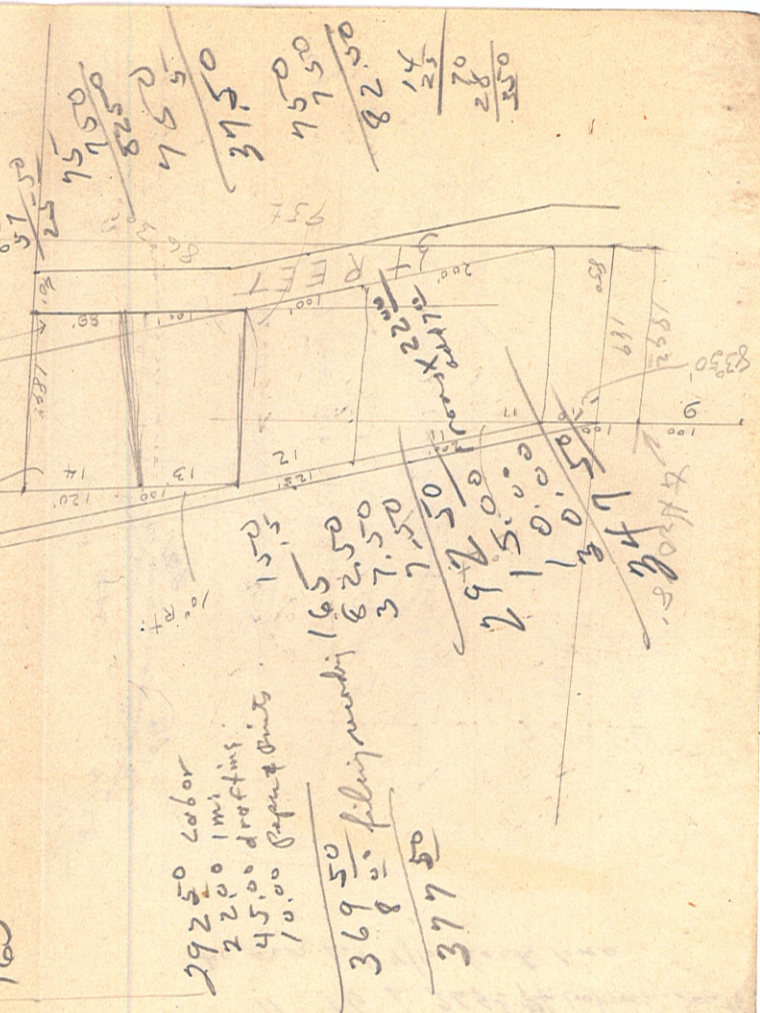
4/1ms

W.S.B.	C.B.S.	L.H.	J.S.	19th June	20
15	7.50	0	0		
15	7.50	0	0		
15	7.50	0	0		
15	7.50	0	0		
15	7.50	0	7.50		
15	7.50	0	0		
15	7.50	7.50	0		
15	7.50	7.50	0		
15	7.50	7.50	0		
1	3.50	3.50	0		
15	7.50	7.50	0		
15	3.50	3.50	0		
15	7.50	7.50	0		
15	3.50	3.50	0		
165	82.50	37.50	7.50		

29 2.50 color
 2 2.00 1mi
 4 5.00 draftings
 10.00 Paper & Prints

369.50
 37.50
 377.50

82.50
 51.50
 75.00
 82.50
 75.50
 37.50
 75.50
 82.50



HAIL
MARINE
FLOATERS
TORNADO
AIRCRAFT
EXPLOSION
WINDSTORM
AUTOMOBILE
PARCEL POST
PARTHOUAKE
REGISTERED MAIL
GENERAL COVERS
BUSINESS INTERRUPTION

INSURANCE COMPANY

FIRE AND MARINE

Detroit

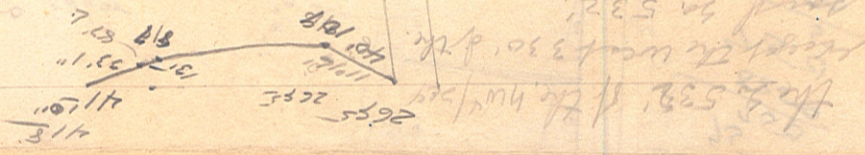
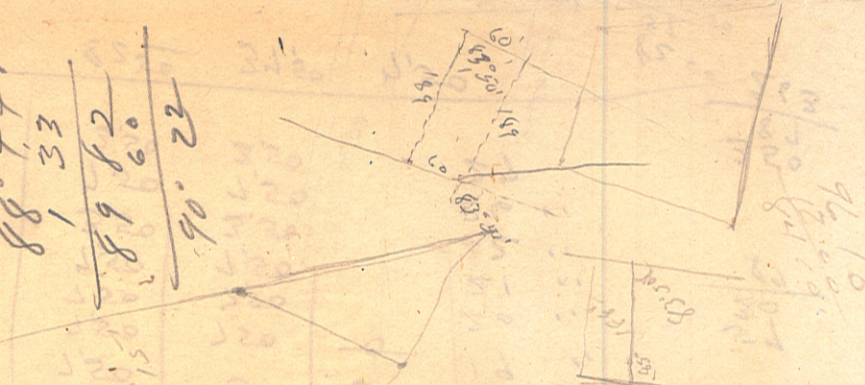
DETROIT, MICHIGAN
INCORPORATED 1866

FIRE
RENTS
PROFITS
CARGOES
BRIDGES
FINE ARTS
LIGHTNING
LEASEHOLD
RIOT & CIVIL
COMMOION
COMMISSIONS
INLAND MARINE
TOURIST BAGGAGE
SPRINKLER LEAKAGE

179.66
83.50
92.10

84° 20'
88° 49'
89° 42'
90° 22'

89° 45'
90° 36'



the 532 of the h...
except the west 330 of the
road in 532
Acres in the road
top road along the 300 ft
measured from the west 330
of a line that the north line
the north side of road

364° 45' E
25 15
29 30
54 45

110 16' L. 265 E of looking South
to car lot 9/10 back line

26
1946 9 to 1st shoulder 10.75' W of surface
405' 9.787 ± 173' W 21455

445' at Lot 2 deflect 53°35' Lt 361' to
428' 1M on Lake

812
120
430

812
1340
946

1309
1200

1200
930
700

July 25 clear & cool
July 26 " " warm
27 " " "

23 July 50, Same crew continue backing in
back line, from 250' Lt deflect 7°15' Lt. & to 550,
deflect Rt 20'00' & at 812' deflect Lt 39°00'
& at 934' intersect to line but lot G
478' feet from 1/4 cor (122° from 812' Lt)

Back line for lots 91°55' Lt + Lt
30' Lot 1; 122° to Lt, deflect Rt. 39°00'
From lot 2 deflect Lt. 53°35' & run 361' to 1M
at Lake from lot 2 to 2. 1M on base line

26 July Same crew 924' Lot 2 to Lt. 75' = 1674
87° to Lt deflect Lt. 20'00', go 13' Lt Lt = 314' = 100'
then 120' for 4/5 & 100' for G. then 87° to Lt.
deflect Rt 7°15' Lt at 12' Lot 7. 118° Lot 8, 118°
Lot 9 then deflect Rt 12°00' & 100' for 10,
deflect Lt 12°00' 200' for lot 11 & 125' to 12
deflect Rt 12°00' 100' for 13 & 89' for 14.
Lot 15 3/4 for street.

Opened line 12/13. 94°30' Lt 1692' 1M to lot 14 & 0.

27 July, Same crew. Placed 2x24" 1M's.
Ran tie in from 2675' pt on traverse.
From back 6/7 deflect Lt 67°00' & 268' 1M. 10' H2O.
" " 5/6 deflect Lt 70°50' & 301' 1M.
" " 4/5 deflect Lt 71°45' & 334' 1M. 9' Lt. H2O.
" " 3/4 " Lt 91°50' & 328' 1M 6 3/4 22' H2O
" " 2/3 " Lt 53°35' & 361' 1M.

From front 4/5 (Lt) deflect 71°00' Rt to back 4/5
" back 10/11 (Lt) deflect 94°10' Lt & 189' to 11. 10' H2O.

28

90° 22' int. L $\frac{1}{4}$ cor W to N. in sec line.

N 233', W 420' N 100' EW to $\frac{1}{16}$ line.

So. 333' to sec line E E to Pt. Reg.

641' 1161' W on 333' line to H.D. in sup.

550' 94' N L. miss pond. E 1200' intersect N-S $\frac{1}{2}$ line.

772' 89° 30' int. L NE cor. to N.

1315' on N side.

2308' 2641' on E side. Cor 233 to Taylor.

2521' 2638' on West side.

Drafting

28 July 3 hrs

29 July 8 hrs

3 Aug 3

3 Aug 3 hrs

6/27/30 cloudy & warm showers
6/28/30 cloudy & cool showers.
6/29/30 " " " "

W 151-7
C 85. 29

Jurcy for E²/SW⁴ Sec. 29-139-30.

Backus Airport.

6/27/30 Burton & I to Backus. Look for stakes.

Find $\frac{1}{4}$ ^{22'} $\frac{32'$ & cor $\frac{31}{2}$ ^{29'} & stakes Zaffke's Addn.

Run out Stormers piece as called for in

deed. Called Reg. of Deeds office for check

on description - ol. (44) ch. 50 c. 7.

Get 3424' W for 4th cor. S E cor & on Stormers

N line.

6/28/30. Burton & I chain south boundary of

airport. get 1300' from 9th 37' W to the line.

check Stormers 333' on West side. OK.

Also check with data on page 44 Book 2. Bull. Mass.

Brush North line. check NW cor. (66.7)

1200

6/29 Burton & I to Backus measure int L

NE cor., chain North side, east & west

sides.

Drafting on map. Map turned in 7/5/30.

55 @ E 55 @ W misc. C 15 3°

684⁴ hub & yard

30 line 365 1/2' E 329' 30" W 85° 42'

152° = 1/4 3/8 E to pt of Bay

619 to lake.

1190' along shore to River.

706 along Bay River westerly.

439 329' 30" W to pt of Bay.

1193' to intersection 1355' to 1/4 line.

(460' C sec. 30 to 30 bank River.)

Survey of Part Govt Lot 6. 15-140-29.

5 Aug. 1950
 Burton & I get Harvey & drive to
 Sleepy Hollow. Mr. Klauz goes
 with us & we find the M.C. on N-5 1/4
 line I had set in 1948. also wood
 hubs on corrected line. Getting up
 over 1.00, on 1/4 line for 10 mi. I
 sight M.C. flag, plunge & run N 74° W.
 off yet 55' E to miss Bensley's house
 @ 55' W & miss C sec 15 by 3° foot.
 Chain south at 300± River 460± Lu.
 river, hub at 684⁴ quit 6:00 PM.

13th. 9 Aug. Burton, Harvey & I set up to run
 south line of tract & run from Lake to 1/4 line.
 We then run line from River 529' 30"
 to intersect south line 152° E of 1/4 line.
 Chain out lines & shoreline & get:
 619' south line, 1120' lake shore, 706
 along river & 439' river to 30 line
 1193' to of C sec 15 to + continuation
 of south line. At 1355' found 1/4 line for 1/4 sec.
 about 1' W of my N-5 1/4 line. 1920

(Charles F.)
Mr C F Gehl
Charles, Minn.

16 Aug 50 clear warm
17 " " " " " "
19 " " " " " " cloudy & cold.
W 15 N 23
C B 5

Survey for Lot 11 Lakeside Addn
& that part of Lot 41 Auditors plat
enclosed by extension of lines of
Lot 11 Lakeside Addn. Hackensack

16 Aug 50
Burton & I fail to locate our
old stake & the one in river bank.
We set over SE cor Lot 9 & rerun
the back line westward to the st.
Buck Fredericks shows us the alley
or st. stakes & says the st. cor Lot 1 & Block
was pulled by grader.

17 Aug. Burton & I reset cor stk Lot 1 NW &
found L. No find NE cor. stk, but
found all stks on river side from
Lots 1-8 inc finding L. pt in Lot 8.

18 Aug 50. Burton & I set over L. on Lot 8
turn $145^{\circ}55'$ & at 95' found I.M. 3' down.
Too much rock & earth fill at 53' so dig,
but at 75' hit I.M. for 11-12.

From back 10-11 set $12" \times 36"$ I.M. 3' SE
from right pt. & at lake shore set well pt.
showed John Barbour all stakes.

Set $2\frac{1}{2} \times 24$ I.M. at lake shore
in line with SW line Lot 11

14-25 lots 2-10
Lot 1 Bldg on Boundary
Block 10
Lot 1 sec 6-137-29
Marrise
Crommett.
Wilson Trap.
32-4-00
34-50
34-80
34-05
Add 20'
To H. A. K. L.
4000 Check Fondo
96
89181 Addn. P.R.
05.5

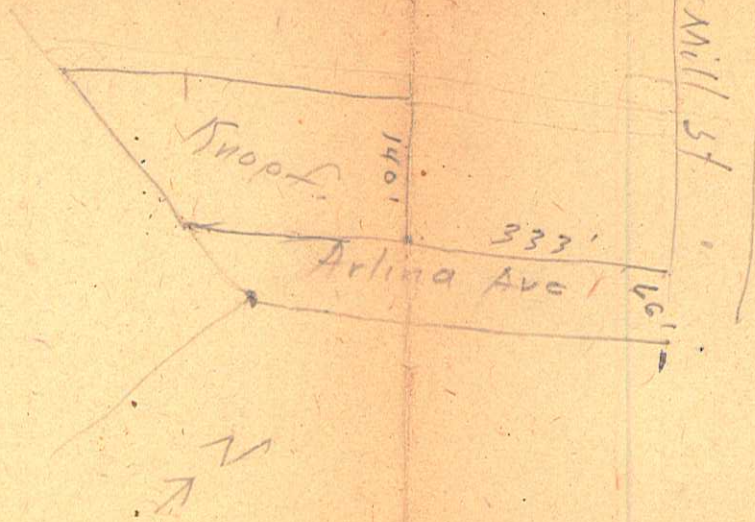
78.1
53.2
24.9



6-13-10 C
Block 10 C.P.
Purchase lot 100' wide
and 31' 60' deep
lot 20'
Lots 100' Deep.
Add to E.C.

Handwritten notes and diagrams, including a sketch of a lot with a vertical line and a checkmark.

Edna Knopf.



Also to have some 8 10' addition
The side street with 10' are
needed on an alley, when they shall
be turned over for alley use.

33 999

beg at a pt on the NW line of Arliva
ave. 333 feet southeast of the
intersection of the southerly limit
Mill St in the 2nd. of Pine River. Run
with the westerly line of Arliva Ave,
thence running Nonly on a line parallel
with the SW line of Mill St a dist of
140 ft, thence Sonly on a line parallel
with the NW line of Arliva Ave
to a pt where this line intersects
with the South $\frac{1}{2}$ line running E & W
thru Sec 6-137-29 Cass Co,
thence along said $\frac{1}{2}$ line
running East to a pt where
the NW line of Arliva Ave extends
would intersect with the
South $\frac{1}{2}$ line of said Sec, thence
Nly along said NW line to
Arliva Ave, to place of beg.

B.M.

VERIFIED ACCOUNT

No., 19.....

—CLAIM OF—

Audited and allowed at \$.....
this..... day of....., 19.....

Paid in Order No.

Dated....., 19.....

199
80
119

119

....., 19..... in

Received Order No. in
payment of the within account.



119 140

185

Filed in my office this.....
day of....., 19.....

119
80
199

199

119 140

185

119
80
199

199

..... Clerk

No. 16½ MILLER-DAVIS COMPANY, MINNEAPOLIS

119
80
199

199

119 140

185

119
80
199

199

For value received..... herewith assign the within account to

22.50
11.25
12.25

46

140 x 80 =
119 x 90 =
3480
11200
8320

111

18 Aug - 8
22 Aug - 5
23 Aug - 7
20 hrs.
45.50
2.25
1.50
3.00
8.00

80.00

1.50 medls
3.00 carinalker

444
251

189

189
80
109

269

120
20

140

140
16

156

156
16

172

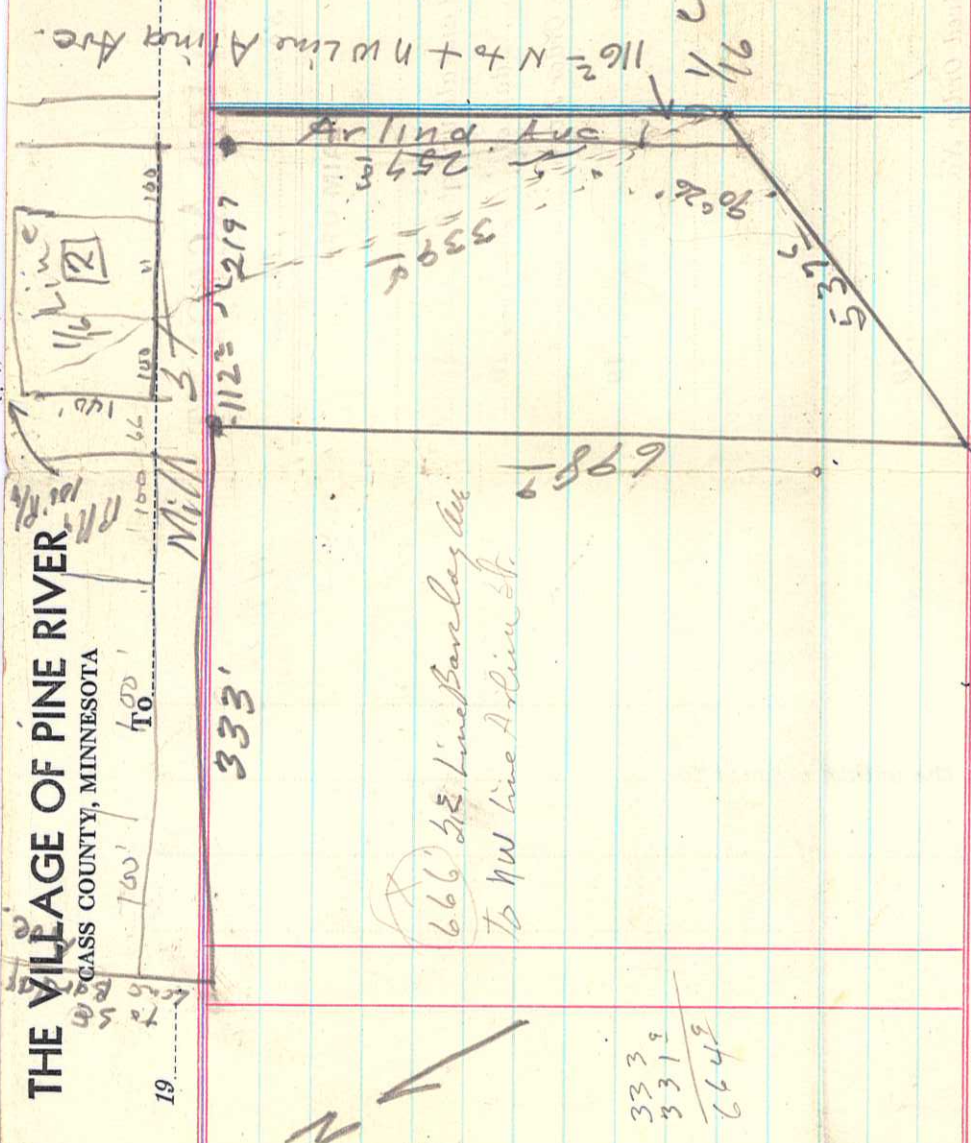
THE GREAT
RIVER

511
944

THE VILLAGE OF PINE RIVER

CASS COUNTY, MINNESOTA

Dr.



333'

666 1/2 E. Line Barclay Ave
to NW line Arling St.

333
331 1/2
664 1/2

State of Minnesota,
COUNTY OF CASS } ss.
VILLAGE OF PINE RIVER

.....in said County and State, being duly sworn, on oath says, that he is.....the person named in the above account; that such account is just and true; that the money therein charged was actually paid for the purposes therein stated; that the property therein charged for was actually delivered or used for the purposes therein stated, and was of the value therein charged; that the services therein charged were actually rendered, and of the value therein charged; that the fees or amounts charged therefor are such as are allowed by law; and that no part of such account has been paid

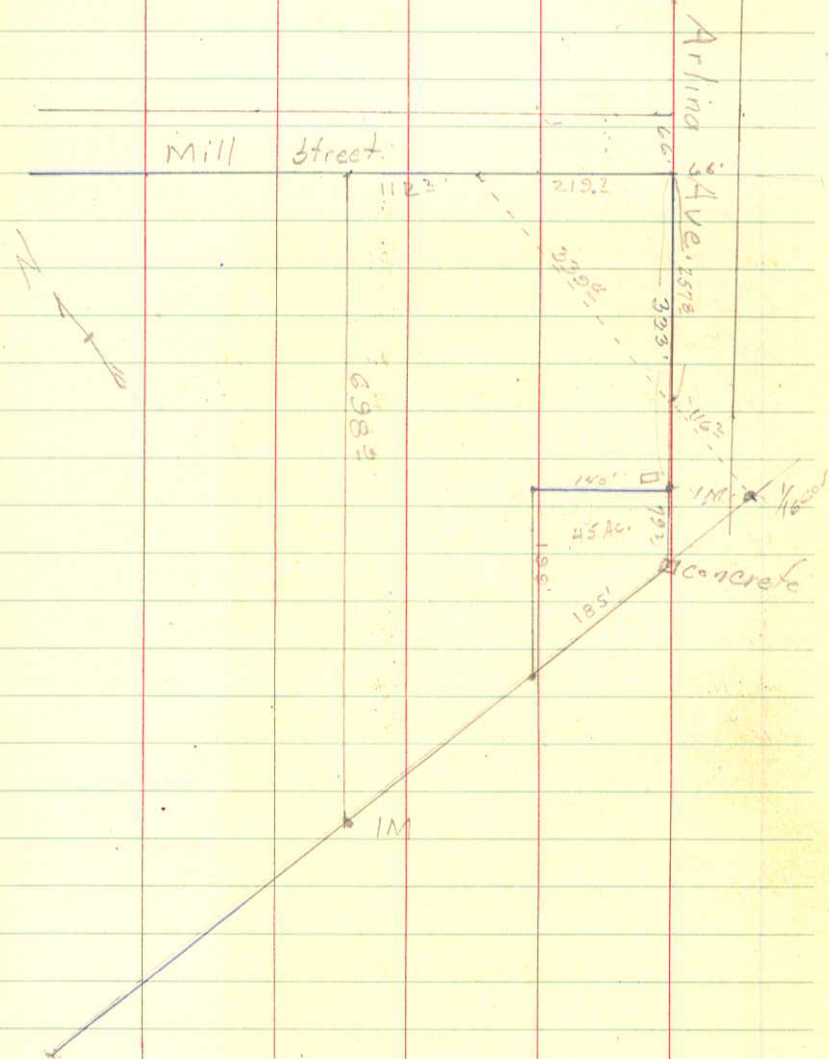


Subscribed and sworn to before me this.....day of.....19.....

219 1/2
112 1/2
331 1/2

333 3/4
112 1/2
219 1/2
664 1/2

323 Adina 140 N.W. 90° to 79° to $1/4$
on N.W. 199^o to 185° along $1/4$ to



Survey for part of Brewer

Tract (NW⁴/NW⁴ Sec 6 T137-R29)
18 Aug. 1952. Burton & I to Pine River
checked map in clerks of Rec.
Found $3/4$ cor & $3/4$ cor of Brewer
tract. & $1/4$ cor west. Ran true line
& \odot 8' to clear hedge. ran diagonal
line to find points on Arline Ave. &
Mill St. with \odot at 200' on B69.
22 Aug. Burton & I set over cross (+) in
cement walk Phillips 66 St. for south
line Barclay Ave. ran westward
set pt. & P.R.V. Chain 100' to P.W. 140
for Thompson Log Co. 66' for Mill St.
set 3 & pts in P.R.V. Chain 66'
to set pt. & P.R.V. turn 90° 100' to Mill
140 lot & 66 for Mill St. Dig for
markers (rock) continue & at 333'
set nail for N line tract property.
On Mill St. at 2193 belt for check.
23 Aug. Burton & I check from Phillips 66
- cor. 3 E to Arline Ave. Also checked a block NE.
this checked at 90° with & P.R.V. Ne 90 100' for P.W.
140 lot & 66 for Mill St. then 222' to pt. of
609. Turn 90° ^{Rt.} 90 140' turn 90° Lt. to 199' to $1/4$
E. 185 on $1/4$ & NE 79° to pt. of 609.

VERIFIED ACCOUNT

No., 19.....

-CLAIM OF-

Audited and allowed at \$.....

this..... day of....., 19.....

Paid in Order No.....

Dated....., 19.....

Kuschel

....., 19.....

Received Order No..... in

payment of the within account.



Filed in my office this.....

day of....., 19.....

Clerk

No. 1635

HILLER-DAVIS COMPANY, MINNEAPOLIS

145" 4
580 44
1 83
7 3

to York St from C Sec 31.

to NW corner York St E to corner D

For value received..... herewith assign the within account to.....

Corella Kline | 8/30/50 | check at Walker

Lot 3 Block 14

THE OFFICE OF THE STATE

THE VILLAGE OF PINE RIVER

CASS COUNTY, MINNESOTA

19

Conceded
C 36231

To

1323300
496951
4952
4950
4943

Dr.

13234

1145	60	19932	4969	20	4952	60	14582	92356
1145	60	24	4969	20	4952	60	14582	92356
1145	60	23	4969	20	4952	60	14582	92356
1145	60	22	4969	20	4952	60	14582	92356
1145	60	21	4969	20	4952	60	14582	92356
1145	60	20	4969	20	4952	60	14582	92356
1145	60	18	4969	20	4952	60	14582	92356
1145	60	17	4969	20	4952	60	14582	92356
1145	60	15	4969	20	4952	60	14582	92356
1145	60	14	4969	20	4952	60	14582	92356
1145	60	13	4969	20	4952	60	14582	92356
1145	60	12	4969	20	4952	60	14582	92356
1145	60	11	4969	20	4952	60	14582	92356
1145	60	10	4969	20	4952	60	14582	92356
1145	60	9	4969	20	4952	60	14582	92356
1145	60	8	4969	20	4952	60	14582	92356
1145	60	7	4969	20	4952	60	14582	92356
1145	60	6	4969	20	4952	60	14582	92356
1145	60	5	4969	20	4952	60	14582	92356
1145	60	4	4969	20	4952	60	14582	92356
1145	60	3	4969	20	4952	60	14582	92356
1145	60	2	4969	20	4952	60	14582	92356
1145	60	1	4969	20	4952	60	14582	92356
1145	60	0	4969	20	4952	60	14582	92356

State of Minnesota,
COUNTY OF CASS
VILLAGE OF PINE RIVER

ss.
Forbes Addn. /
N.W. Pine River 9300'



Lot 3

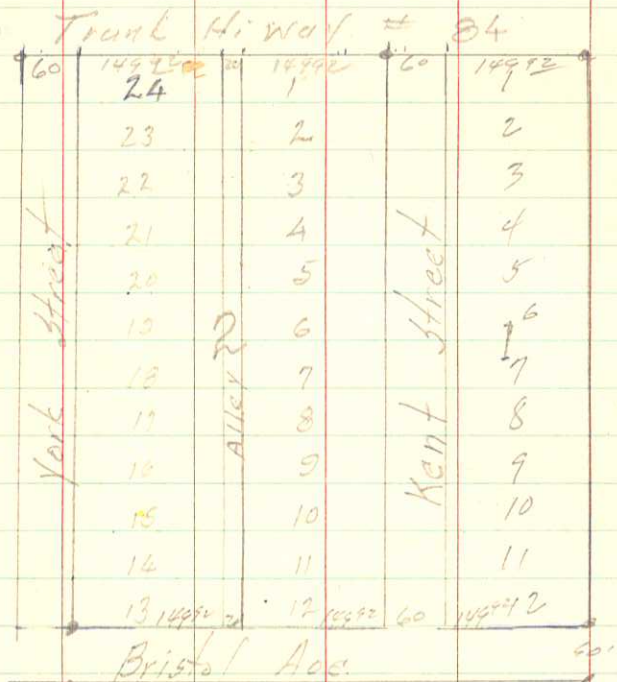
the person named in the above account; that such account is just and true; that the money therein charged was actually paid for the purposes therein stated; that the property therein charged for was actually delivered or used for the purposes therein stated, and was of the value therein charged; that the services therein charged were actually rendered, and of the value therein charged; that the fees or amounts charged therefor are such as are allowed by law; and that no part of such account has been paid

In said County and State, being duly sworn, on oath

Subscribed and sworn to before me this day of 19.....

Chas Kuschel

29 Aug 50 4 hrs
 30 " " 8 hrs
 31 " 50 7 hrs.



28 Aug. cloudy cool 31 Aug. clear warm
 29 " " clear warm
 30 " " clear warm

Survey - Forbes Addition to Pine River. Blocks 1-2 & 3.

28 Aug. 50, Purbone to Pine River, checked map & got information necessary.

Found stakes (1M) SE NE Block 1, NE cor Kent St. & NW cor York St. Opened line along Hwy 84. Set over NE cor Kent St, NW cor Block 1 sight NE cor [12], turned 92° 36' & ran south.

29. Same crew continued south & set 599.50' found wall. Set stakes for lots 1-12 in c. Found 1M SE cor [1] & one 60' south across Bristol Ave.

Opened North line Bristol Ave. set oak stk 60', stk 14992, 20' to alley & found 1M for SW cor [12] & one 60' so. Charley Kuschel helped. PM.

30. Same crew opened N line [12] set lot stks. opened alley lines & set lot stks.

31. Aug. Purbone to Purbone, Spis K. & I opened N line Kent St & stkd it out. We then stkd the alley in block 2. We opened & stkd the east line of block 1.

2007-250

35
2500

17969
1970
255

W. J. "BILL" SPAIN Jr.
REGISTERED SURVEYOR - Reg. No. 2003
HACKENSACK, MINNESOTA

19 Sept. 1950.

Starting at the M.C. for the southwest corner of Gov't Lot 4 Sec. 25 T141N. R31W, run southwest-erly along the shore of Ten Mile Lake 200 feet to a point, herein after called point of beginning, thence continue 75 feet to a point, thence deflect 97°07' left and run approximately 182 1/2 feet to the A point line of said lot 4 thence run ^{NW} 50 feet parallel with the shore of 1/4 mi. west along said line 125 feet to a point, thence run south feet to a point, thence run south parallel with the west line of Gov't Lot 4 approximately 125 feet to point of beginning.

This encloses a tract of 1/2 acres, more or less, all in Gov't Lot 4 Sec. 25 T141N R31W 5th Prin. Mer. Minn. 1/10 Ac, More or less all in NE 1/4 SW 1/4 Sec 25-141-31-5th T.M. Minn.

I hereby certify the above to be a full and true description, to the best of my knowledge and belief.

W. J. Spain Jr.
Reg. Surveyor
Reg # 2003.

147

103

44

149

131

435

35 AC.

call 1/2 AC.

Survey 16-17 & 18 for Jake.

Then I set over SW alley cor & sight Williams & Williams corners Turn 90° east, chain 160' to Lot cor.

Then I jiggle in bet. this cor & SE cor 18 set from 1/4 line, chain the plot distances & set hubs for temp. markers. Chainage closes to .025'.

21 June Burton & I set 2 1/2" x 24" I.M.s at all corners. 7 I.M.s. Jake furnished 1/4" pipe for E side 16/17.

Survey of part of Gout Lot 4 Sec 25

141-31.

Pat & I start at a 1M 200' SW of MC for SW cor. Gout Lot 4 & continue 75' along shore NW to a point, set feet 97° 07' left and run 170' ± to N line Gout Lot 4 thence N 129.3' along said line to pt. thence South parallel with west line of Lot 4 125' to pt of bag.

Contains 1/3 acre & 2 other lots.

CRS (S. 5.)
W. 15.

Survey for lots 16, 17 & 18 Auditors Plot Val. Hackenschack.

19 Apr. Burton, Jack & I start from Loughtons SE cor on E-W 1/4 line & run South on 20' S line the distance called for on plat to NE cor Lot 16 then at 90° W 20' to track line set temp. stakes, but seem off. check from 1/4 cor is all 19 acres this.

20. Burton & I run E-W 30. 1/4 line & set I.M.s for South side of Lot 16.

9 June. Burton & I with some help from Tobyh. Set over 1/4 cor, sight C sec, chain the lengths of 18, 17 & 16, 15 & 14. Set over pts & at 90° 33' E set I.M.s. this checks Toby's old NE cor.

see opposite page.



27 Sept. clear & cool rain.

28 " " " " " " " "

4 Oct. clear & cool.

Pat Harrington

Chas. Biebel

41

Survey of Lot 4 Block 14 Original

Plat Village of Pine River.

27 Sept 1950, Pat Harrington and I
to RR. Look for corners, and old property
owners, but find nothing. rain 1100 go home.

28 Sept. Pat & I to RR. Ed Kladt shows
US L.M. for the cor on SW limits of Village.
Harold Felton says L.M. between Lots 3 & 4 [1921]
is also set by Greene or Curo.

Not finding anything definite, we pick up
old points on SW line of Arling Ave
re-set SW cor. Blk 3 from C.R.R. From this
we run SW 66', 300', 66', 300' to [1921]
to Pine Ave for check. Road has
taken out all stakes. Harold
Belloci from 1870-1940.

4 Oct. Pat, Chas Biebel & I recheck R.R.
line & front st. re-setting points.
at SW cor Lot 4 [1921] turn 90° run 180'
turn 90° & 150' each way look for block
cor. think found piece SE cor 14.
Get imp stn for Lot 4. Go to
Dabbs N.W. with Norman pickup 2 pts
& run 20' off set line for check.
Miss NE Cor. [1921] by 25. Set 2 1/2 x 2 1/4"
lms for Lot 4.

Louis Knott
Roy Knott

2 1/2 days
advent

Random line at 4 1/2 E.

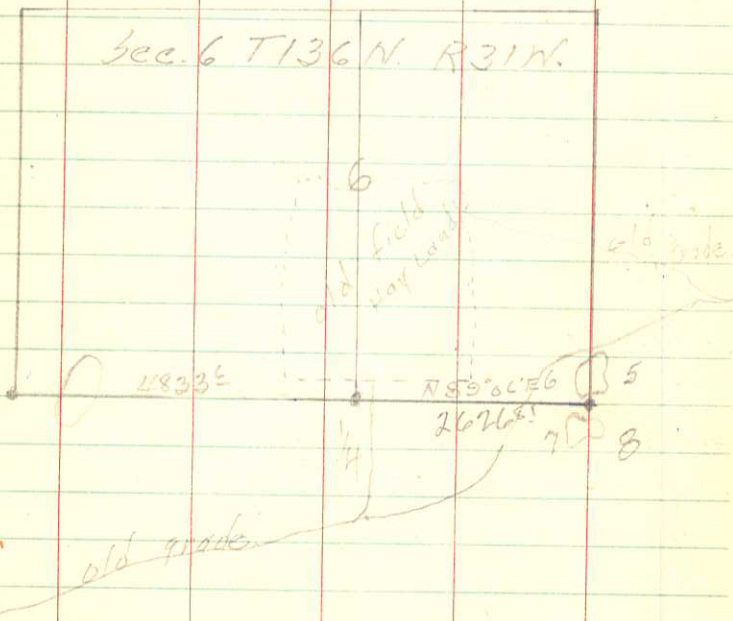
at 1734 hit 70' south of 1 M.

$$\tan \alpha = \frac{65}{1734} = 10374 = 2^{\circ} 09'$$

84° 30'
2 09'
86 39'
5 21'
6 45'
11 66'

Br. of true line N 89° 06 E

Sec. 6 T136 N. R31 W.



9 oct. clear & mild 5 oct. 50° cldy & cool.

6 " clear & cool

7 " cldy & rain on

F Bundy

L & R Knott

WSS

Survey of sec. 6 T136 N R31 W.

5 Oct. Forrest Bundy & I to Knotts & on to field in sec. 6. Look for W & SE sec. car. Posts Louis & Roy Knott join us after noon.

We find Tam post where cura shows he set the W west of old grade running NE & SW. We set over post & run N 84 1/2 E on a picket line (for 6 Oct see below)

7 Oct. Forrest & I to Pine River. Flew over sec. 6. Our line checks with roads E & W. Lakes ok for car 6 1/2. Drive out & look.

Louis Knott joins us after lunch. We pace 400' E from W edge of lake & 100' south. Fail to find car.

Turned out 1500. Drive to Walker & re check notes also see 4. Cura should find W. from notes below.

6 Oct. Forrest, Louis & Roy Knott & I align our picket line & run it to 2000' E from Tam post. set hubs. Fail to find sec. 6 or W. Forrest at hub SW sec. 30r. 1 M. by Cura & Kemp.

9 Oct. Forrest, Jay Coon & I to sec. 6 with more notes and information. Coming back 2 1/2 M from our 2000' stk we found the 2 1/2 x 4 1/2" im.

in concrete for car 4 1/2. Mark new trees, old ones burned badly & gone, as follows:

- 20" N. Pine N 85 W 4 1/2'
 - 4" Black oak N 20 E 30'
- above 1 M. nearly flush with ground.

From our starting 3 $\frac{1}{2}$, we chain W
on 15' @ N. 892' & hunt for $1\frac{1}{2}$.

Jay found 2 $\frac{1}{2}$ @ 48" in concrete
nearly flush with ground, as per
Curo & Kemp's notes. This lat. is 18'
in & south from edge of field &
33' south of our 3. South line of
section bears N89°36'E.

No part of field is in either sec 5
or 7. Aerial observation also bears
this out. There were over dyes twice.

29 Sept & 7 Oct.

B.T. for $1\frac{1}{2}$ 15" Black Oak N 70° W 2E-3'.

Evan H. Peterson

3902 Elliott Is.

Mpls. 7, Minn.

24" W.P. S. 20° E 53' 5"

8" W.P. N 30° E 33' 6"

Pawnee pole S 50° W 29' 11"

8" S.P. N 10° E 4' 11"

11" W.P. S 0° W 49' 4"

Tie for
hub 12' 30"
cor Garage.Tie for
M.C.
18' N.E. of cabin

17 Oct 50 clear wind

18 " 50. clear wind

WJ33-47

E.H.P.

Survey for line between East lots 8 & 9

Sec 2 - 141-31.

19. Oct. To Island Hotel to meet Mr. Peterson. check corners & to Walker to check records in Dep. of Publ. Affairs, Fond. E side of Sec. 2 resurveyed 1917 by H.S.G. After noon Mr. Peterson & I check south line Sec. 2. Mr. Peterson told us where an old line M.C. was. Mr. Miller told & showed us a 1961/10 brass cap for M.C. on the line bet lots 2, we find by the 2 1/2" 1700. on the date 18. To Peterson's digged in between the 2 above brass caps, set hub & across cap check back to can pick up at 3 o'clock with the other line. set about 30' W of M.C. & wood hub for line 12' 30' of SE cor. Garage.

I 11/27/57.

W.L. to SHYAC
"FREIGHT FREE" KEY MACHINES,
KEY BLANKS, AUTOMOTIVE PARTS



curtis

INDUSTRIES, INC.

CLEVELAND 17, OHIO

That position of South
Lot 2-34-141-28
Cons Co, Minn. See as follows
Starting at the E of
of the rd line of Depot
E, O.P. W.L. Long, which
said line being the N.S.
by line, with the south
RPM of CAPR 39, as of
Proceed south then
Proceed W 45' to 4A

J. A. (ARNIE) JENSEN

601 E. STREET, N. E. BRAINERD, MINN.

TELEPHONE: 2412



**YOUR CURTIS SALESMAN IS
AS NEAR AS YOUR TELEPHONE**



~~Wil~~ Wil Long
to SA VHC

"FREIGHT FREE" KEY MACHINES,
KEY BLANKS, AUTOMOTIVE PARTS



curtis

INDUSTRIES, INC.

CLEVELAND 17, OHIO

hereinafter called
pt of 1309; thence
continue west along
said 13th (south side first
street) 5' to a pt,
thence south at 90°
140'; thence S 5' East
90° to a pt, thence N
140' at 90° to pt of
1309.

J. A. (ARNIE) JENSEN

601 E. STREET, N. E. BRAINERD, MINN.

TELEPHONE: 2412



**YOUR CURTIS SALESMAN IS
AS NEAR AS YOUR TELEPHONE**



Mr. Wil Geary



Whit's

CLEVELAND 17, OHIO

INDUSTRIES, INC.

"FREIGHT FREE" KEY MACHINES,
KEY BLANKS, AUTOMOTIVE PARTS

344 N. C.

This envelope is being
5' E & W by 140' x 95
all in front of 12.
The intent being to
send back to a former
A former Holiday Corp.
to within support of
of the ^{East Side} Minneapolis
store.

2000

J. A. (ARNIE) JENSEN
601 E. STREET, N. E. BRAINERD, MINN.
TELEPHONE: 2412



YOUR CURTIS SALESMAN IS
AS NEAR AS YOUR TELEPHONE



Mr. Fred Zyiefel. Cass Lake. ^{H.W. Jensen}
 (y King Motel 1961)

25 clear & cool

26 clear & mild

2 Nov. 11 & "

Ken. Wallin

49

W.D.S.

25 Oct. '50

Re survey of Part of Goat Lot 2
 Sec. 34-141-23. (Don Craig tract)
 Ken & I to Longville, find same stakes
 gone & one moved 10' E. rerun 154X
 283' tract as per deed & Page 58
 Book 2 (Bull Moose).

26. Ken & I to Green Gables to
 reset stakes 40' So. of Lot 3, &
 set 3 - 2 1/2" x 2 1/4" 1 1/2" on line 100'
 North of south line of Lot 3.

27. Nov. '50 Ken, Burton & I to Y & Walker ^{clear & mild.}
 starting at 1/4 1/2 sec 12-141-31 we
 ran E 590' to U.S. 10 IM on edge
 of swp. Picked up old line N &
 chained 372' to Approx R/W 371 set 100'
 chain 640' ± along 371 SSW to pt. then
 985' So to 113610 IM. 33 Ac ±.

2) 366' (183²)2386
334²2) 2720² | 1860²

106⁴ for \triangle across L.B. Lake.
 88°58' (orig 106² ± 89°00') 3°05' L to E to W.
 1035' $\frac{1}{4}$ cor W to A.C. N W cor Lot 2.
 955' south line Lot 2.

7. Nov. '50 Ken & I set flag on W shore Little Boy where E-W $\frac{1}{4}$ line intersects shore. Brushed line to lake, setting hub on shore. Have to turn 3°05' rt. to hit our flag on West shore. Made triangulation for dist. across Lake.

1963²1360²602² N & turn 82°07' N to
go 1833' W for $\frac{1}{4}$

27 Oct 50. Clear & Warm. Men Wallin

6 Nov.

13 "

14 "

15 "

16 "

17 "

18 "

19 "

20 "

21 "

22 "

23 "

24 "

25 "

26 "

27 "

28 "

29 "

30 "

31 "

Dec 1 "

Dec 2 "

Dec 3 "

Dec 4 "

Dec 5 "

Dec 6 "

Dec 7 "

Dec 8 "

Dec 9 "

Dec 10 "

Dec 11 "

Dec 12 "

Dec 13 "

Dec 14 "

Dec 15 "

Dec 16 "

Dec 17 "

Dec 18 "

Dec 19 "

Dec 20 "

Dec 21 "

Dec 22 "

Dec 23 "

Dec 24 "

Dec 25 "

Dec 26 "

Dec 27 "

Dec 28 "

Dec 29 "

Dec 30 "

Dec 31 "

Jan 1 "

Jan 2 "

Jan 3 "

Jan 4 "

Jan 5 "

Jan 6 "

Jan 7 "

Survey of Gout Lot 2 Sec. 14-140-28

27 Oct. Ken & I to Little Boy lake & pick up my old line for carbon survey & reset cor $\frac{11}{12}$ $\frac{12}{13}$ which had been pulled out by a dozer.

We find 3 of our old points & continue down R. line from 2386 pt to intersect E-W $\frac{1}{4}$ line east of $\frac{1}{4}$ $\frac{14}{13}$. 6 Nov. Ken & I to Little Boy Lake, find old picket on R. E-W line & set straddles for intersection pt, which we also set. Started brushing W running 582² W. Measure angle at P. line at 4. & get 82°07'. Chain 334² to form D & go 366² W at 82°07' N to $\frac{1}{4}$ cor. We then brushed out the line toward the lake.

13 Nov. Ken & I Little Boy lake, picked up old R. line & chained 602² N from 1963² hub for halfway pt sec cor - $\frac{1}{4}$ cor turned 82°07' go 1833² West. set 2 $\frac{1}{2}$ x 36" 1/4. Set NE cor 500' Lot 2. Set over PM & X 5833² W to lake.

14 Nov. Chain E-W $\frac{1}{4}$ R. line 955² to lake hub. 90° N. 106⁴ for triangulation β L = 88°58' 5899' across lake & 995' Lake E to $\frac{1}{4}$ correct 51² North. set 2 $\frac{1}{2}$ x 36" 1/4.

3 Nov. 1950. Cloudy & cool. K. Walker.

4 " " Clear & cool. B. Sperry.

Survey of Lots 1-12 inc. Block

6. Keeps Adlin Backus.

3 Nov. Ken. Bart & I to Backus get map from Bank checks with Walker. Fail to find any corners except on North side of Adlin & South side of Washburn Ave. We split street & run south 412[±]' to Q Rosilind St & fail to find N.M. at intersection. continue 750' to N side Grover & 916[±]' for South side Grover.

Run E side of N-3 Street & set hub about 0.3' West of old fence corner.

4 Nov. Same crew ran @ line 45' N. parallel with So. side of Grover West. Cannot find any corners for Block 2. Set corners for [6] & stks 2 1/2 x 20" N.M. for Lots 3-4 & 5 for Morrow, 6-7 & 8 for Bailey & 9-10-11 & 12 for Mrs Miller.

1951

30 Jan	Windy & cold.	19 April	F Budy	S5
16	Clear cool.		clear warm	
17	" 51 "		" warm cloudy	

Survey for Forrest Bundy in

Sec. 36-139-31.

30 Jan. '51. Forrest & I find B.M. but no
 1M for M.C. on West side of ^{Pine} Mountain Lake
 for M.C. between Sec ²⁵ 30. We follow out
 old line West & find cor for NW cor 36.
 chain E 1320' temp 44.6, run 56 1/2' W
 for approximate line.

12 April. Forrest & I set over 3rd 1.M.
 West on South side of Schaffers property
 & run West 1735' (26.30 ch. Gout Notes).
 for approx NW cor Gout lot 1-36-139-31.
 75.10" on acct.

17 April Burt, Forrest & I run 3 7/8" N 2640'
 for SW temp cor. Lot. 2.

¹⁵⁰⁰ 19 April same crew run N 83° E
 to shore of Pine Mountain Lake.
 set Temp. 34k for approx. cor.

46' for Jefferson Ave.
 300' 40' Fork over
 300' 100' Barclay Ave.
 296' [1] 66' for Norway Ave.
 300' [2] 66' Arline Ave, 210'
 300' [3] 66' Maple Ave.
 300' [4]

107.00
 112.00
 107.00
 112.00
 107.00
 112.00

107.20
 7.5
 114.70
 8.0
 107.70

68.00
 45.00
 20.00

120 240
 1.00

15" Pat.
 30" me.
 45.00
 200. 1MO.
 240. March
 8.00. April
 457.40
 7.50 check.
 490

Pine River. O.P. 116
133

50'
66'
17'
133' to Prop. line now 83
50
133

50
66
116' to old Property line.

Going South on N Block line
300' for 12, 66' for Arling Ave.
300' for 13, 66' for Maple Ave.
300' for 14, 60' for Ridge Ave.

each lot is 14 is 50 x 180
originally. all less 17' on
front for Highway

Ordinances # 28			EL.
B.M.			1299.555
	North side Arline		1294.00
	So. " "		1294.00
	No. " "		1289.00
	So. " "		1289.00

Slope $\frac{1}{4}$ " to 1' from side X
to curb. (The side with hub) shall slope up
from curb at rate of $\frac{1}{4}$ " to 1'

21 May set grade stakes for
509 Marion Sherwood. Also AM
22.

4.06

21 May clear & cool. 24 May W.S.S. 57
22 " clear & mild. clear & windy. Ross Gildorn
23 " " " warm

Survey for Lots 9-12 inc. Block 2
Original Plat Village of Pine River
21. May 51. Ross Gildorn, Pete Hanson
& I start at NW cor Dubois SE cor
66' for st. 300' for Block 2, set temp hub
on 14' @ line. Find old bolt for SW
cor Block 2, line with mark in conc.
at Phillips 66 sta, & chain 100' for
Lots 12, 11, 10 & 9, set hub. then at 90°
set $2\frac{1}{2}$ " x 24" IM in 17' for property line.
This hits temp hub on First St. so set
IM 80' from bolt for alley cor.
then from NW cor Lot 9, we set IM
in on 17' line & at 80' for alley.
22 May Ross & I set elevation stakes
for Marion Sherwood & laid out 10' walk
P.M. - Ross, Chris Seibel & I start at
NW cor Block 11 Forbes Addn to P.R.
& run South. Found S.W. cor stk under
2" at 300' lined with it & set stks
as per plat for Lots 24-13 inc.
23 May same crew run out east line, set
lot stks, brush south side & set alley stks, check
for road on Thompsons Addn.
24 May same crew run out west alley line.
set lot stakes.

Next Page

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

BACKUS STATE BANK

BACKUS, MINN.

1956

MEMBER CERTIFIED SERVICE, INC. ST. LOUIS, MO.

No. _____

PAY TO THE ORDER OF _____

FOR _____

\$ 75.80 & 1/100

Seventy Five and 1/100 Dollars

86° int L. or 76° del R.
 342
 75' Lot 386' M 390' N2
 465' 2
 64' in 60' along abt
 112' 5
 45-643

64' from -

Spain Book 1949

Comm. at apt. 1868 E
9th West line to the 31-
138-29 and 5 chains
90 links West of 1/4 (1/4 1/2)
fence - private line
running E & W thru
the SW 1/4 of said section
4th of Sec. running
thru N 11 to said West
line of said Sec. 31 a
dist of 165' to apt
running thru east
11 to across 1/4 1/2 line
a dist of 100' to apt
running thru sec &
South of section 11 to
across said West line &
said Sec. 31 a dist of
125' to apt. Thence
Westly 100' more or less
to pt of Beg.

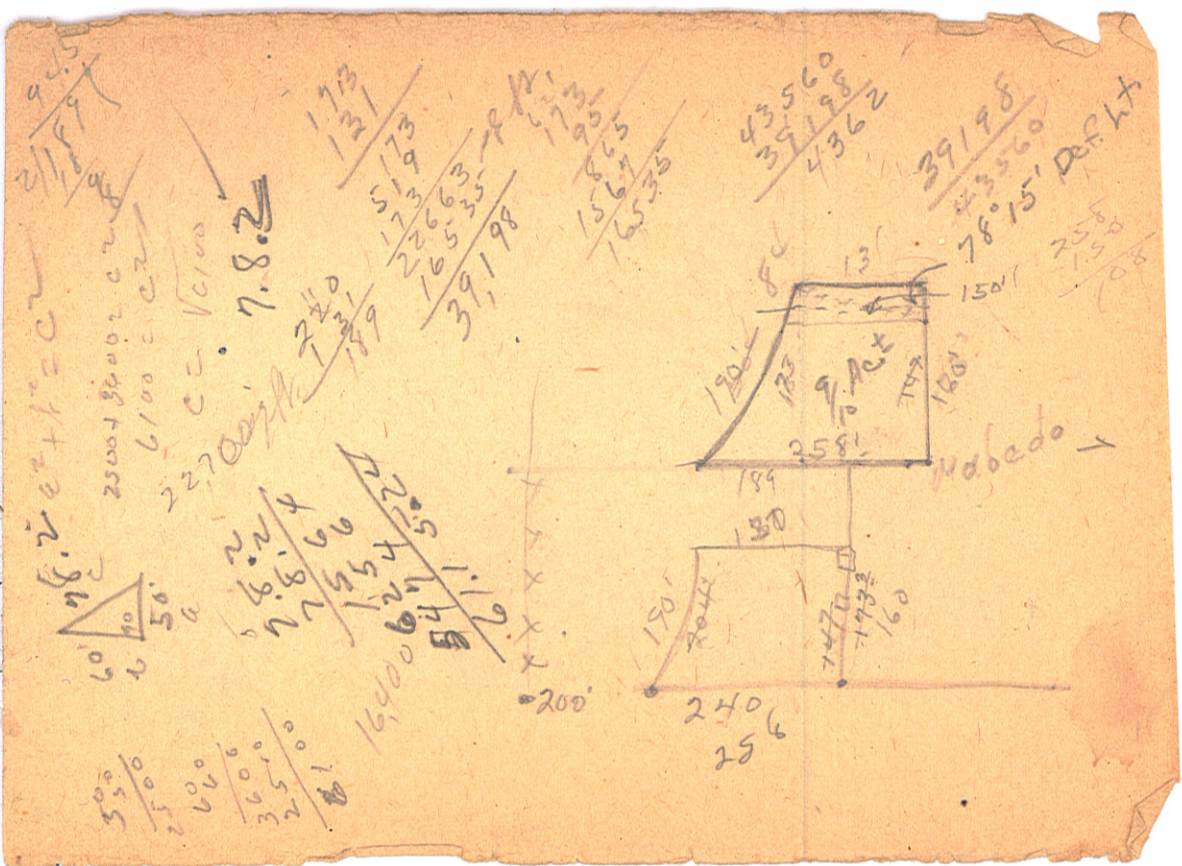
We start at 11 A.M. SE cor Block B Parris
 First 25m @ 14' in street, check on
 14' @ at Dubbs for 90° hit of chain
 as per plat for Arroyo site, check
 ok on blocks 2 & 7. Set 60 D. nails
 for property line back of Arroyo.
 25 May same crew look for stakes
 on Thompsons Addn & check road way.
 Herb Mine says he gave 12' to 24' road.
 Arvin Johnson shows me his survey line
 & we find one M. for M. cor.

6 June. Bert Ross & I check road
 west of Thompsons Addn. Dr. Rozick
 SW $3\frac{1}{2}$ & one N.W.A. Johnsons do not
 fit the plat. Found 3 stks on river,
 3 for Dr & 2 for Arvid. Also one in
 road W of Arvids fence.

7 June. Same crew starting at the 11 A.M.
 marking the SW cor. of the 12' road, West
 side of Thompsons Addn. We run N in
 line with 11M for A. Johnson's NW cor
 & at 330' set nail. at 12' E we found
 iron pins for cor. lot 5. & at 12' W. on 11M.
 From these, we set 11M₃ for 24' road, taking
 12' off Johnson & 12' from West. Also set
 10' $2\frac{1}{2}$ x 24 11M₃ for C.J. Hittle's 100 x 165' across
 from Thompsons Addn.

Survey for Gout lot 4-35-139-26
for Mr. W.D. Stiles

To Outing 5 May. checked over
ground. found some corners.
Again, checked on 7 May with Mr
Stiles. Iron monuments don't
check right. No find of iron. \$35.
Find M.C. down in 3' of H₂O.



350
160

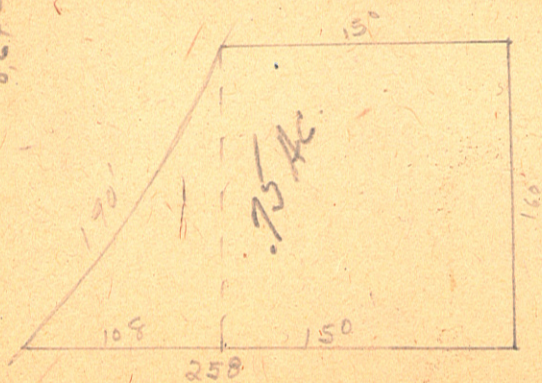
900
130

26000

$\frac{108}{80}$
 $\frac{8240}{80}$

$\frac{160}{150}$
 $\frac{8000}{160}$
 $\frac{240000}{8000}$
 $\frac{32640}{32640}$

$\frac{43560}{32640}$
 $\frac{10920}{10920}$



64

45282.0

1321.3

147

3964.5

26.3

193.3

190

204

190

To follow fence
deflect $\pm 11.98^{\circ} 15'$

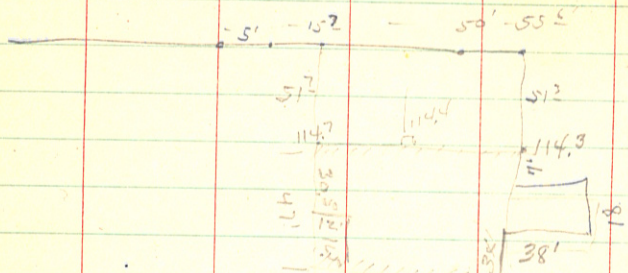
26 May cloudy & cool. CB3 65
7:55

Survey for part 3E⁴/3W⁴ Sec 36-140-29

26 May Burton & I chain from SE⁴ sec
cor 5286' West to SW⁴ cor. Find old
stump with blaze & tail to ST to N 36
Chain from SW⁴ cor of 3E⁴/3W⁴ ^{200'} ~~470'~~ East
to pt. not beginning, ^{cut 240' N 171'} there a N 6³⁰W
147' sec ^{100'} ~~173'~~ a point. Thence West 11
with border line ^{150'} 124' to Pt. 84, ^{190'} ~~204'~~ East
along 84 to Pt. W of Wabedo Road to
Pt. of beg.

28 May Jess Kelly & I change East
line 18' eastward & move north line
to 160' as per H. Hanson's instructions
This makes it 258' on So, 160' on
E, 150' on N & 190' along 84.

51.2' NE cor. bldg to Lot 7/8 line } going
 51.3' SE cor " " " " " } east.



Sta.	-3	H.1	-3	elev	elev
H ₂ O River	12.00	112.00			100.00
2+44.3			5.00	107.00	
1+90.3			4.20	107.8	
T.P. stamp	7.50	115.70	3.80	108.70	
1+20.3			2.70	113.0	
1+00.3			1.80	113.9	
0+50			1.6	114.1	
0+00			2.0	113.7	
0+00 ^{53.2}			1.7	114.0	
0+25			1.4	114.3	
0+85			1.7	113.8	
1+67			8.3	107.4	
2+44			8.7	107.0	
2+44 ⁵			9.2	106.5	
1+37			8.8	107.9	
0+86.7			2.5	113.2	
0+83			1.2	114.5	
0+73			1.3	114.4	
0+00 walk			0.7	115.0	
			1.0	114.4	

29 May clear mild. Pass G. 67
 5 June dly & cool. S. Dahl. WJ3.

Survey for Lots 2, 3, 50, 12, 7 & Lot
 @ Snell's Addn for Hospital. Elevations
 29 May 51. Pass Gildon & I start at
 an IM for NE cor Lot 7 sight
 Howards stake 165' to, @ 110' E
 to miss trees & continue 165' for
 south line of Lot 8, turn 90° & run
 west 142' for SW cor Lot 7, miss
 Howards stake for 7 by .3' run east
 setting elev stks & at 234' set
 temp stk for SE cor 8. June later
 shows us an IM about 30' to the
 south, thinks his cor.

We miss Howards stk for NW cor lot 4
 by 1.4', we start to check the
 Addn exterior & find original stk
 for NW cor & for between 6 & 7 on
 the North line. from these we find
 orig IM for NW cor lot 11 and reset
 cor. 7/8 on N line. Then set in 7/8 turn
 90° set 80 D spk at 165' & hub at 330'
 5 June. Same crew. start at orig IM SW cor
 lot 15 align N side Snell's Addn @ 25' W turn
 90° & run 330' 30'. Thence at 90° W 100' 415' @ for
 June later SW & SE cor. 244' hit cor 7/8.
 set elev. stks. Check into stk between N & 3/7.

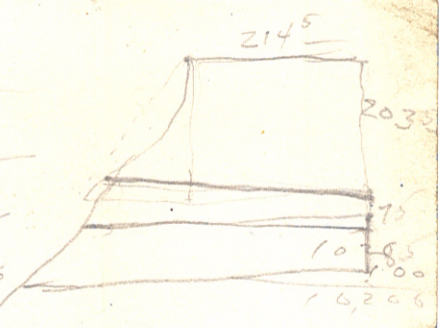
(89)

continued.

	+5	115.7	-3	elev elev.
3rd		H.L.		
T.P. mark	4.0	118.35	13.5	114.35
SE cor Lot 7			4.7	114.0 112.6
mid pt. 2 lots			5.2	113.15
SW cor 7			6.0	112.3
SW cor bdy			5.0	113.3
SE cor bdy			4.9	113.4

set over same 90° line 7/8 turn 90°
hit cor. Gildows, Carl & Hazz. cont
132' set off for 3/4 NW cor., chain
165° $\frac{3}{4}$ hit NW cor. Swell's. Align
NW cor off with NW 3/4 chain 110' for
lots 3 & 2 set hub., set over same turn
90° run 132' E at 90°, 5.5 ft to SE cor Lot 1.
6 June. Burt, Ross & I check line bet
ween 7/8 & set 2 1/2 x 2 1/4" NMs for SE & SW Lot 2.
We @ 5' south on dividing line for Lot 7 &
run east 244' setting elevation
stakes, also ran similar line east
244' from a point 50' south of $\frac{7N}{75}$.
Burt & I then ran levels & set
elevations on each line & at Hazz.
corners.
Made sketch for H. Haimbrook.

$$\begin{array}{r} 16.5 \\ 1.3 \\ \hline 495 \\ 145 \\ \hline 214.5 \end{array}$$



$$\begin{array}{r} 214.5 \\ 16.5 \\ 1.3 \\ \hline 495 \\ 145 \\ \hline 214.5 \end{array}$$

~~$$\begin{array}{r} 16.5 \\ 1.3 \\ \hline 495 \\ 145 \\ \hline 214.5 \end{array}$$~~

CASS
 Exceptions in
 ESOTA Gout Lot 2 - 5.28 T 139 R 29
 Walker, Minnesota
 December 6, 1941

The funds are now payable at
 five days after the date of

please, kindly see that they are

~~$$\begin{array}{r} 16.5 \\ 1.3 \\ \hline 495 \\ 145 \\ \hline 214.5 \end{array}$$~~

and including No. 66601,
 Sept. 30, 1941.

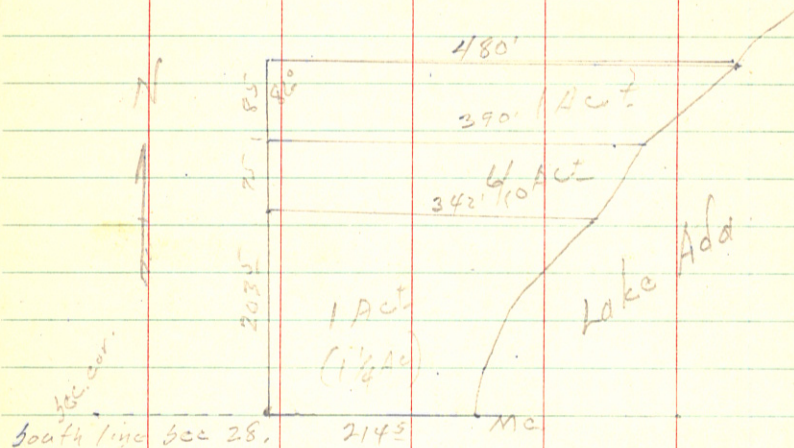
528 J Q 2 E

Govt Lot 2 Dec 28-189-29

One acre of T located as follows: Beg at a pt where the sec line bet Secs 33 & 28 at low H₂O mark crosses the west side of John Adair, thence westerly along said sec line 13 rods, thence N $12\frac{1}{3}$ rods (214.5) (203.5) thence East to the shore line of John Adair, thence S with the meander of the shore line to pt of Beg. Page 332 Book C, Ref.

32 D. Page 333. Geo F. Hohm & Co
24 April 1917 M M Thompson

The North 3 acres of Lot 2 Dec 28-189-29, less 1/20 acre, thence also in easement for a road across the East of Lot 2 to a point intersecting new trap road running east & W along the south side of Lot 2,



min. 17:00 8 June cloudy & mild. W.S. 71
 9 " " " " cool CR 3.

Survey of part of Sect Lot 2 sec 28
 T139 R29.

8 June 51. Burt & I find 2 P.Ry spikes
 in road # 64 at Junction with road on
 south line of sec 29. Also found cor. $\frac{29}{32} \frac{25}{34}$
 & M.C. on West shore of Lake Add. We jiggle
 in between the two & run back 214.5
 feet or 13 rods thence N $13\frac{1}{2}$ rods
 or 263.5 feet, thence E to the Lake.
 We @ 1 foot east to miss a 16" N.Pine. 10' in 1700.

9 June 51. Same crew check distances as per
 deed, find pt. Mr. Strom says fence post
 is cor. between him & Lorenz. This gives
 1 1/4 Acres instead of the 1 acre called for.
 North side of above tract is 342' IM to E.P.
 Internal angle is $86^{\circ}00'$ or deflection pt. 94° .
 We then ran 2 parallel lines, one
 from 75' N & one from 85' N of the
 North line of above 1 Ac. tract.
 75' strip is 386' to IM & 390' to H₂O.
 & 805' along shore. 342' back to IM.
 85' strip is 465' to IM & 470' to H₂O.
 & 112' along shore.

.62 Ac^t in 75' strip. 27,570 sq. ft.

1 Ac^t in 85' strip. 45,960 sq. ft.

72

3142⁰⁵

③ 12° E. 90

22 June 1951. 22 June clear & mild
24 11

N. D.

W. 33

W. 31 T

73

30

Survey for N-5 1/2 line. Sec 16-140-39.

23 June 51. Harold, Burton & I start at 1/2 1/2 E 44
 37° E, hit road edge at 900', at 3142⁰⁵ hub &
 ③ 12° E. hub at 4400', decide to turn along road
 24 June. At 4421' deflect Rt. 29° 30' &
 run 975' to a pt of 25' West of F.S. Marker
 which is 741' E to 1/2 1/2 = 462 + 25 = 487'
 in f. L 60° 30' or hit deflection of 119° 30'
 At 3100' ③ 12° E & at 3700' ③ 15° E
 for true line. Sec. is 5273' across
 we hit 22' West of 1st. by calculation

clearance 26 June 51.

C.B.S.
R.C.S.

35

Survey for part of Cont. Lot 4 Sec.
 27-141-28. for E 125' of said lot 4
 Burton & I set correction at 18° 15' E
 at NE cor lot 4 on line between lot 1 & 4
 then jiggle in between NE & SE cor,
 from SE cor lot 4 turn 90° & run N
 125' turn 90° & run parallel line to
 lake & back N to 3/4 amp. lot 2 1/2 x 24"
 1st. near lake & Wood stks along line
 Approx 2 Acres, 700' x 125'

74
625
70
24 Sept Rain 3E 4/ NW 21-1-37-28
9 at clear rise

73°30' 24 Sept 51. Rain, Windy & cold.
Pat Harrington & I to White Fish Lake
chain 200' North westerly along shore
set $\frac{1}{2}$ x 24" IM deflect. Rt. 73°30'
& run S 80° W set 22 x 24" IM
on top of bank. Run line
midway between cabins.

9 Oct. Gordon Bestrom & I to White Fish
opened North line, checked angle 73°30' RT.
ran 200' N shore & then N easterly to MC.
& Easterly to road. chained side of
split road to 95' 33' E.

200' along shore, Rt. 73°30' S 80° W mag.
325 to top of bank.
565 to road, 235' along road &
428' 35" to MC.

Sketch for Wood Shol 22 Oct 51.

505
326
473
26 Aug 52, 1300. 25 - REA ✓

Doug & I to White Fish Lake.
set over old hub, check
alignment & chain 473' from
IM on bank to edge road. Replace IM.

29 June 1951. Cloudy & Cool.

CB3
753.75
75

Survey for part of SW 1/4 NE 4
Sec 3 T140N R28W.

29 June 51. Barton & I to Langville
& Tom Tracy tells us of plot wanted.
locate SE cor & south line altho
description given does not close.
Norm Harrison shows us 2 wood stakes
as set for corners. From these
we locate Grimsmo's property. Then
from south line, their pt. of beg. we
chain 134' E turn 30° rt from North
& chain 310' on this line to power pole
& selected as northern boundary marker.

28 & 29 April 1953. Howard Quick & I
open E-W 1/4 line Sec 3 chain 571' 25"
C sec E to wood stake for Grimsmo's SW cor.
set 2 1/2 x 24" IM at 540' for new cor,
turn 90° North run 700' set IM (axel) in sup.
deflect Rt 86° 30' & at 468' R/W
Co. Road, SW along road 760' E to E-W 1/4
line, thence N 1942' to 540' point (NW cor.)
9 May Howard & I chain 310' from E-W
1/4 line & R/W Co. Road NW to IM by pp.
continue 235' deflect Rt 116° 00' run
220' to shore Cooper Lake, Rt along shore
240' to IM, thence NWly 21' to IM. P.P.
56 Act.

144
419^e
231^e
7958

601 X 290 = 174,290 m²
893 X 100 = 89,300 m²

805
397
1202
601

43560
87120
2180

174240

43560
174240

992
794
1786
893

1777.6 m² to m² topography

794
110
904
3973
13013

13542
360
9942

9-141-28

Ken Gordon Bud, me

11 Aug.

10 Oct.

11 "

10

20

20

13

29

50

79

81

24

50

79

8

8

8

5

16

8

50

Fred Mickenben
2430 Riverside Ave.
Mpls, Minn.

902157

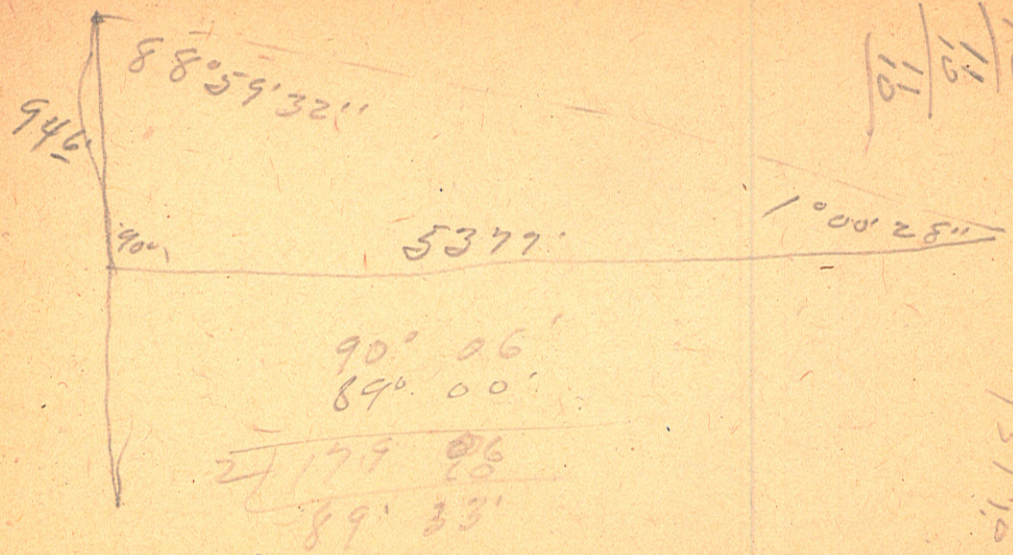
✓ June 53
 11 Aug 1951 cloudy cool
 10 Oct 51 clear m. 10
 11 Oct 51 clear m. 10
 1/2 KN/GB 77
 W.S. we.

81 SURVEY for Part of Govt Lot 9 Sec. 23 - 141 - 28

1300 11 Aug. 51. Men Wallin & I to
 Kego Lake. Set over 14¹⁴/₂₃ sight
 M.C. on west shore Kego, turn 90°
 & run south 290' to a point, for
 the N 290' between road & lake.

10 Oct. 51. Gordon Bestrom & I to Kego Lake
 Start at point 290' So. of 14¹⁴/₂₃ & at 90°
 run parallel with north sec. line, brush
 to lake & then West to road 805' feet.
 Open & chain North sec. line. 397²/₃ feet
 from lake to NW road. Set hubs across
 road for North 100' W of road.

11 Oct. Gordon, Bud & I to Kego. Set 2 1/2 x 2 1/2"
 1M. on shore on line 290' south of N. sec. line.
 Turned 90° from N sec. line 90 100' So.
 Turn 90° run West from road NW
 794' ± to N line lot 9, set 4" x 60" oak.
 Set 2 1/2 x 2 1/4" 1M. for NW cor. Govt Lot 9,
 from previous survey. Set 1M. on east
 side of road for N 290' of Lot 9 E. Rd.
 4 Ac. ± East of road. 2 Ac. ± West of road.



$$\begin{array}{r} 6555 \\ \sqrt{1311} \\ \underline{11} \\ 11 \\ \underline{11} \\ 0 \end{array}$$

$$\begin{array}{r} 90^{\circ} 06' \\ 89^{\circ} 00' \\ \hline 2779 06 \\ \underline{89 33} \\ 2779 06 \end{array}$$

$$\begin{array}{r} 6555 \\ \sqrt{1311} \\ \underline{11} \\ 11 \\ \underline{11} \\ 0 \end{array}$$

$$\frac{1}{3} \times 60 = 20$$

Stevens. 29-140-29.

$\alpha = 100'28''$ 5377'

885732 | 946
90 | a

Turned $89^{\circ}58'$ E to N. in $\frac{1}{4}$ $100'29''$ to
North. at 5377' hit 946 West $\frac{1}{4}$ N29.

$$\tan \alpha = \frac{a}{b} = \frac{946}{5377} = .0176$$

$$\log 946 = 1.97589$$

$$\log 5377 = 3.73054$$

$$\log \tan \alpha = 8.24535$$

$$\alpha = 100'28''$$

$$\begin{array}{r} 8.24535 \\ 1.92 \\ \hline 343 \\ \hline 718 \end{array}$$

$$\begin{array}{r} 89\ 59\ 60.475 \\ 1\ 00\ 28\ 60 \\ \hline 88\ 59\ 32.28500 \end{array}$$

Sheet 1

88° 59' 32"
89° 00'

23 Bird, 6.50
25 " " 118
26 " " 114
27 " " 0

56
60
116

Tue 25
Thu. 26
Fri. 28
Sat 28

22
360
168
28

15
32
47
48
107.26
108

250
15
112

107
108
108

1732
6105
5830

460
1505
6105

115

90.26

400' @ 19' south
2620, 2622, 2624 hubs: opp. 1/4
From 2622 hub 20' N at $86^{\circ}11'$
E to N. int. line (5' W at 90°)

2622

1311

$90^{\circ}06'$ int. L N & W sec. line.
 $88^{\circ}59'32''$ int. L N sec. line & N-S $1/4$ line.

23 Oct 51. clear & cool. W Bestrom 77
25 Oct 51. clear mild. G. J. W. J. J. π

Survey for W 1/2 lot 31-740-29.
23 Oct. Bud, Gordon, Jack & I to the
NE. cor. sec. 29, after failing to
find the NW cor. Al. Gabbert says
it was driven deep into swamp.
We start a random line $383^{\circ}3/4'$ W
& at 400' offset 19' south to
run down road. At 2622' we
were 20' south of $1/4$ IM. at
 $86^{\circ}11'$ internal angle (E to N.)
and 5' W of IM at 90° .
We continued W, spoke at
3933' for $1/2$ cor. at 5244
steel hub for Temp. cor. We
turned $86^{\circ}11'$ East 21' set wood
stake for sec. cor. No find IM.
Also fail to find IM for MC.

25 Oct Bud, Jack & I Found 3" IM for
NW sec. cor. leaning over $\pm 3'$ north
of our wood stake for cor. IM buried 1' E.
Gabbert showed us a plot by Bartlett &
we chained out to sec. line from his IMs.
Set straddles, measure angle North
line with West & get $90^{\circ}06'$ internal.
Calc. $1/4$ line from Helcomb survey to be
 $88^{\circ}59'32''$. So at 3933' turn $89^{\circ}33'$
run $36^{\circ}3/4'$ E for line between Stevens & Ryan.

Next Page.

HAIL
HULLS
MARINE
FLOATERS
TORNADO
AIRCRAFT
EXPLOSION
WINDSTORM
AUTOMOBILE
PARCEL POST
EARTHQUAKE
REGISTERED MAIL
GENERAL COVERS
BUSINESS INTERRUPTION

Detroit
FIRE AND MARINE
INSURANCE COMPANY

DETROIT, MICHIGAN
INCORPORATED 1866

FIRE
RENTS
PROFITS
CARGOES
BRIDGES
FINE ARTS
LIGHTNING
LEASEHOLD
RIOT & CIVIL
COMMOTIONS
COMMISSIONS
INLAND MARINE
TOURIST BAGGAGE
SPRINKLER LEAKAGE

From Page 87
2463
18
4' rt at 3+81
55" at 3+98
2' side of Barn 122' long
4+02 7-9' rt. 14x20
Root cellar
47' at 44+12 3' Birch
10" 2.64

01
06
001
001
120
130
21
131
06
90
15 / 1033.0
659
L 26537
1
11
93
0251

FR. top 5/4 3+24 25 63 112.20
1.35 77 625
118.45

4+0 + H.I. - elev.
B.M. 13.55 - 13.55 1.35 100.00 H20
112.20
4.25 118.45 Root cellar.

RT
4+12 5.0 3.4 5.8 6.7
7 9-28 30 50.

3+63 4.1 20
35
3+51 4.5 20
40

3+42 5.0 4.4
22 50

4+67 11.8 20
25

at 3+40 Row small J.P. N & S
at 3+77 57' RT, 10" NP & 20" NP
at 3+90 55' RT, 22" NP.
at 4+07 5' LT 8x12 Oldg {4' at 4+19
at 4+31 21' RT. Clump birch 8" & 3"
at 4+40 8' LT, 1 5" 4" & 12"
at 3+31 11' RT Pitcher Pump
at 4+20 81' RT. Breaker pipe for bestie tank

LT.
32'
↑

This encloses a list of
75 Ac. more or less there
being 55 Ac. in Good Lot 6 &
19 in 2 Ac. in N E 1/3 of all
in the 1st - 140 - 29.

I hereby certify that the
to be a full & true description
to the best of my knowledge
which.

W. Spain
Log # 2003

627
361
266

250 580
420 700
2670 21280
385 x 610 = 236,650

Stack measures
1/2 Ac

290 x 285 = 82,650

Starting at the E of Sec 15-140-2
run S along N-3 1/2 line 1193
to a point, there deflected
to run S 65 1/2° E 152 1/2'
to Point & Beginning from
the pt run N 37° W 627'
to Pt Head - Longville Rd and
Recent computed there 118'
along said Rd approx 265' to
edge of Bog Basin, then Easter
along Bog run approx 900'
to there S 29° 30' W 439'
to pt of Beg. (over)

3800
2800
15400
23100
24610
82650

46,000 sq ft = 5.5

CB5 8
HMA 14

Survey Grant Lot 6 & NE 1/4 SW 1/4
Sec 15-140-29. 8015 May 52

N37°W. def lect Rt 28°40'

627' Road to 5th E of N-3 &

439°' SE line to Bay River.

920' along Bay River. 100' westerly

then N to 500'± point & westerly to

920' R/W SAR#5. thence 285'

along road

361' R/W #5 SE 1/4 & Sec.

150° between intersection above

line & to pt on E for previous

5th marked 11933'

466' to C sec. to go bank river.

11933' C sec. to pt of 529.

580'± along E(N-3) between Lot 6 &

NE 1/4 SW 1/4

26 Oct 51 cloudy & cool.

27 " 51 " " " "

From the N to car we chain

655'± E for the W 1/2 Grant Lot 3.

Continue south till dark.

26 Oct. Bud, Jack & I continue south on E

line to lake. stay W. of fence 6 to 10'

Start at 6555' point, turn 89°33' from

south set 3 hubs to insure not losing alignment

27 Oct 51 Bud & I pick up alignment

& continue south to lake. set 2 x 2 1/2"

1M. for division between Hallett & Stevens.

Set 1 1/2 x 36" 1M between Ryan & Stevens

8 ringy clear water. 15 May C & cool. ^{CB5-84} ^{HMA 15}

Survey for part of Grant Lot 6

& part of NE 1/4 SW 1/4 Sec. 15-140-29

for Aultman & Stuckmeyer.

8 May 1952. Burton & I check align-

ment for line from road SAR#5 SE 1/4

to SW cor. of Stuckmeyers Land (Pore 31)

Finally start at above corner, sight

pt on E (N-3) sec. deflected Rt 28°40' &

run N37°W at 266' intersect N-5 1/4 line

at 627' R/W #5.

15 May HMA & I chain 627'± line, 920'

along Bay River, 285'± along R/W, 439'

along E line. 150° int. sec. 1/4 line & 3/4 line

to pt 11933'± so C sec.

From NE cor Lot 1 ¹⁷ run 119' N
 along W side Block 1 to Pt. (M)
 Turn 90° & run westerly 37' to 2nd 40' to
 river.

254' left in Lot 41 on 2nd 40' line.
 186' from M to Powers easterly to Boy River

1952. 27 June cldy & warm.

837⁵

F Bailey
 H. W. 217
 W. J. 218
 83

Survey for part of Lot 41
 Lakeside Addn. Vil. of Hackensack.
 27 June 1952. Fred Bailey, Owner & I
 start at the NW cor Lot 6 Block 7
 and turn 90° from N line block 7 &
 run northward 190 feet to the shore
 of Birch Lake, thence in a southwe-
 sterly direction along said shore 187⁵
 feet to a pt. on M. (cor. Gehl property)
 Thence south easterly 90 feet to
 the NW cor. Lot 10 Block 7
 Lakeside addn, thence 205⁹
 along the N line of Block 7 to NW cor
 Lot 6 Block 7. Pt. of beginning. ⁶³
 100 Ac.

We then set the NE cor Lot 1
 Block 7 from the M's in place
 on N line Block 7 & those on south
 side. Hit RR spike used for
 angle point on east side Lot 1.

We then set M & 1st for south
 boundary of tract sold to Luth.
 Church, which is 119' N from NE
 cor. Lot 1 Block 7 along W line
 of Block 1.

78.6
2.3
376.3
408.7
54.4
462.8

340.10
30.80
371.50

376.3
164.0
300
462.8
1303.1

179.80
13.85
41.35

From this point ^{pt of def.} run N 68° E
264' to a point on the
east edge of the road
thence deflect left
340 & run 146 1/2 feet
to a point on the south
edge of the road to the
Schutz cabin, thence
run 35 1/2° E 231' to the
shore of Wards Bay in
Noman Lake, thence
southwesterly along the
shore to the point & thence
in a northerly direction
to point of beginning

Ward mealy #1

$$\begin{array}{r} 200 \\ 3500 \\ \hline 3700 \end{array}$$

$$\begin{array}{r} 6200 \\ 1470 \\ \hline 7670 \end{array}$$

152° 30'
 27 30
 179 60
 89 30
 27° 30' 90 30

$$\begin{array}{r} 17960 \\ 9430 \\ \hline 8530 \\ 200 \\ \hline 8730 \end{array}$$

$$\begin{array}{r} 4200 \\ 2730 \\ \hline 8930 \end{array}$$



34 41
 35 41
 34 41
 35 41

84 1413 + 1227 across pond.
231 @ 35 1/2° E
1462 to 26 ft road.

From Lindbloms NW cor
run N 68° E 264 feet to a pt
on E side of road. Deflect
left 34° & run N 40° E 146 feet
thence 35 1/2° E 231 to Lake.
Int L - 49° 36'

July 1952. clear & windy

F. Bailey 85
MJS

37 Survey for part of Gust lot 3
Sec. 12-140-29

0900 3 July 1952. Fred Bailey & I at
Lindbloms, where she showed us
what she wanted surveyed.

We started at the NW cor. of the
original Lindblom tract, which is
the intersection of a line starting
at the MC on the 1/4 line & running
N 63° 30' W. From this point we ran
N 68° E 264' across road, deflect
left 34° & run 146 feet to So. edge
Schutz road, thence 35 1/2° E (int L 49° 36')
to the shore of Ward's Bay, Woman Lake.
Along shore S & then N to pt. beg.

8/30/52
 Cliff Forbes. Sparkling water
 survey Plot, stakes etc.
 3 July, 4^{pm} July, 8 July, 9 July
 10 July, 11 July, 12 July, 18 July
 Plat, Filing, 3 stakes, Prints
 310

Spain Book 1949

270
 24

 294

310
 140

 450

Key Tabaka.

8/30/52

13 aug, 13 aug, #15 aug.

3
Summary part book for 1. in 15. 141.28
part. states & description.

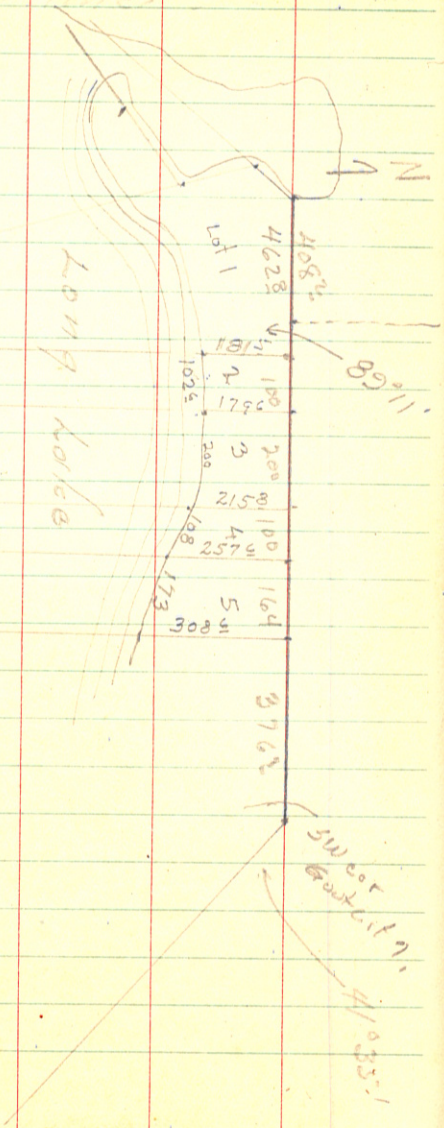
116.50

5496.25

3.25

6+00.00

deflect $17^{\circ}20'$ from $56^{\circ}30'$ at pt & hit SW end of point.
 $89^{\circ}11'$ internal angle of line to S & W for lot lines



3rd 4 July 52. clear cut
 Survey for Flat of Gout lot 5
 Sec. 23 T14N R28W, Sparkling H²O.

F Bailey 87
 WLS.

3rd 4 July 52. Fred & I open old ref. line (Page 128 Book 2) & then pick up line between lots 5 & 7. Also see other owners to join in OK with all except Friedl who will see. 7 July. Fred & I continue west, hit 1M for De Vermont & Frawnfelters, set correct stake for MC. from which deflect at $48^{\circ}00'$ & run 1200 feet. then sup. deflect at $56^{\circ}30'$ & run 162³ feet to cor. & deflect $71^{\circ}00'$ & run 200 feet to point. 30' across angles slightly Rt to tip. 8 July. Fred, Ben & I set straddles on N line Gout lot 5 & West line Friedl property got $89^{\circ}11'$ as internal angle west to south. We then chain from SW cor Lot 7. west along north line Gout lot 5 376³ to E cor Friedl (lots 5) then 164' W side 5/4 100' for 4/3, 200' for 3/2, & 100' for 2/1 leaving 54⁹ to 1M for Frawnfelters SE cor. in lot 7. & 408² W to cup & lake. Chainage for sides of lots

continued

90

int L intersection Road &
from 15/16 to 17 E 82°30'

11 July 52, cloudy & cool.

14 July 52, cloudy & sultry, rain.

18 " 52 "

19 July 01 & Not 91

11 July, Fred & I start at 11/12 ⁵ road sk.
deflect Rt 88°30' run to long lake.
continue 160 ^(12/13) set hub deflect Rt 104°00'
run to lake 12/13, deflect Rt 76°00' to
150' for 13/14, deflect Rt 90° to lake.
continue 114^B for 14/15 deflect Rt 80°30'
for 15 line 14 run to lake. Deflect Lt
20°30' run 100' 15/16 deflect Rt 75°00' run
to lake.

100 17 July Fred & I start from 15/16, deflect
Lt, 22°30' for road 144^E feet to 30.
line of lot 17. From 15/16 continue
148^E feet & deflect Rt 85°00' run 80'
to lake & ^{106^{SE}} sup. for div. 16/17, rain, 1400.

18 July 52, Fred & I chain out lot lines
get 436^E frontage for lot 6
Between 6/7 from 30 line west lot 7
100' sup. at 123^E road traverse &
402' lake sk, 30 to H20, 162 feet
from face lot 7. Bet. 7/8, 283^E to
sup, 145 in sup. to 30 line west lot 7 sk.
From SE cor west lot 7 to road traverse
185'. Lot 8 has 1115^E frontage (see sketch in note book) From 8/9
on shore 166^E to alignment & from
& W. to sup 86^E sk 8/9. (Back cor)

continued

100' frontage for lot 9.

130⁵' shore 9/10 W to & align. & 50' on to swp. Frontage for 10 is 160' (check)

& align 10/11 W is 57' to stk & 67' to swp.

& align E is 120' to stk & 150' to H₂O.

124³' frontage for lot 11.

124²' W 11/12 to & align

147' W from & align to swp. (see notes)

139⁸' from 12/13 to swp E to & align. Lot

12 has 346' width in swp. Cliff's (edge)

road is 8' W of & align & pt. 12/13.

185²' E to stk, & 195' to H₂O⁵¹⁹ & align

107⁴' frontage lot 12

112²' frontage lot 13.

165⁵' between 13/14 W to & align.

123²' & align. 13/14 W to swp. stk.

124²' frontage lot 14

169⁵' 14/15 west to & align.

156²' & align. W to stk, 170' to swp,

34 or 35' across back lot 14. 15 W

147⁵' swp stk E to & align.

179²' & align. to stk, 204' to shore. 15/16

300' frontage lot 15

157' frontage lot 16.

143⁶' stk 16/17 W to & align.

106⁵' & align. 16/17 W to swp.

continued.

- 82³ & road align 14/17 to stk, 105² to sup.
 144⁵ & align 15/16 (L) 22°30' to 16/17
 148⁴ above pt. straight add old rd to 16/17.
 175¹ hub 16/17 old rd. to lake.
 86³ stk on shore rd to stk in old rd 16/17.
 57⁴ between stks old rd & new rd.

LORING & ANDERSON
LAWYERS

1242-44 MCKNIGHT BUILDING
MINNEAPOLIS

EDWARD J. LORING
ALBERT M. ANDERSON

July 31, 1936.

Edward L. Rogers,
Attorney at Law,
Walker, Minnesota.

Dear Sir:

We are desirous of getting some information relative to the following described land supposed to be on the shore of Child Lake:

Beginning at the meander corner on the West line of Government Lot 4, Section 15, Township 140, N. R. 29 West of the 5th Principal, an iron pipe monument run South 1 degree 11 minutes West along said West line a distance of 145.8 feet to the Southwest corner of Government Lot 4; thence South 88 degrees 47 minutes East along the South line of Government Lot 4 a distance of 600 feet to a point; thence North 1 degree 11 minutes East a distance of 500 feet to a point; thence West 88 degrees 47 minutes West to the South of Child Lake; thence in a Southerly and Westerly direction along the shore of Child Lake by its various courses and distances to a point of beginning and inclosing a tract of land containing 5 acres more or less lying wholly within the boundary of Government Lot 4 Section 15, Township 140, N. Range 29 West of the 5th Principal Meridian and also including a 20 feet easement along the South line of said Government Lot 4 to the old traveled road on Sackett Lake.

This is supposed to be lake shore property on Child Lake near Sackett Lake.

We wish you would hand this letter to some local realtor and if he knows the property have him write us a general description of it and what he thinks it is worth and what his fees would be to make a trip to the property to investigate same.

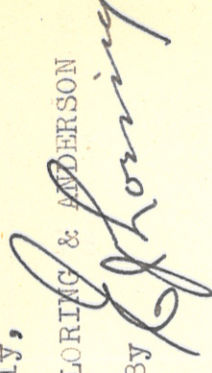
We will appreciate your courtesy and thank you in advance.

Yours very truly,

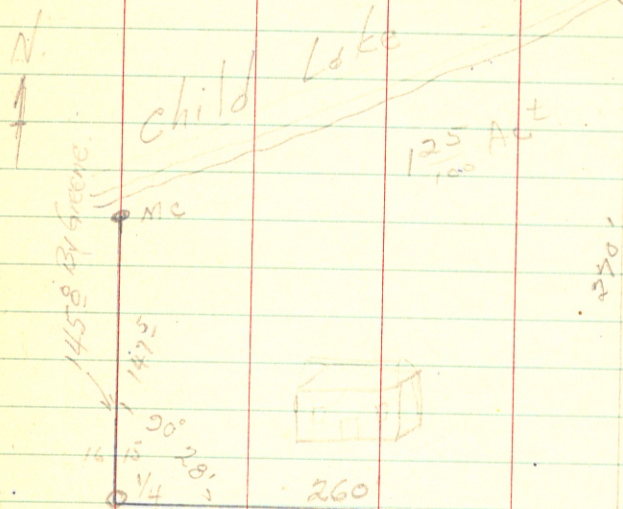
LORING & ANDERSON

EJL:C

BY



96
 87
 90° 28' L West sec. line with
 E-W 1/4 line int. L N to E.
 87' 1/4 cor 15th E to hub $\Delta + 45 = 132'$
 260' along E-W 1/4 line.
 270' 11 W sec. line N. to third
 147' 20 from M.C. West hub 30 to 1/4 cor.



The west 260' of Gout lot 4. 15. 1910
 29 being in the SW cor of Gout lot 4
 & south of Child Lake, containing
 1.25 Acres, more or less.

See page 141

21 July clear & hot.

22 July cloudy & cool.

F.B. 97

Survey for part of Gout lot 4
 sec. 15. 140 - 29.

21 July 1952. Fred & I set sights
 at NW cor 15 & M.C. on West sec. line.
 set over M.C. north of 1/4 cor 16th
 & ran south. Fail to find 1/4 cor.
 set sight on C sec. & M.C. west
 side square hole on south line lot 4
 & start to open E-W 1/4 line. Brush
 out 1/4 line.

22 July Fred & I ran transit line
 on E-W 1/4 line. set straddles on
 W sec. line small house on line.
 Quit at noon. To walker & find
 Greene's Plat cully for 145° E' M.C.
 30. to 1/4 cor. Hurst cully for 216.

23 July. Fred & I set intersection
 W sec. line with E-W 1/4 line get int
 L of 90° 28'. Run E on 1/4 line &
 set hubs at 260 & 265'. Find
 260' nicely misses the deck so
 use it.

See Page 141

131
534
524
393
56
635
2699.54

Capilla lake

1001



106.5
50
156.5

Part of Loop road
lots 1-12 Block 2, B. C. Co.
5 & 6, & street vacant

11938
1490
11448

base
bet.
bet.
bet.
bet.

2208
1600
4110

$\sin c = \frac{a}{c} =$
 $\frac{96}{70} = .534$
 $\frac{76}{70} = 1.0857$
 $\frac{131}{70} = 1.8714$

M.C.L.

$\log 15.4 = 1.187$
 $\log 160.8 = 2.206$
 $\log 300 = 2.477$

$5^{\circ} 29' 32''$
 $1408'$

$.5340$
 32040
 8952932
 8402028

1795960
 843028
 9502932

8.98
 502932
 100
 16
 17

description for M.C.L.

110 + 40 + 140 - 140.0 + :40 + 50 then 112

56' 30" from NE cor 151. Beg. deflect 112°00' Rt. 3 run 427³ feet to point 737' SW from 6/7 on back line of Block 7.

526 along road. 29 July

30 July 75' to lake from 6, 309⁵ along shore.

120° SW Lathrop's fence to road edge.

640' along toward Seasterly to Co Rd.

150
200
400
526

26 July 52 clear hot.

28 July 52, Ch. 3 cool.

29 July rainy Am.

30 July clear cool

FB

W.D.B.T

Survey for lots 1-6 inc. Plot of Long Beach & Parts of what had been Blocks 4 & 5 Long Beach.

26 July 52. Fred & I found IM for 35 cor. of 34 between blocks 1 & 7. Plot calls for 513'. We get 44' from IM to fence cut. We fail to find any stone stakes in Block 1. We open a random line from IM, NW along back of lots 1-8 seem to be the line, but about right according to an original stk 1213 (to 11E-5W).

28 July. Mr. Lathrop shows us IM for L 8/9. We set over this sight rod stk 1213. Plunge & set post 02°00' Rt. chain out lots at 513' at 102° find old ward stk 1211, & IM at 205' (not chn), under the fence 30' inc. ^{3E cor 10} old ward stk 2 513 IM to NW on line.

30 July Fred & I chain out tract starting at NE cor lot 6 get 175 to lake, 309⁵ along shore, 215 along street, 120° SW Lathrop's fence to road edge. 640' along toward Co Rd. 379' ac plot to pt of Beg. Chain lake shore lots 7-12 inc. get 300' same point as transit line, go 8-12 on back to shore. Set dip ment stakes 1213 to shore.

For
10h 26
02 27

5 July 52. clear & warm.

F. Bailey 101
W. J. T.

Survey for Part of Gov't Lot 5

Sec. 15 T140N. R29W.

5 Aug. Fred & I to Bill Jensen field.
check over stakes, get alignment,
set over stakes between Dells & Bills
turn 90° set hub 100' north.

set over stakes in center & get hub
100' North. set over this hub;

turn 90° from 100' so. & run parallel
CAP # 39 to lake for 100' strip

along south side of Dells old place.
Get 405' to lake on N line, 100'

along lake 399 E N to road & 124'
along road. 1, 035 Acres.

set 4 100' in line. (furnished 3)

517
574
6 April 60. F.H. Lot 5

21091
845 x 300 = 375 Ac + 1/2 swd.

351
482
21838
419 x 300 = 2.9 Act. 545
300
1763,500

125762
43562
20680
301
6.50 / 43560
5.8 / 375

163560
250
150411
6.7
217800
30490
30680
190633
4.70

8701
10601
3
5.401
5.601
5.601
8.60

375
290
6.65
11193
56111
56111
56111
1.7
86.111
82.8
55.801

1345

1345

282

282

690

2690

2760

10760

690

2490

97290

379290

1345

535

256

256

8070

3210

6725

375

2690

2690

344320

108960

50.3

50.3

50.4

201.2

29

102.6

02

89.45
645.7

15.3

415, 1345, 11 X 11

1345 X = 345

X = ~~0256~~
0256

493
444
344

X = 0256. On H offset

to 30

15.36 at 600

1146

247.5

573.0

802.2

687.6

687.6

29255.0

29255.0

29069.5

29069.5

29069.5

30655.7

30622.8

30632.8

43569

304920

43560

703

130680

304920

306226.80

306226.80

1193³ 3/4 C sec. 15 to take off to
 Huckmeyer & 149' N to intersection
 in 1044° 3/4 of C for Pt. of beg.
 then 1194³ to SE cor N part of NE 1/4 SW 1/4
 335' N to 3 guedeak. 703' N in ↑
 152° from 1193³ pt on 1/4 line 365 1/2° E to 11M

Survey for Part of Sect Lot 6

NE 1/4 SW 1/4 Sec. 15. T140N R29W.
 30 July Fred & I start at 11M
 previously set by me at NE cor of
 the 20 10 Acres of NE 1/4 SW 1/4 on 1/4 line
 & run 583° 40' W

6 Aug. Fred & I continue west
 brushing out hit lake & cross road.
 7 Aug. Fred & I continue west & hit
 345' N of SW cor for South 10
 Acres of NE 1/4 SW 1/4. Clear cut
 for line across swamps & lake

8 Aug. 0900-1200. Fred & I clear
 30 line to lake 535' (D) 0256^{Rich}

30 13⁸⁹ 30. at 535' set temp hub.
 set straddles for N 3 1/4 line & 30 line
 of Huckmeyer tract & Birch post at
 intersection. Measured angles & get
 52° 11' 30 line Huckmeyer Pt to flag
 on 30 line NE 1/4 SW 1/4 22° 43' 1/4 line
 Pt. to same point.

Intersection is 149° North of 1193³ pt
 on 1/4 line so is 1044 3/4 30 of C sec. 15.

2: X. 1617.6 : 1

1617.6 x = 2

x = .00124

.0013

1617.6 x 2.0000

1617.6

.001238

38240
38520

.00124
169

1140

00744

20124

002095

154
458
2

1617.6
.00128

129408

32352

16176

2070528

1617.6
38528

1617.6
.0013

48528

16176

240288

1617.6
.00124

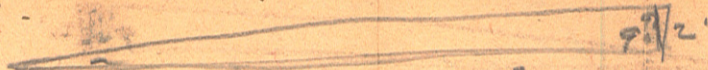
64704

32352

16176

2005824

$$2^2 \times 1617.6^2 = C^2$$



$$v = 1617.6$$

$$\tan \alpha = \frac{a}{v} = \frac{2}{1617.6} = .001238$$

$$\tan \alpha = .001238$$

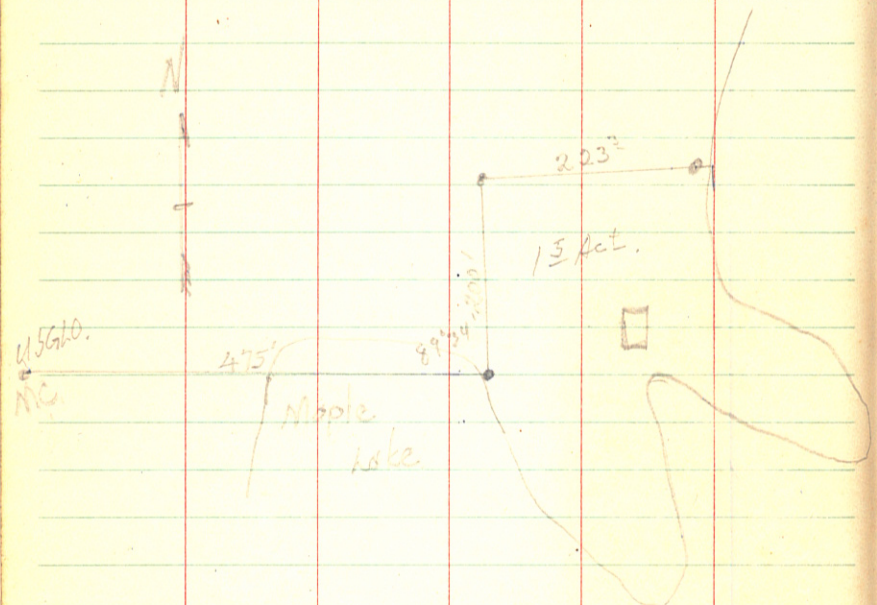
$$\alpha = 0^\circ 4' 43''$$

$$\text{offset} = .00124$$

$$\begin{array}{r} 145 \\ 116 \\ \hline 29 \end{array}$$

$$\begin{array}{r} 21 \\ 29 \\ \hline 42'' \end{array}$$

$$\begin{array}{r} 21 \\ 60 \\ \hline 29 \end{array} \begin{array}{l} 250 \\ 116 \\ \hline 100 \\ 87 \\ \hline 130 \end{array} (\$34$$



115
 12 Aug 52 clear & warm. (14 Hot. showers) F Bailey
 13 " 52 " " " " (stormy water) D. Englehart
 15 " 52 " " " " W.S.P. 105
 Survey for part Goot Lot 1 Sec. 15

T141 N R28 W.
 12. Aug. 52. Fred, Doug & I locate
 M.C. $\frac{15}{2}$ U5610, & run $582.45' N$
 $327^{\circ}36'$ & hub at 350'. Fail to find
 $\frac{1}{16}$ cor. at $327^{\circ}36'$

13 Aug. Same crew hunt for M.C. to
 $\frac{14}{2}$. Len Tabala tells us where
 it is & after dinner tried to
 find it. F.S. marker is off 10'
 Len says more north. I find it
 under 16" W.O. Brushout to 34.
 Start at M.C. on our R. line
 & hit south edge of line from
 WC $\frac{14}{2}$ west edge of road.

944' from M.C. west to swp near
 road & 30'. (1617' M.C. to WC U5610 notes)

15 Aug. Fred & I continue west & miss
 U5610. M.C. for $\frac{14}{2}$ by 2.0' to south.

1617' M.C. to WC is correct, as 124' diff.
 $d = 0^{\circ} 4' 43''$. We start at M.C. & run E
 250' to Lake. P.M. Doug. joins us & we
 take to H.S. to Grass bay. $346'$ at $475'$
 E of M.C. then $89^{\circ}34'$ W to N for
 back line 250'. then E // with lake
 line 2233' to $\frac{14}{2}$ & Lake at 243.

For
 107 26
 102 30

462^e sec. line to hub.
 1659^e hub. to hub on lake.
 2122^e North sec. line to Lake. :-
 200' x 2170' 434,000 sq. ft. = 10' $\frac{1}{2}$

16 Aug. 52. Rain. cloudy.
 19 " " " Cloudy - sultry.

F. Bailey
 D. Engelhart
 W. Smith

Survey for N 200' E 1/2 Lot 3-29-140-29.
 16 Aug. 52. Fred, Doug & I find some
 of my old hubs on line between
 Goot Lots 3 & 4. Set over one on
 edge of road, sight one south
 turn 90° East & set hub 200'. Rain.
 19 Aug. Same crew set over old hub
 462^e 3/4 of N line sec 29 on N 1/4 line, turn
 90° chain 200' set hub, from which
 line turn 90° & run N to 200' 3/4 of
 Co. Road. Plug to & run 3 1/2' to
 Deep Lake, check 200' distance, ok.
 Chain line out to 2122^e to H 20.
 Set 2" x 2 1/2" I.M. on N sec. line & at lake.

50'

clear & warm.

Ed. Stuckmeyer
 W. Smith

Survey for E 50' of W 250' E 1/2 Lot 3-29-140-29.
 12 Nov. 52. Ed Stuckmeyer & I Pick
 up old line for W 200' turning 90°
 chain 50' set hub. Run parallel line
 N-S to Lake, check dist. 50' set
 24 x 2 1/2" I.M. on shore.
 13. Nov. Same crew opened line
 N to road & checked dist. 150'
 set 24 x 2 1/2" I.M.

975 Me. E sec. line to $\frac{1}{4}$ cor.
 1320 temp. hub. $383^{\circ}W$ at
 1314 $\frac{1}{2}$, 1314 $\frac{1}{2}$ & 1320 set hub. 1319 $\frac{6}{8}$ - 5pk.
 90 $^{\circ}12'$ L SW. cor E to N to M.C. 649

28 oldy & cal. 20 Aug. 52. 21 Aug. 52. 22 Aug. 52. Doug. Eng. WJ3. 109
 Survey for Plat. Govt Lot 2, Sec. 27, T139-30

20. Aug. 52. Doug & I to Backus & Clifford. Got three helps us hunt for stakes as shown placed in plat of Des Moines Beach. No find.

21 Aug. Doug & I continue to hunt. Find 39' \odot for SW cor lot 3. & some shore & back stakes for lots 19-23 but nothing to go on. We find NE cor. sec. 27, M.C. on E sec. line out. Mr Montman shows us rock pike & we find $\frac{1}{4}$ cor 27/26 open line to lake. Montman's house on line.

22 Aug. Doug & I run from the $\frac{1}{4}$ 27/26 $N5^{\circ}30'W$ to NE cor. hit $23^{\circ}E$ at 2640', i.e. correction .0088 per ft. at 2300' \odot 20 $^{\circ}22'$ & at 2337' \odot 20 $^{\circ}5'$ set 36x60" pipe for M.C. north edge lake. Set over $\frac{1}{4}$ sight above M.C. plunge & run south. Hit fence corner.

23 Aug. 52 Doug, Roger Meill & I continue south, carry chainage ahead 975 M.C. to $\frac{1}{4}$ cor. Chain 1320 from $\frac{1}{4}$ set temp. hub. checks with old cutting & marks on trees. Turn 90° & run $383^{\circ}W$ & at 1314 $\frac{1}{2}$ & 1314 $\frac{1}{2}$, 1320 set hubs.

continued.

Aurora Lodge No. 100, A. F. & A. M.



Box 465

Brainerd, Minnesota



618-
5492
1167 E

3183
299 E
6191

15
135
13

265
435
49.33

15 | 740.
60

140
185
50
45

508
688
299
3183

William J. Spain
Hackensack, Minnesota

550 H
250.0
555.9

Dec Harold & Connie

Thurs 11 - ?
Fri 12
Sat 13 - 1.30

Mon 15

1 1 1 1 1 6
689
62.8

90.6
1.5
48.1
1.23
48.33
1359.0
15.9
1.11
1.15

Mon 22

ac Connie
to h.
check with minis

230
435
186.5
1 1 1 1 1 1
8.85
3.17
5.68
1.240
4.36

31
48.23
49.33
158
120
7 1/2 days ea.
1.8
2.00
4.4
1.0
2.8

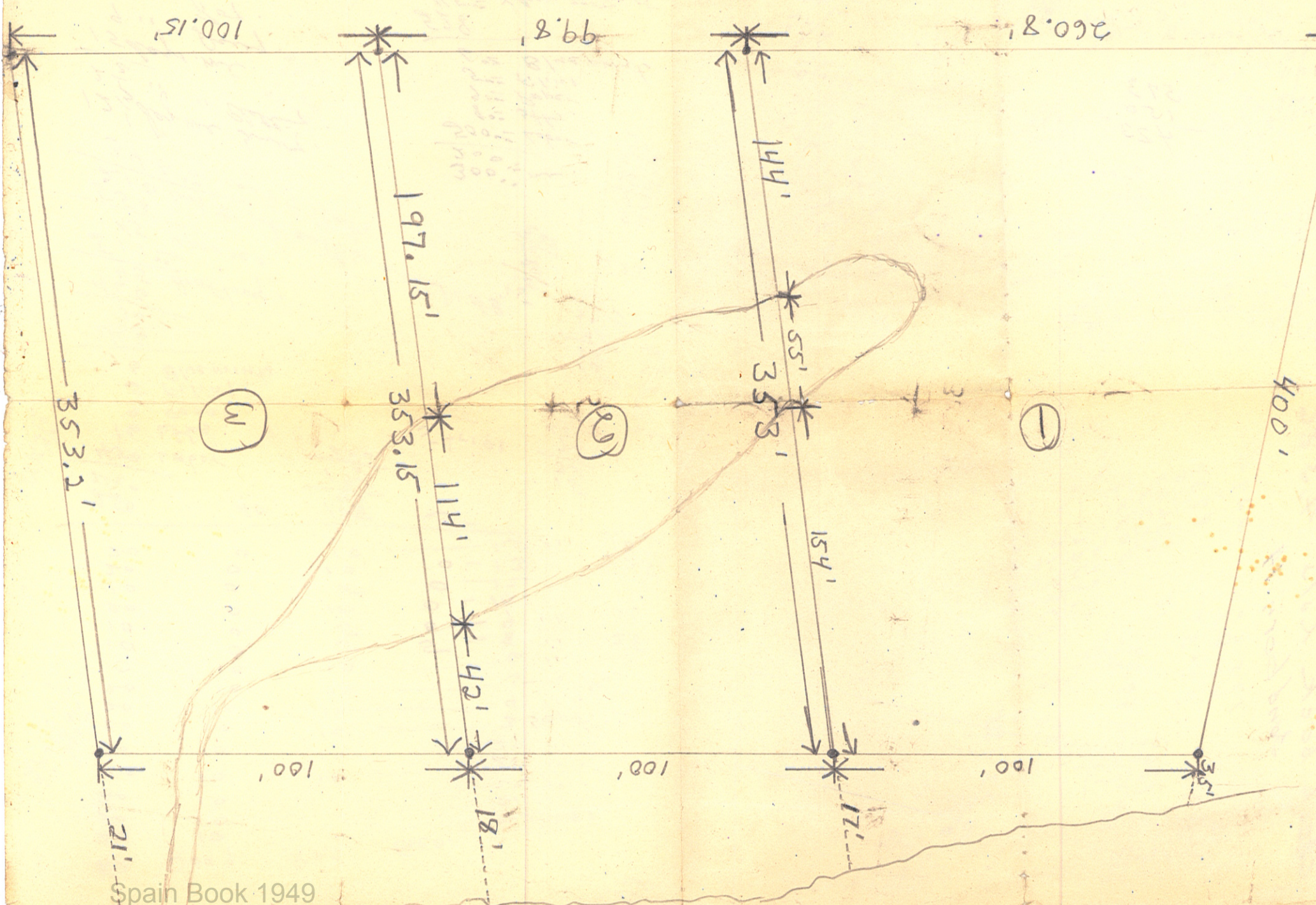
1 1 1 1 1 1

85°00' W to 30. Lot 1/2, 2/3, &
3/4. change base line 00°50'
RT of 4.15 & changed to 80°00'
W to 30. for all lots 4/5 on
except 14/15 which is 75°00'
Change SW L from 90°40' to 90°12'

1850

29 Aug 52. Cloudy & mild.
3 Sept 52. clear & warm.
4 Sept 52. clear & warm.
5 " " cloudy & cool. rain early AM. rain PM.

29 Aug. ⁵² Doug Royal to Sandborn
Lake. set over 1314 hub & turn
90°40' E to N & run N 6°30' W. Boys
brush & chain while I go to Walker
chain 649' to H20. set hub
near old road stk & one in H20.
Plot of Des Moines Consh calls for
730' to H20. iron Pipe. No find.
3 Sept. same crew. Lee Reeves tells us
that Lybe cut land was down & sets there
is an iron marker about 4' from our stk.
No find iron pin (Ply stk) 6" under ground
4' short of our 1320 stk & 5' from our 1314.
set alignment from iron Pin to Lake &
hub 400' back from lake. determine
lake shore runs 61°30' RT from baseline
so at 400' hub deflect RT 61°30' & run
N 54°45' E for back line of lots.
Adrian L. Jr. came out & set 1/2 to run lots
about 90' to shore line. 100' frontage.
4 Sept. same crew finish line 400' back.
start on shore line in L 118°30' & deflect
RT 61°30'. set stk every 100' for lots 1,
2, 3 & 4
¹⁹³⁰ 5 Sept. same crew. set over Lot 1 stk &



6 Sept. 5 ² / body & cool.	11 Sept. Rain	113
8 Sept. cloudy, 3 ⁴ try. Rain	12 clear & sultry.	
9 " clear & 4 ⁵	13 clear & hot.	
10 " "		
11 " "		

Turn 85°00' W. L. on base line for line bet. 1 & 2., run lines between 2/3, + 3/4, + 4/5 all at 85°00' or parallel run 1610.

6 Sept. Rog & Roger chained out lots 1, 2, 3 & 4, & brushed 4/5 on base line on lake shore.

1/2 353', Lot 1 260.8' at back. Lot 2 is 998 back & 2/3 is 353' 15", Lot 3 is 100' 15" at back & 3.537' bet. 3/4. See sketch for swamp.

1100 8 Sept. 52. Roger, Geo. Errett & I change L at 4/5 from 00°30' to 05°30' & set stakes for lots to 12 & brushed thru to east line. set hub on hill. Quit at 1515 due to rain.

1100 9 Sept. 52. Rog & I brushed out line (75°00') 14/15, set straddles on East line & hub. int. L 62°10' baseline N to S.

10. Sept. Rog & I brushed out 5/6 ^{at 85°00'} & set hubs 4/5 & 5/6 at back. Brushed out 6/7 - 7/8 & 8/9 setting back stakes. quit 1500

12 Sept. Rog & I brushed out 9/10 & 10/11, setting back stakes.

13 Sept. Rog & I brushed out 11/12

continued

118° ^{40'} 1/2 to 15. back to lake.
 45° Roadway E back Lot 15.
 10° back 15. 979 front to 15.

355³ 6/7, to 15-18 to H₂O.

99° back 6.

64° back 15.

356³ 5/6 to 15' H₂O.

353° 4/5 to 15' H₂O.

99° back 4.

set 1M for 45' Road W. line.

353' sides 2/3, 3/4 4/5 & 5/6 is 356³

12/13 & 13/14. Got into blue jackets
 & had to destroy them. set
 straddles on all back lines.
 Called 315 to have them, took
 it over & made comments.

15 Sept. Regal see 315th staff of
 No. 30 2 x 20" M's at all corners
 & set road 1/2 way at ends.

Measure angle at back 15 to lake
 get 118° 40'

Chain note to 15' line: 45° Road.

355⁵ 35 set 15 to H₂O. 10° back 15

272 1/4 cov to base line 1M. E. Lot 15.

70° Base line to N. C. : 453³ E side 15.

351° 14/15 50' to H₂O.

68° Lot 14 on back.

100° 20' 13 " "

345³ 13/14 to 40' to H₂O.

347° 12/13 to 35' " "

100° back 12. 99° back 11.

348² 11/12 to 25' to H₂O.

349° 10/11 to 20' H₂O. 101° Back 10. 99° B. 9

351² 9/10 to 15' H₂O.

352° 8/9 to 15-20 H₂O. 101° Back 8. 100° B 7

354³ 7/8 to 15 H₂O.

1600 15 Sept. Finis.

21 Oct. 52 2/2 or 2 mil d.

NS 1/2 Sec 117
H. Mundale
part & owner.

75 Survey of Part of Grant lot 3

Sec. 25 T. 137 N. R. 29 W.

100 21 Oct. 52. Henry Mundale & I chain
 531' S along Nelson lake set 2 1/2 x 24" IM.
 Continue 100' set 2 1/2 x 24" IM & again
 continue 100' set 2 1/2 x 24" IM. We then
 went to the N line sec. 25 got
 alignment from lot stakes & turned
 E to S 90° 10' set turn hub on shore
 then turned 03° 50' Rt to hit last
 1 M. 731' down lake. Set over
 731' IM. turned 94° 00' S to E to
 parallel N line & brushed out
 East to East line lot 3.

We then set over 731' IM & turned
 73° 41' E to NE to 531' hub, set
 over same & started line E parallel
 with N line & 731' line. Finis 1745

122
for NE cor. of 510Ac & turn L $99^{\circ}34'$ with
R line for 3/10Ac. & also deflect R $10^{\circ}38'$
for Road & run 419° , deflect R $21^{\circ}30'$
& at 609⁵⁵ hub., 879⁵ hub. for L $41^{\circ}45'$
& run to 1033- to intersect N line of tract
195² E of 1M for SE cor. Orig. Stockmeyer
Make each lot 68² on & rd. so from above
1M set 68² for Lots 1-7. then 6² to L 419°
Rt. $21^{\circ}30'$ & go 62² to 8-9. then 68² to 12-13.
then 53² to L 879° & $41^{\circ}45'$ then 15² to 13-14.
then 68² for 14 & 68² to N line of 1033-
Start at M.C. & run base line with chain
setting hubs every 49³³ f. 1-5 line,
then 48² to L 245° then Rt $17^{\circ}10'$ & 12² to 6-7.
from 6-7 go 49³³ to 4-3 & 3² to L 595°
Lt $15^{\circ}15'$ & go 46²³ to 3-2. & 49³³ each to 10
Start line bet. $15^{\circ}14'$ W. of road.

25 Feb. 53. Same crew. jigg/s in on
line bet. $15^{\circ}14'$ Squedunk & Q Rd. & brush
out setting pickets. From Q Rd $15^{\circ}14'$ sk
right Woman lake turn Rt $44^{\circ}28'$ to Q rd. L
same sk Rd & to N 14/15 is $64^{\circ}05'$

From 14/13 Q rd sight 14/13 on Woman lake
L E to S to Q rd is $36^{\circ}10'$. We set pickets
on lines for 14-13 W of Q rd. & E of road.
 $67^{\circ}15'$ L 1² 14 Q rd W to 10/14 Squedunk.

Road curves.

$\Delta = 12^{\circ} 37'$ Rt at curve back lot 18
chord to Pl. back lot 12. 7' semi Tan 50'

$\Delta = 38^{\circ} 30'$ Lt at 7+214
 $\Delta = 36^{\circ} 43'$ Lt at 10+354
at 11+00 deflect Rt $08^{\circ} 05'$ E $77^{\circ} 1'$ to 1 M. ^{SE 90'} _{orig 2'} stuck marker

L South line at Squeedunk to base
line NE to E. $42^{\circ} 16'$

24 June Lot 1 ~~127~~ deflect Rt $43^{\circ} 15'$ N $84^{\circ} 4'$ E

Lot 2 deflect Lt $43^{\circ} 00'$

Lot 3 " " $43^{\circ} 00'$ N $84^{\circ} E$

" 4 " " $43^{\circ} 00'$ N $84^{\circ} E$

" 5 " " $60^{\circ} 25'$ ^{should be $60^{\circ} 10'$} _{miss on line}

9994 " 6 " Rt $60^{\circ} 10'$ also 7-8-9-10-11-12.

6 July 747.1 feet intersection of Road &
N line Lot 15 127 a long road NW to
property line - W of 1/2 line.

17 June 53 clear - 1000. Rain 7:00 - 12:30
24 June 53. cloudy warm, rain pm
26 " " " cool
29 June clear - 1000. Rain 7:00 - 12:30
2 July 53 cloudy & cool
3 July 53 clearing cool 6 July, clear & cool

17 June 53. Day. Toward Page 1 set 1 Ms back
of 425, start of 6 run N $71^{\circ} W$, def. Lt. $97^{\circ} 30'$
to road. Ran lot lines thru 15. see page 124.

24 June 53. Day. Toward 1 set 1 Ms
at back Lot 3 III. Ran road Pl. re set
1 M. at stuck marker SE cor. Orig. Piece
measure L to line & base line Squeedunk $42^{\circ} 16'$

26 June 53. Same crew start Lot 1 127

deflect Rt. $43^{\circ} 15'$ for line 1/2. Lot

2 " " $43^{\circ} 00'$ for line 2/3. at Lot 3

deflect Rt $43^{\circ} 00'$ & same at Lot 4. Lt

Lot 5 deflect Rt $60^{\circ} 25'$

29 June. Same crew. deflect Rt $60^{\circ} 10'$ ^{Lot 6} _{110'} Train

2 July " " At hub on hill run

parallel base line set hubs for 7-8-9

P.M. set hubs for N line Road & set 1 Ms

for back Lots 9-8-7-6-5-4-3-2-1 Pl 2.

L N to W 7/8 is $112^{\circ} 00'$

L N to W Road to line Lot 1 ~~127~~ $66^{\circ} 18'$

3 July same crew. brush 7, 12, & at 13

change deflection L to Rt. $60^{\circ} 20'$ miss birch.

At 14 change to $76^{\circ} 00'$ Rt. Brush L. + 15

6 July. Same crew. Run 14 in from E end to miss

10' twin oak. set 1 Ms on back 15, 14, 13,

100-110-120-130-140-150-160-170-180-190-200

GEORGE
BEMIDJI

7 5-9-4172

BEITRAMI, CO
SURVEYOR

4225

29 Aug 55

cloudy & cool, windy.

Chuck Stuart 129

30 Aug 55

cloudy & cool, windy.

Delbert Friedrich

Survey of Lot 3 Plat of Shady Woods

Case & Grant Lot 5 Sec. 24 T. 147N R. 32W

20 Aug. I went to Pennington & copied
Plat of Shady Case, then to lake
& with Mr R.B. Juran & neighbors help
find some stakes on lots 1 & 3.

29 Aug. Chuck, Delb. & I set on NE
Cor. Lot 1 sight back stake & turn
54° 14' miss SE cor. Lot 1 by a foot.

Take alignment of stakes & run
East, hit SE cor. of Grant Lot 5, set
set on SW cor. of Lot 1 & turn

133° 35' from the line & hit Pinetree,
turn to miss (124° 05') & run in front
Stakes, check with tin on with only
one we found. Check back of
for alignment & distance.

30 Aug. 55. We chain 232.2 for back of Lot
7 from Gas pipe between 7/6 set hub.

Set on hub backsight back line &
turn 45° 57' run South 7.30° & miss
our approx. front stake by 3' to West.

Also running N. line of GAR. # 52, we hit
about 2-300' East, swing over to E &
run 712.5' & fail to find SE cor. Fall
short of Blazed 8" Birch & stake across
road. (Blazed Birch N.G.)

Page 143,
continued

Hibbing, Minnesota
November 26, 1957

On this 26th day of November 1957 we agree to sell to the Village of Longville for addition to the Riverside Cemetery 125 Feet East of Present Cemetery; plus 100 feet North of this tract and 100 feet North of present Cemetery that we now own for the sum of \$450.

\$10 hereby received, balance of \$440 to be paid upon receipt of deed.

Village of Longville to assume cost of survey etc.

Signed Ted M. Jordan

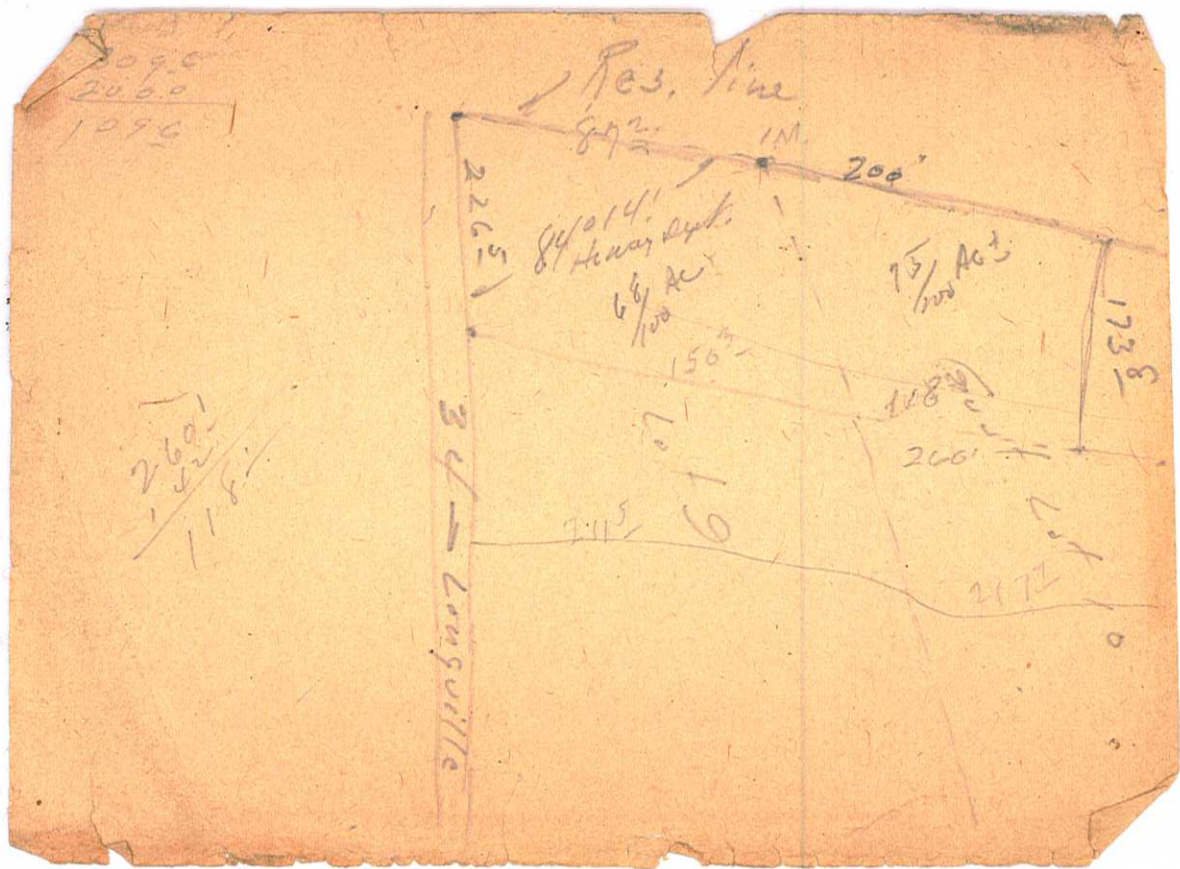
Signed Marilyn Jordan

Witness Riley Ford

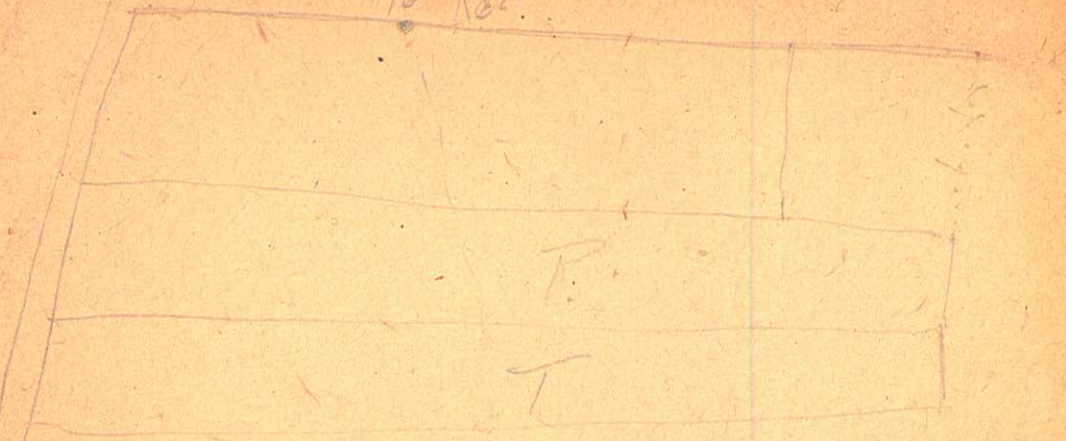
Witness Ray Tabaka

21 March 84° 40' N to E, angle \approx 84 R/W, to meet
 95° 45' L R/W with Res. line, West to So.
 84° 15' L R/W " " " E to 3.
 200' N from Trohays for Proper
 226⁵ from Proper, out over to Res. line,
 198² back of Proper's Lot.
 149⁴ NE cor. " to Res. line
 110⁴ along Res. line ^{from} Alley of Proper to Warrig⁵
 309⁶ " Res. line Alley W to $\frac{1}{4}$ 9/10.
 87² $\frac{1}{4}$ 9/10 W. to R/W.
 77° 55' L $\frac{1}{4}$ line So to E on lot ^{Trohays}
 260¹ NE cor. Proper W to $\frac{1}{4}$ line } ^{Proper's}
 150³ intersec. $\frac{1}{4}$ line to Plot ^{North} line
 217² in Lot 10 to $\frac{1}{4}$ line Proper So line.
 211⁵ " " 9 $\frac{1}{4}$ cor. R/W Proper So line.
 1 April 202° 52' L N to E to start West line with south line
 113° 06' 33⁵ SW corner tract to Q road, to Michelsons.

Plot of Longville, continued from
 Page 137 Book II. Bull Moose Trap.
 19 March '53. Everett Howard & I to Longville
 continue N. line ³ 34 West & at 2892⁷
 feet hit 28° - leg to south of 43610
 Brass cap bent over. Straightened up.
 U.S. plat, resurvey 1918 shows 3.48 ch.
 or 229⁶⁸ WC for $\frac{1}{4}$ $\frac{3}{4}$ W to $\frac{1}{4}$ cor. & 20.16
 ch. to $\frac{1}{4}$ cor. NW cor Goot Lot 13 or 1331⁸⁸
 20.17 ch. or 1331²². WC for $\frac{1}{4}$ to $\frac{1}{4}$ W is 1561¹
 (D) for NW cor. Lot 13 is 155' from our P line at 1561¹
 From this cor. to 572' feet to SW cor. Lot 13 & then
 continue south to 784⁸ to MC. on Girl Lake
 see page 137 Book II. 1356¹ NW cor. Lot 13 to Lot MC
 20 March same crew set inter section W $\frac{1}{4}$ line & W
 $\frac{1}{4}$ line, intersect at 15238 feet MC. 2880² $\frac{1}{4}$ section
 From MC. on E-W $\frac{1}{4}$ line west 616⁵ feet to intersect
 N $\frac{1}{4}$ line. 83⁷ So. of N.E. on W $\frac{1}{4}$ line to cor. Lot 208
 21 March same crew ran out 2 lots north of
 Trohays to Reservoir on line. From Trohays
 NW cor. run 200' parallel north \approx 84, set W. (Page 132)
 April same crew set 1 M. on N $\frac{1}{4}$ line for W $\frac{1}{4}$ cor.
 NE, SW & SE cor. for plant. W from 39 273¹ to 1 M.
 south 350' turn 102° 52' run E 93° 5' & rd. 333²
 to R/W #39. W 306⁰ feet to NE cor. along #39.
 We then opened the line between Goot Lots
 2 & 8, & set 2 $\frac{1}{2}$ x 20" iron at Girl Lake.
 (to N. of 28 March to 30 March) run 21 March.



Vio Red



$$\begin{array}{r} 5123 \\ 1356 \\ \hline \end{array}$$

$$\begin{array}{r} 14501 \\ 1234 \\ 832 \\ \hline \end{array}$$

548⁸ Bartlett NE cor Newby line to $\frac{1}{2}$ cor $\frac{1}{2}$

22 July clear & cool.

28 Oct. 53 clear & warm.

22 July 53 Doug, Joe, Howard & L. Longville
re-can & checked 3 stakes, Burton's & Bird's eyes, all
measurements OK & set further to about 4 feet

28 October 1953. Doug & I laid out
the SE 75' of Robt Elwell property
setting 2" x 24" Ws.

17 October 1954.

R. Manders clear & warm
W. 300 in W

Ralph & I found Austin's SE
Stake, bent by dozer, we replaced
it, set over it, sighted SW cor, turned
90° S., setting hubs at 100, 200 & 300
feet. From these we turned 90°
& ran E to #39 & W to Girl Lake.
Lot 1 (west to Austin) 101' along
#39 339' to Lake, 103' along lake
North side 351 feet.

Lot 2. 100' along #39, 304' on SW
side, 109' on lake & 339' on NE

Lot 3. 101' along #39, 275' to
Lake SW side; 109' along lake &
304' on NE side.

140

21 May 54, clear & mild. Doug Farrington 141
v. J. J. J. J.
36 Survey of Part of Gout Lot 4

Sec. 15 - 140 - 29.
21 May 54 Doug Farrington & I to
* Sorenson's. Chain 50' NELY from
Thirys NE cor. (Page 97) set I.M.
Jiggle in on hill for line from lake
SE 1/4 to 1/4 line. Chain 317⁰' E from
Thirys SE cor. (which is 260' E of 1/4 cor.)
set I.M. deflecⁿ 133° 01' S
run N 43° 01' W 424² to Childs lake,
thence S by 50' along slope,
thence South // with West sec line
270' to PT on E-W 1/4 line 260' E of 1/4 cor.

Sorenson's for Henning.

31 Aug. clear & cool - mild.
1 Sept. 55 clear & warm.

G. Stuart.

143

D. Frederick.

W.J. 3.11.

From Page 129.

Shady Cove & Grant Lot 5 324 T 147 N R 33 W

Fail to find sec. cor. but find BTs.

Mr. Wick not much help. call Co. Li-
may Engrs. office. Go to town

see Ernie Bourgoise^(?) buy map (sat)

No help Co Engr or Surveyor, but

Asst Co Engr. gave me ties to sec cor

$\frac{14}{23} \frac{13}{29}$ & NW cor. Shady Cove.

Chuck & Delb. brush out & chain 764'

on Erling Grant Lot 5. Also brush out

150' across from bet 1/2 & 4/5.

31. Aug. 55. Chuck, Delbert & I run N 7° 36'

from SE cor. Grant Lot 5 (89° 45' int. C.) & at

1318° hit 0.8 W of 1/4 cor. NE cor. then

cutts for 1323°. We run from this cor 383° 1/2 W

& at 1322° hit 35' N of 1/4 cor. From which

we brush line East about 100' as marker

for Mr. R. B. Juran. We locate sec cor $\frac{14}{23} \frac{13}{29}$

from road ties & at 155° N of NE cor Lot

7, Shady Cove turn Rt. 90° run 1529' &

find 2 old 1x1x12" hubs. Deflect 17

135° 47' & at 233° Berge's cor & at

383° Juran's corner. (Chuck home 4:30)

Delbert & I brush out NW & NE to 52

getting off R. L. Berge's back Lot 5. End

2

P. S. Surani

1101 Tival Hills Tract

Capita 4-9661

Ke. 9028

P. 150 = 31 Aug.

1 Sept. 1955. Deibert & I run out
back lines 150' deep & 150' parallel
with ≈ 52 . Deflect $\approx 90^\circ$ & run 160'
to RLW ≈ 52 . Hence ≈ 52 parallel with
road 120' to the line.

Show Mr R. S. Surani all lines & corners,
then to Bemidji & see Reg. of Deeds
about designation as a tract.

Different owners used different
numbers in deeds. No can change.

Bot 8 per 1" gas pipe (125') & Deib
& I put them in place.

Set sec corner $\frac{1}{4}$ from road ties,
& rerun declive from Plat. of Shady
Cove to 1/4 cor. & 1/4 cor. & Surani line.

To set Judicial landmark monum-
ents later at leisure or convenience.

Set 1/4's in Nov. except 2 in B Road.

5 Sept. 55. clear warm. Delb. Frederick. 147
 6 Sept. 55. clear & warm. B. Smith. 245. 2. 11
 Survey for M.C.'s & 1/4 cor. on 10th St.
 parallel on south side Sec. 31 T141
 R. 30. & for Rechecks was due to suit.
 5 Sept. 1300. Delb. Ben & I hunt
 for M.C.'s on E & W sides of small
 bog. We fail to find them, so
 open line by Minn. Survey Dept.
 from 371 West to 10th St. 400.
 Find M.C.'s by Guro to West & in
 bog on West shore near Al. Thomas.
 6 Sept. Delb. Ben & I to M.C. 513⁴⁰
 W of 1/4 cor. sight one on West shore
 plunge & run East at 513⁴⁸ 1/4 cor.
 from 1/4 East 198' to West
 side small bog & holes into
 our line across bog (from 341).
 Still unable to find M.C.
 which were there in 1947.

Total for Smith 128¹⁶ ✓
 if Kraft pays all or 1/2 187¹⁶

7 Sept. '55. clear & cool
 8 " " " clear & cool
 12 " " " clear & warm
 Jurvey for N/E 600'

Lot 7 Sec. 28 ~~725 N.~~ ^{west of} check for T.R.
 7 Sept. '55. Debert & I to Remer
 to Little Sand Lake, find SE cor of
 28 & 1/4. Brush out from Road West
 to ditch.

8 Sept. '55. No check with 2nd line maps &
 U.S. Forestry. U.S.F. show all corners
 in on south side & serial maps show
 ditch practically on sec. line. We find
 1/4 29/28. On south R. line we @ 395' S
 & continue west. Chain from SE sec cor to 1/4.

12 Sept. '55

Do not find the cor. so continue W
 & at 2645 hunt for sec. cor. (No find)
 We then picket the west sec. line south
 from 1/4 28/29 & find it checks out ok.
 They we set off the E 1/4 W 1/4 E 2
 & set stakes at Lake shore & Road NW
 on Precept. Finis.

28-142-26



240
387
 627

350
2445
 5945
4065
 9945

Emil Anderson.
NW⁴/NW⁴ SEC 32 T139 - R30.

Kept: com. at NW cor of
said tract as pt of beg. There
is along W line of said tract
a dist of 933'. Then E 112 N
line of said tract 400' to pt.,
thence N 11 to W line of said tract
a dist of 933' to a pt on W line
of said tract, thence W along N line
a dist of 400' to pt of beg.
also.

Comm at a pt on N line to said tract 400' E
of NW cor as pt of beg. Then South
11 to W line of said tract a dist of 333'
to pt, thence E 11 to N line 500'
to pt, thence N 11 to W line 333'
to pt on N line of said tract, thence
W along N line of said tract 500'
to pt of beg.

also, recorded 2 David & Bally Hermitage
4 Aug 48, filed Sept 49 and 102 D. 179.

Survey for Emil
Anderson at pt of Labor Dept.

$\begin{array}{r} 5.35 \\ 5.23 \\ \hline 57.70 \end{array}$	$\begin{array}{r} 294.8 \\ 1506.6 \\ \hline 1801.4 \\ 66.5 \\ \hline 1867.9 \\ 137.31 \\ \hline 2005.21 \\ 26.9 \\ \hline 2032.11 \\ 108.00 \\ \hline 2140.11 \\ 66.5 \\ \hline 2206.61 \\ 293.4 \\ \hline 2499.99 \end{array}$
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Form 1020

Original

NORTHERN PACIFIC RAILWAY COMPANY

NO. 52239

MEMO OF PURCHASE

Sold to W. J. Spain Brainerd 9/26 1954

Delivered by _____

QUANTITY	DESCRIPTION	VALUE
210 [#]	Sgs glue	630

Signature A. T. Holden
C.W.

1306.57 R
 90°
 change at 1/4
 U to 75 N I.M.
 39' 24" α = 00° 20' 36"
 E I.M. = 00° 13'

294.6	1306.57
66.5	66.5
<u>361.1</u>	294.6
	<u>1667.67</u>
1695.7	20.0
361.1	13.0
<u>1334.6</u>	221.50
	35.1
	<u>156.50</u>
	221.50
	15
	<u>13650</u>

34° 36'

from 1/4 to 13182 to 1/10 I.M.
 L of Lot 1 \square 225' - 75'
 dist $\frac{1}{4}$ between pipe 665
 35° 27'
 2946
 1306 + 057 = 1306.57 to I.M. hit
 7.85' N of I.M.
 172' = south side of lot.
 294.5
 66.5
361.0

Return in 5 days to
BACKUS STATE BANK
Backus, Minnesota

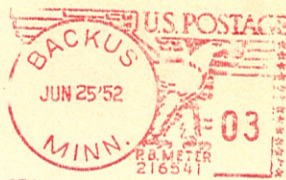
10.55
 10.55
 3.05
 68° E 13.55
 38° E 13.35
 20 12.20
 12.9
 2.6
 18.7 13.5

N 68° E
 34
 N 34 E
 bend to
 H.W. J. line
 Pine River

141.3
 122.7
 2640

3463
 5.4
 13.45
 0.10
 13.10

Wm. Spain Jr.
 Hackensack, Minn.



SEC. 34.66 PL. & R.

BACKUS STATE BANK

Backus, Minn., 195

MR. *Wm Spain Jr.*

d.

Your note will be due at this bank on *July 7* 195 *2*
as follows:

Principal	\$.....	<i>56.70</i>
Interest	\$.....	<i>4.10</i>
Total DUE	\$.....	<i>60.80</i>

In order to keep your credit good it is important that you take care of this promptly. A charge of 25 cents will be made for all past due notices.

This must be taken care of Bill. We just can't carry them this long overdue.

Yours very truly,
Backus State Bank

PLEASE RETURN THIS NOTICE WITH YOUR PAYMENT

YOUR PROMPT ATTENTION REQUESTED. Good business sense prohibits our carrying papers that are past due. It is not a question of whether or not your note is good. It simply must be taken care of, for past due papers, no matter how good, cannot be carried. We must insist, therefore, that you arrange to take care of this matter immediately. How promptly you do this will have an influence on your future credit standing with this bank. Furthermore, if you delay, expenses will accrue against you.

Young & Pfg. Serv. Hackensack

90° Northward from
back line of Block
7 pakeside/Addr. on
deflect. 0.50' LT from NW
line of Lot ~~6~~ \square There
run Northward 190'
To shake Birch hole.
Then - July along said
shore $\frac{1875'}{90'}$ to apt
Thence by East to $\frac{10'}{90'}$
NW cor to apt 10 \square
Lakeside Addr. Thence
along N line of \square to pt. 1/2 way.

1 Sept. 55
 1. 1000 John Langel & check
 stakes on back of Block 1 Plot
 of Long Beach & find stake (IM)
 by Carlo is 3.55 feet short of
 the 105' for lots 21 & 22.

We fail to find any front
 stakes that are originals & that
 check with anything.

2. Sept. 55. We check with Dick
 Gardisch & Mace Lathrop. Dick
 says the stakes near their
 street & bathhouse have been
 moved due to high water & shows
 us approximately where they were
 originally. Also shows us back (IM) for
 SE stake on Lake Street.

Mace Lathrop shows us his old property
 line, corners to Lot 1 Block 2 & Dr. Anderson
 present owner states that a 2 1/2" iron pipe
 in concrete near corner is his
 bench and meridian stand.

We check by chain & find that
 the bathhouse (Hensels) is just
 inside their line, measuring from
 original stakes in Block 2.

(See Page 153)

Survey to check Plot of Long
 Beach. Lot 1. Sec. 11 - 140-31. Lots
 21 & 22 Block 1.

28 Sept. 55. Byron, Burton & I to
 Ten Mile. Set flag on 11/12
 & set transit on cor ^{11/12} 11/13, chain to
 on Sec. line & at 131.37 found 2" x 48" IM
 0.5' E of line, & broken off 1 foot below
 ground. Set on point 0.5 W of 1/2 IM
 & turn 90° 45' West from N & run West,
 & hit 7.85' N of IM for SE corner
 street. correct our line & get

89° 39' 24" angle from line hub to
 true line between M. S. 00° 20' 36".

Find 2 1/4" poplar trees as BTs for 1/2 IM.
 Fail to find IM. 66.5' West, continue
 to Lake & at 16.95' set hub.

29 Sept. Byron, Burton & I set point
 at 66.5' W of IM for SE cor Lake Street &
 set over it turned 35° 27' E to N. & find
 it fits the back line of Block 1. Did
 not chain as buildings are in line.

Set over hub at 16.95', turn 35° 27'
 & run 750' to angle point, turn 192° 57'
 & at 450 & 550' set 2 x 24" IMs for SW & NW
 corners to lots 21 & 22. Get 172' between
 front & back. Eaves of bathhouse are over
 on lot 20 at SW corner. Carlo's stakes are
 4' N & approximately 15' E of mine on front.

8 Oct. 55. clear even. Jack Peterson 155
10 11 55 clear & warm. W. 3 pm - 11

Survey for Grant Lots 5, 6, 7 & 8, Sec.
22 T139N. R. 30 W.

8 Oct. 1300. Arrived at Snare's E. side
Snare, Mr. Powers, & I find 1/4 sec
 $\frac{22}{29}$, joined by Frank Peplitch. We
cruise North & find fence corners
for 1/4 & center of sec. Find 1/2 22/23
but N.C. just North is missing.
Frank has steel fence post approx.
of location.

10 Oct. 55 Jack Peterson, E. Snare,
Mr. Powers & I open N-3 & sec.
Look for N.C. west side Sand bar where
Not in. Stake 33' South & plotted
property. Unable to find N.C. on
lot 3 across Fairy Lake.

Get over 1/4 22/23 sight Frank's
Stake for N.C., plunge run South
& miss small stake in yard by
8 feet to East. We then go to SW.

Oct. Dec. 22, run N 8° 15' W & across
Fairy Lake, hit into Curio's old line
Brush out & hit Frank Peplitch's
house. Had to swing over East across
Fairy Lake to follow old line.
Tue AM. © 43' E to miss Frank Peplitch's hse.

11 Oct 55. clear & warm. Jack Peterson. 157
W.D. Smith

11 Oct 55. Jack Peterson, Ernest Ingre
& I chain west sec line North
from sec cor ^{23/23} at 195' hub on
lake shore, 263' across bay by
Stadia. Run Random line N to
1/4 sec. After 043' E miss 1M. 25' 5"
to W is 685. E to cor & 4' N,
3892 + 44 = 394' from 3/4 N to 1/4 cor.
2642' from sec cor to 1/4 cor 22/23

13 Oct 55 Jack & I chain N-S & from
1/4 ^{23/27} N to 1/4 cor get 1322'
(E Ingre had to 1/2 line brushed out W to
#87. on 12 Oct.) We set over Temp
3/4 cor on E sec line & run west & at
2677' to a point 5.0 feet south of
1/4 cor on N-S &

15th Oct 55 Ernest & I check angles
& at 1/4 ^{23/27} E to N get 91°32', Lat
^{23/23}_{27/21} N to N get 90°09', Lat our.
Intersections R lines E sec & to 1/2 line
N to W 89°55' correct point for
1/4 cor is at 1321' N of sec cor & 34' 25"
E on our R line.

154 13.1 diff. 347 to H20. E

T.P. 5+23	12.87	4+71 to 4+81	H20
	3.17	10.7	18.7
B.M. elev. 113.55	9.90	4+67	15.8
CONC. Ecor. door sill	0.00	9.5	4.5
B.M. Lake level. 100	13.55	4+12	10.50
	4.9	5.0	5+27
H.I. = 13.55	61	17	9.2
	22	5	14.3
	4.3	2.8	2
	5.5	3.8	
		3.4	
		5.0	
		3.1	
		5.0	
		6.0	
		7.0	
		7.8	
		2.1	
		2.8	
		7.6	
		2.6	
		2.5	
		6.7	
		1.35	
		9.7	
		3.7	
		14.05	
		8.0	
		3.1	
		0.57	
		6.1	
		1.0	
		0.21	
		6.0	
		1.1	
		0.40	
		6.9	
		1.9	
		-3.3	
		5.4	
		0.5	

€ Road.

18 Oct. Clear & mild. Jack Peterson 159
W.J.S.P.R.

Topog. survey for H. J. Hines P.R. for
Hendrickson, Arch. plan for House

18 October 1955. Jack Peterson & I to
Hines on Norway Lake. Set stakes
on breaks in line from NE cor.
westward to the lake, ran profile
on line as per page 158. Then took
Topog for trees, well, Bldg, etc.

8' Lt. 4+40 clump 5 Birches 4-12"
21' Rt. 4+31 clump 10 Birches 3 to 8"
81' Rt. 4+20 3" pipe, breather septic tank.
3' Lt. 4+07 8x12 Bldg.
55' Rt. 3+90 22" N.P.
57' Rt. 3+77 10" J.P. & 32' Lt. 20" N.P.
Two small J.P. at Rt & Lt. 3+40.
5' Rt. 3+96 to Edge 15x22' Barn.
4' Rt. 3+81 to edge 15x22' Barn.
7-9' Rt. 4+02 to 4+16 Root collar 14x20'

ALL AL AN AU BA BA BE BE BL BL BR BR BU BU CA CA

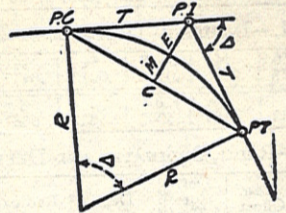
Sta.	+3	41	-3	elev.	FB WLSA
BM. cor. Abk	6.50	106.50		100	443.40
Top step W		7.65		98.85	
2nd step W		8.83		97.67	
3rd step W		10.13		96.07	dropped 1.15
Rock		9.40		97.10	
"		9.50		97.00	
2d step E. side		10.30		96.20	
Rock End		9.60		96.90	
Rock End		9.80		96.70	

Sta	Road	Long.	119.	193	cut	52.	Elev.
100 NW							100
#1			8.7				91.3
#2			6.6	2.1			93.4
#3			4.3	4.5			95.7
#4			4.5	4.3			95.5
#5			4.3	4.5			95.7
#6			6.5	2.3			
#7			6.0	2.8			
#8			5.8	3.1			
			6.1	2.8			
			6.1	2.8			

8.65 8.7 91.3 6.6 93.4 93.4

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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CURVE FORMULAS

- Radius = $R = \frac{50}{\sin \frac{D}{2}}$ (1) Degree of Curve = D and $\sin \frac{D}{2} = \frac{50}{R}$ (2)
- Tangent = $T = R \tan \frac{\Delta}{2}$ (3) Length of Curve = $L = 100 \frac{\Delta}{D}$ (4)
- Middle ordinate = $M = R(1 - \cos \frac{\Delta}{2})$ (5) = $R \text{vers} \frac{\Delta}{2}$ (6)
- External = $E = T \tan \frac{\Delta}{4} = R \div \cos \frac{\Delta}{4} - R$ (8) = $R \text{exsec} \frac{\Delta}{4}$ (9)
- Long Chord = $C = 2 R \sin \frac{\Delta}{2}$ (10) Δ = Central Angle

EXPLANATION AND USE OF TABLES

Stations.—Given P. I. = Sta. 161 + 60.35 to find Sta. of P. C. and P. T. $\Delta = 62^\circ 10'$ $D = 8^\circ 20'$. From Table IV for 1° curve $T = 3454.1$ and $+8\frac{1}{2} = 414.49$ ft. From Table V correction = .36 or $T = 414.85$ ft. P. C. = Sta. P. I. - $T = 157 + 45.50$. Also from (4) $L = 746.00$ and P. T. = Sta. P. C. + $L = 164 + 91.50$.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft. = 7.27 ft. Distance = $158 - \text{Sta. P. C.} = 54.50$, hence offset = $7.27 (54.50 \div 100)^2 = 2.16$ ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2 \div (2 \times 688.26) = 2.16$ ft.

Deflections.—Deflection angle = $\frac{1}{2} D$ for 100 ft., $\frac{1}{4} D$ for 50 ft., etc. For c ft. = (in minutes) $.3 \times C \times D^\circ$ or = defl. for 1 ft. from Table III $\times C$. For Sta. 158 of above curve = $.3 \times 54.5 \times 8\frac{1}{2} = 136.2'$ or $2^\circ 16.2'$, or = $2.50 \times 54.5 = 136.2'$ from Table III. For Sta. 159 deflection angle = $2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 91.37. For from Table IV for 1° curve $E = 960.6$ for $8^\circ 20' = 960.6 \div 8\frac{1}{2} = 91.27$ and from Table V correction = .10 or $E = 91.37$ ft. Or suppose $\Delta = 32^\circ$ and E is measured and found to be 42 ft. What is D ? From Table IV $E = 230.9$ and $\div 42 = 5.5$ or $D = 5^\circ 30'$.

Mountain scenery.

The path uphill around the pile
 We common that, timbering & mining
 much could be avoided about the place
 this blessing to the human race.

It stands in majesty above
 and better even than a theme
 The carpen built it by hand
 and backward flamed with smoke and wind.

The moorh from mountains back to hills
 beneath the forest cooling
 concealed with brush, ferns & herbs.

My moorland stand & air more hard
 J.W. Grayley

DISTANCES FROM CENTER OF ROADWAY FOR
 CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1 1/2
 For Single Track Embankment.

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

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

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