

22

C

Range 25 W. of 5th P.M.

Survey Record	Twp.	Sections.	Survey Record	Twp.	Sections.
377	141	14, 15, 16, 21, 22, 23.			
378	141	7-8-9-10-15-16-17-18-21-22-27-28.			
378	141	7-8-17-18.			
379	141	7-8-9-10-15-16-17-18-21-22-27-28.			
401	142	17-19-20-29-30-31.			
413	143	7.			
414	144	30-31.			
415	144	7-18-19.			
416	143	2-3-10-11-12-13-14-15.			
416	144	26-27-28-29-34-35.			

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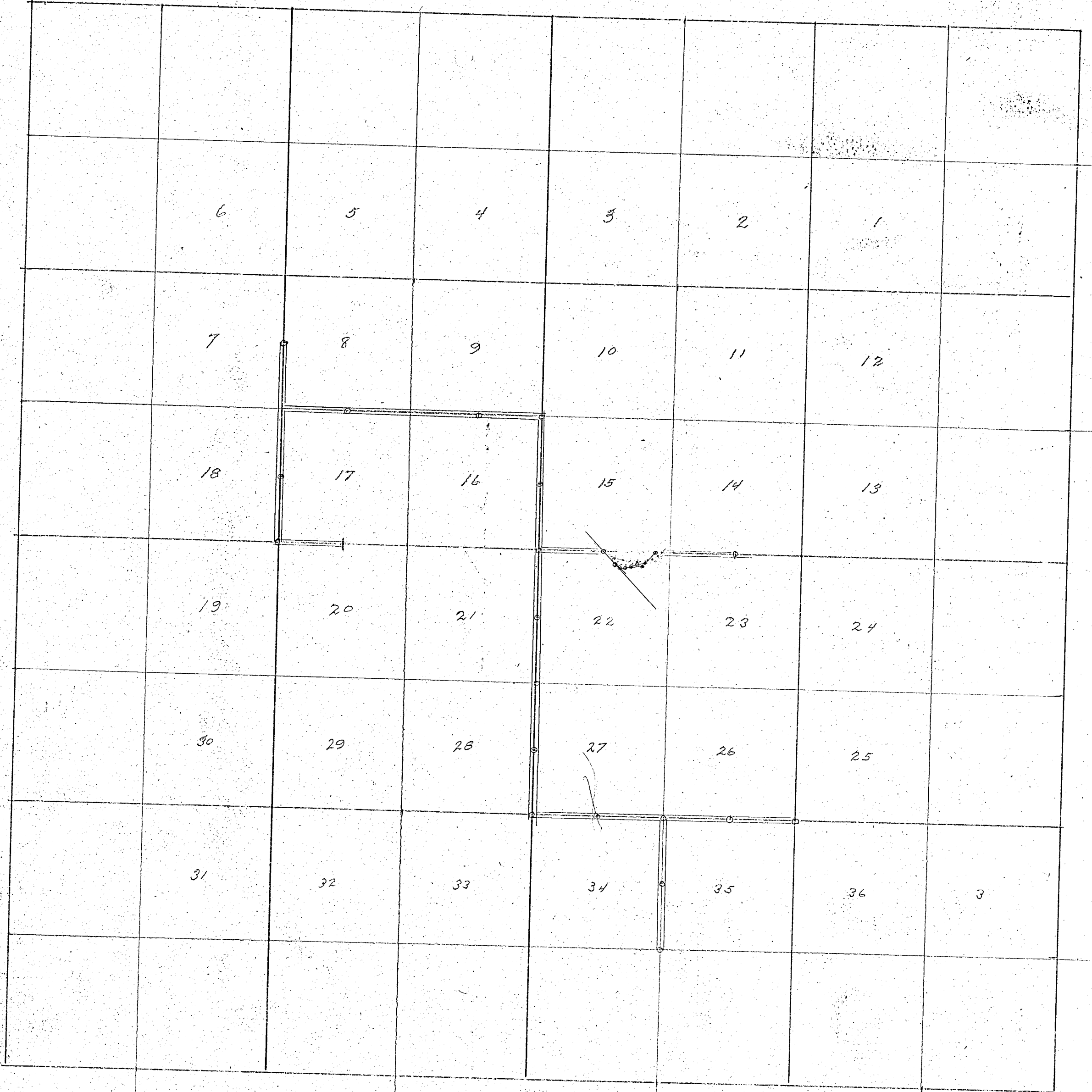
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Survey Record	Page to Page	Twp.	Range	Sections
377	32 " 35	141	25	14-15-16-21-22-23
378	36 " 38	141	25	7-8-9-10-15-16-17-18-21-22-27-28.
"	39 " 40	141	25	7-8-17-18
379	41 "	141	25	7-8-9-10-15-16-17-18-21-22-27-28.
380	42 " 43	143	26	16-21-28.
381	44 " 46	142	31	7. subdiv.
382	47 " 51	135	32	2-3-10-11-14-15-20-21-22-23-26-27-28-29-33-34.
"	47 " 51	136	32	34-35.
383	52 " 56	141	30	6-7-8-9-10-11-12-13-14-15-16-17-18.
384	57 " 60	136	29	4. subdiv.
385	61 " 63	138	31	6-7-18-19-30-31.
"	61 " 63	138	32	1-12-13-24-25-36.
386	64 " 66	137	32	1-2-3-4-5-6-10-11-12-13-14-15-16-21-22-27-28-29-30-31-32-33.
"	64 " 66	138	32	32-33
387	67 " 71	140	28	13-14-15-16-17-20-21-22-23-24-26-27.
388	72 " 76	135	30	27-28-29-30-31-32-33-34.
389	77 " 79	143	31	16-17-18-19-20-29-30
390	80 " 82	140	28	18-19-20-30.
"	80 " 82	140	29	13-24-25
391	83 " 87	133	31	3-4-8-9-10-14-15-16-17-21-22-23.
392	88 " 91	134	30	3-4-5-6-7-8-9-10.
"	88 " 91	134	31	1-2-11-12.
393	92 " 94	145	31	5-8.
"	92 " 94	146	31	32.
394	96 " 97	136	30	13-14-23-24-25-26-35-36.
395	98 " 99	134	29	7-18-19-30-31.
"	" "	134	30	12-13-24-25-36.
396	100 - 102	139	29	2-11-16-17-18-19-20-21.
397	104 - 106	140	30	8-14-17-20-21.
398	106 - 109	136	32	14-15-16-17-18-19-20-21-22-23-27-28-29-30.
399	110 - 125	141	31	3-4-5-6-8-9-10-14-17.
"	" "	142	31	31-32-33.
400	126 - 130	133	29	5-6-8-9-16-21.
"	" "	134	29	31-32.

Survey Record	Page to	Page	Twp.	Rge.	Sections	Survey Record	Page to	Page	Twp.	Rge.	Sections
401	131	136	142	25	17-19-20-29-30-31.	435	340	347	141	27	6-7.
402	137	142	136	29	5-7-8-9-17.	"	"	"	141	28	1-12
403	142	145	136	29	6-7.	"	"	"	142	27	30-31
"	"	"	"	30	1-2-3-10-11-12.	"	"	"	142	28	{1-2-11-12-13-14-15 23-24-25-26-36.
404	145	148	136	29	7-8-9-16-17-18.	"	"	"	143	27	19-20-29-30-31.
405	149	152	143	26	20-28-29-30-32.	"	"	"	143	28	24-25-36.
406	153	154	140	27	5-6	436	348	350	139	29	{14-15-16-21-22-23-24 25-26-27-28-33-34-35.
"	"	"	141	27	31-32.	437	351	355	141	26	10-11-12-13-15-22-23-24.
407	156	157	140	29	4-8-9-10-16.	438	356	358	{136 137	{31 31	3-4. 26-27-28-33-34-35.
408	158	159	137	32	1-2.	439	359	361	{139 140	{29 29	3-4-10. 34.
"	"	"	138	32	2-3-24-25-26-35-36.	440	362	363	138	30	29-30-31-32.
409	160	161	143	26	27-28-29-32-33-34.	441	364	365	138	30	1-2-11-12.
410	162	163	143	26	20-21-28-29.	442	366	377	135	32	13 to 24 inclusive.
411	164	167	142	26	7-8-9-15-16-17-18-22-23.	"	"	"	135	30	13 to 24, "
412	168	169	141	26	2.	"	"	"	"	29	18-19.
"	"	"	142	26	35.	443	374-378-379		{141 141	{27 26	22-23-24-25-26-27-28. 19-30.
413	171	173	143	25	7.	444	380	382	{134 135	{29 29	5-6. 31-32.
"	"	"	143	26	1-2-10-11-12-13-14-15-22.	445	383	385	141	26	{10-11-12-13-14 15-22-23-24.
414	174	176	144	25	30-31.	446	386	388	142	26	4,5,6,7,8,9-16-17-18.
"	"	"	144	26	25-26-27-34-35-36.	447	389	391	138	31	{1-2-12-15-16 21-22-27-28. 17-18-19-20-29-30.
415	177	181	144	25	7-18-19.	448	393	397	{143 143 138 139	{27 28 30 31	13-24-25. 1-2-3. 5-6. 31-32.
"	"	"	143	26	2-3-10.	449	398	399	{138 139	{31 31	1-2-3-4-5-6. 31-32-33.
"	"	"	144	26	12-13-14-22-23-24-26-27.	450	400	401	139	31	31-32-33.
416	182	185	143	25	2-3-10-11-12-13-14-15.	451	402	403	138	32	1-2-3-10-11-12-14-15-22-23 26-27-34-35
"	"	"	144	25	26-27-28-29-34-35.	452	404	405	137	32	2-3-10-11-14-15-22-23-34-35
417	186	187	141	26.	22-23.	453	406	407	136	31	31
418	188	190	138	31	2.	454	408	409	135	32	1-12-13-24-25-36.
"	"	"	139	31	22-23-24-25-26-27-35.	455	410	411	134 133	31 31	6-7-18-19-30-31. 6-7.
19	191	193	138	30	6-7.	456	412	414	135	30	S.-26-subdivision.
"	"	"	138	31	1-11-12-13-14-23-24.	457	415	417	142	26	S.-26-
20	194	195	141	26	2-3.	458	418	420	141	26	S-36-
"	"	"	142	26	34-35.	459	421	424	138	31	S-7-
21	196	198	138	32	18-19-30-31.	460	425	429	138	30	S-6-
22	199	202	140	28	2-3-4-9-10-11-14-15-16.	461	430	431	144	31	11-12-14.
23	203	212	141	28	31-32.	462	432	436	142	27	5-6-7-8-17-18-19-20- 14-15-22-23.
"	"	"	140	29	1-2-10-11.						
"	"	"	141	29-36	15-16-17-18-19-20-21.						
"	"	"	140	30	13-14-16-17-20-21-23-24.						
424	214	221	141	29	30-31.						
"	"	"	140	30	1-2-11-12.						
"	"	"	141	30	35-36-25.						
425	222	224	140	30	1-2-11-12.						
"	"	"	141	30	35-36.						
426	225	227	140	29	6-7-18-19.						
"	"	"	140	30	1-2-11-12-13-14-23-24.						
427	228	229	139	29	9-10-16.						
428	230	231	136	29	4-5-6-7-8-9.						
429	232	248	140	29	1-2-3-10-11-12-14-15.						
"	"	"	141	29	34-35-36.						
430	250	252	136	30	8-9-10-11-14-15-16-17.						
431	253	271	141	29	7-8-16-17-18-19-20-21-29-30						
"	"	"	141	30	13-24.						
432	272	281	143	28	2-3.						
"	"	"	144	28	22-23-26-27-28-34-35.						
433	283	288	137	30	6.						
"	"	"	137	31	1-2-12.						
"	"	"	138	31	36.						
434	289	339	139	27	6-7-18-19-30-31.						
"	"	"	139	28	1 to 36 inclusive.						
"	"	"	139	29	1-12-13-24-25-36.						
"	"	"	140	27	31.						
"	"	"	140	28	31 to 36 inclusive.						
"	"	"	140	29	36.						

Survey Record	Page ^{to} Page	Twp.	Rge.	Sections:
463	437 439	140	30	18-19-30.
		140	31	13-24-25.
464	440 444	140	30	5.17- subdivision.
465	445 456	141	31	5.30-31, subdiv.
466	448 451	134	29	15-16-21-22-27-28-29-32- -33-34.
467	457 469	141	30	5-30, subdiv.
		141	31.	5-25-26, subdiv.
468	468 473	142	31.	5.18- subdiv.

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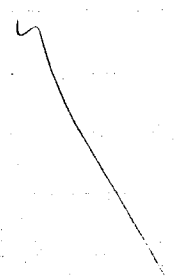


40 22
2 05
4 527
1 57
4394

504L
4198
855 504L

N 31 E

2640
575
2065
250



Report on Saylor Road in the the Township of Lima Cass Co. Minn.

Beginning at the North-West corner of section twenty two (22) said Township of Lima, said corner is in the center of a Township road surveyed by the undersigned in July 1913. I marked new bearings To Wit: White Pine (stump) 20 N. 61 E. 42 ft. Large Boulder 36 N. 49-30 W. 37.5 ft. Then S, 89 degrees 6 52 minutes east along the section line between sections fifteen (15) + said section twenty two (22) said town of Lima.

- Station 2 + 50. old wagon road, north.
- " 4 + 36 culvert
- " 6 old wagon road, S. So. E.
- " 7 + 75 culvert.
- " 14 "
- " 15 + 30 "
- " 16 + 65 old wagon road, north and south.
- " 18 + 26 " " " " " "
- " 18 + 57 enter grass land.
- " 20 + 50 leave grass land. Enter Tamarac and spruce swamp.
- " 24 culvert
- " 26 + 18 1/4 S. 15-22. Leave. " " " "

26+18' 1/4 Cor. 15-22

The quarter Post for aforesaid sections 15 and 22 were:
 Tamarac 8 S. 20 W. 16 links.
 " 7 N. 15 W. 7 links. now is:
 Tamarac (stub) 9 S. 20 W. 16 links.
 " (burned stump) 7 N. 15 W. 7 links.

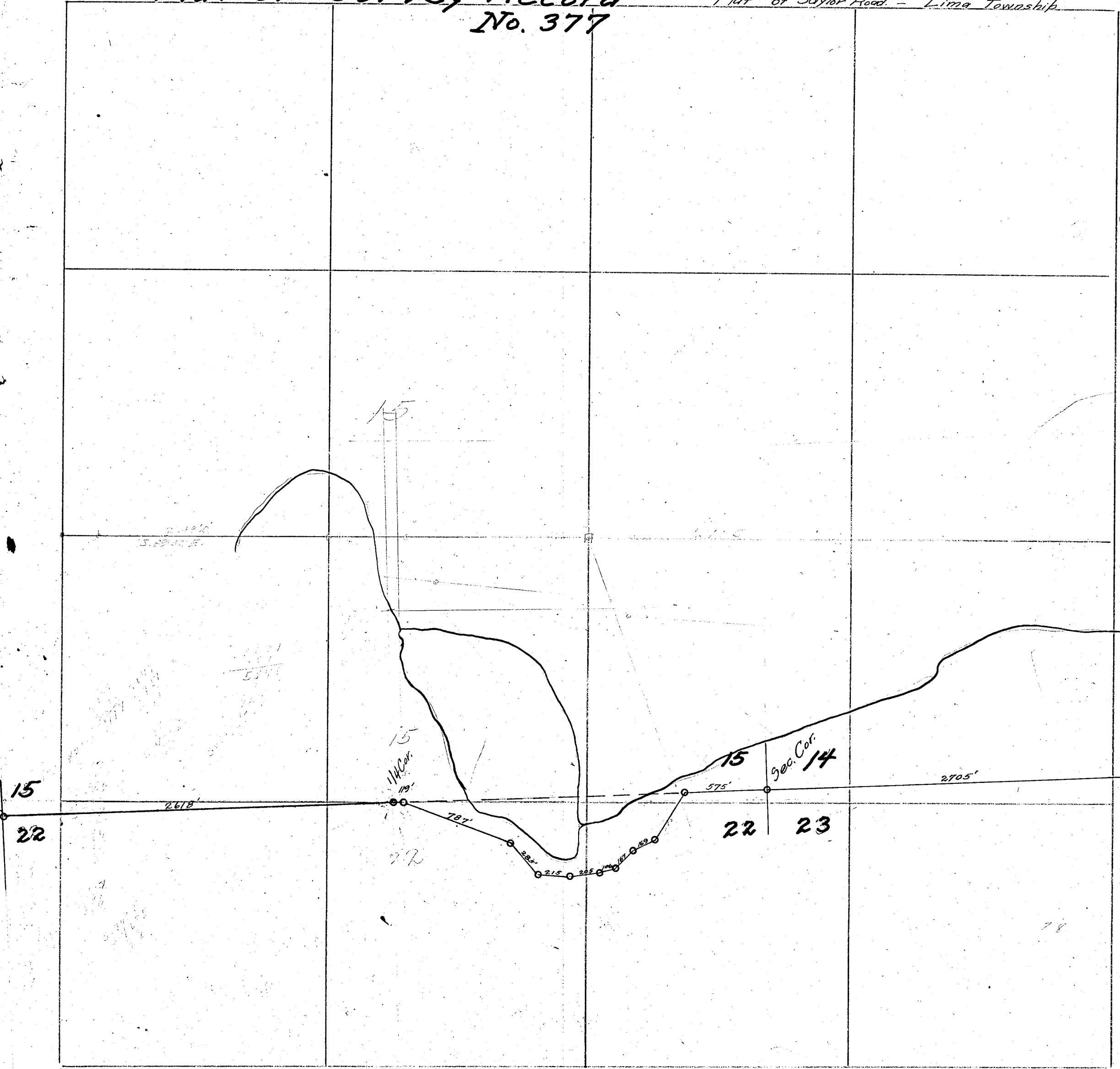
marked new bearings, to wit:
 White pine 10 N. 22 degrees and 15 minutes East 33.7 ft.
 Jam. stump 15 S. 32 " " 15 " West 27.4 ft.

- Then continued along said section line N. 89 degrees and 45' E.
- . Station 27 + 37 hub leave section line S. 70 E. 787 ft. across lake.
 - " 28 + 49 culvert.
 - " 29 old logging road E. & W.
 - " 29 + 50 enter poplar and elm timber and brush.
 - " 31 + 76 Balm of Gilead stump on line.
 - " 34 + 62 culvert.
 - " 34 + 96 old logging road N. & S.
 - " 37 + 22 hub, then S. 42 E. 285 ft.
 - " 37 foot of ridge.
 - " 38 + 07 top of ridge. then S. 86 E 215 ft. along ridge.
 - " 40 + 22 on ridge. N 205 ft. E 82 ft.
 - " 42 + 29 106 ft N. 76 ft E.
 - " 43 + 35 167 ft N. 45 ft E.
 - " 44 + 98 169 ft N. 62 ft E. end of ridge.
 - " 47 + 65 cross old R. R. grade.
 - " 50 + 46 intersect section line between said sec., 15-22; 575 ft W of corner sec., 14, 15, 22, 23.
 - " 51 Enter timber.
 - " 54 + 25 Enter tamarac swamp
 - " 56 + 10 culvert

16
21

Plat of Survey Record No. 377

Plat of Saylor Road - Lima Township



14-15-22 & 23

Station 56+21 Section corner to sections, 14, 15, 22 & 23 which was:

Tamarac	8 N.	52 E.	9 links	
"	9 S.	42 E.	7 links	
"	10 N.	40 W.	41 links	
"	5 S.	12 W.	10 links	Now is:
Tamarac (down)	8 N.	52 E.	9 links.	
" (stub)	9 S.	42 E.	7 links.	
"	"	10 N.	40 W.	41 links.
"	"	5 S.	12 W.	10 links.

Marked new bearings, to wit: Tamarac 12 N. 25 E. 47.4 ft.
" (stump) 8 S. 17°45' W. 23 ft.

Then continued on section line between said sections, 14°23' N. 89°50' E.

Station	57	Leave Tamarac swamp. Enter cedar slash and timber.
"	59+90	Enter ash swale
"	60+50	Culvert
"	60+77	Leave ash swale, foot of 8° hill.
"	62+50	Top of 8° hill.
"	65+25	Culvert
"	65+75	Wagon road N.E. & S.W.
"	69+74	1/16 S.
"	70+72	Culvert
"	74+60	Road N. & S. and culvert.
"	82+26	Quarter Post to sections 14-23 said town which was:

Cedar	8 N.	15 E.	13 links.	
Fir	7 S.	46 W.	12 "	Now is:
Cedar	10 N.	15 E.	13 "	

Fir (nearly obliterated by fires) 7 S. 46 W. 12 links. Note - The west end of a very large boulder is 13.2 ft. S. of above Post.

Total length of road survey is 8326 ft. Began survey of road May 14, 1917, and finished May 22, 1917.

J. H. Flynn, Surveyor. 5/23/17.

1/4 Cor. 14-23

8326
5621
2705

Report on Birch Brook Road survey in the Township of Lima, Cass Co., Minnesota.

Beginning at the Northwest corner of Sec. 17 said Township of Lima; Which was:

Pine 18 N. 40 E. 34 links.

Fir 14 N. 18 W. 41 "

Cedar 12 S. 34 E. 53 "

Birch 15 S. 34 W. 24 " Now is the same except larger account age and growth

Thence East on section line between said section 17 and sec. 8 in said Twp. of Lima (Var. 6° 43')

Station 0+20 cross R.R. track (Pine tree spur).
" 0+32 to 3. Scattering timber and brush. Level land.
" 3 to 5 + 75. Spruce swamp.
" 5 + 75. Enter scattering timber and brush to 12.
" 12 + 75 Culvert.
" 12 Tamarac swamp to 13 + 40.
" 13 + 40 to 22 + 50 scattering timber and brush.
" 21 + 07 cross wagon road N. & S.
" 22 + 50 To station 42 Tamarac and cedar swamp.
" 26 + 68 Quarter Post for said sections 8 and 17 which was:
Tamarac 8 S. 25 W. 20 links.
" 7 N. 42 W. 14 " now is the same.

Set new bearings, to wit:

Tamarac 9 S. 16 W. 23.5 ft.

Fir 6 N. 17 W. 23.8 ft.

Then continued East on section line (var. 6° 10')

Station 30 + 87 West bank of Birch Brook 3 ft. deep & 53 ft. wide
" 44 + 30 to 45 + 60. Wet grassy pug hole.
" 45 + 60 to 56 + 17. No timber. Scattering pine stumps.
" 47 + 25 Bottom of 6° hill.
" 49 + 14 Top of 6° hill.
" 53 + 08 Corner to sections 8-9-16 & 17 which was:
Fir 10 N. 55 E. 23 links.
Spruce 6 S. 68 E. 10 links.
Aspen 14 S. 47 W. 28 links.
Spruce 6 N. 22 W. 25 links. Now is:
Aspen 16 (down) S. 47 W. 28 links.
Spruce 6 (nearly obliterated) S. 68 E. 10 links.
Fir 10 (" ") N. 55 E. 23 links.

There being no trees nor stumps near, did not put in new bearings; set post and continued East on section line between sections 9 and 16 in said Township. (Var. 8° 02')

Station 54 + 70 Top of 15° hill.
" 56 + 17 Bottom of 15° hill.
" 57 + 63 Culvert.
59 + 20 Leave tamarac swamp.
69 Culvert.
71 + 65 Culvert.
73 + 65 Culvert.
77 + 30 Culvert.
79 + 68 Quarter Post for said section 9-16 Which was.

Elm 10 S. 20 W. 17 links.

Fir 8 N. 59 E 28 links.

Now is: nearly obliterated stub of the Elm and Portion of the Fir (down) with $\frac{1}{4}$ S. thereon.

New Bearings: White Pine (stump) 24 S. $22^{\circ}30'$ W. 35 ft.

Then continued East along section line between said Sections 9-16. (Var. $6^{\circ}40'$)

Station 82+70 Enter hardwood timber; not much brush.

" 89+11 Culvert. Ravine North and South.

" 93 Leave timber; enter poplar brush.

" 100+15 Culvert.

" 105+31 Corner to sections 9-10, 15 and 16 which was:

Fir 10 S. 15 E. 28 links.

Aspen 10 S. 63 W. 22 "

Birch 8 N. 46 E 17 "

White Pine 10 N. 27 W. 14 links.

Now is: White Pine (stub) down N. 27 W. 14 links.

Fir (partly rotten stump) 10 S. 15 E 28 links

New bearings, to wit: White Pine stump 15 S. $25^{\circ}30'$ E. 56.5 ft.

Dry Cedar 10 N. 72 E. 39.5 ft.

Then turned South on section line between sections 15-16 said Township (Var 8-45)

Station 107. Culvert.

" 105+31 to 114+40 slightly rolling brush land. Enter cultivated field to Stat. 118.

" 118 Brush land to 122+30

" 121+44 Culvert.

" 122+30 Enter cultivated field to 125+40.

" 125+40 Swamp to 129.

" 129 Enter grass land.

" 129+78 Folley Brook, 2 ft deep and 9 ft wide.

" 129+95 Enter tamarac and cedar swamp. Old cuttings.

" 131+91 Quarter Post between sections 15-16 aforesaid.

Which was: Tamarac 8 N. 50 E. 12 links.

" 10 N. 54 W. 18 "

Now is: Tamarac (stump) 8 S. 50 E. 12 links.

" " 10 N 54 W. 18 "

New bearings, to wit: Cedar 6 N. 63 W. 35.6 ft.

Spruce 7 N. 82 E. 37.1 ft.

Then continued South along section line between said Sections 15 and 16 (var. 8-45)

Stations 134 to 144+20 Thick cedar and tamarac swamp.

" 144+20 Enter poplar thicket and scattering pine stumps.

" 158+13 = 158+31 Section corner to sections 15, 16, 21 and 22 of said Township.

Which was: Aspen 26 N. 52 W. 15 links.

Fir 6 N. 13 E. 26 links.

" 16 S. 60 W. 29 links.

Spruce 12 S. 70 E. 14 links.

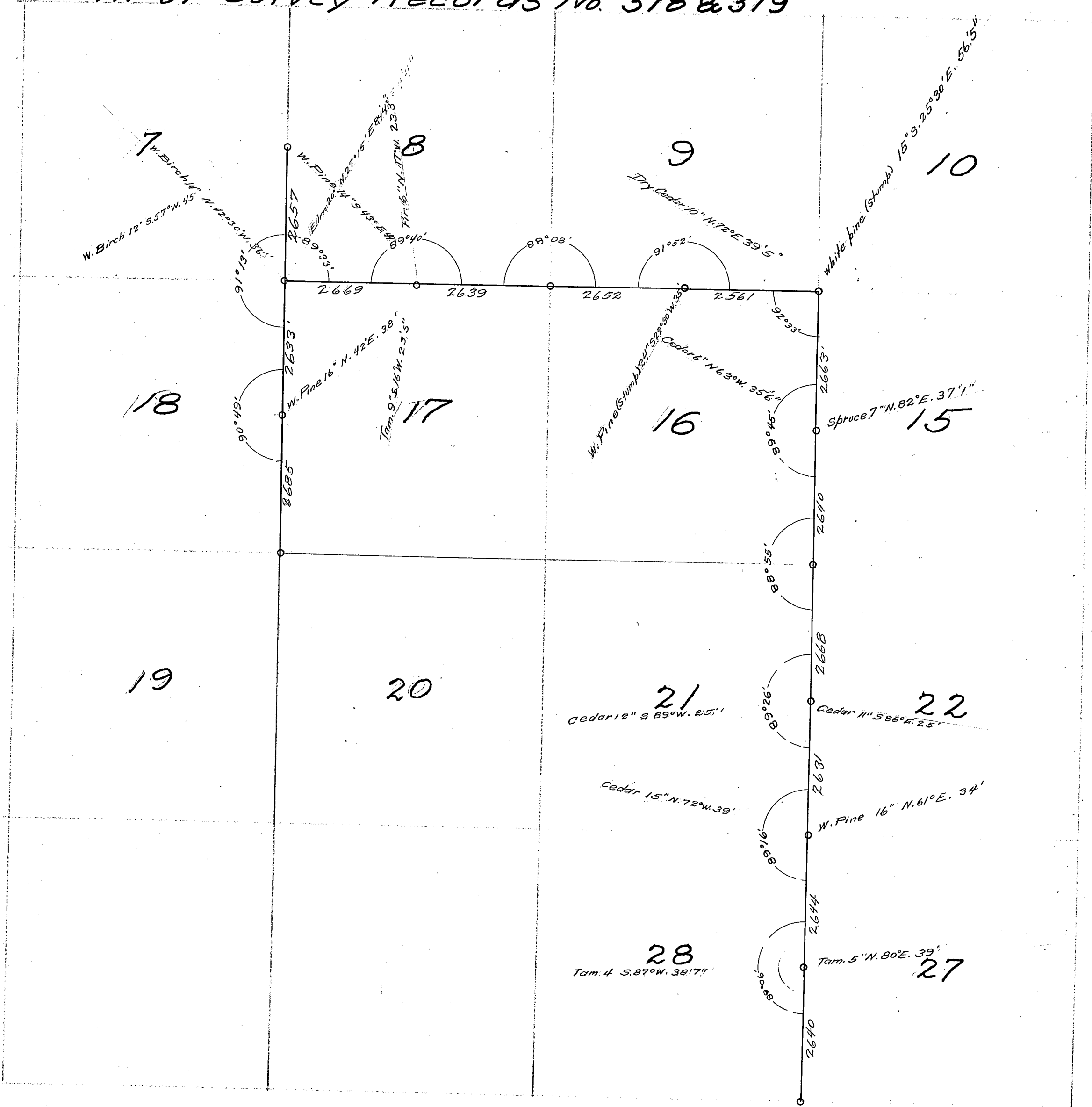
Now is: Aspen (down) 26 N. 52 W. 15 links.

Fir (decayed stump) N. 13 E 26 "

No trees near for new bearings.

Set post and continued along to section line between sections 21 and 22 aforesaid. (Var 6-55)

Plat of Survey Records No. 378 & 379



Poplar brush and pine stumps to sta. 164 then enter balsam thicket to 166; then enter tamarac and cedar cuttings to 171+40.

Station 159 Culvert.
 " 171+20 "
 " 172+30 Enter high land to sta. 184+30. Enter swamp.
 " 186+02 Quarter post for sections 21 and 22 afore said.

Which was:
 Spruce 10 N. 35 W. 10 links.
 Cedar 10 N. 78 E. 19 "
 Now is:
 Spruce stump 10 N. 35 W. 10 links.
 Cedar (standing) 10 N. 78 E. 19 "

New bearings:
 Cedar 11 S. 86 E. 25 ft.
 " 12 S. 89 W. 25 ft.

Then continued South along section line between said sections 21 and 22 said Twp. (Var 7-29)

Station 191 Culvert.
 " 191+20 Leave swamp.
 " 192 Enter swamp.
 " 193 Culvert.
 " 196 Leave swamp. Enter high land to sta. 211+43.
 " 199+30 Culvert.
 " 204+64 "
 " 208+72 "
 " 212+75 "
 " 215+72 "
 211+43 Section corner to sections 21, 22, 27 & 28.

Which was:
 Pine 12 S. 14 W. 12 links.
 Fir 8 S. 50 E. 47 "
 Cedar 10 N. 50 W. 20 "
 Fir 5 N. 40 E. 29 "

Now is:
 Pine stump 16 S. 14 W. 12 "
 Cedar (standing) 12 N. 50 W. 20 "

New bearings to wit:
 White Pine 16 N. 61 E. 34 ft.
 Cedar 15 N. 72 W. 39 ft.

Then continued South along section between said sections 27, 28 in said Twp. (Var 8-23)
 It is 600.6 ft South along said section line to center of "So" R. R. track.

Station 219+60 Enter mixed timber.
 " 232 " swamp.
 " 234 " open marsh.
 237+90 Quarter-post for sections 27, 28. Which was:
 Tamarac 4 S. 60 E. 14 links.
 " 5 S. 75 W. 23 " Now is: Jam (down) 5 S. 75 W. 23 links.

New bearings:
 Jam. 4 S. 87 W. 38.7 ft. } Then continued So. along section line
 " 5 N. 80 E. 39 ft. } between said sec. 27, 28. (Var 8-13).

Station 239+16 North bank of R.R. ditch E. & W.
 " 239+29 " " " " "
 " 244+60 Leave swamp. Enter high land to end of road.
 " 245+88 Old wagon road; Enter hard wood timber.
 " 264+99 Corner to sections 27, 28, 33 & 34 of said Township.

Which is: Maple 6 N. 75 W. 4 links.
Maple 6 N. 18 E. 43 "
Ash 7 S. 45 W. 57 "
Lind 7 S. 54 E. 26 " and end of this road survey.

This road survey is 26.499 ft. in length; survey was begun June 2, 1913, and ended July 14, 1913.

J. H. Flynn
Surveyor

Remer, Cass Co.,
Minn.

SURVEY RECORD No. 379

Plat on page 38.

C 41

Sec's 7-8-9-10-15-16-17-18-21-22-27-28 T. 14N. R. 25W.

Report of the Survey of the Halverson Road in Township of Lima, Cass Co., Minn.

Beginning at the Quarter-Post between Sections 7 & 8 in said Township; which was:

Pine 7N	70W	16 links.	
Spruce 7S	41E	13 "	Now is:
Pine stump	10N	70W	16 links.
Spruce stump	7S	41E	13 "
New bearings:	White Pine	14S	43E 49 ft.
	White Birch	12S	57W 45 ft.
Then go. on Section line between said Sections 7 & 8 in said Twp. (Var. 6°18')			
Station 0 to 15+60. Mixed timber down and standing. R.R. track in Road right-of-way, West. (North branch of Pine Tree Spur).			
Station 15+60.	Enter grass land.		
" 17	Culvert.		
" 19+60	Leave grass land and enter mixed timber.		
" 22	East side R. R. track.		
" 23	Center of R. R. track.		
" 24	West side of R. R. track.		
" 26+57	Corner, Sections 7, 8, 17 & 18 which was:		
Pine 18N	40E	34 links.	
Fir 14N	18W	41 links.	
Cedar 12S	34E	53 links.	
Birch 15S	34W	24 links.	Now is the same. Larger, account of growth.
New bearings.	White birch	14N	42° 30' W. 36 ft.
	Elm	20N	27° 15' E 84.4 ft.
Thence south on Section line (var. 7° 31') between said Sections 17 & 18.			
Station 27	Cross R.R. track (Pine Tree Spur; South branch)		
" 37+05	Northernly side of "Doo" R.R. right-of-way. (but, I mean)		
" 37+34	Center of "Doo" R.R. track.		
" 37+58	Southernly side of "Doo" R.R. cut. 4 ft. deep.		
" 27+25	to Sta. 52+90 level brushland; not stony; scattering timber, mostly on East side.		
" 40+20	Enter slough.		
" 42	Leave slough.		
" 52+90	1/4 S. of Secs. 17 & 18; and cultivated field.		
Said Quarter-Post was: Fir 10N. 30E. 15 links; Spruce 15W. 25 links.			
Set new bearings:	White Pine	16N.	42E 38 ft. Then cont. said Sec. line on south. (var 8° 20')
Station 58+90	Leave cultivated field and enter brushy and scattering timber land.		
" 68+93	Enter grass land to Station 74+20		
" 74+20	Intersect "Ditch" road. Total length of this road is 7,420 ft.		
This survey began June 20, 1913 and ended June 24, 1913. 13 1/2 days; 4 men			

J. H. Flynn,

Surveyor.

Plat of SURVEY RECORD No. 380

143-26

Cedar Post 5" N. 88° 30' W. 10.6'
16
Cedar Post 5" N. 43° 30' W. 18.5'

State ----- Rural ----- Highway No. 45 -----

Note: B.T.'s in black by JFlynn
B.T.'s in red from notes of
S. R. H. #45.

Cedar Post 5" S. 52° W. 51'
17
Cedar Post 5" S. 39° E. 51.0'
Cedar Post 5" S. 51° E. 35.6' to rail bed.

8" IRON BOLT

Sta. 37+74'

21
Black Ash 5" N. 56° E. 8'

28
W. Birch 6" S. 12° W. 7.5'

SURVEY RECORD No. 380
Sec's 16-21-28 T. 143N. R. 26W.

27 March
 45 ft. C 43
 32.0000

Report on survey of Road No. 3 in Township of Salem (143-26) Cass Co., Minn.

Beginning at the North Quarter Post of Sec. 21 in said Township; then South along the North and South Quarter line said Sec. 21, a distance of 3.774 ft. (Var. 14°)

Station	1+20	Enter cedar swamp.
"	2+55	Culvert.
"	3+33	Leave cedar swamp.
"	12+58	Culvert.
"	17+80	"
"	21	"
"	24+20	Enter cedar swamp.
"	27+60	Culvert.
"	28	Leave cedar swamp.
"	29+40	Enter poplar brush.
"	31	Culvert.
"	33+43	Wagon road bears E. & W.
"	33+57	Enter cultivated field.
"	35+75	Leave " "
"	37+74	Drove nail in Yellow Birch 26 on line.

The N1 45 is in center of State Highway No. 45. For bearings I placed 3 posts in the following positions, to wit:

Cedar Post	5 S	39 E	51.8 ft.
"	5 S	52 W	51 ft.
"	5 N	43°30' W	48.5 ft.

South 1/4 Sec., which was:

Ash	5 S	33 E	25 links
Fir	10 N	1 E	6 links.
Ash (nearly obliterated)	5 S	33 E	25 links.

New bearings:

White birch	10 S	12 W	7.3 ft.
Black ash	5 N	56 E	8 ft.

June 5, 1917

J. H. Flynn, Surveyor,

Remer,

Minn.

Recorded June 18, 1917

by [unclear]

Survey Record No. 381 Book 78, Pages 90-104
→ No Plot

November 15th, 1915: E. B. Horst and John W. Curo look up notes of work done on Section 7, by Curo, Todd and Bates, 1914, under Curo's contract No. 1, and begun May 14th, 1914.

E. B. Horst.

November 16th, 1915: E. B. Horst transit, E. L. Jusler, flag and chain. Curo hires car and takes us out to above section, where we begin work; Jusler and Horst chain North $\frac{1}{16}$ random line run by former survey to lake, 1691 feet; Horst hires Jos. Jakschi, but he is away so I hire Stauner and son as axemen for the 17th.

E. B. Horst.

November 17th, 1915: Horst, Jusler and Stauner take out 5 I. Ms. to North $\frac{1}{16}$ corner on West boundary line. We set and mound the following I. Ms. North $\frac{1}{16}$: South $\frac{1}{16}$: $\frac{1}{4}$; and S. W. section corner. Jusler and Caspar Stauner set I. Ms. on South Bdry West $\frac{1}{16}$, $\frac{1}{4}$, E. $\frac{1}{16}$, and SE section corner. I take Mike Stauner and we chain from South $\frac{1}{16}$ P. I. on West $\frac{1}{16}$ up to lake, East and North $\frac{1}{4}$ line P. I. at 2640 ft. North. Lake 3973 ft. North.

E. B. Horst.

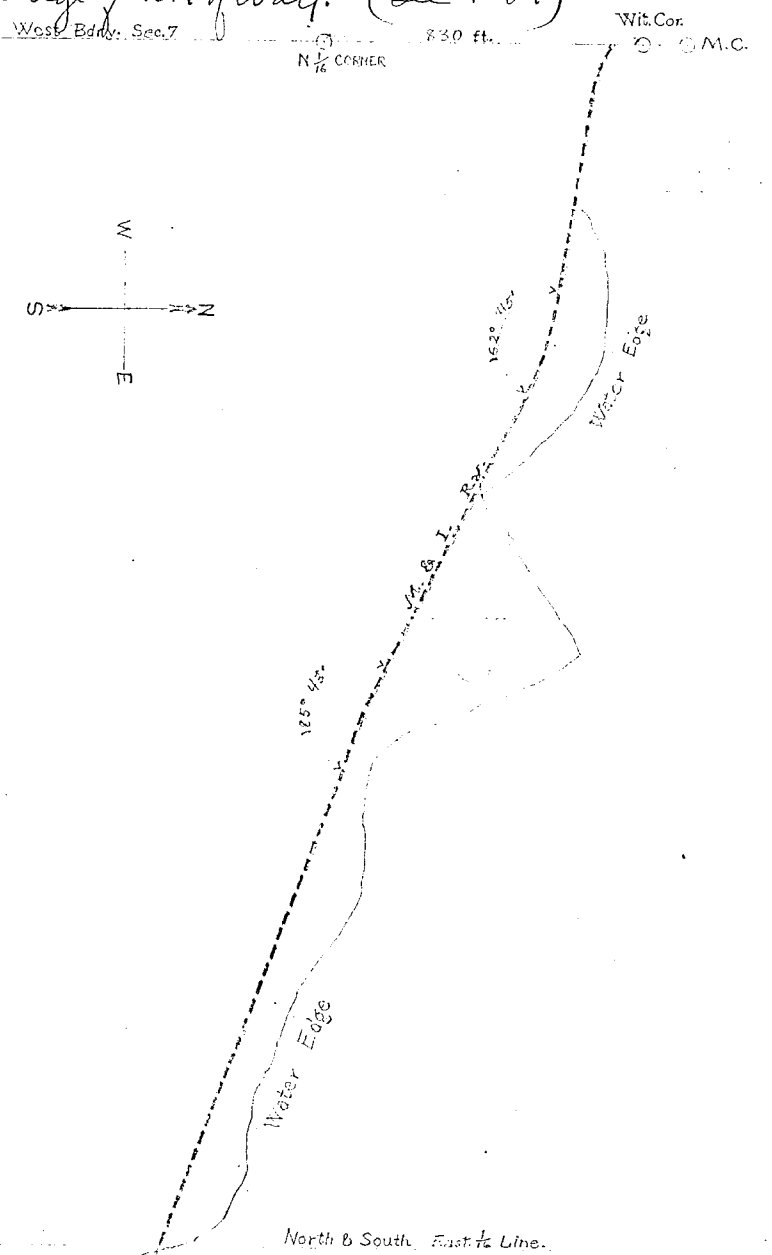
November 18th, 1915: Curo, Horst and Jusler work on plat of section 7, also look up more notes. Curo, Horst and Jusler set I. Ms. for base in Walker on work done by Scott and J. N. Molyneux.

E. B. Horst.

Friday, November 19th, 1915: John W. Curo and Horst, transit, and Jusler, chain, Jos. Jakschi run traverse of Leech Lake and M. & I. Ry, according to diagram on following page. Stauner and son brush out North and South $\frac{1}{4}$ line run in 1914. Note for diagram: To East $\frac{1}{16}$ line, we use M. & I. track as a base line for traverse, and all traverse calculations being made from same. Point A is where the West $\frac{1}{16}$ North and South line (Turn to p. 94) intersects M. & I. R. R. We start from Point A and run West 400 ft to Pt. of course curve shoreline at edge of Pt. y way. (See Plot)

At 856 ft. West P. I. of track 35 ft. from center of track. Deflection 17 degrees 45' to the South. P. I. equals 0.0 ft @ 45 ft. West, land extends North 100 ft. on sharp pt.

- @ 100 ft. West 40 ft. to water.
- @ 400 ft. West pt. of curve.
- @ 500 ft. West 70 ft. to lake.
- @ 625 ft. West 85 ft. to lake.
- @ 700 ft. West 50 ft. to lake.
- @ 800 ft. West 20 ft. to lake.
- @ 900 ft. West 25 ft. to lake.
- @ 950 ft. West P. C.
- @ 1161 ft. West M. & I. & Co. line, intersect curve has deflected at this point 8 ft. S. E. angle of track & Co. line equals 87° 20'. Returning to Pt. A. West $\frac{1}{16}$ and M. & I.
- @ 330 ft. East Pt. of land runs Northerly at an angle of 42° from track, 480 ft. altitude at 90° angle from track; 390 ft. At Sta. 800 E. on track.
- @ 1000 ft. E. P. C. 285 ft. to lake.
- @ 1252 ft. E. P. I. 4.3 ft. North of center. Deflection equals 4° 25'. 1300 ft. E. 175 ft. to lake.
- @ 1650 ft. E., North and South $\frac{1}{4}$ line 135 ft. to lake.
- @ 1900 ft. E. 168 ft. to lake.



- At 2100 ft. E. pt. 192 ft. to lake.
- @ 2800 ft. E. 200 ft. to lake.
- @ 3200 ft. E. pt. 272 ft. to lake.
- @ 3300 ft. E., lake touches M. & I. R. t. g way.
- @ 3420 ft. E., East 1/16 line intersects M. & I. track.

E. B. Horst

November 20th, 1915; Horst, transit, Jusler chain, Jos. Jakschi, Mike Stauner and Kasper Stauner, axemen. We begin at East 1/16 line and continue traverse begun yesterday to E. bdy., as per diagram. Jusler and Jakschi chain East boundary, beginning at Southeast section corner. At 742.85 N-S. 1/16 corner. 1/16 corner equals 0.0 at 360 North M. & I. R.R. at 473 lake. Horst, transit, Mike and Kasper Stauner, axemen, we Hub East 1/16 line thru to lake setting a Hub under the fence on South side of M. & I. R. t. g way. At 4:30 Jusler and I return to Walker.

E. B. Horst

Sunday, Nov. 21st, 1915: Horst, Jusler, Scott and Mr. Mahon all in camp at Walker.

E. B. Horst

Mon., Nov. 22nd, 1915: Guro and Horst in office, figuring transverse and platting lake shore of Section 7, 142-31.

E. B. Horst

Tues., Nov. 23rd, 1915: Horst and Mick Harig to Section 7 on gas car; We take Jakschi, Stauner and son, axe, and go to East and West 1/4 line as run by Roy Bryant, and beginning at P.I. of West 1/16 line, chain East to P.I. of E. and W. North and South 1/4 lines, equal 15.10 ft. We chain back 755 ft., set Hub and turn angle of 97° 27', being N.W. angle from East and West random. We run South 478 ft. and return to starting point; and back sighting to South line Hub, we run line North to lake 1183 ft.

E. B. Horst

Wed., Nov. 24th, 1915: Horst, transit, Harig, flag and chain, Jakschi, Stauner and Stauner, axe. We go to West 1/16 corner of South Bdry., chain North on West 1/16 1147, setting a Hub at this station. I take transit on Hill and sight to South 1/16 corner on West Bdry., where Harig and Jakschi have erected a large backsight. I adjust transit until on true line between these 2 points, and we then produce this line East to East Bdry. of Section 7, missing the South 1/16 corner 5.5 ft. to the North.

E. B. Horst

Thursday, Nov. 25th, 1915: Thanksgiving day.

Friday, Nov. 26th, 1915: Horst and Harig to Section 7, 142-31. We take Jakschi, Stauner and Stauner, and go to 1/4 corner on West Bdry. I turn an angle of 10° 15' from random run by Bryant, and run line East to a point 742.85 ft. North of South 1/16 corner on East Bdry. We miss this pt. 10.2 ft. S.

E. B. Horst

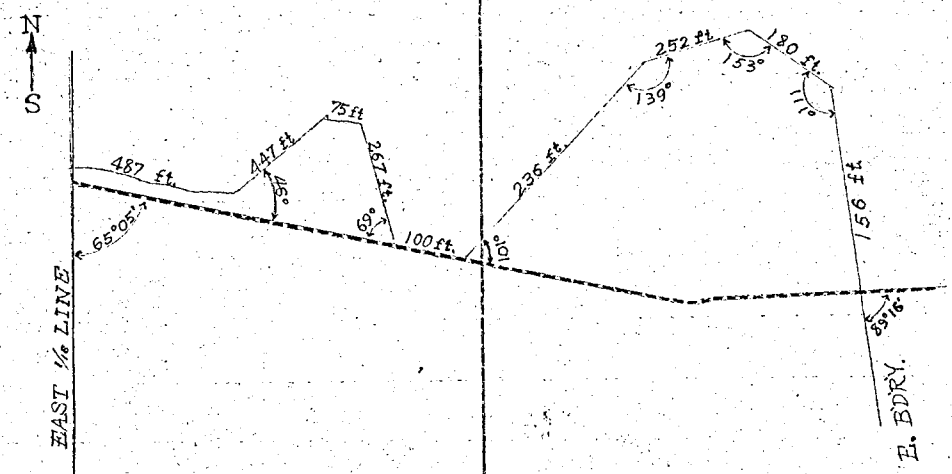
Saturday, Nov. 27th, 1915: Horst, transit, Harig, flag and chain, Jakschi, Stauner and Stauner, axe; We go to North 1/16 corner on West Bdry. line, and start North 1/16 line East, turning South from Bryant's random 15° 5'. Run East to West 1/16 line very heavy cutting. Harig takes Jakschi and Mike Stauner and sets I.M. on South 1/16 line. At P.I. of E. & S. 1/16 quarter corner goes South 4.2 ft. At P.I. of South 1/16 and North and South 1/4 corner goes South 2.9 ft. At P.I. South 1/16 and West 1/16 corner, goes South 1.6 ft. Kasper Stauner and I correct East and West 1/4 line, running true line thru Jakschi's property in order to locate position of his buildings, true line passing thru barn.

E. B. Horst

Sunday, Nov. 28th, 1915: Horst, Harig and Scott in camp.

E. B. Horst

Monday, Nov. 29th, 1915: Horst, Harig, Jakschi, Mike Stauner and Kasper Stauner set I.Ms. Harig, Jakschi and Mike Stauner set I.Ms. on East and West 1/4 line, beginning at West 1/16. West 1/16 goes North 3.6 ft. Corner on line dividing lot 3 goes North 4.5 ft.



Corner on N. and S. $\frac{1}{4}$ line goes North of P. I. hub 5.4 ft. Corner on East $\frac{1}{16}$ line goes North 7.8 ft. Horst and Stauner set M.C. on East and West $\frac{1}{4}$ line, (as a Boundary to South line of Lot 2.) 233 ft. East of East $\frac{1}{16}$ corner; distance to track 109 ft. East to lake 75 ft.

E. B. Horst

Tuesday, Nov. 30th, 1915: Horst and Hariq go to Sec. 7, 142-31; we take Jakschi, Stauner and son, and set following I. M.: At P. I. of North and West $\frac{1}{16}$ lines, an I. M. 11.47.6 ft. North of I. M. on East and West $\frac{1}{4}$ line at 3910 ft. North on West $\frac{1}{16}$, we set an I. M. for M.C. at lake. At 1661 ft. North of East and West $\frac{1}{4}$ line we set an M.C. I. M. on dividing line of Lot 3. On North and South $\frac{1}{4}$ line set I. M. for M.C. 1049 ft. North of East and West $\frac{1}{4}$ line (at lake). Horst and Hariq, Jakschi and Mike Stauner go to lake in southwest corner of Section 7 and run transverse.

E. B. Horst.

December 1st, 1915: I work in Guro's office Dec. 1, 2, 3, 4, 5, 6, platting and figuring acreage for Sec. 7, 142-31. E. B. H.

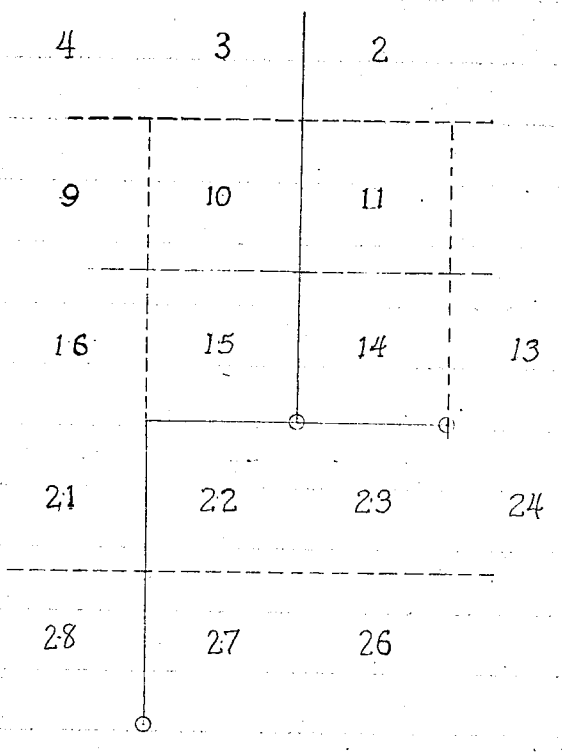
	6	5	4	3	2	1
	7	8	9	10	11	12
	18	17	16	15	14	13
	19	20	21	22	23	24
	30	29	28	27	26	25
	31	32	33	34	35	36

Survey Record No. 382 Book 71, Pages 118-133.

2-3-10-11-14-15-20-21-22-23-26-27-28-29-33-34

December 16th, 1915: I leave Walker for Ellis, Minnesota, via Staples, to correct survey of Dup. Road made by Roy Bryant, July 1915. Walker to Staples, R.R. fare. \$1.92; Staples to Ellis, Stage \$1.00. Arrive at Staples 1:20. Leave for Ellis by stage at 2:00 P.M. and arrive at Chas. Hanley's place 3:30, where I make arrangements to board.

Fri., Dec. 17th, 1915: I take transit; and Chas. S. Hanley, as flag and axeman, we go to corner of sections 15, 16, 21, 22. We find corner established by Bryant, from a stump which, Edgar Allee says, he cut the tree for wood and found he had cut a B.T. Other B.Ts. all burned and decayed. I run over Bryant's random and find corners set correct for 1 mi. East from above corner. We then go to corner of sections 13, 14, 23 & 24; I run random line over Bryant's old line one mile West, and miss corner established by Bryant 3.5 ft. North. Corner sets south 3.5 ft.



Sat., Dec. 18th 1915: I go to Ellis' store, mail letters to Curo and get some 60 d spikes for Hubs. Horst, transit; Allee, axe + flag. We return to corner of 14, 15, 22, + 23 and erect 10 ft. sight at corner. We go East about 1800 ft. to summit of hill where I can see a sight 1 mi. East at corner of 13, 14, 23 + 24. I set and reset transit until it is on true line. True line passes thru window of Mr. Huff's house. We set 50 d Nail under window; also one at true $\frac{1}{4}$ corner between Sec. 14 & 23. I rechain line 1 mile North from corner 14, 15, 22 + 23, distance to iron pin set by a former surveyor, being 5275.4 ft. North of corner established by Bryant. $\frac{1}{4}$ corner at 2637.7. I set transit over corner of 10, 11, 14, + 15 as set by Hallet or Whitely and find roots of Norway Pine where Government Notes call for a Y. Pine, 16 N, 33 E 67, checking for course and distance with Hallet's corner, but cannot find anything to check with corner established by Bryant.

Sunday, Dec. 19th 1915: At Chas. Hanley's over Sunday. Day is clear and cold. Snow 4 in. deep. E. B. Horst.

Monday, Dec. 20th, 1915: Horst, transit; Allee, flag. We go to corner of 10, 11, 14 + 15, run a transit line North 1 mile, I look for B.T. and find B. Pine tree on the ground with very light scribe marks on it. Mr. Bacon comes down and says he can swear to it as a B.T. Govt. We establish corner from this tree, which, Mr. Bacon says, is within a foot of where the old corner is. We run course for B.T. to S. W., where U. S. notes call for Tam. 6 S. 57 West 265. We find a Tamarac stump, decayed, checking for course and distance. We start from this corner and run line 1 mi. North to Dup. line. We look for B.T., but find none, but find old Govt Post discovered by Cleveland road Engineers, and Kit. trees blazed by them to relocate corner. Return home two miles.

Tuesday, Dec. 21st, 1915: We go to section corner 2, 3, 10 + 11, and chain North 1 mile between 2 and 3, on transit line. At station 5399.2 feet North true corner sets West 43.5 ft. Coming back, we set $\frac{1}{4}$ corner at 2647.96 ft. North and 21.33 ft. West. We chain South between sections 10 + 11 to corner of 14, 15, 10 + 11, equal to 5290.8 ft. We set $\frac{1}{4}$ corner between 10 + 11 at station 2645.4 from both corners.

B. Ts. and Bearing Posts set at corner as follows, not being able to drive Hubs or I. Ms. we set 50 d spikes where corner on Hubs should be, and took bearings. At corner of 2, 3, 34 + 35 on North side of 135-32. Small Norway 3 inches SW of corner 41.2 ft; Small Norway 4 inch NW of corner 52.0 ft. Taken by State Highway Engineers. $\frac{1}{4}$ corner between 2 + 3: 3 in sq. Pine Post. Section corner 2, 3, 10 + 11, 50 d spike and Hub. Bearings as follows: 3 blazed fence posts.

- F. P. North 84° 30' East 20.5 ft.
- F. P. North 40° West 24.7 ft.
- F. P. South 42° West 45.9 ft.

E. B. Horst.

Wednesday, Dec. 22, 1915: Horst, transit, Edgar Allee, flag and chain. We go to corner of Sections 15, 16, 21 + 22, to correct line run by R. E. Bryant. I set transit over Section corner and sight South to Bryant's hub on top of hill about 950 ft. South going to hub I set up and backsight on Sec. corner, then sight South and find he has turned 15' more variation, In order to run line down graded road, but he failed to set on line with corner or to backsight and find distance of offset; making a kink in the line, we find all corners with a kink. We then chain from above Section corner South 2 miles and find the Register slipped to the extent of $\frac{1}{300}$ ft. tape (for Bryant). We find corners set as follows: Beginning at corner of 15, 16, 21 + 22, going South.

@ Sta. 2891 ft. South $\frac{1}{4}$ corner, no B.T.s.

@ Sta. 5482.4 ft. South Sec. corner, 21, 22, 27, + 28.

@ Sta. 8089.6 ft. South $\frac{1}{4}$ corner Sec. 27 + 28.

@ Sta. 10631.2 ft. South Sec. corner 27, 28, ³⁴34 + ³⁵35, land owners have two Wit. Posts to South corner and one B.T. true corner sets W. 72 ft. E. B. Horst.

Thursday, Dec. 23rd, 1915: Horst, transit, Allee, flag and chain. We set hubs at Temp. corners as follows: Correcting West, correction equals .007525

B.T.s. to 15, 16, 22, 21)

J. Pine 9 S.W. 36.6 ft.)

J. Pine 9 S.E. 61.1 ft.)

$\frac{1}{4}$ corner goes W. 12 ft. ---

B.T.s. to 21, 22, 27 + 28)

J. Pine 5° N, 11° 30' E. 54 ft.)

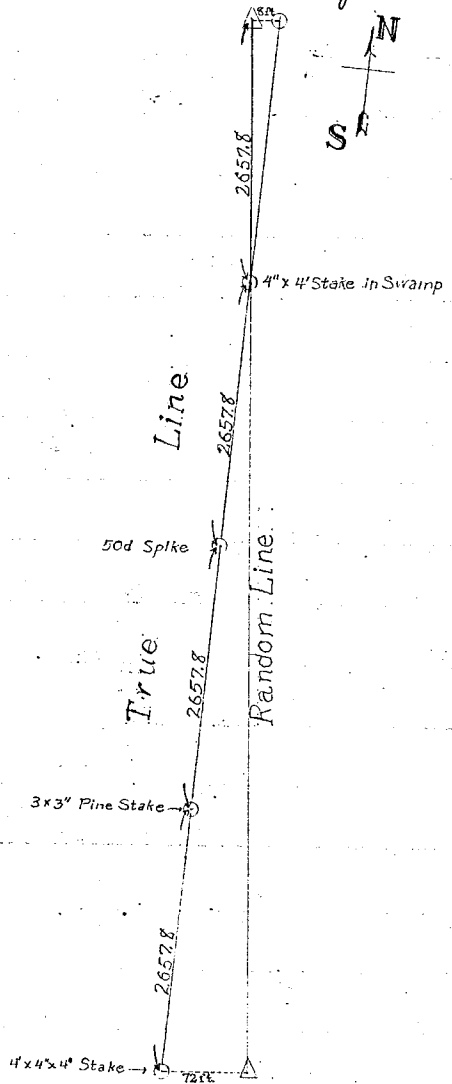
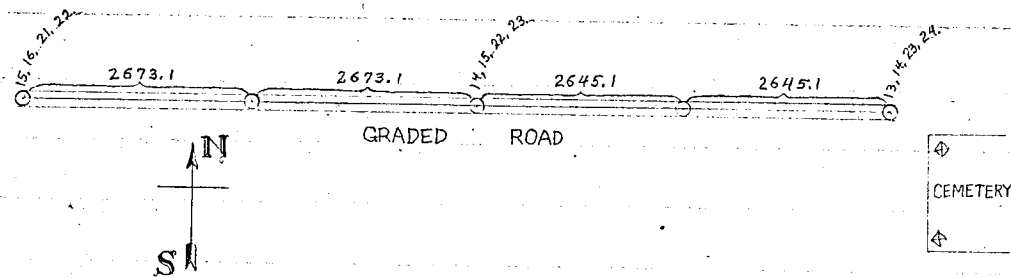
Poplar 5° S, 25° 25' E. 46.2 ft.)

Section corner goes W. 32 ft. ---

$\frac{1}{4}$ corner goes W 52 ft. ---

Thursday, Dec. 23rd, 1915 Cont.

Horst and Edgar Allee correcting 2 miles East from corner of 15, 16, 21 + 22.



Chaining East to corner of 14, 15, 22 + 23 equals 5346.2 ft. Chaining East to corner of 13, 14, 23 + 24 equals 5290.2 ft. Setting $\frac{1}{4}$ corners at equal distances from Section corners. Receive letter from Bureau telling me to come to Walker. E. B. Horst.

Saturday July 1st 1916: Horst, transit, Clarence Hanley with horse and buggy begin setting I.M.s. on road lines ordered surveyed by the Byron Twp. Board. The I.M. are $1\frac{1}{2}$ in iron pipes, 4 ft. long, we set one at each of the following corners: At 13, 14, 23, 24, an I.M. At $\frac{1}{4}$ between 14 and 23 an I.M. At corner to 14, 15, 22 + 23 an I.M. and new B.T.s.

J. Pine 8° North 21° East 85.6 ft.

J. Pine 8° South 82° West 116 ft.

J. Pine 10° " 65° East 67.6 ft.

Between Secs. 15 + 22 at $\frac{1}{4}$ corner set I.M.

At Secs. 15, 16, 21, + 22 set I.M. and new B.T.s.

J. Pine 8° North, 51° East 97 ft.

J. Pine 9° " 39° West 82.8 feet.

J. Pine 9° South West 36.6 ft.

J. Pine 9° South East 61.1 ft.

We go south 2 miles and set I.M. for Kitness Corner to corner of Sections 27, 28, 33 & 34; 8 ft. East of true
Section corner, which is in a 3 ft. ditch. We return and set an I.M. at $\frac{1}{4}$ between Secs. 14 and 15. One
 at corner to 10, 11, 14 & 15 and take new bearings. S.W. corner of school house porch bears North $32^{\circ} 45'$

East 183.3 ft. N.E. corner of Ellis' store bears South $54^{\circ} 25'$ West 52.7 ft. N.W. corner of church bears
 South 53° East 72.9 ft. At $\frac{1}{4}$ corner between Secs. 10 and 11, set I.M. At corner to 2, 3, 10, & 11 set I.M. and
 new bearings: Fence Post North $84^{\circ} 30'$ East 20.5 ft. Fence Post North 40° West 24.7 ft. Fence Post South 42°
 West 45.9 ft. At $\frac{1}{4}$ corner between 2 and 3, set I.M. At corner to sections 2 and 3, on 2nd p. line set I.M.
 in center of S. R. H. New bearings: Norway Pine 4 in. N.W. 52.0 ft. N. Pine 3 in. S.W. 41.2 ft. Return to
 Hanley's for night. E. B. Horst.

Monday, July 3rd 1916. Horst and Clarence Hanley with
 rig. I drive Hub near center of road and near corner to Secs.
 21, 22, 27 & 28. We chain West from this Hub on partly gra-
 ded road.

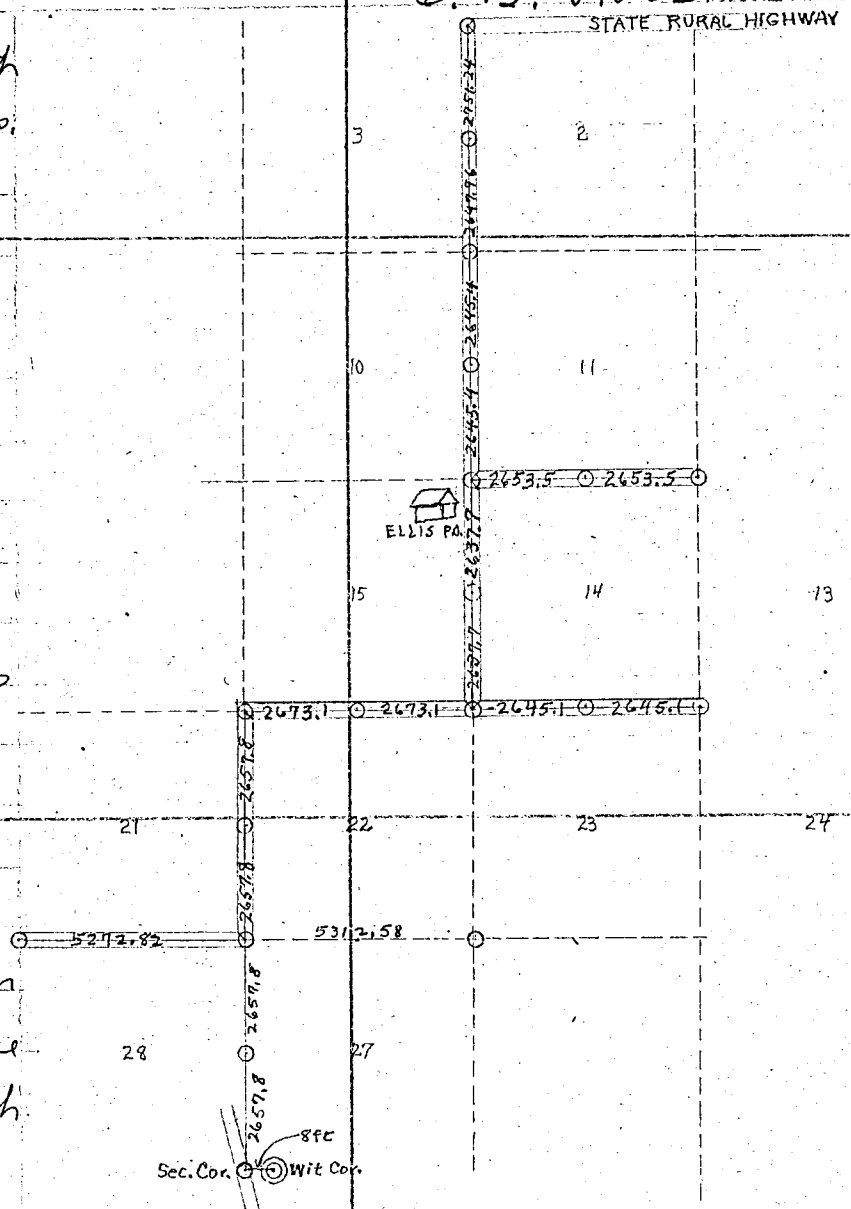
- At 2450 leave road
- @ 3800 cross creek 10 ft wide.
- @ 3900 leave creek bottom
- @ 4100 enter swamp.
- @ 4500 leave swamp.
- @ 5000 enter swamp.
- @ 5200 set stake and look for B.Ts. U.S. notes

call for

- B. Pine 5 North 12° East $46.$
- B. Pine 5 South 80° East 138
- B. Pine 6 South 74° West 182
- B. Pine 6 North 84° West $242.$

I find an old post and N.E. and N.W. U.S. B.Ts. The old post is at true corner checks for course and distance. I set new post with new bearings

- J. Pine 12 North 53° East 35.5 ft.
- J. Pine old U.S. B.Ts. North 84° West 160 ft.
- Wit. Post South 45° degrees West 46.67 ft.
- Wit. Post South 45° degrees East 46.67 ft.



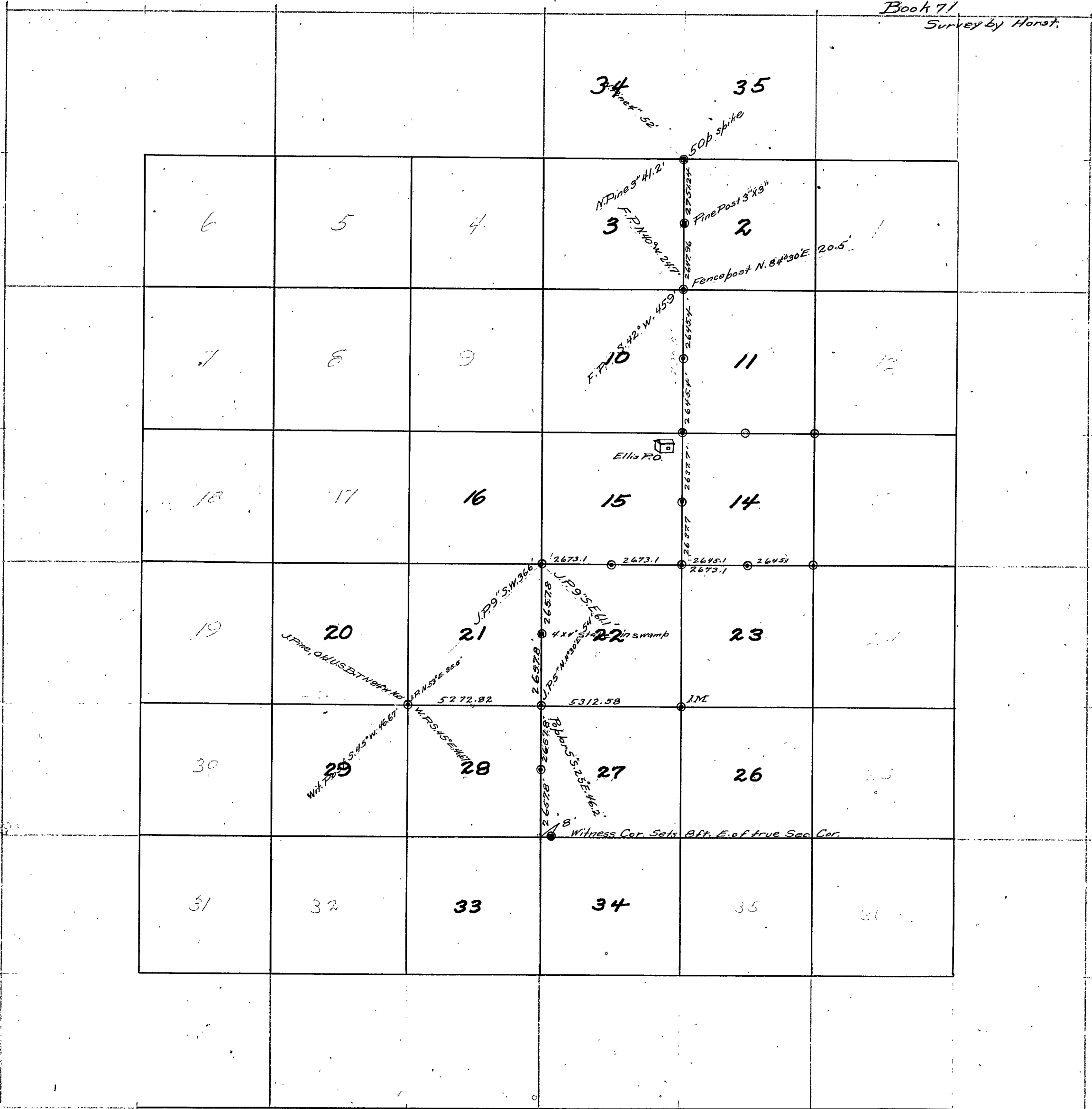
We return to Hanley's for dinner. At Station 5266 corner sets North 38 ft. P.M. We begin at same
 Hub near corner of 21, 22, 27, & 28 and chain East. At 20 ft. East enter swamp. At 1900 ft East,
 leave swamp. At 2300 East enter swamp, look for $\frac{1}{4}$ B.T. (gone). At 2900 leave swamp.
 At 5330 ft. East intersect N. & S. road. We look for corner to 22, 23, 26 & 27. Notes call for 4 N.P.
 We find the stumps badly burned; we also find a post in center of road which is at true pt. for
 corner. I remark old U.S. stumps and set an I.M. in place of wood post. At Station 5319.4 ft E.,
 corner sets North 336 ft. U.S. chain for south side of sections 21 and 22 equals 10544.16 ft. My
 chain equals 10585.4 ft. South side of section 21 equals 5272.82 ft. South side of section 22
 equals 5312.58 ft. Corner to sections 21, 22, 27 & 28 goes East of starting pt. at Hub 6.8 ft. and
 equidistant from section corner 1 mile North and 1 mile South and falls 45 ft. East of a straight
 line between North and South section corners. We set an I.M. at this point and go $\frac{1}{2}$ mile
 South and set I.M. 21.1 ft. East of post set for $\frac{1}{4}$ corner between sections 27 & 28, which was
 on a straight line 2 miles long. At P. corner between 21 and 22, we set I.M. 21.1 ft. East of
 Post which was on sale line. Quit for night.

July 4th, 1916: No work.

E. B. Horst.

Plat of
SURVEY RECORD No. 382

Book 71
Survey by Horst,



July 5th, 1916: Forst, transit and chain, Delbert Manchester, Nels Hansen, and John Clark, helpers, begin at corner to 10, 11, 14 & 15 and run line East at 9° Var. on graded road.

at 3310 ft. East set Hub on hill

at 4370 ft. " center of small bridge

at 5311 set Hub in center of North and South road and look for B.T. Notes call for:

W. Oak 10 North 56 East 58.

Maple 10 North $1\frac{1}{2}$ East 3.

W. Oak 14 North 21 West 65.

The settlers show me the stump of W. Oak 14 North 21 West 65 and identify the spot where it stood, by the hole it left when dug out. I set post for corner from this evidence, and hole in the ground and find roots of the maple stump where we drive post. At 5307 ft. East corner sets North of random line 36.4 ft. P.M. We set I.M. at this corner and return to $\frac{1}{4}$ corner where we set an I.M. at station 2653.5 ft. East and 18.2 ft. North of random line. New B.Ts. to corner 11, 12, 13, 14. Poplar 5° North, $48^\circ 30'$ East 90.6 ft. Poplar 6° South, $53^\circ 30'$ East 99.6 ft. No other trees near.
E. B. Forst.

Survey Record No. 383.

July 1st, 1912: Down to Byphers on the morning train. I walk into southwest corner of Sec 7, 141-30, and look for Iron corner. Then on to Miller's, reaching there at 2:00 P.M. Fare 18¢. The Township Board meeting to-day. E. Miller, (Blek), and brother, Quick, Thompson (road boss) and Bartt present. Thompson and I walk over to West Township line and find brush very heavy along 7. Supper at Montgomery's, 25¢. Bed and breakfast with Thompson, 50¢.

July 2nd, 1912: Starting at section corner, corner of 7, (iron pipe) we run compass line North $9^{\circ}30'$ Var. B. J. Thompson, Postoffice address, Byphers, Minnesota, and J. M. Iver, post office address, Walker, Minnesota, cutting brush which is very heavy and progress is slow. We cut line for about 2300 ft. in morning. Dinner at Montgomery's, 25¢. After dinner, we chain from Iron corner as follows:

At 270 swamp. At 359 leave swamp.

" 540 " " " 600 " "

" 1410 " " 1490 " "

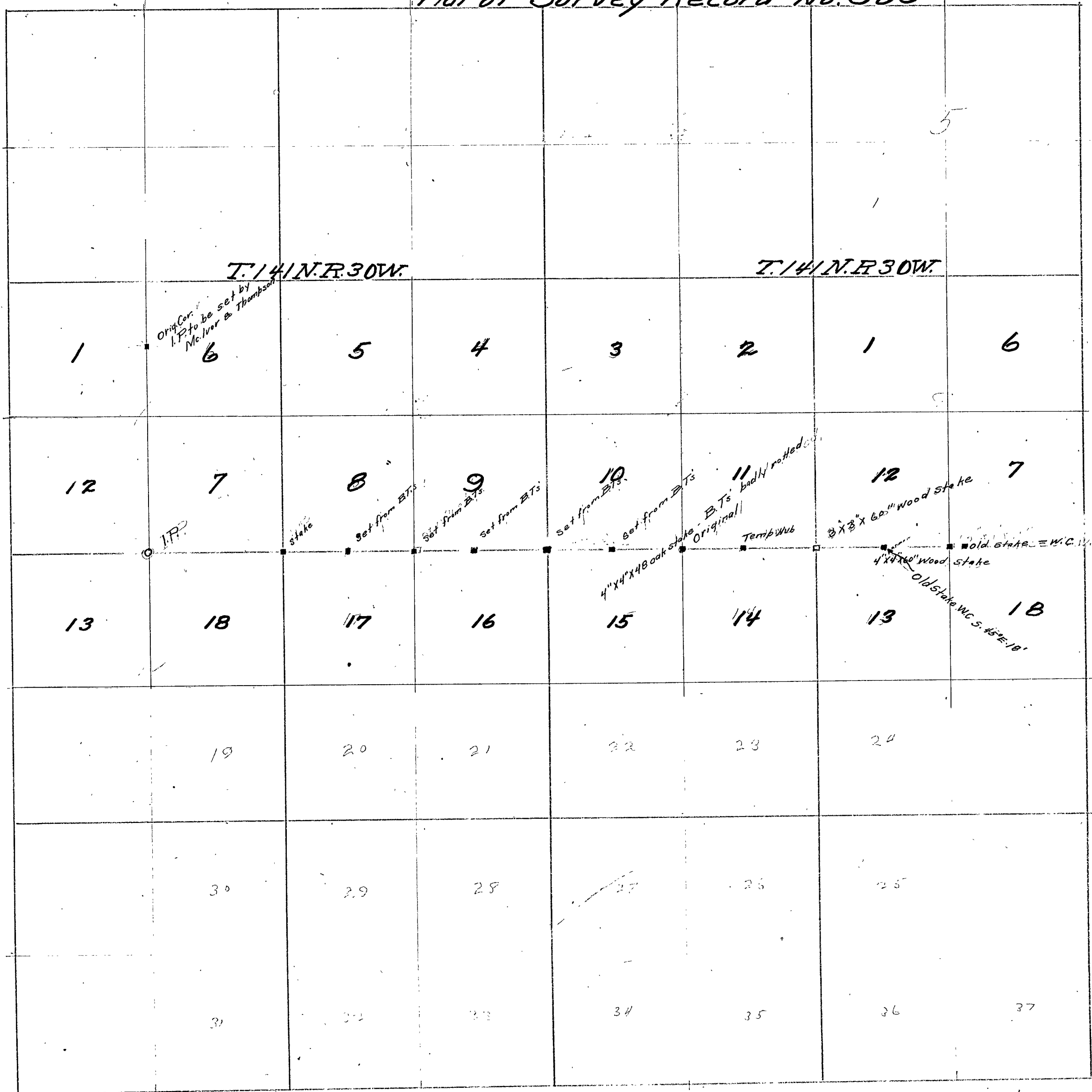
" 1830 " " 1900 " "

At 2200, I quit to catch train for Walker, while Thompson and M. Iver continue cutting, fare 18¢. Melville A. Kemp.

July 3rd, 1912: Rained during the night, so when I came in to-day the men said it was too wet to go to work. Walked back to Walker.

July 5th, 1912: M. Iver, cutting, Thompson and Kemp, chaining. At 2400 stake; at 2640 stake. We hunt for $\frac{1}{4}$ corner on West side of 7, but all stumps have been burned away, or are robbed. Left men cutting and walked ahead half a mile but found nothing. Brush very heavy. Dinner at Montgomery's. After dinner we run north from 2640 with chain and compass (No cutting). We find $5 \times 5 \times 70$ " Oak stake, at section corner 1, 12, 7, 6, but can find no trees that correspond. Stake looks to be about 10-12 yrs. old. We then go ahead half a mile and find a $\frac{1}{4}$ corner on West side of 6. Government notes call for stake and Aspen 10 North 75° East 41° . Red Oak $85^{\circ}2\frac{1}{2}'$ West 296. We find the southwest tree fallen, but with iron marks still quite plain on both stump and a portion of the fallen trunk. We re-set this corner from the N, 75° E 27. Southwest tree and find that an old Aspen stump, rotted to the ground. I set small off-stakes for setting Iron corner, which M. Iver and Thompson will do in the morning. Quit at 7 P.M., and walk back to Walker. Melville A. Kemp.

Plot of Survey Record No. 383



July 12th, 1912: Leave Walker at 9:33; fare to Sanatorium 10+. Walk thru woods to Northwest corner Zurlie Laketown along North town line to East side of Lake at section line between 4 and 5. Thence South and East along crooked wagon road to Henry Evanson's, and I walk East along section line between sections 11 and 14. At corner to sections 11, 12, 13, 14, we find 3x3x60" stake marked with small snide. Government notes call for the following Bearing trees, at this point:

White Pine 28 S 64 W 86

" " 24 S 13½ E 138.

" " 20 N 44½ W 220.

Red Oak 10 N 16 E 111. We find a 10" Poplar which bears North 51½ West, 74 links from stake marked with small iron. We find three White Pine stumps, burned and marks obliterated, which check closely for course and distance. Red Oak is gone. Then at ¼ corner between sections 12 + 13, we find a 4x4x60" wood stake marked with small iron. At this point the Government notes call for the following B.T.s: Red Oak 8 N 31 E 23; and Red Oak 7 S 40½ W 23. A red Oak stump badly rotted, checks with stake for course and distance, to the Southwest; but the only stump to the Northwest is 3 links too far away and about 30 ft too far West to be the tree. No marks could be found on it as the stump is badly burned. We followed the old blazed line East and found a 4x4x60 stake at the section corner on East side of 12 + 13. Government notes call for, at this point:

White Pine 30 N 57 E 12.

" " 26 N 65 W 52.

" " 30 S 67½ W 78.

" Oak 7 S 56½ E 54.

We find the stumps of the three W. Pine trees and the place where the Oak had been removed. The N. W. and N. E. stumps are plainly marked. We will re-set the stake for this corner in the morning. Quit for night and have supper, lodging and breakfast at Henry Evanson's.

Saturday, July 13th, 1912: Sam Evanson, Henry Evanson, and Silman Evanson and Kemp, Henry and Silman Cutting brush. We go to ¼ corner to sections 11 + 14 where we find a new Oak stake and a piece of an old tam. stake both marked with small iron. The Gov't. notes call for: B. Oak 7 N 33½ E 540 links; Poplar 15 South 1° W. 172 links. We hunt for Oak, but there are no stumps at the distance and course mentioned from stake as it stands. Coming back we find old 10" B. Oak plainly marked; the marks being in about 3 or 4 inches. I set a hub and back from this tree, using 54 links instead of 540, after which 18" poplar bears South 11° E 172½ links and old stake bears about 8½ South and 60° West. (8° 25' Var.) This is just a temp. hub and I will look up notes at office. At ¼ section corner to 12 + 13, we look again and find trunk of tree in with faint iron marks. We set 2x2x20 Oak hub and back in corner with old stake. Old stake bears South 45° East 18". Old stake stand says that this tree was standing and the marks quite plain 3 yrs. ago. At the section corner set 12 + 13 on E. Imp. line, we set a 2x2x18" hub and back for true corner (leaving old stake E 5" as witness) by flat measurements from N.W. and N.E. stumps. After which these stumps bear North 66° W, 52 links and North 50° E, 12 links. (8° 20' Var.) The S. W. stump now bears South, 72° W. From this sec. corner we run West on 8° 25' Var. compass line. Back to Walker in P.M. via Cyphers.

Melville A. Kemp.

July 15th, 1912: Train to Cyphers and walked out to Evanson's; dinner there. Went to stake at corner to 11, 12, 13 + 14 and walked North. Found stake for ¼ corner, but the ¼ corner between secs. 10 + 11 seems to be gone and all stumps burned out. Then I walked West from stake at ¼ corner between secs. 11 + 14, but could find no stakes nor trees for section corner 10, 11, 14, 15, where Gov't notes call for: W. Pine 36 N, 67½ E 92; Red Oak 10 S 62 E, 81 lks; Oak 12 S 68 W, 108; Poplar 10 N. 40 W, 31. Stayed at Henry Evanson's over night.

Melville A. Kemp.

July 16th, 1912: Started at compass line West from $\frac{1}{4}$ post between Secs. 12 + 13. ($8^{\circ} 25'$ Var.) Went to old Section Post to corner 11, 12, 13 + 14 found the other day, and from the S.W. and S.E. stumps we set a 3X3X24 Oak hub for section corner. After which old stake bears E 16". Started compass line West at $8^{\circ} 25'$ Variation. Sam Evanson, Henry Evanson and Gilman Evanson. Up to Walker in P. M. Melville A. Kemp.

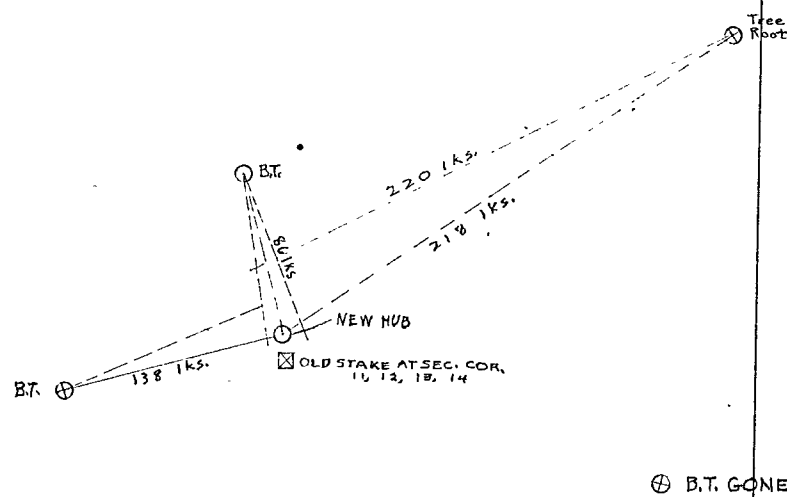
July 17th, 1912: Train to Gyffers, walked in to H. Evanson's, arriving there at 12 M. Find the line cut along compass line started at Section Post 11, 12, 13 + 14; so hit about 2 rods North of $\frac{1}{4}$ corner between 11 and 14 at school house. Keep on cutting, as the B.T.s at $\frac{1}{4}$ corner between Secs. 11 and 14, although plainly marked and very old, do not check for measurement. May be mistake in notes; should be 54 instead of 540 links. At section corner between 10, 11, 14 + 15, Gov't notes call for N. Pine 36 North $67\frac{1}{2}$ East 92; Red Oak South 62 East 81 links; Oak 12 South, 68 West 108 links; Poplar 10 North 40 West 31. We find an old 4X4X48 wet Oak stake and the stumps of the N.E. and S.E. trees, the latter badly rotted, but marks visible; the former burned. Both check exactly for course and distance with the old post as it stands. We find an old Oak South 65 West 114 links, lying on the ground.

Blazed in the underside. Apparently this is the old B.T., but a new one 15" Oak has been set South $59\frac{1}{2}$ West $12\frac{1}{2}$ links. The stump of a poplar 12" probably marked about the same time as the new S.W. Oak B.T. stands plainly marked North 23° West 92 links. Our cut line from the $\frac{1}{4}$ section corner a mile East hubs about 6 rods North. Same crew. Stayed at Henry Evanson's overnight. M. A. Kemp.

Thurs. July 18th, 1912: Same crew. Start crew cutting a compass line West from corner to Secs. 10, 11, 14 + 15; brush pretty heavy. Our cut line passes about 1 rod South of 5X5X50" $\frac{1}{16}$ post. We find a 5X5X40" post at $\frac{1}{4}$ corner between sections 10 and 15. Government notes call for a stake and following B.T.s. at this point: Poplar 3 North 55° W. 21 links; Poplar 12 S, $15\frac{1}{2}$ E, 23 links. We find an 18" poplar which has fallen but which stood South $15\frac{1}{2}$ E, 23 links to center of hole where tree stood. Are marks to be seen, but tree is badly rotted throughout. A 9" poplar lies under the moss N.W. but is badly burned and rotted. A 15" Oak B.T. (about 12-15 years) stands South $83\frac{1}{2}$ East 120 links. Our cut line hits about 2 rods South and we continue about 200 ft. to shore of small lake. We walk around lake, and as we cannot extend our line, we hunt section corners to sections 9, 10, 15 + 16 where Government notes call for a stake and the following B.T.s: Y. Pine 16 South 42 East 26; Y. Pine 16 South 10 West 20; Y. Pine 16 North 43 West 120; Y. Pine 15 N., 21 E, 169. We find a 3X3X40 inch stake set by Phillips, June 14, 1910, and an old 5X5 Jam. stake, lying on the ground. We also find the tall stump of the S.E. tree plainly marked, and the stumps of the S.W. + N.W. trees. Had dinner to-day at Sam Evanson's; other meals and lodging at Henry's. M. A. Kemp.

Friday, July 19th, 1912: We go to section stake found yesterday evening, and measure to stumps. The S.E. stump stands S. 42° E, $26\frac{1}{2}$ links. The S.W. stump stands S. 6° W., $19\frac{1}{2}$ links. The Northwest stump stands North, $43\frac{1}{2}$ West, 120 links. We find the old burned stump of the N.E. tree also. The old stake is near enough to correct position to run compass line, so, without setting hub, we cut West $8^{\circ} 25'$ Var. We hit about 1 foot North of $\frac{1}{16}$ post. We find 4X4X60" stake and B.T.s for $\frac{1}{4}$ section corner between Secs. 9 + 16 in Elder Swamp. Government Notes call for stake and following B.T.s. at this point: Jam. 6 North 66 E., 17; Jam. 10 South, $79\frac{1}{2}$ W 13. Tall stump of S.W. tree and dry N.E. tree both plainly marked, and bear as follows from the stake as it stands: North, $63\frac{1}{2}$ East 17 links) $8^{\circ} 30'$ Var.
South $83\frac{1}{2}$ West 12 links)

These trees have been chopped out by some other surveyor



10-11-14-15

to get at marks. We start a new compass line West from this stake on $8^{\circ}30'$ Var. (Our line from section stake hits about 1 rod North of this stake). Cutting very heavy in this swamp. At 4 o'clock we quit on account of rain.

Melville A. Kemp.

Saturday July 20th, 1912: Continued cutting thru swamp. Very wet in brush. Into Walker. M.A.K. Tues., and Wed., July 23rd. and 24th, 1912. With K. Mc Ivor and O. J. Thompson, as axemen, I go to Iron post at S.W. corner to section 7, and cut a compass line East at $9^{\circ}30'$ var. Cutting heavy. At $\frac{1}{4}$ corner between sections 7 + 18 the Government Notes call for

Spuce 10 South 36 West 23 links and

Birch 10 North 47 West 35 links. A $4 \times 4 \times 48$ " post stands in a pond about 100 ft. South of our line, but, as we could find no B.T.s. we continue. At corner to sections 7, 8, 17 + 18 we find a post, badly burned, but no trees. Our line hits 200 ft. North. At corner to sections 8, 9, 16 + 17 Gov't. Notes call for:

July 25th, 1912: Jam. 14 South $68\frac{1}{2}$ East 37.

Jam. 12 South 65 West 72.

Jam. 13 North 78 West 17.

Jam. 14 North 19 East 70.

We find a $4 \times 4 \times 48$ post in swamp, which checks with stumps of old trees. We cut West on $8^{\circ}25'$ Var. We find a $4 \times 4 \times 36$ post at $\frac{1}{4}$ corner to sections 8 and 17, about 6 ft. North of our line. Trees have gone, tho we find roots which check. We continue our line West. $\frac{1}{6}$ corner lies about 5 ft. North. Lodging and breakfast at Montgomery's. Archie Mc Ivor worked in place of Jim Mc Ivor. M.A. Kemp.

July 26th 1912: Archie Mc Ivor and Sylvest Hovelson cutting brush. Our line hits about 6 ft. S of burned stake at Section corner 7, 8, 17 + 18, where Gov't notes call for

Birch 5 North 70 West 70.

Birch 8 North 60 East 15.

Pop. 9 South $37\frac{1}{2}$ West 22.

Pop. 4 South 19 East 10, which have disappeared. M.A. Kemp.

SURVEY RECORD No. 384

Sec. 4 T-136-N.R. 29 W.

C 57

Survey record No. 384 Book 76, Pages 1-15.

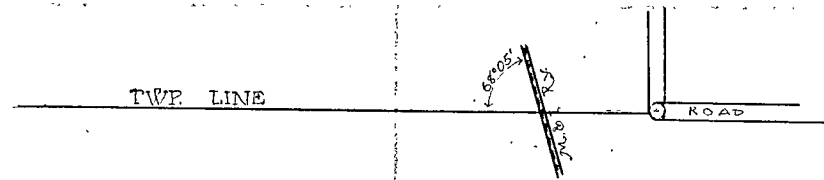
Saturday, May 27, 1916: G. N. Guro, F. F. Nilson and E. B. Horst, begin subdivision of section 4, 136-29. We leave Walker for Jenkins on 9:28 train. R.R. fare each, 79¢. Nilson and Horst get dinner at Jenkins Hotel, each 35¢.

After dinner we are taken (with two new Gurley transits and outfits) to section 4, by a livery hired by Guro. Guro takes us around the section, shows us the corners previously established by him, and we look up the corners that were not previously located. Guro makes arrangements with Mrs. M. H. Cochran to board Nilson and I while on survey of section 4, and returns to Jenkins. Carpet tacks at Request, cash \$0.05. E. B. Horst.

Sunday, May 28th, 1916: I take Gurley transit and outfit and M. H. Cochran as axeman, and walk to Northwest corner of section 4, 136-29, where I find closing corner set by Guro. I set transit on top of a hill about 300 ft. West of C.C. of section 4, and send Cochran East on graded road 1/4 mile to set flag at S.E. corner of section 33, 137-29, (being a standard corner) and I set a flag at 1/4 corner in center of graded road on South side of section 33, established by Guro. I set transit on true line and extend transit line East on North side of section 4, at true Northwest corner of section 4, closing corner sets North 0.8 ft. We begin chaining at Northwest corner section 4, and chain East on road at 1565 ft. East. Southeast corner of section 33, 137-29 end of East and West road. Road runs North. At 2594.4 East, a cement block 8" square, above ground 0.6 ft., marked thus: \pm ; marking 1/4 corner North side section 4. I triangulate large slough, but on account of high winds, I decide to chain across. Nilson and Meline work on South side of sec. 4. E. B. Horst.

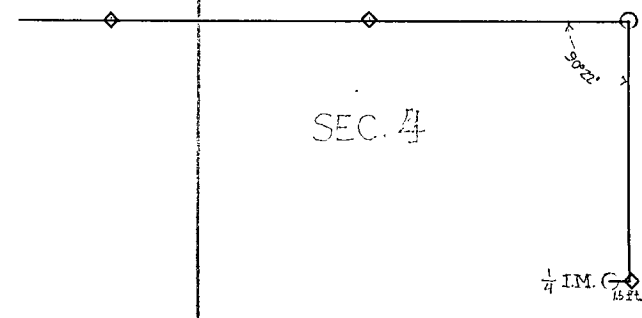
Monday, May 29th, 1916: Horst, transit, Albert Anderson, flag and chain, and Philip Beidl, ax. Continue North boundary line section 4, East from 1/4 corner 1/4 corner equals 0.00 ft.

- At 200 ft. East enter Jam. swamp.
- At 500 ft. East enter open swamp.
- At 620 ft. East enter dry land pt.
- At 725 ft. East leave dry land, enter swamp.
- At 1450 ft. East enter dry land.
- At 1810 ft. East enter wet meadow
- At 2150 ft. East enter wet meadow
- At 2400 ft. East leave wet meadow
- At 2594.4 ft. East, I. M. N.E. corner sec. 4, enter J. Pine grove and continue East to S.E. corner of Sec 34, 137-29, as a
- At 1940 ft. East leave meadow] check for true standard line. I. M. equals Sta. 0.0 ft. East.
- At 1290.4 ft. East M. & J. Ry.



At 1667.8 ft. East, S.E. corner section 34. wood post. We return to I. M. at N.E. corner sec. 4 set by Guro. I set transit over I. M., sight West to 1/4 corner and turn Southwest angle $90^{\circ} 22'$ and run line South along East side of section 4.

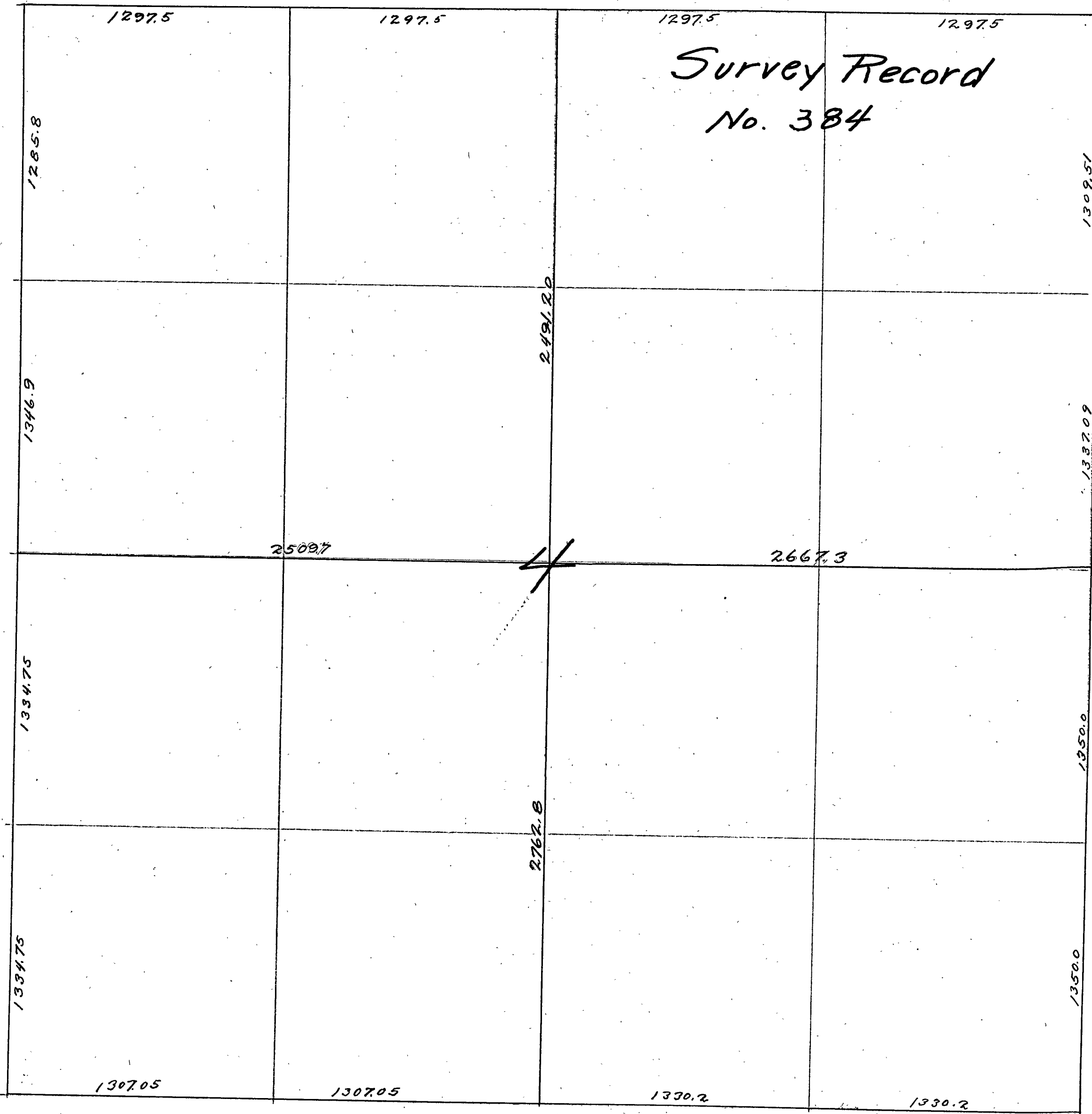
- At 1000 ft. South, set stake.
- At 1076 ft. South, set hub.
- At 2000 ft. South, cross old road, runs S.E.
- At 2091 ft. South set hub.
- At 2346.6 ft. South set hub. I. M. 1/4 corner East side sec. 4, set by Guro, sets West 1.5 ft. Nilson worked on South & West side of section. Quit for night. E. B. Horst.



Tuesday, May 30th, 1916: Horst and same crew. Continue East section line South. I backsight North on random line, reverse telescope and sight to S.E. section corner; it bears West $1^{\circ} 58'$. We chain and cut line to corner. At 2700 ft. South of 1/4 corner, I. M. at S.E. corner to section 4. I set transit over this corner, sight West to flag at 1/4 corner South side, turn N.W. angle and sight North to I. M. At 1/4 corner, angle equals $96^{\circ} 1'$. We return North 1350 ft. and set wood post for South 1/16 corner, then go North to 1/4 corner and sight

Plat of

Survey Record
No. 384



South to section corner. I turn S.W. angle $87^{\circ}18'$ and run $\frac{1}{4}$ line West and chain: at 73.4 hub; at 244.5 hub; at 576 hub; at 1139 hub; at 1658.2 hub; at 1995 hub; at 1935.4 hub; at 2575.3 hub; at 2729 hub; at 2729 ft. West I turn 90° South and intersect $\frac{1}{4}$ line run East from West side by Wilson. Distance = $85^{\circ}22'$. P.I. Hub at 2456 ft. East on his line, distance across section on true line equals 5177 ft. Quit for night.

Tuesday, May 31st, 1916: Horst, and same crew. I cause flags to be set at $\frac{1}{4}$ corners on North side and South side of Sec. 4. I then set transit on true line between corners North and South at about 1500 ft. North; we cut brush and chain from South side to North:

- At 28.3 ft. North, cross road fence.
- At 300 ft. North, line crosses N. + S. fence.
- At 496 ft. North, enter field.
- At 593 ft. North, cross E. + W. fence.
- At 1504.8 ft. North, set hub near old basement.
- At 1940. ft. North, cross fence.
- At 2760 ft. North, cross fence.
- At 2848.2 ft. North, intersect E. + W. $\frac{1}{4}$ random.
- At 2860.8 ft. North, set hub.
- At 4096. ft. North, cross fence.
- At 5254 ft. North, $\frac{1}{4}$ corner on North side. We go East on North section line from $\frac{1}{4}$ corner to Sta. 1297.2 and set East $\frac{1}{6}$ on North side, in water, (wood post). I turn $90^{\circ}22'$ Southwest angle and run $\frac{1}{6}$ line S.
- At 100. ft. South, leave swamp.
- At 122.9 ft. South, set hub and quit for night.

E.B. Horst.

Thursday, June 1st, 1916: Horst, and same crew, continue East $\frac{1}{6}$ line South:

- At 416.6 ft. South, set hub.
- At 700 ft. South, North end of slough, West of line.
- At 1019 ft. South, cross fence.
- At 1068.6 ft. South, South end of big slough.
- At 1173. ft. South, set hub.
- At 1888.2 ft. South set hub.
- At 2376.2 ft. South, P.I. hub on E. + W. $\frac{1}{4}$. P.I. hub = Sta. 0.0. I turn $2^{\circ}40'$ W., and continue South.
- At 40. ft., East and West fence.
- At 215.1 ft. South, set hub.
- At 1453. ft. South, set hub.
- At 1555. ft. South, cross fence, enter field.
- At 2350.7 ft. South, set hub.
- At 2777.2 ft. South, East $\frac{1}{6}$ corner on South line sets East 13.2 ft. Quit for night and take 1:35 train at Pequot and go to Walker to see J. W. Lewis about locating the center of Section 4. He says according to law. Fare to Walker, 85¢. Bed at Carlson's Hotel 50¢.

E.B. Horst.

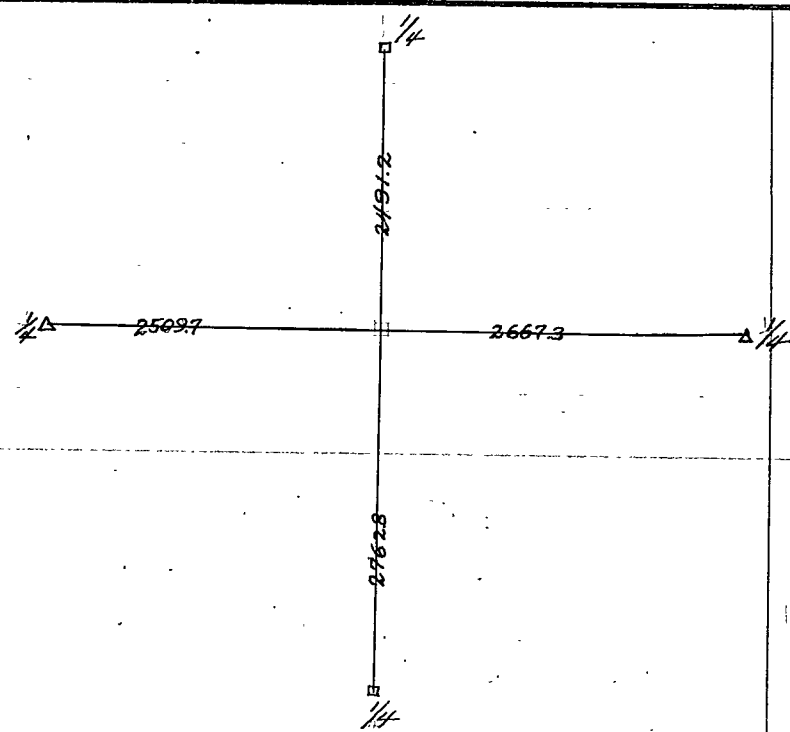
Friday, June 2, 1916: I return to Pequot from Walker; fare 85¢. My crew works with Wilson. I return at noon to Cochran's place for dinner. Breakfast at Walker, 25¢. P.M. I take same crew and run South $\frac{1}{6}$ line West to intersection on North and South Quarter line. I set up transit on East and West $\frac{1}{4}$ line at hub 2729 ft. West, turn 90 degrees South and set Hub on true line, also at 2575.3, setting on hub 2729 on true line, I make an intersection on North and South $\frac{1}{4}$ line and set center of section (wood post). Plat.

Saturday, June 3rd, 1916: Horst and same crew set $\frac{1}{6}$ corner on North and South $\frac{1}{4}$ line in South $\frac{1}{2}$ of section at 1381.4 ft. midway between East and West $\frac{1}{4}$ line and South Section line. At intersection of East and West $\frac{1}{4}$ and North $\frac{1}{6}$ line we set post for corner in North $\frac{1}{2}$. Wilson and crew stay on North $\frac{1}{6}$ East of West $\frac{1}{6}$ and I take crew and set a hub on true East and West $\frac{1}{4}$.

line at Sta. 1254.85. I set transit over this hub and sight to West $\frac{1}{16}$ on North section line at intersection of West $\frac{1}{16}$ and North $\frac{1}{16}$. We set post for corner which falls in slough. Wilson takes his transit and crew to a pt. on true South $\frac{1}{16}$ line near West $\frac{1}{16}$ and I sight South from West $\frac{1}{16}$ corner on East and West $\frac{1}{4}$ line. At intersection we set post for $\frac{1}{16}$ corner. P.M. Wilson goes to Walker and I set $\frac{1}{16}$ corners on East and West $\frac{1}{4}$ line in East $\frac{1}{2}$ of section at Sta. 1333.65 ft. West on true $\frac{1}{4}$ line and $\frac{1}{16}$ corner at intersection of East and South $\frac{1}{16}$ lines; also at intersection of E. & N. $\frac{1}{16}$ lines. M. H. Cochran returns with cement from Pequot and we drive to Southwest corner of Sec. 4, 136-29, load some sand and set the following cement corners all 9 inches in diameter by 3 ft. long, marked with X on the top and pointed pebble placed at the true point. S. $\frac{1}{16}$ corner, $\frac{1}{4}$ corner, N. $\frac{1}{16}$ corner and Northwest section corner, all on West side of section 4, 136-29. M. H. Cochran driving team and wagon, and Albert Anderson and Philip Seidl assisting, all being witnesses to corner sets.

Sunday, June 4th, 1916: Albert Anderson, Philip Seidl and M. H. Cochran with team and wagon and necessary tools begin at following places, West $\frac{1}{16}$ on South side $\frac{1}{16}$ corner in center of S. W. $\frac{1}{4}$, West $\frac{1}{16}$ on East and West $\frac{1}{4}$ line, West $\frac{1}{16}$ on North section line, North $\frac{1}{16}$ on North and South $\frac{1}{4}$ line, $\frac{1}{16}$ at intersection of N. & E. $\frac{1}{16}$ lines, North $\frac{1}{16}$ on East section line and go to dinner. P.M. We set East $\frac{1}{16}$ corner on East and West $\frac{1}{4}$ line, $\frac{1}{16}$ in center of S. E. $\frac{1}{4}$, South $\frac{1}{16}$ on East section line, East $\frac{1}{16}$ on South section line, $\frac{1}{4}$ corner on South section line, South $\frac{1}{16}$ on North and South $\frac{1}{4}$ line, and a corner at center of section. At center of N. W. $\frac{1}{4}$ which is in slough we drive an 8 ft. pole, and drive 2.5 in. X 4 ft. I. M. over pole, at E. $\frac{1}{16}$ on North Section line, we drive a 1.25 in X 6 ft. iron pipe with cap and marked East $\frac{1}{16}$ S. 4; T. 136-29.

Monday, June 5th, 1916: I write up notes and make out bills for work done on Sec. 4, 136-29. P.M. — M. H. Cochran takes me and outfit to Pequot. I take 3:24 train to Walker. R. R. fare 85¢. I register at Chase Hotel and work in Büro's office until 12:00 P.M.



E. B. Horst.

E. B. Horst.

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Plat of Survey Record No. 385

Pages 62-63

Book 176 Pages 31-40

					5	4	3
	13	20	1	6	5	14	3
				Cement Mon.			
				91°27'			
	10	11	12	26399	90°46'		
				IM. 2" x 48" Boiler Pipe.			
				IM Twp	7	8	9
				26399			10
				26399			
	15	14	13	Twp.			
				IM.	18	17	16
				Moose			
	138-32			IM.			138-31
				26399			
	22	23	24	IM.	19	20	21
				IM. 2" x 48" L.M.			
				McKinley			
				5279.8			
	27	26	25	Bull	30	29	28
				Cement Mon.			
	34	35	36		31	32	33

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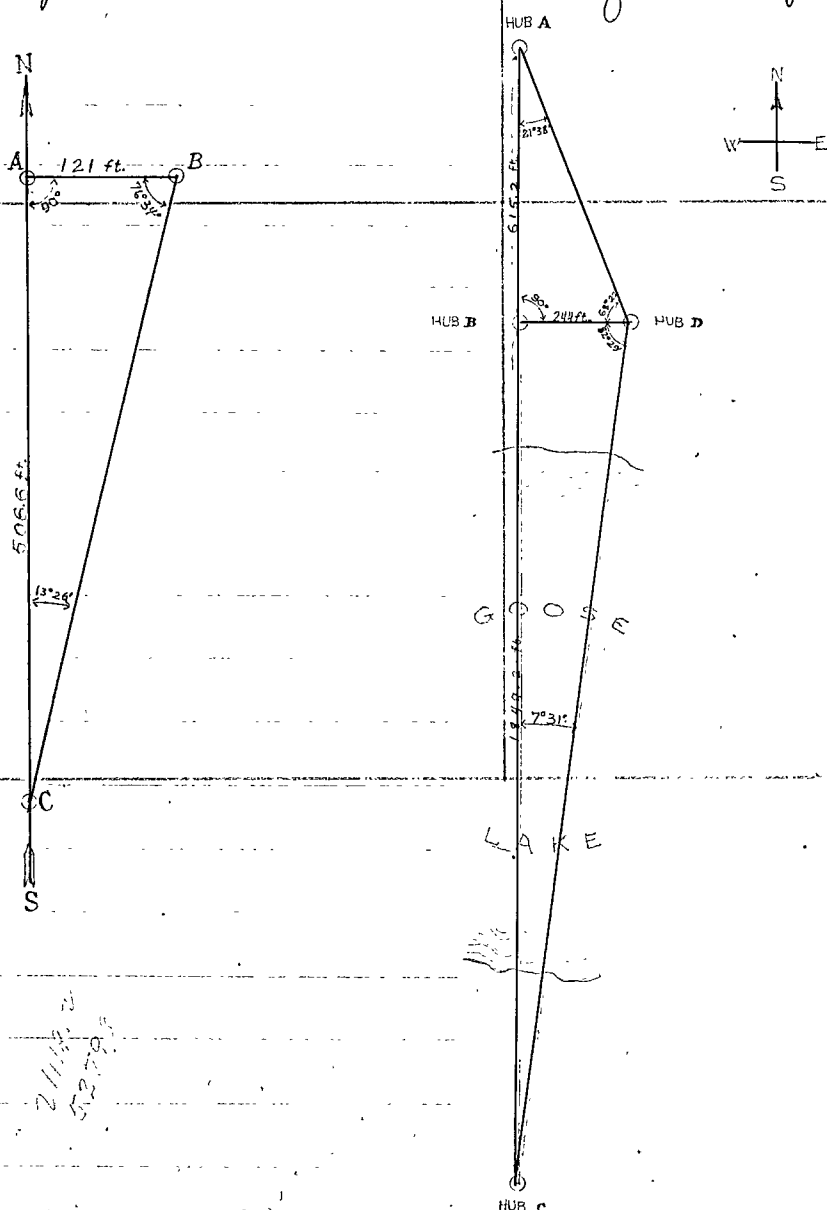
Wednesday, June 6th, 1917: E. B. Horst working for Bull Moose and Mc Kinley Twp. on a Twp. road to begin at south-west corner of section 6, 138-31, and run south two miles on Range line. I leave Walker at 9:28 (train) and go to Hackensack, purchase a Ford and drive to Chas. Hank's place in Sec. 6, 138-31 (Bull Moose) where I will board. I call Mc Kinley Twp. chairman, but unable to get him. I drive to John Howe's place (Bull Moose chairman) and get instructions. E.B. Horst.

Thursday, June 7th, 1917: E. B. Horst, transit and chain, John Mc Darling, chain, Chas. Hanks, axe and flag, Ben Bagley, axe. Station 0.00 equals cement monument on range line, being in center of East and West road and road running North and corner to sections 6 and 7, 138-30, and Secs. 1 and 12, 138-31. Run south at 9° Variation. 1296.3 South, set hub. 2640.0 South, set stake at this point. U. S. notes call for post and Aspen 10 South 38 West 9; Aspen 10 North 68 East 10: All are gone, and continue South. 3119.8 set hub; 3858.2, set hub; 5281.6 set hub; at this point U. S. notes call for post and W. Pine: 18 North 20 West, equals 10; 18 South, 45 East, equals 12; (Pine) 18 South 58 West equals 60 (Pine) White Birch 14 North 60 East 30. We find an old post, but no B. T's. to check with same. Continue our random line South at 5410. South cross old road. 6479.0 South, set hub; 7259.5 South, set tack in of Pine stump. E.B. Horst.

Friday, June 8th, 1917: Horst and same crew continue South between sections 13 and 18, 7920.0 South. U. S. notes call for post and, Spruce 12 South 50 West 25; W. Birch 10 North 50 East 35. Both trees gone, continue South. 8127.3 South, set hub; 8800.0 South, cross road winding; 8848.5 South, set hub; 9527.0 South, set hub; 10560.0 South set hub. U. S. notes call for post and following B. T's: W. Birch 6 for corner; W. Birch, 8 North 52 East 10; White Birch 8 North 30 West 25; W. Birch 6 South 80 West 20; Being corner to sections 13, 18, 19 & 24, Twp, 138-30-31. There are many stumps, but all are burned to a point, and I am unable to find any that check with U. S. notes. There are 2 cruise's stakes set at 10560 (no good). We continue random line South. 12119.2 South, set hub; 13200.0 South, set stake and look for U. S. B. T's. Aspen 4 East 9. Red Oak 28 North 80 West 29. All gone, quit for night. E.B. Horst.

Saturday, June 9th, 1917: Horst and same crew continue South on range line between Secs 19-24, 14549.5 South, set hub. 15855.0 South, enter small lake (bay). No signs of B. T's. 15964.0 South, leave bay of small lake; 16321.5 South, set Hub to triangulate another bay of lake; 16828.1 Hub C. on S. side of lake. Continue South. 18069.5 set hub North of swamp, also set a hub South of swamp. We walk around swamp to hub B, 300 ft. South of swamp and 220 ft. North of a lake. I cause a hub C, to be set on S. side of lake. From hub B, I turn 90° angle and run East 244 ft. (equal base line). Sight to hub A, turn angle to hub B. Angle equals 68° 22'. Sight to hub C. and turn angle to hub B; angle equals 82° 29'. Distance from hub A to hub B equals 615.2 ft. Hub B to C equals 1849.2 ft. Hub C on South side of lake equals station 20533.9 ft. South. Continue South at station 21119.2 ft. South, an 8 x 8 cement monument, marking the corner to sections 30 & 31, Twp. 138-31, and sections 25, 36, Township 138-32, established by John Corso, from U. S. B. T's. (B. T's. still standing) sets East 30.8 ft. We take outfit one mile North and quit for night. E.B. Horst.

Monday, June 11th, 1917: Horst and same crew. Correcting back on range line between Twp. 138-31-32. Section corner to Secs. 19, 24, 25 & 30, at station 15839.4 South goes East 23.1 ft. I set a



2 X 48 I. M. with new B. Ts. N. Pine 12 North 15° East 77.0 ft; J. Pine 8 North 39° West 85.4 ft; J. Pine 8 South $61^{\circ}30'$ East 120.2 ft. $\frac{1}{4}$ corner between Secs. 19-24 at Station 13199.5 goes East 19.25 feet, set I. M. New B. Ts.
 J. Pine 9 North $54^{\circ}30'$ East 31.5 ft; Poplar 4 North 40° West 41.0 ft; Section corner to Secs. 13, 18, 19 & 24, Down-
 ship 138-31 and 32. At Station 10559.6 South goes East 15.4 ft., we set I. M. with the following new B. Ts;
 J. Pine 6 North $59^{\circ}15'$ East 35.5 ft.
 J. Pine 5 North $49^{\circ}30'$ West 42.0 ft.
 J. Pine 6 South $76^{\circ}30'$ West 89.8 ft. $\frac{1}{4}$ corner between Secs. 13-18. At Sta. 7919.7 goes East 11.55 ft. We
 take new bearing trees. W. Pine 12 North $47^{\circ}30'$ West 74.8 ft; J. Pine stump 10 South $87^{\circ}30'$ East
 20.1 ft. and set I. M. Section corner to Secs. 7, 12, 13, 18. At Station 5279.8 ft. South goes East
 7.7 ft. We set I. M. with new B. Ts. White Pine stump 20 North $36^{\circ}20'$ West 67.8 ft; J. Pine
 7 South $29^{\circ}50'$ West 100.5 ft; N. P. stump 18 South $56^{\circ}40'$ East, 35.0 ft. $\frac{1}{4}$ corner between Sections
 7 & 12. At Station 2639.9 South, goes East 3.85 ft. set I. M. No trees or stumps near. Section corner to
 Sections 1, 6, 7 & 12 was previously established and marked by an 8 X 8 cement monument. I set
 transit over this corner and sight East to West $\frac{1}{6}$ corner between Sections 6 & 7, turn Southeast
 angle to true line. Angle equals $90^{\circ}46'$. True line Southwest angle to S. R. H. running West
 equals $91^{\circ}27'$. Note: All iron monuments set in this survey are 2" X 48" boiler flues. E. B. Horst.

Recorded Wed. Jun. 27-1917

31-32-33 T. 137 N. R. 32 W.

and Sec's 32-33

T. 138 N. R. 32 W.

Book 76, pages 45 to 54.

Wednesday, June 13th, 1917: Horst, transit, L. R. Farnum, chain, Burt Burton, chain, Elmer Olson, axe and flag, Leonard Anderson, axe. Drive to corner of sections 29, 30, 31 & 32, Twp. 137-32, in center of North and South road and in line with road running West previously established and marked by a wood post. We pull up post and set in its place 2" X 48" I. M. With transit over this corner, we run South between sections 31 and 32, at 9° variation. 901.4 South, set hub; 2102.8 South, set hub; 2598.5 South set hub, we look for B.T.s. to ¼ corner. Aspen 16 South 82° East 9; B. Ash 6 North, 70° West 17; All gone, continue South. 3700.8 South, set hub, enter swamp; 5280.0 South set hub in open swamp and look for: Jam. 5 North 56° East 203; and, Jam. 5 North 34½° West 337. Mr. Burton saw these trees ten years ago, but they are gone now and he is unable to identify the corner or stumps. We walk East ½ mile to ¼ corner previously established from U. S. B. T.s., pull up wood post and set in its place a 2" X 48" I. M., and run West at 8° 30' Variation. At about 750 West, enter Jam. swamp. 2494.6 West, set hub on North and South random line between Secs. 31 and 32. N.W. angle = 89° 32'. 3900.0 leave swamp; 4044.5 West, set hub; 4430.0 West, enter Jam. swamp; 5280.0 West, set hub and look for U. S. B. T.s. to ¼ corner on South side of Section 31, 137-32.

E. B. Horst.

Thursday, June 14th, 1917: Horst and same crew. Look for several hours for B. T.s. Jam. 6 North 47° East 14; Jam. 6 North 28° West 27. All gone, continue West. 5674.7 West, point on 8" Jam. stump; 6100.0 West leave swamp; 6389.8 West, set hub; 6956.4 West, set hub; 7183.9 West, set hub; 7744.6 West, set hub, a wood post and a short piece of pipe set North 4° 40' West 76.40 ft. We look for B. T.s. to S.W. corner of Section 31, also southwest corner of Township 137-32, on 9th Standard Parallel, being N. Oak 24 North 46° 30' West 161; Elm 12 North 84° 30' East 32. We find an Oak stump burned to a point, but nothing to check with it, no elm near point called for. (Wood corner set by imagination).

Friday, June 15th, 1917: Horst and same crew, except A. S. Anderson, continue West into Madena County on random parallel. 9474.6 West, set hub; 12999.3 West, set hub. I find a J. Pine bearing tree at South west corner of Section 36, Township 137-33, but have no field notes. Jens Jenson identifies this tree, so does Nels Jenson. I walk North one mile to Herbert Howard's place and telephone to Register of Deeds at Madena for above field notes. (phone 40+) Get the following: Pine 9 North 30° 30' East 29; Pine 12 North 69° West 33; - we find the Northeast tree faintly marked, also the stump of Northwest B.T. From these I set a 3" X 3" X 24" Pine Post in center of road, with following bearings: (Var. 8° 30' needle) J. Pine 8 North 56° 50' West 55.3 ft., and, J. Pine 5 North 43° 17' East 41.6 ft. At 8° 30' Var., 33 ft. North y corner, I bury a stone 8" diameter with pine knots and chips as an additional bearing. Returning to hub 12999.3 corner sets North 41° 07' West 93.9 ft. At Station 13016.0 ft. West, S.W. corner of Section 36, 137-33, sets North 70.7 ft. A. S. Anderson helps me in the afternoon. Correcting back: At Station 7836.6 ft. West and 42.4 ft. North of random line I set a 2" X 48" I. M. for S.W. corner, Twp. 137-32, with following bearings: N. Oak 6 North 60° 30' East 66.2 ft; B. Bilead North 42° 43' West 27.8 ft. ¼ corner South side Section 31. At Station 5224.4 West goes North 28.3 ft. I set a 2" X 48" I. M. new B. T.s. Jam. 8 North 85° East 22.8 ft; Spruce 5 North 78° West 21 ft.

E. B. Horst.

Saturday, June 16th, 1917: E. B. Horst and same crew. Setting Iron Monuments, all I. M., being 2" X 48" boiler flues and set at following corners, established by E. B. Horst in 1916. At S.W. corner of Section 33, 137-32 I. M. At corner to 15, 16, 21 & 22, 137-32, I. M. At corner to 28, 29, 32 & 33, set 2.5" X 48" I. M. At ¼ corner between Secs. 33 & 34. At corner to Section 21, 22, 27 & 28 set I. M. On random township line South side of Sections 31 and 32 Twp 137-32 At Station 2612.2 West, I chain North 14.15 ft. and set I. M. at corner to Secs. 31 & 32 with following new bearings: Jam. 6 North 55° 15' East 198 ft. Jam. 8 North 9° 44' West 255.9 ft. I set transit on hub 5280.0 South on random between Secs. 31 & 32; I. M. at corner sets North

63°13' West, 130.3 ft. for 1/4 corner between sections 31 and 32. At station 2610.65 South I chain West 58.15 set I. M. New B.P.s.
 N. Oak 9 North 64°30' West 110.2 ft; N. Oak 6 South 89° East 72.3 ft. E.B. Horst.

Monday, June 18th, 1917: E. B. Horst and same crew, and Julius Rand as axeman. Begin at cement

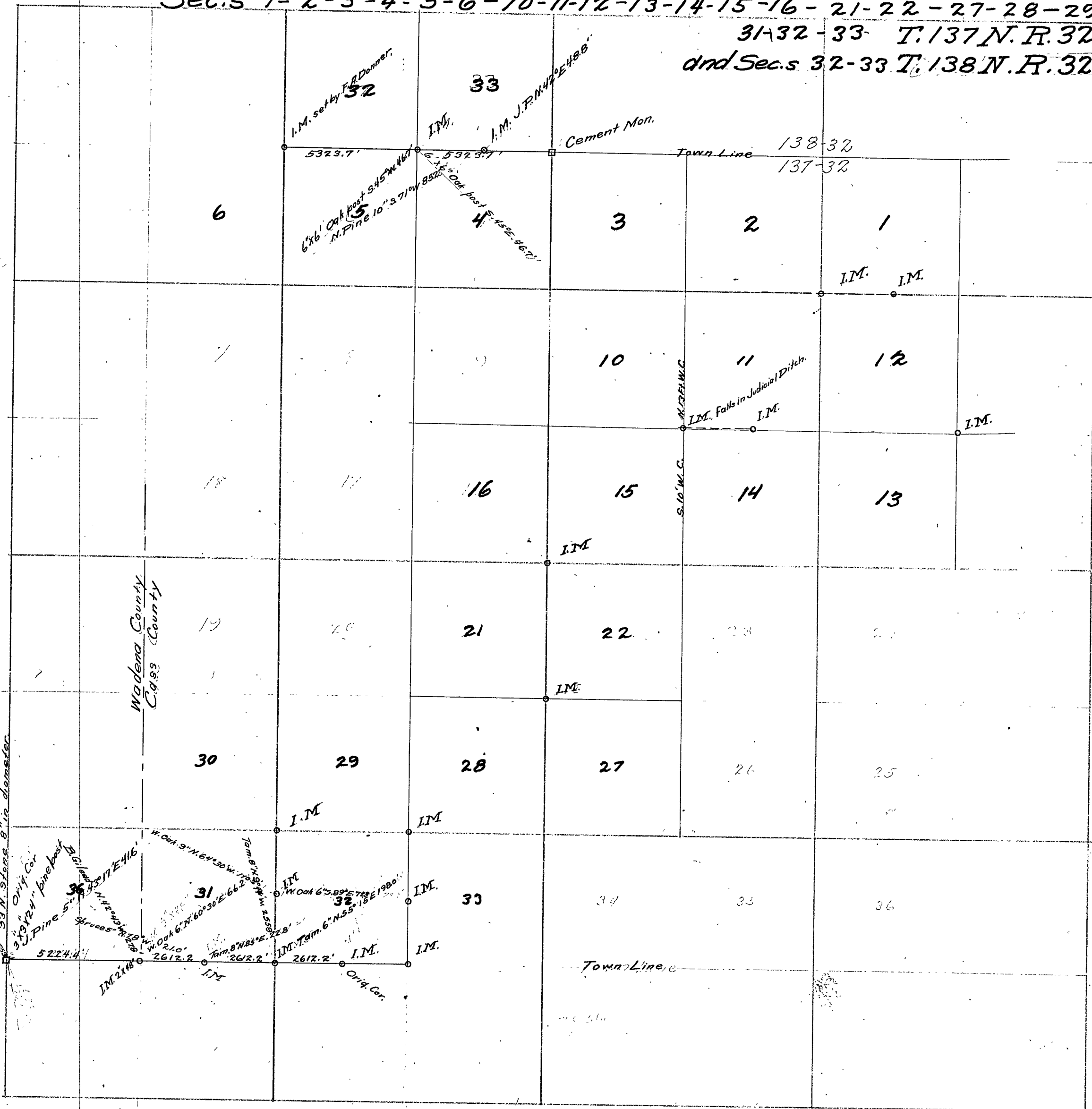
monument at Northeast corner of Sec. 4, 137-32, run West at 9° variation.			
2247.5 West, set hub.			
3806.5 West, set hub.			
5068.8 West, set hub.			
5300.0 West, enter swamp.			
6157.6 West, set hub.			
7180.0 West, leave swamp.			
7210.4 West, set hub.			
8196.7 West, set hub.			
9422.7 West, set hub.			
10439.5 West, set hub.	10647.4 West I. M. 1/2" x 48" (set by J. A. Donner, field notes Book 89). At corner to sections 5+6, 137-32, set North 40.8 ft. Correcting back: At station 5323.7 West I chain North 20.4 ft. and set a 2" x 48" I. M. for corner to sections 4 and 5, 137-32, and sections 32-33, 138-32. I set a 6" Oak post 6 ft. long, South 45° East 46.7 ft. Oak post 6" x 6' South 45° West 46.7 ft. At station 2661.85 West, I chain North 10.2 ft. North and set a 2" x 48" I. M. for 1/4 corner on North side of section 4, with following bearings: J. Pine 10 North, 42° East 48.8 ft; N. Pine 10 South 71° West 85.2 ft. Hub 2247.5 goes North 8.6 feet to true line.		
<p>Tuesday, June 19th, 1917: E. B. Horst and same crew, except Julius Rand. Set 2" x 48" I. Ms. on survey made by E. B. Horst in 1916, book 65. At following section and 1/4 corners, sections 1, 2, 11 & 12 set I. M.</p> <p>1/4 corner between sections 1 and 12.</p> <p>S. E. corner of Sec. 12, 137032</p> <p>Sections 11, 12, 13 & 14, set I. M.</p> <p>1/4 corner between sections 11 and 14.</p> <p>Corner to sections 10, 11, 14 & 15 which falls in center of a Judicial Ditch. I drive I. M. on bottom of ditch and set a Witness Post North 13 ft. and post South 10 ft. This concludes survey for Ansel Twp.</p> <p>Wednesday, June 20th, 1917: I return to Walker from Ansel Township.</p>			
			E. B. Horst.
			Recorded, Thurs, June 28, 1917

Plat of Survey Record No. 386

Secs 1-2-3-4-5-6-10-11-12-13-14-15-16-21-22-27-28-29-30

31-32-33 T. 137 N. R. 32 W.

and Secs 32-33 T. 138 N. R. 32 W.



SURVEY RECORD No. 387

C 67

T. 140 N. R. 28 W. Sec's 13-14-15-16-17-20-21-22-23-24-26-27

Township 140 N. Rg 28 W. Ben Clark, surveyor and Burt and Clarence went to the $\frac{1}{4}$ S between Sec. 10-15. A cedar stump marked B.T. 78.5 E. 4 links. Cedar 4 in. N. 5 W. 5 links, thence set a cedar post. 4 in. and the same $\frac{1}{4}$ S. with Sec. 10 on one side and Sec. 15. Thence run East 7° at 660 links intersect Boy Lake and set a Cedar post 3 in. in diameter for M.C. between Secs. 10-15. T. 140 N. Rg. 28 W. 5 P.M. Begin at the established $\frac{1}{4}$ S. cor. between Secs. 10-15 and run West between Secs. 10-15. 7° Var. At 38.30 chain to corner Sec. 10, 15, 9, 16. Found a W. Pine 7 in. S. 67° W. 40 links, with old figures on, for Sec. 15. and other pine stump to correspond with the field notes. Set an Oak post 3 in space marked the same Sec. 10, 15, 9, 16. T. 140 N. Rg. 28 W. 5 P.M. April 26. Begin at the established cor. 9, 10, 15, 16 and run North between Secs. 9 and 10. Var. $7^\circ 45'$. At 80 change corner to Secs. 10, 9, 4+3. No trees. Ben. F. Clarke.

April 18, 1917. T. 140 N. Rg. 28 W. 5 P.M. Begin at M.C. corner No. 34, found a W. Pine 4 in. marked M.C. W. Pine 4 in. N. 16° W. 10. Oak stump 9 N. 73° E. 40. Set an Oak post for M.C. 3 in and made a mound of stone. Thence run N. between Secs. 10+11. Var. 7° . At 50 chains the distance called for in field notes search for the corner to Sec. 10-11, 2-3, but could not find it on April 20, 1917. On North at 90⁰⁰ links to $\frac{1}{4}$ S corner between Sec. 2 and 3. East of post 46 links three inch space marked $\frac{1}{4}$ S to marked $\frac{1}{4}$ S. 3576 Chain W. 11, 2 to intersection of true line between Sec. 10-11. April 21, 1917 Set cor. to Secs. 2, 3, 10+11. At 50 chains from M.C. on Boy Lake No. 34 and 40 chains from $\frac{1}{4}$ S between Secs. 2+3 and 25 links from same line. An Ironwood post 4 in and marked the falling witness trees; Poplar 45, 51° W. 51 lbs. Poplar 7 S. 34° E. 38 links. Poplar 8 N. 22° E 35 links. Poplar 9 N. 27° W. $32\frac{1}{2}$ links. Thence run West $7^\circ 20'$ Var. At 13 chains intersect Coopers Lake. 19 chains over lake 850 links to $\frac{1}{4}$ S between Secs. 10+3 found a W. Pine S 10° W 70 links. Sec. post 3 in. marked the same $\frac{1}{4}$ S 40 links S of post. 26 on West on a true line $7^\circ 15'$ to 40 chains to corner Sec. 3, 4, 9, 10. T. 140 N. Rg. 28 W. Begin at $\frac{1}{16}$ on South $\frac{1}{2}$ between Sec. 10+11 and run W. on a $\frac{1}{16}$ line $7^\circ 30'$ Var. At 20 chains found an old stake marked $\frac{1}{16}$ S on the East bank of Coopers Lake. 40 links from $\frac{1}{16}$ S to water. Apr. 24 ch. Thence turn a right angle and run South $7^\circ 30'$ to Boy Lake. About 50 chains to East side house. Ben. F. Clarke.

May 25-1917. T. 140 N. Rg 27 W. 5 P.M. Begin at the $\frac{1}{4}$ S post between Secs. 4+5 run North 20 chains to $\frac{1}{16}$ S. $7^\circ 30'$ Var. Thence run West on a $\frac{1}{16}$ line Var. $7^\circ 30'$ 20 chains. Norway Pine 15 N. 7° W. 62 links, thence West 20. Begin at the $\frac{1}{4}$ S between 4+5 run S. 3983 $\frac{1}{2}$ to Sec. corner 4, 5, 8, +9. Thence run West on a true line $7^\circ 30'$ Var. Thence run West on a true line 7° , at 38.30 search for corner, but could not find same. June 14, 1917 T. 139 N. Rg 28 5 P.M. Sec. 3. Begin at the corner Sec. 3, 4, 9, 10 and run East on a random line 6.45 corner in Township road. corner run E. 40 chains found as all the timber was down and rotten. Thence begin at $\frac{1}{4}$ S Creek? post in middle of road and run South $5^\circ 45'$ to corner of Secs. 3, 4, 9+10. Sec $\frac{1}{16}$ in road and run East $6^\circ 45'$ 20 chains set $\frac{1}{16}$ post. A Norway Pine 14 N. 50° E 170 links. Norway Pine 8 S., 17° E. 160 links. Thence set $\frac{1}{4}$ S North 225.....

June 18-1917. T. 141 W. Rg 28 W. 5th P.M. Survey for Robert M. Olmsted. Begin at a iron corner in township road, cor. of Secs. 28+29 and run North between 28+29. Var. 8° . 850 to cor. Secs. 28, 29, 20+21. 425 East of cor. good corner in edge of pond to pine stumps; one for 20+28. Nor. Pine 8 S., 77° E. 160 links; Nor. Pine 14 N. 50° E 170 links. From thence set an iron post for $\frac{1}{4}$ S. corner, between 28+29, 42.25 links. and on true line (Var 11°) set $\frac{1}{16}$, 2112 $\frac{1}{2}$ links, and run out the North $\frac{1}{2}$ of the S.E. $\frac{1}{4}$. Finish on June 20th 1917 at noon. This land is first No. 1. June 21st 1917. T. 141 N. 28 W. 5 P.M. Begin at the corner Sec. 28, 29, 32+33 at iron post in Township Road. and run East $10^\circ 30'$. 84.75 chain to Hole No. 2 on west side of small lake. Thence set flag on East side of lake and offset South 2 chains. June 22nd 1917. T. 141 N 28 W 5 P.M. Begin at the M.C. on Girl Lake on North side between Secs. 33+34 and run (Var 9°) 39 chains set a Hub, thence North 3.56 links to a small lake in marsh. 1153 over same. 8191 to Hub on a high bank 83.72 to Lake. 2345 over Lake to M.C. on North side of Lake. 42 links E. of M.C.

Nor. Stump 7 N 48° W. 102. 1038

Survey Record No. 387.

Township 140 N. Rg. 28 W. 5 P.M. June 27, 1917. Ben F. Clark, surveyor, and Geo. Inglehart, flagman, went to the corner, Sec. 22, 23, 26, 27 and found the old witness tree a oak 8 in. S. 60° W. 9 ft. an Oak stump B.T. 5 N. 70° E. 28, and made the following Witness Trees: White Birch 8 in N 48° W. 12 ft. A White Birch N. 25° 30' E. 30 ft. Thence set a iron pipe 4 ft. long and set Cal stake 4 in. thick in root old witness tree and marked the same B.T. for Sec. 27, and found a new line cut out North of true cor. 22, 23, 26, 27; 45 ft. N, and found new corner E. 67 ft. marked with a lead pencil 22, 23, 26 + 27. Beginning at the true corner of Secs. 22, 23, 26 + 27 an Iron Post on North Bank of Wabedo Lake, thence run North between Secs. 22 + 23 Var. 7° 15'

June 28-1917. Ben F. Clark, surveyor, Geo. Inglehart, Floyd Showalter roadmen. Thence run North between Secs. 22 + 23. At 160, old R.R. grade running E. + W. At 745 ft. an old N. 45° E. At 1100 ft. a neck of Bay Lake N.E.S.W. and place flag in North side of lake and offset East 66 ft. N. 5° 25' E. The distance is 560 ft. = links.

June 29-1917. At 16, 608.64 ft. our arm of lake set hub. T. 140 N. Rg 28 W. 5 P.M. June 28-1917, Ben F. Clark, surveyor, Geo. Inglehart, Floyd Showalter, roadmen, and Roy Rose axeman. Begin at 26⁰⁰ ft. North of M.C. and set corner to 22, 23, 26 + 27. Thence run N 26.40 ft. set hub No 2. At 28.70 ft. enter tam. swamp. E. + W. at 3° 78' Var. Same at 32.43 Hub No. 3. At 37.36 Bay Lake set Hub No. 4 and search for M.C. But did not find any. This distance is very rough land. High hills. Ben. F. Clark.

(Redell Plat). Friday July 6, 1917. Survey to locate position of Redell plat in Gov't lots 6 + 7 Sec. 22, 140-28. E.B. Horst, transit and chain. Ben. Clark, compass and chain. Geo. Inglehart, chain and axe. Lee and Roy Rose, axemen. Begin at M.C. Nel being also 1/4 cor. between Secs. 13 + 24 T140 R 28. previously located by Clark. U. S. notes call for post and Elm 7 S, 16° E 117 = 77.22 ft., which is still green and standing. We set a 4" x 4" x 5' Ash post Var. 7° 15' and remark old B.T. With transit at 1/4 cor. we run W. at 7° 20' Var. (Cor. sets in open bog about 80 ft. South of lake) M.C. Bartney. 1482 E.B. Horst.

547 ft W. leave open bog; 611.5 ft. W. set wood hub and tack; 700 enter swamp; 975 leave swamp; 1381.4 set wood hub and tack; 1500 enter tam. swamp; 2607 leave tam. swamp; 2640 set wood hub + tack; 2735.2 set wood hub and tack; 3050 enter tam swamp; 3385 leave same; 3487.3 set wood hub + tack. E.B. Horst.

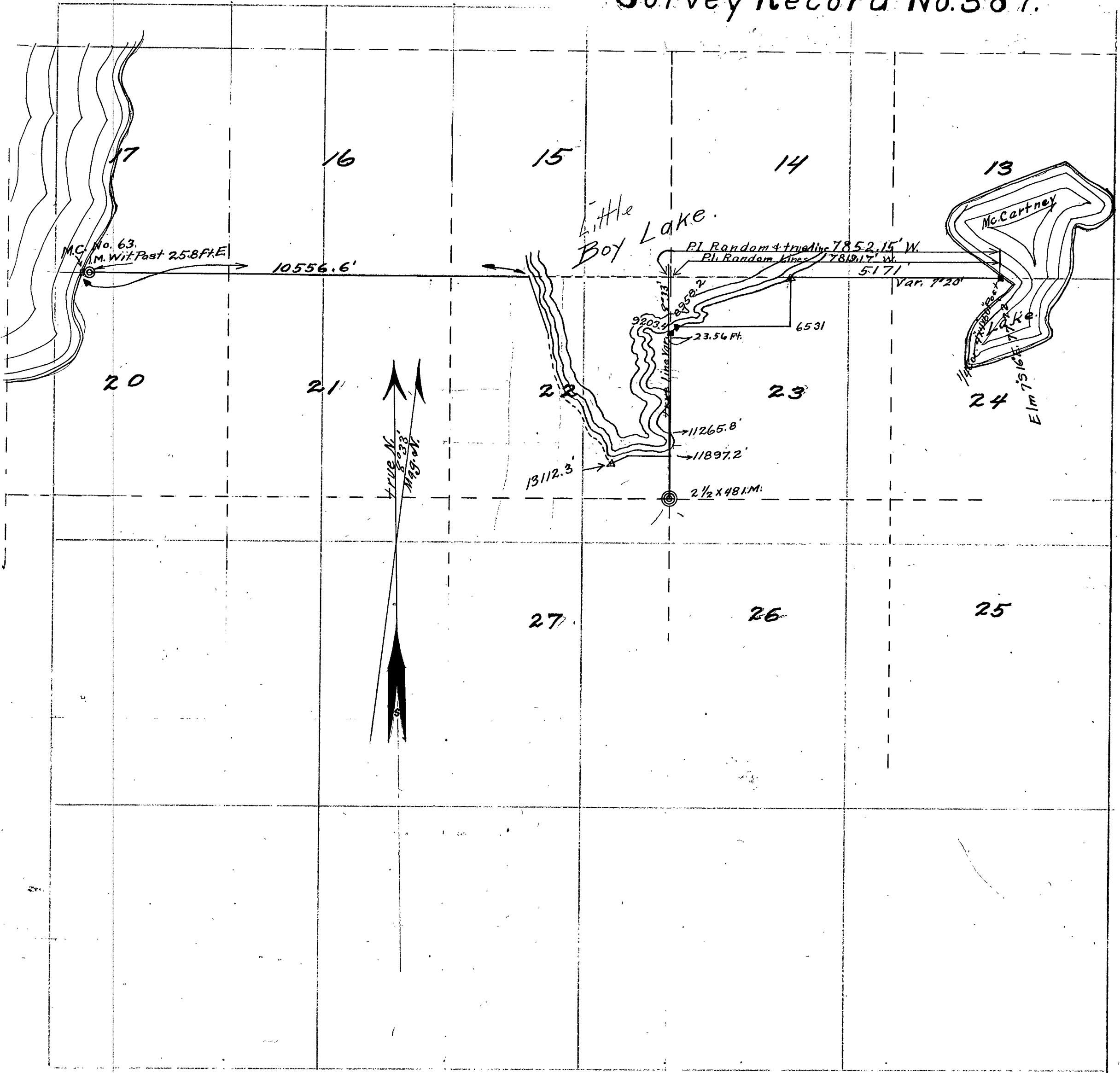
Saturday July 7, 1917. Horst and same crew with another axeman, viz: Floyd Showalter continue West without chaining. 3680 ft. W. enter swamp; 3881 ft. W. leave swamp; 4340 ft. W. enter swamp; 4430 ft. W. leave swamp; 4787.7 ft. W. set wood hub and tack; 5171 ft. W. set wood hub and tack; 266 ft. W. of this hub we intersect Bay Lake, High bluff. Banks shore line N. 70° E. From hub 5171 W. turn 90° angle and run S. 5337.7 ft. S. set wood hub and tack; 6531 ft. S. set wood hub and tack. Turn 90° < run W. E.B. Horst.

Sunday July 8th 1917: I drive to Hackensack to notify John M. Greene that we cannot finish the survey before Soc. Commissioners meet July 10th. I see G. D. Bacon in Hackensack and send notice with him. Saved toll. E.B. Horst.

Monday July 9th 1917: Horst and same crew continue W. from hub 6531.0. At 6860.7 ft. W. set wood hub and tack; At 7663.2 ft. W. set wood hub and tack; 7910 ft. W. enter swamp; At 8040 ft. W. leave swamp. 8594 ft. W. set wood hub and tack; 8747.1 ft. W. set wood hub + tack; 8958.2 ft. W. set wood hub and tack, Turn left and run across point of Bay Lake. Shallow water. S. E. < = 144° 58'. We wade lake and chain distance = 245.2 ft. Intersect hub set by Clark and Greene on a random line run N. between Secs. 22 + 23. Marked 3736 ft. N. = Sta. 9203.4 on our line. S. E. < = 124° 11'. From this hub I sight N. to M.C. No 34. N. E. < to N. E. line equals 54° 25'. I run S. over Clark's random line Sta 11171.4 and set < hub to get around pt. of lake. [Turn S. 58° 04' E. 293.4 ft; thence S. 1° 21' W. 291.1 ft; Thence S. 42° 19' W. 378.8 ft. distance

Twp. 140, N. Rge 28, W. of 5th. P.M.
Survey of sections, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 26, & 27.

Survey Record No. 387.



Survey Record No. 387.

across lake between < hubs = 725.8 ft.] 11265.8 Intersect N. bank of lake; 11855.2 intersect S. bank of lake; 11897.2 = < hub. I sight N. on Clark's line and turn 90° < W. 12191.0 set wood hub and tack; 12630.1 set wood hub and tack; Turn S. 18°55' to miss lake. About 250 ft. W. to lake. 13046.9 set hub on cut bank E.

of grade. 13112.3 set hub on grade 6 ft. W. of center. [Assuming random line between Secs. 13 & 24 and 14 & 23 to be true E. & W.] On grade: Thence N. 52°57' W. 407.3 ft. hub 7 ft. W. of center of grade. Thence N. 41°45' W. 357.6 ft. hub 6 ft. W. of center of grade; Thence N. 37°05' W. 602.4 ft. hub 6 ft. E. of center of grade; Thence N. 50°18' W. 490.2 ft. Hub 7 ft. E. of center of grade; Thence N. 59°35' W. 405.4 ft. hub 5 ft. W. of center of grade. (149 to 219.5 bridge). Thence N. 40°41' W. 215.2 ft. hub; Thence N. 23°15' W. 237.7 ft. hub; Thence N. 4°38' W. 217.4 ft. hub; Thence N. 12° E. 509.1 ft. hub; Thence N. 102° E. 284.7 ft. hub; Thence N. 8°02' W. 1485.7 ft. hub in center of grade on random sec. line between Secs. 15 & 22. 55.6 ft. E. of grade a hub set with transit from E. side of lake. 60 ft. E. = W. bank of Boy Lake. S. E. angle of grade to random line = 81°55'

Tues. & Wed. July 10th & 11th 1917. Horst and same crew. I set transit on hub in center of grade on random sec. line backsight E. on hub E of Boy Lake and continue random line W. Hub on grade = 0.00 ft. W. 10 ft. W. enter swamp; 122 ft. W. leave swamp; 265.2 ft. W. set hub and tack; 578.7 ft. W. set hub and tack = hub A. I turn 90° N. 113.5 ft. set hub B. and send a man W. of lake and set hub C. < from A to C. = 80°09'. Distance across lake = 653.7 ft. C = 1232.4 W. 1300 ft. W. enter swamp; 1800 ft. W. leave swamp; 2144 ft. W. set hub and tack; 2451 ft. W. set hub & tack; 2700 ft. W. enter swamp; 3267 ft. W. leave swamp; 4147.7 ft. W. set hub and tack; 4862 ft. W. set hub and tack; 5987.6 ft. W. set hub & tack; 5137.7 " " " " " 6348.1 " " " " " ; 5392.5 " " " " " 7877.5 " " " " " ;

5594.3 " " " " " 8174.2 " " " " " = Hub A. Cause hub B to be set on line W. of lake. I walk to hub B, backsight on A, turn 90°, chain N. 437.3 ft. and set hub C. < A to B = 74°11'. Distance across lake = 1543.7 ft. C = 9717.9 ft. W. 9926.2 ft. W. set hub and tack; 10400.7 ft. W. set hub and tack; 10512 ft. W. Hub and tack; U. S. M. C. No. sets S. 38°41' W. 71.4 ft. At station 10556.6 W. M. C. sets S. 55.7 ft. A 2 1/2" x 48" I.M. for Witness corner. sets E. of M.C. 25.7 ft. All four corners from 4 corner W. to above M.C. are obliterated. Note: Roy, Lee, Rose and Floyd, Sho-walter do not work Wed. July 11th.

Thursday July 12th 1917. Horst, transit and chain; Ben Clark, flag and chain; Roy Rose, ax; Rechain random line run N. between Secs. 22 & 23 by Ben Clark. Bogus corner made by Kibbey engineering service Co., sets N. 56°12' E. ft. 80.8 from true corner to Secs. 22, 23, 26 & 27. Two U.S. B. Ts. still present. Chain N. on Clark's line: 160 ft. N. old R.R. grade; 696.1 ft. N. hub; 1046.8 < hub S. of small lake. Distances across lake = 725.8 ft. 1772.6 ft. N. < hub N. of lake; 3751.2 ft. N. Hub on S. shore of Boy Lake. Kibbey eng. Co.'s line at: Sta. 45. N. is E. 67.1 ft; Sta. 1046.8 N. is E. 51.7 ft; Sta. 1772.6 N. is E. 57.7 ft; Sta. 3751.2 N. is E. These measurements taken from cut cut line as there are no hubs or points to check on. J.M. Green arrives at Longville. E.B. Horst

Friday July 13th, 1917. E.B. Horst at Longville Hotel all day computing latitudes and departures on Redell survey. Green takes Clarke to Wabedo. Geo. Inglehart works on dup. line S. of Longville. E.B.H.

Saturday, July 14th 1917. E.B. Horst, transit and chain; Geo. Inglehart, chain and flag; Roy Rose and Lee Rose, ax. Begin at hub 1772.6 N. on random between Secs. 22 & 23. Set a hub 11.13 ft. W. on true line. A wood stake (called I.M. on plat.) being S. E. corner of Redell plat sets S. 34°16' E. 62.5 ft. from hub on true line and 48 ft. N. of lake. We run true line N. to lake. Check on random hubs for line. On S. bank of Boy Lake, 20 ft. from water, I set a 3" x 3" x 36" poplar post for M.C., with bearings as follows: B. ash, 12 S. 0°40' W. 6.5 ft; Poplar 5 N 52°30' W. 7.13 ft With transit over M.C. I sight to S. E. corner of subplot A = S. 69°30' W. 136.8 ft. Transit on S. E. corner subplot A sight to M.C. N. W. < = 129°22'. Beginning at M.C. we chain S. on true line

Survey Record No. 387.

240. leave swamp; 485 hub; 645 enter swamp; 860 leave swamp; 1082.7 hub; 1440.8 intersect
S. line of Redell road. S.W. \angle = $89^{\circ}52'$. N.E. cor. of Blk. 1, E. 37 ft; 1525.5 hub; 1805.3 hub;
1968 hub = also, hub 1772.6 N. of Sec. corner.

E.B. Horst.

Recorded Friday January 4th 1918.

John M. Greene
County Surveyor.

by E.B. Horst.

Asst. County Surveyor.

Sections 27, 28, 29, 30, 31, 32, 33 & 34.

Field Notes of the a survey in Twp 135 Rge. 30 for a Twp Road. Thursday Oct. 25th. 1917. E.B. Horst, leaves Walker for Pequot (R.R. fare = 80.cts.) is met at Pequot by Clarence Wheeler who drives him to W.D. Gardiners farm and then to Geo. Penningtons farm where arrangements are made for board and lodging.

Horst and Gardiner then drive to route of road and look for signs of Govt Sec. Corners, but find none. E.B. Horst.

Oct. 24. 1917. - A.M. Snow. - P.M. E.B. Horst and J.A. Brecht walk to corner of sections 27, 28, 33 & 34 where U.S. Notes call for four Jamek Bearing trees, which all fall inside the road limits of State Rural Highway No. 80. We look at $\frac{1}{4}$ corner between secs. 28 and 33 for old U.S. Bearing trees, but find nothing.

at the corner to secs. 28, 29, 32, 33 U.S. Notes call for the following Bearing trees Jamek 9 N. 30° E. $5\frac{1}{2}$ lbs. Jamek 12 N. 50° W. 14 lbs.

Jamek 5 S. 70° W. 15 lbs. Jamek 8 S. 30° E. 22 lbs. which are all down and burned but, we find a piece of the NW. tree still bearing the scribble marks; from this tree we check up with the other stumps and set a wood post for the true corner. E.B. Horst.

Saturday Oct. 27th 1917. E.B. Horst transit and chain J.A. Brecht eye and chain. Wm. Rudolph axeman. Beginning at corner to sections 28, 29, 32, 33 - 135-30 in swamp, we run W. at $8^{\circ} 50'$ Mag. Var.

at 380.0 W. set stake: at 480.0 W. leave swamp: at 760.0 set stake: at 1164.8 set hub and tack: at 1547.6 set hub and tack: at 1890.4 hub & tack: at 2537.9 set hub and tack: at 2640 set stake on line and look for $\frac{1}{4}$ corner between sections 29 and 32. where U.S. Notes call for: Oak 10 N. 50° E. 25 lbs. Jamek 12 S. 28° W. 62 lbs: All are gone and we continue our line W. at 2800.0 W swamp S. of line 50 ft.: at 2900.0 W. in middle of swamp neck 50 ft. wide: at 3124.3 W. set hub & tack. E.B. Horst.

Sunday Oct. 28th 1917.

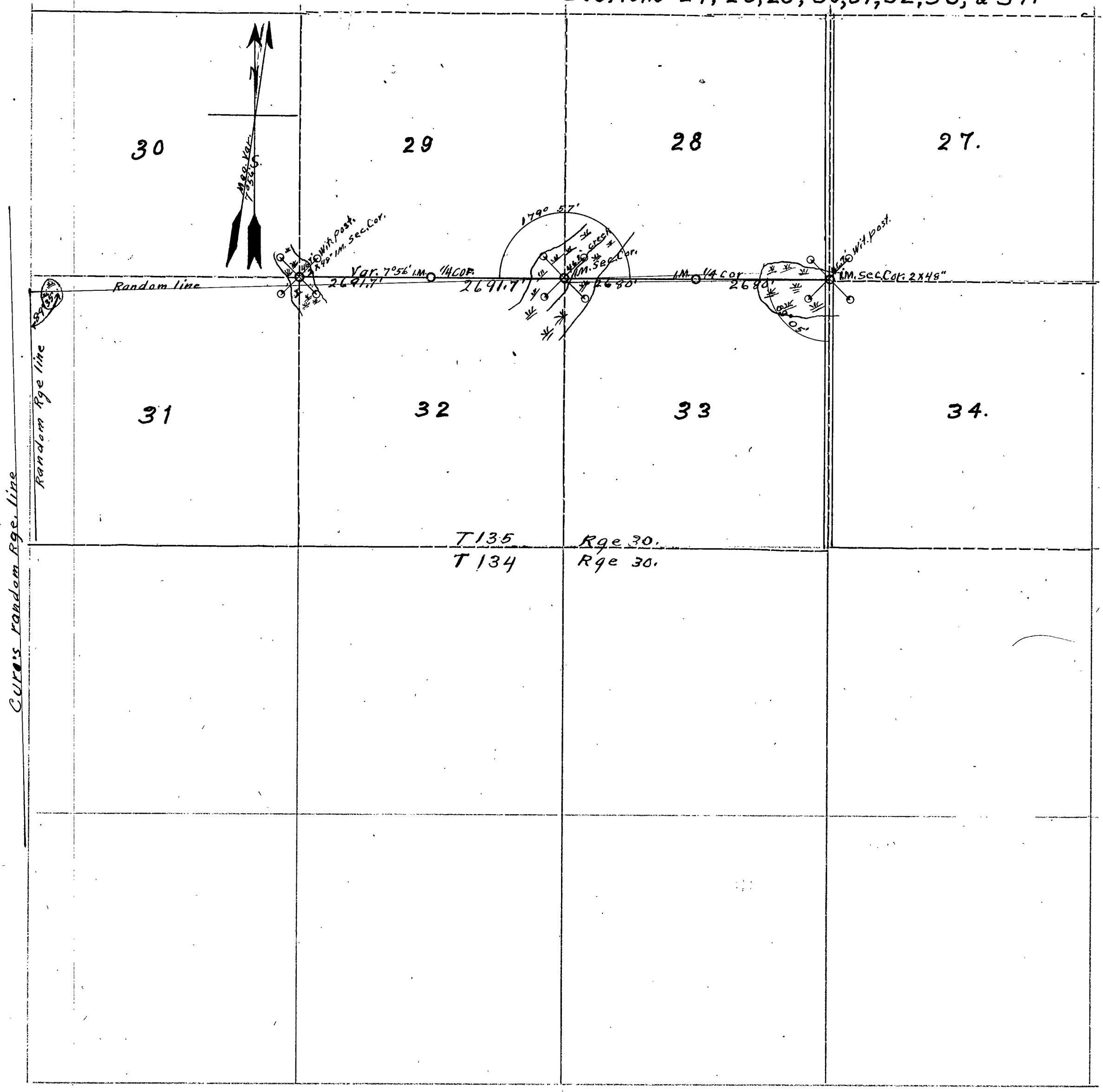
Horst, transit and chain. J.A. Brecht eye and chain. we continue W. on same line. Wm. Rudolph comes out at 11. A.M.

at 3670.0 W leave swamp: at 3747.0 small creek 3 ft wide: at 3781.0 set hub and tack: at 4570.7 set hub and tack: at 4942.8 W. set hub and tack: at 5228.0 set hub and tack: at E. side of a Jamek swamp. Plats show the corner to sections 29, 30, 31, 32. to be in this swamp with following B.Ts. four Jameks. We look for several hrs. for these but as the timber is all burned we are unable to find anything. E.B. Horst.

Monday Oct. 29th 1917. - Horst, Brecht, Rudolph, and Claud Hines go N. between sections 29+30 and look for the $\frac{1}{4}$ corner which is gone. We continue N. and look for the section corner to secs. 19, 20, 29, 30. which we are unable to find. We return to our line and go S. between sections 31+32 and look for the $\frac{1}{4}$ corner which is also gone, we return and continue our random line W. between sections 30 and 31;

Plat of Survey Record No. 388.

Twp. 135, N. Rge. 30, W. of 5th. P.M.
Sections 27, 28, 29, 30, 31, 32, 33, & 34.



74 C

Survey Record No. 388.

at 5245.0 W. enter swamp: at 5455.0 leave swamp: at 5586.6 W. set hub and tack: at 6074.0 W. set hub and tack: at 6435.1 W. set hub and tack E. side of field: at 6953.0 W. set hub and tack: a house sets N. 400 & W. 200 ft. at 7603.3 set hub and tack at W. side of field: at 7962.2 W. set sq. hub and tack and look for the $\frac{1}{4}$ Cor. between sec. 30 & 31 where U.S. Notes call for Pine 6 S. 22° E 12 lks. Maple 9 N. 85° W. 16 lks. all old timber gone and we continue W. at 8449.4 set hub and tack: at 9100.0 W. creek and swamp: at 9205.0 leave swamp: at 9562.5 set hub and tack: at 10188.0 set hub and tack: at 10530.0 enter bog: at 10700.0 leave same: at 10919.04 W. set hub and tack ^{being} at distance required by U.S. Field Notes as the distance to Range line between sections 30 & 31 and 29 & 32
E.P. Horst.

Wed. Oct. 31, 1917. Horst, Brecht, and Rudolph look for NW. Cor. of Sec. 31. T. 135. R. 30 but are unable to find it.

at hub 10919.04 W. I set up transit and turn S. E. angle of $89^{\circ}35'$ and run S. at $9^{\circ}15'$ var. on random Rge. line between Twp 135 N. Rge 30 & 31 W. at 5170.0 S. I mark a pine tree E. of line and look for the Twp Cor. at \approx 5280.0 ft S. but find nothing and return to Cor. of Secs. 28-29-32-33, with outfit.
E.P. Horst.

Thursday, Nov. 1st, 1917. Horst, Brecht, Hines, and Rudolph, begin at Corner to 28, 29, 32, 33. backsight W. and run E. on cut out line. (I receive Notes of S. R. H. No. 80. for which I sent to A. W. Moulton, and which pertain to corner of sections 27, 28, 33, 34. and which I have just received) I now erect a tall flag at ~~above corner~~ the corner of above sections which I can see from where the transit stands on random line, flag bears Right $1^{\circ}34'$. assuming the transit to be at station 2800.0 ft. ~~W. E.~~ I set a hub S. 40.6 ft. on true line, and cut a true line E. toward flag. P.M. Crew continues cutting line E. and I return to Walker for Notes of a line cut N. along W. side of Twp 135 Rge 30. Mr. Barnard, with a Ford takes me to Pequot. P.R. Fare to Walker 86 cts
Wed. Nov. 7th. 1917. E.P. Horst.

I take Ford car and drive from Walker to S. Co. Pennington taking with me 10 Iron Monuments (2x4s) I arrive at Pennington at 4 P.M. E.P. Horst.

Thursday, Nov. 8th. 1917.

Horst, transit & chain, J. A. Brecht, axe & chain. Claud Hines, axe and flag. We finish setting line between sections 28 & 33 T. 135, R. 30, this line proves to be a random line on account of assuming the distance to be 2800 ft. when after chaining same it is 2898.00 ft. line intersects 10 ft. S. of corner. We begin chaining at a point 10 ft. S. of corner to sec. 28-29, 32-33, and chain E. (Cor. in swamp).

at 512.00 ft. E.	leave swamp:	at 775.00	set hub and tack:
" 1152.00 "	" hub and tack:	" 1761.1 "	" " " "
" 2120.00 "	" enter swamp:	" 2290.0 "	leave swamp?
" 2657.80 "	" set hub and tack:	" 2898.0 "	set hub and tack.
" 3290.0 "	" enter swamp:	" 3390.0 "	leave swamp.

At 4530.0 E. enter swamp. At 5360.0 ft. intersect section corner to sections 27, 28, 33, 34, in center of State Rural Highway No. 803. I find the stump of the S.E. Bearing tree still bearing a part of the B.T. I set the cor. from this stump at 9° Mag. Var. which puts the corner 65.00 ft. S. of a steel culvert instead of 67 ft. as shown by the S.R. No. 80. See cor. tree at above point I set a 2" x 48" Iron Monument for true cor.
E.B. Horst.

Friday, Nov. 9th, 1917. — Horst and same crew correct line between Secs 28 + 33 as follows. Setting transit over cor. to sections 28, 29, 33, 34 sight W. on random line, turn Right 0° 07' and set stakes on true line in swamp, from these I chain out 13.00 ft. each way for inside line of ditches. Ditches to be 4 ft wide, 2 ft deep with 1 ft. bottom. Going W. to hub 2898.00 we set a hub N. 4.60 ft. on true line.

1/4 corner between sections 28 + 33 at station 2680.00 E. goes N. 5.00 ft. where I set a 2" x 48" Iron monument. Hub 1761.1 goes N. 6.70 ft. Hub 1152.00 goes N. 7.90 ft. Hub 775.00 goes N. 8.60 ft. From station 512.00 W. to corner I set stakes on both sides 13.00 ft out for inside ditch lines. E.B. Horst.

Saturday, Nov. 10th, 1917. E.B. Horst, and J.A. Brecht, go to corner of sections 29, 30, 31, 32. T. 135, R. 30. and again make a thorough search for the U.S. Bearing trees after an all day search we find two old blazed lines E + W. and N + S. (approx 50 yrs old) which we run to an intersection from these we find the NE, NW, & SW stump of the old B.T. which still bear the blaze but the marks are all burned off. The SE stump is burned to the ground. All check for course and distance.

I set the true corner of sections 29, 30, 31, 32, from these at 8° 30' Mag. Var. and set an Iron Monument at true point being a 2" x 48" iron pipe. E.B. Horst.

Sunday, Nov. 11, 1917. Horst and Brecht with transit on hub 5228.00 W. on random line between secs. 29 + 32 corner sets N. 61° 38' W. 176.6 ft. at station 5383.40 W. cor. sets N. 84.00 ft. Correction N = .0156 per ft. W. Correcting back between 29 + 32. 5228.00 W. goes N. 81.55 ft. 4942.50 W. goes N. 77.11 ft. 4570.70 W. goes N. 71.30 ft. 3781.00 W. goes N. 59 ft. E.B. Horst.

Monday, Nov. 12, 1917. Horst and Brecht, correcting back between 29 + 32. 1/4 corner at sta 2691.70 W. goes N. 42.00 ft. where I set a 2" x 48" iron monument. No timber for B.T. 2537.90 W. goes N. 39.40 ft. 1880.40 W. goes N. 29.33 ft. 1547.60 W. goes N. 24.15 ft. 1164.80 W. goes N. 18.16 ft. From this corrected hub we cut true line E. to sec. cor. and set ditch stakes 13.00 ft. out in swamp.

P.M. I make out bills for crew and self and return to Walker.

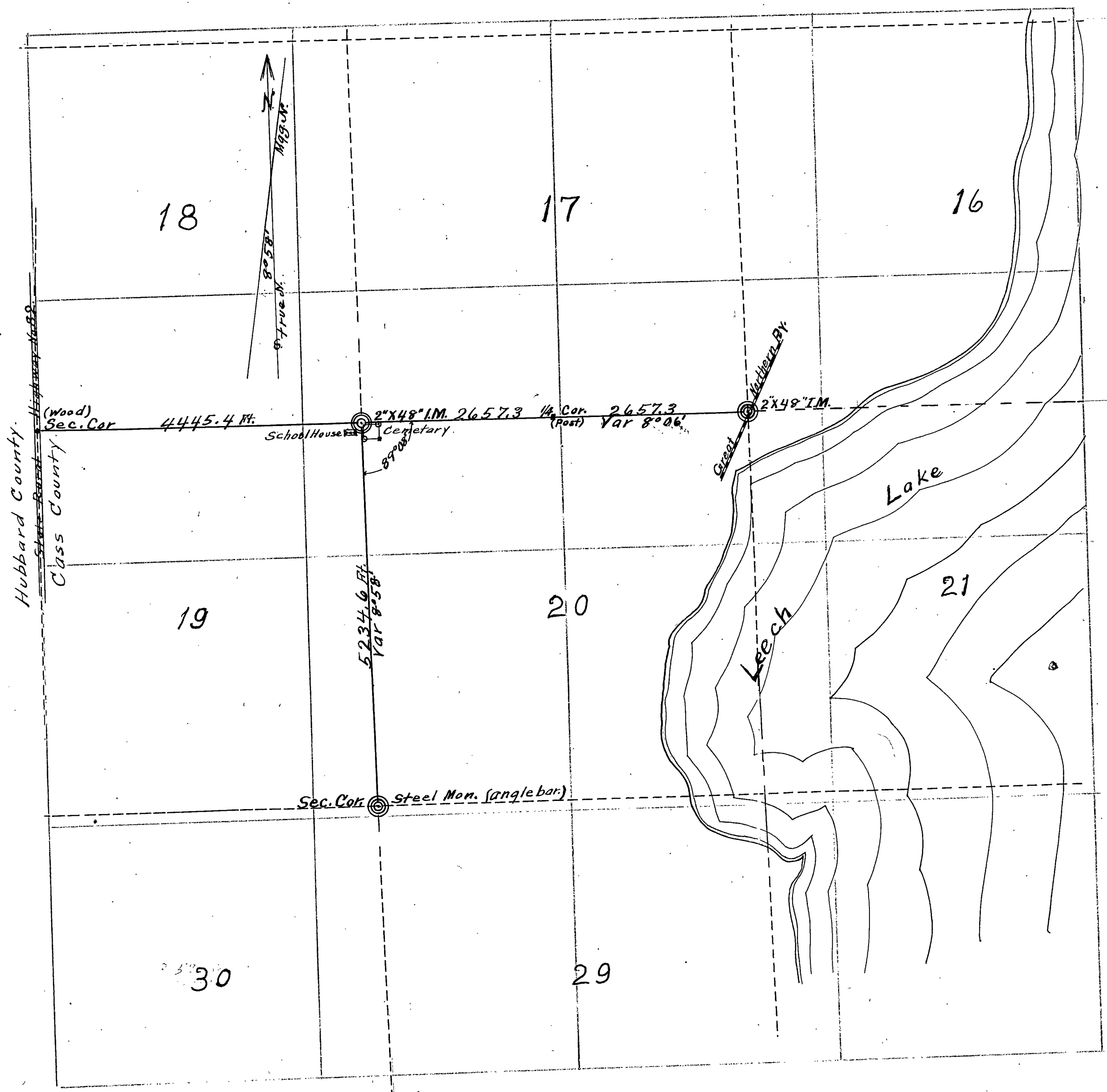
E.B. Horst.

Survey begun Oct. 25, 1917. Completed Nov. 12th, 1917

Recorded, Saturday, Jan. 5th, 1918.

John M. Greene
County Surveyor
by E.B. Horst, Assistant.

Plat of Survey Record No. 389.
Twp. 143. N. Rge. 31, W. of 5th P.M.
Sections 16, 17, 18, 19, 20, 21, 29, & 30.



Sections 16, 17, 18, 19, 20, 21, 29 & 30.

Twp. 143, N. Rge. 31, W. of 5th P.M.

Field Notes of a survey to locate section lines in sec 20 Twp. 143 Rge 31 for Cemetery purposes.

Thursday Aug. 9th. 1917. E.B. Horst and Earl Crow working for Seck Lake Twp. (143-31). We drive to Seck Lake store and walk to Harry Burdick. (Twp Clerk).

Ed. Holm who was put in charge of the Cemetery proceedings in Walker and we return to Walker to interview Mr. Holm in regard to the cemetery survey and make arrangements to begin work in the morning. E.B. Horst.

Friday Aug. 10th. 1917. E.B. Horst, transit and chain Earl Crow flag and chain, Ed. Holm Jim Preston and Victor Anderson again begin at a stake at corner to sections 18, 19, 20. 143-31 previously set by Mrs. Kemp. I attempt to check same and find I have no U.S. Field Note of this corner. We run S. from above mentioned corner stake at $8^{\circ}45'$ Mag. Var. at 352.0 set hub. At 1248.4 ft. S. set hub: at 2145.3 ft. S. set Hub: at 2980.0 cross old road. At 4683.0 ft. S. set hub and tack: E.B. Horst.

Saturday, Aug. 11. 1917. Horst, Crow, Holm and Preston continue S. between sections 19 & 20. at 5234.6 ft S. a steel angle bar set by J. W. Curo from U.S. B.Ts. for corner to sections 19, 20, 29, 30 sets E. 19.5 ft. Popple B.T. still green and stump of White Pine B.T. still there. We return to corner of sections 17, 18, 19, 20. sight S. on random line and turn S.E. angle $89^{\circ}01'$ and run E. on random line between sections 17 and 20. E.B. Horst.

Sunday Aug. 13th. 1917. Horst, Crow, and Preston, continue E. on random between sections 17 & 20. at 292.6 ft. E. set hub and tack: at 1970.0 enter marsh: at 2150.0 leave same: at 2640.0 ft. E. a post set by someone for 14 corner sets N. 7.4 ft. U.S. B.Ts. gone We continue E. at 3900.0 ft. E. set hub. At 5344.2 ft. E. set hub in center of S.V. Ry. Corner to sections 16-17-20-21. sets N. $43^{\circ}20'$ W. 43.1 ft. At station 5314.6 ft. E. corner sets N. 31.3 ft. E.B. Horst.

Tuesday, Aug. 14th. 1917. Horst, Crow, Preston and Joe Deal at corner to sections 16-17-20-21. U.S. Notes call for Birch 3 N. 71° E. 42 lks. Aspen 4 N. 28° W. 49 lks. Aspen 3 S. 32° W. Oak 3 S. 13° E. 49 lks. The N.W. popple stump sets loose in ground with a part of B.T. still visible and checks with post at corner. all other trees gone. I take new Bearings. Orig. Norway Pine 18. N $24^{\circ}30'$ E. 68.0 ft. Norway Pine Stump 10 N. $88^{\circ}30'$ W. 27.3 ft. (Cor sets in W. ditch of R.R. fill) (Random line intersects R.R. track at sta. 3730 + 9.8 ft. N. (3730.0 on rail)). I start Preston cutting a line N. from corner of 17, 18, 19, 20. and Crow and I chain W. from same corner. at 2640.0 look for 14 cor gone. at 4445.4 W. Center of S. Ry. No. 82. and corner to sections 18, 19, 13 & 24 Twp. 143 Rge 31 & 32 - Cass & Hubbard counties. E.B. Horst.

Survey Record No. 389.

Wed. Aug. 15, 1917. I receive U.S. transcript Notes for corner of sections 17, 18, 19, 20. - 143-31 and find stake set by Euro to be correct the stumps of the 4 U.S. B.Ts. still remain, the N.W. Oak is rotted to the ground, the N.E. Oak is cut and a small piece bearing the B.T. is still there I set a 2"x48" Iron Monument, and take new Bearings - Fence Post 9 m. N. 33 ft. Oak 10. N 37° W. 112.6 ft. - N.E. corner of School House S. 20° 20' W. 142.0 ft. At corner to sections 16, 17, 20-21. I set a 2" x 48" Iron Monument.

Cemetery Survey: from corner of 17-18-19-20 I run E. on true line 242.0 ft turn S.W. angle 90° 52' run S. at 33 ft. set 2" x 48" I.M. at N.E. corner of Cemetery lot, at 242.0 ft. S. set post (3x3x24 wood) at S.E. corner. Turn N.W. angle 89° 08' run W. at 209 ft W. set a 2" x 48" Iron monument, at S.W. cor. at 242 ft W. set hub on true sec. line and turn N.E. angle 90° 52' and run N. 242.0 ft to point of beginning.

I set 60 transit over corner of sec. 17, 18, 19, 20. sight E. on true line turn S. 44° 34' and chain S.E. 47.02 ft. and set N.W. cor. of cemetery being a 3"x3"x24" wood stake. Cemetery lot is a quadrilateral 209.0 ft on each side containing 1 acre +. E.B. Post.

Survey begun Aug. 9th 1917. completed Aug. 15-1917.

Recorded Jan. 9th 1918.

John M. Greene
County Surveyor.
By E.B. Post. assistant.

Twp. 140, N. Rge. 28, W. Sections 18, 19, 20 & 30 and

" " " " 29, W. " 13, 24 & 25 W. of 5th P.M.

Field notes of a survey to relocate section and fractional section corners located by a previous survey and to replace the wood corners previously set by iron monuments. All in Twp. 140 N. Rges. 28 + 29 W. of the 5th P.M. sections 13, 18, 19, 20, 24, 25 and 30. Thurs. Aug. 2nd 1917. E. B. Horst working for Wabedo Twp. A.M. in office getting notes and plats. P.M. I drive to L.C. Richardsons farm in section 19, Twp. 140, Rge. 28, with 12 iron monuments, also leaving 7 at Longville for Cass County. E. B. Horst. Friday Aug. 3rd 1917. E. B. Horst and Raymond Richardson setting iron monuments for Wabedo Twp. at the following corners: at witness corner to U. S. M. C. no. 44, set a 2" x 48" iron monument being at a point on Rge. line 9 ft. N. of M. C. At the S.W. corner of section 19 I find that some other surveyor from Pine River has already set a 2" x 48" iron monument and same is badly bent to one side. I check same with my new bearing trees and place it O.K. Going E. on section line I find the W. 1/4 corner also set and O.K. The 1/4 corner I find set and O.K., also the witness corner to M.C. on W. shore of Mule Lake. At 1/4 corner between sections 19 and 24 on range line I find that in correcting back on the random range line on a previous survey my chainmen made a 50 ft. error in setting the hub from which to set the 1/4 corner on true line placing same at station 5100.7 N. instead of station 5050.7 N. I correct this error and set a 2" x 48" iron monument at the true 1/4 corner. At the center of section 19 the true center goes South 24.53 ft. where I set a 2" x 48" iron monument. At N.W. corner of section 19 set iron monument 2" x 48". At S. 1/4 corner between sections 19 and 20 set an iron monument 2" x 48". E. B. Horst.

Sat. Aug. 4th 1917. I receive a letter from Emil Mork instructing me to complete the setting of iron monuments in sections 19 and that the people were busy haying to do any more work at present. I set the 1/4 corner between sections 18 + 19 iron monument 2" x 48". At center of S. 1/2 of section 19 I correct error by setting 2" x 48" iron monument 13.24 ft. South of the other corner. At 1/4 corner between sections 19 and 20 I also set a 2" x 48" iron monument.

140-24

190 44

9" N. W. 1/4 44

East lot 30-19

W 1/4

1/4 cor 30-19

ME Wit West shore Mule Lk

Rg line 24-19 1/4

Corrected 50 FT Error

5050.7 5100.7

True Center

905 5 26.53 7'

True Center

Range Line

N.W. COR 19

1/4 cor 20-19

Emil Mork Letter

14-60 19-18

Center S 1/2 19

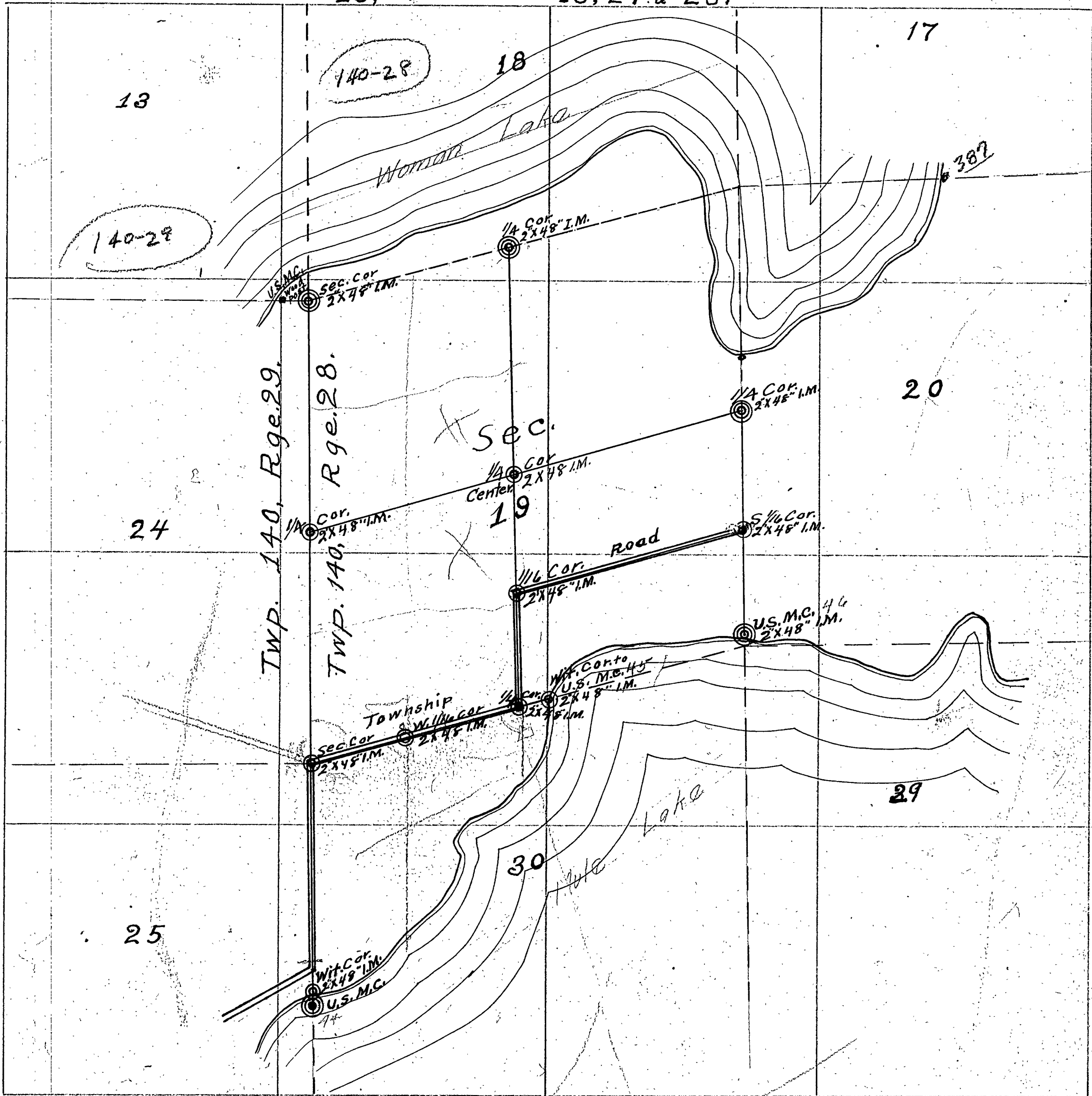
Corrected Error

13.24 5

1/4 20-19

MC 44 and 1918

Plat of Survey Record No. 390.
Twp. 140, N. Rge. 28, W. Sections, 18, 19, 20, & 30. and
" " " " 29, " " " 13, 24 & 25.



and one at the U. S. M. C. between sections 19 and 20
being M. C. no. 46. Return to Walker. E. B. Horst.

Survey begun - Aug. 2nd Completed - Aug. 4th 1917.

527 Words.

Recorded Jan. 11th 1918.

John M. Greene
County Surveyor.

By E. B. Horst - Assistant.

Twp. 133, N. Rge. 31, W. Sections 3, 4, 8, 9, 10, 14, 15, 16, 17, 21, 22, 23.

Field Book No. 96. A Survey to locate the section lines for a Twp Road in Twp. 133, N. Rge. 31, W. (May Township).

Wed. Sept. 8, 1915.

N. D. Gorman and E. B. Horst, leave Walker for Mottley to survey the center line of a Twp. Road in Twp. 133 N. Rge. 31, W. between Sections 9, 10, - 15, 16 - 21, 22. We arrive at Mottley at 12-30. and try to call Homer Sawhead but find he is not at home.

We stay in Mottley all night. N. D. Gorman,

Thursday, Sept. 9, 1915. -- Sivery takes us to Geo. Berndt and we begin survey of Twp. road. Beginning at corner of sections 3, 4, 9, 10. 133-31. Horst, transit and chain Adams, axe & Chain Seadlund Britton & Berndt. apemen at corner of 3, 4 9, 10. marked by an Iron Mon. we offset W. 28.8 ft. set a Hub in center of E. & W. road sight on I.M. and turn 90° angle from corner and run S. at 8° 30' Var. at 33 ft enter field, we hub line S. thru field 1/2 mile and quit for night. N. D. Gorman works alone looking for U.S. bearing trees at various section and 1/4 section corners. E. B. Horst.

Friday, Sept. 10, 1915. Gorman goes back to Walker. Horst and same crew continue S. on line started yesterday and cut thru to M.C. No. 10. on N. Bank of the Crowing River between sections 21 & 22. where we find the U.S. B.T. Black Oak. 15. N. 3° W 139 lbs. plainly marked by U.S. scribe. E. B. Horst

Sat. Sept. 11, 1915. Horst and same crew, as the section corner to 9-10-15-16 is gone we proceed to replace same by proportionate measurement. Beginning at 1/4 corner (Cement Monument) between sections 10 & 15 we run W. cross N & S random line and set P. I. hub, continue W. between 9 & 16 to corner of 8-9-16-17 set hub about 6 ft S. of cor. E. B. Horst.

Monday, Sept. 13, 1915. Horst, transit, Adams, axe & chain Seadlund and Britton apemen, as the section corner to sec. 15-16-21-22 is also gone we go to the corner of 13-14-23-24 where I set transit over the I.M. and run W. at 9° 30' Var. on graded road. at about 3/8 mile leave road. at corner to 14-15-22-23 U.S. Note call for 4 aspen bearing trees which are all gone. I find an Oak tree 12 in. well scribed and a stake set along a fence but find this was set at random and is not the corner. we continue W. between sec. 15 & 22 about 3/4 mile and quit for today. E. B. Horst.

Tuesday, Sept. 14, 1915. Raining. Rain stops at 8-30 and we to work. Horst and same crew continue W. between sections 15 & 22 cross N & S. random line and set P. I. hub where we again look for U.S. bearing trees but all are gone and we continue W. to the Crowing river and look for the bearing trees to M.C. No. 11. which are also gone. E. B. Horst.

Survey Record No. 391.

Wed. Sept. 15. 1915. Horst and same crew continue W. between sections 16 + 21. on E. side of Crowing river set hub A. Turn 90° Right Chain N. 214.1 ft. and set hub B. produce random line across river and set hub C. on W. shore move transit to Hub B. sight on hub A. and turn transit on hub C. across river angle = $81^{\circ}25'$. Cross river and set over hub C. read angle between pts. A + B. angle = $8^{\circ}35'$. Distance across river = 1418.5 ft. back-sight E on random and continue W. in Morrison county on S. side of river. E.B. Horst.

Thurs. Sept. 16. 1915. Crew goes to Motley Fair. I telephone Curo in regard to some Field Notes and go to Motley in P.M. for tape. E.B. Horst.

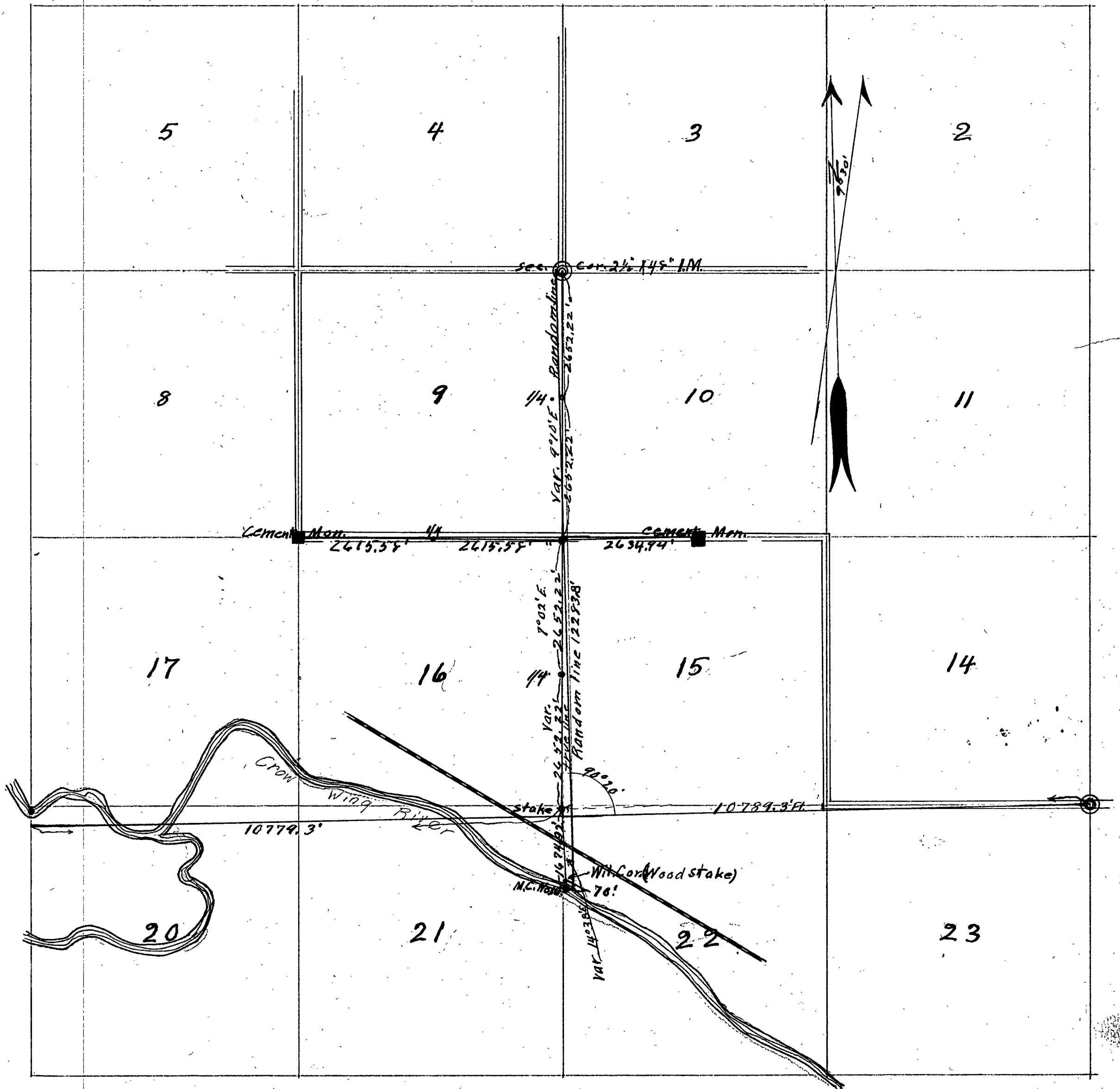
Friday, Sept. 17. 1915. Horst and same crew continue W. at point for corner to 16-17-20-21 we look for M.S. B.T. but find nothing all timber destroyed by fire. continue W. between 17+20 at about 2700. ft W. of pt. for corner we come to the Crowing river near the junction of the Long Prairie river. set Hub A. on E. side of Crowing right across and set hub B. move across river and set over hub B and turn 90° angle and chain S. 183.2 ft and set Hub C. set over C and read angle at Hub C. angle equals $79^{\circ}35'$ distance across river equals 1000.35 ft. return to Hub B. and continue W. several hundred ft. more and come to Crowing river again as the river is shallow at this pt. we chain across both meander corners are gone and we continue W. to M.C. No. 20. where we find the stump of the Elm B.T. called for in the U.S. Field notes, still bearing the B.T. from this I set M.C. No. 20. being a wood post. I then set a Hub on random line so that a 90° angle to the random line intersects the Meander corner. M.C. No. 20 sets N. of random line 166.5 ft. E.B. Horst.

Sat. Sept 18. 1915. Horst and Adams chain Britton apt. We begin chaining at 1/4 corner between sections 10 + 15 Chain W. on road at about 400 ft. leave road at 1879.5 Hub, 2011.2 Hub, 2147.5 hub, 2633.8 P.I. hub on N. + S. random line 2744.3 Hub, 4012.0 small stream 4444.4 Hub, 5229.0 Hub, 6010.4 hub, 6858.4 hub, 7350.9 hub, 7866.1 hub. Cement Mon. at corner of sections 8, 9, 16, 17. sets N. 4.5 ft.

We go to corner of 3-4-7-10 and chain S. on random line beginning at a point 28.8 ft. W. of corner. 561.2 hub, 1292.3 hub, 1754.0 hub, 1900.9 hub, 2029.8 hub, 2238.2 hub, 2391.9 hub, 2591.6 hub, 3175.4 hub, 3892.9 hub, 4242.9 hub, 4675.4 hub, 5284.7 P.I. hub on E. + W. random line. E.B. Horst.

Monday, Sept. 20. 1915. Horst and Adams chain, Britton apt beginning at P.I. hub 5284.7 we chain S. at 5322.0 center of E + W road 5848.4 hub, 6327.6 hub, 6901.9 hub, 7424.0 hub, 8048.5 hub, 8461.1 hub, 9417.6 Hub, 10020.8 hub, 10368.6 hub, 10731.9 ~~Hub~~ P.I. Hub on E. + W. random line. Continue S. 10926.6 hub, 11253.1 Hub

Plat of Survey Record No. 391.



Survey Record No. 391.

11697.9 Hub, in center of N.P. R.R. track, 11970.5 hub, 12213.8 hub. I take transit and set a wood post for the true meander corner No. 10 from the Oak U.S. bearing tree. M.C. falls in the River about 55 ft. I set transit over hub 12213.8 S. and turn 90° angle and chain W. at 741.7 ft set Witness corner to M.C. No. 10. at station 12283.8 S. M.C. No. 10 sets W. 75. of random line 75.3 ft. U.S. chain over this N. & S. line equals 12227.16 ft. Correction = $\frac{12283.8}{12227.16} = 1.00463$ or 1 foot U.S. chain equals 1.00463 ft my chain. We walk to corner of 13-14-23-24 and chain W. on road. at about 1500 ft W. line leaves road. at 2702.0 road turns N. at 2760.0 hub. at 2979.2 hub. at 3660.0 hub. 4878.2 hub. at 5336.0 wire fence. at 5635.8 hub. at 6086.0 wire fence 6104.0 old road. 6149.5 hub. at 6553.0 hub. at 8075.2 hub. at 9103.2 hub. at 9317.7 hub. at 9141.9 hub. at 10515.5 hub. at 10558.6 P.I. hub on Mand S. random line near corner of 15.16.21.22. - E.B. Horst. Tuesday. Sept. 21. 1915. Horst and Homer Sawhead chaining from P.I. hub 10558.6 W. on E. & W. random line. continue W. at 10829.0 small stream. at 11053.2 hub. at 11454.3 hub. at 12031.0 point in center of N.P. R.R. at 12137.9 hub (triangulation). at 12250.9 high water mark Crowing River. at 13476.4 leave Crowing R. at 13556.4 hub. E. of triangle. at 14092.1 hub. at 14871.2 hub. at 15743.6 hub at 16637.7 hub. at 17613.4 hub. at 18219.9 hub A. of triangle. at 18262.2 enter Crowing river. at 19039.25 leave river. at 19220.25 hub. B. of triangle. at 19539.6 hub. at 19875.3 hub. at 20128.9 hub. at 20158.9 enter crowing river. at 20404.7 leave same. at 20439.1 hub. at 21058.4 hub. at 21412.1 hub. at 21568.6 hub wood post at M.C. No. 20. sets N. 166.5 ft. (corner of sees 17-18-19-20 in river) E.B. Horst. Wed. Sept. 22. 1915. Horst. Adams and Seadlund. go to M.C. No. 10. between sections 21 & 22 and reset Wit. Corner. which we were unable to drive on account of rock, at a previous date. Correcting Back and setting section and 1/4 section corners and road centers from random lines. Offset at cor. of 3-4-9-10 = 28.8 ft. E to corner. at corner of 9-10-15-16 true corner at station 5304.44 S. and 2634.94 W. Offset from random line = 1.4 ft W. $1.4 + 28.8 = 30.2$ divided by 5304.44 = .00569 = Correction. Beginning at 3.4.9.10 going S. each hub goes E. 28.8 ft. minus correction W. at that point. E.B. Horst. Thurs. Sept. 23. 1915. Horst Seadlund + Adams Correcting lines and setting road centers. 1/4 corner between sections 9 & 10 at station 2652.2 goes E 13.7 ft. I set a 4" x 4" x 48" wood post. Corner of 9-10-15-16 goes W. 1.4 ft. and S 19.74 ft from P.I. hub. where I set a 4" x 4" x 36" Wood Post. - Correcting S. between sections 15 & 16.

Survey Record No. 391.

To establish corner to sections 15-16-21-22 I set a hub on N. + S. random line at sta. 10608.9 S. turn 90° angle and run W. 230 ft. and set a large hub. I then go to E. + W. random line and set a hub at station 10789.3 W. turn 90° angle and run N. at 120.66 intersect the 230 foot line on tack this being the point for the true section corner to 15, 16, 21, 22, where I drive a large wood post. $230 \text{ ft} - 1.4 \text{ ft} = 228.6 \text{ ft}$. this divided by $5304.44 = .04309$ of a foot W. for each foot S. correction between 15 + 16. E.B. Horst.

Friday, Sept. 24, 1915. Horst and some crew continue setting road center on true line between sections 15 + 16, at 7952.66 ft. S. 1/4 corner goes W. 115.7 ft. I set wood post for corner. We then set road center from corner of 15-16-21-22 S. to Wit. Corner. at M.C. No. 10. Return to a point on random line between sections 9 + 16 and at equal distances from section corners chain S. from random line 7.6 ft. and set a wood post for 1/4 corner. E.B. Horst.

Saturday, Sept. 25, 1915. Horst at Geo. Berndts all day computing and making out bills for crew. Receive a letter from J. W. Curo. to survey a county road in 134-30 + 31. E.B. Horst.
Sunday, Sept. 26, 1915. all day at Berndts.

Survey begun Wed. Sept. 8, 1915. completed Sept. 26, 1915.

Recorded Jan. 18, 1918.
John M. Greene
County Surveyor,
E.B. Horst, assistant.

A survey for a County road in Twp 134 N. Rge 30+31 W. Beginning at the corner of sections 1, 2, 11, 12, -134-31 and extending E. 4 miles between sections 1+12, 6+7, 5+8, 4+9, to an Ironbrow at the corner of sections 3, 4, 9, 10, -134-30.

Monday, Sept. 27, 1915. Raining all day. Geo Berndt takes me to Geo. Horns farm where I make arrangements to board while on the county road survey. E.B. Horst.

Tues. Sept. 28, 1915 Rain in A.M. P.M. - Horst, transit, Geo. and Raymond Horns spongers begin at an I.M. at the corner to sections 1, 2, 11, 12, and run E. at $9^{\circ}30'$ Var over a winding road, run $\frac{1}{2}$ mile and quit on account of rain. E.B. Horst.

Wed. Sept. 29, 1915. Horst, transit, and chain, Geo. Horn, axe, and chain, Raymond Horn + Chas Brinkman spongers, continue E. from corner of 1, 2, 11, 12, at 1497.8 E. set hub, at 2926.8 set hub, at 3445.7 set hub, at 3890.5 set hub, at 4209.5 set hub, at 4957.2 set hub, at 5297.5 set hub, the corner to sections 1, 6, 7, 12 on Rge. line marked by an I.M. sets N. 5.7 ft. Beginning at this corner we run E. at $8^{\circ}30'$ Var. about $\frac{1}{2}$ mile. E.B. Horst.

Thurs. Sept. 30, 1915. Horst and R. Horn + C. Brinkman chain E. from corner of 1, 6, 7, 12 and continue line E. at 569.7 set hub, at 1301.0 set hub, at 2500.4 set hub, at 2550.0 enter Jamck. swamp, at 3296.3 set hub, at 3500.0 leave swamp, at 3672.9, set hub, at 4258.1 set hub, and quit chaining and all out line. E.B. Horst.

Friday, Oct. 1, 1915. Horst and R. Horn continue Random line E. between sections 6+7, at 4713.9 set hub, at 5100.0 enter large Jamck. swamp, at 5298.8 set hub, at 5801.8 set hub, at 6202.7 set hub, at 6838.7 set hub. E.B. Horst.

Sat. Oct. 2, 1915, same crew correcting line between sections 1+12, 134-31. Correction = .001076. of a foot N. for each foot E. I correct hub 2996.8 E. - N. 3.15 ft on true line and set transit over corrected hub back sight on I.M. at N.W. Corner of section 12 and send R. Horn with flag and axe to set road centers on true line on the high points. at station 2648.75 set $\frac{1}{4}$ corner being a wood post $3 \times 3 \times 36'$ P.M. we continue E. between sections 5+8 - 134-30, in Jamck. swamp, at 7469.9 set hub, at 7823.9 set hub and return home. E.B. Horst.

Monday, Oct. 4, 1915. Horst and Horn go out to continue line between sections 5+8 but find the swamp flooded so that it is impossible to work, and we return to Horns place. I write up notes and make out bills and decide to leave this work until the water goes down or freezes up. E.B. Horst.

Tues. Oct. 5, 1915. I am unable to get to town. Remain at Horns place.

Wed. Oct. 6, 1915. Geo Horn takes me to Orntley and I return to Walker. R.R. fare \$1.78. to Geo. Horn livery \$3.00. E.B. Horst.

Friday, Oct. 20, 1916. E.B. Horst, working for Coas County leaves Walker with Notes, Plats and survey outfit on 9-28 train for Pillager. arrive at Pillager 12-10 P.M. R.R. fare \$1.59 as I cannot get out to Home place I remain at Ed. Parks in Pillager. E.B.H.

Saturday, Oct. 21, 1916. W.B. Jones promises to take me to Geo. Horns place in sec. 12-134-31 today we get ready to leave and find that the road is impassible on account of the road contractors having removed the bridge. At 5-00 P.M. we are able to get thru and drive to Horns. Dinner at City Hotel 35¢. Horst and Jones at Horns for Supper and overnight. E.B. Horst.

Sunday, Oct. 22, 1916. Horst at Horns all day. I look up notes of last years work on this same road.

Monday, Oct. 23, 1916. Horst transit and chain, Raymond Horn are flag and chain with Gurley transit and 300 ft. steel tape begin to finish survey begun in Oct. 1915. With transit on hub 7823.9 E, we check upon several back hubs to make sure of line and continue E between 5 & 8. having looked diligently for all corners we have passed but failed to find any. at 8345.04 E. where U.S. Notes call for post and following bearing trees Tamek. 12 N 34 E. 19 lks. Tamek 6 S. 28 W. 20 lks. nearly all timber is down and we find no B.T.s. continue E. at 11014.08 E. we look for corner to sections 4, 5, 8, 9. established by A.W. Moulter and, marked with an I.M. by N.D. Gorman we find same with top 1 foot above ground and standing solid. at 11033.6 E. I.M. at corner to 4, 5, 8, 9. sets S. 96.0 ft. We erect a 30 ft. tance pole at corner. Water in swamp about 1 foot deep. E.B. Horst.

Tuesday, Oct. 24, 1916 - same crew. we again make a search for the corner to 5, 6, 7, 8 where the U.S. field Notes call for.

}	Tamek 8. N. 12, E. 7, = 4.63. ft.	} after looking an hour we find the NW B.T. stub standing plainly marked. from which we locate all the other trees. the NE tree is rotted and all the marks gone the others are down but plainly marked.
	" 7. N. 52, W. 22, = 14.52. "	
	" 6. S. 62, E. 23, = 15.18. "	
	" 7. S. 67, W. 22, = 14.52. "	

From these we set the true corner being a 2 1/2" x 4.8" capped I.M. where we found the stub of the old post in the moss. we take the following

New Bearing trees	Tamek	mag. 6,	N 45° E	32.3 ft.
	"	tree, 8,	N 32° 30' W.	47.0 ft.
	"	stake	S. 45° 00' W.	46.7 ft.
	"	stake	S 45° 00' E.	46.7 ft.

at station 5699.60 E. Corner to 5, 6, 7, 8 sets S. 94.60 ft. One foot U.S. chain = 1.00415 feet my chain, correcting back between sections 6 & 7. correction = .0166 ft. S. per foot E. we go W. to hub 4713.9 E. and set same S.

Survey Record No. 392.

78.25 ft. on true line. I set transit over corrected hub and sight E. to corner of 5, 6, 7, 8, in swamp and set stakes on true line for road centers continue W. setting road center. hub 4258.1 E. goes S. 70.68 ft. hub 3672.9 goes S. 60.97, 1/4 corner at 3048.6 E. goes S. 50.61 ft where we set a 2 1/2" x 48" capped I.M. in edge of a small creek. with a Wit stake 33 ft N. and one 33 ft S. hub 2500.4 E goes S. 41.50, hub 1301.0 E goes S. 21.60 hub 569.7 E. goes S. 9.46 ft. We return to home and take an I.M. to 1/4 corner between sections 17-12-134-31 and drive same in place of wood post set last year. E.B. Horst.

Wed. Oct. 25, 1916. same crew take 3 I.M.s and walk E. on random line leaving one at sta. 8400 E. At corner to 4, 5, 8, 9, we hunt up A.W. Moulster's random line between 4+9 and walk over same to corner of 3, 4, 9, 10 which is 105.0 ft E. of State Rural Highway No. 80. and marked by two stakes set by John W. Curo. N + S of the E. + W. road. We pull up the old hub set by Curo and drive in its place a 2 1/2" x 48" capped I.M. At 1/4 corner between sections 4+9 we pull up A.W. Moulster's wood stake and set in its place a 2 1/2" x 48" I.M. At station 8366.6 E. between 5+8 we chain S. 95.3 ft. and set a 2 1/2" x 48" I.M. for the true 1/4 corner. We erect a 30 ft. pole and set road center E. + W. of the 1/4 corner on the true section line. the line E. of the 1/4 corner is all open swamp. set 2 Wit. posts to the 1/4 corner 33 ft. N + 33 ft. S. E.B. Horst.

Thursday, Oct. 26, 1916. George Horn with team takes me to Pillager and I return to Walker. Sundry \$3.00. Dinner at City Hotel 35¢. R.R. fare \$1.64.

Survey begun Sept. 27, 1915 completed Oct. 26, 1916.

Recorded Jan. 24, 1918.

John M. Greene
County Surveyor.
by E.B. Horst, assistant.

A survey of a part of sections 5 and 8 Twp. 145, Rge. 31, and sections 32 of Twp. 146, Rge. 31 W. of P.M. Nov. 3, 1914. Working for P. Moe. As it is Election Day I wait for P. Moe to come in to Cass Lake. About 10 o'clock it starts to rain. Dinner at Endion Hotel. After dinner I see P. Moe and I tell him to notify all parties in section 5 which he does. Moe tells me there is no room in the country and I must stay at the hotel in town, which I do.

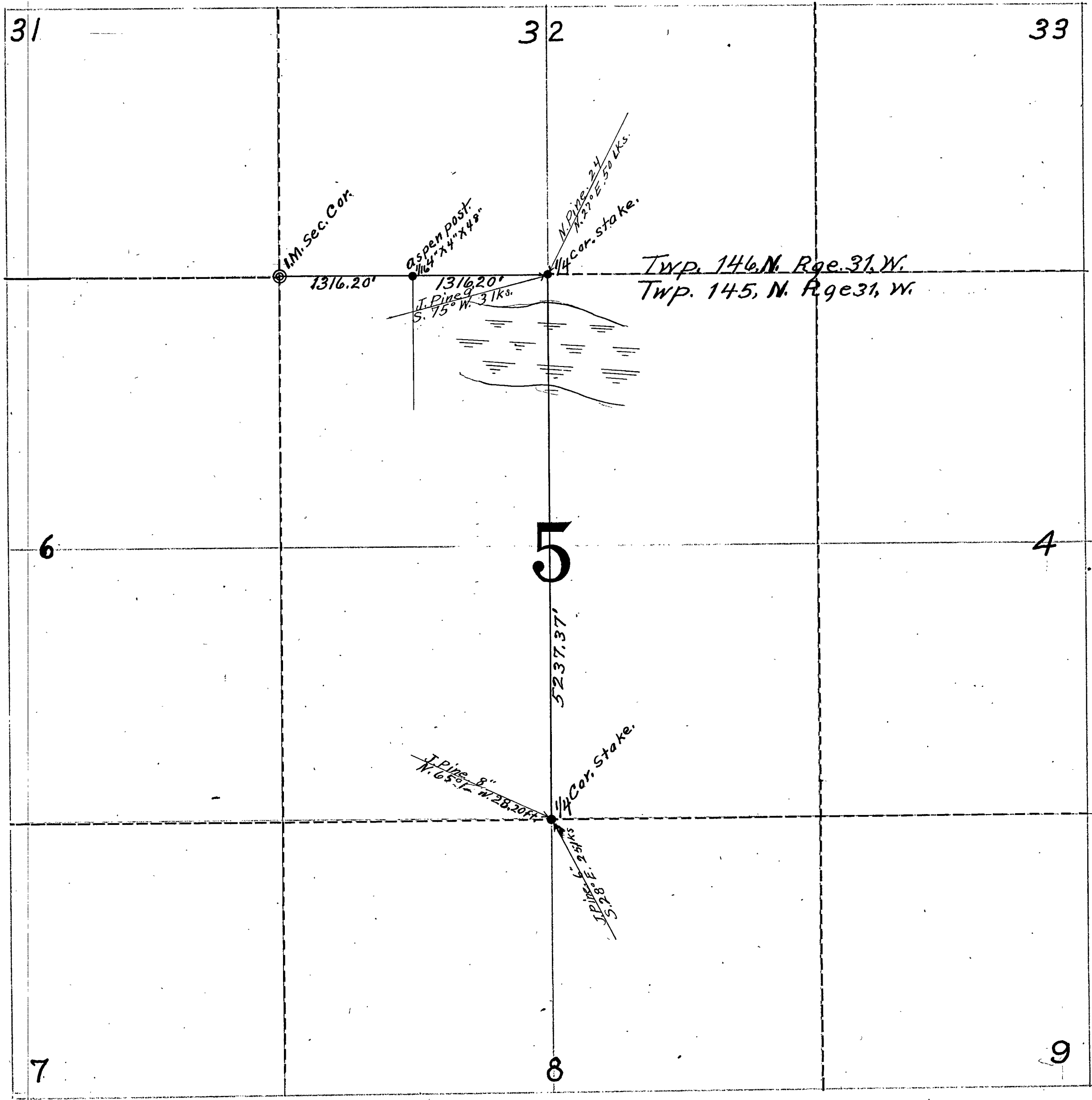
Nov. 4, 1914. I have breakfast at ~~Endion~~ F. A. Donner. Endion Hotel and walk out to Peter Moe's place. Get there at 7:45 A.M. Peter Moe Sr. and Peter Moe Jr. and I walk to the $\frac{1}{4}$ corner between sections 5 and 8, 145-31 where the U.S. Notes call for viz: Jack Pine 8 N. 43° West 8 links equals 5.28 ft.; Jack Pine 4 S. 28° E. 25 lks. equals 14.50 ft. I have not any notes with me so I set a hub from which the N.W. B.S. bears N. $45^{\circ} 12' W.$ 28.20 ft. Var. $9^{\circ} 00'$. I set over this hub and run N. var. $9^{\circ} 00'$. At 211.1 ft. set hub; at 975.7 ft. set hub; at 1641.4 set hub; at 2658.1 ft. set hub. Quit for dinner with P. Moe.

P.M. We continue N. At 2890 ft. enter marsh. At 2980 ft. leave marsh. At 3610.6 ft. set hub. At 4155.3 ft. set hub. Quit for night. Supper and over night at Endion Hotel. F. A. Donner.

Nov. 5, 1914. Continue for P. Moe. I set over hub at 4155.3 and set hub across marsh which I must triangle. I set over hub across marsh and continue N. 4155.3 ft. plus 967.84 ft. distance across marsh equals 5123.14 ft. distance to hub across the marsh. At 5237.84 ft. set hub from which the $\frac{1}{4}$ corner between sections 5-145-31 and 32, 146-31 where U.S. Notes call for N. Pine 24 N. 27° E. 50 links equals 33 ft.; Jack Pine 9 S. 75° W. 3 lks equals 198 ft. This corner was previously set by Harry Todd which is O.K. Hub at 5237.37 sets 131.70 ft. W. of true $\frac{1}{4}$ corner. I set over true $\frac{1}{4}$ corner and run S. $89^{\circ} 35' W.$ We run to about 1300 ft. W. and quit for dinner with P. Moe. P.M. - We continue chaining West for this line has been cut out by Todd. At 2632.4 ft. W. the true section corner of sections 5 & 6-145-31 and sections 31 and 32-146-31 sets S. 17.00 ft. at which pt. an iron pipe was set by J. W. Curo.

Cont.: P. 94.

Plat of Survey Record No. 393.



Survey Record No 393. 393.

Correcting back: Hub at 1316.20 W. goes S 8.60 ft. where I set a 4x4x48" Aspen post for the true 1/4 corner with New B. Tr. Sig: Aspen 4 N. 45° 26' E 54.50 ft. Aspen 3 S. 8° 36' W. 47.40 ft. Var. 8° 30'.

I set over true 1/4 corner set by me and run S. Var. 8° 38' We run to about 1300 ft. and quit for night: At Erdion Hotel. Cars comes on 655 train and we walk out to P. Moe's for my outfit and tie up the work. J. L. Donner.

Survey begun Nov. 3, 1914: Completed Nov. 5, 1914.

Recorded Jan 26, 1918.

John M. Greene
County Surveyor
by E. B. Horst assistant.

A survey of a part of sections 13, 14, 23, 24, 25, 26, 35, 36. T. 136 N. Rge 30 W. To establish section and 1/4 section corners and the center line of a Twp. road between sections 13-14 and 23-24 and 25-26 a distance of 3 miles.

Wed June, 27, 1917 - E. B. Horst, working for Maple Twp. (136-30) Beginning at corner of sections 13-14-23-24 136-30 where U.S. Notes call for: - J. Pine 8 N. 65° E. 64 lks. J. Pine 10 N 80° W. 92 lks. J. Pine 12 S. 41° W 92 lks. at this point Mr. Pohl has preserved the U.S. Corner by driving a 1/2" x 60" iron rod full length into the ground. The B.Ts. are gone except the rotted stumps of the N.W. and S.W. trees they check with corner and U.S. Notes and are identified by Pohl and Bressan. I take New Bearings as follows N. Pine 5 N 11° E. 91.5 ft. J. Pine 6 N 18° W. 125.5 ft. Run random line S. at 8° 50' var. at 1464.2 set hub and turn left 0° 20' to follow road: at 5287.7 set hub in E & W. road: We look for corner to 23-24-25-26 but the corner and U.S. B.Ts. are gone. We walk E. one mile to the S.E. corner of section 24 marked by an S.M. and chain W. on road: at 5255.0 intersect N. & S. random line: at 7891.4 ft. W. a wood post at the 1/4 corner between sections 23 & 24. This corner was set by B.B. Bartlett Co. Surveyor 20 yrs ago. Identified by Ole Ounson, Pohl and Bressan, all old settlers and present when corner was set. I drive a 2" x 14" iron pipe in place of wood post just N. of Nubel track and bury a Whit. Rock 33 ft. N. and one 33 ft. S. of corner. E. B. Horst.

Thursday, June, 28, 1917. Horst, transit and chain. Aug. Pohl chain. Paul Bressan, Fred Christofferson and Fritz Pohl apemen. begin at hub 5287.7 S. and continue random line S. between sections 25 & 26, at 6012.0 hub in field; 6355.0 creek; 6440.0 leave creek. 6600.0 set stake. 7178.0 hub, 7929.5 set hub, 8181.4 set hub, 9224.0 hub, 10559.4 set hub, at 10572.8 set hub, corner to sections 25-26-35-36 set W. 67.0 ft. This corner also is identified by Pohl & Bressan and another settler whose land joins. I drive a new post and 4 Whit. Posts, NE. NW. SW. SE. each out 46.7 ft. for bearings. Corner to 23-24, 25-26, set as follows: - at station 5286.4 on N. & S. random line point for corner is 0.35 ft. W. I drive stake for corner. at station 7929.4 S. between sections 25 & 26 Chain W. 33.7 ft and set post for 1/4 corner. Set transit near hub 1464.2 between sections 23 & 24 from which point I can see both section corners and drive a large stake at station 2643.2 S. on true section line for the true 1/4 corner. I set road center on the true section line between sections 25 & 26 for road building and return to Geo. Wilmo to. E. B. Horst.

Surveyed June, 27 + 28, 1917.

Recorded January, 28, 1918.

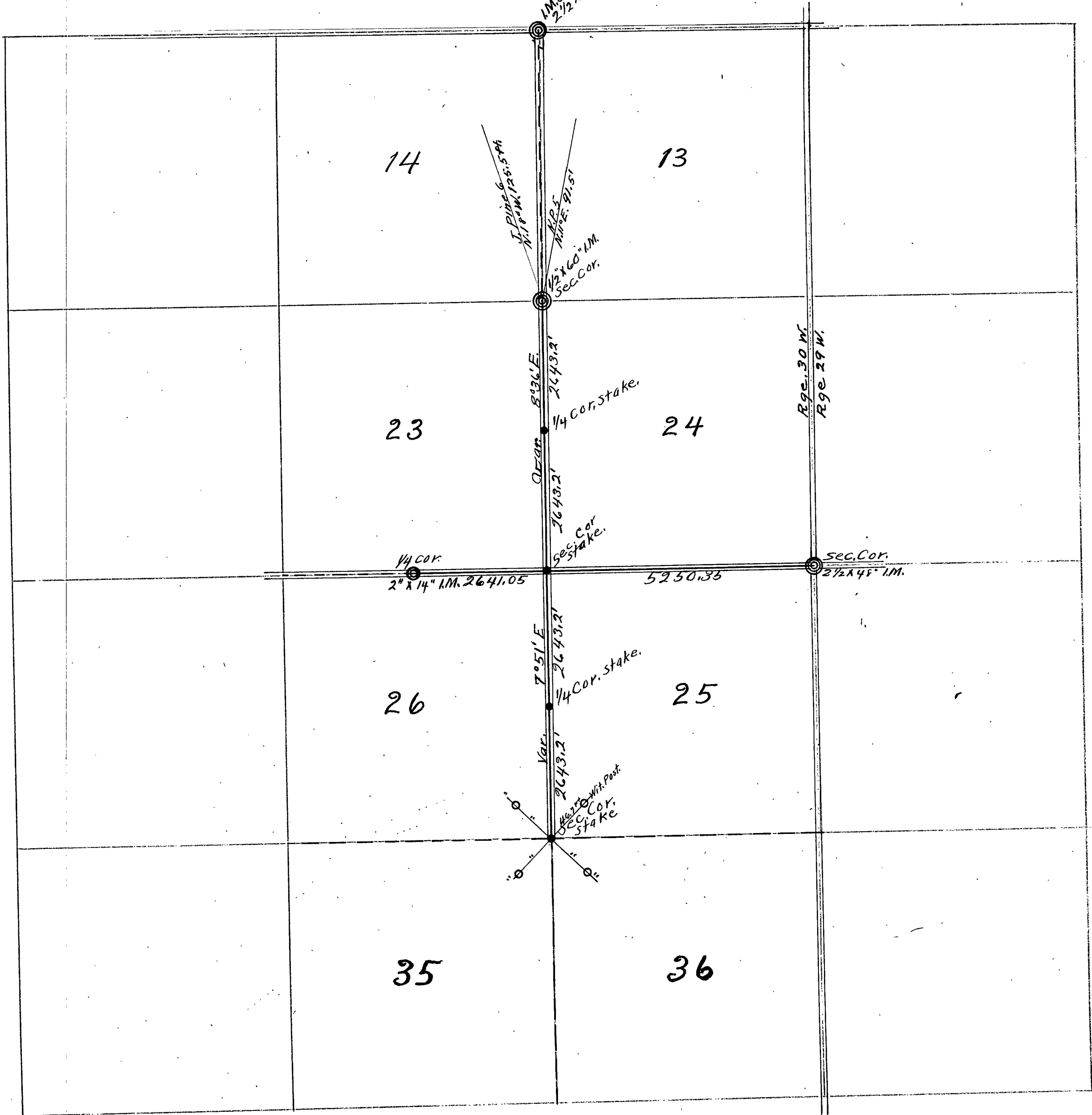
John W. Greene.

County Surveyor.

by E. B. Horst, assistant,

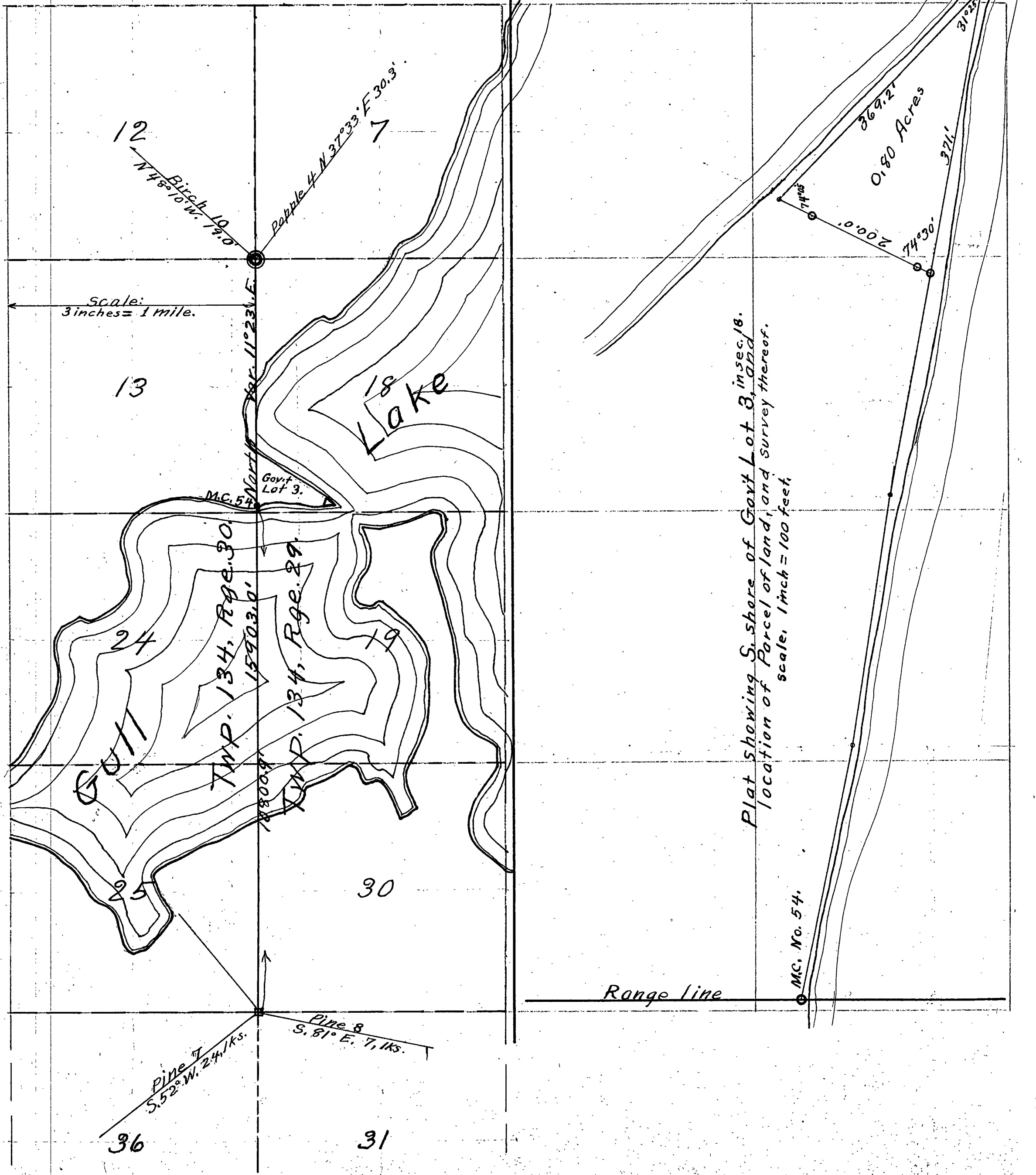
Plat of Survey Record No. 394.

136-30 map 7/10/6



98 C Survey Record No. 395.

Plat of
 Sections 7, 18, 19, 30 & 31. Twp. 134, Rge. 29.
 " 12, 13, 24, 25, 36. " 134, " 30, W. 5, P.M.



Plat showing S. share of Govt Lot 3, in sec. 18.
 location of Parcel of land, and survey thereof.
 scale, 1 inch = 100 feet

Feb. 11, 1918. E. B. Horst leaves Walker working for J. L. Rairdon, Brainerd Minn. Rairdon meets Horst at Brainerd and we drive to Rairdon's place in government lot 3, Sec. 18, Twp. 134, Rge. 29 and begin survey of lot by looking for meander corner no. 54 where U. S. notes call for: Oak 8 N. 42° E. 28, Aspen 8 S. 82° W. 8 lbs. These are all gone and we look for M. C. no. 55 where U. S. notes call for: Pine 14 S. 2° E. 30 lbs, Pine 18 S. 31° W. 30 lbs. These are also gone.
E. B. Horst.

Feb. 12, 1918. E. B. Horst and J. L. Rairdon take outfit and walk to corner of Sections 25-30-31-34, Twp. 134, Rges. 29-30 where U. S. notes call for: Pine 8 N. 25° W. 8 lbs., Pine 8 N. 70° E. 15 lbs. Pine 8 S. 81° E. 7 lbs. Pine 7 S. 52° W. 24 lbs. We find the S.E. tree standing and plainly marked, the S.W. tree down and badly burned but still bearing U. S. scribe marks. From these we set a 3" x 3" x 36" wood post at 9° 45' Mag. Var. and mark the following bearing tree: Jack Pine 10 N. 40° W. 84 ft. I set transit over corner and run Rge. line N. at 9° 45' Var. at 136 ft N. set hub.

P. M. We are assisted by Harry Vansickle. At 1570. N. cross old road S. 70° E. At 1880.5 N. tack in Jack Pine stump. At 3550.0 ft. snow hub. S. of lake on high bluff. At 3718 ft. stake on S. shore of Gull Lake. At 10738.0 ft. N. North shore of Gull Lake nail in snow hub with following bearings: R. Oak 6 N. 10° E. 13.7 ft., W. Oak 5 N. 40° W. 19.5 ft.
E. B. Horst.

Feb. 13, 1918. At 11028.5 N. snow hub on lot 3. At 11388.0 ft. N. seawall Gull Lake set point, W. Pine 10 bears N.E. 1.2 ft. At 11488.0 ft. hub mark. At 13200.0 ft. N. offset W. 372.8 ft at 90° angle, backsight E. to point and turn N.E. angle 91° 43' and run N. on Todd's line at station 2703 ft. N. intersect J. M. set by Harry Todd to which I mark the following bearings: Pop. 4 N. 37° 33' E 30.3 ft., Birch 10 N. 78° 11' W. 19.0 ft., Jack Pine 12 S. 72° 20' E. 25.0 ft. We return to S. side of Govt Lot 3 to hub 10738.0 ft. N. and chain W. 305.9 ft. to true Rge. line. Backsight E. on hub 10738.0 ft N. Turn N.E. angle 91° 38' Run N. 42.9 ft. on true range line and set M. C. no. 54 with following bearing trees: Oak 6 N. 70° W. 23.1 ft., Oak 6 N. 89° E. 17.1 ft. We return to hub 10738.0 ft. N. on random line. Sight S. on random line. Turn S.E. angle 82° 53' or S. 81° 15' E. 300 ft. Thence S. 79° 25' E. 237 ft. to point of beginning.
E. B. Horst.

Feb. 14, 1918. We are unable to work on account of snow and wind.

Feb. 15, 1918. Horst and Rairdon begin at place of beginning on S. shore of Lot 3. Run N. 26° 5' E. 18 ft. Set 1" x 36" J. Monument. Continue N. at 166.8 ft. Set 1" x 36" Iron Mon. Continue N. at 200 ft. Hub mark on Gull Lake, thence S. 48° E. along Lake shore 169.2 ft. thence N. 79° 25' W. along lake shore 371 ft. to place of beginning. Rairdon takes Horst and outfit to Brainerd and Horst returns to Walker.

Charges \$22.72 E. B. H. Recorded Feb. 18, 1918.

John M. Greene Co. Surveyors
E. B. Horst - Acting Co. Surveyor

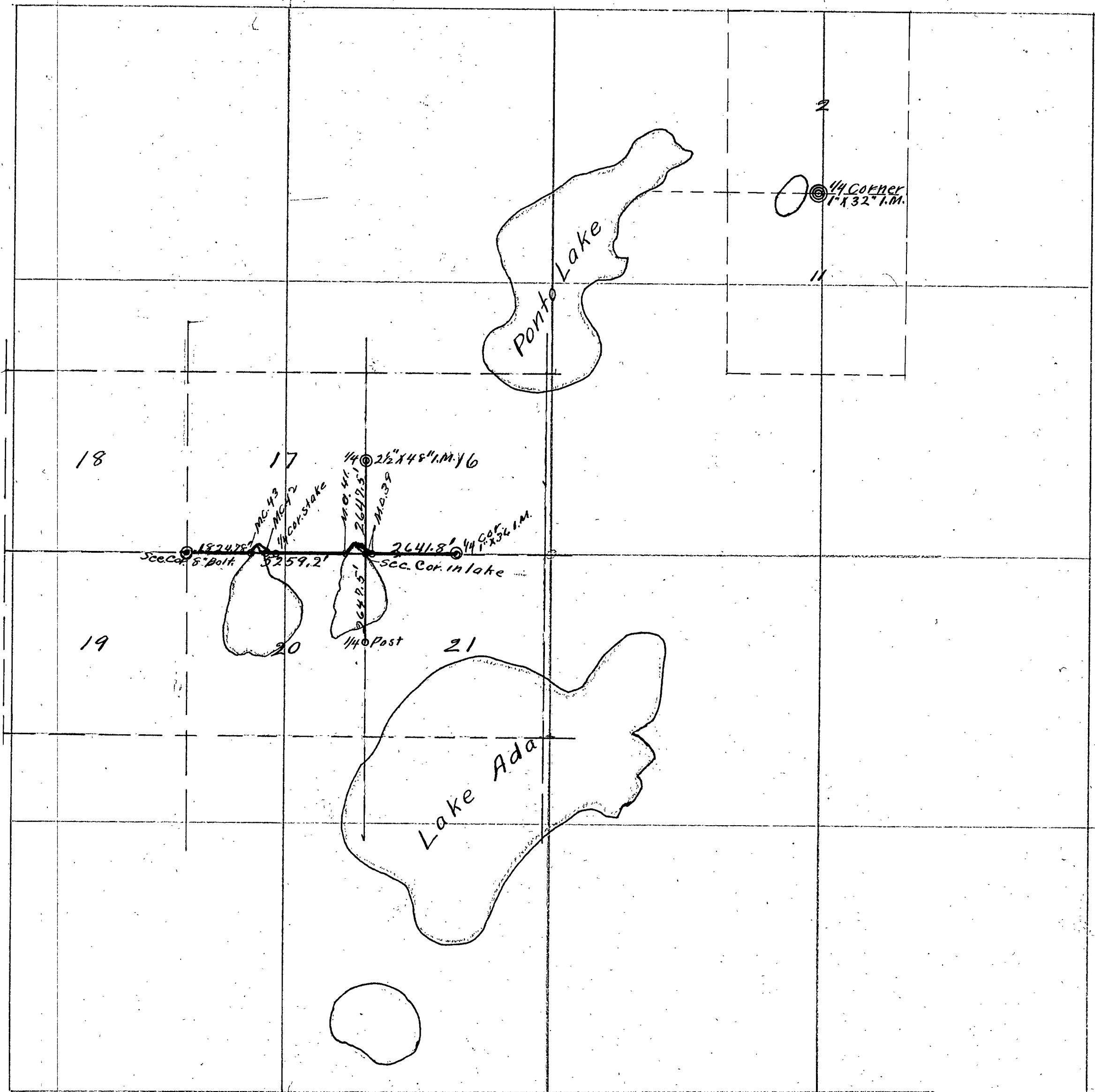
Surrey Record No. 396.

Tues. Feb. 26, 1918. E. B. Horst working for Cass County leaves Walker on 12:37 A.M. train for Backus. At Backus Hotel for night and breakfast-charges \$1.25 - Railroad fare \$4.8. I hire Bartholemew's livery to take me to John Hamilton's farm near Pontoria where we have dinner \$0.75. I set $\frac{1}{4}$ corner from old B.S. Jack Pine S. 83.2° W. 98 = 64.68 ft. which is still standing and plainly marked. The N.E. tree is gone. I drive a 1" x 32" steel shaft at corner. No trees near for bearings. I return to Glen Smith's.
E. B. Horst.

Feb. 27, 1918. E. B. Horst at Glen Smith's. I begin a survey of a county road to begin at corner of sections 17-18-19-20, 139-29 and run E. $1\frac{1}{2}$ miles. Beginning at Corner of 17-18-19-20 established by J.W. Curo which we locate from his B.S. Jack Pine S. $56^{\circ}18'$ E. 83.02'. We set an 8" bolt for corner and mark Jack Pine N. $73^{\circ}45'$ W. 193'. Telephone pole S. $62^{\circ}55'$ W. 57.8 ft. We run E. over part of Curo's random line running North of it at 700 ft. E., at 200 ft. E. enter marsh, at 400 ft. E. leave same, at 697.5 ft. E. set 4" spike, at 1719.6 ft. E. set spike, at 1824.7 M.C. no. 43 established by J.W. Curo sets N. 20 ft. We continue E. across point of lake. At 2204 ft. E. leave lake, at 2358.5 ft. set spike, at 2428 ft. look for $\frac{1}{4}$ corner and Bearing Tree. All are gone. We continue E. At 3425.4 set spike, at 4485.3 ft. set spike, at 4700 ft. enter lake, at 5310 ft. set spike on lake 20 ft. S. of a large fence post. We go N. to Iron Monument at $\frac{1}{4}$ corner between sections 16 and 17 and chain S. on road: at 685.0 ft. S. old road bears S.W., at 1144.0 ft. grade across slew bears W., at 2200 ft. S. enter bog, at 2645 ft. in line with East and West fence. We walk E. to Iron Monument at $\frac{1}{4}$ corner between sections 16 and 20 and chain W., at 600 ft. enter marsh, at 1070 ft. leave same, at 2570.2 ft. enter lake, at 2601 ft. apt. 20 ft. N. of random line hub coming from West. Quit for night.
E. B. Horst.

Feb. 28, 1918. E. B. Horst and Glen Smith walk to $\frac{1}{4}$ corner between sections 20 and 21 where we find old W.S. B.S. (snag) still standing Jack Pine S. 16° W. 22 lbs. also a Jack Pine nearly due west scribed and green, to which I did not take the distance. I find a fence post at true $\frac{1}{4}$ corner established by Hicks. We chain N. At 600 ft. enter lake, at 2650 ft. in line with E. and W. fence. True section corner of 16-17-20-21 sets in lake at sta. 5259.2 ft. E. 2641.8 ft. W. 2647.5 ft. N. and 2647.5 ft. S. I mark fence post N. 89° E. 71 ft. and fence post N. 30° E. 150 ft.

Sections 2, 11, 16, 17, 18, 19, 20 & 21. Twp. 139, Rge. 29,
W. of the 5th. P. M.



Survey Record No. 396.

at station 5259.2 ft. E. true section corner sets 19.5 ft. N. of random line; at station 4700.0 ft E. I chain N. 17.9 and set stake on true section line for M.C. No. 41.

at a point on the true section line between sections 17+20 - 610.7 ft. W. of the section corner of 16-17-20-21.

We run N. $57^{\circ}40'$ E. 551.0 ft.

thence: S $58^{\circ}35'$ E. 223.0 ft.

thence: S $24^{\circ}45'$ E. 196.0 ft to a point 127.3 ft E. of the section corner, this being the center line of road around lake.

Correcting back: at station 2629.6 E. I set stake for 1/4 corner between 17+20 on true line with following bearings: W. Oak 5, N. 25° E. 46.5 ft.

Norway Pine stump 12, S. 45° E. 47.5 ft.

at station 2237.0 set M.C. No. 42. at station 1824.8 ft E. M.C. 43. set by Euro.

at station 1719.6 and 697.5 E. I set road center on true section line.

I hire Glen Smith with team to take me to Backus and I return to Walker R.R. fare 48¢. E. B. Hout.

Surveyed Feb 25, 26, 27, & 28. 1918.

Recorded March 2nd. 1918.

John M. Greene

County Surveyor.

By E. B. Hout. assistant.

Survey Record No. 397.

Fri. Apr. 5, 1918

E. B. Horst with survey outfit drives to Hackensack to make a survey of the East $\frac{1}{4}$ line of section 17, Twp. 140, R. 30. Dinner at Hackensack - 50¢.

P.M. E. B. Horst, A.D. Brokaw and Gillia begin at the Iron Monument at the $\frac{1}{4}$ corner between sections 17 and 20, Twp. 140, R. 30 previously established from U.S. Bearing Trees by John W. Curo and run E. on the graded road, at 1357.8 set hub East of Twin Lakes. We walk around Twin Lakes to the Witness corner to section corner of 16-17-20-21 and find wood post set from U.S. B.L. and B.L. stump. From this and Roy Bryant's notes of a previous survey we set the true section corner of 16-17-20-21 Twp. 140, R. 30. and drive a 2" x 48" Iron Monument at the true section corner also one at the witness corner which is 19.8 ft. North. We then produce random line across lake intersecting 14 ft. N. of section corner. At hub 1357.8 ft., point A, I sight to corner of 16-17-20-21, point B, and turn left $59^{\circ} 57'$ and chain out 307.0 ft. Set hub point C. Angles at C. = $106^{\circ} 08'$, at point B = $13^{\circ} 55'$. Distance across lake from hub 1357.8 ft. to section corner equals 1224.0 ft. E. $\frac{1}{2}$ of section 17 = $1357.8 + 1224 = 2583.8$ ft. At station 1291.8 ft. chain S. 7 ft. and set true E. $\frac{1}{4}$ corner between sections 17 and 20, being a 2" x 48" Iron Monument. With transit on E. $\frac{1}{4}$ corner I sight W. to $\frac{1}{4}$ corner and turn N.W. angle $88^{\circ} 44'$ and run North about $\frac{1}{2}$ mile.

Sat. Apr. 6, 1918

Rain and snow. No work.

Mon. " 8, 1918

P.M. Continue for Brokaw and Gillia. Continue E. $\frac{1}{4}$ line North to section line. We walk to corner of sections 8-9-16-17 marked by an Iron Monument and chain W. on random line previously run by me. At 1316.95 ft. West set hub on random. Chain N. 32.25 ft. and set E. $\frac{1}{4}$ corner between sections 8 and 17 being a 2" x 48" Iron monument. E. $\frac{1}{4}$ line intersects 7.3 ft. West of corner. We chain S. 1333 ft. and set a $\frac{3}{4}$ " x 24" Iron Monument on true E. $\frac{1}{4}$ line also on bank N. of small lake about 300 or 400 ft. North of East and West $\frac{1}{4}$ line.

Surveyed April 5, 6 and 8 1918.

Recorded April 10, 1918.

John M. Greene.

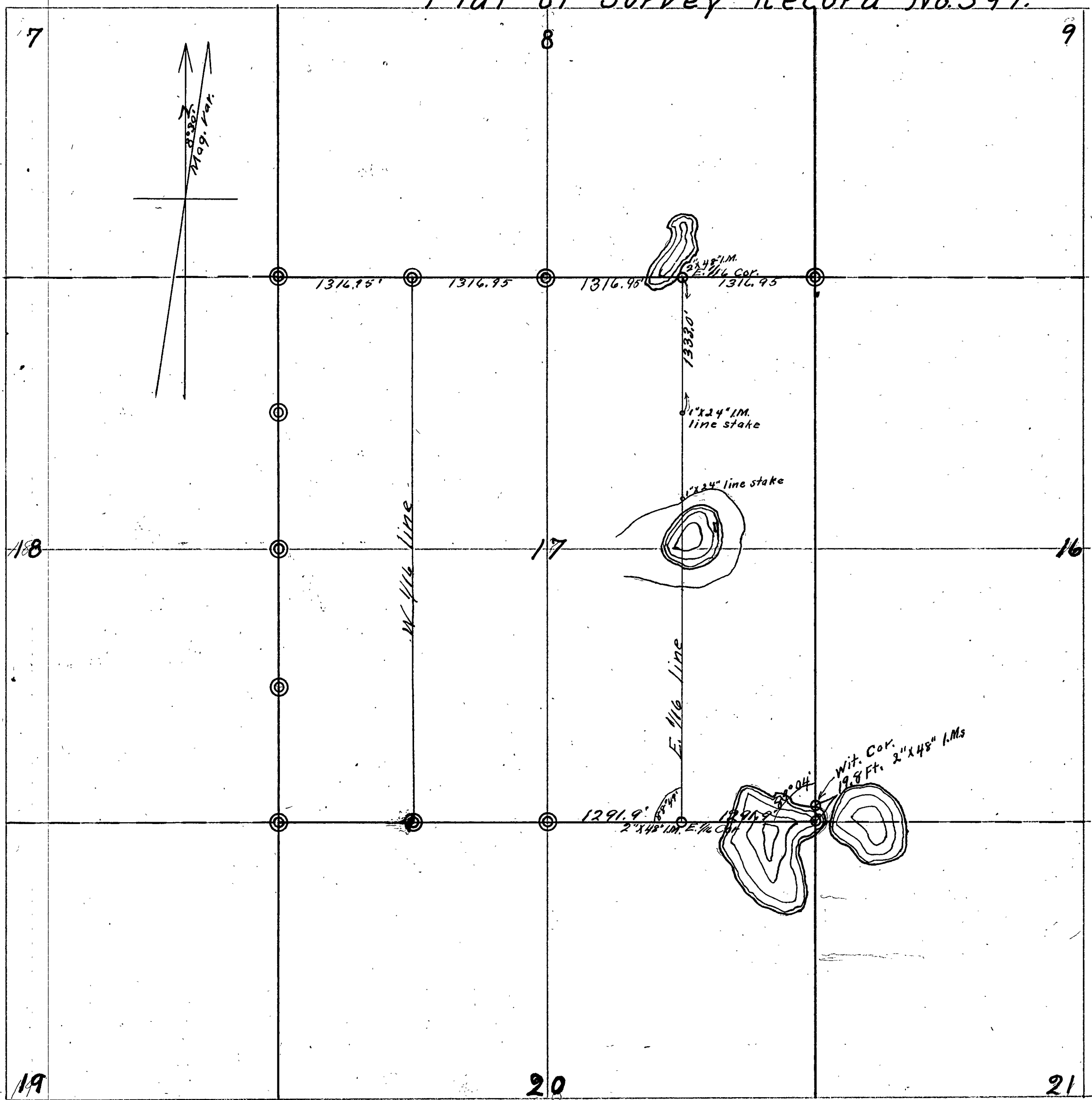
County Surveyor

By E. B. Horst - Acting Co. Surveyor.

400 words.

Sections 8, 16, 17, 20, 21. Twp. 140, N. Rge. 30, W. 5th P.M.

Plat of Survey Record No. 397.

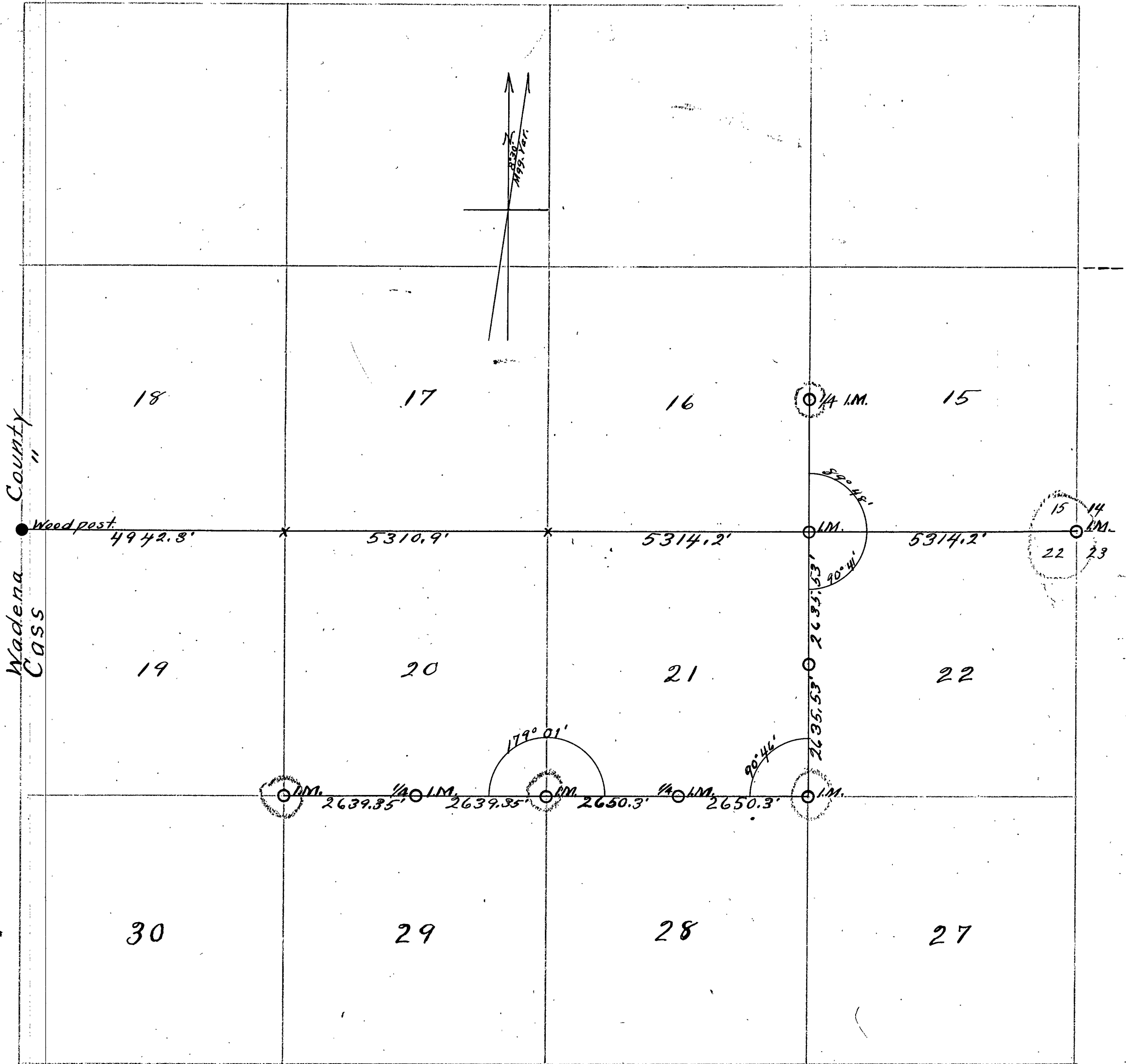


○ Corners established in this survey.
 ⊙ " " previously established.

Plat of Survey Record No. 398

Sections 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 27, 28, 29, 30.

Twp. 136, N. Rge. 32, W. 5th P.M.



Wed. Mar. 27, 1918. E. B. Horst in car leaves with survey outfit for Poplar Twp. (134 - 32) to locate obliterated corners of section and 1/4 section for Judicial Ditch No. 7. Boarding at Wm. C. Goodall's in section 15. Arrive at Goodall's at 2 p. m. and cruise for corners to get a starting point from which to locate the corner to section 15-16-21-22 which was only a post and no bearings. In original survey I find that White by an old surveyor began at the corner to sections 18+19 on Range line between Ranges 32 and 33 and run a line East 4 miles to corner of 14-15-22-23 which was the first corner he was able to relocate, he then corrected a straight line as near as possible with a compass survey and left same for road center line. The settlers accepted some of his road center stakes as corners which are considerably out of position. Return to Goodall's for night. E. B. Horst.

Thurs. Mar. 28, 1918. E. B. Horst with Earl Dague as chainman and Hollis Goodall as axeman begin at corner to 14-15-22-23 in center of State Rural Highway No. 82 (Referenced in) (N.E. 38.9 ft. S.E. 50 ft.) and chain West between sections 15 and 22 on graded road. At 2640.0 ft. set stake 11 ft west of fence. At 5257.0 ft. bridge. At 5243.0 ft. stake in line with the fence. At 7981.2 ft. stake in center of road used as 1/4 corner (no good). At 10703.0 ft. stake set by some one for a section corner, also a fake. Continue West at 13200 look for 1/4 corner and B.T.'s which are all gone. At 17000.0 ft. West mark on bridge. At 20881.6 ft. corner to sections 18 and 19 on county line between Rge 32 and 33 marked by a wood post. I set a witness post N. 45° 00' E. 46.7 ft. (Oak) and S. 45° 00' E. 46.7 ft. (Oak). U.S. chain equals 20747.1 ft. 20881.6 divided by 20747.1 equals 1.00648 correction West. At station 5314.2 ft. West I set a hub in

center of E. and W. road and turn N.E. angle of 89° 48' from general line of road to 1/4 corner between sections 15 and 16 I chain N. on this line at 2632.8 ft. 1/4 corner established by W. H. Poore from U.S. B.T.'s being a wood post with Jax Pine 7 N. 74° 45' W. 62 ft., N. Pine 4 N. 88° 15' E. 57 ft. E. B. Horst.

Fri. Mar. 29, 1918. E. B. Horst and same crew begin at a point on E. and W. road 5314.2 ft. W. of S.E. corner of section 15. Sight N. 1/2 mile to 1/4 corner and turn right 179° 28' and run S. bet. sections 21 and 22. At 1184.0 ft. set hub. At 2640.0 ft. set hub. At 3380.0 ft. set hub. At 4221.6 ft. set hub. At 5242.0 ft. set hub. We look for corner to 21-22-27 and 28 and find it.

Survey Record No. 398.

stumps of the S. E. and N. E. U. S. B. Trees from which I set post for corner and find point of an old stake. I mark the following bearings: N. Pine stump 6 N. $58^{\circ} 30' E$. 47.4 ft. N. Pine stump 10 N. $27^{\circ} 00' W$. 77.3 ft. N. Pine tree 10 S. $35^{\circ} 05' W$. 122.8 ft., N. Pine stump 8 S. $38^{\circ} 42' E$ 34.1 ft. I set transit over hub 5224.0, true section corner sets S. $71^{\circ} 16' W$. 98.8 ft. At Station 5273.8 ft. S. the corner sets W. 93.5 ft. I return to Walker to Attend Commissioners Meeting, Tuesday.

E. B. Horst.

Wed. Apr. 10, 1918.

E. B. Horst with 10 Iron Monuments and survey outfit in Ford returns to Poplar to complete the establishing of corners for Judicial Ditch No. 7. Dinner at Bachus-50¢. Arrive at Wm. Goodalls 1-15 P.M. Get John Dague and Warren Seeley to assist on the survey. We begin at corner of 21, 22, 27 and 28. I backsight on hub 5242.0 ft. S., turn right $18^{\circ} 44'$, reverse telescope and run W. between sections 21 and 28. At 400.0 ft. enter the swamp. At 1150.0 ft. leave swamp. At 1677.5 ft. set hub. At 2640.5 ft. set stake, no bearing trees. At 2790.7 ft. set hub.

E. B. Horst.

Thur. Apr. 11, 1918.

E. B. Horst with Warren Seeley, Lawrence Dague and Milford Dague assisting continue W. between sections 21 and 28. At 3966.0 ft. W. set stake. At 5298.3 ft. set hub. A post sets N. $4^{\circ} 30' W$. 20.6 ft. I set transit over this post and find the stumps of the old U. S. B. T's: Lamck. 12 N. $24^{\circ} W$. 102 lbs., Lamck. 5 S. $74^{\circ} 30' E$. 127 lbs. which check with the post for course and distance given in U. S. Notes. I pull up old post and set in its place a 2" x 48" I. M. with the following bearings: Popple 5 N. $40^{\circ} W$. 139.5 ft., Lamck. post S. E. 46.7 ft. At station 5300.4 ft. W. true corner of 20, 21, 28 and 29 sets N. 20.4 ft. With transit over section corner I backsight to hub 5298.3 ft. W. and turn S. W. angle of $98^{\circ} 02'$ and run W. between sections 20 and 29. At 2241.0 set hub. At 2647.5 ft. point on stump. At 2693 ft. center of Farnum Creek. At 2790.0 ft. center of Farnum Creek. At 2815.0 ft. set hub.

E. B. Horst.

Fri. Apr. 12, 1918.

E. B. Horst and same crew continue W. between sections 20 and 29. At 4302.7 ft. set hub. At 4350.0 ft. enter Lamck. swamp. At 4969.4 ft. set hub. At 5275.2 ft. set hub corner to sections 19-20-29-30, sets S. $5^{\circ} 30' W$. 76.6 ft. At 5279.7 ft. corner sets S. 46.4 ft. U. S. notes call for: Lam. 6 N. $41^{\circ} 30' E$. 15 lbs. (standing, green), Lam. 8 N. $55^{\circ} 30' W$. 17 lbs. stump. Spruce 8 S. $77^{\circ} 50' W$. 27 lbs. down. Spruce 5 S. $10^{\circ} 00' E$. 3 lbs. down. ~~We set a 2" x 48" I. M.~~ New bearings: Balsam 4 N. $39^{\circ} 30' W$. 40.7 ft., Balsam 8 S. $38^{\circ} 15' W$. 71.3 ft.

Survey Record No 398.

Survey Record No. 398.

We set a 2"x48" Iron Monument and return to $\frac{1}{4}$ corner between sections 20 and 29 where we set a 2"x48" Iron monument at station 2639.35 ft. W. and 23.2 ft. S. of random line for true $\frac{1}{4}$ corner with the following bearings: White Oak 58 W. 63.8 ft., J. Pine 10 S. 20° E. 49.0 ft. At station 2650.3 ft. W. between sections 21 and 28 we chain N. 10.2 ft.; and set a 2"x48" Iron Monument for true $\frac{1}{4}$ corner with the following bearings: Popple 6 N. 60° W. 54.5 ft. Popple 8 S. 45° W. 41.2 ft. At station 2435.53 ft. S. of section corner on random line we chain W. 46.75 ft. and set a 2"x48" Iron Monument for the true $\frac{1}{4}$ corner between sections 21 and 22 with the following bearings: Samck. 5 N. W. 40.2 ft. Samck. 4 S. W. 87.4 ft. At 2635.53 ft. S. of $\frac{1}{4}$ corner between sections 15 and 16 and 5314.2 ft. W. of S.E. corner of section 15 I set a 2"x48" Iron monument for true section corner of 15-16-21-22. Witness post S. W. 83 ft. Popple N. W. 105.1 ft. At $\frac{1}{4}$ corner between sections 15 and 16, established by W. H. Poore from old Witness trees, I set a 2"x48" Iron Monument. At section corner of 14-15-22-23, established by Hallet from old Wit. trees, I set a 2"x48" I. M. in center of State R. H. No. 81 and center of a county road running West. Post bears N. E. 38.9 ft. Hub S. E. 50 ft. I return to Walker. This completes the establishment of corners for Judicial Ditch No. 7 in Poplar Twp. E. B. Horst.

Surveyed Mar. 27, 28, 29 and Apr. 10, 11 and 12, 1918.

Recorded April 13, 1918.

John M. Greene
County Surveyor

By E. B. Horst - Acting Co. Surveyor.

Survey Record No. 399.

Sections 3, 4, 5, 6, 8, 9, 10, 16, 17, Twp. 141, N. Rge. 31. W. and
" 31, 32, 33, " 142, " " " 5th P.M.

Road
7x8
31-32
142-31
5-6-31-32

Engineer Work on State Road No. 80 in Twp. 142 and 141 Rge. 31.
As the line location of the above road has never been exactly located thro sections 31 and 32, Twp. 142-31 and sections 4-4-7, Twp. 141-31 and as the corner to 5-6-31 and 32 of said Twp. appears to be lost or very much out of place we proceed to locate same as follows:

April 7, 1916.

3-4-33-34
Z.M.

E. B. Horst Asst Engineer and Harold J. Curo his chainman go to an Iron Monument previously established by John W. Curo from old U. S. B. T.'s at corner on Twp. line corner of sections 3-4-33-34 between Twp. 141-31 and 142-31 and run West 0.8°. At 368 ft. drive large birch post. At 372.90 ft. temp. N. E. enter lake. Look for meander corner No. 24 of Twp. 141-31 where U. S. Notes call for a post and B. T.'s vis:

MC 24

(1) Birch 47.13° E. 28 lks. (2) Birch 48.88° E. 24 lks.

MC 25

All are gone. Continue West on ice. At 1745 ft. long lake (this distance is short) At 1778 ft set square stake in marsh. At 2120 ft. across old road. At 2256.54 ft temp. N. E. No. 20 (T. 141-31) here U. S. notes call for post and B. T.'s vis. (1) Birch 37.39° W. 29 lks. (2) Birch 38.70° W. 25 lks. At this point fall on high ground away from the lake, all are gone. Continue West. At 2670 look for 1/4 corner between sections 4 and 33 where U. S. notes call for: W. Pine 24 7. 76° E. 25 lks, also Pop. 3 8. 21° W. 21 lks. All are gone.

L
4-33

GN RR

Continue West. At 3500 ft. enter swamp. At 3625 ft. leave swamp. At 3738 ft. come to the Great Northern Railroad. At 4400 ft. set square post on top of big hill. Quit for the night. For dinner we bought lunch - 35¢. Fred Grindall of Walker Auto Co. drove us out to place of beginning. E. B. Horst.

April 8, 1916.

E. B. Horst Asst Engr. Harold J. Curo Ax. Ch. and flagman. Continue to cut line West to about 5300 ft. and look for corners. Search all day for corners and give it up. Lunch for dinner - 35¢. We walk both ways from Walker.

E. B. Horst.

April 17, 1916. F. F. Wilson Asst Engineer. Harold J. Curo ax., chain, and flag man. Continue to cut line west. Cut line thro very heavy brush and windfalls. Also Transit, 100' ch. all belonging to J. W. Curo. Still back sighting on red flag at Iron Monument, place of beginning. At corner to sections 3, 4, 33, 34. Wilson staying at Hotel Chase. Curo boarding at home. We walk both ways. F. F. Wilson.

3-4-33-34

Apr. 18, 1916. Believing we may be able to locate the N.E. corner of section 6, Twp. 141-31 by running from some known corner South we go to an Iron Monument previously established by Curo at cor. to sections 3, 4, 7, and 8, Twp. 141-31 from which we run N. 8° 30' Variation E. Cut line thro heavy brush and quit for night. We are staying in Walker and walk both ways on track. Weather fine and warm, clouding up about 5 P. M. We take lunch - 50¢. F. F. Wilson, Asst. Engineer.

NE Cor 6
141-31

5-6-7-8

North

Apr. 19, 1916. Harold J. Curo and F. F. Wilson continue West along North border of Twp. 141-31, thro heavy brush and windfalls. Find no corners. We take out lunch - 50¢. Weather fine until 4 o'clock P. M. when it commences to rain. Both staying in Walker and we walk both ways on track. F. F. Wilson.

West on
Twp Line

Apr. 23, 1916. John W. Curo Asst Engineer. Harold J. Curo, ax. ch. and flag man. Get up early and read over and copy old Govt notes of original survey and believing we can locate the corner to 5, 6, 31, 32 we buy lunch and walk down track and run N. from cor. to 5, 6, 7, 8. After leaving end of Wilson's cutting we run compass line to about 2640 ft. where all search the whole county for 1/4 corner between 5 and 6. Find nothing. Then continue to approximate Pt. of N.E. cor. to latid 6 but give it up as a tough job. Eat our lunch late in P. M. at shack in Sec. 31(?) and walk back to Walker. John W. Curo.

5-6-31-32

5-6-7-8
North

1/4
5-6

May 3, 1916. F. F. Wilson as Asst Engineer and E. B. Horst as ax. chain and flagman. Continue West on N. Boundary of 141-31 thro heavy brush. Cut about 1/4 mile and quit for night. Horst walks back to Walker. Wilson, believing he can stay at a farmhouse walks thro brush to shack which he finds locked and after waiting till dark he walks back to Walker where he stays over night at Chase Hotel. 2 lunches 35¢ each - 75¢. F. F. Wilson.

West on
Twp Line

Survey Record No. 399.

May 4, 1916. As the distance from Walker is too far to walk we get permission to use a house near Mc. 32, 142, ³¹ Owner gives Wilson the key and we get some supplies of M. J. Quam. Hustle all A.M. packing supplies and writing notes. F. F. Wilson, Asst. Engr. As we cannot get axemen nor chainmen H. F. Baldwin agrees to go along and help as axeman and chainman. We get partly ready in A.M. and leave in the P.M. with supplies in Fred Grindall's Auto which takes us out to within one mile of the house. We have arranged to stay awhile during this survey. Then H. F. Baldwin and F. F. Wilson carry provisions to the said house and at once commence cutting and running line West hubbing line. At 6 o'clock P.M. we quit work, go to house, and prepare supper, and arrange our sleeping quarters. At 10 P.M. Wm. H. Wilson, owner of house we are stopping at comes home and tells us that John W. Cro, Co. Surveyor has engaged him ~~at~~ to assist in survey as axeman. Today clear and warm. F. F. Wilson.

May 5, 1916. Fair and hot. F. F. Wilson and H. F. Baldwin, after setting pickets so that H. A. Wilson can continue cutting line West, commence chaining line starting at hub 4400 ft. (Windfall, heavy brush, Poplar, and Birch). At 5151.6 ft. set hub. At 5449.7 ft. set hub. At 5737 ft. enter slough. At 5900 ft. leave slough. At 6727.9 ft. set hub. At 7298.7 ft. set hub. At 7800 ft. enter fresh burnt area. At 8900 ft. enter strip of green Jack Pine. At 8999 ft. set hub. At 9949 ft. leave strip of green Pine and enter fresh burned area. At 9956.1 ft. set hub. East edge right way of State Rural Highway No. 80. 10005 ft. West edge right of way of S. R. H. No. 80. At 10578.7 ft. set hub. (Poplar, Oak, Birch and Pine) At 10822.9 ft. set hub. At 11030 ft. enter slough. At 11075 ft. leave slough. At 11269.8 ft. set hub. At 11519.1 ft. set hub. Quit work at 6 o'clock P.M. and go to house and prepare our own supper. F. F. Wilson.

May 6, 1916. Clear and hot. F. F. Wilson and H. F. Baldwin, ~~decide to~~ and H. A. Wilson continue cutting random line West hubbing same. Wilson and Baldwin chaining up the line from station 11519.1 ft. to 13500 ft. after lunch and then we all continue cutting until 5.30 P.M. when we go to house for the night.

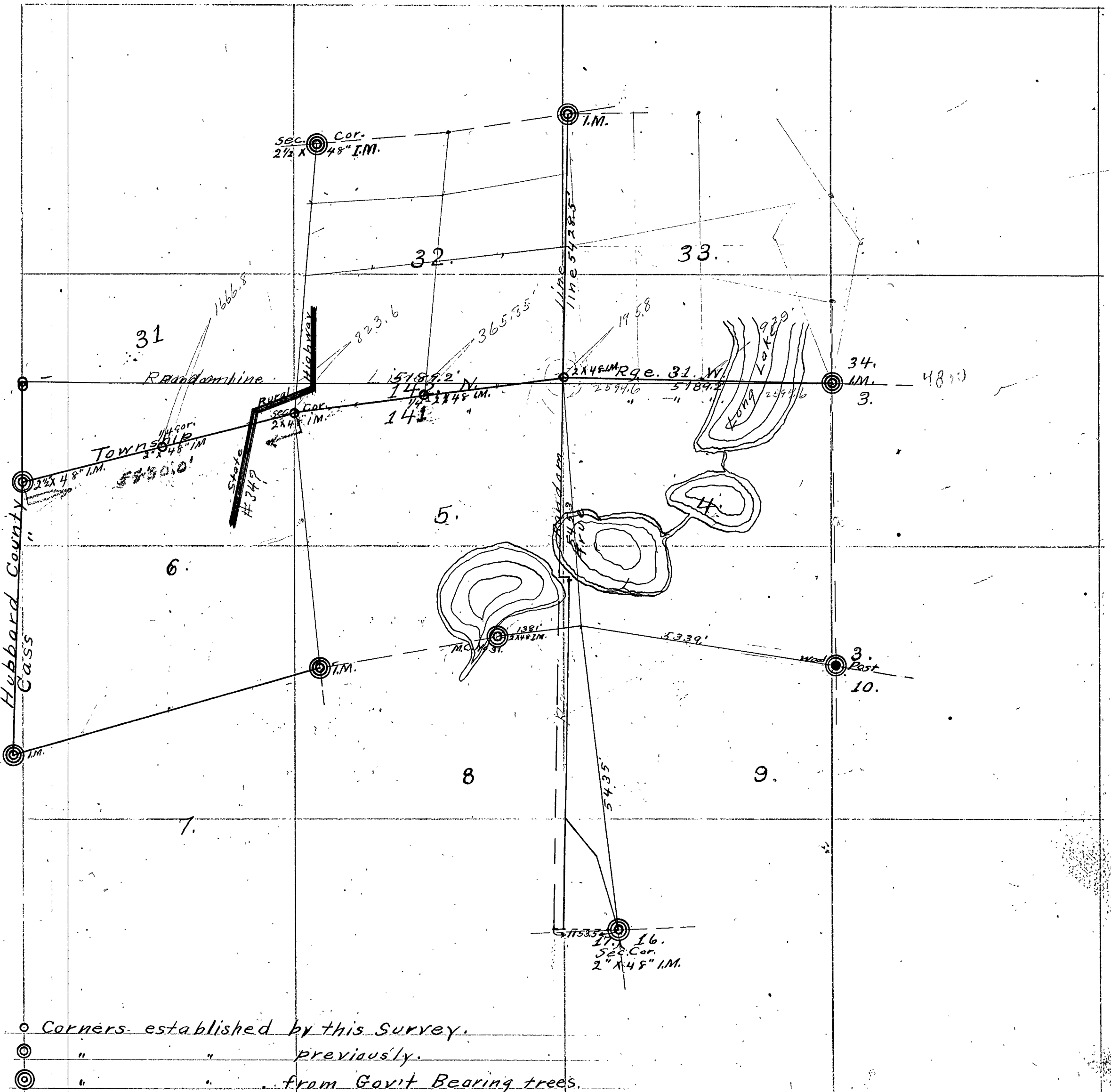
West on
TWP LINEWest on
TWP LINE

Road No 80

West on TWP LINE

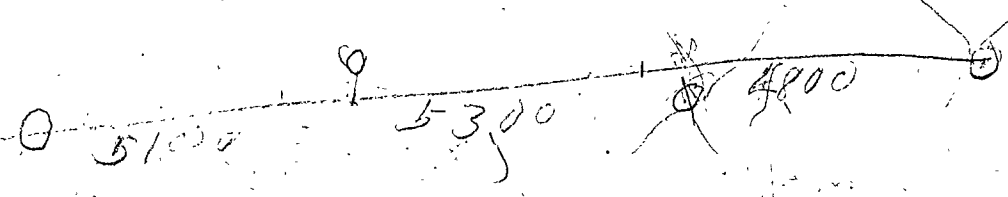
Plat of

Survey Record No. 399.



○ Corners established by this Survey.
 ⊗ " " previously.
 ⊗ " " from Govit Bearing trees.

32

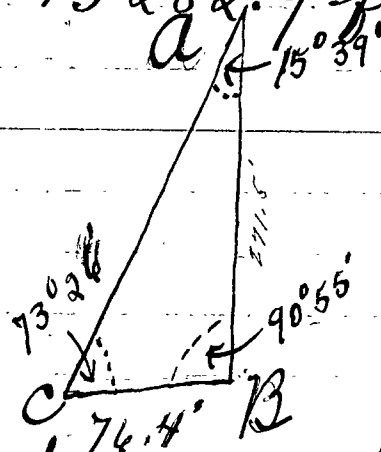


Chainage as follows: At 11519.1 ft. begin. At 11902.4 set hub. At 12324.7 ft. set hub. At 12400 ft. enter slough. At 12475 ft. leave slough. At 12756.6 ft. set hub. At 13170.8 ft. set hub. At 13425 ft. cross sleigh road. At 13500 ft. stop. Slightly rolling land covered with thick heavy brush, Poplar, Birch, Oak and scattering Pine.

May 7, 1916. F. F. Wilson and H. S. Baldwin decide to go to the West Boundary of the Twp. 141, 142 Rge. 31 and search for Bearing Trees to sec. and 1/4 section corners and to chain random line as far as cut out. We commence chaining at 13,500 ft. and chain to 15000 ft. as follows: At 13,500 ft. begin. At 13790.8 ft. set hub. At 13960 cross Sloan's sleigh road. At 14100 ft. cross Sloan's sleigh road. At 14311.5 ft. set hub. At 14555.7 ft. set hub. At 14704.6 ft. set hub. At 14870.3 ft. set hub. At 15000 ft. end of our cutting May 7. We then go west thro the brush and find County road between Twp. 142 Rge. 31 and 142 Rge. 32 and going South along this line a short distance find a wooden post marked in pencil, 1/4 post. U. S. Notes call for bearing tree, Y. Pine 15 S. 85° E. 6 lks. equals 3.96 ft. We find stump which is apparently stump of this B.T. We continue South on this line 1/2 mile and find a Poplar post 2" in diam. squared top which someone no doubt has placed here for corner to sec. 1, 6, 31, 36. U. S. Notes call for B.T.'s: (1) Y. Pine 19 N. 38° W. 191 lks. equals 124.06 ft. (2) Y. Pine 28 S. 82° W. 156 lks. equals 102.94 ft. (3) Y. Pine 30 S. 18° E. 171 lks. = 112.86 ft. (4) Y. Pine 29 N. 71° E. 225 lks. = 148.5 ft. We do not locate these B.T.'s satisfactorily to us so we go S. another 1/2 mile and search for B.T.'s to 1/4 corner section 1 and 6 where U. S. Notes call for: (1) Y. Pine 20 S. 25° E. 77 lks. (2) W. Pine 25 N. 58° W. 47 lks. We do not find any trace of these B.T.'s. Then we start for our lodgings and just reach the house as it commences to pour down rain in torrents. Today warm and clear till 4.30 P.M. when it clouds up and commences to rain about 5.30 P.M.

F. F. Wilson.

May 8, 1914. Cool and strong wind from N.W. F.F. Wilson and H.F. Baldwin cut random line East to the West on Boundary of 141 and 142, Rge. 31 and chain same as follows: At 15100 ft. begin. At 15179 ft. set hub. At 15282.9 ft. set hub. At 15419.8 ft. set hub. At 15500 ft. enter slough. At 15680 ft. leave slough. At 15783 ft. set hub. At 15810 ft. enter slough. At 16027 ft. leave slough. At 16057.5 ft. set a hub, the true 1/4 corner between sections 31 and 34 sets South 34.9'.



From station 15783 ft. we triangulated as per diagram above, base 76.4 ft. along West Boundary of Twp. and calculated the distance AB equals 271.5 ft. We place the hub at 270.2 ft plus 15783 ft. so that the post 1/4 sec. cor. 31, 34 is due South 34.9 ft. We quit work at 5.30 P.M. F.F. Wilson.

15783
270.2
16053.2

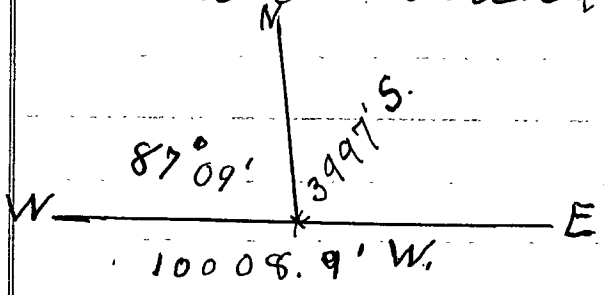
May 9, 1914. Clear and cool. F.F. Wilson, H.F. Baldwin and H.A. Wilson go to line started North by F.F. Wilson and Harold Curo on April 18, 1914, on a variation of 8° 30' East from sec. corner 5, 6, 7 and 8. We run a compass line and chain same to intersection with random line, run West along North Boundary of Twp. 141-31 with chainage as follows:

5668 N. of
5-6-78

0000 Corner section 5, 6, 7 and 8, 141-31. Heavy brush. 5668 ft. Intersection with random line run West from Section corner 4, 5, 32, 33 at 9653 ft. West.

We search for U.S. B. T's. corner section 5, 6, 31 + 32. (1) Poplar 4 N. 4° E 48 lks. = 44.88 ft. (2) Y. Pine 14 N. 30° W. 100 lks. = 66 ft. (3) Jam. 6 S. 28° W. 42 lks. = 27.72 ft. (4) W. Pine 18 S. 41 1/2° E. 142 lks. = 93.72 ft. We are unable to find B.T's and we quit at 5.45 P.M. and go to camp. J.W. Curo comes to camp at 8.00 P.M. and after looking over notes of work done and interviewing us on same gives us advice as to how we should continue. He then returns to Walker with F. Grindall's auto. F.F. Wilson.

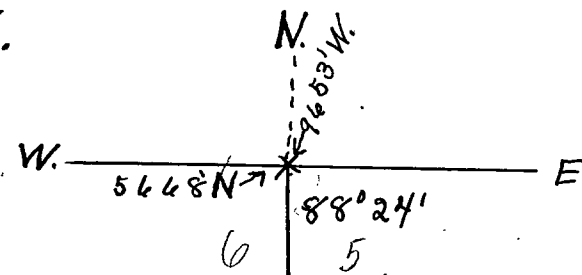
May 10, 1914. F.F. Wilson, H.F. Baldwin and H.A. Wilson go to sec. cor. 29, 30, 31, 32, Twp. 142, Rge. 31 W. and run line South, Variation 8° E. with chainage as follows: At 000 Iron Monument Cor. sec. 29, 30, 31, 32. Thick brush, Poplar and Oak and Birch. At 375 ft. set hub. At 1901 ft. set hub. At 2803.5 ft. set hub. At 3997 ft. hub intersection with random line West from Sec. Cor. 3, 4, 33, 34 at 10008.9 ft. W. Triangulated distance from station 375 to station 1901 as shown in diagram. Calculated distance



A C equals 1524 ft. Angle of Intersection of line run South from sec. cor. 29, 30, 31, 32 with random line run west from sec. cor. 34, 33, 34. N. $87^{\circ} 09' W$.

Also read angle of intersection of line run N. from sec. cor. 54, 7, 8, Twp. 14, Rge. 31 with random line run West from sec. cor. 3, 4, 33, 34.

S $88^{\circ} 24'$ E.



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

May 11, 1914. Clear and cool. H. F. Baldwin goes into Walker and F. F. Wilson and H. A. Wilson go to sec. cor. 14, 7, 12 where J. W. Curo has placed an Iron Monument. We start a line North, var. $8^{\circ} 30' E$. and run transit line North hubbing same. We cut on this line until 5.30 P.M. when we quit for the day. F. F. Wilson.

May 12, 1914. Clear and cool. As H. A. Wilson cannot help on survey today and as we are getting short of supplies I go to Walker and get supplies from M. J. Quam and spend the balance of the day writing notes after reporting to J. W. Curo as to progress being made on this survey. I go back to H. A. Wilson's after 6 o'clock P.M. F. F. Wilson.

May 13, 1914. Clear and warm. F. F. Wilson and H. A. Wilson go to sec. cor. 1, 4, 7, 12 and chain North as far as this line was run Thurs and continue line hubbing same. We use also Transit. Chainage as follows: At 000 Iron Monument, sec. cor. 1, 4, 7, 12. At 380.5 ft. set hub. At 1253.3 ft. set hub. At 1850 ft. enter swamp. At 2080 ft. leave swamp. At 2155.9 ft. set hub. At 2730.5 ft. set hub. At 2850 ft. enter swamp. At 3150 ft. leave swamp. At 3978.2 ft. set hub. At 4018.4 ft. fence S. Boundary Olsen's pasture. At 4100 ft. quit for this time. It commences to rain about 2 P.M. gradually increasing in the downpour. So at 5.20 P.M. we quit work for the night and go to H. A. Wilson's cabin where we are staying during this survey. F. F. Wilson.

399 2

May 14, 1914. Heavy cold rain. I spend the day writing notes and making calculations. H. A. Wilson spends the day making a bird house. F. F. Wilson.

May 15, 1914. It rains heavily all day. I spend the day at Wilson's cabin writing notes and checking them and calculating the true location of sec. cor. 5, 6, 31, 32. Chas. Sloan who lives on sec. 36, Twp. 142 Rge 32 calls at cabin and I make inquiries of him as to what he knows about a U. S. B. Lk on the county line but do not get any information of benefit to this survey. F. F. Wilson.

May 16, 1914. Cloudy and cool. F. F. Wilson and H. A. Wilson continue random line run north from sec. cor. 1, 4, 7, 12. Twp. 141. Rge. 32 and at where we expect to find sec. cor. 1, 4, 31, 36 which is the N. W. cor. of Twp. 141-31 we find cutting of several years old and Poplar post $1\frac{1}{2}'' \times 1\frac{1}{2}'' \times 3\frac{1}{2}'$ and believing we may find U. S. B. Lk. ;
 (1) Y. Pine 197. $38^\circ W$. 191 lbs. equals 124.04 ft. (2) Y. Pine 28 $88^\circ W$. 156 lbs. equals 102.94 ft. (3) Y. Pine 30 $18^\circ E$. 171 lbs. equals 112.84 ft. (4) Y. Pine 29 $71^\circ E$. 225 lbs.

At 5.30 P.M. we quit work and go to the cabin. On the way we meet H. F. Baldwin who takes the Alve Transit we have been using to Walker and leaves us in its place a W. + L. C. Purley Transit and returns to Walker in Grindall's auto. F. F. Wilson.

May 17, 1914. Fair and warm. F. F. Wilson and H. A. Wilson chain line cut commencing at 4100 ft. as follows: at 4100 ft. begin. At 4470.5 ft. set hub. At 4548 ft. enter slough. At 4648 ft. leave slough. At 4740. ft. enter slough. At 4800 ft. leave slough. At 4895.1 set hub. At 4960 ft. enter slough. At 5022 ft. leave slough. At 5233.1 ft. set hub. Believing we can run transit line N. on cutting (old line) with more speed we place hubs on old line W. 27.3' and run north on new bearing $0^\circ 50' W$.

We continue this transit line to its intersection with random line run West along N. Bdy. of Twp. 141, Rge. 31. As it is 6 P.M. we quit and go to the cabin. F. F. Wilson.

May 18, 1916. Clear and warm. F. F. Wilson Asst Engr. and H. A. Wilson axe and chain man go to West Bdy. of Twp. 142-31 and chain S. from the intersection of line run N. along N. Bdy. of Twp. and random line run West from N.E. cor. Sec. 4 Twp. 141, 31 with chain gear as follows: At 000 ft. set hub intersection of line. At 33.5 ft. $\frac{1}{4}$ cor. sec. 34, 31 stands East 33.1 ft. At 1348.3 ft. An old post sets E. 20'. A newer post marked $\frac{1}{14}$ stands E. 6'. At 1652.5 ft. cross Olsen's pasture fence. At 2459 ft. a poplar post $1\frac{1}{2}$ " x $1\frac{1}{2}$ " x 4.5' stands on the line. We find old post 7' E. At 2685.3 ft. set hub. We spend some time looking for U.S. B.S.'s for section corner to 1, 6, 31, 34. We quit at 2 P.M. and we go to Walker and J. W. Euro, Co. Surveyor, and I work till 9 o'clock P.M. calculating the true location of sec. corner 5, 4, 31, 32, Twp. 141, 31. Then we return to H. A. Wilson's cabin after getting some supplies from M. J. Quam. F. F. Wilson.

May 19, 1916. Clear and warm. F. F. Wilson and H. A. Wilson go to station 10488 ft. W. on random line along N. Boundary of Twp. 141, 31. I set up Surley Transit and turn angle $S. 86^{\circ} 59' E.$ and we start cutting line south. J. W. Euro comes out from Walker in Fred Grindall's auto and Euro and I go over to August Olsen's, lot 344, sec. 4, Twp. 141, 31, leaving H. A. Wilson cutting line S. from station 10488 ft. W. Euro interviews August Olsen and he (Olsen) shows us a post standing in slough about 40 ft. which he says is $\frac{1}{4}$ post between sec. 4 and 31. We look for old Sout B.S.'s i. e. Poplar 4 N. $13^{\circ} W.$ 13 lbs. equals 8.58 ft. Birch 3 S. $27^{\circ} E.$ 7 lbs. equals 4.42 ft. But we can find no trace of these trees nor do we find any old Sout blades. We then go to a point on the line we ran N. from sec. cor. 1, 4, 7, 12 and I show Euro the stumps which I believe to be the stumps of Sout B.S.'s for sec. cor. 1, 4, 31, 34. He after checking same confirms my belief and instructs me to plant post for sec. cor. and take new bearings. We then go back to Olsen's. Before Euro leaves for Walker, he instructs me to run a line N. from Post, Olsen thinks is $\frac{1}{4}$ cor. between sections 4 and 31, to an intersection with our random line running West. J. W. Euro then goes to Walker in the auto which remained at Olsen's in the meantime. After having dinner H. A. Wilson and I continue line started S. from 10488 ft. W. on random line running W. and place temporary corner for section 5, 4, 31, 32 at a distance S. 860 ft. We search for U.S. B.S.'s: (1) Poplar 4 N. $40^{\circ} E.$ 68 lbs. equals 44.88 ft. (2) Pine 14 N. $30^{\circ} W.$

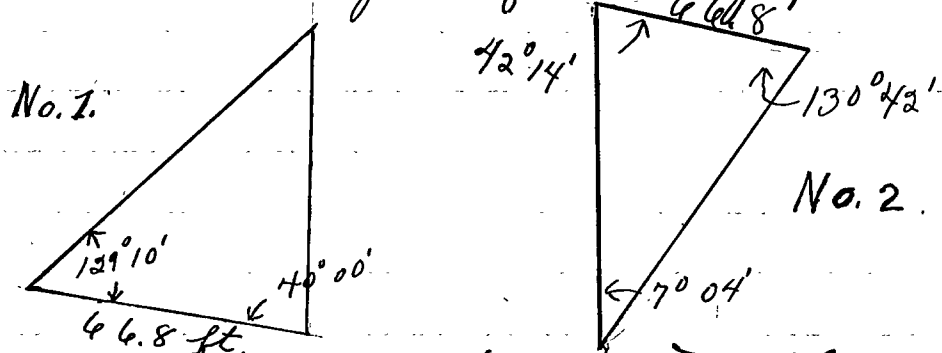
100 lbs. equals 46 ft. 3/4 Jamie 4 S. 28° W. 42 lbs. equals 27.72 ft.
 41 W. Pine 18 S. 41° 30' E. 142 lbs. equals 93.72 ft. We can find
 no trace of these B.S.'s. Chainage as follows: At 000 ft.
 set hub. 10488 ft. won random line. At 365 ft. N. Bound-
 ary of new cutting, S. R. H. No. 80. At 393.5 ft. new cutting
 State Rural Highway No. 80. At 422 ft. S. Boundary S. R. H. No. 80
 At 860 ft. temporary cor. sec. 5, 6, 31, 32. We quit work at
 5.30 P.M. and go to H.A. Wilson's cabin. F.F. Wilson.

May 20, 1916

F.F. Wilson and H.A. Wilson go to sec. corner to 1, 6, 31, 36 and
after checking bearings and measurements from old B.S.'s
stumps place post at 2459 ft. S. on line, run along W.
boundary of Twp. 142, 31 which stands E. 9' and took new
bearing trees. Bearing of line N. Var. 10° E. New B.S.'s:
 W. Pine 8 S. 87° 52' W. 58.9 ft. Norway 18 N. 29° 18' W. 82.2 ft. In
 each case measurement was taken to head of nail driven
 in blaze. We then go to wooden post in slough which
 Olsen believes is 1/4 cor. between sections 6 and 31 and run
 line N. Var. 10° E. As post is in slough we triangulate
 distance to dry land. We cut line to intersection with ran-
 dom line running West. As it is now 4 P.M. we quit
 and go to H.A. Wilson's cabin. I get August Olsen to bring us
 some supplies from M. J. Quam's store in Walker and
 on reaching cabin find the supplies which Olsen has
 fetched from town. F.F. Wilson.

May 21, 1916

F.F. Wilson and H.A. Wilson chain line run North
 from post in slough to random line running West.
 At 000 ft. wooden post in slough. At 275.8 ft.
 hub at edge of slough. Triangle No. 1. At 542.7 ft.
 set hub. Triangle No. 2. At 957.5 ft. hub. Triangle No. 2.
 At 1432.5 ft. hub. Random
 line at 12826.1 ft. W.
 Angle of intersection S.
 86° 31' E.



We then go to H.A. Wilson's cabin and have dinner. It
 rains all afternoon. I write notes. F.F. Wilson.

May 22, 1916

F.F. Wilson Asst Engineer spends the morning look-
 ing for B.S.'s for 1/4 cor. section 3, 32 and sec. corner to
 4, 5, 32, 33. 1/4 corner B.S.'s: (1) Poplar 3 N. 53° E. 11 lbs.
 equals 7.26 ft. (2) Poplar 3 S. 9° W. 6 lbs. equals 3.96 ft.
 Sec. corner, 4, 5, 32, 33 B.S.'s: (1) Poplar 3 N. 41° E. 13 lbs.
 equals 8.58 ft. (2) Poplar 4 S. 27° W. 31 lbs. equals 20.46 ft.
 (3) Poplar 3 N. 25° W. 13 lbs. equals 8.58 ft. (4) Poplar 3 S.
 47° E. 10 lbs. equals 6.4 ft. But do not find any definite
 trace of same. At 1 P.M. I walk into Walker to consult J.W. Caro

and find that he is at Cass Lake so I walk back to the cabin five miles.

May 23, 1914. J. F. Wilson spend the morning looking for traces of U. S. B. L.'s and in afternoon I go to Walker. I see J. W. Curo and he instructs me to stay in Walker until we receive plan and notes from the G. N. Ry. as to the true location of section corner 4, 5, 32, 33.

May 24, 1914. Fine and clear. I make copy of plan and notes received from roadmaster of G. N. Ry. at Park Rapids, Minn. J. F. Wilson and E. B. Horst walk from Walker S. on the G. N. Ry. to where our random line started West from N. W. cor. of 4, 141, 31 and from notes of G. N. Ry. we set witness post and tack as the true sec. corner to 4, 5, 32, 33 at 4833.5 ft. W. on random line at a distance 134.4 ft. S. 13° 05' W. to random line and take new bearings as follows:

41. Pop. 4 S. 39° 30' E. 17 ft. (2) Pop. 5 S. 87° 30' W. 35.4 ft. (3) Pop. 7 N. 42° E. 41 ft. (4) Pop. 5 N. 20° W. 38.3 ft. Var. 8° 30' E.

At 4.10 P.M. we quit work and walk back to Walker.

Aug. 4, 1917. Twp. Line. E. B. Horst and Carl Crow take skeleton field notes and compass and chain and drive to Twp. line between 141, 31 and 142, 31 where J. F. Wilson has cut a random line from corner of sections 3, 4, 33, 34 west to Rge. line, intersecting same 34.9 ft. N. of $\frac{1}{4}$ cor. between sections 31 and 34 Twp. 142, Rge. 31, and 32. We cruise for Lost corners all day but find nothing. As J. M. Greene has ordered the U. S. Complete Field Notes we decide to wait for them before doing any more work.

omitted

Oct. 4, 1917. Horst and Lusler still on Twp. line looking for corners but find nothing. We look for corner and B. L.'s to 4, 5, 32, 33 where Wilson and Curo set a corner post and B. L.'s which I do not believe is correct. We find nothing. E. B. Horst.

Oct. 3, 1917. Twp. Line. E. B. Horst and E. L. Lusler boarding at Chase Hotel. Having received U. S. Field Notes we cruise along Twp. line for Lost corners. We find a trace of the old Twp. line where corner of 5, 4, 31, 32 should be but are unable to locate the corner or B. L.'s.

E. B. Horst.

- Oct. 5, 1917. Horst, Transit, Fusler, rodman. We set transit on hub 4400 ft. W. on Wilson's random line and check chainage back to starting point, by cutting a base line N. 172 ft. and one S. 102 ft. at 90° to random line and triangulate same, which checks 4400 ft. both ways within 0.8 ft. O.K. We then go to S.W. Corner of Section 28, 142, 31 which is covered up, after finding same we start a random sec. line South. E. B. Horst.
- Oct. 8, 1917. Horst and Fusler look for $\frac{1}{4}$ corner between sections 4 and 33 and M. C. No. 25, 141, 31 but find nothing. E. B. Horst.
- Oct. 9, 1917. Horst and Fusler. Continue cutting random line S. between Secs 32 and 33, 142, 31 until noon.
P.M. I attend commissioners meeting and Fusler goes home for clothes. E. B. Horst.
- Oct. 10, 1917. Horst attending commissioners meeting, E. L. Fusler continues cutting random line S. between 32 and 33. E. B. H.
- Oct. 11, 1917. Horst and Fusler look for $\frac{1}{4}$ corner between sections 32 and 33 where U. S. Notes call for: Poplar 4 S. 19° W. 17 lbs. Birch 3 N. 87° E. 7 lbs. but find nothing. We continue S. between Secs. 4 and 5 Twp. 141, Rge 31. E. B. Horst.
- Oct. 13, 1917. E. L. Fusler leaves to cook for some duck hunters and I am unable to get any help. E. B. Horst.
- Oct. 17, 1917. E. B. Horst, Transit and chain. Walter Blackburn axe and chain. We begin at S.W. Corner of Sec. 28, 142, 31 and chain S. on line cut by Horst and Fusler.
At 1323.4 ft. S. set hub. At 1900.10 ft. S. set hub. At 1323.4 ft. S. set hub and tack. At 1900.10 ft. S. enter swamp.
At 2280.0 ft. S. leave lake swamp. At 2491.6 ft. S. set hub and tack. At . . . ft. . . . at . . . ft.
At . . . ft. S. . . . At . . . ft. S. . . . At . . . ft. S. . . . At . . . ft. S. . . .
5280.0 ft. S. set stake. At 5521.4 ft. S. intersect random Twp. line at sta. 5191.6 ft. W. N. E. angle equals $89^\circ 00'$.
P.M. Rain and snow. E. B. Horst.
- Oct. 19, 1917. Horst and Blackburn continue line S. between Secs. 4 and 5, 141, 31 cutting till noon. P.M. Snow. E. B. Horst.
- Oct. 20, 1917. Snow all day. E. B. Horst.
- Nov. 16, 1917. E. B. Horst and Henry Wilson and Elmer Molyneaux as axemen continue cutting S. on random line begun at S.W. Cor. Sec. 28, 142, 31. We look for $\frac{1}{4}$ corner between Secs. 4 + 5 but find nothing. Drove out with Ford Car. E. B. Horst.

C

Nov. 17, 1917. Horst and same crew beginning at station 5300 ft. S. and chain S. on cut out line between sections 4 and 5, 141, 31. At 5400 ft. S. set hub and tack. At 6259.1 ft. S. set hub and tack. At 7000.0 ft. S. set hub and tack. At 7475.0 ft. S. spring brook, 2 ft. wide. Spring 200 ft. West. At 7942.3 ft. S. set hub and tack. At 8217.0 ft. S. triangle hub. 4 ft. N. of R.R. cut. At 8270.0 ft. S. R.R. track S. Rail a 45-90 shell for joint, in tie. At 8217.0 ft. S. turn S. $33^{\circ}33'$ W. Run 376.5 ft. equals Hub B. Also set hub C south of Lake. Set over hub B. angle equals $130^{\circ}40'$. Walk around lake. Read angle C. equals $15^{\circ}47'$. Distance between hubs A and C equals 9267.2 ft. S. R. M. I work on notes and in office. E. B. Horst.

$$\begin{array}{r} 9267.2 \\ 8217.0 \\ \hline 1050.2 \end{array}$$

Nov. 20, 1917. E. B. Horst and Ole A. Larson go to a point near the corner of sections 4, 5, 8, 9 and look for old B. T.'s. We are unable to find anything and walk W. on line between secs. 5 and 8. After a careful search we find the N. E. B. T. of M. C. No. 31 frac. sec. 5 and 8 plainly marked and S. of 6th Lake. As the sec. cor. is called for 20.67 chs. E. we continue random line South. At 9451.2 ft. S. set hub and tack. At 9453.2 ft. S. set hub and tack. Turn S. $90^{\circ}00'$ E. to miss 6th lake then run East. at 109.6 ft. E. set hub and tack. At 403.8 ft. E. set hub and tack. Turn 90° right and run S. to miss 5th Lake. E. B. Horst.

$$\begin{array}{r} 9653.2 \\ 8217.0 \\ \hline 1436.2 \end{array}$$

$$\begin{array}{r} 9653.2 \\ 4 L. 90^{\circ} \\ 403.8 E \\ 4 R. 90^{\circ} \end{array}$$

Nov. 21, 1917. E. B. Horst and Levi Larson and Walter Blackburn continue line S. from 9453.2 ft. At 9815.0 ft. S. enter creek. At 9832.0 ft. S. leave creek. At 10589.5 ft. S. set hub. At 10900.0 ft. S. set hub. We look for corner to sections 4, 5, 8, 9 where U. S. Notes call for four Jack Pine B. T.'s and a post and shown as being 7 rods N. of a small marsh. The corner has evidently been here but find the timber has all been destroyed by fire, the stumps even burned under ground. E. B. Horst.

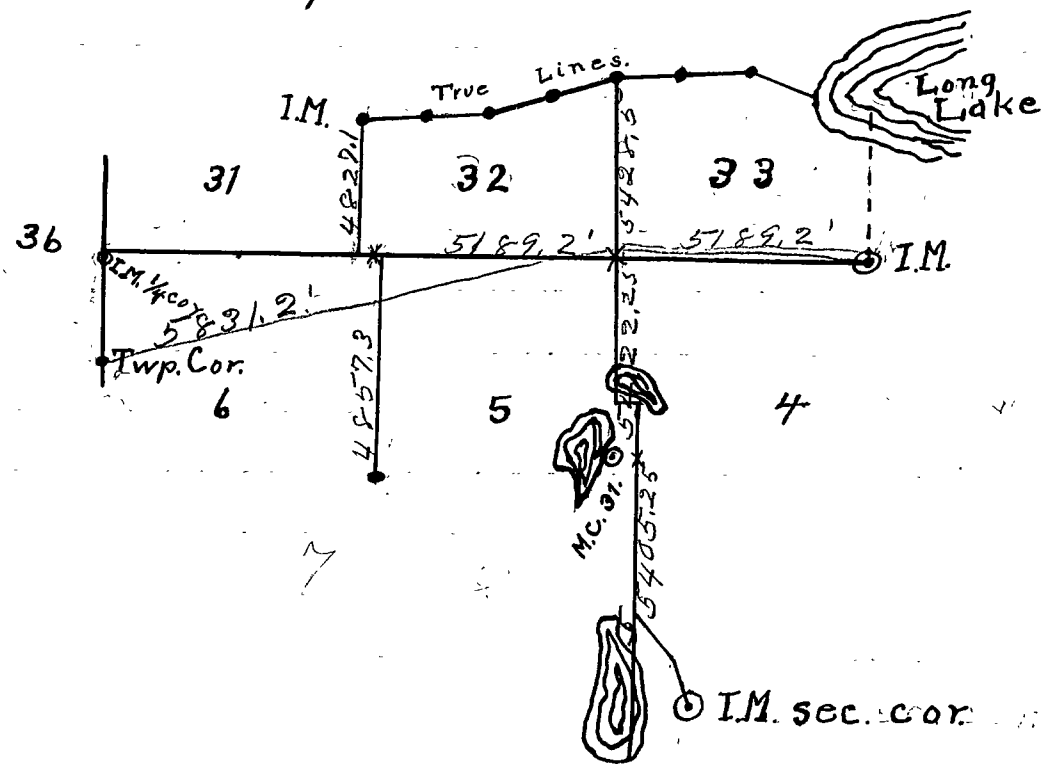
Nov. 22, 1917. Horst and same crew continue S. between sections 8 and 9, 141, 31. At 11380.0 ft. S. wagon trail. At 12331.0 ft. S. set hub. At 13144.5 ft. S. hub. At 13300.0 ft. S. enter marsh. At 13525.0 ft. S. leave marsh. At 13452.0 ft. S. set hub. At 13950.0 ft. S. enter marsh. At 14035.0 ft. S. offset W. 120 ft. to pass small lake. At 14390.0 ft. S. offset back on line. At 14450.0 ft. S. leave marsh. At 14810.0 ft. S. wagon trail. At 14818.80 ft. S. nail in down Norway Pine Tree. E. B. Horst.

Nov. 23, 1917. Horst and same crew at hub 14818.80 ft. S. turn left $40^{\circ}34'$ run S. E. At 300 ft. enter spruce swamp. At 450 ft. leave spruce swamp. At 681 ft. set hub and turn right $22^{\circ}04'$ run S. At 970 ft. intersect the corner to sections 8, 9, 16, 17 (Discovered by Ole A. Larson and marked by a Popple post.) At this point I find all the old B. T. stumps but only the S. E. stump bearing the marks.

The rest are burned and rotted away. From these I set a 2" x 48" Iron Monument at true corner and mark new B.S.'s as follows: Popple 4 N. $52^{\circ}05'$ E. 56.8 ft. Popple 4 N. $54^{\circ}40'$ W. 51.3 ft. Mag. Var. $8^{\circ}30'$. Popple 4 S. $46^{\circ}32'$ W. 51.5 ft. Birch 5 S. $55^{\circ}26'$ E. 50.0 ft. We return to M. C. No. 31 between sections 5 and 8 and set a 2" x 48" Iron Monument from old B.S.'s: Birch 8 N. 84° E. 85 lks. and Birch 3 S. 21° E. 21 lks. P. S. The angle from our line to a random compass line run by Larson between sections 16 and 17 is $16^{\circ}00'$.

Diagram of random lines to date. E. B. Horst.

At station 14256.0 ft. S. corner to sections 8, 9, 16, 17 sets E. 1153.5 ft. (equal total dist. E)



Nov. 24, 1917. Platting and computing from notes to find true corners on Prop. line.

(S. R. Highway No. 80) E. B. Horst.

Nov. 30, 1917. E. B. Horst and Levi Larson look all day for corner to sections 4, 5, 8, 9 but find nothing. E. B. Horst.

Dec. 1, 1917. I look for $\frac{1}{4}$ corner between sections 4 and 5 until noon and find nothing. I have spent many days looking for the old corners along the sec. lines and have looked at every possible place for the corners and have found nothing. I am positive they are all gone, therefore I will proceed to establish them on the Prop. line by proportionate measurement. E. B. Horst.

Dec. 13, 1917. E. B. Horst computing position of corners by proportionate measurements which are shown on diagram.

399?
C

P.M. E. B. Horst and Walter Blackburn setting Iron Monument at corners shown on diagram. E. B. Horst.

Dec. 14 and 15, 1917, Setting I. Monuments as above described. E. B. Horst.

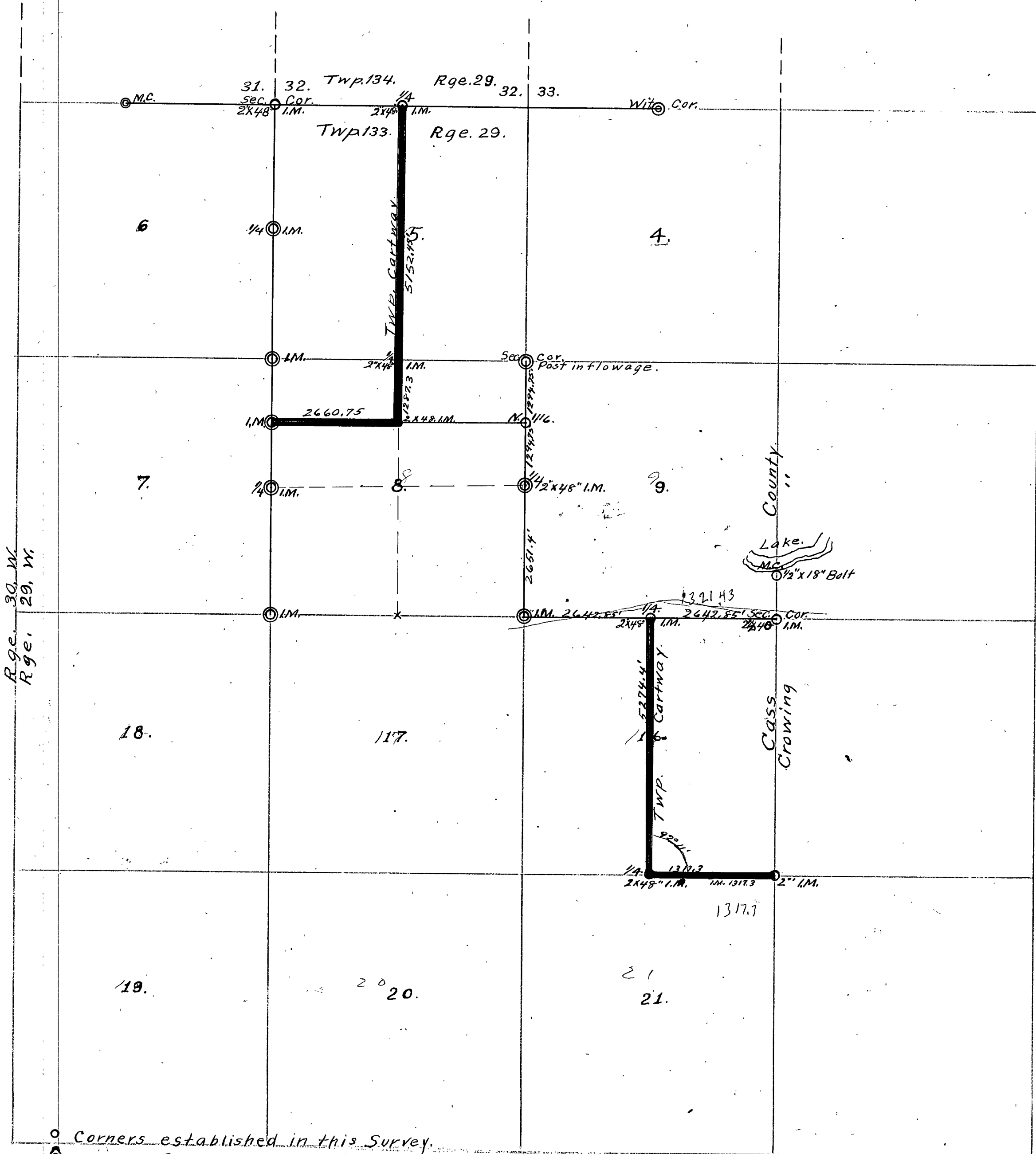
1/4 corner between sections 4 and 33 at 2594.4 ft. W. goes N. 93.9 ft. 1/4 corner between sections 5 and 32 at 7783.8 ft. W. goes S. 345.85 ft. 5-4-31-32 at 10378.4 ft. W. goes S. 823.4 ft. 1/4 corner between sections 6 and 31 at 12973.1 ft. W. goes 1446.8 ft. E. B. Horst.

5-6-31-32
New
875

Trops 141, 142, 31. New bearing trees to corner of 5-6-31-32 are: W. Pine 12 N. 47°15'E. 69.7 ft., N. Pine 12 N. 79°00'W. 34.4 ft., N. Pine 12 S. 87°00'E. 40.4 ft. E. B. Horst.

Plat of
Survey Record No. 400.

C



○ Corners established in this Survey.
 ⊙ " Previously established.

Sections 5, 6, 8, 9, 16, 21, Twp. 133, N. Rge. 29, W. and

" 31, 32,

" 134,

" " " 5th. P.M.

April 24, 1918. A survey for a Twp. Road beginning at the N. $\frac{1}{4}$ corner between sections 7 and 8; thence E. to $\frac{1}{4}$ line; thence N. on $\frac{1}{4}$ line to Twp. line. E. B. Horst leaves Walker at 9.28 A.M. for Sylvan, fare \$1.58, dinner at Brainerd 25¢.

P.M. E. B. Horst with Berger Transit, 100 ft. steel tape, and Geo. H. Ramsey, Chainman, Chas. Ramsey, and Chas. Satter assisting. We begin at N. $\frac{1}{4}$ corner between sections 7 and 8. I sight S. to S. M. at $\frac{1}{4}$ corner and turn S. E. angle $88^{\circ}30'$ and run E. At 400.0 ft. set hub. At 1340.0 ft. cross a road. At 1400.0 ft. set stake, enter field. At 2640.0 ft. set hub. I back-sight W. on line and turn N. W. angle $88^{\circ}30'$ and run North. At 1311.2 ft. set hub N. of road. A post (which Canfield set from an Oak tree standing S. W. and which may have been the U. S. B. L.) sets S. $57^{\circ}50'$ E. 35.2 ft. At station 1292.5 ft. N. the post sets E. 29.8 ft. With transit over the temporary $\frac{1}{4}$ corner I sight to hub 1311.2 ft. N. and turn right $58^{\circ}50'$ and run N. in sec. 5 on random $\frac{1}{4}$ line. At 25 ft. N. intersect N. and S. road. At 1300.0 ft. N. leave road. At 1359.3 ft. N. set hub. At Chas. Satter's for supper and over night. E. B. Horst

April 25, 1918. E. B. Horst, Chas. Satter, Brower Peterson, and Geo. Ramsey continue North on random $\frac{1}{4}$ line thru section 5. At 2497.5 ft. N. cross fence. At 3020.0 ft. N. set hub. At 3332.8 ft. N. set hub. At 3878.3 ft. N. set hub. At 4551.0 ft. N. set hub. At 5173.0 ft. N. set hub. At 5182.0 ft. N. set hub. on Curo's random Twp. line run in 1912. As I have no notes of Curo's survey with me I chain W. from our line on Twp. line to one of Curo's hubs N. of Capers School. Distance equals 374.0 ft. S. W. angle equals $88^{\circ}42'$ to random lines. I leave this line until I get Curo's notes of his survey. E. B. Horst.

April 26, 1918. Horst and same crew go to random N. $\frac{1}{4}$ line of section 8 to hub 2440 ft. E. and produce same East. At 2810.0 ft. set hub A. of triangle. Turn 90° angle and run N. 292.2 ft. and set hub, B. Peterson goes across Gull River and flowage with a boat and sets a hub E. of flowage on a ridge on line, being hub C. Angle at A = 90° . Angle at B = $80^{\circ}44'$. Angle at C = $90^{\circ}16'$. Distance A. to C = 1790.9 ft. Hub C = station 4600.9 ft. E. Continue E., at station 5200.0 ft. E. set hub. We walk S. to an Iron Monument $\frac{1}{2}$ " x $\frac{1}{8}$ " Bolt at $\frac{1}{4}$ corner set by P. R. Boese from U. S. B. L.'s between sections 8 and 9 and chain N. At 1755.0 ft. N. set hub. I set transit on hub and work into line between $\frac{1}{4}$ corner and corner of sections 4-5-8-9 which is a fence post set by Whitely from U. S. B. L.'s one of which is still there and was found by Boese. At hub 1755.0 ft. N. I turn 90° angle and run W. 249.3 ft. and set hub B. Corner equals point C. Angle A = 90° . Angle B. = $73^{\circ}22'$.

Distance A to C equals 834.5 ft. Total of $N. \frac{1}{2}$ between 8 & 9 equals 2589.5 ft. We run $N. \frac{1}{4}$ line E. and set P.S. hub on section line. At station 5240.9 ft. E. we intersect section line 1235.1 ft. N. of $\frac{1}{4}$ corner. $N.W.$ angle = $87^{\circ} 30'$. $N. \frac{1}{4}$ between sections 8 and 9 sets at 1294.75 ft. N. Point of Intersection at 1235.1 N. Difference = 56.65 ft. P.M. I return to Walker for more notes. R.R. fare \$1.58. E.B. Horst.

April 27, 1918. E.B. Horst all day in office looking up notes of previous surveys in Sylvan Twp. and platting same in Twp. Road Record Book. E.B. Horst.

April 30, 1918. I drive from Walker to Sylvan and Chas. Satter's place with car, 83 miles. P.M. Geo. Ramsey, Chas. Satter and Brower Peterson assisting. We take an armful of Curro's notes and 2 - 2" x 48" Iron Monuments and drive to Twp. line on N. side of section 5 and set $\frac{1}{4}$ corner between sections 5 and 32 as follows: At Curro's hub 5654.08 ft. we chain E. on random line of Twp. 147.6 ft. to station 5821.7 ft. and set hub. Turn 90° Angle and run S. 38.87 ft. and drive a 2" x 48" Iron Monument at true $\frac{1}{4}$ corner of 5 and 32. We go W. $\frac{1}{2}$ mile and chain out from Curro's wood section corner 5-6-31-32 and set a 2" x 48" I.M. in its place. We return to $\frac{1}{4}$ corner between 5 and 8 and set a 2" x 48" Iron Monument in place of an old post, which checks up with old Oak B.S. still standing. E.B. Horst.

May 1, 1918. E.B. Horst and same crew go to $\frac{1}{4}$ corner between sections 7 and 8 to get angle in section line at that point if any but find it to be a straight line, S. $\frac{1}{2}$ equals 2461.15 ft., $N. \frac{1}{2}$ ditto. By computing the known boundaries of section 8 I find that at hub 2640.0 ft. E. on $N. \frac{1}{4}$ random line the true center of the $N. \frac{1}{2}$ of section 8 goes 20.75 ft. E. and 5.2 ft. N. at which point I set a 2" x 48" Iron Monument. Note at $\frac{1}{4}$ corner between sections 8 and 9 I pull up 20" bolt set by Boese and set a 2" x 48" Iron Monument. Inside angle at $\frac{1}{4}$ corner equals $180^{\circ} 18'$. At $N. \frac{1}{4}$ corner between sections 8 and 9 I set a $\frac{1}{2}$ " x 20" bolt. Correcting back and setting road centers on $N.$ and $S. \frac{1}{4}$ line thru section 5. Correction W. per ft. = .04055 tangent of $2^{\circ} 19'$. At hub 1359.3 offset W. 55 ft. and run true $\frac{1}{4}$ line which completes survey of this road. E.B. Horst.

May 2, 1918. E.B. Horst transit and chain with Peter Staub and W.M. Dade assisting. Drive to $\frac{1}{4}$ corner between sections 16 and 21 where U.S. Notes call for B. Pine 12 N. $34^{\circ} 30'$ W. 47 lbs. and B. Pine 10 S. $37^{\circ} 00'$ E. 45 lbs. $N.W.$ stump there and marked. S.E. stump marks burned off. Both perfect in course and distance. I set a 2" x 48" Iron Monument at true corner. At corner of sections 15-16-21 and 22 the corner

has been established by Crosswell of Crowing County and a 2" Iron Monument set N.E., N.W. and S.W. B.I. stumps still there and check with corner near the E. 1/4 corner between 16 and 21. I set transit on line where I can see 1/4 corner and S.E. corner. Distance equals 2434.4 ft. At 1317.3 ft. I set a 3" x 48" Iron Monument for true E. 1/4. New bearings to Corner of Sections 15-16-21-22 are: Fence Post N.W. 49.0 ft., Telephone post S.W. 36.7 ft., Oak Stake 3 inch N.E. 46.7 ft., Oak Stake 3 inch S.E. 46.7 ft. Beginning at 1/4 corner between sections 16 and 21 we run N. (angle to sec. line N.E. 90° 14') at 7' 07" Mag. Variation. At 376.0 ft. N. set hub. At 1444.3 ft. N. set hub. At 2085.6 ft. N. set hub. At 2805.7 ft. N. set hub. At 3425.0 ft. N. set hub. At 3953.0 ft. N. set hub S. of marsh being hub A of triangle to cross marsh. I turn 90° angle and run E. 303.2 ft. and set hub B. Set hub C. across marsh on line. Distance A to C = 615.3 ft. equals station 4568.3 ft. N. At 4952.0 ft. N. set hub. At 5280.0 ft. N. set hub and look for 1/4 corner and bearing trees which are obliterated. Over night with Peter Staub. E. B. Horst.

May 3, 1918. E. B. Horst and same crew establish the 1/4 corner between sections 9 and 16. I set transit on the corner of sections 8-9-15-16 marked by an Iron Monument and backsight N. on the 1/4 corner between sections 8 and 9 and run S. 5° 00' E. 211.2 ft. to center of N. P. Railway track; thence N. 79° 36' E. on track 2860.0 ft.; thence S. 85° 44' E. 1321.9 ft. thence S. 80° 27' E. 1160.0 ft.; thence S. 1059' W. 2216.0 ft. from N. rail of N. P. R. R. track to the section corner of sections 9-10-15-16 where I find the N.E., N.W., and S.E. Soil Bearing trees from which I set a 2 1/2" x 40" Iron Monument. As it is only a short distance to M.C. No. 33 where the old Gov't trees are also known to be. I walk N. to same and set a 5/8" x 14" Iron bolt to preserve the corner. Dist. to sec. corner = 653.5 ft. By latitudes and departures the corner of 9-10-15-16 sets 5285.7 ft. E. and 210.8 ft. S. of cor. to 8-9-16-17. therefore the 1/4 corner between sections 9 and 16 at station 2642.85 ft. E. sets S. 105.4 ft. to locate this point I go to line N. 79° 36' E. and chain back to station 2668.5 ft. I set a 10" bolt for

C

hub and run S (course turned from line) 376.7 ft. to point for $\frac{1}{4}$ corner where I set a 2" x 48" Iron Monument I then set transit on random line running N. thru section 16 at hub 5280.0 ft. N. the $\frac{1}{4}$ corner sets S. $88^{\circ} 07' W$. 173.7 ft. or at 5274.4 ft. N. corner sets W. 173.7 ft. Correction for $\frac{1}{4}$ line equals .033 W. We set road centers on the $\frac{1}{4}$ line and return to Geo. Ramsey's place and I get ready to return to Walker. Supper at Ramsey's. Arrive at Walker at 10.40 P. M.

E. B. Horst.

Surveyed April 24, to May 3, 1918.

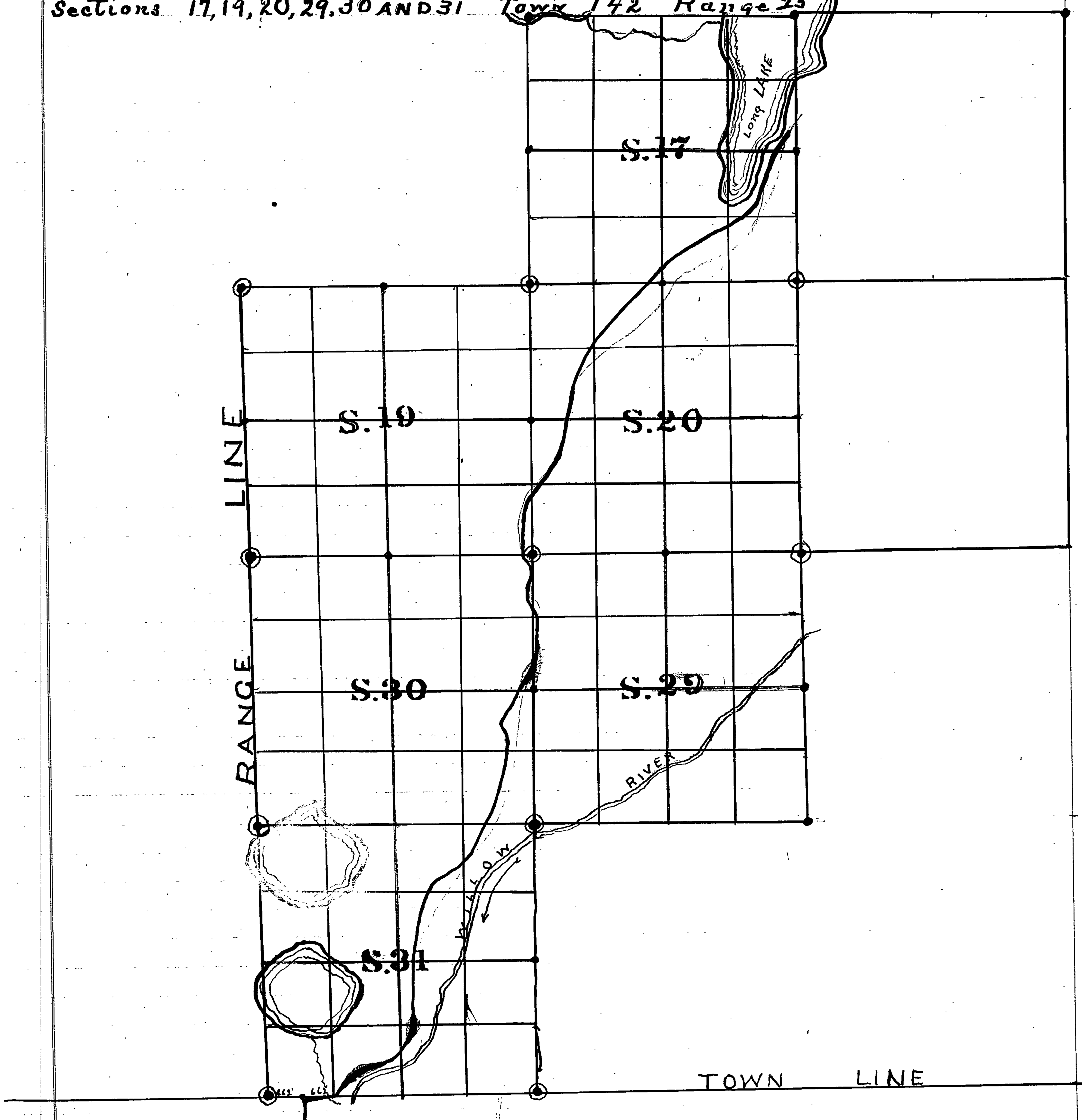
Recorded May 4, 1918.

E. B. Horst,

Acting County Surveyor.

PLAT OF SURVEY RECORD NO. 401

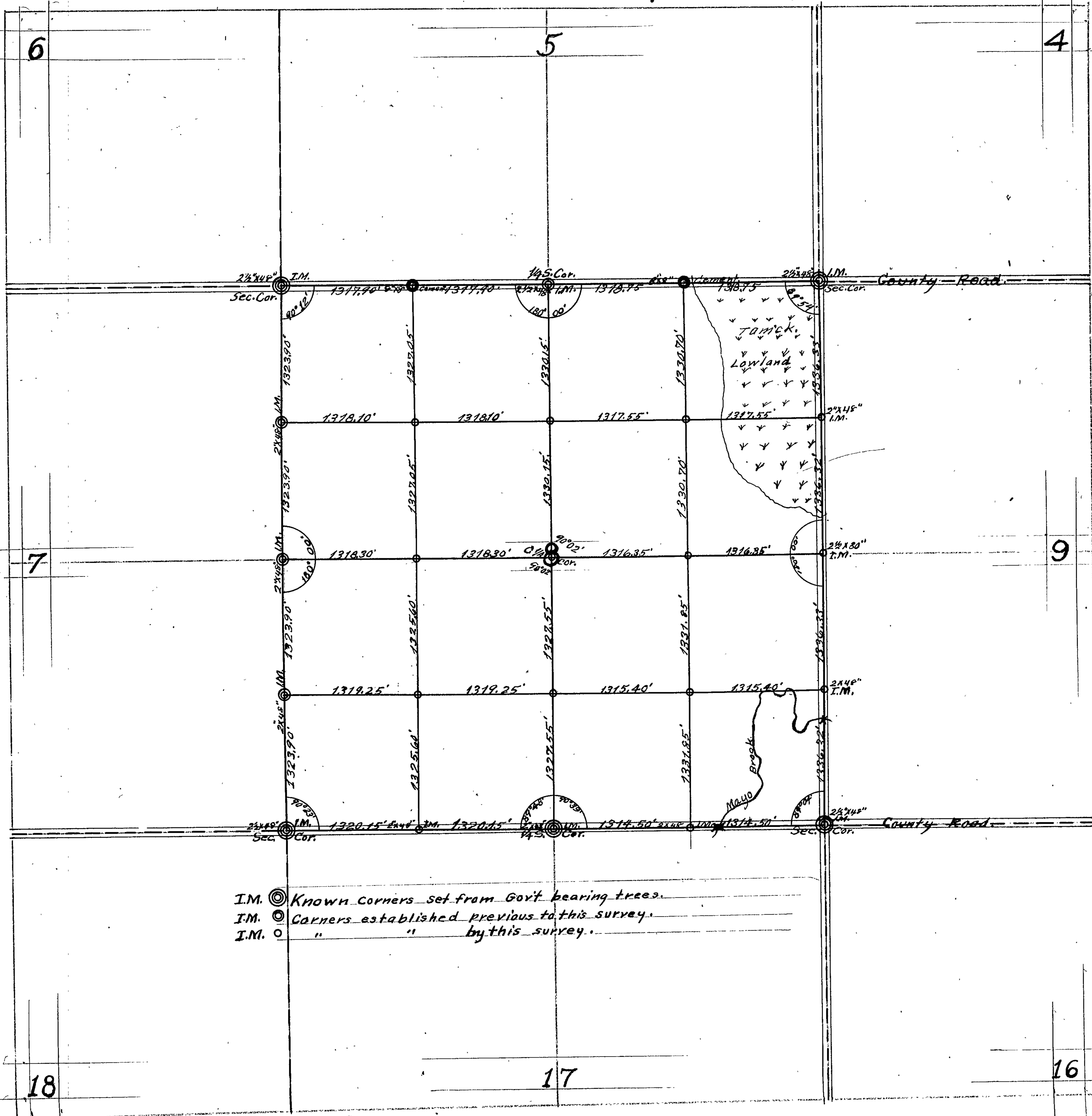
Sections 17, 19, 20, 29, 30 AND 31 Town 142 Range 25



C

C

Plat of survey Record No. 402. Twp. 136 N., Rge. 29 W.



I.M. Known corners set from Gov't bearing trees.
 I.M. Corners established previous to this survey.
 I.M. " " by this survey.

Field Notes of the survey of section 8 and parts of sections 5, 7, 9, & 17. Twp. 136 N., Rge. 29 W. of the 5th P.M. Cass County, Minn. as surveyed by Jas. D. Middleton under the direction of Jas. H. Flynn County Surveyor of Cass County. The instrument used in the subdivision of the section is a C. S. Berger and Son No. 1. a Transit in perfect adjustment. The tape used is a Swiss steel chain-tape 101 feet long. All bearings are according to the magnetic meridian. Iron monuments had been set at the corner to sections 4, 5, 8 & 9, and 8 & 17 by Deputy County Surveyors. Concrete monuments were set at the $\frac{1}{4}$ S. corner along the line between secs. 5 & 8 by Deputy Co. Surveyor Pomarel. All monuments set by Deputy Co. Surveyor were accepted without question or tests. Wood hubs were temporarily set at all corners determined and tacks driven in them at the intersecting points for the corners. Iron monuments were set in the places of them at a later date.

Oct. 21, 1918 I go to Walker, Minn. from Bona, Minn. and remain in Walker copying field notes.

Oct. 22, Go to Pequot, Minn. Remain in Pequot on account of rain.

Oct. 23, Go to sec. 8 in the forenoon. In the afternoon search for the corner to sections 4, 5, 8, 9, and the $\frac{1}{4}$ section corner between secs. 5 & 8, and set target at the $\frac{1}{4}$ cor. Search for the $\frac{1}{4}$ S. cor. between secs. 8 & 9 and finding no evidence of it set point for trial line to be run for the line between secs. 8 & 9.

Oct. 24, Begin the trial line at the cor. to secs. 4, 5, 8, 9; thence, taking a direct sight on the $\frac{1}{4}$ S. cor. between secs. 5 & 8, turn an angle to the left of from N. to S. of $89^{\circ}44'$ to a point on the trial line which gave a bearing of S. $9^{\circ}00'E$ according to the transit needle, and at 2813.20 the point set on the trial line. 3446.60, point on trial line. 5200.00 point on trial line. Thence to the left $5^{\circ}56'$, 146.00 feet to the corner to secs. 8, 9, 16, 17 the Iron monument mentioned which gives 5345.30 feet for the length of the line between the cors. to secs. 4, 5, 8, 9 & 8, 9, 16, 17, and a correction of $8^{\circ}10'$ to be added to the var. as given by the transit needle on said date on a bearing of S. $9^{\circ}10'E$ for the section line. Return and make further search for the $\frac{1}{4}$ cor. between secs. 8 & 9, and again failing to find it, or the bearing trees from which to set it, or any remains of them, or any persons who knew its location, offset to the E. at the first point on the trial line and orient the transit on the line between the corners to secs. 4, 5, 8, 9 & 8, 9, 16, 17 and set the following corners on the line between them, as follows:

The N. $\frac{1}{4}$ cor. between secs. 8 & 9 at 1334.30 from the sec. cor. no bearing trees.

The $\frac{1}{4}$ S. cor. between secs. 8 & 9 at 2672.60 feet from the sec. corner. N. $14^{\circ}20'E$ 105.05 feet. Jack Pine 5" N. $54^{\circ}18'W$ 79.45 feet. Jack Pine 8" in

The S. $\frac{1}{4}$ sec. cor. between secs. 8 & 9 at 4008.20 feet S. of the cor. of secs. 4, 5, 8, 9, no bearing trees.

Oct. 25, Begin at the cor. to secs. 4, 5, 8, 9. Thence with a direct sight on the $\frac{1}{4}$ sec. cor. between secs. 5 & 8 var. $9^{\circ}10'E$ and at sta. 1318.75 cement mon. at the E. $\frac{1}{4}$ cor. at 2637.50 feet Iron Mon. at the $\frac{1}{4}$ S. cor. continue W. at same variation and at 1317.80 feet cement mon. at W. $\frac{1}{4}$ cor. at 2600.00 point on trial line. Thence to the right $1^{\circ}07'$ 35.80 feet to cor. of secs. 5, 6, 7, 8, giving a correction of $0^{\circ}01'$ to be deducted from the var. or a var. of $9^{\circ}15'E$

Oct. 26, Begin at the cor. to secs. 5, 6, 7, 8 the Iron monument mentioned and with a sight on a point on line between secs. 5 & 8 turn to the right on from E. to S. an angle of $90^{\circ}17'$ and at station 5200.00 feet point on trial line. Thence to the left $4^{\circ}36'$ 95.50 feet to Iron Mon. at cor. of sections 7, 8, 17, 18, giving a bearing of $7^{\circ}03'$ and a length of 5295.20 feet for this line. which was run for checking purposes only, the corners having been previously set

Oct. 28+29. Begin and finish the E+W trial line for the line between the $\frac{1}{4}$ S. cor. between sees 7+8 and the $\frac{1}{4}$ S. cor. between sees 8+9. (hereafter called the E+W $\frac{1}{4}$ line). Beginning at the $\frac{1}{4}$ sec. cor. between sees 7+8. the Iron Iron mentioned. Thence with a sight on the N $\frac{1}{4}$ cor. between sees 7+8 turn to the Right or from N. to E. an angle of $90^{\circ}00'$ and run Eastward thru the sec. and at station 4500.00' In brook 3' wide. Brook runs S. 5099.50' point on trial line. Thence to the Right $6^{\circ}53'$ 171.00 feet, to the $\frac{1}{4}$ S. cor. between sees 8+9. giving 5269.30 feet for the length of the E+W $\frac{1}{4}$ line and a correction of $0^{\circ}13'$.

Oct. 29, +30. Begin and finish the N+S $\frac{1}{4}$ trial line between the $\frac{1}{4}$ S. cor. between sees 5+8 and the $\frac{1}{4}$ S. cor. between sees 8+17. Beginning at the Iron Iron, at the $\frac{1}{4}$ S. cor. between sees 8+17. Thence with a sight on the Sec. cor. of sees 8, 9, 16, 17, turn left or from E. to N. an angle of 90° and run Northward thru the section and at station 2665.20 feet intersect the E+W trial line 2668.00 feet E. of the $\frac{1}{4}$ S. cor. between sees 7+8. 5200.00 point on trial line. Thence to the left $27^{\circ}44'$ 130.00 feet to the $\frac{1}{4}$ S. cor. between sees 5+8, the Iron Iron mentioned. giving 5315.40 feet as the length of the N+S $\frac{1}{4}$ line and a correction of $0^{\circ}39'$.

Oct. 31. Go to the intersection of the $\frac{2}{4}$ trial lines and at station 2600.00 and the intersection on the N+S trial line offset the proper distance W. from the line and fix points on the N+S $\frac{1}{4}$ line.

(C $\frac{1}{4}$ cor.)

Go to the intersection of the two trial lines, and at station 2600.00 and the intersection on the E+W trial line offset the proper distance S. from the E+W trial line and fix points on the E+W $\frac{1}{4}$ line.

Go to the points on the N+S, & E+W, $\frac{1}{4}$ lines and run to an intersection of them for the C $\frac{1}{4}$ Sec. cor. and set the cor. from which bear: Popple 6" S. 40° E. 35.40 feet. Go to station 2600 feet on the E+W trial line. Thence to the Right $15^{\circ}17'$ 37.90 feet, to the C $\frac{1}{4}$ S. cor. which gives 2636.60 feet for the distance between the $\frac{1}{4}$ S. cor. between sees 7+8 and the C $\frac{1}{4}$ S. cor. and 2632.70 feet to the $\frac{1}{4}$ S. cor. between sees 8+9. Go to the station 2600.00 on the N+S trial line. Thence to the left $29^{\circ}10'$ 62.83 feet to the C $\frac{1}{4}$ S. cor. which gives 2655.10 feet as the distance from the $\frac{1}{4}$ S. cor. between sees 8+17 and the C $\frac{1}{4}$ S. cor. and 2660.30 feet as the distance from the C $\frac{1}{4}$ S. cor. to the $\frac{1}{4}$ S. cor. between sees 5+8.

or $\frac{1}{4}$

Go to the E+W $\frac{1}{4}$ line and set the C.W. $\frac{1}{16}$ 1318.30 feet E. of the $\frac{1}{4}$ S. cor. between sees 7+8. Thence with a sight on the $\frac{1}{4}$ sec. cor. mentioned turn an angle of $90^{\circ}00'$ to the right or from W. to N. and run N. thru the NW $\frac{1}{4}$ of the sec. and at station 2599.00 point on the trial line. Thence to the left $12^{\circ}43'$ 56.60 feet to the W $\frac{1}{16}$ cor. between sees 5+8 to connect iron mentioned. Length of line 2654.10 feet. Correction $0^{\circ}16'$.

Go to the N $\frac{1}{16}$ S. cor. between sees 7+8. Thence with a sight on the sec. cor. of 5, 6, 7, 8, turn an angle of $90^{\circ}00'$ to the right or from N. to E. and run Eastward thru the NW $\frac{1}{4}$ of the section and set point on the trial line 1300.00 feet E. of the N $\frac{1}{16}$ S. cor.

N.W. $\frac{1}{4}$

Nov. 1. Go to the N+S $\frac{1}{4}$ line and set the C.N. $\frac{1}{16}$ cor. 1330.30 feet N. from the C $\frac{1}{4}$ cor. from which bear a granite boulder marked X N. $11^{\circ}17'$ W. 123.35 feet. Granite boulder + N. $58^{\circ}08'$ E. 207.55 feet. Go to the point 1300.00 feet E.

Survey Record No. 402

from the $\frac{1}{4}$ N. $\frac{1}{4}$ cor. between secs. 7+8 and continue E. and at station 1325.70 put intersect N+S. trial line 1325.00 feet N. of the C.W. $\frac{1}{4}$ cor. at 2600.00 point on trial line. Thence to the left $7^{\circ}53'$ 38.00 feet to the C.N. $\frac{1}{4}$ S. cor. length of the line 2636.20 feet and a correction of $0^{\circ}07'$

Go to the intersection of the last two lines and at station 1300.00 and at the intersection offset to the W. from the N+S. trial line the proper distance and fix points on the line between the corner on this line. At the same intersection and at station 1300.00 on the E+W. trial line offset the proper distance to the N. from the trial line and fix points on the line between the corner. Go to those fixed points and run to an intersection of them and set the N.W. $\frac{1}{4}$ Sec. Cor. from which Popple $7^{\circ}S. 38^{\circ}00'W. 29.00$ feet Popple $8^{\circ}N. 32^{\circ}00'E. 24.35$ feet.

Go to the C.W. $\frac{1}{4}$ cor. Thence with a sight on the $\frac{1}{4}$ S. cor. between secs 7+8 turn an angle of 90° to the left or from W. to S. and run a trial line Southward thru SW $\frac{1}{4}$ of the sec. and at station 2600.00 point on trial line. Found no Iron or other monument at the W. $\frac{1}{4}$ cor. between secs. 8+17. Go to the cor. of secs. 7, 8, 17, 18 the Iron monument mentioned Thence Eastward at a var. of $7^{\circ}56'E.$ according to the transit needle and run a trial line to the $\frac{1}{4}$ S. cor. between secs. 8+17 and at station 2600.00 point on trial line. Thence to the left $14^{\circ}52'$ 41.40 feet to the $\frac{1}{4}$ S. cor. between secs. 8+17 the Iron mon. mentioned giving 2640.30 feet for the length of the line and a correction of $0^{\circ}14'$ or a var. of $8^{\circ}10'E.$ Found no Iron or other mon. at the E. $\frac{1}{4}$ cor. between secs. 8+17. Go to $\frac{1}{4}$ S. cor. bet. 8+17 and with a direct sight on the cor. to secs. 8, 9, 16, 17 at a var. of $8^{\circ}37'E$ (according etc.) run a trial line from the $\frac{1}{4}$ S. cor. to sec. cor. of 8, 9, 16, 17. at station 2629.00 feet cor. of secs 8, 9, 16, 17, the Iron mon. mentioned.

Go to the line between secs. 8+17 and set the W. $\frac{1}{4}$ sec. cor. 1320.10 feet East of the sec. cor. to 8, 9, 16, 17. Go to sta. 2600.00 on the N+S. trial line in the S.W. $\frac{1}{4}$ and at sta. 2600.00 the point on the N+S. trial line. Thence to the left $11^{\circ}43'$ 52.40 feet to the W. $\frac{1}{4}$ cor. between secs. 8+17. Length of the line 2651.20 and a correction of $0^{\circ}14'$.

Go to the S. $\frac{1}{4}$ cor. between secs. 7+8 Thence with a sight on the N. $\frac{1}{4}$ S. cor. bet. same sec. turn to the right an angle of 90° or from N. to E. and run a trial line eastward thru the S.W. $\frac{1}{4}$ of the sec. and at station 1315.80 intersect N+S. trial line 1319.40' S. from the C.W. $\frac{1}{4}$ cor. 2600.00 point on trial line. Go to the N+S. $\frac{1}{4}$ line and set the C.S. $\frac{1}{4}$ cor. at 1327.40' N. of the $\frac{1}{4}$ S. cor. between secs. 8+17 from which bear Jack Pine 6 $N. 63^{\circ}35'W. 194.40'$ Jack Pine 5 $S. 30^{\circ}07'W. 149.70'$ Go to station 2600.00 point on trial line mentioned. Thence to the right $21^{\circ}41'$ 42.10 feet to the C.S. $\frac{1}{4}$ above noted. Length of line 2638.50 feet and a correction of $0^{\circ}20'$.

Go to the P.I. of N+S. + E+W trial lines in the S.W. $\frac{1}{4}$ and at station 1300.00 on each line and at the intersection of them offset the proper distance from each point to the C+S. respectively for points on the lines between the $\frac{1}{4}$ S. cor. and run intersecting lines for the S.W. $\frac{1}{4}$ sec. cor. and set the cor. at the P.I. from which bear: Jack Pine 6, N. --- E 12.50 ft. Jack Pine 6 N. --- W 44.10 feet.

Nov. 2.

S. Bdry.

Nov. 7.

C.S. $\frac{1}{4}$.S.W. $\frac{1}{4}$.

Go to the C.S. 1/4 cor. on the N. & S. 1/4 line. Thence with a backsight on the SW 1/4 cor. run a trial line Eastward thru SE 1/4 of sec. and at station 1700.00 point on trial line 15 ft. S. of Sibley brook. 1800.00 N. shore of Sibley brook at bend. Brook runs S. 1900.00 85 ft. S. to N. bank of Sibley brook. 1975.00 on W. bank of Sibley brook. Brook runs N. 2000.00 in Sibley brook. 2010.00 on E. bank of brook. Stopped for night.

Nov. 5, Election day. Rained like the Devil ^{nearby} all day. No one worked on survey.

Nov. 6, Go to station 1700.00 and continue trial line and at station 2100.00 110 ft N. to S. bank of Sibley brook. 2200.00 35 ft. N. to S. bank of brook. 2250.00 on W. bank of Sibley brook. Brook flows S. 2270.00 on E. Bank of Sibley brook. 2500.00 - 60 ft S. to N. bank of Sibley brook. Brook flows SE. 2598.00 point on trial line. Thence to the Right 7° 54' 32.80 ft. to the S. 1/4 cor. between sees 8 & 9. Length of the line 2630.80 feet. Correction 0° 06'

CE 1/4 Go to the E & W. 1/4 line and set the C.E. 1/4 cor. 1316.40 feet East of the C. 1/4 cor. from which bear a Norway Pine 10" NE. 251.0 feet. Norway Pine 12" S. --- W. 40. feet. Begin at this cor. and run a trial line S. thru the SE 1/4 of the sec. to the E. 1/4 S. cor. between sees 8 & 17 and set point on trial line at station 2599.00 S. Go to the sec. line between sees 8 & 17, 1314.50 feet E. of the 1/4 S. cor. and set the E. 1/4 Sec. cor. between sees ^{No. 8. 7. 13} 8 & 17. Go to station 2599.00 the point on the N. & S. trial line thence with a backsight on the trial line turn to the right 8° 46' 65.40 feet to the E. 1/4 cor. between 8 & 17. Length of line 2663.70

SE 1/4 correction 0° 13' Go to the intersection of the two trial lines and lay off offsets the proper distances from them to the W. & S. respectively, for points on the lines between the 1/4 cor. and run to an intersection of the last two lines for the S.E. 1/4 cor. and set the cor. No bearing trees.

Nov. 7, Go to the C.E. 1/4 cor. and run a trial line N. thru the NE 1/4 of the sec. at 90° to the 1/4 line and at station 2642.00 point on trial line. Thence to the left 44° 03', 26.30 feet to the corner E. 1/4 cor. between 5 & 8. Length of line 2661.40 feet. Correction 0° 23'. Go to the C.N. 1/4 cor. and with an angle of 90° with 1/4 line run a trial line E. thru NE 1/4 of sec. and at station 1926.00 intersect N. & S. trial line 1344.80 ft. N. of the C.E. 1/4 cor. 2000.00 point on trial line. Thence to the right 33° 01', 42.00 ft. to the N. 1/4 sec. cor. between sees 8 & 9. Length of the line 2635.10 ft. Correction 0° 37'.

NE 1/4 Go to the intersection of the two trial lines and lay off offsets to the W. & S. respectively from the trial lines at the proper distances, for points on the lines between the 1/4 corners and run lines to an intersection of them for the N.E. 1/4 cor. and set the cor. from which bear a Norway Pine 10" N. 54° 30' E. 51.30 ft. Jack Pine 7" S. 44° 35' W. 11.00 ft.

Go to Walker for Iron Monuments they having not been shipped.

Nov. 8, at Walker. Shipped Iron Mon. and remained to see that they were dispatched.

Nov. 9, Go to Pequot. Nov. 10, Go to see 8, and set Iron monuments in place of wood hubs temporarily set at the various 1/4 & 1/4 cor. a galv. iron pipe with cap at the 1/4 S. cor. between sees 8 & 9 and at the C. 1/4 cor. see 8. ~~the~~ plain iron pipe without caps at the 1/4 cor.

Nov. 11, finished setting Iron Monuments. Returned to Walker.

Force employed. Jas. D. Middleton, Transitman. Chairman: S. R. Vanscoy.

H. Fuller, R. Gritten, Jas. D. Middleton, and J. A. Jacobs.

Apemen: S. R. Vanscoy, H. Fuller, R. Gritten, J. A. Jacobs, and E. R. Pringley.

Surveyors Certificate. State of Minn. County of Cass, S.S. I, James D. Middleton, a surveyor, hereby Certify that I subdivided Section 8, T. 136 N., R. 29 W. into 1/4 Sec. tracts; that the foregoing distances as measured by the chairman and returned herein and the directions and field notes are true to the best of my knowledge and belief.

Subscribed and sworn to before me, a Notary Public in and for said county this 4 day of Jan. 1919. Gustaf A. Lind, Cass county, Minn. Notary Public.

Survey begun Oct. 23, 1918. Completed Nov. 11, 1918. Recorded Feb. 20, 1919.

James Flynn
County Surveyor.

Survey Record No. 403.

Field Notes of a survey of a part of sec. 4 & 7 T. 136 N., Rge. 29 W. and sec. 1-2-3-10-11-12 of Twp. 136 N., Rge. 30 W. for a County road between sec. 2 & 11 and 1 & 12 in Twp. 136 N., Rge. 30 W.

Jan. 8, 1917. E. B. Horst working for Cass County. I get notes, plats and survey outfit and leave Walker for Piquet. Railroad fare 85 cents. I get dinner at Anderson Hotel \$0.35. P.M. I call J. K. Hanna to find a place to board and make arrangements to board with E. H. Grimm in sec. 11-136-30 (no telephone) but J. K. Hanna just across the road has a phone. I telephone from Hanna's place to get some one to help me on survey. Grimm was in Piquet so brot me and outfit to his place. Chgo. \$1.00

Jan. 9, 1917. Horst transit and chain, Carl Larson axe, chain and flag. We walk to cor. of sec. 2-3-10-11 (marked by a $2\frac{1}{2} \times 48$ " S. M.) and look for S. M. which was covered in grading State Rural Highway. We find same and take new bearing trees: (1) Jack Pine $6 N. 54^{\circ} 45' W. 59.1$ ft. (2) Jack $7 S. 39^{\circ} W. 49.2$ ft. As I am unable to run E. from corner without offsetting I go E. on an old road to $\frac{1}{4}$ corner between sec. 2 and 11 where U. S. notes call for Norway Pine $20 N. 43^{\circ} E. 80$ equals 59.8 ft. also Norway Pine $20 S. 48\frac{1}{2}^{\circ} E. 155$ equals 102.30 ft. I find N. E. Bearing tree green and plainly marked also 5 ft. stump of the S. E. bearing tree plainly marked. The stump does not check well for course but the measurement brings cor. in line with aged line trees so I set post for true corner bearing trees: (1) N. E. Norway Pine remarked $28 N. 55^{\circ} E. 52.80$ ft. (2) Jack Pine $10 S. 48^{\circ} 20' E. 45.3$ ft. Quit for the night. E. B. Horst.

Jan. 10, 1917. Horst with same crew. I set transit over $\frac{1}{4}$ corner between sec. 2 and 11-136-30 and sight W. to State Rural Highway to a point 3.4 ft. N. of corner to sec. 2-3-10-11 to avoid cutting brush and running line along a crooked fence and telephone line we then chain line E. from corner to sec. 2-3-10-11. At 33.8 ft. E. cross fence enter field. At 132.0 ft. E. set stake temporary $\frac{1}{4}$ corner. At 2450.4 ft. E. true $\frac{1}{4}$ corner 2 and 11. $3.4 \div 2450.4 = .00136$ ft. or $0^{\circ} 05'$. At $\frac{1}{4}$ cor. I reverse telescope and sight E. turn left $45'$ and run E. at $9^{\circ} 20'$ variation thru timber. At 83.4 ft. E. set spike. At 1243.5 ft. E. set spike in pine stump. At 1878.8 ft. E. set tack (winter hub) At 2429.6 ft. E. set spike and quit for night. E. B. Horst.

Jan. 11, 1917. 36° below zero. Snow 1 ft. deep. Horst and Carl Larson go to hub 2429.6 ft. E. near cor. to sec. 1-2-11-12 where U. S. notes call for: (1) Pine $8 N. 57^{\circ} E. 138$ lbs. equals 91.08 ft. (2) Pine $6 N. 72^{\circ} W. 34$ lbs. = 23.76 ft. (3) Pine $6 S. 58\frac{1}{2}^{\circ} W. 102$ lbs. = 67.32 ft. (4) Pine $7 S. 45\frac{1}{2}^{\circ} E. 51$ lbs. = 33.46 ft. We find N. W. bearing tree stump and rotted stumps of the other bearing trees. N. W. stump still bears scribe marks. From this I set a spike for true sec. corner to 1-2-11-12 with new bearing trees. (1) Jack Pine $9 N. 44^{\circ} 30' E. 45.7$ ft. (2) Jack Pine $9 N. 50^{\circ} 50' W. 49.6$ ft. (3) Jack Pine $10 S. 34^{\circ} 00' W. 53.6$ ft. (4) Jack Pine $8 S. 44^{\circ} 20' E. 59.9$ ft. I set transit over hub 2429.6 ft. E. At station 2431.6 ft. E. corner to sec. 1-2-11-12 sets N. 14.6 ft. $14.6 \div 2431.6 = .00555$ correction north. Setting transit over

Survey Record No: 403.

C

true corner I run E. at $9^{\circ}45'$ variation. At 656.6 ft. E. set spikes in stumps. At 1252.6 ft. E. set spike. At 1260.0 ft. E. center of N. and S. road. At 1300.0 ft. E. enter spruce lowland. At 1533.9 ft. E. spike in 4 in. birch stump. At 1741.0 ft. E. center of creek 4 ft. wide. At 2110.0 ft. E. leave lowland. At 2234.0 ft. E. set spike. At 2573.6 ft. E. set spike in stumps. We look for bearing trees to $\frac{1}{4}$ cor. between secs. 1 and 12 - notes call for (1) Jack Pine 4 N. $7\frac{1}{2}^{\circ}$ E. 60 lbs. equals 39.60 ft. (2) Jack Pine 5 S 44° E 96 lbs. = 63.36 ft. We find both green and plainly marked also a post set for corner which checks for distance but not for course. Post sets O.K. By flat chain trees stand as follows: (being old B.S.'s)
 (1) Jack Pine 10 N. $10^{\circ}45'$ E. 39.6 ft. (2) Jack Pine 10 S. $47^{\circ}30'$ E. 43.4 ft.
 Quit for night. E. B. Horst.

Jan. 12, 1917.

Horst transit. Carl Larson axe, flag and chain. I set transit over spike 2573.6 ft. E. and turn 90° angle to corner. At station 2572.0 ft. E. true $\frac{1}{4}$ cor. between secs. 1 and 12 sets N. 14.0 ft. $14 + 2572 = .00$ 544 ft. or $0^{\circ}19'$ correction N. I set transit over true corner and run E. at 10° Variation. We cut $\frac{1}{2}$ mile to N. and S. road on Rge. line between Rgs. 29 and 30 and set spike in center of road. We hunt about an hour for Iron Monument at corner to secs. 1-6-7-12 but are unable to find it. Quit for night. E. B. Horst.

Jan 13, 1917.

Horst and Larson begin to chain at true $\frac{1}{4}$ cor. between secs. 1 and 12 and chain E. At 190.0 ft. center of creek 2 ft. wide. At 258.0 ft. E. cross wire fence N. and S. At 1134.2 ft. E. set spike. At 1320.0 E. set stake. At 1941.0 ft. E. cross fence and enter field. At 2173.7 ft. E. set spike in field. At 2495.0 ft. E. set spike in center of N. and S. road, being on Rge. line between Twp's 134 Rgs. 29 and 30. We dig up the frozen ground until noon. No cor. yet. We build a large fire in the center of N. and S. road and road running E. P.M. We dig up thawed ground and find cor. E. of center of N. + S. road. I take following bearings: 4x4 post S. E. 86.5 ft. 3 in. post N. E. 61.6 ft. (Chain only). Old station 2497.2 ft. true corner sets S. 17.0 ft. correction = .004363 ft. or $0^{\circ}22'$ correcting back. At 1348.6 ft. E. and $8\frac{1}{2}$ ft. S. of random line we set a 2x48" I. M. for true E. $\frac{1}{4}$ corner between secs. 1 and 12. At point located from U. S. bearing trees a 2x48" I. M. for true $\frac{1}{4}$ corner between secs. 1 and 12 - 136-30. At station 1284.0 ft. E. of S. W. cor. of sec. 1 and 7 ft. N. of random line we set a 2x48" I. M. for true W. $\frac{1}{4}$ corner. At point located from U. S. bearing trees for cor. to secs. 1-2-11-12 we set a 2x48" Iron monument.

Quit for night.

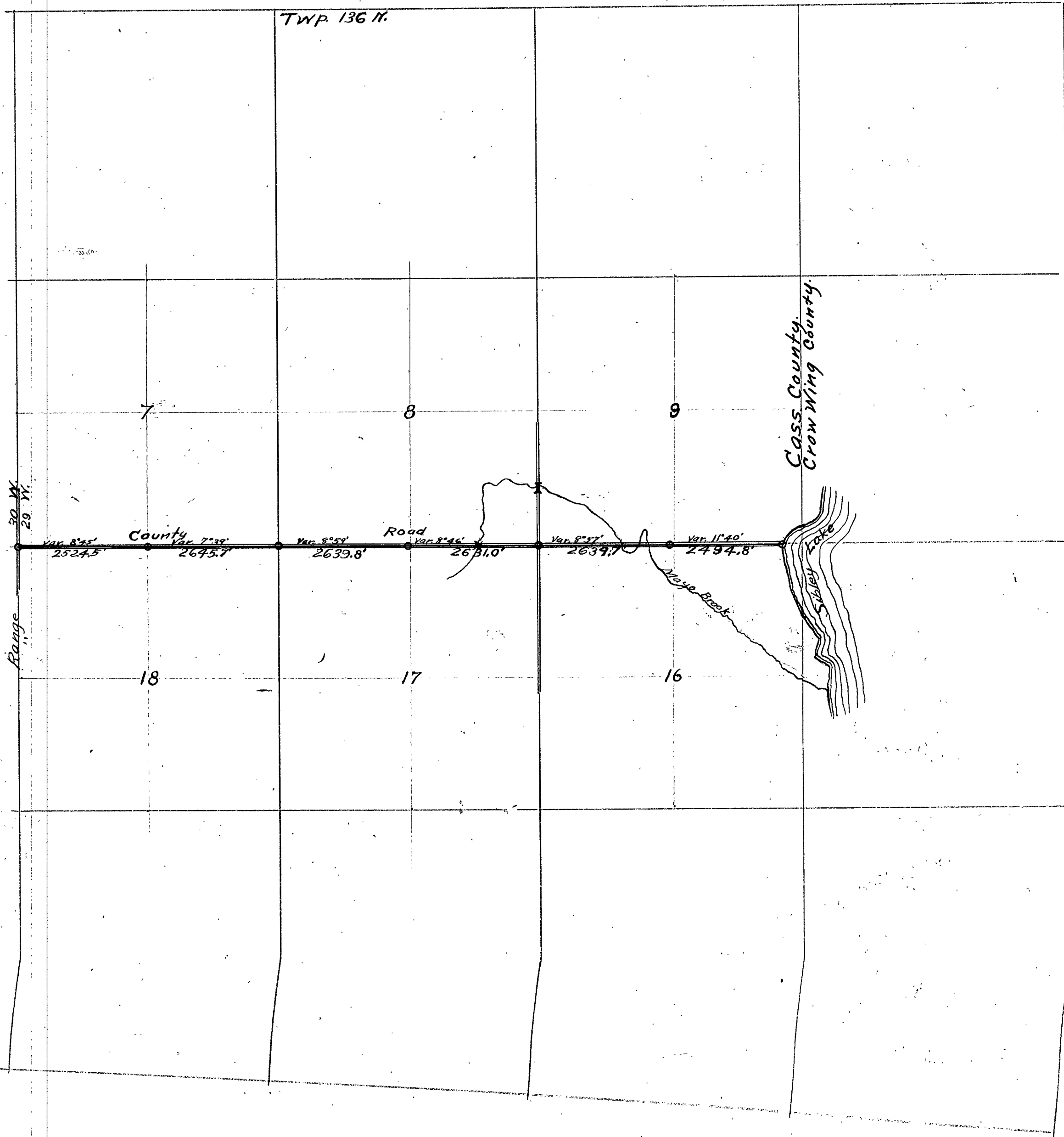
E. B. Horst.

Jan. 14, 1917.

Horst and Larson correcting back, setting iron monuments. At station 1315.8 ft. E. of $\frac{1}{4}$ cor. between secs. 2 and 11 and 7.3 ft. N. of random line we set a 2x48" I. M. for true E. $\frac{1}{4}$ corner. At point for true $\frac{1}{4}$ corner between secs. 2 and 11 located from U. S. bearing trees we set a 2x48" I. M. At station 1325.2 ft. E. of corner to secs. 2-3-10-11 and 1.8 ft. S. of random line we set a 2x48" Iron monu-

Plat of Survey Record No. 404.

Twp. 136 N., Rge. 29 W. Secs. 7, 8, 9, 16, 17, 18.



Survey Record No. 404.

Field notes of a survey of parts of sections 7, 8, 9, 16, 17, 18, Twp. 136 N., Rge. 29 W. 5th P.M. Case County, to locate the center line of the Mayo Brook County road.

- Jan. 15, 1917 I hire E. H. Grimm with team to take me and survey outfit to Fred Hansen's farm. Charges 1.50 P.M. Horst transit, Tobias Bye and Fred Hansen axemen and flagmen. I send a man to $\frac{1}{4}$ corner (D.M.) between secs. 7 and 18 and one to iron monument at corner to secs. 7-12-13-18 T. 136 Rgs. 29 and 30. I set transit on line between these corners (on a hill in front of the Norwegian church in sec. 7) the needle shows $8^{\circ}45'$ Variation. This is a graded road for 2 miles E. I send a man to iron monument at corner of secs. 7-8-17-18 and I set transit over $\frac{1}{4}$ corner between 7 and 18. Sight W. on true line, reverse telescope and turn same to right $1^{\circ}06'$ (or $7^{\circ}39'$ variation) to corner of 7-8-17-18. We walk to $\frac{1}{4}$ corner between secs. 8 and 17 where U.S. notes call for B. Pine $8^{\circ}N. 34^{\circ}E$ 7 lks. = 4.42 ft. also B. Pine $8^{\circ}S. 20^{\circ}W.$ 18 lks. = 11.88 ft. The stump of the southwest bearing tree still stands but the marks are worn off. Fred Hansen and Tobias Bye identify this as the old bearing tree and I set a spike at true point for corner with following new bearing trees: (1) Jack Pine $5^{\circ}S. 5^{\circ}E.$ 28.5 ft. (2) Fence post N. 36.0 ft. I set transit over corner to 7-8-17-18, backsight to $\frac{1}{4}$ corner between 7 and 18, reverse telescope and turn left $1^{\circ}20'$ to $\frac{1}{4}$ corner between 8 and 17 (variation = $8^{\circ}59'$) I move up to $\frac{1}{4}$ corner between 8 and 17 and backsight W. to corner of 7-8-17-18. Foresight E. to corner of secs. 8-9-16-17. Angle to right = $0^{\circ}13'$ or $8^{\circ}46'$ variation. Quit for night. E. B. Horst.
- Jan. 16, 1917 Horst and Tobias Bye begin at corner to secs. 7-12-13-18 on range line and chain E. on graded road. At 1034.0 ft. E. spike on hill at church. At 2524.5 ft. E. $\frac{1}{4}$ corner iron monument between secs. 7 and 18. At 5170.2 ft. E. iron monument corner to secs. 7-8-17-18. At 5834.8 ft. E. spike on true line. At 7810.0 ft. E. spike at $\frac{1}{4}$ corner between secs. 8 and 17. At 9209.0 ft. E. bridge over Mayo Brook sets N. 4 ft. At 10441.0 ft. E. corner to secs. 8-9-16-17 T. 136 Range 29. W. $\frac{1}{4}$ corner on S. side of sec. 7 goes at sta. 1175.22 ft. E. P.M. Fred Hansen helps and we start line E. from corner of 8-9-16-17 at $9^{\circ}31'$ variation. We cut about 2,000 ft. and quit for the night. E. B. Horst. 5200
- Jan. 17, 1917 Horst and Hansen chain E. on line from corner of 8-9-16-17. At 513.6 ft. E. tack in log. At 1320.0 ft. E. set stake. At 1584.5 ft. E. set hub. At 1646.0 ft. E. enter creek bottom. At 1712.0 ft. E. center of creek 12 ft. wide. At 1976.0 ft. E. center of creek 15 ft. wide. At 2021.0 ft. E. set spike. At 2230.0 ft. E. center of creek 12 ft. wide. At 2421.0 ft. E. old channel. At 2429.0 ft. E. leave creek bottoms. At 2667.1 ft. E. hub spike in ground. We see nothing of $\frac{1}{4}$ corner so we continue line E. A Mr. Newman shows us an old bearing tree

Survey Record No. 404.

C

to $\frac{1}{4}$ corner between secs. 9 and 16. Notes call for: (1) B. Pine 7 S. $34^{\circ} 20'$ 35 lbs. = 23.10 ft. (2) B. Pine 8 N. $63^{\circ} E.$ 45 lbs. = 29.70 ft. Northeast bearing tree is lying down but shows marks plainly. Southwest bearing tree is gone. I set post for corner from northeast bearing tree. At hub 2464.1 ft. E. I sight W. on line. Corner sets right $19^{\circ} 10'$, 25.8 ft. At station 2639.7 ft. E. $\frac{1}{4}$ corner sets N. 8.47 ft. Correction N. = 00321 = $0^{\circ} 11'$.
Sobias eye $\frac{1}{2}$ day. E. B. Horst.

Jan. 18, 1917.

Horst and same crew continue E. between secs. 9 and 16. At 3105.8 ft. E. set spike and turn right $0^{\circ} 27'$ and follow a fence line. At 4154.0 ft. E. set spike. At 4144.0 ft. center of private road. At 4934.5 ft. E. set spike. At 5080.7 ft. E. set spike and look for bearing trees to M.C. no. 25: N. pine 14 N. $51^{\circ} W.$ 46 lbs. = 30.36 ft. N. Pine 20 S. $77^{\circ} W.$ 42 lbs. = 40.92 ft. After chaining from M.C. 24 south at 9° variation (132 ft.) I turn 90° angle W. Distance to shore = 147 ft. We look for U.S. bearing trees at this point. We find stump of southwest bearing tree with only the upper $\frac{1}{2}$ of the bearing tree visible. A Mr. Alt identifies this as an old bearing tree. I find that meander corner No. 25 falls in lake several feet. Setting transit on hub 5080.8 ft. and turn telescope to point for M.C. no. 25. At station 5167.5 ft. E. M.C. sets N. 134.7 ft. Figuring a straight line at hub 3105.8 ft. random would start from a point 4.8 ft. S. of $\frac{1}{4}$ corner. $134.7 - 4.8 + 2527.8 = 05138$ N. = $2^{\circ} 56'$ + 4.8 ft at each hub. At station 5134.5 ft. E. or 2494.8 ft. E. of $\frac{1}{4}$ corner witness corner sets N. 133.0 ft. Hub 2294.5 ft. E. of $\frac{1}{4}$ corner goes N. 122.7 ft. Hub 1516.0 ft. E. of $\frac{1}{4}$ corner goes N. 82.7 ft. Hub 466.0 ft. E. of $\frac{1}{4}$ corner goes N. 28.7 ft. At witness corner to meander corner no. 25 we drive a 2" x 4" iron monument with new bearing trees: (1) Red Oak 5 N. $30^{\circ} 20'$ 41.0 ft. (2) Jack Pine 4 S. $45^{\circ} W.$ 35.7 ft. At $\frac{1}{4}$ corner between secs. 9 and 16 we set a 2" x 4" iron monument. Correcting back on sec. line W. of $\frac{1}{4}$ corner: Hub 2021.0 ft. E. goes N. 4.5 ft. Hub 1584.5 ft. E. goes N. 5.1 ft. Stake 1320.0 ft. E. goes N. 4.2 ft. Stake 513.6 ft. E. goes N. 1.45 ft. At $\frac{1}{4}$ corner between secs. 8 and 17 we set iron monuments with new bearings: (1) Jack Pine 5 S. $5^{\circ} E.$ 28.5 ft. (2) Fence post N. 36.0 ft. Horst and Madd Anderson's son-in-law begin at the southwest corner of section 9 and chain W. boundary at 1195.0 ft. N. center of creek. Bridge sets E. of road line at an angle to road. Northwest corner post of bridge is at station 1197.0 ft. N. At 2726.0 ft. N. center of an E. and west road running E. thru section 9. At 5346.0 ft. N. iron monument at northwest corner of section 9. No charges made. E. B. Horst.

Jan. 19, 1917.

Survey begun Jan. 15, 1917.

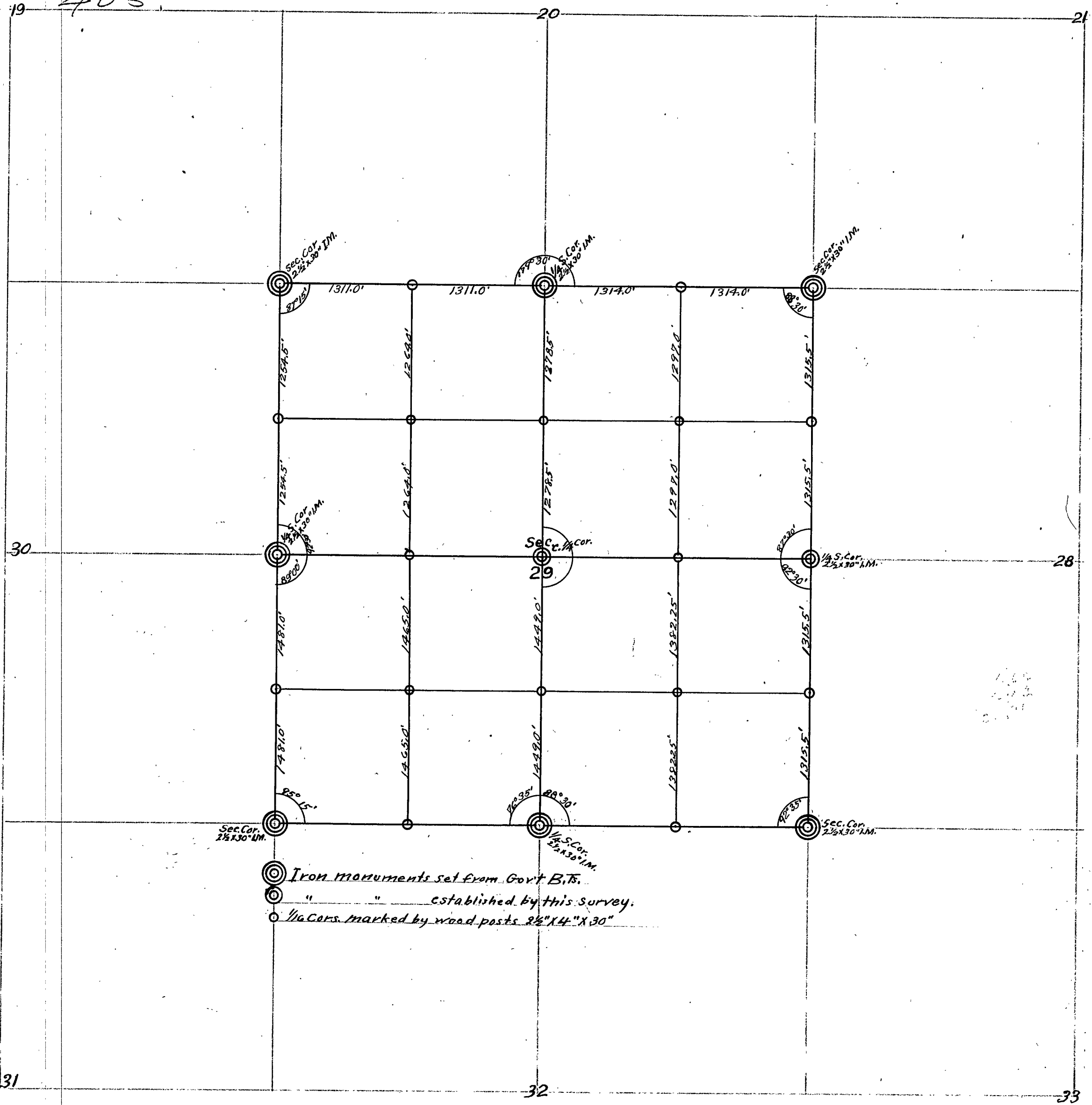
Completed Jan. 18, 1917.

Recorded April 5, 1919 by

County Surveyor of Cass Co.
per Elmer B. Horst, Deputy.

Twp. 143 N., Rge 26 W. Secs. 19, 20, 21, 28, 29, 30, 31, 32, 33.

405



S. Survey Record No. 405. 05

Field notes of the survey of section 29, Twp. 143, N., Range 26, W. of the 5 P.M. Cass County, Minn. as surveyed by James H. Flynn, County Surveyor Cass County.

Aug. 17, 1918 J. H. Flynn, James E. Lewis, Bert Froedick, Chas. Clemens Jr. and Theo. Clemens came with auto to Remer, 36 miles. Get dinner at Remer Hotel. I stayed at Remer till Aug. 19 after breakfast, then with Fred Boyd, auto went to N.E. N.E. Sec. 20, 143-26 then, myself and crew first mentioned went to N.E. corner of sec. 29 T. 143-26 which was: Birch 12 S. 70° W. 14. Birch 5 N. 7° W. 30. Maple 5° N. 38° E. 30. Maple 8 S. 72° E. 10. Now is: Birch 5 N. 7° W. 30. Birch 12 S. 70° W. 14. Put in Iron monument with following bearings to wit: Sugar Maple 6 N. 88° 45' E. 29 ft. Fir 8" N. 62° W. 30.25 feet. Then started random line W. at 1320 ft temporary $\frac{1}{4}$ post at 500 ft. enter Jamak + Cedar swamp. Wagon road NW + SE. 2360 ft. grass land, 2550 leave grass, 2628 ft. $\frac{1}{4}$ S. (5) for sec. 20 + 29, heavy timber all the way except grass. This $\frac{1}{4}$ post was: Norway Pine 36 S. 61° E. 10. White Pine 22 N. 10 W. 30. Now is: Norway Pm stump. 36 S. 61° E. 10 lks. White pine stump 22 N. 10 W. 30 lks.

Note. it will be seen that the Gov't. field notes call for the White pine to be Northwest but as the B.T. is on the Southwest side of this stump it is obvious that this tree when marked ~~was~~ by the Deputy Government Surveyors the $\frac{1}{4}$ post was set S.W. of that stump. The B.T. on the Norway stump faced N.W. Put in Iron monument for this $\frac{1}{4}$ S. and marked the following trees for bearings to wit: Elm 8" N. 60° W. 28.5 ft. Elm 6" S. 44° W. 35 ft. Then went back to N.E. Cor. and run true line var. 7° 25' at 1314 ft put in $\frac{1}{4}$ S. cor. (0) with bearings to wit: Fir 8" N. 47° W. 3 ft. Yellow Birch 10 S. 29° W. 13 ft. Then ran random line West from N. $\frac{1}{4}$ S. corner (5) at 988 ft. wagon road N + S., at 1320 ft set temp. post, at 1400 old log road, at 1824 ft. old log road, slough, at 2622 ft. N.W. cor. (1) which was: Fir 5 S. 22° E. 15 lks. Spruce 10 S. 22° W. 21 lks. Maple 6 N. 45° E. 30 lks. White Pine 26 N. 48° W. 56 lks. Now is: Fir (partly decayed stump) 5 S. 22° E. 15 lks. White pine (stump partly burned showing B.T.) 26 N. 48° W. 56 lks. Put down Iron monument from these. Bearings to wit: White Oak 18" S. 35° 45' E. 45 ft. Bass wood 12" N. 66° W. 34 ft. Then went back to N. $\frac{1}{4}$ S. (5) and run true line var. 6° 54' at 1311 ft. put bearings for $\frac{1}{4}$ S. (6) to wit: Black Oak 8" S. 40° W. 3 ft. Cedar 7" N. 43° E. 10 ft. Then run random line South 2509 ft to a point $\frac{1}{2}$ ft. East of N. $\frac{1}{4}$ S. cor. (8) which was: Birch 5 N. 50° W. 5 lks. Birch 8 N. 31° E. 8 lks. Now is: Birch (partly decayed stump showing B.T.) N. 51° W. 5 lks. Located $\frac{1}{4}$ S. (8) from this and put down Iron monument.

with following bearings to wit: Norway pine stub S. 21° W. 27.2 ft.
 White pine stump 11 N. 73° E. 12.75 ft. Then went back 1254.5 ft and
 and put in $\frac{1}{4}$ S. (10) with bearings to wit: White pine stub 24° N. 51° W. 54 ft.
 Aspen 5 N. 31° E. 17 ft. Then run random line South. at 82 ft. enter
 grass land at 1320 ft set temp. post. at 2962 ft. S.W. Cor. (4) which was:
 Aspen 5 S. 55° W. 6 lks. White pine 5" N. 22° E. 15 lks. White pine 6" N. 26° W. 20 lks.
 Norway Pine 14" S. 28° E. 45 lks. Now is: Norway Pine Stump 14" S. 28° E. 45 lks.
 Put down Iron Mon. No trees or other objects near for bearings.
 Went back and run correct line and at 1481 ft. or equidistant set post
 for $\frac{1}{4}$ S. (15) to wit: Pitch Pine stub 16 N. 23° W. 58 ft. White Pine stub
 10" N. 64° E. 84 ft. Then measured distance from S.W. Cor. (4) to S. $\frac{1}{4}$ S. Cor. (15)
 2592 ft. (This is cleared of timber and brush for Twp. Road). Put down
 Iron Mon. at 7. Put down Iron Mon. from bearing trees I made
 when I surveyed this road, (Road No 1 Twp of Salem) and is on record in
 County Surveyors Office at Walker, in book — page — .
 Then run random line from S. $\frac{1}{4}$ Sec. cor. to S.E. Sec. Corner (3) 2906 ft.
 where an Iron Mon. is already established. This monument has new
 bearings established by myself at the time I surveyed the said Salem
 Twp. road No 1 and is of record as above.
 Then run random line from S.E. Corner North 33 ft enter hardwood
 timber, 1900 ft. leave hardwood timber enter brush and down timber
 at 1320 set temp. post. at 2640 set temp. $\frac{1}{4}$ Post. at 3960 temp. $\frac{1}{4}$ post
 at 5262 ft. N.E. Cor. (2) Then went back and run true line, Var. $8^{\circ} 15'$. at
 1315.5 ft. set $\frac{1}{4}$ post with bearings to wit: Yellow Birch 10 N. 86° E. 29 ft.
 Double Elm 14 S. 66° W. 26.6 ft. At 2631 ft. not being able after an exhausted
 search to locate the bearing trees for the east $\frac{1}{4}$ S. cor. (4) which was:
 Birch 8" N. 32° E. 6 lks. Birch 8" S. 13° W. 30 lks. put down Iron Mon. with
 the following bearings to wit: Iron Wood 6 N. 37° E. 47.3 ft. Elm 12 S.
 63° W. 38.5 ft. At 3946.5 ft. put in wood post with following bearings
 to wit: Basswood 4 N. 71° E. 24 ft. White Pine Stump 26 S. 75° W. 28.2 ft.
 Then went to W. $\frac{1}{4}$ post and run random line E. to a point 164 ft N.
 of the E. $\frac{1}{4}$ post a distance of 5246 ft. Then went to S. $\frac{1}{4}$ post and run a
 random line N. to a point 172 ft. E. of the N. $\frac{1}{4}$ post. a distance of 5455 ft.
 Then went to W. $\frac{1}{4}$ post and ran true line E. to E. $\frac{1}{4}$ post Var. 12° .
 At 1560 enter grass land. at 1950 leave same. enter heavy hardwood timber
 at 4250 enter Jam. & Cedar. at 4930 leave same enter hardwood.
 Went to S. $\frac{1}{4}$ post. and run true line N. to N. $\frac{1}{4}$ post. at 2898 ft crossed E. & W. $\frac{1}{4}$ line
 put down Iron Mon. with following bearings to wit: Elm 20 S. 72° W. 265 ft.
 Black Ash 10 N. 35° E. 13.5 ft. Making the Centre of this section 2898 ft. N. of S. $\frac{1}{4}$ >
 2557 ft. S. of N. $\frac{1}{4}$, 2718 ft E. of the W. $\frac{1}{4}$ and 2528 ft. W. of the E. $\frac{1}{4}$ post.
 Then went to the $\frac{1}{4}$ S. 1278.5 ft. S. of the N. $\frac{1}{4}$ post and put down $\frac{1}{4}$ post with
 following bearings to wit: White Birch 10" S. 30° E. 6.7 ft. Basswood 12"
 S. 88° W. 36.6 ft. At 1335 ft. W. of (9) put down $\frac{1}{4}$ post with following
 bearings to wit: White Birch 12 S. 31° E. 22.0 ft.
 NW $\frac{1}{16}$ White Pine 10 N. 10° E. 9.9 ft.

Survey Record No. 405.

At 1359 ft. W. of Centre and on $\frac{1}{4}$ line put down $\frac{1}{16}$ post bearings
 to wit: White Pine stub 32 S. 32° W. 10.5 ft. Elm 8" N. 79° W. 25 ft.
 Then went to $\frac{1}{16}$ S. (10) and run random line South to $\frac{1}{16}$ S. (13) heavy timber
 all the way. At 5359 ft. was 18.5 ft. W. of (13) blazed this line back to (19).
 At 1382.5 ft. put down $\frac{1}{16}$ post with bearings to wit: Spruce tree 5" for corner.
 At 2765 ft. put down post for $\frac{1}{16}$ S. (6) to wit: Yellow Birch 9 S. 20° W. 19 ft.
 Fir 10 S. 18° E. 11.3 ft. At 4062 ft. put down $\frac{1}{16}$ post (6) bearings to wit:
 Soft Maple 4 N. 30° E. 10 ft. White Birch 11 S. 8° E. 5 ft.
 At 1449 ft. N. of S. $\frac{1}{4}$ S. cor. put in $\frac{1}{16}$ post. 1 $\frac{1}{2}$ " x 18" gas pipe (6) to wit:
 Basswood 10 N. 62° E. 14.6 ft. Sugar Maple 6 S. 48° W. 13 ft.
 at (6) bearings to wit: White Pine stump 30 S. 34° E. 62.6 ft.
 " " " 30 S. 89° E. 10.5 ft.
 At (13) bearings to wit: White Pine stump 28 N. 11° E. 55 ft.
 Basswood 5 S 23° E. 49.25 ft

At (14) in garden no trees near. All random lines are run on
 $\frac{1}{16}$ lines and true line blazed to close on above corner.
 I.M. means Iron Monuments, and are 2 $\frac{1}{2}$ " x 30" with cap when on are
 the figures designating the sections they represent.

Survey commenced August 19, 1918,

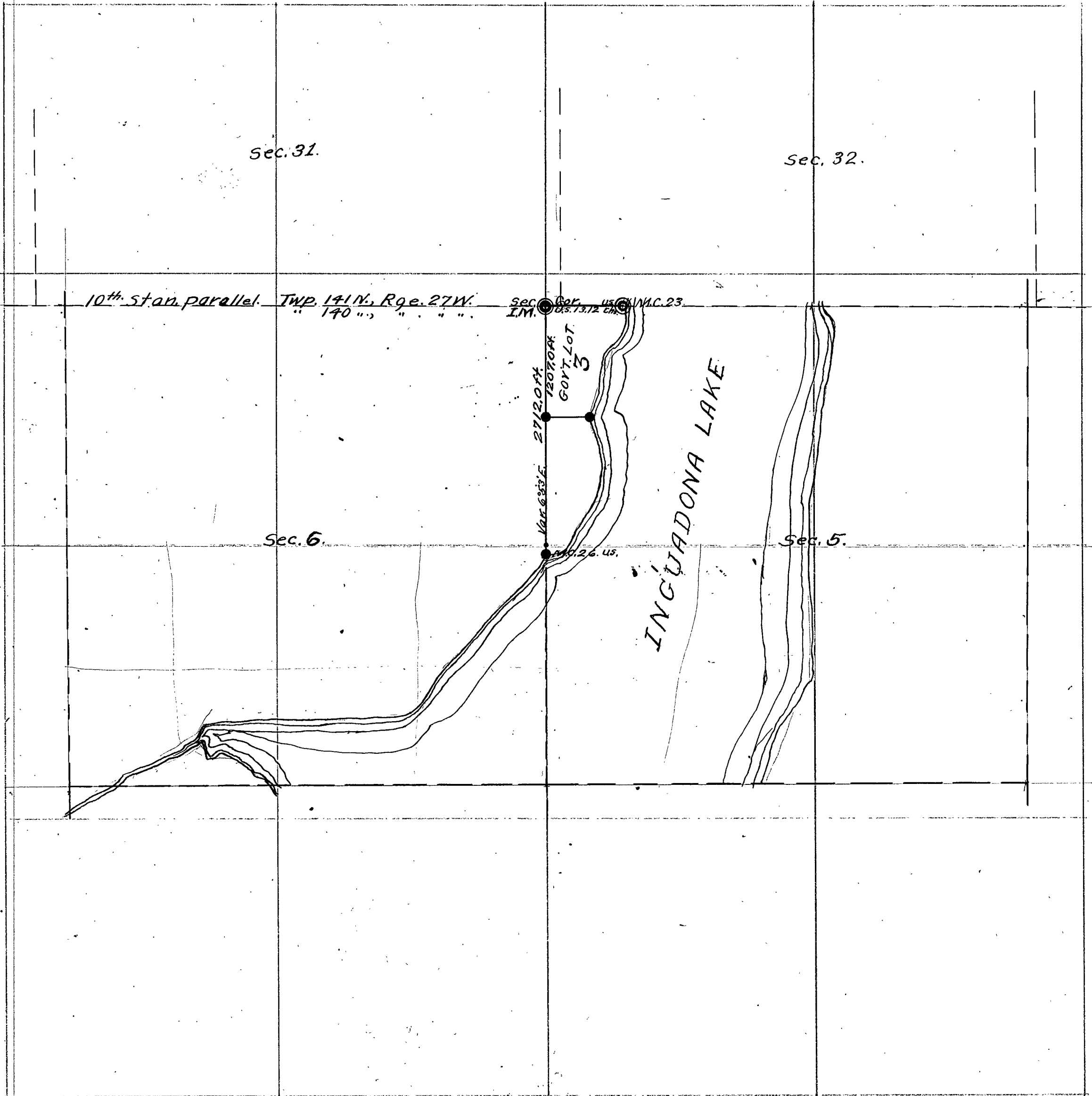
Completed Sept. 14, 1918.

Recorded April 17, 1919.

James H. Flynn,
 County Surveyor.
 per Elmer B. Horst, Deputy.

Twp. 140 N., Rge. 27 W. Secs. 5, 6.

" 141 " " " " 31, 32.



Survey Record No. 406.

Field Notes of the survey of Gov't. Lot 3 section 5, Twp 140 N., Rge 27 West of the 5th P.M. Cass County, Minnesota, and parts of sections 6, Twp 140 N., Rge 27 West and sections 31 and 32 of Twp 140 N., Rge 27 W. Random line. Beginning at the N.W. corner section 5 Township of Trilipse (140-27) in said county, the same being an Iron Monument in the center of a graded highway (County road), running East and West, Thence South, var. 6 degrees

33 ft. enter cultivated field

780 ft. leave cultivated field enter marsh

1209.12 ft. set stake

1330 ft. leave marsh enter brush

2696 ft. set hub then south 73° deg and $15'$ E. to M.C. No. ~~25~~²⁶,

44.4 ft., line .01592, Cos. .99988

Therefore the M.C. is 16 ft. south and 42.51 ft. east making $0^{\circ}53'$ for correct line.

Then went back to said N.W. corner and turned $53'$ E. (true line) and at a distance of 1.207 ft. put in stake for said S.W. corner of said lot 3, then turned N. $89^{\circ}50'$ E. and run to Inguadana Lake.

At said N.W. cor. I took the angle by sighting to M.C. No. ~~25~~²⁶ this angle being N. $89^{\circ}50'$ E.

Distance from N.W. Cor. to M.C. No. ~~25~~²⁶ is 2,712 ft.

Same line given by Gov't. Survey is 2717 ft.
M.C. No. ~~25~~²⁶ was:

B Oak 12 S. $53^{\circ}20'$ W. 31 Lks.

Basewood 6 N. $47^{\circ}29'$ E. 27 "

Now is:

B. Oak (dead standing) with "M.C. S. 6," also

B. T. S. $53^{\circ}20'$ W. 31 Lks.

Basewood obliterated.

Assistants, R. K. Thompson, L. A. Spooner, and -- Thomson
Surveyed June 6, 1919 by

James H. Flynn,
County Surveyor.

Per. C. B. Horst,
Deputy Surveyor.

Survey Record No. 407

Field notes of the survey of Gov't lot 3 section 9, Twp. 140, N. Rge. 29, and parts of sections 4, 8, 10, and 16.

E. B. Horst, Engineer, and V. H. Berggreen, Chainman,

Begin survey of Gov't. lot No. 3 sec. 9, Twp. 140, Rge. 29.

We go to the wood post set by J. W. Curo for the $\frac{1}{4}$ S. Cor. bet. sections 4 and 9 and set a 2" x 48" I. M. in its place. We chain S. on center line of sec. 9. At 1320.0 ft. set stake at 2656.4 temporary center of sec. 9 set by Curo from which I run west at $8^{\circ}45'$ Var. without chaining.

I find S. E. B. T. stump plainly marked at M. C. No. 92. from which I run S. 173.6 ft. and find Oak stump of the $\frac{1}{4}$ S. Cor. B. T. from which I set the $\frac{1}{4}$ S. Cor. line run N. intersects 103.4 ft. N. of $\frac{1}{4}$ S. Cor.

From temp. cent. run random line E. at $8^{\circ}45'$ Var. and look for the $\frac{1}{4}$ S. Cor. bet. secs. 9 and 10. All evidence of corner is gone. We run compass line S. to Child Lake and look for M. C. 52 which is also gone.

From the temp. cent. of sec. 9 chain S. to $\frac{1}{4}$ S. bet. 9 and 16.

Distance = 2656.4 ft. N. E. angle cent. line to sec line = $87^{\circ}56'$

I set over $\frac{1}{4}$ S. cor. bet. 4 and 9 and read S. E. angle cent. line to N. Boundary. Angle = $90^{\circ}10'$

From temp. cent. of sec. 9 chain S. 28.2 ft. on N. and S. cent. line and set true cent. of sec. 9 at 2684.6 ft. S.

Run N. 1342.3 ft. and set C. N. $\frac{1}{4}$ Cor.

Angle at cent. sec. 9 S. W. angle is $88^{\circ}13'$

S. W. angle at C. N. $\frac{1}{4}$ is $89^{\circ}01\frac{1}{2}'$

Horst and Berggreen subdivide Gov't. lot 3 into lots for A. A. Tustler as per plat entitled "Tustler's Park" on file in Register of Deeds office, Walker, Cass Co., Minn.

Surveyed May 12, 13, and 14, 1919 by

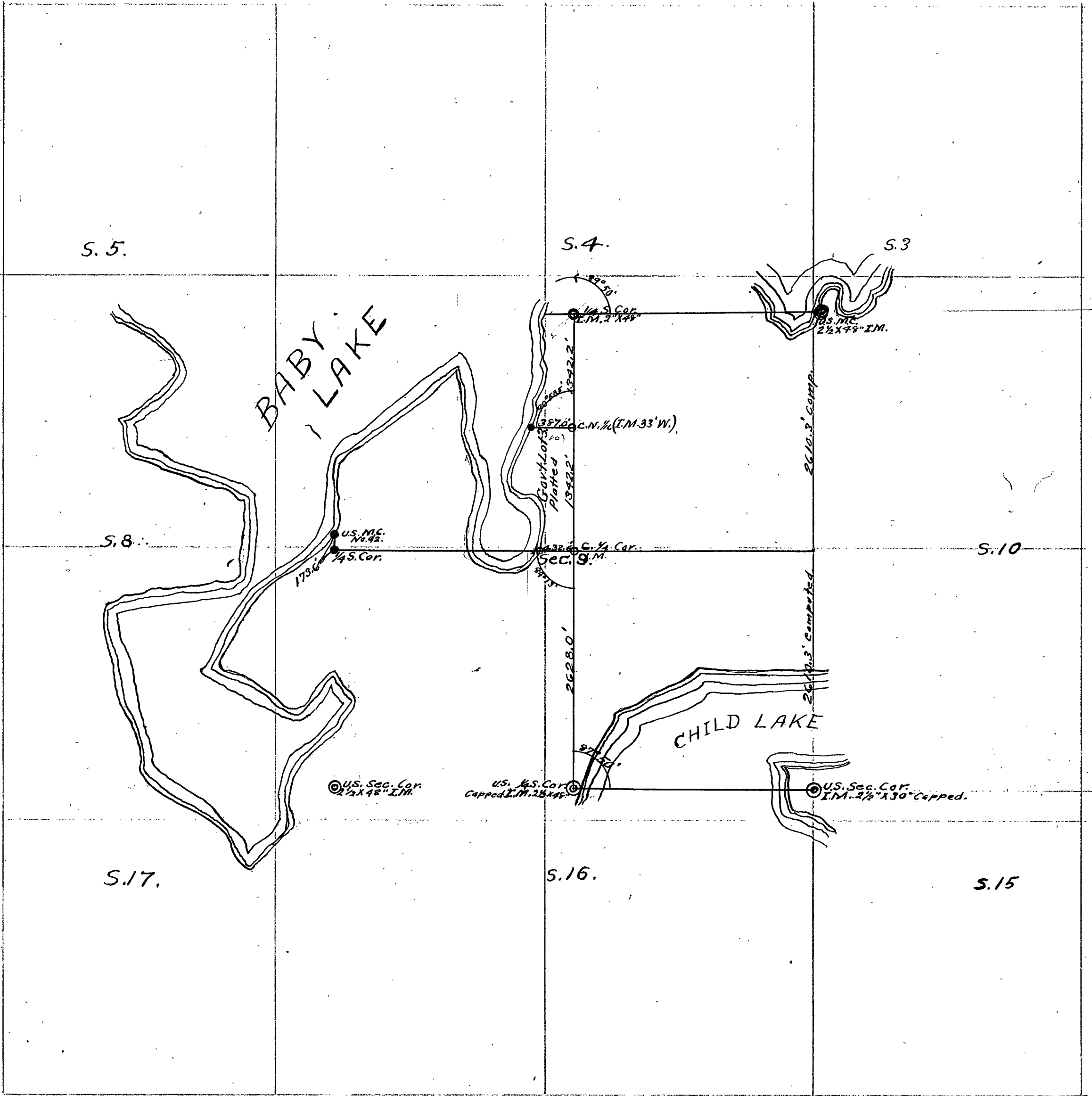
Emer B. Horst.

Deputy County Surveyors

Recorded July 5, 1919.

Survey Record No. 407.

Twp. 140 N., Rge. 29 W. Sec's 8, 9, 10, 16.



Field Notes of the survey of a part of section 36, Twp. 138 N., Rge. 32 W., and parts of sections 23, 24, 25, 26, and 35 said Twp. and Rge. and sections 1, 2, Twp. 137 N., Rge. 32 W.

June 8, 1919. E. B. Horst begins survey of a part of section 36 Twp. 138 N. Rge. 32 W. Beginning at the Twp. cor. being an 8" x 8" cement monument at the S. E. cor. of sec. 36, thence run W. over A. W. Moulster's line at 2640 W. 1/4 S. cor. gone. At 5361 ft. W. wood post set from N. S. Bearing trees by A. W. Moulster on a state road survey.

I turn 90° N. E. angle and run N. bet. secs. 35 + 36. At 1320 ft. set stake, at 2640' set stake, at 3960' set stake, and at 5298' set stake in line of E. and W. road.

Cor. of 25-26-35-36 gone. Continue N. At 7970' 1/4 cor. bet. secs. 25 and 26 gone. At 10592' N. I find the N. E. + S. W. stumps of the original Norway Pine B. T. plainly marked. N. W. and S. E. stumps badly burned. I set Wood Post in mound of stone at true cor. sec. 23-24-25-26.

Beginning at the cement mon. at Cor. common to sec. 26-27-34 and 35, I chain E. on graded road. At 5329.3 ft E. intersect the random line bet. sec. 35 and 36 at 5298 ft. N. continue E. on brushed roadway. At 1320' E. set stake. At 1350' E. enter heavy brush.

At 2640' E. set stake and look for original 1/4 cor. which is gone. Continue E. At 3254.0' E. set triangulation point A. Run base line S. at 90° angle 426.0' and set pt. B. Sight across Goose Lake to N. E. cor. of sec. 36 = pt. C. (Random line intersects 12' S. of corner). Angle at B = 78° 15'. cot. = 4.80769 x 426.0' = dist. from A to C = 2048.1. 3254.0' + 2048.1' = 5302.1' + 5329.3' = 10631.4' = dist. from N. W. cor. sec. 35 to N. E. cor. sec. 36. Div across N. side of sec. 36 = 5332.0'. I set a wood post at 5296' N. and 5299.4' E. for the Sec. Cor. of 25-26-35-36 with B. T. as follows: Jack Pine 8' N. 29° 50' E. 62.7 ft. Jack Pine 8' N. 44° 05' W. 61.8 ft. Jack Pine, 8', S. 41° 37' W. 106.4 ft. Jack Pine, 8' S. 38° 05' E. 85.0 ft.

At 2666.0' E. of this sec. cor. I set the 1/4 sec. cor. bet. 25 + 36. 6 ft. N. of random line and run S. 0° 28' E. on random 1/4 line in sec. 36. set stakes at 1324.75', 2649.50', and 3973.75'. Intersect 6 ft. E. of 1/4 S. at station 5299' S. Correcting back on N. and S. cen. line set I. M. E. of said stakes 1.5', 3.0', and 4.5' respectively. Chain W. from point for true 1/4 sec. cor. 1340.25' and set wood hub for W. 1/6 cor. on S. side of sec. 36. Run N. 0° 24' W. on W. 1/6 line. Set stakes at 1324.4', 2648.8', and 3973.2'. At 5297.5' intersect true W. 1/6 cor. set small I. M. at above stakes, I. M. furnished by land owners. I run N. 89° 54' E. from N. W. 1/6 cor. and intersect Cen. N. 1/6 cor.

Survey begun June 8th; completed June 12th, 1919.
Recorded July 7th, 1919

James H. Flynn
County Surveyor
Per Elmer B. Horst
Deputy

C

Field notes on the Salem Twp. Road between Secs. 27, 28, 29, 32, 33, and 34. Twp 143 N. Rge. 26 W.

Beginning at the center of the established (North and South) County Road, at a point 116.0' N. of the established 1/4 Post between sec 27 and 34 in said Twp, Thence W. along the sec. line between said 27 & 34, 28 & 33, 29 & 32 continuously to the cor. common to sec. s 29, 30, 31, and 32 in said Twp.

Stations: 475.0' culvert; 760.0' enter heavy hardwood timber; 1255.0' to the cor.; 1375.0' lve. timber enter grass land; 1473.0' East bank of Bear River; 1541.0' West bank of Bear River; 1750.0' lve. grass land; 2000.0' cul.; 2200.0' foot of 10 deg. hill; 2350.0' top of 10 deg. hill; 2436.0' Wagon Road N. & S.; 2625.0' cor. to sec. s 27, 28, 33, and 34 which was:-

Maple 6 N. 77° W. 20 lvs.

" 5 S. 57° W. 41 "

Birch 10 N. 22° E. 20 "

N. Pine 24 S. 52° E. 35 "

W. Pine (stump) 26 S. 52° E. 35 lvs. and which now is:-

Put New Bearings to-wit:-

Balm of Gilead 7 S. 9° E. 45.3 ft.

Fir

8 S. 25° 30' W. 47.9 ft.

Then W. along sec. line bet. sec. s 28 & 33 var. 8° 05'

Stations: 2750.0' cul.; 2875.0' fence on line; 3250.0' cul.; 4070.0' cul.; 4171.0' Wagon Road S.W. and N.E.; 4185.0' end of fence; 4275.0' enter cedar and tam. swamp; 4465.0' cul.; 4575.0' lve. cedar and tam. swamp; 4850.0' bottom of 10 deg. hill; 5000.0' top of 10 deg. hill; 5287.0' quarter post for sec. s 28-33 which was:-

Birch 6 N. 28° E. 17 lvs.

" 10 S. 60° E. 7 "

now is obliterated by time and fires, I establish new bearings to-wit:-

maple 8 N. 32° E. 15 ft.

" 12 S. 8° E. 31 ft.

Then continued W. on said sec. line var. 8° 05'

Stations: 5700.0' enter alder swale; 5740.0' cul.; 5820.0' lve. alder swale; 6200.0' old log road S.E. & N.W.; 6870.0' cul.; 7185.0' cul.; 7680.0' cul.; 7943.0' cor. to sec. s 28, 29, 32 & 33 which was:-

Fir 6 N. 18° E. 20 lvs.

Birch 5 N. 51° E. 15 "

W. Pine 26 S. 50° W. 20 "

Birch 7 S. 44° E. 40 "

Now is same. Established new bearings to-wit:-

Basswood 14 N. 11° 15' E. 64.5'

Black Oak 14 N. 45° 30' E. 35.5'

C Survey Record No. 409.

Twp. 143 N., Rge. 26 W. Secs. 27, 28, 29, 32, 33, 34.

Then continued west on sec. line bet. sec. 29 & 32, Var. 11° 25'
Stations: 8125.0' cul.; 8650.0' cul.; 8900.0' cul.; 9400.0' cul.; 10349.0'
quarter post for said sec. 29-32 which was:-
Birch 10 S. 42° E. 18 lks.
" 6 " 81° W. 5 "

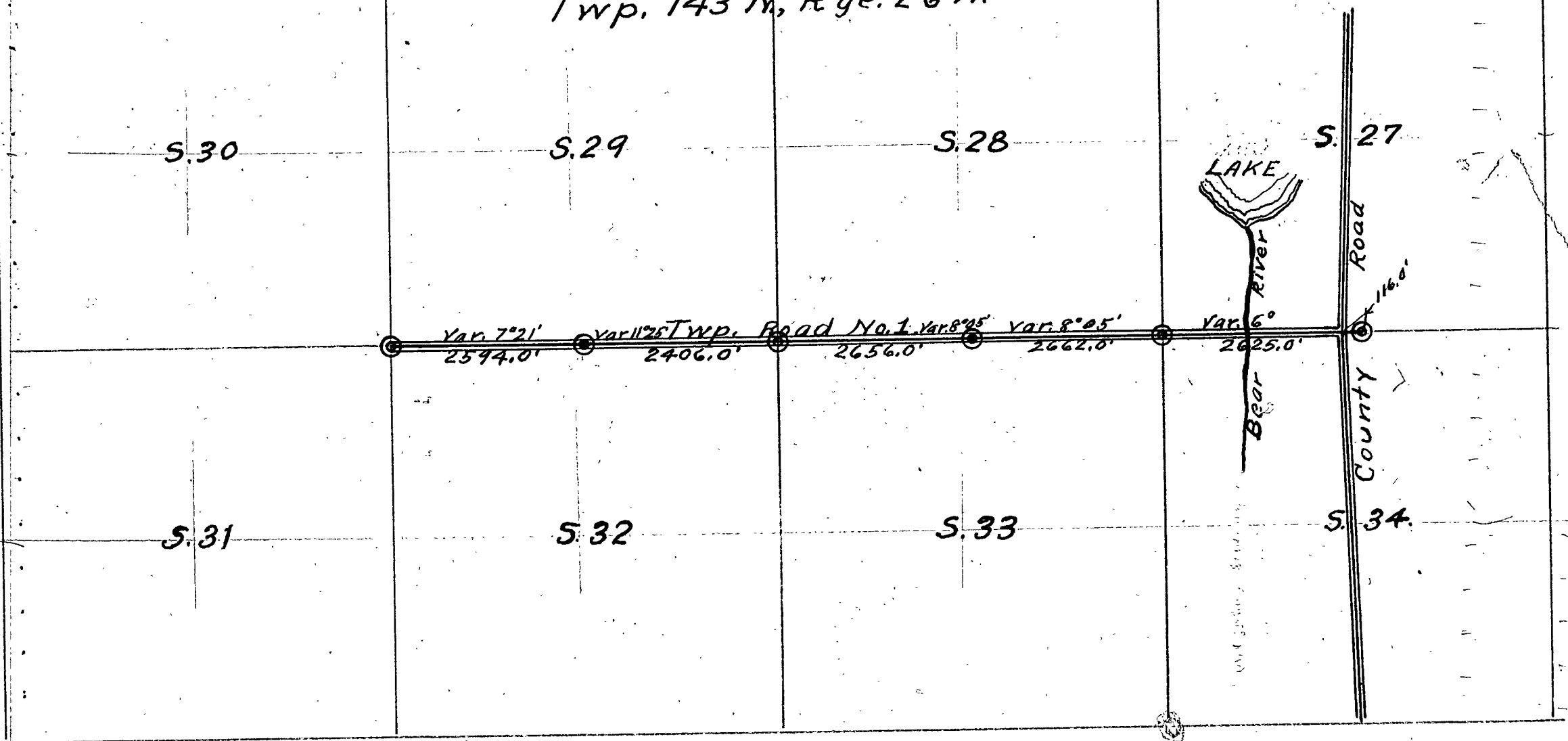
Now is:- Birch stub 10 S. 42° E. 18 lks.
Established new bearings to Wit:-
W. Pine 12 N. 41° W. 57.5 ft.
Dry W. Birch 10 S. 34° W. 45.5 ft.

Then continued west on sec. line, var 7° 21'
Stations: 11075.0' culvert; 11300.0' fence south; 11490.0'
enter cultivated garden N. & S.; 12007.0' low garden; 12690.00
culvert; 12943.0' corner to sections 29, 30, 31, and 32, of said
Twp. Survey made in July 1916 by
James H. McLaughlin,
County Surveyor.

Recorded July 16, 1919

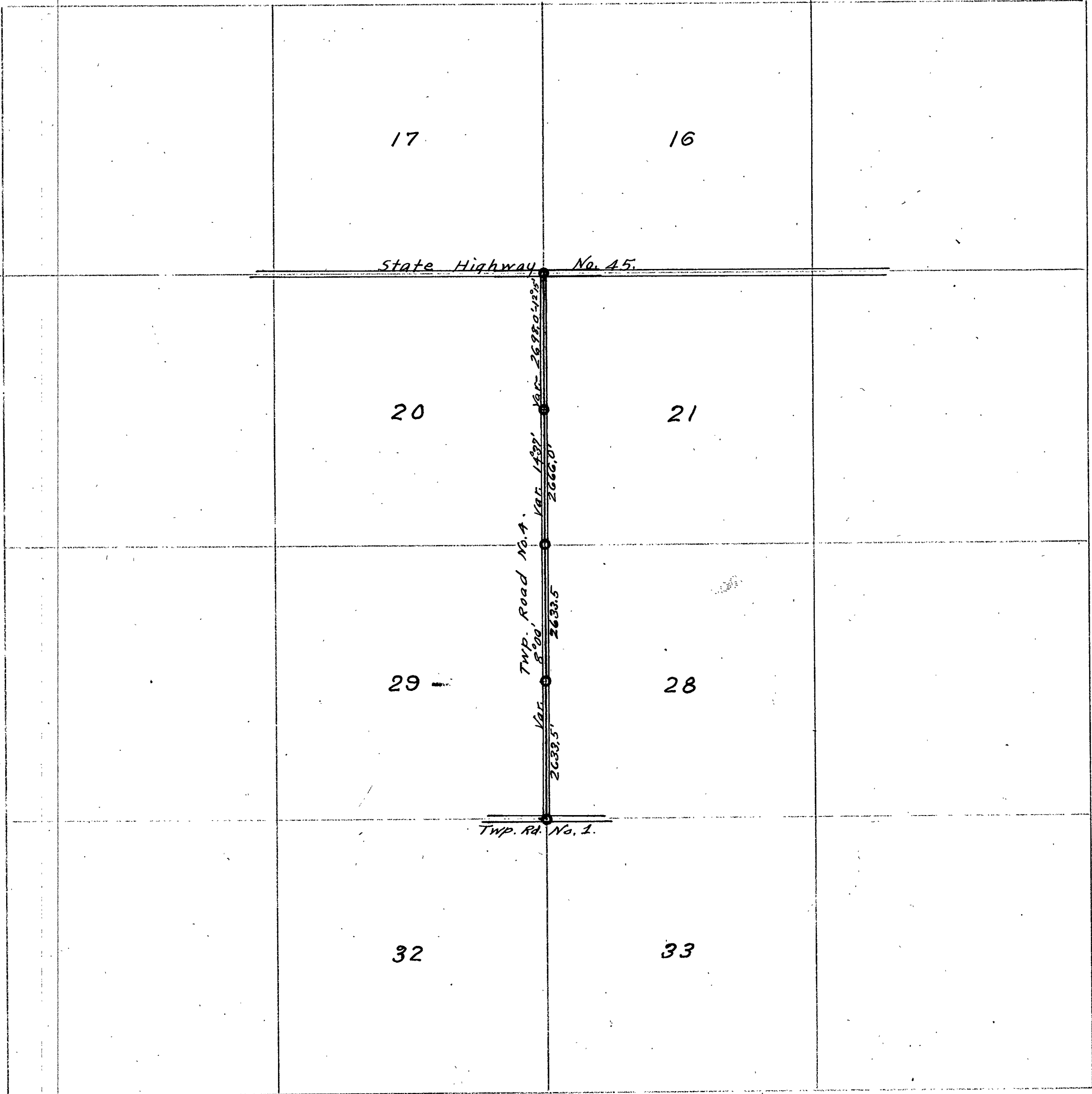
Per E. B. Horst, Deputy

Twp. 143 N., Rge. 26 W.



Survey Record No. 410.

Twp. 143 N., Rge. 26 W. Secs. 20, 21, 28, 29.



Field notes on the survey of Salem Trip. Road No. 4 in sec. s 20, 21, 28, 29 - 143 - 26.

Beginning at the cor. of sec. s 28, 29, 32, + 33 in said Trip. of Salem thence N. along sec. line bet. sec. s 28 and 29, a distance of 5267.0' to the corner of sec. s 20, 21, 28, + 29, var. 9°; thence N. along sec. line bet. sec. s 20-21, var. 14° 27' 2666 ft to the quarter post bet said sec. s 20 + 21; thence N. along sec. line bet. said sec. s 20 + 21, var. 12° 15', a distance of 2698.0' to center of State Rural Highway No. 45. Total length of road 10629.0'.

Beginning at cor. of sec. s 28, 29, 32, 33, N. at 8° 0' var. Stations 900' to 1900' level hdwd. timber; 1935.0' 10 in cul.; 1950' enter brush land; 2850.0' 10 in cul.; 2900.0' enter scat. hdwd; 4518.0' 14 in. cul.; 4650.0' cultivated field E.; 4840.0' Frame House 30' E. (Warren Griffith); 5267.0' sec. cor. for sec. s 20, 21, 28, + 29 aforesaid. New Bearings:-

Sugar Maple 6 N. 88° 45' E. 79.0'
 Fir 8 N. 67° 0' W. 30.2'

Sta. 5340.0 16 in. cul.; 6607.0' 1/4 sec. cor. Put in bearing trees to-wit:-

Yel. Birch 10 S. 51° 45' W. 53.8'
 W. Pine Stump 22 S. 66° E. 31.7'

Sta. 6775.0' Wagon Road E. + W.; 6985.0' Wagon Road N. W.; 7290.0' Wagon Road E. + W.; 7815.0' Wagon Road E. + W.; 7943.0' 1/4 post sec. s 20-21. Bearings to-wit:-

W. Pine 10 N. 88° E. 76.5'
 Aspen 5 N. 50° W. 43.0'

Sta. 8610.0' Wagon Road bears N. E. enter hdwd timber; 8700.0' top of six deg. hill; 8975.0' cul. 9200.0' foot of 8° hill; 9270.0' enter tam. swamp; 9312.0' 1/4 sec. cor. Bearings to-wit:-

Cedar N. E. 36.7 ft.
 Yel. Birch 6 N. W. 70.2 "

Sta. 9300.0' 1 1/2 in. cul.; 9387.0' live tam. sup.; 9450.0' live hdwd; 9770.0' Wire fence; - 10.0' 10 in. cul.; 10040.0' Wagon road N. E. 10685.0' Center of State Rural Highway No. 45 aforesaid

Survey begun June 24, 1918; completed June 28, 1918 by James H. Flynn, County Surveyor.

Recorded July 16, 1919.

Per. E. B. Horst, Deputy.

Survey Record No. 411.

Field notes of the survey of Slater Township Road in sec. 7, 8, 9, 15, 16, 17, 22, and 23, Twp. 142 N., Rge. 26 W. of the 5th P.M.

Beginning near station 13353.0' of road surveyed in January, 1912, the same being located on the E. 1/4 line of sec. 23 and 598.0' South of E. and W. 1/4 line of said sec. 23 thence N 77° 15' W as follows:-
 Stations: 100.0' culvert; 253.5' N. 61° 30' W; 588.0' cul.; 678.0' intersect aforesaid E. and W. quarter line of said sec. 23; Thence W. along quarter line; 1088.0' cross old road N. and S.; 1300.0' 150 ton boulders; 1375.0' cul.; 1670.0' cul.; 2225.0' cul.; 2411.0' cul.; 2589.0' turn S. 41° 10' W. lve. 1/4 line; 2687.0' turn S. 80° W; 2785.0' turn N. 63° 30' W; 2735.0' cul.; 2859.0' turn N. 45° W; 2940.0' intersect E. + W. 1/4 line of sec. 23, thence west on said 1/4 line; 3150.0' cul.; 3697.0' turn S. 41° W. lve. 1/4 line; 3810.0' cul.; 3838.0' turn N. 60° W; 3958.0' turn N. 47° W; 4000.0' cul.; 4063.0' intersect E. and W. 1/4 line of sec. 23; thence W. on said quarter line; 4234.0' 1/4 sec. post bet. sec. 22 + 23 which was:-

Nor. Pine 17 N. 33° E. 5 lks.

Aspen 10 S. 33° W. 15 " Now is:-

Nor. Pine stump 12 N. 33° E. 5 lks. New bearings to visit.

Nor. Pine 8 N. 25° E. 317 ft. Thence W. on E. + W. 1/4

line of sec. 22. Stations: 4300.0' cul.; 5050.0' cul.; 5475.0' cul.; 5571.0' 1/6 cor. B.T. aspen 6 S. 56° W. 34.0'; thence N. on E. 1/6 line sec 22; 6160.0' cul.; 6270.0' cul.; 6580.0' cul.; 6837.0' 1/6 cor. and cul.; 7200.0' cul.; 7600.0' cul.; 7500.0' to 7630.0' ash and alder swale; 8103.0' 1/6 cor. (No 10) on sec. line bet. sec. 15 and 22. Bearings Trees:-

Aspen 8 N. 78° E. 50.0'

" 5 E - - - 31.0'

Thence west on sec. line bet. sec. 15-22. Sta.:-
 8900.0' cul.; 9080.0' cul.; 9479.0' 1/4 sec. cor. 15-22 which was:-

Nor. Pine 17 N. 33° E. 5 lks.

Aspen 10 S. 33° W. 11 " Now is:-

Nor. Pine Stump 12 N. 33° E. 5⁴⁰⁰ lks. Put on B.T.

W. Pine 12 N. 47° 30' W. 50.5 ft.

Nor. Pine St. 8 S. 70° W. 47.8 "

Thence N. on N. and S. 1/4 line sec. 15. Stations:-
 9462.0' cul.; 9800.0' to 10112.0' alder swale; 9975.0' cul.; 10100.0' to 10500.0' 8° hill sloping S.; 10748.0' cross old road E. + W.; 11424.0' S. edge pond 3 ft deep, drain E.; 11440.0' large cul.; 11452.0' island in pond, diameter 15 ft.; 11600.0' N. edge of pond; 11600.0' to 11900.0' 14° hill sloping S.; 12107.0' center sec. 15, B.T. to visit:-

W. Pine stump 74° East 39.0'

" " " 30° N. 12° E. 41.0'

Surrey Record No. 411.

Continue at angle of S. 89° 45' W on E + W 1/4 line said Sec. 15.
 Stations: - 12288.0' cul.; 12700.0' cul.; 13485.0' lve 1/4 line turn N.
 55° 0' W.; 13540.0' cul.; 13631.0' turn N 83° W.; 13750.0' cul.; 13843.0'
 turn S. 70° W.; 14162.0' intersect said E. + W 1/4 line sec. 15. Continue
 N. on said 1/4 line; 14325.0' E. edge of open marsh; 14450.0' large cul.;
 14567.0' W. edge of marsh; 14767.0' 1/4 sec. cor. 15-16 which was:-

Pam.	6	S.	38° E.	31	lks.	
Birch	8	S.	81° W.	33	"	Now is:-
Pam. (Burned St.)	8	S.	38° E.	31	"	New B.T.
Nor. Pine	6	N.	9° E.	40.5	ft.	Continue W. on E. + W.

1/4 line sec. 16. Stations: - 14800.0' cul.; 15130.0' lve 1/4 line turn
 N. 75° W.; 15272.0' West 144.0'; 15310.0' cul.; 15416.0' turned S. 60° W.;
 15488.0' intersect said E. + W 1/4 line sec. 16; 16070.0' cul.; 16230.0'
 cul.; 16200.0' to 16530.0' not many stumps - Brush; 16530.0' to 17600.0'
 scat. hdwd.; 17300.0' to 19200.0' slope 3° to 20°; 16460.0' cul.; 16785.0' cul.;
 17200.0' cul.; 17400.0' top of hill slopes E. W. and S. and near center of sec.
 16; 17600.0' cul.; 17600.0' to 19500.0' not many stumps - Brush; 18110.0'
 cul.; 18275.0' cul.; 18425.0' cul.; 18770.0' cul.; 19175.0' cul.; 19285.0' cul.;
 19535.0' cul. - old logging road N. + S.; 20026.0' 1/4 cor. sec. 16-17
 Which was:-

Nor. Pine	14	S.	51° W.	19	lks.	
Fir	6	S.	84° E.	20	"	
Now is:-	Nor. Pine (St.)	16	S.	51° W.	19	lks.

Fir obliterated by fires except roots possibly discernable.
 New B.T. to wit:-

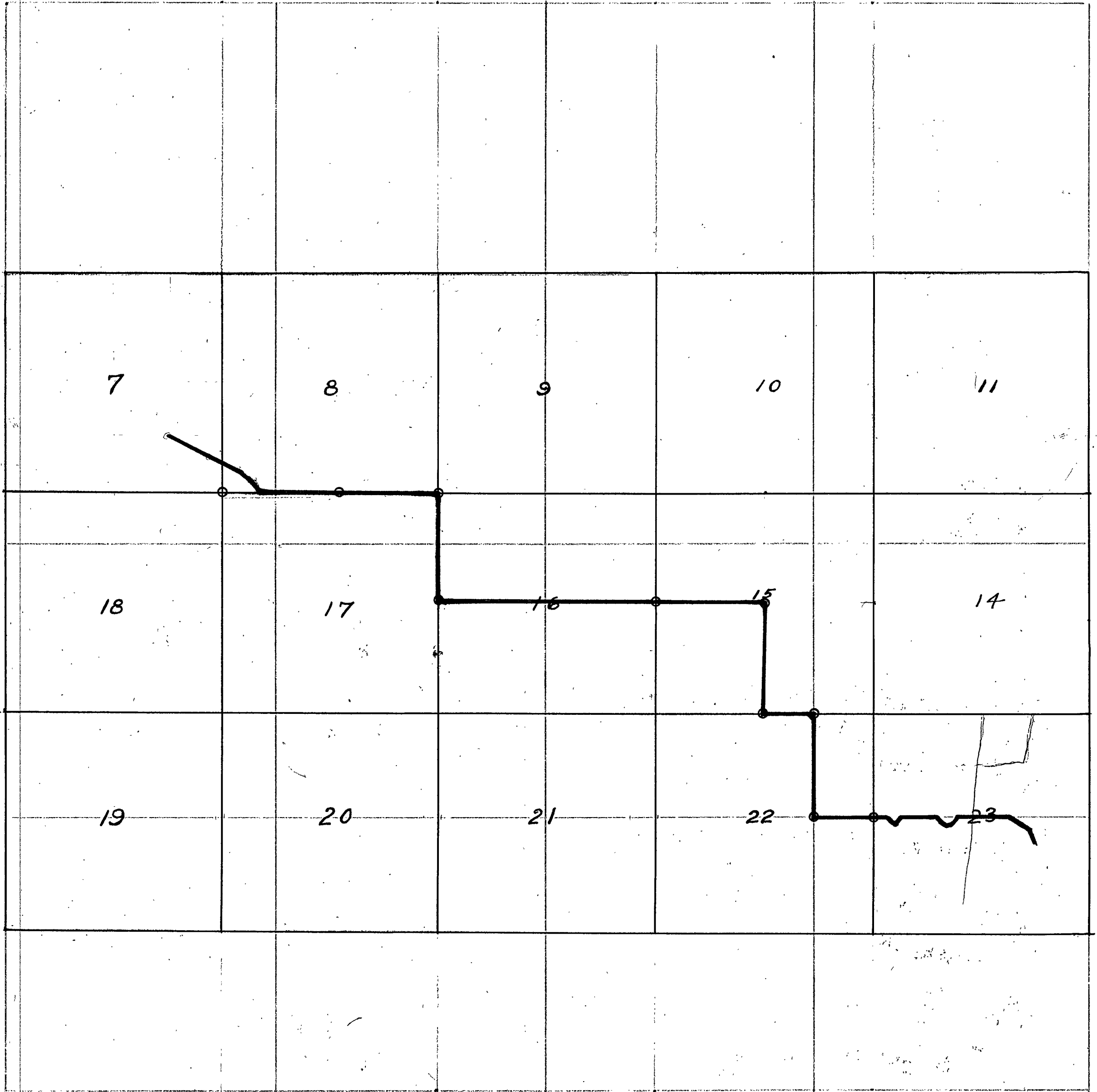
Pam.	3	S.	39° E.	41.7'
Nor. Pine St.	16	S.	61° W.	36.3'

Continue N. 4° 53' E. on sec. line bet. sec. 16-17. Stations: -
 20150.0' Edge alder swale N.E. + S.W.; 20210.0' culvert; 20260.0'
 N. side alder swale N.E. + S.W.; 20815.0' cul.; 21400.0' to 21500.0'
 road survey 10 ft. W. of shore of pond E.; 21450.0' cul.; 21827.0'
 cul. + logging road E. + W.; 22070.0' cul. + bottom of 10° hill;
 22160.0' top of 10° hill; 22240.0' top of 25° hill; 22320.0' cul. + foot
 of 25° hill; 22550.0' S. side of shallow slough; 22625.0' cul.; 22700.0'
 N. side of slough; 22734.0' cor. to sec. 8, 9, 16, and 17 which was:-

Red Oak	6	N.	71° E.	21	lks.	
W. Pine	14	S.	64° E.	30	"	
Nor. Pine	30	N.	27° W.	46	"	
"	24	S.	18° W.	63	"	
Now is:-	"	(St)	30	N.	77° W.	46
"	24	S.	18° W.	63	"	
W. Oak (Roots)	SD	S.	64° E.	30	"	
Oak	N	N.	71° E.	21	"	

New B.T. to wit:- White Pine Stumps S. 68° W. 80.9'
 " " " " N. 13° E. 42.9'
 Continue road S. 85° 15' W along sec. line bet. sec. 8-17
 Stations: - 22985.0' cul.; 23100.0' cul.; 23240.0' cul.; 23600.0' cul.

Survey Record No. 411.
Twp. 142 N., Rge. 26 W. Secs. 7, 8, 9, 15, 16, 17, 18, 22, 23.



Survey Record No. 411

Stations: - 23800.0' cul.; 23990.0' cul.; 24117.0' large cul.; 24400.0' cul.; 24490.0' cul.; 25382.0' 1/4 cor bet. sec. 8-17 which was -
 Birch 8 N 68° E 11 lks.
 " 8 S 11° E 21 "

Now are obliterated by time and fires. Therefore put in new B.T.s equidistant bet. N.W. and N.E. cor. a Sec. 17 to wit:-
 Non Pine Stub 12 N 33° E 55.0'
 W. " " 7 S 14° E 59.0'

Stations: - 25588.0' cul.; 25940.0' E. side of open marsh N. & S.; 26080.0' fence 4 ft N - E & W.; 26100.0' cul.; 26270.0' live marsh N. & S.; 26420.0' old wagon road N. & S.; 26665.0' cul.; 26706.0' 1/6 S. end of fence north; 27142.0' live sec. line 892 ft. E. of N.W. cor. Sec. 17 thence N. 37° W. 227.0'; 27300.0' cul.; 27369.0' turn N. 44° W. 456 ft.; 27825.0' turn N. 60° W. 816 ft.; 27855.0' enter Tam. swamp. N.E. & S. E.; 28080.0' large cul.; 28450.0' live Tam. swamp N. & S. W.; 28641.0' turn N. 63° W 319 ft.; 28700.0' enter Tam. & cedar swamp; 28750.0' cul.; 28812.0' logging road N. & S.; 28840.0' live Tam & cedar swamp; 29110.0' large cul.; 29950.0' hub; 29950.0' center of road established 4 years since at N.W. Cor. S.E. 1/4 of S.E. 1/4 Sec. 7. Top of Slater (142-76) Cass, Co, Minn. Stations: - 263-278 dead and down poplar, birch, and small pine; 27855.0' to 28450.0' Tam. are two inches (2 in.); 28450.0' to 29950.0' poplar, birch, and balsam, standing and down. Cedar, spruce, and pine stumps. This road survey begins on an established road and ends on an established road, is 5 1/2 miles 919 ft in length and 3 rods wide.

Survey began June 13, 1916 and ended August 30, 1916
 by

James H. Flynn,
 County Surveyor.

Recorded July 18, 1919

Per Elmer B. Horst,
 Deputy.

Survey Record No. 412.

Field notes of the survey of road on Town line bet. Twp.s 141-26 and 142-26.

Beginning at the cor. of sec.s 1 and 2 of Twp. 141 Rge. 26 which is the cor. to sec.s 35 and 36 Twp. 142 Rge. 26 (iron monument), thence west along the line between the two above named Townships at 1265.2' easterly side of St. Paul, Minneapolis and St. Marie (Co.) R. R. right-of-way, 1300 ft. cut 3 ft. high, 1333 ft. to center of above R.R. track; bears $N. 46^{\circ} 15' W.$, 1366 ft. westerly side of R.R. cut 4 ft. high, 1401.0' westerly side of above R.R. right of way, at this point enter timber on S. side of line consisting of Poplar, Birch, Balsam, and Cedar. On the N. side all merchantable timber has been cut and mostly removed.

One small culvert should be placed 15 or 20 ft. west of above sec. cor. and three more west bet. R.R. track and terminus of this road which is the quarter post above said sec.s 2 and 35 which was:-

	Aspen	6	S.	2°	E.	11	lks.
	Spruce	12	N.	52°	E.	34	"
Now is:-	Aspen	12	S.	2°	E.	11	"
	Spruce	14	N.	52°	E.	34	"

Said road is to be 4 rods wide and 2674.6 ft. in length

Survey completed by

James H. Flynn,
County Surveyor.

Assistants:-

H. D. Bloyer
John Trasky
- Fredrickson

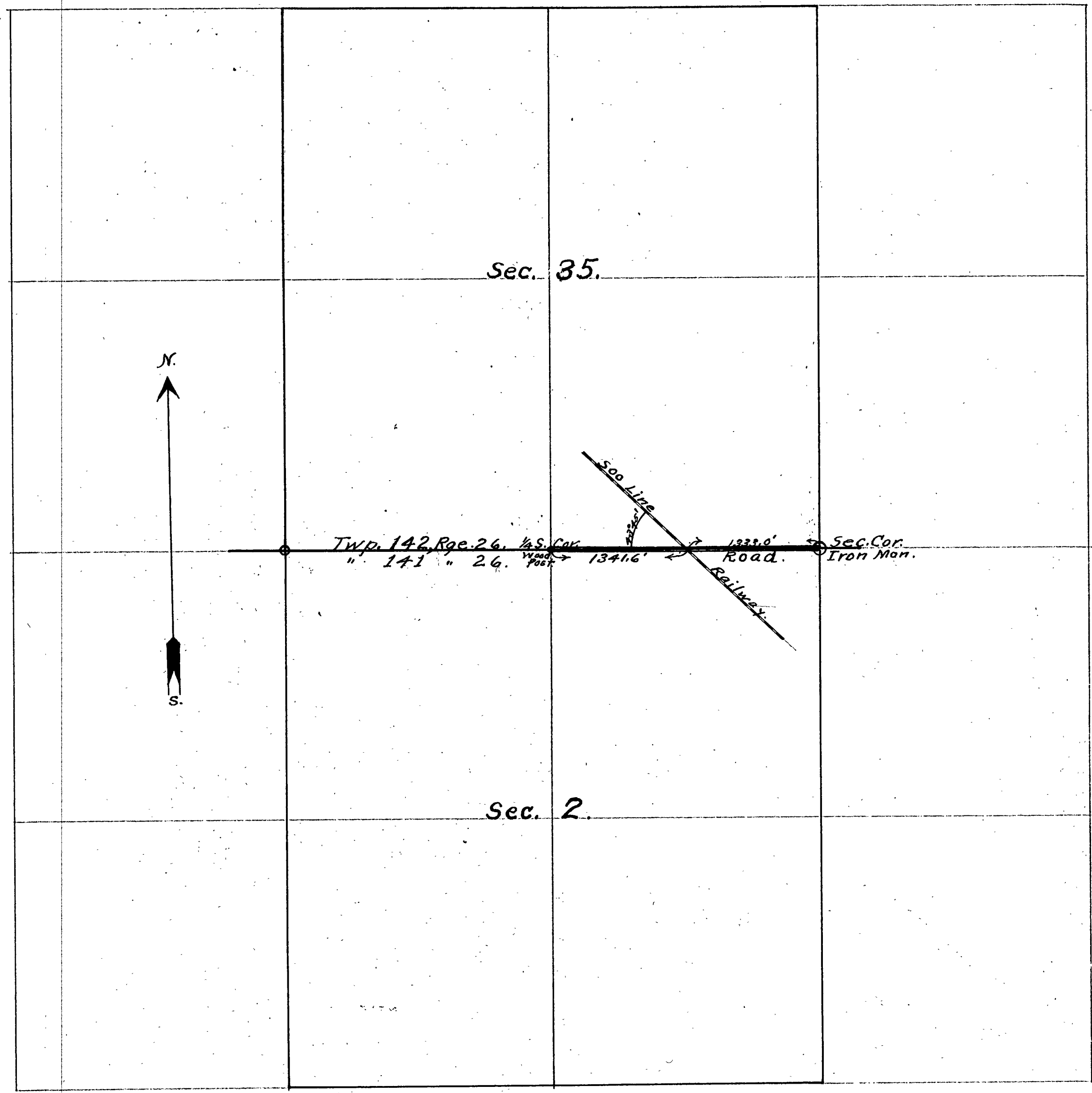
Recorded July 19, 1919

Per. Elmer B. Horst,
Deputy Surveyor.

C

Survey Record No. 412.

Twp. 142 N., Rge. 26 W. Sec. 35.
" 141 " " " " 2.



Sec. 35.

Twp. 142, Rge. 26, 1/4 S. Cor. Wood Post
" 141 " 26. " " " " " "

Soo Line
Railway

1333.0'
Road.
Sec. Cor. Iron Man.

1341.6'

Sec. 2.

Survey Record No. 413.

Field notes of the survey of the Salem-Ball club road in sec. 10-11-12-15 Twp. 143, Rge 76.

Beginning at S. quarter post sec. 15 said Town.

Which was:- Fir 4 N. 45° W. 5
Spruce 4 S. 43° W. 7

Now is obliterated by State Road construction but substituted by station 761+61 and Witness trees to-wit:-

Spruce 18 S. 49½° W. 50 ft.
Elm 14 N. 47° E. 53.5 ft.

Thence Sta. 0 is this ¼ post of sec 15, said Town. in this report, therefore start road survey at Station 0.

Thence N. on N. and S. ¼ line. Stations:- 0+14 cul.; 1+53 large cul.; 3+75 old road N.W. and S.E.; 9+30 cul.; 17+10 cul. drain N.W.; 1 to 17 green pople, balsam, and balm of gilead timber, old cedar cuttings; 19+15 old logging road E. and W.; 17 to 24 no timber; 24 enter elm timber; 26+60 creek 10 ft. course W.; 27 leave elm timber enter burned cedar cuttings; 42+10 cul.; 53+70 cul.; 54+73 North ¼ S. said sec. 15 said Town

Which was:- Spruce 3 S. 51° W. 4
" 6 N. 83° E. 5

Now is:- Spruce Stump 8 N. 83° E. 5
" Stump 4 S. 51° W. 4

New bearings:- Cedar Stump 8 S. 73° E. 42 ft.
" " 8 N. 81° W. 48.9 "

Thence continued Road on N. and S. ¼ line N. into Sec. 10 said Town Stations:- 58+50 cul.; 60+80 cul.; 65+60 cul.; 65 enter green pople and balsam to 70; 77 to 65 not much standing timber - mostly old cedar cuttings; 71 wagon road E. and W. 74 turn N. 44° 15' E. to avoid Mud Lake swamp; 75+50 cul.; 83+07 intersect E. and W. ¼ line said sec. 10 said Town. Thence East along said ¼ line; 83+70 old road N. and S. 87 to 92 not much tbr; 92 enter green timber to 100; 94 cul.; 104+84 N.E. sec. 10-11 said Town.

Which was:- Aspen 5 S. 46° E. 6
Spruce 4 N. 31° W. 6

Now is:- Spruce 6 N. 31° W. 6

(partly obliterated by time and fire)

No trees near for new bearings. Continued E. on E. and W. ¼ line sec 11 said Town. Stations:- 105+40 cul.; 105+80 old Bear River Road N. and S.; 107 enter green timber; 113+65 cul.; 119+15 cul.; 128+24 large cul.; 136+25 new house N. 15 ft.; 141 cul.; 142 wagon road S. 50 ft.; 143+15 cul.; 146 cul.; 156+30 cul.; 107 to 157 green timber mixed; 158+25 N.E. 11-12

Which was:- Wh. pine 12 N. 32° W. 15
Fir 4 S. 45° E. 20

Survey Record No. 413.

Now obliterated by time and fires. I located this
 1/4 post equidistant between cor. sec. 1-2-11-12 and
 cor. sec. 11-12-13-14 said town.

New bearings:- White pine stumps 24 S. 42° E. 65.4 ft.
 Nor. " " 18 N. $19\frac{1}{2}^{\circ}$ W. 66.8 "

Then continued on E. and W. 1/4 line sec. 12 said town.
 Stations:- 158+30 wagon road N. and S.; 163+45 cul.; 165
 large cul.; 174+30 cul.; 157 to 164 not much timber; 164
 to 175 Elm, balsam, ash, and cedar; 183+25 cul.; 193+15
 cul.; 201+40 large cul.; 212 cul.; 216+21 1/4 S. on Range line
 between sec. 12 Twp. 143-26 (Salem) and sec 7 Twp. 143
 Rge. 25. Which was:- Wh. Pine 15 N. 36° E. 92 (6 ft)

Now is:-

Wh. Pine 10 S. 65° W. 9 (6 ft)

Spruce obliterated by time and fires.

New bearings:- Wh. Pine 16 S. $63^{\circ}18'$ E. 49.5 ft.
 Total length 6 " Birch 16 N. 18° W. 36.5 "

Total length of road 4 miles, 255 ft.

Survey begun Oct 27, 1916 and completed Nov. 22, 1916.

Ry.

James H. Flynn,
 County Surveyor.

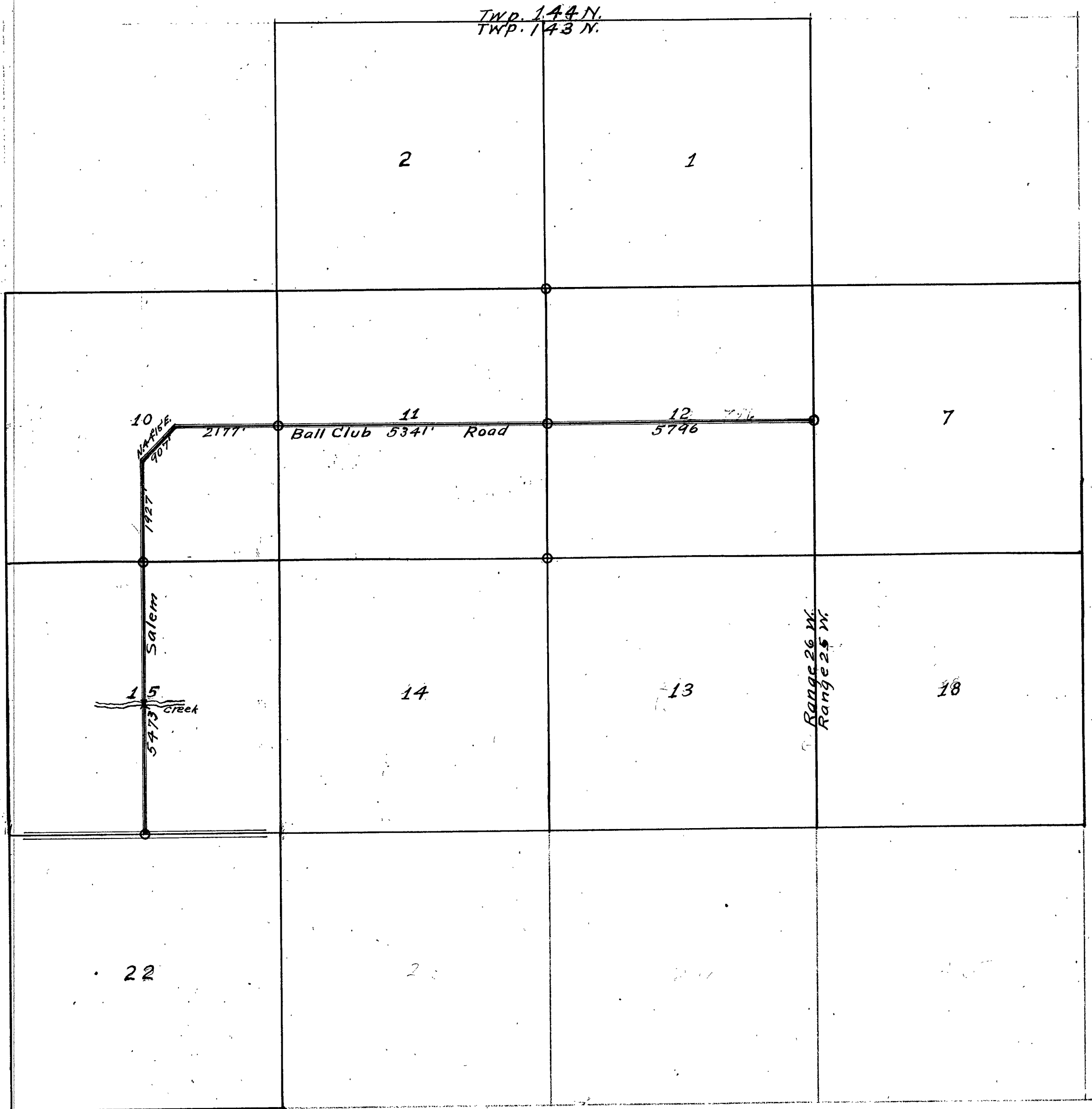
Recorded July 23, 1919

Per. Elmer B. Horst,
 Deputy.

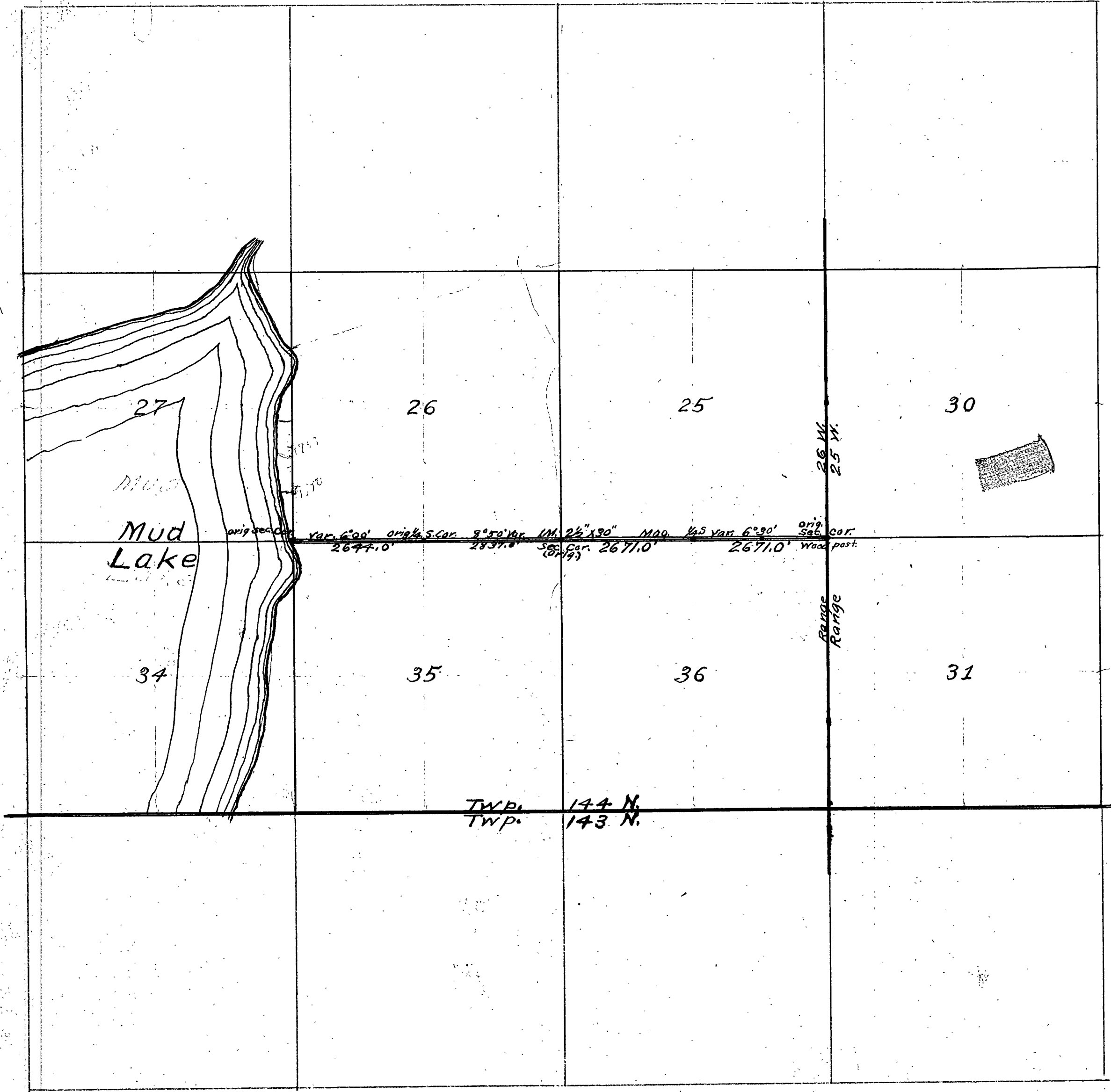
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Survey Record No. 413.

Twp. 143 N., Rge. 26 W. Secs. 1, 2, 10, 11, 12, 13, 14, 15, 22.
Twp. 143 N., Rge. 25 W. Sec. 7.



C



27
Mud
Lake

26

25

30

34

35

36

31

orig sec cor. var. 6°30' orig S. cor. 8°50' var. 1M. 2 1/2" x 30" MAG. var. 6°30' orig. Sec. cor. 2677.0' 2837.0' (82/93) 2671.0' 2671.0' Wood post.

TWP. 144 N.
TWP. 143 N.

26 W.
25 W.

Range
Range



Report on Road Survey of Road on N. lines of Secs 35 and 36, Twp. 144, Rge 26. Cass Co., Minn.

July 19 myself, John Murphy, Bert Goodick, and W. C. Robbie hired a team from Theo. Klement, Remer, Minn. and with surveying outfit went to Geo. Scott's summer resort in section 35, 144-26; getting there at 2 P. M.; went and located the N.E. cor. of sec. 36 that evening. Next morning we went to this cor. which was:-

Tam	8 N. 38° W.	18 lks
"	10 S. 70° W.	40 "
Cedar	14 S. 38° E.	16 "
"	12 N. 71° E.	45 "

Now is:-

Cedar stump at cor. of layed-out roads E. and N., with B.T. on it; measured S. 71° W. 29.7 ft. to hub used by former surveyors for cor. Established new B.T.

To-wit:-

Cedar	7 S. 48° 30' W.	44 ft.
"	6 S. 39° 30' E.	45 "
"	10 N. 43° W.	38.5 "
"	12 N. 47° E.	44 "

Then N. on sec. line bet. sec. 36 and 25, 144-26 Var. 6° 30'. Stations:- 0+30 enter Tam. and Cedar thr., 3 lve. thr. ent. low burned ridge, 8 enter swamp Cedar and Tam. thr., 11+82 cul., 13+35 1/2 S. established witness trees to-wit:-

Cedar	9 S. 20° W.	29.4 ft.
Spruce	9 N. 37° W.	76 "

Then continued west on said sec. line. Stations:- 16+50 lve. swamp ent. old Cedar slashings, 21+25 wagon road N. and S., 22 ent. balsam thicket, 26+61 old logging road N. and S. cul-drain N., 26+71 1/2 S. sec. 25+36

Which was:-

Aspen	14 N. 7° E.	51 lks.
Tam.	8 S. 10° E.	11 "

After dilligent search for these trees, and not finding any trace of them, established new witness trees to-wit:-

Aspen	7 S.	24 ft.
Spruce	10 N. 41° W.	44 "

Then N. on said sec. line. Stations:- 29 lve. balsam ent. old cutting and brush, 37+06 Wagon Road N. and S., 40+06 1/2 S., established witness trees to this cor. to-wit:-

Basswood	18 N. 43° 30' E.	37 ft.
Cedar st.	14 S. 8° E.	30.5 "

Then west on said sec. line. Stations:- 41+12 wire fence N. and S., 42 cleared 20 ft wide, 46 cul., 48+60 ent garden, 49+50 lve. garden, 49+50 cultivated (gubbed) S. and cleared (not gubbed) N. to sta. 53+42, 53+42 cor. to sec. 25, 26, 35, 36 - 144-26 aforesaid which was:-

Aspen	4 S. 84° W.	70 lks.
-------	-------------	---------

Spruce 8 S. 2° W. 26 lbs.
Cedar 8 S. 71° E. 26 "

" 7 N. 32° W. 22 "
Now is:- Cedar St. 9 N. 32° W. 14.5 ft. facing S.E.
B.T. showing reasonably plain put down J.M.
2 1/2" x 30"

July 26, 1919 Started at cor to sec. 25, 26, 35, 36
as above described, then W. Var. 8° 50'. At 335.0' line clearing
cut. tan. and Cedar, at 2710.0' cross creek 4x3 bears N.
at 2837.0' 1/4 S. for sec. 35-26, 144-26 which was:-

Aspen 8 S. 28° E. 49 lbs.

Cedar 6 N. 64° E. 34 "

Now is:- Cedar 8 N. 64° E. 34 "

Aspen stub in right direction - decayed -
Established new witness tree to-wit:-

Black Ash 10 N. 30 W. 41.6 ft.

Tamarac 10 S. 78 E. 27 "

Then went on sec. line Var. 6° 0' ent. burned
thr. Blm, B. Gill, Pop., etc., for a distance of 1200.0 ft.
at 1322.0' 1/6 S. established B.T. to-wit:-

Fir stub 10 N. 45° W. 28 ft.

Bl. Ash 4 S. 1° W. 32 "

Continued sec. line on W., old Cedar slashing
for 1000.0' ent. hay, at 1310.0' "lea Wall" E. shore of
Mud Lake, at 2644.0' from N. 1/4 S. said S. 35 sec. cor. to
sec. 26, 27, 35, and 34.

which was:- Elm 18 N. 60° E. 22 lbs.

Willow 4 S. 9° E. 47 "

Now is:- Elm St. N. 60° E. 14.5 ft.

I understand the settlers intend to cut out and
make this last mile a road.

Surveyed by

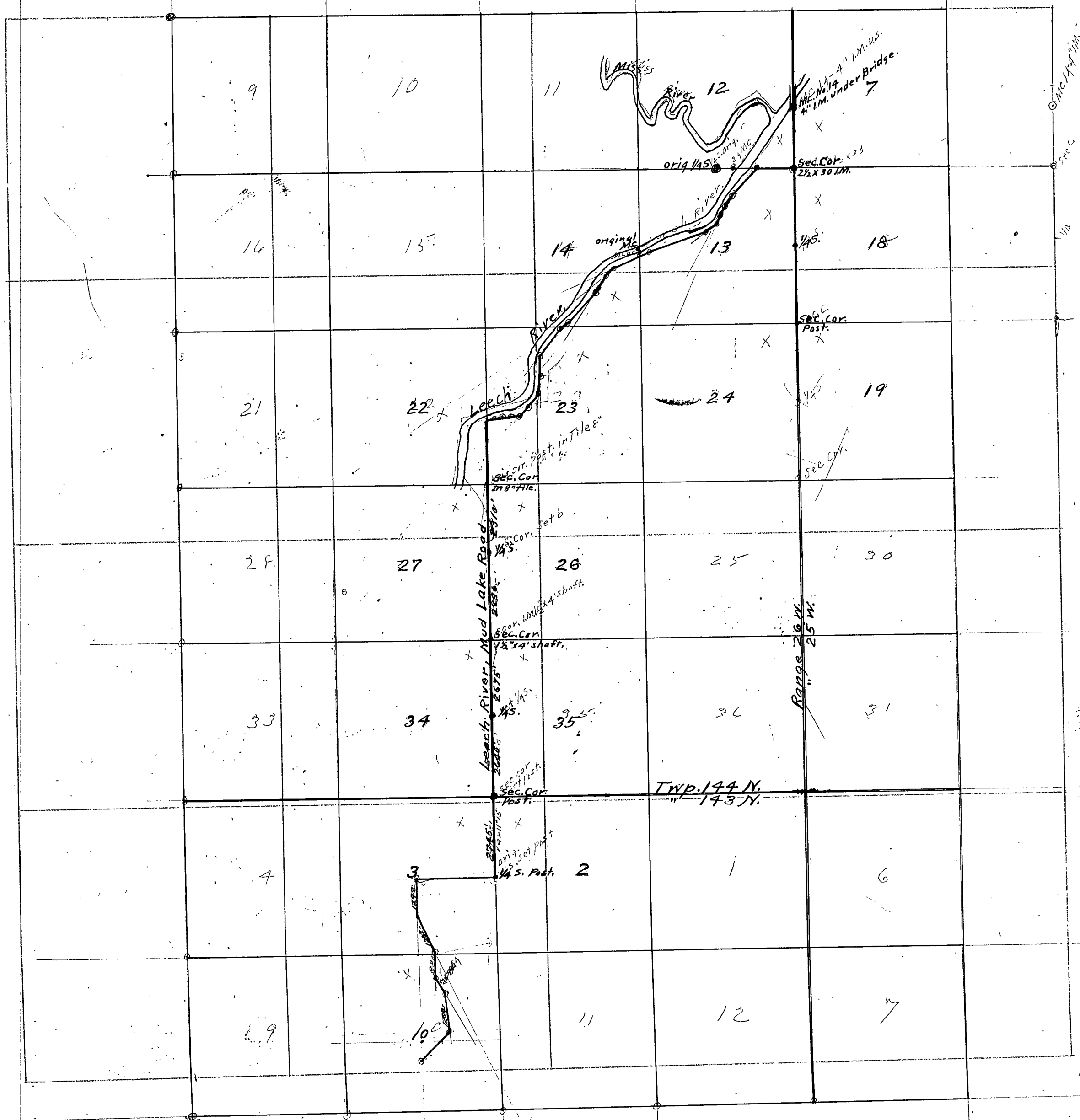
James H. Flynn
County Surveyor.

Recorded Aug 20, 1919

Per Elmer B. Horst.
Deputy.

200 words
8 secs.

14 sec.s.
for Record. 24.00
2200 words @ 3.30
\$27.30



Survey Record No. 415.

Field notes of the survey and location of the Leech River - Mud Lake Road in Twp.s 144 and 143 Rge. 26, Cass Co. Minn.

July 16, 1919, myself, John Murphy, W. C. Robbie, and Bert Fordick went by gasoline launch from Geo. Scotts (sec 35, 144-26) down Leech River to the Mississippi, then S. on road located on Range line to the supposed corner of sec.s 12, 13, 144-26 and 7, 18, 144-25, not finding same definitely, went back to the Mississippi River and to M.C. No. 14, the same being under a Bi-County Bridge now under construction; said post no. 14 now is an iron pipe 4" in diameter, placed at this point some 15 years since by some Federal engineers in the capacity of determining the various water and contour conditions of the upper Mississippi River.

From this point we measured with a 200 ft. tape, south along road, on range line 1994.5' (3022 lks), set temp. post for cor., then measured on S. along said road along said range line 2640.0' further and finding no evidence of the $\frac{1}{4}$ S. to sec.s 7-18 continued measurement along said road on range line an additional 2640.0', set temp. stake, and at a further distance of 167.0' S. we were able to establish the cor. to sec.s 18-19 T. 144-25 and sec.s 13-24 T. 144-26, by means of a road survey I established some 15 years since and running S. and E. from this cor., the line bet. sec.s 18-19 aforesaid being in evidence as the old station stakes and sight pickets are yet visible. Then returned to temp. stake set for cor. to 12, 13, 7, 18 and placed an I.M. 2 1/2" x 30" in center of said and on range line 63.0' south of said temp. first set, making the distance from M.C. No. 14 aforesaid, to this cor. 2057.5' and the length of line 13-18 5384.0'.

Marked the fol. B.P.s. as witnesses for above cor. sec.s 12, 13, 7, 18 to-wit:—

B. Gill.	7 N. 35° W.	39.5 ft.
Elm	12 S. 36°30' E.	75.0 "
Elm	10 S. 63°15' W.	67.0 "

Then began running line W. var. 7°47', at 1249.0' not finding M.C. post No. 13, triangulated across Leech River 795.0' not finding any evidence of M.C. No. 24 continued on W. and at 2651.0' was E. of S. of $\frac{1}{4}$ S. to sec.s 12-13 aforesaid, then beginning at said cor. to said sec.s 12, 13, 7, 18 as zero pt. in stations of 100 ft. continuously to end of this road survey. Stations:— 0+25 ent. small thick tbr. and brush, 7+28 lve. tbr. ent. hay meadow, 8 creek 2x3 cul., 12+49 turn S. 43°0' W., 21 tbr. left side to sta 23, 24 ent. cleared land, house 60.0' S., 24+76 S. 34°40' W. River 60.0' + 10 ft. lower than bank, 26+00 Wagon Road, 28+75 fence, 29+00 S. 29°30' W., 30 house 100 ft. S., 31+20 fence, 32 cul., 32+26 S. 23°15' W., 35+37 S. 53°0' W., 36 fence N. & S. $\frac{1}{4}$ line sec. 13, 36+23 creek 6x4, 39+87 S. 71°15' W., 41 to 48 tbr. to left and grass to right, 50+52 ent. clearing cultivated, 56 M.S. Barnes 200.0' S., 59+20 creek 20x4, 60 lve. cultivated field, 61+50 S. 66°10' W., 64 School House 200.0' S., 65+50 sec. line bet. sec.s 13 & 14 which was:—

Aspen 8 S. 19° E. 74 lbs.
 Aspen 6 S. 3° W. 110 "
 Now is:- " 14 (down) by cutting into it found M.C.S. Bal.
 of markings ant eaten

New Bearings:-
 Run Oak 7 S. 43° 30' E. 40.4'
 Aspen 14 S. 1° 0' W. 42.0'
 Road survey 5 ft. S. of M.C. Post. Stations:- 73+30 cul and fence,
 60 to 75 tbr. on left grass to right, 75 S. 51° 30' W. 76 ent. field,
 78+31 S. 33° 30' W. and cul, 79 house S. 50 ft., 84+50 cul, 85+01 live field
 S. 42° 30' W., 86 to 103 tbr. left + grass right, 99+31 S. 56° 0' W. near sec.
 line 14-23, 102+59 S. 38° W., 106 creek 4x4. T.M. Run Oak 8 S. 8 ft.,
 113+20 S. 1° W., 112 to 117 scat. tbr., 117 ent. sand ridge. There are 1500
 yds. of this sand which can be hauled to stay, 127-132 and other
 low spots, 120 S. 7° W., 126+06 S. 39° W., 127+60 cul, 131+86 S. 46° W.,
 132+60 cul, 136+67 S. 82° 30' W. 150 yds. sand, 139+38 N. 85° W. 139+50
 cul. drain 400 ft. N., 142+32 S. 76° W. ent 1000 yds. sand, 145+30
 sec. line 22-23, 356.0' S. of M.C. No. 10-2000 yds. sand,

Which was:-
 Birch 5 S. 8° W. 80 lbs.
 B. Oak 6 S. 31° W. 90 "

Now is:- the oak, I set post and run a line south 2134.0'
 to cor. sec. 22-23-26-27.

Which was:-
 Tam. 3 N. 10° W. 37 lbs.
 " 3 N. 46° E. 122 "
 " 4 N. 3° W. 39 "

However, I found a Tam. stub marked "9. 144 R. 26 S. 22 B"
 also, a piece of a Tam. with S. 23 (bal. burned). From the former
 I located the proper point for corner, I secured a length of sewer
 or tiling pipe 8" x 30" and put it down and set sec. cor. post
 inside of it, then run line S. thru meadow 2310.0' (see Deputy
 N. S. surveyors report for this distance) to 4 S., not finding same
 continued on S. and at 5206.0' found Elm stump with B.T.,
 for cor. I put down an Iron mill shaft 1 1/2" x 4' with cog
 wheel about 1/2 way. I, then, went to S.E. cor. sec. 34 T. 144-26

Which was:-
 Spruce 8 N. 8° W. 25 lbs.
 " 5 S. 45° E. 14 "
 " 6 N. 66° E. 5 "
 " 14 S. 47° W. 20 "

Now is:-
 Spruce St. with B.T. N. 8° W. 25 lbs.
 " " " " " S. 45° E. 14 "
 " " " " " N. 66° E. 5 "

Put down cor. post with the fol. witness trees
 to-wit:-
 B. Gull. 17 N. 42° 30' W. 47.5 ft.
 " " 14 S. 81° 30' W. 76.8 "
 Cedar. 9 N. 44° E. 47.8 "
 " 10 S. 24° E. 30.5 "

From this point I run N. var. 8° at 1920.0' temp. 1/6 S. stake
 At 2640.0', 34.5' E. of 4 S. Which was:-

Survey Record No. 415.

Cedar 12 S. 88° E. 22 lbs.

Ash 5 S. 62° W. 10 lbs.

Now is:- Cedar (down) 12 S. 88° E. 22 " with $\frac{1}{4}$ S. and B. T.
 Marked thereon. Put down post accordingly, and from this post
 I could the aforesaid N.E. cor., therefore I run a direct line to
 same var 6°30'. At 3960.0' ft. set temp. $\frac{1}{6}$ S. stake, at 5315.0' said
 N.E. cor. of sec. 34 on shore of Mud Lake. Stations:- 146+96
 S. 43°30' W. 300-9 thru brush and grass, 147+75 cul., 151+69 S.
 1°15' W. ent. old field, 4000 yds. sand, 500-8, 157 S. 17° W. 500-12,
 160+10 cul., 162+86 S 5° W. 480-8, 167+70 "Sea Wall" Mud Lake near
 sec. line 22-27, 30-8, then S. 43°30' along "Sea Wall", 170+46 creek
 10 ft. wide, 170+36 S 7° E. 25-5, 175+81 S. 24°30' E. 25-9, 180+
 94 S. 10° E. 15-3, 181 N. bank of Creek, 181+74 S. bank of creek,
 185+79 S. 3° W. 20-10, 188 lve. Sea Wall, South on sec. line 26-27,
 ent. hay, 191 near $\frac{1}{4}$ S. 26-27, 195 cul., 196+30 wire fence
 dwelling house 50 ft west, 197 stables to left, ent garden,
 198+28 lve. garden ent. pasture meadow, 205 ent. "Sea Wall"
 T. M. Black Ash N.W. 1 ft., 214+58 N. side of creek 4 ft deep 30-10,
 214+70 S. side of creek, 219+21 on Sea wall 12 ft E. of, con sec. 0
 26-27-34-35, 219+21 Var 6°30' S. 7°30' E. along sea wall 2510,
 222 Geo. Scott's boat landing, 224 to 231 on wagon road
 Sea wall, 231+38 intersect sec. line 34-35-50-6, road east to
 buildings 1000 ft., 233+40 wire fence, 236+70 creek 2x2,
 232 ent. slashings, 242+21 ent. hay, 243+30 cul., 244 ent.
 thr., 245+95 $\frac{1}{4}$ S. 34-35 New Bearings:- Open 7 S. 59° E. 34.0' - Elm 6 S.
 75 W. 46.0', 248+12 hog wire fence E. + W., 252+35 cul., 259+14 $\frac{1}{6}$
 S. Nail in cedar stump for post; witnesses for post are:-

B. Ash 8 S. 88° E. 22.5'

Elm 8 N. 55°30' W. 55'

Sta:- 259+60 cul., 264+30 Wagon Road E. + W. ent. old field,
 266+40 lve. old field, 268+60 cul., 272+31 cor. to sec. 0 34+35 T.
 144-26 and 2 and 3 as heretofore described Var. from this point
 back to $\frac{1}{4}$ S. 8°45' and from this point I run random line
 S. 2745.0' to a point 22.0' W. of $\frac{1}{4}$ S. sec. 0 2+3 143-26 which was:-

Cedar 6 S. 55° E. 6 lbs.

Spruce 4 N. 72° W. 28 "

Now is:- Cedar St. (B. T. plain) 8 S. 55° E. 6 lbs.

Spruce " (decayed) 6 N. 72° W. 28 "

Put down post with fol. B. T.

To wit:- B. Hill. 20 N. 78°30' E. 36.5'

Cedar St. 20 S. 11° W. 22.5'

Then went back to sec. cor. and out out true line Var.
 110/15'. Sta:- 277+40 old wagon road E. + W., 288 cul., 299+70
 $\frac{1}{4}$ S. sec. 0 2+3 aforesaid, then turn W. Var 6°30', 303 cul., 308 lve.
 thr. ent. small pop., 309+75 log road N.W. and S. E., 311+81 cul.,
 312+25 old wagon road S. E. and N. W., 314+71 creek 8x3 good
 bank sand bottom, 315+31 creek 8x3 good bank sand bottom,

315+64 creek 8x3 good bank sand bottom,

315+87 " " " " " "

316 " " " " " "

316+36 " " " " " "

316+67 " " " " " "

317+13 to 317+37 in creek, 317+75 to 318+05 in creek, 318+36 in creek,
 320+75 old bear river road N. & S., 321+68 S 80° W, 322+30 creek 9x3,
 323 West, 324 N. 80° W 325+32 back to line, 326+90 turn S. Var. 7° 20',
 325 to 335 maple ridge no brush, 335 ent. brush and cedar
 slashings, 339+18 S. 25° 45' E, 340+10 cul., 351 ent low brush, 352+05
 South, 356 sec. line 3-10 143-26 about 50 ft east of 1/4 S. 359 to 364
 Cedar slash and high brush, 360+85 S. 30° E, 361 cul., 366+79 S. 6° E,
 370+35 creek 2x2 bear N., 376 Wagon road bear S. W., 378 cul.,
 379+65 S. 41° W, 383+15 Wagon road bear S. W., 383+54 E. & W. 1/4
 line sec. 10 650 ft. E. of center, 393+50 intersect graded highway
 16 ft wide located on N. & S. 1/4 line sec. 10 647 ft. S. of center and
 end of this Survey; length 7 miles 2390.0'. Survey began
 July 16, 1919 and finished August 9, 1919 not continuously
 bet. above dates by-

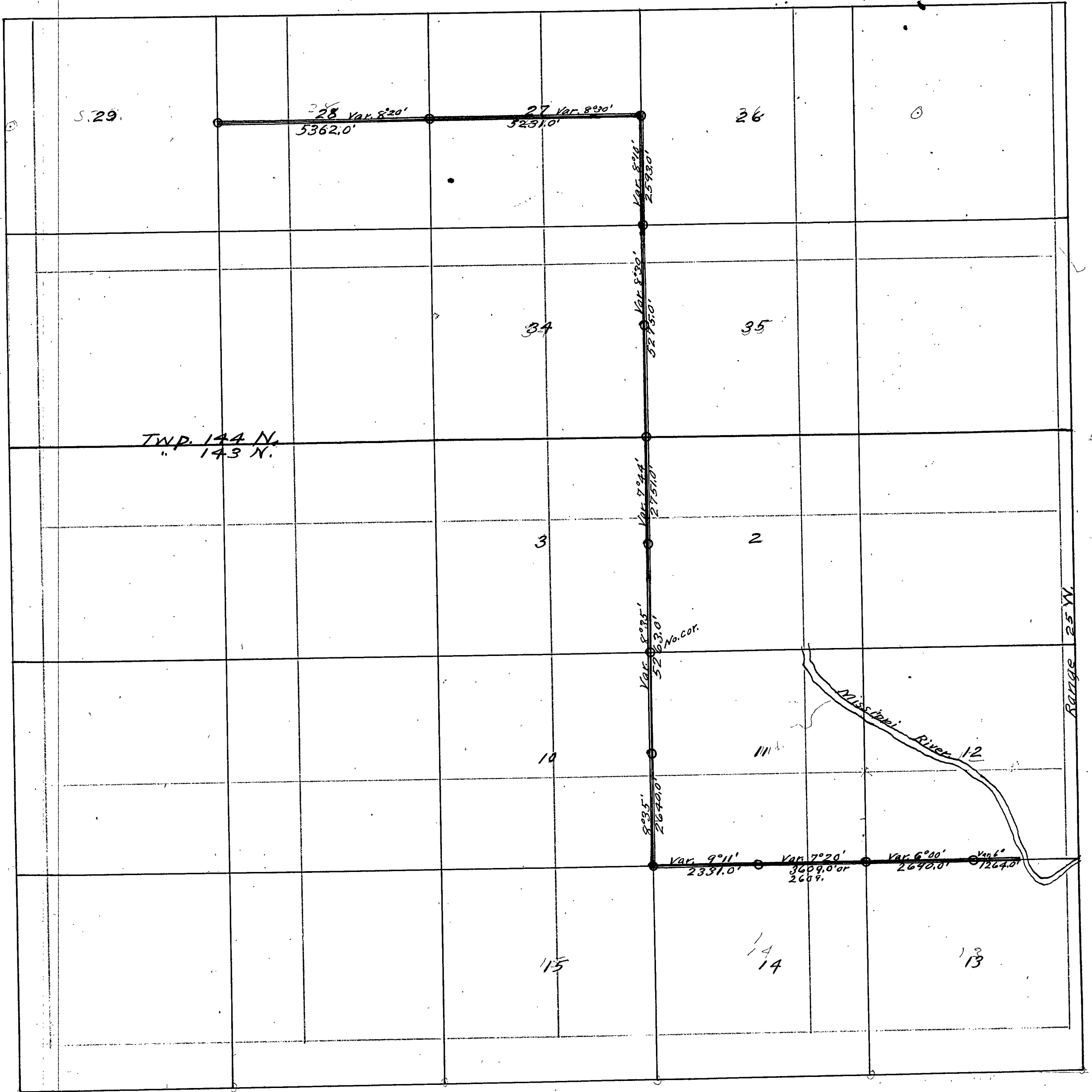
James H. Flynn
County Surveyor

Recorded Aug 20, 1919

Per Omer B. Horst
Deputy

Note: Where the figures 40-10, 50-7, 70-8 etc. occur is meant
 that the River or Lake is 40, 50, 70 etc. from road Survey
 and the 10, 7, 8 etc. means the road survey is that amt.
 higher at the stations designated. J.H.F.

14 21 11 11



Field notes of the survey of road in Twp. 0 of Wahnesah
(143, 144-25) Sec. 0 28, 27, 34, 2, 11, and 12, Cass Co. Minn.

Beginning at the W. 1/4 S. 28 which was:-

Sug. 8 S 44 E. 12 lks.
Ash 4 N 82 W. 12 "

Now is same but larger.

New brgs to wit:- W. Birch 10 N. 45 W. 43.0'
" " 2 S. 3 E. 64.6'

Thence E. (random line) to a point 82 ft. S. of E. 1/4 S.

Which was:- Aspen 6 N. 30 E. 20 lks.
W. Pine 7 N. 75 W. 11 "

Now is:- W. " 2 N. 25 W. 11 "
New Brgs:- " " 9 N. 5 E. 33.6'
" " 6 S. 24 W. 50.8'

Then returned to W. 1/4 S. and run E. on true 1/4 line dis.
of 5362.0'; Var 8° 20'.

Then started at this 1/4 point, Var 8° 30', 5231.0' to E. 1/4 S.

Which was:- Sug. 5 S. 76 W. 10 lks.
Birch 5 N. 84 E. 20 "

Now is:- Birch (down) 6 N. 84 E. 20 "

New Brgs:- White Birch 9 N. 15 E. 34.5'
" Pine 7 S. 47 W. 57.5'

Then S. along sec. line bet. Sec. 0 26 and 27, said Town,
Var. 8° 10', 2593.0' to cor. sec. 0 26, 27, 34, 35

Which was:- Aspen 5 S. 37 E. 11 lks.
" 5 N. 49 W. 38 "
Pine 6 S. 33 W. 40 "
Oak 8 N. 44 E. 48 "

Now is:- Oak stump with original B. T. 8 N. 44 E. 48 lks.
Put down post and New bearings to wit:-

Aspen 5 S. 82 W. 48.0'
" 5 N. 53 E. 91.0'
Elm 5 N. 52 W. 35.6'

Then S. along sec. line bet. sec. 0 34, 35, said Twp., at 2640.0'
finding no evidence of 1/4 S., continued on S., Var. 8° 30', and at
5275.0' cor. to sec. 0 34-35 144-25 and 2-3 143-25,

Which was:- Nor. Pine 12 S. 87 E. 75 lks
" " 6 N. 17 E. 70 "
" " 16 N. 8 W. 15 "
" " 14 S. 62 W. 75 "

Now is:- Nor. Pine Stump 20 N. 8 W. 10 ft. with B. T. on it.
Put down post from this and new bearings

To wit:- Nor. Pine 12 S. 45 E. 79.5'
Ganarac 6 N. 49 E. 60.0'
Nor. Pine 10 S. 31 W. 66.5'

Then S. along sec. line bet. sec. 0 2-3 143-25, Var. 7° 4'. At 2751.0'
1/4 S. said sec. 0 2-3 Which was:-

Nor Pine 15 N. 75 E. 05 lks.

W. " 6 S. 24 W. 30 "

Now is:- Stumps of same, B.T. on each. I set post from these and new bearings to-wit:-

White Pine Stump 24 S. 77 E. 29.0'

Then South, Var. $3^{\circ}40'$, at 2640.0' made exhaustive search for cor. to sec. 2, 3, 10, 11 said town, not finding same continued on S. along sec. line bet. said sec. 10-11 and at 5263.0' $\frac{1}{4}$ S. said sec. 10-11 which was:-

Spruce 6 N. 84 W. 12 lks.

Birch 7 N. 75 E. 15 "

Now is:- Spruce (down) 6 N. 84 W. 12 lks.

Put in $\frac{1}{4}$ post from this, and the fol. bearing trees to-wit:-

White Pine Stump 30 S. 84 E. 26.5'

Aspen 4 N. 76 W. 47.5'

Then continued on S. along sec. line bet. said sec. 10-11 Var. $8^{\circ}35'$, 2640.0' to cor. sec. 10, 11, 14, 15 said Town.

which was:- Spruce 10 N. 39 E. 10 lks.

Lind. 6 S. 40 E. 8 "

Fir 10 N. 87 W. 25 "

" 16 S. 12 W. 38 "

Now is:- The same, from which set post.

New Brgs:- Elm 13 S. 26 E. 59.0'

Dry Wh. Oak 9 N. 38 W. 76.0'

Then E. on sec. line bet. sec. 11-14, Var. $9^{\circ}11'$ 2331.0' to $\frac{1}{4}$ S. said sec. 11-14 which was:-

Cedar 4 N. 2 W. 6 lks.

Spruce 6 S. 56 E. 12 "

Now is:- The same. Set $\frac{1}{4}$ post from these trees and estab.

New Brgs:- Black Oak 5 S. 70 E. 24.0'

Cedar 10 N. 17 W. 35.0'

Then continued E. on sec. line bet. said sec. 11-14, Var. $7^{\circ}20'$, 3609.0' to cor. sec. 11, 12, 13, 14 which was:-

Aspen 14 S. 13 W. 60 lks.

" 6 S. 20 E. 100 "

Spruce 4 N. 70 W. 30 "

Now is:- Aspen 12 S. 70 E. 100 "

Spruce 6 N. 40 W. 30 "

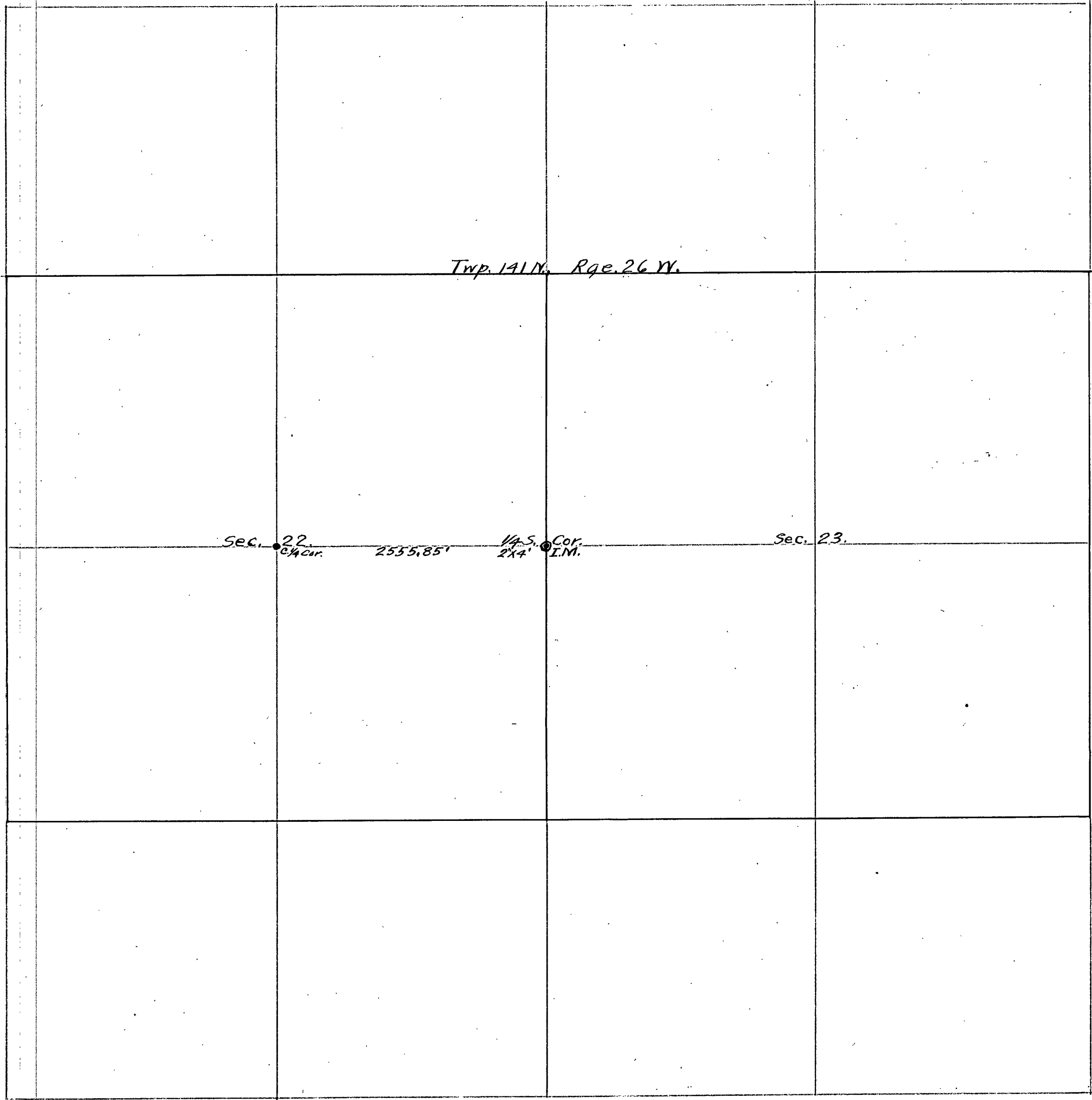
New Brgs:- Aspen 22 N. 5 W. 58.7'

Then continued E. on sec. line bet. sec. 12, 13, Var 6° , at 2690.0' $\frac{1}{4}$ S. for sec. 12-13 which was:-

Aspen 3 N. 9 W. 36 lks.

" 3 S. 14 W. 30 "

Now is:- Aspen 10 N. 9 W. 30 " designating fence cor. enclosing cultivated field of Mrs. Baldwin. Then E. on said sec. line 1264.0' to connect with wagon road on the bank of the Mississippi River, and terminus of this survey which



Survey Record No. 417

Field notes of the re-establishment of the quarter-section cor.
 bet. sec. 22 and 23, Township of Remer (141-26), Cass Co. Minn.
 Sept. 25, 1918 I went to locate the original bearing trees
 which constitute the witnesses for above said quarter cor.,
 which was:-
 Elm 8 S. 60 W. 10 lbs.
 Linden 6 N. 70 E. 27 "

Now is:- Removed by construction of State Rural
 Highway No. 83, and no visible evidence of former B.T.s in
 sight, and as I subdivided said sec. 22 in November 1911,
 and established the center of said sec. 22 at that time and
 this "center" so established is at this time as follows

To-wit Cedar (now stump) 12 S. 58 E. 45'
 " " " 12 N. 62 E. 13.5'

and said "center" being 2555.85' W. of above said quarter post,
 on Sept. 26, 1918 I measured this distance and "anchored" a
 boiler flue pipe at this point and established the following
 bearing trees to-wit:- Black Ash 12 S. 49 W. 59.4'

Linden 12 N. 38 W. 88.3'

In November, 1911, when I subdivided said sec. 22
 the above mentioned Gov't bearing trees for said quarter
 post were standing.

Survey made by:

James H. Flynn
 County Surveyor

Recorded Aug. 29, 1919 Per. Elmer B. Horst.
 Deputy Co. Surveyor

Survey Record No. 418.

Field notes of the survey of the Pickeral Lake Road in Twp. 138 N., Rge. 31 E. and Twp. 139 N., Rge. 31 E. of the P. M. Cass County, Minnesota.

Beginning in the center of a State Rural Highway known as the "Backus and Matley Road" and at a point where the North and South 1/4 line of Section 2 in said Township of Bullmoose, crosses the same thence North Var. 5 deg. 30 min. along said 1/4 line. Then by stations: - Station 0 aforesaid Highway Sta 130 Star grass Stk. 200 culvert Sta. 219.5 Iron Mon. 2 1/2" by 4" (center of said sec. 2). Sta 225 Lve. grass Ent. low brush. Sta. 800 culvert. Sta 1315 Log road E. and Th. Culvert. Sta 1523 Iron Mon. 2 1/2 by 4"

Note from this point it is 1215 feet North to 1/4 S. North side of said Sec. 2 on Down line I found Iron Mon. 2 1/2" by 4" I marked new byg. Towit: -

Aspen 6 N. 2 E. 17.6 ft.

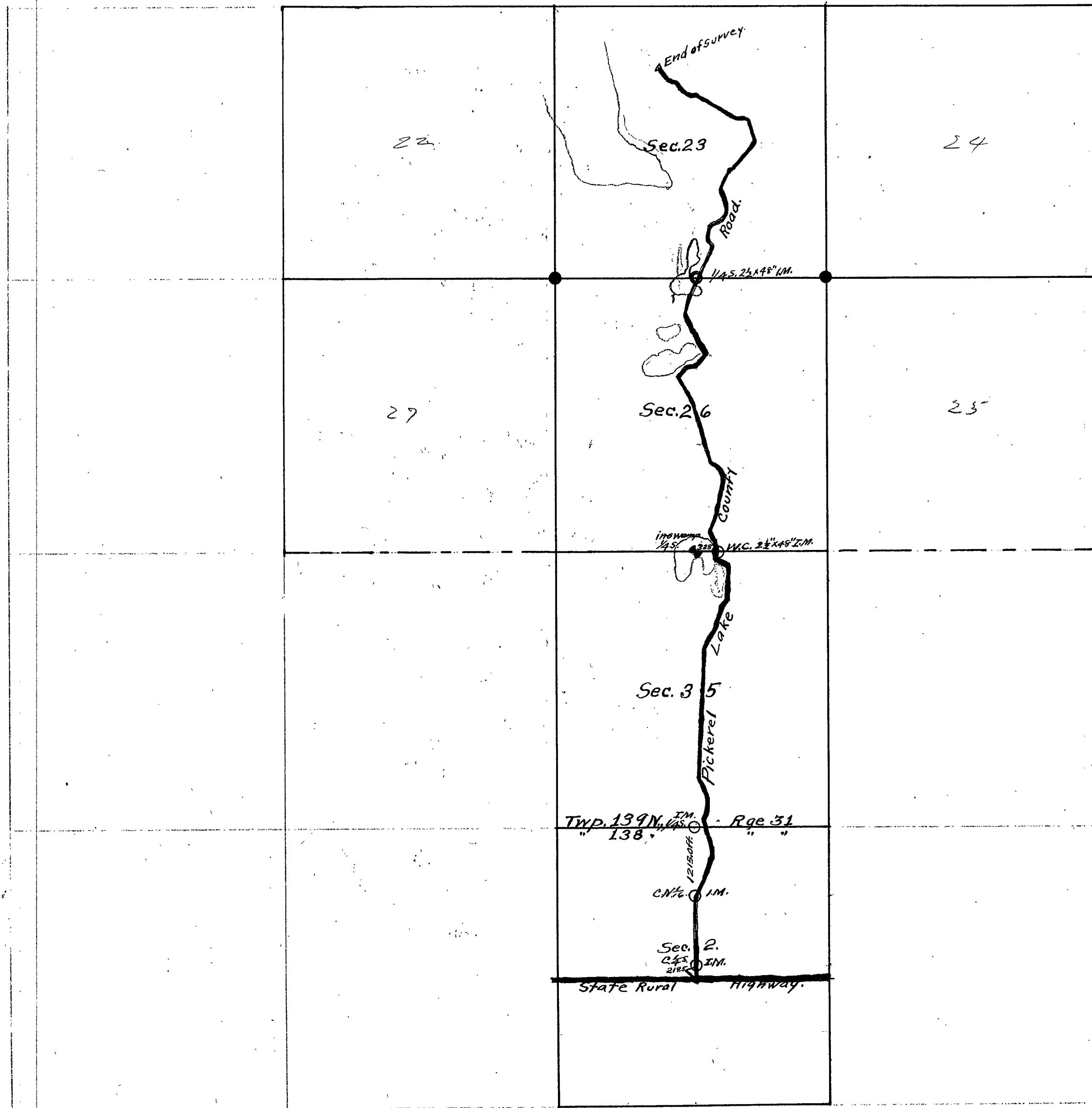
Burr Oak 6 S. 80 E. 51.5 ft.

Sta. 1523 for 1/4 line turn N. 26 3/4 E. Sta. 1640 culvert. Sta. 1942 N. 17 E. around hill N. Th. Sta. 2397 N. 10 Th. Sta. 2500 Log road E. and Th. culvert. Sta. 2756 N. 15 Th. Sta. 2830 Culvert. Sta. 2840 Down line. 173 ft. Th. to 1/4 post sec 2-35 Sta. 2840 N. 17 Th. (Var. in Sec. 35 is 7.30). Sta. 2927 N. 28 E. Sta. 3078 N. 2 E. Sta. 3366 N. 25 Th. Sta. 3804 Ent. Jam. Swamp (Near N. 1/4 line Sec. 35. and 810 ft. N. of S. 1/4 post. Sta. 3804 N. 2 E. Sta. 4246 1320 ft. N. of S. 1/4 post Sec 35. Sta. 4390 culvert, will drain N. E. Sta. 4900 Lve. Swamp. N. E. Sta. 5435 Creek 4. E. and Th. runs E. enter alder. Sta. 5566 log road N. E., 2640 ft. N. of S. 1/4 post. Sta 6200 lve. alder swamp enter small pop. and jack pine. Sta. 6388 N. 24 E. around hill. Sta. 6666 N. 36 E. Sta. 6754 N. 19 E. Sta. 6850 culvert. Sta. 6954 N. Sta. 7075 culvert. Sta. 7141 N. 36 E. Sta. 7305 N. 4 E. Sta 7365 culvert. Sta 7506 N. 1 E. Sta 7628 N. 5 E. Sta 7700 enter grass-marsh. west Sta 7730 culvert Sta 7968 culvert. Sta 7995 N. 64 Th. around N. end of marsh Sta 8251 N. 5 E. S. E. cor. pond 30' west. Sta 8411. Whitest corner to 1/4 post section 35-26 T. 139-31. 1/4 post belongs 328 ft. west in pond. Put down Iron Mon. 2 by 4. from which N. P. stump 12 S. 5 Th. 21 ft. (original B. 2) this Th. E. post is 17 ft. east of road location. Sta. 8415 culvert. (S. 1/4 post 35 to N. 1/4 post is 5,265 ft.) Sta 8445 N. 6 Th. around pond. Sta. 8600 No. 26 Th. Sta. 8777 N. 20 E. leave pond high hill Theshond North. Sta. 9072 N. 10 E. Sta. 9300 culvert. Sta 9575 culvert. Sta. 9853 N. 32 Th. Sta 10036 N. 57 Th. Sta 10198 N. 17 Th. Sta. 10300 culvert. Sta 10540 enter hay meadow Sta 10700 culvert. Sta 10755 cross N. and S. 1/4 line sec. 26 1814 ft. N. of S. 1/4 post angle N. 17 Th. Sta. 10818 wagon road E. and Th. Sta 10940 lve hay meadow Sta 11234 N. 24 Th. Sta 11485 culvert. Sta. 11600 pond west 300 ft. wide. Sta 11700 culvert Sta 11769 N. 37 E. around hill on right. Sta 11839 N. 49 E. around hill on right. Sta. 11906 N. 79 E. around hill on right Sta 12025 N. 40 E. around hill on right. Sta. 12164 N. 30 E. around hill on right. Sta. 12250 N. 32 Th. N. and S. 1/4 line sec. 26, and 3. 113 N. of S. 1/4 S. Sta 12459 N. 29 Th. lve. pond. Sta. 12668 N. 26 Th. Sta. 12850 culvert another small pond south 50 ft. hill north. Sta 13000 N. 9 Th. Sta 13061 N. 16 E. around hill Sta 13220 culvert Sta 13412 N. 25 E. Sta 13790 culvert. Sta 13808 pot hole west hill west Sta 14072 North Sta 14303 N 8 Th. culvert S. Th. cor. pond. 15 acres. Sta. 14365 N. 28 Th. around pond high hill west Sta. 14482 N. 5 Th. around pond high hill west Sta 14581 N. 15 E.

Sta. 14700 Section line 26-23. Sta 14714 N. 63 E. Sta 14932 N. 27 E. North side of main pond and west of creek 15' connecting another N. and E. I had to establish the north line of section 26 in order to locate the North 1/4 post. Which I did on a straight and equa distant between the N. (1/4 post) Th. cor and the N. E. cor. Making the distance from

C

Survey Record No. 418.



the south $\frac{1}{4}$ post to the north $\frac{1}{4}$ post 5.327 ft., I put down an Iron Mon. 2" by 4" with
 Nor Pine 12 N. 60 E. 15 ft. as witness. Sta 1500 N. 52 E. around pond. Sta. 1506 N. 20 E.
 around pond. Sta 15309 N. 10 E. around pond. Sta 15369 N. 24 E. around pond. Sta 15400 cul.
 Sta. 15725 N. 61 E. around pond. Sta. 15815 N. 40 E. North side of pond which point is 988 ft. N.
 of S. $\frac{1}{4}$ post of sec. 23 T. 139-31. Sta. 15921 intersect N. and S. $\frac{1}{4}$ line sec. 23 1.062 ft. N. of S. $\frac{1}{4}$ S.
 Sta. 160. culvert Sta. 16219 a point 1320 ft. N. of S. $\frac{1}{4}$ post. Sta 16406 N. 16 E. $\frac{1}{4}$ line. Sta 16600
 L. R. and culvert Sta 16833 N. 66 E. high hill left and swamp right, Sta 16908 N. 88 E. Sta. 17048
 N. 60 E. Sta 17098 log road East and west and culvert. Sta 17200 ^{small} lve. $\frac{1}{4}$ post. Sta. 17600 culvert. Sta.
 177 East end of Pickerel Lake. 60 ft west Sta 17850 culvert. Sta 17959 N. 66 E. close to lakeshore.
 Sta. 18027 S. 80 E. near E. and $\frac{1}{4}$ line sec. 23. Sta 18111 N. 66 E. Sta. 18163 N. 52 E. Sta 18264 N.
 41 E. (old camp ground). Sta. 18428 N. 70 E. Sta 18475 culvert. Sta. 18614 N. 37 E. Sta 18930
 End of this survey, making the total length of this route 450 ft. over $3\frac{1}{2}$ miles, the end
 of this survey is 1920 ft west of N and S. $\frac{1}{4}$ line sec. 23. The survey follows the lake
 shore fr. Sta. 177 to 18930. Survey finished Sept. 30, 1919.

James H. Flynn
 County Surveyor

Oct 1, 1919.

Recorded Nov 4, 1919 Per Elmer B. Forst
 Deputy County Surveyor 1200

Report on Public road survey and location in the Township of Bullmoose (138-31) East County Minn, and along section lines in said Township as follows To wit:-

Beginning of the South East corner of sec 12 in above said Town, which was:-

2 1/2 P. 8 N. 20 E. 138 lks.

Spruce 6 N. 54 2/3 Th. 70 lks.

Now is an Iron Mon. Viz:- 2" by 4," Iron pipe placed 3 ft in the ground, some 6 years since and recognized by the settlers as above said corner, besides this; there is an established ^{highway} leading east and another leading north, angle 85 deg. and 37 min. the Easterly road N. 177 deg. and 17 min. E. then by stations of 100 ft. each to wit:- Sta 0 above said section corner. 2 1/2 on sec. line Var 6 1/2 Sta. 20 center grass Sta. 620 low ridge N. Th. and S. E. Sta 800 low ridge S. Th. and N. E. enter open marsh. Sta 1425 culvert. enter. alder and small tom. Sta 1700 low ridge S. Th. and N. E. Sta 2100 enter small tom. Sta 2150 old section line blaze on Tom 2 ft North Sta 2225 low ridge S. Th. and N. E. Sta 2415 low ridge N. and S. enter alder. Sta 2500 culvert Sta 2600 low alder enter ridge S. Th. and N. E. Sta. 2740 1/4 S. to sec's 12-13 in said Township, which was:-

2 1/2 P. 30 N. 84 E. 32 lks.

Spruce 6 S. 70 Th. 35 lks.

Now is:- White Pine stub partly burned, 30 N. 84 E. 21 ft.

Spruce 6 (down in most 2/3 in edge of marsh cut it off about 6 ft. and found old root 1/4 ~~th~~ thereon) S. 70 west 23 ft. I put down Iron Mon. 2" by 1/2" by 30" and established following bearings:-

Jackpine 8 N. 22 1/2 E.

Birch 9 S. 43 1/2 E.

(I neglected to take the distance to those trees, if I did, I neglected to take it down)

Sta. 2740 enter alder swp. west on sec line 9 1/2 Sta 2900 culvert. Sta 3030 low alder swamp N. and S. enter level brush land. Sta 3630 wagon road S. Th. and N. E. Sta. 3700 enter jack pine. Sta 4450 low Jack Pine. Sta 4650 enter open marsh N. and S. Sta 5375 Sec. cor. to sec's 11, 12, 13, and 14 said town, which was:-

Tom. 8 N. 68 Th. 6 lks

" 8 S. 67 E. 20 "

" 12 S. 26 Th. 23 "

Now is:-

Dam. 8 (dead) S. 67 E. 13' 2" ft.

" 12 (stump with marks) S. 26 Th. 15' 2" ft.

Established new bgs. to-wit:-

Tom 5 S. 28 E. 38' 2" ft.

" 8 S. 83 1/2 Th. 24' 2" ft.

" 6 N. 45 E. 40' 5" ft.

Spruce 7 N. 33 1/2 Th. 36' 6" ft.

I also put down an Iron Mon. here 2 by 1/2" by 30"

Then South along section line between sec's 13-14 said Town Var 7 1/10, angle at N. Th. cor. said sec. 13 is 92 deg.

Sta 5400 enter Tom. Sta 6625 wagon road S. Th. and N. E. enter alder and slashings Sta 7300 culvert. Sta. low tom and alder. Sta 7500 wagon road 30 ft west Sta 8082 1/4 S. sec's 13-14 found no evidence of original bearing trees so I put down Iron Mon.

equal distant^{and} on straight line bet. N. W. cor. sec. 13 and the S. 2^d. cor. no trees near for brgs. Sta 7600 to 9600 east side of wagon road. Sta 9700 centre of wagon road Sta 9800. West side of wagon road. Sta 10300 cross wire fence enter field. Sta 10785 wagon road E. and S. Sta 10790 section corner to sec's 13, 14, 23 and 24 said down, which was:-

White Pine 24 N. 32 E. 20 lbs.

" " 36 S. 55 W. 33 "

B. Oak 4 N. 37 W. 27 "

Now is:- white pine stump (6 ft. high) 36 S. 55 W. 21'8" ft.

Put down Iron Mon. from this B. O. 2 1/2" by 30" and established new brgs to wit:-

White Pine stub 30 S. 31 W. 45'6" ft.

" " stump 30 S. 30 E. 51'8" ft.

Then west along section lines between sec's 14-23 said down Mar. 9.30, the angle at S. 2^d. cor sec 14 being 92 deg. and 20 min.

Sta. 10790 to 11050 along field boulders gathered from cultivated fields N. and S. live fields road N. and S. Sta 12090 wire fence N. and S. enter gulch. Sta 12117 end of this road survey, at a point 1.3275" ft west and on Sec. line, also equal distant bet. S. E. cor. said sec 14 and the S. 1/4 S. of same. As I established the sec. line between those points, also put down an Iron Mon. at the said 1/4 S. sec 14 to wit:- blue pipe 3" by 4" - both original B. O's being at this point

Total length of this road survey is:- 12,117 ft

230 ft over 2 miles and 1 and 1/4

the north line of sec. 13 is 5,375 ft., the west line, some. section is 5,415 ft and between 14 and 23. 1,327'5" ft

I also established centers and put down monuments on the East Town line beginning at the East 1/4 post of sec. 1. which is the center of the Ellwell road, then south 2,544 ft put down I. M. 2 1/2" by 30", then on south 2,637 ft. I. M. 2" by 4' then on south 2,641 ft to I. M. mentioned on page 1 of this report at the S. E. cor to sec. 12 said down

survey began Oct. 2, 1919 and ended October 1, 1919.

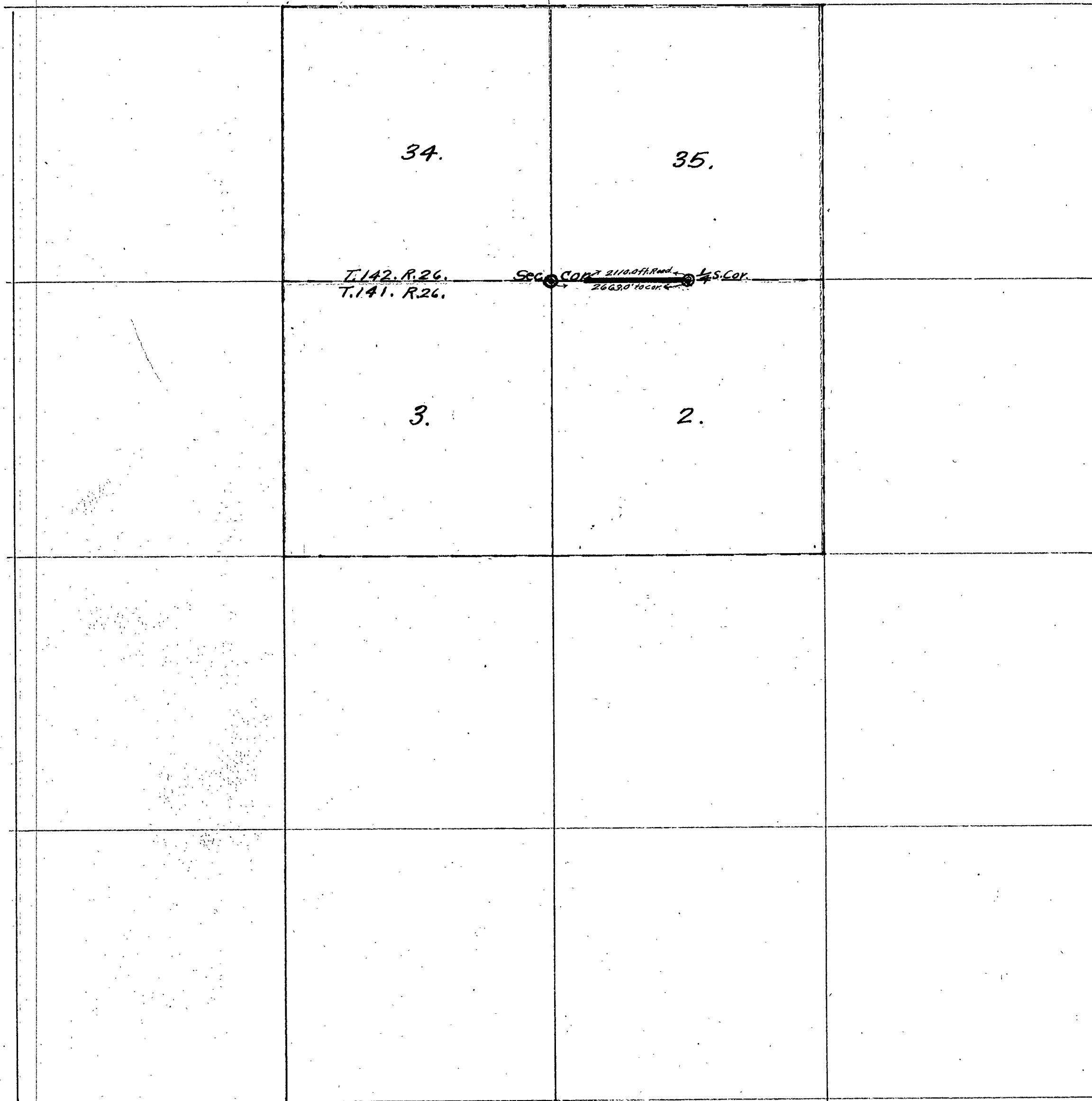
J. N. Flynn.

County Surveyor.

Recorded Nov 5 1919

Per Elmer B. Harsh.

Deputy County Surveyor



C Survey Record No. 420.

Field notes of a survey of a County Road between sections 2 and 35 Range Township 141 Range 26 and Township 142 Range 26.

N. line - 2 - 141 - 26 thence 2^h. Sta. 25 enter pop. tbr. Sta. 170 culvert. Sta. 640 culvert. Sta. 850 lve. green tbr. Sta. 930 old wagon road N. 2^h. Sta. 1200 enter Tom. swp. tbr. cul. Sta. 1300 culvert. Sta. 1331.5 $\frac{1}{16}$ S. 2-35. Sta. 1450 lve. tom. swp. ent. dry fir and brush. Sta. 1675 enter brush no tbr. Sta. 2060 old wagon road N. S. Sta. 2170 old road N. 2^h. Sta. 2110 old road S. E.

~~Then went with auto to Remer to run a line from the N. $\frac{1}{4}$ post~~
Aug. 12 Begun at said North $\frac{1}{4}$ post 2 rain stopped us at 2 pm.

" 13 Finished random line to the N. 2^h corner said section 2-14 ft North of corner come back to $\frac{1}{4}$ S. and started true line for County Road.

Report of Road by stations:-

Sta. 25 enter Pop. timber and slashings. Sta. 640 culvert. Sta. 850 lve green timber. Station. 930 old wagon road N. 2^h. Sta. 1200 enter tom. swp, timber cul. Sta. 1300 culvert. Sta. 1331.5 $\frac{1}{16}$ S. Bearings:-

Dead Tom. 9 N. 22 $\frac{1}{2}$ E. 40 ft.

Sta. 1450 lve.

Tom. stump 12 S. 40 2^h. 32.

Sta. 1450 lve. tom. swp, enter dry fir and brush. Sta. 1675 enter brush no timber. Sta. 2060 old wagon road N. and S. Sta. 2170 old wagon road N. and 2^h. Sta. 2110 old wagon road S. E.

Length of this survey 2. 663 ft.

New bearings for N. $\frac{1}{4}$ S. are:-

White Birch 8 S 24 deg. 45 min. E. 35' 3" ft.

Fir Stump 14 N. 22 2^h. 31.5" ft.

J. W. Flynn with trans etc. First day I had Fred, Boyd, Chas. Clemons Jr. and Theo. Clemons; the second and last day (Aug 13) Jas. E. Lewis, Berk Fosdick, Fred. Boyd (1/2 day) Chas. Clemons Jr. Theo. Clemons and Laurence Wilson water boy.

Aug 14 With Auto from Remer to Sec. 28 T. 139 R. 28 Dis. 36 Miles
2 bent on running line bet. Sec. 28-29.

Report on Judicial Road East of Hadena Counties, and between twps. 138-32 in East Co. and 138-33 in Hadena Co.

Aug 18, 1919 I with Jno Murphy and Bert Fosdick left Remer with auto at 8 am. Got dinner at Pine River, and when 3 miles west of Pine River, broke a spring on auto returned to Pine River and secured a new one then went on to Jno. Burtzins Place sec. 18 Twp 138-32 a distance of 7.4 miles from Remer. Mr Burtzins showed us the south west corner of said sec. 18. which is: a cement mon. 8" x 8" and 3' sunk in the meadow and at the intersection of a road leading east and a newly, partly finished road leading south 4.800 ft. next morning we established centers along this portion and to state ditch the North bank is 4.844 ft. from above sec. corner, then measured on in meadow and at 5.327 ft. S. W. corner to Sec 19-138-32 which was:-

Sam 6 S. 79 E. 195 lbs.

" 4 " 3 26 242 "

Now is: Sam stub 6 S. 79 E. 130 ft.

Put down iron monument in accordance with this tree 2 1/2" by 3'

(Var. for this last described sec line is: - 10. deg).

Then: by cutting out old line a distance of 5.262 ft. found a hub from which we found an iron monument (in accordance with this witness tree) 1 1/2" x 4" with cap found no original bearing trees at this point above said hub is 65 ft. east of said hub on random line I took this said monument to constitute the corner to sections 30-31 Twp 138-32 and sections 25-26-138-33 then run west on section line between sec's 25-36-138-33 a distance of 2.600 ft. to the end and center of road leading west where I stopped: a bearing tree stands northward a distance of 30.4" ft. with 1/4 sec marked thereon the tree is Jack pine and now is 16" diameter and the markings are in some 5" showing the tree was about 4" in Di. at time of original survey. Having established above said described corner on said road location I went to a hub for 1/4 sec 19-24 and as I was impaired I found a Jack Pine stump South 71 West 274 ft. with B. S. on same. Therefore I established the following witness trees to this 1/4 post to wit:-

Jack Pine 6 N. 37 3/4 W. 76.1" ft.

" " 11 N. 64 1/4 E. 43.4" "

And as this 1/4 post is 2.648 ft. south of the N. W. corner to sec 19. It is 2.679 ft. to the S. W. corner of same sec.

I then established the 1/4 section corner to sec's 25-30 equidistant and on a straight line between said sec's 25-30 as follows to wit:-

Aspen 6 S. 51 1/4 E. 40.6" ft.

no other trees near

I then went to the corner of sec's 19-30, 24-25 and brushed off the true line. Var 10 deg. and 20 min: 5.263 ft. to cor. to sec's 30-31-25-36 then N. 88 3/4 deg. West.

Report of Stations of 100 ft. and topographic sections 7, 18, 19, 24.

Sto. o corner.

" 083 culvert.

" 2400 fill 1.5"

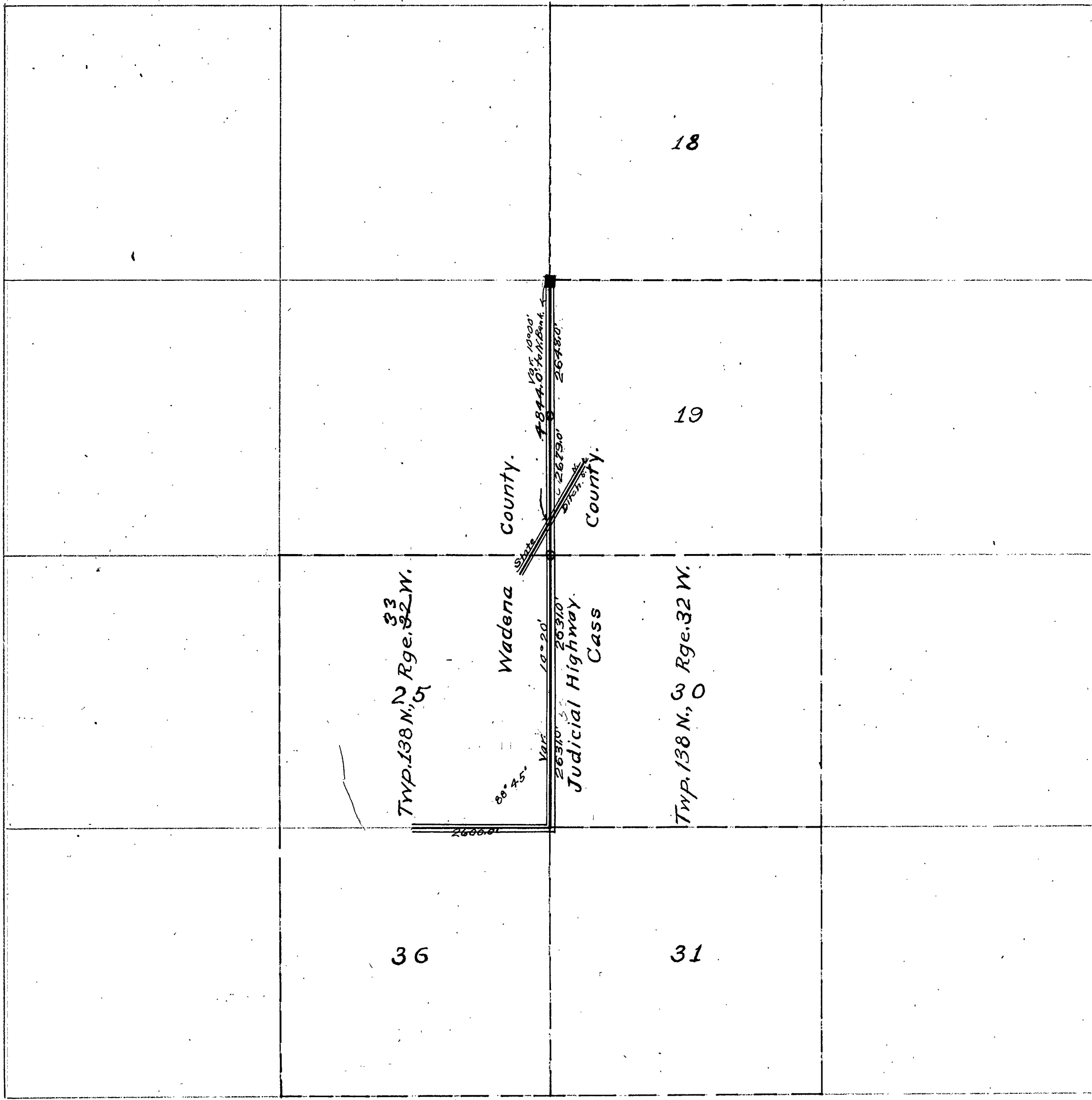
" 2500 cut 2'

" 2575 " 3'.5"

" 2648 " 1'.5"

Survey Record No. 421.

C



Survey Record No. 421.

C

Sta 4844 On bank of State ditch No 2.

" 4900 J.

bears south 22 deg west of culverts are put in here instead of bridge, said culverts will have to be 7 ft long, at least it will, possibly take 2-4 ft culverts side by side. a bridge would be 75 ft long. to be on line 8 about 45 to go at right angles with the ditch.

Sta 4900 enter grass, side ditches 2 x 3 to 6675-760 yds.

" 6675 cul. 38 then cut into state ditch west 25 yds.

" 6771 leave sec line S 13 E. and follow ditch dump.

" 6875 culvert.

" 7296 S 10 N.

" 7411 S 21 N.

" 7592 intersect sec line then follow same south.

" 7607 culvert side ditches to sta 7984, 170 yds.

" 7984 1/4 post to sec 25-30 aforementioned enter high land and heavy brush.

" 8540 fill 1'

" 8600 " 1' 5"

" 8617 wagon road east and west.

" 9075 culvert and fill 2' for 100 ft.

" 9485 begin side ditch, each side enter alder swp.

" 4690 " " West " " "

to Sta 12550 2 x 3 is 1,280 yds.

" 12550 east bank of State ditch no 2.

" 12600 west " " " " " " "

to 13219 (end of survey) hay meadow and cleared land (Roy Petrie) this portion grade. As most, if not all, of this road location is sand if will have to be covered with (the gravel, the whole length it will require about 5'500 yds. of this or like material to complete the road or place it in traffical condition it could be safely suggested that that portion of the ditch dumps (about 40-50 is of gravel character) be utilized in this manner. The nearest know gravel pit is on the S. W. 1/4 of the S. N. 1/4 of sec 21, 138-32 making a haul of some 3 1/2 miles overage. Estimated cost of clearing 3 rods wide.

sta 5800 to 13219 8 1/2 Acs. at \$55.00 per acre - 227.50 7.00 per acre. 60.00 grubbing 2 rods wide
sta 4900 to 13219 6 1/2 Acs. at 35.00 per acre - 227.50

Survey began Aug 19, 1919 and ended Aug 27, 1919.

J. K. Flynn.
County Surveyor Cass County, Minn.

Field notes of the survey of the exterior sec. lines of sec. 10 Twp 140 R. 28. and the subdivision and interior section lines of the east 1/2 of sec 10-140-28.

By B. J. Clark.

for. Albertha M. Nedel.

Minneapolis Minn.

Township 140 N. R. 28 T. 5th Principle Mer.

Ben J. Clark, Ray Rose, Rodman, Ralph Delton Rodman his automobile drove up to the 1/4 sec. cor sec. 10-15 found a cedar post 7 ft long and 4 in. squ. marked 1/4 S with a scribe iron. Found a cedar tree down marked 1/4 S. B. J. a cedar stump B. J. These are the witness trees for the corner. Cedar 4 N. 5 E. 3 ft. 2". Cedar stump S. 5 E 2 ft. 6 in.

So I set up my transit on a nail in the center of a post and run east on a true line alongside a barbed wire fence Var. 6.15 Corner in a green cedar and tamarack swp. at 300 ft lve. swp. ent. high land. - at 419 center of Northland Pine co R.R. grade running north and south. at 446 enter little Boy Lake at a cedar post marked S. 10. S. 15 M. C. and the following witness trees. 2 white Pine stump marked B. J. Pine 20 S. 25 N. 32' 2" ft Cedar tree down B. J. Cedar 6 N. 5 E. 20. 3" ft. So being satisfied that these are the old Government 1/4 S. between sec's 10-15 I run west on a true line Var. 6.15. along a triple wire fence run west ^{and} east. At 93 ft leave cedar and tamarack swp. Enter highland. At 25. 38. 7 ft (enter timber) I find corner of Sec's 9-10-15 and 16 an oak post 3 ft long and 3 in. squ. marked S. 9-10-15-16 with a scribe iron 2 witness trees and stumps B. J. one as follows. 2 Pine down B. J. 7 S and 65 Distance 26.2" ft. Nor. stump B. J. 14 S. and 39° East 36.2" ft. 2 Pine stump B. J. 22 N. 36 E. 14.1" ft. 2 Pine stump B. J. 12 N 44 West 26.2" ft. So being satisfied that this was the old Government corner told for in field notes, I set up a birch hub and run west between sec's 10-16 on a random line and alongside a triple wire fence. Ben. J. Clark surveyor R. Rose Rodman Ralph Delton auto and Rodman begin at established cor for sec's 9-10-15-16 they run north between sec's 9-10. At 40 ft. enter swp. (A) at 170 level. at 320 enter swp at 380 level Enter high field at 547.4 ft Sta 1. at 868.9 ft Sta 2 at 2390 Sta 4 at 2646 set a temp. post and search for the 1/4 S. cor. and found a 2 white Pine laying down marked 1/4 S B. J. 2 white Pine N. 6 West 5. 144 lbs. 46 1/2 ft. 2 white Birch stump B. J. 7 N. 16 E. 114 lbs. 75 ft. So being satisfied this was the old government 1/4 S. cor. I set an oak post 3 ft long 4 in. squ. and marked the same 1/4 S. 9-10 with a scribe iron. Start from Cor. of Sec's 9-10-15-16 north to 1/4 S. cor. True distance 25-63-5 ft. true Var. 8.54. Then made witness marks. 2 Pine. 16 S. 16 West. 54 ft. Stone. 6 x 6 74.9 East distance 71.

Ben J. Clark, surveyor and Ray Rose and R. Delton and his automobile drove to the M. C. No. 34. Between sec's 10-11 found an oak post marked (T. 140 S. 10 M. C. oak). T. 140 N. R. 28 T. 5. S. 10 S. 11 - M. C. and a post marked M. C. 2 white Pine 4-76- 2 West 10 lbs. 6.5 ft. marked. T. 140 S. 10 M. C. oak stump B. J. So being satisfied that this is the government M. C. for. sec's 10-11. I run north between sec's 10-11 on a random line Var 7.15 ft. 10189 Sta 1 on high bank of lake. At ten chains are 640 I found an oak post 3 ft long and 3 in. squ. marked 1/4 S. sec's 10-11 So I run on north on the same line Var 8:50 At 1323 found an oak post marked 1/16 S. 10-11 West 13.6" ft. Thence set over on true line and run North 1323 ft making distance 3306 from M. C. No. 34. between sec's 10-11 to to corner of sec's 2-3-10-11 with the following witness trees. Pople 7 S. 30 E. 25' 9" ft. Pople 8 N. 19 East 23' 7" ft. Pople 7 N. 32 West 21' 8" ft. Maple stump B. J. 65 ft West 16' 5" ft. This is the old Government corner and I Ben Clark saw it in 1897 and on after times from that time on a 1/4 S corner West true line 8:52" ft.

Ben J. Clark, Ray Rose and Relf Delton with his automobiles begin at the established 1/4 S. cor.

666 N. of M.C. corner No. 34 Between sec 10-11 and run Mr. Ben J. Clark, R. Rose, Relf Delton, Geo. Hilted Begin at the established $\frac{1}{4}$ S. cor. 660 N. of M.C. 34 on Little Boy Lake and run $\frac{1}{4}$ S. line Var. 72. to the $\frac{1}{4}$ Between 9-10 South of post 138 ft. Hence set C. $\frac{1}{4}$ S. North 69 ft. true line Var. 5.29 ft. Ben J. Clark, Geo. Hilted, Roy Rose, Relf Delton and his automobile. Begin at the government $\frac{1}{4}$ S. cor. Bet. sec 10-15 446 ft. West of M.C. 33 on Little Boy Lake and run North. Var. 745. Run a random ~~to~~ line between to the sec line between 3-10. East of $\frac{1}{4}$ post 128.7 ft. corner good. Witness Jack line 4 N. 60 East Linker 147 97.2 ft. S. Pine stub. 7 S. 10 N. 70 links ft. 461.1 ft. true line Var. 7.15.

Ben J. Clark, Roy Rose, Relf Delton, Geo. Hilted Begin at the $\frac{1}{16}$ Cor on N. and S. $\frac{1}{4}$ S. line. Equal distance between C. $\frac{1}{4}$ S. and the $\frac{1}{4}$ S. between sec 3-10 and run east on a true line Var. 6.30 at 97.2 ft = S. At 391 Northland Pine Co's R.R. grade running N. and S. At 433 enter Cooper Lake. At 13.33.2 ft leave lake and enter high land at 26.66.5 = the $\frac{1}{16}$ post between sec 10-11. 2 ft North of cor. True line 6.30 Hence set a hub for the $\frac{1}{16}$ at Cooper Lake on East side of Lake and run south on a true line. At 13.33.2 ft in iron post stamped $\frac{1}{16}$ S. At 25.20.2 enter Little Boy Lake. Set an iron pipe with a cap on top stamped $\frac{1}{16}$ S. M.C. Set the same in ground and piled stone around iron pipe. Witness Oak 5 N. 25 S. Oak 5 N. East S.

Ben J. Clark surveyor, Roy Rose, Relf Delton, Geo. Hilted went to the $\frac{1}{4}$ S. cor. Between sec 10-15. Set a iron pipe 4 ft long and 2 in dia. From the old witness trees which are plain to be as follows Cedar 4 N. 5 E. 5 lbs ft. 3.2.2 Cedar 7 S 5 E. 4 lbs ft 2.6 Made 2 new witness trees. Cedar 7 S. 15 2. 8.2 ft. White Birch. 12 N. 2 E. 11.5 ft. Hence ~~measured~~ measured No. with 100 ft. tape. At 200 lve. Cedar and Torch swamp and enter high land 429.4 Sta 1 at 552. Sta 2 (at) 600 Enter a cranberry bog (round) At 900 lve some and enter high land. At 935 Sta 3. At 1344 Sta 4. At 2085 Sta 5. 25.21.7 ft. Barb-wire fence running east and west. At 25.37 center of sec. 10 103 ft. shack Hence set the center ~~corner~~ center of sec. 10. Where true quarter lines cross each other is an iron pipe (with a cap on) 4 ft long 3 in. in dia. with a cap on. I bored a hole in the ground and put two (2) forty penny nails in the bottom. I then put in stones and clay around the post and tamped it down. I marked it, the C. $\frac{1}{4}$ S. for the common center of sec 10 and made the following witness trees. Oak 25 S. 59 E. 37.1 ft. This post ~~is~~ sets ~~the~~ sets on the east side of Strand Lake. 285.5 ft.

Ben J. Clark, Roy Rose, Geo. Hilted, Relf Delton and his automobile went ~~the~~ to sec 10 and set the $\frac{1}{16}$ S. on the East and West $\frac{1}{4}$ S. line on East $\frac{1}{2}$ sec. An iron pipe 2 1/2 ft long 3 in in dia. stamped the same $\frac{1}{16}$ on cap. Put 2-40 penny spikes in bottom and made an 8" hole, set in post, put in stone around post, tamped with clay, and piled in mail stone. Hence set the $\frac{1}{16}$ on N. 2. $\frac{1}{4}$ sec. 10. an iron pipe 4 ft long 2" in dia, stamped the same $\frac{1}{16}$, drove an ash post with a wedge shaped point inside the iron pipe and drove the same in the ground. Floating bog 7 ft. Made the following witness. Ash 5 N. 62 E. 40.5 ft. Ash 4 S. 5 N. 48 ft. This corner sets 5 ft east of Cooper Lake. Then set the $\frac{1}{16}$ S. between sec 10-11 on N. $\frac{1}{2}$. An iron pipe 2 1/2 ft long 3" dia. stamped $\frac{1}{16}$ S. on cap. Made an 8" hole with post auger. Put 2-40 penny spikes in bottom of the end and set the same in ground and tamped with clay. No witness trees near of any account, little popple.

Then set the $\frac{1}{4}$ S. cor. at 10. Chains are 660 ft. No. of M.C. 34 a government iron. An iron pipe 4 ft long 2" dia. stamp the same $\frac{1}{4}$ S. 10-11. Drive the same in ground 3 ft. Old witness tree laying and stamped which I, Ben J. Clark saw in 1897 for the first time and saw the same from time to time ever since. White Birch 12 S 15 2. 10 lbs. Made new witness trees. Maple 5 N 2 2. 16.7 ft. Old witness Oak 4 S 25 E. 15.6 ft. Then set the M.C. corner. An iron pipe 3 ft long 3 in. dia. stamped the same. M.C. S. 10-11. Then set the same in the rocks and piled a mound of stone 2 ft. high around the post. Old witness trees. Pine 4 N. 16 2. 6.7 ft. Oak stamp B. J. 9 N. 73 E. 26 ft.

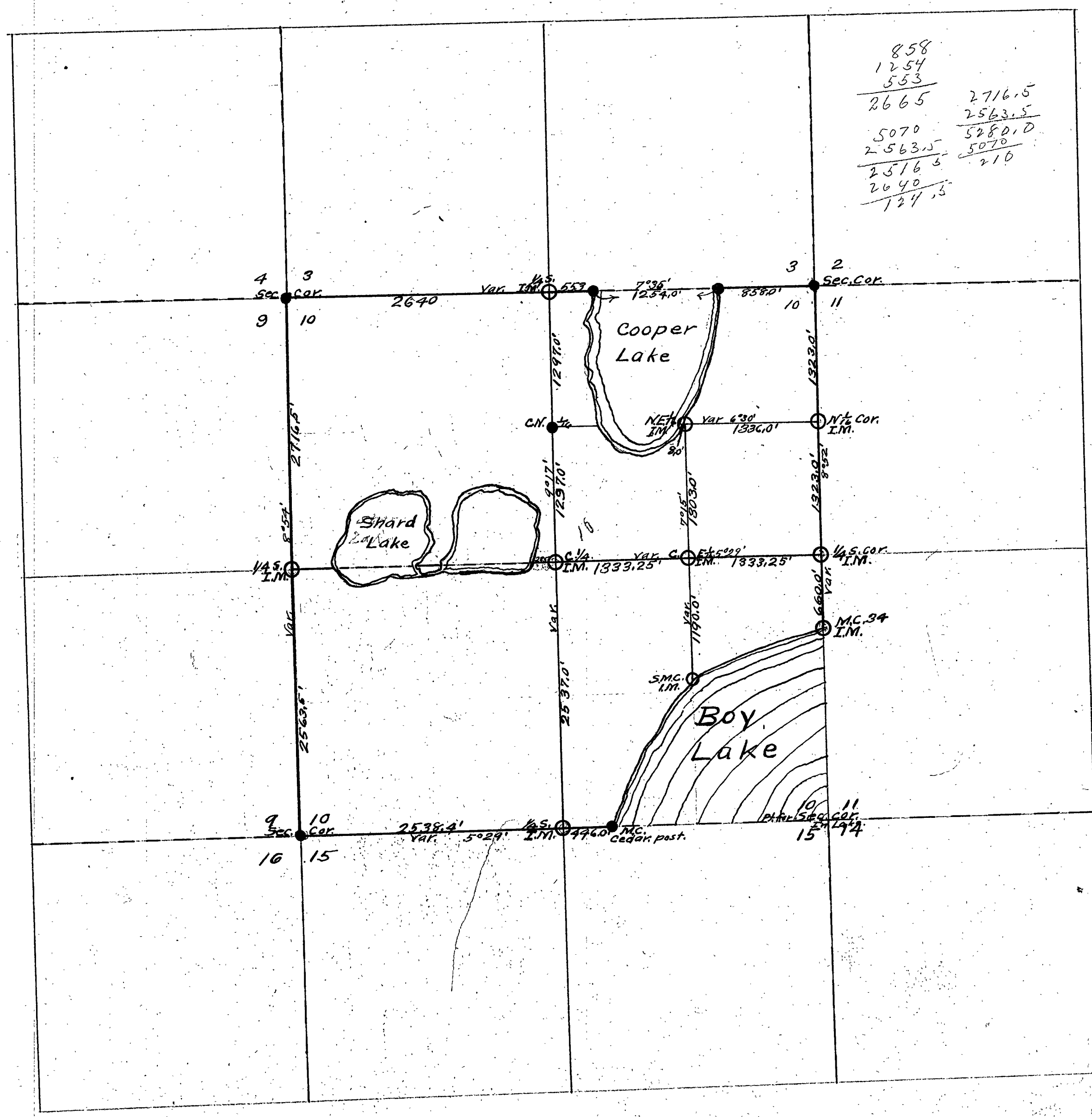
138
19

102

140-28 C

Survey Record No. 422.

858	
1254	
<u>553</u>	
2665	2716.5
	<u>2563.5</u>
5070	5280.0
<u>2563.5</u>	<u>5070</u>
2516.5	210
<u>2640</u>	
124.5	



Survey Record No. 422.

C

Thence set the $\frac{1}{4}$ S. cor. between 9-10. An iron pipe 4 ft. long and 2" dia. stamped the same $\frac{1}{4}$ S. for sec's 9-10. Drove the same in ground 3 ft. Old White Pine laying down marked $\frac{1}{4}$ S. with a scribe iron. White Pine 6 N. 5 S. 95. 12 ft. Birch stump B.D. 7 N. 18 E. 75 ft. Then made two new witness ^{marks} trees. St. Pine: 16 S. 16 E. 57 ft. Stone 6 x 6 6 N. East 75 ft. The $\frac{1}{4}$ S. cor. between sec's 3-10, some 402 ft west of the Northland Pine Co's R. R. grade and west of Cooper Lake 553 ft. This survey completed Aug 25, 1917 By Dep. Co. Surveyor, Ben J. Clark.

Following notes in field book 156, pages 1 (to 5) and 2.

Aug. 140 N. Pgs 2821.

Ben J. Clark, Buck Carahan, and Clarence Guzman went to the $\frac{1}{4}$ S. (N) between sec's 10-15. A cedar stump marked B.D. 7 S. 5 E. 4 lbs Cedar 4 in. N 5 S 5 lbs. Then set a cedar post 4 in's sq. and the same $\frac{1}{4}$ S. with sec 10 marked on 1 side and sec 15 in the other. Then run east (Var 7) at 660 lks. intersecting Bay Lake and set a cedar post 3 in. in dia. for M.C. between sec's 10-15.

Aug. 140 N. Pgs 2821 5. P. Mer.

Begin at the established $\frac{1}{4}$ S. cor. between sec's 10-15 (Var 7). Ah 38.30 chains to cor. of sec's 9-10-15-16. Found a St. Pine 7 in. South 67° 26' 40 links with all figures on for sec 15. and other Pine stump to correspond with other field notes. Set an oak ~~in~~ post marked the same. Sec's 9-10-15 and 16.

Aug 140 N. Pgs 2821 5. Principle Mer.

Begin at the established cor. for sec's 9-10-15 and 16. and run North between sec's 9-10 (Var. 7.45) at 80 chains - Cor to sec's 3-4-9-10. No. trees. Ben. J. Clark.

See book 170. for Clark's survey of sec's 10-140-28

C

Field Book (58)

Pages 29 to 88.

May 1919

140-30

13-14-23-24

11-12-13-14

13-14-23-24

Field notes of a survey to locate sec. and 1/4 sec. cor. for the Hackensack and Longville road in Twp. 140-30, 140-29, 141-29, and 141-28. Began May 14, 1919. E. B. Horst engineer and chain, Vern W. Beugreen chainman. Leave A. G. Jusler's place in his car and drive to Mr. Donaldson's place where we begin locating sec. and 1/4 sec. cor. and sec. lines for the Hackensack and Longville road. Begin at a point on above road. I find the sec. cor. of sec's 13-14-23 and 24-140-30. which I set as a temp. sec. cor. but which was never legally established. All evidence of this cor. is obliterated. From above point we run N. to cor. of sec's 11-12-13 and 14 (J. M.) without chaining. Brennan's livery to Hackensack and Walker for field notes. E. B. Horst. May 15, 1919. Rain all day. I remain in Walker. E. B. Horst. Fri. May 16, 1919. Leave Walker 8.45. Brennan's livery to Mr. Donaldson's place. Horst and Beugreen begin at temp. cor. for sec's 13-14-23 and 24. and chain Non random line.

At 20 ft. N. lve road - enter field.

" 1727.0 ft. M. fence. lve field - enter brush.

" 1842.7 " " set hub.

" 2626.3 " " " "

" 2637.0 " " wire fence.

" 2640.0 " " set stake.

" 3954.6 " " " hub.

" 5164.0 " " " point.

" 5165.0 " " enter scarp.

" 5256.3 " " J. M. at cor. to sec's 11-12-13-14. Twp. 140 N. R. 30 2d sets 2.7 ft.

Begin at temp. sec. cor. and chain S. along fence between sec's 23 and 24.

At 525 ft. S. enter scarp.

" 1600 " " lve. "

" 2665 " " set stake and look for 1/4 S. cor. and B. Tr. I find N. Pine 9" S 87 1/2° E 19 lbs. plainly marked (stamp) from which I set a wood post at true 1/4 S. cor. At 2660.0 ft. S. 1/4 S. cor. bet. sec's 23 and 24.

Begin at J. M. at cor. to sec's 14-15-22 and 23. and chain East on Hackensack and Longville road. At 2640.0 ft. E. set stake.

" 3960 " " " "

" 5304.4 " " temp point to sec's 13-14-23-24. E. B. Horst.

Begin at temp. point to sec's 13-14-23-24 chain S (to) 21.2 ft. to a point which is correct for the sec. cor. as to N. and S. The correct position E. and W. is yet to be found.

One mile East of the temp. point, on the range line an old random intersects 15 ft. N. of the sec. cor. on rge line. Setting transit on a point near cor. of sec's 13-14-23 and 24 and connecting a hub 19.6 ft. from old line 1335 E. I run E. presumably on true line. Line is on S. side of H. and L. road for 1/4 mile. at 1335 E. center of H. and L. Road N. and S. At 1350.0 ft. E. enter heavy brush. Continue line East for 1/4 mile.

Brennan's livery takes me to Hackensack for 4.19 train. E. B. Horst.

Horst, Beugreen and Mr. Duncan continue line E. between sec's 13 and 24, T. 140 N. R. 30 2d. to Range line and intersect same 6.4 ft. S. of the cor. to sec's 18-19-140-29. and sec's 13-14-140-30. Marked by a 2" by 48" J. M. in center of the Bailey Co road. N. and S.

N. W. angle Random to Rge line = 90° 37'. Return to hub. 1335 E. and chain E.

at 1572.0 E. set hub.

" 2244.0 " old road N. and S.

" 2354.8 " set hub.

" 2533.5 " " At 2640.0 ft. E. set stake marked 2640 E. At 2645.0 ft. E. old road N. and S. enter swp. E. B. Horst.

11-12-13-14
140-30

1/4 cor
23-24
140-30

13-14-23-24

13-14
140-30
Rge Line
29-30
140

Survey Record No. 423.

C

13-14-
140-30Hurst, Burgess, Duncan, and ²⁴⁷Marion chain bal of the line bet. sec. 13-14.

- at 2900.0 ft. E. lve. swp.
 " 3050.0 " " set hub.
 " 3200.0 " " enter Shet Lake marsh.
 " 3700.0 " " lve. same.
 " 3926.5 " " set hub.
 " 4188.4 " " " "
 " 4600.0 " " small swp.
 " 4700.0 " " lve. "
 " 5314.0 " " center of Bailey Co. Road. sec. cor. sets N. 6.4 ft.

14-13-15
140-29-30

At a point on the Rge line 58.5 ft. South of J. Mah M. C. and 135.5 ft. S. of point in Shet Lake for $\frac{1}{4}$ S. cor. bet. sec's 13-18. I run E. 419.4 ft. thence N 135.5 ft. to a point 419.4 ft. E. of point for $\frac{1}{4}$ S. cor. thence east on random line thru sec. 18. T 140-R 29. $\frac{1}{4}$ S. on rge line = Sta 0.00 at 419.4 ft. point on sand beach.

- " 521.0 " " leave " "
 " 575.0 " " center of Bailey Road.
 " 1316.7 " " set hub.
 " 1619.0 " " " "
 " 1831.2 " " " "
 " 2104.5 " " " "
 " 3024.1 " " " stake.
 " 3217.5 " " " hub.
 " 3561.3 " " " "
 " 3740.0 " " enter swp.
 " 4000.0 " " S. end of lost lake. offset S. 100 ft. to pass lake.
 " 4235.0 " " offset back.
 " 4205.0 " " lve. lake.
 " 4351.5 " " set hub.
 " 4607.8 " " " on Birch ridge.
 " 5087.0 " " " pt. A. for triangulation.
 " 5100.0 " " E. bay of lost lake.

Set Point B. across lake on line. E. B. Hurst.

18-140-29

Hurst and same crew continue E thru center of sec 18-140-29 Cross over lost lake and run base line N. 144.2 ft. and set point C. angle A-B-C = 90° angle B-C-A = 75° 29'

Distance A to B = 556.9

$$5087 + 556.9 = 5643.9$$

At 5530 ft. E. lve. lake.

" 5643.9 " " hub at point B.

" 5664.1 " " set stake and look for $\frac{1}{4}$ S. cor. and 2 touch. B. Ds. which are gone. They evidently were cut away in building an old logging road. We continue E. on same line without chaining. At about $\frac{3}{4}$ miles east, we intersect Cur Lake. E. B. Hurst. Go to Hook to see Com. Hogyones, return via Brennan's livery. E. B. Hurst.

Hurst and same crew chain line run yesterday, and continue E.

At 5825.0 ft. E. small swp.

- " 5870.0 " " lve. "
 " 6255.0 " " hub on top of hill.
 " 6670.5 " " "

	At 6730.0 ft. E. Smith & Jusler road. S of line runs E. parallel to line.
	" 7308.0 " " hub.
	" 7424.0 " " wire fence N. & S.
	" 7600.0 " " swp.
	" 7685.0 " " lve "
	" 7773.3 " " hub.
	" 8145.0 " " enter swp.
	" 8225.0 " " lve.
	" 8686.8 " " Pt. A. for triangulation over Cur Lake.
	" 8920.0 " " West ^{side} of Cur Lake Alder beach. I send a man around lake and set point B. across lake. Cross over to pt. B. and run a base line. N. 286.3 ft and set pt. C. Angle A. B. C. = 90° Angle B. C. A. = 76°45' Distance A to B. = 1215.7.
	At 9720.0 ft. E. lve. Cur Lake.
	" 9902.0 " " Pt. B.
	" 10894.6 " " set hub on high hill.
14	" 10944.1 " " " pt. (temp. 1/4 Co.) The look for the 1/4 S. cor. and bearings bet sec's.
16-17	16 and 17, but everything is burned away. The go N. 1/2 mi to S. M. at cor. of sec's
89, 16, 17	8-9-16-17 and sight 2h on S. boundary of sec. 8. turn S. 2h angle 90°37' and run south
16-17	between sec's 16 and 17. Near the 1/4 random line I offset 1.6 ^{2h} ft to pass large 2h Pine line tree. Intersect random 1/4 line at 10893.8 E. N. 2h angle at P. I. = 89°31' P. I. at 2640.7 ft. S. continue S. offset back to line at 2950.7 ft. S. say of Cur Lake. At 3243.7 lve same.
	Sept 15-1919. E. B. Horst.
140-24 16-17	I set wood post at 1/4 cor. between sec's 16 and 17-140-24 at station 2620.2 ft. S. and 16.3 ft. west of random line.
	Th Fri. May 23, 1919.
16, 17, 20, 21	Some crew. Continue south on same line at 5229.2 ft. S. set hub and look for the Sec. cor. to sec's 16-17-20 and 21, and 4 White Pine B. Is. The are unable to find some. The go E.
14 16-21 211	to the Iron Monument at the 1/4 S. cor. between sec's 16-21 and chain 2h bet between 16-21. old line. At 2640.0 ft. 2h. hub 5229.2 S. on random line from the North. From hub 5229.2 ft. S. I turn 90° angle. and run 2h. between sec's 17-20 to Lizard Lake to locate above ^{car. bu} measurements. Commissioner Staggner comes out to assist in A. M.
	E. B. Horst.
Kemp	F. S. Staggner and Glen Jusler arrive and find the wood stake set by M. A. Kemp. Jusler knew this cor. when stumps were still marked. I set transit over stake and find all the stumps of the original B. Is. which check for courses and distances from which I set the cor. set over hub 5229.2 ft. S. cor. at 5246.4 sets 2h. 32.6 ft. and sets 2672.6 ft. 2h.

C Survey Record No. 423.

14-14-21

of 1/4 S. cor between sec's. 16-21. I set a point at 5240.4 S. on ^{N. 2d.} random line, turn N. E. angle 90° 03' and run east on true sec. line to Dusler road without chaining.

Thm. Donaldson meets us and takes us to Hackensack. I go to Chalke.

15-14-21-22

June 13-14-1919. Forest-transitman, Vernie Berggren chainman, } E. B. Forest.
Thm. Berggren chainman, Jas. M. King axeman, and Paul M. Kribs axeman.

Begin at the cor. from Mon. for sec's 15-16-21-22. run west on graded road.

At 440.0 ft. Ch. lve road. bis. N. Th.

" 549.3 " " hub

" 902.2 " "

" 1015.0 " " swcp N. of line.

" 1284.3 " " set hub.

" 1350.0 " " enter track swcp.

" 1700.0 " " lve " "

" 1716.1 " " set hub.

" 1875.0 " " enter marsh

" 1985.0 " " lve. "

" 2015.8 " " set hub.

" 2284.9 " " "

" 2350.0 " " enter track swcp.

14-14-21

" 2639.0 " " original 1/4 S. cor. between sec's. 16-21 and stumps of both original

B. Ds. bis. N. 10.6 ft. continue west on same line.

At 2769.8 ft. Th. set hub.

" 2825.0 " " lake.

" 3025.0 " " lve lake.

" 3290.0 " " swcp.

" 3293.5 " " set hub.

" 3468.0 " " " "

" 3704.6 " " " "

" 3853.2 " " " triangle hub A.

" 5118.9 " " " " " B.

14-17-29-21

" 5297.0 " " Pt. for sec. to sec's. 16-17-20 & 21. set from original Norway B.D. still standing. I set 3" square wood post for corner. E. B. Forest.

14-0-29

Fri July 25-1919. 140-29- locating cor's. for N. & L. road. E. B. Forest transitman, Ben Beach chainman, Moss Morris chainman, John Brewer axeman, I lve. Chalke 8.45 Am. and Geo. Guity takes me out to find crew and boarding place. We arrive at N. S. Seas at 5:00 P.M. E. B. Forest.

July 26, 1919.

Begin at station 5643.9 S. on random line 1/4, turn 90° angle and run S. to establish the 1/4 S. cor. between sec's 17-18 which is obliterated.

Set transit over temp. M. C. (which is also obliterated.) and run base line S 68° 21' 2" set pt. B. I cause point C. to be set across Siggard Lake on line. Angle at pt. A-B-C = 101° 31' look for original M. C.'s. 58-59 and 60 which we are unable to find. E. B. Forest.

14-17-18

Sunday. July 27, 1919.

I order more field notes from Chalke. Phone chgs. 254. On account of the heavy brush I decide to leave the locating of the 1/4 S. cor. between sec's 17-18 till the leaves have fallen. The return from Siggard Lake and run a trial for road between Chill

Pique Lake. E. B. Horst.

Monday July 28, 1919.

14-17

Horst and some crew begin at 860.0 E. on random 1/4 line in sec. 17 on the side of
Cem. Lake and run N. 20° E. 968.5 ft. run S. 78° E. 1200.0 ft. E. B. Horst.

Tuesday, July 29, 1919.

Rain all day. No work for crew. I work all day to compute latitudes and
departures of lines run E. B. Horst.

Wed. July 30, 1919. Rain in A. M. until 9 A. M. We go to work at 10 A. M. and return
at 2 P. M. Rain again. I discharge crew and at 3:30 P. M. and go to Hockensack with
crew in Spains car. Livery chgs. \$3.50. R.R. fare to Shalke. 40¢. E. B. Horst.

Thur. July 31, 1919. Horst, Beach, and Mauris return to work at 10 A. M. Continue
line S. 78° E.

At 526.0 ft. ent. swp.

" 734.0 " creek 3 ft wide N. and S.

" 840.0 " lve. swp.

" 2014.0 " cross random sec. line N. and S.

" 2046.0 " enter swp.

" 2236.0 " lve. "

" 2717.7 " set hub.

" 2920.0 " ent. Tomck. swp.

" 3260.0 " " Lake extends 25 ft. S. of line.

" 3550.0 " lve. "

" 3940.0 " " swp.

" 3984.2 " hub.

Aug 1, 1919.

16- " 4694.0 " Intersect Dusler road on the Nord S. ^{center} line of sec. 16. turn S. Th. 100° 51' and
run south on road 247.4 ft. ←

(An angle of ~~40° 40'~~ 4° 46' turned from above line at 170.0 would ent. some point
and would make a better road line).

Aug 2, 1919.

From this point run S 83° E. thru heavy Aspen and Birch undergrowth 608.2 ft. Then S 22°
E. at 200 Lake 80° Th. 681.1 A. Thence N. 68° E. 67'. Thence S 26° E. 224 N. edge of Bay River 378 ft.
lve. Bay River. Water 3 ft. deep. At 525 set hub. Thence N. 82° E. 1239.7 to K. and L. road

Aug 2, 1919.

15-16

Thence N. 38° 18' E. 387.0 to random line sec. 15-16. Thence N. 41° 06' E. 1931.0 ft. over the loam
courses of the sec. 15 traverse.

14-17
140-29 Sept. 12, 1919. E. B. Horst transitman, G. E. Mc. Guire axeman, John. large chainman
connect C. of highway thru sec. 16-17. Beginning of the N. and S. center line of sec. 16
at a hub set in center of road 247.4' S of prelim. line run July 31, 1919. Turn N. Th.
angle 74° 30' and run Th. to an intersecting with Prelim. line intersecting same at
1741 ft. E. Intersect sec. line. between sec. 16-17 at 397 ft. N. of 1/4 S. cor. At Albert Dusler's ^{E. B. Horst}
road to Hockensack,

This article is 1 day late. Sept 11, 1919. I left Shalke in a Motor Inn car and
gathered up crew. Chased all over country for a place to board and located at Albert
Dusler's and stayed over night. E. B. Horst. Sept. 13, 1919. Rain. I take crew to Hockensack and
go to Shalke. I work on latitudes and departures and connections E. B. Horst.

Burned out connecting rod by on way to Shalke and had
to be towed in by Motor Inn.

26
30
1

53
26500

C

Plat of Survey Record No. 423.

209

423

2 Plats.

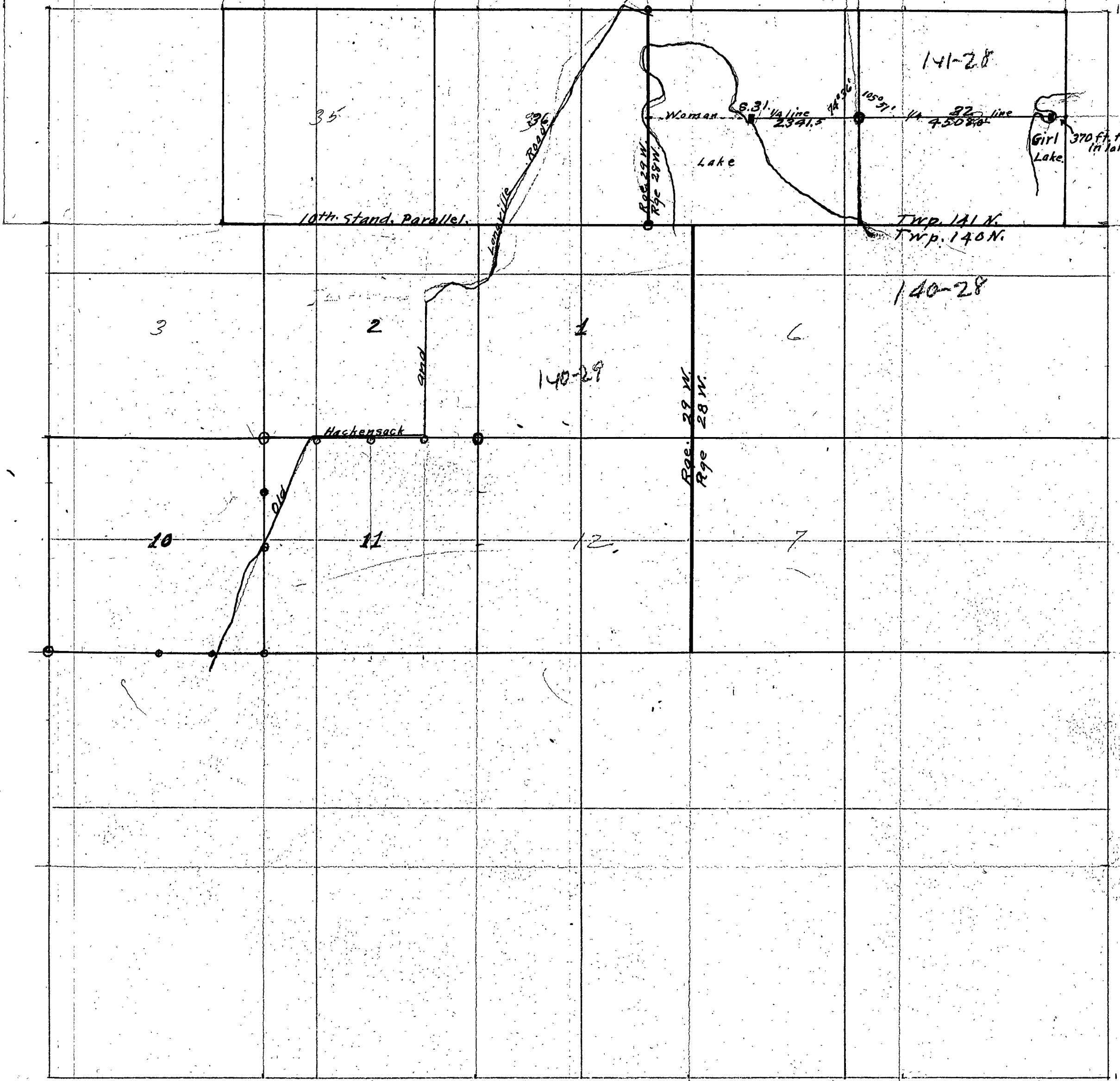
Plat No. 2.

30

29

28

4508
370
4878



Survey Record No. 423.

423.

Mon. Sept. 15, 1919. E. B. Horst transit, John Farge chain, G. E. McGuire axeman. Begin at N. end of course 20°00' E 968.5. Turn right 5'43' run S. 2h. to an intersection with true E. and 2h. center line of sec. 17. P.D. at sta. 8494 ft. E. of Rge line. N. E. angle to true line = 43°28'.

I go to a point on the E. side of Lost Lake where I set the 1/4 S. cor. between sec's 17-18 by intersecting two blazed lines which were run (from this cor. when ~~that~~ some was still standing also (B. Ds) by Byron B. Bartlett 1/4 S. cor. sets at sta. 5584.4 ft. E. and 4.8 ft. S. of random line.

For notes of random line in sec's. 17-18 see page 45. this book. True line thru sec. 18 = 5584.4 ft. True line thru sec. 17 = 5293.0 ft.

Sept 16, 1919. H. & L. Road.

E. B. Horst transit, John Farge chain, Bert Anderson chain, Mc Guire axeman. Begin at Sta. 8494 ft. E. and run true center line 2h. to the 1/4 S. cor. between sec's 17-18. Go to line which bears S. 22°00' E. 681.1' which we return at a bearing of S. 27°37' E. to N. end of course across Bay River.

Sept 17, 1919. Run traverse of Hockensack and Tongville State Road from center of sec. 15-140-29 to N. line of sec. 1. same trip. Notes in back of this book. E. B. Horst.

I drive to Shalke for additional field notes and plats of sec's, 1-2-11-15-140-29 36-141-29-31-32-33 T-141-R-28.

Sept 18-1919. Crew at Albert Jussers, McGuire at Hockensack. I return from Shalke at 4.00 P.M. and go to Cecil Whites camp on Thoman Lake & plot courses of H. & L. present road.

Sept 19, 1919. Horst, B. Anderson, J. Farge, McGuire. Complete traverse of H. & L. Road to N. E. cor. Iron Monument sec. 36 T. 141. R. 28. From the 1/4 S. cor. between sec's 31-32 previously set and marked by a 2" by 48" I.M. 2h. turn N. E. angle from random sec. line 107°00' and run E. on random center line cut E. 1/4 mile. E. B. Horst.

Sept 20, 1919. Horst and some crew continue E. thru center of sec. 32. At 400 ft. enter swp. dry.

- " 700.0" lve.
- " 2280.0" set hut on ridge.
- " 2600.0" dry swp and grass and Logalders.
- " 3000.0" lve.
- " 3400.0" enter field extends 75' N.
- " 3659.7"

" 3673.0" Hut in center of cut out road from N. E. cor. of sec. 32. south to Girl Lake bridge. N. 2h. Angle to road = 40°10'. I look for the 1/4 S. cor. between. sec's. 32-33. find nothing continue E.

C

At. 3710 E. swamp.

" 3850.0 " lve "

" 4242.0 " Temp. pt.

" 4258.0 " Water edge of Gil Lake.

Sept. 21-22-23-24-1919. No. work Co. Commis Meeting. Harst of It alker.

" 25-26-1919. Harst, Lurge, Anderson, and McGuire begin at cor. (D. M.) to sec's, 28-29 32-33. and run south over a brushed road (the center line of which was run by farmers and is on no line).

At. 2683.4 Intersect our random center line of sec. 32. at 3673 ft E. N. Th. angle = 90° 10' enter field at cor. e

At. 3300.0 leave field.

" 4500.0 " " Road bears S. E. to bridge.

" 5234.4 intersect true twp line 2472.0 Th. of the S. E. cor of sec. 32. N. E. angle = 87° 50' correction at cor of 28-29-32-33. for E. boundary of sec. 32 = 25.84 Tanq = .4676

At. Sta. 2577.0 S and 106.6 ft. N. of P. D. Turn 90° angle and run E. to set 1/4 Sec. Cor. 32-33.

At. 4336 int. small bay of Gil Lake. Triangulate bay at 4508 ft. E. Set a wood post 78 ft. S. of line on true E. & Th. cent. line of sec. 32-370 ft Th. of ph. for 1/4 cor. Ph. for 1/4 sec. Cor. falls in Gil Lake. Post at 4508 E. sets on a point of land in Gil Lake (nearly an island.) B. D. to S. M. C. are Popple 5" S. E. 4.4 ft. to tack. Double Oak 20" N. 20.2 to tack. correction for E. and Th. cent. line is = 1° 09' N. Tanq. = .02113.

Sept. 27, 1919. Th. begin at the 1/4 S. cor. between sec's 31-32-141-28. turn N. Th. angle. 74° 34' from random line (74° 36' from true line). and run Th. on a true E. and Th. center line of sec. 31.

At. 716.5 set hub east of small lake. by stadia distance to Th. of lake. = 845 ft.

" 900.0 ft Th. ent. lake. (Extends S. of line 50 ft. N. 350 ft.)

" 1100.0 " " lve "

" 1561.5 " " set hub west of lake.

" 2341.5 " " " S. M. C. sec. 31. wood post from which: White Oak 18" sets E. 23 ft from line. Popple 8" S. 65° E. 22 ft.

At. 2480.0 ft. Th. Water edge of Thomon Lake. scopy. shore. Lake bearings N. 70° Th. and S. 25° E. E. B. Harst.

Traverse of Hakensack and Longville Road.

Sta. 0.00 = hub in center of road 494 ft. N. of center of second bridge.

1. Thence N. 25° 30' E. 1785 ft. Defl. angle.
2. " " 17° 00' " 488 " L. 8° 30'
3. " " 15° 37' " 515 " " 1° 23' to sec line. N. side of sec. 15.
4. " " 15° 15' " 747 " " 0° 22'
5. " " 14° 45' " 679 " " 0° 30'
6. " " 15° 15' " 352 " R. 0° 30'
7. " " 57° 30' " 327 " " 42° 15'
8. " " 39° 00' " 284 " L. 18° 30'
9. " " 9° 45' " 348 " " 29° 15'
10. " " 50° 30' " 338 " R. 40° 45' 1/4 Cor. bet. sec's 10-11 sets S. 30° E 49 ft. from. A. P. 11.
11. " " 40° 15' " 676 " L. 10° 15'
12. " " 43° 00' " 1000 " R. 2° 45'
13. " " 68° 30' " 118 " " 25° 30'

25, 29, 32, 33
141-28

28-29-32-33

1/4
32-33

1/4
141-28

31-32
141-28

14. S. $89^{\circ}45'$ E. ¹⁴⁵⁴ 735 ft. R. $21^{\circ}45'$ (~~Road bears N. and S.~~)
15. S. $89^{\circ}00'$ " 772 " " $0^{\circ}45'$
16. N. $89^{\circ}30'$ " 735 " L. $1^{\circ}30'$ N.E. $1/16$ (S.M.) sec. 11. sets S. $69^{\circ}24'$ 59 ft.
17. " $0^{\circ}45'$ Th. 3200 " " $90^{\circ}15'$
18. " $2^{\circ}45'$ E. 384 " R. $3^{\circ}30'$
19. " $57^{\circ}00'$ " 654 " " $54^{\circ}15'$
20. " $51^{\circ}00'$ " 537 " L. $6^{\circ}00'$
21. " $41^{\circ}30'$ " 226 " " $9^{\circ}30'$
22. " $18^{\circ}30'$ " 252 " " $23^{\circ}00'$
23. " $48^{\circ}36'$ " 217 " R. $30^{\circ}00'$ 9-18-19 - last course plotted.
24. " $56^{\circ}30'$ " 129 " " $8^{\circ}00'$
25. " $45^{\circ}00'$ " 225 " L. $11^{\circ}30'$
26. " $64^{\circ}00'$ " 673 " R. $19^{\circ}00'$
27. " $6^{\circ}00'$ " 546 " L. $58^{\circ}00'$
28. " $16^{\circ}30'$ Th. 413 " " $22^{\circ}30'$
29. " $3^{\circ}00'$ " 1125 " R. $13^{\circ}30'$ at 391 cross E. & Th. cut out line.
30. " $4^{\circ}45'$ " 1198 " L. $1^{\circ}45'$ Mag. brg. = N. $4^{\circ}45'$ Th. at $8^{\circ}15'$ Var.
31. " $2^{\circ}15'$ " 394 " R. $2^{\circ}30'$
32. " $16^{\circ}30'$ E. 747 " " $18^{\circ}45'$
33. " $14^{\circ}45'$ " 597 " L. $1^{\circ}45'$
34. " $44^{\circ}15'$ " 1012 " R. $29^{\circ}30'$
35. " $45^{\circ}30'$ " 486 " " $1^{\circ}15'$
36. " $53^{\circ}15'$ " 430 " " $7^{\circ}45'$
37. " $51^{\circ}30'$ " 630 " L. $1^{\circ}45'$ to sandy cor.
38. S. $60^{\circ}30'$ " 230 " R. $68^{\circ}00'$
39. S. $77^{\circ}30'$ " 214 " L. $17^{\circ}00'$
40. N. $73^{\circ}30'$ " 360 " " $29^{\circ}00'$ To rge. line between 29-28 Swp. S. 141

* See 31-34. (N.E. cor. sec. 36, N. $6^{\circ}05'$ Th. 71.6 ft.)

41. S. $6^{\circ}05'$ E. 600 ft. R. $100^{\circ}25'$ on Rge. line to edge of cedar swp. on N. Th. side of Thomas lake. Swp. bet. N.E. and S. Th. Ab. about 1000 ft. S. Lake extends 50° west of line. Swp. extends 300 ft. Th. A line run E. from 550' S. on Rge line will intersect a narrow ph. of swp. about 500 ft. E. of Rge. line.

Recorded Nov 28, 1919 by E. B. Horst. Dep. Co. Surveyor.

C
Plat 424

Survey Record No. 424.

Field notes of the survey of The Hebb Lake Road 140-141-30

Thurs. June 10-1915. Rains slightly all day. Baldwin after having breakfast at the Lakeview Hotel
 Thack. meets Curro on the 10th train A.M. Curro brings Howard Swanberg with him who is
 flag and chainman. The three take car driven by Curro and go to Morris farm
 on Hebb Lake. Roads muddy and going slow. Mrs. Morris agrees to board Baldwin and
 Swanberg for a time. Curro leaves field notes and pencil copy of Twp. 140-30 and plott
 and leaves with Mr. Speake after dinner. After dinner Mattson comes and takes Baldwin
 and Swanberg to cor. sec's 11-12-13-14 marked by Iron Monument. It is still raining
 and brush is very wet. After starting a line North on 9° Var. we go back to house.
 Mattson brings new axe and grinds another axe. Baldwin prepares notes etc. Baldwin
 and Swanberg night at Morris's. H. D. Baldwin.

Fri. June 11, 1915. Day fine. Baldwin blue transit, Swanberg flag and chain, 200 ft. chain,
 and Mattson axe. Starting at S. M. cor. 11-12-13-14 Twp. 140-30 we run a transit line
 North on 9° Var.

At 4400.0 a hub

" 775.0 " " double center.

" 805.0 old tote road.

" 890.0 brook.

" 1199.0 a hub double center.

" 1600.0 " " "

" 2105.0 " " "

" 2160.0 an old logging road.

" 2570.0 " " tote "

" 2640.0 look for B. D's. to 1/4 sec. cor.

" 3224.0 a hub double center.

We all walk back to house for dinner. This line is on high steep hill and shopping
 is very hard. We knock off about 5³⁵ P.M. and come home for supper, leaving transit
 and all the tools on the line. Baldwin and Swanberg. Night at Morris's. H. D. Baldwin

Sat. June 12-1915. Heavy rain all day long. Baldwin writes up notes in house. We remain
 at Morris's all day and night. Sun. June 13, 1915. Rain in A.M. We do not work to-day.
 Remain at Morris's. ~~see~~ for meals and lodging. Mon. June 14, 1915. Wind. Cloudy in P.M. Fair
 day. Baldwin transit, Swanberg chain and flag, Mattson axe. We leave Morris's place before
 7 A.M. taking lunch. We continue line from hub of 3224. where transit has remained
 since Fri.

At 3441.0 - a hub double center.

" 3588.6 - " " "

" 3746.0 2^d cross line brushed out by Mattson for a new road.

495

C

C

Survey Record No. 424.

Stuck again crossing creek between Blueberry Lake and Webb Lake. Bad place. By unloading and all hands pulling and lifting we are away again. In hard dry but steep hill team stuck again. Little houses all in and not pulling together. We unload 1/3 of load and proceed another 1/2 mile to creek flowing between Little Webb Lake and Big Webb Lake where we unload and prepare to pitch camp. 6⁰⁰ P. M. Raining. Team returns for balance of the load with Swanberg. Baldwin Rice, and Curo, put up cook tent and stove. When team brings the other tent and baggage. Hake unloads and starts home in rain. No supper. We have supper 9⁰⁰ P. M. H. F. Baldwin.

Wed. July 15, 1915. Day cloudy. Light rain in A. M. All hands fixing camp in A. M. Put down tents, making table, fixing mosquito-nets on beds etc. Baldwin writes to Curo. P. M. Rice and Swanberg getting up wood. Baldwin and Harold Curo go north to look for B. D. of 1/4 Cor. bet. 36-141-30 and 1-140-30. Baldwin compass, H. Curo axe. We have a hard hike. Get web to the waist. Mosquitos are bad. Evening. Baldwin and Swan Rice go to Spencer cottage taking letter to Curo with list of supplies needed for camp. Thur. 15, 1915. Cloudy. Very little wind. A. M. going to the hub set by Baldwin at true cor. for sec. 1-2-11-12 Twp. 140 and start line east to lake shore. Brown, land agent, and two other men are looking over lands and inquire as to lines. P. M. Rice and H. Curo brush rest of line to Webb Lake. Balance of afternoon getting up wood. Baldwin Compass, Swanberg axe going to presumed location and look for B. D. to S. E. cor. of Sec. 35-141-30. Find no B. D. A. M. Baldwin transit, H. Curo, chain and axe, Swanberg flag and axe. Fri 16-1915. Day fine, good wind. Baldwin transit, Swanberg chain and flag, Curo chain and axe, and Rice axe. Starting from hub previously placed at true cor. 1-2-11-12 and running east. Have no notes for Twp 140.

At. 355.5 ft. a hub.

" 370.0 " road to homesteaders shack.

" 615.0 " touches road.

" 918.5 " a hub.

" 930.0 " cross tote road.

" 974.0 " water edge of Webb Lake. About 11.00 A. M. Curo arrives and stays for dinner.

He takes our order for groceries and plans to be back. P. M. Sunday. Baldwin and Swanberg take compass and cruise west of north end of Little Webb Lake trying to find B. D. for S. E. cor. of sec. 35-141-30. Find nothing. Whole country burnt pretty clean. Few trees. Rice and Curo cut line for Road Traverse along old tote road. H. F. Baldwin. Sat. 17, 1915. Fine day and good wind. Baldwin and Swanberg take compass and cruise about supposed trap line looking for B. D. far to corner S. E. sec. 36. and 1/4 cor. between sec. 36-141 and 1-40. Found none. H. Curo and Rice cleaning line for road traverse along old tote road. About 3 p. m. H. Curo breaks axe handle and returns to camp. Swanberg and Curo take steel boat and go to Morris to get supplies which we are expecting J. H. Curo to send. Morris sends them back with red boat belonging to Spencer.

Survey Record No. 424.

FIELD BOOK 61

Baldwin goes out with Rice and they work brushing out road traverse. Sun. 15, 1915.
 Rain until 3:00 P.M. Baldwin writes notes. Swanberg and H. Curo call for mail at Morris and get none. H. F. Baldwin. Mon. 19, 1915. A.M. Cloudy. Rain at 10 A.M. then clears fine in P.M. Baldwin and H. Curo take compass and lunch. Look for B. D. to cor. of M. C. cor. Twp. 140-30. Found none. Starting from 4980.0 east we run compass line north 1/2 mile or 1000 paces. but found no B. D. for 1/4 cor. The return to shore across from camp. Swanberg meets us 6:15 P.M. Rice and Swanberg brush out line for road traverse. Swanberg cuts his knee. 3 P.M. Curo arrives with Gourd whom he leaves in camp. Curo and Rice look over line with view to running road on sec. line. Baldwin packs to leave for Habeba Lake. John H. Curo and Harold go to phone about notes previously sent to camp and mis-carried. They return at 1:00 P.M. H. F. Baldwin. Tues. July 20, 1915. Fair hot day. Baldwin and Rice leave for Habeba Lake. Swanberg goes to Morris place and brings back boat. Spends rest of morning working at camp. John H. Curo and H. Curo start a line running east from the supposed location of M. C. at east side of north end of Little Webb Lake. P.M. H. Curo and Swanberg working in camp. John H. Curo. Wed. July 21, 1915. Fair day. Breakfast 7:00 A.M. H. Curo and Swanberg continue line started by J. H. Curo from north end of Little Webb Lake. H. F. Baldwin. Thurs. July 22, 1915. Fine day, hot. Breakfast 6:00 A.M. H. Curo and Swanberg continue to cut off line from shore East shore of north end of Little Webb Lake. Fri. July 23, 1915. Very cloudy and frequent showers. Breakfast at 7 am but do not leave camp till 8:00 A.M. H. Curo axe, and Swanberg axe. Work all day continuing line started by J. H. Curo. Sat. July 24, 1915. Clear day. H. Curo and Swanberg with axes work all day on continuing line east as started by J. H. Curo. H. F. Baldwin. Mon. July 26, 1915. Day fine. H. Curo and Swanberg continue working as preceding days. Baldwin and Rice return from Habeba Lake to Longville where Fuller the store keeper takes them to Webb Lake. Stopping at Bochner for dinner they stock up with groceries for Webb Lake camp at Bailey's Store. Arrive at Morris place at 4:30 P.M. The borrow red boat belonging to Mr. Spencer from Morris and bring supplies and baggage to camp. Swanberg and Morris tow boat just borrowed from Morris and return to camp where Rice prepares supper. Baldwin writes some notes. H. F. Baldwin. Tues. July 27, 1915. Rain in A.M. cloudy and much clear in P.M. Baldwin writes notes in A.M. H. F. Baldwin with H. Curo and Swanberg find B. D. to Gov't M. C. No 3. Twp. 140-30. which calls for 1-N.P. 20 N. 2 1/2 T. 27. The set-hut at true cor. which comes in water. This B. D. is a Norway stump with B. D. plainly marked. The drive hut with tack in true position 44.22 ft. from B. D. Swanberg, H. Curo, and Rice get up wood for camp. Wed. July 28, 1915. Fine day, very hot. The all take lunch. Rice and H. Curo cut line east started by J. H. Curo. Baldwin with compass and Swanberg with axe. Continue compass line N. from 1000 paces north of 4980. on random line east. At 13200 paces north from random line, we cross old R. R. grade. At 13440 paces we cross old R. R. grade. H. F. Baldwin. Thurs. July 29, 1915. Fine day very hot. Thunder shower in P.M. at 6:00. Baldwin compass, Swanberg axe, H. Curo axe, and all Rice in camp. The all take lunch. Continuing compass line north 1500 paces. North edge of a meadow. At 2025 paces - north edge of Big Wet Meadow. At South shore of Lake 3250 paces. The look for some B. D. for Gov't. M. C. No-27. Twp. 141-30. Our compass line hits lake shore as shown on plat, but find no B. D. The all walk around lake and look for B. D. for Gov't. M. C. No 28. calling for 2. P. 6" and paper 8". No. trace of these B. D. are found. Returning we search for B. D. to 1/4 cor. east of sec. 25-141-30, and N. E. corner 36-141-30. Notes call for Paper 6" N. 47 1/2° E 40 - Cf. Pine 14" N 50° E 56 - Cf. Pine 12" S 30° E 60 - Cf. Pine 11" S 45° E 20.

Survey Record No. 424.

FIELD 1366K-61

The find nothing. We are caught in thunder shower before reaching camp. H. F. Baldwin. Fri. July 30, 1915 Fine day. New bot. Baldwin transit, H. Curo axe and chain, Sworberg flog, axe and chain. All take lunch. Rice takes us to north end of little Webb lake and returns with boat. Rice stays in camp. Cut true line between Goat M. C. No 7 and sec. cor. 1-2-11-12-140-30 starting from stake set by John H. Curo 75 ft from water edge. The run transit line in cutting. Stake set by Curo = 0.00. At .75 bottom high bank. A hub at 25.5 E. top high bank. A hub at 147.4 E. A hub at 588.1 E. set by double center. A hub at 1174.6 E. set by double center. At 1436.0 Road to Larsen cottage. At 1485.5 E. a hub by D. C. At 1645.9 E. a hub by D. C. At 1750.1 E. a hub by D. C. At 1770.0 enter swp. At 2050.0 low swp. At 2076.1 E. a hub set by D. C. bottom of bank. At 2163.2 E. A hub set by double center. Top of bank. At 2284.9 E. = 2924.1 N of intersecting Random line from south. The hunt for B. Is and find none. Break 200 ft chain and chain no further. Cutting of line we cut brush. The walk home to camp. H. F. Baldwin. Sat. July 31, 1915 Fine day very hot. Baldwin transit. H. Curo axe & chain, Sworberg axe chain and flog. The fix 200 ft chain with mender. All take lunch. The walk to intersection of two random lines where we quit last night. { Angle S. E. 91° 58' going to hub at 2163.2 ft deflect 39' right and continue east. This is in order to follow cutting and save new cutting for a entire line. This line intersects random line from south at an angle of 91° 20' S. E. see fig. opp. page 3. From 2922.6 = 0.00. continue east.

At 187.6 ft. a hub 3.55 ft south of other line each.

" 430.0 " creek dry.

" 557.0 " a hub 7.60 south of other line each.

" 1010.0 " creek nearly dry but fit to drink.

" 1117.3 " a hub set by D. C.

" 1400.0 " chain pulls apart at place mended. This A. M. so we do not attempt to chain further. H. Curo takes chain, axe and lunch to camp. Then lives for Hockensack at 3⁰⁰ P. M. Baldwin and Sworberg continue to hub transit line. We have to cut brush at end of ~~transit line~~ swp. H. F. Baldwin. Sun. Aug 1, 1915. Clear day hot, sultry, heavy shower, 5⁰⁰ P. M.

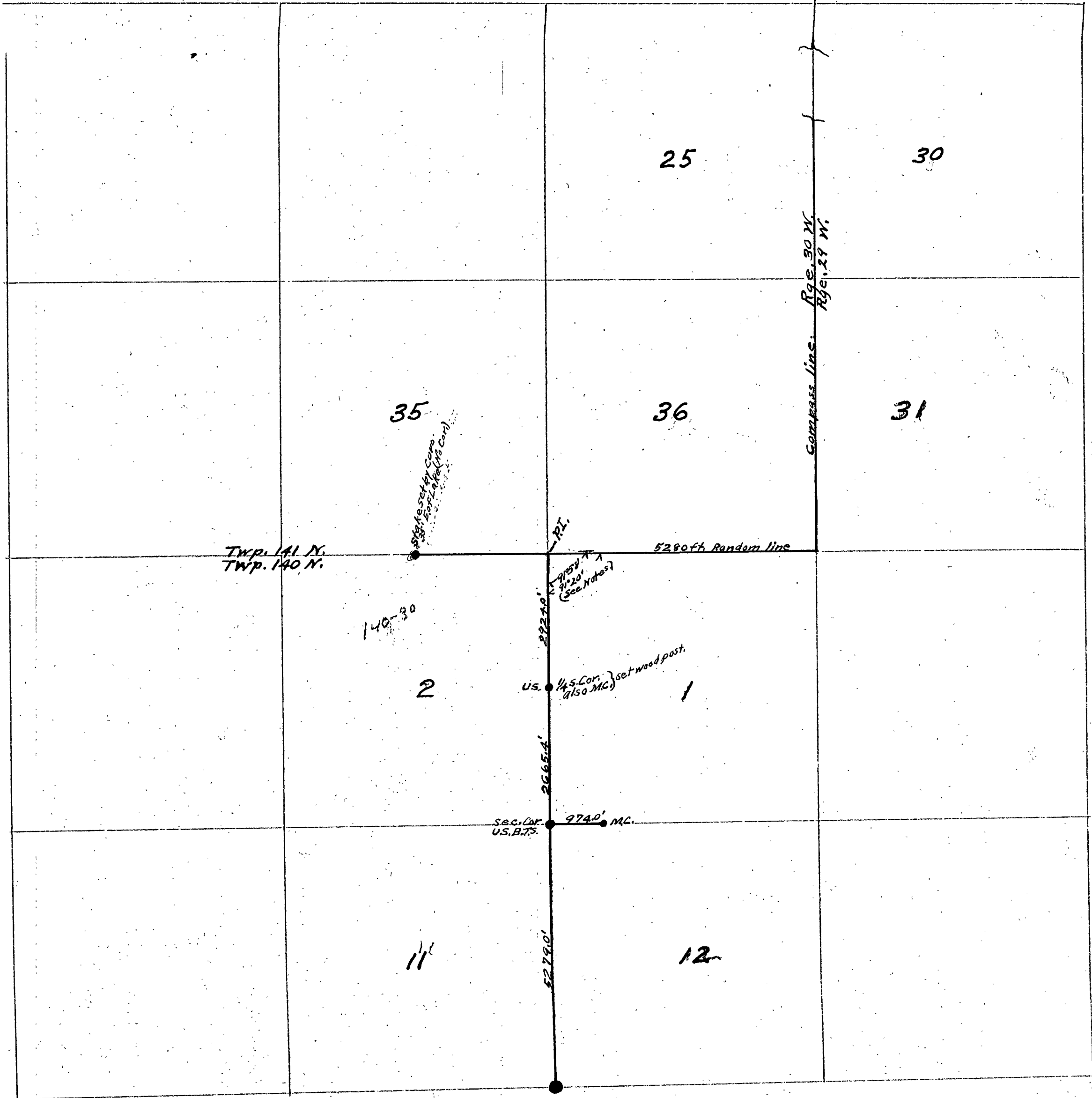
A. M. Baldwin writes notes and Sworberg goes to Morris in boat and gets mail letters for Baldwin from J. H. Curo. Trying to move tents 1 mile west of Walker and set them up. P. M. Baldwin rows to Morris place and walks to Danaldson's to phone Drake to send team to move us in A. M. Phone chq. 31 & paid. From 3. P. M. to 6.30 P. M. trying to get Mr. Drake on phone. Return with H. Curo to camp 8 P. M. Baldwin took boat load and leaves at Morris for teams to load in A. M. H. F. Baldwin Mon. Aug 2, 1915. Clear cool P. M. warmer. Breakfast 6⁰⁰ A. M. The pack up baggage tools and beds etc. Take down tents and roll them. Drake with another team arrives in A. M. H. Curo has just taken boat load to Morris place. The load teams then at Morris and put on balance of supplies. Arrive at Hockensack 2⁰⁰ P. M. Baldwin and Rice lunch at Lake View Hotel. Lunch 25¢ each. Baldwin and Rice busy until 4⁰⁰ P. M. packing, tagging, and billing camp, outfit. Hockensack to Walker. Baldwin buys two tickets for to Walker and checks tripods, baggage and pickets. Fare to Walker 33¢ each. Arrive at Walker and see Curo. Baldwin and Rice register at Chase Hotel. Write notes county surveyors office 4⁰⁰ P. M. One night Chase Hotel. H. F. Baldwin.

Surveyed 1915 by H. F. Baldwin.
Recorded 1919. James H. Flynn,
County Surveyor.

by E. B. Hest, Deputy

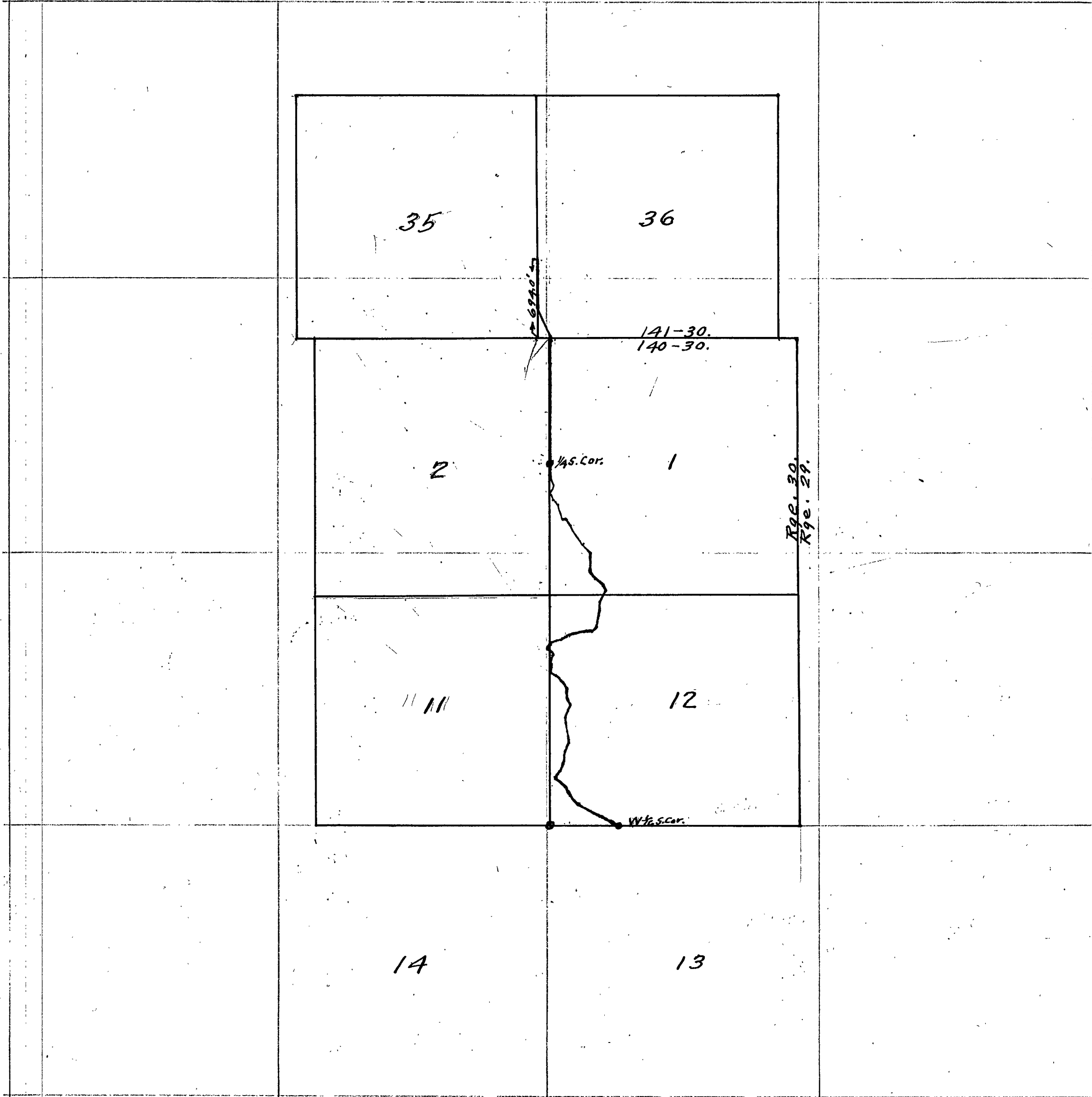
C

Survey Record No. 424.



Survey Record No. 425.

C



C
F.B. 61.

Survey of the Shubb Lake Road - 140-141-30 in Cass Co. Mo. Dec. 29, 1915.
 Leave Walker at 9²⁵ taking Gurley transit and 100' of chain and flag. Arrive at Hack.
 at 10²⁰ A.M. and lve. at 10³⁰ A.M. for home of Mose Morris in car driven by Chas
 Hood. Arrive at Mose Morris. at 11¹⁵ A.M. and arrange for board and lodging with
 Morris and also engage him to help me on survey. P.M. Beginning at the west
 1/4 cor of sec. 12-140-30 at the north end of a brushed out road I start a traverse
 of road way to pass northward on west side of Shubb Lake. With inst over
 Iron Mon. marking 1/4 sec. cor. I sight eastward towards ^{the} Shubb Lake and then transit
 telescope and read a deflection angle to the right for the first course of traverse. Other
 deflection angles are read in a similar way at the other front of traverse.

Sta. A. angles

060.0	{ D.M. }	24°53' R.
175.0		3°17' "
968.6		22°33' "
1215.8		11°16' "
1448.0		22°47' L. { At 1634 - center of old road at 1722 on traverse = 10+17 on random section

run by Baldwin.

1722.0	}	65°05' R.
1928.5		14°43' L.
2128.40 ^{along old road}		11°30' "

Random line makes angle 49°47' with traverse. Stop work at dark.
 Dinner, supper, and bed with Mose Morris. J. C. Johnston.

Dec 30, 1915 - Shubb Lake Road traverse continued:

Sta.	Angle	
2466.3	16°03' R.	} along old road.
2669.5	32°47' L.	
2800.0		line road on east side
2900.0		road 70' west.
3000.0		" 15' "
3100.0		in road again.
3107.2	13°14' R.	} along road road again.
3262.4	9°51' R.	
3400.0		road 30' west.
3471.5	8°30' R.	point in road.
3500.0		road 10' each.
3600.0		" 80' "
3688.2	48°04' L.	Road 15' east from this point we no longer run closely along the old road.
3961.2	24°31' R.	
4198.2	33°31' L.	
4490.5	13°01' L.	
4658.8	8°20' L.	
4698.0		Intersect Baldwin's random line of 3747.3. The angle between traverse and random 54°39' R.
4814.3	56°08' R.	
5060.9	9°53' R.	in second old road.
5388.0	42°47' L.	along "
5576.2	45°55' R.	}
5681.3	8°55' R.	
5787.6	52°22' R.	

Survey Record No. 425.

FIELD - 360 R. 61

5837.9 intersect Baldwins random line at 4755.5 angle 75°45' L.
 At 6091.8 ft angle 12°29' L along old road.

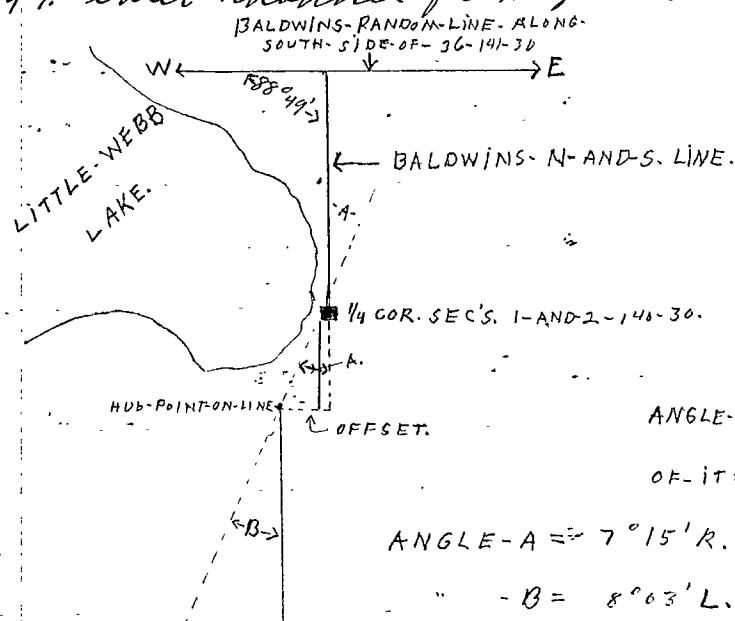
- 6326.5 " " 15°15' R.
- 6623.9 " " 9°21' "
- 6797.1 " " 42°50' L.
- 6923.2 " " 32°32' "

At 7092.6 intersect Baldwins most southerly E. and 2d. line from cor. of 1-2-11-12 to M. E. Webb Lake at 950.9' East of sec. cor.

Quit work at 5 P.M. Too dark to continue long. Three meals and ~~board~~ board at home of Mrs. Morris. J.A. Johnston transit and chain. Mrs. Morris chain, flag, and axe. J.A. Johnston Dec. 31, 1915 Road traverse continued. Johnston transit and chain, Morris, flag, chain and axe.

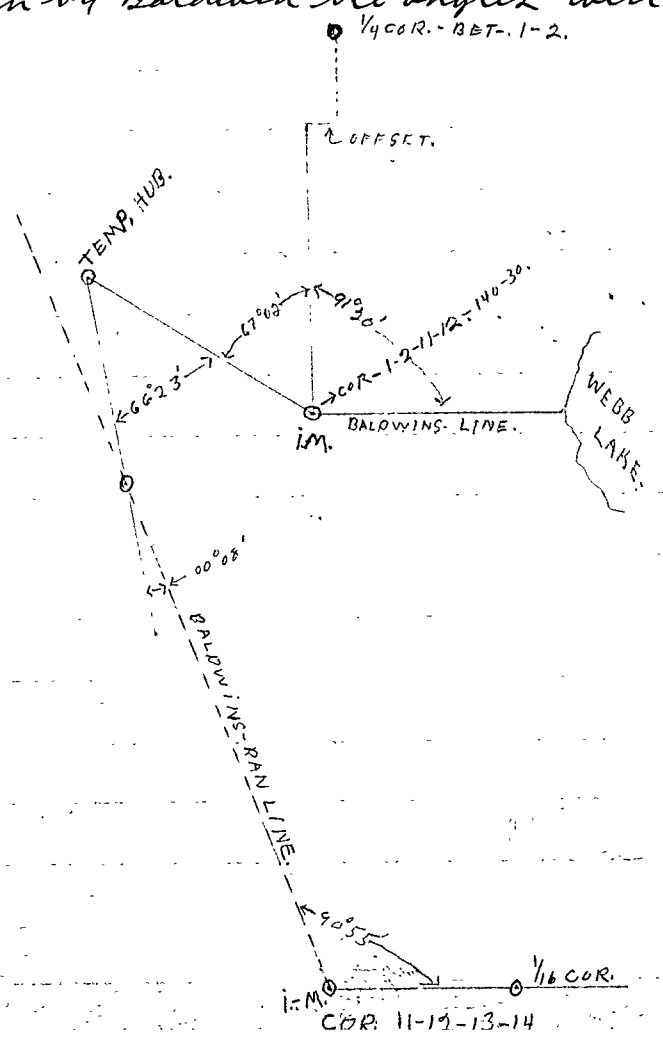
at sta. 7472.9 ft angle 24°22' R. At 7497. enter channel from Little Webb Lake at 7528. We same.

- 7732.2 " " 55°25' L.
- 7866.5 " " 21°20' L.
- 8088.7 " " 12°12' R.
- 8286.6 " " 34°24' R.
- 8900.7 " " 8°21' L.
- 8658.8 " " 37°45' L.
- 9088.8 " " 13°27' R.
- 9363.6 " " 9°10' L.
- 9549.5 " " 21°31' R.
- 9950.4 " " 17°50' L.
- 10091.6 " " 25°42' R.
- 10487.4 " " 33°21' L.
- 10744.2 " " 38°53' R.
- 10947.4 " " 51°57' R.
- 11092.0 " " "



At 10600.7 ft intersect sub line run by Baldwin at 458.7 Angle 41°08' R.
 At this point tie to Baldwins line at 856.5 Angle 44°43' L.

At 2517 on Baldwins line; road leaves line on west side and crosses random line on the south side Sec. 36-141-30. At 60' west of closing corner J. E. N. Th. cor. Sec 1-140-30 Road continues north and west to point 694' N. on true line of Sec 36-141-30 J.A. Johnston Jan 1st 1916. Johnston transit, Morris flag and axe. With the idea of tying together the lines run by Baldwin the angles were read as shown in sketches above and below.

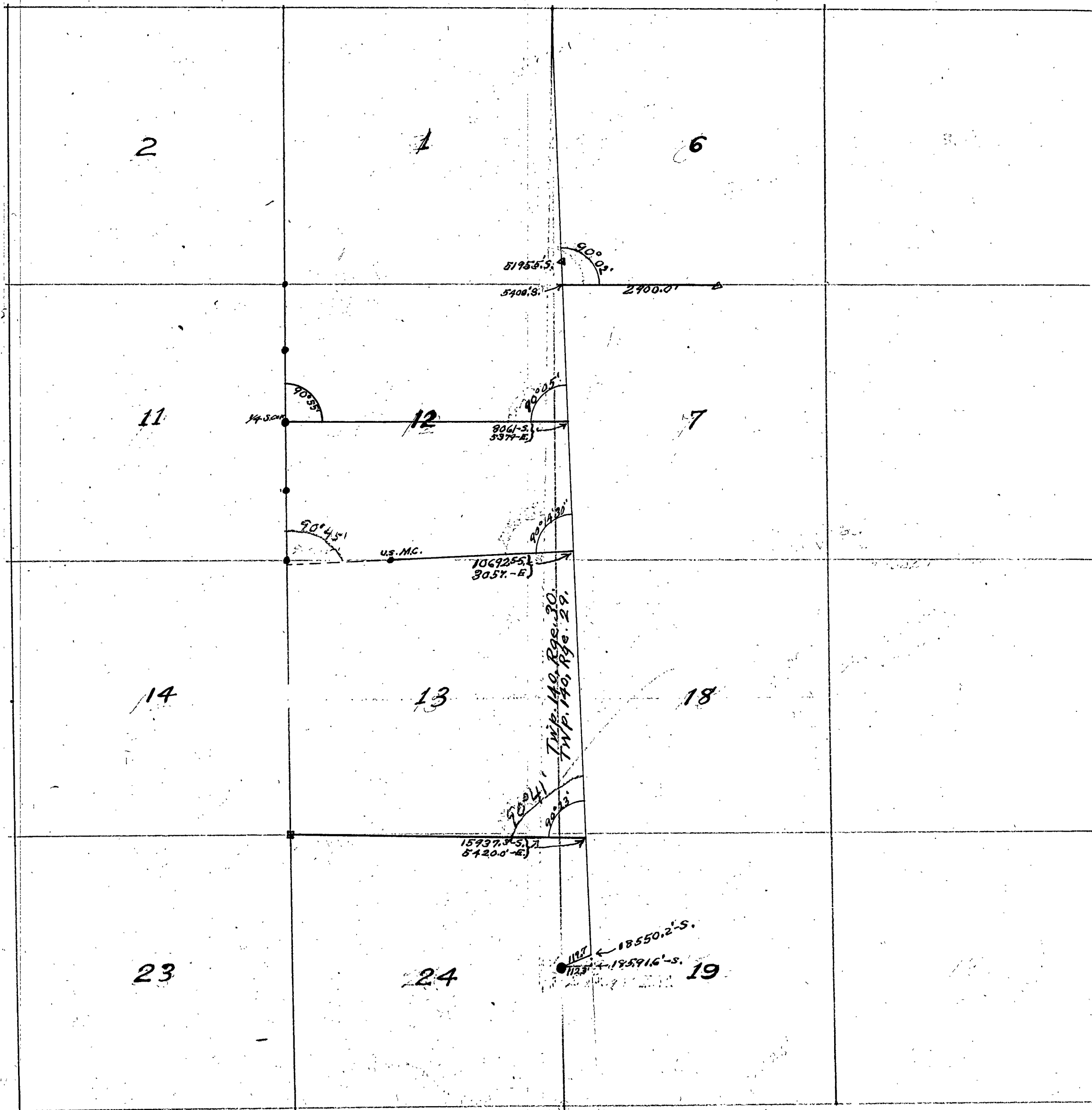


At 3 P.M. left Webb Lake for Hackensack by car with Chas. Shoods. Reached Walker at 5 P.M. By M. & J. Surveyed by J.A. Johnston.

Recorded Dec. 15, 1919. by James H. Flynn.
 County Surveyor.
 By E. B. Kersh. Deputy.

Survey Record No. 426.

C

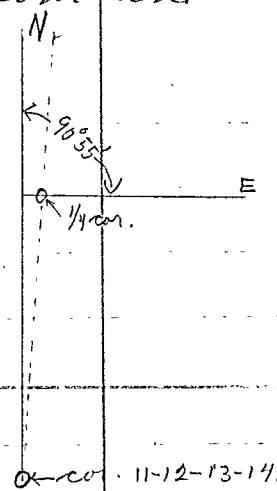


Survey Record No. 426.

Fri. Jan 7, 1916. Thebb Lake Road. Lve. Walker at 9²⁵ by M. & D. train taking Gurley transit, 100 ft chain, flag, and baggage. Reach Hack, at 10²⁰ A.M. Have dinner at Hack, and lve. at 1⁰⁰ P.M. for Thebb Lake with August Kopskie and team. Reach home of Moses Morris at 3⁰⁰ P.M. and arrange to stay with him while surveying northern part of Thebb Lake Road. Stay with Morris for supper and bed. J. A. Johnston. Sat. Jan 8, 1916. J. A. Johnston transit, ^{under chain} Morse Morris, axe, flag, and chain. He set the 1/16 cor and the 1/4 cor along the west side of sec. 12-140-30 by offsets from Baldwin's random line. See pages 5-6-7. At 1319.75 set spike in ground for the S 1/16 cor 24.1' East B. D. for this cor. are. Oak 6" S, 06 E 5' ft. - Pop. 5 740 E 101.5' ft. } Var. 8.30.

At 2639.5 set spike in ground 48.2' east for 1/4 sec. cor. between sec's 11-12 and take B. D. as follows
 Pop. 3" S 60 E 8.1' - Pop. 3" N 45 E 14.2' } Var. 8.30. At 3959.25 set N. 1/16 cor. Jamk post 2" by 2" 72.3' each
 B. D. are. Jam. 5" N 10 E 2.9' Jam 8" N 80 E 8.8' From 1/4 cor set at 2639.5 on Baldwin's random line started east on a line making an angle of 90° 55' with random line.

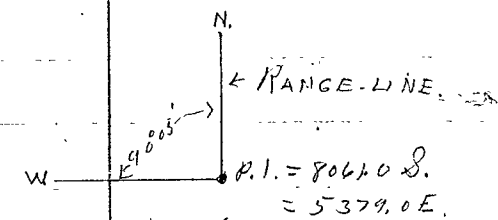
At Sta. 440.7 ft hub
 " " 700.0" enter marsh
 " " 1050.0" lve. "
 " " 1229.8" hub.
 " " 1300.0" enter marsh.
 " " 1575.0" " Lake.
 " " 3850.0" lve. "
 " " 3935.0" hub on sand ridge near lake. J. A. Johnston.



Mon. Jan 10, 1916. Continue east on 1/4 line thru sec. 12. Johnston transit and chain, Morris axe and flag. At Sta 4327.5 ft hub - nail in pop. stump.

" " 4567.3"
 " " 5040.0"

The now go to hub on range line run by Nick Hairy between sec's 1-140-30 and 6-134-30 and set inch. up at hub 5195.5 ft. From this point we continue this line southward. At 5235.0 enter Thebb Lake. At 7300.0 lve lake enter and cut swp. At 7468.8 hub { spike on narrow ridge } At 8061.0 intersect E and west 1/4 line thru sec 12 at 5379.0. At 8061.0 south on random rge. line = 5379.0 east on random 1/4 line thru sec 12-140-30. The N. 2L angle at intersection of this true line is 90° 05'

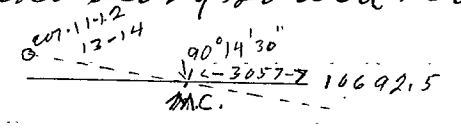


Mon. Jan 10 Continued. At 8837.0 ft. hub spike in log on S. side of large scpa. (E. 78) At 9057.4 ft. Hub nail in stump. Stopped work at 5 P.M. Very cold and windy all day. J. A. Johnston.

Survey Record No. 426.

FIFTH 61

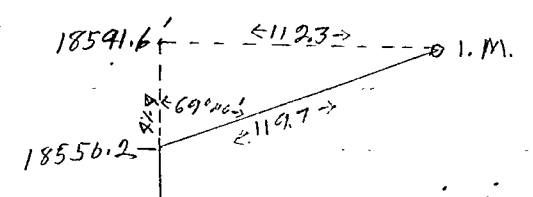
Tues. Jan. 11, 1916 Continue south on random eye line. Johnston transit and chain, Morris chain, flag, and axe. At Sta. 215.5 Hub. spike in ground. At 9525.0 enter Shett Lake. At 10692.5 intersect random line along south side of sec. 12. At 3057.0 east from M. C. N. Th. angle = $90^{\circ}14'30''$
 At Sta. 13390.0 lvs. Shett Lake. At 13451.9 Hub. nail in Oak log.
 " " 13473.0 hub. spike in ground. At 14675.4 Hub. spike in ground.



J. A. Johnston.

Wed. Jan. 12, 1916. Continue south on random eye line. Johnston transit and chain, Morris, axe, chain, and flag. At Sta. 14982.4 Hub. At Sta. 15679.4 Hub. At Sta. 16494.2 Hub. Made careful search for M. C. on south side of Shett Lake. but unable to find it. Snow drifted deep and all down trees completely hidden with snow. The weather becomes very cold and as wind increases to a gale it is unfit to work in P. M. and we remain in after dinner. J. A. Johnston. Thur. Jan. 13, 1916

Continue south on random eye line. Weather clear and calm. 75 below zero. Johnston transit and chain, Morris axe, flag, and chain. At Sta. 17823.7 Hub. At Sta. 18550.2 I. M. marking $1/4$ cor. between secs. 24 and 19 white right at an angle of $69^{\circ}46'$ and 119.7' distance. At 18591.6 I. M. sets Shett 112.3' connection for line = $\frac{112.3}{2.00605} = 56.00605$.



Hub. 17823.7 - - 17823.7 x .00605 = 107.8'
 " " " was set west 107.8' and line cut out to I. M. giving part of corrected line. On way back to Morris stopped at Homberg and telephoned to county surveyor and was told to go to Pontoria and survey Hreckow road when there at Shett Lake.

J. A. Johnston. Fri. Jan. 14, 1916. Johnston transit and chain, Morris chain, axe, and flag. Running east from cor. of secs. 13-14-23-24. For starting point drove spoke in side of graded road in line with fence running south. From this point nail in fence post post is S. 11.4'. Nail in telephone post S. E. 16.1' At 1343 center of N. and S. road. At 2297.9 Hub. spike. At 3180 enter swp. At 3780 lvs. swp. At 3943.7 post from which line has been run southward. At 4187.4 Hub. At 5261.0

Intersect old N. and S. line run by J. Th. Curro. At 5420.0 intersect random eye line. At 15937.3 N. Th. angle at intersection $90^{\circ}23'$. J. A. Johnston. Sat. Jan. 15, 1916 In an attempt to find a cor. in twps. 140-29. I ran a line east from chainage 5400 on random eye line. Angle $90^{\circ}02'$ with eye line. At 1268 center of old R.R. grade. At 1331.6 Hub. Continued line to chainage 2400 and searched for $1/4$ cor. between secs. 6-7-140-29 where U. S. Govt. notes call for. U. P. 6' S 48 E 20 Tom. 12 N 10 E 15. Many large tamaracks once stood here but all are now down and with a foot of snow on the ground we are unable to find any sign of B. D's. Johnston transit and chain, Morris flag, axe, chain. J. A. Johnston.

Sun. Jan. 16, 1916 All day at Morris. Wrote up notes and checked up work by roughly platting it. Arrange to have Mr. Morris to take myself and baggage to Hack on Mon. J. A. Johnston. Mon. Jan. 17, 1916. Left Shett Lake with team of Mr. H. Morris at 8:30 A. M. Reached Hack at 10:00. Phoned Mr. Curro regarding survey of Hreckow but had to wait till 4:00 P. M. till final answer came. Was instructed to go to Pine River by train and then to Pontoria by stage.

J. A. Johnston.

C

Survey Record No. 427.

FIELD-BOOK-61.

Survey of). Field notes of the survey of the Hunkow Road 139-29.
 Tue. Jan. 18, 1916. Left Harkness at 10⁰⁰ A.M. by M. & S. Arrive at Pine River at 10³⁰
 and found there was not any stage to Pontonia until the following morning.
 Unable to get a livery till late in the P.M. so decided to wait for the stage
 the morning. Dinner, supper, bed and breakfast at Hotel. 1.25. J. A. Johnston.

Wed. Jan 19, 1916 Bought spikes for use in survey of Hunkow Road. Left Pine River
 by stage at 8⁰⁰ A.M. Reached Pontonia at 11⁰⁰ and walked to home of P. M. Hunkow.

Arranged to stay ~~at~~ at his home during my survey of road and engaged him to
 help me with survey. P.M. Beginning at a point of the south line of sec. 9-139-29
 (61.7' west-) 931.0' east of 1/4 cor. between sec. 9-16. 61.7' west of N. E. no 58. on west
 side Ponto Lake. I set my transit and sight west of sec. line and turn angle 91.02
 to the right for the first course of traverse of road. Spikes were driven at all angle points
 and angles read as right and left deflection angles. Magnetic bearing was taken for
 each course of survey.

Sta.	Angle	Mag. Bearing	Dist.	Remarks
1	91.02 R	N 6° 15' 21"	464.6	Slope on Jack Pine 20.7 east of sta. 2
2	101° 14' R	N 3° 30' E	232.8	
3	102° 8' R	N 14° 20' E	293.5	Jack Pine. 14.7' E.
4	201° 14' L	N 5° 30' 21"	893.8	Pop. 10.6' E. J. A. Johnston transit and chain P. M. Hunkow chain and flag. J. A. Johnston.

Thur. Jan 20, 1916. Continue traverse of road.

Sta.	Angle	Mag. Bearing	Dist.	Remarks
5	25° 14' L	N 31° 30' 21"	364.8	Jack Pine 3.3' west
6	14° 12' R	N 17° 30' 21"	379.4	Poplar. 2.2' east.
7	40° 24' R	N 23° 20' E	451.8	
8	11° 15' L	N. 12° 00' E	491.6	
9	7° 00' L	N. 5° 00' E	386.5	
10	11° 00' R	N. 16° 00' E	297.6	
11	19° 01' R	N. 35° 00' E	467.6	
12	9° 45' L	N. 25° 00' E	205.5	
13	22° 25' R	N. 47° 45' E	488.1	
14	3° 15' L	N. 44° 20' E	298.8	
15	54° 19' L	N. 9° 45' 21"	221.0	to sec cor. 9-10-3-4. Old Harkness cross Road crosses east and west sec. line 180.5 east of sec cor. for 3-4-9-10. J. A. Johnston.

Fri. Jan 21, 1916. Visited Pontonia Post office to enquire for mail as I expected further
 instructions regarding continuation of survey of old Harkness Road. Receiving no
 mail. Called the County Surveyor by phone but found he was not in Walker. Decided
 that in the absence of further instructions I would not survey road beyond north
 side of sec. 9. and prepared to leave for Pine River by stage ~~at~~ Sat. morning.

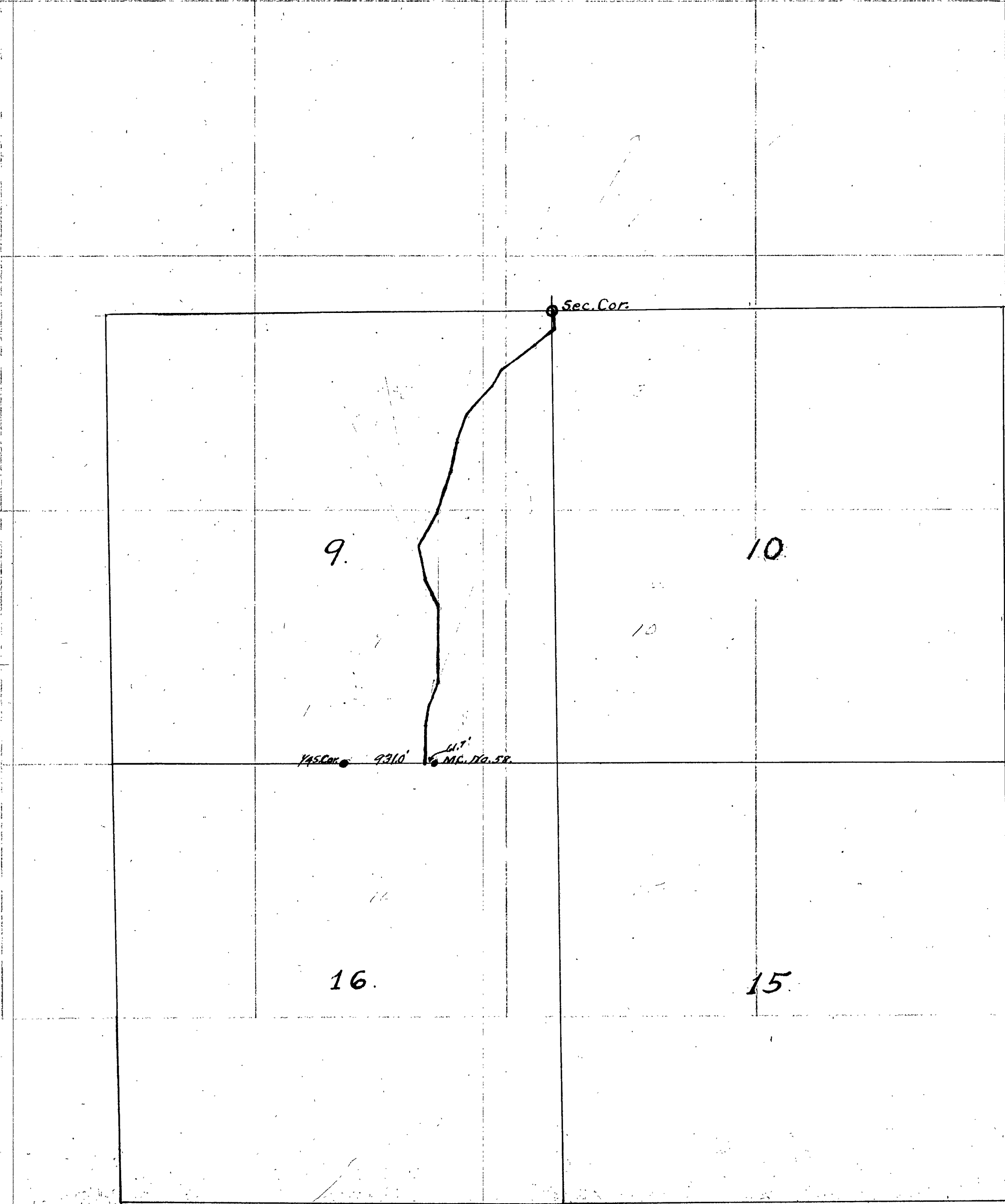
J. A. Johnston.

Sat. Jan. 22, 1916. Got outfit over to Pontonia in morning and left for Pine River at 12⁰⁰
 noon. Arrived at Pine River at 3 P.M. Found letter there from County Surveyor instructing
 me to come to Walker. Left Pine River at 1⁵⁷ A.M. Sunday morning. Hotel Pine River 75¢
 Stage 9.00 J. A. Johnston. 141 Deputy County Surveyor Surveyed 1916

Recorded by James H. Dwyer.
 Rec. E. B. Harsh.

C

139-29



9.

10.

16.

15.

Sec. Cor.

YAS. COR. 931.0 MC. DO. SR.

C

Survey Record No. 428.

A28

<p>Field notes of the survey of a County road in sec. 4-136-29 Cass County, Minn. J. Pomasel and Howard Swanberg leave Shakopee for Jenkins at 9³⁰ A.M. Arrive at Jenkins at 11⁴⁵ A.M. Hired auto from Mr. W.M. Hardy to drive us to Mr. Mc Coshan in sec. 4-T. 136-R. 29. Dr. Hardy as driver for livery \$2.00. Begin chaining with Mrs. Coshon July 15-1916. Beginning at the S. 2h. cor. of sec. 4-136-29 running west on 8°11' Var. corner 2 1/4" pipe. Bearing trees to S. 2h. cor. sec. 4-136-29. N. Pine stump 20" course. S 29°35'E 64' marked S 35°E 97 links. N.P. 15 inch N 34°05'E 97.8 ft. marked N 32°E 148 links; using 8°30' Var. on bearing trees.</p>		
Sta. 968.8 ft. hub		
" 1959.6 "		
" 2976.2 "		
" 4732.1 "		
" 5102.6 "		
" 5269.5 "	sec. cor. S. 2h. cor. sec. 5-136-29	Random line 16.8' north of cor. No bearing trees or 1/4 sec. cor. found.
<p>Set to the S. .003188 per ft. or 13188 per 100 ft. using 8°17' Var. Random course equals S. S. 88°48' 2h. My. chain 5269.5- U.S. chain 5266.8. Pomasel and Swanberg start to work at 1¹⁵ P.M. and found S. 2h. cor. of sec. 4-136-29. it being covered up and hard to find. After being found we take course to two old bearing trees shown on page 40.</p>		
<p>Course.</p>		
5269.5	16.8	sec. cor. set with 2" iron pipe.
3952.13	12.6	to S. for true line.
2634.75	8.4	set to south for true line.
1317.38	S. 88°48' 2h. 4.2	Random course.
<p>0.00 = S. 2h. cor. sec. 4-136-29.</p>		
<p>July 16, 1916. Starting at sec. cor. of S. 2h. sec. cor. sec. 5-136-R. 29. and running west on 8°20' Var. to S. 2h. cor. sec. 6-2644.4 Found 1/4 sec. cor. 2' south of random line. Course of Random line is N 89°44' 3h. 2h. tree marked 1/4 S. 10°22'E 6 ft. is a dry Tom. stump. Var used 8°17'. Set stakes to south .000756 per ft. or .0756 per 100. Start at 1/4 cor. and running west to S. 2h. cor. sec. 6-136-29. Continuation of chaining on 8°20' Var. courses. N 88°44' 2h.</p>		
<p>At. 5154.9 S. 2h. cor. of sec. 6-136-29. Set up at 1/4 cor. and sighted on S. 2h. cor. sec. 6. No offsets to be made.</p>		
<p>At. 5154.9 S. 2h. cor. sec. 6-136-29.</p>		
" 3986.5 = 2h. 1/16 "	"	" " " "
" 2644.4 = S. 1/4 "	"	" " " 1/4 cor. found.
" 1322.2 = E. 1/16 "	"	" " " on south line set to S. 1 ft. 0.00 = S. 2h. cor. sec. 5-136-29.

FIELD BOOK 62

July 14, 1916. J. Pomasel and H. Swonberg leave at 7⁴⁵ a.m. to run sec. line from S. 2¹/₄ cor sec 4 136-29 to S. 2¹/₄ cor sec 6-136-29. Finished the line and arrived home at 7 P.M. 1/16 and 1/4 cor. set to be set. July 17, 1916. Walk to Pequot to telephone J. Th. Curro. Have dinner at Pequot. Set the 1/16 and 1/4 cor. on true line. July 18, 1916. Pomasel, Swonberg and Mr. Cochran take team to haul sand and cement for cor. Mr. Cochran as driver and owner of team. The corners set are - S. E. cor sec 5 - Gal. Pipe. E 1/16 cor. south line of sec 5 9" cement monument. S. 1/4 cor. ~~same~~ south line sec. 5 2 1/4" Gal. Pipe. 2¹/₁₆ cor. south line of sec. 5 - 9" cement monument S. 2¹/₄ cor. sec. 5 2 1/4" Gal. Pipe. E 1/16 cor. south line of sec 6 9" cement monument S. 1/4 cor. south line sec 6 cement monument 7" 2¹/₁₆ cor. south line sec. 6. cement monument 7" S. 2¹/₄ cor. sec. 6 2 1/4" Gal. Pipe.

July 18, 1916. J. Pomasel, and Howard Swonberg leave Jenkins at 3³⁰ P.M. for Walker. Work completed on south line of sec's 5 and 6. Twp 136-Rge 24. Mr. Cochran takes us to Jenkins.

Surveyed by John F Pomasel - 1916:
Deputy County Surveyor.

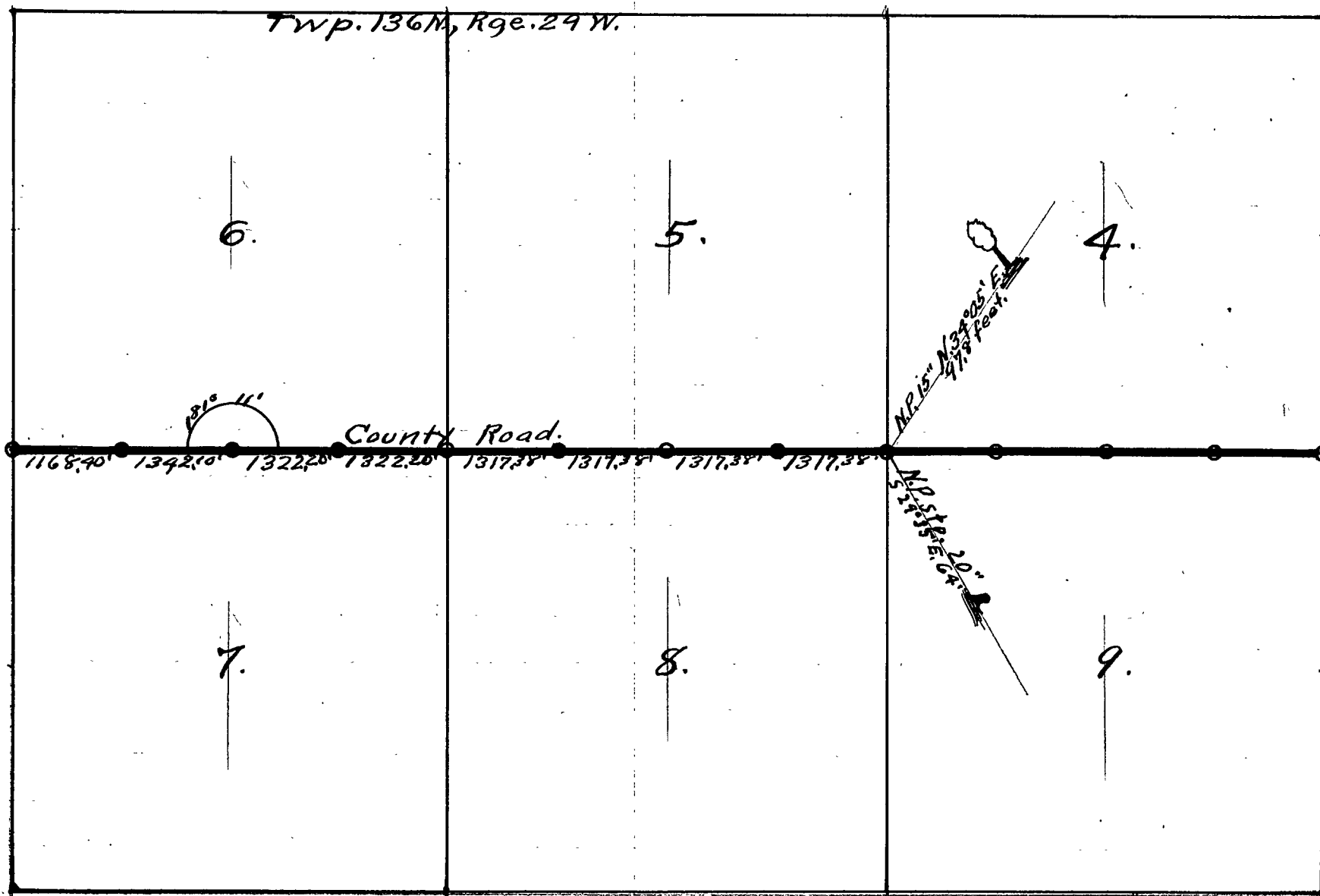
Recorded Dec. 12, 1919.

By James H. Flynn.
County Surveyor.
Per. E. B. Wash.
Deputy.

Plat of Survey Record No. 428

Plat of
Survey Record No. 428.

○ Iron Monuments.
● Cement "



May 15, 1915, Thacker for Cass Co. A. M. Leave Tholker on 9:45 train for Hockensack
 to meet Mr. Riley, Hotel Bill. at Hotel Chase. \$5.75 R.R. fare 33¢. Dinner at Lake View
 Hotel. Nobody comes in for me so I take 4:19 train for Tholker. I go to office and
 make out bills for Homebrook. Supper and over night at Chase. 1:00
 May 16, 1915. I take 12:37 train back to Hockensack. Breakfast at Lake View
 Mr. Harry LaVallee comes in for me sent by Mr. Riley. Dinner at Lake View
 J. A. Donner. May 16, 1915. Mr. LaVallee take Geo. Dilworth, myself, and outfit, and
 five 2" by 48" Galv. Iron Pipes out to his place where we stay during the survey
 of sec. 11-140-29. Supper and over night with LaVallee. May 17, 1915. The walk over to
 see Mr. Riley and he gives me a small blue print of the land he wants to fence
 and tells me about the work that has been done here by Ed. O'Donnell.
 The walk over to sec. cor. for sec. 2-3-10-11-140-29. where I find and iron
 pipe set by Curo for true cor. J. A. Donner. I start Geo. Dilworth to brush
 out the line running S 89° 58' E. Var. 8° 30'. I walk down to find cor. for
 10-11-14-15 but I do not find it. Dinner with LaVallee. Dilworth continues
 brushing and I go to look for sec. cor. I find a Galv. iron pipe 2" by 48" set
 for the true sec. cor. of sec. 10-11-14-15-140-29. I find walk down to M. C. No 20
 and find a post for true M. C. with two N.P. B. Ds. I walk along Lake
 shore and find a stake with a tack in it for true M. C. No 21 with two
 Oak B. Ds. marked plainly. I look for M. C. No. 22, 140-29 but find nothing.
 Quit for now. Over night at La. V. - J. A. Donner. May 18, 1915. Dilworth and I go
 out and continue line each. Ob. Ab. 844.3 ft. set. hub. @ 996.9 set hub
 @ 1300.7 ft set hub. I turn 60° L. to triangle Lake. @ 10 ft enter swp. @ 170 lve. swp.
 @ 207.1 ft. set hub @ 651.8 set hub. @ 988.9 set hub. Quit for dinner with LaVallee.
 I turn 60° to right. Dilworth leaves and walks to Hockensack I cut brush all P.M.
 May 19, 1915. I call up auto livery from North Star Camp and Garity comes out
 and takes me and outfit to Hockensack because I can not get any crew to work
 Dinner at Lake View Hotel. I call up Walker and they tell me Curo is at Hockensack
 I wait at Hotel for Curo. Supper and over night at Hotel. May 20, 1915 All
 day in Hockensack hunting up a crew. May 21, 1915. I go to Tholker on train
 and help Curo get notes on work in sec 2, 140-29. Supper at Chase. May 22, 1915
 Leave Tholker on 12:37 train for Hockensack. I go from Tholker to sec. 2 and
 start survey and then back to Hockensack for crew. May 23, 1915. H. LaVallee
 and team with me and crew to Woman Lake. No charge for team or for time
 of myself and crew as I put in a day for yesterday. May 24, 1915. Ernest Fusler,
 Elmer Horst, 2 Mrs. Bergess, and I continue east from where I left off on sec line
 bet. sec. 2-11-140-29. From 988.9 turn 60° to the R. At 215.4 set hub - at 500.0 enter
 swp. - at 675 lve. swp. - at 724.9 set hub. - at 832.5 enter swp. - at 918.0 lve. swp. - at 976.8
 set hub. At 988.9 set hub on true random line running E. and th. The continue
 east with the random line. At 2543.5 set hub. At 2661.4 set hub turn 90° L.
 for offset. At 146.4 set hub. Turn 90° 00' R and run parallel to random line. At
 308. enter marsh. At 403. lve. marsh. At 491.8 set hub. At 905.2 set hub.
 Dinner with LaVallee. Turn 90° to R. at 146.4 set hub and turn 90° to R.
 which brings me back on random line marking this hub at 146.4 at 3566.4 The
 continue east on random line. May 24, 1915. At 3788.3 set hub. At 4118.0 cross
 road running N. and S. At 4268.7 set a hub. at 4910 enter lake. At 5301.0 lve.
 lake. At 5378.1 set a hub. Look for sec. cor. to sec. 1-2-11-12-140-29 but am unable

Riley

Survey Record No. 429.

FIELD BOOK-66

my old B.I. I leave one man to sharpen the tools and go over and run a few
 grades for Mr. Huber Over Night with H. La. Vollee. May 25, 1915. Starting at the
 sec. cor. of sec's. 10-11-14-15-140-29- I run N. 70° 7' at 29.50 set hub turn 80° L. at 128.7
 ft. set a hub. At 271.3 set a hub sighting on hub at 29.50 ft. I turn on hub across
 lake which I set from hub at 29.50 ft. and back sighting on true sec. cor. I continue
 North. At 2372.4 set hub.

" 2614.8 "

" 2729.0 cross road running N.E. and S.W.

" 3297.7 set hub

" 3429.0 "

" 3570.0 enter swp.

" 3770.0 lve. "

" 4635.0 set hub goes west 45.24' to true line. Quit for night with La. Vollee

May 26, 1915. I continue N.

At 4865.0 enter swp.

" 5075.0 lve. "

" 5281.3 the true sec. cor. of sec's 2-3-10-11-140-29 set west 51.60 ft.

Starting at true sec. cor. I run set on 6 rods I run North 70° 8'

At 250.0 enter marsh.

" 330.0 lve. "

" 725.8 set hub.

Note. For correct chaining of this mile see pages (35) 54.

" 1116.2 "

" 1297.0 enter slough.

" 1572.0 lve. "

" 1988.2 set hub.

" 2741.2 "

" 2972.2 "

At 535.3 set hub turn 90° R. at 199.5

set hub turn 90° L. thinner in the woods. I continue North on the Random line

At. At 326 set hub = 3202.6 N.

" 3346.7 "

" 3460.0 enter slough.

" 3575.0 lve. "

" 3842.1 set hub.

" 4260.6 "

" 4347.3 "

455

" 4591.3 "

At. 50.77.2 set hub 9 ft. from lake and water edge

Quit for night at La. Vallee's. May 27, 1915. We look for M. C. No. 59-140-29 where U.S. notes call for. $\text{Z.P. } 14 \text{ N } 72 \text{ E } 46. \text{ Z.P. } 15 \text{ S } 44 \text{ E } 26.$ We find both B. J. stamps from which I set a $4" \times 4" \times 36"$ birch post for the true M. C. No. 69. Both B. J. stamps were plainly marked. Starting from M. C. No. 69 and backsighting on M. C. No. 67 (on iron pipe set by Curio). I run east $\text{Var. } 7^\circ.$ At 42.6 ft set hub. At 189.0 enter lake. At about 200 ft intersect N and S. line in lake. At about 5096 ft. At. 3900.0 leave lake. At 390.40 center of M. C. No. 67. We look for the N. 26. cor of sec. 2-140-29 where the U.S. notes call for. $\text{Z.P. } 10 \text{ S } 14 \text{ E } 50 \text{ St. } 14 \text{ S } 75 \text{ E } 40$ We are unable to find anything of the old B. J. Starting from M. C. No. 67 and backsighting on true line I run east $\text{Var. } 9^\circ.$ At 224.6 set hub. Quit for dinner in woods. P.M. We continue east.

At. 429.7 set hub.
 " 633.2 " " "
 " 975.0 enter swp.
 " 1270.0 lve. swp.
 " 1275.5 set hub.
 " 1430.2 " " "
 " 1923.8 " " "
 " 2285.4 " " " Look for $\frac{1}{4}$ sec. cor on N. side of sec. 2-140-29. but are unable to find any of the old B. J. Quit for the night with La. Vallee. May 28, 1915 We continue east. Begreen leaves for Hockensack.

At. 2641.6 set hub.
 " 3172.4 " " "
 " 3600.0 enter slough.
 " 3700.0 lve. "
 " 3736.8 cross old Hockensack and Longville road running N. and S.
 " 3911.1 set hub.
 " 3948.0 enter lake at high water mark. We find a stake set by Curio on the West side of the lake for a witness cor. Dinner in the woods. P.M. We look for witness cor. on south side of lake 246 links south of the sec. cor of the N. E. cor. of sec. 2-140-29. where U.S. notes call for. $\text{Z.P. } 22 \text{ S } 10 \text{ E } 30. \text{ St. } 10 \text{ S } 65 \text{ E } 50.$ We find the old S. E. B. J. standing and plainly marked. Quit for rain. Over night at La. Vallee's. May 29, 1915. A.M. We walk to witness corner 162.36 ft south of the N. E. cor. of sec. 2-140-29. where we find the old S. E. B. J. plainly marked from which I set a $4" \times 4" \times 36"$ aspen post 18" in the ground for the true witness corner. Starting from the witness cor. I run south. $\text{Var. } 8^\circ.$

Will Cor. etc

At. 108.2 set hub.
 " 231.6 " " "
 " 573.5 " " " Dinner in the woods. P.M. We continue south.
 " 650.0 cross old road running east and west.
 " 1000.6 set hub. Quit for night and sail up. Over night with La. Vallee.
 May 30, 1915 Sunday, Begreen comes back for supper. May 31, 1915 We continue south.
 At. 1466.9 set hub in middle of new Hack. and Longville Road.
 " 1728.7 " " "
 " 1991.6 " " "
 " 2189.6 " " "
 " 2343.0 " " "

Survey Record No. 429.

At. 2566.7 ft. set hub.

" 2570.0 " enter Cedar swp. dinner with La. Vallee. P.M. I look for $\frac{1}{4}$ cor. between sec. 1- and 2-140-29. where U.S. notes call for Spruce 10 S 70 E 10 = 6.60 ft. I find the old Spruce still standing and plainly marked from which I set a 4" x 4" x 48" cedar post for the true $\frac{1}{4}$ sec. post.

At. 2632.3 the true $\frac{1}{4}$ sec. cor. sets west 10.50 ft. I then continue south with random line.

" 3275.0 leave swp.

" 3359.4 set hub.

" 3881.5 " "

" 3900.0 enter Cedar swp.

" 4800.0 loc. " "

" 4866.0 enter Stornan Lake.

" 5105.0 loc. " "

" 5204.3 set hub. Quit for night with La. Vallee. June 1, 1915. Starting from iron post (set by C. Uno) for the sec. cor. for 10-11-15-14-140-29. I turn 60° R.

At. 300.0 enter swp.

" 724.0 loc. " "

" 803.2 set hub - turn 60° L. I run to intersection of random line running E. and 2h.

At. 803.2 set hub. I then continue with random.

" 901.4 " " Quit for dinner with La. Vallee. P.M. I then continue east.

" 1124.0 cross road running N and S.

" 1379.0 enter swp.

" 1476.0 loc. " "

" 1988.8 set hub.

" 2338.1 " " ten ft. from high water mark of Stornan Lake. Quit for night with La. Vallee. June 2, 1915. Starting at the $\frac{1}{4}$ cor. between sec. 1-2-140-29. I run west for 8'.

At. 166.5 set hub.

" 372.0 cross old road running N. & S.

" 591.5 set hub.

" 1248.0 cross new Hackensack and Longville road bearing S. 2h. & N. E. Quit for dinner with La. Vallee. P.M. I then continue west.

" 1286.5 set hub turn 83° to the left to triangle Lake.

" 438.0 cross new Hack and Longville Road bearing N & S.

" 593.8 set hub. Turn 57° 54' for L between hub on ends and west side of Lake. 9 hub on west side of Lake = 2083.00 ft.

At. 2268.8 set hub turn 90° R.

June 3, 1915. Connecting random line on west side of sec. 11. Hub at 2640.90 goes west 25.95 ft. where I set a 4" x 4" x 36" N.P. post for the true $\frac{1}{4}$ post or cor. on the west side of sec. 11-140-29 with new B. De. Viz. N.P. 8 S 29° 34' 2h 33.90 ft. with ticks.

N.P. 12 S 69° 3' E. 55.60 ft. - Var 7°. Starting from true $\frac{1}{4}$ sec. cor. I run N.

89° 58' E. Var 8° At. 570. set hub. Quit for night with La. Vallee. June 4, 1915.

I then continue east. At. 865.9 set hub. At 1103.4 set hub turn 90° L. At 187.5

set hub turn 90° R. at 80 ft. enter swp. At. 650 loc swp. At 750 loc set hub. turn

90° R. At 187.5 set hub. turn 90° L. Hub at 187.5 = 1853.4 on random. Quit for dinner with La. Vallee. P.M. I then continue east.

4-1-2
14-29

10-11-14-17
17-29

C

Survey Record No. 429.

FIELD-BOOK-66

At 2165.2 set hub.			
" 2375.8 "			
" 2778.7 "			
" 2855.0 enter high water mark on Woman Lake. Quit for night with La. Valle.			
June 5, 1915. Rains in the morning and we all go to Hobkensack with Harry La Valle. June 6, 1915. P.M. We come back from Hobkensack with La. Valle. Supper and over night at La Valle's. June 7, 1915. Connecting random line on west side of sec 11-140-29. Hub at 3961.35 goes west 38.70 ft. where I set a 4"x4"x36" oak post for the true 1/4 corner starting from the true 1/4 cor. Run N 89° 58' E Var. 8°.			
At 100.0 ft. enter swp.			
" 390.0 loc. "			
" 757.6 set hub.			
" 1228.6 "			
" 2640.0 "			
" 3430.3 "			
" 4128.7 "			
" 4150.0 cross New Hobkensack and Longville road bearing N. and S. Dinner with La. Valle. P.M.			
At 4412.8 ft. set a hub.			
" 5077.5 "			
" 5090.0 enter high water mark on Woman Lake.			
P.M. Hub at 1320 goes west 12.90 ft. where I set a 4"x4"x36" Birch post for the true 1/4 cor. Starting at true 1/4 cor. Run N 89° 58' E Var. 8°.			
At 150.0 enter swp.			
" 400.0 loc. "			
" 491.9 set hub.			
" 1693.0 "			
" 1975.4 "			
on high water mark of Woman Lake. Dinner with La. Valle. P.M. Wait for Curo to come out. June 9, 1915. All take dinner out with us. Waiting for Curo with special ^{field} notes. Figure connections all day.			
June 10, 1915. Nobody works. Dinner on notes Sec 2. Rains all day. Berquen 1/2 P.M. J. St. Curo comes out in P.M. with Commissioner Drake and they get stalled. They walk to North Star Camp, and Allan St. Huber brings them over in launch. Harry La Valle take team and helps Drake start for Gockus. Curo stays at La Valle's. Bill Berquen goes with team. Curo's trip chgd to sec 11. Auto livery Curo and Berquen's time chgd to sec 11. Dinner time chgd to sec 3. June 11, 1915. At the cor			
of sec 2 1-2-11-12 U.S. notes call for Fir 6 S 35 E 20. Bl. Oak 8 S 52 E 65. Birch 5 N 50 E 48. We find the old S. E. B. I. standing and plainly marked and the stump of the old N. E. B. I. which check out for course and measurements for the original positions of the B. I's. but the S. E. B. I. is a birch instead of a fir we set a 2 1/4 x 4 1/2 Galv. iron pipe with cap and spike for anchor rod and driven its full length in the ground in a 1" mound of dirt covering a small mound of rock piled around it.			

140222

C

429

and marked new B.D. Cross in highest point of 4 ft stone bears $N 31^{\circ} 31'$ $E 9.45$ ft.
 N.P. 14 $N 17^{\circ} 24'$ $E 37.00$ ft. Bol. 2 $N 28^{\circ} 23'$ $E 2460$ ft. Bir Shump & S $31^{\circ} 40'$ $E 1435$ ft. N.E
 corner post of porch on Harry La Vallee's new house bears $S 44^{\circ} 10'$ $E 74.20$ ft. All
 at 8° Var. At a point on the random line 5417.10 E. the cor to sec. 1-2-11-12 sets
 south 97.00 ft. In running random line between sec 2-11- we set hubs
 at the following points At 844.30 - At 996.90 - At 1307.00 - At 2295.90.
 At 2543.50 - At 2661.40 - At 3566.60 - At 3788.30 - At 4267.70 - At 4795.80 - At 5378.10
 At 5417.10 Hubs at 5417.10 iron cor to sec. 1-2-11-12 sets south 97.00 J.A. Donner.
 Correcting back. [01791].

- 5417.10 goes S. 97.00
- 4795.80 " "
- 4268.70 " "
- 4062.82 " " 2275 To E. $1/4$ bet. sec. 2 and 11.
- 3788.30 " " 67.85
- 3566.60 " " 63.88
- 2708.55 " " 48.50 To $1/4$ bet. sec. 2 and 11.
- 2661.40 " "
- 2543.50 " "
- 2295.95 " "
- 1354.27 " " 24.25 to 2h $1/16$ bet. sec. 2 and 11
- 1307.00 " "
- 996.90 " "

844.30 " " P.M. I lay off in P.M. Curro, Buzqueen, Gforth and Dulla work in
 P.M. and set hubs and high stakes and cut out the true line $1/4$ mile west. They
 set hub and tack for east $1/16$ and start line north at 8° . They also set stake
 in west edge of swampy lake for true $1/4$ cor. bet. sec. ~~2-11~~ 2-11. and start
 picket line north 8° . All at N. La. Vallee. Frank R. Donner. Sat June 12, 1915
 Rains hard all day. Curro and I figure connections. Curro lay up. In running
 random line south bet. sec. 1-2 Var. $8^{\circ} 30'$. We begin at thicket cor at 246 lbs.
 = 162.34 ft. of S chain. South of N.E. cor of sec. 2. and haul set hubs as follows.
 108.20 - 231.60 - 573.50 - 1000.60 Hubs at 1188.00 Temp. $N 1/16$ bet. 1-2. At 1728.70 - 1991.60
 2189.60 - 2343.00 - At 2508.00 Temp. $1/4$ bet. 1-2. At 2566.70 - 2632.30. The $1/4$ cor. bet. 1-2 sets
 west 10.50 ft. At 3359.40 - 3881.50. At 5148.00 Temp Cor. to 1-2-11-12. At 5204.30 At 5234.50
 the true iron cor to sec. 1-2-11-12-140-29- sets west 17.00 ft. Correcting $N.E. 1/4$. At
 At 2508.00 ft south of the 2h E. the true $1/4$ bet. 1-2 sets 124.30 ft south to
 2632.30 S. and 10.50 ft west. Hubs go west. [003982] ft.
 and south. [049561 + 8]. $N.E. 1/4$ sec. 2.

- 1188.00 goes 5888. to 124688 - S. thence west 5.00 ft to north $1/16$ cor. bet. 1 and 2.
- 108.20 goes west 0.43.
- 231.60 " " 0.93.
- 573.50 " " 2.29
- 1000.60 " " 4.00
- 1728.70 " " 6.92
- 1991.60 " " 7.97
- 2189.60 " " 8.75
- 2343.00 " " 9.37
- 2566.70 " " 10.26.

1-2-11-12
 14029
 14029

Survey Record No. 429.

N.E. 1/4 sec. 2-140-29. Connecting west. [0.0 2498] + 10.50 24 S.E. 1/4.

3359.40 S. = 727.10 S. and goes west 1.81 + 10.50 = 12.31

3881.50 S = 1249.20 S. " " " " 3.12 + 10.50 = 13.22

Sunday, June 13, 1915. Rain stops near morning and it clears up about 9 A.M. still heavy wind from N.E.

Mon. June 14, 1915. P.M. Starting at the N. 1/4 cor. between secs. 1-2-140-29 I run random line west. At 133.80 - hub

" 263.50 - "

" 759.10 - "

" 1273.30 - "

" 1508.20 - "

Here I leave to see a doctor and then work puts in remainder of the day clearing this line west by means of pickets.

Tues. June 15, 1915. Following E. J. J. instruction I leave Geo. C. Hillions place where I have bounded during the survey of the range line between 140-29-141-28 and proceed to La Valle's place to help Frank A. Donner on the survey of sec. 2 and 11-140-29.

I arrive at La Valle's at 8.30 A.M. and take Donner crew (William Berguen, Ernest J. J., and Clement Fork) and continue west on random line begun yesterday by Donner, through about center of sec. 2-140-29.

At 2243.10 - hub

" 2618.90 - "

" 3065.20 - "

" 3828.50 - "

" 41257.80 - "

" 4652.90 - "

" 5400.00 - "

5514.70 the true N. 1/4 cor. bet. secs. 2-3-140-29 sets north 194.00 feet - 90° from random. Wed. June 16, 1915. Rain all morning no work P.M. J. R. Somert takes E. J. J. and E. J. J. and starts a random north from the true 1/4 sec. cor. between secs. 2-11-140-29. He runs about 2000 ft. without chaining and quits for the night at La Valle's. William Berguen and I check chain the N. boundary of sec. 2-140-29.

At 723.00 - hub.

" 1113.50 - "

" 1984.50 - "

" 2755.70 - "

" 2964.50 - "

" 3498.70 - "

" 3530.40 - "

" 3674.40 - "

Quit for night Geo. Miller. Thurs. June 17, 1915. Geo. Miller, J. J. J. and chain, William Berguen, Floyd and chain, Ernest J. J. and E. J. J. are 300' steel steel chain. New Gurley Transit. Donner leaves for Hobbs to see doctor. Miller and crew continue check chaining west boundary of sec. 2-140-29. At 4191.00 hub. At 4677.20 hub. At 4919.70 hub. At 5403.90 hub. At 5424.10 N. 2h. cor. sec. 2-140-29 sets 68.00 ft. west. The now go back over random and set 1/4 and 1/16 cor. as per diagram (Page 56 - Book 66) on following page. Geo. Miller. Fri June 18, 1915. Rain all morning and we do not go out. P.M. Geo. Miller Transit and chain, Wm. Berguen fly and chain E. J. J. and E. J. J. set the 1/4 cor. and the 1/16 cor. on the N. boundary of sec. 2-140-29.

random 2-140-29

C 428

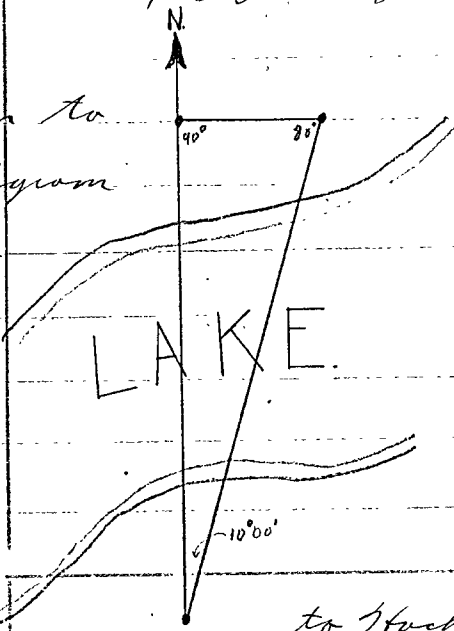
11

FIELD-BOOK 68

as shown on diagram on page 56 - Book 66. We then go to the true E $\frac{1}{16}$ cor. on south boundary sec. 2-140-29. Starting at this point we run a random north on $N 0^{\circ} 13' E$ (Var. $8^{\circ} 30'$) without chaining Run about $\frac{1}{4}$ mile and quit for night. Geo. Miller. Sat. June 19, 1915. I ride to Hackensack intending to take train to Shaklee to see John H. Curo regarding this survey. Arriving in Hackensack, I find a letter from Curo stating that he will be out here on Tues. next. I walk back to La. Vallee's. Crew does not work. Geo. Miller. Sun. June 20, 1915. All day at La. Vallee's. No work. Geo. Miller. Mon. June 21, 1915. Geo. Miller transit, Elmer Hoch ase, Ernest Jueler ase, Elmer Baugren flag. We continue north on $\frac{1}{16}$ line begun last Fri, being random line thru about center of sec. 2 E $\frac{1}{2}$ sec. 2-140-29. ~~Sped no chaining.~~ I triangle lake as follows.

Over night at La. Vallee's. Geo. Miller.

June 21, 1915. I come up from Brainerd on 4.19 train to Hackensack. I meet Curo on train he gives me a telegram for Geo. Miller and he also gives me some notes which he received from St. Paul from which we can set the true N. H. cor. of sec. 2-140-29. I get off at Hack. and Curo goes to Shaklee. I strain hard for about $\frac{1}{2}$ hr. and then I get Geo. Garity to take me out to Harry La. Vallee's place supper and over night at La. Vallee's. Miller walks



to Hackensack. Frank A. Honner.

June 22, 1915. I take crew and walk over to the N. H. sec. cor. of sec. 2-140-29 and from the notes which Curo received from St. Paul I set a 2" by 48" Galv. iron pipe with cap 30" in ground 146.50 ft East of M.C. No. 69 for the N. H. sec. cor. sec. 2-140-29. From the true sec. cor. just set by me I measure over 23.10 ft. east where I set a 2" by 48" Galv. iron pipe with cap 24" in ground for the true M.C. No. 68. Dinner in woods. On line running Mond. S. on the east side of sec. 2-140-29 at 5424.10 the true N. H. cor. of sec. 2-140-29 sets west 68.00 ft. Connecting line on that side of sec. 2 - Hub. at 4068.08 goes west 51.00 ft. where I set a 2" x 48" Galv. iron pipe with cap for the true N $\frac{1}{16}$ cor. F.A. Honner. On the $\frac{1}{16}$ line running west and east thru the N $\frac{1}{2}$ of sec. 2-140-29 at 5444.44 the true $\frac{1}{16}$ cor. (An iron set by me) sets north 194.00 ft. Connecting west side of sec. 2-140-29 Hub. at 2712.05 goes N. 34.00 ft. where I set a 2" x 48" Galv. iron pipe with cap on 30" in ground for the true $\frac{1}{4}$ cor. sec. 2-140-29. Hub. at 1356.03 goes west 17.00 ft. where I set a 2" x 48" Galv. iron pipe with cap 30" in ground for the true S $\frac{1}{16}$ sec. cor. on west side of sec. 2-140-29. Over night with La. Vallee. F.A. Honner. June 23, 1915. We follow the $\frac{1}{16}$ line thru the east half of sec. 2-140-29. About $\frac{3}{4}$ of a mile from here we continue bushing north without chaining. The intersect. E. and S. random line on north side of sec. 2 at 3820.8 E. On north random line at 2964.60 the true S.H. to the S. H. cor. of sec. 36-140-29 sets south 13.8 ft. We walk back to the south $\frac{1}{16}$ cor. on the east side of sec. 2. There I set a 2" x 48" Galv. iron pipe with cap on 30" in ground

I.M.H. 2
M.C. 2

for the true S $\frac{1}{16}$ cor. Quit for rain. It stops raining about 10:00 o'clock so I take two iron pipes and walk to the south sec line sec 2-140-29. At 4:06.2.82 (where Curro set hub) I set a 2" x 48" Galv. iron pipe with cap on 30" in ground for the true east $\frac{1}{16}$ cor. F. U. Donner. At 2.70 8.55 (where Curro set hub for true $\frac{1}{4}$ Cor.) I set a 2" x 48" Galv iron pipe with cap on 24" in ground for the true $\frac{1}{4}$ sec. cor. bet. secs 2-11-140-29. Dinner with Jo. Vallee. The walk to the S $\frac{1}{16}$ cor on the east sec line of sec 2-140-29 and run north $89^{\circ}58'2''$ on Var. 7.70' thru line 1500 ft and quit for rain. just 4:00 o'clock. Over night with Jo. Vallee. June 24, 1915. Insler, Horst, and I walk to $\frac{1}{16}$ line where we left off yesterday and continue west about $\frac{1}{2}$ mile. Quit for dinner in woods. We continue $\frac{1}{16}$ line west without doing any chaining. At the true S $\frac{1}{16}$ cor on the west side of sec 2-140-29 set N 84.3 ft. The walk to the south sec. line of sec 2-140-29. Correcting S. sec. line. Hub at 1354.27 goes south 24.25 ft where I set a 3" x 3" x 36" post for the true S $\frac{1}{16}$ cor on the south sec line of sec 2-140-29. Starting from the true $\frac{1}{16}$ I run north $\text{Var. } 8^{\circ}45' 8.15''$. Quit for night with Jo. Vallee. Miller and Bergeen set irons all day. F. U. Donner. June 25, 1915. Miller, Bergeen, Insler, and Horst, walk the the $\frac{1}{16}$ running N. thru the west half of sec. 2-140-29. and continue $\frac{1}{16}$ N. about $\frac{1}{2}$ mile and quit for rain. 10:00 o'clock when it starts to rain. I write up notes and figure corrections all morning. Dinner with Jo. Vallee. P.M. Miller and Bergeen go up the East sec. line of sec 2 and book up iron cor. I take Insler and Horst and go down the south line of sec 2 and book up cor. At 4:00 o'clock we quit for rain. Over night with Jo. Vallee. June 26, 1915. Miller and Curro walk to the west $\frac{1}{16}$ line thru the half of sec 2 and continue $\frac{1}{16}$ line North to about 3000 where they break the brush hook and come in for dinner. I start to Hockersack with the intention of riding with Jo. Vallee but he leaves ahead of me. I start to walk and when I get about 4 miles out I get weak and turn back. Curro comes out about 11:30 with launch across lake. Dinner at Jo. Vallee. P.M. Ernest Insler goes home for a couple of brush hooks. Miller, Bergeen and Horst grub and mound 9 sec. cor. Curro and I stay in and figure notes all afternoon. June 27, 1915. No body works. June 28, 1915. Miller transitioner, Donner flagman, and Bergeen, Insler, and Horst, brushing. We continue with the $\frac{1}{16}$ line N. thru the West half of sec 2-140-29. We come 40.70 ft to the east of the N $\frac{1}{16}$ cor. We continue true line from N $\frac{1}{16}$ to where we intersect the true sec line on the N side of sec 2 where we set a 2" x 48" Galv. iron pipe with a cap on over a five foot piling drove down to a solid bottom. Dinner with Jo. Vallee. P.M. Starting at the true $\frac{1}{4}$ cor on the south side of sec 2-140-29 we run N. Var. 8° . We cut a line little over a half of mile and quit for the night at Jo. Vallee. Miller June 29, 1915. Miller take the new and continues $\frac{1}{4}$ line running N. and then the center of sec 2-140-29. which we started yesterday P.M. We miss the center of $\frac{1}{16}$ of the N. half of sec 2-140-29 37.1 ft east. Starting at the true center of $\frac{1}{16}$ cor. we run north on true $\frac{1}{16}$ line. On the N. boundary of sec 2. At 2517.8 east we intersect E and W random line on N. boundary. Correction to N. boundary (00348) Hub at 2577.8 goes south 8.76 ft. where we set a 2" x 48" Galv iron pipe with cap on for the true $\frac{1}{4}$ cor on the N. boundary of sec 2-140-29. Quit for night. I stay in and figure correction and work on slab of sec 2. Over night with Jo. Vallee. June 30, 1915. Miller and Bergeen set corners in sec 2 on N. sec. line. I take Horst and Insler and walk to the S $\frac{1}{16}$ cor. on the S. side of sec 2-140-29. Starting from the true S $\frac{1}{16}$ cor I run south on Var. $7^{\circ}15'$. We run a little over a quarter of a mile and quit for dinner. P.M. We all decide to camp out. Miller and Bergeen continue setting cor's. in sec 2 and quit about 3:00 o'clock on account of rain. I stay in and write up notes and get everything ready to move. (June 30, P.M.) and check over the board account with Mrs. Jo. Vallee. Horst and Insler go over to A. A. Insler's place to get tent and camping outfit and enough provisions to last as a day or two. We pitch the

2M

tent about 5.30 and then get supper at No. 1 camp. All have supper and stay over night at camp. After supper Insler and I row over to Longville for supplies. Get back 11 o'clock July 1, 1915. Miller, Horst, and Bengreen go out and continue setting rods in sec 2-140-29. About 10.30 Bengreen sick. Insler and I stay in and fix camp. I figure corrections and write up notes. Dinner. P.M. Rain till 3⁰⁰ o'clock. About 3²⁰ I take crew and walk to the N. boundary of sec. 2-140-29 and set over the three rods on the N. boundary where they now set and will always remain so in the future. Supper. July 2, 1915 - Miller, I and Horst walk to the center 1/16 of the east half of sec (2)-140-29 where we set a 2" x 48" Galv. iron pipe with cap for the true center 1/16 rod for sec 2-1/2 east half. I take a boat and row across lake where we intend to set a true th. c. east of the true center rod of sec 2. because the true center cor. falls in Bailey lake. Rain and we quit for dinner. I camp. P.M. Miller and Horst go out to continue setting rods on the 1/4 line running E and th thru sec (2)-140-29. Starts to rain. Quit. I lay up sick in camp. J. A. Donner.

July 3. Rain. Nobody works. Leave for Hack. to get chuck order. I get into Rockwood & Charlie Hood tells me he sent out an order with A.A. Insler. I walk down to Spains and call up the North Star Comp. and tell E. Insler to go over to his fathers place and get grub. I go and get dinner at the Lake View Hotel. July 4. Nobody works. I get ten loaves of bread from Mrs. Garity and stack for camp J. A. Donner. Mon July 5. Boys celebrate in Longville. Miller and I in camp. July 6, 1915. I walk out and set the rods on the 1/4 line running E and th thru sec (2)-140-29. I set the two wit rods for the center 1/4 cor as shown in diagram.

July 6, 1915 I walk to center of 1/16 cor of sec (2) of the East half and set that by intersection of the true lines.

Dinner at camp. Then go out and set the rods of the 1/16 line running thru the center of the S. half of sec (2) by intersection of the true lines. 2 1/16 and 2 1/16 line thru the South half of sec. 2 sets 66' N and 136' west from P.S. of random. 1/4 cor center of S. 1/2 on 2 1/16 line sets 44' N and 124' th from P.S. of random. E 1/16 of S 1/2 on 2 1/16 sets 22' N and 171' east from P.S. of random.

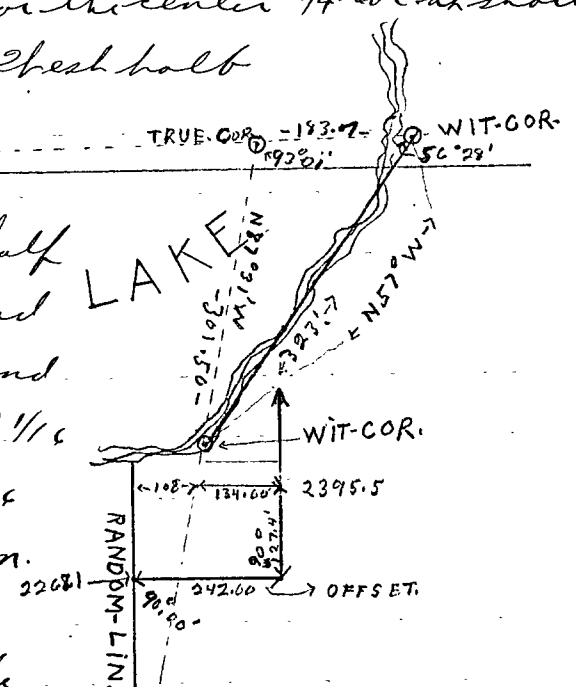
Quit for night. J. A. Donner. July 7, 1915 Insler, Miller and Horst go out to the 2 1/16 line thru the 2 1/2 of sec (2)-140-29 and continue 1/16 line south which I started a few days ago. I stay in camp sick. Dinner. P.M. Miller and Horst run a traverse of Thomon Lake from the N.E. cor. of sec (11)-140-29. To the th. c. of M.C. No. 21. Night at camp. July 8, 1915 Miller and Horst go out and continue the 1/16 line south thru sec 11. I stay in camp intending to go to Chalke being unable to do much in the bush. (It was necessary to go to Chalke anyway to plot work done and check some and compare special 21. S. notes.) July 8, 1915

About 9.30 Miller comes in with transit broken caused by falling over a log. I go to the North Star Comp and ask Spain to send out a team for Miller and ch. P.M. I go to Chalke. Stay at Chose. July 9, 1915. I row and I work all day on plot and acreage of sec (11)-140-29. J. R. Donner. July 10. Donner is unable to continue this work via survey. Remains in Chalke. I go to Hack. Stay at Spains Hotel. I buy a supply of grub and Charlie Hood drives me out to camp sec. 11-140-29. Arrive at camp 10.00 A.M. P.M. I walk over to Hinkles place and hire Walter Hinkles to help me as eveman for a few days. Insler, and Horst carry iron rods from Harry J. Valters place to various points in sec (11)-140-29. Geo. Miller.

Notes at traverse of lake shore east boundary of sec 11. Point a = N. E. cor sec 11. Point a' = th. cor. to M.C. No. 21. Gurley Compass. Distances paced. Neph Page.

2-140-29

11-140-29



C

4079

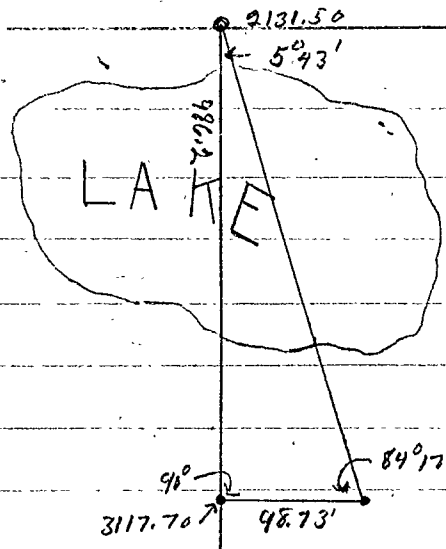
Survey Record No. 429.

Field Book 66

11-140-29

From	To	Course	Dist
A	B	South	38'
B	C	S 30° W	105'
C	D	S 5° E	235'
D	E	S 30° W	100'
E	F	S 13° E	220'
F	G	S 21° W	135'
G	H	S 38° 30' W	275'
H	I	S 57° W	555'
I	J	S 17° 30' W	102'
J	K	S 33° 30' W	330'
K	L	S 48° W	300'
L	M	S 64° W	290'
M	N	West	130'
N	O	N 65° 30' W	200'
O	P	S 70° 30' W	207'
P	Q	S 56° 00' W	442'
Q	R	S 36° 30' W	615'
R	S	S 31° 30' W	200'
S	T	S 36° 30' W	588'
T	U	S 14° W	447'
U	V	S 7° 2' W	250'
V	W	S 29° E	172'
W	X	S 80° E	125'
X	Y	S 76° 30' E	275'
Y	Z	S 58° 30' E	210'
Z	A'	S 15° E	215'

Sun July 11. Walter Kinkle arrives in camp at 7 a.m. to take position as axeman. Elmer Korb and I go out the the N. 1/2 cor of sec. 11-140-29 and check chain east on the North boundary of sec. 11-140-29. Ernest Jusler and Walter Kinkle set a iron monument 2 1/4" x 4" at the following points. At 2 1/2" cor. to M.C. No. 21. At the true S 1/4 cor. on the boundary of sec. 11-140-29. Geo. Miller. Mon July 12. Korb, Kinkle and I finish check chaining on the N. boundary of sec. 11-140-29. We then go to the true E 1/4 cor. bet. sec. 2-11. and start from this point we run a random south on S 30° W. At 181.70 hub. At 702.00 hub. At 1248.00 intersect the E and the random then about center of N. 1/2 of sec. 11. At 4103.00 chainage on that line. We now go to the true 1/4 cor. on the N. boundary of sec. 11. Starting at this point we chain S on random line which has been run from this point. (T = 7° 15'). At 539.00 hub. At 870.00 hub. At 1277.80 hub. At 1296.00. Intersect E & the random line then about center of N. 1/2 sec. 11. At chainage 1346.50 on that line. We now run cutting this line south. At 2131.50 hub.



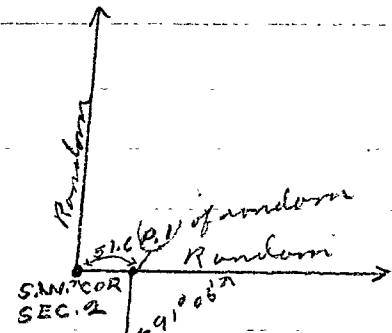
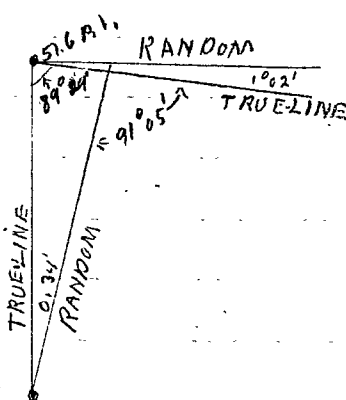
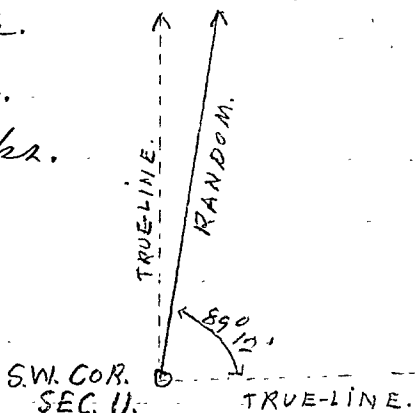
Geo. Miller. iron course. Geo. Miller July 13. 1915. Run S on random then about center of 1/2 sec. 11. At 3159.30 hub. At 3585.80 hub. At 3791.50 hub. At 3937.00. Intersect E and the random then about center S 1/2 sec. 11. at chainage 1325.70 on that line. At 4036.20 hub. At 5050.30 hub. At 5256.20. The true 1/4 cor. on the S. boundary of sec. 11. set 36.70' east at 90° from random direction = [00698]. Geo. Miller. July 14. Starting at the true 1/4 cor. on the N. boundary of sec. 11. we run a random S. At 501.40 hub. At 1271.80 intersect E and the random then about center of N. 1/2 sec. 11. at chainage 2702.80 on that line. At 1383.40 hub. At 2156.20 hub. At 2596.20. Intersect E and the random then about center sec. 11. at chainage 2695.20 on that line. Geo. Miller July 15. Push in all day with new setting and snowdrifts iron course in sec. 11. Geo. Miller.

2-14-29

11
140
29
2-

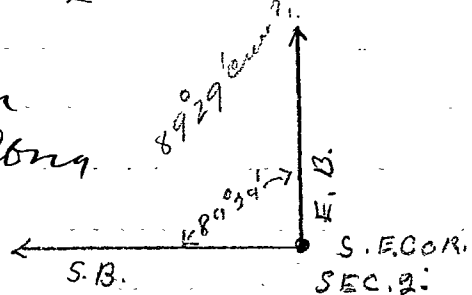
July 16. Spend morning taking a few angles in sec. 2-11-140-29. I find that the angle at the S.E. cor. sec. 2. to be 90° even and the one at the S.W. cor. to be $91^{\circ}20'$. Which makes the true angle at the S.W. cor. of sec. 2. $91^{\circ}20'$. Walter Kinko goes home at noon today. Elmer Horst, Ernest Jusler, and I ride into Kock in Spairs team. Arriving there I find Curo waiting for me and we go to Kalka together. Spend rest of day in office. Stay at the C base Hotel. Geo. Miller. July 17. Curo decides to send me back to sec. 2-11-140-29. to check certain lines. Go to Kock. Ernest Jusler and I go with Spairs team to North Star Camp where we will board during checking. Geo. Miller. July 18, 1915. I put in day figuring and making sketch. Geo. Miller. July 19, 1915. Check chain $N\frac{1}{16}$ line in sec. 2 in the morning. Figure in afternoon. July 20-1915. Go out and check angle at S.W. cor. of sec. 2. and find it to be correct as shown on page 90. this book (Book 66). I decide to phone to Curo and walk down to Rossburg place. Am unable to get him from there and I walk back to N. S. Camp. Manage to get him and he says he will come out and go over the work personally. Jusler and I go to the S.W. cor. of sec. 11 and measure the angle there as follows.

Which makes the true angle at S.W. cor. sec. 11. $89^{\circ}46'$. Geo. Miller. July 23, 1915. Jusler and I go out and examine the tape very carefully. We compare each foot for length and carefully remove all kinks. We then start at the iron $N\frac{1}{16}$ cor. on E. boundary of sec. 2. and chain west on random using every means to obtain an accurate measurement taking time and care in use of plumb bob. At 54.77.00 the iron $N\frac{1}{16}$ cor. on S.W. boundary of sec. 2 sets $N. 204.18$ ft. at $90^{\circ}00'$ from random. We then go to meander cor. No. 67. Starting at this point we chain east very carefully using all precautions to obtain a precise measurement. At 39.59.00 the iron S.W. cor. sets South. We then go back to North Star Camp and I put in remainder of evening figuring. Geo. Miller. July 24, 1915. We take the transit and go to the S.W. cor. of sec. 11. and measure angles follows.



We then go east on the N. boundary of sec. 11, checking Donner's triangulations and offsets as we go. We now go to the iron S.W. cor. of sec. 2-11-140-29 set by Donner. This cor. should have been corrected 13.75 west from random. Instead of this we find the cor. setting 5.00' west of the random. We pull it up and set it in its correct place. We now set the transit over the iron S.E. cor. of sec. 2 and sighting along the true South and East boundaries of sec. 2. we measure the angle and find it to be $89^{\circ}29'$.

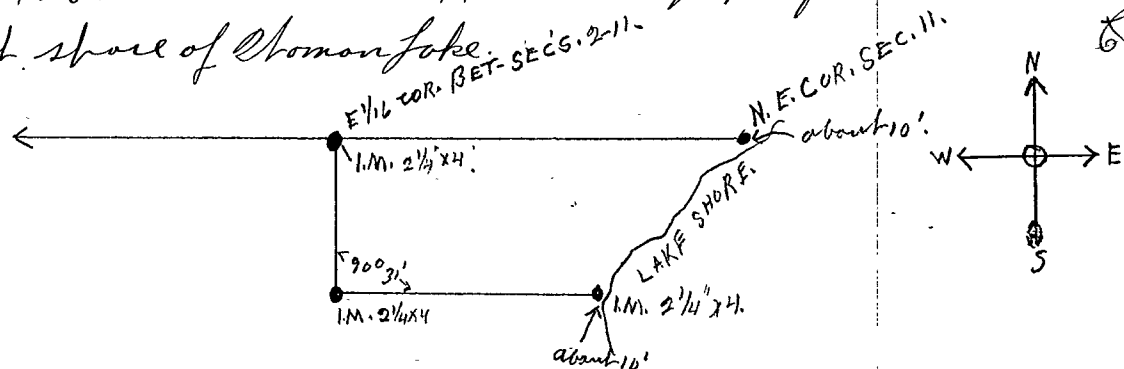
We now go to the iron S.W. cor. on S.W. side of sec. 11 set by Donner. Starting at this point we very carefully check chain east along random. At 1325.3 intersect S.W. $N\frac{1}{16}$ random at 1875.50 ft. on sand beach of Thomson Lake. Geo. Miller.



1-2-140-29

Survey Record No. 429.

Donner notes give this distance as 1975.40 Geo. Miller. July 23, 1915 Rain all morning and we do not get out go out I figure and make plat. Jusler sends axes and screw chain P.M. They go to the N. 1/4 line in sec 11. and check out the position of the cois. along it and find them O.K. They go to the N. boundary of sec 11 and set them over to their correct places as given in plat. Geo. Miller. July 24, 1915. They stake out H. L. Valleses land in sec 11. His deed calls for a strip of land ^{330'} wide along the north side of N. E. 1/4 N E 1/4 sec. 11 leaving a 10' ft shore of Chomon Lake. They correct over hub # 3788.30 on the corner bet. sec. 2-11 to the true section. They set up over the true E 1/4 sec. cor. bet. 2-11 backsight on the ^{corrected} hub first mentioned, plunge telescope and turn 89° 29' right. At 330' we set a 2 1/4 x 4 iron pipe for corner. Setting up over this corner backsight on the true E 1/4 cor. turn 90° 31' right and run east. At 1284.30 we set a 2 1/4 x 4 iron pipe for corner. This cor. sets about 10' from top of bluff at shore of Chomon Lake. E Geo. Miller.



July 25, 1915. Jusler and I go out and check chain the east 1/2 of the 1/4 line in sec 2. At 10.30 P.M. Jusler and I ride to Hockensack in Spains buggy send out to us. They arrive at midnight and take train for Holper. Jusler remains in Hock. Geo. Miller. July 26, 1915. Arrive in Holper and register at Chase. Spend day at office. I take 12.37 P.M. train to Hock. Geo. Miller. Arrive at Hock and stay at Spains Hotel. Jusler and I drive out to sec 2-11-140-29 in Spains buggy. They arrive at noon and take dinner at North Star Camp. They chain the N 1/4 of the N and S 1/4 line in sec. 2. making it 1452 ft. Jusler remains to mound cois and I go to Hock in Spains buggy. Have supper at Spains and catch freight to Holper. At Hotel Chase. Geo. Miller. July 28. All day in office on plat of sec 11. Jusler at North Star Camp mounding cois in sec 11. Geo. Miller. July 29. All day in office on plat of sec. 11. Jusler finishes mounding cois in sec 11. Curro works in office all day on plat and report of sec. 2. Geo. Miller. July 30. Same as preceding day. Geo. Miller. July 31, 1915. Same as before.

Geo. Miller

Surveyed by and under the direction of John H. Curro County Surveyor. A. D. 1915.

Recorded. Dec 18, 1919. by Elmer B. Housh.

Deputy Co. Surveyor.

11-140-29

2-11-140-29

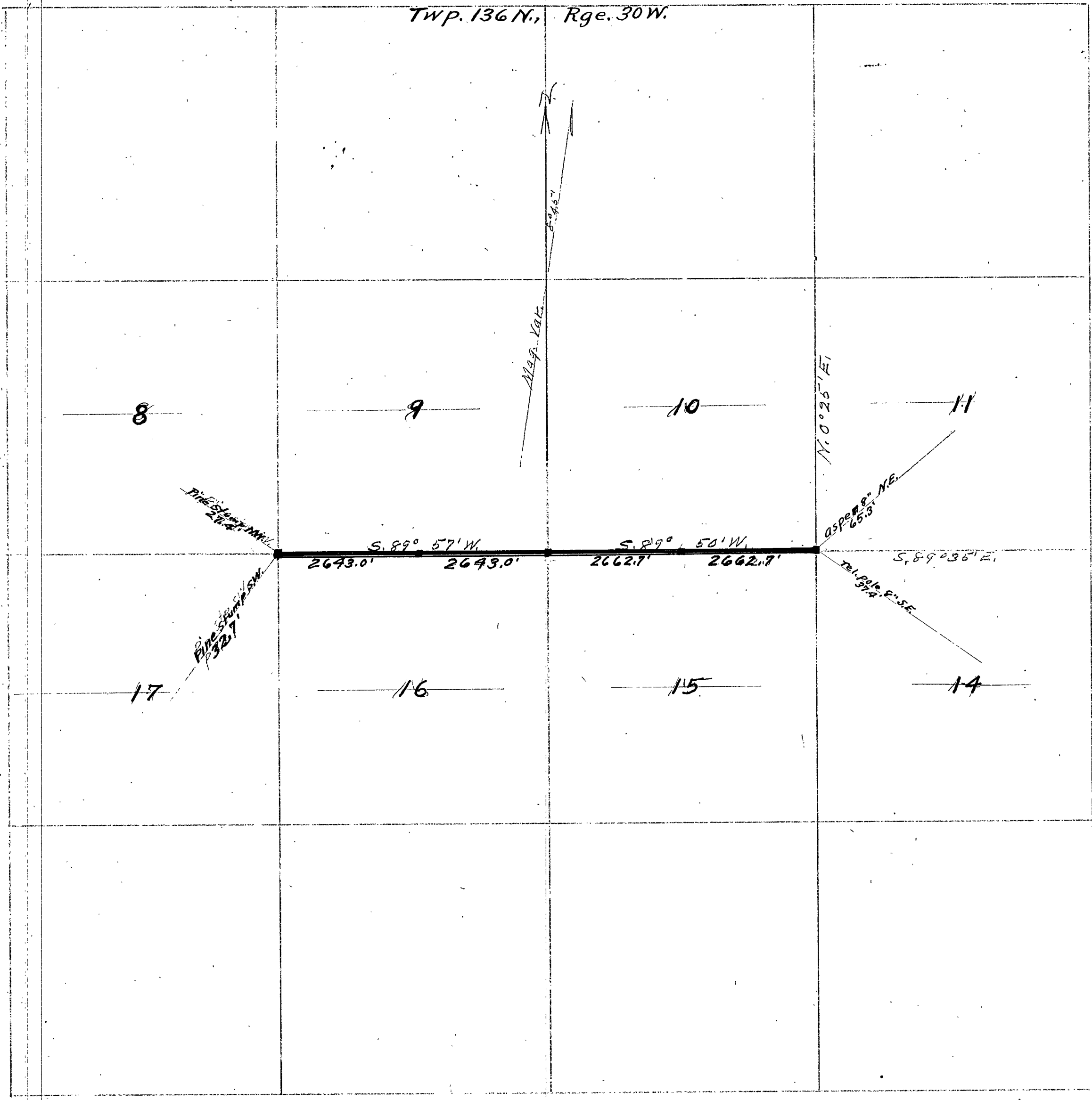
2-11-140-29

Plat. 430

C

249

Twp. 136 N., Rge. 30 W.



Field notes of the survey of a Twp road in the Town of Maple Twp 136
N. R. 30 W. of the 5th P.M. Minnesota:

Jan. 13, 1920. E. B. Horst, Dep. Surveyor. Roy Green, chair-
man, leave Walker for Pequot on 8-45 A.M. train to survey a Twp. road
running W. two miles from the corner of 10-11-14-15. (in cent. of State Road)
Ed. Olson meets us at Pequot. We have dinner at Artell Hotel. 50¢ each.

P.M. E. B. Horst, Roy Green, Ed. Olson with car, Melvin Olson & J.
Wishing drive to cor. above mentioned which I locate from State Rural
Highway Notes and take following bearings:-

Copple 8" N.E. 65.3 ft.

Tel. Pole 8" S.E. 37.4 ft.

With transit over corner sight N. on centre of State Road Var. = $8^{\circ} 20'$
turn N.E. angle to Country Road = $89^{\circ} 00'$. Turn N.W. angle $90^{\circ} 00'$ and run
N. $89^{\circ} 35'$ N. on a random sec. line between sections 10-15.

at 600 ft. N. pt. on hill.

" 1150 " " a house 200 ft. N.

" 1450.2 " " Hub.

" 2660.0 " " a fence cor. sets S. orig. $\frac{1}{4}$ S. cor. gone - - -

" 2673.4 " " Pt. on Pop. log.

" 2700.0 " " Center field.

" 3730.0 " " lg. "

" 3970.0 " " set stake on line.

" 4460.0 " " enter swamp N. & S.

" 5280.0 " " lv. swamp & set stake.

E. B. Horst.

Boarding with A. J. Olson.

Jan. 14, 1920. - Horst and same crew. Look for the sec. cor. 9-10
15-16, U.S. notes call for.

W. Birch 10" N. 89° E. 22 lks = 14.52'; N. Birch 12" N. 75° W. 23 lks = 15.18';

N. Birch 7" S. 26° W. 25 " = 16.50'; Tamarack 8" S. 40° E. 30 " = 19.80

I find the Tam. 8" lying on the ground bearing the scribe marks and the
3 birch stumps all rotted to the ground. All checks for course and dist-
ances from which I set a wood stake for the sec. cor. which bears
S. $40^{\circ} 30'$ N. 70 ft. from stake at 5280 N. at 5325.4' W. sec. cor. sets
S. 53.20' ft. From sec. cor. a corner fence post bears S. $53^{\circ} 45'$ E. 17.6 ft. no
other objects for bearing near. From the cor. of secs. 9-10-15-16 we
run a random line S. $89^{\circ} 12'$ W. between sections 9-16. T. 136, R. 30.
at 1300 ft. N. set stake; at 2140 ft. N. Ent. swamp; at 2640 ft. N. set
stake and look for $\frac{1}{4}$ S. Cor. and U.S. bearing trees. Were unable to find
any evidence of the $\frac{1}{4}$ S. or bearing trees. continue W.

at 2800 ft. W. lv. swamp.

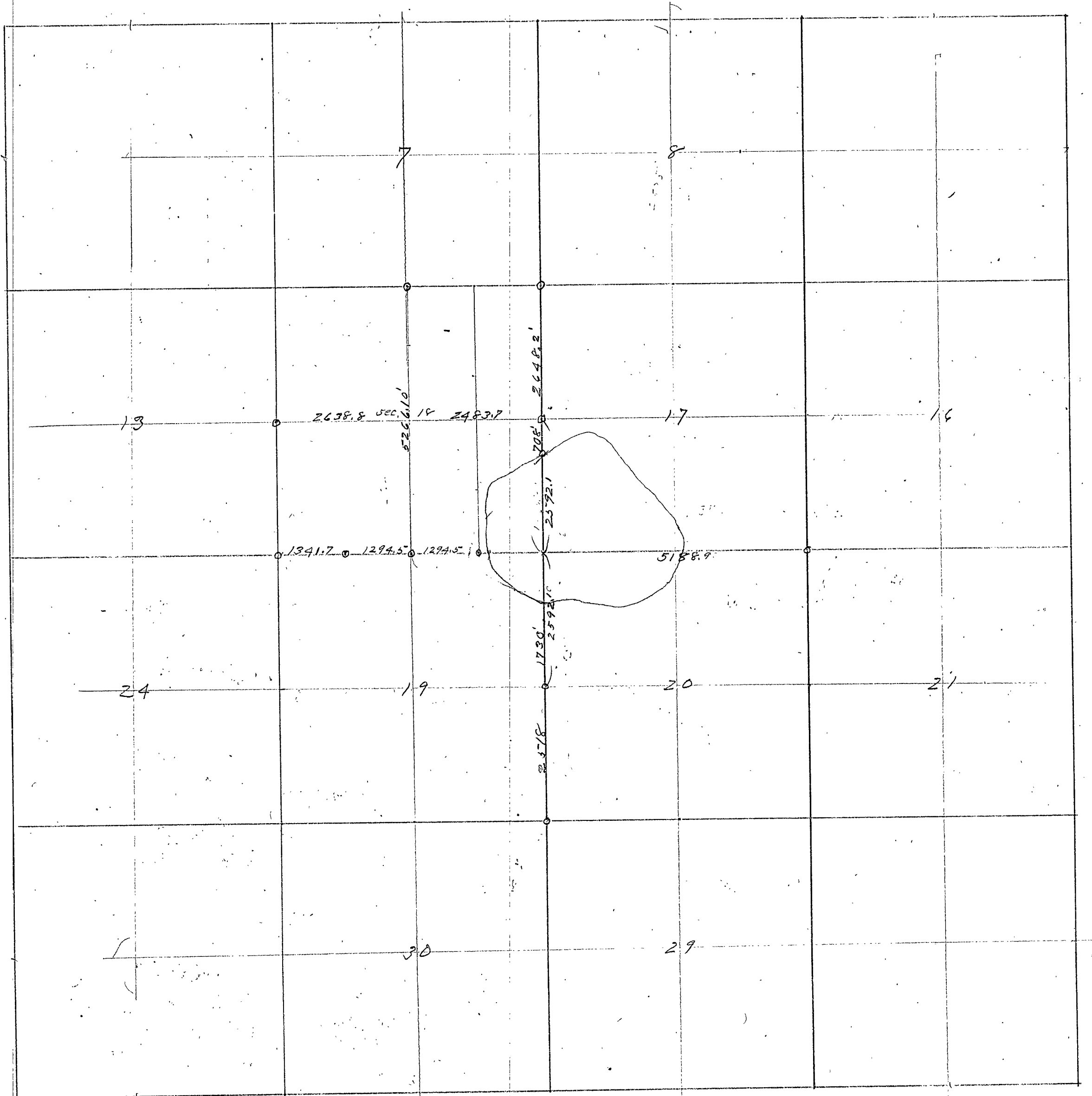
" 3920 " " set stake

" 5280 " " " (Sq Post)

E. B. Horst

Survey Record No. 431
Plat.

C
141-29



Q

Field notes of the survey of a part of sects - 18- 19-20, Twp. 141-N. Rge- 29 N. 5th. P.M. Minnesota.

April 11-1917. Wed. 141-29-30. I am surveying for Mr. Robert Askins who owns Govt. Lot 5 Sec. 18

T, 141-R. 29. N 1/2 of NE 1/4 Sec - 19 N W 1/4 of NW 1/4 Sec - 20

Lv. Walker 9-30 7.M. Ar. Cyphers. Lv. Cyphers 11 A.M. Via r horse team with Robert Askins Ar. Askins house 2-30 P.M. At 4 P.M. We go to the cor. to Secs. 13- 18-19-24 Bet T 141-Rq 29, & 30 where U.S. notes call for post & BT 3 1/2". Tam. 12", N. 66° E 26 lks = 17.16 Ft.

Cedar 5" N 67° W 37 lks = 24.42 Ft. Tam. 7" S 25° W 18 lks = 11.88 Ft.

Cedar 20' S 11° E 16 lks = 10.56 Ft. We find a new 3x3 cedar post set by a surveyor M. A. Kemp for the line section corner and we also find the old U.S. B.T.S. plainly marked which check out perfect for measurement from the center of the new stake to the face of the B.T. marks on the old old B.T.S. except that the old stump of the SW Tam is .68 of a foot too close. From the new stake old B.T.S. stand as follows.

- Old Tam 12" N 65° 40' E 17.16 feet = stump 4 in.
- " Ced. 5" N 65° 20' W 24.42 " green tree
- " Tam. 7" S 26° W 11.20 " 5" stump
- " Ced. 20 S 11° E 10.56 " green tree

We find new B.T.S. as follows 8° 40'

New Cedar 10" S 36° 10' E. 13.50 Ft. New Ced- 8" S 40° 30' W. 18.10 Ft.

" Elm 5" N 30° 40' E. 20.85 " " Elm 10" N. 6° 40' W. 30.25. "

Stakes set 12 ft 3 of 4' creek - Run E. From this new stake we chain E. on old cut out transit line run by Kemp. At 182 E. cross 4" creek which runs N. @ 300. 600. 900 set Cedar stake. @ 1164.60 a new 3x3 square Cedar stake from which a cut out line runs North. At 1200 E set stake. Chain 3300 ft. E & quit for night. Gurley transit 300' Ch. steel tape Curo ch & transit Ole Larson Ch & ax. Geo. Larson ax: Robert Askins ax. Over night with Askins.

Time Sheet Working for R. Askins April 1917.

	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
John H. Curo.		1	1	1	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Robert Askins.		1/2 P.M.	1/2 P.M.	1/2 A.M.	1	0	1	1	1	0	1	1/2 Home P.M.	0	0	0	0	0	0	0	0	0	1
Ole Larson.		1/2 P.M.	1	1	1/2 A.M.	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Geo. Larson.		1/2 P.M.	1	1	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0
Ray Parks.		0	0	3/4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ivy Parks.		0	0	0	1/2 P.M.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

April 12-1917. Thurs. John H. Curo. Gurley transit 300" tape Ole Larson ch & ax. Geo. Larson his son ax. Run E bet 18-19- 141- 29 running a little south of Kemp's transit line to miss a fence further east. At 300. 600. 900. 1200 stakes set with transit At 1213 E. nail in rotted cedar stump 1368.18 Twp. 1/6 at 1400 leave heavy green tam. & cedar swamp 1500 stake: 1565 lw swamp: 1626 nail in ground: 1800 stake: 1450 enter meadow 2100 stake: 2150 Old meadow: 2200 stake in low land: 2400 stake in low land: 2445 hay road N & S. 2475 ent. meadow No 20 leave same At 2688.18 ft E. look for 1/4 cor. bet 18 and 19.

Survey Record No. 431.

141-29 where U.A. notes call for post and 11 to W @ 6 141-29

Birch 4" S 32° W 39 lks. Birch 4 N. 78° W 13 lks. 3'

All are gone & we continue East at 2700 stake: 3000 stake: at 3032. 90 E. nail in dim new road N & S. on top of hill at 3038 West end of new fence built by Askins lies North 2 feet Askins house lies South about 110 feet.

At nail in old log: At 3232 cross new wagon track N & S. At 3300 stake; At 3375 enter wet land N.W. & S.E.

P.M. Same crew with R. Askin axman @ 3600 stakes in low land; at 3700 L.L. low land: @ 3900 stake; 3912. Nail 6 ft. South of E & W. 1 wire fence. @ 4123. 80 Nail. @ 4154 about, an old stake sets South 128 feet about. At 4194 enter Pine Lake. 4200 pin on ice. 4500 & 4800 and 5100 stake on ice. To the corner to secs. 17-18-19-20 T141 R. 29 Comes on the ice in Pine Lake and as this corner has been previously established by A. Surveyor Mr. M.A. Kemp we reestablish the point for corner on the ice as follows: Walk half a mile South to a stake set by Kemp for the 1/4 corner between sections 19 & 20 T141 R. 29 where U.A. notes call for a post and Napier 12" S. 82° E. 17 lks. =

" 10" S. 40° W. 10 " - 6.60 ft. 71

We find stumps of the old B.T.S. and find a new 1/4 stake previously set by Kemp with new B.T.S. but as we do not have Kemp's notes we take his stake which sets on the North side of a new post which marks the South end of a line of new fence posts running 1/4 mile North. From a point on S. edge of 1/4 post being N. side of fence post chain North along fence posts (No wire yet.) all in swamp. @ 300 and 600 and 900 and 1200 ft. set stakes; at 1259 feet intersect 2" I.M. (No cap) being temp N 1/6 bet secs. 19 & 20 set by Kemp in cen of E & W. graded road. There are new B.T.S. here but we have not got Kemp notes. I set transit over this new temporary 1/6 - back sight South on red flag at 1/4 corner - transit could telescope and run North on line with fence, still in swamp, Lev. reader 8' 20 E; @ 300 set stake, at 471 set stake on sand beach on South side of Pine Lake; at about 480 enter Pine Lake. 600 & 900 & 1200 stake on ice, @ 1259 set stake on ice: for temp. corner to secs 17-18-19-20 or where it should be if Kemp established his corners correctly. Which he did Not.

Extending our random line East at 5189. 10 E. the cor. to 17-18-19-20 sets South 15 7. 20 but at 90° to E & W. random line. and at point of intersection of E & W. running South the S.W. angle reads 90° 17' 20"

Connecting back West 5378. 18 feet U.S. chain =

Note: This correction changed 5189.10 " My " -
later - Curo. 139.08 " short being .026103 of a foot short in each foot on random. Still with Askins.

Friday Apr. 13-1917. J. H. Curo. Transit & Ch. Ole Larson Ch - Flag - At - Ole Larson (his son) Ax: Robert Askins Ax: We take angles on ice on Pine Lake at cor to 17-18-19-20 - 141-29 and about 9-30 a.m. Ray Part comes to help us as axman. Correcting. Each hub goes .026103 West (.0261 about) and .030294 (.0303 about) south.

Hub goes 300 E goes S. Note this correction not used see page 32 to 34 Curo
600 E " S.
900 E " S.
1200 E " S.

Q

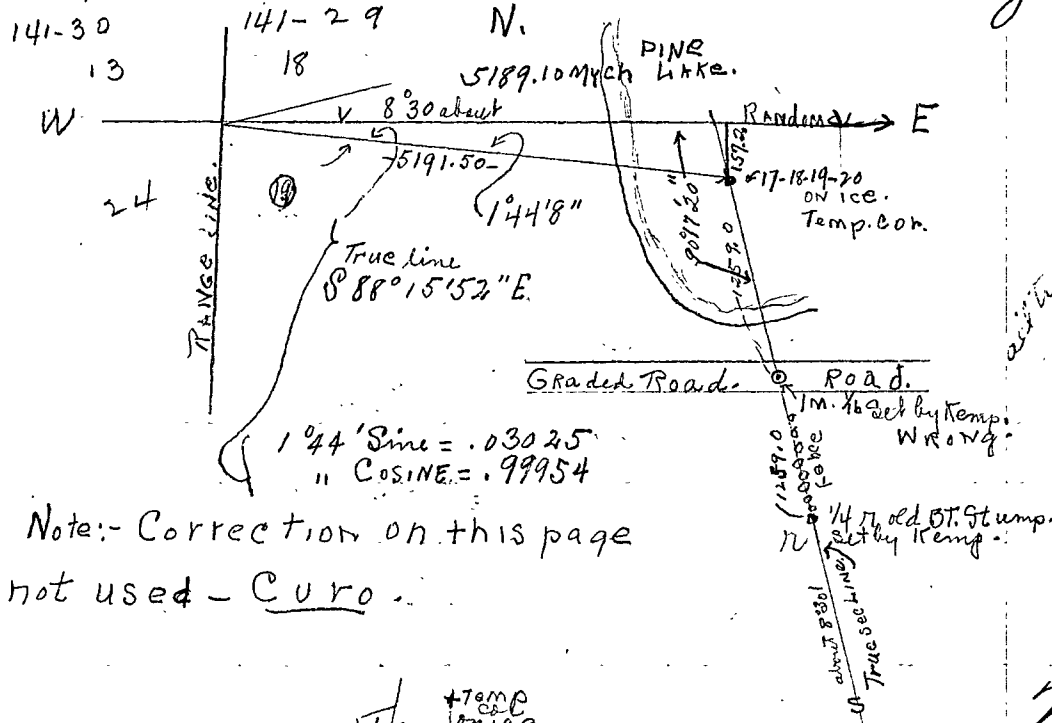
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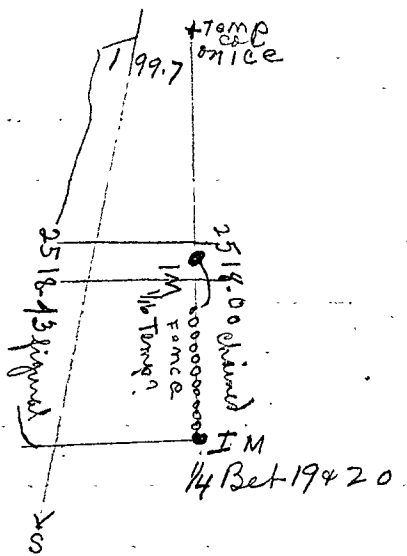
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all random lines were set on line with old transit

1368.18 E goes 35.71 West to 1332.47 E, 1332.47 E goes South 40.37 to West
 1/4 bet 18-19-141-29.
 1500 E goes South.
 1626 E " " "
 1800 E " " S.
 2100 E " " S.
 2200 E " " S.
 2400 E " " S.
 141-30 13
 141-29 18 N.
 Note: this correction not used see pg 32 to 34



Note:- Correction on this page not used - Curo.



Connecting bet secs 18-19
 3000 East goes South
 3032.9 " " " } Note this correction not used
 3300 " " " "
 3600 " " " "
 3900 " " " "
 3912 " " " "
 4008.18 E. goes W. 104.63 to 3903.55 E.
 3903.55 E " S. 118.25 to temp. E 1/4.
 4123.80 E. goes S.

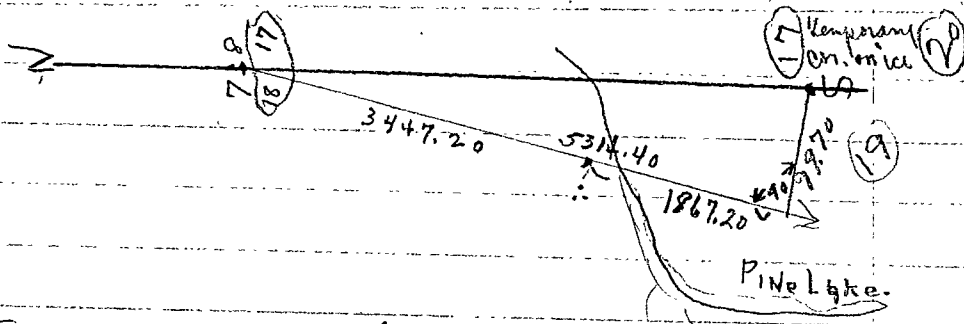
The walk West to stake 2700 East chain West 81.99 feet and set hub @ 2618.01 E from which we turn 90° from random and chain South 79.33 and drive hub for Temp. 1/4 cor. bet 18 & 19 - 141-29. Then transit telescope and run North chaining from Temp. 1/4 in East edge of meadow @ 300 and 600 set cedar stakes with transit in E. edge of meadow. At about 750 to meadow at

900 N. set stake with transit 1110.10 N. Hub 1200 stake. From temporary cor bet 18 and 19 cut a line a few hundred feet South (90° to random) to Parks field. I leave crew and figure corrections and while I am away someone sets five to Parks meadow in S.E. 1/4 of S.W. 1/4 Sec. 18-141-29. Roy Parks says he set the five. Smoke too thick to work in and the crew come in early and all take dinner with Askins. While we are at dinner fire burns Parks hen house and a ton and a half of his hay. P.M. Askins stays to back fire rest of crew go to 1/4 cor. bet 17 and 18 - 141-29 where U.S. notes call for a post and B.T.S. Big Birch 5" S 78° E 21 lks = Oak 7 1/2 13° W. 33 lks. Larson shows me a stake with iron marks also two bearing trees about 5 years old well scribe marked for the 1/4 corner stake & trees set about two rods West of a transit line run two years ago by M.A. Kemp. As Kemp has established this line I re-trace his survey in order to find his stakes. We walk North along Kemp's transit line but are unable to get across a small lake just South of the cor to Secs. 7-8-17-18-141-29 and walk back to North bank of Pine Lake where I drive a hub in Kemp's random line about 20 ft N of water and mark same o.o. Focus telescope on Kemp's line South across Pine Lake at a pt a mile away and run South on ice. Beg @ Hub o.o. chain so on ice At 1867.70 ft. So. Turn 90° and run 99.70 ft East to small cedar stake set on ice for Temp. cor. to 12-18-17-20 & 141-29

all random lines
 Note: also 1/4 E. Sec. 18
 change station. Given

Survey Record No. 431.

Askin does not work on survey in P.M. Quit for night over night with Askins.

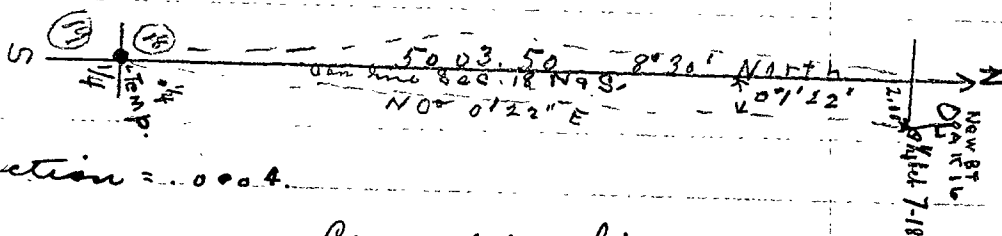


April 14 - 1917 Saturday - 17-18-19-20 - John W. Curo - transit & ch. Bentley
transit 300' chi tape. Askins ch - Fly - Axe Ole and Geo Larson Axe.
Bey @ Hub 1110.10 N. and continue N on random thro cent. of sec 18-141-29.
At 1200 - 1500, 1800 N. set stake. @ 2046.70 N. set Hub: ~~2100~~ stake: @ 2261.80 Hub:
2400 stake: @ 2442.50 Hub: 2700 stake foot of hill on N. side: 3000 and 3300 stake
at about 3376 set Hub: 3600 stake. about 3675 old logging road E & W. water
drains West - good place for ditch.

at 3600 stake: 3864.50 cen. main wagon road in curve. Curves SW & SE.
4006.40 Hub: 4200 stake. P.M.: Ole Larson goes to Imp meeting in P.M.
and Jay Parks works. Continue N. about 4375 we are 20 ft. E. of 8 foot creek
coming up from the West - Rapid current - 8 inches deep. solid bottom.

at 4418.20 Hub on sharp point coming from the East 30 ft. E. of creek. 4500 stake:
4584 cen of same creek about 40 ft. West of bridge on old main toli road which runs
S. about 10° E & NW. Creek runs E. at about cen of same old road NW & SE.
4725 cen of same road runs SE & West at 4742 Hub.

4790 dead creek drains E. 4800 stake. Thence up hill 5100 stake at 5220
about old crooked road. E & W. at 5287.50 wire fence (crooked) E & W. At 5303.50 old
1/4" post set to East 2.00 feet. At thro point being the "4 cor bet secs 74-18-T141-TP
29 Ad. notes call for a post and. I to X at 6" Poplar 5" S 73° E 26 links -
Poplar 4" N 76° W 5 links. We find the old post plainly marked and what I
believe to be the roots of the old bearing trees. Geo Larson says his father has been
here 8 years and the post was here when they came. It is a very old post 4x4" x 5 ft.
above ground from which a new oak bearing tree probably marked 15 or 20 years ago.
faces the post and is 16" N 17° 28' E 50 ft. distant. I put a new spot at base of tree
in which I drive a nail also mark another tree ~~is~~ bearing after
which new B.T.S. are as follows: Oak 16 inch, N. 17° 28' E 50.50 feet.
Ash 15 inch S. 17° 18' E 52.20 feet. Var. turned from the random which reads
at this point about 830° E.



Correction figures

300 N goes E	.12 of a foot
600 N	.. 24 ..
900 N	.. 36 ..
1110.10 N	.. 44 ..
1500 N	.. 60 ..
1800	.. 72 ..
2046.70 N	.. 80 ..
2100 N	.. 84 ..

Note:
This correction
changes curve.

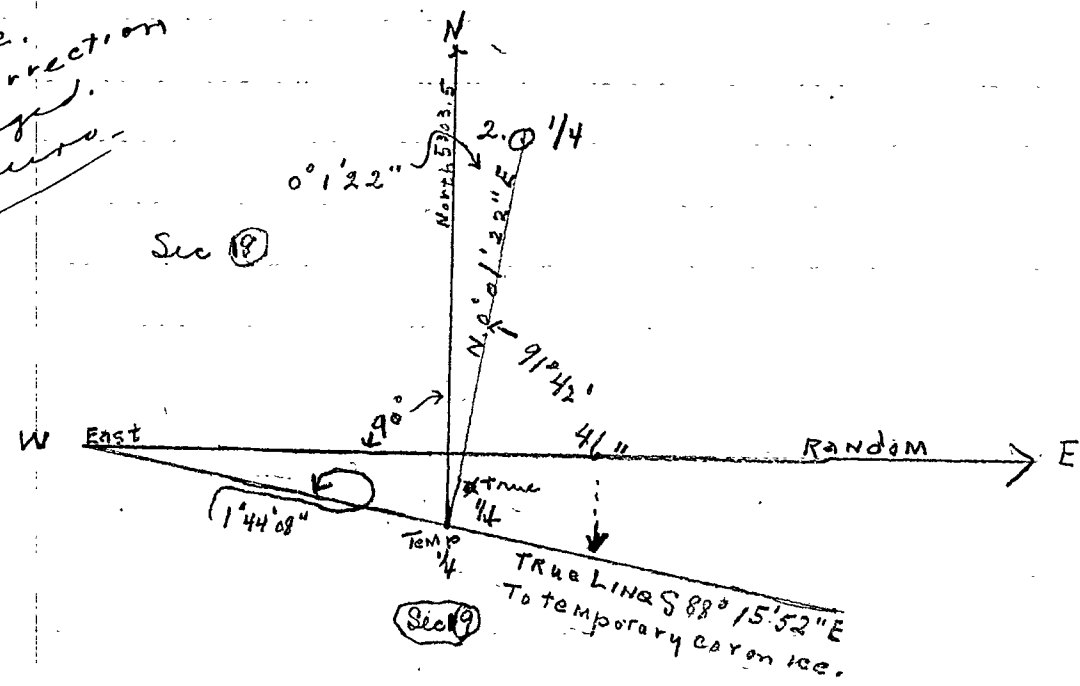
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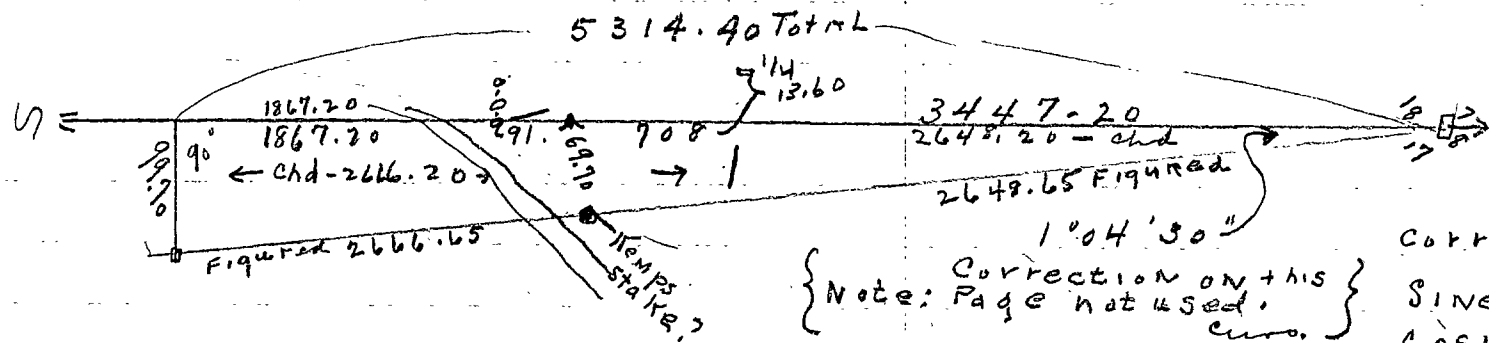
Correction on N & S Cen line 18 -

Hub 2261.80	"	gors E	.88
2400	"	"	.96
2442.50	"	"	.98
2700	"	"	1.08
3000	"	"	1.20
3300	"	"	1.32
3376 ?	"	"	1.34 ?
3600	"	"	1.44
3900	"	"	1.56
4006.40	"	"	1.60
4200	"	"	1.68
4418.20	"	"	1.77
4500	"	"	1.80
Hub 4742.00	"	"	1.90
5303.50	"	"	2.00

Not e.
This correction
changed
curve.



April 15 - 1917. 141-29. Sunday. I and my wife and baby all staying with Askins on NW 1/4 of NE 1/4 Sec. 19 - 141-29. No work today.



Correction = .0187603 E prof S
SINE = .0187603
COSIN = .9998328

Note: Correction on this page not used. Curve.

April 16 - 1917 Monday. Still working for Robert Askins Cross - Askins - Larson & Son. Hudly transit 300 ft. steel tape. Begin at Hub 0.0. on North side of Pine Lake on Kemp's random transit line running South from the corner to secs 7-8-17-18. Chain N. on old transit line @ 91.00 an old stake probably set by some one lies on the ground 69.70 ft. E. of random @ 90° angle. I stand the post up and drive it in the ground where point of stake comes. Old bearings probably set by some cruiser stand as follows: 8° 30' N.P. 243 22° 15' W 89.20 ft. 5" Oak which has turned out by the roots appears to have stood. S 12° E. 15.15 ft to face of figures. Kemp's transit line appears to run on about 8° 30'. Continue North. @ 300 stake cross marsh - @ 600 stake @ 799. N. the old 1/4 post bet secs 17 & 18 - 141-29 sets West 13.60 feet New BTS. are: - Maple 8" N. 65° 45' W 23.40 ft Iron wood 55.58° E 3.85 ft. Continue North: @ 1130 stake: 1133 cen of main wagon road E & W. 1200: 1400 enter east edge of green tam and cedar swp. 1500. 1800. 2100. 2400 stake: 2460 cen of 8 ft. creek runs NE: 6" water swift current solid bottom 2700 stake: at 2800 set stake in snow on S. side of lake in swamp near MC No 35. where U.S. notes call for Post and Tam 6" S 72° E 19 lbs = Tam. 6" S 13° W. 24 lbs.

All appear to be gone and we chain across very dangerous ice Mr. Askins going on the ice. at 3180 stake on ice. At about 3517. W. lake @ 3447.20 interest old stake set by Kemp for the corner to secs 7-8-17-18 - T 141-29. (At 3480 set stake when chain back 32.80 ft. to sec cor) At cor to 7-8-17-18 U.S. notes call for a post and

Survey Record No. 431

Poplar 6" N52°W 34 Links = 22.44 ft. Birch 5 N 30° W. 6 Links = 3.96 ft.

Birch 5 N 24 W. 4 links = 2.64 ft. Birch 5 S 72 E - 6 " = 3.96 "

We find the old original U.S. stake also a new stake set in the same place by Kemp but the U.S. surveyors got their notes all balled up as to bearing trees. I find three old B.T.S. which I positively know to be the old B.T.S but they recorded "Poplar" for "Birch" and "Birch" for "Poplar" and corners reversed. From the true corner old B.T.S are Old Pop stump 10"-4 hi N36° E 4' 30 ft. Old Birch 6" S 17° 30' W 2.80 feet.

" Birch 6" N50° W 22.44 ft. 8' 30" New B.T.S set by Kemp at 8' 30" acc;
New Ash 5" S 83° E 12.50 ft. New Birch 10" N 16° 20' E 18.50 ft. 8' 30" d

At M.C. N° 38. U.S. notes call for post and Tam 3 N 22° W 18 links = 11.88 ft.
Tam 3 S 75° W 12 links = 7.92 ft. We find the tall stumps of two 3 inch tamarac but they do not check for course distance and stand just 4 feet apart the one stump stands S E 61.00 ft. from sec. cor post and the other S W 61.50 ft from Sec cor post of 7-8-17-18-141-29 chained to the scribe marks on the south side of the 3 inch tamarac stumps. We ignore this meander corner as it is so close to the sec corner. We walk around West end of small lake - cross 10' creek running West and walk South half a mile to old stake set for 1/4 bet 17-18-141-29 from which we run West @ 90° Var: @ 101.90 Hub - 300.600 stake, 649.40 Hub. 900 stake: 932.40 Hub. 1037 dim road NW & SE: 1050 pin: 1200 stake: 1350 Hub: 1405 Cen of main wagon road NE & SW. 1500 stake. 1604.40 Hub. 1800 stake enter South end of older swp. 1900 hr. same: 1929.80 Hub: 1950 stake: 2100 - 2250 - stake: 2296.90 Hub on high hill. 2300 stake. At 2393.90 W intersect transit line from the South, 2600.40 North. N.W. angle reads 89° 47' 20". Continue West: 2400 stake: 2580 ent. swp: 2600 stake in swamp 19°. Still with Askins storm begins at dark.

April 17-1917. Tuesday. Askins Survey - Curo. Askins - Larson & Sen. Continue West on center random line of sec. 18-141-29. At 2900 stake W dead tamarac - enter open wet bog. 3200 stake: 3366 creek 3' wide 3' deep. end bottomless with an 8 foot flag pole Creek runs North - then N.E. @ 3500 stake: 3508 Hub. Lv. open wet bog enter tamarac swamp - 3800 stake 3989.60 Hub in swamp near some big ^{green} cedar trees. 4100 stake: 4384.70 tack in log swamp 18° 30': 4400 & 4700 stake: 4937 Hub. 5000 stake leave swp. foot of big hill. East side. 5022.50 feet West the 1/4 corner sets North (90° to random) 85.80 feet. At this point being the 1/4 corner between section 18-T. 141-R 29 and section 13 T 141 R 30 U.S. notes call for post and Cedar 16" N 31° 30' E 33 Links = 21.78 feet.

W. Pine 30' N 47° 30' W. 23 links = 15.18 ft. We find the solid sowed of stump of the White Pine plainly marked and from a point where the figures of the cedar would come if the tree was stood up. we drive a stake and set the 1/4 corner by flat chain from face of bearing trees after which position of trees is as follows. Old W. Pine N. 45° W 15.18 ft. to upper spot. Old Ced. N 36° E 21.78 original position of old B.T. marks. We put in a new bearing being a nail in flat spot on shell of 40 inch W.P. stump bears S 28° 30' W 23.30 ft - 18° 30' E. in sec. 13. T. 141. R 30. Dinner late. P. M.

We walk East on ice in Pine Lake to random line running East bet secs 18 & 19 141-29. and beg at stake 5100 E we continue same line East on ice random bet secs 17 & 20. At 5400. 5700-6000. 6300. 6600. 6900. 7200-7300 stake on ice: at 7400 about. enter So end of small Island. 7500 W. same: 7600 Hub on ice + 238 = 7838 Hub on sea wall 50 ft east of east edge of Pine Lake - marshy shore. 7900 stake in swamp: 8100 Lv. swamp. 8100 E Lv. swamp. 8200 - 8500 - 9800 set stakes. From Hub 7838. E, on sea wall fence post bears S. 25° 38' E 244.80 feet. And another small stake set by someone

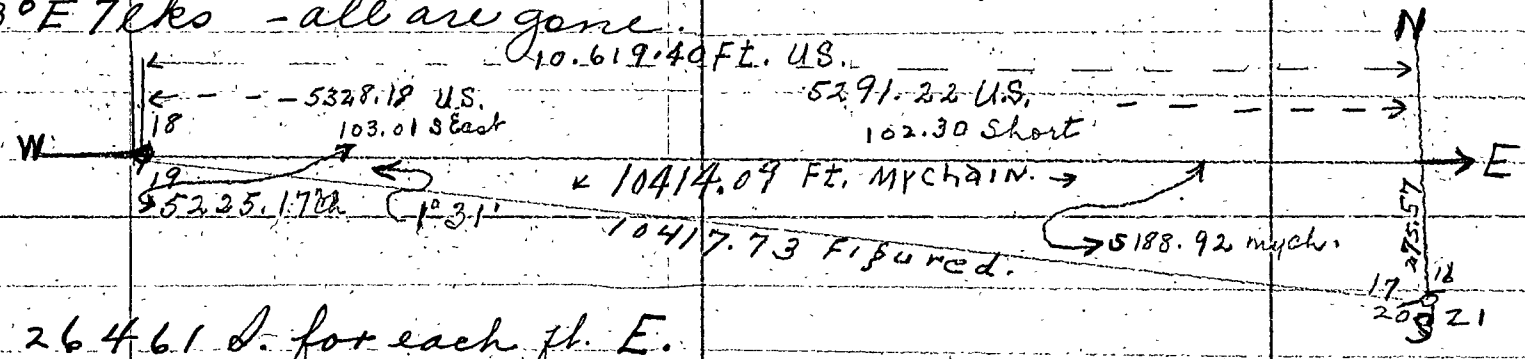
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Survey Record No. 431.

sets S 18° 43' E 280.30 feet. (By figures) 25° 31' } Sine = .43077
 At 7943.45 East fence post sets South 220.92 feet. Figuring 18° 43' } Cosin = .90246. Sine = .32087
 feet: Com = 265.48 At 7927.95 feet E. sets South 265.48 feet. April 18-1917. Wed. Cur-
 Askins & Utes Larson continue East on random bet secs 17-20 T. 141 R. 29 Ole goes to Cyphers
 with crew. Beg @ Hub on Red wall E side of Pine Lake. (Begs to chain from stake 8800 E.
 @ 9092 E. cross wire fence North of 1/16 post on E & W. fence line where Sweringer
 put in a post from the notes given him by M. A. Kemp who said each party was 27 feet
 short E & W. Mr. Sweringer says @ 9100 Hub: 9200 stake: 9224.70 Hub: 9475 new
 wagon trail bears NW and S 9500 stake: 9675 enter small swamp: 9800 stake: 9825 wrap.
 9900 stake: 10000 stake: 10200 Hub: 10410.00 E set hub in New N & S graded road from

which the corner to secs 16-17-20-21 sets S 0° 51' E 275.60 feet Figuring 0° 51' } Sine = .01483
 Sine = 4.092 feet: cosin = 275.57 At 10414.09 E the cor sets South 275.57 S. At this
 point being the corner to Secs-16-17-20-21-T. 141-R-29. US notes call for a post and
 Oak 5" N 68 E 5 lks = 3.30 Ft. Maple 6" N. 66 W. 7 lks = 4.62 Ft. Oak 10" S.
 62 W. 25 lks = 16.50 Ft. Birch 5" S 67 E. 6 lks = 3.96 Ft. (8) We find the 10 inch

oak standing green plainly marked from which we set a small stake in
 the center of the N & S graded @ 8° 30' Var. from face of figures. All other bearing trees
 have been graded out. Another bearing tree probably ten yrs. old being an 8 inch dead
 Oak bears N 58° E 21.50 feet 2 New B.T.S. set by Kemp are as follows Tamarac 12" N 39° W
 68.30 Ft. Dead Oak 7.534° 30' W 38.80 Ft. The old sec. cor. post has been set west in
 order to grade the new road and bears S 86° 30' W 20 feet. The new graded road runs
 N 0° 40' W all @ 8° 30' V. We cannot see the graded road South on account of a hill. At
 1/4 bet secs 17-20-141-29 US notes call for Post and Poplar Birch N 21° W 21 lks.
 Poplar 4 inch S 13° E 7 lks - all are gone.



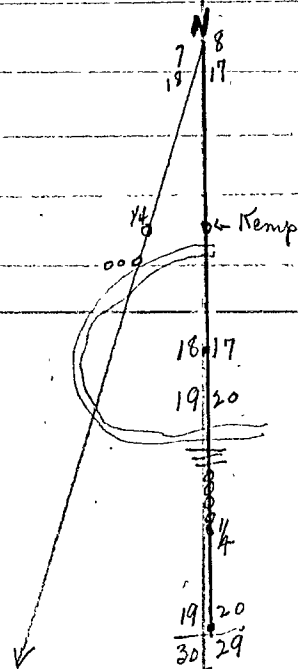
Sine = .026461
 Cosin = .99965
 Connection = .026461 S. for each ft. E.
 " = .0193335 N. " " " E on Random.

10619.40 US (= 10414.09 My ch. via random line.) = 205.31 short in total 2 miles
 (via Random line). P.M. From Kemps iron N 1/6 cor bet secs 19 and 20. West
 to about where Kemps transit line crosses the E & W. graded road, is about 123.4 feet
 as near as we can tell without the transit. and from his 1/4 corner. West to his transit
 line is about 147.3 ft. and from the cor. 19-20-29-30 West to his transit line is about
 196.1 feet taken by eye without the transit. Rough ch. from 1/4 to chain 2518. feet.

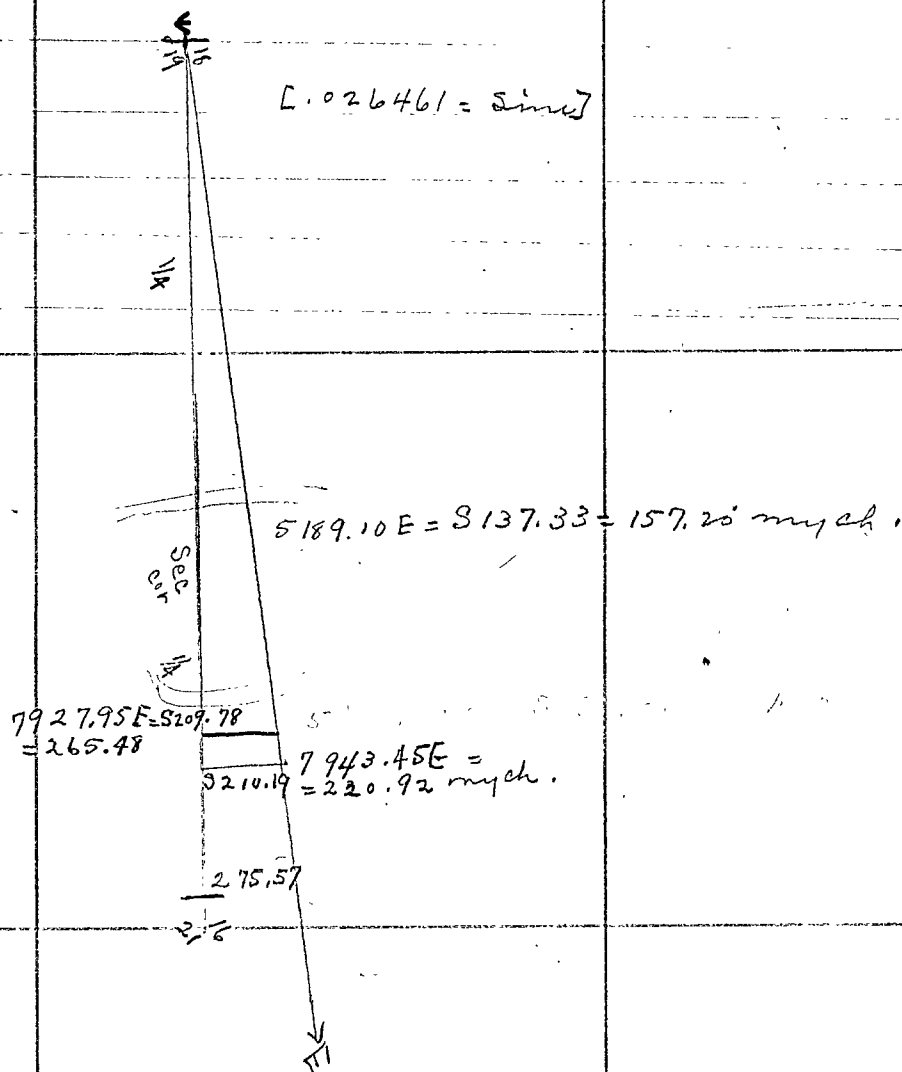
Survey Record No. 431.

April 19-1917. Thurs. Ole Larson comes but it rains all am. I figure corrections. Larson gets lunch with Askins and go home. Rains all day.

13 18 1368.18 US. 1320 US 5328.18 US 1320 US 1320 US → E



Note: This correction figured for a line straight thru but we did not make it.



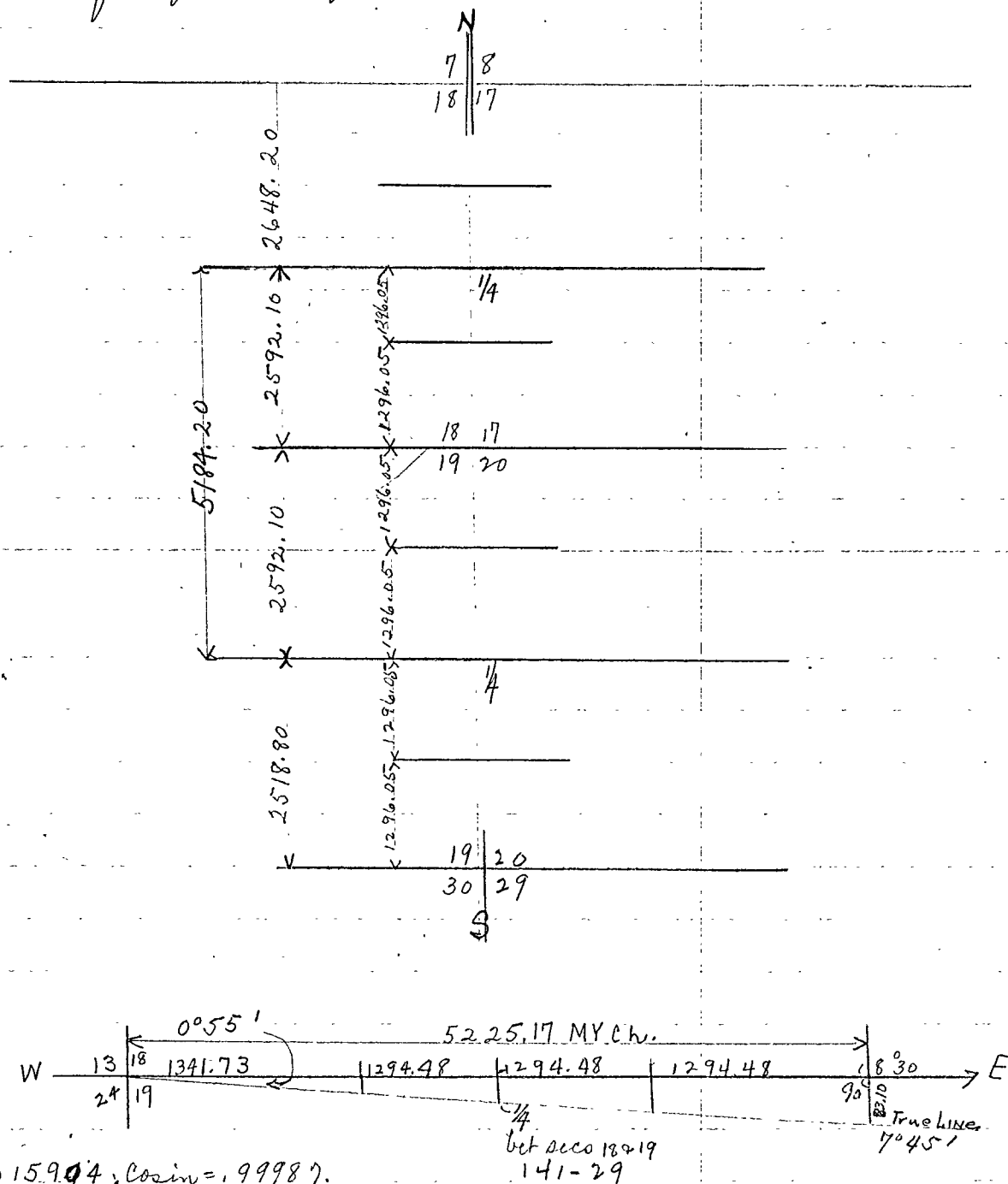
Note: If figured straight for the next few miles, this correction not to be used.

April 20¹⁹¹⁷ Friday. Curro - Askins - Ole Larson & Son Geo. Begin at temp E 1/4 Sec 18-141-29. We begin at random stake 3900 E and chain East 30.69 to 3930.69 East and put hub on. turn 90° and set line North on random thro center of 3 E 1/4 of sec 18-141-29. The lake shown by the U.S. plat is not there. We run North about half a mile cross a point of lake and place hub on random line running West at 1183.50 West of the old 1/4 post. P.M. --- Set transit on hub 1183.50 telescope on random South and chain South @ 20 ft. enter wet bog: at 345.40 set hub 6 ft. N of water - marshy bank on N. side of Pine Lake. Cut brush around West arm of lake then walk a mile South to Kemp's 1/4 cor bet secs 19 & 20. Where U.S. notes call for post and Maple 12" S. 82° E. 17 Lks = 11.22 ft. Maple 10" S. 4 W. 10 Lks = 6.60 "

We find a post set by Kemp for the line 1/4 corner with new B.T.S. and from which a new line of fence posts with no wire runs North nearly 80 rods to E & W graded road. We check Kemp's transit line as follows. set transit over Kemp's hub 147.30 ft. W. of his 1/4 cor. back right a mile North across Pine Lake and run South on Kemp's old transit line and at 2518.80 ft. the cor. to secs 19-20-29-30-141-29 sets East 196.10 ft and at 90° angle Askins & Curro chaining with plumb-bob. At cor to 19-20-29-30-T141-R29 U.S. notes call for post and

- Maple 12" N 52° E 10 Lks = 6.60 ft.
- Oak 10" N 62 1/2° W 13 " = 8.58 "
- Poplar 8" S 43° W 23 " = 15.18 "
- W. Pine 17" S 59° E 45 " = 29.70 "

We find all the old bearing trees except the new maple. The ~~oaks~~ is down, also the poplar. The W.P. stump is only a shell but plainly marked. We find the stake set by Kemp for the line corner. Still with Askins. April 21-1917. Saturday:- Geo Larson reports for work, he and Askins cut brush all forenoon along West shore of Pine Lake. I figure notes and decide to go to Walker for more information & check up my U.S. notes. P.M. Askins & team take I and my wife and baby to Cyphers where we catch P.M. train to Walker. April 22-1917 Sunday all day in Walker. April 23-1917. all day in Walker. April 24-1917- I ship 15 I.M.s via freight to Cyphers and go with them. Askins meets me with team and takes me home with him. Over night with Askins. April 25-1917- Wednesday- Two inches of snow fell last night. I figure corrections all A.M. P.M. Correcting- Our temporary corner which we have been using on the ice to sec 17-18-19-20 -141-29. must go North 74.10 feet to a point 83.10 ft. South of Hub. 5189.10 E. on our random line coming from the West. Thence East 36.07 feet to 5225.17 East which would fix its line position by flat chain proportionally made from the nearest known U.S. corner N-3-E & W. 4008.18 E. goes West 77.49 to 3930.69 E. Thence South 62.51 Ft. to E 1/6 bet sec 18 & 19. Hub 2688.18 E. goes West 51.97 to 2636.21 E. Thence S. 41.93 ft. to line 1/4 bet sec 18 & 19. Hub 1368.18 E. goes W. 26.45 to 1341.73 E. Thence South 21.34 Ft. to line W 1/6 bet 18 & 19. Correction = .015904 of a foot S. for each ft. E. Sine = .015904. Cosin = .99987.



Sine = .015904, Cosin = .99987.
 April 26-1917. Thurs. To correct random line bet sec 18-19. 141-29 = .015904 goes S for each ft. E
 1341.73 E. goes S. 21.34 to W 1/6
 2636.21 E. " " 41.93 To 1/4 bet 18 & 19. Set I.M. 2x48 in mound - No cap.
 3930.69 " " " 62.51 To E 1/6 bet 18 & 19 " " " " " " " " " " " "
 4123.80 " " " 65.58 and then E 49.80 To I.M. on sec wall 10 Ft W of water.
 52217 cor on ice would be 383.10 feet.
 3900 E goes S. 6043 to wood hub on true line.

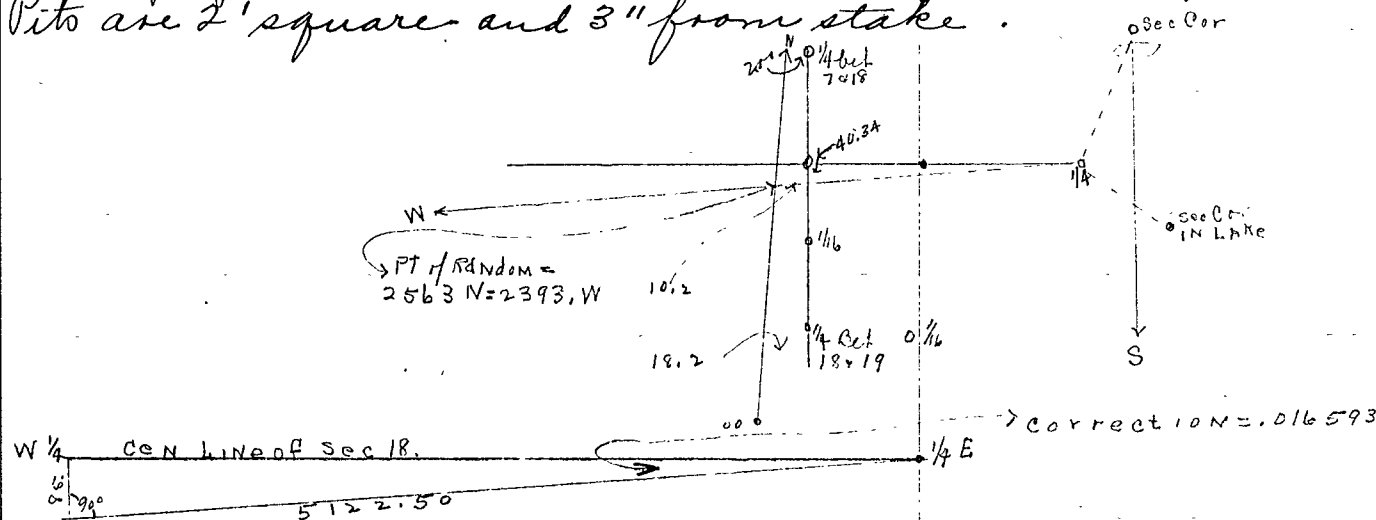
Survey Record No. 431.

Reg @ 2700 E. chain W 63.79 to 2636.21 E. Then S. 41.93 and set I.M. being 2x48" boiler tube in mound for 1/4 bet 18-19 No B.T.S. At 2818 E. chain S. 44.85 ft and set hub on true line. At 3930.69 E. chain S. 62.51 ft. and set I.M. being 2x48" Boiler tube in mound for 1/6 bet 18-19 and At 4123.80 E chain S 65.58 ft set hub over which I set transit - back sight on I.M. = 1/6 and run E. 49.80 ft. to 4173.60 E. where we set I.M. being 2x48" boiler tube set in a mound on sec wall. No side of Pine Lake 10 ft. from water. At 2636.21 E. I put in oak hub on random. To correct center lines of sec 18-141-29. The temporary 1/4 cor bet 18 & 19 is 18.20 ft. too far West and 37.40 ft. too far South. On 7/9 S random Correction = .0030762 of a foot + 2 ft E for each foot. each hub is South of the 1/4 cor.

I.M. 1339.52 N. = 1302.12 N = 3963.98 S. goes E. 12.20 + 2 = 14.20 I.M.
 RI 2600.40 " = 2563.00 " = 2703.10 " " " 8.32 + 2 = 10.32
 " " 2640.74 " = 2604.23 " = 2667.76 " " " 8.19 + 2 = 10.19

correction = .0030762 + 2.00 feet E for each foot S.

At PI Hub mkd 2563.00 H = 2493.90 N chain East 10.32 ft and set hub on line E & W random over which I set transit Sight North on a flag set 10.01 ft E of stake mkd "2700" N and chain North along the true cen line 41.23 to 2604.23 N ft where we set an I.M. being 2x48" boiler tube in big mound of dirt with 4 pits NE, NW, SE, SW. Pits are 2' square and 3" from stake.



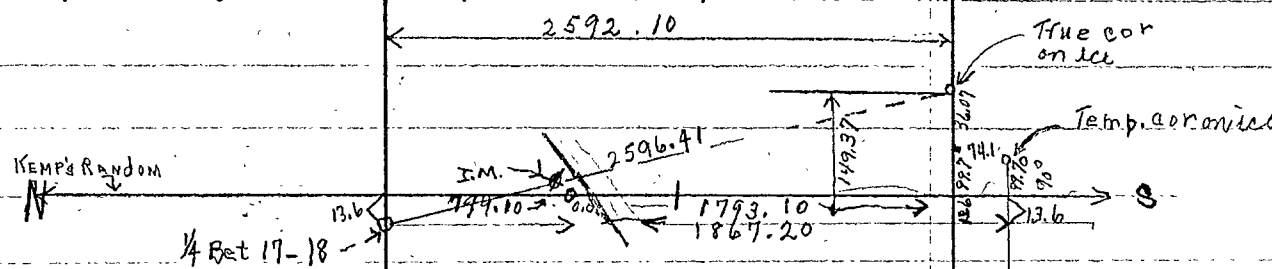
Askins and Curo finish correcting the N & S cen line of the S half of sec 18. put in all stakes & iron center then find that we have dropped 1.00 feet in chaining West from stake 1800 West to the center of Sec. 18 and that the total distance from the 1/4 on E. side West to the cen. is 2483.70 feet and the total dist to the 1/4 on West side is 5122.50. We make the correction but do not erase any figures from this book. We put in 1/6 corner in cen of East half of sec 18 as follows: Begin at hub 1350 W. and chain East 108.15 ft. to 1241.85 West where we set transit and turn 90° and run N 20.61 ft. and set 2x48 inch I.M. being boiler tube in mound of dirt. We correct all hubs from the center of 18 - east to the 1/4 bet secs 17 & 18 - T. 141 - R 29. where we take up the old U.S. stake and put in its place an iron monument being 2x48 inch boiler tube set in mound of dirt, April 28 - 1917. Saturday. Curo & Askins working to correct N & S cen line of the S E 1/4 of Sec. 18. We begin at I.M. being E 1/6 cor bet secs 18 & 19 - 141 - 29. and chain N. along transit line. At 62.51 Hub on E & W random mkd. "3930.69 E". At 300 stake. 468 Hub: 600 stake: 900 stake. 916.60 Hub: 1200 stake. 1250.50 hub on sea wall Pine Lake. Lake runs NW & SE. From a stake mkd 0.0. across lake on sea wall of North shore the I.M. 1/6 in cen of E. half of 18 sets 366.30 ft. North along random line - thence West (90°) 59.65 feet. Not being able to chain across lake I figure the total length of this line as 2598.16 feet so that at 2598.16 N. the I.M. sets West 59.65 ft. Correction = .02295855 of a foot West for each foot North. Correcting random

At 62.51 N. set a Hub Wt. 1.43
 468. " " " " " 10.70
 916.60 " " " " " 21.40
 1250.50 " " " " " 28.70

Setting transit on Hub 1250.50 N. turn 90° to random and run West 28.70 ft and set hub on line which
 by figures in 1250.82 N. via true line. Sine figures = .022959, Cosine figures = .99974. Angle
 figures 1°19' left. Set transit on connected hub 1250.82 back sight on 1250.50 on random
 turn 90° to left then 1°19' to left = 91°19' L and cut brush North to the lake till I can see the iron
 monument in cen. of E half of sec. 18. wire in transit almost cuts the corner. Focus on corner
 and continue North on line East $\frac{1}{16}$ line of sec. 18-141-29 chaining from hub 1250.82. At
 48.26 set Hub 1299.08 N. which we pull up and put in its place a 2x48 inch boiler tube I.M. for
 line $\frac{1}{16}$ corner in cen. of SE $\frac{1}{4}$ of sec. 18-T141-R29 with good mounds and pits. At 76.80 set Hub
 1327.62 N. set on sea wall of Pine Lake 10 ft West of water edge, rocky shore, Ft. 160 = 1410.82 N.
 enter water edge 10 ft East of sea wall; At 1460 we are 7 ft. E. of water edge and 12 ft. E. of sea wall.
 At 25 = 1500.82 W. water edge 10 ft. E. of sea wall or bank at 300 = 1550.82 set stake 5 ft. N. of
 water + 5 ft. E. of bank. At 333.00 = 1583.82 set hub on outer edge of sharp bank or sea wall 10 ft
 from water edge, still rocky shore. Then follow along East side of sharp edge of bank or sea
 wall 10 ft West of water edge. At 400.80 = 1651.62 N. set hub on sharp edge of bank 10 ft West
 of water. thence along sharp bank and at 418.38 = 1669.20 set hub on sharp edge of sea wall
 10 ft. West of water. Here the lake turns N.W. and from Hub 1669.20 N. we run N14°53'W
 258 ft and set Hub. From Hub 1669.20 cause Hub to be set on N bank of lake on true line
 6 ft from water in edge of cranberry bog. Beg @ Hub 1669.20 chain N14°53'W: @
 35 ft to sharp edge of sea wall and follow along stony beach 5 ft from water and 5 ft
 from sea wall and at 258 intersect hub on sand and stone beach 5 ft. from water and 5 ft
 from low bank. Thence N22°28'30" W. @ 20 ft enter edge of water on flat sandy shore @ 60 ft
 in edge of water 25 ft. from front of hill. @ 141 set hub on low point coming up from
 the S. Hub sets 5" from water - low shore sloping up to the South. Thence N60°47'W at
 20 ft touch water edge @ 40 ft leave edge of water at 7480 set hub in mound at water edge
 Marshy bog runs S 100 feet. Thence N5°19'20"E following in edge of water 103.70 ft. to hub
 5 ft. W of water. Thence N36°47'E @ 55 ft took 113.30 ft to hub 5 ft from water. and 20
 ft E of West side of swamp that bears about N40°E. Thence S77°27'E. 111 ft to hub on
 true line over which I set transit. Then as a check focus telescope North on line I.M.
 and the hub I just left bears N77°28'W. Thence North along true line at 240 LV bog
 ven NE + SW at 343.70 intersect I.M. We pull up the wood hub on the N. shore of Lake
 on true line 343.70 ft. So of I.M. at $\frac{1}{16}$ in center of East half of sec. 18 - and put in its
 place an Iron Mon - being 2x48" boiler tube driven half its length into the ground and
 from here North we set 4 oak hubs about every hundred feet. The bog appears to be solid
 and 4 feet above the water except that there is a natural ditch along the West side. Bog
 is about 200 feet wide at the lake. 300 ft long N.S. and 125 ft. wide in cen. We drive a
 row of oak hubs along the line Secs. 18 & 19. 141-29 near Askins house which sets feet
 South of the line about feet east of the iron $\frac{1}{16}$ cor. bet 18 & 19. Quit for tonight.

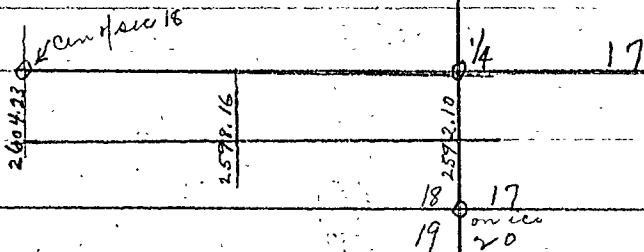
Survey Record No. 431.

April 29-1917. Sunday. Snow and sleet. Figure corrections. Correcting the sec line from the 1/4 cor bet 17 & 18 - T-141-R29.

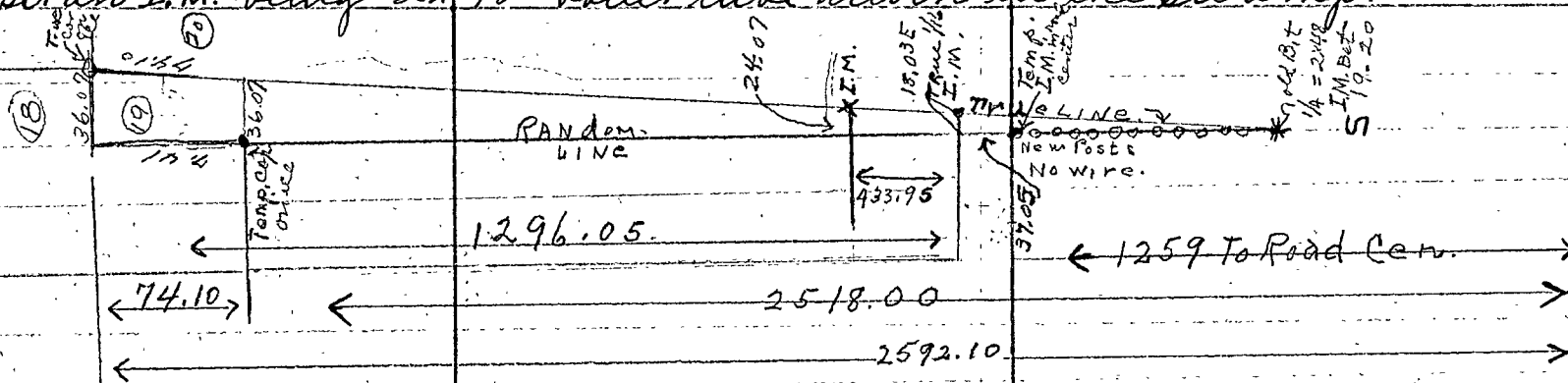


Correction is 149.37 feet off in 2592.10 Being .0576251 of a foot East for each foot South. Sine = .0576251 = 3° 18' 12". Cosine = .99834 "

Begin at a point on Kemp's random line 775 feet South of the 1/4 corner between secs 17 & 18 T-141-R29 from which we chain E 31.06 ft. 90° to random and set hub (= 44.66 from figured random 13.60 West of Kemp's line) set transit on hub 31.06 back sight on hub 775 turn 90° to left then 3° 18' 12" more to the left and run South along true section line 1440 feet and set I.M. being 2x48" boiler tube set on true section line between secs 17 & 18 on N. shore of Pine Lake. feet North and feet West of edge of bank on sea wall. Bto Vix N. Pine 203.73° E 4.00 ft. N. Pine 143.8° W 12.20. I work alone in setting this I.M. but do not get it mounded. Askins and I will mound it later.

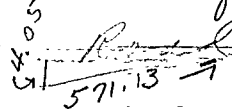


In cen. of Sec. 18. the N.W. angle of the N & S true line with E & W random reads 89° 40' = 0° 20' to L. of N. April 30-1917. Monday. Askins & Curo take boat & check up the I.M. on N. shore of Pine Lake and re-set it more solidly. To put in the true N 1/4 corner between secs 19 & 20 we begin at an iron monument in the center of the E & W graded road and chain N. 37.05 feet to a point 1296.05 ft. N. of the 1/4 corner, thence East 18.03 feet where we set an I.M. being 2x48" boiler tube driven in the swamp.



At Hub 471, N of road cen. on S. side of Pine Lake and 1730 ft. N. of the 1/4 cor bet secs 19 & 20 T-141-R29. I chain East 24.07 and set I.M. for M.C. correction = .013915 of a ft. E for each ft. North. Note: - As the iron monument we have set for the N 1/4 bet secs 19 & 20 comes 37.05 feet North of the center

of the new E & W road which runs a mile west to the $\frac{1}{4}$ corner, there would be a strip of land 4.05 feet wide on the East end between the NE $\frac{1}{4}$ of NE $\frac{1}{4}$ sec. 19-141-29 and the road and as Mr. Askins owns this forty and would like to know how far West this wedge shaped piece of land would run to cut him off from the road I made a rough estimate as follows: 1st I assume that the road run straight West a mile to the $\frac{1}{4}$ c. 2nd I assume the length of the total mile to be the same length as the North boundary of sec. 19- which runs is 5225.17 feet. Figuring this the result is: $\text{Sine} = .00709061$ - Dividing 3300 by 709061 given 4654.04 being the number of feet East where the line would run out leaving the strip 571.13 ft. long



At the iron N $\frac{1}{4}$ cor bet 19 & 20 we take the following bearing.

- Tam. - 49 86° E. 2.40 ft.
- Tam. 6 S 17° E 17.95 ft. (This was marked by Kemp.)

Askins & Curo meet Mr. Cassius, H. Chase with his horse starting for Walker and as we want Mr. Case for a witness to the $\frac{1}{4}$ cor bet 19 & 20 he goes with us and points out what he says is the old original U.S. $\frac{1}{4}$ cor. post at the S. end of a line of a new fence post (No wire) Mr. Case says this post has stood here at least for the past 8 years and longer he also shows us one of the old Bearing trees U.S. notes call for "St. B. @ 3" Maple 12 S 82° E 17 lks = 11.22 ft. Maple 10 S 4° W 10 lks = 6.60 ft. We find the root of the S. W. stump and the stump of the S. E. tree under a brush pile and they check out for course and distance. We take new B.T. 5 - Viz. Dead Balsam 10" N. 75° W 8.10 ft. Green, white Pine tree 10 inch diam bear S 41° W 35.75 feet to face of trees. The white pine appears to have been marked for a new B.T. within the last ten years. Probably marked by Kemp.

As the Fractional E $\frac{1}{2}$ of the S. E $\frac{1}{4}$ of Sec. 18-141-29 is all in Pine Lake excepting a thin strip of land along the S. West edge and another block of land along the North end we get the acreage of the thin strip along the S. W. corner by chaining East to the lake shore which is quite even and uniform.

We begin at the E $\frac{1}{4}$ cor. bet 18 and 19.
 At stake 300 N the lake lies East 238 ft.
 " " 600 " " " " " 202 "
 " " 900 " " " " " 181 "

Chained from true N & S. line
 Surveyed by John W. Curo.

~~E. B. Horst~~

Recorded Feb. 5-1920.

James H. Flynn. Co. Surveyor.
 by E. B. Horst.
 Dep. Co. Surveyor.

491

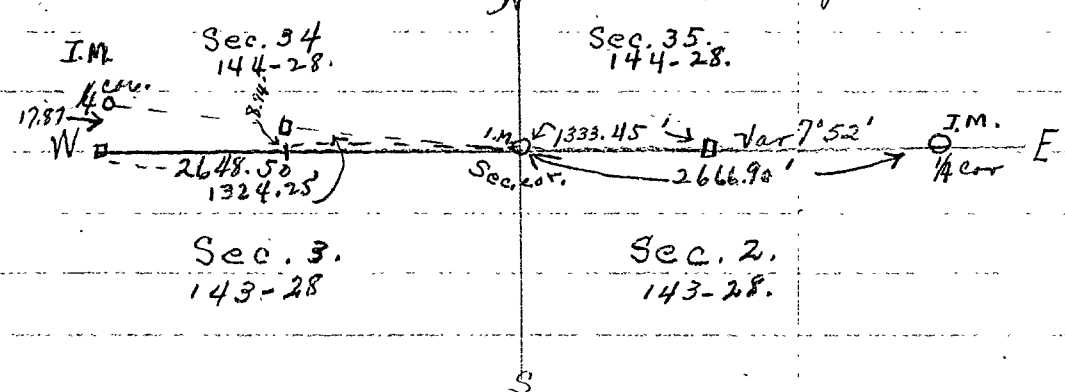
510

F.B. 71.

Field notes of the survey of Secs. 34-35-144-28. Federal Dam.
 Tuesday April 27th 1915. Rainy. Starting the survey of Lot #8,
 Sec. 34-144-28 and Lot #6, Sec. 35-144-28, for E. G. Hartley of Duluth,
 Leave Walker, Minn., at 2:52 A.M. on M. & S. Ry. Arrive Bemidji, Minn.
 at 3:20 A.M. Ry Fare = 84¢. Bed and breakfast at Markham Hotel, Bemidji
 = \$1.50. Leave Bemidji at 9:35 A.M. on Soo Ry. Arrive Federal Dam at 10:50
 A.M. Ry. Fare = 80¢. Register at Hotel Stanton. P.M. E. L. Warren and I go
 out and look up corners on work. After we return I engage men to
 assist me in this survey. Wednesday, April 28th 1915. Fair & warm.
 Geo. W. Miller - Transit & chain. Fred Beaulieu. Axe & chain.
 Ed Newman. Axe. 300' steel tape. New "Gurley" transit. Left Hotel Stanton
 at 7 A.M. and walked to cor. to Secs. 34-35-2-3-144-143-28, where we
 find a 2 1/4" x 4" iron pipe set its full length in the ground as recorded
 in Book Page. County Record Book of Surveys. Set up over this iron
 corner and run East 17° 52'. @ 2666.90 we intersect the 1/4 cor. between
 Sec. 35-144-28 and Sec. 2-143-28, the same being a 2 1/4" x 4" iron pipe, capped
 on top, set its full length in the ground as recorded in Book Page
 of County Record of Surveys. We now come back and @ 1333.45 we set
 hub and tack for the true W 1/4 cor. between Sec. 35-144-28

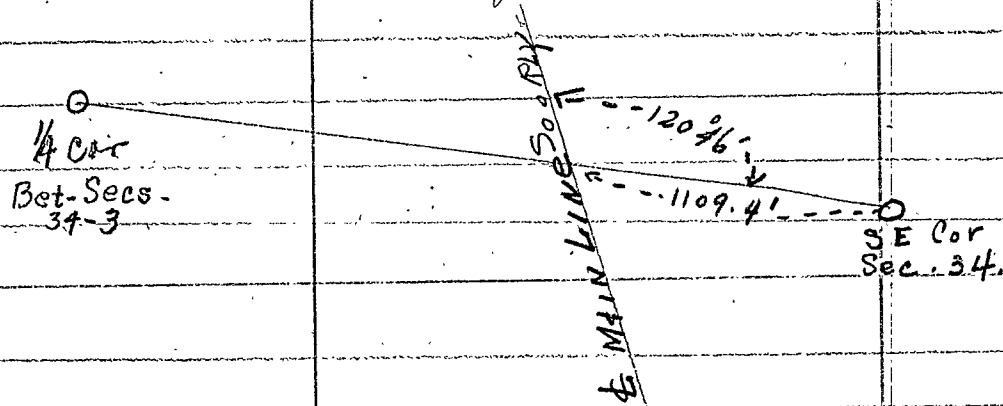
	April 1915				May 1915												
	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	
Geo. W. Miller	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	See page
Fred Beaulieu	0	1	1	1	1	0	0	1/2	1	1/2	1/2	1	0	1	1	1	43 for
Ed Newman	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	Cont. May
John H. Curo																	time.
Barney McKieig	0	0	0	0	0	0	0	0	1	1/2	1/2	1	0	1	1	1	
Edgar Billington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1/2	

(Note: Make Ed Newman's time payable to R. F. de Mire, Federal Dam)
 and Sec. 2-144-28, the same being the true S.E. cor. of Lot #6, Sec. 35.

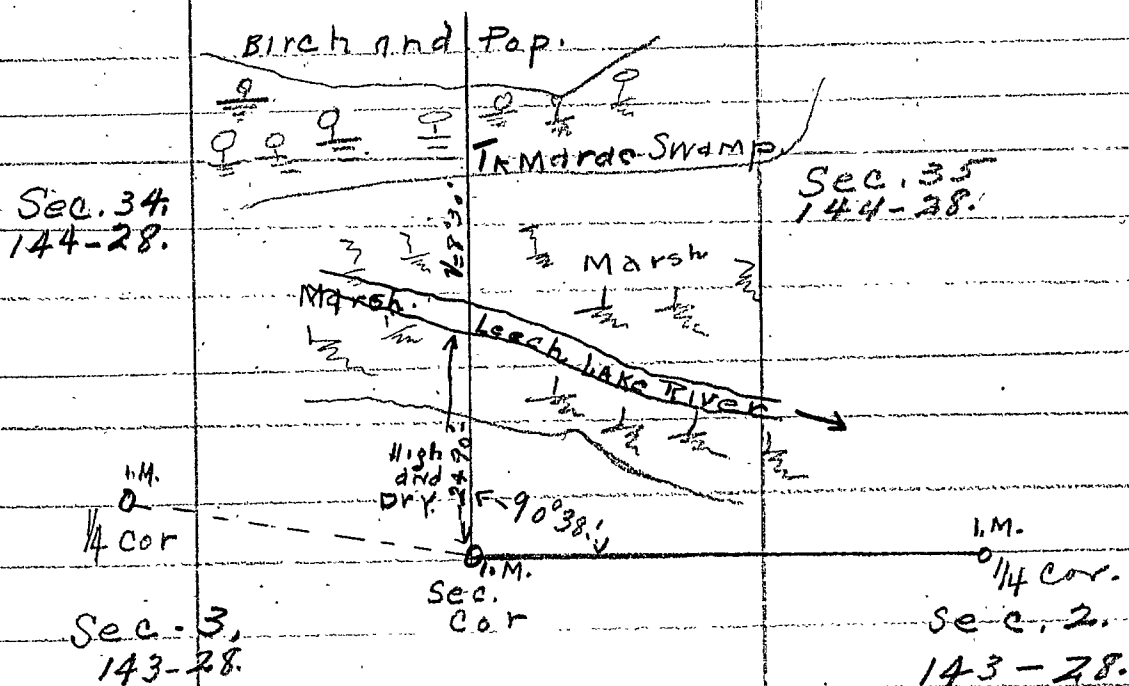


With transit remaining set up over cor. to Secs. 34-35-2-3-144-143-28, I
 backsight East on 1/4 cor. between secs. 35-144-28 and 2-143-28, transit
 telescope and run West on random between Secs. 34-3-144-143-28.
 @ 1106.70 - S. Soo Ry. Main line.
 @ 1124.00 - Hub.
 @ 2016.10 - "
 @ 2648.50 - True 1/4 cor. btw. Sec. 34-144-28 and Sec. 3-143-28, being a
 2 1/4" x 4" iron pipe. Capped on top, and set nearly its full length in the
 ground, as recorded in Book Page of County Record Book of
 Surveys, sets North 17.87 feet (90° from random line.) Correcting
 back. All points on random go .00675 ft. North for each foot West
 of Cor. to Secs. 34-35-2-3-144-143-28. 2016.10 goes 13.61 feet North.

1124.00 goes 7.59 feet North. We now set a hub at 1324.25 on random line, over which we set the transit back sight on random, turn 9° and chain North 8.94 feet where we set hub for the true E 1/4 cor. btw. Secs 34-3, being the true S.W. cor. of Lot # 8, Sec. 34. I now determine the point at which the main line of the Soo Railway intersects the south boundary of Lot # 8, Sec. 34 and measure the angle which said South Boundary makes with said E of Railway find it to be 120° 46'



Quit for night. Still at Hotel Stanton. Thursday, April 29th. 1915. Fair & warm. Geo W Miller. Transit & chain. Fred Beaulieu. Ase & chain. Ed Newman. Ase. 300' steel tape. New 'Gurley' transit. Leave hotel at 7 A.M. Setup transit over cor. to secs. 34-35 - 2-3 and run North on 8° 30' Var.



at 563.90 - Hub @ 1261.60 - Hub. @ 1320 Set hub & tack for temp. 1/4 cor bet. Secs. 34-35. @ 1844.10 - Hub @ 2050 Enter very low wet marsh. @ 2475.60 Hub @ 2490 - South Bk. Leach Lake River Well defined. @ 2660 - North Bk. Leach Lake River. Well defined. We break the tape accidentally at this point and count, running our line but not chaining. Run about 1/4 mile further and quit for night. Still at Hotel Stanton. Friday April 30. 1915. Fair & warm. Geo W Miller. Transit & chain. Fred Beaulieu. Ase & chain. Ed Newman. Ase. 300' steel tape. New 'Gurley' transit. I get the tape mended and we start work about 8 A.M. We cont. North on random between Secs. 34 and 35, picking up our chainage at the point where tape broke last night. @ 3113.90 - Hub. @ 4140.00 - Hub. @ 4200 Enter tamarac bush. Still very low and wet.

C

@ 5242.80 - Hub Enter high ground. At this point we stop and look for the cor. to Secs. 26-27-34-35-144-28 where U.S. notes call for a post and the following bearing trees:
 Tam 4 S 31° E 19 lks. dist. Tam. 3. S 40° 30' W 27 lks. dist. Tam 3. N 70° W 18 lks. dist. Tam 3. N 20° 30' W 36 lks. dist. We make a thorough search within radius of perhaps 500' but we find no bearing trees nor anything which would aid us in locating the corner. We now walk back to the H. cor. between Secs. 35-144-28 and 2-143-28. Set the transit over this corner and run North on 8° 30' Var through center Sec. 35.

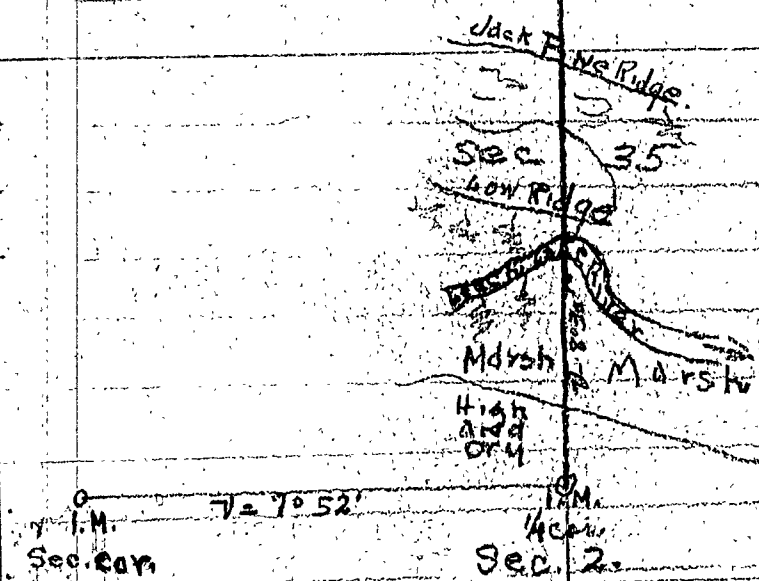
@ 563.40 - Hub.

@ 670 Enter low marsh

@ 1483.00 - Hub.

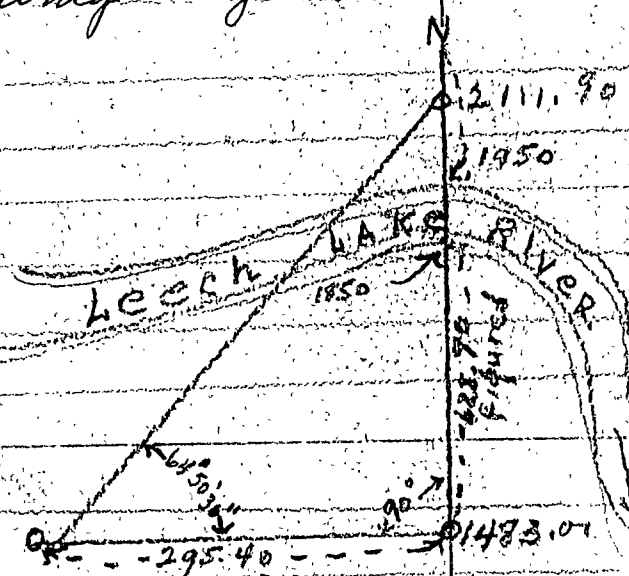
Quit for night. Still at Hotel Stanton.

Saturday, May 1st, 1915. Cloudy cool.
 Scott Miller. Transit chain. Fred Beaulieu
 use chain. Ed. Newman. Use 300' steel tape.
 "Hurley" transit.



1/4 M. Sec. 35
 7 = 7° 52'
 1/4 M. Sec. 2

Cont. Now run random through about center of Sec. 35-144-28. At the point where this line crosses the river, the shore line is marshy and very treacherous, so I decide to triangulate it, which I do as per following diagram.



From which = 295.40 x Tam 64° 50' 30" = 628.90

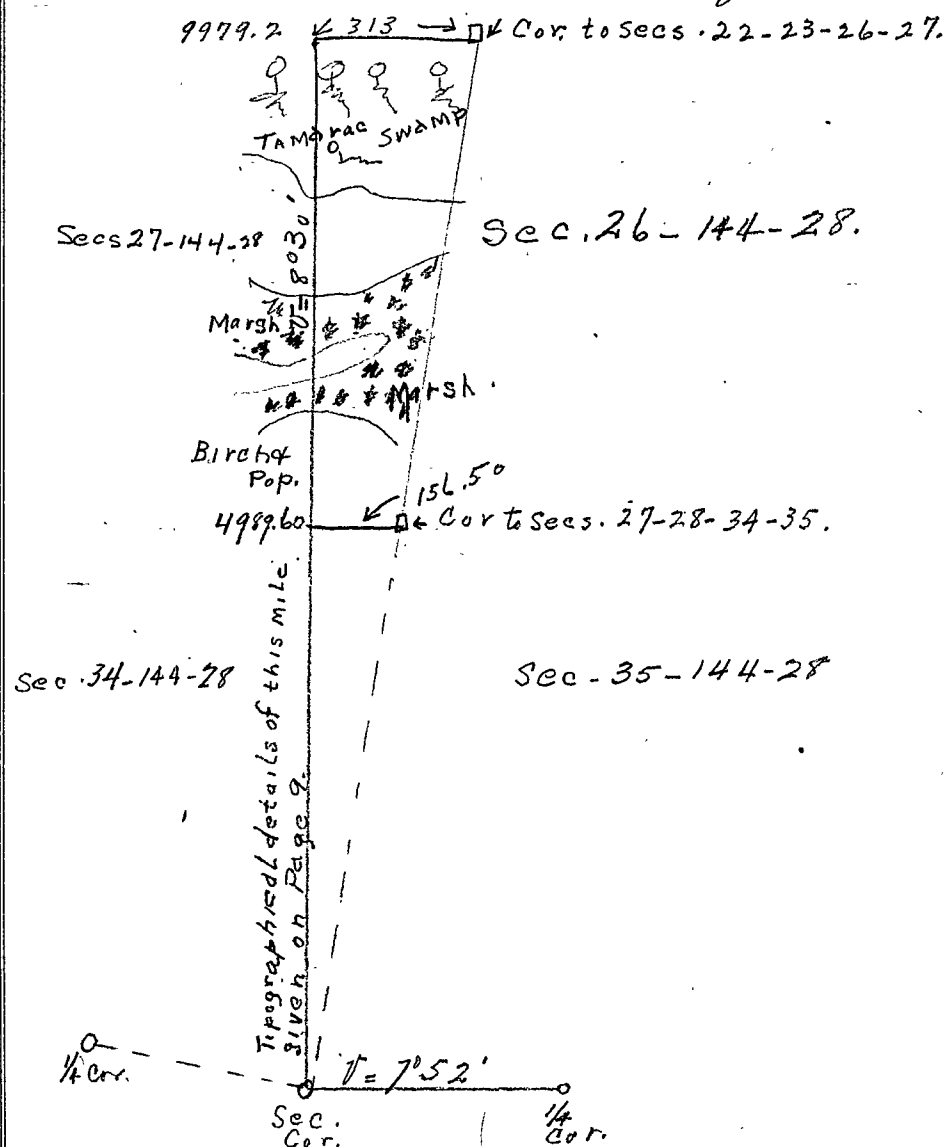
@ 1850. South Bk. Leech Lake River. Marshy & not well defined. @ 1950. North Bk. Leech Lake River. Well defined. @ 2085 Low ridge. @ 2111.90 Hub.

Here we break the doggone chain again. We decide to shoot our line through, without chaining. We run line about 1/2 mile further and then stop to look for the H. cor. between Secs. 35-26-144-28, where U.S. notes call for a post and the following bearing trees =

Jack Pine 6 - N 15° - No. dist. given.
 " " 4 - S 37° - " " "

We spend the remainder of the afternoon looking for this corner but find nothing. B.T.s are evidently all gone. We do, however, find a spruce post blazed on two sides and marked "4" and a blazed line running in a northerly direction from it. Both post and line are freshly blazed and evidently run within the last year. I hesitate to use this post as the true H. cor. as I do not know who set it and I

have no assurance that it is correct. Quit for night. Still at Hotel Stanton. I question Mr. E. L. Warren in the evening in regard to the line & post mentioned above and he informs me that they are the work of one H. J. Botting, who surveyed timber allotments there last summer. That being the case, I do not consider that they are correct and will not use them in this survey. Sunday May 2nd 1915. Cold windy. I procure the U.S. Engineer's map of the Leech Lake Reservoir survey through Twp. 144. Rge 28. This map is much more accurate and drawn to larger scale than the Jewett plat. I go out alone and with the aid of this map make a thorough search for the cor. to Secs. 26-27-34-35-144-28. I decide to see Curo about this, so I go from Federal Dam to Bena (machine fare \$1.00) in order to catch the 1:25 A.M. Great Northern for Cass Lake. Supper @ Lumberman's Hotel, Bena = .35¢. Monday, May 3rd 1915. Leave Bena at 1:25 A.M. on Gt. Nor. (Bena to Walker - 84¢) Arrive Cass Lake 1:55 A.M. Bed and breakfast at Endion hotel = \$1.00. Leave Cass Lake at 7:05 A.M. Arrive Walker 7:50 A.M. and go to the office. Put in the entire day at the office on notes and calculations and receive instructions from Curo regarding corners previously mentioned in these notes. Dinner, supper and bed @ Hotel Chase. Tuesday May 4th 1915. Cloudy. Leave Walker 2:52 A.M. for Bemidji. Rly. fare = 84¢. Bed and breakfast @ Mackham Hotel, Bemidji \$1.50. Leave Bemidji 9:35 A.M. for Federal Dam. Rly. fare = 80¢. Arrive Federal Dam 10:50 A.M. Register at Hotel Stanton. P.M. Geo. W. Miller. Transit & chain, ase. Fred Beaulieu. chain ase. 300' steel tape. New Gurley transit. Set up over hub # 5242. 80 on N & S. random between Sec. 34-144-28 and Sec. 35-144-28 and cont. North on 8°30' Var. @ 5418.40 Hub. @ 5800. Enter marsh. @ 6040 Leave same. @ 6263.00 Hub. @ 6325. Enter marsh. @ 6825 Leave same. @ 6969.50 Hub. Quit for night.

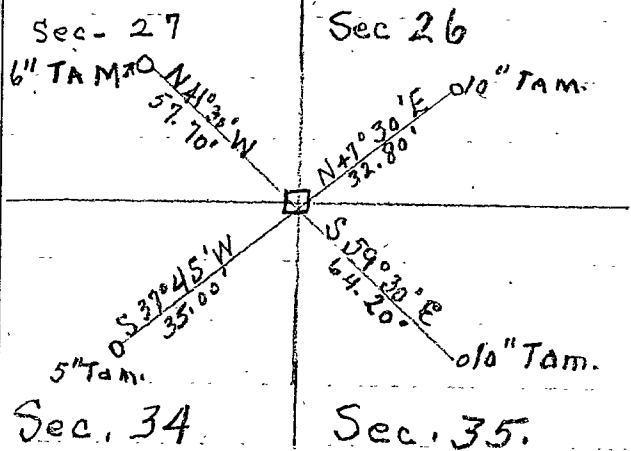


Wednesday, May 5th 1915. Fair & warm. Geo. W. Miller. Transit & chain. Fred Beaulieu. ase chain. Barney McKeig - ase. 300' steel tape. New Gurley transit. Cont. North on random between Sec. 26-144-28. and Sec. 27-144-28. @ 7000 - Enter Tam. swamp. @ 7943.00 Hub. @ 8921.70 - Hub. @ 9898.60 - Hub. Here we stop and look for the corner to Secs. 22-23-26-27-144-28. where U.S. notes call for a post and the following bearing trees:
 Tam 10 - N 26° W - 20 Links Dist.
 Spruce 6 - N 65° E - 23 " "
 Tam 14 - S 52° E - 30 " "
 Tam 13 - S 35° W - 28 " "
 We find the three tamaracs, standing and plainly marked, but the spruce is gone. We establish the corner from these trees, and, at 90° from random @ 9979.20 the cor. to secs. 22-23-26-27-144-28 sets East 313.00 ft.

Correcting Back. All points on random go .0313 7ft. East for each foot North of cor. to Secs. 34-35-2-3-144-143-28. Quit for night. Still at Hotel Stanton. Thursday, May 6th 1915. Rainy. Rain all morning and I stay at hotel and work on notes and calculations. P.M. Geo. W. Miller. Transit & chain. Fred Beaulieu. ase chain. Barney McKeig

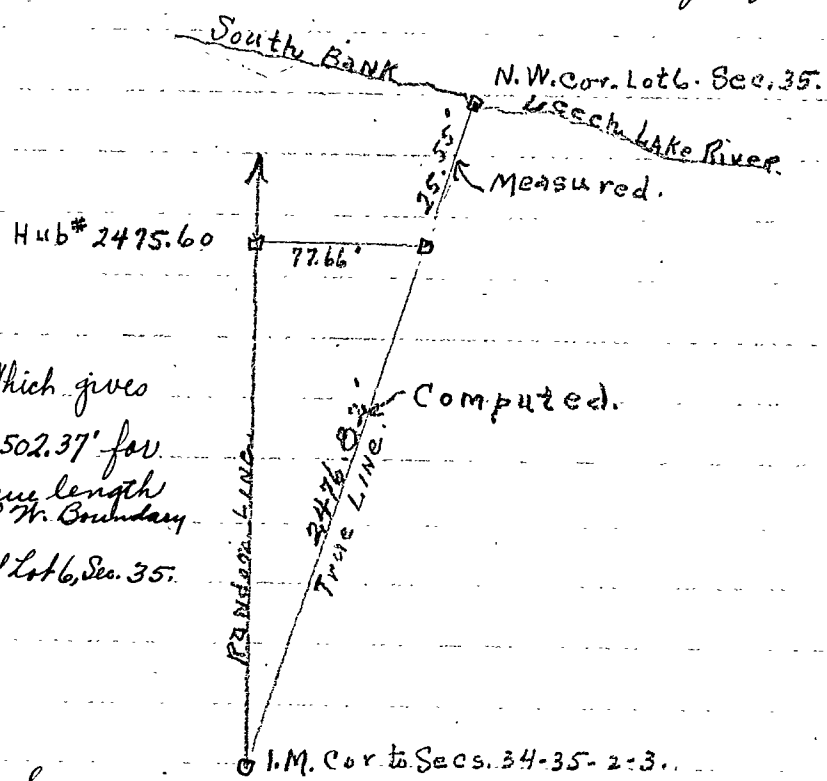
Survey Record No. 432.

Use 300' steel tape. Newbury transit. We set hub @ 489.60 on our N & E random line between secs. 34-35-144-28. Sit up over this hub backsight on random and turn 90° and chain East 156.50 feet. (489.60 x .03137) and set hub for the true cor. to secs. 26-27-34-35-144-28. I mark new bearing trees for this corner as follows: (Var. 8°30') Jam. 10 - S 59°30' E - 64.20 ft. dist. Jam 10 - N. 47°30' E - 32.80 ft. dist. Jam. 5 - S. 37°45' W - 35.00 ft. dist. Jam. 6 - N 41°30' W - 57.70 ft. dist. Distances taken to head of 20d. spike driven in flat place at base of tree. Rain starts in again and we go back to town and quit for night. Still at Hotel Stanton.



Friday, May 7th 1915. Rainy. Rain all morning and we do not go out. P.M. We go to the N & S random line between secs. 34-35-144-28 and correct over hubs and set corners as follows: Correction per foot = .03137. See p. 23. #563.90 goes 17.69 feet East. #1370 (Temp 46) goes South 72.66 feet to 1247.40, thence East 39.13 feet to the true S 1/4 Cor. between Secs. 34-35-144-28, being the true N.E. cor. of Lot 8, Sec. 34.

#1844.10 goes 57.85 feet East. #2475.60 goes 77.66 feet East. At the point where the true west boundary of Secs 35 intersects the South bank of Leech Lake River, I now set a hub for the true NW cor. of Lot 6 in Section 35. I ascertain the true length of the West boundary of Lot 6, Sec. 35, as follows:



Which gives 2502.37' for true length of W. Boundary of Lot 6, Sec. 35.

Rain starts again about 4:30 and we go in. Geo. W. Miller. Transit & chain. Fred Beaulieu - Arc & chain. Barney McKieg Arc - 300' steel tape. Newbury transit. Still at Hotel Stanton. Saturday, May 8th 1915. Rainy. Geo. W. Miller Transit & chain. Fred Beaulieu - Arc & chain. Barney McKieg - Arc - 300' steel tape. Newbury transit. We walk to the cor. to Secs. 26-27-34-35-144-28. Starting at this point we run a random line West on 8°30' Var. @ 953.70 - Hub. @ 2053.30 - Hub. @ 2945.50 - Hub @ 3000 Lr. Jam. swp. Ant. marsh. Quit for night.

Sunday May 9th - 1915. All day at Hotel Stanton. Monday, May 10th 1915. Fair & windy. We look for the cor. to secs. 27-28-33-34 (No bearing trees given) but cannot find it. So we are compelled to abandon our random line West from the cor. to secs. 26-27-34-35, having nothing to tie to. We now proceed to the cor. to secs. 33-34-3-4-144-143-28, where U.S. notes call for post, the following Bearing Trees:

- S. Maple 8 - S 21 E - 20 lks. dist.
- Basswood 10 - S 28 W - 34 "
- S. Maple 20 - N 24 W - 10 "
- Hind 24 - N 3 W - 20 "

All are gone, but we find an iron rod driven into the ground, and claimed by old residents to mark the position of the original cor. (A) Starting at this point we run North on a course of N. 2° 33' E. V = 8° 30' (B) @ 2274.50 Hub. Turn 40° 58' 30" RT. (C) @ 2618.10 Hub. Turn 39° 56' 00" Lt. (D) @ 7212.00 Hub. Turn 30° 00' 00" Lt. Quit for night. Still at Hotel Stanton. Crew & tools. Geo. W. Miller. Transit & chain. Fred Beaulieu - Arc & chain. Barney McKieg - Arc - 300' steel tape. Newbury transit.

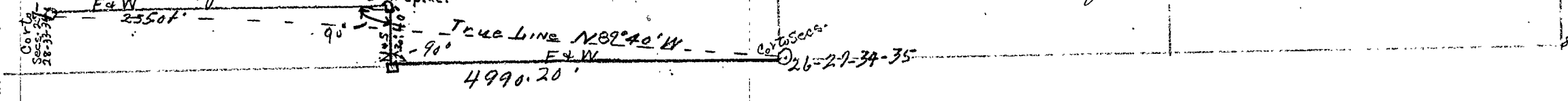
Cont. n on traverse begun yesterday. (E) @ 7436.30 Hub. Turn $62^{\circ}55'30''$ Lt. (F) @ 7614.50. Intersect $\frac{1}{4}$ cor. betw. Secs. 27-28-144-28, being iron monument set by U.S. Gith. Eng'rs. We now set up over the $\frac{1}{4}$ cor. betw. Secs. 27-28-144-28 and run a random North on $N2^{\circ}44'E$ $V=8^{\circ}30'$ @ 7760 Hub. Jack in oak stump. @ 632.50 Hub. @ 1061.80 Hub. @ 1260.70 Hub. @ 1689.30 Hub. @ 2214.00 Hub. @ 2615.00 The Cor. to Secs. 21-22-27-28, where U.S. notes call for a post & the following Bearing

Lat. and Dep. for Traverse PAN MAY 10th and 11th

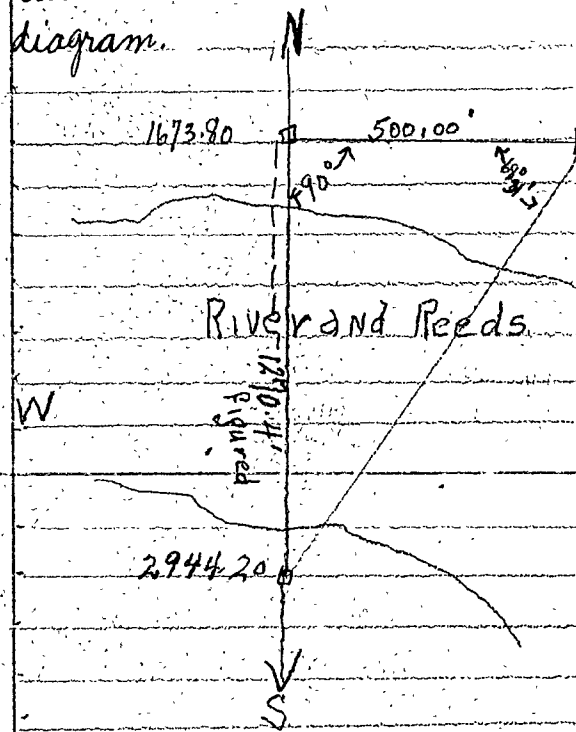
Point	N	S	E	W	Length	Bearing	Sine	Cosine	Total N or S	Total E or W
A					2294.50	$N2^{\circ}33'E$	.04449	.99901	0.0	0.0
B	2272.25		101.19		343.60	$N3^{\circ}31'50''E$	.68898	.72507	2272.25	101.19
C	249.13		236.63		4593.90	$N3^{\circ}35'30''E$	.06265	.99803	2521.28	337.82
D	4584.85		287.81		224.30	$N2^{\circ}24'30''W$	.44477	.89564	7106.23	625.63
E	200.89		99.76		178.20	$N89^{\circ}20'W$	.99993	.01164	7307.12	525.87
F	2.07		178.19						7309.19	347.68

Tree Jam 12-7.78 N-74 lb. dist. Tam 8 - $N65^{\circ}E$ 120 " " " 8 - $S50^{\circ}E$ 70 " " " 4 - $S60^{\circ}W$ 21 " " sets 132.40 feet west from which 2618.40' = true dist. between $\frac{1}{4}$ cor. betw. Secs. 27-28 and cor. to Secs. 21-22-27-28. True bearing of line = $N0^{\circ}10'W$. Note. Only 3 of the Bearing trees to the above cor. remain - the NE tree being gone. The find

which gives length of true line between cor. to Secs. 33-34-3-4 & $\frac{1}{4}$ cor. between Secs. 27-28 as 7317.4 ft. & bearing as $N12^{\circ}43'E$ the base of the original post and drive in its place a 6" x 6" x 3' squared cedar post for the cor. quit for night. Still at Hotel Stanton. Wednesday, May 12th - 1915. Fair & warm. Gls. W. Miller - Transit chain. Fred Beaulieu - Ares chain. Barney M. King - Ares 300' steel tape. New Gurley transit. In order to set the cor. to Secs. 27-28-33-34-144-28 legally, I must set it halfway between the cor. to Secs. 21-22-27-28-144-28, and on a true line between said corners. As the $\frac{1}{4}$ cor. between Secs. 27-28-144-28 is established from the original survey, and must accordingly be recognized, I decide to set the cor. to Secs. 27-28-33-34-144-28 equidistant between the cor. to Secs. 33-34-3-4-144-143-28 and the cor. to Secs. 21-22-27-28-144-28, and on a true line between the cor. to Secs. 33-34-3-4-144-143-28 and the $\frac{1}{4}$ cor. between Secs. 27-28-144-28, as this appears to me to be the only legal way of doing so. Accordingly, I find the true distance between the cor. to Secs. 33-34-3-4-144-143-28 and the cor. to Secs. 21-22-27-28-144-28, along the true line to be 7317.4 feet + 2618.4 ft = 9935.8 feet, half of which or 4967.9 feet = the distance North of the cor. to Secs. 33-34-3-4-144-143-28 along the true line at which the cor. to Secs. 27-28-33-34-144-28 must be set. Said 4967.9 feet along the true line (Bearing $N2^{\circ}43'E$) gives a corresponding distance of 4962.34 feet on a true North and South line, and a 90' offset of 236.04 feet therefrom. I find by calculation that a point @ 5063.90 on my traverse line gives a total northing of 4962.34 feet and a total Easting of 491.05 ft. Accordingly, I set a hub @ 5063.90 on my traverse line, set up over this hub backsight south on point C. of said traverse line, and turn $86^{\circ}24'30''$ to the Right ($90^{\circ} - 3^{\circ}35'30''$ bearing of line C-D) and chain West a distance of 255.01 feet ($491.05 - 236.04$) at which point I set the cor. to Secs. 27-28-33-34-144-28, the same being a 6" x 6" x 12' squared cedar post 8' into the lake bottom and sticking 3' out of the water. To make this corner easy to replace in case it should rot out, I have driven a 1" x 16" iron bolt its full length in the ground @ 5063.90 on my traverse line (This point is on the dike of Leech Lake River dam, 1928 North of the North End of said dam, and 5' West of the wire fence along the East edge of said dike.) To replace the cor. to Secs. 27-28-33-34-144-28, should it ever be necessary, and set up the transit over said iron bolt & chain due West ($V=8^{\circ}30'$) a distance of 255.01'. We now cont. our random line West from the cor. to Secs. 26-27-34-35-144-28. (See p. 28) @ 3820.00 - Hub. @ 4109.20 - $\frac{1}{4}$ S. S. Rly. @ 4990.20 The iron spike mentioned in above notes of the cor. to Secs. 27-28-33-34-144-28 sets North (90° from Random) 30.40



Run a random South on Var. 8° 30' @ 150. Leave Jam. swamp. Enter marsh. @ 1673.80 Hub. I triangulate the river here as per diagram.

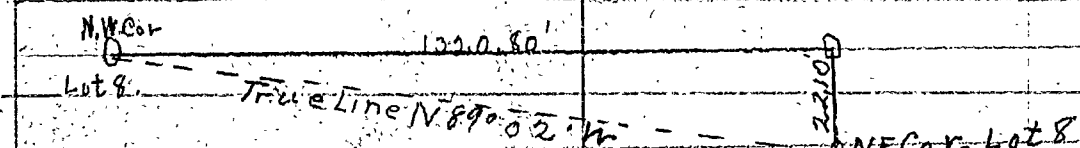


@ 2944.30 - Hub. Leave marsh. Quit for night. Still at Hotel Stanton. Edgar Billington with team, hauls 7 iron corners shipped by Hartley, from the Sood spot to the various places where they are required. Thursday May 13th. 1915. Geo W. Miller Transit & chains. Fred Beaulieu. Ase & chain. Barney McKeig - Ase. 300' steel tape. New Hurley transit. Cont. South on random from the E 1/2 Cor. betw. Secs. 27-34-144-28. @ 3532.00 - Hub. @ 4244.70 - Hub. @ 4539.70 Hub. @ 4973.20 thru true E 1/2 cor. between Secs. 34-35-144-28 West. (90° E from random.)

Correcting Back.

All points on random go. 0.3553 feet west for each foot South of the E 1/2 cor. Betw. 27-34. # 4539.70 goes 161.30' West. # 4244.70 goes 150.81' West. We now set a hub @ 3729.70 on the random, set up over this hub, backsight on random, turn 90° and chain west 132.52 feet where we set a hub for the true center of the S.E. 1/4 sec. 34, the same being

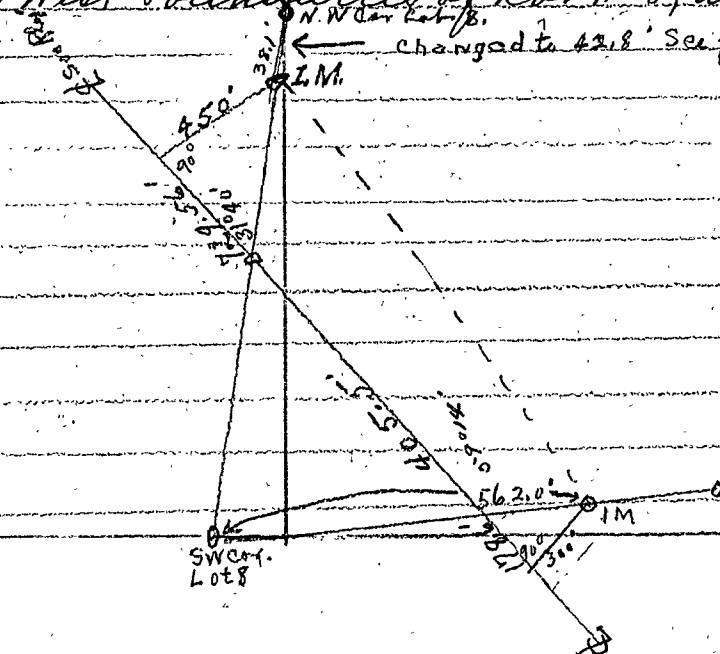
the true N.W. cor. of Lot #8, Sec. 34-144-28. Note: See Page 58 for change of this corner. Starting at the N.W. cor. Lot #8, we run a random East on 8° 30' Var. @ 632.70 - Hub. @ 1320.80 - The NE Cor. Lot #8, being the true S 1/2 cor. betw. Secs. 34-35-144-28, sets South 22.10'



Survey of Lot #8, Sec. 34 and Lot #6, Sec. 35-144-28 May 1915 Cont. From P. 5

	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	29 1/2 days total
Geo. W. Miller	1	1	1	0	1	1	1	1	1	1	1	0	1	0	0	1	1	1	1	19 1/2 days total
Fred Beaulieu	1	1	0	0	1/2	1	1	1	1	1	1	0	1/2	0	0	0	0	0	0	4 1/2 " "
Ed Newman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14 1/2 " "
John W. Curo																				1 "
Barney McKeig	1	1	0	0	1/2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	
Edgar Billington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1/2 day total

Correcting Back. All points on random go. 0.1673 feet South for each foot East of the N.W. Cor. Lot 8. # 632.70 goes 10.89' South. Quit for night. Still at Hotel Stanton. Friday May 14th 1915. Rainy. Geo. W. Miller Transit & chain. Fred Beaulieu. Ase & chain. Barney McKeig - Ase. 300' steel tape. New Hurley transit. We establish the points at which the Sood Rly. Right of Way intersects the South and West boundaries of Lot #8, and take measurements as follows:



I take the 3:35 Sood train from Federal Dam to Bemidji - Rly fare = 80¢. Supper & bed @ Markham Hotel Bemidji - \$1.50. Leave Bemidji at 11:35 for Walker - Rly fare = 84¢. Arrive 12:37 and Register @ Hotel Chase. Saturday, May 15th 1915. Rainy. Rest in entire day at office on notes and calculations of this survey. Still at Hotel Chase. Sunday, May 16th 1915. All day at Hotel Chase, Walker, Minn.

Monday, May 17th - 1915. Take 2:52 a.m. train for Bemidji Rly. fare = 84¢. Bed and breakfast at Markham Hotel, Bemidji \$1.50. Take 9:35 Soo train from Bemidji to Federal Dam - 80¢. Arrive Federal Dam 10:50 a.m. Register at Hotel Stanton. It snows and hails all afternoon and we do not go out. Fred Beaulieu and Barney McKeig were out all morning looking up corners.

Tuesday May 18th 1915. Fair & warm. Geo. W. Miller. Transit & chain. Fred Beaulieu. Axe & chain. Barney McKeig. Axe. 300' steel tape. New "Gurley" transit. Starting at the cor. to secs. 26-27-34-35-144-28, we run a random East on 8°30' Var. @ 456.60 Hub. @ 1110.50 Hub. @ 1867.00 Hub. @ 2488.70 Hub. @ 2652.30 Hub. @ 3017.30 Hub. @ 3558.30 Hub. @ 4336.90 Hub. @ 4799.20 Hub. Quit for night. Still at Hotel Stanton.

Wednesday, May 19th 1915. Fair & warm. We hunt for the 1/4 cor. betw. Secs. 26-35-144-28, where U.S. notes call for a post and the following Bearing Trees: Jack Pine 6 - N 15° - No Dist. Jack Pine 4 - S 37° - No Dist. We find nothing. We hunt for the 1/4 cor. betw. Secs. 35-36-144-28, where U.S. notes call for a post and the following Bearing Tree: Nor. Pine 24 - N 66° W - 258 lks. dist. - No other tree given. We find some more nothing. We hunt for the 1/4 cor. betw. secs. 25-26-144-28, where U.S. notes call for a post and the following Bearing Trees: Tam. 6 - S. 23° E - 25 lks. dist. Jam. 5 - N 41° W - 7 lks. dist. And again we find nothing. We hunt for the 1/4 cor. betw. Secs. 23-26-144-28, where U.S. notes call for a post and the following Bearing Trees: Jam. 8 - S. 15° N - 19 lks. dist. Cedar 6 - N 75° W - 18 lks. dist. We find both trees dead and ~~down~~ and plainly marked and they check for course and distance with an old post, which is evidently the original Govt. cor. We now cont. North with the random through center of Sec. 35-144-28, which we began on Friday, April 30th 1915. (See P.P. 10 to 16 incl., this book) @ 3238.50 Hub. @ 3645.60 Hub. @ 4223.40 Hub. @ 4818.50 Hub. Quit for night. Crew & Tools. Geo. W. Miller. Transit & chain. Fred Beaulieu - Axe & chain. Barney McKeig. Axe. 300' steel tape. New "Gurley" transit.

Thursday, May 20th. 1915. Fair & warm. Geo. W. Miller - Transit & chain - Fred Beaulieu. Axe & chain. Barney McKeig. Axe. 300' steel tape. New "Gurley" transit. We cont. North on random through center of Sec. 35-144-28. @ 5105.70 - Hub. @ 5659.10 - Hub. @ 5977.40 Hub. @ 7631.60 Hub. @ 8184.00 - Hub. @ 8746.90 - Hub. @ 9322.30 - Hub. @ 9694.70 Hub. @ 9989.80 The 1/4 cor. betw. Secs. 23-26-144-28. sets 294.40' East, at 90° from random line.

Note: As the old Govt. post and Bearing trees at this cor. are dead and rapidly decaying beyond recognition, I set a new post (5" x 5" x 5" cedar) on the site of the old one, and marked marked Bearing Trees as follows: Cedar 10 - N 35° W - 27.00' dist. Jam. 5 - S. 12° 20' E - 22.00' dist. Dist. taken to head of tack driven in flat place at base of tree.

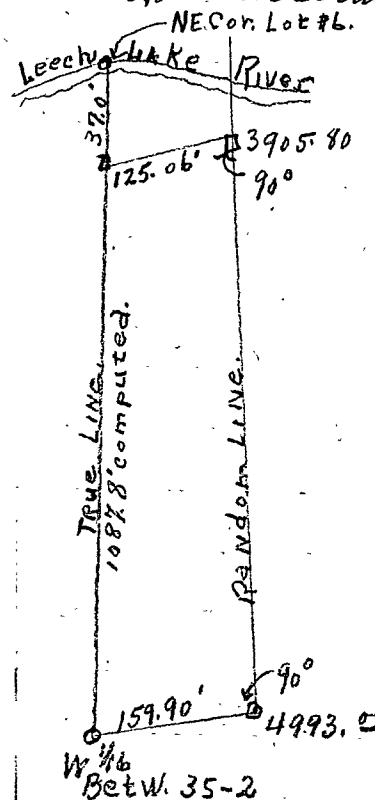
Quit for night. Still at Hotel Stanton.

Friday May 21st. 1915. Rainy. Geo. W. Miller. Transit & chain. Fred Beaulieu - Axe & chain. Barney McKeig. Axe. 300' steel tape. New "Gurley" transit. We set a hub @ 4994.90 on our random line North from the 1/4 cor. betw. Secs. 35-2-144-143-28, set up over this hub, backsight on random, turn 90° and chain East 147.20 feet, at which point we set a post for the true 1/4 cor. betw. Secs. 35-26-144-28. We mark bearing trees for this cor. as follows: Spruce 12. S. 31° 30' N. - 27.60' dist. Jack P. 14 - N 24° 40' E - 45.20' dist. Dist. taken to head of tack driven in flat spot at base of tree. At a point @ 2665.50 on our random East from the cor. to Secs. 26-27-34-35-144-28. the 1/4 cor. betw. 35-26 sets South 27.20 feet at 90° from random. We now set a hub @ 1332.75 on our random East from the cor. to Secs. 26-27-34-35-144-28. set the transit over this hub, backsight on random, turn 90° and chain South 13.60 feet, at which point we set a post for the true 1/4 cor. betw. Secs. 26-35-144-28. Starting at this point we run a random line South on Var. 8°30' @ 512.00 - Hub. @ 3740. N. Bank Leech Lake Riv. @ 3835. S. Bank Leech Lake Riv. @ 3905.80 - Hub. @ 4055.40 - Hub. Quit for night.

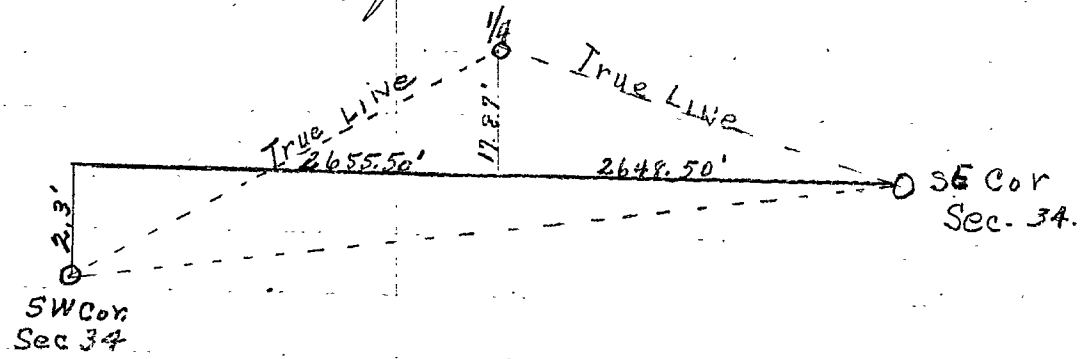
Still at Hotel Stanton. Saturday May 22nd. 1915. Fair & warm. Geo. W. Miller.

Survey Record No. 432.

Transit chain. Barney McKeig. Arc - Fred Beaulieu - Arc chain. 300' steel tape. New "Hurley" transit. We cont. South on random through center of E. half Sec. 35-144-28. @ 4993.00 the true W 1/6 cor. betw. Secs. 35-2-144-143-28 sets West 159.90 feet, 90° from random. Correcting back. All points on random go .03202 feet west for each foot South of the true W 1/6 cor. betw. Secs 26-35-144-28. #4055. 40 goes 129.85' West. # 3905.80 goes 125.06' West. At the point where the true West 1/6 line of Sec. 35 intersects the South Bank of Leech Lake River, I now set a hub for the true NE Cor. Lot #6, Sec. 35-144-28. I ascertain the true length of the East boundary of Lot #6, Sec. 35, as follows:



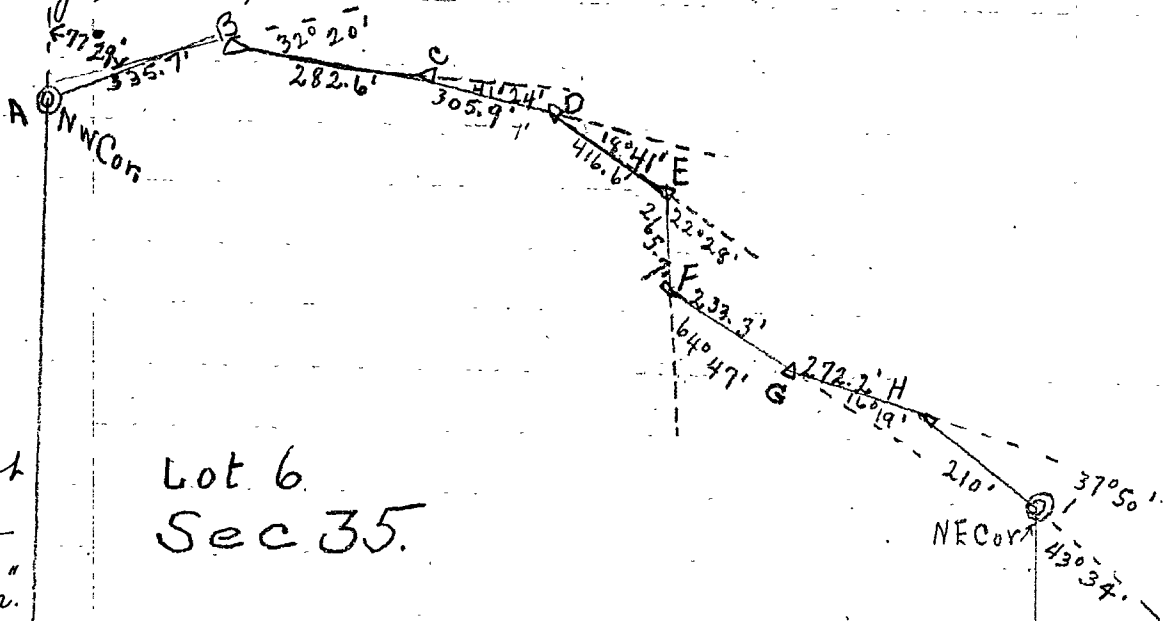
Which makes the true length of the East boundary of Lot #6, Sec. 35 as 1124.8' We now cont. West on random West from the cor. to seco. 34-35-2-3-144-28 (See PP. band 7, this book) @ 3276.70 - Hub. @ 3846.90 - Hub. @ 4440.80 - Nail in Maple stump. @ 5304.00 - The cor. to seco. 33-34-3-4-144-143-28 sets South 2.30 feet at 90° from random. By which I figure the crook in the South Boundary of Sec. 34 to be 18.97 feet.



Accordingly, the NW cor. of lot #8, Sec 34. goes North one quarter of 18.97, or 4.74' to its correct position. Sunday May 23rd 1915. Fair & warm. Geo W Miller. Transit chain. Fred Beaulieu arc chain. Barney McKeig - Arc. 300' steel tape. New Hurley transit. We meander the South Bank of Leech Lake River between the NW and NE cor. of Lot #6, Sec. 35-144-28 as follows: Set up over NW cor. Lot #6, (A) Backsight South on true W. boundary of Lot #6, turn 77° 29' Right and chain 335.7' to B. (All angles are deflection)

Bs	Angle	Dist.	To.
A	32° 20' R	282.6	C.
B	41° 24' R	305.9	D.
C	18° 41' R	416.6	E.
D	22° 28' R	265.7	F.
E	64° 47' L	233.3	G.
F	16° 19' L	272.2	H.
G	25° 04' R	203.0	I.

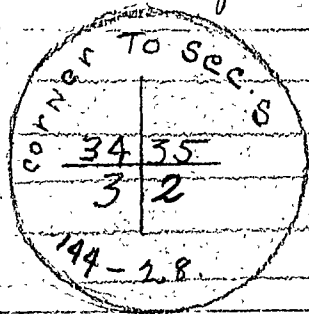
Being the true NE cor. Lot 6, Sec. 35. Thence 43° 34' P. to true East Boundary, Lot 6, Sec. 35.



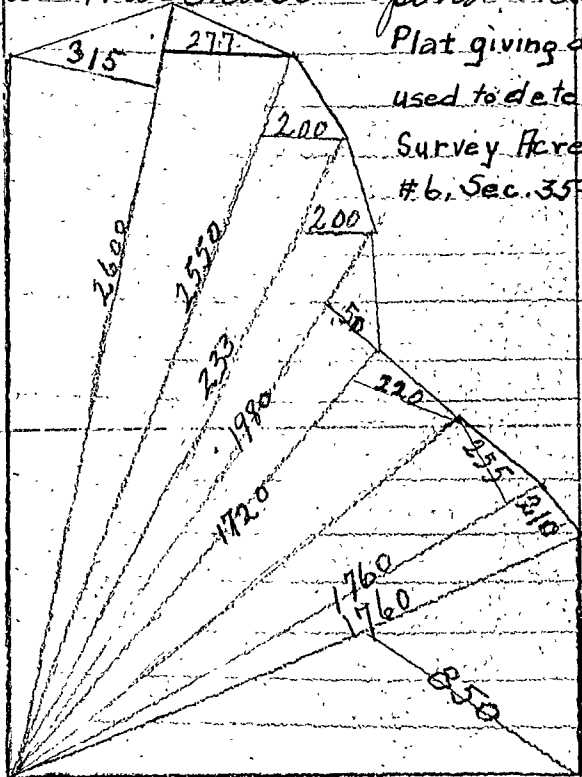
We now set 2 1/4" x 4" brass capped iron pipes nearly their full length in the ground at the following points: 1st. The S.W. cor. Lot #8, Sec. 34-144-28, being the true E 1/6 Cor. betw. Sec. 34-144-28 and Sec. 3-143-28. Brass cap marked "1/6 corner". 2nd The SE cor. Lot #6, Sec. 35-144-28, being the true W 1/6 Cor. betw. Sec. 35-144-28 and Sec. 2-143-28. Brass cap marked "1/6 corner". 3rd The NW Cor. Lot #8, Sec. 34-144-28, being the true center of the NE 1/4 of Sec. 34-144-28. Brass cap marked "1/6 corner". 4th The NE Cor. Lot #8, Sec. 34-144-28, being the true 1/6 Cor. betw. Secs. 34-35-144-28. Brass cap marked "1/6 corner". 5th The NW Cor. Lot #6, Sec. 35-144-28. Brass cap marked meander corner. 6th The NE Cor. Lot #6, Sec. 35-144-28. Brass cap marked "meander SE Cor. corner". We set 2 1/4" x 4" galvanized iron pipes, capped on top, at the following points: 1st At the

Lot 6
Sec 35.

point where the Soo Ry. R. of W. intersects the true South Boundary Lot #8, Sec. 34-144-28. 2nd At the point where the Soo Ry. R. of W. intersects the true West Boundary of Lot #8, Sec. 34-144-28. 3rd At the cor. to secs. 33-34-34-144-28. 4th At the cor. of secs. 26-27-34-35-144-28. Quit for night still at Hotel Stanton. Thursday May 25th 1915. I spend the morning at Stanton Hotel, Federal Dam, on notes and calculations of this survey. Fred Beaulieu removes the brass cap from one of the iron corners shipped by Hartley (He had one or many) and remarked it thus: Now then unscrews the cap from the galvanized iron corner set by Curo, and in place of it he screws on the brass cap marked as above. All the iron corners set by me on this survey were witnessed by Mr. E. L. Warren, Mr. Fred Beaulieu and Mr. Barney McKee, all residents of Federal Dam, Minn. I take 3:35 Soo train from Federal Dam to Bemidji. Fare = 80c. Hotel Markham = \$1.50 Bemidji to Walker = 84c. Register at Hotel Chase. Wednesday May 26th 1915. I take the 9:38 A.M. train from



Walker to Duluth on urgent business of a personal nature. Thursday May 27th 1915. Arrive in Duluth on personal business. Friday May 28th 1915. Arrive in Walker at 3 P.M. and register at Hotel Chase. Spend the day at the office on plat of Lot #8, Sec. 34 and Lot #6, Sec. 35-144-28.



Plat giving distances used to determine Re-Survey acreage of Lot #6, Sec. 35-144-28.

Saturday May 29th 1915. Spend day at office on plat and notes of this survey. Still at Hotel Chase. Sunday May 30th 1915. Spend day at office on plat and notes of this survey. Still at Hotel Chase. Monday, May 31st 1915. Spend day at the office where I finish up all work connected with the survey of Lot #6, Sec. 35-144-28. Still at Hotel Chase. Note! N.W. Cor. Lot 8, Goes South 12:32' along True Line. E.M.M.

Post NW Cor Sec. 34 goes South 89.64' along true line. (S 2° 43' W) Var 8° 30'

E. B. Horst.
Recorded Feb. 11-1920.
James H. Flynn, Co. Surveyor.
by E. B. Horst.
Dep. Co. Surveyor.

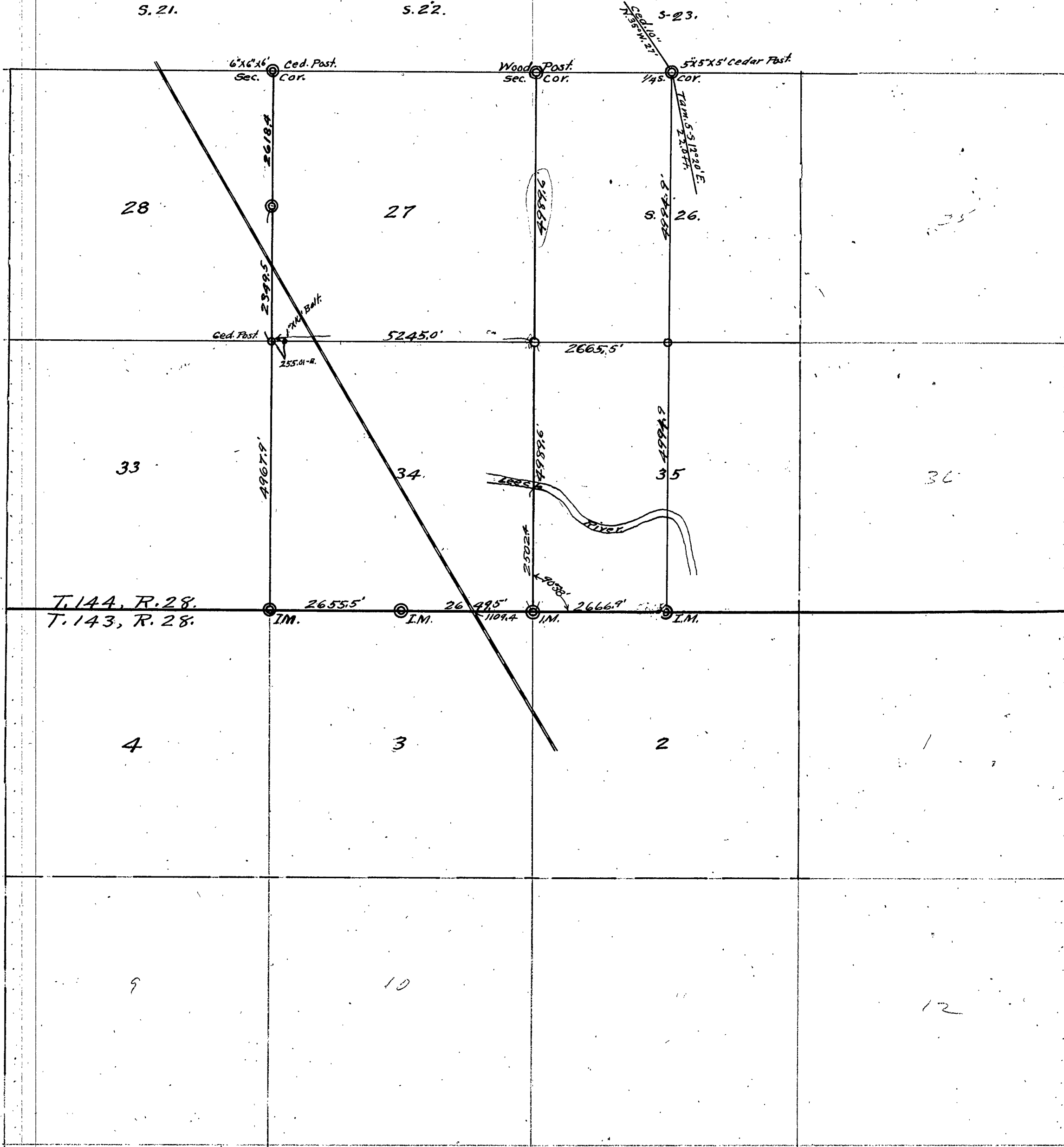
Survey Record No. 432

F.B.-OB.

S. 21.

S. 22.

C
Plat. 143-144-28

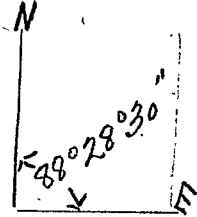


Survey Record No. 433.

Nov. 9th 1915 Johnston transit & chain Keninger - Flag chain are. J Norman are. Setting instrument over stone marking S. E Cor. I turn angle (Calculated) of 92°18' and run West.

377.7 Hub.
699.7 "
1544.6 "
2146.6 "
3801.9 " W
4395.2 "
5223.6 "

intersect west random line at 5271.6 Stakes in meadow said to mark J. W. cor. set 3.0.5 feet. Angle between South random & west random 88°28'30"



Nov. 10-1915. Being uncertain of the position of SW cor. of sec. 1. We go one mile South to cor. of 11-12-13-14; set by Hallett and run North var. 9°. Could not find stone set by Hallett but set small stake to start from, from the four New B.Ts for cor. of 11-12-13-14. which are -

Pine stump. 8° N 11° 30' E 52.70'
" " 12 S 58° 47' E 47.20
Green N. P. 10 S. 62° 45' W 52.30
" " " 8 N 16° 14' W 71.70

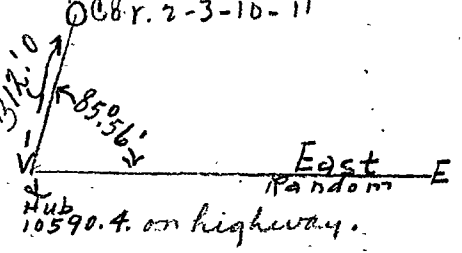
Running North - 660.2 Hub. 1117.2 Hub. 1510 center Creek. 1525 leave creek. 1610 Hub. Rained nearly all A.M. P.M. rain. No work. Johnston transit & chain.

Nov. 11. 1915. Johnston Transit & chain. Keninger flag chain, are. A. Norman. are. Continue North on line. 2162 Hub. 2707.9 Hub. 3791.0 Hub. 4413.8 Hub. 5174.6 Hub. Stake in meadow 49.6 feet west. This line intersects west random line at angle of 179°36'

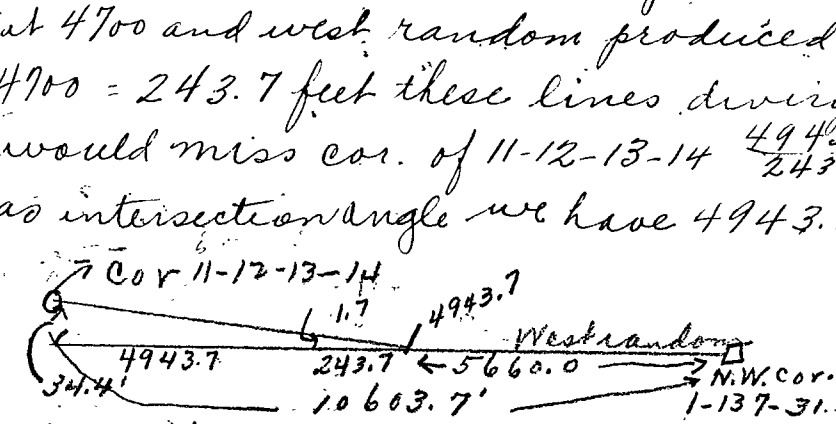
Friday Nov. 12-1915. Johnston transit & chain. Keninger - chain, flag, are. Axel Norman. are. Continue West on east random line.

6969.6 Hub.
7844.6 "
8402.6 "
9027.8 "
9996.8 "

1056.8 " from which I turn angle 85°56' to stake marking cor. section 2-3-10-11 set by Hallett.



From stake at cor. 2-3-10-11 new B.Ts set as follows. Green J. P. 8° N 48° E 23.1'. drop J. P. 6" (10' high) N. 34.3° W. 38.9'. Returning to west random line an intersection was made with random line run north from cor. of 11-12-13-14. Intersection comes at change 4943.7 on the latter line. A point on this line was taken at 4700 and west random produced to point 1.7 feet east of it. That is in 4943.7 - 4700 = 243.7 feet these lines diverge 1.7'. Then if west random line was produced it would miss cor. of 11-12-13-14 4943.7 - 243.7 x 1.7 = 34.4 feet to the east. Using angle 24 found as intersection angle we have 4943.7 x sine 24' = 4943.7 x .00698 = 34.50'

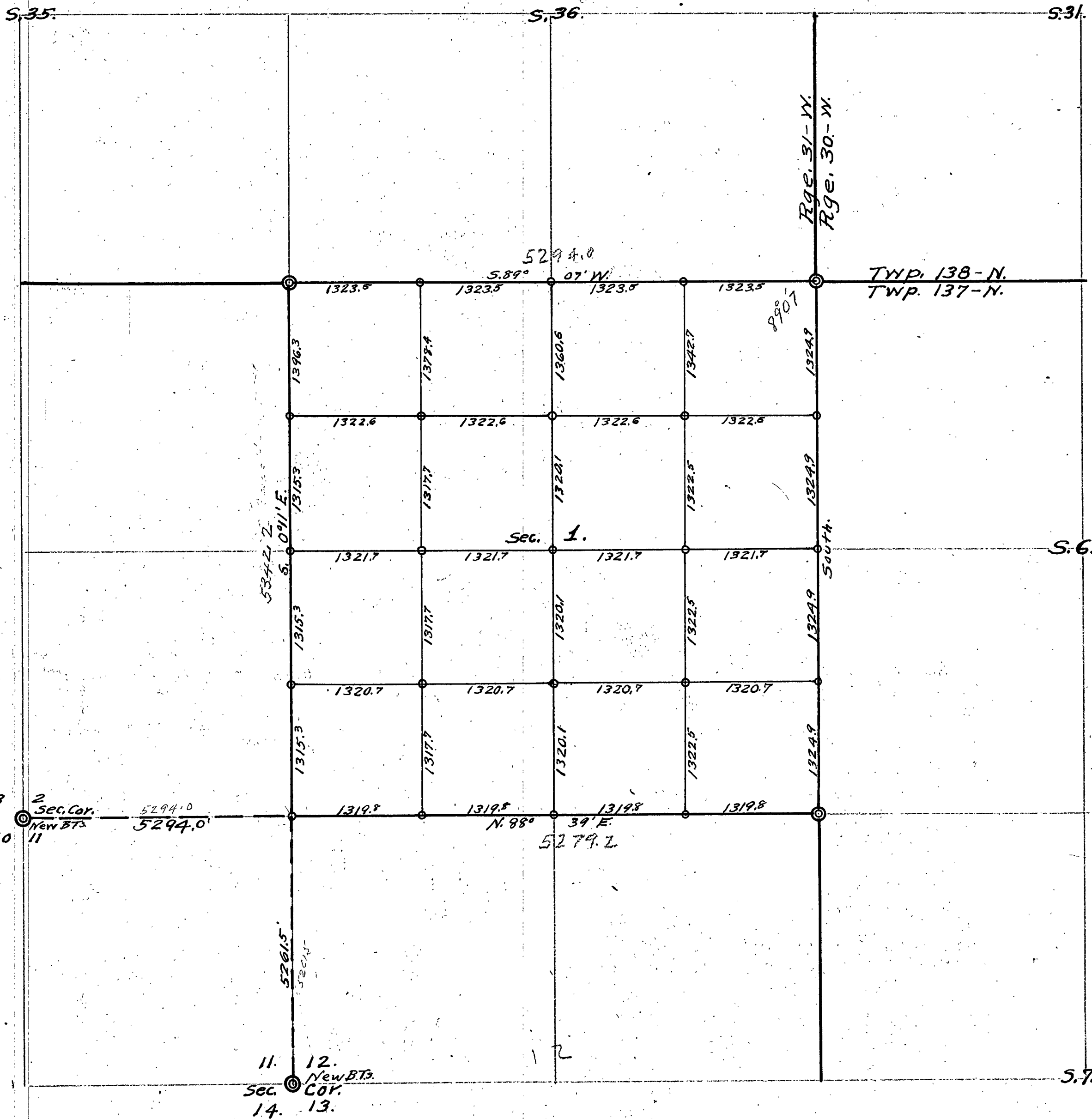


Saturday, Nov. 13. 1915. Weather bad so spend day calculating corrections for establishing S. W. cor. of sec. I and 46 & 46 cor. on west and south sides

Sketch on opposite page shows method used in tying South random line to cor. of 2-3-10-11 At chainage 10568.3 on this line cor. 23-10-11 set 71.311.2' Dividing 10568.3 in ratio of gov. chainage on south sides sec. 1 & 2 sec 1 gets 5276.6' Offset from this point to point on true line between S. E Cor. 1 & S. W. cor. sec. 2 is 155.4'. Setting instrument at point located by this offset a line L to true line was reestablished by turning angle of 1°41' to right from offset. S. W. cor. of sec. 1 must lie on this line. See sketch page 17. In a similar way distance between N. W. cor. 1 & S. W. Cor. 12 was divided in proportion to gov chainage on West side of these thro sections & 5361.2 & 5280.0 which makes west side section 1. 5342.3'. Perpendicular offset at this chainage to point on true line = 17.3'. From this point L offset was set from true line between NW. cor. sec I & S. W.

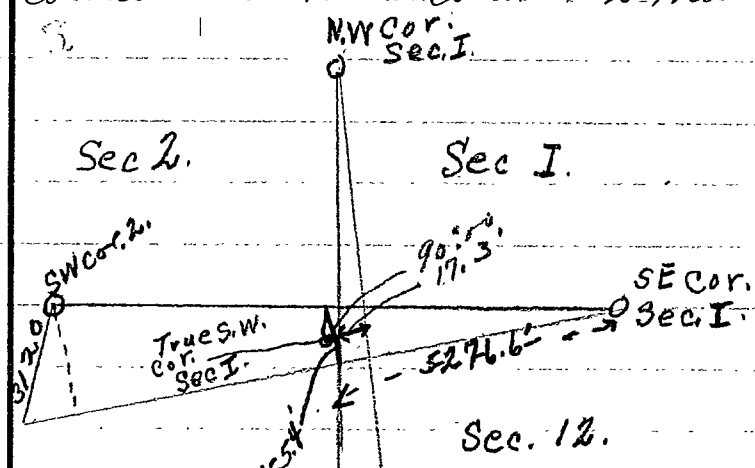
Plat: 433. Survey Record No. 433.

137-31



e

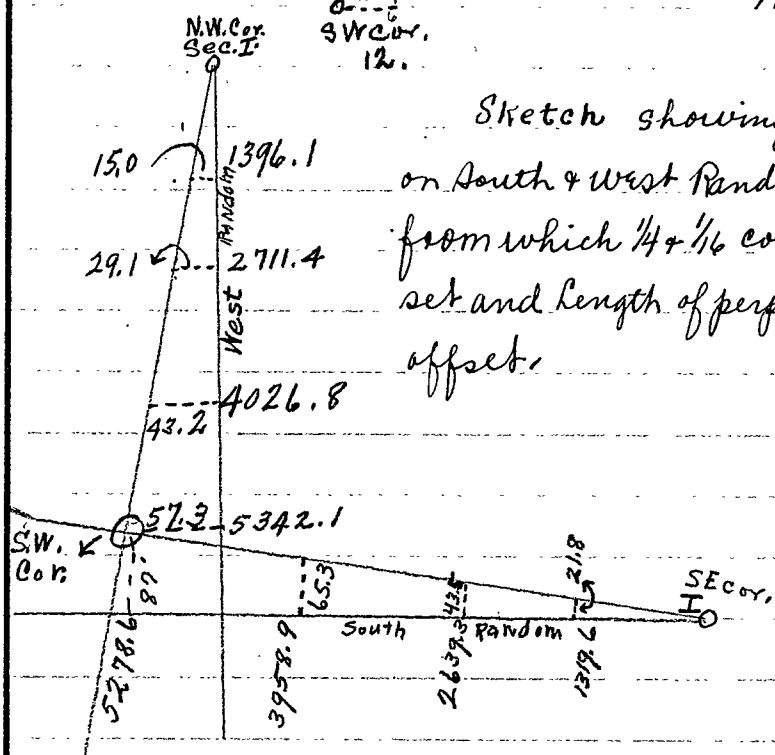
Cor. sec. 12. Intersection of this perpendicular and the one from true line between S. E. Cor. Sec. I and S. W. Cor. Sec. 2. marks position of true S. E. cor. sec. I. see sketch opposite page.



Sunday Nov. 14th A.M. Assisted by J. H. Heninger I set stake to mark true position of S. E. cor. sec I as explained in notes. Found this stake to set 87' north from chainage 5276.6' on south random line and 57.3' west from chainage 5342.1 on west random line.

With these measurements known I calculate points on random lines from which to set 1/4 & 1/6 cors on west and south lines. Also calculate angles to turn for running interior lines ready for beginning this work on Monday morning. J. Johnston.

Monday Nov. 15. Began work running interior lines Johnston-transit. J. H. Heninger - axe & flag. A. Norman, Ax. Setting in instrument over true East 1/6 cor. on North side sight west on true line and turn 89° 49' 30" left and ran south. on reaching south line set east 1/6 cor. on south line and found our line from the north missed it 1/2 tenth to the east. P.M. Setting instrument over south 1/6 cor. on east side sighted N. and turned angle 91° 27' to the left and ran west. Darkness prevented getting this line



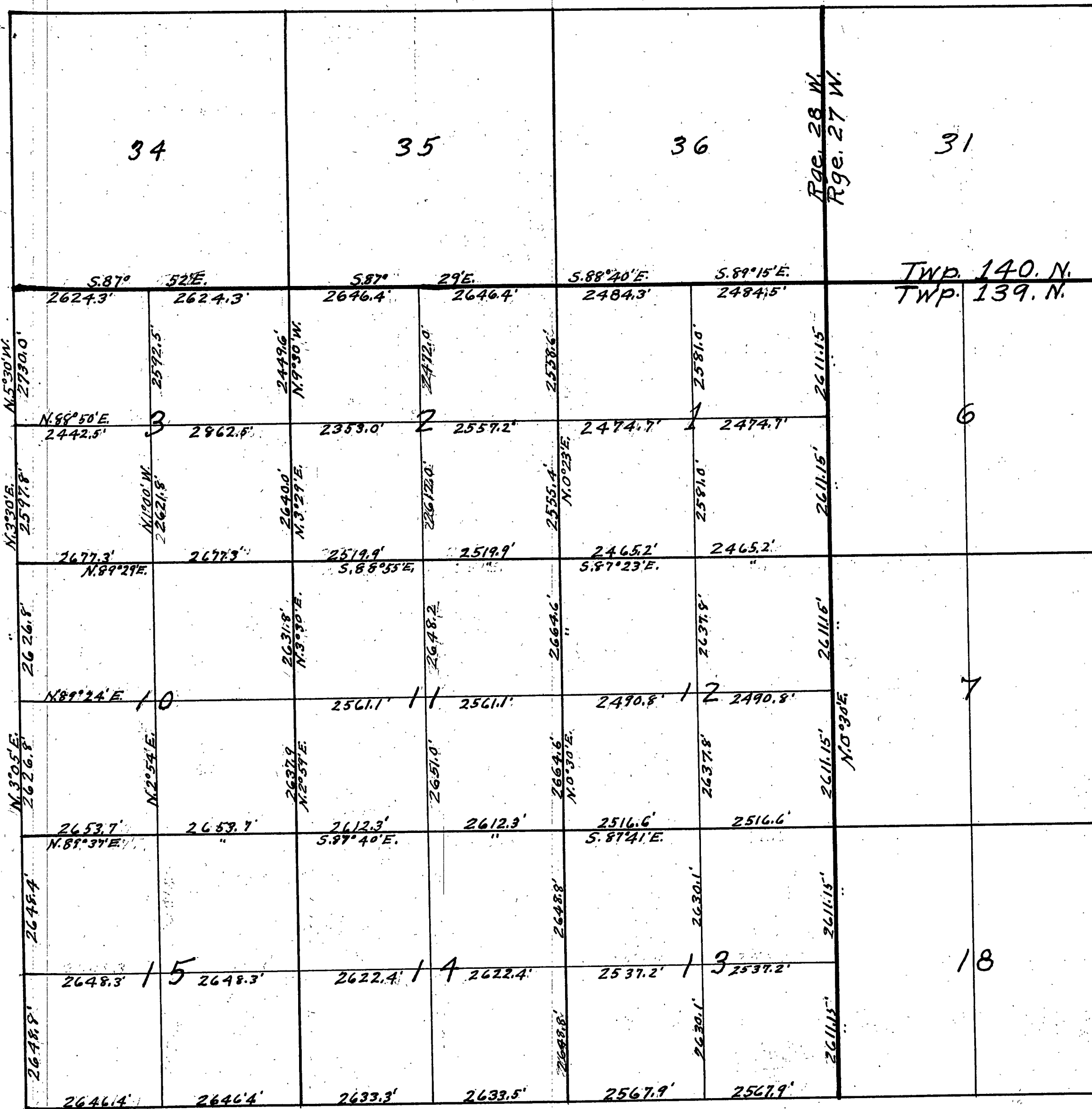
Sketch showing points on South & West Random lines from which 1/4 & 1/6 cors. were set and length of perpendicular offset.

all the way through. A. Norman quits work to go deer hunting. Tuesday, Nov. 16. Continue running interior lines Johnston-transit, J. H. Heninger - axe & flag. A. Norman - Ax. Grover Heninger works in A.M. (His time for half day is given his father J. H. Heninger in P.M. of 19th to simplify accounts.) A.M. Set south 1/6 cor. on west side and continued interior line begun yesterday P.M. This line misses 1/6 cor. 2.4' to the North. Set 1/4 cor. on west side and also North 1/6 cor. west side. Setting instrument over true west 1/6 cor. on north side sighted East and turned angle 90° 45' 30" to left and ran south. On reaching south line set west 1/6 cor. and found line from the north missed by 0.8' west. Wednesday, Nov. 17.

Continue interior lines. M. Degerstrom begins work as axeman. Setting up over 1/4 cor. on north side sight east and turn angle 90° 48' right and run south. On reaching south side set 1/4 cor. and found line from the north misses 0.4' west. P.M. Setting instrument over true 1/4 cor. on east side sight north along true line and turn angle 91° 34' left and run west. set hubs at intersection of all N & S. lines. Miss 1/4 cor. on west side 1.2" south. Thursday, Nov. 18.

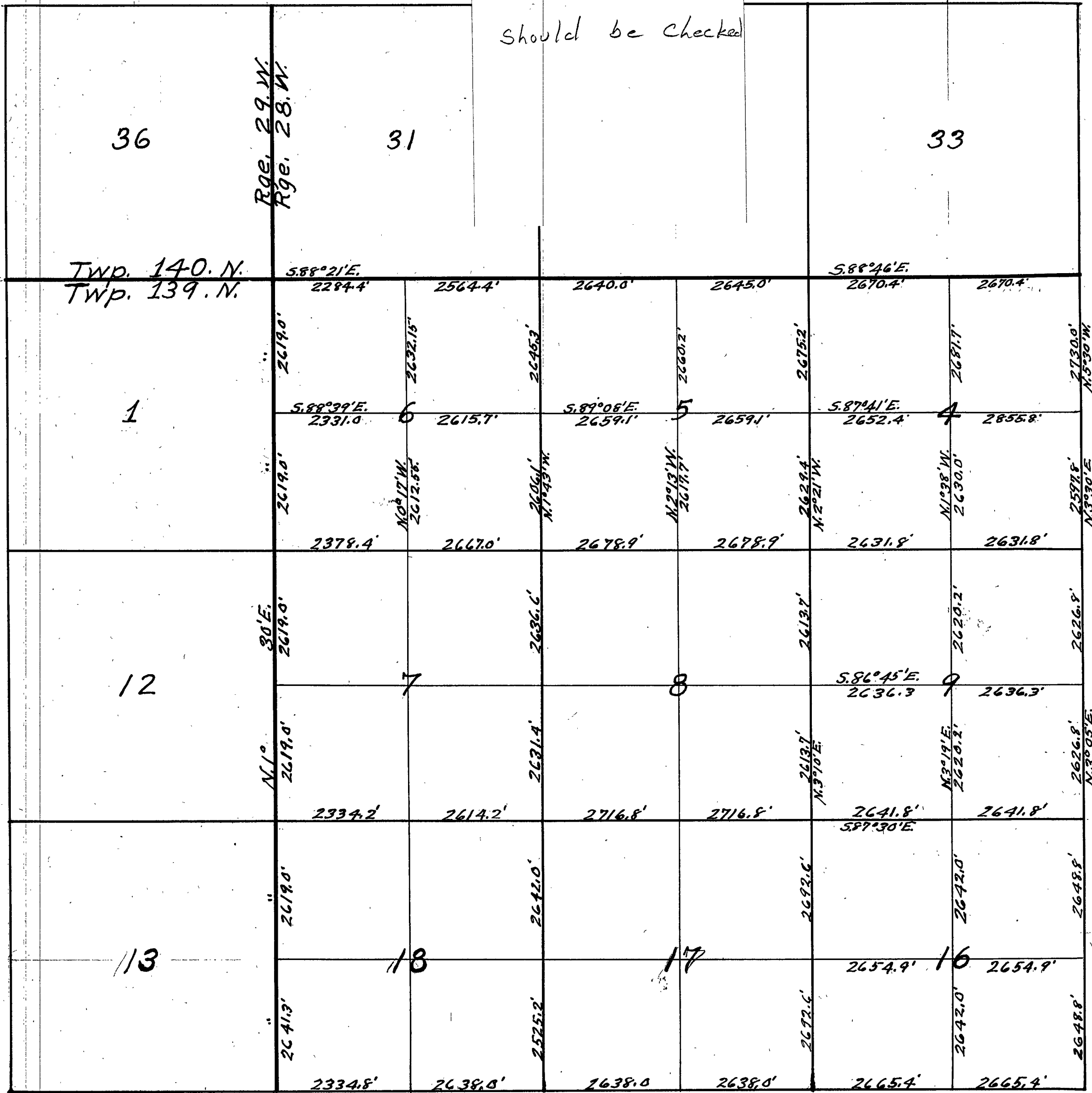
Continue interior lines. J. Degerstrom goes to Pine River with team to get iron monuments. Johnston-transit. J. H. Heninger Ax and flag. M. Degerstrom Ax. Setting transit over true North 1/6 cor. on east side and sighting north, turn angle 91° 40' left and run west. Set hubs at intersection of all N & S lines. Miss North 1/6 cor. on west side 0.6' south. P.M. J. Degerstrom returns at 3 o'clock with only seven iron monuments no more being available. Calculated corrections for placing interior corners. See sketch pages 26-27. Friday, Nov. 13. A.M. Begin placing iron monuments assisted by J. H. Heninger, J. Degerstrom. Placed iron

Plat No. 1.



Plat No. 2.

Record Plat
should be checked



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Field Notes of the Retracement Survey and Sub-Division of Township
139 28 139 N. Range 28 W. of the 5th Principal Meridian, Minnesota.

July 5, 1918 Ben F. Clark went down to Mr. Anson Beal's house at 11 A.M. and had dinner then in the afternoon went down south to township corner. Found an iron pipe but no witness tree. Was told by J. S. Locks and James Cisler that it was not the true town corner.

July 6, 1918 Ben F. Clark, Conn Phaelan, J. H. Cisler, J. S. Locks went to the corner of sections 31-32 & 32 in township line. Corner good. A popple post with a mound of stone around the post. Three pine stumps marked B.J. Thence run West in town line. Var. 7°30'.

July 7, 1918 Ben F. Clark, Conn Phaelan went to the corner of sec. 31-32 and measured in west at 800 ft. Enter meadow, north and south. At 1178.4 ft. hub. No. 1. 1 ft. of 4 in dry ash. At 1320 ft. set temporary 1/4 post. At 1400 ft. leave meadow, enter brush land. At 1716 ft. brook north and south. At 1727 leave brook. At 2500 ft. hay meadow. At 2440 ft. set a temporary 1/4 sec. post. At 2672 ft. leave hay meadow. Enter high land. At 2832.6 ft. hub no. 2. At 2972 ft. potato field. At 3118 ft. leave same. Enter brush land. At 3632 barb wire fence. At 4127 ft. hub No. 3.

July 8, 1918 Ben F. Clark, Conn Phaelan, J. S. Locks, J. H. Cisler meet at hub No. 3. At 7°30' run in west. At 4550 ft. a brook 8 ft. wide runs north. At 4595 a line. At 5037 hub No. 4. At 6295 hub No. 5.

July 9, 1918 Ben F. Clark, Conn Phaelan, J. S. Locks, J. H. Cisler met in random line. At hub no. 5. and run in west. At 4851 brook runs west. At 7200.3 ft. leave brook. At 7300 leave swamp. Enter high land. At 7400.4 hub. no. 6. At 7542 ft. Pine River road runs north and south. At 7651 wire fence north and south. At 7900 hay meadow. At 7941 ft. brook run south. At 8300 ft. leave hay meadow and enter brush land. At 8788 ft. hub No. 7. At 9300 ft. enter bog and hay meadow. At 9453 ft. hub No. 8 on east side. Jay Lake north of M.C. post # 94. True line from Cor. sec. 31-32 to M.C. corner on Jay Lake is 8°35'. South town line, true line Var. 8°30'.

July 10, 1918 Ben F. Clark, Conn Phaelan, J. H. Cisler, J. S. Locks, Charley Clemmons went down to Crowing County to the corner sec. 1-12-47. Found the old corn. with John Curo's name on same. A popple post with braces nailed to keep the post, 4 pine stumps, one with the old figures quite plain on it. Then set a popple hub no. 6" square and 2 ft. long and made a mound of stone around the same then run north on a random line. Var. 8°. At 251 an old wagon road east and west. At 267 hub no. 1. At 661 Hub no. 2. At 1794 ft. hub No. 3 in hill. At 2158 Hay meadow east and west. At 2500 leave hay meadow. Enter Jack Pine.

July 11, 1918 Ben F. Clark, Conn Phaelan, J. H. Cisler, J. S. Locks, C. H. Clemmons continued line on north. At 3464.2 feet hub No. 4. on a high Jack Pine hill. At 4810 ft. a wagon road running east and west, At 5080.6 ft. At 5235 intersect east and west random line on south side sec. 31. Set a hub at 5280 ft.

July 12, 1918 Ben F. Clark, Conn Phaelan, J. H. Cisler, J. S. Locks, meet at hub no. 5 at 7:20 A.M. and run on north on same line 8° Var. At 7400 ft. N. of a brook 5 ft. wide running west. At 1320 set a temp. post. At 1372 ft. hub no. 6. At 2640 set a temp 1/4 post. At 3086.8 ft. hub No. 7. At 3361 Pine River road East and West. At 3440 hub no. 8. At 3873 hay meadow East and West. At 3960 set a temp. post.

- At 4075 ft. leave hay meadow, east and west. Enter Jack Pine land. At 4387 hub No. 9 in Jack Pine knoll. At 4900 ft. enter old Sam. Alder swamp. At 5100 ft. leave swamp. Enter Jack Pine land at 5280 ft. and search for the section corner to sec. 30-31 but could not find same so I run on North.
- July 14, 1918 Looking for corners and measured on North.
- July 15, 1918 Ben F. Clark, Conn Phaelan run on north ^{between} sections 31-25. At 240 enter Sam. Alder swamp, east and west. At 1300 leave swamp and enter pine land. At 1377 ft. set hub No. 11. At 1800 feet enter Sam. Alder swamp, E-W. At 2440 ft. leave swamp, enter pine land. At 2680 leave Pine. Enter swamp. At 3000 ft. leave swamp, East and West. At 4191.2 set hub No. 12. At 4370 ft. Road running east and west. At 4650 ft. Alder swamp. At 4749 ft. a brook runs west 10 ft. wide. Enter hay meadow, down Sam. At 5280 feet stops and look for corner. Found an iron post 3 ft. long with cap on and found one of the U.S. witness trees, a Tamarack. (Sec. 25 T. 139 N. Range 29 W) 146 feet short in 3 mile run. Iron post West 120.9 feet. Between sections 31-34-30-25 on range line each mile is 5231 ft. in length.
- July 16, 1918. Ben F. Clark, Conn Phaelan, J. H. Cisler, J. B. Scott, Le Roy Hardy, Harry Locks met at the corner sec. 31-34-1-6 with Jim Flinn and set the town corner by proportionate measurement, then run on North on a true line between sec. 31-34 in Range line.
- July 17, 1918. Ben F. Clark, Conn Phaelan run north to the cor. sec. 2 inches east of tack in post and on tack in hub North, thence run on North on same $7^{\circ}12'$.
- July 18, 1918. Ben F. Clark, Conn Phaelan, J. H. Cisler, J. B. Scott, Le Roy Hardy, Harry Locks Jimmy Hardy run on north in a true line between sections 31-~~25~~ on boundary line between Range 28 and 29. to the corner of sec. 30-19-25-24 west of Iron 4" Post. Then come back and set $\frac{1}{4}$ sec. post, over in true line turn right angle.
- July 19, 1918. Ben F. Clark, Conn Phaelan, J. B. Scott, Le Roy Hardy, Harry Locks, J. H. Cisler went to the corner sections 31-32-5-4 and run west on a true line, $8^{\circ}35'$ (12 inches north of post) for corner section 31-36-14.
- July 23, 1918. Ben F. Clark, Conn Phaelan, Jim Carver went to the Cor. sec. 31, 32-5-4 and run east. Var. $8^{\circ}35'$. At 290 Alder swamp, North and South. At 500 leave same swamp. Enter popple and Birch land. At 1322 set a hub for the $\frac{1}{4}$ sec. post. At 1554.3 ft. set hub no. 1 on Bever Dam. Enter Alder and meadow land. At 2562.4 leave swamp and hay. Enter Popple and Pine Land. At 2640 ft. set a hub for $\frac{1}{4}$ sec. corner. At 3128.1 ft. set hub no. 2. At 3530.4 ft. set hub no. 3. At 3960 ft. set hub for $\frac{1}{4}$ sec. post. At 4426 ft. set hub no. 4. At 5266 ft. set hub no. 5. At 5280 ft. set a hub to corner sec. 32-33 and search for the corner to same.
- July, 24, 1918. Ben F. Clark, Conn Phaelan, J. B. Scott, Le Roy Hardy, Harry Locks, J. H. Cisler meet at 5280 ft. east of cor. sec. 31-32 and run on east on same line $8^{\circ}25'$. At 6130.4 ft. set hub no. 6. At 1100 enter hay meadow, North and South. At 1540.2 ft. set a hub, No. 7. Enter Jack Pine point. At 1625 ft. Hay meadow. At 2640 feet set a hub for $\frac{1}{4}$ sec. At 2700 leave hay and Birch. Enter Popple and Pine Land. At 3137.8 ft. set hub No. 8. At 3963.8 ft. set hub No. 9.

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434

- At 3960 ft. set hub for $\frac{1}{4}$ post. At 4789 ft. set hub No. 10. At 5280 ft. set a hub for the corner to Sec. 33, 34.
- 700 July 26, 1918 Begin at 0 for the cor. sec. 33, 34 and on east on south side of Sec. 34. At 184.10 ft. set hub no. 11. At 492 ft. hub no. 12 on pine knoll. At 1011.9 ft. set hub no. 13. At 1979 ft. set hub no. 14. At 2580 ft. set hub no. 15. At 2640 ft. set hub for $\frac{1}{4}$ sec. for Sec. 34 at 3433 feet hub no. 16. and enter swamp, north and south and turn a right angle West 169.8 ft. west then went to hub on East side. Back sight.
- 800 July 27, 1918. Then went around the Lake and set up transit on hill and backsight. The course bearing on flag, North $9^{\circ}30'$ West. The distance is 1673 chains which is 1104 feet.
- July 28, 1918. Ben F. Clark, Conn Phaelan, Jim Carver, Harry Scott and Cister run on East. At 5083.7 ft. set hub no. 18. On open hill at 5280 ft. set a hub for sec. corn 35-34. At 2930 run random line south side S. 35, 34.
- 900 July 29, 1918. Ben F. Clark, Conn Phaelan, Jim Carver meet near the corner Sec. 35-34 and measure on East and South side. Sec. 35 begin at 0. At 5321 ft. set hub no. 19. At 1320 set a hub for $\frac{1}{4}$ Sec. At 1414.8 ft. set hub no. 20 on popple knoll. At 2640 set hub for temp. $\frac{1}{4}$ sec. corner. At 2972.8 ft. set hub 21. At 3542 ft. set hub no. 22. At 3960 ft. set hub 23. At 4695 ft. set hub no. 24. At 4900 ft. enter open meadow and hay land. At 5200 found old post in open marsh, a Birch post but now iron monument. At 5280 ft. set a hub for the corner to Sec. 35-34.
- 1000 July 30, 1918. At 3800.2 ft. set a hub on bank of little pond and turn right angle N. 46 ft. and set a hub then set a hub on east side of pond; then went around and backsight on flag on West side of lake. The course bearing on flag is North 3° W. The distance is 524 links which equals 314 feet. At 740 ft. set hub no. 26. At 820 ft. enter open swamp. At 1320 set a temporary hub for $\frac{1}{4}$ sec. At 1380 ft. leave open swamp and enter hard-wood land, brush. At 1788 ft. set a hub no. 27. At 2023.5 ft. a barb wire fence, north and south. At 2640 set a temp hub for $\frac{1}{4}$ sec. corner of 36. At 2656.2 ft. set a hub, no. 28. At 2750 ft. enter open swamp N. & South. At 3020 ft. leave swamp, enter birch land. At 3443.7 ft. set hub no. 29. At 3936 ft. wire fence, north and south. At 4080 enter open field. At 4200 ft. enter North land pine camp. Railroad north and south. At 5280 ft. set a temporary hub at 141.3 ft. N. of township corner. At 128.4 ft. we found an old white pine stump 24 inches N. 49° East 31 ft. 8 links. Found a corner of a barb wire fence and a spruce which I had to cut off to make a post out of 3 feet long and 5 in square and marked the same S. 139° N. R. 28 W. Sec. 34 and S. 139 N. R. 27 W. Sec. 31-4-1.
- 1200 Aug. 1, 1918 Then made the following witness trees: Popple 8 S. 43° East 9.9 ft. and Popple 8 S. 36° West 239 feet, and Popple 7 N. 10° W. 287 feet. Then set the corner to sec. 35-36-1-2. At 112.8 ft. east turn right angle and set the same south 10.4 ft. Set the corner to sections 34-35-23. Set the corner East 84.4 ft. south 78 ft. Set the corner to sections 33-34-34 East 54 ft. set south 58 ft.
- 1300 79. Set the corner to sec. 33-32 East 28.2 ft. set same South 26 feet.

- The corner to section 35-34-1-2 set in a little pond of water. The corner to 34-35-2-3 on an open hill, a popple post 3 feet long 4 inches square with a mound of stone around the post. Set a popple post 3 feet long 5 inches square for the corner to sections 33-34-4-3 and made the following witness trees: Norway Pine 10 x 29° E. 75.6 feet. Set section corner 32-33-4-5, a popple post 3 feet long 4 in square marked sections 33-32-4-5 and made a mound of stone around the post. Set $\frac{1}{4}$ S. East 14.1 ft south 13 feet - a Norway post 3 ft long 4" square. Set $\frac{1}{4}$ post East 7 ft south 6 feet. A popple post 3 ft. long 4" square. No witness trees.
- Aug. 6, 1918. Ben F. Clark, Conn Phaelan, Jim Carver run the true line Sec. 33. south side. Begin at the established corner Sec. 32-33-5-4 run east 8° 08' Var. At 758.7 ft. set hub No. 6 - Jack Pine and pine stump. At 1100 ft. enter open hay meadow N. & S. At 1400, leave enter Jack Pine. At 1520, 2 ft. set hub No. 7. At 1612 leave Jack Pine and enter open hay meadow and marsh run North and South. At 2800 leave hay, enter Popple Pine land. At 3135.7 ft. set hub No. 8 on ridge. At 3200 ft. enter hay meadow round at 3347 ft. leave same and enter Popple land. At 3871 ft set hub no. 9 on high hill. At 4745 ft. set hub on White Birch. At 8316 feet. the corner to Sec. 4-3-34-33 one foot north of center tack in post. Then set $\frac{1}{4}$ sec. cor. - a popple post 3 feet long 4 in square marked the same S. 33-4 and made a witness tree - White Birch 7 South 18° East 126 feet. Set $\frac{1}{4}$ section on south side Sec. 33 between 33-31 and and made the following witness tree - White Pine 14 N. 55° East 47.4 feet. Set $\frac{1}{4}$ S. Norway post 4 in square 3 feet long and made the following witness trees Jack Pine S. N. Range 2 & W.
- Aug. 7, 1918. Ben F. Clark, Conn Phaelan, Jim Carver, begin at the established corner sections 33-34-3-4, and run East in a true. Var. 8° 08'. At 120 ft. enter bog. N. and S. some hay. At 360 ft. leave same bog. Enter Popple. At 900 Station 11. At 1329.
- Aug. 8, 1918. Ben F. Clark Conn Phaelan, Jim Carver, J. Hardy run on East on a true line Var. 8° 08'. At 2529.4. Station 10. At 3321.7 ft. Sta. 12. (Sta. 12 across lake) At 3334 enter marsh. At 3460 Enter a lake North-South. At 4479 ft. our lake. Enter open burnt land. At 5316 ft. post with a mound of stone.
- Aug. 9, 1918. The corner to sec 34-35-2-3. $\frac{1}{4}$ Sec. - a Popple Post. 4 ft long.
Ben F. Clark, Conn Phaelan, Jim Carver, J. Hardy run on East on South side Sec. 35.
- Aug. 10, 1918. Ben F. Clark, Conn Phaelan, Jim Carver, J. Hardy. run on East on South side sec. 35. At 918.7 ft. set Sta. 13. At 1176-1329 ft. $\frac{1}{4}$ - Sta. 14. At 1755.3 ft. Sta. 15. 2.658 ft. $\frac{1}{4}$ sect. 2880.7 ft. Sta. 16. At 3880 ft. enter marsh ground.
- Aug. 12, 1918. Ben F. Clark, Conn Phaelan, Jim Carver, J. Hardy. run on East on South side sec. 35. J. 139 N. R. 28 W. and at 4065 leave marsh. Enter high land. At 4164 ft. Sta. 17. At 4320 Hay meadow Sta. 18. At 4945 enter hay meadow running North and South. At 5255 ft. enter pond running N. S. True line Sec. 36.

At 857 ft. Enter hay meadow, east and west. At 1243.4 ft. North land prairie
long railroad north and south. At 1329 set $\frac{1}{4}$ post at 1364 ft. Leave hay
 meadow. Enter high land. At 1727 ft. Sta. on high hill. At 2438.8 ft. Sta. 2
 At 3239 ft. station 3. At 3947.2 ft. Sta. 4. At 3987 set $\frac{1}{4}$ sec. post. At 4050 ft.
 enter swamp or marsh bog round. At 4481 leave same enter high land. At
 4484 ft. Sta. 5. At 4826 ft. enter marsh. At 4900 enter lake, a small pond.

100 Corner to sec. 35-36-21, out in pond
 Aug. 14, 1918 Ben. F. Clark, Conn. Phaelan, Jim Carver, J. Hardy begin at the
 corner to sec. 19-20-29-30 at a hub in township road on N. boundary of sec.
 29 and run south between sec. 29-30. Var. 8°. At 884 ft. Sta. 1. At 2740 Sta. 2
 At 2452 $\frac{1}{4}$ sec. a post marked $\frac{1}{4}$ S with a mound of stone around it. A pine stump
 marked B. J. a yellow pine 10 W. 75° W. 132.87 ft. Set a new post 3 feet long 4
 200 inches square and marked the same $\frac{1}{4}$ S. 3029. Then set $\frac{1}{4}$ S. post 29 feet which
 leaves each $\frac{1}{4}$ mi. 1241.4 ft.

Aug. 16, 1918 Ben. F. Clark, Conn. Phaelan, Jim Hardy run on south between sec 30-29
 Var. 8°. At $\frac{1}{4}$ S. bet 30-29 begin at 0. At 144 Sta. 3. At 476 a wagon road runs
 E. & W. at 710 ft. enter open bog. At 826 ft. a point of land in bog. At 895 ft
 bog. At 1055 leave bog. Enter high hill. At 1234 ft. Sta. no. 4 on high hill
 300 At 1320 temporary $\frac{1}{4}$ cor. in ravine. At 1648.8 ft. Sta. 5. At 2190.4 ft. Sta. 6.
 At 2550 ft. wagon road, east and west. At 2640 ft. set a hub.

Aug. 17, 1918 At 2852 ft. enter line running east and west. At 2927 line run E. & W.
 At 3056.5 ft. Sta. 7. in thick Popple land. At 4058.7 ft. Sta. 8. in Popple grove.

Aug. 19, 1918 Ben. F. Clark, Conn. Phaelan, Jim Hardy measured on east. At 4757 ft.
 Sta. 9. At 4500 Enter big swamp almost round. Day, tall alders, Popple. At
 5750 ft. leave swamp. Enter high open land. At 5737.7 ft. set Sta. 10. open
 2100 land. At 4200 leave same. Enter small swamp. At 4400 ft. leave swamp

enter point of land in swamp. At 4555.5 ft. Sta. 11 on point. At 4660 ft. enter
 below stone dam swamp. At 7200 ft. leave same. Enter high pine land. At
 8017.7 ft. Sta. 12. At 8088.5 ft. establish town line west of cor. to sec. 31-30-54.
 west of post. 147 ft.

Aug. 20, 1918 Ben. F. Clark, Conn. Phaelan went to the $\frac{1}{4}$ S. corner and over at first
 500 ft. South of post 17.2 ft. to the East and run back in a true line. Var. 9° 12'

Aug. 21, 1918 Run on east true line on East of sec. 30 on south. At 1 Sta. at 227.3 ft.
 Sta. 2. At 476 ft. old wagon road. E. & W. At 700 ft. enter bog. round. At 1079 ft.
 leave bog enter Popple land and pine stumps. At 1030.7 ft. set Sta. 3. At
 1350 ft. temp. $\frac{1}{4}$ cor. At 2171 ft. Sta. 4. Pine log. At 2516 ft. wagon road run E. & W.

585 At 2780 ft. Sta. 4. At 2848 ft. intersect true line between sec. 30-31. Then set

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- $\frac{1}{16}$ post south 104 ft. which gives each $\frac{1}{16}$ mi. 1724 ft. set $\frac{1}{16}$ sec. post 3-6. True line bet. Sec. 31-32. Var. $9^{\circ}12'$. At 9445 ft. Sta. 1 in popple grove.
- Aug 22, 1918. Ben F. Clark, Conn Phalan, J. Hardy run on South on same true line between Sec. 31-32.
- Aug 23, 1918. At 1480 leave Popple and pine stumps and enter Alder and down Jam. swamp, round. At 2041.4 ft. Sta. 2 on point in swamp. At 2700 ft 100 leave swamp. Enter point of land. At 2837.4 ft Sta. 3 on point in swamp. At 3200 ft leave point of land. enter swamp. At 4250 ft. leave swamp. enter high land, open. At 5040 ft. to corner to secs 31-32-5-16. $\frac{1}{16}$ sec. cor. on $\frac{1}{4}$ Sec 30-29. A popple post 3 feet long, 4ⁱⁿ square and made two witness trees Popple 5 S 58° E 71.1 ft. Popple 4 N. 72° W 35.7 feet. Then set a corner to 29-30-31-32, hub. Then set $\frac{1}{16}$ post a popple, 3 feet long 4 in. square.
- 200 Set $\frac{1}{4}$ Sec. a popple post 3.3 feet long and marked the same. $\frac{1}{16}$ S. cor. set 31-32. No trees. Then set $\frac{1}{16}$ cor. between sections 31-32 (fir post 3 ft. long 4 in. sq. and marked $\frac{1}{16}$ S. 31-32.
- Aug 24, 1918. True line on west side sec. 30 bet. 30-25 on boundary line between T139 N. 28° W and 29 and measure north. Begin at 30-31-36-25 on Jack Pine ridge at edge of swamp. At 676 Sta. 1. At 900 ft. Alder swamp, East and west.
- 300 At 1382 leaves swamp. Enter pine Popple land. At 1751.6 ft. Sta. 2. At 2300 ft. leave same. Enter Alder swamp. At 2751 ft. leave Alder swamp. Enter Jack Pine land. At 3380.5 ft. Sta. 3. At 4448.3 ft. Sta. 4. At 4514 ft. wagon road E. + W. At 4850 Alder swamp E. + W. At 4931 ft. a brook running west 9 ft. wide. At 4998 hay meadow. At 5289 ft. the cor. to sec. 30-25-19-24 set $\frac{1}{16}$ S. post 1322 $\frac{1}{2}$ ft. Set $\frac{1}{4}$ S. a Jack Pine post 3 ft. long 4 in. wide. This gives each $\frac{1}{4}$ S. 1322 $\frac{1}{2}$ ft.
- 400 1322 $\frac{1}{2}$ ft.
- Aug 26, 1918. Ben F. Clark, Conn Phalan, Jim Hardy, Harry Socks begin at the established cor. $\frac{1}{4}$ S. post between sec. 30-25 on Range line bet. 28 and 29 and run East. Var. 10° W.
- Aug 27, 1918. Sec. 30. Ben F. Clark, Conn Phalan, R. Smell, H. Socks, J. Hardy measure East. At 100 leave swamp and enter J. Pine land. At 243.4 ft. Sta. 1. At 458 ft. wire fence N. + S. At 637.2 ft. Sta. 2. At 1384 ft. wire fence running N. + South. At 1464 ft. Sta. 3. At 3040 wagon road SW + NW. At 2360 ft. wagon road NE and S. W. At 2498 ft. temp. center. (C $\frac{1}{4}$ S.) At 2767.4 ft. Sta. 4. At 3000 ft. enter open meadow, round. At 3390 leave same. Enter Popple land. At 3818 ft. temp. $\frac{1}{16}$ cor. At 3979.2 ft. Sta. 5. At 4338 ft. Sta. 6. At 4730 ft. Sta. 7. At 4943.7 ft. intersect line ^{38.9 ft.} south of $\frac{1}{4}$ S. post bet. sections 29-30. Then run true line back at 10⁰⁰ $10^{\circ}23'$ Var. North post 6 inches.

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Survey Record No. 434.

Aug. 28, 1918. Ben F. Clark, Corn. Thallan, R. Snell begin at the cor. Sec. 30-25-19-24 on range line, measure east on Range line from North by's Iron post. At 687 ft. leave Enter Popple point. At 1057 ft. brook N. + S. At 1114 ft. a popple post marked $\frac{1}{16}$ Sec. cor. At 1700 leave Popple. Enter hay meadow. At 1880 ft. brook E. + W. At 1922 ft. brook E. + W. At 2077 ft. brook E. + W. At 2071 brook E. + W. At 2394 ft. a Birch Post marked $\frac{1}{4}$ S. At 2480 ft. brook N. + S. At 2900 ft leave hay meadow. Enter pine. At 3600 leave. Enter hay meadow. At 3673.4 ft a popple post $\frac{1}{16}$ S. At 3688 leave hay. Enter Popple, Pine land. At 4036 ft. wagon road N. + S. at 4036 ft. enter swamp. At 4070 ft. brook. At 4288 ft. brook N. + S. At 4469 ft Enter popple land. At 4954.6 ft. the cor. to secs. 19-20-29-30, sets East 5 ft. $\frac{3}{10}$. Set $\frac{1}{4}$ S. cor. N. 2. left.

Aug. 29, 1918. Begin at the established $\frac{1}{4}$ S. between sec. 30-19. @ Popple post 4 ft. long 4 in. square and run South Var. $8^{\circ} 36'$ in a hay meadow. At 130 ft brook running W. 4 ft. wide at 240 ft leave hay. Enter Jack Pine land. At 451.7 ft Sta. 1 At 1076.5 ft. Sta. 2. At 1200 ft. enter Musk. Bog. E. W. At 1400 ft. leave same enter Jack Pine. At 1683.3 ft. Sta. 3. At 2484 ft. a wagon road E. W. At 2547.2 ft. E + W. $\frac{1}{4}$ S. line. Short 137.2 ft. sets $\frac{1}{4}$ N. 63.4 feet. Found the old witness tree for ~~Sec.~~ bet. Sec. 30-19. A popple lying down with part of the $\frac{1}{4}$ S. on same. A Popple $6^{\circ} N. 83^{\circ} E. 115.5$ ft. Then set a post and marked the post $\frac{1}{4}$ S. for sec. 19-30.

Aug. 30, 1918. Begin at the $\frac{1}{16}$ post on south $\frac{1}{2}$ of Sec. 30 between 30-25 on range line and run East in a $\frac{1}{16}$ line. Var. $10^{\circ} 33'$. Begin at 0 in an Alder and Tamarck swamp. At 800 ft. leave same. Enter J. Pine. At 996 ft. Sta. 1. At 1904 ft. Pine River road, ^{at 1925 potato field} At 2411.2 ft. North + South $\frac{1}{4}$ S. line. At 2759.2 ft. Sta. 2 At 2844 ft. leave potato field. Enter hay meadow. At 3185 ft. barb wire fence N. + S. At 3225 ft. leave same. Enter brush land. At 4219.3 ft. Sta. 3 in hill At 4905.5 ft. barb wire fence N. + S. At 4959.5 ft. enter line bet. 29-30 North post 147 feet true line Var. $8^{\circ} 30'$.

Aug. 31, 1918. Then run true line back and hit the post on west side of sec. 30. True $\frac{1}{16}$ line south $\frac{1}{2}$ Sec. 30. At 477 ft. three barb wire fence. At 453 ft. At 1277.1 ft set a Popple post marked $\frac{1}{16}$ S. 30. At 1477 Enter meadow. At 1777 ft. wire fence run N. + S. At 2077 ft. leave and enter cloverfield. At 2577 Pine River wagon road N. + S. At 3248 ft. Sta. 3 At 4521 ft. set $\frac{1}{16}$ S. cor. a J. Pine post 7 ft. long 4 in. square and marked the same $\frac{1}{16}$ S.

Sept. 3, 1918. Begin at the $\frac{1}{16}$ S. post on range line on North $\frac{1}{2}$ Sec. 30 and run East on $\frac{1}{16}$ line Var. $9^{\circ} 30'$ At 1063 ft. Wagon road N. + South. At 1136 temp. cor. At 1141 ft. Sta. 1. At 1300 ft. leave J. Pine. Enter swamp. At 1700 ft. leave swamp Enter point in swamp. At 2093.4 ft. Sta. 2 At 2140 ft. leave point. Enter same swamp. At 2425.5 ft. intersect ~~N. + S.~~ line center of post for $\frac{1}{16}$ S.

Sept. 4, 1918. At 4 leave swamp. Enter J. Pine At 455.2. Sta. 3. At 1341 Enter Pine River W. Road. At 1783.2 Sta. 4. At 2526.4 ft. the $\frac{1}{16}$ post bet. Sec 29-30 on N. $\frac{1}{2}$ Set $\frac{1}{16}$ S. cor. at 1243.2 ft for lach forty. and made witness trees as follows: Jack Pine S $50.5^{\circ} E. 55.5$ ft. (2) Jack Pine N $31^{\circ} W. 51.4$ ft.

Sept. 4, 1918 Ben F. Clark, Ed. Sweeney, A. Cook went to the Cor. Sec. 19-20-29-30 and set corner according to the witness trees made by Deputy Co. Surveyor B. F. Clark in month of Aug. 1914. I find the witness trees as follows: Jack Pine N $10\frac{1}{2}^{\circ} E. 121$ links. Popple N $73^{\circ} W. 110\frac{1}{2}$ links. Popple S $45^{\circ} W. 106$ links. Popple S $50^{\circ} E. 79$ lbs.

Survey Record No. 434.

- Sept. 5, 1918. Ben F. Clark, Ed. Sweeney, H. Socks begin at the estab. cor. of lot 2 1/4 S. on sec line between 30-31 at Harden House and run N. on 1/4 S. line. At 837 ft. leave potato field, enter J. Pine land. At 1359 ft. set 1/16 S. post. At 2120 ft. Sta. 2. At 2709 ft. 1/16 post on East + West 1/4 S. line.
- Sept. 6, 1918. B. F. Clark, Ed. Sweeney, H. Socks begin at the established 1/16 post in 1/4 S. line in N.E. east 1/4 and South on 1/16 line. Var 7°30'. Begin at the 1/16 post in hay meadow. At 125 ft. leave hay, enter Jack Pine, Popple land. At 900 ft. Enter small hay meadow. At 1000 ft. leave. Enter Popple land. At 2159.9 ft. 1/16 post. Begin at the 1/16 and run on south. Var. 7°30'. At 83 Pine River Wagon road E + W. At 1260 ft. 1/16 post on East and West 1/4 line.
- Sept. 8, 1918. True line on south boundary sec. 31, begin at the estab. corner sec. 31-36-1-4. Var. 8°45' E. Run east. At 400 ft. N. + S. line with an iron pipe 3 ft. long. 3 in. dia. At 505 ft. brook 7 foot running west. At 887.4 ft. Sta. 1. At 2370. ft. Sta. 2 in potato field. At 2435 ft. hay meadow N. S. At 2547 ft. leave, enter Alder, Popple. At 3387 ft. brook running south. At 3400 enter hay meadow. At 3922 ft. Sta. 3. At 4285 ft. leave hay meadow. Enter popple land. At 5008 ft. the cor. to sec. 31-32-5-6. Set 1/16 post 1294 and made witness tree an Elm 10 S. 38° E. 92 feet. Set 1/4 S. on south side sec. 31, 1294 ft. Set 1/16 a popple post 3 ft. long. 5 in. square. Lot 2 = 1127 ft. from town line.
- Sept. 10, 1918. Ben F. Clark, Ed. Sweeney, H. Socks went to the 1/4 S. cor. on the south side of sec. 31 and run north on a 1/4 line (Var. 8°75' to 1/4 S. bet. sec. 30-31. intersect 47.5 ft. W. of cor.
- Sept. 11, 1918. Ben F. Clark, Ed. Sweeney run back on a true line 7°47' and hit the 1/4 S. post on south sec. 31 sec. 6.
- Sept. 13, 1918. B. F. Clark, Ed. Sweeney went on the 1/4 S. post bet. sec. 31-36 and run East a quarter mile. Var. 8°12'. At 4984 the 1/4 S. bet. 31-32-54.5 South of post. True line 8°48'. Then run back on true line and hit the post the 1/4 S. between S. 31-32 a popple post 3 ft. long. 3 in. A popple witness tree 4 S 15° W. 54.5 ft. Then set C 1/4 S. Where true line crosses and made 4 witness and put in a Jack Pine post 3 1/2 ft. long 5 in. square. A popple 8 S. 21° W. 63.7 ft. A White Birch 3 S. 50° E. 80 ft. A Popple 4 N. 17° E. 54.5 ft. Dry Popple 7 N. 25° W. 29 feet. Then run east from C 1/4 S. cor. At 84.1 ft. Sta. 1. At 577 ft. Sta. 2. At 600 ft. set hub for rain. Leave for home at 4 P.M. At 1815 Sta. 3 At 2584.7 ft. 1/4 S. cor between 31-32. Then set 1/16 cor. J. Pine post 3 ft. long 4 in. witness trees: Jack Pine 7 N. 37 1/2° E. 34.7 ft. Popple 4 N. 52 1/2° W. 67.2 ft.
- Sept. 15, 1918. Ben F. Clark, Ed. Sweeney measured west from C 1/4 S. cor. sec. 31. At 356 ft. enter hay meadow. At 804 ft. island in meadow. At 853 Sta. 1 on point in hay meadow. At 900 ft. leave point. Enter same meadow. At 1838 ft. leave hay meadow. Enter Popple. At 2405 ft. the 1/4 S. on Range line bet. Sec. 31-36. Then set a Jack Pine post 3 ft. long 5 in. square and made 2 witness trees: 1 Jack Pine 7 N. 25° E. 36 ft. Popple 4 N. 45° W. 52.5 ft. Then came back to C 1/4 S. and measured. At 185 ft. Enter hay meadow. At 1140 ft. leave hay meadow. Enter Popple brush. At 1195 ft. Sta. 1. At 2065 ft. Sta. 2. At 2100 ft. leave Popple land. Enter marsh lake. At 2412 ft. the 1/4 S. post between 31-32. Then set 1/16 at 1342 1/2 ft. and made 2 witness trees. 2 White Pine 14 N. 40 1/2° W. 68 ft. Popple 9 S. 31° W. 44 ft. Then went to C 1/4 S. measure South. At 8046.4 ft. Sta. 1. At 1000 ft. Enter open marsh. At 1232 ft. leave. Enter brush land. At 1371 ft. Sta. 2. At 2444 ft. Enter hay meadow. At 2418. Enter 1/4 S. cor.

south side Sec (31) Then set $\frac{1}{4}$ post at 1319 ft. Then set a Jack Pine
 3 ft long 4 in square. Witness a rock 4 by 4 ft. N 40 E. 49 feet.

Sept. 16, 1918 Ben F. Clark, Ed. Sweeney, H. Socks went to the $\frac{1}{4}$ S. bet Sec 31-32. A Jack
 Pine post 3 feet long 3 ft square. Witness trees Popple 8 S. 48 $\frac{1}{2}$ W. 42.5 ft.
 Popple 10 N 44 E 44 ft.

Sept. 17, 1918. Then run East 8° 30. hit post on $\frac{1}{16}$ line.

Sept. 18, 1918 Ben F. Clark, Ed. Sweeney, H. Socks measured up line $\frac{1}{16}$ S. on N $\frac{1}{2}$ of Sec 31
 Begin at the $\frac{1}{16}$ post in North and South $\frac{1}{4}$ S. line and run East. At 882 ft.
 Sta. 1. At 1100 ft. enter swamp. At 1500 ft. leave swamp. Enter high land.
 At 1550 ft. Sta. 2. At 2573 ft. Enter sec. line between Sec. 31-32. At 10.2
 ft. South pass a popple post 3 by 3. Witness trees: Popple 4 S 24 E 34.1 ft.
 Popple 3 N. 30 W. 30 feet.

Sept. 19, 1918. Ben F. Clark, Ed. Sweeney, measure East on $\frac{1}{16}$ line on North $\frac{1}{2}$ Sec 31.
 Begin at the $\frac{1}{16}$ on range line. At 418 ft. Sta. 1. At 843 ft. Pine River
 road. At 1095 ft. Sta. 2. At 1233 ft. enter swamp, hay meadow. At
 2283 leave hay meadow. Enter N + S $\frac{1}{4}$ S. line at 2394 ft. made the
 following witness tree and post for lot 2 and $\frac{1}{4}$ S. on N $\frac{1}{2}$ S. 31. a Jack
 Pine post 3 ft. long 5 in square. Witness: Jack Pine 10 S 42 $\frac{1}{2}$ W. 187 ft. Set
 post for $\frac{1}{16}$ S. on N. E. $\frac{1}{4}$ S. 31. a Jack Pine post 3 feet long 5 in square. Witness:
 W. Birch 3 N 51 W 40.5 ft.

Sept. 20, 1918 Ben F. Clark, Ed. Sweeney begin at the $\frac{1}{16}$ on South $\frac{1}{2}$ Sec. 31, At a
 Jack Pine post witness tree: Jack Pine 7 N. 56 W. 54.3 ft. and measured
 East on $\frac{1}{16}$ line. At 1173 ft. Sta. 1 on hill. At 1433 ft. Sta. 2. At 2413 the $\frac{1}{16}$ on
 N. S. $\frac{1}{4}$ line South $\frac{1}{2}$. At 1128 ft. set cor. to lot 2, $\frac{1}{4}$ corner. A Jack Pine post
 3 long 5 in square and made witness: Jack Pine 9 S 40 E. 48 ft. J. Pine 70 N
 39 W. 51 ft.

Sept. 21, 1918 Ben F. Clark, Ed. Sweeney, H. Socks run on East on same line 8° 15'. Begin
 at the $\frac{1}{16}$ S. At 4295 ft. Sta. 1. Temporary corner at 1329 ft. Enter hay meadow.
 At 1700 leave hay. Enter Jack Pine land. At 2500 ft. Sta. 2 on Jack Pine N.
 at 2300 ft. leave same. Enter hay. At 2581 ft. $\frac{1}{16}$ post on sec. line bet. 31-32.
 Closed on post 9" North. At 1290.5 ft. to each $\frac{1}{4}$. Set a Jack Pine post 3 ft long
 4 in square marked the same $\frac{1}{16}$ for Sec. 31. Witness tree: Popple 4 N. 30 W. 30 ft.
 Begin at the $\frac{1}{16}$ a popple post 3 ft long 5 in square. Witness tree: J. Pine 4 S. 21 E 59.8 ft.
 Then run East on a true line 8° 15'. At 1272 ft. Sta. 1. At Begin at the established
 $\frac{1}{16}$ S. post run on North on same $\frac{1}{16}$ line 8° 15'. At 600 ft. leave Pine land. Enter
 hay meadow. At 138 ft. $\frac{1}{16}$ post on E. W. S. line.

Sept. 23, 1918. Then on West 8° 15' on same $\frac{1}{16}$ line. At 3053 ft. leave hay meadows
 enter Popple land. At 600 ft. leave. Enter hay meadow. At 1050 ft. leave, enter
 Jack Pine land. At 1390 ft. set $\frac{1}{16}$ post. Run west on same $\frac{1}{16}$ line.

At 109 ft Pine River wagon road At 742.3 ft set hub No. 5 at 1300 ft set $\frac{1}{16}$ post, tied on center of post. Begin at the $\frac{1}{16}$ cor. bet sec. 31 and sec. 4 on T. line and run North. Var $8^{\circ}15'$. On East $\frac{1}{2}$ Sec. 31. At 200 leave hay meadow, enter Pine land. At 2390.7 ft enter $\frac{1}{16}$ in center of post. Enter marsh. At 300 ft leave marsh, enter popple and brush land. At 1310 enter $\frac{1}{16}$ on $\frac{1}{4}$ line on center of post. At 100 ft enter Pine ridge. At 2099.5 ft Sta. 2. At 999.1 set Sta. 3 in white pine grove. At 1200 ft leave pine. Enter swamp and hay meadow. At 1309 ft $\frac{1}{16}$ post on center of point.

Sept. 25, 1918 Run north on same $\frac{1}{16}$ line. At 100 ft leave hay meadow. Enter brush land. At 303.6 ft Sta. 3. At 702.7 ft Sta. 4. At 1300 ft $\frac{1}{16}$ post on sec. line bet. 31-30. Witness trees: Popple 6 S. $44^{\circ}E$ 19.5 ft. Norway 6 N. $33^{\circ}20'25''$ 4 ft.

Sept. 25, 1918 Ben F. Clark, Ed. Sweeney begin at the Cor. Sec. 19-20-29-30 measured East on township road. Var 8° . At 773 ft brook N. & S. At 788 ft leave Pine land enter swamp. At 5200 ft leave pine land, enter swamp. At 2300 ft brook run south. At 2640 ft set a temp. $\frac{1}{4}$ S. At 2800 ft leave swamp enter popple land. At 5257.2 the corner to sec. 20-21-28-29. An iron post in road. Then set each $\frac{1}{16}$ at 1345 ft. First $\frac{1}{16}$ west of iron post S. 20-21-28-29. Made 2 witness trees: J. Pine 10 S. $38^{\circ}E$ 36 ft. Popple 8 N. $55^{\circ}\frac{1}{2}'W$ 40 ft. Set hub for $\frac{1}{4}$ S. bet. Sec. 20-29. J. Pine in sec. 20 for witness $\frac{1}{4}$ Sec. corner. J. Pine 9 N. $40^{\circ}W$ 74.2 ft. Popple 5 S. $39^{\circ}\frac{1}{2}'E$ 66 ft. Witness trees for $\frac{1}{4}$ bet. 29 and 20: J. Pine 10 N. $16^{\circ}E$ 46.6 ft. N. Pine 16 S. $58^{\circ}E$ 70.5 ft.

Sept. 25, 1918 Ben F. Clark, Ed. Sweeney, H. Socks measured East. Begin at the established corner. Sec. 29-30-31-32. At 5026 ft. wagon road N. & S. At 1547 ft enter hay meadow. At 2200 ft leave hay, enter Popple and Jack. At 5249.7 ft intersect line run N. and South. Then went south and run on to township line on same 125 ft West of Cor. to Sec. 32-33-4-5.

Sept. 26, 1918. Then begin at the cor. Sec. 20-21-28-29 and measured south. At 5342 ft. intersect line running east and west. Run on to township line. At 10638.2 ft ^{113.0 ft} west of cor. to Sec. 32-33-5-4. Then run true line back $\frac{1}{16}$ S. 6.5 ft. etc. Set $\frac{1}{4}$ S. ^{low} 13 ft. north. Set $\frac{1}{16}$ Sec. ^{cor.} north 19.5 ft.

Sept. 27, 1918. Ben F. Clark, Ed. Sweeney, H. Socks, J. L. Socks, H. S. Trotter, A. Trotter run on South on a true line bet. Sec. 29-28 on south bet. sec. 32-33. Var $9^{\circ}20'$. Sec. 28 cont. on south same line. Hit center of post to Sec. 32-33-4-5 measured back on true line. At 200 ft enter hay meadow, round. At 400 ft leave, enter Popple brush land. At 601.85 ft Sta. 1. At 1320 ft set temp. $\frac{1}{16}$ Cor. At 1335.4 ft Sta. 2. At 2418 ft Sta. 3. At 2640 ft temp. $\frac{1}{4}$ Sec. corner. At 3183 ft set Sta. 4. At 3589.5 ft set Sta. 5. At 3960 ft set temporary $\frac{1}{16}$ Sec. cor. Leave Popple, enter alder swamp.

- At 4100 ft. leave, enter Popple brush. At 4414 ft. set Sta. 6. At 4787 ft. set Sta. 7. At 5116 ft. Enter pond, round. At 6800 ft. leave same. Enter high land. At 5280 ft. set hub. At 8295.4 ft. intersect East and West line.
- Sept. 30, 1918. B. F. Clark, Ed. Sweeney, H. S. Trotter, H. S. Socks, A. Trotter set $\frac{1}{4}$ Sec. cor. a Norway post 3 feet 5 in square. Witness Popple 6 N. 24° distance 20.9 ft. J. Pine 8 N. 67° W. 34.6 ft. Then run south $8^{\circ} 15'$. At 8045.8 ft. town line 18 east of $\frac{1}{4}$ sec. corner.
- Oct. 1, 1918. Then run true line back 8.3 ft. Hit post in center of $\frac{1}{4}$ sec. corner post bet. 32-33. Then came East to sec. line bet 32-33 and set in post on true line between sec. 32-33. Set $\frac{1}{4}$ Sec. corner, a Popple post 3 ft. by 5 in square and made witness. Popple 6 N. $40\frac{1}{2}^{\circ}$ W. 26 ft., Popple 7 S. 55° E. 48.8 ft. Set $\frac{1}{4}$ S. cor. Popple post 3 ft long. 3 in square, made witness tree, Popple 7 S. 54° E. 87.3 ft. Popple post 3 ft long. 4 in square and made witness tree. Popple Dry 9 S. 36° W. 36 ft.
- Oct. 2, 1918. Ben F. Clark, Ed Sweeney, H. S. Trotter, A. Trotter, H. Socks begin at the established $\frac{1}{4}$ Sec. cor. 32-33. Run west on a random line $8^{\circ} 10'$ $\frac{1}{4}$ Sec. Cor bet. 32-31 is 15 $\frac{1}{2}$ ft south of post. Then set C $\frac{1}{4}$ S. cor. - Norway 3 ft long 5 in square and marked witness trees: Dry Popple 6 N. 35° W. 41.8 ft. Dry Popple 9 S. 43° W. 81 ft. Rock 3 ft. square S. $49\frac{1}{2}^{\circ}$ East 16.1 ft. 2 ft. N. 20.43° East 14.7 ft.
- Oct. 3, 1918. Ben F. Clark, Ed Sweeney, H. S. Trotter, Emma Trotter, Harry Socks, J. H. Socks. begin at the $\frac{1}{4}$ S. Cor bet. Sec. 29-~~32~~³¹ run South. At 2042.2 ft. Sta. 1. At 404.6 ft. enters hay meadow. At 1075 ft. leave hay, enter Popple brush. At 1320 set temp. $\frac{1}{16}$ post. At 1315 Sta. 2. At 2632 ft. set C $\frac{1}{4}$ S. post 8 ft. short. At 1814 ft. set $\frac{1}{4}$ S. post. Witness: Popple 7 N. 23° W. 29.8 ft. Popple 10 N. $26\frac{1}{2}^{\circ}$ E. 26 ft. Run on South on $\frac{1}{4}$ S. begun at the C $\frac{1}{4}$ S. cor. At 1036.7 ft. At 408.19 ft. Sta. 1. At 1244.7 ft. Sta. 2. At 1320 ft. set temp $\frac{1}{16}$ S. cor. Enter open round meadow and pot hole. At 1740 leave same. Enter brush land. At 2133 ft. set Sta. 3. At 2633 ft. $\frac{1}{4}$ S. on true line bet. Sec. 32-31. A J. Pine post 3 ft. long 4 in. square. Witness trees: White Birch 13 S. 59° W. 7.5 ft. Then set $\frac{1}{16}$ at 1316.5 ft. Witness: Rock 4 by 4 square S. 15° W. 14.5 ft. Then begin at the C $\frac{1}{4}$ S. cor. and measured west. At 2055 ft. Sta. 1. At 1046.5 ft. Sta. 2. At 1320 ft. set a temp. $\frac{1}{16}$ corner. At 2140 ft. enter Alder swamp E. + W. At 2183 ft. set Sta. 3. At 2456 ft. the $\frac{1}{4}$ S. post bet. sec. 32-31 is 14 ft. large. Set $\frac{1}{16}$ S. cor. set a Popple post 3 ft. long 3 in square. Made witness tree: Red Oak 14 N. 23° W. 44.8 ft. Begin at the C $\frac{1}{4}$ S. cor. measured East. At 1014.1 ft. set Sta. 1. At 1320 ft. set a temp. $\frac{1}{16}$ post. At 1557 ft. enter hay meadow. At 1915.5 ft. set Sta. 2. At 2184 ft. set Sta. 3. At 2453.8 ft. is the $\frac{1}{4}$ S. cor. bet. sec. 32-~~33~~³¹. This is 13.8 ft. large. Set $\frac{1}{16}$ S. cor. at 1326.9, 9 popple post 3 by 4. Witness tree N. Pine 28 $^{\circ}$ W. 1016.9 ft.
- Oct. 4, 1918. Then went to $\frac{1}{16}$ on Sec. line between 32-33 South $\frac{1}{2}$ and run west 8° . At 3057 ft. enter hay meadow N. + S. At 1200 leave same. Enter open brush land. At 1320 ft. set temp. $\frac{1}{16}$ S. cor. At 1425 ft. Sta. 1. At 2269 ft. set Sta. 2. At 2655.5 ft. to $\frac{1}{16}$ S. on N. S $\frac{1}{4}$ S. line on center of post. Set $\frac{1}{16}$ S. Popple post 3 ft. long 5 in square. Witness: Rock 7 ft square N. $26\frac{1}{2}^{\circ}$ E. 78 ft. White Pine 20 S. 20° W. 1082.5 ft. Begin at the $\frac{1}{16}$ post on $\frac{1}{4}$ S. line, run west. At 2055.7 ft. set Sta. 1. At 2150 ft. enter Alder swamp N. + S. At 2659 ft. the $\frac{1}{16}$ S. on sec. line bet 31-32

- Then set $\frac{1}{16}$ s. cor. at 1329.9 and made witness trees: Popple 6 N. 35° W. 39 ft. Willow 4 s. 48° E. 17 ft.
- Oct. 5, 1918. Ben F. Clark, Ed. Sweeney, J. S. Socks, E. Trotter begin at the established $\frac{1}{16}$ s. cor. on Sec. line between 31-32 N. $\frac{1}{2}$ and run East, 8° 15' Var. At 1413.5 ft. set Sta. 1. At 1838 ft. set Sta. 2. At 2246.5 ft. set Sta. 3. At 2659 ft. $\frac{1}{16}$ post on $\frac{1}{4}$ s. line on center of post. Then set $\frac{1}{4}$ at 1324 ft. Then set a Jack Pine post, 3 by 5. Made witness trees: J. Pine 10 s. 55° W 33.5 ft. The cor. to Sec. 28-29-32-33 a popple post 3 ft long 5 in square. Witness trees: Popple 7 s. 57° W 28.9 ft. Popple 6 s. 22° E. 34.2 ft.
- 100
- Oct. 6, 1918. B. F. Clark, E. Sweeney, set cor. to sec. ³³ 31-32-28-29. Measure North At 325 ft. set Sta. 1. At 557.4 ft. At 1215 ft. logging E + W. At 1320 ft. true $\frac{1}{16}$ s. hub. At 2134.7 ft. Sta. 2. At 2640 ft. set a temp. $\frac{1}{4}$ s. hub. At 3697 ft. set Sta. 3. At 5280 ft. set temp. hub. At 5339.6 ft. the cor. to Sec. 20-21-28-29. An iron post in township road. Then $\frac{1}{4}$ s. North 39.8 ft. Set $\frac{1}{16}$ s. cor. 179 North (59.6 ft. over).
- 200
- Oct. 7, 1918. Ben F. Clark, Ed. Sweeney, begin at the $\frac{1}{16}$ on Sec. line bet. Sec. 32-33. run west. At 510.1 set Sta. 1. At 1171.2 ft. Sta. 2. At 1320 set temp. $\frac{1}{16}$ hub. At 1637 ft. set Sta. 3. At 1700 ft. enter swamp. Cedar, Alder. At 2228 ft. Sta. 4. At 2400 ft. leave swamp. Enter popple brush. At 2654 ft. the $\frac{1}{16}$ cor. on N. & $\frac{1}{4}$ line North $\frac{1}{2}$ (14 ft. large). Then set $\frac{1}{16}$ s. 1327 ft. Made witness: Popple 14 s. 52° W. 49.2 ft. Begin at C. $\frac{1}{4}$ s. and measured west. At 859 ft. Sta. 1. True $\frac{1}{4}$ line. Begin at the $\frac{1}{16}$ s. post on Sec. line bet 29-32 on E. $\frac{1}{2}$ run south. Var. 8° 15' At 402.2 ft. Sta. 2. At 1320.3 set $\frac{1}{16}$ post. Then run on south. At 1127.7 ft. Sta. 3. At 1320.3 ft. $\frac{1}{16}$ on center of post. Then run on south. At 2069.3 ft. Sta. 3. At 1320.3 $\frac{1}{16}$ on center of post. Then run south same line. At 608.0 ft. Sta. 4. At 900 ft. enter hay meadow, round. At 1100.3 ft. leave same. Enter J. Pine. At 1320.3 ft. $\frac{1}{16}$ post on T. line. 4 ft. East of post on E. $\frac{1}{2}$ s. side. Sec. 32 bet. 32-35 county line.
- 305
- Oct. 8, 1918. Ben F. Clark, Ed. Sweeney, N. Socks, J. Socks, Trotter, E. Trotter began at the $\frac{1}{16}$ post on Sec. line bet. 32-29. run south. Var. 8° W. At 1004.5 ft. Sta. 1. At 1077.7 ft. Sta. 2. At 1313.5 ft. $\frac{1}{16}$ s. on center of post. Then run south on same line. At 412.13 ft. Sta. 2. At 1091.2 ft. Sta. 3. At 1313.5 ft. $\frac{1}{16}$ on $\frac{1}{4}$ line on center of post. At 275.2 ft. Sta. 4. At 900 ft. set hub. At 980 ft. Sta. 5. At 1313.6 ft. on south on same line. At 304 ft. Sta. 4. At 1000 ft. enter hay meadow. At 1313.5 ft. the $\frac{1}{16}$ post on township line on center of post.
- Oct. 10, 1918. B. F. Clark, Ed. Sweeney, two Trotters, two Socks begin at the estab. cor. $\frac{1}{4}$ s. bet. sec. 32-29. At 108.2 ft. Sta. 1. At 500 ft. old road. At 1129.9 ft. Sta. 2. At 1320 ft. set temp. $\frac{1}{16}$. At 1400.35 ft. enter hay meadow. At 1520 ft. leave. Enter Popple. At 1800 ft. leave, enter post hole, round. At 2200 ft. leave same. Enter Popple, Alder. At 2341.4 ft. Sta. 3. At 2640 ft. set a temp. cor. At 2763 ft. Sta. 4. At 2914.5 ft. Sta. 5. At 3103 ft. Sta. 6. At 3960 ft. set a temp. $\frac{1}{16}$. At 4014.5 ft. Sta. 7. At 4978.2 ft. Sta. 8. At 5280 ft. set a temp. hub. At 5337.4 ft. sec. line bet. 20-26. on township line road. 57.6 ft. large. West of $\frac{1}{4}$ s. hub 27 ft. Set center N. 28.9 ft. Set east 13.6 ft. Set $\frac{1}{16}$ s. cor. N. 24. $4\frac{1}{2}$ ft. set E. 4.9 ft. and run true line back north.
- Oct. 11, 1918. B. F. Clark, Ed. Sweeney, N. Socks, J. Socks, N. S. Trotter, E. Trotter run, line back North Var. 5° 45' Min. true $\frac{1}{4}$ s.

Oct. 14, 1918. Ben F. Clark, Ed Sweeney, H. Socks, J. S. Socks, H. S. Trotter, Harry ^{Socks} Trotter, J. Cisler begin at the $\frac{1}{4}$ S. post bet. Sec. 29-28 and measured west on the $\frac{1}{4}$ S. line. At 400 temp. hub. At 1320 temp. hub. At 2640 ft. set temp. $\frac{1}{4}$. At 3960 temp. hub. At 4050 ft. enter hay meadow. At 4535 leave hay meadow, enter high land. At 5250 ft. set hub. at 5309 ft. the $\frac{1}{4}$ S. bet. 38-29. South $\frac{1}{2}$ post 23 $\frac{1}{2}$ ft. Then went back to Sta. No. 2640. $\frac{1}{4}$ N. and set $\frac{1}{4}$ corner 14.5 ft. West and 11.5 ft. North. Set temp. $\frac{1}{4}$ hub. west 7.2 ft. and North 5.2 ft.

Oct. 15, 1918. Ben F. Clark, Ed Sweeney, H. Socks, J. S. Socks, E. Sweeney, S. H. Trotter, E. Trotter, Cisler run true line back $5^{\circ}15'$ and hit tack on the $\frac{1}{4}$ S. post. Then set C $\frac{1}{4}$ S. a popple post 3 ft. long 5 in square and marked the following witness trees: Popple 4 N. 45° E. 15.9 ft. Popple 6 N. 41° W. 29.7 ft. Popple 5 S. 45° W. 32.7 ft. Popple stump 3 S. 31° E. 11.7 ft.

Oct. 12, 1918. B. F. Clark, H. S. Trotter, E. Trotter, H. Socks begin at the $\frac{1}{4}$ S. bet. Sec. 28-29. At popple post 3 ft. long 3 in square. Witness trees: Popple 8 S. 35° E. 19.6 ft. Pine stump 20 N. 60° W. 52.2 ft. Run west on $\frac{1}{4}$ S. line $5^{\circ}30'$. Then measured W. on a true line. At 896.7 ft. Sta. 1. At 1400 ft. leave popple enter hay meadow round. At 1900 leave meadow, enter Popple pine land. At 2041 ft. road N. + S. At 2200 hay meadow. At 2350 ft. leave. Enter highland. At 2640 set temp. hub. At 2645 the $\frac{1}{4}$ S. bet. 30-29. 25 ft. large. Then set $\frac{1}{16}$ post a popple 3 ft. long marked same. Distance for each $\frac{1}{4}$ is 1332.5 ft. Begin at the C $\frac{1}{4}$ S. in Sec. 29. Measure East. At 1117.6 ft. Sta. 2. At 1320 ft. temp. hub. for $\frac{1}{4}$ S. cor. At 1500 ft. Sta. 3. At 2641.5 the $\frac{1}{4}$ S. cor. between 29-28. At 1320.9 ft. set $\frac{1}{16}$ S. Popple post 3 ft. long 5 in square and made witness trees as follows: Popple 8 S. 50° E. 35.2 ft. Popple 7 N. 80° W. 37.6 ft. Begin at the C $\frac{1}{4}$ S. measured west on true line ($\frac{1}{4}$ S.) 278.1 ft. Sta. 1. At 1234 ft. Sta. 2. At 1320 ft. temp. $\frac{1}{4}$. At 1942.5 ft. Sta. 3. At 2231.8 ft. Sta. 4. At 2645 ft. enter swamp. At 2579 ft. to hub in township road. To the $\frac{1}{4}$ S. cor. bet. 20-29. (61 ft. short). Then set $\frac{1}{4}$ south 30.5. Which gives each $\frac{1}{4}$ Sec. 1289.5 ft. then set $\frac{1}{16}$ post, Popple 3 by 4 and made witness: Popple 5 N. 30° E. 18.1 ft. Popple 7 S. 46° East 89 ft.

Oct. 15, 1918. Ben F. Clark, Ed Sweeney, H. S. Trotter, J. H. Cisler, E. Trotter begin at the C $\frac{1}{4}$ S. in Sec. 29. measured south at 85.7 ft. Sta. 1. At 357 ft. Old wagon road run E. + W. at 412.2 ft. Sta. 2. At 555 ft. enter pot hole. At 795 ft. A stone 10 by 8. At 954 ft. leave hay bog, enter Popple. At 1172.9 ft. Sta. 3. At 1247 ft. enter hay meadow. At 1320 ft. set temp. hub. for $\frac{1}{16}$ S. cor. At 1320 ft. leave hay enter brush land. At 1627 ft. Sta. 4. At 2083.9 ft. Sta. 5. At 2246 ft. old logging road, E. + W.

- ft. leave, enter brush land. At 3485.7 ft. Sta. 7. At 5280 ft. set a hub and search for the sec. corner to S. 19-24 but could not find same so
- June 4, 1919. run on south on same line
- June 5, 1919. B. F. Clark, Roy Rose, C. Metzger, Geo. Whitted begin at 0, 3 mile hub. run south. At 788.8 ft. Sta. 8. At 1800 ft. enter hay meadow. At 2500 ft. leave. At 2783.3 ft. Sta. 9. At 3300 ft. enter open marsh. At 5057 ft. intersect E. + W. line. At 5280 ft. set a hub and looked for the cor. to sec. 19-24-25-30 but found no corner.
- June 6, 1919. B. F. Clark, Roy Rose, Geo. Whitted run on south on same line, begin at 0. At 340 ft. leave hay meadow and enter highland. At 987 ft. Sta. 10. At 3658 ft. Sta. 11. At 3400 ft. enter hay meadow. At 3900 ft. enter Northland Pine Co. R. R. At 3940 ft. leave R. R. At 3960 ft. set a hub. At 4951 ft. Sta. 12. At 5280 ft. set a hub and looked for the sec. cor. but did not find the same so run on south.
- June 7, 1919. Begin at 0. B. F. Clark, R. Rose, Geo. Whitted, C. R. Metzger, At 660 ft. Sta. 13. At 1345 ft. Come to Northland Pine R. R. At 1819.5 ft. Sta. 14. At 2783.7 ft. set Sta. 15. At 3500 ft. enter field. At 3940 ft. set a hub. At 4016.7 ft. Sta. 15. At 5092.3 ft. intersect township line west of township cor. 544.5 ft. to T. 139 N. R. 27 W. J. 138 N. R. 27 W. S. 138 N. R. 28 W. Then went back west and set the cor. to sec. 34-25-31-30. Set N. 156.5 ft. set east 470 3/4 ft. Then set a Popple post 3 ft long 3 in square. Marked the same 34-31-30-25 then made a white pine stump 34 S. 18° E. 5.7 ft. and made a mound of rock around the post.
- June 8, 1919. Ben F. Clark, Geo. Whitted, R. Rose, C. R. Metzger then went to the cor. sec. 19-24-25-30 set north 125.2 sets east 376.3 ft. A Popple post 4 ft long 4 in square and the same sec. 24-25-19-30. Set in open marsh. No trees near.
- June 10, 1919. B. F. Clark, R. Rose, Jim Ford, Geo. Whitted, C. Metzger set 1/4 S. cor. bet. sec. 1-4 at 15 1/2 ft. north 47 ft. east. A Popple post 3 ft long 4 in square marked same 1/4 S. for sec. 1-4 on range line (100 ft from East and West random line bet. 24-25 and 104 ft. short and made witness trees: White Birch 4 S. 31° E. 56.5 ft. Popple 4 N. 21° W. 49.2 ft). Then set cor. to sec. 1-6-7-12 - 313 ft. north and 94 ft. east. Jack Pine post 4 ft long 4 in square and marked the same sec. 1-6-7-12. This post is 18.3 ft. east of the Northland Pine R. R. (Center of R. R.). Then set 1/4 S. to sec. 12-7 with 31.3 and East 94 ft. of ran. line. Popple post 4 ft. long and 3 in square and made 2 witness trees: Popple 5 N. 53° E. 16 feet. Popple 6 S. 25° W. 37.3 ft. Then set corner to sec. 12-13-7-18. Set north 42.6 ft. set east 188 ft. Popple post 3 ft long 4 in square and marked the same sec. 7-12-13-18 and made a mound of stone around the post. This post sets 119.7 ft. East of Northland Pine Co. R. R. (Center of R. R. track).
- June 11, 1919. Then set cor. to sec. 13-24-18-19. Set north 93.9 ft. set East 282 ft. Popple post 3 ft long 4 in square and marked the same sec. 13-24-18-19 and made a mound of stone around the post. Set 1/4 S. cor. bet. S. 19-24 N. 47 feet. set East 329 ft. Popple post 3 ft. long 3 in square.
- June 11, 1919. B. F. Clark, Jim Ford, Geo. Whitted, R. Rose, R. Selton, C. R. Metzger went to the established cor. sec. 30-24 and run south on a true line 8 1/2' Var. and hit

- the post for sec. 25-³⁶26.
- June 12, 1919. B. F. Clark, R. Rose, C. R. Metzger, R. Felton, Jim Ford, Geo. Whitted run on South bet. sec. 25-36 and close on township corner. Corner is 8 ft. East of town cor. to T 139 N. R. 28 W. S 139 N. R. 27 W. Then set $\frac{1}{4}$ S. corner bet. sec. 31-36 on true line and East on true line. Popple post 3 ft. 3 square. then set $\frac{1}{4}$ S. cor. bet. 35-30 in lake.
- June 13, 1919. B. F. Clark, R. Rose, Jim Ford, ^{C. R.} Metzger, Geo. Whitted, R. Felton run North from the $\frac{1}{4}$ S. cor. on East side of sec. 24 and hit the sec. corner to sec. 24 West of the tack 13.2 ft. then run on North to the corner to sec. 12-13-7-18. Intersect 19 ft. East of post. Begin at the cor. sec. 13-24 and run on North on true Range line 80.
- June 15, 1919. Same crew. Run on North on true Range line to the cor. T 139 R 28 W. T 139 R 27 W. T 140 N. R. 28 W and T 140 N. R. 27 W. and was 7.2 ft. East of iron post. Then run true line back west and between ~~sec 23 and 25~~ and between 23-24.
- June 14, 1918. B. F. Clark and same crew run on West on a true line $60^{\circ}45'$ to the cor. sec. 22-23-24-27. It is 5 ft North of the nail in the post. Then set the $\frac{1}{4}$ S. bet. sec. 22-27 Popple post 3 ft. long. 3 in square marked the same $\frac{1}{4}$ S. 22-27. and made witness tree: White Pine Stump 24 N. 47° East 44.5 ft.
- June 17, 1918 B. F. Clark and same crew bet. sec. 35-36. At 2075 ft. Sta. 2. At 3075 ft. enter hay meadow. At 3605 ft. Blind Lake. At 4149.4 ft. Sta. 3. At 4400 ft. Enter small lake. At 5300 ft. our lake enter Popple land At 11560 ft. enter township line on the cor. sec. 34-35. sec. 1-2. a Popple post 4 feet long 4 in square marked sec. 34-35-1-2 in open marsh. Witness: Rock 4.3 ft S. 53° E. 66 ft.
- June 18, 1919. B. F. Clark and same crew went to the cor. sec. 34-35-24-27 Var. $70^{\circ}15'$. At 5006 ft. enter small lake at 5230 ft. enter line. run North and South. At 10540 ft. enter range line 119.7 ft North of the cor. to sec. 35-36. Set $\frac{1}{4}$ cor. to sec. 35-36-25-26. Set South 59.8 ft Set $\frac{1}{4}$ Sec. corner. South 28.9 ft. Set $\frac{1}{4}$ Sec. South $14\frac{1}{2}$ ft.
- June 20, 1919. Ben F. Clark and same crew. run the true line bet. sec. 35-26-36-25. Var. $60^{\circ}45'$. I went to the cor. sec. 34-35-26-27 Set a tally East 6.6 ft. Set south 7.2 and rack sight on post. Then run East in a true line 54° Close on the sec. 25-36. 30-31 on Range line 5 ft. north of nail.
- June 21, 1919. B. F. Clark and same crew went to the corner sec. 34-35-26-27 and run south on a ran. line bet. S. 34-35. Var. 7° W. At 490 ft. leave hay meadow. Enter Popple land. At 1014.7 ft. Sta. 1. At 2374.4 ft. Sta. 2. At 5351.6 ft. large 72 ft. 8 ft. East cor. to sec. 34-35-2-3. Set $\frac{1}{4}$ S. 36 feet west 4 ft.
- Sept. 2, 1919. Setting permanent corners in sec. 30. Set the C W $\frac{1}{4}$ cor. 1136 ft east of the $\frac{1}{4}$ sec. cor. with following B. P.'s: White Pine 14 N. 15° E 37.4 ft. Jack Pine stub 11 N. 6° in 54.4 ft. At 1280.5 ft. set the C $\frac{1}{4}$ S. and made following B. P.'s and marked same C $\frac{1}{4}$ S.: Jack Pine 8 S. 34° W. 41.2 ft. Jack Pine 6 S. 38° East 52.2. a Jack Pine 8 N. $32\frac{1}{2}^{\circ}$ W. 84.2 ft. Jack Pine 6 N. $21\frac{1}{2}^{\circ}$ East 53.30 ft. Jack Pine 8 N. $32\frac{1}{2}^{\circ}$ W. 84.2 ft. Jack Pine 6 N. $21\frac{1}{2}^{\circ}$ East 53.30 ft. At 1280 ft the $\frac{1}{10}$ post. made witness: Nor. Pine 10 N. $1\frac{1}{2}^{\circ}$ East 30 feet. Set C $\frac{1}{10}$ a Jack Pine post 5 ft long 4 in square. Distance which is 1276 ft. and made witness trees: Jack Pine 14 N. 63° West 95.6 ft. Set C S. $\frac{1}{10}$ a Jack Pine post 4 ft. long 4 in square. and marked the same $\frac{1}{10}$ S. 30 and made witness: White Pine 35 N. $35\frac{1}{2}^{\circ}$ E 116 ft. Jack Pine 6 S. 24° West 100 ft. Set S. E. $\frac{1}{4}$ a Popple post 3 ft. long 4 in square and

made witness trees: Jack Pine 5 N 26° East 14.7 ft. Set N W 1/4 Sec. cor Jack Pine post 3 by 4 and made witness trees: J. Pine 14 N 37° East 41.3 ft Jack Pine 6 N 56° West 40.2 ft. Jack Pine 10 S. 48 1/2° West 32.4 ft Jack Pine 8 S 68 1/2° 38.8 ft Run East bet Sec 30-31. At 1136 ft set W 1/4 Cor. Jack Pine post 3 ft long 5 in square and made witness trees: Jack Pine 8 S 28 1/2° W. 60 ft. Jack Pine 7 S 27° East 52.4 ft. At 1259 ft 1/4 cor. a popple post 4 ft long 4 in square and witness trees: Popple 10 S. 46° W. 81.6 ft. Popple 6 N. 43° West 125 ft. marked the 1/4 S. for Sec. 31-30. Set 1/16 S. a Jack Pine Post 4 in square 3 ft long and marked the same 1/16 S. dot S. 30. Made 2 witness trees: Jack Pine S. 60° E. 101.5 ft. Jack Pine N. 79 1/2° W. 130.6 ft. Set a post 3 ft long 5 in square for the cor to lot 2 on sec line 1136 ft east of iron cor. on Range line cor. 19-24-25-30. Made 2 witness trees Norway pine 16 S. 22 1/2° E. 52.50. Popple 12 N. 34° E 72 ft. At 1292.2 ft. 1/4 Sec. a popple post 4 ft. by 4 in square and witness trees: Popple 4 N. 76 1/2° W 82.8 ft. Popple 5 S. 73° E. 28 ft 25.27 ft. the cor to Sec. 29-30-19-20. Then set 1/4 S. 13.43.5 ft. a Jack Pine post 3 ft. long 5 in square and marked the same 1/16 S. for Sec. 19-30. Witness tree: White Birch 4 S. 47° W. 93.5 ft.

July 28, 1918 True line on west side Sec 31 Ben F. Clark, Conn Phalan, Jim Carver went to the established cor Sec. 31-36-1-6 and measured north on the true line. At 188 ft brook running west 4 ft wide. At 200 ft. a logging road E + W. At 210 ft. enter high land with Pine stumps and Popple Jack Pine. At 471 ft. a hay meadow E + W. At 790 ft. leave same and enter brush land. At 1320 ft set a hub for 1/16 post. At 1473 ft. hub No. 1 at 2640 ft set a temp. 1/4 S. cor. At 2242 ft set hub No. 2. At 3300 ft enter thick Jack Pine. At 3516 ft. a Pine River Road E + W. At 3553.6 ft. set hub No. 3. At 3960 ft set a hub for 1/16 temporary cor. At 4000 ft enter open Popple land. At 4248 ft. leave same. Enter Jack Pine. At 4346 ft set hub No. 4 on Jack Pine knoll. At 4672.5 ft. set hub No. 5. At 4765 ft. leave J. Pine. Enter open brush land. At 5169 ft. Alder swamp E + W. At 5237.4 ft the cor to Sec 31-30. 36-25. Then set 1/4 S. cor south 26 ft. and 4 inches. Set 1/16 S. cor. 13.4 ft and 13.2 ft. This mile is first grade land.

Aug. 30, 1918. Ben F. Clark and same crew went to the 1/16 post on R. R. line on S. 1/2 Sec. 30 bet. 30-36. and run Cast on a 1/4 line. Var 10° 23'. At 0 in an Alder and Lam. Swamp. At 800 ft leave. Enter J. Pine, Popple. At 996.9 ft. Sta. 1. Survey expired Oct. 17, 1918. Ben F. Clark.

May 24, 1919 Ben F. Clark, Con Metzger, Roy Rose, Jim Hardy and J. H. Cisler went to the established corner to Sec. 23, 23, 26, 27. An oak post 2 ft long this square in open marsh with new witness trees. So I run east on ran. line $8^{\circ}15'$ Var. At 520 ft. leave open marsh. Enter popple brush land. At 621 ft. Sta. 1. At 1514 ft. Sta. 2. At 2181 ft. Sta. 3.

May 27, 1919. Same crew run on East. At 3230 ft. Sta. 4. At 5280 ft. set a hub and search for the cor. to Sec. 23, 24, 25, 26 but could not find the same. So I run East. Begin at 0

May 28, 1919. At 1032 ft. Sta. 1. At 3528 ft. Sta. 2. At 4328 ft. Northland Pine Co. R.R. running North and South. At 4641 ft. Sta. 4. At 4780 ft. enter marsh lake. At 5280 ft. looked for cor. in open marsh swamp but could not find any cor. or range line so I told J. H. Cisler and Jim Hardy to stay at home. So I could run range line bet. T 139 N. R. 28 W. and 140 N. R. 27 W.

May 30, 1919. B. F. Clark, Con Metzger, Roy Rose went to the cor. T 139 N. R. 28 - T 139 N. R. 27 T 140 R. 28 and 140 R. 27 and found the old goat corner - a cedar post 4 ft long. Witness trees as follows: Same S. N. 20° E. 15 ft. Same. U.S. 25° W. 14 links. So being satisfied this was the town corner I turned at right angle on the town line and backsight in road and run south. This corner is 235 ft. East of the Northland Pine R.R. Then I set an iron post 3 ft. long in old hole with 3 ft. post on side of pipe and drove the same down in the ground 4 ft. and run on south on a random line bet. Sec. 1 and 6. At 400 ft. leave Same Cedar swamp. Enter Popple land. At 484.5 ft. Sta. 1. At 1895.7 ft. Sta. 2. At 2640 ft. set a temp. post and search for the 4 ft. cor. but did not find the same.

June 2, 1919. B. F. Clark, C. Metzger, Roy Rose, Jim Ford run on south on same ran. line. At 5995 ft. Sta. 3. At 3070 ft. Enter swamp E. + West. At 3920 ft. leave swamp. Enter Popple land. At 3960 ft. set temp. hub. At 4331 ft. set Sta. 4. At 4465 ft. leave Popple. Enter open swamp. At 5280 ft. set a temp. post and search for the cor. to Sec. 1-6-7-12 but could not find the same so I run on South on the same line. At 624.5 ft. Sta. 6. At 5070 ft. Northland R.R. At 5100 ft. leave.

June 3, 1919. Enter brush land. At 3485.7 ft. set Sta. 7. At 5280 ft. set a temp. post and search for the the cor. to Sec. 13-24 but could not find the same.

June 4, 1919. B. F. Clark, R. Rose, C. R. Metzger, Jim Ford run on south on same line

June 5, 1919. Ben F. Clark, Roy Rose, J. Ford, C. R. Metzger, Geo. Whitted begin at the 3 mile post south town cor. at 0 and run on south. At 788.8 ft. set Sta. 9. At 3300 ft. enter open marsh. At 5280 ft. set a temp. post and search the corner but did not find the same or any sign of the corner to Sec. 24-25.

June 6, 1919. Same crew. At 348 ft. leave hay meadow. Enter high land. At 687 ft.

set Sta. 10 At 5658 ft. set Sta. 11. At 3400 ft. Enter hay meadow. At 3940 ft. enter Northland Pine Co. R.R. at 4951 ft. set Sta. 12. At 5580 ft. set a temp. post. Looked to sec. 25-36 but failed to find the same. So I run on south.

June 7, 1919. Same crew. At 460 ft. set Sta. 13. At 1545 ft. Northland Pine Co. R.R. At 1819 ft. set Sta. 14. At 5733.7 ft. set Sta. 15. at 3500 ft. enter field. At 3960 ft. set at temp. hub. At 4016.7 ft. set Sta. 16. At 5092.3 ft. enter township line 564.5 ft. west of cor. to T. 139 N. R. 28 W, T. 139 N. R. 27 W, T. 138 N. R. 28 W. and T. 138 N. R. 27 W. Then went back and set the cor. to sec. 34-25-30-31. Set it N. 150.5 ft and East 470 3/4 ft. Then set cor. to sec. 24-25-19-30. Set North 125.2 ft and East 376 3/4 ft.

June 11, 1919. Then set the cor. to sec. 13-18-19-24 North 93.9 ft. East 282 ft. Then set the cor. to sec. 12-13-7-18 North 62.6 ft. East 188 ft. from random line. Set the cor. to sec. 1-6-7-12. North 31.3 ft. East 94 ft. Then begin at the town cor. T. 139 N. R. 28 W. and T. 140 N. R. 28 W. and run a true line back. Set at 200 ft. South of corner to sec. 1-36 I set East 6.2 ft. and backsight on town cor. and run south on a true line bet. town 139 N. R. 28 W. and T. 139 N. R. 27 W. on a Var. 8° 15'. I run south on the true Range line and close on the cor. to township 139 N. R. 27 W., T. 138 N. R. 29 W, T. 139 N. R. 27 W. and T. 138 N. R. 27 W. within 1.4 ft. of the nail on post. Cor. good. Then set all the 1/4 s. corners on true line and equal distance bet. sec. corners.

June 15, 1919. T. 139 N. R. 28 W. Ben F. Clark, R. Rose, J. Ford, Geo. Whitted and Ralph Selton run true line bet. sec. 24-25 and sec. 23-24. (Var. 6° 45') to the cor. to sec. 22-24. 23-27 North 5 ft. of the cor. to sec. 22-27. The 1/4 s. cor. bet. 23-27. Popple post 3 ft. long 3 in square and made a witness tree: Pine stump 24 N. 47° E. 46.5 ft.

June 17. B.F. Clark and same crew run East bet. sec. 24-25. At 5000 ft. enter small marsh lake. At 5278 ft. intersect N. & S. line. at close on post to sec. 25-26-35-36.

June 18, 1919. Run on East bet. sec. 25-36 run line. 6° 45' Var. Cor. to sec. 25-36 North 5 ft. of nail in post. Run a true line bet. 25-26. Close on cor. Then run on south to township line. Close on cor. to sec. 25-36-1-2. East. 3 ft. of nail.

June 21, 1919. B.F. Clark and same crew went to the cor. sec. 26, 27, 34, 35 and run south bet. sec. 34-35 on a true line. (Var. 7°). At 490 ft. leave hay meadow. enter Popple brush land. At 1044.7 ft. Sta. 1. At 2346.7 ft. Sta. 2. At 5351.4 ft. the cor. to sec. 34-35-2-3. East 7 ft. of nail in post.

June 23, 1919. Ben F. Clark, R. Rose, J. Ford, Geo. Whitted, Ralph Selton went to the cor. sec. 26-27-34-35 and run south on a true line. (Var. 8° 15'). At 600 ft. leave swamp lake. Enter brush land. At 2500 ft. leave. Enter bog swamp. At 3570 ft. leaves swamp. Enter brush land. At 4500 ft. leave brush, enter hay meadow. At 5000 ft. Blind Lake spur. At 5250.3 ft. the cor. to sec. 26, 27, 34, 35.

June 24, 1919. B.F. Clark and same crew went to the cor. sec. 21, 22, 27, 28 and set iron post 2 1/2 ft. long with a cap on top and stamped the same. Sec. 21, 22, 27, 28. Put 3-30 penny spikes in bottom and make following witness trees: Popple stub 12 N. 2° 46' W 21.3 ft. and Red Oak 14 S. 45.30° W 21.3 ft. Then set the 1/4 s. Cor. bet. sec. 26-27 an iron post 4 ft. long 2 in. in diam. and drove the same in the hole where the old post was and made the following witness trees: Popple 6 S. 38° 45' distance 48.8 ft. Then went to the cor. sec. 22, 23, 26, 27. Set an iron post 2 1/2 ft. 3 in.

800

Mark the same 22, 23, 24, 27 on cap on post. Put a wooden post in side the iron post and drove the same down 6 feet in open marsh and made the following witness tree N. Pine 14 N. 81° 30' East 345.7 ft. Then set 1/4 sec. cor. bet. 23-26.

An iron post 4 ft. long 2 in. in diam. I drove the same in the hole. Put in small stone and clay and marked the same ~~23, 24, 25, 26~~ ^{22, 23, 24, 27} made the following witness trees: Norway Pine 4 N. 81° 30' East 345.7 ft. Then set 1/4 s. cor. bet. 23, 24.

An iron post 4 ft. long 2 in. in diam. I drove the same in the hole where the wooden post was made. Witness trees: Popple 4 S. 59° 30' W. 48 ft. Pine stump 24 N. 35° 15' East 46.2 ft. Then went to the cor. sec. 23-24-25-26. Set an iron post

2 1/2 ft long 3 in. made hole with a post auger put 2-30 penny spikes in bottom of post. Set the same in hole. Put in small stone and clay and marked the same 23-24-25-26. Made the following witness trees: White

Birch 4 N. 28° W. 37.3 ft. Popple 6 N. 77° East 38.9 ft. Pine Stump 18 S. 54° 30' E. 45.5 ft. Then set the 1/4 sec. cor. bet. 24-25 an iron post. 4 ft by 2 in. marked same 1/4 s. and made witness trees: Popple 8 S. 9° 45' East 113.4 ft. Then set

the cor. to sec. 25-24-19-30 on range line bet. T. 139 N. 28 S. 139 N. 27 W. an iron post 2 1/2 ft. long 3 in. diameter. Made a wooden post. Put in side the iron post

Drove down 6 ft in marsh and stamped the same 24-25-19-30. Witness trees: W. Pine 14 N. 53° 30' East 346.6 ft. W. Pine 12 S. 53° 13' East 366.5 ft. W. Pine 14 S. 9° 30' W. 336 ft. Then set 1/4 s. bet. 19-24 on range line an iron post 4 ft. long 2 in. diam. marked the same 1/4 s. and made following witness tree:

Pine Stump 24 S. 4° 15' W. 30 ft.

June 26, 1919. Ben F. Clark and same crew went to the 1/4 s. bet. sec. 32-33 and run East on a 1/4 line. Cor. good. At 437 ft. set a hub. Sta. 1. At 1217 ft. Sta. 2. At 1320 ft. set a temp. hub.

June 27, 1919. Same crew of men. At 8570 ft. enter swamp. At 8900 ft. leave swamp. Enter thick brush At 3450 ft. set Sta. 3. At 4946.5 ft. Sta. 4. At 8314.4 ft. intersect sec. line bet. S. 33-34. N. 1/4 s. post 15.4 ft. 60.6 ft. large. Then I went

back west to 2640 hub. and set East 30.3 ft. set the same south 76 1/2 ft. Went in west to the 1320 hub. set East 15 1/2 ft. set south 3.7 ft. Then back-sight on nail on post for the 1/4 sec. cor. bet. sec. 32-33 and run East on a true line and hit the nail in the 1/4 s. cor. bet. sec. 33-34.

June 28, 1919. B. F. Clark and same crew went to south side of sec. 33 in town line and found an oak post set by myself in 1918. Then run N. on a true 1/4 s. line At 875.7 ft. set Sta. 1. At 950 ft. Enter Bog. At 2165 ft. leave bog. Enter brush

land and good pine saw logs. At 2291.7 1/2 ft. set Sta. 2. At 2459.2 ft. on nail in hub. East and West 1/4 line. At 3640 ft. Enter small lake. At 5318 ft. the 1/4 s. line post bet. sec. 33-28 and hit nail on post.

June 29, 1919. Ben F. Clark and same crew went to the cor. sec. 19-20-29-30. Set an iron post 2 1/2 ft. long 3 in. in diameter. Put 2-30 penny spikes in bottom of post and stamped it sec. 19-20-29-30. Old witness trees as follows: Jack

Pine 6 N. 10° 30' East 110 1/2 links. Popple 6 N. 10° 30' West 131 links. Popple 5-45° W. 106 links. Popple 4 S. 54° East 79 links. Then went to the 1/4 s. post bet. sec. 20-29 and set the 1/4 s. corner. An iron post 4 ft. long 2 in. in diam. marked same

and made witness trees as follows: (old trees made by me Sept. 23, 1918): J. Pine 9 N. 40° W. 74.9 ft. Popple 5 S. 39° 30' East 46 ft. Then went to the cor. sec. 20-21-29-28 and there found an iron post and begin being satisfied that

this was the true cor. I stamped the iron post sec 28-29-20-21 on the cap. Then went to the $\frac{1}{4}$ S. bet. 20-21. Found the old goat witness tree marked B.T. a Sam. 22 N. 35° East 15.2 ft. Then bored a hole in it with a post auger and set in an iron post 4 ft long 2 in in diam. Stamp the post $\frac{1}{4}$ S. and put a lot of small stone in hole and made a new witness tree. Popple 8 N. $37^{\circ} 30'$ East 115.5 ft. Popple 9 S. 33° W. 111.4 ft. Then went to the cor. sec. 20-21-16-17. Found an old witness tree made by me in 1914 for town road. White pine 10 N. $6^{\circ} 30'$ - 102 links - 67.3 ft. So being satisfied that this is the true corner I set an iron post $2\frac{1}{2}$ ft long 3 in in diameter and put 2 thirty penny spikes in the bottom. Then put in stone and clay around the post and stamped the same on post 16-17-20-21. Post at side of township road. Then went and set up my transit on road and sight on south sec. cor. and measured North bet. sec. 16-17 and at 5385.2 ft. the cor. to sec. 16-17-8-9. Concrete post. I went back south and set the $\frac{1}{4}$ S. at 2690.4 ft. An iron post 4 ft long 2 in in diam. Marked same $\frac{1}{4}$ S. on iron post. Witness trees as follows:

White pine 14 S. $56^{\circ} 15'$ west 152.1 ft. White pine 12 N. $59^{\circ} 15'$ East 138 feet.

June 30, 1919. Begin at the estab. $\frac{1}{4}$ S. cor. bet. sec. 33-34. Ben F. Clark, Roy Rose, Jim Ford, Geo. Whitted, Ralf Selton run East on $\frac{1}{4}$ S. line $7^{\circ} 45'$. At 95.8 ft. Sta. 1. At 878 ft. Sta. 2. At 1320 ft. set a temp. hub. At 2025 ft. leave popple brush. Enter Hay. At 2175 ft. a brook. E. & W. At 2550 ft. leave hay. Swamp enter highland. At 3640 ft. set a temp. hub. At 3940 ft. set a temp. hub. At 4043.3 ft. Sta. 5. At 4945 ft. Sta. 6. At 5280.8 ft. the $\frac{1}{4}$ S. bet. sec. 34-35. This is 21 ft to cor. Then went back west and set hub No. 2640 East at 2741.4 ft. Then went west to hub No. 1320 set East 1320 ft. set south 5.2 ft. Then back sight on post for the $\frac{1}{4}$ S. bet. 34-35 and run East on a true line and hit nail on hub No. 2741.4 ft. cor. run on East and nail on the $\frac{1}{4}$ S. bet. sec. 34-35 and set on the road center.

July 1, 1919 Ben F. Clark and same crew drove out to the $\frac{1}{4}$ S. cor. Popple post. I found 5 witness trees. Popple 4 N. a Jack Pine 78 $^{\circ}$ 20 ft East. Then I turned a right angle and run south on a true $\frac{1}{4}$ S. line 7° Var. At 17 ft. Sta. 1. At 20 ft. Northland Pine. Behind Lake spur. At 700 ft. enter hay meadow. At 1050 ft. leave enter brush. At 1320 ft. set a temp. hub. At 1824 ft. Sta. 2. At 2526 ft. Sta. 3. At 2646.5 ft. enter East and West $\frac{1}{4}$ S. line. At 3100 ft. enter hay meadow. At 3920 ft. leave hay. Enter Popple 5334. Enter township line two feet west of center of post. Then came back to the center and set C $\frac{1}{4}$ West 1 ft. Close on post.

July 2, 1919. Ben F. Clark and same crew went to the estab. corner $\frac{1}{4}$ S. bet. Sec. 34-35 and run East on a $\frac{1}{4}$ S. line $7^{\circ} 15'$ Var. At 949 ft. Sta. 1. At 1121 ft. enter hay meadow. At 2545 ft. leave hay meadow. Enter open land. At 2640 set a temp. hub.

At 3845.7 ft. Sta. 2. At 4430 ft. enter hay meadow. At 5280 ft. the $\frac{1}{4}$ S. bet. sec. 35-36. S of post 6 ft. Then went back to Sta. 1 No. 949 and set over south on true line and sight on south both corners and set over all stations. True line 7° West.

July 3, 1919. B. F. Clark and same crew begin at the $\frac{1}{4}$ S. bet. 34-35 and run south 7° W. At 300 Sta. 1. At 1800 Sta. 2. At 2476 ft. enter hay swamp lake. $\frac{1}{4}$ S. post for 35-sec. 2.

July 5, 1919. Same crew. Went to the town corners T139 N. R. 28 W. and T139 N. 27 W. S140 N. R. 27 W. S140 N. R. 28 W. set a stamp on cap on iron post 4 ft. long 3 in. diam. Sec. 1-6-30-31. Then set $\frac{1}{4}$ S. bet. 1-6 an iron pipe 4 ft. long $2\frac{1}{2}$ in. diam. and stamp the same $\frac{1}{4}$ S. and made the following witness trees: White Birch 4 South 40° W. 37 ft. Popple 5 N. $32\frac{1}{2}^{\circ}$ East 35 ft. Then set cor. to sec. 1-6-7-12. Made a same post 4 ft. long inside an iron pipe $2\frac{1}{2}$ ft. long 3 in. in diameter and drove the same in ground 4 ft. and put a stamp on cap in iron post Sec. 1-6-7-12. Post in open swamp. No witness trees near. Then set $\frac{1}{4}$ S. bet. sec. 7-12 an iron pipe 4 ft. long 2 in. in diam. Stamp the same $\frac{1}{4}$ S. and made the same witness trees. A popple 10 South 40° W. 43 ft. No other trees near.

July 5, 1919. Then set cor. to sec. 7-12-13-18. Iron post $2\frac{1}{2}$ ft. long 3 in. diam. stamp the same Sec. 7-12-13-18 on cap and drove in ground $\frac{1}{2}$ ft. to. Iron in a large rock. Then made a mound of stone around post and stamped a letter C on the same rock near point of post and made the following witness: Popple 6 N. 50° W. 33.8 ft. Popple 7 S. 34° W. 42.7 ft. White Pine stump 24 S. 42° 30' dis. 6 ft. Then set the $\frac{1}{4}$ S. bet. 13-18 an iron pipe 4 ft. long 3 in. diam. stamp the same $\frac{1}{4}$ S. on a rock 3 by 3. and made witness trees: Popple 4 N. 18° East 45 ft. Popple stump 7 S. 10° . Then set cor. to sec. 24-13-18-19. An iron pipe $2\frac{1}{2}$ ft. long 3 in. diam. and stamped the same 24-13-18-19. Put 5-30 penny spacers in end of pipe and put in stone and clay around post and made the following witness trees: White Birch 10 N. 22° 30' East 26.5 ft. Then set cor. to sec. 36-31-30-25. An iron pipe $2\frac{1}{2}$ ft. long 3 in. diam. Stamp the same 36-31-30-25. Set same in ground $1\frac{1}{2}$ ft. and piled a mound stone around post and witness: White Pine stump 30 South 10° E. 4 ft. Then set $\frac{1}{4}$ S. bet. sec. 36-31 an iron pipe 4 ft. long 2 in. diam. without cap. Stamp the same $\frac{1}{4}$ S. and drove 2 ft. in ground and made the following witness trees: Popple 6 N. 52° W. 28 ft. Then set cor. to township 139 N. R. 28 W. S139 N. 27 S. 138 N. 28 S. S139 N. 27 W. Iron pipe $2\frac{1}{2}$ ft. by 3 in. set same in ground $1\frac{1}{2}$ ft. and piled a mound of stone around post. Old witness trees: White Pine stump marked B. F. White Pine stump 54 N. 49° E. 31.8 ft. Popple 8 S. 43° 30' East 9.9 ft. Popple 8 S. 36° W. 23.9 ft. Popple 7 N. 10° West 28.7 ft. This corner stands 124.2 ft. from center of the Northland Pine Camp. R.R. Then set the $\frac{1}{4}$ S. bet. sec. 1-34. An iron pipe

4 ft long 2 in in diam. and stamp the same 1/4 S. drove in ground 2 ft. and made the following witness trees: Nor. Pine 13 N. 79° E. 33.2 ft. Ironwood 4 S. 45° W. 46.9 ft. Then set cor. to Sec 30-35-1-2 put an iron wood post inside the Iron pipe 2 1/2 ft. long 3 in in diam. and drove the same in ground 3 ft. Where I found an old point of a post, a wedge shape point. A witness corner west 145 links. Nor Pine stump 14 ft 15 ft. West 44 ft. So being satisfied this was the old govt cor.

July 6, 1919. Ben F. Clark and same crew went to the C 1/4 S. for sec. 30. witness trees as follows: J. Pine 4 S. 36° E. 41.1 ft. J. Pine 4 S. 36° West 52 ft. J. Pine 4 N. 81° East 53.3 ft. J. Pine 7 N. 44° W. 84.3 ft. Put a thirty penny spike in down end of post. Then put in small stone and same joint knots and clay. Then set 1/4 S. bet sec. 30-29. found a Nor. Pine stump marked B.T. witness as follows Nor. stump 12 N. 75° West 9 ft. Popple Rock stamp C. North 9.9 ft. Set an Iron pipe. drove in ground. 3 ft. stamp the same 1/4 S. for sec. 30-2 and pulled up a mound of stone to top of post. Then set 1/4 S. bet. 30-19. found a popple down marked 1/4 S. B.T. with scribe iron Popple 4 N. 82° East 173 lbs Popple 5 South 34° East 37.7 ft. Popple 4 N. 14° West. 83.8 ft. Then set an iron pipe 4 ft. long 2 in diam. and drove in ground 2 ft. and stamped the same 1/4 S. for sec. 30-19. Then set 1/4 S. bet. Sec. 30-25. on Range. Iron pipe 4 ft. long 2 in in diam. Stamp the same 1/4 S. for sec. 25-30. Come in Alder swamp. No witness trees near. Then set cor to sec. 30-19-25-24. Old witness trees as follows: Sam 7 N. 78° East 9 links Sam. 9 S. 26° E. 19 lbs Sam. 11 S. 45° W. 40 lbs. Sam. N. 17° W. 28 lbs. Set an Iron pipe 4 ft. by 3 in. Stamp same S. 30-19-24-25. Cor. in hay meadow. Then set cor to sec. 30-31-25-24. An iron post 4 ft. by 3 in. drove it in ground 1/2 ft. and made witness trees: J. Pine 4 N. 40° East 27.22 ft. No other trees. at edge of alder swamp.

July 7, 1919. Then set 1/4 S. cor. bet sec. 30-31. Iron pipe 4 ft. by 2 in. Stamp the same 1/4 S. for sec. 30-31. Drove the same in the ground. witness: Popple 9 S. 68° W. 81.4 Popple 3 N. 42° W. 125 ft. This corner stands at edge of pond. Then went to the cor. Sec. 30-31-32-29. and set in an iron pipe 2 1/2 ft. long 3 diam. Stamp the same S. 30-31-32-29. Put in 2 thirty penny spikes then put in small stone and clay and piled up mound of stone. Made new witness trees: Popple 4 S. 18° East 43 ft. Popple 6 S. 37° West 49.3 ft. Popple 5 N. 25° East 41 ft. no other trees of any use.

July 8, 1919 Ben F. Clark same crew and Merrill Wideman axeman measured the mill from the cor. Sec. 30-21-28-29. bet. Sec. 21-28 Var 7'30". At 2617 ft. brook running North at 2640 set a temp. hub at 5291.9 the cor. to sec. 21-22-27-28 an iron post. Then set the 1/4 S. at 5445.9 ft. Hub set temp. in road. Then run South on a true line bet. sec. 27-28 at 1930 Sta. 1. At 2640 ft. set a temp. hub. At 3049.2 M.C. cor. at Blind Lake witness Pine stump B.T. cor. set by Jim Flynn, Co. Sur.

July 9, 1919. Same crew begin at the established cor. 1/4 S. bet. Sec. 21-28. At 71 ft brook running N. At 813 ft Sta. 1. at 8140 ft. Blind Lake Road C. + W. At 8456.7 ft. East and West 1/4 S. line. Var. 8'30". At 2964 ft. Sta. 2. At 3340 ft. old logging road. East and west. At 4301 ft. brook in hay meadow. At 4337 ft. Leave

- July 9, 1919. Enter brush land. Popples at 5313.4 ft. the $\frac{1}{4}$ S. bet. Sec. 28-33. Begin at the estab. $\frac{1}{4}$ S. bet. Sec. 27-28. Run east on true line $\frac{1}{4}$ S. Var. $7^{\circ}31'$. At 117 ft. Sta. 1. At 1819.5 ft. Sta. 2. At 2462 ft. at S. line. At 2800 brook run North at 3517 ft. Sta. 3. At 4042 ft. marsh at shore of Blind Lake. At 5324 ft. the $\frac{1}{4}$ S. bet. sec. 27-28 and close on a carpet tack in center of post.
- July 10, 1919. Begin at the $\frac{1}{4}$ S. bet. sec. 27-22 an iron post 4 ft. long $\frac{3}{4}$ in in diam and run south on a $\frac{1}{4}$ S. line $8^{\circ}32'$. At 1400 ft. hub at 60.9 ft. Sta. 1. At 7284 ft. Sta. 2. At 1320 ft. set temp. hub. At 1931.2 ft. Sta. 3. At 2440 ft. set a temp. hub. At 3940 ft. set hub. At 3941.7 ft. Sta. 4. At 5263.8 ft. the $\frac{1}{4}$ S. bet. 27-34 on nail in center of post.
- July 11, 1919. Ben F. Clark and same crew went to the $\frac{1}{4}$ S. cor. bet. sec. 27-28. and run east on a $\frac{1}{4}$ line. line thru sec. 27. on a true line $7^{\circ}30'$. At 813.9 ft. Sta. 1. At 2428.2 ft. N. + S. $\frac{1}{4}$ S. line. At 3200 ft. marsh at 3800 ft. leave. Enter brush land. At 4400 ft. Sta. 2. At 4800 ft. enter swamp and hay. At 5266.4 ft. the $\frac{1}{4}$ S. bet. Sec. 26-27. Post in open marsh.
- July 12, 1919. B. F. Clark and same crew went to the $\frac{1}{4}$ S. line Cor. bet. sec. 25-24 and run west on a $\frac{1}{4}$ S. line $7^{\circ}30'$ Var. At 250 ft. temp. hay. At 2260 ft. bog lake. At 4260 ft. leave lake. Enter high land. At 5219 ft. the $\frac{1}{4}$ S. bet. 24-27. Then close on tack in the center of post. True line $7^{\circ}30'$.
- July 13, 1919. Begin at the estab. $\frac{1}{4}$ S. cor. bet. sec. 24-23 and run south on a $\frac{1}{4}$ S. line $8^{\circ}30'$ Var. At 420 ft. Sta. 1. At 830 ft. leave. Enter hay. At 1500 ft. bog burnt by fire. At 2000 ft. bog lake at 35 leave. lake. enter bog. At 4220 ft. Blind Lake Spur, E. & W. At 5220 ft. the cor. $\frac{1}{4}$ S. bet. Sec. 24-25. West 12 ft. of the $\frac{1}{4}$ S. Cor.
- July 14, 1919. B. F. Clark, Jim Ford, Merrill Wideman, Ralf Felton with automobile went to the cor. T 139 R 22 W. T 140 R 28, T 140 R 27, T 139 R 27 W. and run west bet. Sec. 36-1. At 2395.5 ft. Sta. 1. At 2440 ft. set a temp. hub. At 4868.4 ft. found the following witness stumps marked B. F. J. Pine 12 S. 74° West 40 links J. Pine Stump 10 S. 78° East 35 links. Then found an iron pipe 29 in long and $\frac{1}{2}$ in. in diam. Then set iron post 2 $\frac{1}{2}$ ft. long and $\frac{3}{4}$ in. diam. Stamp the same S 1-2-35-36 post in 2-30 penny spikes in pipe. Then set the same in the ground and piled a mound of stone around the post and tamp in clay. Then made new witness trees as follows: White Pine 14 N. 87° West 41.9 ft. White Pine 20 N. 91° East 50.3 ft. White Pine 23 S. $87^{\circ}30'$ E. 104.2 ft. Then went back and the $\frac{1}{4}$ S. East at 2434.3 ft. set an iron pipe 4 ft long $2\frac{1}{2}$ in in diam. made a hole 2 ft. deep and drove the pipe in ground and put in a mound of stone and made the following witness trees:
- July 15, 1919. Ben F. Clark and same crew went to the $\frac{1}{4}$ S. post bet. Sec. 24-25 and run south on $\frac{1}{4}$ S. line $8^{\circ}15'$ Var. At 1918.5 ft. Sta. 1. At 2440 ft. set temp. hub at 3322 Sta. in center. Blind Lake Spur R. R. E. and West. At 3500 ft. enter hay swamp and west pond. At 4000 ft. leave swamp and pond. Enter brush. At 5260 ft. the $\frac{1}{4}$ S. bet. Sec. 25-36 two ft. east of post.
- July 16, 1919. B. F. Clark and same crew went to the established $\frac{1}{4}$ S. post bet. Sec. 25-24 and run East on a true line $7^{\circ}30'$ Var. At 799.3 ft. Sta. 1. At 1489 ft. Sta. 2. At 2547.7 ft. Sta. 3. At 2637.4 ft. the $\frac{1}{4}$ S. line N. + S. At 3200 ft. enter hay meadow. At 3500 ft. leave hay. Enter brush land. At 4500 ft. N. Pine Co. R. R. North + South. At 5268.8 ft. cor. in pond of water. No witness trees. July 29, 1919. Iron post on side of Sec 24. N. 50 E.

Witness: Basswood 8 S 38° E 30.2 ft Basswood 11 N 55° W 54.8 ft

July 17, 1919. Ben F. Clark Surveyor and same crew went to the estab $\frac{1}{4}$ S. cor. bet Sec 25-34 and run south on a $\frac{1}{4}$ S. line. Var 9° 15'. True line at 400 ft Sta. 1. At 1575.4 ft Sta. 2. At 3440 ft set a temp. hub. At 3042.7 ft Sta. 3. the $\frac{1}{4}$ S. on south side Sec. 34 an iron post.

July 18, 1919. B. F. Clark Surveyor and same crew went to the $\frac{1}{4}$ S. on east side Sec. 34 on Regl. line and run west on a $\frac{1}{4}$ S. line at 7° 45' Var. At 440 ft Sta. 1. At 915 ft enter Northland Pine Co. R.R. running N + S. At 2440 ft set a temp. hub. At 2977 ft Sta. 2. At 4400 ft Sta. 3. At 5292 ft. the $\frac{1}{4}$ S. bet. 35-36 cen in hay meadow. No witness trees near.

July 19, 1919. Same crew went to the estab. Cor. Sec. 35-¹⁴⁰⁻²⁸ 36-¹³⁰⁻²⁸ 1-2 an iron post in middle of Co. road and run west 4° 30'. At 677 ft a brook 14 ft wide, on at 1142.9 Sta. 7. Enter swamp. At 1575.8 ft Sta. 2 at 17. and bog at 5644.8 I found 2 old post marked $\frac{1}{4}$ S. with the following witness trees: Tam. 10 N 20° E 5 links. Tam. 7 S 43° East 13 lbs. Then set an iron post 4 ft long 3 in diam and stamp the same $\frac{1}{4}$ S. for Sec. 2-35. At 2800 ft leave swamp. enter highland jack Pine at 2979.4 ft. Sta. 3. At 3412.3 ft Sta. 4. At 3416 ft enter wire grass swamp almost round. At 3864 ft. leave swamp enter high j. Pine. Sand. At 4241.4 ft. Sta. 5. At 4432 ft a wagon road. N + South At 4725 ft. leave jack Pine. enter Tam. swamp. at 5292.9 ft. the cor. to Sec. 34-35-2-3 old post in township road. Tam. Swamp. B. F. 10 N 10° W 13 links. Set an iron post 2 1/2 ft long 3 in in diam. marked the same S 34 35-2-3. Put 2 thirty penny spikes in end set in the old hole. where the point of post and made witness: Tam. 4 S 69° East 40.2 ft. Tam. 7 S 69° W 51.4 ft. W. Birch 5 N 33° 15' W 43 ft. Post was on the center of the $\frac{1}{4}$ S. 334 South. west to $\frac{1}{4}$ West. 6° 30' from the $\frac{1}{4}$ to the cor. Sec. 34-35-2-3.

July 25, 1919. Ben F. Clark and same crew begin at an iron post for the cor. Sec. 20-21 28-29 and measured north on town road. At 1400 ft. enter swamp. At 2611.4 ft the $\frac{1}{4}$ S. an iron post at 2555 a brook and bridge. At 2773 ft. leave swamp enter hill. At 5051 ft. the cor. to Sec. 16-17-20-21. An iron post in side of township road.

July 26, 1919. B. F. Clark and same crew. Begin at the estab. cor. Sec. 16-17-20-21, and run East on ran. line 6° 45'. At 15 ft leave town road at 922 a wire fence N + S. At 3085 ft. Sta. 1. At 460 ft. temp. hub. at 858 ft. wire fence. At 1320 ft set a temp. hub. At 51-20 Sta. 2. At 2640 ft set temp. hub. at 2500 ft. Sta. 3. At 3435 ft west marsh swamp N E + S W. At 4625 ft. leave swamp. At 5290 ft. the line. Intersect south of temp. cor. 242 ft.

July 28, 1919. Then set over $\frac{1}{4}$ S. 131 and run a true line back bet S. 16-^{Var.} 21, 8° 45' and was 2 ft. North of cor. to Sec. 16-17-20-21. An iron post in township road.

July 29, 1919. B. F. Clark and same crew went to the estab. cor. sec. 15-16-21-22 and run East on a ran. line $6^{\circ}30'$ Var. At 400 ft. leave hay meadow. Enter brush land at 460 ft. Sta. temp. post. At 1320 ft. set a temp. post. At 2037 ft. Sta. 2. At 2440 ft. set a temp. post. At 2812.7 ft. Sta. 3. At 3960 ft. set a temp. post. At 3971 ft. Sta. 4. At 4259.8 ft. Sta. 5. At 5280 ft. set a temp. post and search for the cor. of sec. 14-15-22-23 but did not find the rd. run on East on same random line. Var. $6^{\circ}30'$.

Aug. 1, 1919. Aug. 5, 1919. Ben F. Clark and Geo. Whitted begin at the estab. cor. Sec. 2-3-34-35. An iron post in center of township road and run south. Var. 7°
 Aug. 4, 1919. Roy Rose, Geo. Whitted. At 600 ft. leave Sam Alder swamp. Enter timber. Popple and Pine. At 1590 ft. Sta. 1. At 2449.6 ft. Sta. 2 and looked for the $1/4$ S. cor. bet. 2-3 and found the same C. of ran. line 442.0 ft. Then turn at a right angle. A Pine stub marked $1/4$ S. for this post and old down Pine marked B. J. $1/4$ S. a Pine $7^{\circ}N. 83^{\circ}W. 47$ ft. Pine $8^{\circ}S. 82^{\circ}E. 47$ ft. Then I made new witness trees: Norway $14^{\circ}N. 32^{\circ}W. 23$ ft. & Pine $10^{\circ}S. 33^{\circ}E. 10$ ft. Then run a true line back north $15^{\circ}45'$ and tied on post in road.

Aug. 5, 1919. Run on south on line bet. sec. 2-3. Var. $4^{\circ}30'$.

Aug. 6, 1919. Ben F. Clark, Roy Rose, Geo. Whitted measured with 100 ft. tape bet. Sec. 2-3. Begin at the $1/4$ S. at ~~442~~ 885 ft. Sta. 1. At 885 ft. Sta. 2. At 900 ft. leave pine ridge. Enter Sam and cedar swamp. At 1750.9 ft. Sta. 3. At 2535 ft. brook run west 9 ft. wide. At 2440 ft. the cor. to sec. 2-3-10-11. Found a cedar tree down marked B. J. $1/4$ S. Cedar $8^{\circ}S. 52^{\circ}E. 14$ ft. Spruce stump B. J. $9^{\circ}S. 51^{\circ}E. 23.8$ ft. Then set a hub for the cor. sec. 2-3-10-11. True line $6^{\circ}45'$.
 Begin at the govt. $1/4$ S. bet. 2-3 and run south on a ran. line. True $6^{\circ}30'$. At 4020 ft. Sta. 1. At 885 ft. Sta. 2. At 900 ft. leave J. Pine. Enter Sam cedar swamp. 1750.9 ft. Sta. 3. At 2535 ft. enter brook 9 ft. wide. run west at 2440 ft. the cor. to sec. 2-3-10-11 found old point of post wags at point. Witness tree: a cedar tree down marked B. J. Cedar $8^{\circ}S. 53^{\circ}E. 14$ ft. Spruce stump B. J. $10^{\circ}S. 52^{\circ}E. 23.8$ ft. So being satisfied that this was the old govt. cor. to sec. 2-3-10-11.

Aug. 7, 1919. Ben F. Clark and same crew begin at the estab. cor. sec. 2-3-10-11. Run south $6^{\circ}30'$. At 2037 ft. Sta. 1. At 2431.8 ft. the govt. $1/4$ S. bet. sec. 10-11. A cedar $7^{\circ}S. 73^{\circ}W. 46$ ft. Spruce $5^{\circ}N. 51^{\circ}E. 21.6$ ft. These trees are both down and marked $1/4$ S. B. J. with a scribe iron. Was 66 ft. east of post then the true line $5^{\circ}16'$ Var.

Aug. 8, 1919. Ben F. Clark and same crew begin at the $1/4$ S. S. bet. sec. 10-11 and run south on a true line $6^{\circ}15'$. At 400 ft. leave swamp. Enter Pine stumps and

brush. At 770.8 ft. Sta. 1. At 1300 ft. leave pine stumps. Enter alder swamp. Blown down Sam. Cedar swamp. At 1590.4 ft. a brook 3 ft. wide runs East. At 1600 leave and enter pine stumps and brush. At 461.8 ft. Sta. 2. At 2637.9 ft. the cor. to Sec. 10-11-14-15. I found a Pine marked $S\frac{1}{4}$ B. S. Pine 10 S. 68° East 38.2 ft. Sam. stump $S\frac{1}{4}$ S. 38° West 15.8 ft. So being satisfied this was the trip govt corner to Sec. 10-11-14-15 I set a Elm hub.

Aug. 9, 1919. Ben F. Clark and the same crew begin at the established cor. sec. 10-11-14-15 and run south on a ran. line bet. Sec. 14-15. Var. 40° . At 8474 ft. brook 2 ft. wide running East. At 1320 ft. set a temp. hub. At 1330 ft. leave swamp. Enter open Pine land.

Aug. 10, 1919. Ben F. Clark and same crew run on south. At 2450 ft. enter old R. R. spur running E. + W. at 2640 ft. set temp. hub for cor. At 3940 ft. set a temp. cor. at 4437.5 ft. set Sta. 3. At 4819 ft. Sta. 4. At 5219 ft. leave brush. Enter hay meadow. At 5280 ft. set a temp. hub. Aug. 10, 1919. Run on south on same line. At 6200 enter E. + W. line. At 6050 ft. leave hay meadow. Enter brush and pine stump. At 6600 ft. set a temp. hub. At 7013.7 ft. Sta. 5. on high hill. At 7349.5 ft. Sta. 6. At 7920 ft. set a temp. hub. At 7920 ft. leave brush. Enter hay meadow. At 8450 ft. leave hay, enter brush land. At 8417 ft. Sta. 7. At 9240 ft. set temp. post. At 10240 ft. Sta. 8. Enter hay meadow. At 10435 ft. a wagon road running E. + W. At 10535 ft. the cor. to sec. 22-23-26-27. An iron post at side of pond of water 41.6 ft. west of post. True line $6^{\circ}13\frac{1}{2}'$. Then begin to run true line back north. and set over points on this line.

Aug. 13, 1919. Ben F. Clark and same crew begin at the iron cor. for sec. 22-23-26-27. run true line north on a Var. of $6^{\circ}13\frac{1}{2}'$ and tied on center of an iron post for the cor. Sec. 10-11-14-15.

Aug. 14, 1919. B. F. Clark and same crew measured on East begin at 5280 ft. from the estab. cor. sec. 15-16-21-20. Var. $4^{\circ}45'$. At 5762 leave open hay swamp. Enter alder. Popple land. At 5960 ft. Sta. 5. a popple hub. At 6000 ft. set a temp. point for the $\frac{1}{4}$ cor. At 6475 ft. enter a brook run. south 3 ft. wide. At 7700 ft. leave popple land. Enter hay swamp, down Sam. At 7920 ft. set a temp. point for the $\frac{1}{4}$ S. and search for the cor. did not find same. At 7975 ft. leave hay swamp. enter alder, Popple and Pine stumps. at 8727.5 ft. Sta. 7. At 9114.8 ft. Sta. 8. At 9240 ft. set a temp. point for the $\frac{1}{4}$ cor.

Aug. 28, 1919. Ben F. Clark and same crew begin at the sec. cor. sec. 1-2-11-12. Found a Cedar post 4 ft. long. 4 in. diam. Marked S. 1-2-11-12 with a scribe iron. Following witness trees: Cedar $4^{\circ}N. 75^{\circ}$ East 13.8 ft. Cedar $8^{\circ}N. 10^{\circ}$ W. 14.4 ft. Cedar $9^{\circ}S. 14^{\circ}$ East 11.8, Cedar $12^{\circ}S. 80^{\circ}$ East 14.5 ft. So being satisfied that this was the old govt cor. I run south on a ran. line 7° . At 891 ft. brook 2 ft. wide. East and west. At 1320 ft. set temp. post. At 2300 ft. leave swamp. enter brush land. At 3331 ft. Sta. 2. At 440 ft. set a temp. post and search for the $\frac{1}{4}$ S. cor. but did not find the same. at 2689 ft. the old R. R. spur East and West. At 3149.2 ft. Sta. 3. At 4153.1 ft. Sta. 4. At 5280 ft. set temp. hub. Search for the cor. to sec. 11-12-13-14 but could not find the same so

- I run on South on the same ran. line Var. 7° . At 4600 ft set temp. hub. At 7897 ft. old R. R. E + W. At 7920 ft. set temp. hub. At 8979 ft. Sta. 4. At 9340 ft. set temp. post. At 10542 ft. set temp. hub. At 10653 ft. set a temp. hub and search for the cor. to sec. 13-14-23-24 but did not find the same.
- Aug. 31, 1919. Run on South on the same line, 7° Var. At 1880 ft. set a temp. post. At 12247 ft. Sta. 8. At 13200 ft. set temp. post. At 14505 ft. Sta. 10. At 14520 ft. set a temp. post. At 14544.7 ft. Sta. 11. At 15805 ft. intersect sec. line. Town road East of cor. to sec. 23-24-25-26 an iron post in road. True line $6^{\circ}16'$. Then run true line north and hit the $1/4$ S. temp. cor. Hit the nail on temp. cor. to sec. 13-14-23-24.
- Sept. 2, 1919. Ben. S. Clark and same crew begin at the established cor. S. 9-10-15-16. A concrete post in the township road and run East bet. 9-16 on a ran. line $6^{\circ}40'$. At 1943 ft. Sta. 1. At 437 ft. Sta. 2. At 460 ft. temp. hub. At 811.9 ft. Sta. 3. At 1320 ft. set a temp. point. At 1981 ft. enter alder, Cedar, Sam, blowdown swamp. At 2440 ft. set a temp. $1/4$ S. post. At 3855 ft. leave swamp. Enter bushland. At 4404 ft. Sta. 4. At 4700 ft. enter alder, Sam, blowdown swamp. At 5374 ft. intersect N. + S. line bet. S. 14-15. South of iron post for S. 11-12-14-15 - 2072 $1/2$ ft. True line $9^{\circ} 8'$ Var. Then run true line. Set temp. $1/4$ S. 13.7 ft. Set north 102.1 ft. Set $1/4$ point 48 $1/2$ ft. East. set north 51.3 ft. Set hub 460 at 34.7 ft. Set north 25 $5/4$ ft. Then set up my transit and back sight on concrete post and run East on a true line $9^{\circ} 8'$. Set $1/4$ S. cor. an iron pipe 4 ft long 2 in. in diam. Drove down in ground 3 ft. This cor. set 2453.7 ft. Equal distances between the 2 sec. corners and on true line $9^{\circ} 8'$. Run on East on true line and tied on center of iron post for the cor. S. 10-11-14-15.
- Sept. 3, 1919. Ben. S. Clark and same crew begin at the govt. corner, sec. 10-11-14-15 and run East bet. sec. 11-14 on a ran. line 7° . At 4902 ft. Sta. 1. At 2640 ft. set temp. $1/4$ S. cor. At 1320 ft. set a temp. point. At 8965.7 ft. Sta. 2. At 3538 ft. Sta. 3. At 3651 ft. Enter bog swamp. At 4955 ft. leave bog swamp. Enter bushland. At 5224.7 ft. intersect N. + South line.
- Sept. 4, 1919. Same crew. Run on East bet. sec. 12-13 begin at 5200 ft. east of the govt. cor. to sec. 10-11-14-15 on same line 7° Var. At 4188.3 ft. Sta. 4. At 4400 ft. set temp. $1/4$ S. cor. At 4957.4 ft. Sta. 5. At 7347 ft. cross N. Pine Co. Spur R. R. At 7505 $1/2$ ft. Sta. 6. At 7980 ft. temp. $1/4$ S. At 9169 ft. Sta. 7. At 9240 ft. set temp. point for $1/4$ S. At 10128.4 ft. intersect old grade Northland Pine R. R. At 10256.4 ft. the range line 133.7 ft. north of cor. to sec. 12-13. True line $4^{\circ}25'$.
- Sept. 5, 1919. Same crew. Set over points on true line and back sight on the cor. to sec. 10-11-14-15 and close on the cor. to sec. 12-13 on range line. An iron corner.
- Sept. 6, 1919. Begin at the estab. cor. sec. 16-15-9-10 at concrete corner in township road and measured North. at 5045' True line. At 2424.8 ft. set an iron pipe 4 ft. long. 2 $1/2$ in. in diam. stamped the same $1/4$ S. for sec. 9-10. set same in ground 3 $1/2$ ft. At 5353.7 the cor. to sec. 3-4-9-10. concrete post in town road. Made 2 witness trees for the $1/4$ S. bet. 9-10. Popple 4 S. 56° East 34.5 ft. Popple 5 N. 74° West. 25.4 ft.
- Sept. 7, 1919. Same crew. Begin at the estab. cor. sec. 3-4-9-10. At a concrete post in township road and run East on a ran. line bet. S. 3-10. Var. $7^{\circ}15'$. At 834 ft. enter a brook running N. + S. 3 ft. wide. At 1235 ft. Sta. 1. At 1320 ft. set a temp. point.

At 1865 ft enter Alder swamp, laying down Cedar and Jam. At 2540 ft leave swamp. Enter Popple brush land timber. At 2640 ft sta 2 Temp. point for 1/4 cor. At 2819 ft leave Popple. Enter Alder and willow swamp. At 2940 ft set a temp. point for 1/4 cor. at 4170 ft leave swamp. Enter brush land. At 4281 ft Sta 3. At 4572 ft enter field. At 4735 ft leave. Enter Alder swamp. At 5344.7 ft intersect N. + S line. 156.7 ft south of the cor. to sec 2-3-10-11. True line Var 9°16'. Then set 1/4 cor. East 32.3 ft and turn right angle and set North 92.3 1/2 ft. Set an iron pipe 4 ft long 2 1/2 in in diam stamped same 1/4 cor. for sec 2-10. Witness: Popple S N 17° E. 19.5 1/2 ft Balsam 10 S 11° W. 20.7 1/2 ft.

Sept. 10, 1919. Ben F. Clark and same crew begin at the cor. sec 2-3-10-11 and run East bet. sec 2-11 on a ran. line 4°35'. At 1365 ft enter brook running N + S. 3 ft wide. At 255 ft leave hay swamp. Enter brush land. At 542 1/2 ft Sta 1. At 1320 ft set temp. post for 1/4 S cor. At 1421.8 ft Sta 2. At 2516 ft. Leave swamp. Enter at 2595 ft Sta 3. At 2640 ft set a temp. post for the 1/4 cor. at 2610 ft enter Alder bog. At 3070 ft leave. Enter brush land. At 3695 ft Sta 4. At 3940 ft set a temp. post for the 1/4 post. At 4236 ft leave brush land. Enter Jam cedar swamp. At 5029.8 ft. Intersect N + S line bet. 11-12. South 108.5 ft. Close on post at 6°39' true line. This line bet. 2-11 is short 251.2 ft. Then set temp. point for the 1/4 S post. West 125.6 ft. Set north 54.2 ft. Set an iron pipe 4 ft long 2 1/2 in in diam. Drove the same in ground 2 1/2 ft and made the following witness trees: Popple 7 ft 47° West 15.3 ft. Then set 1/4 joint west 158.4 ft. Set N. 81° 3/4 ft and backsight on sec. post to cor. S. 1-2-11-12 and run west on true line 6°39' and put the center of the iron post for the 1/4 S post bet. 2-10 and run on west on the same true line.

Sept 11, 1919. Then run on west on true line and close with iron post for the cor. to sec 2-3-10-11. Begin at the estab. cor. Sec. 12-11-12 this being a goat corner and run East on a ran. line 4°39'. An iron post 2 1/2 ft long. 3 in diam. A wooden cedar post 3 ft long drove inside the iron post and drove in the ground 5 1/2 ft. Stamped S. 1-2-11-12 on cap on post. Witness trees: Cedar 6 N. 72° East 21.3 ft. Cedar 8 N. 8° W. 16 ft. Cedar 12 S. 78° W. 22 lbs. Cedar 12 Measured East from the iron corner to S. 1-2-11-12. Begin at 0.

Sept 21, 1919. Ben F. Clark, Roy Rose, Ralf Felton and his automobile begin at the corner Sec. 1-12-6-7 on Range line and run East on a ran. line 7°29'. At 184.5 ft enter Northland Pule Co. R.R. running N + S. At 187 R.R. At 900 ft leave swamp. Enter brush land. At 1177 ft Sta 1. At 2557.5 ft Sta 2.

- At 2640 ft. set temp. point. At 2450 ft. enter Elm Grove. At 2794 ft. brook 10 ft. wide running north. At 3000 ft. leave Elm and Oak Grove. At 3500 ft. enter swamp. At 3800 ft. hay meadow. At 4050 ft. leave hay meadow in swamp. At 4320 ft. Sta. 3. At 4939 ft. the cor. to sec. 1-2-11-12. an iron post $2\frac{1}{2}$ ft. long 3 in diam. Stamp S 1-2-11-12. 20 witness trees as follows: Cedar 6 N. 75° East 138 ft. Cedar 8 N. 10° West 197 ft. Cedar 9 S. 40° East 118 ft. Cedar 12 S. 80° East 142 ft. 124.5 ft. N. of post then true line $6^\circ 7'$. Then set iron pipe for $\frac{1}{4}$ S. bet S 1-12. Pipe 4 ft. long $2\frac{1}{2}$ in. diam. Drove the same in ground $2\frac{1}{2}$ ft. No witness trees.
- Sept. 22, 1919. Ben F. Clark and same crew begin at the cor. sec. 1-2-11-12 run north on a ran. line 30 W. At 576 ft. enter brook 31 ft. wide. At 660 ft. set a temp. hub point. At 989.1 ft. Sta. 1. At 1320 ft. set a temp. $\frac{1}{4}$ S. cor. At 2040 enter hay meadow. At 2640 ft. set a temp. point for $\frac{1}{4}$ S. At 2680 ft. Sta. 2. At 3389 ft. enter brook running East. At 3910 ft. set a temp. point for $\frac{1}{4}$ S. cor. At 4115 ft. leave swamp, enter high land. At 4677.7 ft. Sta. 3. At 5114.9 ft. enter the township road E & West. East 495.6 ft. of the iron for 12-36-35. closes on post at $8^\circ 22'$. Then set the $\frac{1}{4}$ S. south 83 ft. set west 347.8 ft. Then set an iron post 4 ft. long $2\frac{1}{2}$ in diam. Drove in ground 3.8 ft. in the Danber road and made a witness tree: Popple 10 S. 74° East 29.9 ft. this corner stands at equal distance bet. the two sec. corners and in true line $8^\circ 22'$ Var.
- Sept. 23, 1919. Ben F. Clark, Roy Rose, Jim Ford, Geo. Whitted, Ralf Felton, Gill Thompson went to the cor. sec. 9-10-15-16. Cor. good a concrete post in town road. At 1524.8 $\frac{1}{2}$ ft. Sta. 1. At 1538.8 ft. set a hub at small lake turn at rt. angle. Offset 135 ft. Then turn a N. angle and west 834.7 ft. Then turn angle 135 ft. to true line 236.35 ft. At 2640 ft. set a temp. $\frac{1}{4}$ S. At 3105.4 ft. Sta. 2. At 5283.6 the cor. to sec. 16-17-9-8 cor. good. Close at $4^\circ 15'$. Then set $\frac{1}{4}$ S. in true line $6^\circ 15'$. Iron post 4 ft. long $2\frac{1}{2}$ in diam. in ground 3.8 ft. no trees. Then run south on a $\frac{1}{4}$ S. line $40^\circ 30'$ ft. At 119.7 ft. Sta. 1. At 526.7 ft. Sta. 2. At 2087.1 ft. Sta. 3. At 2640 ft. set a temp. $\frac{1}{4}$ S. point for the $\frac{1}{4}$ S. run on south closes at $44.7\frac{1}{2}$ ft. East of hub for the $\frac{1}{4}$ S. bet. Sec. 16 True line $\frac{1}{4}$ S. line $5^\circ 47'$.
- Sept. 24, 1919. Ben F. Clark and same crew went to the $\frac{1}{4}$ S. bet. 16-15 and run west through Sec. 16 at 425 ft. leave meadow. Enter high land. At 1065.7 ft. Sta. 1. At 1754 ft. Sta. 2. At 1980 ft. enter wet swampy meadow. At 2415 ft. leave, enter high land. At 2630.7 ft. enter N. & S. line. At - enter sec. line bet. sec. 16-17. South of $\frac{1}{4}$ S. bet. 16-17 true line 7° . Then set C $\frac{1}{4}$ S. where the 2 true line crosses each other, an iron post 4 ft. long $2\frac{1}{2}$ in diam. Drove the same in ground 2 ft.

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434.

Sept 25, 1919. Ben F. Clark and same crew went to the $\frac{1}{4}$ S. corner bet sec. 21-22 a iron post in town road. Then run north. Throw sec. 21. Var. $6^{\circ}10'$
 At 1133.5 ft Sta. 1. At 2406 ft Sta. 2. At 4247 ft Sta. 3. At 5120 ft enter the
 sec. line bet sec. 14-21. East 50 ft of the $\frac{1}{4}$ S. an iron pipe. Witness
 trees as follows: White oak 12 N. $42^{\circ}2'W$ 44.2 ft. Witness trees for the
 C $\frac{1}{4}$ S. in Sec. 14. Stone by $\frac{1}{4}$ S. $3^{\circ}W$ 17 ft. Dry Birch 12 S. $37^{\circ}W$ 37.3 ft.
 Dry oak 14 N. $34^{\circ}W$ 32.2 ft. Then went to the $\frac{1}{4}$ S. hub and set
 an iron post 4 ft long $2\frac{1}{2}$ in diam. Popple 5 N. 29° East 85 ft. Stone
 6 by $\frac{1}{4}$ S. 34° West 33 ft. Center. Then begin at the $\frac{1}{4}$ S. bet. S. 20-21.
 run East on a ran. line E. + W. $\frac{1}{4}$ S. line. At 1511 ft. enter brook.
 At 1752 ft. leave swamp, enter high land. At 2217.9 ft. Sta. 1
 At 2703.7 ft. enter N. + S. Ran. line. Then set the C $\frac{1}{4}$ S. North 49.8 ft
 set west $55\frac{1}{2}$ ft. an iron post 4 ft long $2\frac{1}{2}$ in diam. Drove the same
 in ground 2 ft. marked the following witness trees: Popple 6 S. 11°
 E. $22\frac{1}{2}$ ft. C $\frac{1}{4}$ S. W. Birch 3 S. $27^{\circ}W$ 24.2 ft. Popple 3 N. $12^{\circ}10'$ East 103 ft.
 of C $\frac{1}{4}$ S. Popple 4 N. 70° East 19 ft. C $\frac{1}{4}$ S. This line closes on $4^{\circ}4'$ on
 both $\frac{1}{4}$ S. and the C $\frac{1}{4}$ S.

Sept. 26, 1919. Same crew begin at the estab. cor. $\frac{1}{4}$ S. bet. S. 21-22 (iron post)
 and run East on a ran. $\frac{1}{4}$ S. line 7° . At 398 ft. Sta. 1. At 728.5 ft. Sta. 2.
 At 2640 ft. temp. point. At 2909.2 ft. Sta. 3. At 3679 ft. Sta. 4. At 5295.
 ft. the sec. line bet. S. 22-23. N. of post 31.1 ft. This line closes at $6^{\circ}41'$
 Then went to the $\frac{1}{4}$ S. bet. S. 23-27, an iron post in township road and
 run north on a $\frac{1}{4}$ S. line. At 464.5 ft. Sta. 1. At 1693 ft. Sta. 2. At 2592
 ft. intersect ran. E. + W. line. At 2688 ft. Sta. 3. At 5166.2 ft. enter
 sec. line bet. S. 23-15. East of the iron post for the $\frac{1}{4}$ S. bet. S. 22-15 a dis.
 of 414 ft. True line closes on the post at $6^{\circ}4'$. Then went to the
 $\frac{1}{4}$ S. bet. Sec. 23-23 and run East $4^{\circ}54'$. Closes on the iron post
 for the $\frac{1}{4}$ S. P.M. begin at the $\frac{1}{4}$ S. bet. Sec. 23-23 and run East on
 a $\frac{1}{4}$ S. line. Throw sec. 23 at $4^{\circ}57'$ and closes on iron post for the
 $\frac{1}{4}$ S. cor. bet. sec. 23-24. True line closes at $4^{\circ}54'$. Distance is 5269 ft.
 Then begin at the estab. $\frac{1}{4}$ S. corner (iron post in town road) bet.
 Sec. 23-24 and run North the distance of 5173 ft. The true line closes
 at $4^{\circ}12'$ on the iron post bet. Sec. 23-14.

Sept. 27, 1919. Begin at the estab. $\frac{1}{4}$ S. bet. sec. 23-24 and run East on quarter
 line throw sec. 24 the distance 5135.8 ft. to the $\frac{1}{4}$ S. bet. Sec. 24-19 on
 range line, an iron post for the $\frac{1}{4}$ S. line cor.

Sept. 29, 1919. Same crew went to the hub for the $\frac{1}{4}$ S. cor. bet. Sec. 24-13 and
 set an iron pipe 4 ft long $2\frac{1}{2}$ in diam. Drove the same in ground
 2 ft. Then run south on a true line $4^{\circ}30'$. 5200 ft. the $\frac{1}{4}$ S. post bet.
 S. 24-25 an iron pipe in township road. Then set the C $\frac{1}{4}$ S. for
 sec. 24 where the true lines intersect. an iron pipe 4 ft. long $2\frac{1}{2}$
 in diam. Drove the same in the ground 2 ft. Made a mound of
 stone around the post. Made the following witness: Popple 10 N.
 30° East 48 ft. Popple 8 S. 50° East 17.2 ft. Bas Wood 3 S. 30° South 15.8 ft.
 P.M. Begin at the estab. S. 3-4-9-10 run north $5^{\circ}15'$ 2597.8 ft. to the $\frac{1}{4}$ S.
 a concrete post in township road. Then North $14^{\circ}15'$. The distance of

11603. 3 ft. to the cor. sec. 3-4-33-34 a concrete post in township road. Then set an iron pipe 4 ft. long, 2 1/2 in. diam. for the C 1/4 S. in center of sec. 23. Drove the same in ground 2 ft. and made a mound of stone around the post. No trees near for witness. Then set the C 1/4 S. for sec. 22 where the true 1/4 lines intersect. An iron pipe 4 ft. long, 2 1/2 in. diam. Drove the post down in the ground 2 ft. and made a mound of stone around the post. No trees of any size near.
- Sept. 30, 1919. Same crew begin at the estab. cor. sec. 3-4-9-10 run North on a true line 50°15'. The distance of 2597.8 to the 1/4 S. bet. S. 3-4. Then North on a true line 140°15'. The distance of 2730 ft to the cor. of sec. 3-4-33-34 a concrete post in township road. Then set the 1/4 S. bet. S. 3-4-13 an iron pipe 4 ft. long, 2 1/2 in. diam. drove the same in the ground 2 ft. No trees. Then run south on a quarter line 7° Var. to the 1/4 S. bet. Sec. 24-25 the distance 5200 ft. Then come back North and set the C 1/4 S. where the true lines cross. Set an iron post 4 ft. long 2 1/2 in. diam and made the following witness trees and a mound of stone around the post. Popple 10 N. 30° E. 48 ft. Popple 8 S. 50° East 17 ft. Baswood 3 S. 80° W. 15 ft.
- Oct. 1, 1919. Same crew begin at the estab. cor. 1/4 S. bet. 15-16 and run East on a true 1/4 S. line Var. 7°20'. The distance of 5300 ft. to the 1/4 S. bet. S. 14-15. an iron post with mound of stone around the post. Then begin at the estab. 1/4 S. corner. bet. S. 25-15 run north on a 1/4 S. line to the 1/4 S. bet. S. 10-15. East of the iron post. Then come back. set the cor. west on the true line where the true lines cross. Set an iron pipe 4 ft. long 2 1/2 in. diam. Drove the same in ground 2 ft. Piled up a mound of stone 2 ft. high for the C 1/4 S. in sec. 15. No trees for witness. All small brush. Burnt land soil 5th rate.
- Oct. 6, 1919. Ben F. Clark, Roy Rose, Geo. Whitted, Ralf Felton and automobile, Ben Thomas went to the 1/4 S. bet. S. 14-15 an iron post and run East on a 1/4 line 6°29'. Intersect sec. line 11. 3 ft north of the 1/4 S. corner. Then went to the 1/4 S. an iron post bet. S. 11-14. and run South on a true 1/4 S. line 6°12' and close on the iron post for the 1/4 S. bet. 14-23. Then set C 1/4 S. west 56 3/4 ft. An iron post for the common center sec. 14 with a mound of stone around the post 2 ft. high. No trees. All small brush. P. M.: Begin at the 1/4 S. bet. sec. 13-14 an iron post with a mound and run East on a true 1/4 line. Closed the 1/4 S. on East side sec. 13 on range line. Then went to the 1/4 S. bet. sec. 12-13. An iron post with a mound of stone. Run South on a 1/4 line. Closed on the 1/4 S. at 7°15'. Then set common center where the true 1/4 S. lines intersect. Then set an iron pipe 4 ft long 2 1/2 in diam. Drove the same in ground 2 foot and made a mound of stone around the post 2 ft. high for the C 1/4 S. for sec. 13.
- Oct. 8, 1919. Ben F. Clark and same crew went to the estab. 1/4 S. cor. on range line bet. S. 139 N. R. 28 S. 139 N. R. 27. Found an iron post with a mound of stone around post so being satisfied this is the true 1/4 S. cor. bet. sec. 7-12 I run west on a 1/4 S. line 5°45' to the 1/4 S. bet. 11-12. North 249 ft of the 1/4 S. an iron post. True line closes at 5°29' ft. Then went to the 1/4 S.

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bet 12-13 and run north on a $\frac{1}{4}$ line 713 ft to the $\frac{1}{4}$ S. bet 12-1. An iron post west of the post 102.9. True line closes, at $5^{\circ}57'$. Then set the common center S. 12 set East on ran. line $413\frac{1}{2}$ ft. set. Then set south $124\frac{1}{2}$ ft. set an iron pipe 4 ft. long $2\frac{1}{2}$ in diam. drove the same in the ground 2 ft. and piled a mound of stone 2 ft. high for the common center C $\frac{1}{4}$ S. 12.

Oct. 10, 1919. Ben F. Clark, Roy Rose, Geo. Whitted, Dennis Thomas, R. Felton and auto. begin at the estab. cor. $\frac{1}{4}$ S. bet. Sec. 2-11 at an iron post and run south on a quarter line $4^{\circ}52'$. Then went on south to the $\frac{1}{4}$ S. bet. 11-14. Closed 14 ft. east of cor. (iron post) True line $4^{\circ}43'$.

Oct. 11, 1919. Same men. Begin at the established $\frac{1}{4}$ S. bet. Sec. 11-12 (Iron post) and run west on a $\frac{1}{4}$ line $4^{\circ}45'$. Then run north on a $\frac{1}{4}$ line $4^{\circ}45'$ to the $\frac{1}{4}$ S. bet 11-11 and was 54.5 ft. south of the $\frac{1}{4}$ S. (Iron corner) True line closes at $4^{\circ}10'$. Then set C $\frac{1}{4}$ S. 11 an iron post 4 ft. long $2\frac{1}{2}$ in. diam for the common center Sec. 11.

Oct. 13, 1919. Same crew. Begin at the estab. $\frac{1}{4}$ sec. bet. S. 9-10 run East on a $\frac{1}{4}$ line $9^{\circ}20'$. Enter the sec. line bet. 10-11 South 2.2 ft of the iron post for $\frac{1}{4}$ S.

Oct. 14, 1919. Same crew. Begin at the estab. $\frac{1}{4}$ S. bet. S. 3-10 an iron post. Run on a ran. quarter line $5^{\circ}52'$. Run south thru. Sec 10 to the $\frac{1}{4}$ S. bet. S. 10-15 an iron post in alder swamp. 8.3 ft. east of the post thence true line closes at $4^{\circ}27'$. Then C $\frac{1}{4}$ S. west 41.5 ft. set South 11 ft. an iron post 4 ft. $2\frac{1}{2}$ in diam. drove the same in ground 3 ft. and piled a mound of stone around the iron post. No trees near. All small brush and poor stumps. The common center sets on open ridge.

Oct. 15, 1919. Begin at the estab. $\frac{1}{4}$ S. cor. bet. 3-4. a concrete post and run East on a Ran. line $7^{\circ}45'$ to the $\frac{1}{4}$ S. bet. S. 2-3 an iron post south of the post 205.8 ft. True line closes at $10^{\circ}5'$.

Oct. 16, 1919. Same men. Begin at the estab. $\frac{1}{4}$ S. post (iron cor.) bet. S. 3-34 on town line county road and run south on a $\frac{1}{4}$ line $9^{\circ}4'$. To the $\frac{1}{4}$ S. bet 3-10. an iron cor. west of cor. 21 ft. True line closes at $9^{\circ}24'$. Then set the common center Sec. 3 North 102.9 ft. set. East 15.5 ft. set an iron pipe 4 ft. long $2\frac{1}{2}$ in. Diam. put a wooden point inside the iron pipe. Drove the same in ground 5 ft. Witness trees Spruce 8 South 30° East 11.2 ft. Sam. 10 North 11° West 46.7 ft. Spruce 14 South 14° west 44 ft. Common center Sec. 3.

Oct. 17, 1919. Ben F. Clark, Roy Rose, Ruff Felton auto, Selsy Ziel, Roy Blood went to the estab. $\frac{1}{4}$ S. bet. Sec. 2-3 and run west on a quarter line and run west on a $\frac{1}{4}$ line $6^{\circ}1'$ to the $\frac{1}{4}$ S. bet. 2-3 an iron post 3.4 ft. north of the corner. Then begin at the iron post for the $\frac{1}{4}$ S. bet. 2-11 run north $9^{\circ}4'$ to the $\frac{1}{4}$ S. cor. in town slip line bet 2-35. a govt cor. west of the iron post 30 ft. then set the common center Sec. 2. set the iron post East 15 ft. set south $17\frac{1}{2}$ ft. Put a wooden point inside the iron pipe drove the same in ground 5 ft. Witness:

434

- J. Pine & N. 39° West 92.5 ft. Spruce S. 20° West 48.2 ft. no others near. Corner sets in muskeg bog. Common center $1/4$ S.
- Oct. 18, 1919. Same crew went to the estab. $1/4$ S. corner bet. Sec. 1-34 an iron post run South on a $1/4$ line 80° to the $1/4$ S. bet. 1-12 East of the iron 12.7 ft. True line closes at 8° . Same men with Ben S. Clark begin at the $1/4$ S. cor. bet. Sec. 1-2 an iron post in the Danher Road. and run East on a $1/4$ line $4^{\circ} 1/2'$ to the $1/4$ S. bet. Sec. 1-4 on range line. 38.6 ft. north of the iron post. Then true line closes on the corner at $5^{\circ} 52'$. Then set the common center to Sec. 1. at 19.3 ft. South Set west 43 1/2 ft. (Iron post 4 ft long 2 in. diam. drove the same in ground 2 ft. made witness trees as follows: Elm 10 N. 45° East 32 ft. Elm 11 N. 45° W. 45.2 ft. Maple 12 S. 58° East 30.7 ft. Dry maple 8 S. 40° West 31.8 ft. Witness for the common center Sec. 1.
- Oct. 20, 1919. Same crew. Begin at the estab. cor. Sec. 19-20-29-30. Run North on a ran. line $70^{\circ} 30'$. An iron post in the township road. At 485 ft. enter a brook running west 12 ft wide. Enter hay meadow. At 750 ft. leave hay. Enter J. Pine land at 1300 ft. a wagon road. At 2610.7 ft. a popple post. At 2640 ft. set a temp point for the $1/4$ S. At 3452 ft. wagon road. At 3900 ft. enter hay meadow. At 4775 leave. Enter Pine land and brush. At 5234 ft. a line running east and west. At 5280 ft. set a temp. hub. At 7500 ft. enter swamp. At 7950 ft. found a post on ran. line. At 7842.8 ft. and 25.7 ft. south I found the old govt. $1/4$ S. cor. witness trees laying down covered with ~~post~~ marked $1/4$ S. B. J. Sam. 4 N. 20° East 5 links. Sam. 4 S. 18° W. 13 links with a post marked $1/4$ S. with a scribe iron and 2 old points of post $1/4$ S. So being satisfied. This was the true corner bet. Sec. 18-19. I set an iron pipe with a wooden point inside it. Drove the same in ground 4 ft. and made witness trees: Sam 7 S. 40° East 50 ft. Then run on north on same ran. line $70^{\circ} 30'$. At 570 ft. leave bog swamp. Enter popple land. at 781 ft. leave. Enter Sam. swamp. At 1300 ft. leave. Enter popple and brush. At 2500 ft. enter Sam. swamp. Limber all down. At 2640 ft. set a temp hub. At 2643 ft. E. + W. line. Found a popple post 4 by 4 ft. marked with pencil S. 18-19-7-8 search for old witness trees but couldn't find any. Then come back set a temp hub South 514 3/4 ft. set West 191 3/4 ft. This making the distance of the sec. line bet. 19-20 Dist. 752 5/8 ft. Then went to the $1/4$ S. bet. Sec. 18-19. Found a Sam. post 5 ft long 4 in diam marked $1/4$ S. with a scribe iron. with a Sam. stump B. J. and Sam. sapling marked B. J. $1/4$ S. the $1/4$ S. bet. 18-19 witness trees. Sam stamp B. J. 6 S. 78° East 9.44 ft. Sam. 4 N. 2° East 9.4 ft. So being satisfied this is the old govt. cor. I set an iron pipe with a wooden point inside the iron and drove the same in ground 11 1/2 ft. for the $1/4$ S. cor. bet. Sec. 18-19. Then measured west at $70^{\circ} 45'$. At 249 ft. leave Sam. swamp. Enter J. Pine at 1780 ft. a wagon road N. + S. At 1875 ft. enter Sam. swamp. At 2395.2 ft. Enter N. + S. line. Found a post 2 ft long 4 in square. Search for witness but couldn't find any. So came back to the

1/4 S. corner bet. 18-19 measured East on Ran. line $70^{\circ}45'$. At 864 ft. leave Sam. swamp. Enter brush land. At 2614.9 ft. enter N. & S. line. Set a hub at 4600 enter hay meadow. At 4900 ft. leave. At 5282 ft. set a temp. hub at 7914 ft. intersect township road 168 ft. north of cor. Sec. 20-21-16-17. an iron post in edge of town road.

Oct. 22, 1919. Same crew went to the estab. govt. cor. sec. 19-30-24-25 a iron post with 4 Sam. witness trees down. Then measured North on a line run by Paul northly last summer. Begin at the iron post $70^{\circ}45'$. At 2640 ft. set a temp. hub. At 2454 a popple post 3 ft. long 4 in. diam. looked for witness, found two Sam. down 1/4 S. & S. The course and dist. are as follows: Sam 5 N. $59^{\circ}20'$ W. $75\frac{1}{2}$ ft. Sam 7 N. 39° East $39\frac{1}{2}$ ft. with old post marked 1/4 S. So being satisfied that is the true govt. cor. I set an iron pipe with wooden point inside the iron pipe. Drove the same in ground 4 ft. drove the same in ground 4 ft. with 2 ft. out of the ground. This 1/4 S. corner. Stands 36.3 ft. East of the line. Then run on North on same Paul Northly's line begin at the iron post. At 450 ft. leave hay. Sam. swamp. Enter pine land. At 1080 ft. leave. Enter pine. Brush line At 1080 ft. enter Sam. swamp. At 1240 ft. leave, enter Pine & Brush land. At 2326.5 ft. intersect a wagon road E. & W. At 2436.3 ft. a popple post 3 ft. long 4 in. sq. Then search for witness found a spruce marked B.S. down but not being sure I measured on North on same line. At 2636.3 ft. enter swamp. At 2770 ft. leave swamp and enter Pine stumps and brush. At 4800 ft. leave and enter Sam. swamp. At 5274 ft. found a Sam. post 4 ft. long 4 in. Then search for witness trees and found 2 Sam. posts marked 1/4 S. with a surveyor marking iron and 2 down Sam. in the marsh. Sam. N. 75° East 24 lbs. Sam. 4 S. 79° West 29 lbs. So being satisfied this is the old govt. 1/4 S. corner on west side S. 18 I set an iron pipe with a wooden point inside and drove the same in the ground 4 ft. Then made 2 new witness trees: Sam. 3 S. 49° West 19.5 ft. Sam. 5 N. 38° East 93 ft. This 1/4 S. corner stands East of the Paul Northly line 55.4 ft. The dist. bet. the two 1/4 S. corners are 5282.5 ft. Then measured on north on same P. Northly line $70^{\circ}45'$ Begin at 0. At 1492 ft. leave Sam. swamp. Enter Pine stumps At 2434.7 ft. found a dry oak post with the mark cut in with a knife S 18-7-12-13 but no witness trees. At 2685 ft. enter a lake. Then went home.

Oct. 23, 1919. Same crew went to the corner of Sec. 19-30-24-25 on Rge. line bet. Town. T39 N. 28 W and T. 139 N. R. 8 W. an iron post. Four Sam. witness trees down in hay meadow. Begin at 0. Measured North 70° and hit the center of the iron post for the 1/4 S. bet. 19-24 a govt. cor. Then on north the the 1/4 S. bet. Sec. 13-18. govt. cor. with iron post. East of post 228 ft. Then measured back 440.3 ft. turned a rt. angle west. Set a hub at 199 1/2 ft. Then sight north on the 1/4 S. and run North $70^{\circ}15'$ to hay lake. Then come back South and set the cor. to Sec 19-24-13-18. Set west 11.4 ft. an iron pipe 2 1/2 ft with wooden point inside it. Drove the same in the ground 3 ft. and made 4 witness trees: Sam. 5 N. 55° West 38 ft. J. Pine 5 S. 10° W. 57 ft. J. Pine 8 S. 25 E. 812 ft. N. Pine 4 N. 22° East 418 ft.

Oct. 25, 1919.

Ben F. Clark, Roy Rose, R. Felton, and his automobile went to the corner 5, 4, 31-32 on town line bet. T. 140 N. R. 28 W and T. 139 N. R. 28. Found an old post with two more points of posts with witness stumps B. J. Sam. Stump 4 N. 11° E. 40.9 ft. Sam. S. 4 N. 43° W. 43.4 ft. So being satisfied this is the true gov. corner I set an iron pipe 2 1/2 ft. long 3 in. diam. Put a wooden post inside the iron pipe. Drove the same in ground 10 ft. leaving 2 ft. above the ground 10 ft stamp on cap of post S. 5-4-31-32. This corner stands on the edge of a little lake the line (town line) passes thru. at 7031. Then went East to the estab. 1/4 S. cor. bet. S. 5-32 and found a post marked 1/4 S. with a Sam. stump B. J. 20 N. 1 1/2° W. 29.6 ft. Spruce S. 45° E. 4.5 ft. Then set an iron pipe 7 ft. long 2 in. with a wooden point 3 ft. long inside. Drove the same in ground 5 ft. for the 1/4 S. bet. S. 5-32.

Oct. 27, 1919.
4.5.32-33

Ben F. Clark, Roy Rose went to the estab. cor. Sec 4-5-32-33 on town line bet. town 139 N. R. 28 S. 140 N. R. 28 W. at an iron post stamped S. 4-5-32-33 and run south on a ran. line 9° 45'. This corner stands in hay meadow at the west edge of a small brook. At 580 ft. leave hay meadow. Enter brush land. At 2640 set a temp. post for 1/4 S. At 3775.5 ft. Sta. 1. At 3850 ft. leave Pine brush land. Enter wet alder swamp running E. & W. At 4000 ft. leave Enter brush land. Pine stumps. At 4792 ft. Sta. 2. At 5240 ft. the edge of a field and found an old oak post and a witness: Jack Pine stump with a B. J. on the root, the stump course and distance correspond with the gov't field notes, Jack Pine B. S. 14 N. 73° East 118 1/2 ft. Was west of the post 119.3 ft. The distance bet. the town sec. corners is 53 + 7 1/2 ft. The true line is 11° 6'. Set 1/4 on S. 1/2. S 33 1/4 ft. Set East 59.4 1/2 ft. Set an iron post 7 ft. long 2 1/2 in. Drove the same in the ground 2 ft. Made the following witness tree: J. Pine 9 S. 45° E. 93.8 ft. For the 1/4 S. bet. Sec. 4-5. Set on Nov. 3, 1919.

Page 58 ←

Nov. 2, 1919.

Oct. 29, 1919.

Looking for corners. Now with me, Roy Rose, Leslie Biels, R. Felton. Same crew. Begin at the estab. cor. Sec. 3-4-9-10 a concrete post in town road. Run west on a ran. line 7° 15'. At 532 ft. enter field. At 546.5 ft. Sta. 1. At 1000 ft. leave field. Enter brush popple land. At 2440 ft. set a temp. 1/4 S. hub. At 3884 1/2 ft. Sta. 3. At 3940 ft. set a temp. 1/4 S. At 5243.8 ft. the cor. to Sec. 4-5-8-9. South of post 8 1/2 ft. Cor. good. Set 1/4 S. on west half. Set N. 20.5 ft. Set East. 12 1/2 ft. Set 1/4 S. N. 13 3/4 ft. Set East 8.1 ft. Set 1/4 S. on East 1/2 at 47 1/8 ft. Set East 4 1/2 ft. a popple post. True line closes at 4° 58'.

Oct. 30, 1919.

Same crew. Then set the 1/4 S. bet. 4-9. At 2431.8 ft. Equal distance bet. the sec. corners an iron pipe 7 ft. long 2 1/2 in. diam. Drove the same in ground 2 ft. Made 2 witness trees, marked them with a scribe iron 1/4 S. 4-9. White Pine 14 S. 25° E. 74.6 ft. Nor. Pine 13 S. 40° W. 79 ft. Then set the cor. to Sec. 4-5-8-9. an iron pipe 2 1/2 ft. long 3 in. diam. Put an oak point inside the iron pipe 5 ft. drove the same in ground 3 1/2 ft. Stamp on cap on post Sec. 4-5-8-9. Old gov't witness stump B. J. J. Pine 14 N. 73° East 118 1/2 ft. No other trees. Cor. stands at S.E. of field. True line closes at 4° 58'. Then run true line back East bet. 4-9. at 4° 58' and crossed on rail on the 1/4. A popple post 3 ft. long 3 in square. marked 1/4 S. with a scribe iron. Then on East

Hit the center of the iron post for the $\frac{1}{4}$ S. bet 4-9. Oct 31, 1919. On East hit the center of the $\frac{1}{4}$ S. a popple post marked $\frac{1}{4}$ S. 4-9. On East 4° 58'. Hit the center of the concrete post in town road for S. 3-4-9-10.

Nov. 1, 1919. Same crew. Begin at the Estab. cor. S. 45-8-9 an iron post. Run west on a ran. line 4° 58'. Post stands on edge of field. At 790 ft leave field. Enter brush land. At 1320 ft set a temp. hub for $\frac{1}{4}$ S. At 1481 ft. Sta. 1. At 189 ft. Sta. 2. At 3640 ft. set temp. hub for $\frac{1}{4}$ S. At 3780 ft. enter swamp. At 3960 ft. set temp. hub for $\frac{1}{4}$ S. At 4540 ft. leave Alder Sam swamp. Enter brush land. At 4957 ft. Sta. 3. At 5280 ft. set a temp. hub for cor. S. 5-6-7-8. Search for the cor. but did not find it.

Nov. 4, 1919. Same crew. Begin at the estab. cor. Sec. ^{5-7, 16-17} 4-7, 8, 9. a concrete post in township road and run north on a true line 5° 35' 20". At 340.4 ft. Sta. 1. At 1703.8 ft. Sta. 2. At 1825 ft. leave brush land. Enter bog. At 2055 ft. leave bog. Enter brush. At 2555 ft. leave brush. Enter hay meadow. At 3440 ft. set a temp. hub for $\frac{1}{4}$ S. At 4215 ft. leave hay meadow. Enter brush. At 4730 ft. leave. Enter field. At 5237.3½ ft. enter iron post on center for cor. to Sec. 4-5-8-9. Thence went south. Set the $\frac{1}{4}$ S. at 2413.4 ft. Set an iron pipe 4 ft long 2½ in diam. Drove the same in ground 2 ft for the $\frac{1}{4}$ S. bet Sec. 8-9. Post sets in south edge hay meadow. No trees near of any size.

Nov. 5, 1919. Ben Clark and same crew begin at the estab. $\frac{1}{4}$ S. corner bet. Sec. 9-10. Run west on a $\frac{1}{4}$ S. line 5° 49'. Run to the $\frac{1}{4}$ S. bet. 9-8 an iron post north of post 9.4 ft. Then true line 4° 59'. Set center hub S. 43.3 ft. Then begin at the $\frac{1}{4}$ S. cor. bet. Sec. 4-9. Run south to the $\frac{1}{4}$ S. corner an iron post in township road. East of post 17.3 ft.

Nov. 6, 1919. Set center of Sec. 9. Set south 45.3 ft. set west 8.7½ ft. an iron pipe 2½ ft. long. 3 in diam. Stamped the same C $\frac{1}{4}$ S. S. 9. Witness Popple 6 S. 130 West 337½ ft. Popple 7 N. 35° West 38.4 ft. Popple 4 N. 24° East 75½ ft. No other trees for the center Sec. 9. Begin at the $\frac{1}{4}$ S. bet. Sec. 4-9. an iron post and run north on a quarter line 10° 25'. At 270.3 ft. Sta. 1. At 1320 ft. set a temp. hub for $\frac{1}{4}$ S. At 2071 ft. cross a small brook run west. At 2356.3 ft. Sta. 2. At 2600 ft. enter Sam Cedar swamp. of live timber. At 3640 ft. set a temp. hub for $\frac{1}{4}$ S. At 4665 ft. leave Sam. Cedar swamp and at 50484 ft. Sta. 3. Jack Pine ridge. At 5311.7 in. intersect town road. Found an iron post for the $\frac{1}{4}$ S. in the town line road. bet. Sec. 4-³³34 with witness trees. Norway Pine 16 N. 20° W. 50.5 ft.

- N. Pine 12 N. 12° East 99.5 ft. West 3.8 ft. true line closes at 10° 23' on N. & S. line 1/4 4.
- Nov. 7, 1919. Begin at the hpl. bet. Sec 3-4. A concrete post in township road. Run west on a 1/4 line 60 11'. At 15 ft. enter high land on west side of road. Enter brush at 189 ft. Brook 2 ft. wide running North. At 417.4 ft. Sta. 1. At 988 ft. Sta. 2. on a pine ridge of live timber. At 1320 ft. set a temp. point for 1/4 S. At 5100 ft. enter Alder, Sam. Cedar swamp, green timber. At 5858.7 ft. enter North and South 1/4 line.
- Nov. 9, 1919. At 4450 ft. leave swamp. Enter Pine stumps brush. At 5508 ft. enter Sec. line bet. 5-4. South of iron post 31.2 ft. Set C. 1/4 S. north 15.4 ft. set East 1.9 ft. an iron pipe with cap stamped C. 1/4 S. 4. Put a wooden post inside the iron pipe 4 ft. long drove in ground 5 ft. leaving 2 ft. of the iron pipe out of the ground and made the following witness trees a B. Ash 9 1/2 13° W. 12.7 ft. set 1/4 S. west 10.79 ft. set north 7.8 ft. A maple post 3 ft. long 4 in. square marked the same 1/4 S. 4. No witness trees near of a use.
- Nov. 25, 1919. Ben F. Clark, Roy Rose, Geo. Whitted begin at the estab. cor. Sec. 4-5-32-33. An iron post in a hay meadow on the west edge of a little brook and run west on a true line 8°. At 765 ft. leave Alder Sam swamp. Enter high brush land. At 1000 ft. Sta. 1. At 1100 ft. cross a wagon road. At 1950 ft. leave. Enter alder swamp. At 2485 ft. leave. Enter brush land. At 2440 ft. Sta. 2. a Cedar hub. At 2645 ft. the 1/4 S. bet. sec 5-32 an iron post old govt corner. At 2645 ft. Enter Alder, Sam. swamp on the center of the iron post
- Nov. 26, 1919. Then run on west on same line on N. side of sec. 5: 8° W. At 2645 ft. Enter Alder, Sam. swamp. at 3000 ft. leave. Enter hay meadow. At 3804 ft. leave. Enter large timber. At 4104 ft. enter brook running N. 1/4 ft. wide. At 4245 ft. a wagon road. At 4340 ft. enter Popple brush land. At 4646 ft. Sta. 3. At 4894 ft. leave Popple land. Enter lake. At 5285.8 ft. over lake at corner to sec. 5, 4-31-32. an iron post. South of corner 42.5 ft. the true line closes on post at 7.6'. Begin at the estab. cor. sec. 5-4-31-32 and run west on true line 7.6'. At 500 ft. leave swamp enter ridge. Green timber. Oak Baswood, Maple at 2007 ft. Sta. 1. At 1052.5 ft. Sta. 2. At 1100 ft. enter town. road running E. + W. At 2440 ft. set a temp. point for the 1/4 S. in middle of road. At 4700 ft. Sta. 3. At 5162 ft. set a temp. point for the cor. Sec. 1-6-31-34. Distance 5010.8 ft. Then search for the cor. to sec. 1-6-31-34. the Northwest to T. 139 N. R. 25 W. but found a Norway Pine N. S. and an old Popple stub N. S. but those trees was not called for in the govt notes. Those marks were put on with a surveyor's scribe iron about 8 yrs ago. And not having any records of them I could not take them.

Nov. 27, 1919. Ben Clark, Roy Rose, L. C. Whitted, Leslie Ziel, begin at a hub 2640 ft. ¹⁷⁻¹⁸ of the old govt 1/4 S. Cor. an iron post bet. Sec. 12-13. At 300 ft. enter lake. At 4 ft. leave lake and enter Samaras Swamp. At 5247.4 ft. govt 1/4 S. Cor. found witness trees: Sam. 7 N. 80° E. 5 links, Sam. 4 S. 18° W. 13 links and old iron post. Then beginning at 1/4 S. run North 7° 30'. At 1505 ft. leave swamp enter brush land. At 1709.5 ft. Sta. 1. At 1964 ft. enter lake. At 3331 ft. leave lake enter brush, poplar land. At 3640 ft. set temp. point. At 3688 ft. govt 1/4 S. At 3706 ft. Sta. 2. At 3879 pass a barn. At 3960 ft. leave field and enter

Nov. 28, 1919. Ben Clark, Roy Rose, R. Felton, Les. Curtis, Leslie Ziel begin at the cor. Sec. 17-18. Measured west on Paul Northey true line 7° in Sam. Swamps. At 4 ft. leave Sam. Swamp. Enter brush and pine stumps. At 1083 ft. leave brush, Enter bog. At 1400 ft. leave bog. Enter brush. At 2440 ft. set a point for 1/4 S. At 3970 ft. leave brush. Enter swamp. At 4200 ft. leave alder swamp. Enter brush land. At 4978.5 ft. enter true range in a small swamp.

Nov. 29, 1919. Same Crew. Begin at 2640 ft. north of the estab. govt. 1/4 S. corner bet. Sec. 18-13. At a hub 88 ft. south of hay lake 7° 15' W. At 88 ft. enter hay lake at water edge. At 4586.3 ft. leave lake. Enter high land. Three timber. Large Oak and maple with brush.

Dec. 1, 1919. Same crew run on north on Range line 7°. At 4767.7 ft. Sta. 1. At 52 ft. set a temp. point for cor. to Sec. 7-1-12. At 5290 ft. leave hard wood land. Enter meadow. At 5490 ft. leave meadow. enter arm of Hay Lake. At 6188 ft. leave lake. Enter Sam. swamp. At 7077 ft. leave, enter high Green timber, Popple, Birch, maple. At 7835.7 ft. Sta. 2. At 9845.8 ft. Sta. 3. At 10240.7 ft. Sta. 4. At 10455.2 ft. the Township road running East and West. Set a Popple hub in center of town road. Found a Popple stub 73 ft. course: 10 N. 20° E. 24.7 ft. Nor. Pine 10 S. 49° W. 82 ft. Then take a sight across Mull Lake on the two sec. 30-36 on Town. Road. Hit the center of road. So I am satisfied this is the true township corner. S 139 N. R. 29 W. S 140 N. R. 28 W. S 139 N. R. 29 W. S 140 N. R. 29 W.

Dec. 2, 1919. Same Crew. Begin at 5280 ft. west of Iron. cor. to Sec. 4-5-8-9 and run west 4° 5' 8". At 351.1 ft. intersect N. & S. line. At 492 ft. enter lake. At 140 ft. leave lake and enter meadow. At 1700 ft. leave meadow and enter brush land. At 1788 ft. Sta. 1. At 3640 ft. set temp. 1/4 S. cor. At 3894 ft. leave brush land and enter Cedar Swamp. At 4271 ft. leave swamp and enter lake. At 5256 ft. leave lake and enter meadow. At 5317 ft. intersect Range line. Set 1/4 S. bet 6-7 west 115.5 ft. set south 103.2 1/8 ft. set Sec. cor. bet 5-8 set same west 77.7 1/2 ft. set same south 47.5 3/4 ft. True line close.

Dec. 3, 1919. Same crew. Begin at the estab. 1/4 S. bet. 5-4 and run East on 1/4 line. To the 1/4 S. bet 4-5 south of post 50.2 ft. Then true line 7° 5' 3".

Dec. 4, 1919. Same crew. Begin at 1/4 S. bet 5-8 and run North 10° 45' on 1/4 S. line. the 1/4 S. on north side of Sec. 5 bet. 5-32 East 50 ft of Iron corner. Then over points and set temp. C 1/4 S. 25.1 ft. North. 10 ft. west True line 10°. Then begin at the estab. point for 1/4 S. bet. 5-4 and run west on 1/4 line 7° 35' Green timber, Bass wood, Maple, Oak + Poplar brush to the 1/4 S. on west side of Sec. 6 bet. Sec. 6-1 on Range. Line 13.7 ft. south of the 1/4 S. point. True line

- Dec. 5, 1919. Ben F. Clark and same crew begin at the established $\frac{1}{4}$ S point bet Sec 6-7 and run north on $\frac{1}{4}$ line 9° Var. Enter Oak, Maple, Elm, Basswood & Poplar land. No. 1 To $\frac{1}{4}$ S on township road bet 6-3. East of point 37 ft. Set C $\frac{1}{4}$ S point west 17 ft. Set C $\frac{1}{4}$ S north $48\frac{1}{2}$ ft. True N. + S. $\frac{1}{4}$ line closes at $9^{\circ} 2'$.
- Dec. 7, 1919. Same crew begin at the estab. $\frac{1}{4}$ S cor. bet S. 6-7 and run south on a quarter line through S. 7- $5^{\circ} 5' 0''$. Intersect on line bet. S. 7-18. East of $\frac{1}{4}$ S. hub $63\frac{1}{2}$ ft. Set point south 17.4 ft. from ran. line run by Paul Northby bringing the $\frac{1}{4}$ post on a true line bet. the 2 sec. corners true line closes at $5^{\circ} 8' 1''$.
- Dec. 8, 1919. Same men. Begin at the estab. $\frac{1}{4}$ S. a govt corner in Sam. swamps an iron post and run west on a $\frac{1}{4}$ line $7^{\circ} 5' 1''$ to the hub on range line bet. S. 7-12 on Bay Lake. 19 ft. north of point. Then set C $\frac{1}{4}$ S. west $31\frac{1}{4}$ ft. Set C $\frac{1}{4}$ S. south 9.5 ft. Set a Popple point.
- Dec. 9, 1919. Ben F. Clark and same crew begin at the govt $\frac{1}{4}$ S. cor. an iron post in a Sam. swamp and run East on a $\frac{1}{4}$ line $6^{\circ} 8'$ to the $\frac{1}{4}$ S. corner bet. 8-9. An iron post south of cor. post 15.2 ft. True line closes at $6^{\circ} 52'$. Then in P.M. begin at the estab. $\frac{1}{4}$ S. point bet. S. 5-8 and run south on a $\frac{1}{4}$ line 6° to the $\frac{1}{4}$ S. bet. 8-17. East of cor. 40 ft. True line closes at $5^{\circ} 34'$. Then set C $\frac{1}{4}$ S. west 20 ft. Set C $\frac{1}{4}$ S. north 7.6 ft. Popple point. Begin at the estab. point for the $\frac{1}{4}$ S. bet. S. 8-17 and run south on a $\frac{1}{4}$ line $7^{\circ} 19'$ to the $\frac{1}{4}$ S. bet. S. 17-20. Set $\frac{1}{4}$ S. point west 4 ft. Set $\frac{1}{4}$ S. south 81 ft. East of cor. 11.3 ft.
- Dec. 10, 1919. Ben F. Clark and same men begin at the $\frac{1}{4}$ S. bet. S. 16-17 an iron pipe in middle of Town Road and run west on $\frac{1}{4}$ line, 5° Var., to the $\frac{1}{4}$ S. bet. S. 17-18. North 30.2 ft of the iron post. Then set C $\frac{1}{4}$ S. hub S. 1.010 ft. Set C $\frac{1}{4}$ S. west $56\frac{1}{2}$ ft on true line closes at $6^{\circ} 24'$.
- Dec. 11, 1919. Same men begin at the estab. govt $\frac{1}{4}$ S. cor. bet. S. 17-18, an iron pipe and run west on a $\frac{1}{4}$ line, $7^{\circ} 23'$ Var., to the $\frac{1}{4}$ S. cor. on West side of Sec. 18 on Range line 6 ft. north of the iron post. True line closes at $7^{\circ} 28'$. Then begin at the estab. $\frac{1}{4}$ S. govt iron cor. and run N. on a $\frac{1}{4}$ line $7^{\circ} 31'$ to the $\frac{1}{4}$ S. point bet. Sec. 17-18. West of the hub for the $\frac{1}{4}$ S. 9 ft. Then true line closes at $7^{\circ} 36'$. Then set C $\frac{1}{4}$ S. south 3 ft. Set East 4.5 ft. where the two $\frac{1}{4}$ lines intersect. Set a Popple hub for the center of Sec. 18.
- Dec. 12, 1919. Then set a $\frac{1}{4}$ post on N. + S. $\frac{1}{4}$ S. line on S. $\frac{1}{2}$. At $2427\frac{1}{2}$ ft. equal distance bet. the $\frac{1}{4}$ S. and the common center Sec. 18. A Norway post 4 in. square 3 ft. long. Set the same in ground 12 inches. Then set a $\frac{1}{4}$ post at 1293.5 ft. Equal dist bet. the $\frac{1}{4}$ S. on East side Sec. 19. bet. 19-20 and the common center, a Jack Pine post 4 by 4 marked the same $\frac{1}{4}$ S. 19. Drove the same in ground 2 ft. This post sets in an open swamp. Begin at the $\frac{1}{4}$ S. a govt corner at an iron pipe and run south on a $\frac{1}{4}$ line $7^{\circ} 30'$ to the $\frac{1}{4}$ S. bet. Sec. 19-20 an iron pipe 70 ft. west of post. Then true line closes at $8^{\circ} 37'$. Then begin at the $\frac{1}{4}$ S. bet. Sec. 19-20 and run west on a $\frac{1}{4}$ line $7^{\circ} 52'$ to the $\frac{1}{4}$ S. on west side S. 19 on Range line 40 ft. West of the $\frac{1}{4}$ S. an iron pipe govt cor. True line closes at $8^{\circ} 20'$. Then set the Common Center Sec. 19. Set East 35 ft. Set South 20 ft. Set a temp. popple hub in open swamp. No trees near of any use.

Dec. 13, 1919 Ben F. Clark and same crew begin at the $\frac{1}{4}$ S. point bet sec 19-20 Run East on a quarter line $7^{\circ}20'$ to the $\frac{1}{4}$ S. bet. S. 20-21. South of the iron pipe in township road $5\frac{1}{2}$ ft. Tru line closes. At $9^{\circ}40'$. Then begin at the estab. $\frac{1}{4}$ S. bet. sec. 20-29. an iron post in Township road and run north on a Ran. $\frac{1}{4}$ S. line 7° to the $\frac{1}{4}$ S. point bet S. 17-20 west 46 ft. of the cor. Then tru. line closes at $6^{\circ}34'$. Then set the common center S. 19. North 10.6 ft. Set East 23.5 ft. Set a temp. Tuppel hub. This finishes all the lines in Township 139 N. R. 28 W.

Dec. 14, 1919. Ben F. Clark and same men went to the C $\frac{1}{4}$ S. 19 and set iron pipe $2\frac{1}{2}$ in diam. 4 ft. long. drove the same $2\frac{1}{2}$ ft in ground. No witness trees anywhere near. Then went to the C $\frac{1}{4}$ S. 18 and set iron post $2\frac{1}{2}$ in diam. drove same in ground $2\frac{1}{2}$ ft. and made following witness trees: Poplar 8 S. 50° E. 48 ft. Poplar 10 S. 20° W. 47.5 ft. Poplar 12 N. 15° W. 45 ft. Then went to the sec. cor. 17-18-19-20 and set iron pipe with hardwood point $1\frac{1}{2}$ ft long. drove same $3\frac{1}{2}$ ft. in ground. Where lines intersect on a double proportion and made following witness trees: Norway 5 N. 20° W. 57.3 ft. J. Pine 10 N. 40° E. 40.7 ft. Norway 5 S. 35° E. 46.1 ft. Then went to the $\frac{1}{4}$ S. bet 19-20 and set iron pipe $2\frac{1}{2}$ in diameter. 4 ft. long. drove same 3 ft. 10 inches in ground. No witness near. Then went to the C $\frac{1}{4}$ S. 20 and set iron pipe $2\frac{1}{2}$ in diam. 4 ft. long. drove same in ground $2\frac{1}{2}$ ft. No witness trees. Then went to the $\frac{1}{4}$ S. bet. 17-20 and set iron pipe $2\frac{1}{2}$ in diam. 4 ft. long. drove same in ground three ft. and made witness tree: W. Pine 14 N. 75° E. 87.4 ft. Then went to C $\frac{1}{4}$ S. 17. and drove iron pipe $2\frac{1}{2}$ in diam. 4 ft. long. drove same 3 ft. in ground. and made following witness trees: Poplar 5 S. 20° E. 17.2 ft. Poplar 5 N. 40° W. 28.3 ft.

Dec. 15, 1919. Ben F. Clark and same crew went $\frac{1}{4}$ S. bet 8-17 and set iron pipe $2\frac{1}{2}$ in diam 4 ft. long. drove same 3 ft in ground. and made following witness trees: Poplar 6 N. 80° E. 15.1 ft. Poplar 6 S. 14° W. 12 ft. Then went to sec. cor. 17-18-7-8. and set iron pipe with cap $2\frac{1}{2}$ in. diam. 3 ft. long with $1\frac{1}{2}$ ft. iron point. drove same in ground at intersection of true lines $3\frac{1}{2}$ ft. no witness trees. Then went to $\frac{1}{4}$ S. bet. 7-18 and set iron pipe $2\frac{1}{2}$ in. diam and 4 ft. long. drove same 2 ft. in ground. and made following witness tree: J. Pine 5 S. 40° E. 29.7 ft.

Dec. 17, 1919. Thence went to sec. cor. bet. 7-18-12-13 on Range line and set iron pipe $2\frac{1}{2}$ in diam. 3 ft. long with hardwood point

434.

2 ft. long drove same in Alder Swamp. 4 ft. No. Witness trees. Then went to the C $\frac{1}{4}$ S. 7 and set iron pipe 2 in diam. 4 ft long. drove same 3 ft. in ground and made following witness tree: White Oak 13 N. 35° E. 24 ft. Then went to the $\frac{1}{4}$ S. bet. 6-7 and set iron pipe 2 in diam. 4 ft long. Drove same in ground 3 ft and made following witness trees: Poplar 5 S. 30° E. 40.8 ft. W. Oak, 2 N. 50° W. 51.4 ft. Then went to the Sec. cor. bet. 5-4-7-8 and drove iron pipe 2 1/2 in. in diam. 2 ft. long with 3 ft. point drove same 4 ft. in ground where true lines intersect and made White Pine stump 2 1/2 N. 35° E. 41.8 1/2 ft. Then went to the $\frac{1}{4}$ S. bet. 5-8 and set iron pipe 2 in diam. 4 ft long drove same 3 ft. in ground and made following witness trees: Poplar 13 S. 30° E. 17.5 ft. Poplar 12 S. 35° W. 19.4 ft. Then went to C $\frac{1}{4}$ S. 5 and drove iron pipe 2 in diam. 4 ft. long 3 ft. in ground and made witness tree as follows: W. Pine 13 S. 30° E. 55 ft.

Dec. 17, 1919. Same crew went to the $\frac{1}{4}$ S. bet. 4-3, and set iron pipe 2 1/2 in. diam. 3 ft. long. drove same with 3 ft. hardwood point 5 ft. in ground made following witness trees: Poplar 10 N. 44 ft. Poplar 8 S. 17° W. 30.7 ft. Then went to the sec. cor. 1-4-31-34 and set iron pipe 2 1/2 in. diam. 3 ft. long with 3 ft. hardwood point. Drove same 4 ft. 10 in. in ground. made following witness trees: Norway Pine 12 S. 40° W. 55 ft. Poplar Stump 10 N. 30° E. 34.7 ft. Then went to the $\frac{1}{4}$ S. bet. 1-4 and drove iron pipe 2 in. diam. 4 ft. long. 3 ft. in ground and made following witness trees: Ash 4 N. 18° E. 18.3 ft. White Oak 8 S. 31° W. 16.1 ft. Then went to Sec. Cor. 1-12-4-7 on range line and set iron pipe 2 1/2 in. diam. 3 ft. long with hardwood point drove same in ground. 4 ft. in ground made witness trees: White Pine 12 S. 30° W. 41.1 ft. White Pine 10 N. 40° E. 33.2 ft. Then went to C $\frac{1}{4}$ S. 4 and set iron pipe 2 1/2 in. diam. 3 ft. long with 2 ft. hardwood point. Drove same 4 ft. in ground made witness trees: Maple 10 S. 45° E. 14 ft. Maple 10 S. 40° W. 17 ft. Ironwood 6 N. 35° W. 23 ft. W. Birch 5 N. 31° E. 32.5 ft. Then went to the $\frac{1}{4}$ S. bet. 5-6 and set iron pipe 2 1/2 in. diam. 3 ft. long with 3 ft. hardwood point Drove same 4 ft. in ground and made witness trees: Poplar 4 S. 15° E. 16.3 ft. Birch 4 N. 39° E. 29.4 ft.

Aug. 10, 1919. Ben F. Clark, Roy Rose, Geo. Whitted, Ralf Felton and automobile went to the $\frac{1}{4}$ S. bet. Sec. 2-3. Set an iron pipe 4 ft. long. 2 1/2 in. diam. stamp the same $\frac{1}{4}$ S. for Sec. 2-3 and made new witness trees. Nor. pine 14 N. 32° W. 32 ft. g. pine 10 S. 33° E. 10 ft. Then went to the Cor. S. 2-3-10-11. set a wooden post inside the iron post and drove same in ground 3 ft. Then stamp the cap on post S. 2-3-10-11. This post sits in hole where old goat post was. Then made the following new witness trees: Balsam 8 N. 89° W. 13.3 ft. Balsam 9 S. 16° E. 7 ft. No others near. Blown

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down Sam. Alder, Cedar Swamps.

Aug. 11, 1919. Ben F. Clark and same crew went to the $\frac{1}{4}$ S. bet sec. 10-11 set an iron pipe 4 ft. long 2 in. diam. Stamp the same $\frac{1}{4}$ S. for sec. 10-11 old govt trees down marked $\frac{1}{4}$ S. B.S. Cedar 7 S. 75° W. 4.4 ft. Spruce 5 N. 53° East 4.4 ft. Then went to the cor. sec. 10-11-14-15 set an iron pipe 2½ ft. long 3 in. diam. Stamp the same on cap on the top of pipe. Put an Elm post inside the iron pipe 2½ ft. long. Drove the same in hub where I found an old wedge shaped point. Old White Pine lying down marked B.S. White Pine 12 S. 70° East 38.5 ft. Sam. Stump B.S. 9 S. 40° West 15.8 ft. Then made new witness trees: Elm 8 N. 60 E. 58.5 ft.

Aug. 12, 1919. Same crew drove to the $\frac{1}{4}$ S. on Range line bet sec. 31-34 T. 139 N. R. 28 W. T. 139 N. R. 29 W. and set an iron pipe 4 ft. long 2 in. diam. Stamp the same $\frac{1}{4}$ S. for sec. 31-34. No witness trees. Then set cor. to T. 139 N. R. 28 W. T. 139 N. R. 29 W. T. 138-29 S. 138-28. An iron pipe 2½ ft. long 3 in. diam. Stamp the same on cap. S. 31-34-1-4. Then bored hole with 8 in. post auger. Put a 30 penny spiked in post and set in ground. Put a mound of stone and clay around post and down then made the following witness trees: Nor. Pine 4 S. 65° East 48.7 ft. Jack Pine 10 N. 16° W. 58.8 ft. Nor. Pine 5 N. 48° West 71.5 ft. Nor. Pine 4 S. 17° East 17.8 ft. Then it rained so hard that we had to come home.

Aug. 17, 1919. Ben F. Clark and same men set the cor. to sec. 14-15-22-23 an iron pipe 2½ ft. long 3 in. diam. Put a wooden oak point 2 ft. long wedge shape point in side of the iron pipe. Drove in the ground 3 ft. Stamp the same S. 14-15-22-23 on cap in top of post. Found a white pine lying down with a B.S. on stump. W. Pine 6 N. 53° East 33.4 ft. So being satisfied this was the old govt post set in edge of hay swamp. No trees near. Dist. of line bet. sec. 14-15 is 535.0 ft. Then set the $\frac{1}{4}$ S. cor. bet. S. 14-15 at 24.5-7.5 ft. Equal distance bet. sec. cor. an iron pipe 4 ft. long 2 in. diam. Stamped the same $\frac{1}{4}$ S. for S. 14-15 drove the same in ground 2 ft. witness stump: W. Pine 30 N. 45° E. 26 ft. Var. 6° 13½'. Then set the $\frac{1}{4}$ S. cor. bet. S. 22-23 an iron pipe 4 ft. long 2 in. diam. stamped the same $\frac{1}{4}$ S. for sec. 22-23. Drove the same in ground 2 ft. and made the following witness tree: Nor. Pine 12 S. 70° E. 21.6 ft. Dist. bet. sec. 22-23 are 518.5.2 ft. True line 6° 13½'. Then set $\frac{1}{4}$ S. bet. sec. 15-22 an iron pipe 4 ft. long 3 in. diam. stamped the same sec. 15-22: $\frac{1}{4}$ S. Drove the same in ground 2 ft. and made the following witness tree: Popple 4 S. 31° W. 27.5 ft. Popple 7 N. 15° East. 24.1 ft. Dist. bet. sec. 15-22 is 5292.8 ft. True line 6° 45'. Then set cor. to sec. 15-16-21-22. An iron pipe 2½ ft. long 3 in. diam. Oak post wedge shape, point inside the iron pipe. Drove the same in ground 3 ft. Stamped the cap on pipe 15-16-21-22. Found old white pine down marked B.S. White Pine 9 S. 66° E. 132 lbs. J. Pine 8 S. 40° W. 250 lbs. J. Pine 8 N. 10° E. 275 lbs. Made a new witness tree: White Pine 22 N. 10° W. D. 31.2 ft. A mound of stone around iron pipe. No other trees near. Then set the $\frac{1}{4}$ S. bet. sec. 15-16 an iron pipe 4 ft. long 2 in. diam. Stamped the same $\frac{1}{4}$ S. for S. 15-16. Drove in ground 2 ft. Mound of stone around post. Made witness tree: N. Pine 14 N. 25° E. 53.3 ft. Dist. bet. 15-16 is

- 5228 ft. True line 6°.
- Aug. 1, 1919. S. 139 N. R. 28 W. Ben F. Clark, Roy Rose, Jim Ford, Geo. Whitted, R. Felton and automobile went to the center S. 31. Found a J. Pine post 3 1/2 ft. long. 5 in square marked C 1/4 S. Witness trees: Popple 7 S. 31° W. 33.7 ft. White Birch 3 S. 50° E. 8 ft. Popple 4 N. 17° E. 54.5 ft. Set an iron pipe 4 ft. long. 2 in. diam. Stamp the same C 1/4 S. Drove the same in ground 2 1/2 ft.
- Aug. 30, 1919. Then went to the 1/4 S. bet. S. 31-32. Found a Popple post 3 ft. long 3 in. D. marked sec. 31-32 with the following witness: Popple 4 S. 15° W. 54.5 ft. So being satisfied this was the 1/4 S. corner. I set an iron pipe 4 ft. long stamp the same 1/4 S. for sec. 31-32. Drove the same in ground 2 ft. Then went to the corner sec. 31-32-5-4 on township line, Co. line. Found an Ash post 3 ft. long 3 in square with the following witness stump B.S.: J. Pine stump 8 S. 14 S. 40° E. 10.5 ft. Pine stump 6 S. 57° W. 12.5 ft. W. stump 13 N. 53° W. 10.5 ft. Then set an iron pipe 3 1/2 ft. 3 in diam. Drove in ground. Put in stone and clay. Stamped. Cap on pipe S. 31-32-3-4 and piled a mound of stone around post.
- Aug. 31, 1919. Then went to the 1/4 S. bet. sec. 31-4 on township line. Found a Jack Pine post 3 ft. long 4 in square marked 1/4 S. with a scribe iron. Set an iron pipe 4 ft. long 2 in diam. Stamp the same 1/4 S. for sec. 31-4. Cor. set in hay meadow. No trees. Then went to the 1/4 S. bet. sec. 29-32 and found a Nor. Post 3 ft. long 5 in square with following witness trees: J. Pine 8-47° W. 37.4 ft. Popple 6 N. 24° W. 20.9 ft. Then set an iron pipe 4 ft. long 2 in diam. Stamp the same 1/4 S. Put stone around post. Then went to the cor. S. 28-29-32-33. Found a Popple post marked S. 28-29-32-33. With following witness trees: Popple 7 S. 51° W. 28.9 ft. Popple 4 S. 22° E. 32.2 ft. Then being satisfied this is the true cor. I set iron pipe, stamp on cap S. 28-29-32-33. Then went E. to the 1/4 S. bet. S. 28-29. Set an iron pipe 4 ft. long 2 in diam. Stamped the same 1/4 S. for sec. 28-33. Put the same in ground 3 1/2 ft. Piled stone around post. No witness trees near. Then set the 1/4 S. bet. 31-28. an iron pipe 4 ft. long 2 1/2 in diam. Stamped the same S. 31-28. Drove the same in center of town road 3 1/2 ft. witness tree: Popple 9 N. 35° W. 43.7 ft. No other trees near.
- Sept. 1, 1919. Ben F. Clark and same men went to the corner S. 28-27-33-34. Found an Oak Post marked S. 27-28-33-34 with a mound of stone around it. So being satisfied this is the true cor. I set an iron pipe in hole with 2-40 penny spikes in bottom end. Drove in ground and put in stone & clay. Stamp on cap. S. 27-28-33-34 and made a mound of stone around it. This corner stands 433 ft. East of Blind Lake.
- Sept. 4, 1919. Ben F. Clark, Till Thompson and same men went to the cor. 11-12-13-14. Old Oak Post stump B.S. 4 S. 43° E. 17.6 ft. Elm stump B.S. 12 N. 50° W. 5.2 ft. Down Oak 9 S. 70° W. 18.4 ft. Set an iron pipe 3 1/2 ft. long 3 in diam. Set in ground 2 ft. Stamp on cap S. 11-12-13-14 and put a mound of stone around the post. Then went west to the 1/4 S. bet. 11-14. Set an iron pipe 4 ft. long 2 1/2 in diam. Drove the same in the ground 3 ft. This post

sets equal distance bet the 2 sec corners and on a true line at 2612.3 ft. Then set the $\frac{1}{4}$ S. corner bet S. 11-12 an iron pipe 4 ft. long $2\frac{1}{2}$ in. diam. This post stands 2647.1 ft. or equal distance bet the 2 sections corners and on true line. Old $\frac{1}{4}$ S. T. 78 71.5° W. 7.8 ft. Then went south to the $\frac{1}{4}$ S. cor. bet. 13-14. Found an old pine lying down marked $\frac{1}{4}$ S. T. 30 S. 44° E. 8.5 ft. Then set an iron pipe 4 ft. long $2\frac{1}{2}$ in. diam. for the $\frac{1}{4}$ S. post bet. S. 13-14. Drove the same in ground 3 ft. No trees near of any good. Then went south to the cor. sec. 13-14 - 23-24. Found a pine stump B. T. Oak 10 N. 16° E. 24.2 ft. So being satisfied this is the old govt cor. I set an iron pipe $2\frac{1}{2}$ ft. long, 3 in. diam. Put 2-40 penny spikes in bottom end of post set the same in ground 2 ft. Piled in stone and clay around it. Stamped on cap S. 13-14 - 23-24. New witness, Oak 10 S. 45° W. 57.2 ft. Then went west to the $\frac{1}{4}$ S. bet. sec. 14-23. Set an iron pipe 4 ft. long $2\frac{1}{2}$ in. diam. drove the same down in swamp $2\frac{1}{2}$ ft. This corner stands equal dist. between the 2 sec. cor. E. 20. and on true line. No trees near. in hay meadow. Then went south to the $\frac{1}{4}$ S. bet. sec. 23-24. Set an iron pipe 4 ft. long $2\frac{1}{2}$ in. diam. Drove the same in ground 3 ft. No witness trees. The cor is equal in dist. bet. the two sec. corners. N. 40 and on a true line.

Oct. 8, 1919. Went to the $\frac{1}{4}$ S. bet. sec. 28-29. Found a Popple post 4 ft. long 4 in. diam. marked $\frac{1}{4}$ S. 28-29. Witness: Popple 4 S. 50° E. 19.4 ft. Pine stump 29 N. 45° W. 55.1 ft. So being satisfied that is the true $\frac{1}{4}$ S. I set an iron pipe 4 ft. long $2\frac{1}{2}$ in. diam. Drove the same in the ground 2 ft. Made a mound of stone around the post. Then went to the C $\frac{1}{4}$ S. found a Popple post marked C $\frac{1}{4}$ S. 29 with witness trees: Popple 5 N. 48° E. 15.8 ft. Popple 6 N. 44° W. 29.5 ft. Popple 5 S. 41° W. 32.7. Then set an iron pipe 4 ft. long $2\frac{1}{2}$ in. diam. Drove the same in ground 2 ft. in the hole where the old post was and made a mound of stone around the iron post for the common center sec. 29. Then went to the $\frac{1}{4}$ S. bet. 32-33. Found the following witness trees: Popple 6 N. 45° W. 27 ft. Popple 7 S. 45° E. 47 ft. Then set an iron pipe 4 ft. long $2\frac{1}{2}$ in. diam. Drove the same in ground 2 ft. Then made a mound of stone around the post for the $\frac{1}{4}$ S. bet. sec. 32-33. Then went to the common center 32 and found the following witness: Dry Popple 6 N. 28° W. 42.4 ft. Stone 4 by 4 S. 40° E. 147 ft. Popple 9 S. 35° W. 54.4 ft. Then found Nor. Pine post 3 ft. long 4 in. square marked with scribble iron. $\frac{1}{4}$ S. 32 so being satisfied this is the common center sec. 32 I set an iron pipe 4 ft. long $2\frac{1}{2}$ in. diam. Drove the same in ground 2 ft. Piled a mound of stone around the post for the common center sec. 32 T. 39 N. T. 28 W. Then went to the south side sec. 32. Found a white birch tree marked B. T. Birch 20 S. 30° W. 74.7 ft. with Pine post marked S. 32 S. 5 on Co. line bet. Cass and Crowing Co.

434.

Then set an iron pipe 4 ft long $2\frac{1}{2}$ in diam. Drove the same in ground 2 ft. for the $\frac{1}{4}$ s. on south side sec. 32. No other trees or stones near. All burnt over land. Then went to the south side sec. 33. on co. line bet. Cass and Crowing Co. Found a Pine post marked S. 33-4 with following witness trees: White Pine 4 N. 35° E. 46 ft. Then set an iron pipe 4 ft. long $2\frac{1}{2}$ in diam. Drove the same in the ground 2 ft. Post set in hay meadow. No other trees for the $\frac{1}{4}$ s. on south side sec. 33. Then went to the cor. sec. 33-34-3-4 on co. line. Found a Popple post 3 ft by 4 in marked S. 33-34-3-4. Witness: Nor. Pine 14 s. 29° E. 45.8 ft. Then set iron pipe $3\frac{1}{2}$ ft. long 3 in diam. Stamp on cap. S. 33-34-3-4. Set in ground 2 ft. Then went to the cor. sec. 34-35-2-1-27. Found an old post, marked S. 34-35-2-1-27. With following witness trees: Dry Popple 6 s. 13° E. 70.2 ft. Popple 5 N. 30° W. 102.4 ft. Then set iron pipe $2\frac{1}{2}$ ft. long 3 in diam. With post in bottom drove in ground 4 ft. leaving 3 ft. out. Stamped on cap S. 34-35-2-1-27. and made a 2 ft. mound of stone around it. Then we went to the C $\frac{1}{4}$ s. in S. 33. a hub. set an iron pipe 4 ft. long $2\frac{1}{2}$ in diam. Drove the same in the ground 2 ft. Made a witness trees: W. Pine 22 s. 37° 30' Dist. in ft. 53.2. Marked same with scribe iron C $\frac{1}{4}$ s. 33. No other trees near. Then went to the $\frac{1}{4}$ s. on south side of sec. 34 bet. 34-4 on Co. line bet. Cass and Crowing. Found a Popple post 4 by 4. marked $\frac{1}{4}$ s. 34-4. So being satisfied this was the true cor. set an iron pipe 4 ft. long $2\frac{1}{2}$ in diam. Drove in ground 2 ft. Placed stone around it. No trees for witness. Land all burned by fire last fall. Then went to the Common center sec. 34 where the true lines intersect. set an iron pipe 4 ft. long $2\frac{1}{2}$ in diam. Drove the same in ground 2 ft. made the following witness trees: W. Oak 9 s. 33° E. 52 ft. Popple 3 N. 19° W. 46.8 ft. No stone. Land first rate. No other trees for the C $\frac{1}{4}$ s. 34. cor. stands at edge of swamp.

Oct 3. Same men. Went to the $\frac{1}{4}$ s. bet. sec. 34-35 a hub where the true $\frac{1}{4}$ lines intersect. set an iron pipe 4 ft. long $2\frac{1}{2}$ in diam. Drove the same in ground 2 ft. Made a mound of stone 2 ft high around it. No trees near of an ust. Then went to the $\frac{1}{4}$ s. bet. 33-34. Found a Popple 7 s. 44° W. 12 ft. Popple Stub 4 N. 49° Dist. 9 ft. Then set an iron pipe 4 ft. long $2\frac{1}{2}$ in diam. Drove in ground 2 ft. and piled stone around it. Then set the $\frac{1}{4}$ s. bet. S. 35-34. An iron pipe 4 ft. by $2\frac{1}{2}$ in diam. Drove in ground 2 ft. This cor. stands in hay meadow. No stones or trees near. Cor. is equal dist. bet. 2 sec. corners. Then went to the cor. sec. 34-35-2-3 on Co. line. Found Birch down. B.T. old goat witness: Birch 8 N. 165° E. 3 ft. Popple down 10 s. 70° E. 8 ft. 2 other stumps that correspond with W. S. field notes and Popple post. 3 ft. long by 4 in. marked S. 34-35-2-3. So being satisfied this is the true cor. set an iron pipe $3\frac{1}{2}$ ft by 3 in diam. stamped S. 34-35-2-3. Then went to the $\frac{1}{4}$ s. south side 35 bet. 35 s. 2 on Co. line. Found a Popple post marked

C

S. 35-2. Timber all burned 1918. So being satisfied this was true 1/4 S. cor. to 35-2. I set an iron pipe 4 ft. long 2 1/2 in. diam. Then went to the common center sec. 35- where the true 1/4 lines intersect. Found the C. hub. Then set iron pipe 4 ft. by 2 1/2 in. Drove in ground 2 ft. no stone or trees left on account of forest fire. Good land with lots of meadow. Hay all cut. Then we went to the 1/4 S. bet. sec. 28-27. Set an iron pipe 4 ft. by 2 1/2 in. Then went to the M.C. cor. bet. S. 27-28. Found a post marked M.C. 28-29. on N. shore Blind Lake. Found an old pine stump B.P. Pine stump 14 N. 40° E. 14 ft. Pine stump 8 N. 30° W. 12 ft. Satisfied this is true M.C. cor. I set iron pipe 4 ft. by 2 1/2 in. Then went to the common center sec. 28. Found the following witness trees: Popple 6 N. 10° E. 49.9 ft. Popple 7 N. 53° W. 40.7 ft. Then set an iron pipe 4 ft. long 2 1/2 in. diam. for the C 1/4 S. 28.

Oct. 1, 1919

Same men. Then went to the 1/4 S. bet. 27-34. Found following witness trees: J. Pine 7 S. 47° E. 17.5 ft. Popple 5 N. 30° W. 28.8 ft. Then set an iron pipe 4 ft. long 2 1/2 in. diam. for the 1/4 S. 27-34. Then we went to center sec. 27. Found following witness B.P.'s: Oak 5 N. 13° E. 89.4 ft. Popple 4 S. 140° W. 92.4 ft. Then set an iron pipe 4 ft. long 2 in. diam. Drove in ground 14 in. on a rock. Then piled up stone 3 ft. high around it. for C 1/4 S. 27. Then we went to the cor. bet. 26-27. Found temp. 1/4 S. so set an iron pipe 4 ft. by 2 in. No trees or stumps near. Cor. set in Muskeag Bog. Then went to the 1/4 S. bet. 26-35. Hub. so I set iron pipe 4 ft. by 2 1/2 in. Center set in small lake. Then went to the 1/4 S. bet. 25-26. Found temp. hub. so set iron pipe 4 ft. by 2 1/2 in. diam. Drove in ground 3 ft. no stone or trees near. Post set in hay meadow. Then went to C 1/4 S. 25. Found witness: Pine stump 30 N. 70° W. 25.3 ft. Popple 7 N. 45° E. 49.9 ft. Then set an iron pipe 4 ft. by 2 1/2 in. Drove in ground 2 ft. for C 1/4 S. 25.

Oct. 5, 1919

Same men. went to the cor. S. 25-24-35-36. Found temp. post. with following witness: Popple 9 N. 90° E. 84 ft. Popple 7 S. 70° W. 70 ft. So set pipe with wooden post inside. Drove in ground 2 ft. Stamped on cap S. 25-26-35-34. Cor. stands in edge of marsh on S. side small lake. Then went to the 1/4 S. bet. sec. 25-34. Found temp. hub. so set iron pipe for true cor. 4 ft. long 2 1/2 in. diam. No trees or stone near for witness. Then we went to the C 1/4 S. 34. Found the following witness trees: maple 7 N. 15° E. 20.8 ft. Oak 10 N. 30° W. 29.2 ft. Birch 4 S. 43° W. 27 ft. maple 7 S. 51° E. 40 ft. so I set pipe for cor. 4 ft. by 2 1/2 in. Drove in ground 2 ft. for C 1/4 S. 34. Soil No. 1. Then we went to the 1/4 S. bet. S. 13-12. Found temp. hub. for 1/4 S. so set pipe 4 ft. by 2 1/2 in. for cor. Drove in ground 2 1/2 ft. for cor. 1/4 S. sec 13-12. Soil 2 rd. rate.

Approximately 80, 100 words.

Field notes of the survey of the Bay River County Road in traps

143-28-143-27-142-28-142-27.

At sta. 527.0 - fence

- " " 600.0 - tax-alder-cedar swp.
- " " 700.0 - spruce-tamck. "
- " " 1200.0 - Δ
- " " 1700.0 - Δ
- " " 1985.5 - Δ 15' R. - N 47° 15' W.
- " " 2983.0 - Δ " " " "
- " " 4686.9 - Δ - at Δ 46° 46' L. But find lowland so produce line to N. line sec. 30.
- " " 5623.0 - Δ 46° 12' L. S. 86° 33' W North line sec. 30-143-27.
- " " 6468.3 - Δ 1° 33' L. 85° 00' W. - 1/4 cor. Beh. sec. 19.-30. laye- 0.2 to south.
- " " 7200.0 - Pot. At sta. 7700.0 - ent. tamck. swp.
- " " 7818.7 - " 1/16 cor. laye 3.8 to R.
- " " 9077.6 - Δ 90° 45' L. 55° 45' E. On Rge. line sec 19-24-25-30. sec cor. laye 7.6 to R.
- " " 10397.0 - 1/16 cor marked 1320 by J. Flynn.
- " " 10500.0 - lve. tamck swp. enter heavy hardwood.
- " " 10600.0 - Pot. higher land.
- " " 10700.0 - Rocks and hardwood.
- " " 10800.0 - Tax-Alder.
- " " 10950.0 - Leslie Mc Anich house - 100'.
- " " 11100.0 - Pot.
- " " 11600.0 - "
- " " 11736.0 - 1/4 cor. Iron monument laye to left 19.8
- " " 12400.0 - S 5° 20' E.
- " " 13400.0 - Pot.
- " " 14100.0 - "
- " " 14303.5 - 1/16 S. 2h. cor sec 30 the continue chn. from true sec cor. True sec. cor. laye 5.0 west according to Baldwin in 1916 Ent. tamck. swp.
- At sta. 15900.0 - Δ 11° 41' R. S 27° 45' W.
- " " 16323.6 - Δ 11° 10' L. S 16° 35' W. to N. E. end of bridge.
- " " 16536.0 - N. E. end of bridge. 1/32.3 Bridge.
- " " 16859.0 - S. W. end of "
- " " 17000.0 - Run magnetic from 16750.0 could not get line on account of pitting not cut off.
- At sta. 17565.5 Road to left.
- Cautions from random lines.
- Sta 484.6 E 1/16 cor. N line sec. 30 to 6468.3 1/4 cor. N. line sec 30. 1000 1504 per 1 ft. is.
- Sta. 6468.3 to 9077.0 N. W. cor sec. 30. 1000 28366 per 1 ft. Sta. 9077.0 to 11736.0 W. 1/4 cor. sec. 30. 1000 73802 per 1 ft. Sta. 11736.0 to 14302.4 S. 1/4 cor sec 30. 1000 83106 per 1 ft.
- Group 2

C

Blank Blank 3435

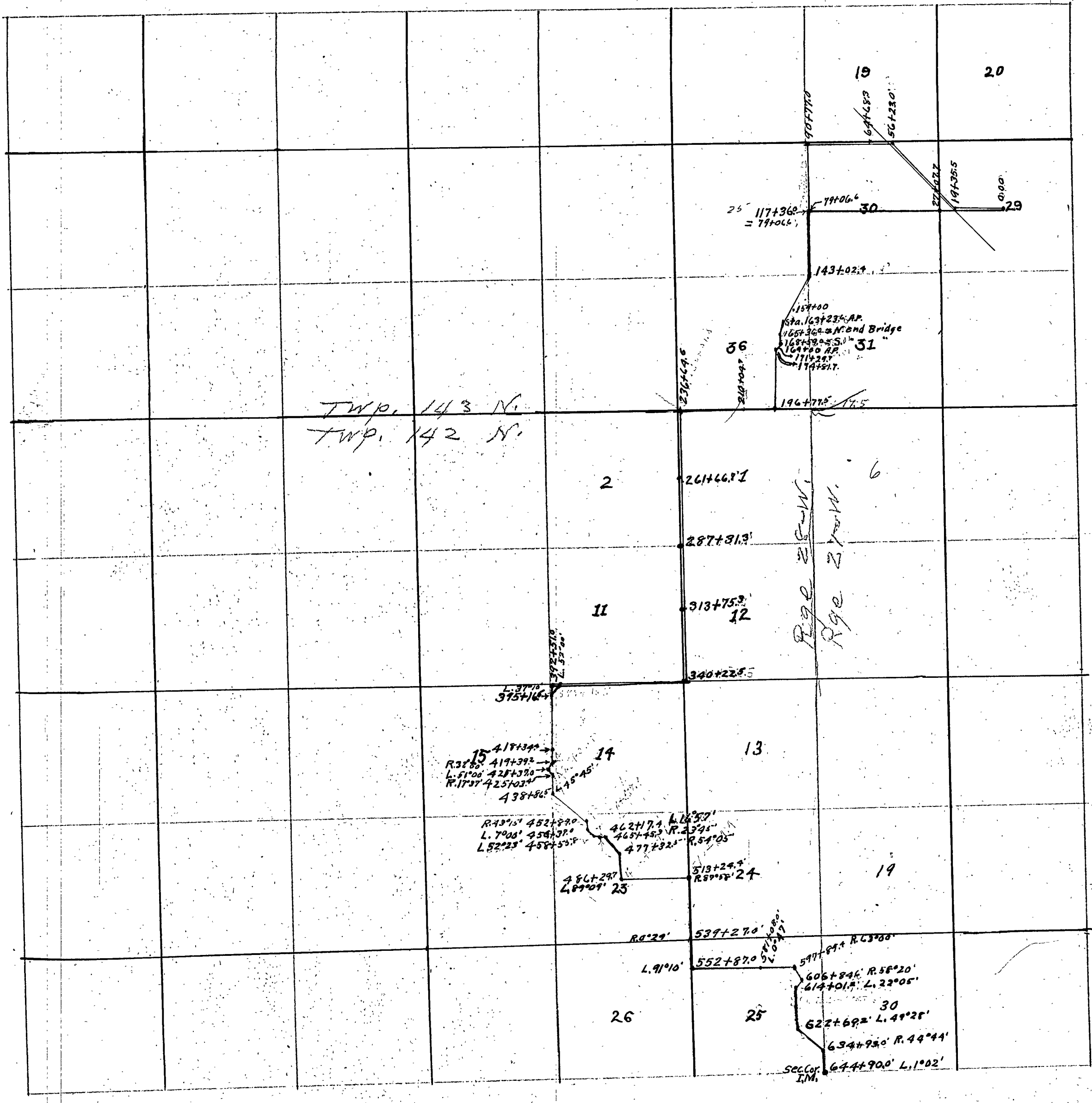
Survey Record No. 435.

Aug 22-23-24-25-1919	E. B. Hersh, transitman, B. M. Beach, chainman, Robt. Misk, axeman.
Connecting lines from E. $\frac{1}{16}$ cor. N. side of sec 30 = Sta 484.4 to Sta 14302.4 S. $\frac{1}{4}$ cor. sec. 30. Sept 1-2-3-4-1919. E. B. Hersh transitman, B. M. Beach, chainman connecting lines	
th. from cent. of sec. 29 th. to sta 7953.5 = $\frac{1}{4}$ S. cor. th. side of sec 30. also (11734.0).	
And change of line from sta. 14302.4 (S. $\frac{1}{4}$ cor. sec 30) to sta 16323.4 as per diagram on page 30 - of Boy River Road book.	
At Sta. 17465.5	continue line S. th. 16.2 ft. - (Crew. Hersh, Anderson, and Lunge - (Oct 2-1919).
" " 17481.7	Δ L. $42^{\circ}55'$ R. P. fence post. S $75^{\circ}E$ 34.4 ft. In plowed clearing small brush.
" " 17500.0	N. th. cor. of fence 33 ft. L.
" " 17600.0	House L. 250 ft.
" " 17830.0	S. th. cor. of fence 33' L.
" " 19677.5	\odot E $\frac{1}{16}$ cor. on twp. line sect. 36-1. Right $89^{\circ}05'$ W. on twp line. Bth. sect-36-1
" " 20629.0	On rise Magnetic bearing N. $88^{\circ}45'$ W. (Jan $8^{\circ}30'$)
" " 21004.7	S. M. $\frac{1}{4}$ S. cor. secs. 1-36 ¹⁴³⁻²⁸ 142-28. Dragon trail leaves right of way N.
" " 21075.0	ent. swp. 1' to hard bottom.
" " 21125.0	creek.
" " 21225.0	lve swp.
" " 21400.0	Dragon trail on right of way. {21700.0 Ray Misk starts work}
" " 22350.0	S. end of swp. 30 ft wide.
" " 22500.0	Post & rail fence - 73 ft R.
" " 22700.0	Reinher's log house 75 ft R.
" " 23400.0	Dragon trail lve. right of way.
" " 23415.0	ent. ranch. swp. at N. end.
" " 23580.0	lve.
" " 23664.6	\odot S. M. to cor. of sect. ^{35-36-143-28} {1-2-142-28}
" " 23700.0	S. on cut out right of way - 66 ft wide.
" " 26166.7	\odot $\frac{1}{4}$ Cor. Bth. secs. 1-2.
" " 28731.3	\odot S. M. sec. cor. to sect. 1-2-11-12. 142-28
" " 28731.3	R. $4^{\circ}23'$ S. on sec. line bth. sects. 11-12, 142-28. Mag bearing S. $4^{\circ}30'$ th. Jan $8^{\circ}30'$
" " 29200.0	Schoolhouse. 24' L. (22 ft wide.)
" " 31375.3	\odot S. M. $\frac{1}{4}$ S. cor. bth. sects. 11-12.
" " 34022.5	sch County S. M. \odot plus. Genl Land Office S. M. cor. to sects. 11-12-13-14-142-28.
" " 34022.5	R. $80^{\circ}16'$ th. bth. secs. 11-14. slightly rolling.
" " 35326.0	Gate road bears N. & S.
" " 35370.2	th. S. $\frac{1}{16}$ cor. (Hood stake).
" " 36470.0	E. side of swp.

- Ab. Sta. 36715.5 1/4 S. cor. sec. 11-14 - U.S. wood post. B. to Ash 5" N.E. 37.7 ft. Pine 9" S.E. 49.1 "
- " " 36715.0 E. side of small ridge extending N.
- " " 36755.0 2h. " " "
- " " 37080.0 lve. scarp.
- " " 38062.3 To U.S. 1/4 S. cor. sec. 11-14 - wood post.
- " " 39251.0 left 52°00' cor. to sec. 14-11-14-15 sets 2h. 162.5 ft.
- " " 39400.0 ent. scarp.
- " " 39480.0 lve. scarp. (dry at present).
- " " 39516.5 left 37°10' S. on sec. line sec. cor. 10-11-14-15 sets N. 209.2 ft.
- " " 39650.0 Spring creek - 1.5 ft. wide N. N. & S. E.
- " " 39936.9 U.S. 1/64 cor.
- " " 40350.0 Dragon trail N. E. & S. 2h.
- " " 40566.5 U.S. N. 1/16 cor. (wood post) sec. 14+15.
- " " 41196.1 " " 1/64 cor. (" ")
- " " 441834.4 1/4 S. cor. Beh. sec. 14-15.
- " " 41939.2 R. 32°00' Cedar scarp. soft. Left R. Pa. Jun. 12 S. 51° E. 44.1 Cedar 8 E. 43.4
- " " 42137.0 L. 51°00' R. Pa. Birch 10 N.W. 47.1 " 15 S.W. 57.1
- " " 42503.4 R. 17°37' S. 0°12' W on sec. line R. Pa. Birch 14 N. E. 34.7 " 10 S. E. 53.0
- " " 43218.9 U.S. S. 1/16 cor. Beh. sec. 14-15
- " " 43886.5 " " " 1/64 cor. Left 45°45' R. Pa. Birch 10 N. E. 2h. Balsam 6 S. 48° 2h U.S. sec. cor. 14-15 sets S. 667.6 - 1.1M
- " " 44600.0 lve. Junck scarp.
- " " 44856.2 sec. line sec. 14-23. N. 2h. 43°30'
- " " 45289.0 Right 43°15' R. Pa. Oak 9 East 36.0' aspen 12 N. 53.2'
- " " 45300.6 ent. scarp. Boy Lake 50' left
- " " 45600.0 seawall. Left 8'
- " " 45637.0 Left 7°00'
- " " 45855.8 " 52°23' R. Pa. Pop. 5" S. 24.7 " 8" N. E. 46.8
- " " 46010.0 Edge of small creek 5' to sand bottom.
- " " 46018.0 lve. creek.
- " " 46217.4 On low seawall. Left 16°57' Boy Lake 160' left.
- " " 46500.0 " " 35' "
- " " 46545.3 R. 23°45'
- " " 47732.5 " 54°05' R. Pa. Aspen 20 N. E. 38.4 Ash 5 S. E. 39.1 South on center line of sec. 23. Boy Lake N. 180.'
- " " 47900.0 ent. cedar lowland.
- " " 48629.7 left 89°09' R. Pa. aspen 6" W. 48.5 " 8" S. 42.9 U.S. J. M. 1/4 cor. sec. 23. East on center line
- " " 49030.6 Field 15' Right. (N. W. cor.)
- " " 49100.0 In small hole dug drainage ditch.
- " " 49400.0 lve. heavy aspen timber.
- " " 49475.0 ent. open meadow (dry)
- " " 50185.0 lve. " " ent. Aspen timber.
- " " 51324.0 R. 87°58' U.S. J. M. 1/4 sec. cor. to sec. 23-24-142-28 Old logging road 40 E. R. Pa. aspen 8" N. W. 55' " 10" N. E. 74.9
- Ab. Sta. 51498.0 E. & 2h. wagon road.
- " " 51650.0 centre of Log. Road N. E. & S. 2h.
- " " 52000.6 enter spruce scarp. lve. log road.
- " " 52626.0 U.S. J. M. S. 1/16 cor. sec. 23-24.
- " " 53100.0 cross E. & 2h. Logging Road.

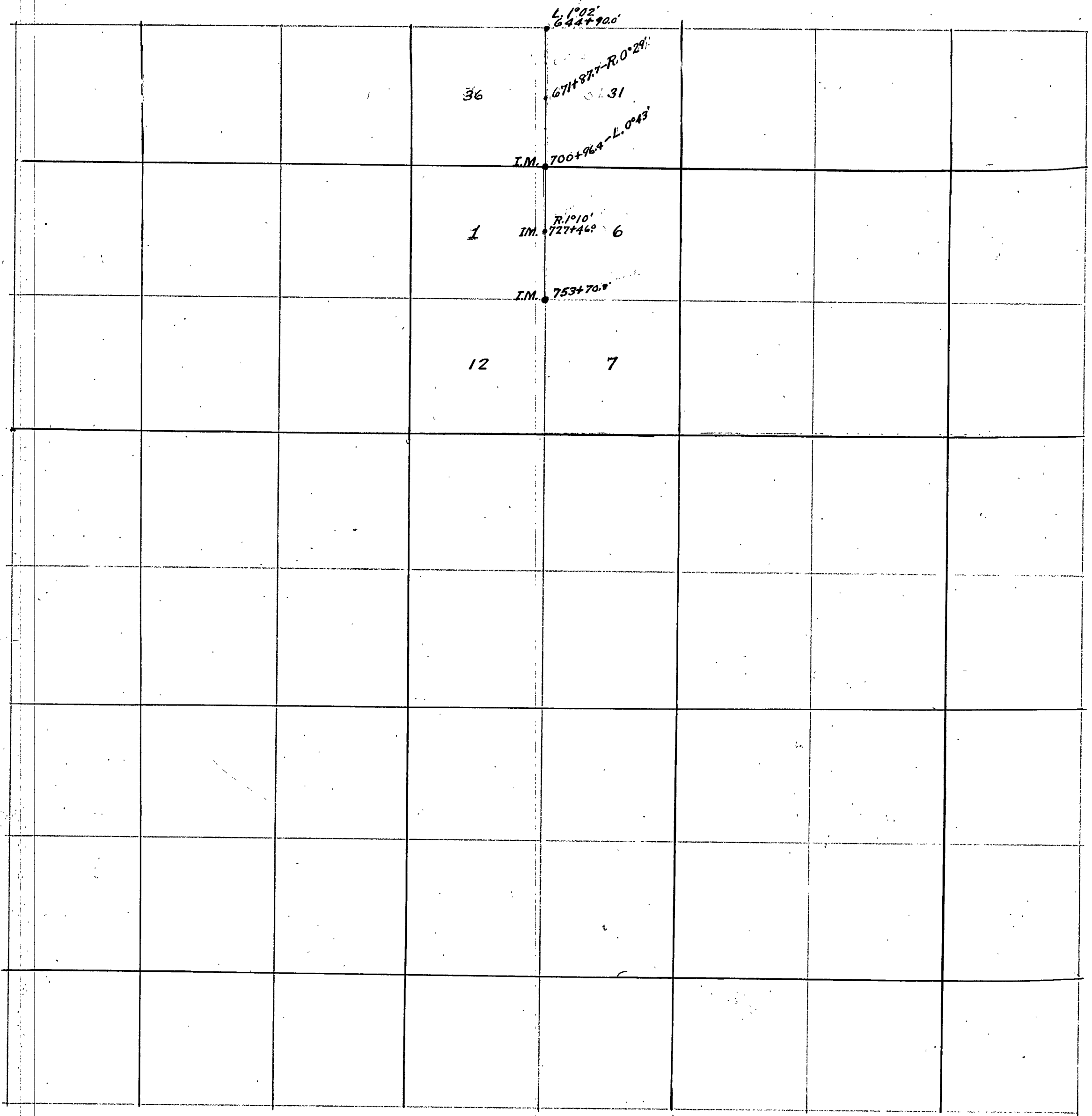
At. Sta. 53100.0 ent. Jamch. swp.
 " " 53927.0 R. 0°29' U. S. I. M. sec. cor. 23-24-25-26.
 " " 54100.0 ent. Jamch & Spruce swp.
 " " 54400.0 ent. large Jamch & cedar.
 " " 55200.0 lve. swp. ent. Aspen timber.
 " " 55287.0 Left 91°10' U. S. I. M. N. 1/16 sec. cor. 25-26 R.P. ^{Aspen 12" 2h. 89.2} " 12" S. 2h. 40.9 also B. M. on line
 " " 55442.0 wire fence. N. O. S.
 " " 55446.0 cent. of N. O. S. road not graded.
 " " 56141.0 N. O. S. wagon road.
 " " 56473.0 fence. enter N. edge of clearing.
 " " 56645.4 U. S. I. M. N. 1/16 S. cor. sec. 25.
 " " 56803.0 wire fence.
 " " 56910.0 wagon trail N. N. S. E. crosses line.
 " " 57028.0 " " " " " " " "
 " " 57200.0 E. & Th. wagon road 15' left.
 " " 57300.0 " " " " " " " " 25' "
 " " 58008.0 fall 4.70 ft. N. of U. S. I. M. O. C. N. 1/16 sec. cor. 25 ^{set over cor.} left. 0°47' from line
 " " 59317.0 U. S. I. M. N. E. 1/16 sec. Cor. 2h wagon trail left 15' ft. N. 1/2 of R. ^{cleared.}
 " " 59789.4 Right 94°48' R. P. ^{Balsam 7" N. 54.0'} " ^{Oak 20" E. 58.5'} also B. M.
 " " 61700.0 lowland. Balsam cedar + Jamch.
 " " 61788.0 Creek 5' wide flows E.
 " " 61850.0 lve. lowland.
 " " 61972.0 Left 45°50' R. P. ^{Aspen 10" S. 70°15' 2h. 33.6'} " ^{10" S. 12°30' 2h. 53.2'}
 Change of line. At. Sta. 59789.4 R. 63°00'
 At. Sta. 59810.0 ent. heavy timber.
 " " 60408.0 N. E. & S. Th. wire fence.
 " " 60500.0 edge of J. C. Hoffmann's field.
 " " 60670.0 E. & Th. wire fence.
 " " 60684.6 R. 58°20' R. P. ^{Maple 12" N. 58° E. 63.4} " ^{14" S. 55° E. 74.0} 2h wagon Road 10' wide L.
 " " 61000.0 lve. field.
 " " 61200.0 ent. timber.
 " " 61401.2 Δ L. 72°05' Point on E. & Th. centerline R. P. ^{Aspen 12" 28°45' 2h. 75.0'} " ^{9" 76°00' 2h. 44.0}
 " " 61500.0 heavy timber.
 " " 61900.0 N. edge of swp.
 " " 61952.0 cent. of small plank side creek 5' wide flows east.
 " " 62000.0 S. side of swp.
 " " 62269.0 Δ L. 49°28' R. P. ^{Bal. 5" S. 39°45' 2h. 35.3'} ^{Aspen 8" N. 74°30' 2h. 51.8'}
 " " 62375.0 ent. heavy cedar 2h. side.
 " " 62650.0 " " hardwood.
 " " 62770.0 Old road. N. E. S. Th.
 " " 63464.0 " " "
 " " 63493.0 Δ R. 44°44' S. on eye line bet. sects. 25-30 R. P. 27-28 R. P. ^{Balsam 10" N. E. 51.4'} ^{Aspen 12" S. E. 62.0'}
 " " 63500.0 Cleared road. 60' wide.
 " " 63795.50 U. S. I. M. 1/16 cor.
 " " 64490.0 " " " " " sec. cor. 25-30-31-36 L. 1°02' R. P. ^{2h. Pine 16" N. E. 92.7} " ^{8" " W. 94.8}
 " " 65500.0 N. edge of swp. carduroy road 10 ft. wide
 " " 65840.0 U. S. I. M. N. 1/16 cor. (U. S. B. Sta. E. 16" S. 2h. 60.6

Plat: ²⁵ Survey Record 435.



43535

C



C

435.

- Ab. Sta. 66325.0 S. end of corduroy line swp.
- " " 66514.3 @ U.S. S. M. 1/4 cor.
- " " 67187.7 @ " " " " 1/4 sec. cor. 31-36 R. 0°29' R. Pa. ^{Map. Pine 8" N.E. 57.4} ^{Mich. 6" N. 24. 68.35} } Cent. of Road 14' wide.
- " " 67200.0 ent. Jamch swp.
- " " 67900.0 line " "
- " " 68691.8 @ U.S. S. M. S. 1/4 cor.
- " " 69000.0 edge of shallow pot hole
- " " 69275.0 line " "
- " " 70096.4 @ U.S. S. M. Jwp. Cor. {142-27-28} L. 0°43' R. Pa. ^{Aspen 7" N. 80°E. 51.0'} ^{" 7" S. 44°E. 71.4'}
- " " 71420.6 @ U.S. S. M. N. 1/4 cor.
- " " 72746.0 @ " " " " 1/4 cor. Sec. -1-6. Right 1°10' R. P. Slopes 33' E. 33' W.
- " " 73050.0 Road turns S. 2/4 leaves Right of way
- " " 73100.0 ent. dry pot hole
- " " 73250.0 line " "
- " " 73930.0 E. of 2/4 wagon road. not graded. Bears S. E.
- " " 74056.5 @ U.S. S. M. S. 1/4 cor. in a hollow
- " " 74100.0 Wagon road returns to R. of way.
- " " 75370.8 @ U.S. S. M. Sec. cor. to sec. 1-6-7-12-¹⁴¹ 27-28 R. Pa. ^{Map. Pine Stump 30" S. 24. 120.0} ^{U.S. B.T. R. Oak 18" S.E.}

1/4

end of line

Recorded Sept. 9, 1920

Jas. H. Flynn, County Surveyor,
 per Elmer B. Horst, Deputy.

Field notes of the survey of a County Road in sections -
14-15-16-21-22-23-25-26-27-28-33-34 - Twp-137N-Rge-29W
5th P.M. Minn.

C. B. Horst - Transit.
E. L. Tustler
Burdick Anderson
Archie Siltman
Orie Siltman } Crew.

June 10, 1920

At hub 2600 N. - on a random line run by J. W. Curo
between secs. 27-26 - run north as follows.

At 4806.8 - old hub of Curo's north of lake.

" 5222.5 N. - Curo - P.I. on Random.

" 6763.2 N. - Curo - Hub.

" 7904.5 N. - 1/4 S. set. - $47^{\circ}30'$ E. 52.3 ft.

New Bearing Trees to 1/4 S. Cor. Secs - 22-23.

Pop. 1. $718^{\circ}15'$ E. - 38.5 ft.

" 9 S $85^{\circ}30'$ W - 34.8 ft.

7939.6 N 1/4 Set East 38.4 ft.

East and West Random line 22 x 26.

At 5293.0 N Cor. goes East 26.1 ft² from P.I.

" 5334.6 W. Cor goes 70.5 from P.I.

" 2646.5 1/5 between 26-27 goes East 13.5 ft.

Bearing Trees - J. P. 7 N W. 43.6 ft

J. P. 12 N W. 65 ft.

East from 1/4 P. between Sec. 26-27.

At 272.6 Hub. - 755.2 Hub. - 1320 Hub. - 153.9 Hub. - 1712.7 Hub

2236-5 Hub. - 2967.7 Hub. - 4002.9 Hub. - 4198.0 Hub. - 4431.4 Hub

4715.6 Hub. - 4972.2 Hub. - 5252.0 Hub. - 5292 1/4 P.

Between Secs - 26-25 - Set south 90 ft - Correction .0170

Running East from 1/4 post between secs 26-25 - set hubs as follows.

174.9 hub - 200 enter swamp, 750 leave swamp, 865.1 hub, 1050 swamp

1115 creek NE & SW. 1200 Leave Swamp. 1222.7 hub. 1474 - old road

1607.3 hub. 1675.0 Swamp. 1900 Leave Swamp. 2686.5 hub

2376.3 hub, 2724.2 hub. 2825 Enter Swamp. 2975 leave swamp.

3365.1 hub, 3500 Enter Swamp, 3683 Creek NE & SW. 4000 - Enter Swamp

4081.2 hub, 5267.3 P.I. on Clark's true line, True 1/4 I.M. Set South

104.8. Correction for line, .0198.

Going west from 1/4 post between Sec. 26-27.

100.0 Hub, 390.6 Hub, 525 Enter Swamp. 725 leave swamp. 188.9 hub

1076.5 old road, 1140 swamp, 1380 leave swamp. 1806 - Hub.

2275 old road. 2409 - Hub. 3028.0 - Hub. 3800 Hub. 4022 - Hub,

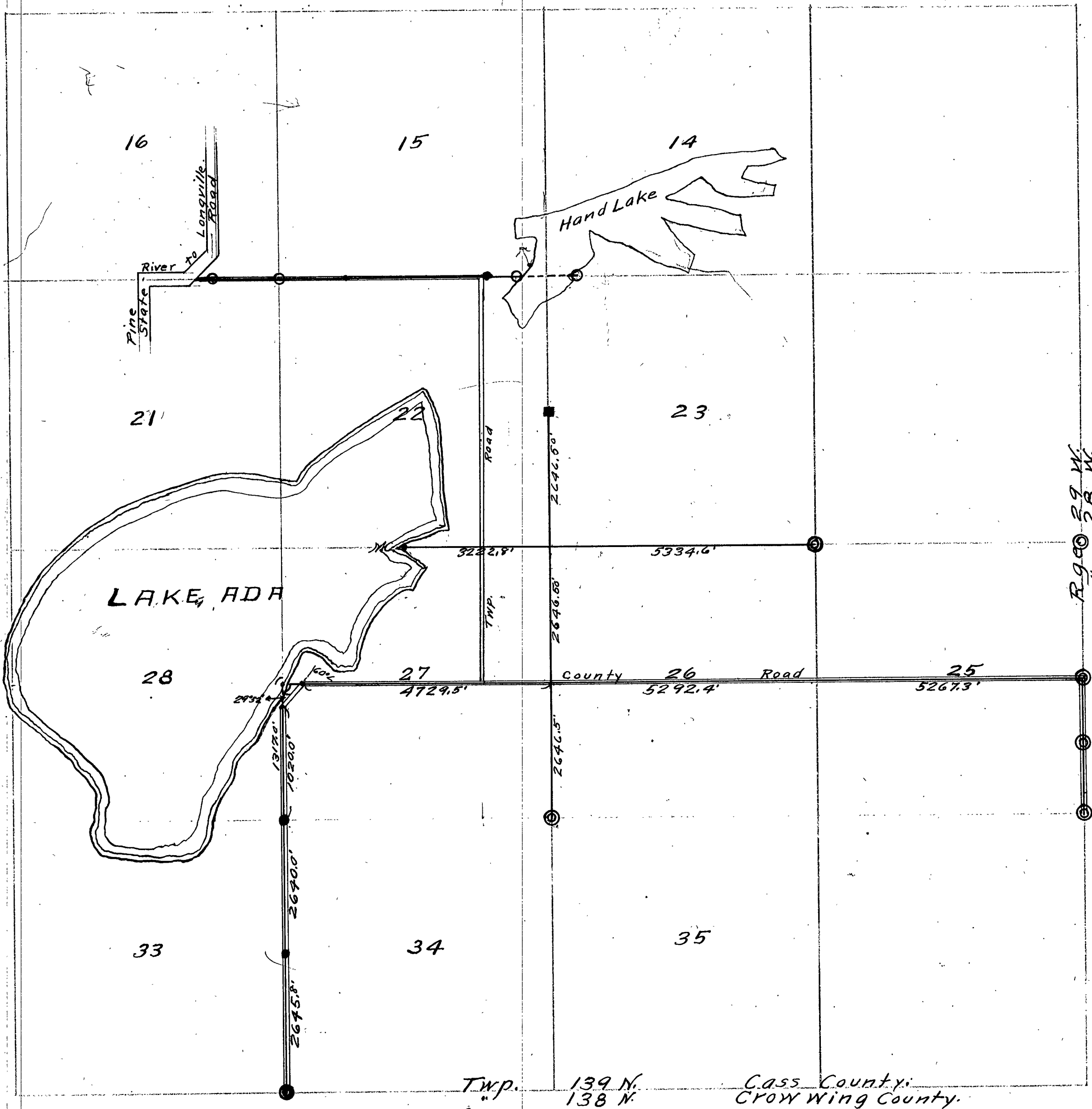
4485.8 Hub - 4729.4 Hub, 4921.0 Hub.

Plat,
Plat

436
Survey Record No. 436.

349

139 29



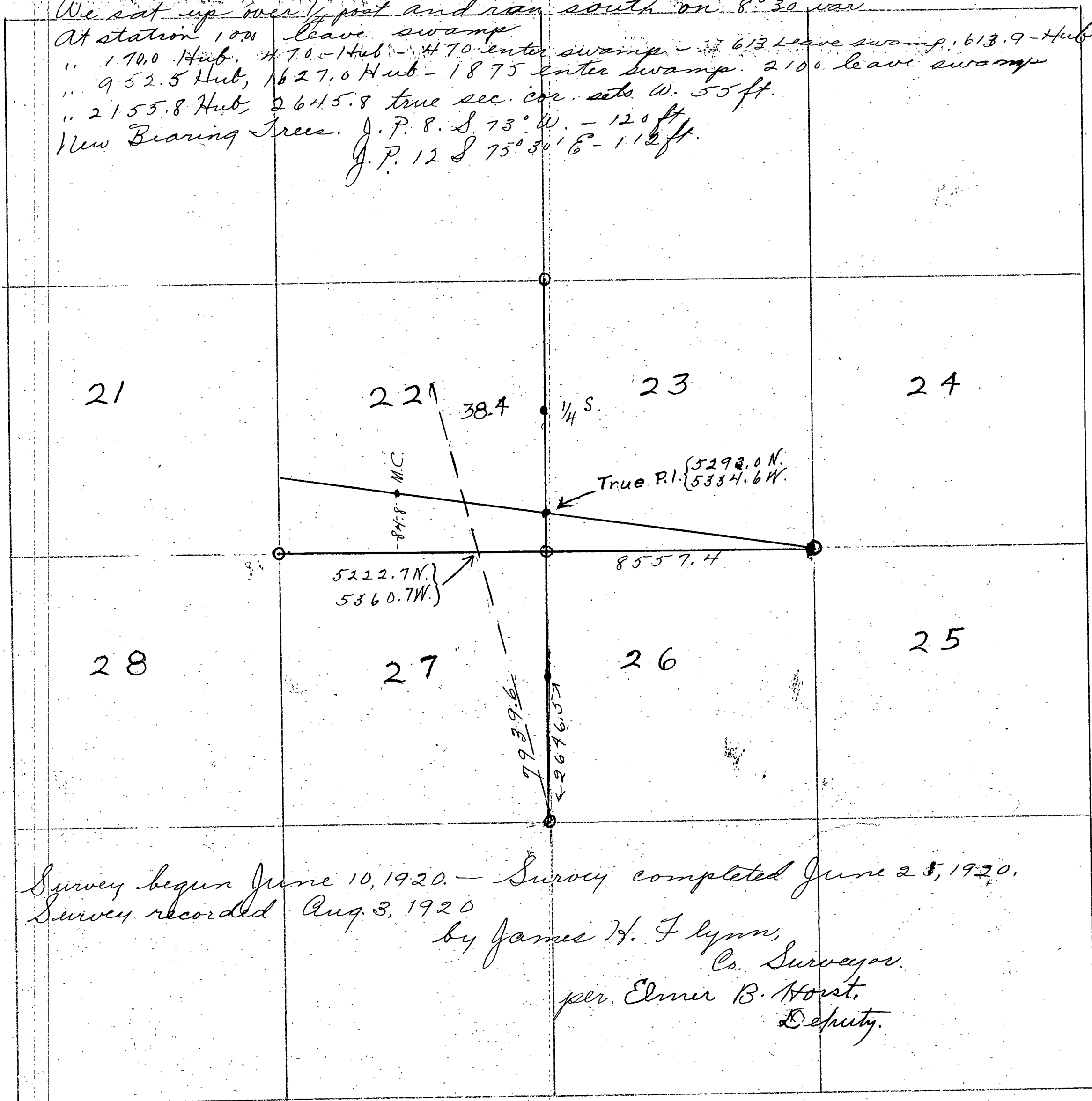
⊙ Iron Monuments.
○ stakes.

Survey Record No. 436.

At Station 4729.4 turn 60° angle left and set P.I. on Curv. true sec line between sec. 27-28.
 P.I. 1020 - Angle from traverse to Curv. line 29° 52'
 At Sec. Cor. 27-28-33-34 we ran south 58° 30' by Curv.
 At 2640 we find 1/4 post between sec 33-34 set by Curv.
 At 63.3 west - correction .0042
 We set up over 1/4 post and ran south on 8° 30' var.

C

At station 1000 leave swamp
 " 170.0 Hub. 470-1 Hub - 470 enter swamp - 613 Leave swamp. 613.9 - Hub
 " 952.5 Hub, 1627.0 Hub - 1875 enter swamp. 2100 leave swamp
 " 2155.8 Hub, 2645.8 true sec. cor. sets w. 55 ft.
 New Bearing Trees. J.P. 8 S 73° W - 120 ft.
 J.P. 12 S 75° 30' E - 112 ft.



Survey begun June 10, 1920. - Survey completed June 25, 1920.
 Survey recorded Aug. 3, 1920
 by James H. Flynn,
 Co. Surveyor.
 per Elmer B. Horst,
 Deputy.

Field Notes of the subdivisions of section 14 T. 141 R. 26, 5th P.M. Minnesota and partial survey of sections 10, 11, 12, 13, 14, 15, 22, 23, 24, T. 141 R. 26 5th P.M. Minnesota

May 17, 1920.

Beginning at the corner of sections 11-12-13-14 - T. 141 R. 26 which was:

Spruce 5 S. 3 W. 47 links
4 N. 15 W. 18 "
4 S. 65 E. 34 "
Jam. 4 N. 27 E. 27 "

Now is:- Stake in centre of State Rural Highway No. 83, also in centre of town road partly constructed leading east (I surveyed this latter road myself in 1915, and from above corner) put down an Iron monument 2 1/2 in x 30 in. then the only witness being a cedar fence post for fence corner; the same being 19.4 ft. N. 88° W. of said monument, then started line N. 89° 50' W. at 1320 ft. temp. 1/6 cor. at 2640, temp. 1/4 corner, not finding original 1/4 post which was:

Aspen 20 S. 24° W. 13 links
Spruce 18 N. 47° W. 30 "

Now is obliterated by time and fires - continued on west, at 3960, temp. 1/6 cor. then on west, at 5473 ft. hub then N. 37° 45' E. to corner of sections, 10, 11, 14, 15 which was:

Jam. 8 S. 36° E. 15 lks
10 S. 28° W. 16 "
7 N. 9° E. 19 "
8 N. 59° W. 28 "

Now is:- Jam. 10 S. 28° W. 16 lks. Jam. (S temp) 8 S. 36° E. 15 links. put down I.M. 1 1/2" x 48"; the same being 54 ft. North and 41 ft. E. of said hub making this section corner 5432 ft. west of N. E. corner. then went back and at 1358 feet, made 1/6 corner to wit:- White Pine stump 11 North 21° 45' west 23.2 ft. then 1358 ft. more and put down I.M. flue pipe 1 1/2" x 48" then at another 1358 put down stake, no object near for bearing. Then beginning at aforesaid corner of (secs. 11-12-13-14, south along said Highway 83, at 1320 ft. temp. 1/6 cor. 1300 ft. said highway turns west at 1325 ft. 1/4 S. for secs. 13, 14, said Town which was, Spruce 10 N. 42° E. 18 links Fir 10 N. 65° W. 10 links

Now is: - Spruce stump 10 N. 42° E. 18 links, put down I.M. flue pipe $1\frac{1}{2}$ " x 48", then continued on south at 875 ft. entered Jam. swamp, at 1320 ft. temp $\frac{1}{16}$ stake, at 2640 ft. hub then S $84^{\circ}30'$ W $\frac{1}{16}$ to corner of sections 13, 14, 23, 24 in which was

Jam. 8 S. 13° W. 28 links

" 8 S. 40° E. 23 "

" 10 N. 76° E. 13 "

Spruce 10 N. 58° W. 18 "

Now is: - the same - put down flue pipe for corner $1\frac{1}{2}$ " x 48". The distance from E $\frac{1}{4}$ cor. to this corner is 2650

Then went north $\frac{1}{4}$ S. as above described, then south 90 at 500 ft. wire fence. S 10° W at 1320 ft. set temp $\frac{1}{16}$ stake, at 2640 ft. temp $\frac{1}{4}$ S. at 2675, centre of St. Rural Highway No. 83, bears East and West, at 3960, temp $\frac{1}{16}$ stake, at 5295 ft. hub then south 50° W. 29.5 ft. to south $\frac{1}{4}$ post said section 14 which was

Jam. 10 N. 36° E. 22 links

Fir 6 S. 5° E. 30 "

Now is: - Jam. stump (with B.T.) N. 36° E. 22 links. Put down I.M. flue pipe $1\frac{1}{2}$ " x 48" for post and made

White pine stump N. 7° W

16 feet for witness.

Distance from N $\frac{1}{4}$ S. to S $\frac{1}{4}$ S. is 5314 ft. then from this point, run line west; at 1320 ft. east side of State Rural Highway no 83 at 420 ft. creek 8 ft. wide running south through a concrete culvert on said State Highway. at 2658 ft. corner of secs 14, 13, 22, 23, in said Town, which was

New Cedar 6 N. 48° W. 20 links

" 8 S. 40° W. 14 "

" 6 N. 16° E. 17 "

" 4 S. 69° E. 9 "

New bearings:

Boulder N. 42° W. 23.4 ft.

Telephone Pole S. 34° E. 51.2 ft.

Now is: - An old stake I dug up out of the road (St. R. H. No. 83) bed and the stake I placed there when I surveyed a Town road west from this point in 1913. Therefore I placed an I.M. at this point $2\frac{1}{2}$ " x 36 in, then

turned north 0 30' west: at 486 ft. enter Jam and alder swamp at 1280 ft. creek 5, S.E. at 1320 ft. temp. $\frac{1}{16}$ corner, at 2640 ft set temp. post and made exhaustive search for original bearing trees which was - Jam S. S. 60° W. 24 links and Jam. 90. S. 72° E. 19 links. - Now is obliterated by time and fires: then continued on at 33 80 and entered pop. ridge at 3960, temp. stake, at 4060 ft. leave pop. ridge and enter swamp, at 5306 ft. above mentioned cor. to sections 10, 11, 14, 15. Then to aforesaid South quarter post and run line east. At 1320, from post, at 1760, enter Jam. swamp, at 2716 ft. corner to sections 13, 14, 23, 24, returned to $\frac{1}{16}$ corner and established bearings to wit: -

Boulder west 40.8 ft.
S. 36° E. 27.7 ft.

then turned N. 91° 25' E. at 1320 set temp. post. At 2640 N. side of St. Rural Highway. No 83. Then started at east $\frac{1}{4}$ S. of said section 4, thence west 90°. At 1124 ft. hub. at 1320 ft. temp. post. at 2640, temp. post. At 3960 temp. post. At 5280 ft. enter Jam. swamp. At 5450 ft. section line 14, 15 at a point 72 ft. south of the proper point for the $\frac{1}{4}$ St. thereof which I established aforesaid temp. post to wit: Jam. 6. S. 74° E. 56.5 ft. Jam. stub 7 N. 16° W. 36.2 ft. Put down I.M. flue pipe $\frac{1}{2}$ x 48 in. then went back 1343 ft. and set stake for cor. (nothing near for bearings) from this post, it is S. 45° 16' E. 38 ft. to corner of St. Rural H. No. 83 then on south, at 1360 ft. put down I.M. flue pipe $\frac{1}{2}$ x 48 in. and at 2081 ft. centre of S. R. H. No. 83. At 2662.5 $\frac{1}{16}$ St. Put in new bearings to wit:

Cedar 9 N. 68° 45' E. 71 ft.
Elm 7 S. 54° 30' E. 42.8 ft.

New bearings at $\frac{1}{16}$ post equidistant and on line between E. $\frac{1}{4}$ S. and S.E. cor. are: - Black Ash 6 N. 89° E. 28.7 ft.
Fir 3 S. 78° W. 11 ft.

No trees near the two successive posts on the line running west from this post, therefore no witnesses to these posts. all other stakes put down, have no witnesses for the same reason, that is, where no witnesses are mentioned

Survey began May 17 1920 and ended June 12 1920. The following persons assisted in the survey to wit: -

J. J. Murphy, axe - chain, 13 days.	52.00
J. J. Fosdick, " " " 13 "	52.00
Wayne McVey, " " " 8 "	32.00

The following were witnesses to all corners established - J. H. Flynn, J. J. Murphy and Bert J. Fosdick. Govt. survey reported 640 acres in this section. - This survey gives 658.99

~~_____~~
at a hill on the left from road
10 Corn Measurements
Total cost of survey - \$2.00

_____ 3
_____ 1.40
_____ 3.40
_____ 5.80
C. H. J. Lyman
County Surveyor,
Pascagoula County, Miss.
June 22, 1900

C

437

355

Survey Record No. 437

My bill with expenses is: \$ 141.30
Ten Iron Monuments 9.40
\$150.70

Total cost of survey \$287.70.00

June 21, 1920
James H. Flynn,
County Surveyor, Cass County.

C

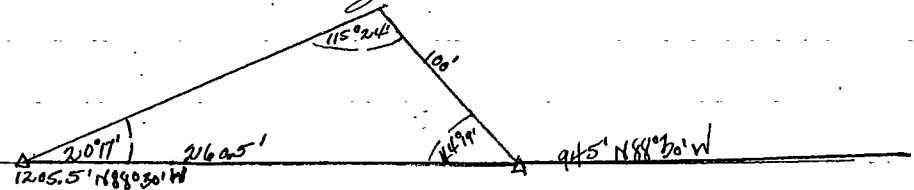
Field Notes of the survey of sections 26-27-28-33-34-35 Twp. 137 N., Rge. 31 W. and sections 3-4 Twp. 136 N. Rge. 31 W. of the 5th P.M. Cass County Wisconsin. also Field Notes of the subdivision of section 34, T. 137-R. 31.

July 9. Lincoln Mackey goes to Walker in Frank's car and gets notes and data on sec. 34, T. 137 R. 31.

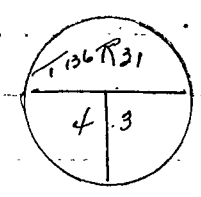
July 10. Lincoln Mackey goes to Walker and gets Iron Monuments. Works in office. Make preparations to leave for sec. 34 T. 137 R. 31

July 12 - 1920 Monday. Hire J. P. Brennan's car, of Hackensack, Minn. and drive to sec. 34-137-31 arrive at Less Leveringtons farm and have dinner. P.M. myself and party consisting of personell as follows: Lincoln Mackey, Engineer; C. E. Steadland, Asst Eng., R. D. Aylsworth, chainman, Leon LaHalle, chainman, Harry James, Asst. man; begin survey for subdivision of sec. 34-T. 137-R. 31. Beginning at the cor. to secs. 27-27-34-34 which I reestablished from old Gov. B.T. Colm N 61° 20' 65 links. I set an I. M. 2 1/2" x 30" flush with ground, in center of road intersection. I set transit over this I. M. and thence run S 0° 55' W, on random line between secs. 34 and 35. Along center of graded road. At 1376' set temp N 1/2 cor. At 2640' set temp 1/4 sec. cor. At this point make a search for old cor but find no evidence of same. At 3960' set temp 2 1/2 cor. At 5390.7' Intersect wooden post for cor. to secs. 34 and 35 on the 9th Standard Parallel. Set Iron Monument 2 1/2" x 30" at this point.

From the cor. to secs. 34 and 35 (S.E. cor. of 34) thence run N 88° 30' W, on a true bearing along south boundary of sec. 34. At 500' set hub in center of road. At 945.8' set hub for triang. points, and triangulate across marsh as follows



At 1319.4' Set hub for 1/2 sec. cor.
' 1816.5' Intersect 2 1/2" I. M., C.C. for top. 136-31, marked as follows
' 2638.8' Set 1/4 sec. cor.
' 3235.3' hub. at 3958.2' set 2 1/2 sec. cor.



July 13th Tuesday. Start from the cor. to secs. 33 and 34 on the 9th standard parallel and run N 0° 30' E, on random line between secs. 33 and 34. At 1370 set temp. S 1/2 sec. cor. At 2640' set temp. 1/4 sec. cor. Find no trace of old cor. 3960' set temp N 1/2 cor. At 5398.7' Fall 138' West of cor. to sec. 27-28-33-34, which I reestablished from orig. N. P. B.T. to Sec.

I set I. M. and take new B.T. as follows:—
Jack Pine 10" N 44° 30' W 66' Iron Post 8" S 38° 45' E 29'
Iron Pine 6" S 66° 30' W 67.8' Jack Pine 10" N 58° 45' E 94.5' Go to Holmes for dinner.
Return to the cor. of secs. 27-28-33-34 and thence run S 88° 25' E, on true line between secs. 27 and 34. At 1375.55' Set 2 1/2" x 30" I. M. for N 1/2 cor. From which an old bear S 7° E, 15.6' At 2651.1' Set I. M. for 1/4 sec. cor. 1/4: From which a poplar bears S 15° 1/2' W 41.6' dist Poplar 6" bears N 47° 30' E 55.3' dist. 3976.65' set 1/2 sec. cor. 1/2. I. M. set here. At 5302.2' Intersect I. M. to cor. of sec. 26-27-34-35, T. 137 N., R. 31 W.

Return to 1/4 sec. cor. 33 and 34 and begin subdivision of sec. 34. Correct temp. 1/4 sec. cor. to a point 2699.3' N 0° 39' E of the cor. to secs. 33 and 34. From above noted cor. run S 88° 27' E, on true E. and W. center line of S 34.
1374.5' Set C.W. 1/2 cor. 2645.0' Set C. 1/4 cor. 3967.5' Set C.E. 1/2 cor.

(Cont. on page 358)

6771 words

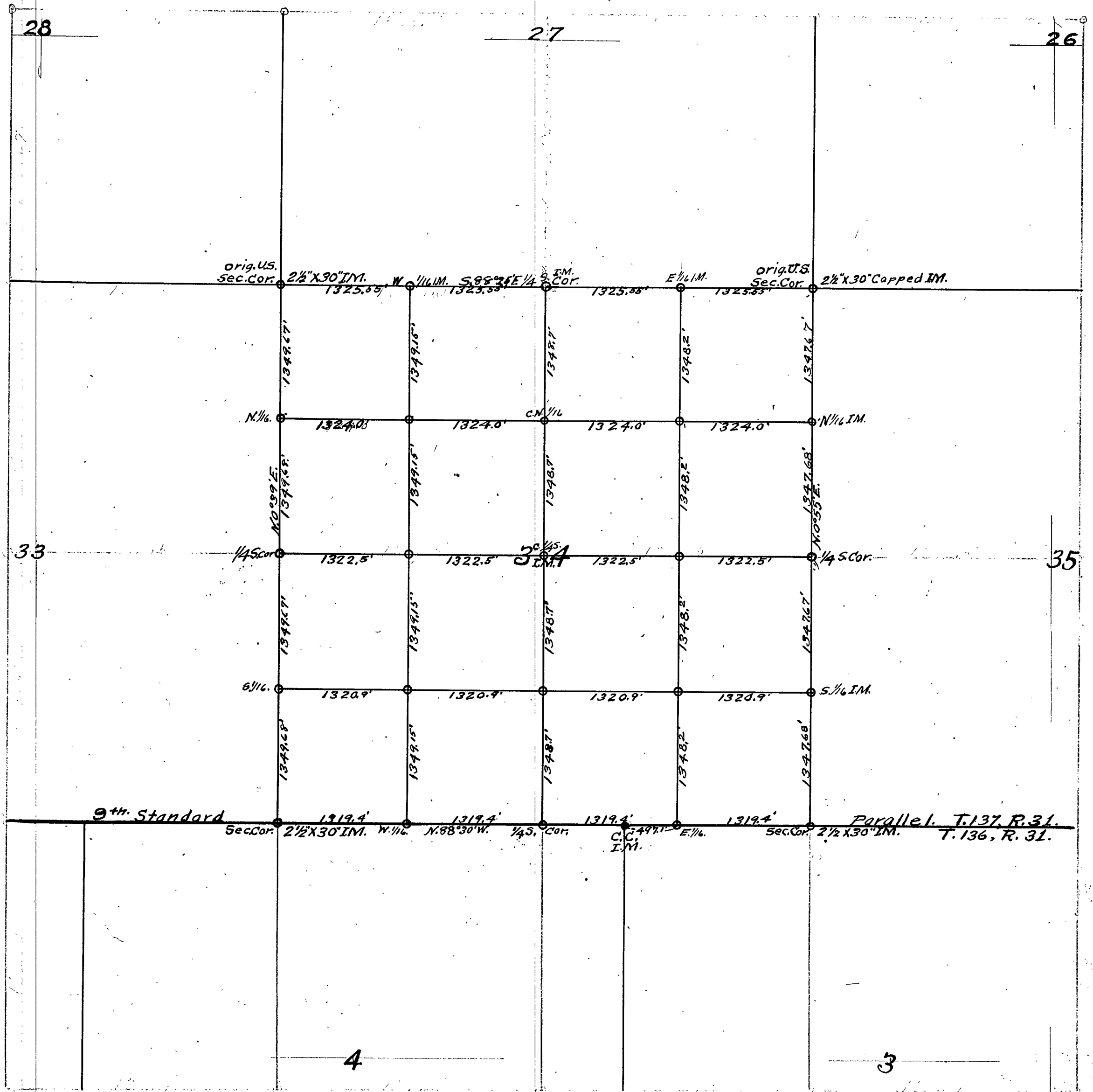
C

Plat of 438
Plat.

Survey Record No. 438.

357

137-31



Survey Record No. 438.

52900' Intersect $\frac{1}{4}$ sec. cor. sec. 34 and 35. No trees available at this point.

From the $\frac{1}{4}$ sec. cor. sec. 27 and 34 T137N, R31W, we run $S0^{\circ}47'W$, on true N. and S. Center line of sec. 34. At 1348.9' we set C.N. $\frac{1}{4}$ cor. At 2697.4 we intersect C. $\frac{1}{4}$ sec. cor. Set an I.M. $2\frac{1}{2} \times 30$ " within the ground. At 4046.1' Intersect C. S. $\frac{1}{4}$ cor. sec. 34. 5394.7' Intersect true $\frac{1}{4}$ sec. cor. on S. bdy. of S 34 - T137N, R.31W.

July 14 - Wednesday. - From the true N. $\frac{1}{4}$ sec. cor. on the W. bdy. of sec. 34, we run $S88^{\circ}26'E$ on true N. $\frac{1}{4}$ line of sec. 34. At 1324' set NW $\frac{1}{4}$ cor. At 2648' Intersect C.N. $\frac{1}{4}$ cor. At 3972' Set NE $\frac{1}{4}$ cor. At 5296' Intersect true N. $\frac{1}{4}$ sec. cor. on east boundary of sec. 34.

At true point for S. $\frac{1}{4}$ sec. cor. on East boundary of sec. 34, we set a $2\frac{1}{2} \times 30$ " Iron Monument flush with the ground and take B. I. Poplar $5^{\circ}S35^{\circ}W$. 65.0' distant. No other trees available. From above noted cor. run $N88^{\circ}28'W$, on true S. $\frac{1}{4}$ line of sec. 34. At 1320.9' Set S. $\frac{1}{4}$ cor. At 2641.8' Intersect C. S. $\frac{1}{4}$ cor. At 3962.7' set SW $\frac{1}{4}$ cor. At 5283.6' Intersect S. $\frac{1}{4}$ sec. cor. on W. boundary of sec. 34.

July 15 - Thursday. From E. $\frac{1}{4}$ sec. cor. on N. boundary of sec. 34, thence run $S0^{\circ}25'W$, on true E. $\frac{1}{4}$ line of sec. 34. At 1348.2' Intersect NE $\frac{1}{4}$ cor. At 2696.4' Intersect C. E. $\frac{1}{4}$ cor. At 4044.6' Intersect SE $\frac{1}{4}$ cor. At 5392.8' Intersect E. $\frac{1}{4}$ sec. cor. on S. boundary of sec. 34.

From the W. $\frac{1}{4}$ sec. cor. on the S. boundary of sec. 34, thence run $N0^{\circ}43'E$ on true W. $\frac{1}{4}$ line of sec. 34. At 1349.15' Intersect SW $\frac{1}{4}$ cor. At 2698.3' Intersect C. W. $\frac{1}{4}$ cor. At 4047.45' Intersect NW $\frac{1}{4}$ cor. At 5396.7' Intersect W. $\frac{1}{4}$ sec. cor. on N. boundary of sec. 34. - This - Return to Pine River in Mr. Graves Car and take train to Hackensack.

259 words
62
91

Field Notes of the Survey of a County Road in Twp 139-29-140-29.
 Lincoln Moberg, Carl Steadman and Robt. Agnew drive from Hackensack to
 farm of J. F. Mellinger in sec. 34-T-140-R. 29th. and begin survey of road in
 sec. 34-140-29 and sec. 3-139-29. Go to th. C. to $\frac{1}{4}$ cor. $\frac{34}{3}$ and locate true
 cor. from original B. G. This th. C. is 295.7 th. of $\frac{1}{4}$ cor. sec. cor. $\frac{34}{3}$

By triangulation we locate a point that is 730' S of the $\frac{1}{4}$ sec. cor. $\frac{34}{3}$.

At Sta. 730.0 set a hub.

- " " 803.0 " " "
- " " 892.0 " " "
- " " 1285.0 " " "
- " " 1565.0 " " "
- " " 1679.0 " " "
- " " 1972.0 " " "
- " " 2143.0 " " "
- " " 2354.9 " " "
- " " 2732.3 " " "
- " " 3369.8 " " "
- " " 3545.0 Road S. th. & N. E.

" " 3597.8 Hub (About 60' N. of N. edge of Ponto Lake on top of steep slope to lake.)

Thence with traverse from hub 3597.8 S.

- S. $73^{\circ}05'$ th. 147.2 to A.P. 1.
- " $13^{\circ}24'$ " 638.4 " " 2 (on shore of Ponto) Thence along lake shore.
- S. $60^{\circ}16'$ th. 240.3 to A.P. 3.
- " $77^{\circ}48'$ " 989.1 " " 4
- " $74^{\circ}58'$ " 268.7 " " 5
- " $37^{\circ}44'$ " 298.1 " " 6
- " $46^{\circ}27'$ " 383.5 " " 7.

From A.P. No. 7 thence we run west. Thence 479.7 intersect I. M. to sec.

34-9-10. 139-29. Return to A.P. #7. and run east bet. sec. 3-10. (No trace of M. C.
 on west shore of Ponto Lake. By triangulation we measure distance across
 Ponto Lake. Distance across lake by Δ is 2356.4 or total Easting of 2835.7 to
 Δ on east side of Ponto Lake.

At Sta. 2835.7 - hub.

- " " 2875.7 - "
- " " 2930.0 ent. swp.
- " " 3225.0 lve. "
- " " 3324.3 hub (Point on stump.)
- " " 3410.0 enter. swp.
- " " 3660.0 lve. "
- " " 3800.0 hub.
- " " 4130.1 "
- " " 4510.5 "
- " " 4705.1 "
- " " 4879.2 "
- " " 5135.0 Road N. & S.

" " 5142.7 hub Thence S. $3^{\circ}48'$ west. 134.5 to cor. of sec. 2-3-10-11
 which is an oak post 4" x 6" x 12" above ground. over. 448

Survey Record No. 439.

C

This corner set by J. C. ... according to settlers evidence

True course of south bdy. of sec 3. - S. 88° 30' E. True distance 5153.9
 True distance for $\frac{1}{4}$ cor. $\frac{3}{10}$ 2576.95. There for our N. & S. line of sec. 3. has a
 true bearing of S 0° 19' 21" distance = 5231.1.

Carried hubs to true line on N. & S. center line of sec. 3. to the hub set at
 730.0 S. From this point we traverse around pond as follows for Road.

N. 39° E.	240.0'	North	East	21.
		186.5	151.0	
" 63 1/2° E.	135.0'	60.2	120.8	
" 40 3/4° "	180.0'	136.4	117.5	
" 30 1/4° S.	436.0'	372.4	215.0	
		735.5	389.3	215.0

N. 59° 32' 21" 278.3 to a hub 245.5 North of $\frac{1}{4}$ sec. cor. $\frac{24}{3}$.

At Sta. 2153.9 set a hub for P. S. Thence. N. 56° 17' 21" 525.2. N. 6° 54' E
 490.2 to a point in road winding north. Set a hub at this point for end
 of Road.

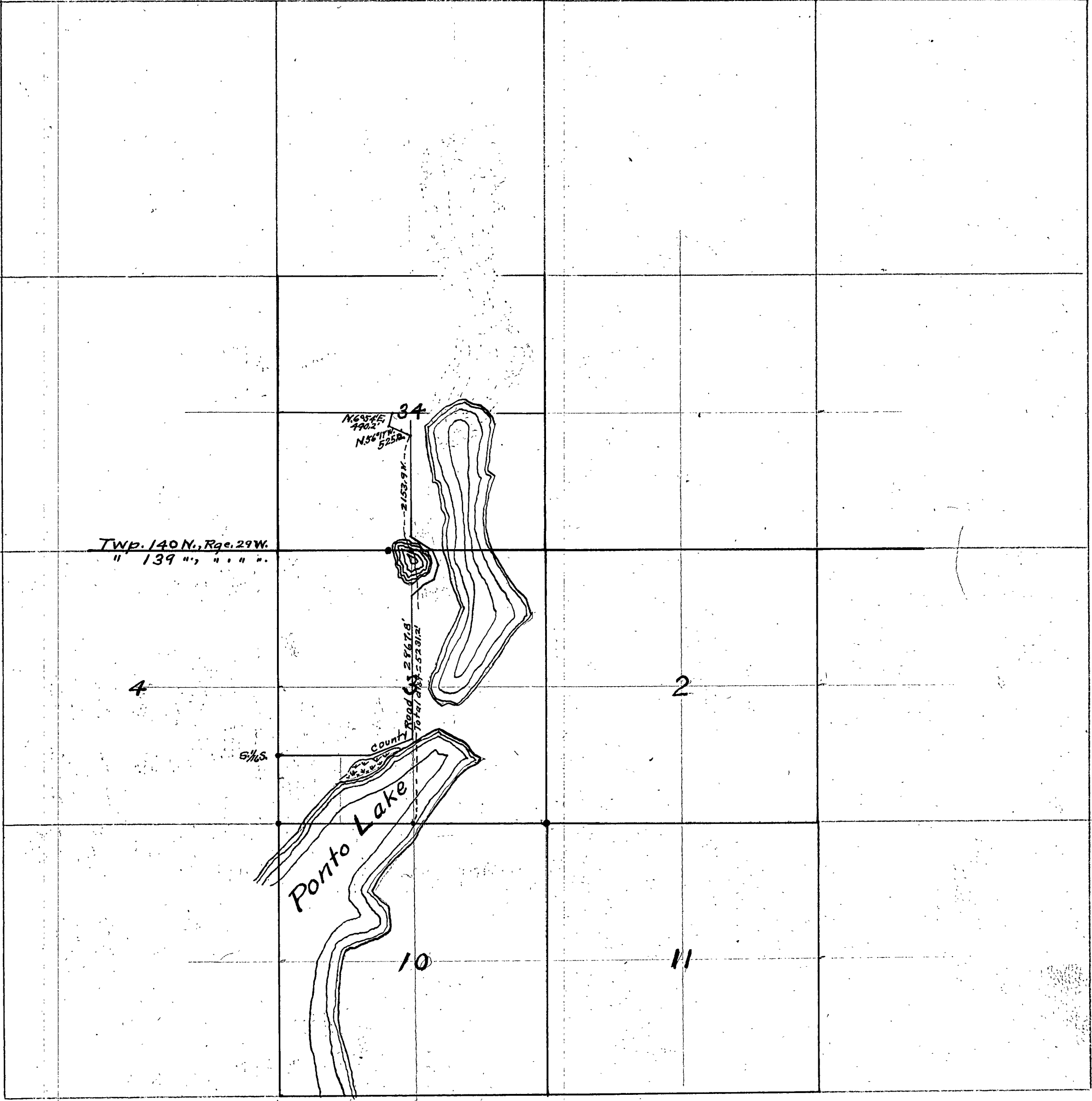
Recorded on Sept. 9. 1920.

By James H. Flynn, County Surveyor
 per Elmer B. Harist, Deputy.

C

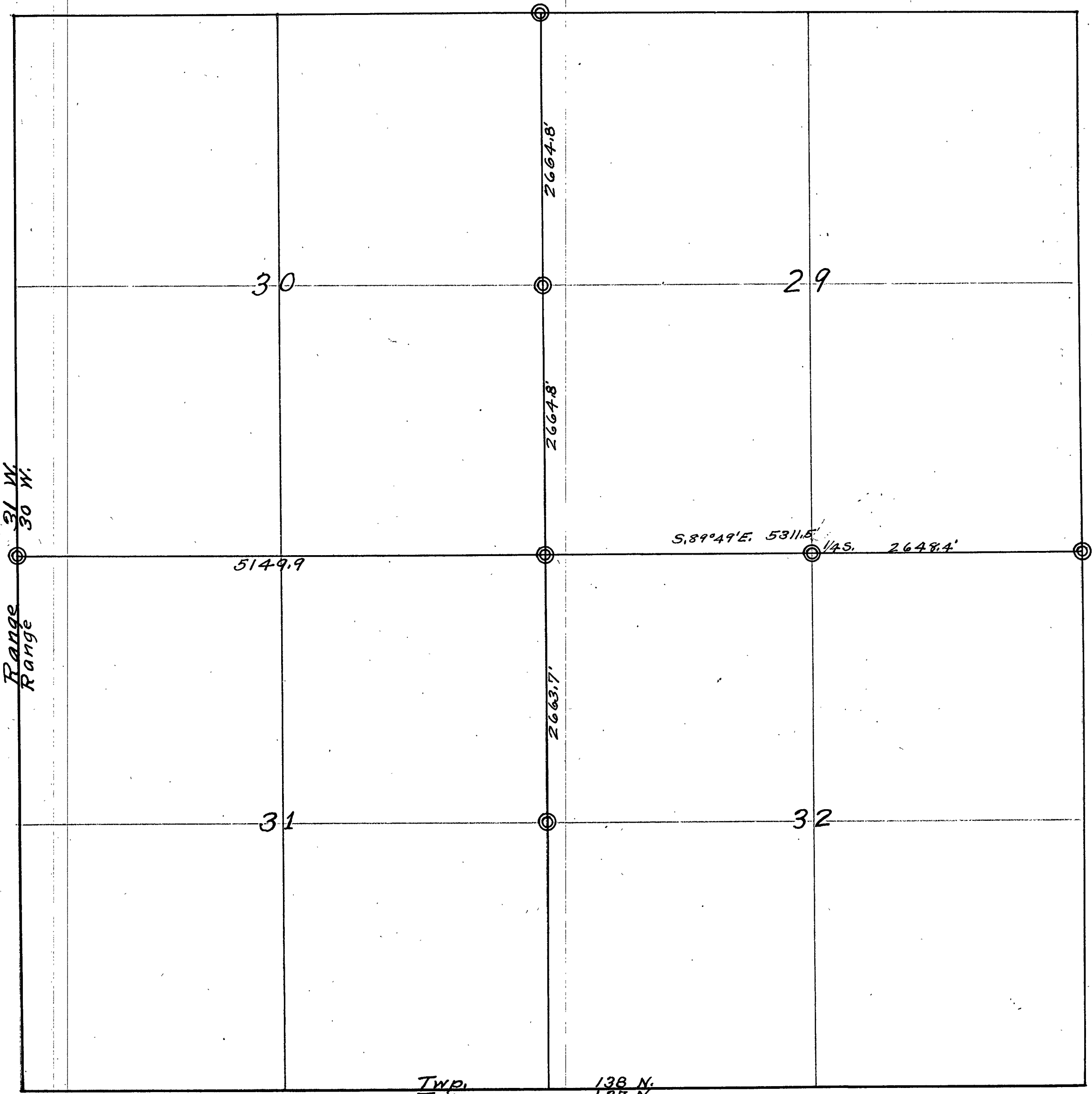
Plat: Survey Record No. 439.

139-140-29



Survey Record No. 440. Plat: C

138 - 30



© denotes Iron Monuments at sec. and 1/4 sec. Corners.

as filed in
Recorder's file
under Twp. 138 N.

Field notes of the survey of a Twp. road in Twp. 138 N., Rge. 30 W. of the 5th. P.M. Cass County, Minnesota.

July 26, 1920

Monday, Beginning at an Iron Monument set at the corner of sections 28-29-32-33, Run thence West on a random line between sections 29-32. At 2640 ft. West we make search for original 1/4 cor. between sections 29-32. Find no trace of same. Continue W. on random line. At 5280 ft. W. I look for original cor. to sections 29-30-31-32. Find no trace of same. Settlers testify that the old corner had never been found and that they had never seen any old witness trees. I then proceed to establish said cor. by double proportion. I continue same line W. at 5179.4 ft. W. I intersect the Range line between Range. 30 + 31 W. at a point 30.4 ft S. of an Iron monument set at cor. to sections 25-30-31-36. This makes a total distance of across the two sections 10466.4 ft. by our measurements. Therefore the cor. to secs. 29-30-31-32 would set 5311.5 West.

Tuesday
July 27, 1920

Quit for day. Lincoln Mackey.
Start at a temp. pt. set 5282.5 W. Run S. at 2646.9 fall 39.2 E. of original 1/4 cor. bet. secs. 31-32-138-30. Set an Iron Mon. and take new B.T. Nor. Pine 4" N. 52°45' E. 42.1 ft.
Return to temp. pt. and run thence N. bet secs 29-30. At 2646, look for old 1/4 cor. But find no trace of same. Continue N. at 5329.6 fall 9.2 ft. W. of an Iron Mon. set at cor. to secs. 19-20-29-30. Total dist. for this 1 1/2 miles 7993.3 ft. Therefore the cor. to secs 29-30-31-32 would set at a pt. 2643.7 ft. N. as shown on plat affixed hereto.
Finis 340 words. Lincoln Mackey.

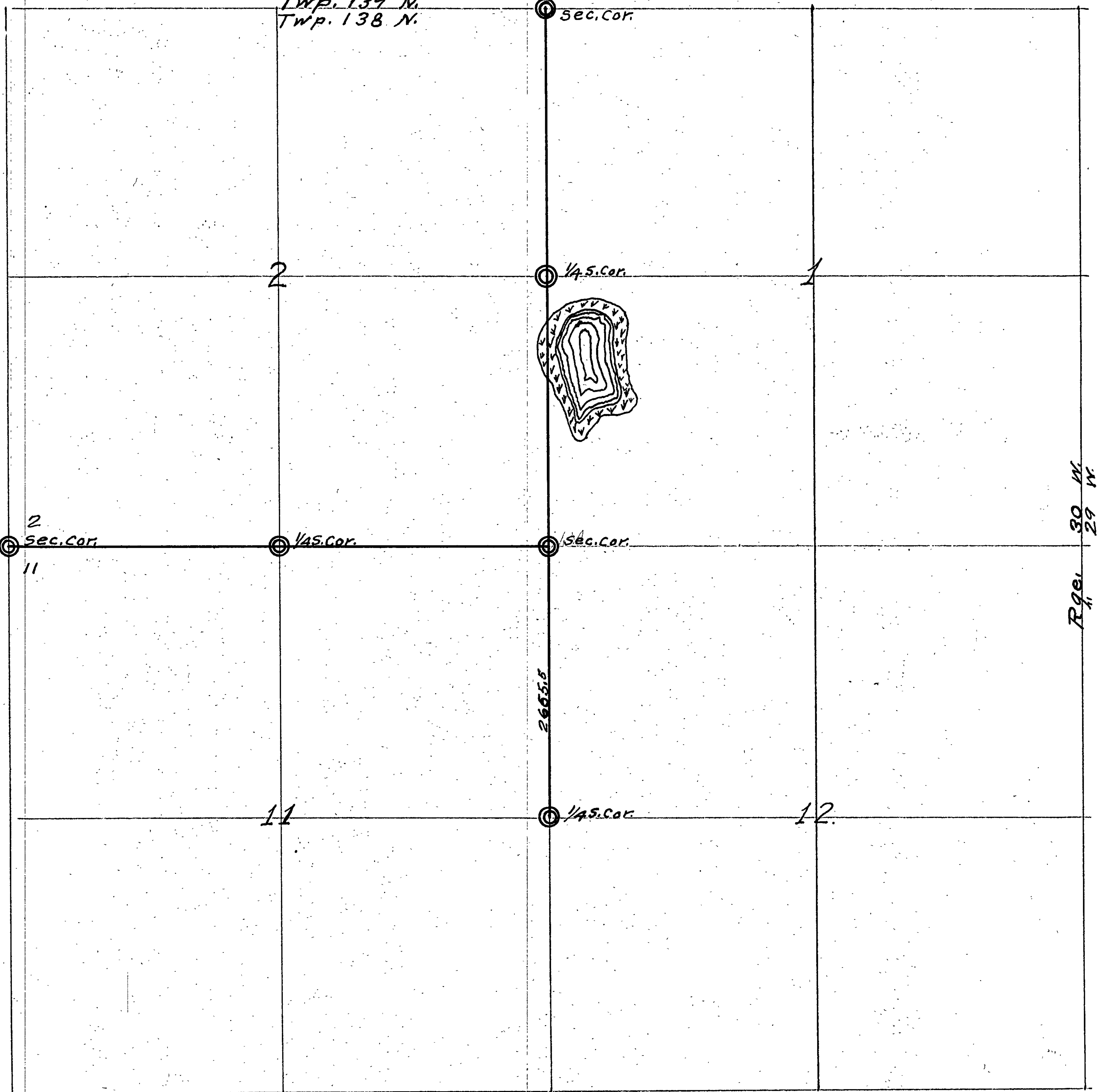
Surveyed July 26 and 27, 1920 by Lincoln Mackey.

Recorded December 6, 1920 by James H. Flynn,
County Surveyor, Cass County,
by Elmer B. Ford,
Deputy,

C

Plat: Survey Record No. 441.

Twp. 139 N.
Twp. 138 N.

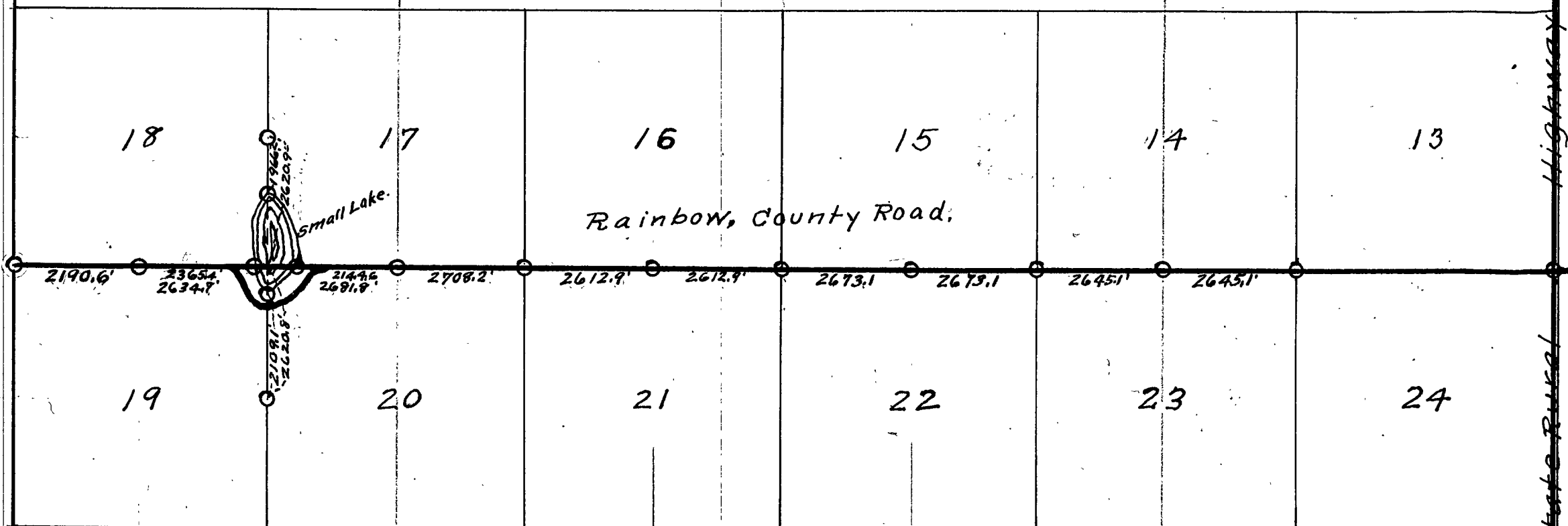


⊙ denotes Iron Monuments at sec. & 1/4 Sec. Corners.

C

Wadena-County.
Cass-County.

BYRON TWP. 135-32.



Range 33 N.
Range 32 W.

F.B. 172.A.

Field notes of the survey of the Rainbow, County Road in Twp. 135 N. Rge. 32 W. of the 5th. P.M. Cass County, Minnesota. Tuesday April. 27, 1920. E.B. Horst and Lincoln Mackey look up notes plats and petition for the county road (Rainbow) in Twp. 135 N. Rges. 29-30-31-32 W. Mackey staying at Chase Hotel. E.B. Horst, April 28, 1920.

E.B. Horst and Lincoln Mackey in Horst's car drive to Mackensaek and get Bert Anderson and Moose Morris (Chairmen) and drive to Byron Twp. (135-32) and make arrangements to board with S.A. Bjeld in sec. 13-135-32. E.B. Horst.

April 29.

E.B. Horst, Eng. and Lincoln Mackey ast. Moose Morris and Bert Anderson Chairmen drive to and begin at the established corner of secs. 15-16-21-22 T. 135 R. 32 mhd by an Iron Mon. (by Horst in 1915). From which we run S. 89°30' W. on a random line between secs. 16-21, at 536 ft. W. enter meadow. 1320 set Hub. 2340 lv. meadow. 2604.2 an old stake set by some Surveyor for a 1/4 S. cor. 2640 ft. W. set Hub and make a thorough search for the 1/4 S. cor. and B.T.s but find no evidence of same. continue W. on same line. at 2950 W. a wagon trail crosses NE. & SW. 3960 set Hub a House pre N. 30° ft. 4152.0 ft W. ent. meadow. 4769 Swan Creek. 4781 lv. Swan Creek. at 5120 lv. meadow. at 5225 E ft. W. the true cor. to 16-17-20-21 sets S. 15.3 ft. At this cor. we find NW, SW, & SE, original U.S. bearing tree stumps plainly mhd. and the NE stump burned to the ground. From which we set a 2" x 48" Iron Mon., and mark the following New B.T.s. Jack Pine 10" S. 21°45' W. 47.7 ft. Jack Pine 6" S. 66°15' E. 98.4 ft. " " 12" N. 30°30' E. 58.5 " " " 5" N. 49°30' W. 57.1 "

I set transit over Iron Mon. at sec. cor. 16-17-20-21 from which I run S. 89°30' W. on a random line between sections 17-20. at 633.5 W. Hub 880 ent. swp. 1100.0 lv. swp. 1108.0 cent. of Creek. 1207 Wagon trail crosses NW, SE. 1214.9 set Hub. 1928.8 set Hub. at 2708.2 set Hub. The true 1/4 S. cor. bet. 17-20 sets N. 0°46' W. 40.7 ft. At 2708.4 the 1/4 S. sets N. 40.7 ft. We find an old Stake mhd. 1/4 S. and both U.S. B.T. stumps burned to the ground from which we set a 2" x 48" Iron Mon. and mark New B.T.s. Jack Pine 8" N. 70°15' E. 142.9 ft. Jack Pine 9" S. 66°44' E. 140.5 ft. E.B. Horst,

April 30.

From this cor. (1/4 S.) I run West on a random line bet. secs. 17-20 at 8 ft. W. Cent. of road 304.8 set Hub. at 1112.9 Hub. 1256 cent. meadow. 1320 temp. 1/4 cor. 1370 lv. meadow. 1930.1 set Hub. 2161.1 set Hub on E. side of lake. from which we triangulate as follows: 2161.1 = pt. A. turn 90° < and run S. 200 ft. and set pt. B., sight across lake and set pt. C. on line. Angle at A, B, C. = 74°26'. cross over lake and set over pt. C. angle A, C, B. = 15°34' distance from A. to C. = 717.9 ft. at 2792.5 lv. lake at 2879.0 ft. W. = pt. C. 2945 cent of road. 3470 set Hub. 3870 ent swp. 4076 lv. swp. 4273.5 set Hub. 4676.4 set Hub. 5316.5 set Hub. from which an old stake mhd 1/4 S. sets N. 4°30' W. 59.7 ft. Continue random line W. from Hub. 5316.5 W.

at 5820 cultivated field 6036 lv. same. 6384 Road center N.45. 6394 Hub. W. of road.
 6728 ent. surf. 6880 lv. same. 7247. cent. of Wagon trail. 7507.1 fall 76.7 ft. S. of cor. to
 13-18-19-24 sec. 13-18-19-24 on range line between Ranges 32-33 on county line bet. Cass and
 Wadena Counties. E.B. Horst, Lincoln Mackey.

Sat. May 1, 1920

Same crew drives to hub at 2246' ~~W~~ W. between secs. 17-20 set up transit
 at this pt. and run S. 513.3 ft. and set hub. thence 90° angle and run W. 302.1
 ft. and set hub. From this hub run S. on a random line between secs.
 19-20 At 813.9 ft. S. a hub. 1163.8 hub. at 1960.15 hub. at 2627.1 fall 40.2 ft.
 W. of the true 1/4 S. cor. between secs. 19-20 where we find both original U.S. B.T.s
 bearing scribe marks. both trees are down and in Gamck. swamp. set 2"x45" I.M.
 New Bearing trees as follows. Jack Pine 6" S. 82°42' W. 94.1 ft.
 Jack Pine 8" N. 65°03' W. 135.0 ft.

P.M. Moose Morris and Bert Anderson chain the sec. line on graded road
 between secs. 13-24-135-32. Lincoln Mackey stays at Bjeldes and
 writes notes and computes corrections for setting road centres from random
 lines previously run. E.B. Horst. takes car and drives to Walker
 leaving Mackey with crew to continue survey of the Rainbow road.
 Lincoln Mackey, E.B. Horst.

Sun. May 2, 1920

Mackey, Morris and Anderson take supplies and outfit and move same
 from Bjeldes place 4 1/2 miles W. to secs 17-18-19-20 near lake and camp
 there to avoid walking back and forth to complete the West end of survey.
 Lincoln Mackey.

May 3, 1920

17-18-19-20

Starting at hub on random line between secs 19-20 on S. side of
 lake we produce this line N. across lake and set Hub C. for triangulation
 Hub on S. side = Pt. A. Hub on E. side = Pt. B. Angle A.C.B. = 82°03'
 Base line in lake on E. & W. Random line = 404.46 ft. P.D. in lake = Pt. D.
 Distance A to D. = 503.0 ft. B to D = 404.46 ft. D. to C. = 646.0 ft. ∴ C is at 646.0
 ft. N. of P.D. Continue N. bet. secs. 17-18. at 1745.8 set hub. at 2614.1 ft. N.
 fall 77.1 ft. W. of the 1/4 S. cor. bet. secs 17-18 which I reestablish from original
 U.S. Bearing trees described in U.S. Notes as follows:

1/4 S. 17-18

Black Pine 5" S. 34° W. 54 links. Black Pine 6" S. 86° E. 109 links. The S.W.
 tree bears old scribe marks and S.E. stump is there with marks obliterated.
 I set an Iron Iron. at true cor. and Mark New B.T.s.:

Jack Pine 10 S. 38° 48' E. 66.9 ft. Jack Pine 14 N. 27° 56' W. 43.0 ft.

500

I establish the corner to secs 17-18-19-20 by double proportion as follows.
 and correct points on random lines to true lines: W.C. on E. side of lake
 bet. secs. 17-20 sets N. 89° 45' E. 537.14 ft. from true sec. cor. set Iron Iron.

New Bearing trees. Jack Pine 13' N 56° 31' E. 121.2 ft. no other tree.

W.C. on W. side of lake sets N. 89° 01' W. 269.24 ft. from cor. set an Iron Iron.

New B.T. Jack Pine 14, N. 65° 32' W. 70.5 ft.

600

W.C. on N. side of lake bet. secs 17-18. sets 654.7 N. 1° 35' E. of sec. cor.

set Iron Iron. with Jack Pine, 10" N. 22° 14' E. 99.8 ft. as Bearing tree.

W.C. on S. side bet. secs 19-20 sets S. 0° 55' E. 511.7 ft. set Iron Iron.

37

with new B.T. Jack Pine 7" S. 61° 59' W. 133.3 ft.

C

Plat No. 2.

Survey Record No. 442.

442

MEADOW BROOK. Twp. 135, Rge. 31.

18

17

16

15

14

13

Rainbow

County

Road

23297'

2641.3'

2642.0'

2643.1'

2642.7'

2664.5'

2664.5'

2651.0'

2627.1'

2618.5'

2618.5'

2677.4'

2688.1'

19

20

21

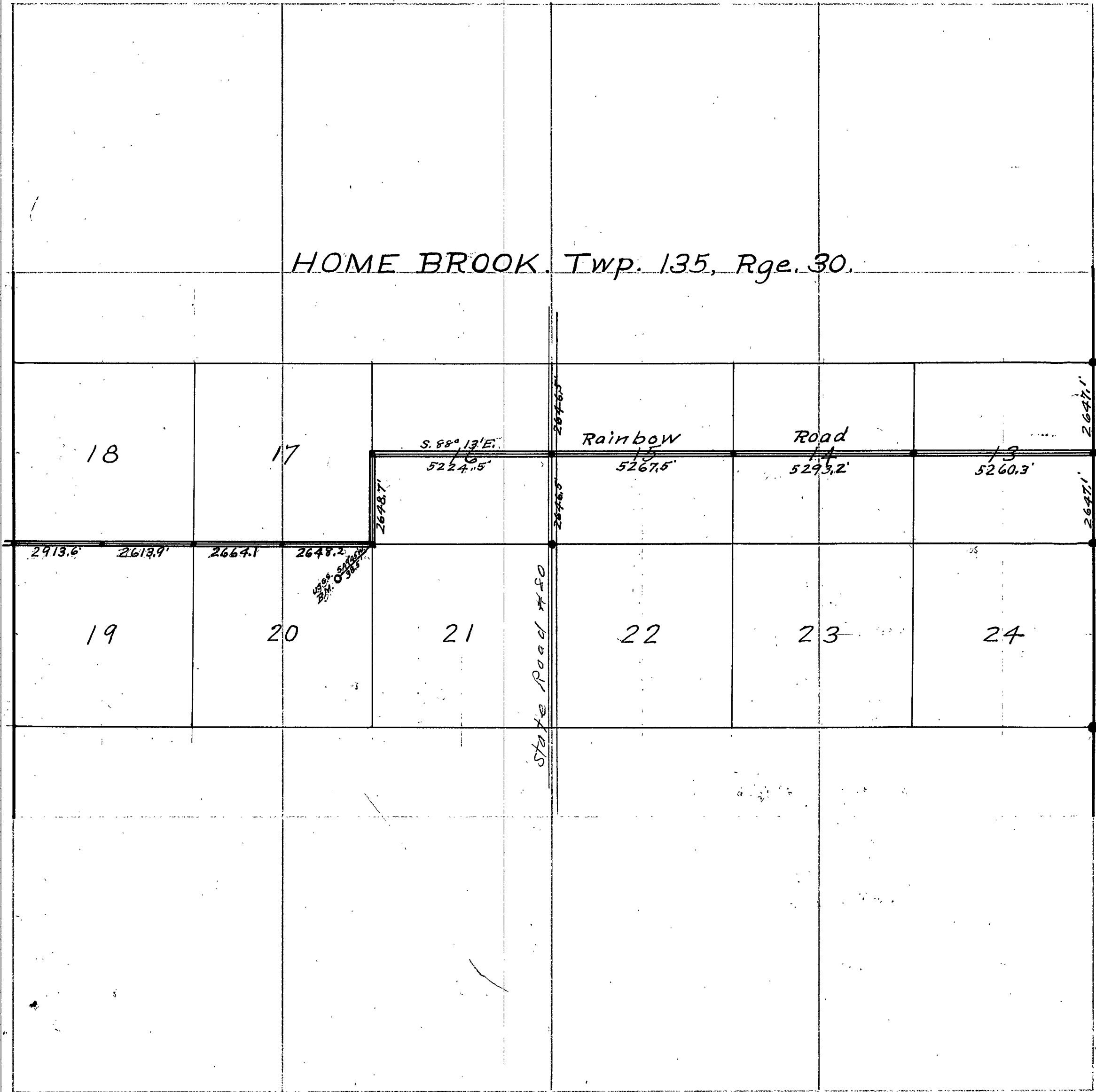
22

23

24

C

HOME BROOK Twp. 135, Rge. 30.



18

17

19

20

21

22

23

24

S. 88° 13' E.
5224.5'

Rainbow
15
5267.5'

Road
14
5293.2'

13
5260.3'

2648.7'

2646.5'

2647.1'

2913.6' 2613.9' 2664.1' 2648.2'

N 89° 54' 20\"/>

State Road #50

Survey Record No. 442.

13-18-19-24
135-32

I correct points W. bet. sees. 18-19 1/4 S. sets at 24 34.7 ft. W. set Iron Mon. and mark Jack Pine 10" N. 44°49'E. 92.7 ft. Jack Pine 14" S. 25°05'E. 53.6 ft.

New B.T.s. to see. cor. 13-18-19-24 on Co. line are { Jack Pine 16" N. 35°07' W. 76.3 ft.
Set 2" x 48" Iron Mon. { " " 14" N. 36°52' E. 66.0 ft.
" " 10" S. 43°42' E. 64.4 ft.
" " 11" S. 45°28' W. 75.13 ft.

Lincoln Mackey,

May 4, 1920

Mackey, Monis and Anderson break camp and start corrections E. between sees. 17-20 and sub 16-21 set Iron Mon. at 1/4 S. cor. 16/21 New B.T.s. Jack Pine 16" N. 1°30' W. 77.7 ft.

Return to Bjelder's place without fit. and move to Hansens place.

Lincoln Mackey.

May 5.

13-18-19-24
135-31.

Mackey, Monis, Anderson and Adolph Bjelde start at corner to see 13-18-19-24 on 4th guide meridian between Rges 31-32 W. Twps. 135 N. where we set a 2" x 48" Iron Mon in the Cent. of N+B. state road and Cent. of a Twp. road running W. (which was previously located by C.B. Horst. Dep. Co. surveyor of Walker) from which a tack in Twp. pole bears N. 37°14' W. 33.2 ft. Twp. fence post bears S. 39°54' W. 36.5 ft.

From this cor. I run N. 89°30'E. on a random line between sees. 18-19-135-31 at 246.8 Hub. 800 ent swf. 1350 lv. swf. 1411.9 Hub. 1900 Hub. 2150 ent swf. 2640 Hub. 4700 lv. swf. 4971.0 fall 18' ft. S. of 1/4 S. Cor. bet. sees. 18-19 find no trace of old B.T.s. but set an Iron Mon. for true cor. which one Hansen testifies he saw here for the last 16 years. I find an old Oak stake and accept this as the true cor. from this I run N. 89°30'E. E 1/2 bet 18-19. 520.3 ft. 800 ft. Hub. 1200 ft. E. swf thence along old corduroy road. 1320 Hub. 1358 Cent of bridge (wood) across ditch N+S. 2600 lv. swf. at 2642.0 ft. E. fall 2.9 ft. S. of an Iron bar that was set by settlers to preserve old cor. 17-18-19-20.

1/4 S. 18-19

I set a 2" x 48" Iron Mon. from which a Popple 6" S. 59°45' W. 96 ft. No other trees near. From this cor. run N. 89°30'E. bet. sees. 17-20 at 1320 Hub. 1577.0 Hub. from which S.E. Cor of Pine Ridge School house bears N. 54°04' W. 78.3 ft. 2290.0 Hub. 2579.8 int creek to run S.W. 2599.8 lv. same.

17-18-19-20

2643.1 ft. E fall 60.6 ft. N. of original 1/4 S. Cor. where we find the original C.S. B.T.s. Elm S.E. and Oak N.E. { Balsam 16" S. 56°20' x 81.5 ft. } 1/4 S. Cor. set Iron Mon. 2" x 48"
New Bearing trees are { Elm 10" N. 64°15' E. 182.5 ft. }

1/4 S. 17-20

Lincoln Mackey.

May 6.

Begin at 1/4 S. cor. bet. 17-20 and run N. 88°45'E. on a random line at 1320 hub. At 2300 ft. hub. 2642.7 ft. E. fall 3.5 ft. N. of the cor to see. 16-17-20-21 where we find an Oak post 6" diam. 3' long set by Otto Reese 16 years ago in place of original S.E. corner. Land has been cultivated and B.T.s are gone. We set an Iron Mon. for true corner and mark Oak 10" S. 54°E. 55.7 ft. No other trees. We then correct points from random to true line and set road center.

600

May 7, 1920

We drive to corner of sees. 16-17-20-21-135-31 set transit over see. cor. and run N. 89°30'E. between sees 16-21, at 200 enter swf. 761 ft. E. Hub. 1000 lv. swf. 1241.0 Hub. 1663 Hub. 2000 Hub. 2300 ent. swf. 2640 Hub. look for 1/4 S. Cor. which is gone - Continue E. on same line, 2700 lv. swf. 3047 set Hub. 3466 Hub. 3720 lv. swf. 4300 Hub. 5000 lv. swf. 5085 Hub.

700

Survey Record No. 442.

15-16-21-22 at 5329.0 ft. E. fall 46.0 ft. N. of the cor. to see 15-14-21-22-135-31 which I re-establish from the original U.S. B.T.s. described as follows;

White Pine 18" S. 49° E. 36.9 ft. kind stumps bearing marks.

Maple 12" S. 43 1/2° W. 18.4 " " decayed.

W. Pine 15" N. 10 1/2° W. 31.6 " " "

" " 24" N. 46° E. 46.2 " " " From these I set a 2"x48" Iron Mon. for

the true see. cor. from which W. Pine 18" N. 78 1/5° W. 362.0 ft. No other trees.

Correct this line back and set the 1/4 S. cor. at 2664.5 ft. E. and 23 ft. S. where

I set a 2"x48" I.M. and mark. Popple 15" N. 0° 30' E. 239.0 ft. set road center back

to see. cor. This mile very brushy Lincoln Mackey.

Sat. May 8, 1920.

A. K. Hansen with car takes us to see cor. of 16-17-20-21 and we walk 1 mile

E. to 15-16-21-22. Set transit over cor. and run E. at 100 ft. E. cut heavy

Alder swp. 450 N+S ridge lv. swp. 575 swp. 1050 lv. swamp. 1135 cent

1/4 S. C. 15-22

of logging road NW. SE. 1320 set Hub on highland. 1780 swp. 1895.5 ft. E. Hub in

swp. 2651.0 fall 62.5 ft. N. of original 1/4 S. cor. we find U.S. B.T.s.

Jamek 9" N. 18° E. 11.2 ft. Jamek. 7" S. 50° W. 3.9 ft. both bear scribe marks, from

which I set a 2"x48" I.M. and mark New B.T.s. { Jamek. 4" N. 1° 24' W. 29.1 ft.

" " S. 65° 35' W. 11.7 ft.

From this cor. I run S. 89° 30' E. bet. sees. 15-22. thru heavy Jamek and Alder

swp. and plenty of water. at 600 ft. E. set hub, at 1320 Hub, at 2627.8 ft. E.

14-15-22-23

fall 7.0 ft. N. of see. cor. to see. 14-15-22-23 which I re-estab. from 3 Popple stumps

all of which agree with recorded courses and distances. I set a 2"x48" I.M.

and build a mound of stone 3' high 2' W. of cor. correct back to 1/4 S. cor.

Lincoln Mackey p. 21 - 172 ft.

Sunday May 9, 1920

Morris and Anderson set Iron Mon. 1/2 day. Mackey writes notes

May 10.

Rain. No work on line.

May 11-12

No " " "

Thurs. May 13-1920

From cor. to see. 14-15-22-23 we run East over high open, rolling land

at 234.0 Hub. 858.0 Hub. 1925.9 Hub. 2640 Hub and look for 1/4 S. cor.

which is gone continue E. at 2703.9 ft. E. Hub. 3065.5 Hub. 3587.5 Hub.

ent. heavy Popple, Birch, timber and windfall. 3930.4 Hub. 4209.3 Hub.

4592.0 Hub. at 5237.1 ft. E. fall 19.7 ft. N. of cor-secs. 13-14-23-24. which I re-

establish from the 4 stumps of the trees recorded in the Govt. field notes

W. Pine 20" N. 36° W. 17.1 ft. } set 2x48 I.M. { Popple 8" N. 74 1/2° W. 118.1 ft.

" " 14" N. 18° E. 11.8 " } and mark { " 10" S. 27° W. 162.5 "

" " 22" S. 10° E. 9.9 " } following New B.T.s. { " 6" S. 52° E. 72.5 "

" " 15" S. 76° W. 12.5 " } " 7" N. 16° E. 54.0 "

Correct this mile bet. 14 and 23 and set an Iron Mon. at 2618.5 ft. E.

Lincoln Mackey

May 14, 1920

From the see. cor. of 13-14-23-24-135-31 I run a rardown line E. bet

13-24 thru heavy Birch and Popple undergrowth + Timber.

at 185.7 Hub. 370 Road NW. + S. 1320 temp. pt. 1636.0 Hub. 2677.4 ft. E. fall

1/4 S. 13-24

27.4 ft. N. of the 1/4 S. cor. between sees. 13-24 which I reestab. from stumps of

the following U.S. B.T.s. W. Pine 14" S. 65° E. 39.6 ft. - N. Pine 10" N. 10° E. 20.1 ft.

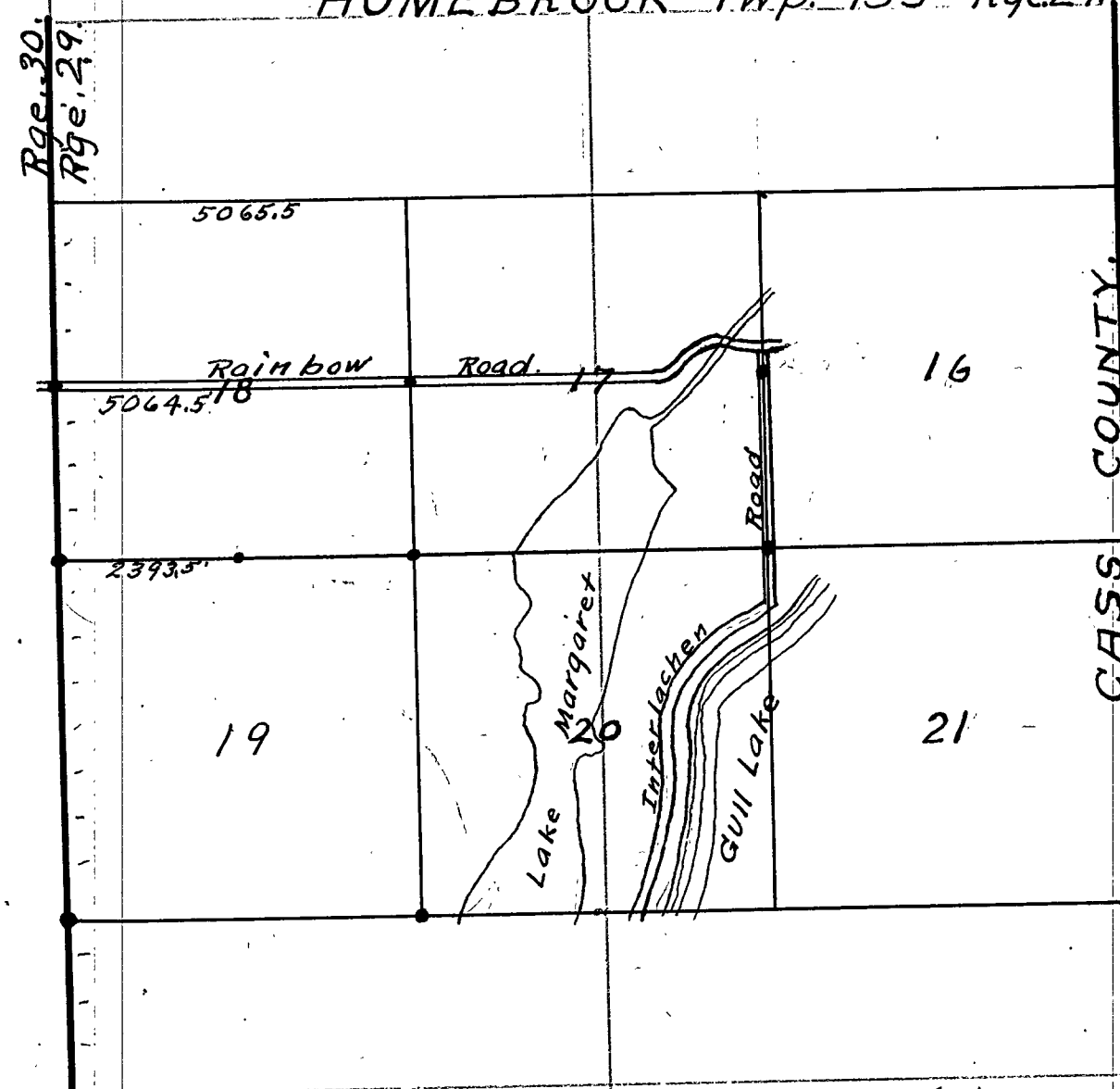
New B.T.s. Popple 8" S. 49° 30' E. 43.0 ft. True bearing of this line = S. 89° 56' E.

From this 1/4 S. Cor. I run a random line E. bet sees. 13-24
At 2651.4 ft. E. set temp. Hub for cor. to sees. 13-18-19-24 - 135-30-31, and make a thorough search for old corner.

Sat. May. 15, 1920, Same party return to temp. Cor. and resume search for cor. at 11:00 o'clock. A.M. I find 2 White Pine stumps which I find to check with Recorded field notes. I also find N.E. and S.E. B.T.s. at pt. for cor. & find pieces of a sq. Oak stake bearing eye marks and faint scribe marks. I accept this as the true sec. cor. At 2688.1 ft. E. fall 54.1 ft. N. of the true sec. cor. to sees 13-18-19-24 Twp. 135 Rge 30-31 New B.T.s. Popple 7" N. 1°24' W. 29.5 ft. Oak 12" S. 33°30' E. 135.5 ft. Popple 6" N. 59°56' W. 53.1 ft. This completes Twp. 135 Rge 31. Sat I. Mon. May. 16,

13-18
19-24

HOME BROOK Twp. 135 - Rge. 29.



CASS COUNTY,
CROW WING COUNTY.

Sat. May 15, 1920
I set transit over cor. to 13-18-19-24 on Rge. line and run E. on a random line bet sees. 18-19-135-30 over rolling, bushy land at 1320 ft. E. set Hub. at 2887.5 set hub and make a thorough search for the 1/4 S. cor. but find no evidence of same, at 5527.5 set hub for temp. sec. cor. 17-18-19-20 T. 135 R. 30. Lincoln Mackey.

Monday May 17, 1920.
Same crew Jim Hanson and car and drive to Geo. Pennington's place in sec. 21 and make arrangements to board there have dinner at F. A. Barnard's place Paid \$2.50 car. \$1.00 by claim. Lincoln Mackey

May 18, 1920.
We resume search for cor. of 17-18-19-20 and I find three of the old trees from which I re-estab. the cor. and set an Iron Mon. 2" x 48" the old trees are Oak N. 5° W. 17 links. Oak S. 30° E. 45 links Maple N. 80° W. 30 links. New B.T.s. are Poplar 8" S. 33° 30' W. 86.7 ft. Poplar 6" N. 32° E. 81.5 ft. Correct points to true line. N. to Rge line. 1/4 S. Cor. sets at 2913.6 ft E. set Iron Mon. I also set the Iron Monuments at the cor.

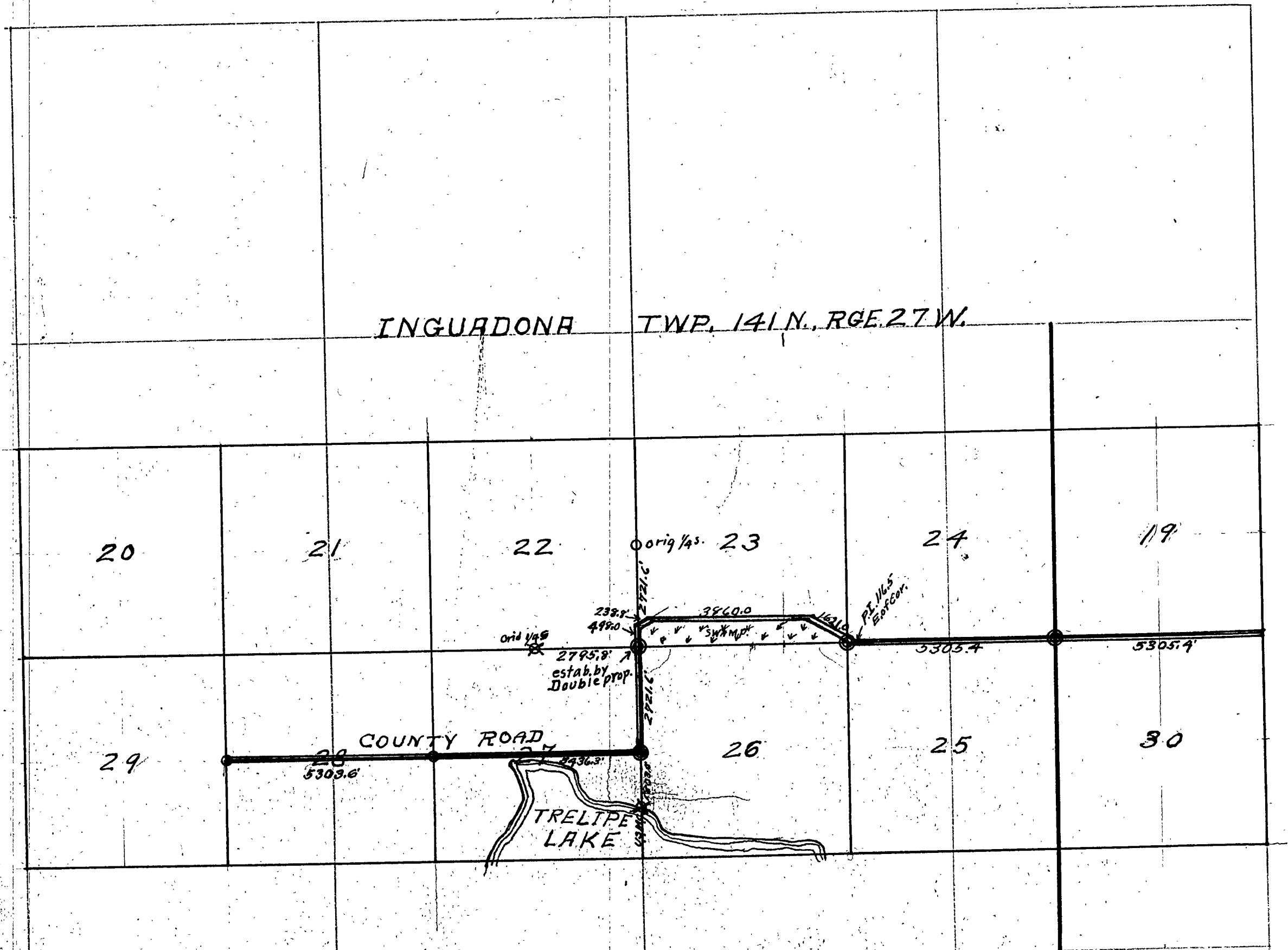
to sees 13-18-19-24 and the 1/4 S. Cor. between sees 13-24 the same day.

Begins to rain at 3:30 Lincoln Mackey.
Wed May 19, 1920. Mackey + crew begin at Iron Mon. at cor. to sees. 17-18-19-20-135-30 and run a random line N. 18° 30' E. bet. sees. 17-20. At 2915.5 E. hub. 655.5 hub. 903.2 hub. 1103.9 hub. 1301.8 hub. 1320 hub. 1719.7 hub. 2269.0 crew runs S. at 2664.1 ft E. fall 71.9 S. of original 1/4 S. cor. a stone monument. 24" long re-established by Hallett 14 years ago. I accept this as true corner and set a 2" x 48" Iron Mon. I then correct back to sec. cor. N. 1/4 S. cor. sets 1332.0 ft. E. From 1/4 S. cor. I run N. 89° 30' E. bet. 17-20. at 901.0 hub. 1658.0 hub. 2648.2 ft E. fall 6.2 ft. S. of a set stone in center of road set by Hallett for true cor. to sees. 16-17-20-21 I set transit over this and find the stump of the old N.E. B.T. which agrees with records. From this cor. the U.S. Geological survey monument a B.M. 3" in diam. sets S. 49° 45' W. 38.5 ft. Poplar 9" S. 54° E. 48.8 ft. Lincoln Mackey. Page 35-172 F

A.P.
in
Rain
bow
Road.

From this cor. I run North on a random line bet. sees. 16 and 17 - 135-30 and at 2448.7 intersect Iron Mon. at the 1/4 S. Cor. between sees. 16 + 17. Set no hubs on this mile.

9-SECTIONS



⊙ Monuments (Iron) set in this survey.

○ Iron monuments set previous to this survey.

443. Field notes of the survey of a county road in Inguadona Twp. 141 N. Rge. 27 W. of the 5th. P.M. Cass County, Minnesota as surveyed by Lincoln Mackey and Carl Steadland. Mackey and Steadland drive to Spooners place at Inguadona Minn. and make arrangements to board with him. Travel in Mackey's car. Aug. 15, 1920.
 Aug. 16, 1920. Mackey and Steadland hire Spooners boat with Evinrude and go 2 miles up Inguadona lake, thence walk from there over to the 1/4 sec. bet. sec. 28 and 29 which is a 1 inch iron post set by U. S. Gen. Land Office survey of 1919. I set transit over this cor. and run thence East on a random line thru the cont. of sec. 28, over cranberry swamp. At 235.0 ft. intersect pt. of highland. 271.0 set hub on highland. 320 lv. highland ent. swp. 840 lv. swp. ent Birch and Popple. 918.0 hub. 1184.0 hub. 1361.6 hub. 1400 ent other swp. 1652.4 hub. 1929.5 hub. 2149.5 hub. 2526.2 hub. quit for day
 Lincoln Mackey.
 Notes of this survey continued to page 378 this book.

C

A.R. 2. Rainbow Road

From the 1/4 S. Cor. bet. sec. 16-17-135-30 I run a random line E. thru center of sec. 16. 2011.1 hub. 734 hub. 996.3 hub. 1598.0 hub. 1913.5 hub. 2060.0 hub. 2472.5 hub. 3400 ent surf. 3800 brook. S. 4858.3 set hub. 4264.3 hub. 4604.7 set hub. 4752 hub. 5223.1 ft. E. Intersect $\frac{1}{4}$ of State road and set temp. 1/4 Cor. bet. sec. 15-16. We look for true cor but fail to find it. Lincoln Mackey. p. 36 172-H.

May 20-1920

1/4 S. 15-16

From a wood stake at the sec. cor. to sec. 15-16-21-22 set by State Highway Engineer I run N. on state road bet. sec. 15-16. 2640 set temp. 1/4 sec. Cor. 5293.1 fall 56 ft E. of cor. to 9-10-15-16 which I re-establish from three Govt bearing trees trunks recorded as follows. Birch 8" S. 55° E. 482 ft. Aspen 10" N. 55° W. 442 ft. Aspen 5" N. 27° E. 622 ft.

I then set the 1/4 S. cor. bet. sec. 15-16 equidistant and in line with the sec. corners being 2646.5 ft. from each corner. I then find that at 5223.1 ft. E. on random centre line the true 1/4 S. cor. bet. sec. 15-16 sets due S. 162.9 ft.

I walk W. one mile and rerun this centre line of sec. 16; S. 88° 13' E. and at 5224.5 fall 2.4 ft. S. of true 1/4 S. cor. 15-16. Lincoln Mackey.

Fri. May 21-1920

1/4 S. 14-15

From the 1/4 S. cor. bet. sec. 15-16 I run a random line E. thru section 15. at 400 ft. E. ent. Cedar and Alder swamp. 700 cross offstate ditch NW. SE. 415 creek S. 10.47.9 hub. 1200 lv. surf. over high rolling land. 1857.3 hub. 2300 hub. 2640 wire fence 2643.5 hub. 3163 hub. 3347 hub. 3660 hub. 4174.5 hub. 5267.5 ft. E. fall 67.5 S. of 1/4 S. Cor. sec. 14-15 which I re-estab. from two Govt B.T.s. New B.T.s. are: Elm 10" S. 56° 30' W. 69.0 ft. set Iron Mon. 2" x 48". From this cor. I run a random line S. 89° 41' E. thru sec. 14. at 386.0 hub. 846.8 hub. 1100.6 hub. 2743.3 hub. 3668.2 hub. 3990.7 hub. 4755.0 hub. at 5280 ft. E. I set a temp. pt. for 1/4 cor. 13-14

I make a thro search and find that this cor. is obliterated. Quit at 5 P.M. S. Mackey.

Sat. May 22, 1920. Same crew begin at an Iron Mon. at the corner to sec. 11-12-13-14 previously set by Dep. Co. Surveyor E.B. Horst. from original U.S. B.T.s. From which we run S. between sec. 13-14 for the purpose of re-establishing the 1/4 S. cor. between same sec. Transit on sec. cor. I triangulate as follows: see cor. = pt. A. pt. So. of sec. cor. on line = pt. B. ~~then~~ Set transit over point B.

Site to point A. Turn left $49^{\circ} 35'$ and chain base line 370 ft. set point C. Angle BAC = $20^{\circ} 33'$. Angle ACB = $109^{\circ} 52'$. Distance A to B. (Computed) = 993.2 ft. S. hub in old grade. 2440. ft. set temp. point for 1/4 cor. bet. sec. 13-14. Make another search for 1/4 corner. Continue line South. At 3956.4 ft. to hub on North side of slough. from which I triangulate as follows: Site across slough and set point B. Turn left ~~right~~ $101^{\circ} 30'$ Chain base line 260 ft. Angle ~~BAC~~ $31^{\circ} 40'$. Angle ACB = $46^{\circ} 30'$. Dist A to B = 484.7 ft. = hub on S. shore of slough. at 5280 ft. set point.

Quit for day and take outfit to camp as Com. Warner has a crew working on Interlachen road and they cannot proceed any farther with out a survey. E. B. Horst calls for us and takes us to Rocky point where we will begin a survey of the Interlachen road.

Lincoln Mackey.

July 30-1920

E. S. Susler and Mose Morris in Walker getting necessary notes and tools to complete the survey of rainbow county road. (over)

- Aug. 2, 1920. Tusler, Morris and Smith take the 9:17 train from Hackensack to Pequot and hire Fritz and Auto to drive us to Port View summer resort. the only place we can find to board. Tusler reads over notes to get familiar with the work while Morris and Smith get the I.M. set left last spring. at 4 P.M. we go and find an I.M. set near Port View school house and look for an Axeman and hire one. E.S. Tusler.
- Aug. 3, 1920. Tusler, Morris, Smith and Stanghelle take outfit and go to 1/4 Sec. cor. between sec. 17-18 T. 135 R. 29 and look for I.M. set by Horst in a previous survey at I.M. between Sec. 17-18 we set following D.S. Poplar 4 N. 85° 0' 49' E. 46.4 ft. Poplar 4 S. 41° E. 47 ft. We back sight on center of graded road and cut random line. Went as follows: At 288 ft. hub. At 1183 ft. hub. at 2420 ft. low run in meadow. At 2470 ft. leave same. At 2985 ft. hub. At 3346.4 ft. hub. At 4800 ft. hub. At 5237.7 ft. hub. set 17 ft. S. of old stake. Badly turned. True distance of this line = 5044.5 ft. At sec. cor. 7-18-12 13 run random line south 80° 45' at 1136.4 ft. set hub. At 1604.6 ft. set hub. At 2220 ft. center of old road I.M. S.E. at 2300 ft. hub. At 2480.7 ft. D.S. on E.-W. Random line thru center of sec. 18. set 32.5 ft. E. of 5038.7 ft. hub on random line. Quit for night. E.S. Tusler. At sta. 2447.1 ft. south on random line Sec. 13-18 1/4 S. post set W. 24.4 ft. On random thru center Sec. 18 sets N. 33.4 ft.
- Aug. 4, 1920. Horst comes down, with car and gets county transit and looks over notes and work. Leaves H. B. transit and goes back to Walker. Tusler, Morris, Smith and Stanghelle continue south on random line as follows: set transit over D. D. and continue line south. At 3600 ft. set hub. At 4500 ft. set hub. At 5250 ft. set temp. sec. corner. Fail to find old govt D.S. Hire Stanghelle with auto to take crew to sec. 19-24-25-30. where we find bolt driven in ground for corner from which we take following D.S. Jack Pine 18 - 32° 55' E. 115.5. This is an old D.S. set by some surveyor in a survey 4 yrs. ago according to settlers. Lack in oak post (cor. of fence) S. 31° 30' W. 35.9 ft. Set I.M. for true Sec. cor. and run N. 80° 45' Var. as follows: 154.5 hub. 762.8 hub. 1240 meadow. 2200 lv. same. 3000.0 hub. 3233.2 hub. 3600 meadow. 3950 lv. same. 3970 wire fence. 4047.3 hub. E.S. Tusler.
- Aug. 6, 1920. From Hub 5064.5 W. on random ϕ of sec. 18 we continue the random line West as follows: Set Iron Mon. at 1/4 S. cor. bet sec. 13-18 Rgn 29-36 Barwood T.S. 39° W. 134.5 ft. W. on random 1400 hub. 1935.9 hub. 2950 swf. 2600 lv swf. 3000 hub. 3724.2 hub. 4400 hub. 5223.8 P.I. on Macke N. 45. line. 5260.3 we set an Iron Mon. for the true Sec. cor. bet sec. 13-14-135-30 from which: Oak 10 N. 26° 35' E. 84 ft. Maple 8. N. 57° 30' W. 80.0 ft. Random ϕ of sec. 13 falls 68.4 ft S. of this cor. and random ϕ of sec. 14 run by Macke falls N. 21 ft. distance thru sec. 14 = 5293.1 ft.
- Aug. 7, 1920. At sec. cor. to sec. 13-14-21-22-135-30 we set an Iron Mon. also at 1/4 S. cor. bet sec. 15-16. At sec. cor. to 13-14-23-24-135-32 we find the Iron Mon. set in a previous survey but was reported missing. (Road crew uncovered it) We mark new B.T. Oak 15" N. 60° 05' W. 54.8 ft. corner fence post S. 45° 30' E. 46.5 ft. We wait at Leader store for Livery, (distance bet. sec. 13-24 not recorded) E.S. Tusler. (See next page)

Survey Record No. 442

Aug. 5, 1920.

Survey for a Twp. road for Homebrook Twp.

700 We continue random line bet. sees. 13-18-135-30-29 N. from hub 4047.3 N. to sta. 5294.2 which is total length of this line. At the cor. to sees. 13-18-19-24 we set Iron Mon. and start line E. bet. sees. 18-19-135-29. (The cor. 13-18-19-24 sets 53.2 ft. E. of Random N. & S. line. $NE \angle = 88^{\circ}20'$) at 7.30' var. At 977.5' hub. 2427.4' hub. 4100' hub. 4600' hub. at 4992.0 ft. E. we fall 38.5 ft. N. of cor. to sees. 17-18-19-20 (near Port View School house) Correction for this mile = .0077 N. per ft. $\frac{1}{4}$ sec. cor. sets at 2393.5 E.

600 From cor. to sees. 7-12-13-18 ($SE \angle = 88^{\circ}30'$) we run E. as follows. At 2200' hub. 2700' hub. 4556.3' hub. 5065.5 ft. E. hub at U.S. Geog. Survey B.M. (M)

From cor. to sees. 17-18-19-20 we chain N. on graded road to find cor. of sees. 7-8-17-18 at 5283.3 N. see. cor. We set an Iron Mon. 0.8 ft. N. of U.S. B.M. E.S. Tilsen

Survey begun April 29, 1920 Completed August 7, 1920.

F.B. 172A

Survey Recorded Dec. 14, 1920 by

James H. Flynn,
County Surveyor, Cass County, Minn.
By E.B. Horst, Deputy.

900

Continued from page 374 this book.

Aug. 17, 1920. At 2670.7 ft. E. hub. 2923.7 hub. 3311.3 hub. 3499.0 hub. 3663.2 hub. 3909.5 hub. 3925 ent. swp. 4309 hub. 4560.5 hub. 4716.0 hub. 4884 hub. 4995 hub. At 5303.6 ft. E. fall 22.4 ft. North of $\frac{1}{4}$ Sec. Cor. bet sees. 27 and 28 where we find a wood stake and the original NW. bearing tree a W. Pine showing plainly the old scribble marks. I check this cor. and find it in the correct position. I set an Iron Men here and take new B.T.s. Maple 5 N. $3^{\circ}45'$ W. 74.2 ft.

$\frac{1}{4}$ S.
27-28

Sept. 28, 1920. From this $\frac{1}{4}$ S. Cor. I run a random line S. $86^{\circ}35'$ E. thru the centre of see. 27, 141-27 thru heavy timber and brush. 343 E. intersect a logging road N+S.

357.6 set hub. 518.4 set hub. 697 set hub. 870 old R.R. grade (corduroy) N+S. 880.0 ent. swp. (stake) 1117.5 hub. 1346.6 hub. 1790.6 hub. 2024.7 hub. 2900 lv. swp. 2990.0 hub

26-27
 $\frac{1}{4}$ S.

3090 ent. swp. 3189.0 hub. 3494.0 hub. 3529 lv. swp. thence thru heavy timber swp N+S. 3868.2 hub. 3954. old log. road NE. SW. 4045.4 hub. 4946.9 hub. At 5436.3 ft. E. fall 6.2 ft. N. of an Iron Colon. set at true $\frac{1}{4}$ Sec. Cor. bet sees. 26 and 27. I did not correct this line back as the falling in that distance is very small and would not affect the true location of the road. Lincoln Mackey.

Sept. 1st, 1920.

From the cor. to sees 22-23-26-27, 141, R. 27. I run a random line S. $89^{\circ}42'$ E. between sees. 23 and 26, thru Jamek swp. At 333.5 hub. 715.6 hub. 1181 hub. 1772.6 hub. 2211.2 hub. Sept. 2, 1920. at 2640 temp. trial $\frac{1}{4}$ sec. cor. $\frac{2}{3}$ at this point

make an extended search for orig. $\frac{1}{4}$ S. cor. but find no traces of same. 2673.3 hub. 3156 hub. 3686.1 hub. 3906.5 hub. also cent. of old log. road N+S.

Sept. 3, 4532.0 hub. 4600 enter dense alder and willow. 5018.4 hub. 5100 Jamek + Cedar swamp. 5280 set hub for trial cor. 23-24-25-26 begin search for corner. At a point 5409.2 S. $89^{\circ}42'$ E. thence N. $16^{\circ}05'$ W. to an old post recognized as the cor. to sees. 23-24-25-26. Post is 3" x 4" x 4" above ground and has old marks on same. Post is cedar and looks as if same were original post. find no old B.T.s. but a cedar 7" bears S. $53^{\circ}E$, 18.5 ft. correctly marked.

Sept. 4, 1920.

Beginning at a 6x6x3' wood post at the cor. to sees. 19-24-25-30 and from which a road is cut out East, we run a random line W. bet. sees. 24-25 thru heavy Jamek and Cedar swamp. 397.2 hub. 891.0 hub. 1213.7 hub. 1500.2 hub. 1800 Birch and Elm lowland. 1871.3 hub. Sept. 7, 1920. We chain line from M.C. between sees. 26 and 27 on N. shore of Trelife lake N. to $\frac{1}{4}$ S. cor. between sees 22 and 23 to obtain distance for double proportion. at 1449.3 ft. N. a $\frac{1}{4}$ S. post as set by Ben Clark for sees 26-27. Distance from this $\frac{1}{4}$ N. to a temp. see. cor. at 22-23-24-27 is 2897.3 ft. From this cor. N. to $\frac{1}{4}$ sec. cor. 22-23 is 2899.5 ft. This is the original $\frac{1}{4}$ S. cor. from which a black Oak 16" bears N. $80^{\circ}W$. 20 ft. By our chaining we find that the corners established by Clark are not in true proportion. and as he did not find original corner, we use double proportion method to establish the cor. to sees 22-23-26-27.

Sept. 8, 1920. Continue W. between sees. 24-25 from hub 1871.3 W.

at 2010 lv. lowland. N.E. + S.W. at 2162.3 W. hub. Turn left 145° 75 ft. thence Right $3^{\circ}30'$ 75 ft. (to miss large birch tree) This makes total westerly 2311.2 a hub. 2427.7 hub. 2768.8 hub. 2843.3 hub. 3486.3 hub. 3962.3 hub. Sept. 9, 1920.

at 4213 E. hub. 4905.1 hub. 5720 ent. Balsam and Birch. swp. NW. S.E. 5165 ent. Cedar + Jamek swp. at 5305.4 ft. W. fall 5.1 ft. S. of the cor. to sees 23-24-25-26 which I accept as true sec. cor. and mark following trees: Cedar 12 S. $56^{\circ}15'$ E. 41.3 ft. Cedar 4" N. $28^{\circ}15'$ W. 30.0 ft. Additional evidence of settlers point to this cor. as the original and has been accepted for years by adjacent land owners. Also I find a cedar 20 ft. S. of cor. which I believe is old blaze. B.J. Clark who cruised this country for 25 years claims this is original cor. post.

Sept. 10 - 1920.

From temp. cor. 22-23-26-27 run a random line N. $89^{\circ}42'$ W. bet. sees 22 and 27 thru Jamek swp. at 600 ft. W. lv. swp. at 770 ent. Cld. + Jamek.

C

1/4 S. 22-27

815 W. old N. & S. logging road, 1250 br. swamp, Sept. 22.
at 2611.0 hub. thence N. 28°23' W. to 210.8 ft. to 1/4 S. cor. sec. 22 and 27.
This is the original 1/4 S. cor. which we locate after a diligent search for
Q. & B. T. s which are Nor. Pine 18" N. 8° W. 56.1 ft. Nor. Pine 20" S. 4° W. 51.5 ft.
We correct temp. cor. of sec 22-23-26-27 as follows to true prop. point.
as follows: 21 ft East and 178.0 ft N. From which: Spruce 5" N. 49° E 48.5 ft.
Spruce 5" S. 44 1/4 E. 51.5 ft. Spruce 6" S. 62 3/4 W. 30.3 ft. Spruce 5" N. 52° W. 30.6 ft.
Set a 2" x 48" Iron Mon.

Sept. 23, 1920
M.C.
cor. sec. 22-23-26-27

From original M.C. N. side Trelike lake we run N. bet sec 24-27 and
at 1803.0 set point for 1/4 S. cor. 4524.4 N. fall 5.8 ft. E. of cor. to sec 22-23
24-27 we correct this line back and set the 1/4 S. cor. 2.3 ft. W. and set a 2" x 48"
Iron Mon. From which: W. Oak 8" S. 35 1/4 W. 36.4 ft. Wash 6" S. 45° E. 26.3 ft.

Sept. 24

From cor. of 22-23, 24-27 begin traverse of road around N. side of swp.
(begin on needle) N. 1° 05' E. 498 ft. to A.P. 1 on highland, N. 60° E. 238.8' A.P. 2.
East at 332.2 hub. 996.4 hub. 1546.5 hub. 1822 hub. 2153.5 hub. 2693.5
hub. 3213.0 hub.

Sept 25

Correct line bet sec 24-25 and set 1/4 S. cor. which give 225 ft. W. and 255 ft
N. to true proportional pt, set a 2 1/2 x 30" I.M. from which a White
Ash 8" S. 2° E 26.7 ft. Maple 6" N. 26° E. 53.4 ft. Also set cor to sec. 23-24-25-26.

Sept 27.

From hub 3213.0 ft. E. on road traverse continue E. 3581.0 hub. 3860.0
A.P. 3. Thence S. 61° 54' E. at 1621.6 intersect true sec line bet. 24-25
at a point 116.5 ft. E. of cor 23-24-25-26. I check this last course and find
same to be S. 61° 30' E.

Sept. 28.

Run S. 86° 35' E. on a random line thru cent. of sec. 27 from 1/4 S. bet sec
27-28 at 343.0 log. road. 357.6 hub. 518.4 hub. 697.2 hub. 820 R.R. grade,
NE. SW. 880 ent. Jamek swp. N. SW. 1117.3 hub. 1346.6 hub. 1790.5 hub.
2024.7 hub. 2900 br. swp. 2990 hub. 3090 ent. swp. 3187.5 hub. 3494.0 hub.
3520 br. swamp. NE. & S. thru heavy timber 3868.2 hub. 3954 old logging rd.
4045.4 hub. 4562.0 hub. 4946.2 hub. 5436.3 fall 6.2 ft. N. of 1/4 sec. cor.
(Iron Mon) sec. 26-27.

Aug. 16, 1920

Begin at U.S. S.M. at the 1/4 S. cor. 28-29 and ^{correct} ~~retrace~~ cent. line of sec 28
at 5503.3 ft. the original 1/4 S. bet sec 27 and 28. From which I mark.
Maple 8" N. 67 1/2 E. 41.6 ft. Maple 5" N. 30 3/4 W. 74.2. Lincoln Mackey,
Survey begun Aug. 15, 1920. Completed Sept. 28, 1920.

Recorded Dec. 13, 1920

by Jas. H. Flynn,
County Surveyor, Cass County.
by
E. B. Horst Deputy,

Sat.
May 22,
1920

Field notes of the survey of the "Interlachen" County Road in Twp. 134 and 135 N. Rge. 29 W. of the 5th. P.M. Case County, Minnesota.
E.B. Horst and Robert Aylsworth leave Walker in Horst's Ford and drive to G.W. Pennington's place in sec. 21-135-30 and get T.L. Mackey and crew of 3 men. We have supper at Pennington's. After supper we drive to Chas. Anderson's Rocky Point Resort in sec. 32-135-29 to begin survey of the Interlachen Road.

May 23,
1920

Mackey works on notes of Rainbow Road and assists E.B. Horst. Horst in making plat and computing data for the Interlachen Road from notes of previous surveys in same locality. E.B. Horst.

May 24,
1920

J.L. Mackey, Asst. Eng. Mose Morris, Chain, Adolph Bjeld, Chain - 2nd Crew. E.B. Horst, Eng. in Charge, Burdick Anderson, Chain, Robt. Aylsworth, Axe - 1st Crew. Mackey and crew begin at the D.M. at the cor. to sections 29-30-31-32 set by E.B. Horst in Aug. 1914 from the 4 W.S. B.S. and sighting east on the true N. boundary of sec. 32. Turn S.E. angle 89° 40' and run S. on random sec. line bet. 31-32. At 1200 ft. S. leave Jam. swamp. At 1770.2 set hub. At 1942.1 ft. hub. At 2334.2 ft. hub. At 2440.0 ft. hub. At 2485.0 ft. tot. road N.E. + S.W. At 2700 ft. telephone line. At 3814.0 ft. hub. At 3220.4 ft. hub. At 3420 ft. Rocky Pt. Road. At 3931 ft. meadow. At 4095 ft. leave same. At 4100 ft. hub. on sea wall. At 4110 Agate Lake. Lincoln Mackey.

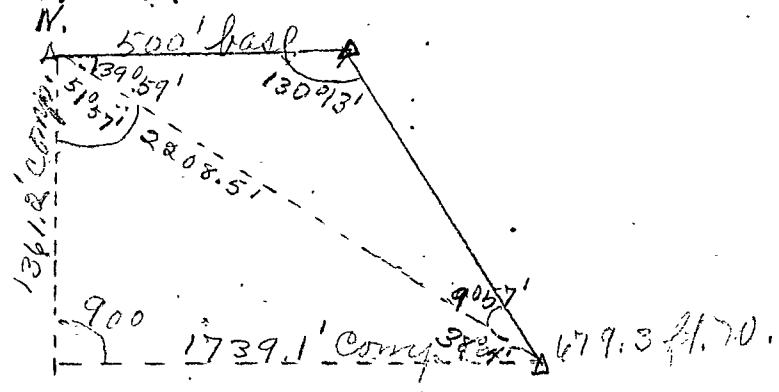
Field Book 172A-p. 61
100
900

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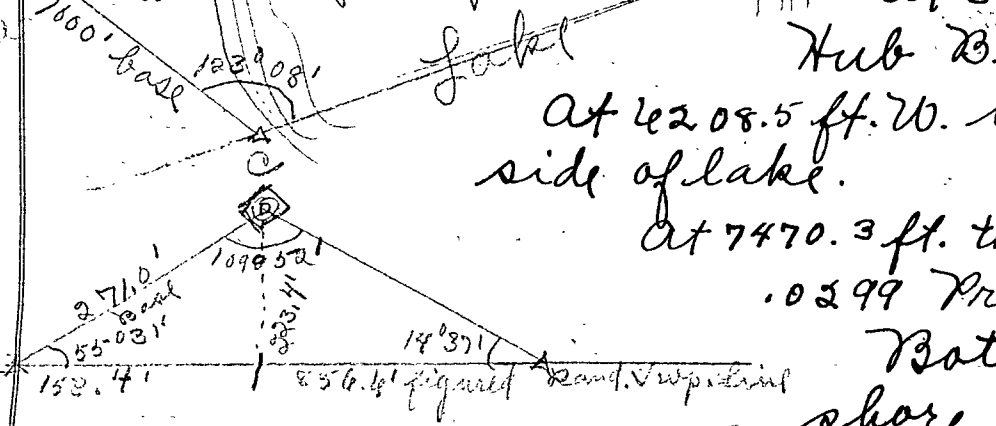
Horst and crew begin at the 1/4 S. cor. (D.M.) on Twp. line on S. side of sec. 32-135-29. Established in Aug. 1914 by E.B. Horst from W.S. Pine B.S. and run 20. (80 45' Var.) at 479.3 ft. W. set hub on W. bank of Agate Lake. Angle from this hub to Mackey's hub on N. side of Agate Lake = 38° 04'. Angle from Mackey's hub on N. side of lake to Horst's hub on E. side = 51° 57'. Distance between hubs = 2208.5 ft. by following triangulation. E.B. Horst.

May 25, 1920.

Horst and crew produce random Twp. line W. across Agate Lake and continue W. to Twp. cor. of Twp. 134-29+30 and 135-29+30. Triangulate Agate Lake as follows: From East side of Agate Lake set hub on W. side. 350 ft. W. of lake.



Hub - 4063.8 W. Comp. dist. = 3384.5' by Mackey 14° 13' 30"



At 2713.0 ft. W. leave Agate Lake. At 4063.8 ft. W. triangle Hub B. (sec. cor. school house) 135.3 ft. N. at 45° 04.2 ft. W. Hub. At 4208.5 ft. W. leave field. At 4413.7 ft. W. Triangle Hub A. East side of lake.

At 7470.3 ft. the Twp. Cor. sets N. 22° 2.4 ft. Correction N. per ft. = .0299 Proportion of our chain to W.S. chain = .9799685 ft. Both crews run W. on true Twp. line from W. shore of Agate lake. At hub 4063.8 ft. on random offset N. 121.5 ft. to true line. At hub 4504.2 ft. offset N. 134.1 ft. Produce true Twp. line W. Thru these points and set 1/4 S. cor. at 5174.23 ft. W. (wood post) continuing W. At 5324.0 ft. W. enter meadow. At 5738.0 ft. leave meadow. Enter field.

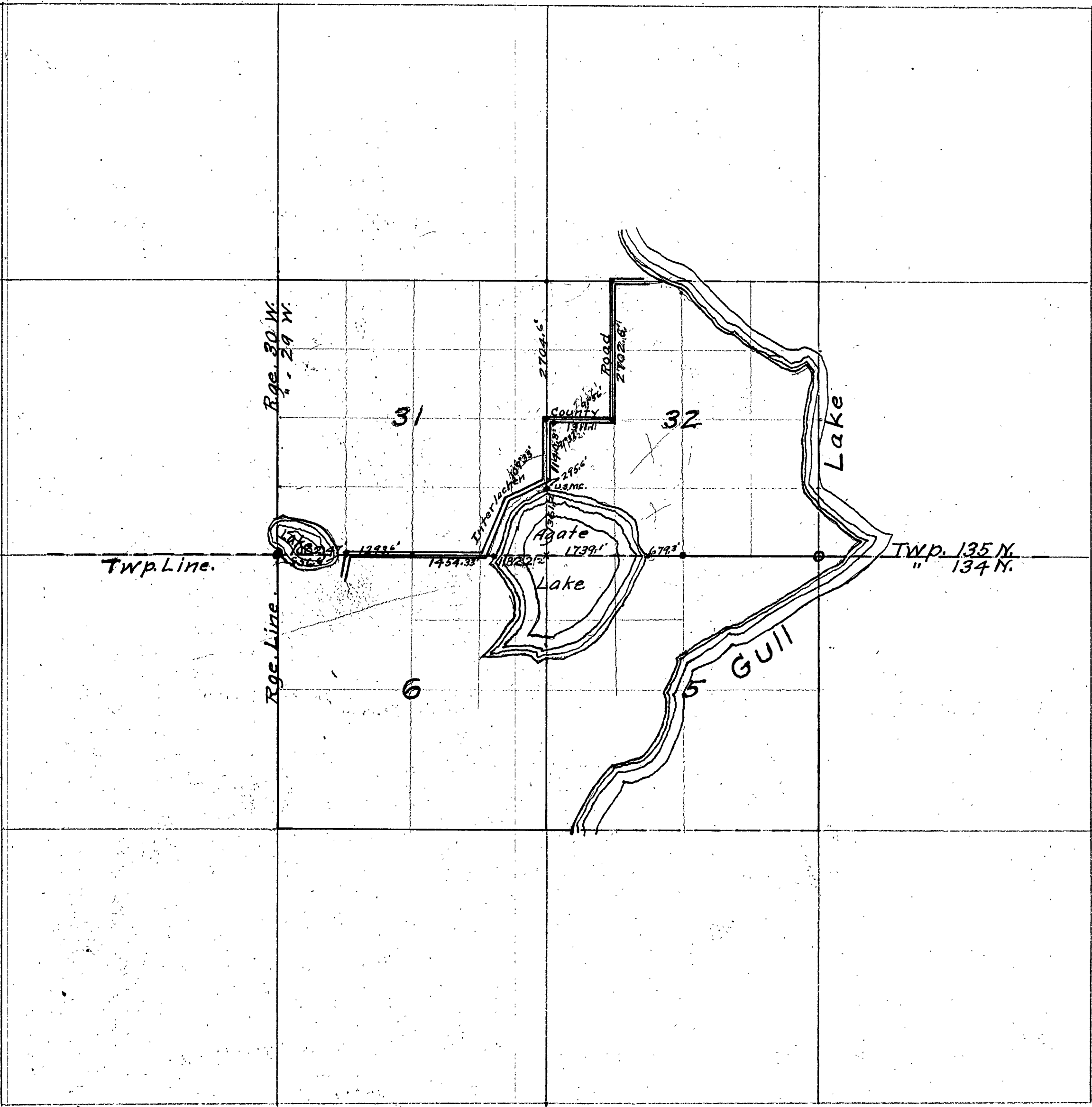
500

E.B. Horst
J.L. Mackey.

Plat. C Survey Record No. 444.

134-135-29

4 SECS



Wed. May 26, A.M. Rain. Horst and Mackey on notes and computations.

P.M. Both crews on Swp. line. At 4057.8 ft. W. leave field. At 4447.83 ft. W. set iron mon. at true point for W. $\frac{1}{4}$ cor. sec. 31-4 with following bearings:
 Poplar 7 S. $89^{\circ}33'W$. 153.8 ft. R. Oak 4 N. $22^{\circ}00'W$. 37.0 ft. Point for W. $\frac{1}{16}$ corner falls in center of a new graded road running S. from this point, which bears S. $21^{\circ}15'W$. We return E. to 4063.8 ft. W. corrected. produce true line E. to sta. 3719.9' and set a 2" x 48" I.M. for int. cor. to sec. corner which is 1132.2 ft. in Agate Lake. At 4063.8 ft. S.E. cor. of school house bears N. 15.3 ft. From hub 4063.8 ft. we turn left $40^{\circ}31'$ and run center line of County road along W. shore of Agate Lake. At 438.5 ft. left $190^{\circ}01'$. At 1284.0 ft. right $40^{\circ}18'$. At 501.2 ft. to true sec. line between sec. 31-32 Swp. 135-29. E. B. Horst.

7⁰⁰ May 27, 1920 Both crews continue center line of county road. At sta. 4140.5 ft. S. on sec. line bet. secs. 31+32 set I.M. on seawall N. side of Agate Lake with following bearing trees: N. Pine 8" N. $39^{\circ}30'E$. 39.6 ft. N. Pine 16" S. $79^{\circ}47'W$. 54.2 ft. Thence S. $13^{\circ}2'N$. E. 5.2 ft. Pop. 9 N. W. 4.1 ft. Return N. to sta. 3844.9 ft. on sec. line. Backsight on E. of road. Thence left $70^{\circ}27'$ on sec. line 1140.3 ft. to $\frac{1}{4}$ S. cor. between sec. 31-32. Where we set 2" x 48" I.M. with following bearing trees: N. Pine 8" N. $39^{\circ}30'E$. 39.6 ft. N. Pine 16" S. $79^{\circ}47'W$. 54.2 ft. Thence right $88^{\circ}25'$ and run E. on E. + W. $\frac{1}{4}$ line 1311.1 ft. and set an I.M. at true pt. for C. W. $\frac{1}{16}$ S. cor. sec. 32. B. L's. - B. Oak 12 S. $27^{\circ}35'W$. 66.2 ft. Popple 6 S. $24^{\circ}00'E$. 46 ft. Thence left $88^{\circ}04'$ and run N. on true W. $\frac{1}{16}$ line. At 688 ft. N. set hub. At 1103 ft. N. set hub. At 1500 ft. N. set hub. At 2295.2 ft. N. set hub. At 2534.0 ft. N. enter swamp. At 2702.6 ft. intersect 4.1 ft. W. of point for W. $\frac{1}{16}$ S. corner bet. secs. 29-32 where we set a 2" x 48" I.M. in swamp. Thence out line East on true sec. line to intersect the W. H. Cobban road. Complete survey at 4 P.M. and return to Anderson's for supper. E. B. Horst.

Survey begun May 22, 1920.

Completed May 27, 1920.

Recorded Dec. 15, 1920 by J. H. Flynn
 County Surveyor.

By E. B. Horst, deputy.

Field notes of the Survey and Sub-division of Section 14, Township 141 N., R. 24 W., 5th P.M. Cass County, Minnesota as surveyed by Jas. H. Flynn, Co. Surveyor.

May 17, 1920. Beginning at the N.E. corner of said sec. 14 which was: - Spruce 58.3 W. 47 lks., Spruce 47 N. 15 W. 18 lks., Spruce 48.65 E. 34 lks., Jam. 4 N. 27 E. 27 lks. Now is: - Stake in centre of State Rural Highway No. 83, also in centre of town road partly constructed leading East. (I surveyed this latter road myself in 1915 and from above corner) put down an I.M. 2 1/2" x 30 in., then the only witness being a cedar fence post for fence corner, the same being N. 4" N. 88 W. of said monument; then started line N. 89° 50' W. At 1320 ft. temp. 1/4 cor. At 2640 ft. temp. 1/4 corner. Not finding original 1/4 post which was: - Aspen 20 S. 24 W. 13 lks., Spruce Pine 18 N. 47 W. 30 lks. Now is obliterated by time and fires - cont. on west. At 3940 ft. temp. 1/4 cor. Then on West. At 5473 ft. hub. Then N. 37° 45' E. to cor. secs. 10, 11, 14, 15, which was: - Jam. 88.36 E. 15 lks., Jam 10 S. 28 W. 14 lks., Jam. 7 N. 90 E. 19 lks., Jam 8 N. 59° 20' 25 lks. Now is: - Jam 10 S. 38 W. 16 lks., Jam stump 88.36 E. 15 lks. Put down I.M. 1 1/2" x 48", the same being 54 ft N. and 41 ft E. of said hub making this section cor. 5432 ft. west of N.E. cor. Then went back and at 1358 ft. made 1/4 cor. to wit: - White pine stump 11 N. 21° 45' W. 23' 2". Then 1358 ft. more and put down I.M. flue pipe 1 1/2" x 48". Then at another 1358 ft. put down stake, no object near for bearing. Then beginning at aforesaid N.E. corner said sec. 14 south along Highway 83 at 1320 ft. temp. 1/4 stake, 1300 ft. said highway turns W. at 1325 ft. 1/4 S. cor. for secs. 13-14 said town which was: - Spruce Pine 10 N. 42 E. 18 lks., Fir 10 N. 43° W. 10 lks. Now is: - Spruce stump 10 N. 42 E. 18 lks. Put down I.M. flue pipe 1 1/2" x 48". Then cont on S. At 875 ft. entered Jam. swamp. At 1320 ft. temp 1/16 stake. At 2640 ft. hub. Then S. 84° 30' W. to corner to secs. 13-14-23-24 in which was: - Jam. 88.13 W. 28 lks., Jam. 88.40 E. 23 lks., Jam. 10 N. 74 E. 13 lks., Spruce 10 N. 58 W. 18 lks. Now is: - The ramp. Put down flue pipe for corner 1 1/2" x 48". The dist. from E. 1/4 S. to this cor. is 2450 ft. Then went to N. 1/4 S. as above described, then S. 90°. At 500 ft. wire fence S. 10° W. At 1320 ft. temp 1/16 stake. At 2640 ft. temp. 1/4 S. At 2675 ft. center State Rural Highway No. 83 bears E. + W. At 3940 ft. temp 1/16 stake. At 5295 ft. hub. Then S. 50° W. 29' 5" to S. 1/4 post said sec. 14 which was: - Jam 10 N. 34 E. 20 lks., Fir 6 S. 50 E. 30 lks. Now is: - Jam. stump 12 (with B.S.) N. 36 E. 20 lks. Put down I.M. flue pipe 1 1/2" x 48" for post and made white pine stump N. 7° W. 16 ft. for witness. Distance from N. 1/4 sec. to S. 1/4 sec. is 5314 ft. Then from this point run line west. At 1320 ft. East side Highway No. 83. At 420 ft. creek 8' wide, passing S. thro concrete culvert on said Highway. At 2454 ft. cor. to sections 14, 15, 22, 23 in said town, which was: - Cedar 6 N. 48 W. 20 lks., Cedar 8 S. 40 W. 14 lks., Cedar 6 N. 16 E. 17 lks., Cedar 4 S. 49 E. 9 lks. New bearings: Boulder N. 42 W. 23' 4". Telephone pole S. 34 E. 51' 2". Now is: An old stake I dug up out of the road (S. R. H. No. 83) bed and the stake I placed there when I surveyed a town road W. from this point 2 1/2" x 30". Then turned N. 0° 30' W. At 480 ft. enter Jam. and Alder swamp.

100

200

300

400

500

600

700

At 1280 ft. creek 5 ft. S.E. At 1320 ft. temp. $\frac{1}{4}$ cor. at 2640 ft. temp. $\frac{1}{4}$ cor. and made exhaustive search for original bearing trees which was:-
 Jam 8 S. 400° W. 24 lbs. Jam 10 S. 72° E. 19 lbs, No. 15 is - Obliterated by time and fire. Then cont. on. At 3390 ft. Pop. ridge. At 3960 ft. temp. stake. At 4040 ft. live pop. ridge. Enter swamp. At 5304 ft. afore-mentioned cor. to secs. 10, 11, 14, 15. Then went to aforesaid south quarter post and run line east. At 1320 temp. post. At 1760 ent. Jam. swamp. at 2716 ft. corner. to sections 13, 14, 23, 27.
 Returned to $\frac{1}{4}$ cor. and established bearings to wit: Boulder West $4^{\circ} 8''$ Boulder S. 34° E. $27' 7''$. Then turned N. $91^{\circ} 25' E$. At 1350 set temp. post. At 2470 N. side of state Highway No. 83. Then started E. $\frac{1}{4}$ S. of said section 14. Thence west 90° At 1124 ft. hub. At 1320 temp. post. At 2640 ft. temp. post. At 3960 ft. temp. post. At 5280 ft. ent. temp. Jam. swamp. At 5450 ft. section line 14-15. At a point 72 ft. south of the proper point for the $\frac{1}{4}$ S. thereof which I established from aforesaid temp. post to wit: - Jam. 4 S. 74° E. $54' 5''$ Jam. stub 7 N. 16° W. $34' 2''$. Put down J.M. (pipe $1\frac{1}{2}'' \times 48''$) Then went back 1343 ft. and set stake for $\frac{1}{4}$ cor. (nothing near for bearings). From this post it is S. 45° E. 38 ft. to corner of State Highway No. 83. Then S. At 1321 ft. set J.M. (pipe $1\frac{1}{2}'' \times 48''$) At 2081 ft. center of S.H. No. 83. At 2442'5" at $\frac{1}{4}$ S. cor. put in new bearings: Cedar 9 N $48^{\circ} 45' E$. 71 ft. Elm 7 S. 54° E. $42' 8''$. New bearings at $\frac{1}{4}$ post equal distant and on line bet. E. $\frac{1}{4}$ S. and S.E. cor. are: - Bl. Ash 6 N. 59° E. $58' 7''$; Fir 3 S. 78° W. 11 ft. No trees near the two successive points on the line running W. from this post therefore no witnesses to these posts. all other stakes put down have no witnesses for the same reason, i.e. where no witnesses are mentioned. The following persons assisted in the survey to wit: - J. J. Murphy, axe-chain, 13 days; Bert J. Fosdick, axe-chain, 13 days; Wayne McVey, axe-chain, 8 days. The following were witnesses to all the corners established: J. H. Flynn, J. J. Murphy, Bert J. Fosdick. Govt survey reported 640 acres in this section. This survey gives 452.99 acres.
 James H. Flynn.

Survey began May 17, 1920. Ended June 12, 1920.

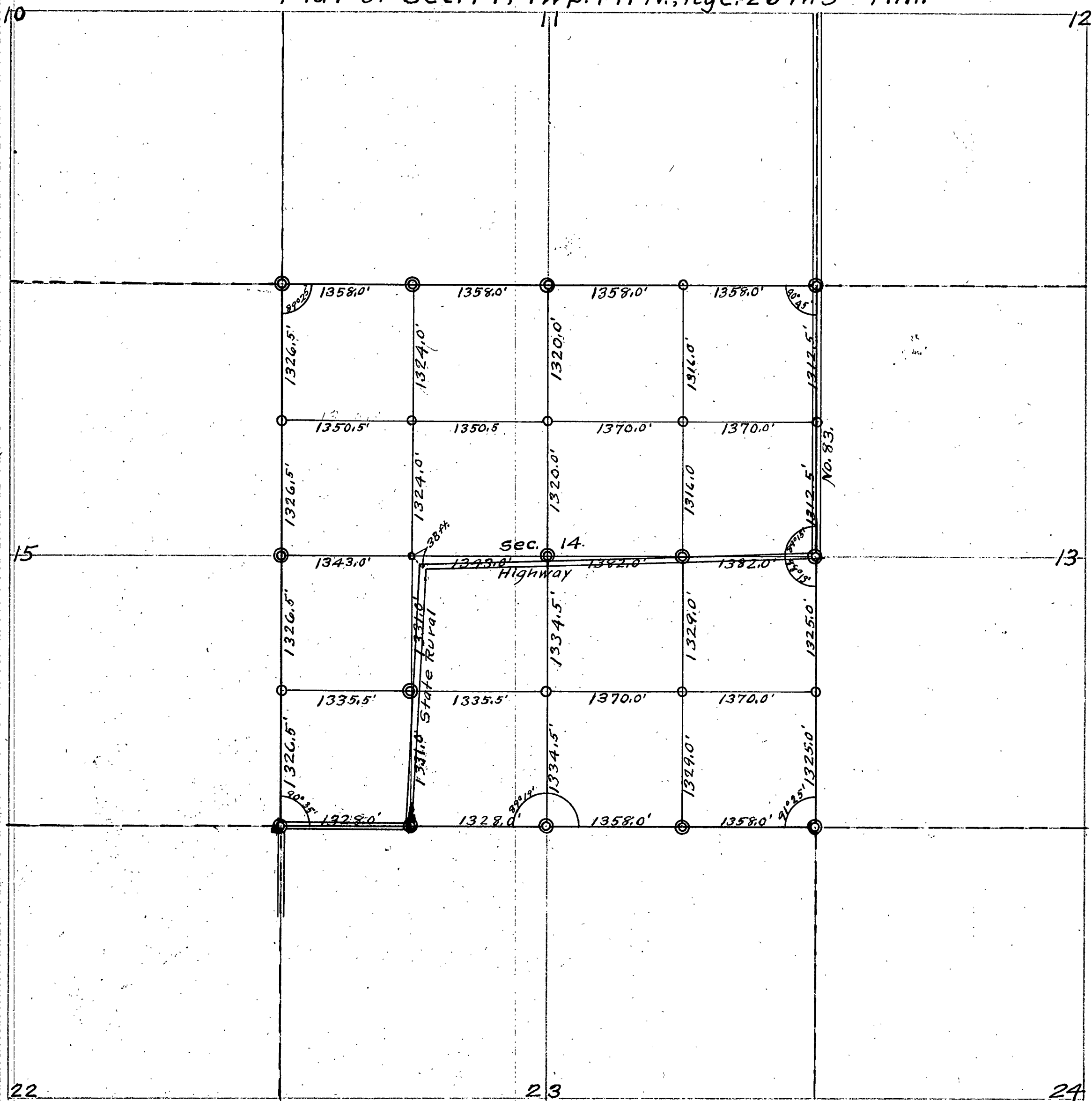
Recorded Dec. 18, 1920. by J. H. Flynn,
 Co. Surveyor.

By E. B. Horst. Dept. Co. Surveyor.

Survey Record No. 445.

5 Secs.

Plat of Sec. 14, Twp. 141 N., Rge. 26 W., 5th P.M.



Field notes of the subdivision of sections 8 Township 142 N., Range 24 W., of the 5th P.M. Cass County Minnesota as surveyed by James H. Flynn, County Surveyor.

July 28, 1920 Beginning at the South East corner of said sections located by myself Aug. 19, 1916. (see report of Remer Lobique Road) by setting in an iron monument $2\frac{1}{2}'' \times 30''$. Then went west along said road ~~to~~ 2644 ft. put down S.M. $1\frac{1}{2}'' \times 44''$. Then west along said road 1648 ft. - said road turns N.W. at this point - then 1002 ft. along section line to the S.W. corner of said section which was: - Tamarac (not Spruce as mentioned in Govt official notes, this error in designating between Tamarac and Spruce frequently occurs) therefore the field for this corner are: - Jam. 4 S. $30^\circ E$ 8 lbs. Jam. 4 S. $20^\circ W$ 10 lbs. Jam. 4 N. $51^\circ E$ 5 lbs. Jam. 4 N. $40^\circ W$ 13 lbs. Now is the same. put down M. at this point $2\frac{1}{2}'' \times 30''$. Then turned an angle of $4^\circ 30'$ W. for W. sec. line. At 794 ft. crossed said Remer Lobique road at 1320 ft. temp. $\frac{1}{4}$ post. At 2640 ft. temp. $\frac{1}{4}$ post. At 3940 ft. temp. post. At 4919' M.C. corner no. 43 was west $17' 4''$. Said M.C. cor. was Jam (not Spruce) 4 S. $32^\circ E$ 25 lbs. Then I went to M.C. no. 42 on section line between sections 4-7 which was: - Pine 8 N. $28^\circ W$ 30 lbs. Pine 8 S. $34^\circ W$ 27 lbs. Now is the same. Finding an iron bolt for M.C. corner in proper place put up a flag at this point. Returned to M.C. 43. and brushed out a line and measured to M.C. 42. At 887 ft. angle basing from sec. line between M.C. 43 + S.W. cor. = $26^\circ 32'$. Establishing the N.W. cor. 793 ft. N. of M.C. 43 and 394 ft. of M.C. 42 thus making the W. line 5713 ft. in length. Then triangulated across the south end of the lake 543'. Then N. $24^\circ 30'$ E. 875' to a point where I put down a stake M.C. 40 - some 2 yrs. since - the bearing trees were there at that time this distance being 74' E. of corner to sections 5-6-7-8. Then run line east. At 1320 ft. temp. $\frac{1}{4}$ post. At 2640 ft. temp. $\frac{1}{4}$ post. At 3940 ft. temp. $\frac{1}{4}$ post. At 5908 ft. knowing the location of this corner (in fact all of them in this section) the original corner being: - Fir 10 N. $42^\circ W$ 13 lbs. Fir 10 N. $14^\circ E$ 14 lbs. Fir 10 S. $14^\circ E$ 8 lbs. Ironwood 4 S. $34^\circ W$ 23 lbs. Sound Fir 7 N. $42^\circ W$ 13 lbs. down and partly obliterated by fires, also located stumps of Fir S.E. put in S.M. $2\frac{1}{2}'' \times 30''$ from above bearings and where I placed a stake 2 or 3 yrs. ago. This corner was 4' S. of random line. Then went back to temp. $\frac{1}{4}$ post. made search again, for original bearings which was: - Aspen 4 S. $7^\circ E$ 13 lbs. Birch 4 N. $31^\circ E$ 10 lbs., and at a point 126 ft. E. and 6' S. of random line found the birch a stub down put in S.M. at this point $1\frac{1}{2}'' \times 44''$ and new bearing to wit: Aspen 4 N. $3^\circ W$ 50 ft. I also put in new bearing at N.E. cor. to wit: Pine stump 8' S. $30^\circ E$ 23' rail fence bears N. & S. 83 ft. E. of N. 14 S. cor.

I went to S.E. cor. and run random line N. angle $1^\circ 31' E$. At 1320 temp. $\frac{1}{4}$ post. at 2640 temp. $\frac{1}{4}$ post. made search for E. $\frac{1}{4}$ post and at a distance of 2804 ft. found Maple (down) 7' S. $71^\circ E$ 18 lbs. and 8 ft. W. of line. put in S.M. $1\frac{1}{2}'' \times 44''$ and bearings to wit: Jam. 4 S. $30^\circ E$ 24 lbs. Pine Stub 12' S. $53^\circ W$ 218 ft.

Having placed a flag at the N.E. cor. and the timber being destroyed by fire I run true line to said N.E. cor. a distance of 2798 ft. then I returned along this line and set down wooden stakes for the $\frac{1}{16}$ corners. Then beginning at the E. $\frac{1}{4}$ S. cor. as established and started line W. ($S. 87^{\circ} W.$) at 1065 E. side of pond triangulated across pond 681 ft. at 1746 ft. lv. Marsh cut Hill at 2632 fence N+S. at 2640 temp C. $\frac{1}{4}$. in cultivated land. at 3193 ft. fence N+S. at 3500 Jam. swp. at 4134 lv. swp. at 5602 ft. $\frac{1}{4}$ S. cor. bet. sec 7-8 which was: W.P. $8^{\circ} N. 45^{\circ} W. 10$ lbs. W.P. $8^{\circ} S. 75^{\circ} E. 19$ lbs. Now is: W.P. $8^{\circ} N. 45^{\circ} W. 10$ lbs. (Post in Hence cor.) put down I.M. $1\frac{1}{2} \times 44$ New Bearings:
 No. Pine $10^{\circ} S. 40^{\circ} E. 45.5$ ft. Pine stump $8^{\circ} N. 13^{\circ} W. 14$ ft.
 Then went to S. $\frac{1}{4}$ S. cor. and run line N. $10^{\circ} 35' E.$ at 1400 ft. $\frac{1}{16}$ S. no trees for brgs. at 2800 ft. put down I.M. $2\frac{1}{2} \times 30$ for C $\frac{1}{4}$ S. cor. in cultivated field. At 4224 ft. E. N. $\frac{1}{16}$ cor. with following brgs.: Maple $9^{\circ} S. 54^{\circ} W. 10$ ft. Red Oak $11^{\circ} S. 57^{\circ} E. 17$ ft. Then N. to N. $\frac{1}{4}$ S. cor. 5622.0 ft.
 From E. $\frac{1}{16}$ S. cor. bet. sec 5-8 Jam S. in southerly edge of small marsh (no trees near for brgs.) Then ran S. at 1410 ft. put in wood stake for N.E. $\frac{1}{16}$ S. cor. no trees near. At 2153 ft. N. side of pond triangulated across 981 ft. At 4221 ft. S.E. $\frac{1}{16}$ S. cor. put down wood post. at 5621 ft. S. Cent. of Remer Jobique road. Then went 2698 ft. west along road and established the W. $\frac{1}{16}$ S. cor. bet. sec 8-17 run N. at 1401 ft. ent. Cleared field, put down wood stake for S.W. $\frac{1}{16}$ at 2708 E & W fence. at 2802 ft. E & W. $\frac{1}{4}$ line, set wood post for C.W. $\frac{1}{4}$ post. no tree. At 4242 ft. set N.W. $\frac{1}{16}$ cor. with W. Pine stump $8^{\circ} N. 48^{\circ} W. 10.5$ ft for brgs. Continued line N. at 5259 ft. ent. Marsh. at 5682 ft. N. section line in Marsh. drove wood stake for W. $\frac{1}{16}$ cor. bet. sec 5-8, No trees near.

Following persons worked on above survey:

J. H. Flynn, surveyor in charge. J. J. Murphy, Bert Frosdick, Elwin Pohl, Loim Pohl, Florin Pohl.

Total acres 719.62.

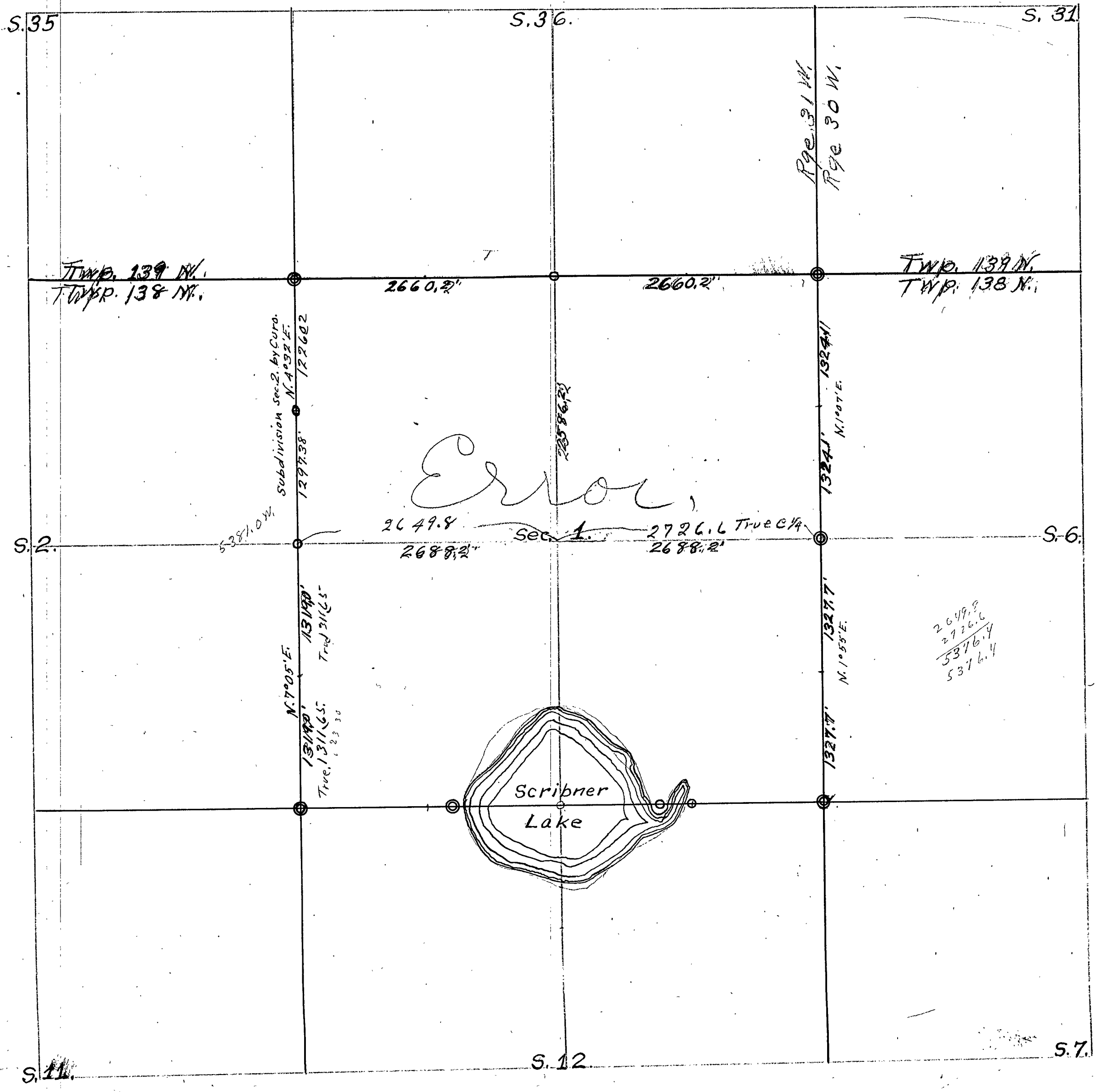
Surveyed July 26, 1920. to Aug. 26, 1920. Jas. H. Flynn,
 County Surveyor.

Recorded Jan. 13, 1921, by Elmer B. Horst,
 Deputy.

Plat No. 1.
F.B. BHA.

Survey Record No. 447.

Plat # 1

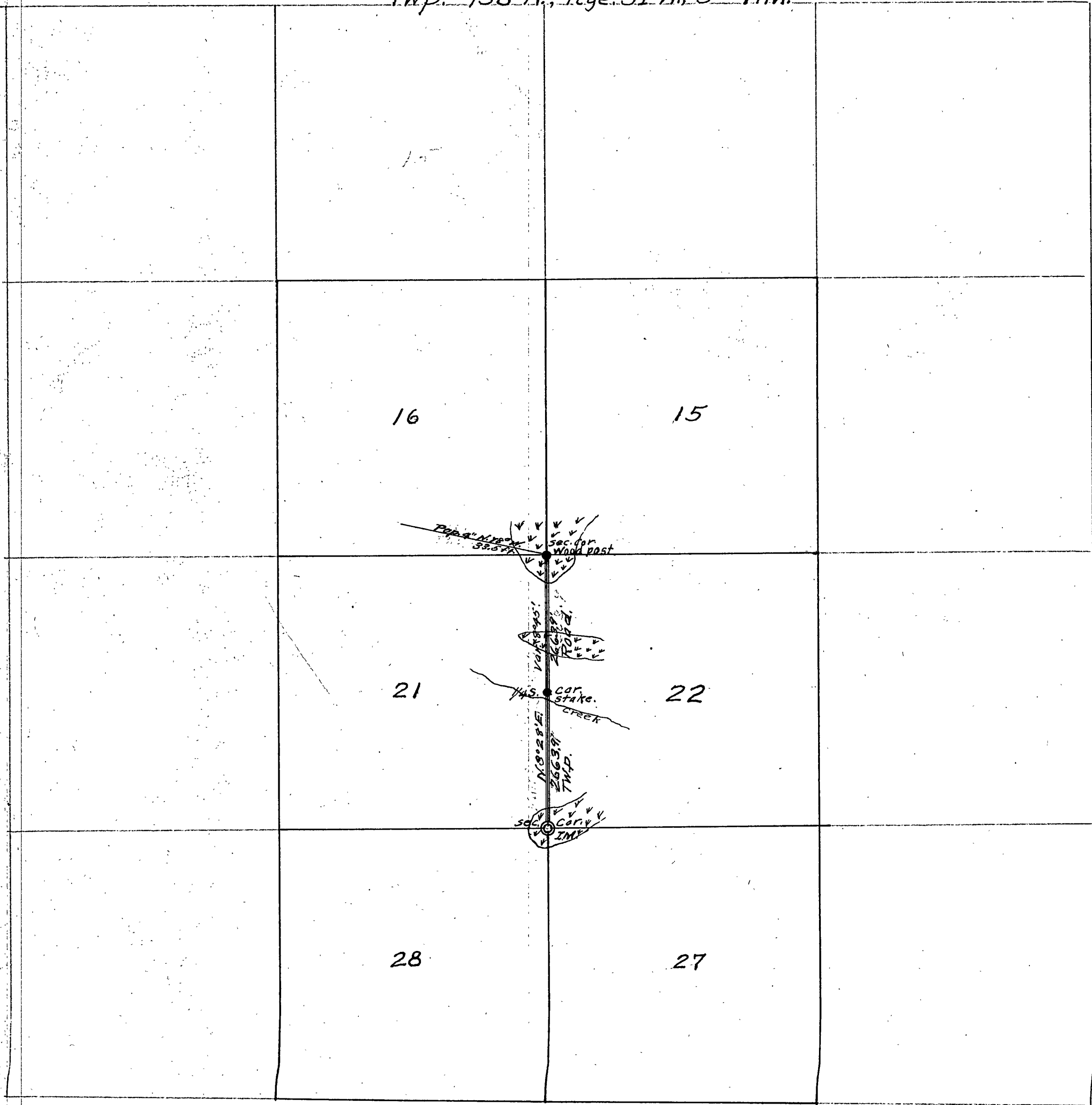


Survey Record No. 447.

Plat No. 2.

©

Twp. 138 N., Rge. 31 W., 5th P.M.



Sept. 23, 1920

Field Notes of a survey of a Twp. road in Twp 138 N. Rge 31 W. of the 5th P.M. Cass County Minnesota as surveyed by Mose Morris ~~under the~~ ~~direction of E.B. Horst, Deputy County Surveyor, Cass County.~~

Beginning at a duly established section corner previously reestablished by E.B. Horst, and marked by an Iron Monument, being the cor. to sec. 21-22-27-28 ^{in swamp} from which we run N. (Var 7°) Morris, transit and chain 14. Jensen, flag + chain, John Wahlquist axe, at 308 ft. N. lv. swp. 427 hub. 1000 ft. hub. 1403.5 hub. 1830.3 hub. 2200 hub. 2500 ft. N. quit for day.

Sept. 24, 1920

Same crew continue line N. at 2500 ft. N. hub. at 2618 ft creek. at 2640 set temp hub. at 3400 hub. 3550 swp. 3805 lv. swp. 3960 temp 1/16 cr. 4300 hub. 4600 hub. 4850 swp. 4962.3 creek. at 5327.8 ft. N. fall 159.7 ft W. of cor. to sec. 15-16-21-22. All the original B.T.s are gone except stump of one Tamarack. We find the old stake still standing from which: N to B.T. Aspen 4 br N. 78° W. 33.5 ft. Correct line back and set road center. Correction: Tan δ = .0299. Supper at Jensen. Jensen takes me to C.W. Ely's farm in sec. 12. Mose Morris.

Sept. 25

Survey of road in sec. 1 from C 1/4 on S.R. N. N. on E. of section, 1. 138-31 Morris, Transit, C.W. Ely's, flag, Thomas and Cassidy, Chain.

Begin at the established 1/4 S. cor. on E. side of sec. 1-138-31 (wood post) on S.R. H. and run N. (Var. 6°50') on State Road. at 1321.8 Hub. 2640 temp C 1/4. 5381 W. P.I. on N. + S. cut out line for road on sec. line bet 1 and 2.

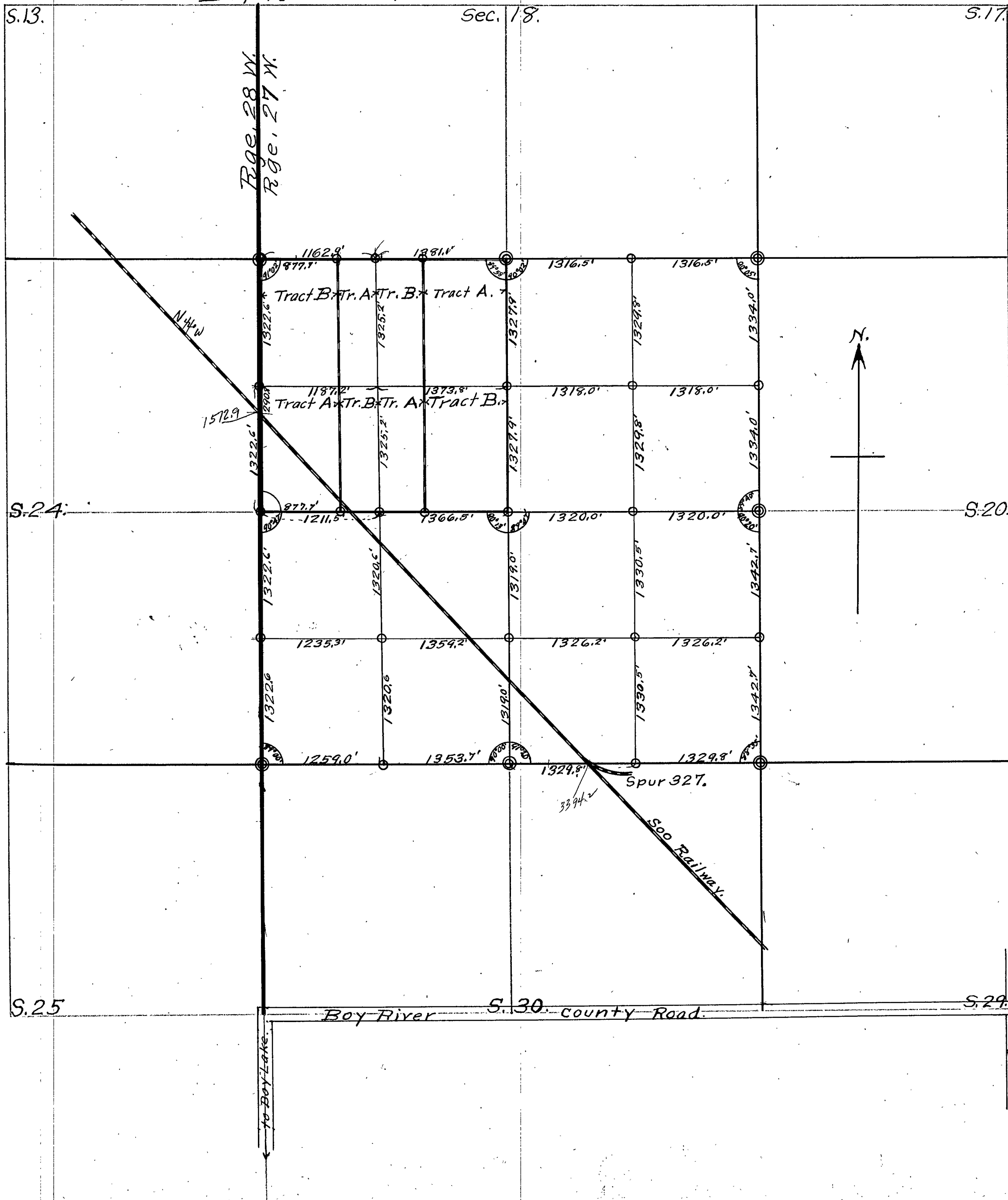
From the S.W. cor. of sec. 1 ^{I.M.} we chain N. on sec. line 1311.65 ft to 1/16 cor. (I.M.) and 1311.65 ft. same distance N. to locate 1/4 S. cor. which we find.

Our E+W Random line at 5376.4 ft W. falls 35.2 ft. S. of 1/4 S. cor. bet sec. 1-2. set

Erno

- Sept. 8, 1920. Field notes of the retracement survey and subdivision of Section 19, Bay River Twp. 143ⁿ. Range 27^w, of the 5th P.M. Cass County, Minnesota. Tusler and Smith in Walker getting notes and outfit ready to go to Bay River to start survey of section 19 Twp. 143-27 go to Wackensack in P.M. on freight to wait for train to go.
- Sept. 9, 1920. Tusler and Smith leave Wackensack in Longville bus and drive to Big Bay and hire John Huffman to take us across to station to start work.
- Sept. 10, 1920. E. Tusler, E. Smith, G. Smith, Roscoe Worcester, go to spur 327 on Soo. R.R. and find a line run by County Surveyor Flynn in a previous survey. We find a post marked $\frac{1}{16}$ S. We follow East and find hub set in the center of road; also some new B.T. I do not check these on account of rain.
- Sept. 12, 1920. Go to look for more of a crew but fail to find any men.
- Sept. 13, 1920. I set transit over hub set for sec. cor. sec. 14-20-29-30 and sight up old road running N. on about $8^{\circ}45'$ var. at station 1320 set hub for Temp. N. east $\frac{1}{16}$ P. At station 3600 hub on hill at 5353.4 P.T. hub. on stale road No. 45 we fall West 7.8 ft. correction = .00145. at about sta. 2640 we find old cedar post scrub and set beside road with no B.T. The old go B.T. calls for cedar 5570° N. - 7, cedar 5580° E. 17. I decide these trees were grubbed out when old road was graded so do not use it. At 5353.4 we find one new B.T. set by the engineer in charge of the survey of state road No. 45 it was Cop. $4270^{\circ}30'$ E. 114.2 ft. all others have been destroyed on account of clearing land. I place transit over hub set for true sec. cor. sec. 17-18-19-20 and turn angle as follows from sec. line which I just run angle = $89^{\circ}50'$ left. + run west at sta. 1320 set temp. point in old road at sta. 2566 temp. point for $\frac{1}{4}$ sec. cor. R.R. Fence P. N. $42^{\circ}35'$ N. 44.1 ft. P. stump S. $25^{\circ}35'$ E. 47.2 ft. at sta. 3900 hub. at sta. 5177.0 ft. west P.I. from true sec. cor. sec. 18-19 Tnt. 143-27 and Sec. 13-24 Tnt. 143-R. 28 we fall South 7.2 ft. correction .00139. This corner was set from new B.T. set. The state surveyor, quit for night. E. L. Tusler hub 3900 goes N. 5.4 ft. to turn angle from true line.
- Sept. 14, 1920. Tusler, E. Smith, G. Smith, Worcester, Stanston set transit over P.T. and sight back on random line and turn angle R. $88^{\circ}30'$ and run south as follows: At station 300 hub.; at sta. 1572.9 center of Soo Railroad track angle N. 44° N.; at sta. 2100 hub.; at sta. 2600 hub.; at sta. 2639 old fence bears east and west; at sta. 3040 over field; at sta. 3045 hub. E. L. Tusler.
- Sept. 15, 1920. Same crew go to hub 3045 and continue random line south as follows: At sta. 3372.3 hub.; at sta. 3884.1 hub.; at sta. 4007.9 hub.; at sta. 4030.2 enter swamp E. N. at sta. 4600 hub. in swamp; at sta. 5300 P.I. for sec. cor. sec. 19-30-24-25 we fall west 135.2 ft. correction .02553 = $1^{\circ}28'$. Turn angle left 90° and sight on corner also down true line at sta. 301.6 hub. in swamp; 1260.3 we find true $\frac{1}{16}$ post set by James Flynn at sta. 1300 leave swamp at sta. 2612.7 true $\frac{1}{4}$ sec. set by Flynn in a previous survey of sec. 30. I set transit up over this post and back sight on line, foresight and deflect. $1^{\circ}20'$ Right to follow old cut line. Quit for night.
- Sept. 16, 1920. Subdivision of sec. 19 - Twp. 143 - R. 27. From the old B.T. I check Flynn $\frac{1}{4}$ sec. cor. sec. 19-30 I set I.M. and take Flynn B.T. as follows; Birch 12 N. $35^{\circ}5'$ N = 51.2 ft. Birch 10 S. $8^{\circ}20'$ N = 39.4 ft. at sta. 3394.2 I set a hub on the rail and sight down track

Boy River Twp. 143 N. Rge. 27 W. Sec. 19.



Survey Record No. 448.

and road bearing N. 46° 10" W. at sta. 3944.1 I find Bolt set by hub also a 3 ft. stake for 1/16 P. set by Flynn. New B.T. I stump N. 50° 37" E. = 32.1 ft. I stump S. 43° 32" E. = 26 ft. at sta. 4181.5 old hub; at sta 5292.4 true sec. cor. sec. 19-20-29-30 set by Flynn. Also used by the state engineer I set transit over this point back sight on true line and read angle 87° 30" to hub on my random line between sec. 19-20. E. L. Tustler I M. I go to Bay River and write to E. B. Horst. I receive a letter from him that wages had been cut down so I go and get outfit and leave for Walker to quit this job. E. L. Tustler

734.1
Dec. 1,
1920.

Survey of this section completed by B. F. Clark, notes follow:
Ben F. Clark, Roy Rose begin boarding with Charley Cleary Hotel, Bay River
Ben F. Clark, Roy Rose come to Walker for field notes and plat and books T. 14. 34. R. 27 Thence came to Bemidji Thence to Bay River with horse. Thence on Dec. 2, 1920 went out to sec. 19 T. 14. 34. R. 27 N. to the N.W. cor. sec. 19 on range line in county of state road and measured east in state road at 11.62.9 = foot set a temp point at 25.44 ft. a fence running south in sec. 19 and run north in sec. 18 but failed to find any 1/4 S. post or point of post in state road

Dec. 3
1920.

Ben F. Clark, Roy Rose, begin at 25.44 ft. East the N.W. corner section 19 and measured East between sec. 18.19 in state road at 1316.5 = Ft. set a temp point at 1318.7 = the over 7.30 = Thence west to the range line at the N.W. corner sec. 19 and moved point 2.2 ft. East ~~which~~ will bring the measuring right to correspond with measurement of Mr Tustler. True 7.20 = Thence move all points east 2.2 ft. Thence begin at the point for corner sec. 19.20 17. 18. point in state road and measured south on a township road 8.30 = at 13.34' set temp 1/16 point in center town road at 26.68 found an old cedar post 4 ft. long 4 in. square marked 1/4 S witness tree pull out road. Thence set up transit in true line and set true points for 1/4 S. bet. sec. 19.20 and turn 1/16 S. points true line 8.20 = Thence begin at the 1/4 S. point measured south on town road bet. sec. 19.20 at 1342.7 = set temp. 1/16 S. point at 2685.4 = set point for the cor. sec. 19.20 S. 29.30 = in corner town shop road. Thence go back to 1/4 S. point set up my transit in 1/4 S. and sight south in sec. corner and set 1/16 S. in true line 8.30 = T. 14. 34. R. 27 N. Sec. 19 Sec. 419.20 Ben F. Clark, Roy Rose, begin at the Estible point for the cor. to sec. 19.20 29.30 measured west on a ran. line bet. sec. 19 S. 30. at 1099.4 = Sta. 1 at 1333.3 = old 1/16 post

Dec. 4,
1920.

at 18.87 ft. center for R. & N. 61.30 = N. at 24.64 ft. a iron post for 1/4 S. 19.30 old fence stumps B.T. Thence came back East and set the 1/16 point at 13.32 ft. and on true line 6. bet. sec. 19.20 29.30 to the 1/4 S. bet. S. 19.30. Ben F. Clark, Roy Rose, measured west begin at the 1/4 S. bet. sec. 19.30 an iron pipe with a cap on top of the same course of this line is 7.20 = at 7.38 Sta. 1. at 1351 red cedar post marked 1/16 S at 1355.7 = temp point at 2610.2 = the corner to 19.30 in range line an iron post cap on top thence take the old post set by county surveyor of Flynn the party has 13.51 ft. the lot has 12.59.2 = Ft. leave old town at the corner 19.20 with B.T. in same true line 7.20 = Close Ben F. Clark, Roy Rose thence search for range line run north by survey Tustler but failed to find any line thence run north with a packed campus to the north edge of a clover field and search for the 1/4 S. in the middle of a gate take a shovel and drilled found a wooden point of cedar post 2 ft. long under the ground. One foot this half mile this half mile near was run by Tustler as reported in his field notes and plat. Beg Ben F. Clark, Dep. County Surveyor, Roy H. Rose, Assistant surveyor.

Dec. 5,
1920.

Ben F. Clark, Roy Rose drove out to the N.W. corner sec. 19 T. 14. 34. R. 27 N. set a iron post 3/4 foot long 3 in. in diameter with a cap on top made a hole with a post auger, put two 30 penny spikes in end, set the same in ground and filled stones around post temp with clay the top of post level with ground. This corner sits in state road #5. Thence came to the temp. point for the corner sec. 18.19. 29.17 cut through the frost thence dug a hole with a post auger thence set in an iron post with a cap on top level with the state road filled in stone around post temp. with clay. Thence set an iron post for the corner sec. 19.20 29.30 in town road 1/2 ft. long 3 in. in diameter pipe stone near post. No witness trees near.

Dec. 16, 1920 Ben F. Clark, Roy Rose begin at an iron post for the cor. sec. 19.30 S. 24.25 a V.S. corner old witness trees corresponds. with the V.S. field notes. Run north on a range line bet. S. 19.24 on range line ϕ 6.55 = at 6.60 ft. set a temp. hob. at 12.80 leave and enter ridge; at 13.20 set a temp. $\frac{1}{16}$ point; at 14,20.4 = Sta. 1; at 21.53 Enter clover field; at 26.40 set a temp. $\frac{1}{4}$ S. point; at 26.61 leave clover field E. brink; at 2835.8 = Sta. 2; at 3333.5 = Sta. 3; at 3671 Soo. R.R. ϕ 51.30 N.; at 3960 Ft. set a temp. point $\frac{1}{16}$ S.; at 4554.5 Sta. 4; at 4993.5 = Sta. 5; at 5290.4 = corner to 19.18 on range line east of iron post 512 feet. Thence set $\frac{1}{4}$ S. North 5.2 = set west 2 ft. 6 = true line closer at ϕ 7.3 = true sec. line on west boundary S. 19 T. 143 N. R. 37 W. Thence $\frac{1}{16}$ post on north Sec. 19 North 7.8 = ft. set west 3 ft. 9 = on the true range line closer at ϕ 7.3 =

Dec. 8, 1920 Ben F. Clark, Roy Rose, Wilson, Cambler, Albert begin at an iron for the $\frac{1}{4}$ S. bet. sec. 19.30 V.S. corner and run north on a $\frac{1}{4}$ S. line ϕ 7.52 = 16.1 Ft. East of the $\frac{1}{4}$ S. in road. Thence set c $\frac{1}{4}$ S. North 11.5 = ft. set west $8\frac{1}{2}$ = ft. Thence measured south from $\frac{1}{4}$ S. at 1043.3 Sta. 1; at 1320 set temp. $\frac{1}{16}$ point; at 1799 Soo R.R. ϕ 51.30 N.; at 26.38 the $\frac{1}{4}$ S. bet. S. 19.30. Thence set $\frac{1}{16}$ S. point; thence run true line back north and tied on the $\frac{1}{16}$ S. post; run on north and tied on the c $\frac{1}{4}$ S.

Dec. 9, 1920 Same. Run north begin at the c $\frac{1}{4}$ S. at 2655.8 thence set $\frac{1}{16}$ N. 7.9 = ft. and over on true line, run on North and tied 3 = East of the $\frac{1}{4}$ S. point on State road bet. Sec. 18.19 true line ϕ 7.53 = Ben F. Clark, Roy Rose, L. b. Wilson, Frank Atherton, Chas. Anderson begin at the $\frac{1}{4}$ S. point on the west boundary sec. 19 on range line and measured east at 6.60 set a temp. hob. at 953 ft. Soo. R.R. ϕ 51.30 N. at 1211.5 = set a temp. $\frac{1}{16}$ S. point at 25.78 $\frac{1}{4}$ S. at 13.20 set a temp. $\frac{1}{16}$ S. post at 26.40 the $\frac{1}{4}$ S. on east boundary on town road. Thence came back and set hob. 652 $\frac{1}{2}$ = set north $5\frac{1}{2}$ = and bick right on $\frac{1}{4}$ S. corner and run east on a true line to the $\frac{1}{4}$ S. point bet. sec. 19.20 in township road. True line closer at ϕ 7.15.

Dec. 7, 1920 Ben. F. Clark, Roy Rose, F. b. Wilson, Louis bangle, Frank Albert run east on a $\frac{1}{4}$ S. line in the center S. 19 ϕ Town Road bet. sec. 19.20 south of the $\frac{1}{4}$ S. 22 ft. Thence went to the $\frac{1}{16}$ S. point on north east $\frac{1}{4}$ S. 19 on east side of the N.E. $\frac{1}{4}$ in Town road and run west on a $\frac{1}{16}$ S. line ϕ 7.17 = at 13.18 ft. The $\frac{1}{16}$ S. in the $\frac{1}{16}$ line tied on nail in center of post run on west on same $\frac{1}{16}$ line.

Dec. 11, 1920 Ben F. Clark, Roy Rose, Chas. Anderson, Wilson, Atherton begin at the $\frac{1}{16}$ point 13.20 ft. West of the $\frac{1}{4}$ S. bet. Sec. 19 5.20 at a $\frac{1}{16}$ post on quarter line at 4.20 Sta. 1.; at 902.6 = Sta. 2. at 13.20 set a temp. $\frac{1}{16}$ post 2661.1 = the $\frac{1}{16}$ on. South side sec. 19.9 = west of $\frac{1}{16}$ post 21.1 = large. Thence set $\frac{1}{16}$ post at 13.30 $\frac{1}{2}$ set $\frac{1}{2}$ East. Begin at the $\frac{1}{16}$ post in town road bet. sec. 19.20 run west in a line 1326.2 = the $\frac{1}{16}$ post, run in the nail ϕ 6.30 = thence run in west on the true $\frac{1}{16}$ line ϕ 6.30 = to the $\frac{1}{16}$ post on the north and south quarter line on south half sec. 19 and tied on the nail on center of post.

Dec. 10, 1920 Ben. F. Clark, Roy Rose, Wilson, Anderson, Atherton begin at the $\frac{1}{16}$ S. point in state road in N.E. quarter run south on $\frac{1}{16}$ line ϕ 7.7 = at 12.98 Sta. 1; at 1320 set temp. $\frac{1}{16}$ post; at 2659.6 the $\frac{1}{16}$ post quarter line. Set $\frac{1}{16}$ south at 1329.8 = set west $5\frac{1}{2}$ =

Dec. 12, 20. Ben F. Clark, Roy Rose, Wilson, Atherton, Anderson begin at the $\frac{1}{16}$ post on west side sec. 19. 13, 22.6 = ft. north of the iron post for the corner to sec. 19.30 on range line and run east on a $\frac{1}{16}$ line ϕ 7.17 = at 1235 $\frac{1}{2}$ = set a post for the $\frac{1}{16}$ post at 2160 ft. Soo R.R. ϕ 51.30 = N. at 2594.6 = the $\frac{1}{16}$ S. in quarter line North of the post

C

3. 24 = set post south 1.1 ft.
- Dec. 13, 1920. Snow two days, I am working on a sec. plat of S. 19. sent Roy Rose to Remer. for iron corner to Mr. Jones Flynn. Ben F. Clark, Roy Rose, Nelson, Frank Atherton begin at the $\frac{1}{16}$ post on east and west $\frac{1}{4}$ S. line and run south on a true $\frac{1}{16}$ line. At 2178 So. R. R. N. 51.30 = N. 1320.40 Enter east & west $\frac{1}{16}$ line run on south to the sec. line bet. S. 19.30 tied on post.
- Dec. 14, 1920. Begin at a iron post for the corner section 18.19 on range line and measured east on state road on true sec. line bet. S. 18.19 the distance of 877.7 set a hole. Thence went to the $\frac{1}{4}$ S. on west side sec. 19 and measured east on the true $\frac{1}{4}$ S. line the distance of 877.7 = and set a hole.
- Dec. 15, 1920. Ben F. Clark, Roy Rose went to the $\frac{1}{4}$ S. point bet. sec. 18.19 - on state road and set an iron post $\frac{3}{8}$ ft. long 3 in. diameter dug a hole, set the same in ground cap level with top of road this is the $\frac{1}{4}$ S. bet. sec. 18.19. Thence went west to the $\frac{1}{16}$ S. point between S 1819 on state road set an iron pipe 40 in. long $\frac{1}{2}$ in. diam. dug a hole and drove the same in ground level with top of road for the $\frac{1}{16}$ post on the North side sec. 19 on the North west $\frac{1}{4}$ sec. 19. Thence went east to the $\frac{1}{16}$ post on the N.E. $\frac{1}{4}$ sec. 19 on state road bet. S 1819 and dug a hole and drove in an iron pipe 40 in. long $\frac{1}{2}$ in. dia. level with the ground for the $\frac{1}{16}$ post.
- Dec. 16, 1920. Roy Rose, Atherton begin at a hole 877.7 = East of the sec. corner to S. 18.19.12.13 on range line run south and tied in hole on $\frac{1}{4}$ S. line 877.7 = East of the $\frac{1}{4}$ S. Thence measured east 8.25 ft. on $\frac{1}{4}$ S. line and run north and tied on a hole on state road 8.25 ft. East of hole 8.77.7 = those are lines that the farmers want run to fence in those farms who own the N.W. $\frac{1}{4}$ sec. 19. T. 143 N. R. 27. W. Thence went to the $\frac{1}{16}$ point bet. sec. 19.20 on township road dug a hole and drove in an iron pipe 40 in. long $\frac{1}{2}$ in. in diameter level with the top of the town road for the $\frac{1}{16}$ point bet. sec. 19.20. Thence went on south to the $\frac{1}{4}$ S. point bet. sec. 19.20 dug a hole set in an iron post with a cap in top. Drove the same in road level with top of township road for the $\frac{1}{16}$ post bet. sec. 19.20 where the old N.S. $\frac{1}{4}$ S. post stands.
- Dec. 17, 1920. Ben F. Clark, Roy Rose thence went south to the $\frac{1}{16}$ point on township road bet. S. 19.20 on south $\frac{1}{2}$ S. set an iron pipe 40 in. long $\frac{1}{2}$ in. diameter. Drove the same in ground level with top of road grade. Thence went west bet. sec. 19.30 to the $\frac{1}{16}$ point. set an iron pipe 4 ft. long 2 in. dia. drove the same in ground 3 ft. for the $\frac{1}{16}$ post on east $\frac{1}{2}$ sec. 19. Thence went on west the $\frac{1}{4}$ S. an iron post with cap on top set by Mr. Jim Flynn v.s. corner. Thence went on west to the $\frac{1}{16}$ point on west $\frac{1}{2}$ sec. 9. set an iron pipe 4 ft. long 2 in. diameter. Drove the same in the ground 3 ft. for the $\frac{1}{16}$ post. Ben. F. Clark, Roy Rose thence went north on range line bet. sec. 19.24 to the $\frac{1}{16}$ point and set an iron pipe pipe four ft. long 2 in. dia. drove the same in ground 3 ft. for the $\frac{1}{16}$ post. bet. S 19.24 on S.W. $\frac{1}{4}$ sec. 19 bet. 19.24. Thence went North to the $\frac{1}{4}$ S. point bet. sec. 19.24 and dug a hole and set a post $\frac{3}{8}$ ft long 3 in. dia. with a cap on top set the same in the ground 2 ft. and piled a mound stone around the post for the $\frac{1}{4}$ S. corner bet. sec. 19.24. Thence went north to the $\frac{1}{16}$ point bet. sec. 19.24 on north $\frac{1}{2}$ and set an iron pipe 4 ft. long. Drove the same in ground 3 ft. for the $\frac{1}{16}$ post.
- Dec. 18, 1920. Ben F. Clark, Roy Rose begin at the $\frac{1}{4}$ S. a v.s. $\frac{1}{4}$ corner went north to the $\frac{1}{16}$ point set an iron pipe 4 ft. long 2 in. diam. drove the same in ground 3 ft. for the $\frac{1}{16}$ post on N.S. $\frac{1}{4}$ S. line on south $\frac{1}{2}$ sec. 19. Thence went on North to the $\frac{1}{4}$ S. corner center set

199. 143N. R. 27W. set an iron post $\frac{3}{5}$ ft long 3 in diam. put a wooden point inside the iron pipe 3 ft long; drove the same down in the swamp $\frac{4}{5}$ ft. this is the $\frac{1}{4}$ S. 19. Thence went on north to the true $\frac{1}{16}$ point on North-South $\frac{1}{4}$ S. line on North $\frac{1}{5}$ in diam. drove the same in ground $\frac{2}{5}$ ft. for the $\frac{1}{16}$ S. corner.

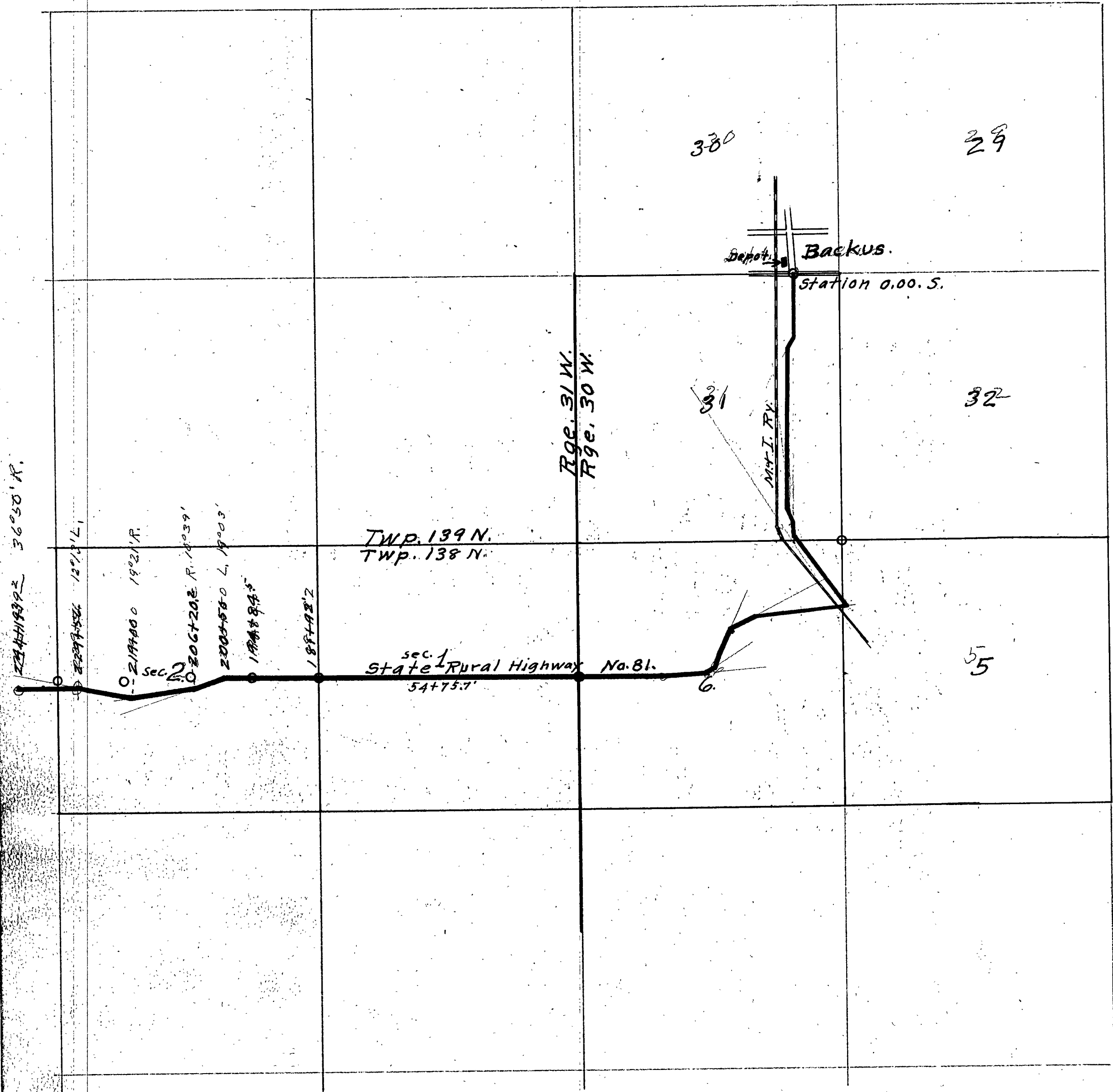
Dec. 17, 1920. Thence to the $\frac{1}{16}$ S. corner bet sec. 19. 24 an iron post with a mound stone around post. Went east on east and west quarter line to the $\frac{1}{16}$ point on west $\frac{1}{5}$ set an iron pipe 4 ft. long 2 in. diam. drove the same in ground 3 ft. for the $\frac{1}{16}$ post. Ben F. Clark, Roy Rose thence went on East to the $\frac{1}{16}$ S. point on east $\frac{1}{5}$ S. 19 and set an iron pipe 4 ft. long, 2 in. dia. drove the same in ground 3 ft. for the $\frac{1}{16}$ corner.

Dec. 20. Ben F. Clark, Roy Rose put in the $\frac{1}{16}$ corner on the south $\frac{1}{16}$ line begun at the $\frac{1}{16}$ S. bet. sec. 19. 20 on south $\frac{1}{5}$ Dec. 19 went west to the $\frac{1}{16}$ point set an iron pipe 4 ft. long 2 in. diam. Drove the same in ground 3 ft. for the $\frac{1}{16}$ post. Thence went on west to the $\frac{1}{16}$ point on west $\frac{1}{5}$ sec. 19 set an iron pipe 4 ft. long 2 in. diam. drove the same in ground 3 ft. for the $\frac{1}{16}$ corner. Thence went to the North $\frac{1}{16}$ line on N.E. $\frac{1}{4}$ sec. 19. set an iron pipe 4 ft. long 2 in. in diam. Drove the same in ground 3 ft. for the $\frac{1}{16}$ corner. There are no $\frac{1}{16}$ corner in the N.W. $\frac{1}{4}$ sec. 19 as the land owners didn't want any corner set as the lands lay in 53. 21 - 50 a. tracts. This survey began Sept. 8, 1920 and taken up by Clark Dec. 2, Completed Dec. 20. Recorded Mar. 21 and 22, 1921 By James H. Flynn, by E. B. Horst Deputy.

2779 acres

Backus

138-139-30-31



330

29

31

32

55

22141932 36°50' R.

21997526 12°12' L.

2199800 19°21' R.

22067202 R. 18°39'

2205580 L. 19°03'

1884895

188482

Twp. 139 N.
Twp. 138 N.

sec. 1
State Rural Highway No. 81.
54+75.7

Rge. 31 W.
Rge. 30 W.

Station 0.00 S.
Backus.

M.I. Ry.

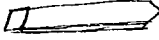
6.

C

Station	Angle
0+00	2° 16' L
11+00	2° 46' L
13+00	30° 05' R
14+00	29° 34' L
26+64.6	0° 07' L
47+46.8	2° 23' L
48+81.2	4° 27' L
50+29	5° 21' L
52+10.6	2° 20' L
52+58	34° 25' L
53+54	27° 06' R
67+46.6	
69+00	117° 08' R
70+20	
85+30	29° 30' L
90+80	37° 50' L
96+00	4° 44' L
99+00	37° 32' R
101+00	28° 02' R
110+00	5° 09' R
127+16.3	
181+92.0	
194+84.5	
200+50	19° 03' L
206+20.2	10° 39' R
219+00	19° 21' R
229+59	12° 13' L
241+19.2	36° 50' R

P. C.
 C. T.
 M. + J. Rip.

⊕ $\frac{1}{4}$ S $\frac{6}{1}$ - 138 - 30
 sec. 1 - 2 - 138 - 31
 ⊕ $\frac{1}{4}$ S.
 ⊕ c. E. $\frac{1}{16}$ S. 2.

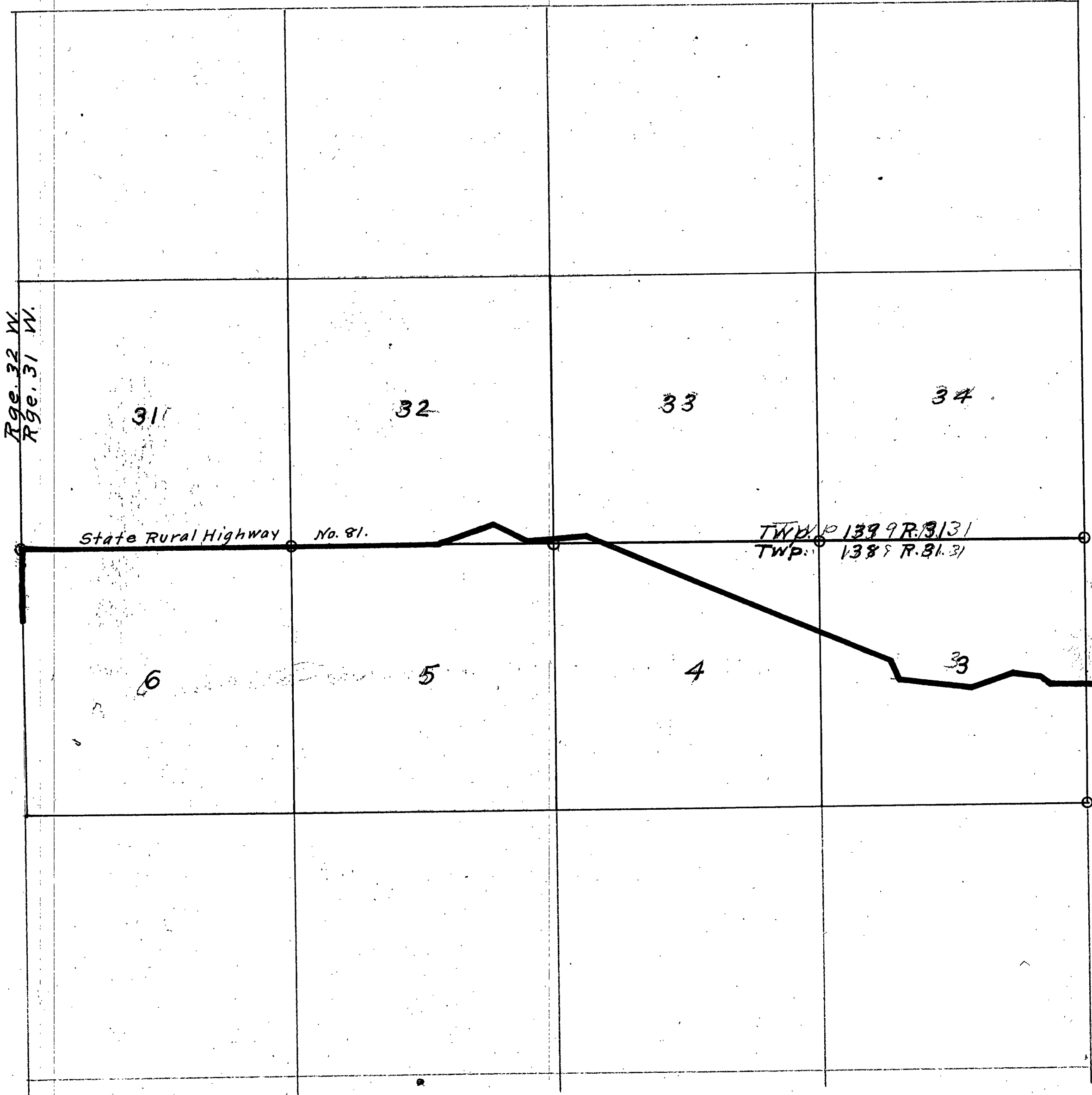
Station	Angle
243 + 81.4	28° 41' L
248 + 45.4	13° 43' L
256 + 55	11° 55' R
270 + 20	48° 30' R
276 + 46	34° 40' L
283 + 00	40° 05' R
296 + 00	31° 03' L
308 + 34.5	21° 22' L
322 + 00	14° 57' L
327 + 46.5	4° 33' R
334 + 20	30° 00' R
338 + 65.5	32° 18' L
351 + 75	—
357 + 18	18° 34' R
364 + 50	20° 39' L
375 + 42	8° 25' R
378 + 56	
405 + 32	
456 + 99	90° 00' L

④ $\frac{4-5}{32-33}$

$\frac{1}{4}$ S. 5-32 (oak stake)
 5-6
 Sec. cor. 31-32
 Twp. cor. conc. Mon.

Plat. ^C

450 401
Survey Record No. 450.
to NW Cor. Bull Moose



Rge. 32 W.
Rge. 31 W.

State Rural Highway No. 81.

TWP. 138 9 R. 31 31
TWP. 138 9 R. 31 31

31

32

33

34

6

5

4

3

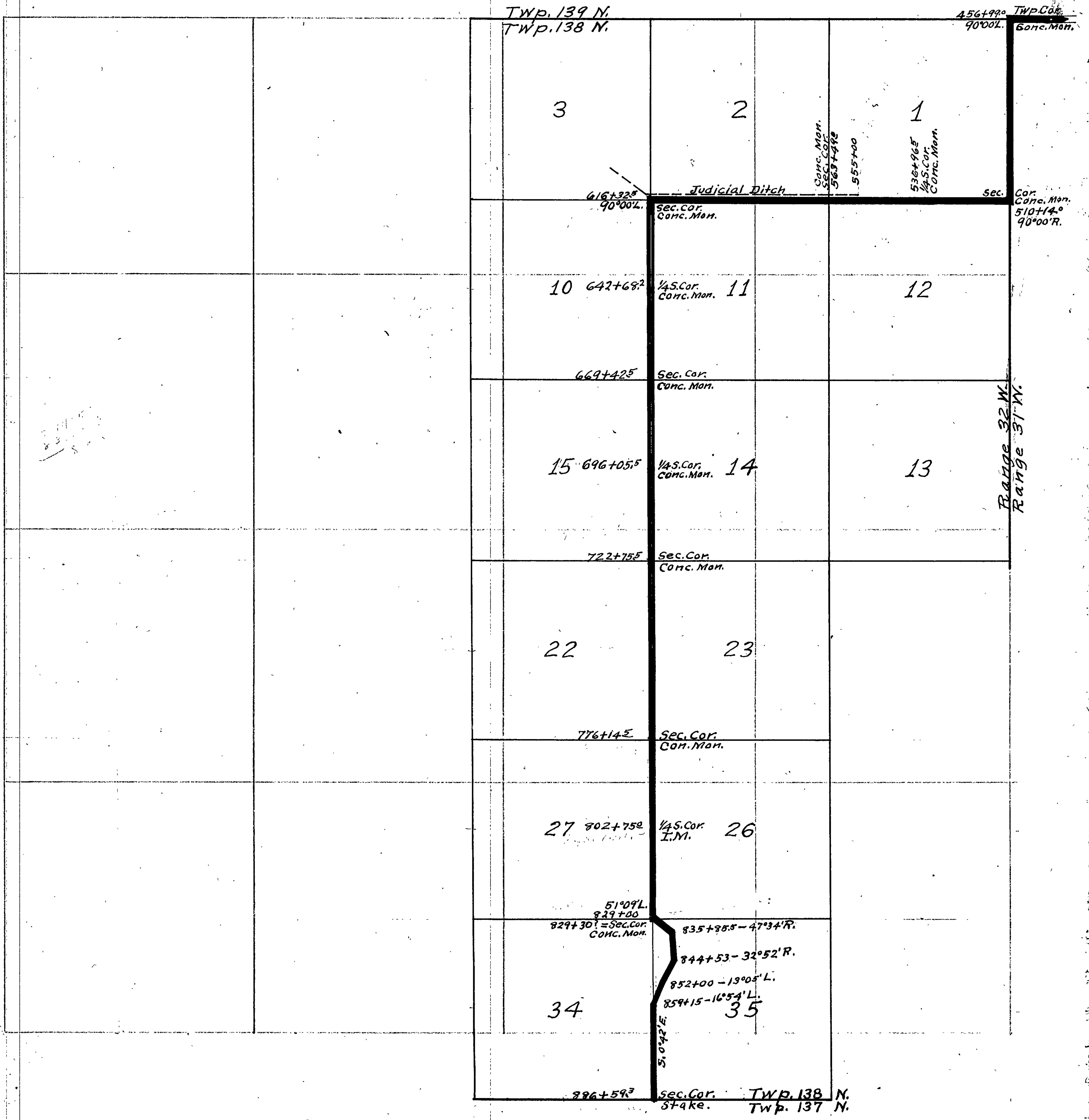
402

S. R. H. # 81.

Survey Record No. 456-1 MC R. H. ley Twp. 138 N. 34 E. Sec. 1

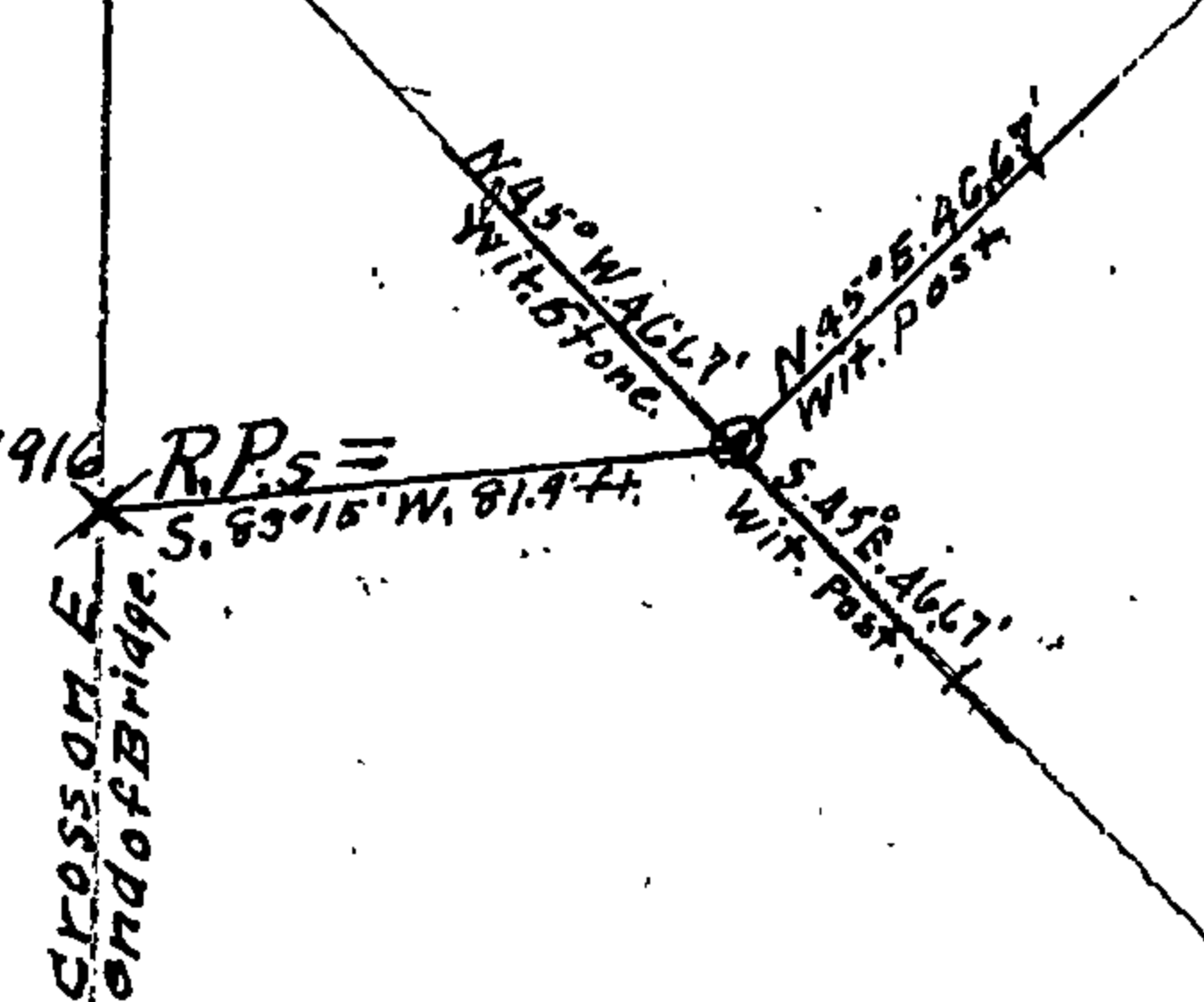
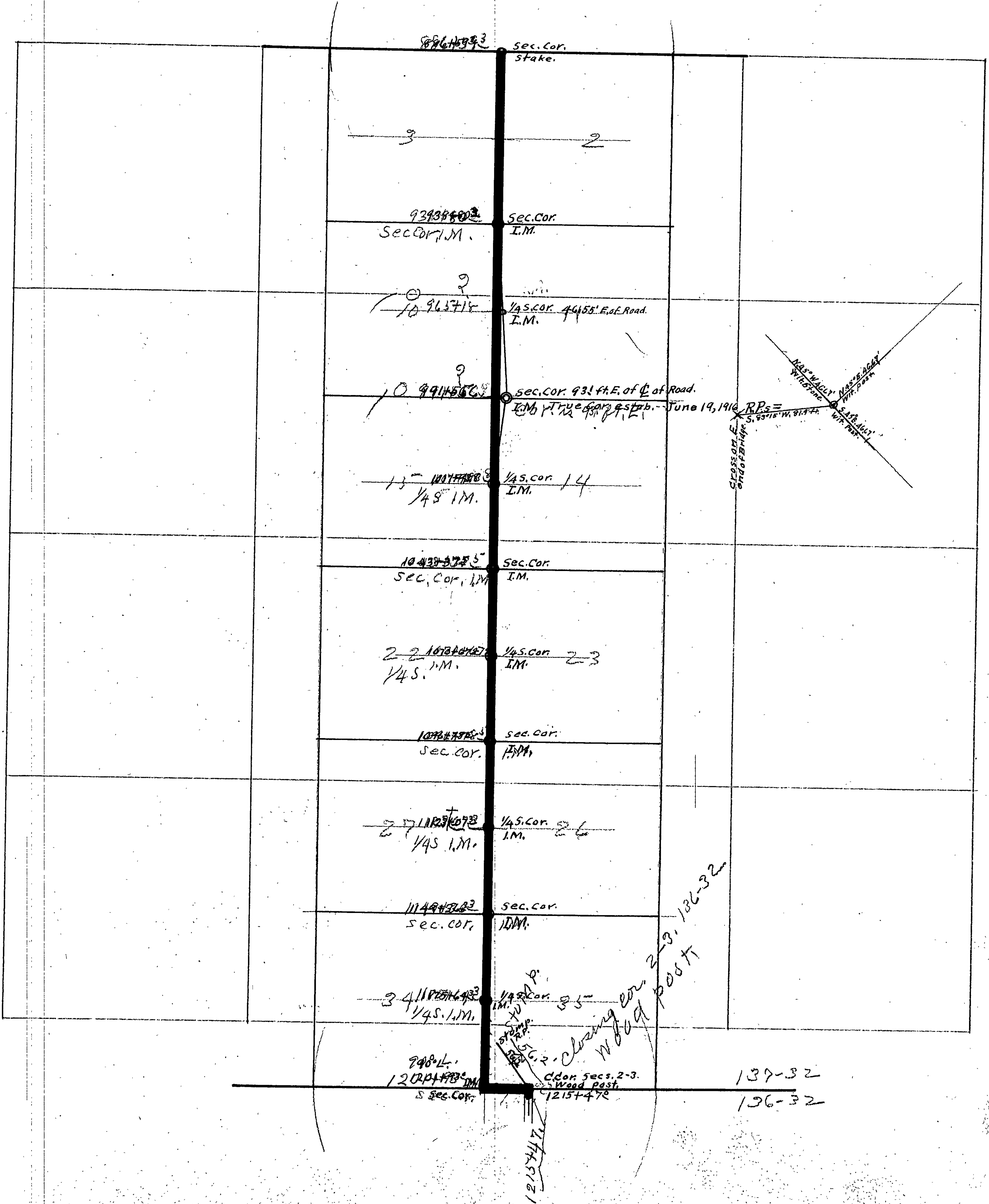
C

1 inch = 2500 ft.



Plat.

Survey Record No. 452.



Closing cor. 2-3, 106-32
 Wood post
 1215447

137-32
 136-32

Survey Record No. 453.

Plat. C

136-32

15x47 Wood Post
215x47
Coping Cor.
Wood Post

Twp. 137 N.
Twp. 136 N.

3 1243+47 1/4 S. Cor. Not Mkd. 2

1268+09 Sec. Cor. Set Stone.

10 1244+52 1/4 S. Cor. 11

1321+01 Sec. Cor. Set Stone.

15 1347+45 1/4 S. Cor. 14

1373+95 Sec. Cor. Wood Post

22 1400+45 1/4 S. Cor. 23

1427+00 Sec. Cor. Wood Post

27 26

1479+92 Sec. Cor.

34 1506+42 1/4 S. Cor. 35

Wood Post 4"x4"
500 @ 9.85' 4"x4"

1576+02 Sec. Cor.

Range 32 W.
Range 31 W.

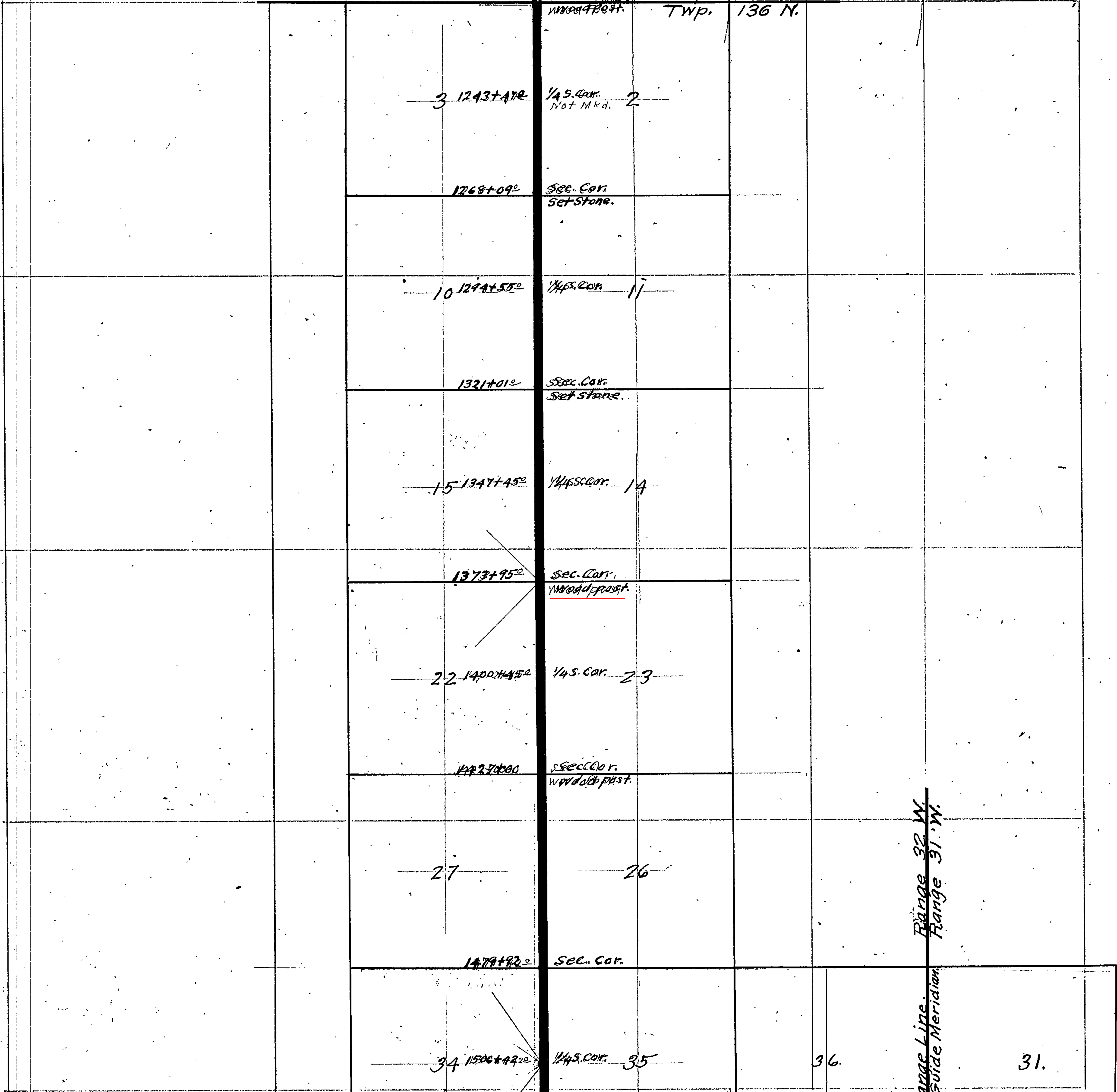
Range Line
R.A.M. Guide Meridian
1639+00

Twp. 136 N.
Twp. 135 N.

L. 90°
1533+01

sect. 1.

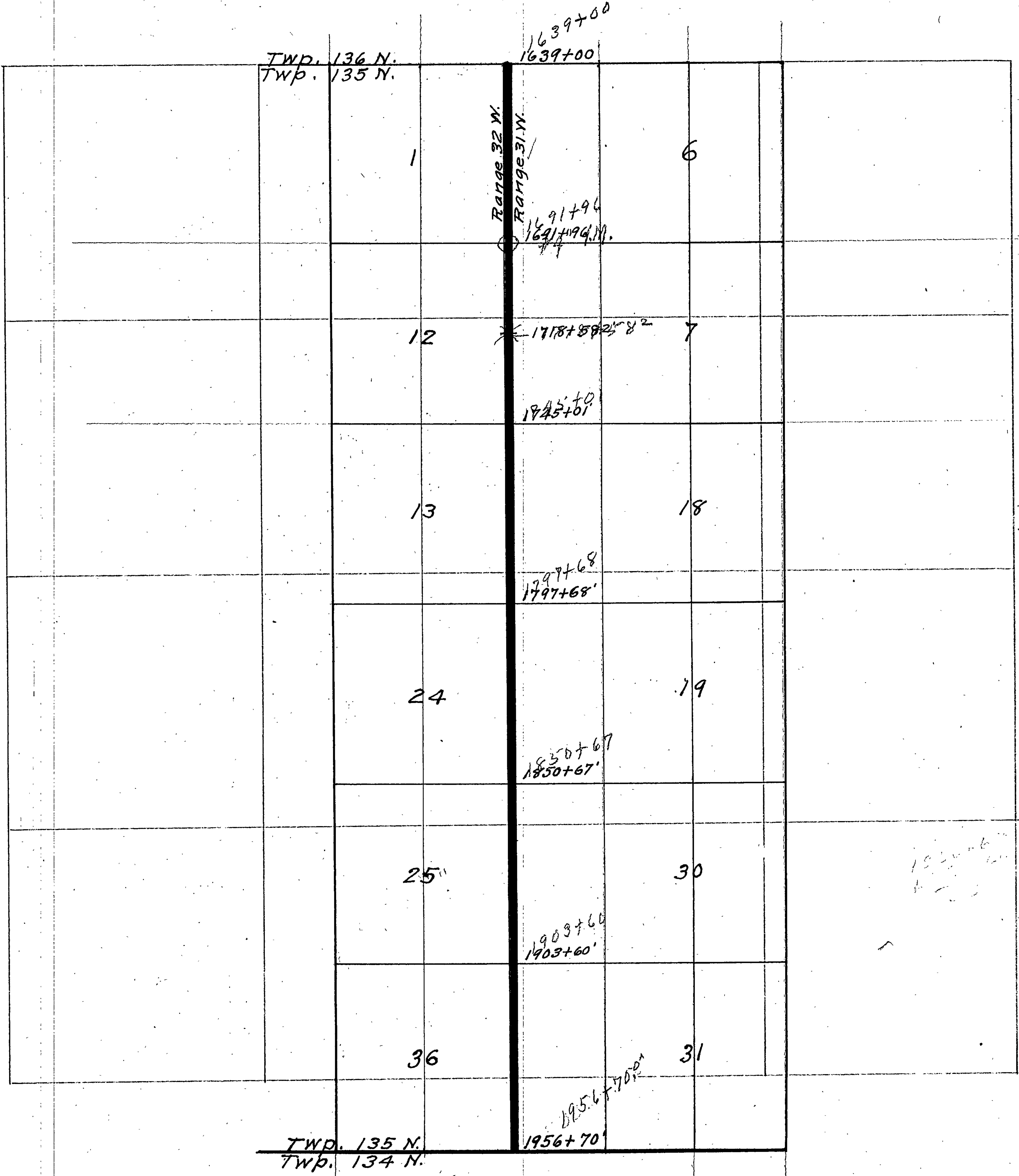
sect. 6.



Plat. 135 ^C

S.P.H. 81 454
Survey Record No. 454.

409



Twp. 136 N.
Twp. 135 N.

Range 32 W.
Range 31 W.

1

6

12

1718+58
1718+58'

7

13

1745+61

18

24

1797+68
1797+68'

19

25

1850+67
1850+67'

30

36

1903+60
1903+60'

31

Twp. 135 N.
Twp. 134 N.

1956+70
1956+70'

1956+70
1956+70'

410

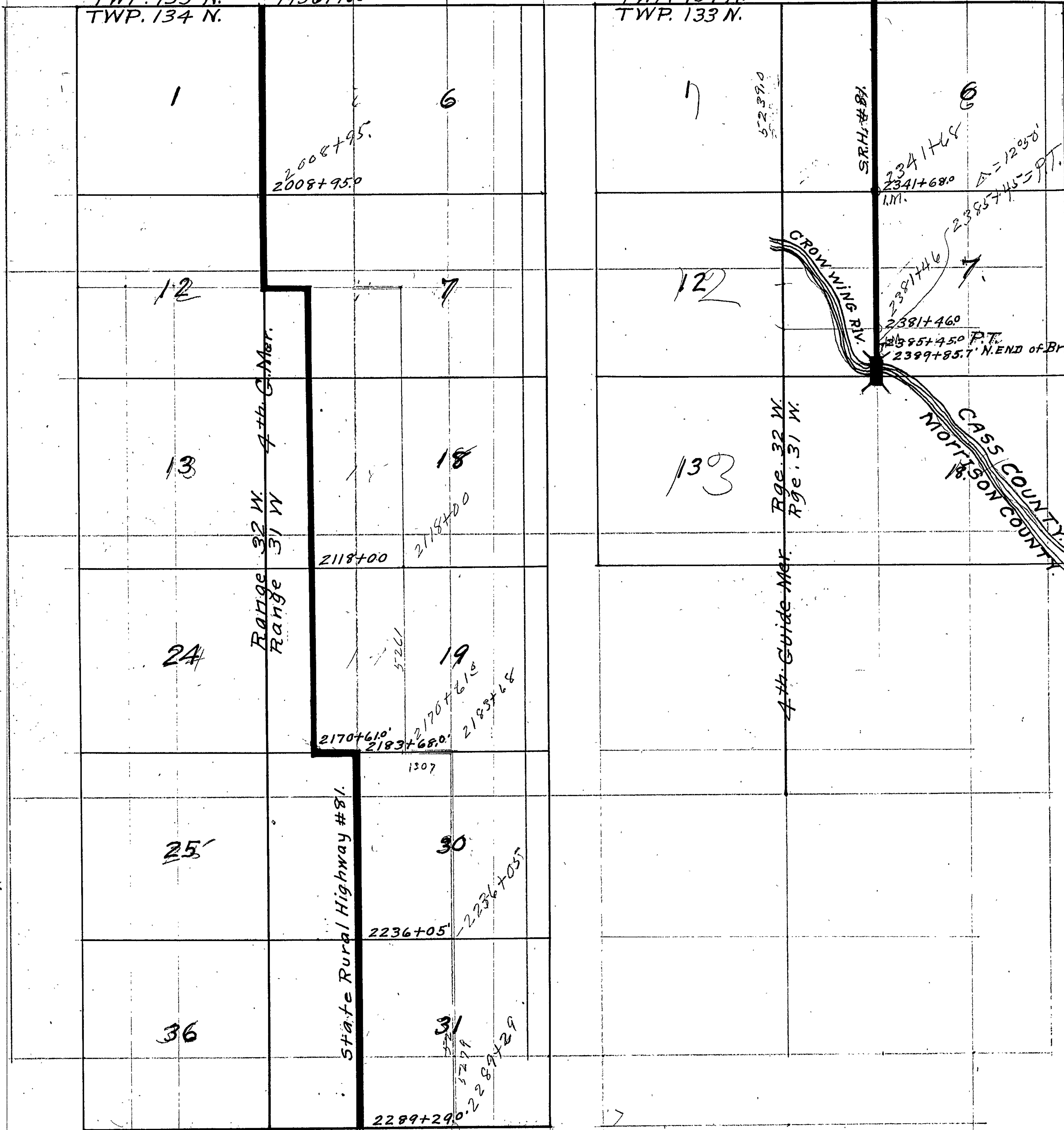
455. S.R.H. 81 T134.
Survey Record No. 455.

Plat. C

2 Plats. T133

PLAT # 456+70
TWP. 135 N. 1956+70019
TWP. 134 N.

PLAT # 2.
TWP. 134 N.
TWP. 133 N.



1

6

7

6

12

7

122

13

18

133

24

19

25

30

36

31

Range 32 W. 4th Guide Mer.
Range 31 W.

Range 32 W.
Range 31 W.
4th Guide Mer.

State Rural Highway #81

S.R.H. #81

CROWNING BR.

CASS COUNTY
MORRISON COUNTY

2008+95.
2008+95.0

2118+00

2170+610.
2183+68.0.

2236+05

2289+29.0

2289+29
2289+29.0

2341+68.0
2381+46
2381+46.0
2395+45 P.T.
2389+85.7 N. END of Bridge

2175+00

1307

2183+68

2236+05

2289+29

5239.0

5279
5279
2289+29

12050'

Feb. 9, 1921.

Field Notes of the retracement survey and subdivision of section 26 Twp. 135 N., Rge. 30 W. of the 5th P.M., Cass County Minnesota, E. B. Horst, and same crew. We set 2" x 48" iron monuments at the 4 sections corners, the 4 quarter section corners and C 1/4 S. Co. also all 1/16 S. corners (Exterior and Interior) pertaining to section 26. T. 135 N., R. 30 W. at the 1/4 sec. corner bet. sec. 26-27 which falls in the cent. of Bull River. I set a 2" x 48" I.M. in 5 ft. of water and set a pole in top of pipe. I also set a 1" x 24" I.M. 33 ft. N. and a 1" x 24" I.M. 33 ft. E. New B.T.S. to cor. of sec. 25-26-35-36; oak, 10" N.W. + 3.2 ft. Aspen, 4" S.W. + 3.3 ft. Aspen, 4" S.E. 29.5 ft. This concludes field work of survey of section 26. E. B. Horst.

Feb. 2, 1921.

Contract, dated July 13, 1920 E. B. Horst appointed Engineer to begin survey Sept. 27, 1920. Survey begun Feb. 2, 1921. Delay caused by too much work having been assigned in advance of this survey. E. B. Horst, prepares notes and plates and other data from previous surveys and ships I.M.s to Pequot also calls W. G. Schultz who has no phone. E. B. Horst.

Feb. 3, 1921.

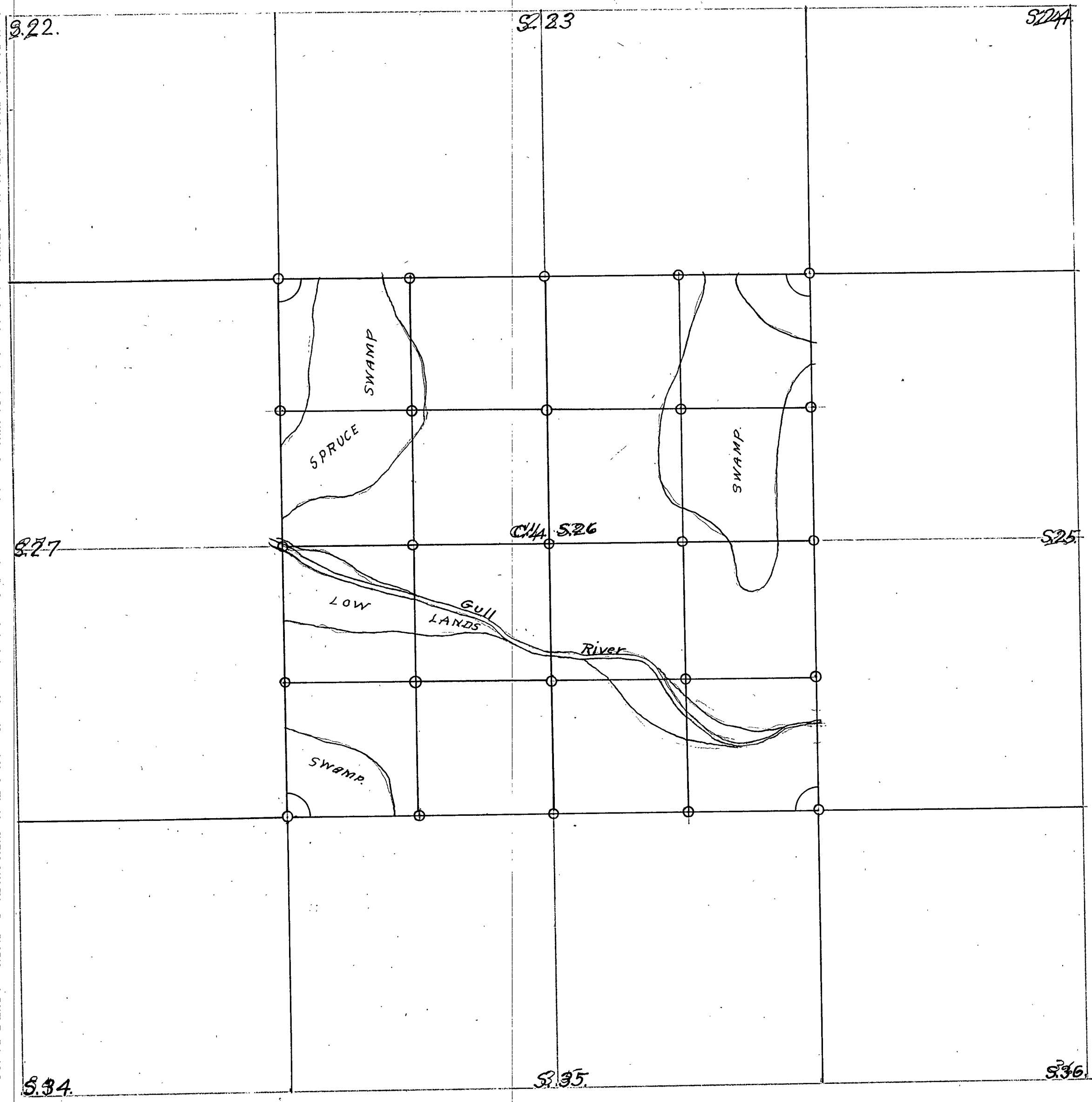
But is burned to low to show scribe marks. Stump checks with cent. of roads for course and dist. and also with a fence 20 yds. old running N. from this point. E. B. Horst. Leave Walker for Pequot 8:45 A.M. R.R. Fare \$1.54. I have a set of tally pins made at Pequot 4.00. Dinner at Pequot .40 & Ben Anderson livery drives me to W. G. Schultz farm. Sec. 26-135-30. Charges \$6.00. Cd. by ck. As we had no help arranged for, I walk to see cor. sec. 25-26-35-36 where I find a wood stake, also an Iron Wall Pipe 1" set for sec. cor. I check this with stumps still on the ground and find the N.E. - S.W. - S.E. stumps of original B.T.s which check with I.M. I walk N. 1/2 mile on a graded road to a fence running N. and look for evidence of the 1/4 S. cor. bet. sec. 26-35. I find a large Spruce stump S.E. which is rotted to the ground but am unable to identify it as the original B.T. at the sec. cor. to 26-27-34-35. I measure out from the cent. of N. + S. and E. road and find a 4" Tam. stump which shows the lower end of an axe blaze, (see preceding page.)

Feb. 4, 1921.

E. B. Horst, Transit and chain; Vance Stumvold, chain; Elmer Sanborn, axe; Charles Stumvold, axe: I set a flag at the S.W. cor. of sec. 26 in cent. of roads, then from the S.E. cor. of sec. 26 I sight N. to flag and run N 88° 44' W. on road at 980 ft. a fence runs N. at 1218. I set spike on line, at 1730.0 ft. cent. swp. brs. N. 15° W. at 1751.0 ft. culvert, at 1830.0 ft. W. S.W. Q. brs. N. 60° W., at 2130 ft. cent. swp. brs. N.E., at 2589.1 ft. set spike on line for 1/4 S., at 2730 ft. W. swp., at 3558.2 ft. set spike on line, at 4130 ft. cent. Tamck. swp., at 5178.2 ft. Pt. for S.W. corner. sec. 26. I turn interior angle 92° 18' and run N. 1° 3' W. (9+8° 45' var.) on a graded road: at lv. S.W. p. at ent. S.W. p. creek bottoms, at 2610.4 set spike on bridge. A wood post under bridge and in cent. of creek sets N. 6° ft. Mr. Byschau, an old resident living on the S.E. 1/4 S. 27 says the post was in the creek 20 yrs. ago. I do not accept this at present for the 1/4 S. as I want a little time to think (the pressure is great N. + S. from spike on bridge I turn S. 0° 10' and run N. 1° 15' W. at 3960 ft. set spike a fence runs N. at 5267.0 the true cor. sec. 26-27-22-23 sets N. 14.0' which I

Plat. C Survey Record No. 456.

S. 26 (135-30-30)



have just set from the original S. W. Pam. D. T. Recorded in U. S. Field notes as S. 81° W. 21
 1/2 (1386 ft) the other trees have all been destroyed by road construction. The line running
 from the cor. of 21-22 has been run by F. A. Donner but as he set no permanent points we
 rechain the N. line of Sec. 27 on road Total length = 5280 ft. (at 261.8 E. Fence runs S., at 394.2 E.
 Fence runs N.) (for future information)

Feb. 5,
1921.

E. B. Horst + same crew, and Carl Schultz, chairman. I set over S. E. cor. sec. 26, sight N. on sec.
 line turn N. W. 48° 46' and run N. 0° 02' E. on graded road, at 1850.0' Bridge over Mayo Brook, at 1302.0'
 set spike at edge of road, at 1323.0' Road runs E. 1/2 road; at 2640.0' set spike; at 4000.0' set stake;
 at 5286.8' set spike near fence cor. I look for evidence of original cor. and bearing trees and find
 stump of S. W. Oak tree, stump of S. E. Fir, also stump and fallen N. W. Elm tree these check with a
 stake inside of fence E. + S. from this point. From spike the true cor. sets N. 45° W. 2.6' from spike sight
 S. on line reverse telescope and turn S. 89° 21' and run N. 88° 19' W. on a random line to escape heavy
 brush cutting and get benefit of 1/2 mile of clearing by running S. of true line. At 1260 ft. cross N. + S.
 Fence 20 ft S. of fence cor.; at 1300 ft. set spike on line; at 2640 ft. set stone + mark line on same; at
 spike on line on summit of hill; at 4012.6 ft. set spike on line on summit of hill; at
 5282.0 ft. set spike in cent. of Road = P.I. on N. + S. Random line P.I. = 5282.0 W. and 5235.4 N. S. E. set
 P.I. = 88° 12'. True N. W. cor. of S. 26 from P.I. sets N. 31.6 ft. and W. 140 ft. True N. E. at S. W. sec. cor. from
 true S. boundary to random N. boundary = 92° 23' angle from both true lines = 92° 32' (Interior) We
 make another thro search for evidence of old cor. + bearings at S. W. cor. and find nothing better
 than we already have where it now exists so I decide to use it as the true cor. to secs. 26-
 27-34-35 E. B. Horst

Feb. 6,
1921.

crew does not work as I have to compute corrections for random lines and compute Lat. + departures
 and close the survey before we can continue with the field work. E. B. Horst, works all day com-
 puting latitudes + departures, corrections + angles for interior lines. E. B. Horst.

Feb. 7,
1921.

E. B. Horst, with same crew as on Saturday. At 2610.4 ft. N. between secs. 26-27 on random line
 we correct this point, set same N. 23.2 ft. set transit over this and sight N. on rand. line, turn
 R. 92° 12' and back sight N. chain but 7.0 ft. and set a point on line in center of Mayo Brook for the
 true 1/4 S. cor. sec. 26. Reverse telescope and run E. East, intersect the sec. line between secs. 25-26
 Fall 6.8 ft. N. of Pt. for 1/4 S. cor. which is at sta. 2643.4 N. correct same N. 0.8 ft. to true line. From
 the 1/16 S. Pt. for cor. bet. secs. 25-26. I sight N. on random line turn S. 88° 57' and run N. 1/16 line N.
 Fall 1.0 ft. S. of corrected pt. for 1/16 S. cor. bet. secs. 26-27. From pt. on random sec. line bet. secs.
 26-27 and 35 ft. E. of 1/16 S. cor. I set up transit and sight N. on random sec. line turn R. 92°
 15' and run E. on 1/16 S. line. Fall 6.4 ft. N. of the corrected point for the true 1/16 S. cor. bet. secs.
 25-26. I correct a point on true sec. line bet. secs. 26-35 by setting same N. 76.3 ft. to true pt. for the
 E. 1/16 S. cor. sec. 26-35 sight N. on line and turn R. 88° 25' and run N. at P.I. on Random 1/16 line set spike
 quit for night. E. B. Horst

Feb. 8,
1921.

same crew. Begin at pt. near S. E. 1/16 continue E. 1/16 Random N. and intersect 2.0 ft. N. of true E. 1/16 cor. sec. 23-26.
 From true pt. for 1/4 S. cor. sec. 23-26 turn S. from random line 91° 21' and run S. on random cor. left
 side intersect sec. line bet. secs. 26-35, 2.5 ft. E. of 1/16 S. cor. From true pt. for 1/16 S. cor. sec. 26-35
 I set N. 1.0 ft. to pass Stumold's granary turn R. 87° 47' and run N. on random 1/16 line. At 1/16 line set
 P.I. E. 1 ft. and at P.I. on E. + N. centerline set P.I. set transit 1 ft. E. of P.I. back sight on N. W. cor. of granary + con-
 tinue N. Intersect sec. line bet. 23-26 0.2 ft. N. of pt. for true 1/16 cor. sec. 23-26. This completes all lines
 in this section (26) E. B. Horst

Recorded Feb. 26, 1921. By James H. Olyn County Surveyor,
 by E. B. Horst, Deputy.

Field notes of the retracement survey and subdivision of Sect. 26 Twp. 142-26W of the 5th P.M. Cass County, Minnesota.

Beginning at the S.W. corner of said: which is a cross mark on a large boulder on the surface of the road bed: observe the following witnesses for same town: — fence (cor.) 8 post 89N. 1E. 20' 15" Telephone pole 5S. 44E. 26' 9" fence (cor.) post 102. 45N. 34' 7" then North 90; at 50' marsh E. + W.; at 428 lvs. E. + W.; at 781 wire fence east + West; at 1320 temp $\frac{1}{16}$ stake; at 1675' pond N.E. + West; at 2340 lvs. pond N.E. + S.W.; at 2640 temp. $\frac{1}{4}$ stake; at 3960 temp $\frac{1}{16}$ stake; at 5062' a hub then N. 7deg. + 15 min. E. to N.W. corner 91 ft. said cor. was: — Spruce 5N. 63E. 6 lks. N. Birch 6N. 73W. 27". White Pine 36S. 60W. 55"; White pine 40S. 62E. 18". Now is: — White pine (stump) about 5 ft. high with original marks 36S. 60W. 36' 3"; White pine stump, same 40S. 62E. 12'. I drove a 40 penny spike into each of those stumps at the point where the original B.T. was marked, then put down iron monument with cap 2 $\frac{1}{2}$ " x 40", and started random line east 90° at 1320 temp. $\frac{1}{16}$ stake; at 2640 temp. $\frac{1}{4}$ stake, finding no evidence of original post; at 2700 old wagon road S.W. + N.E.; at 3664 County Road slightly N.W. + S.E. at 3960 temp. $\frac{1}{16}$ stake; at 4717 West shore Long Lake, finding no evidence of MC No. 5. which was: — aspen 6N. 44W. 11 lks. Birch 4S. 48W. 7" continued on east across the lake and on the easterly shore we find a pine stump, frozen in the ice and sand; this we thaw out + cut off - turn over, and find: MC. S. 25 B.T. New bearings town: — Nor. pine 16N. 35E. 16 ft. white pine 10S. 45E. 6 ft. Then returned to the intersection of the N. line with west shore of lake where I established MC. No. 5 town: — Aspen 9N. 69W. 30' 8" Nor. pine 13S. 50W. 17"; IM 1 $\frac{1}{2}$ " by 44". Then went to S.E. corner which is in the center of a north + south road + a road extending west; these roads I located in 1912 and are of record; for this, the said S.E. corner we placed an IM $\frac{3}{4}$ " by 30" with two "square head, this, we uncover and run line North along County road which is the section line between section 25-26 said Town, at 1310' uncover IM (same kind only sixagon head) 2620 uncover IM (same kind only oval head), at 2645 ft. lvs. road and continue along section line + at a distance of 3340 ft. MC. No. 3. which was: — Tam. 4N. 45W. 5 lks.; Tam. 4S. 40E. 5 lks. now is: — Tam. stump 5N. 45W. 3' 3" new bearings town: — Tam. 5N. 58W. 49 ft., also IM 1 $\frac{1}{2}$ " by 44". Then on north — on ice, at 3960 temp. $\frac{1}{16}$ stake, on ice at 4320' point of land extending to west side of lake, 5280 temp. sec. cor. stake, on ice; at 6559' North shore of lake where MC. No. 6 which was: — spruce 8 West 8 lks. spruce 6S. 89E. 14 lks. Now is: — spruce stump 8W. 8 lks. spruce down + frozen in the ice + bog, cut same out; then following new bgs. town: — Tam. 4N. 42W. 8' 5"; Tam. 3N. 61E. 2' 8"; Then returned to MC. No. 5 and meandered the west shore of said lake as follows town: — beginning at MC. No. 5 then S. 11W. 90'; S. 46W. 206'; S. 6W. 200'; S. 25E. 149'; S. 52E. 201'; S. 72E. 302'; S. 55E. 73'; S. 55E. 51, into sec. 25, S. 77. 30W. 51' back into sec. 26; S. 77. 30W. 244'; S. 28W. 255'; S. 8. 30E. 91', south 60' to $\frac{1}{16}$ line; south 63' into lot two; S. 33E. 147'; S. 25E. 158'; S. 48E. 317' to MC. No. 3 and sec. line to sections 25-26 said Town. Then went the lake on west line of section and at a point 1675' North of S.W. cor. and along the section line south shore of said lake then: — N. 19E. 100'; N. 8E. 200'; N. 29E. 165'; N. 54E. 126'; S. 85E. 139'; N. 78E. 86'; N. 13E. 165'; N. 12W. 136' into S.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$; N. 76W. 200', E. + W. $\frac{1}{4}$; S. 70W. 101' back to E. + W. $\frac{1}{4}$ line S. 45W. 133'; S. 10W. 98'; S. 45W. 60' and to section line for sections 25-26 and 2340 North of the N.W. corner of said section 26. Then went East $\frac{1}{4}$ S. run line N. 88W. at

12.55 temp. stake, at 2510 temp. stake, at 2815 temp. stake, at 3245 ent bog, at 4171.3 pond or lake N. W. + S. E. at 4993 lve pond ent. bog at 5120 3' North of point for West $\frac{1}{4}$ S. put down IM. $1\frac{1}{2}$ " X 44" no trees near; then went back along line + placed Iron monuments, in their proper places. Then went to North $\frac{1}{4}$ S. then S. 9 min. west, at 1279' tem. stake at 2558' intersect. Center established on E. + W. $\frac{1}{4}$ line at 3857' temp. stake at 5156' center of highway and $\frac{1}{4}$ S. 26-35 as heretofore mentioned. Then went back along this line and put down IM's in proper places. 11 to 16 start on ice at 364' lve lake at 1145' County road, 1239' temp stake, at 2478' temp. s at 3783' temp. stake, at 5088 intersect post 16 - put down IM. here and return along last line and iron monuments in proper places. 12 to 15, at 25' wire fence, ent. cultivation at 560' lve. cultivation, ent. brush at 1280 temp. stake at 2560 intersect IM, previously set at 3865' temp. stake at 5170 temp. stake on section line put down IM. One $\frac{1}{2}$ " X 44": 14 to 9 at 25' wire fence, at 508 ft. ent swamp, at 538 ft. wire fence, at 832' lve swamp, at 1293' 5" temp stake at 2587' intersect one IM on E, + W. $\frac{1}{4}$ line, 3870' 5" IM, at 5154 at section line put down IM $1\frac{1}{2}$ " X 44". 13 to 10; at 1304' IM, at 2608' IM; then N. 1.20' E. at 3883 IM at 5158 sec. line + IM set.

This survey began Feb. 2, 1921 and ended Feb. 18, 1921.

Recorded Feb. 28, 1921 By James H. Flynn, County Surveyor, by E. B. Horst, Deputy. 1121/0

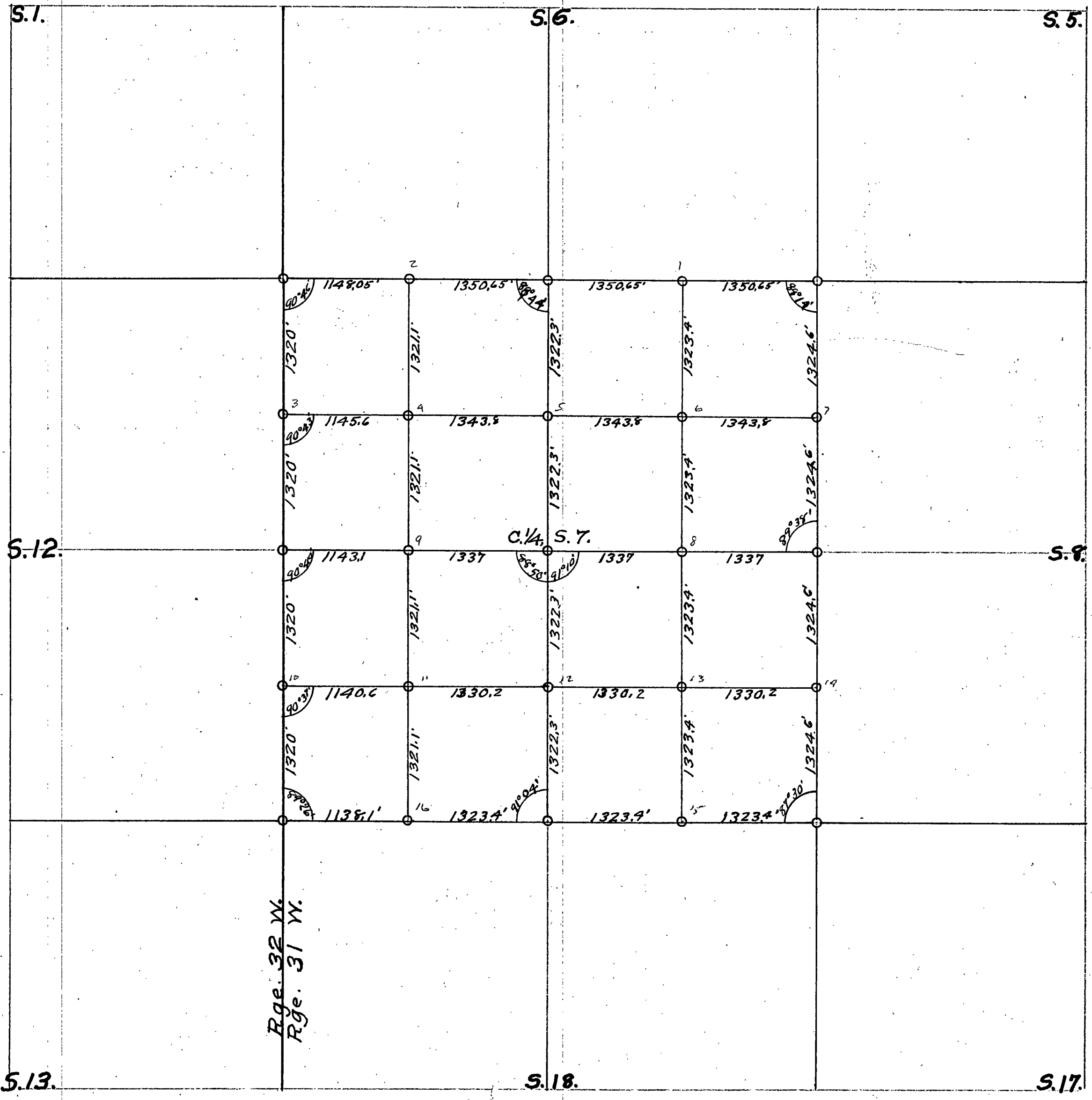
Field notes of the retracement survey and subdivision of Section 36, Town of Remer
~~141-26~~ of the 5th P.M. Cass County, Minnesota.

Jan. 4, 1921 Beginning at the S.W. corner of above section 36, which was: - Tam 39. 30 E. 21 lks. Tam. 39. 55 N. 53 lks., Now is: Tam. 49. 30 E. 21 lks. measuring from this I found the original stake placed by deputy Govt. surveyors in the moss; we put down I.M. $2\frac{1}{2}$ " by 40" with caps made new bearing trees Townit: - Tam. 69. 89 E. 5' 2"; Tam. 69. 54 $\frac{1}{2}$ N. 22' 2". Then "lined up" on some blazed trees bearing easterly, ran random line at 1320 ft., Tam $\frac{1}{16}$ stake, at 2640' tem. $\frac{1}{4}$ stake, at 3960' tem. $\frac{1}{16}$ stake, at 5280' turned 90 deg. North and at a point 335 ft. N. and 16 ft. W. was the S.E. corner to said section 36 which was: - Cedar 59. 15 E. 38 lks.; Cedar 59. 68 N. 11 lks.; Now is: - Cedar 109. 68 N. 11"; Cedar (stump) 129. 15 E. 38 lks. Note - those cedars are larger - acc. growth than at time of original survey. The cutting out of this line is a pretty tough proposition; the timber consisting of (mostly) dry Tam. - some windfall and heavy growth of immensely healthy alder brush. Returned to tem. $\frac{1}{4}$ stake and made another and exhaustive search for the S. $\frac{1}{16}$ said section 36 which was: - Tam. 69. 20 N. 45 lks. Tam. 69. 21 E. 58" ⁴⁵, not finding same went to place of beginning i.e. S.W. cor. said sec. 36; and as the angle for correction is 3 deg. & 42 $\frac{1}{2}$ min. turned same on transit and ran correct line: at 1319' 3" I.M. $1\frac{1}{2}$ " by 44"; Tam. 69. 63 E. 13' 9"; at 2638' 5" I.M. $1\frac{1}{2}$ " by 44"; Tam. 69. 54 E. 14' 6"; at 3957' 7" I.M. $1\frac{1}{2}$ " by 44"; Tam. 69. 16 N. 12' 9". at 5277' I.M. $2\frac{1}{2}$ " by 30", new bearings for this Town cor. townit: - White Birch 89. 45 N. 30' 6" Spruce 129. 48 E. 25' 4". I marked the said birch T. 141 N. R. 26 N. S. 36 B. T. Spruce T. 141 N. R. 25 N. S. 31 B. T. Var. 7. 12. Then turned North $\frac{1}{8}$ for random line on east side said section 36 at 210' leave damn swamp enter high land, poplar, birch & balsam - some relief - at 1320' tem. $\frac{1}{16}$ stake, at 1630' ent. alder and Tam. at 1710' cross winter road, at 1820' enter small dry partly burned Tam. + Spruce, at 2640' tem. $\frac{1}{4}$ stake, the bearing for this was: - Tam. 4 S. 89 N. 1.025 lks. (676' 5") went back that distance & made exhaustive search & finding none such continued random line on north, at 3960' tem. $\frac{1}{16}$ stake; at 5280' (in County ditch) Tem. sec. cor. as this was: - Aspen 109. $\frac{1}{2}$ E. (meaning - I suppose 0.30') continuing on North, at 620' enter aspen made diligent search on this (island) at 850' loc. timber, and as the witness tree for the N.E. corner of said sec. 36 calls for Aspen 109. $\frac{1}{2}$ E. 1.450 lks. (957') at this point we were in open marsh with no timber for a distance of 600 or 700 ft. east & west, continued on north on random line at 1830' ent. timber, and at 8.111 ft. from said S.E. corner said sec. 36 T. 141-26 is the $\frac{1}{4}$ S. for sec. 30 141-25 & sec. 25 141-26, which was Linden (basswood) 9 S. 80 N. 18 lks.; Linden (basswood) 4 S. 40 E. 12 lks.; ^{new} Linden (basswood) 16 S. 40 E. 12 lks. Larger acc. growth, I put in an I.M. at this point 2 yrs. ago being 253' west of this $\frac{1}{4}$ post with the said random line makes 1.48 degs. for correction; returned to the S.E. corner of sec. 36. and turned that angle and ran true line; at 200 ft. loc. swamp at 1328' $\frac{1}{16}$ cor. put down I.M. $1\frac{1}{2}$ " by 44", bearings: - Soft maple 5 S. 20 N. 22'; soft maple 6 S. 8 E. 37' 4". Continued on North on said range line, at 1650' loc. high land S.W. + N.E., at 1720' cross winter road, at 1850' ent. small tam. + spruce (dry), at 2656' put down I.M. $1\frac{1}{2}$ " by 40" no trees near; at 3994' put down I.M. $1\frac{1}{2}$ " by 40" no trees near, at 5312' put down I.M. $2\frac{1}{2}$ " by 30", as this is about the centre of the

said bounty ditch dump, I had to presume that said dump is intended for the section line between said sec. 36 and sec. 25. This line passes 4 ft. E. of a "squared up" stake placed on the S. side ditch. Then I turn west along said ditch dump; S. 89.50 W. at 2.010' end of ditch and dump, at 2.060' winter road N + S., at 2.300' L.S. Sanborns house 200' ft. South, at 2.400' wire fence N + S., at 2.511' enter Tam. marsh N + S., at 2.650' $\frac{1}{4}$ S. 25-36 which was: - Tam. 5 S. 65 W. 44 lks., Tam. 6 N. 13 E. 89". Now is: - Tam. stump (with BT) 6 S. 65 W. 29 ft could not find the other bearing; put down IM. 1 1/2" by 40"; Tam. 6 S. 15 W. 26 ft., tam 5 N. 15 E. 16' 5" ft. wire fence 3' North of this post bears E. + N. continued section line on W. and at 3.145 ft MC. No. 3 which was: - Aspen 8 N. E. 97 lks. White Pine 6 S. 36 E. 54 lks. located the White Pine (stump) but not the aspen then at 35' 6" N. 36 W. put down IM. 1 1/2" by 40" wire fence E. + N. 1' north, angle at N. $\frac{1}{4}$ S. is N. 89.35 W. Then measured out on the ice in Big Rice Lake a distance of 2.135 ft. and placed a flag, then measured Northerly to an island, 8.280 ft. and at a point I placed a flag where the section line between sections 23-24 crosses (established this line six years ago. Then went to the S.W. cor. said sec. 36 + started random line N. 91 W. at 875' leave Tam. + spruce swamp ent. highland, at 1320 set. tem. $\frac{1}{16}$ stake in willow and alder thicket at 1.716 ft. shore of Big Rice Lake - MC. No. 2. which was: Elm 8 S. 40 W. 65 lks. White pine 8 N. 53 E. Now is: - Elm (down) 12 S. 40 W. 43 ft. there are two pines N.E. on the shore one 52 ft. + the other 46 ft. both badly burned and as my notes dont give the distance I placed the IM. 1 1/2" by 40" N. 40 E. of the Elm 26' 4" ft. Brgs. White Birch 5 S. 57 E. 4' Brgs. White Birch 6 S. 13 W. 5' 5". Then sighted to aforementioned flag on island and the angle is one deg. 10 min. East which is 73 ft. east of this random line at the 5280'; if continued; but passes 15' West of N.W. cor. of 36 I set flag for on Rice Lake. Then began at the South $\frac{1}{4}$ post cut out line N. 90 34' east at 1324' IM. 1 1/2" X 40" Tam 6 S. 25 E. 9' 5"; Tam. 6 N. 60 W. 3' at 2.648' IM. 1 1/2" by 40" no trees near, put flag in pipe; at 3.976' 5" IM. 1 1/2" by 40" no trees near, put flag in pipe; at 5.305' $\frac{1}{4}$ S. section 36-25 afore mentioned. Then went E. $\frac{1}{4}$ S. run line 90 deg. west at 1324' IM. 1 1/2" by 40" no trees near, put up flag; at 2648' IM. 1 1/2" by 40" no trees near, put up flag; at 3983' tem $\frac{1}{16}$ stake at 4.688' Lake shore put down IM. 1 1/2" by 44" W. oak 10 S. 80 E. 18' 8" (13 to 10, 90.42" E. at 1326' IM. 1 1/2" by 40", Tam. 6 N. 80 W. 2' 1", Tam. 5 N. 18 E. 5' 8" at 1450' loc. timber ent. short dry Tam. + spruce at 2652' IM. 1 1/2" by 40" no trees put in flag; at 3980' IM. 1 1/2" by 40" no trees put in flag; at 5308' IM. 1 1/2" by 40" no trees put in flag on ditch dump (11 to 16) at 1325' flag in iron pipe at 2649' flag in iron pipe; at 3629' east shore of Big Rice Lake IM. 1 1/2" by 44" with flag. (15 to 12) Put down IM. at 15 1 1/2" by 44", Tam. 12 S. 3 E. 55' 5" at 140' loc. willow and alder thicket, ent. high land; at 700 ft. loc. high land + ent. helliwa Tam. spec. + alder swamp at 1338' tem $\frac{1}{16}$ stake; at 2676' intersect $\frac{1}{16}$ cor. N. + S. $\frac{1}{4}$ line; at 3998' intersect $\frac{1}{16}$ cor. N. + S. $\frac{1}{16}$ line; (c) at 5320' intersect 5320' intersect 4970 highland sec. line (12) 14 90.2 North 70.13 West; at 1322' intersect E. + N. $\frac{1}{16}$ line 1338' E. of N. section line sec. 36. IM. 1 1/2" by 40", Tam. 5 S. 22 E. 5' 2", Tam. 6 N. 58 W. 7' (d) angle 35 min. E. at 2624' intersect E. + N. $\frac{1}{4}$ line at e. Survey began Jan. 4, 1921 and ended Jan. 29, 1921. only 3 in. of snow this season to date; average temperature, a foot, 10 deg. above zero F. Meander of Big Rice Lake shore line, beginning at MC. No. 3. where sec. line of sections 25-36 enters said lake to wit: - In Lot one S. 48 W. 450 ft.; S. 30 W. 737 ft.; S. 14 E. 425 ft.; In lot 2. S. 25 W. 582 ft.; S. 47 W. 947 ft.; S 22 W. 161 ft. In Lot 3. S. 22 W. 658 ft.; S. 49 W. 502 ft. to MC. No. 2. where the sec. line between sections 25-36 enters the lake. Original survey shows 541.25 A., this survey is 546 A.

Recorded Feb. 28, 1921. By James H. Flyn, County Surveyor, by E. B. Horst, Deputy.

S. 7-138-31



Rge. 32 W.
Rge. 31 W.

Fields notes of the retracement survey and subdivision of ⁵⁶⁹ T. 138 N. R. 31 W. of the 5th P. M. Cass County, Minnesota.

- Feb. 5, 1921. Ben F. Clark, Roy Rose and Roy Devore went down to Bull Moose township to survey on section 7. Had Mr. John McFarling to come up to Mr. Leo Mosson with his team to take us to his house to board. Board began supper Feb. 5, thence to late to go out in the field that day so I checked up my field notes.
- Feb. 6, 1921. Ben F. Clark, Roy Rose, Roy Devore, John McFarling, Adolph Nystrom begin at the corner 6 and 7 in the range line a S.E.M.T. post and measured east on a township ~~line~~ at Knowam at the Home Road at 1147.5 = an iron post with a cap on E. at 1350.3 = an iron pipe without a cap in E. the distance of 1351.5 = an iron post for the $\frac{1}{16}$ S. with a cap on top thence on E. the distance of 1348 ft. thence the $\frac{1}{16}$ S. should go W. 1.7 ft. Thence begin at iron post for the 6.7.5.8 run South R. line at 7.20 = at 949.7 = STA. 1 at 1320 set a $\frac{1}{16}$ S. point temperature at 1752 enter a bog at 2620 Bog enter a field at 2649.9 = $\frac{1}{4}$ S. a stone marked with a cross on top of stone at 119.1 = STA. 2 = at 186 enter lake at 787 leave lake enter brush at 817 leave brush land and enter lake. At 1320 set temp. $\frac{1}{16}$ point at 1400 leave lake and enter brush land. At 1860.7 = STA. 3 = at 2654.2 = section corner to Sec. 7.8.17.18 a stone with a cross cut on top. Sec. Large (24.1) thence set $\frac{1}{4}$ S. corner at 2652.05 = thence set $\frac{1}{4}$ S. south $2\frac{1}{2}$ = thence set the south $\frac{1}{16}$ point south $60\frac{1}{4}$ = this gives each 40 1326 $\frac{1}{4}$ = The south $\frac{1}{16}$ post between Sec. 7.8 is a wooden post 12 by 3 sets in a little lake on south side eighty feet from shore on East side this mile is quite rolling with no timber of any value. Soil No. 2. Line closer at 7.20 = N. 87.20 W.
- Feb. 7, 1921. Ben F. Clark, Roy Rose and Roy Devore went to the sections 6.7 on range line the corner being cement post and measured south on the middle of a graded road 8.30 = at 5282.7 = the corner to sec. 7.18 an iron post on range line. Thence came back North & searched for the $\frac{1}{4}$ S. which is supposed to be an iron corner but could not find any post after drifting all around with a peckaxe. So we set a temp. spot at equal distance between the north and south sections cm for sec. 7 and in a true line 8.30 = Thence divided by 4 which gives each 49. The distance of 1320.6 $\frac{1}{4}$ = along range line sec. 7 in west boundary. Ben F. Clark, Roy Devore, Roy Rose, John McFarling and Nystrom begin at the established corner sec. 7.18 an iron range post in center of a road on range line and run east on a Range line I turn a right angle and set off 7 = which gives the Range line 821 = $\frac{1}{16}$ = at 11.50 set a temp. $\frac{1}{16}$ at 25.01 foot a temp. $\frac{1}{4}$ S. at 38.52 at 31.5 STA. 1 a temp. $\frac{1}{16}$ at 5108.3 = to the corner thence came back west to the corner lot 4 and set the point set the same 11.9 set the $\frac{1}{4}$ S. point west 39.5 = set the $\frac{1}{16}$ S. point west 67.1 = and turn a right angle from Range line set points over on two lines thence ran a true line back west and told on all the points.
- Feb. 8, 1921. Ben F. Clark, Roy Rose, Roy Devore, John McFarling & Adolph Nystrom begin at the $\frac{1}{4}$ S. point and north on a quarter line N. 88 West at 660 set temp. point at 1080.6 = Sta. 1 at 1320 set temp. $\frac{1}{16}$ point at 2058.6 = Sta. 2 at 2640 set temp. $\frac{1}{4}$ S. point at 3814.6 = Sta. 3 at 3960 set temp. $\frac{1}{16}$ point, at 5290.3 = enter sec. line 5 ft. east of $\frac{1}{16}$ iron post between S. 6 and 7; set center $\frac{1}{4}$ North. set north $\frac{1}{16}$ S. 7.23 = set south $\frac{1}{16}$ S. 2.3 =
- Feb. 9, 1921. Ben Clark, Roy Rose, Roy Devore went to the $\frac{1}{16}$ S. point on the west boundary sec. 7 and set my transit on true range line the V.E.R. being 8.30 and turn on 37 = thence run east on a quarter line 9.7 = N. 89.7 East ~~at~~ 9 = North of the rail for the $\frac{1}{4}$ S. between S. 7 S. 8 thence measured back west at 157 May Big North and south at 362 live bog. Enter brush hill at 2190.5 Sta. 1. at 1320 set a temp. $\frac{1}{16}$ point at 2079.1 = Sta. 2. At 2677.3 = the $\frac{1}{4}$ S. point begin at the $\frac{1}{16}$ S. Point bet. 7.12 range line measured east in a $\frac{1}{4}$ S. line at 450.4 Sta. 1 at 1142.8 = set a temperature $\frac{1}{16}$ point at 24.80 the $\frac{1}{4}$ S. point S. 7.
- Feb. 10, 1921. Ben F. Clark, Roy Rose, Roy Devore begin at the $\frac{1}{16}$ point on range line on N.W. $\frac{1}{4}$ S. 7 and run east on a true $\frac{1}{16}$ line. Thence went to the $\frac{1}{16}$ S. point in E. & W. quarter line set the $\frac{1}{16}$ at 1336.53 = set the same south 63. Ben F. Clark, Roy Rose, Roy Devore begin

at the North $\frac{1}{16}$ line between sec. 12.7 and run east on true $\frac{1}{16}$ line at 15 ft. enter ploughed field at 11.45 $\frac{1}{2}$ = set a temp. $\frac{1}{16}$ post at 11.60 leave field, enter brush at 13.43 $\frac{5}{2}$ = Intersected North and south line on a nail in the center of $\frac{1}{16}$ point at 1234.7 = at 1320 set temp. $\frac{1}{16}$ point at 1693.5; at 2468.8; at 2687.8 Intersect $\frac{1}{16}$ and Intersect 2.4 feet north of the iron bolt for the $\frac{1}{16}$ S. point between S. 7.8 on a township road thence set the $\frac{1}{16}$ point east 23.9 one foot 1.2 = south 1.2 = which brings it on the true line $\frac{1}{16}$ line and equal distance.

Feb. 11, 1921.

Ben F. Clark, Roy Rose, Roy Devore, John McFarling, Adolph Nystrom begin at the $\frac{1}{16}$ S. point on the north boundary sec. 7 on the northwest $\frac{1}{4}$ 1.7 = foot west of an iron post with a cap on top and run east and tied on the $\frac{1}{16}$ point on a nail in center of post. Ben F. Clark, Roy Rose, Roy Devore went to the $\frac{1}{16}$ point on west boundary sec. 7. 1320.6 $\frac{1}{4}$ = feet south of the center post for the con. for S. 6.7. 1.12 on range line set an iron pipe 4 by 2 drilled a hole with a churn drill and set in post level with graded road and made the following witness tree. Jack pine 7 S. 18 West D. 88.1 feet. It snowed about three inches today, very wet.

Ben F. Clark, Roy Rose, Roy Devore went south to the $\frac{1}{16}$ S. point on range line between Sec. 7.12 ruled out the wooden point and drilled a hole with a churn drill set an iron pipe 4 by 2 ft. and made the following witness Jack pine 8 S. 64 West 48 ft. set level with top of road. Thence went south to the south $\frac{1}{16}$ point between 7.12 on Range line to the spike for the $\frac{1}{16}$ point pulled the same out and set an iron pipe 4 by 2 in the center of a grade road and made the following witness: Jack Pine 9 S. 68 East 39 Jack pine 5 N. 73 West 57' Thence came home for night.

Feb. 12, 1921.

Ben F. Clark, Roy Rose, Roy Devore went to the $\frac{1}{16}$ point described on Page 83 and run on south on a true east $\frac{1}{16}$ line and tied on a nail on the $\frac{1}{16}$ point on east and west quarter line. On south on same $\frac{1}{16}$ line to the south $\frac{1}{16}$ point on the south boundary Sec. 7. 18. Ben F. Clark, Roy Rose, Roy Devore, John McFarling, Adolph Nystrom begin at the west on $\frac{1}{16}$ an iron post in township road and run south on a $\frac{1}{16}$ line and tied on a nail on a $\frac{1}{16}$ point on south on same line and tied on the nail on the $\frac{1}{16}$ point on the sec. line between 7.18 Thence begin at the $\frac{1}{16}$ iron post on south $\frac{1}{16}$ on range line bet. sec. 7.12 an iron post on range line and run east in a $\frac{1}{16}$ line & tied on the nails on all the points across S. 7.

Feb. 14, 1921.

Ben F. Clark, Roy Rose, Roy Devore begin at putting in iron corners on the south $\frac{1}{16}$ line. Thence went to the first $\frac{1}{16}$ point 1321.5 = South of the iron post in the North points S. 7. Drill down a hole with a churn drill and put in an iron pipe 2" x 2" in. care same feet back the ground and piled stones around with witnesses Jack pine 10 S. 14 East 1009' = J. Pine 9 S. 3 West 93.6 = Thence went south to the $\frac{1}{16}$ point in the east and west center line and drilled a hole with churn drill and set in a 4 by 2 iron post put the post in ground 3 ft. and made a witness tree. Jack pine 6 N. 21.30 = East 1.14. 4 Feet. No other trees necessary.

Feb. 15, 1921.

Thence went on south to the $\frac{1}{16}$ point and drilled a hole churn drill set an iron post 4" x 2" ft. and set the same on ground 3 ft. at the corner of a barbed wire fence. A mound stone and clay around point. Thence went S. to the point between section 7.18 and drilled a hole with a churn drill and set in an iron pipe 4" by 2 ft. set the same in ground 3 ft. and made the following tree: Jack pine 5 N. 30 West 40.2 = no other green trees near. Thence went east to the $\frac{1}{4}$ S. point bet. sec. 7.18 and drilled a hole

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with a churn drill set an iron post 4 x 2 ft. set the same 3 ft. in ground and made a witness tree: Jack pine 8 N. & 32 E. 1-8819 = ft. Thence went N. on the North-South center line to the $\frac{1}{16}$ point and set an iron post 4 by 2 ft. Drill a hole with a churn drill set the post 3 ft. in the ground and piled mound stone around the post and made a witness tree: Jack pine 10 N. & 20 West 84.6 = No other trees near. Ben F. Clark, Roy Rose, Roy Devore went on N. to the $\frac{1}{4}$ S. point. Set an iron post 4 x 2. Drilled a hole with a churn drill thence set in post 3 ft. in ground. No trees near of any use. This is the $\frac{1}{4}$ S. for section 7. Thence went on north to the next $\frac{1}{16}$ point and drilled a hole down in ground $\frac{1}{2}$ ft. and struck a rock thence drilled a hole in the rock about 4 in. & set in a iron post 4 by 2 ft. and made mound stone around the post and made a witness tree: Jack pine 7 N. & 50 E. 27. $\frac{1}{2}$. Thence go home for night.

Feb. 14, 1921.

Ben F. Clark, Roy Rose, R. Devore went to the N. $\frac{1}{16}$ line and went S. from the $\frac{1}{16}$ post an iron post in township road and at the $\frac{1}{16}$ point set an iron pipe 4 x 2. Drilled a hole with a churn drill set post 3 ft. in ground and made two witness trees: Jack pine 10 S. & 54 West 60.5. Poplar 7 N. & 35 West 50.4 = ft. Thence went south to the $\frac{1}{16}$ point on the east and west center line. Drilled a hole with a churn drill & set in a 4 x 2 pipe. No trees for witness, all brush and burned timber.

Feb. 15, 1921.

Ben F. Clark, Roy Rose, R. Devore went on S. to the next $\frac{1}{16}$ point on the S. $\frac{1}{16}$ line. Drilled a hole with a churn drill and set an iron post 4 x 2 ft. set the same on ground 3 ft. & made a witness tree Jack pine 6 S. & 13 West 39.9 = ft. No witness trees near. Thence went on south to the $\frac{1}{16}$ point on section line between 3718 set an iron pipe 4 x 2 set the same in ground 3 ft. and made a witness tree: Jack pine 5 N. & 82 N. 57.7 = This post sets in a hay meadow at the west and north edge. Ben F. Clark, Roy Rose, Roy Devore went to the Sec. 7. 8. 17 18 and removed the stone that had a cross cut on the top. This stone is 12 by 18 in. Thence set in an iron post 4 x 2 drove the same in ground 3 ft. This corner sets in a high hill. No tree for witness a mound stone around the iron post. Then went on N. between 5758 to the $\frac{1}{4}$ S bet. 5758 and set an iron pipe 4 ft. by 2 in. Drilled a hole with churn drill and set in an iron post and made a witness tree. Jack pine 10 South & 30 N. 40.2 = a stone 2 ft. north with a cross on stone. The south $\frac{1}{16}$ S. is a wooden post 14 ft. long $\frac{1}{2}$ ft. above the ice on a little Lake. Thence went north between the $\frac{1}{16}$ S. point and set an iron pipe 4 ft. long 2 in. D. drilled a hole with a churn drill set the same in ground 4 ft. level with top of road made a witness tree: White Birch 3 S. & 43. West 40.7 = Poplar 5 N. & 37. East 39.6. Survey completed Feb. 19, 1921.

Ben F. Clark, Deputy County Surveyor.

Recorded Mar. 7, 1921 By James H. Flynn, County Surveyor, by E. B. Horst, Deputy.

Survey Record No. 460.

Sec. 6, 138, 30.

- Field notes of the resurvey and subdivision of Sec 6 Twp 138 N Rge 30 W. 5 P. M. by Ben F. Clark under the supervision of E. B. Horst
- Oct 6, 1920. Ben F. Clark and Roy Rose went to Backus had Mr. L. A. Spooner and automobile.
- Oct 7, 1920 Went to Walker for field notes of sec 6. T. 138 N. R. 30 W. 5 P. M. Ben F. Clark, Roy Rose, W. M. Kinney, and Fred Pleggenhülle. Begin at the sec. cor. 1-6-7-12 an iron post with a cap on top sitting in the middle of a graded road on range line. Thence run N. bet sec. 1-6, $6^{\circ}45'$. At 1320' set a temp. $\frac{1}{16}$ S. At 2655.0' an iron post with a cap on top end for the $\frac{1}{4}$ S. bet. sec. 1 & 6 in the middle of the State Road. Thence 1327.7' N. set true $\frac{1}{16}$ S. point in graded road, true line is $6^{\circ}30'$ var. Run on N. on same var. Begin at the established $\frac{1}{4}$ S. bet. sec. 1 & 6 an I.M. in State road At 275.0' barbed wire fence running N. At 660.0' set hub no 1 at 1076.0' set hub 2, at 1320.0' set temp. $\frac{1}{16}$ S. cor., at 1762.1' sta 3 in Jack Pine at 2532.4' sta 4. The course bearing on flag in post is $N. 8^{\circ} 11'$ at 2648.3' intersect Twp line. E of the town cor to S. 1 & 6 36.9'. True line closes at $7^{\circ} 02'$ var.
- Oct 8, 1920 Begin at the N.W. cor Twp 138 N. Rge 30 W and run E along the N. side of sec 6 on town line var. $8^{\circ} 10'$. At 273.6' sta 1, at 542.8' sta 2 at 810.0' enter Pine Mountain Lake.
- Oct 9, 1920 Ben Clark & Roy Rose thence set up a flag on N. side of lake and sight on the N.E. cor. on E. bank of lake a concrete block for post 12" x 10" stamped U.S. M.C. Then we went around the lake to the N.S. M.C. and struck sight on hub on W. bank of lake then I turn a right angle N. 200.0' and sighted across lake to hub. The course bearing on flag on N. bank of lake is $N. 13^{\circ} 30' W.$ the distance 2511.0' at 3321.0' over lake. Thence begin at the N.E. a concrete post and run E along a true barbed wire fence var $8^{\circ} 10'$ at 642.0' sta. 4, at 1042.3' int. cent of M. & J. P.R. run $S. 55^{\circ} E.$, at 1104.0' sta 5, at 1180.0' int. State road 30.0' W., at 1290.0' int. brook running $N. W. S. E.$, at 1753.6' int. cor. to sec. 5 & 6 south of cor. 6.2' a concrete post 8" x 8" set in ground True line closes at $8^{\circ} 12'$ var.
- Oct 10, 1920 Ben F. Clark, Roy Rose, W. M. Kinney, and Fred Pleggenhülle begin at the established cor. sec. 1-6-7-12 an iron post in township road on range line and run E on a range line var $8^{\circ} 20'$. At 376.0' sta 1 in a plowed field, at 1053.4' sta 2, at 1129.8' set temp. point, at 1620' int. bog meadow, at 1689.2' set a hub and turn a right angle N. and measure 400.0' N. thence turn a right angle E., at 2449.8' set hub then found post 4" spruce marked $\frac{1}{4}$ S. with the following witness trees Jack pine 12 S. $50^{\circ} E$ 7.1', Nor. pine 12 N. $40^{\circ} W.$ 35.5'. These trees are marked $\frac{1}{4}$ S. B. 7. at 2475.3' 25.9' too large.
- Ben F. Clark, Roy Rose, and W. M. Kinney run true line back N. from $\frac{1}{4}$ S. bet. 6-7 to the iron cor. in Twp. Road and the $\frac{1}{16}$ cor. at 1141.3' E. of the I.M. cor. 6-7-1-12 to 1334.4'. The true line closes at $8^{\circ} 35'$ var. on cen. of I.M. in cen. of Twp road on Rge line. Thence went N. to the $\frac{1}{16}$ point on the $\frac{1}{2}$ bet. sec. 1 & 6 on range line. An iron pipe 2" x 2" without a cap. Made a hole with a post set the same in ground 2.0' put some stones around the post and made the following witness trees: Jack pine 9" S. $40^{\circ} 30' E$ 31.3' + Jack pine 9" N. $13^{\circ} 15' W.$ 29.9'. Marked the same $\frac{1}{16}$ S. 1 B.T. + $\frac{1}{16}$ S. 6 B.T.

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Survey Record No. 460.

Oct. 11 1920 Ben F. Clark + Roy Rose went and set the $\frac{1}{16}$ on the W. half bet sec. s 6 + 7 an I.M. $2\frac{1}{2}$ feet long 3 in. in diam. made a hole with a post larger. Put 2 600 spikes in bottom end, put pine knots on spikes, put post in ground two feet, tamp down with clay for the $\frac{1}{16}$ s. cor. This post stands 1141.3' E. of the sec. cor. to sec. s 1-12-6-7 and W of the $\frac{1}{4}$ s bet. 6 + 7 1334.4'. No witness trees near of any size. Thence went to the $\frac{1}{4}$ s, a gov. cor. bet 6 + 7, pull out the old post marked $\frac{1}{4}$ s. with John Curro's name stamped on same. Then set an I.M. $2\frac{1}{2}$ " x 3" with a cap on top, made a hole with a post auger, set in ground two feet, put two 600 spikes in bottom end, put pine knots on same and tamp down with sand. Old witness trees as follows:

Jack pine 9 S. $4^{\circ} 50'$ E. 31.3'

Hor. Pine 9 N. $13^{\circ} 15'$ W. 29.9' for the $\frac{1}{4}$ s bet. sec. s 6-7 on the E. side of a small lake 90.0' from water.

Ben F. Clark, Roy Rose, Will Kinney, Chas. Casady, and my man begin at the $\frac{1}{4}$ s bet 6-7 an I.M. At 85.0' sta. 1 - 542.5' sta. 2, at 1320.0' temp point nail in stump, at 1926.0' sta. 3, at 2632.0' the cor. to sec. s 5-6-7-8 an Iron post with cap on top end N. of post 29.1'. Thence set $\frac{1}{16}$ s. N. 40' + S. 14.5'. Thence run true line back W. and closed in the cen. of the $\frac{1}{4}$ s. True line closed at $8^{\circ} 21'$ var.

Ben F. Clark, Roy Rose, + W^m Kinney began at the established cor. to sec. s 5-6-7-8 an iron post in a plowed field and run N. bet 5-6 on a random line var $7^{\circ} 15'$. At 745.2' sta. 1, at 1320.0' set temp $\frac{1}{16}$ s, at 2296.7' sta. 2, at 2640.0' set a temp post. Found an old post on west side of a graded road and an old witness tree blown down with $\frac{1}{4}$ s. B.T. is a pine 10 S. 6° E. 21.8'.

Oct 12, 1920 Ben F. Clark + Roy Rose set a point for the $\frac{1}{4}$ s bet. sec. s 6-5 Jack pine stump B.T. down with $\frac{1}{4}$ s. 10" S. 54° E. 21.8'. found a pine stump N. marked B.T. with a scriber iron about seven years ago. The stump lies 140° N. 41.4'. The distance bet. the cor. sec. s 5-6-7-8 N. to the $\frac{1}{4}$ s point on true line is 2647.8' point on random line is 8.8' W; thence set $\frac{1}{16}$ s. point N. 3.9' + set E. 4.4' on true line. Closed at $7^{\circ} 13'$ var.

Thence begin at $\frac{1}{4}$ s bet. sec. s 5 + 6 and run N. var $7^{\circ} 13'$. At 508.7' sta. 1, at 707.5' leave graded road, at 1200.0' cen. of M. + S. R.R. ~~at 1320.0'~~, at 1335.0' cont. graded road, at 1477.0' cen. Scenic Highway, at 1690.4' sta. 2, at 2624.7' short 15.3' E of concrete cor. sec. s 5-6 46.3'. Thence set $\frac{1}{16}$ s. point S. 7.5' + set N. 23.5' on true line. Put up a flag on point and went S. on hill and back sight on the $\frac{1}{4}$ s point and run N. over true line. True line closes at $7^{\circ} 25'$ var. Ben. Clark + Roy Rose begin at the $\frac{1}{4}$ s bet. sec. s 1-6 on the range line and run E. on a quarter line, var. $8^{\circ} 14'$. At 755.0' cross Morrow's road, at 1030.0' barbed wire fence and ent. plowed field, at 1132.3' set temp $\frac{1}{16}$ s. point, at 1170.0' sta. 1, at 1270.0' cross a barbed wire fence, at 1644.0' ent. clover field, at 2070.0' br. field ent. Jack pine, at 2179.7' sta. 2, at 2280.0' ent. hay bog, at 2459.7' set temp $\frac{1}{4}$ s. cor., at 2780.0' ent. brush + pine, at 3031.4' sta. 3, at 3610.9' sta. 4, at 4000' ent. clover field, at 4400.0' live clover ent. brush, at 4896.8' sta. 5 at 5084.5' int. N. + S. line bet. sec. s 5 + 6 S. of Gov't $\frac{1}{4}$ s. cor. 32.0'. Thence set over points

And run a true line back E. on a carpet tack on the $\frac{1}{4}$ s bet. sec. s 5-6, thence set a $\frac{1}{4}$ s. cor. an I.M. 48" x 2" pipe and drove same in ground 3 feet and built a mound of stone around post this post E. of the iron post for the $\frac{1}{4}$ s bet. sec. s 1-6 on the range line 2459.7'. True line closed at 8° 14' var.

Oct 15, 1920

Ben F. Clark + Roy Rose set the $\frac{1}{16}$ s an I.M. 2.5' in length. Dug a hole with a post auger, put 2 60d. spikes in bottom end, put stone + sand around post and tamp down. A telephone pole sets west 62.6'. Thence went to the $\frac{1}{4}$ s bet. 6-7 an I.M. and run N. on a true line $\frac{1}{4}$ s line, var. 7° 14'. At 367.4' sta. 1, at 1045.0' ent. bog, at 2645.0' int. E. + W. E. Thence begin at the iron post $\frac{1}{4}$ s. At 400.0' lv. bog, at 1400' State road, at 227.0' sta. 2, at 710.7' sta. 3, at 1320' set. temp $\frac{1}{16}$ s cor., at 1857.0' ent. Pine Mountain Lake at high water mark, the latter dis. from the $\frac{1}{4}$ s bet. sec. s 6 + 7. $\frac{1}{4}$ s in lake. Thence to the M.C. on W. side of lake and run a traverse line as follows: S. 32° E. 572.0', S. 82° E. 496.7', S. 71° E. 633.2', S. 88° 30' W. 348.1'. Intersect nail on hub on the N. + S. $\frac{1}{4}$ s line at high water mark on lake, at 214.0' ent. brook 23 ft. wide running E., thence N. 48° E. 677.0', thence N. 19° 45' W. 510.0' the M.C. on E. side Pine Mountain Lake, a concrete post. Total dist. around lake from M.C. to M.C. 3236.9'. Ben F. Clark, Roy Rose, Wm Kinney, and his man begin at the established $\frac{1}{16}$ post on S. side sec. 6 bet. 6-7 on W. half at an I.M. and run N. on a true $\frac{1}{16}$ line, var. 7°. at 1324.0' set a $\frac{1}{16}$ point, at 2648.0' closed on the I.M. on $\frac{1}{4}$ line.

Oct 17, 1920

Ben Clark + Roy Rose set the $\frac{1}{16}$ post on N. + S. $\frac{1}{4}$ s line on N. $\frac{1}{2}$, an I.M. 30" x 3", put two 60d. spikes in bottom end, bored a hole with a post auger and set same in ground two feet, put stone, clay, and sand around post and tamp down, and marked the following witness trees: Jack pine 7 S. 38° E. 20.5' + Jack pine 5 S. 23° W. 36.0'. Thence went to the $\frac{1}{16}$ point on sec. line bet. sec. s 5-6 equidistant bet. the $\frac{1}{4}$ s and the concrete post for the cor. to sec. s 5-6-31-36 and set a 30" x 3" I.M. Witness a M. + S. R.R. crossing sign S. 58° W. 20.0'. Thence went to the $\frac{1}{4}$ s point bet. sec. s 5 + 6 and set a 2½" x 30" I.M. The old Gov't witness tree is blown down with $\frac{1}{4}$ s B.T., is a Jack pine 10 S. 56° E. 21.8'. New witness: a stone 2' x 4' S. 45° W. 27.3' to hole in stone. Thence to the $\frac{1}{16}$ s point on range line bet. sec. s 1-6 and set a 2½" x 30" I.M. equidistant bet. the sec. cor. to sec. s 1-12-6-7 and the $\frac{1}{4}$ s N. bet. sec. s 6-1 in the middle of a graded road. Thence to the $\frac{1}{16}$ cor. bet. 6-7 and set a 2' x 48" I.M. Thence to the $\frac{1}{16}$ cor. bet. sec. 5 + 6 in the S. half and set a 2½" x 30" I.M.

Oct. 18/20

Ben F. Clark + Roy Rose begin at the established I.M. $\frac{1}{16}$ cor. on the E. + W. $\frac{1}{4}$ line and run N. on a true line var 7° 6'. At 32.0' center of state road, at 353.0' ent. bog. E. + W., at 1010.0' lv. bog ent. brush, at 1213.0' sta. 1, at 1316.2' set a temp $\frac{1}{16}$ cor. Thence begin at the $\frac{1}{16}$ s I.M. on range line 1324.0' N. of the $\frac{1}{4}$ s cor. and run E. on true line at 8° 13' var. at 100.0' ent. marsh, at 525' lv. marsh ent. brush, at 945.0' Sta. 1, at 1135.0' temp point on cen.

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Survey Record No. 460.

Oct 19, 1920. Ben A. Clark + Roy Rose begin at the $\frac{1}{16}$ s pt. on the $\frac{1}{16}$ line on N half 1135.0' E of the $\frac{1}{16}$ I.M. at $8^{\circ}13'$ var. At 178.5' sta. 1. at 1339.0' closed on cen. of I.M. on N + S $\frac{1}{2}$. Thence begin a the $\frac{1}{16}$ I.M. on N + S $\frac{1}{2}$ and run true line E at $8^{\circ}25'$ var. along the side of large cedar post set in ground; at 1050.0' in state road, at 2560.0' int. cen. M + S R.R., at 2601.0' int. $\frac{1}{16}$ s cor. on sec. line bet. sec. 5-6

Jan 31, 1921. Ben A. Clark, Roy Rose + Roy Devore begin at the M.C. on W. side Pine Mountain lake measured E. on N. boundary sec. 6 to S.M. post on E. side of lake 2419.6'. Continue E; at 1923.0' M.I.R.R., at 2634.7' sec. cor. bet. sec. 6-7 on Top line. Total dist. on N. boundary of sec. 6 = 5064.0'. Thence go W. and set the $\frac{1}{16}$ s cor. N. 55'; the $\frac{1}{4}$ s cor. N. 33.7'; set N. $\frac{1}{16}$ s cor. W. 50.5'; set S. $\frac{1}{16}$ s cor. W. 16.8'; pull up I.M. $\frac{1}{4}$ s cor. + set same W. 33.7'

Feb. 1, 1921. Roy Rose, Roy Devore, + Ben Clark made the following witness trees to $\frac{1}{4}$ cor. Jack pine 12 N. 16° W. 194.0' + Jack pine 8 S. $39^{\circ}30'$ E. 199.7'. Thence measured E. on the $\frac{1}{4}$ s line; at 2659.7' the N.S. $\frac{1}{4}$ cor. bet. sec. 5 + 6, thence set $\frac{1}{16}$ s at 1329.8. Thence measured W. on the E + W $\frac{1}{2}$ from $\frac{1}{4}$ s. At 1320.0' set temp $\frac{1}{16}$ cor. at 2505.0' the $\frac{1}{4}$ s cor. on range line bet. sec. 6-1 from which telephonic pole 12 bears S. 35° W. 40.1'; thence set C.W. $\frac{1}{16}$ s. Begin at $\frac{1}{4}$ s chain E. on $\frac{1}{2}$, at 1320' set temp $\frac{1}{16}$ cor., at 2635.4' the N.S. $\frac{1}{4}$ cor. bet. sec. 6 + 7. Thence set $\frac{1}{16}$ cor. N. 17.7' + W. 16.8'. From the N. $\frac{1}{16}$ cor. bet. sec. 6 + 1 thence E. on N. $\frac{1}{16}$ line, at 1109.2' N. $\frac{1}{16}$ s cor. at 2423.5' the C.N. $\frac{1}{16}$ s cor. From this point run E. at 2650.5' the N. $\frac{1}{16}$ s bet. sec. 6 + 5 at M + S R.R. + state^{ly} set a 2' x 48" I.M. Witness trees: Jack pine 4" S. 52° E. 44.0' + Jack pine 9 S. $2^{\circ}30'$ W. 34.4'

Feb. 2. Begin at $\frac{1}{16}$ s I.M. on $\frac{1}{16}$ line bet. 6 + 1 + run E. var. $8^{\circ}17'$; at 20.0' plowed field, at 915.0' br. field ent. brush, at 1126.6' temp $\frac{1}{16}$ cor. sta. 1, at 1321.0' fence E + W, at 1813' sta. 2, at 2200' marsh, at 2449.8' int. N + S $\frac{1}{2}$ sta. 3. Begin at this $\frac{1}{16}$ cor. run E. at 32.0' fence N + S, 530.0' br. marsh, 992.0' sta. 4, 1320.0' temp $\frac{1}{16}$ s, 2119.0' sta. 5, 2645.0' int. ~~the~~ $\frac{1}{16}$ s cor. bet. 5 + 6. Thence set 2' x 48" I.M. at S.W. $\frac{1}{16}$ cor. Begin at $\frac{1}{16}$ cor. bet. sec. 6 + 7 + run N. on true $\frac{1}{16}$ line var. $7^{\circ}24'$ at 1320.0' int. $\frac{1}{16}$ cor., at 2641.6' in $\frac{1}{16}$ cor. on E + W $\frac{1}{2}$. Thence run N. var. $7^{\circ}30'$ at 3963.0' int. $\frac{1}{16}$ cor. cen. state road, at 5272.2' int. $\frac{1}{16}$ cor. on Top line.

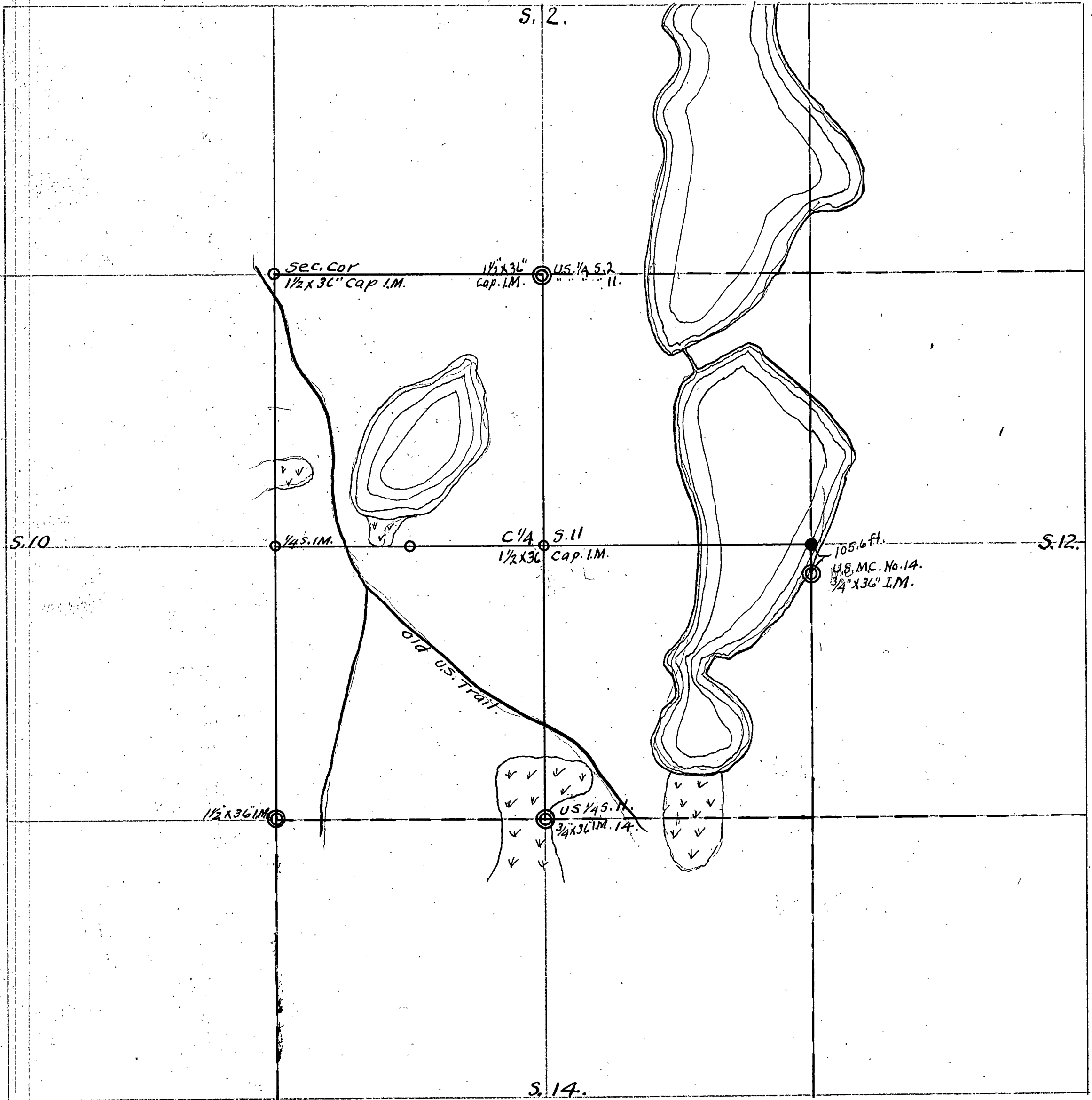
Feb. 3. Set 2 1/2' x 30" I.M. for N. $\frac{1}{16}$ s cor. bet. sec. 5-6. Thence W. on State road 1325.5' + set 2' x 48" I.M. for N.E. $\frac{1}{16}$ s cor. Witness: telephone pole S. 39° W. 42.2'. Thence set 2' x 48" I.M. for E. $\frac{1}{16}$ s cor. bet. sec. 6 + 31 436.3' E. of N.S. M.C. Thence set a 2' x 48" I.M. for M.C. on W. side Pine Mountain lake. Witness tree: Oak 4 N. 45° W. 4.7'. M.C. sets 793.0' E. of Top line. Thence set E.W. $\frac{1}{16}$ s cor., a 2' x 48" I.M. 1117.5' E. of $\frac{1}{4}$ s I.M. Witness: telephone pole W. 44.4'. Thence set 2' x 48" I.M. for S.W. $\frac{1}{16}$ s cor. 1126.6' E. of Rge. line. Witness trees: J. pine 8 S. 54° E. 38.3' + J. pine 10 S. 51° W. 51.7'. Thence

Feb. 7. set 2' x 48" I.M. for E.S. $\frac{1}{16}$ s cor. 1317.7' N. of N.S. $\frac{1}{4}$ s cor. Thence E. to S.E. $\frac{1}{16}$ s cor. an I.M. (2' x 48") 1321.5' W. of sec. line. Witness trees: J. pine 6 N. 46° E. 24.7' + J. pine 6 S. $53^{\circ}30'$ W. 20.0'. Thence set the E.E. $\frac{1}{16}$ s cor. I.M. 2' x 48". Witness trees: J. pine 12 S. 41° W. 60.8' + N. pine 8 N. 50° E. 70.6'. Beginning N. $\frac{1}{16}$ s I.M. bet. sec. 5 + 6 the angles of the state road are as follows: at 1325.5' N.E. $\frac{1}{16}$ s cor., at 1570.3' turn S. 53° E. 533.0'; thence S. 13° E. 829.9'; thence S. $47^{\circ}30'$ E. 191.3'; thence S. 15° W. 879.0' at 178.0' int. N + S $\frac{1}{2}$ 1334' N. of the $\frac{1}{4}$ s cor. Thence W. N. 615.5' int. W. $\frac{1}{16}$ line 31.5' N. of the $\frac{1}{16}$ s I.M., at 1733.3' int. $\frac{1}{4}$ s cor. bet. sec. 5 + 6 on range line. Recorded Jan. 25, 1922 James H. Flynn, County Surveyor, by E. B. Horst, Deputy

C

Twp. 144 N. R. 9 E. 31 W.

Secs. 11-12-14 Secs. 11-12-14.



Fields notes of the retracement survey and subdivision of a part of section 11, of Twp. 144 N. Rge. 31 W. of the 5th P.M. bass County, Minnesota.
Survey for Paul Hesse, bass Lake, Minnesota.

Mar. 23,
1921.

E. B. Horst, with outfit leaves Walker at 6 P.M. for bass Lake on G. N. train.
Board at Boston Hotel.

Mar. 24,
1921.

Equipment: H + B. transit + Burt solar attach. Paul Hesse hires team and two men and we drive to sec. 11, E. B. Horst, Paul Hesse, Emil Koch and John Koch, begin at the 1/4 sec. corner between secs. 2-11 previously set by me from the U.S.B.P. and permanently marked by a 1" X 36" capped I.M. which we find lying by a nearby tree and was evidently pulled up by some one for malicious purpose, from which we run S. 2-24' E. on a random 1/4 sec. line as follows: at 1319 stake 2 ft. N. of line, at (1051 a hub.) 1796 hub, 2328 hub. 2354.6 wire fence, 2659.5 hub. 4310.0 Road NW. SE. 4792.0 hub on pine ridge + 850 ent. swamp. At 5277.0 ft. S. a wood stake at the 1/4 sec. cor. between secs. 11 + 14 sets E. 82.0 ft. True bearing of N. + S. 1/4 line = S. 3-17' E. At this corner I find the stump of the U.S.B.P. Tamek. 4 North 87 links which has the B.P. mark left on a splinter which is broken loose and which is nearly separated from the stump. I also find a new B.P. made by some other surveyor which is: Tamek. 9 North 11.5 ft. and was marked 16 years ago according to the growth over the marks. I set a 3/4 by 36 in. Iron pipe in place of wood stake.

Mar. 25.

Same crew, begin at the 1/4 sec. ^{corner} 10 + 11 previously established by me and marked by a flat iron bar which I pull up and set in its place a 1 1/2" by 36" Iron pipe (capped) from which I run N. 87-26' E. on a random 1/4 sec. line thru sec. 11 at 600 ft. E. old road N. 20 N + S 30 E. 850 ent. swamp, at 1010 leave same. 1012 N + S. fence (wire) 2632 P.I. hub on N. + S. 1/4 line at 2495.4 S., N.W. < = 90° 10'. Sec. 11, 144 = 31. Page # 2. 4080 Intersect lake. 5400 ft. E. set a hub on Ice near E. side of lake. Count for 1/4 sec., cor. between sections 11 + 12 falls in lake. I look for M.C. No. 14 which is 160 links S. of the 1/4 S. cor. I find the Norway Pine N. 12 E, 70 links which is still green and bears all the scribe marks from which I set the M.C. a 3/4" X 36 inch iron pipe. From M.C. No. 14 I chain N. 105.6 ft. and set a point on ice for the 1/4 sec. cor. From this point I chain to hub at 5400 ft. E. distance equal 352.0 ft. True bearing of the same E + N. 1/4 sec. line equals S. 88-55' E.

Mar. 27.

Same crew correcting points from random lines to true lines. For the E. 1/4 sec. corner of sect. 11, I chain from P.I. hub S. 176 ft. and E. 41.0 ft. and set a 1 1/2" by 36" capped iron pipe from which a fence post bears S. 80 E. 3.8 ft. For the C.W. 1/16 sec. corner I set a well pointed 30 inches long 88.0 ft. S. of station 1336.4 ft. E. We return to bass Lake and I return to Walker via Bemidji. At bass Lake I received from Paul Hesse a check for \$8.83 (the total cost of the survey) which I endorsed and which he had cashed at the Boston Hotel, and paid me 23.80 and kept the rest to pay the other Expenses. This was a peculiar transaction and I have recorded it here for that reason, as he could claim that I was to pay all the help from the check and also that I received the full amount of the check.
Recorded March 30, 1921. By James Flynn, County Surveyor, by E. B. Horst, Deputy.

560.2

C

Report on survey and location, and establishment of roads in Districts one (1) & two (2), Township of Rogers, (142-27), Cass County, Minnesota

In district No. one (1)

Beginning at north quarter - post section 22 said Town, which was:

Elm 6 N. 50 E. 25 lks.

Now is: - Same: But by a recent Government survey I find an iron monument with copper cap & inscribed "U. S. Government Land Office survey; Penalty for removal ^{#250}; 1/45. 15, 1/45. 22," in stead of post I make new bearings for this point to-wit:-

Balsam 5 S. 15 E. 27' 2" ft.

Aspen 12 N. 45 E. 22' 2"

Then ran random line east; at 1320' set stake; at 2676' corner to sections 14-15-22 and 23, said Town which was: - Fir 55. 66 E. 13 lks

Maple 4 N. 74 E. 14"

Birch 95. 35 W. 28"

Birch 7 N. 55 W. 36"

Now is: Maple standing

both birches blown down all with the marks on; the fir is obliterated.

made following new bearings after putting down iron mon. 30" + 2 1/2"

Rid ~~rod~~ 16 N. 18 W. 42' 8"

Basswood 12 N. 18 E. 45' 2"

as the said random line passed 1' 6" south of this said sec. corner, I determined this as the established line for road, continued line on east at 1320' set tem. post, at 2623 ft. then N. 58 W. 59' 7" ft. to 1/4 S. to sec's 14 and 23 aforesaid, one deg. and 18 min. for correction, and this distance 2622' this 1/4 S. I placed from original bearings in 1915 and is of record, being in the centre of a road established and partly constructed leading east and south. I put down an iron monument at or for this 1/45. 20" + 2" with head (it is a "king bolt" used in a "logging sleigh").

Then ran correct line west from this 1/4 S.

Stations

0 or zero 1/4 S. sec's 14-23 - said Town

2 + 30 wagon road north and south

5 Culvert

13 + 11 1/4 S. 14-23.

16 Culvert

24 + 70 wagon road north-east and south-west

26 + 22 section corner to sections 14-15-22 and 23 aforesaid

34 + 60 Culvert on old logging road

39 + 81 1/4 S. 15-22 wagon road N. and S. Wesslen's 200' N.

bearings for this post: - balsam 4 N. 36 E. 30 ft.

birch 16 S. 41 E. 34"

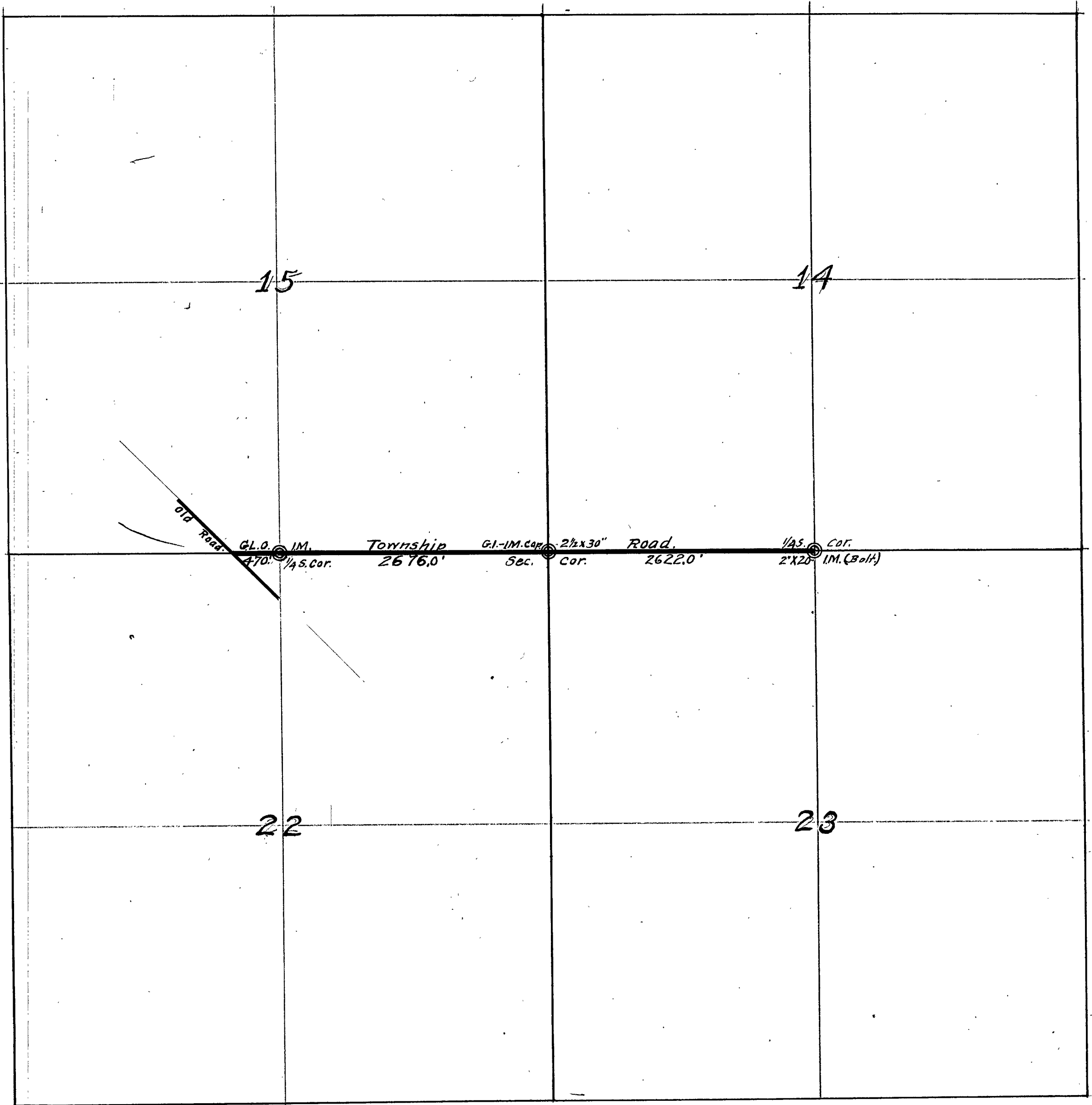
40 enter Tamarac and cedar swamps

C

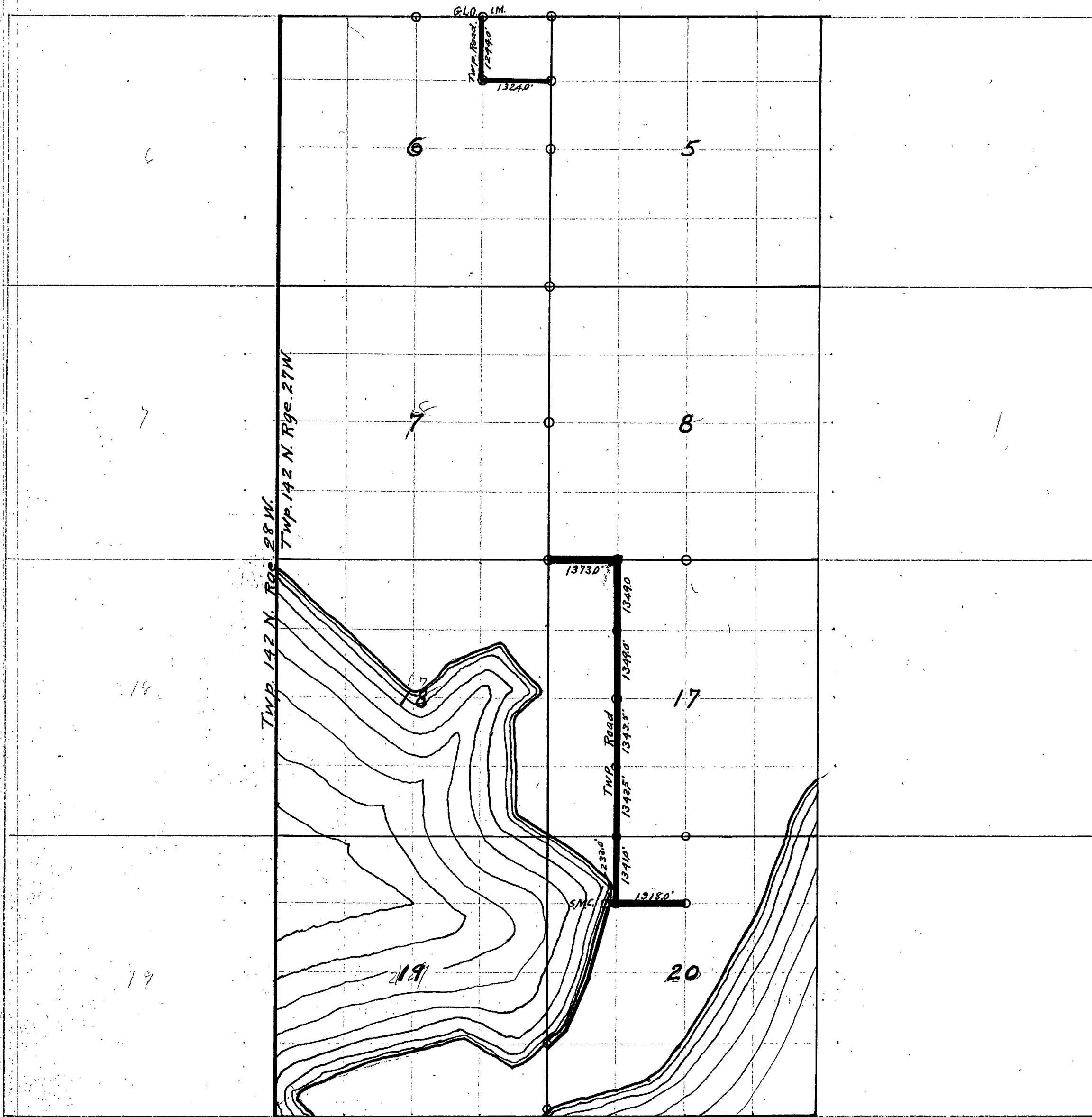
142-27

Survey Record # 462-433
Flat #1

Twp. 142 N., Rge. 27 W.
Sections 14-15-22-23



C



O Denotes I.M.s. set by U.S. G.L.O. Survey.

46+18 culvert on old winter road - drain south

51 leave Tamarac and cedar swamp

53 $\frac{1}{4}$ S 15 and 22 aforesaid,

Then continued said road survey 180 deg. west.

57+71 Wagon road North-west & South-east. End of this survey

Survey began July 28, 1919 and ended Aug. 2 at noon 1921
said road to be 7 rods wide and 5,771 ft. in length.

reasonably heavy hardwood timber the entire length, except
1,100 ft. in Tamarac swamp which is small Tam. & Cedar.

Roads in sections 6, 17, and 20 also ditch in section
8 District number two (2) said Town

Beginning at the corners of sections 7-8-17 and 18 which is iron
monument set by recent Government survey, in correct place as
I set this corner from original Gov't survey in 1915. Then east
thro' cultivated field; at 1375' then north 24 ft. to $\frac{1}{16}$ corner
established by recent Gov't survey; one deg. for correction
returned to N. W. cor. sec. 17 aforesaid and established true
line and stations to-wit:-

0 or zero said sec. corner

3 Obj Anderson's house 60' south wire fence 5' N. along line

4+60 leave cultivated area and wire fence and enter timber
and brush

5+44 culvert:

13+3340' west of $\frac{1}{16}$ cor. S. 45° E. 58' to north and south west $\frac{1}{16}$
line sec. 17; Then beginning at $\frac{1}{16}$ cor. no. 9 said sec.

17 started south $7^{\circ}30'$ and $\frac{1}{2}$ deg. east in an attempt to
follow a line cut out by the recent Government survey aforesaid
but I find that this process develops into a full fledged
random line; at 1320 feet (then) which is 11' 2" W and 20' S. of
Government Iron monument meant for this $\frac{1}{16}$ cor. (c) sec. 17
continued on south 180 deg. at 2640' was 19' 4" east and 14' N. of
Gov't $\frac{1}{16}$ (d), at 3960' was 29' N. and 36' 2" east of Gov't $\frac{1}{16}$ (h)
at 5280' then S. 45 west to Government I. N. (14) said sec. 17

Q deg. 30- ' for correction. Then returned to I. N. No. (9)
and run true line also stationed to-wit:-

13+91 on $\frac{1}{16}$ line and 40 ft. south of said (9) said sec. 17

22+45 culvert

26+98 I.M. set by recent Gov't survey aforesaid 0' 4" east,
1300'

40+47d I.M. set by recent Gov't survey 1314' on line south of (E) or -
46 culvert 26 14' south, on line, from (9)

47+16 I.M. set by recent Gov't survey $\frac{1}{32}$ cor. and marked as before
with the following: In 1374, A.P. 4, A.P. 1, 1301-S. 174' East of line

48+70 culvert

53+84 $\frac{1}{16}$ I.M. Gov't (h) 1365' to (d), 3979 to (9) 4' East of line

59+18 culvert

67+20 Gov't $\frac{1}{16}$ S. (14), 1366' south of (h), 5325 south of (9)

Then into section so said Town beginning at (9) for S. 20 - (14) S. 17
 then 9 to e, ran random line and at a point 1341 ft south of 9
 2 ft. west of Gov't $\frac{1}{16}$ 2 M, I called this line established; then
 sta. 67+50 culvert
 76+50 large culvert (ravine)
 80+61 (e) Gov't 2 M, 40 N. of this 80+21 S. 45 E.
 56 ft. to $\frac{1}{16}$ line. e to a sta. 80+77
 angle at 9178 west, angle at e $91\frac{1}{2}$
 85 Culvert
 93+06 a Gov't 2 M 1318 ft east of the e and end of this
 road. Then went to E and run 180 west to MC, 233 ft to Lakeshore
 then went to station 80+21 then S. 45 W. 55 ft to $\frac{1}{16}$ line sta.
 0+55
 2 Culvert
 2+21, 27 ft. east of Me, then S. 42 W. to Lake shore (sand beach) 50'
 2+71 S. $5\frac{1}{2}$ W. 321 ft. along said beach
 592 S. $11\frac{1}{2}$ W. 539 ft. " "
 11+31 S. 19 W. 543 ft. " "
 16+74 S. 26 W. 701 ft. " "
 23+75 S. 29 W. 594 ft. " "
 29+69 S. $33\frac{1}{2}$ W. 84 ft. " " to MC 26 2 M set by
 S. 30+53 end recent Gov't survey! This later road is
 known as 'Lake shore road' and the one thro' 17-20 the
 Shophell road!
 Began survey of 'Shophell road' Aug. 3, 1921 and finished
 Aug. 10, 1921 at noon; then began the Lake Shore road at
 noon and finished that day.
 Aug. 11, 1921 began at $\frac{1}{16}$ (Gov't 2 M) No. 11, section 6 said
 Town then S. $88\frac{1}{2}$ W. to f 1324 ft. to Gov't 2 M.
 this 2568 ft. of road is "brushed out" and grubbed
 all these roads are to be 4 rods wide except the Lake Shore
 on the beach.

463

C

July 18/21

Field notes of the resurvey and subdivision of Sec 17 Twp. 140 N. Rge 30 W. 5 P.M.

E. B. Horst, engineer in charge under contract of June 8, 1921, with E. O. McPherson, Chairman, drive to sec. 17 and erect a tall pole at cor. to sec. 8-9-16-17 an F.M. previously established from U.S. B. to range transit in line on S. side of state road with the S.E. cor. of sec. 17, also, previously established from U.S. B. to and U.S. W. C. to sec. Cor. I then relocate point for the W 1/4 sec. Cor. bet. Sec. 17 & 20 from my own notes of a previous survey of the W 1/4 line. This cor. was marked by an S.M. for 10 years but was obliterated by road construction.

July 19

Horst, McPherson, Bartlett, and Hans Jensen dig for the I.M. at W 1/4 sec. Cor. bet. sec. 17 & 20 which we find 1 ft. under road bed. W 1/4 cor. sets 1323.8' E. of sec. cor. At 2638.8' set temp. 1/4 sec. cor. This I.M. was pulled up when State road was under construction. At 3950.0' set hub. We go to S.E. cor. sec. 17 and run true sec line N. (ranged in bet. cor.) At 325' E. state road bears N. 60° 30' E.

" 451' N. temp M.C. S. of lake = triangle hub A. sight over lake, set point B on line.

At 1534.5' set temp S 1/4.

" 2200.0 Ent. hwp.

" 270.00 Lv. "

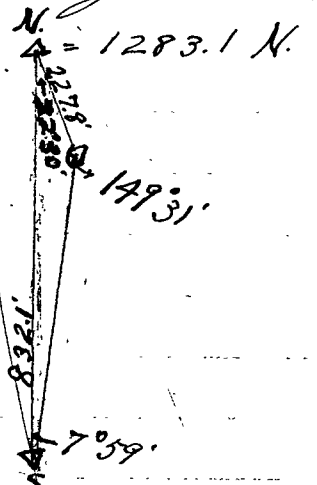
" 2063.5 set temp 1/4 S.

" 4199.5 temp N 1/4

" 5292.0 Intersect I.M.

True cor. to sec. 8-9-16-17

Sta. 256.0 N.



July 20

From the cor. 8-9-16-17 I run a random line N. S. W. L. to E. boundary = 92° 15'. At 1317.0' W. fall 25.0' N. of the E. 1/4 S. cor. correction = .019 per. ft. tan. of 1° 05'.

We go S. to sta. 3969.0' N. and set a hub at the true N. 1/4 cor. between sec. 16-17 from which I turn N. W. L. 85° 56' and run W. thru sec. 17 on N. 1/4 line. At 1309.4' fall 7.7' N. of I.M. on true E. 1/4 line previously surveyed.

At 1520.0' S.M.C. on E. side small lake

cross over lake, S.M.C. = 0.00' W.

" 877.3 set hub. temp. C. 1/4

" 1150.0 Ent. field

" 1930.0 County road N. & S.

" 1980.0 S.M.C. E. side of lake

I sight across lake and set P. 1. on sec. line 2.1' S. of N 1/4 cor. We return to 1/4 S. cor. bet. sec. 16-17 and set hub for temp. cor. at 2646.0' N. From this cor. I run N. on 1/4 S. line (N. W. L. = 89° 02') At 735.0' set S.M.C. on E. side of small round lake. I set S.M.C. N. side of lake. S.M.C. = 0.00' W.

At 343.0' hub N. side of fence in open field.

Survey Record No. 464.

at 600.0' cross fence
 " 1225.0 hub on S side of fence
 " 1400.0 set temp pt. c. 1/4 s. - S.M.C.

July 21 Continue 1/4 s. line W. Set temp S.M.C. W. side of lake
 S.M.C. = sta 0.00' W

At 575.0' E of N + S. County Road on W. 1/4 line previously est.
 " 1225.8 set S.M.C. on E side of a lake extending into
 sec 18. A sight across lake to S.M.C. on E + W E of sec
 18 and fall 0.9' S. of same. A small correction must be
 computed for determining the true E. of sec 17 due to the
 difference of bearings of the two E.s.

We go to sta. 1325.0' W on sec line bet sec. 16-17 where
 we set a wood stake for the true S. 1/4 cor from which
 I run W. thru sec 17 on S. 1/4 line;

At 1304.2 set hub (3.0' W of fence)
 " 2600.0 set hub Temp. c. S. 1/4 cor.

July 22 Continue S. 1/4 line W.

At 3533.5 set hub
 " 3572.0 E county Road
 " 3600.0 set temp S.M.C. E of lake

At West side of lake set S.M.C. = sta 0.00' W

At 700.0 set hub
 " 900.0 int. small lake
 " 1050.0 leave lake

" 1102.0 fall 1.2' N of the S. 1/4 s. cor. bet. sec. 17-18

We go to the 1/4 s. cor between sec. 17-20-140-20 and
 reset the I.M. to its true position from the Highway
 Engineer's notes and J. M. Curis new B.T.s which are
 standing green and which stand as follows from the
 true 1/4 s. cor as reset; Var 8°45'

Hon Pine 15 N. 68°15' E. 81.5 ft.
 Jack Pine 10 S. 18°25' E. 35.3 ft.

With transit on 1/4 s. cor I back-sight W. on Sec cor
 and run E. to the sec. cor. 16-17-20-24 and fall 16.4 ft.
 N. of cor. Deflection \angle at 1/4 s. cor = 0°22' R. on true line

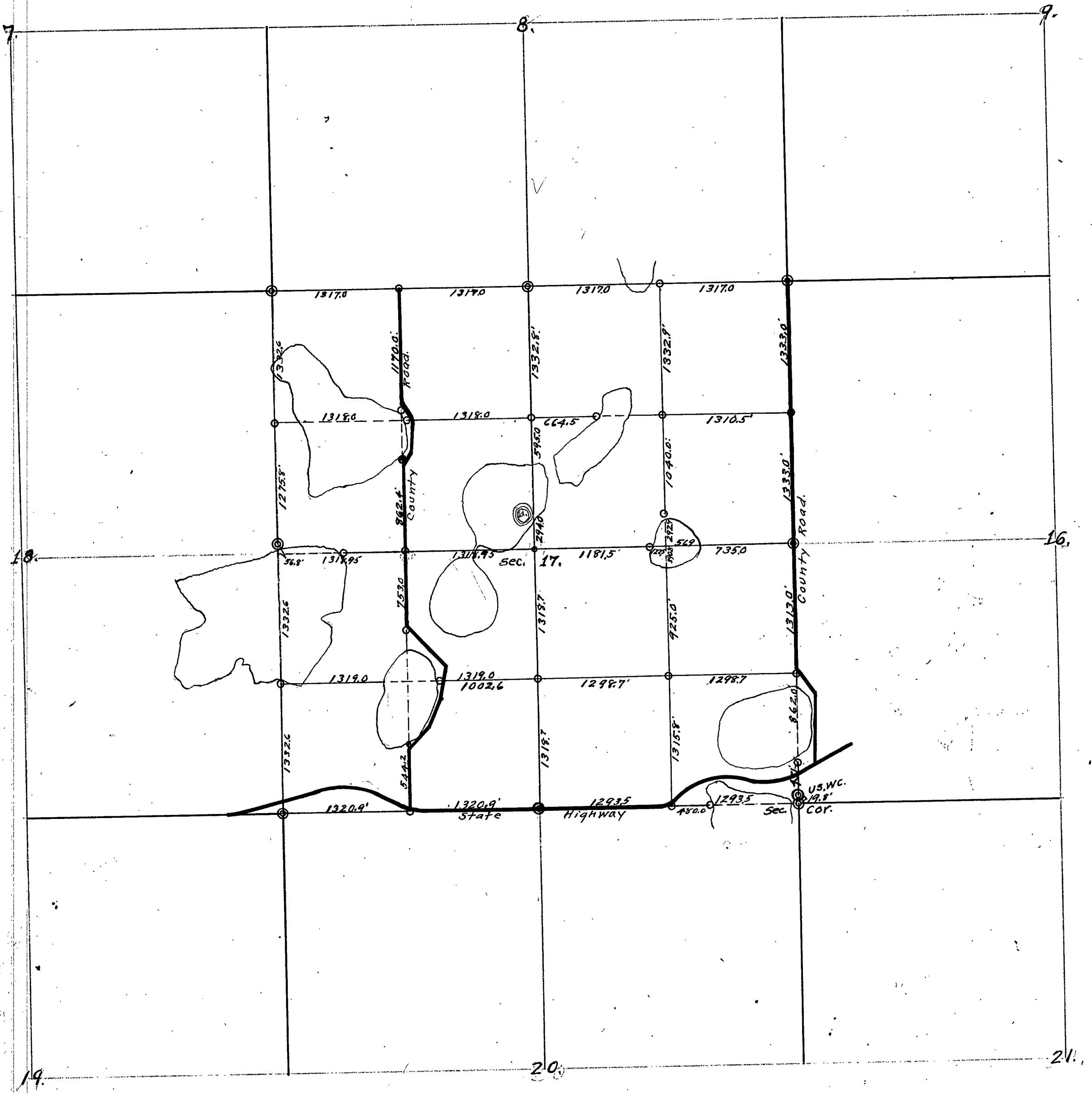
July 23 With transit on 1/4 s. cor I set a sight W. to sec. cor. and
 turn N. W. \angle 89°01' and run N. on E.

At 1319.0 int. the S. 1/4 random line at sta. 2595.7 W.
 " 2646.4 P.I. on E + W E at sta. 1189.0' W of lake
 " 2930.0 int. lake W. side of lake = sta. 0.00' W.
 " 600.0' W P.I. on S. 1/4 line at sta. 672.0' W of lake
 P.I. = 0.00

At 1329.0 fall 10 ft N. of the 1/4 cor. sec. 8-17
 This I.M. was previously set by me and new B.T.s
 but the I.M. has since been pulled up by some one.
 I measure from B.T.s and find the hole where
 the I.M. was previously set. We look for the I.M.
 but cannot find it. Set hub in place of same.
 Both B.T.s are in good shape and have ticks in
 bottom blaze. We set the I.M. at the E. 1/4 s. cor bet

14030

5 SECS 35 SECS.



sec. 17-20 which was pulled up by construction men
1/16 s. cor. sets 1293.5 E. of 1/4 s. cor. New B. T. as follows;

Oak 6" N. 56° 45' W. 90.8' } Var. 8° 45'
Jack pine 8" N. 89° 15' E. 83.3'

July 28
July 29

Horst, Bartlett, and McPherson set I.M.s in sec. 17.
Set I.M.s on meanders. We set 1/4 s. bet 8-12, C.M. 1/16, N.E.
1/16, S.M.C. N. of lake, and wood stake S.M.C. E. of lake on
N. 1/16 line and W. of N.E. 1/16 cor. From this stake take
stadia lines as follows:

Brg.	Dist.	Brg.	Dist.
N. 7° 00' W.	180.0'	S. 60° 00'	1080.0'
N. 43° 00' W.	410.0'	S. 48° 00'	1230.0'
N. 67° 00' W.	450.0'	S. 43° 00'	840.0'
S. 75° 00' W.	460.0'	S. 38° 00'	700.0'
S. 69° 00' W.	720.0'	S. 42° 30'	340.0'

Meanders of lake at C.E. 1/16 cor. C.E. 1/16 cor. falls in
W. end of lake: N. 21° 00' E. 314.0' to S.M.C. on E. 1/16 line
N. 69° 30' E. 680.0'
S. 89° E. 780.0' S.M.C. E. of lake (stake)
S. 30° E. 450.0'

Meanders of lake on N. + S. E. with transit at sta.
2930.0' N. on E.

N. 59° E.	120'	S. 66° W.	740'	outlet bet lakes
N. 8° E.	380'	S. 56° W.	620'	
N. 17° W.	580'	S. 58° W.	350'	
N. 41° W.	710'	S. 60° W.	75'	
N. 88° W.	680'	N. 88° W.	200'	to S.W. cor island
S. 70° W.	800'	N. 44° W.	225'	to N.E. cor "

From a point on E. + W. E. on W. side of lake = sta 0.00'
transit on 0.00' right as follows:

S. 52° E.	470'	S. 37° W.	470'	
S. 33° E.	720'	S. 60° W.	140'	
S. 13° 30' E.	730'	South	20'	
S. 7° 30' W.	780'	S. 60° E.	60'	to therofare
S. 76° W.	710'			

With transit on S.M.C. E. of the S.W. 1/16 cor. thence:

N. 18° W.	410'	S. 42° W.	820'
N. 39° W.	470'	S. 25° W.	780'
N. 67° W.	460'	S. 15° W.	770'
S. 60° W.	640'	West	70'

Meanders of lake on E. side of sec. 17 S. of S. 1/16 s. cor.
Transit on M.C. on S. side of lake thence:

N. 40° W.	920'	S. 69° W.	460'
N. 72° W.	880'	S. 53° W.	200'
West	820'	North	10'

Survey Record No. 464.

C

July 30

Meanders of lake on S. boundary sec. 17 W. of the S.E. cor. sec. 17. Transit on pt. 98.0' W. of Sec. cor.

N. 42° W. 170'

N. 76° W. 840'

S. 89°08' W. 740 to M.C. W. side lake. M.C. is at station 1750.0' E. of 14 S. cor.

Meanders of lake in center of N.W. 14 sec. 17

Transit on S.M.C. S. side of lake:

N. 7°30' E. 470'

N. 19° W. 680'

N. 33° W. 660'

N. 38°30' W. 1000'

N. 40°30' W. 1620'

N. 54° W. 1680'

N. 55° W. 1440'

N. 63°30' W. 1340'

N. 68° W. 1400 to N. 116 S. cor.

N. 84°30' W. 1000

S. 76° W. 1080

S. 77° W. 880

S. 67° W. 660

S. 57° W. 370

S. 35° W. 130

N. 10° E. 300

B.F. to C. 14 sec. 17

Fence post N. 48° E. 237'

Tamarac 5 S. 43° E. 76.3'

Meanders of lake in N.W. 14 of S.W. 14 sec. 17. Transit on E. shore of lake N. 53°20' E. 680.0' of the S. 116 Sec 17-18

S. 38° W. 500'

S. 35° W. 300'

S. 37°30' W. 220'

N. 33° E. 160'

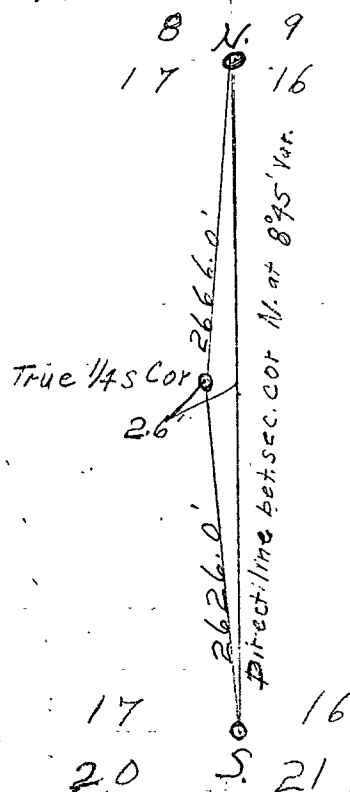
N. 11° E. 380 = point (Bay on N.E. side)

N. 11° E. 620 = N. side of bay running E.

N. 14° W. 950'

N. 29° W. 1120 to M.C. Sec 17-18

Horst, Bartlett, and McPherson with C. Gilia as a witness examine the stump of a Norway pine, 23" diam for evidence of its having been the N.W. B.F. in the original U.S. survey. This tree was cut by Gilia who did not see any marks on it but Gilia had worked as axeman for Roy Bryant, Nov. 24, 1914, when Bryant found the tree to be a U.S. B.F. and used same to reestablish the 14 S. cor. 17-16. We cut into stump and find U.S. scribe marks in perfect condition. We set a 2" x 48" l.M. from this stump at true 14 S. cor.



Recorded Jan 24, 1922,
James H. Flynn,
County Surveyor.
By E. B. Horst,
Deputy.

F.B. 177.

Field notes of the resurvey and subdivision of sec. 30 & 31

- Sup. 141 Rge. 31 W. of the 5th P.M.
 Apr. 11, 1921. E. B. Horst drives from Walker to Poncelet's place in N. W. 1/4 of sec. 30, 141-31 to begin survey of sec. 30-31 same Twp. I begin at a 2 1/2" x 48" capped I.M. at the N. W. cor. sec. 30 which was set by Hubbard Co. Surveyors from H. B. F. S. With fol. crew: Joe, Mike & Mike go Poncelet, Arnold Nelson, Char. Foelshow run S 1° 01' W on a random Rge line of sec. 30 without chaining. We cut 1 mi. of line and quit for night. Using Keller & Brightly transit with Burt solar attachment.
- Apr. 12. Horst & same crew chain S 1° 01' on random Rge line sec. 30. At 1320.0' set temp. point, at 2640.0' set temp. point, at 3650.0' ent. marsh, at 3800.0' leave marsh, at 4513.5' hub on high hill, at 5289.3' set hub, 2 1/2" x 48" I.M. (capped) set L. 94° 35' - 137.6', at 5300.0' the I.M. set the S. W. cor. of sec. 30 sets E. 137.2' from this cor. I run S 0° 18' E on a line previously run by E. A. Fodd, Hubbard Co. surveyor. At 1276.0' an old fence cor., at 1316.2' a 3/4" x 18" I.M. sets W. 6.6' - N. 116.3' cor., at 2632.4' a wood post at the 1/4 S. cor. sets W. 13.2', at 3790.0' road bears W. & S 30° E, at 4000.0' set stake, at 4052.0' ent. pond, at 4212.0' lv. pond, at 4700.0' lv. clearing, at 5112.0' a 2 1/2" x 48" I.M. sets W. 23.0' - W. E. 165.0' N. of the S. W. cor. sec. 31-141-31 W. E. sets on N. side of small pond True Twp. cor. (a wood stake) sets on S. side of pond in a bog, at 5277.0' S. the Twp. cor. sets W. 24.0' from this cor. I run N. 69° 10' E on random S. boundary sec. 31 (10th Stan. Parallel) and set a point on E. side of bog. I sight on Twp. Cor. and turn R. 21° 56' to I.M. at W. E. Base = 165.0' Distance E. to point = 409.7' Continue E. 1/4 mi. and quit for into.
- Apr. 13. E. B. Horst & same crew cont. E. on S. side of sec. 31. At 409.7' point on E. side of bog, at 705.0' fence N. & S., at 712.5' hub, at 722.0' E. of Ahely & Ten Mile Road, at 900.0' ent. bog 20.0' above Howard Lake. at 1000.0' lv. bog, at 1206.6' hub, 1257.0' an old stake sets N. 7.0' at 1320.0' set temp. N. W. cor. of 140-31, at 1848.0' set temp. N. 116 cor. sec. 31-141-31, at 2296.3' set hub, at 3168.0' set stake marked 3168.0' E. T. 1/4 S., at 4488.0' set temp. E. 116 cor., at 5808.0' set temp. sec. cor. We make a thorough search for sec. cor. and witness trees but find nothing.
- Apr. 14. E. B. Horst and same crew go to the original N. S. sec. cor. of sec. 30 29-30-31-32 where we find a wood post set by Guy Fodd. and three stumps N. W. - S. W. - & S. E. trees. The stump of the N. E. tree is obliterated except roots. We run a picket line S. along a blazed line and cut S. to the random Twp. line but do not chain this line today. I leave for Walker to ans. to a subpoena for April 15, 1921.
- Apr. 26, 1921. E. B. Horst, Joe, Mike, & Michael Poncelet resume survey of sec. 30 & 31 - 141-31. We begin at the sec. cor. to sec. 31 ²⁹¹³⁰ and back-sighting on random line bet. sec. 31-32 I turn L. 7° 15' and run N. (Var. = 11° 15' E). At 904.5' set hub, at 1320.0' set stake mhd. 1320.0' N., at 1606.1' set hub, at 2070.0' cent. of Howard Lake & Lothrop's wagon trail bears N. W. & S 70° E, at 2640' set stake, at 3032.5' set hub, at 3303.4' set hub, at 3960.0' set stake, at 4800.0' hub, at 5335.0' cen. of road E. & W., at 5350.5' set hub on sand ridge.

Survey Record No. 465.

Apr. 27, 1921. C. B. Horst + same crew make a thro search for the cor. and B.F.s of the N.E. cor. of sec. 30 but find nothing but cruiser's marks and they seem to have a great difference of opinion. I decide to run the line bet. sec.s 19-20 to get a better idea of where to look for the above cor. We walk N. and look for the 1/4 s. cor. bet 19-20 but find nothing. We go N. to cor. of 17-18-19-20 where I find the original cor. stake and the N. pine stump. Stump of the N.W. tree showing blaze - the S.W. + S.E. trees - marked. From this cor. I run S. at 2640.0' look for 1/4 s. which is gone, at 5000.0' cross road, at 5023.8' set hub. From this hub turn R. $62^{\circ}04'$ and sight on hub 5350.5' N. on random line bet. sec.s 29-30. Dist. = 266.4'; angle at this point = $67^{\circ}41' L$.

Apr. 28. We look again for evidence of the cor. to sec.s 19-20-29-30 but are unable to find anything that is sufficient to establish a sec. cor. from. I decide to establish this cor. by proportion and therefore I produce the random line bet. sec.s 19-20 S. to sta. 5237.8' and set a hub which is equidistant from cor. of sec.s 17-18-19-20 + 19-20-29-30. From this point I run E. to cor. of sec.s 20-21-28-29 where we make a thro search for cor. and accessories and find the cor. is obliterated. At 5138.6' E. set hub, at 5280.0' set stake.

Apr. 29. We go E. to cor. of sec.s 21-22-27-28 which was established in the fall of 1920 from the three stumps and one snag of the original B.F. which we find in same condition they were last fall. We also find an oak stake at true position from which I run W. At 5341.0' W. I turn R. $41^{\circ}57'$ and run 228.5' to hub 5138.6' E on random line bet. sec.s 20-29 and from this line turn angle $L 43^{\circ}09'$ and sight W. on random line. Total distance from hub near cor. of 19-20-29-30 to cor. of 21-22-27-28 is 10628.3'. The 1/4 s bet sec.s 20-29 + the 1/4 s. bet sec.s 21-28 are entirely obliterated.

Apr. 30. We take another look for cor. to 19-20-29-30 and find nothing as before; I take crew all but M. Poncelet Jr. and run transit over E. line of sec. 31 and chain same. P.I. is at 5749.7' E. on Random standard parallel = Sta. 0.00' N. N.W. $\angle = 90^{\circ}14'$. At 147.0' N. the S.E. cor. sec. 31 sets E. 280.0'; at 725.0' ent. tan. swamp, at 890.0' lve. tan. swp., at 901.0' set stake, at 1020.0' ent. marsh, at 1270.0' lve. marsh, at 1320.0' set stake, at 1586.5' set stake, at 2197.0' set stake, at 2585.0' ent. marsh, at 2640 set stake, at 2880.0' lve. marsh, at 3016.0' set stake, at 3435.0' trail, at 4000.0' set stake, at 4900.0' bottom of deep ravine, at 5172.0' hub on high hill, at 6139.0' hub on highest hill, at 7346.6' the cor. to sec.s 29-30-31-32. I return to Walker for over Sunday and to get some notes on Hiram Twp. to check up on S. boundary of Twp 141-31.

May 2. Beginning at the N.W. cor. sec. 30 on county line I set transit over I.M., sight S. on random line and turn S.E. angle $110^{\circ}39'$ and run random line N.E. bet. sec.s 19-31 (needle reads $28^{\circ}45'$). At 850.0' hub, at 1336.0' road N.W.-S.E.,
(cont. to page 452)

Survey of Road in 134-29. Bell's Petition

Sta. 0 = Cor 5-6-31-32 on S. Line of 134-29.

26+31 opposite I.M. supposed to be $\frac{1}{4}$ Cor. between 5-31
Random Line 29.5' North of Corner.

53+16' = 2' North of Random Hub set by Curo = 8513.5 in his survey.

53+36 = Hub

Turned \angle N. $90^{\circ}38'W$ and ran North on R. Line calling

Sta. 53+36 on E.&W. line Sta. 0 on N.&S. line

27+50 set Hub A. Sighted across Lake and set Hub = Sta B.

\angle N. by W. $28^{\circ}36'$. Ran 833' and set Hub.

\angle N. by E $101^{\circ}07'$ Ran 520' to Hub B. on R. Line

\angle N. by W. $50^{\circ}17'$ and continued North on R. Line

1064' = computed distance across slough

Sta. 38+14 = Sta. B.

54+51 = Hub.

Sec. Cor 28-29-32-33 \angle $95^{\circ}25'$ S. by W. 42.7' to Cor. Stone Mon. set by Phillips

Set New Bearing Trees as follows J. Pine 8" $5.75^{\circ}E$ 158"

Oak 11" $N.88^{\circ}W$ 87.5'

Continued on North calling 54+51 sta. 0

$\frac{1}{4}$ Cor. 28-29 At sta. 2643 \angle S. W. $88^{\circ}43'$ 22.7' to $\frac{1}{4}$ Cor. set from old B.T.s, now burned out

Set New B.T.s as follows: Old B.T. N. Pine 20" $N.68^{\circ}W$ 81ks

N.P. 7" $5.70^{\circ}E$ 19.9'

N.P. 7" $5.60^{\circ}W$ 35.0'

Continued on North calling Sta. 2643 Sta. 0

At sta. 2632 Iron Mon. for Cor. 20-21-28-29 sets

$5.86^{\circ}24'W$ 40.9' No trees near.

\angle 90° from R. line and ran East, chaining from I.M.

At 5300 looked for Sec. Cor. Bell tells us he remembers this corner and that a couple pine trees blazed were made to preserve the location.

Found the trees he mentions, but am not entirely convinced. As we have to run the East line of sec. 28 decide to wait till this is run before we put in the monument. Run South

Sec. Cor. 27-28-33-34 \angle 90° 5240 to Hub \angle $5.84^{\circ}20'W$ to Cor. 78.5' Set a new stake in place of old one. A N.P. 20" stands N.E. - scribed.

$\frac{1}{4}$ Cor 27-28 With the help of Cale, I find the $\frac{1}{4}$ Cor. between 27-28 with one B.T. in good shape. Drive an I.M. which sets $5.91^{\circ}45'W$ 23.0 from sta. 2605.4'

Run North on R. Line from E.&W. R. Line.

2700 set Hub,

27 21.4 S. edge of Gull River.

Cor. 15-16-21-22

53 29.0 Cor. stake sets W.O.B.

At this point we run into the Parker Waite Road.

Cor. 21-22-27-28

Correct the lines where the Road runs, by setting an I.M. where Bell claimed it formerly stood. Set New B.T.s as follows

Cor. sets 3.5' W. and 28' N. of R. Cor.

N.P. 14" 83.5' $5.45^{\circ}W$.

J.P. 4" 93.5' $N.42^{\circ}W$.

J.P. 12" 60.0' $5.25^{\circ}E$.

Survey of Road in 134-29 - Bell's Petition

Sta 0 = Cor. 5-6-31-32 on S. line of 134-29

26+31 opposite 1M supposed to be $\frac{1}{4}$ Cor bet 5-31

Random line 29.5' North of Corner

53+16 = 2" North of Random hub set by Curo = 85-13.5 in his Survey

53+36 hub.

Turned \angle N $90^{\circ}38'W$ + run North on R. line calling Sta

53+36 on E+W line Sta. 0 on N+S line

27+50 set hub A sighted across lake to hub = Sta B

\angle N by W $28^{\circ}36'$ Ran 833' to alt hub

\angle N by E $101^{\circ}07'$ Ran 520' to hub B on R. line

\angle N by W $50^{\circ}17'$ and continued N on R. line

1064 = computed distance across slough

Sta 38+14 = Sta B.

54+51 = hub

Sec Cor - 28-29-32-33 \angle $95^{\circ}25'$ S. by W 42.7' to cor

Stone mon. set by Phillips

Set new Bearing trees as follows

JPine 8" S $75^{\circ}E$ 15" 8

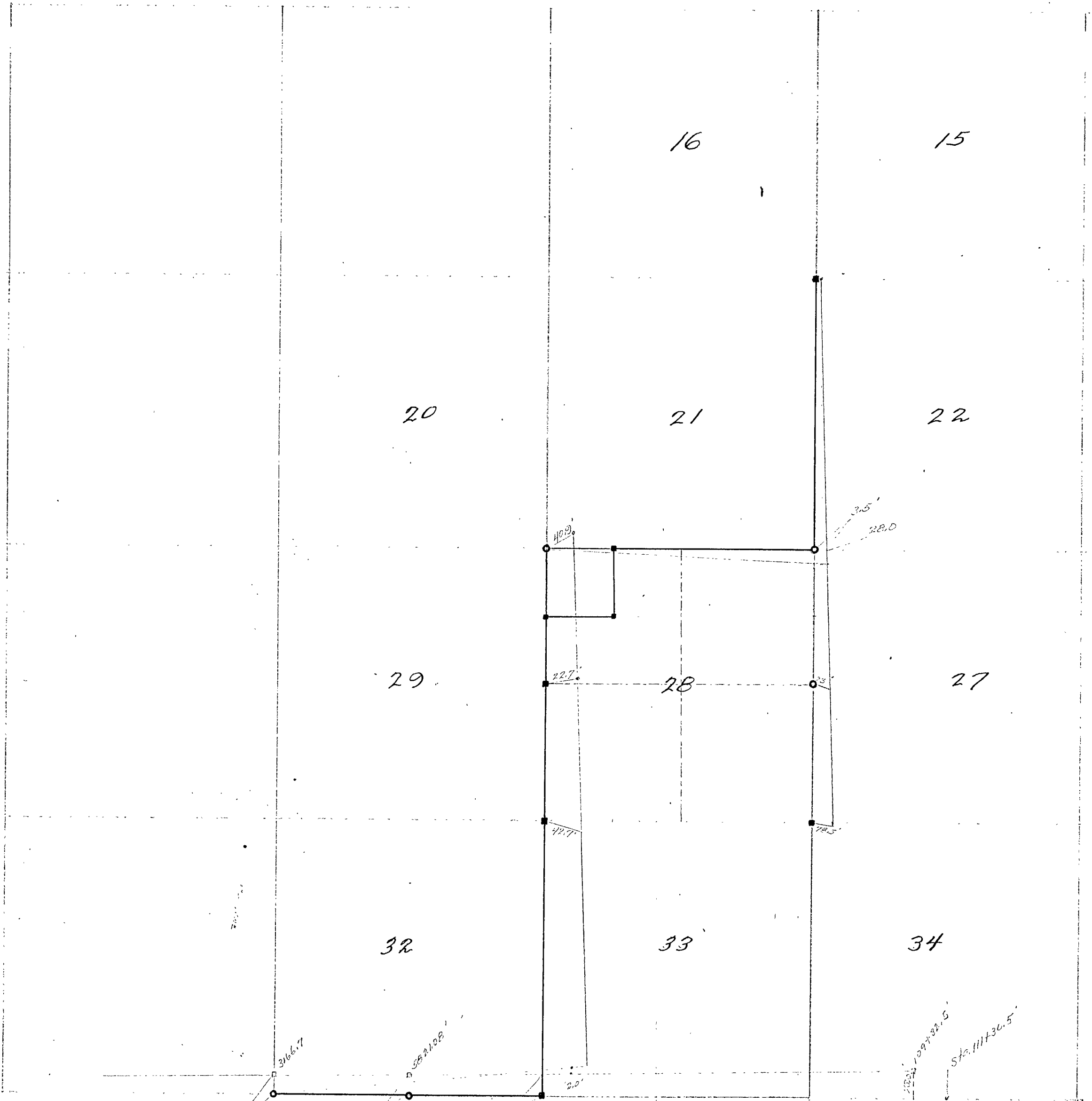
Oak 11" N $88^{\circ}W$ 87.5

Continued on North calling 54+51 Sta 0

C
134-29

466
Survey Record No. 466.
Plot #1

449

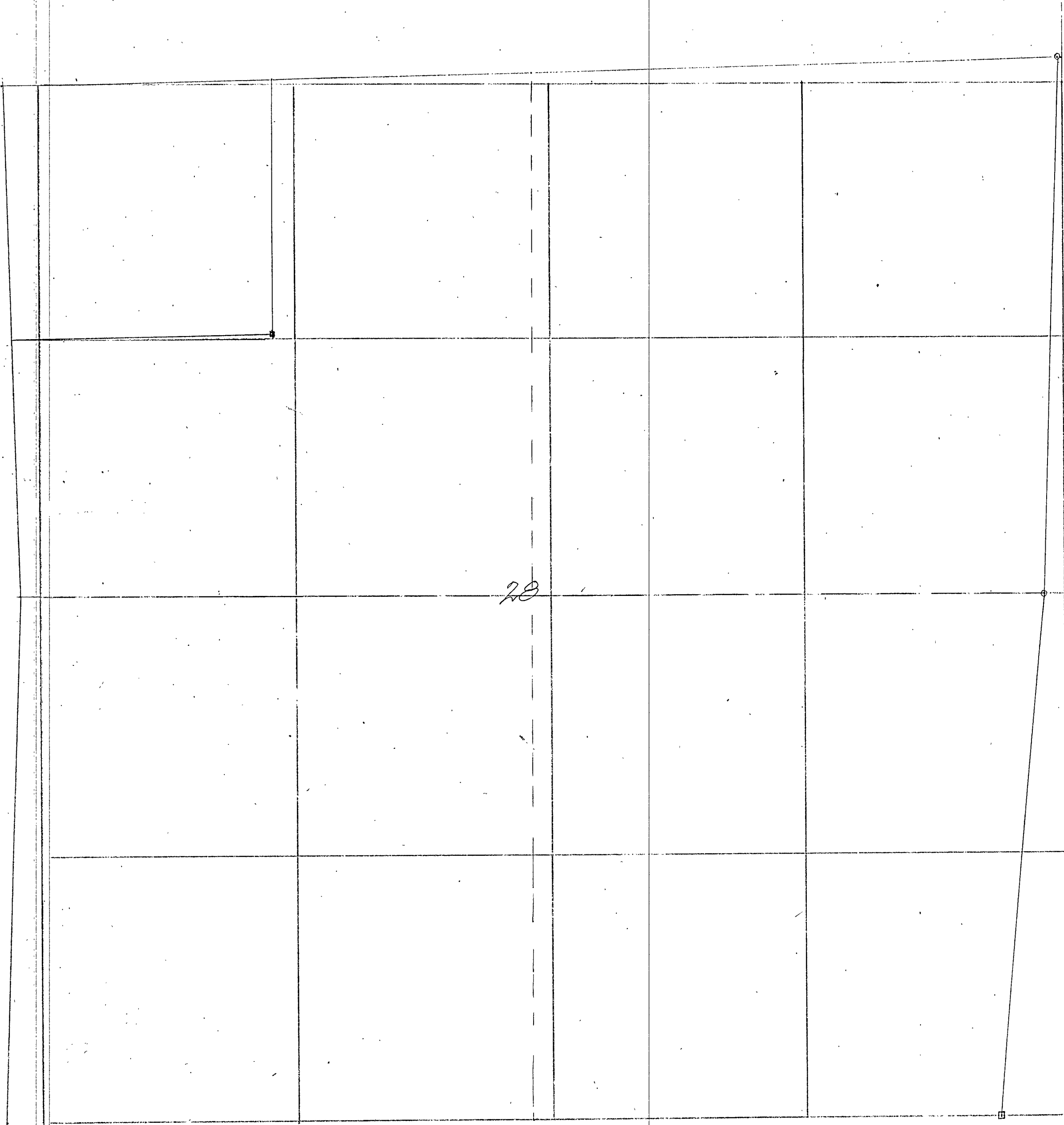


See 450 for sub-division of sec. 28.

450

466
Survey Record No. 466.
Plot #2

C



Set corner to 32.33-3-4⁴⁻⁵ by proportion from Curo's Notes.
 sets 57.7' West of sta. 5336 and 56.6' South. Set wooden stake for corner
 and correct line North.

John M. Greene
 Deputy County Surveyor

Recorded Dec. 7, 1921

F.B. 177

at 1402.0' set temp. M.C. Pt. a, at 1416.0' a bay of Howard lake
 sight over bay set pt. B. - Cross over and from B. turn L. 40°
 chain out 133.7' and set c. Angle A.C.B. = 126°48'. Dist. = 468.8'
 At 1860' lv. lake, at 1870.8' hub B., at 2358.8' hub A. for
 triangle, at 2364.0' ent. lake. Set point B. over lake, cross over
 and turn L. 102°41', chain out 328.6' set c. Angle A.C.B. = 56°16'
 Dist. = 760.8', 3110.0' lv. lake, 3119.6' hub B., 3316.0' old road
 N. 30° W + S. 30° E., 3498.0' new graded Sup. road N.W. - S.E.

May 3.

At 3589.2 set hub, 3968.3' hub, 4349.4' hub, 4804.0' hub,
 5887.4 set hub Pt. 1, on random line bet. sec. 29-30 at 5114.2' N.
 S.W. angle = 73°03'. At 6090.9' E the true sec. cor. to sec. 29-30
 29-30 by double proportion sets N. 57.5'

July 14

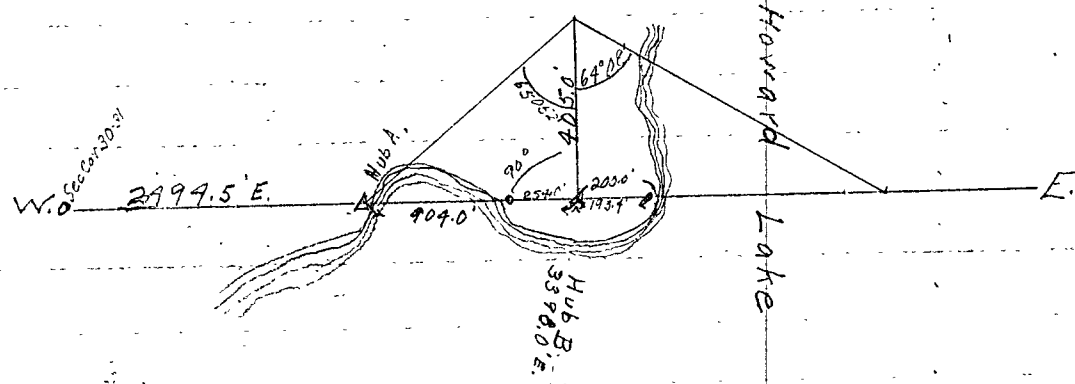
E. E. B. Horst, E. G. McPherson, Mike + Mike jr. Poncelet setting
 I.M.s in sec. 29-30-31 Sup. 141-31. Fay Mitchell hauls I.M.s at 6.00

July 15-16

Same crew setting I.M.s

May 4.

From cor of sec. 29-30-31-141-31 and sec. 25-36-141-32 (a 2 1/2 x 48'
 capped I.M.) I sight S. on random line W. side Sec. 30 and
 turn L. 109°46' and run a random line bet. sec. 29-30 at 309.4'
 hub, 730' ent. tan. sup., 1085' lv. tan. sup., 1273.8' hub, 1771.5'
 temp. W. 1/16 cor. 2494.5' temp. M.C. also is point A. for triangulation,
 at 2500.0' int. Howard Lake, 3144' lv. lake, 3398' set triangle hub B.,
 3591.4' temp. M.C., 3600' ent. Howard lake, 4230' lv. Howard lake
 4233.8' triangle hub D., 4247.3' temp M.C. E. of lake.



May 5.

At 4585.0' graded road N.E. + S.W., 4680' ent. field, 4686' hub, 4750.0'
 lv. field 5033.5' hub, 6080.0' hub, 6135.0' cor. to 29-30-31-32 set S.
 5.5' N.W. angle to random on E. side sec. 30 = 107°54'
 Same crew. We set the 1/4 S. cor. bet. sec. 29-30-31 at sta. 3309.0'
 E. on true Sec. line and turn N.E. angle 69°30' from random
 line and run N. (needle reads 8°35' E.) At 657.3' hub, 801.0' temp S.M.C.,
 803' ent. lake. Cross over lake without triangulating N. side of bay = sta.
 0.00' N. At 10.0' temp S.M.C., 261.2' temp S.M.C. S. side of bay, 278.0' N. =
 2nd bay. Cross over bay. Edge of water = 0.00' N. At 20.0' temp S.M.C.,
 698.0' set hub 20.0' N. of N line barn, 968.6' S.M.C. S. side of Howard
 lake, 980.0' water edge. Set hub on N. shore of lake 353.0' S of 1/4 S. from
 which triangle hub sets L. 78°30' 22.2'. Continue N. + int. random sec.
 line at sta. 3330.1 E. 1/4 S. cor. bet. 19-30 sets N. 93.0'. S.W. L. of random
 line is 70°20'. We walk to S.E. cor. sec. 30 and set a large wood
 post for cor. from N.S. D.S. N. pine is a blazed snag eight ft.
 high with blaze charred and figures nearly obliterated. Aspen is
 down and rotted but has scribble marks on blaze. No good timber near.

- May 6. E. B. Horst + same crew. At sta 2675.5' on random line W. side sec. 30 I turn S. E. angle $111^{\circ}49'$ from random line, chain along this line. At 73.9' I set a wood stake for the true 1/4 s. cor. bet. sec. 25-30 = sta. 0.00 E. From 1/4 s. continue on same line thru sec. 30 (var. $29^{\circ}15'$) At 1864.0' set temp. E. W. 1/16 s., at 3050.0' set temp. S. M. C. W. side lake, Temp. S. M. C. on N. + S. 1/4 line set $\angle 20^{\circ}52'$ across bay. I set a point on E. side of Howard lake crossover and cont. 1/4 line and int. 5.5' N. of the true 1/4 s. cor. bet. 29-30. From 1/4 s. cor. chain W. to Howard lake. At 850.0' Temp. road (graded), at 935.0' W. S. M. C., at 930.0' water edge of Howard lake.
- May 7. Begin at N. 1/16 s. cor. W. side sec. 30 turn S. E. angle $108^{\circ}36'$ from random line and run N. 1/16 line thru sec. 30. At 4000.0' set temp. 1900.0' S. M. C. at 1847.5' temp. N. M. 1/16 s. cor. W., at 2900.0' set temp. S. M. C. at Howard lake. Set temp. S. M. C. on E. side of lake and cont. E. to N. 1/16 s. cor. bet. sec. 29-30 from N. 1/16 s. cor. W. side lake. At 1400.0' set temp. N. S. 1/16 s., at 1830.0' temp. S. M. C. at 1845.0' Howard Lake. sec. 31. At 1360.8' S. set hub.
- May 9. E. B. Horst + same crew, enter to begin to set the N. 1/16 s. cor. bet. sec. 29-30 + turn S. E. angle $108^{\circ}55'$ from random sec. line (var. $90^{\circ}5'$), run S. 78.0' from random line, thence W. at $90^{\circ}39.8'$ set S. M. C., thence $\angle 90^{\circ}$ and run S. on N. 1/16 line and int. sec. line bet. sec. 29-30 at 27.8' W. of true N. 1/16 s. cor. (correct W. 1/16 s. cor. bet. 29-30 + change angle at same point). From the true N. 1/16 s. cor. bet. 30-31 I turn S. W. angle $70^{\circ}35'$ and run S. (var. $9^{\circ}12'$) thru sec. 31. At 1360.8' set hub in Nelson's garden, at 1630.0' temp. S. M. C. N. side of lake.
- May 10. Complete N. 1/16 line of sec. 31. Set S. M. C. over lake, cross over Howard lake and continue S. S. M. C. = sta. 0.00. At 1040.0' the true N. 1/16 s. cor. S. side sec. 31 sets W. 17.0' N. W. \angle of random lines = $89^{\circ}28'$. We go to sta. 4488.0' E. on random line S. side sec. 31, chain W. 23.0', turn N. W. $\angle 89^{\circ}45'$ and run N. thru sec. 31 on E. 1/16 line (var. $8^{\circ}50'$) Int. sec. line bet. 30-31 13.0' W. of true E. 1/16 cor.
- May 11. Begin at the 1/4 s. cor. bet. sec. 29 + 31, turn S. E. angle $109^{\circ}41'$ and run S. thru sec. 31 on 1/4 line. At 200.0' S. set S. M. C. on N. side Howard Lake, set S. M. C. on S. side of lake, crossover lake + continue S. S. M. C. = sta. 0.00 S. and int. S. side sec. 31 1.3' E. of the 1/4 sec. cor. We go to the S. 1/16 s. cor. bet. 31-32. I turn S. W. angle $83^{\circ}50'$ and run W. thru sec. 31, set P. 1 on E. 1/16 + 1/4 lines. From P. 1 on 1/4 line chain W. At 1059.0' set S. M. C. on E. side Howard lake.
- May 12. We continue the S. 1/16 line sec. 31. Set S. M. C. on lake, cross over lake, and set S. M. C. = sta. 0.00 W. At 1088.0' fall 3.7' N. of the true S. 1/16 s. cor. W. side sec. 31 marked by a $3/4" \times 30"$ I. M. W. C. which is 15.0' N. of the true point for S. 1/16 s. cor. We go to the 1/4 s. cor. W. side sec. 31 marked by a wood post from which I run E. thru sec. 31 on 1/4 line. Turned N. E. angle $79^{\circ}46'$. At 1577.0' set S. M. C. on W. side Howard lake. at 1585.0' exit lake. Set S. M. C. on E. side of lake, cross over, + continue E. S. M. C. = sta. 0.00. E. P. 1 fall 27.8' S. of the 1/4 s. cor. bet. sec. 29-30. We find a birch stump blazed by some surveyor as a B. V. to a 1/4 s. cor. set by him and it appears to coincide with 1/4 s. cor. according to this survey.

C

May 13 We begin at the N. 1/4 s. cor. bet. sec. 31-32 where I turn S. $79^{\circ}26'$ and run thru sec. 31 on N. 1/4 line. Set P.I. on E. 1/4 line and chain N. from this cor. At 962.0' set S.M.C. on E. side Howard lake. S.M.C. on W. side = sta. 0.00' continue N. at 1500' P.I. on N. 1/4 line. Continue N. and intersect 40.2' N. of a 34×30 " I.M. at N. 1/4 s. cor. W. side sec. 31.

May 14 We begin at the S. 1/4 s. cor. on W. side sec. 30, I turn S.E. $111^{\circ}35'$ and run thru sec. 30. Set P.I. hub on N. 1/4 line at 912.0' E. of P.I. set S.M.C. on W. side Howard lake. S.M.C. on 1/4 line $37^{\circ}22'$. Set S.M.C. over lake = sta. 0.00' E. At 908.5' fall 0.4' N. of the S. 1/4 s. cor. bet. sec. 29-30.

May 16 Begin at the E. 1/4 s. cor. bet. sec. 29-30, turn N.E. angle $70^{\circ}31'$ from random line and run N. thru sec. 30. At 180.0' graded road N.E.-S.W. at 390.0' S.M.C. S. side of bay. Set S.M.C. across bay and continue N. (from this pt. the S.M.C. on S. 1/4 line has $S. 77^{\circ}11' E.$) S.M.C. = 0.00'. Chain across point 459.0' to S.M.C. on N. side of point. Set S.M.C. over bay which = sta. 0.00'. At 370.0' cen. graded road N.W.-S.E., at 856.6' P.I. on N. 1/4 line at 1420.2' W. of the N. 1/4 s. cor. bet. sec. 29-30.

May 17 Meanders of sec. 31. Begin at the M.C. on sec. line bet. sec. 29-30

Thence S. $27^{\circ}30'$ W. 270.0'	Thence S. $23^{\circ}30'$ W. 206.0'
" S. $31^{\circ}00'$ W. 240.0'	" S. $44^{\circ}15'$ W. 313.0'
" S. $3^{\circ}30'$ W. 390.0'	" S. 18° W. 173.0'
" S. $19^{\circ}30'$ E. 183.0'	" S. 45° W. 112.0'
" S. $27^{\circ}30'$ E. 227.0'	

Equals S.M.C. on N. 1/4 line S. 31

Thence S. 48° W. 241.0'	Thence S. $11^{\circ}30'$ W. 228.0'
" S. $20^{\circ}30'$ W. 280.0'	" S. 17° E. 353.0'
" S. $18^{\circ}30'$ W. 266	" S. $25^{\circ}30'$ E. 109.0'

Equals S.M.C. on E. & W. 1/4 line sec. 31

Thence S. $47^{\circ}00'$ W. 158.0'	Thence S. $18^{\circ}15'$ W. 192.0'
" S. $57^{\circ}00'$ W. 238.0'	" S. $3^{\circ}45'$ E. 408.0'
" S. $9^{\circ}45'$ W. 390.0'	" S. 26° E. 182.0'
" S. 68 $68^{\circ}00'$ W. 260.0'	

To S.M.C. on random S. 1/4 line sec. 31

Thence S. $25^{\circ}15'$ E. 163.0'	Thence S. $82^{\circ}30'$ E. 260.0'
" S. 14° E. 110.0'	" N. $44^{\circ}30'$ E. 111.0'
" S. $27^{\circ}30'$ E. 187.0'	" N. $6^{\circ}15'$ E. 161.0'
" S. 20° E. 151.0'	" N. 8° E. 196.0'
" S. $27^{\circ}15'$ E. 340.0'	" N. 34° E. 150.0'

To S.M.C. on N. 1/4 line sec. 31

Thence N. 38° E. 314.0'	Thence N. 19° E. 58.0'
" N. $12^{\circ}45'$ E. 164.0'	

To S.M.C. on S. 1/4 line sec. 31

Thence N. $24^{\circ}30'$ E. 150.0'	Thence N. 36° E. 205.0'
N. 41° E. 453.0'	" N. 61° E. 256.0'
N. $1^{\circ}15'$ E. 308.0'	" N. $34^{\circ}45'$ E. 318.0'
N. $57^{\circ}30'$ E. 180.0'	To S.M.C. on N. & S. 1/4 sec. 31

Survey Record No. 465.

C

Thence N. 28°15' E. 182.0' Thence N. 5°45' W. 91.0'
 To S.M.C. on E. & W. 1/4 line sec. 31
 Thence N. 4°15' W. 262.0' Thence N. 17° E. 552.0'
 " N. 6°15' E. 227.0' " N. 13°15' W. 364.0'
 " N. 32° E. 397.0'
 To S.M.C. on N. 1/4 line sec. 31
 Thence N. 4°45' W. 508.0' Thence N. 9°30' E. 177.0'
 " N. 64°30' E. 192.0' " N. 25° E. 146.0'
 " N. 24°30' E. 205.0' " N. 19°45' E. 125.0'
 " N. 3°15' E. 150.0' " N. 15° E. 148.0'
 " N. 18°15' E. 137.0' " N. 16°30' E. 156.0'
 To M.C. bet. sec. 2. 30-31
 Meanders in sec. 30 beginning at above M.C.
 N. 26°15' W. 61.0' Thence N. 19°45' E. 147.0'
 Thence N. 44° E. 638.0' " S. 84°15' E. 105.0'
 " N. 38°45' E. 41.0' " N. 50°45' E. 172.0'
 To S.M.C. on E. 1/4 line sec. 30 " N. 7° W. 506.0'
 Thence N. 23°30' E. 704.0' To S.M.C. on E. & W. 1/4 sec. 30
 " N. 25°30' E. 349.0' Thence N. 45°15' W. 380.0'
 " N. 2°30' E. 119.0' " N. 79°30' W. 265.0'
 To S.M.C. on S. 1/4 line sec. 30 To S.M.C. on E. 1/4 line sec. 30
 Thence N. 41°15' W. 62.0' Thence N. 85°30' W. 86.0'
 " N. 54° W. 180.0' " N. 31°45' W. 361.0'
 " N. 82° W. 119.0' " N. 19° W. 420.0'
 " S. 60° W. 160.0' To S.M.C. on N. 1/4 line sec. 30
 To S.M.C. on E. 1/4 line sec. 30 Thence N. 32°15' W. 198.0'
 Thence S. 56°15' W. 357.0' " N. 50° W. 371.0'
 " N. 70° W. 136.0' " N. 61° W. 339.0'
 To A.M.C. on mainland also " N. 76° W. 156.0'
 is triangulation point for " N. 57° W. 63.0'
 from which the A.M.C. on " N. 25°15' W. 287.0'
 island bears S. 89°30' W. To the true M.C. on sec. line bet. sec. 19-30 on E. side Howard lake
 Thence N. 31°15' W. 238.0' From temp M.C. on sec. line in
 from which the A.M.C. on N.E.-N.W. 1/4 sec. 30 on E. side of bay
 island bears S. 17° W. Thence S. 26°45' W. 287.0'
 Thence N. 7°30' W. 453.0' " S. 56° W. 220.0'
 " N. 45°45' E. 253.0' " S. 82°15' W. 143.0'
 " N. 9° E. 105.0' " N. 50° W. 106.0'
 " N. 79°45' E. 98.0' To temp M.C. bet. sec. 19-30 on W.
 " S. 18° E. 139.0' side Howard lake = sta 1402.0' E.
 " S. 38° E. 125.0' on sec. line. Bearing of sec. line
 " S. 53° E. 139.0' (angle + 8°45' var) = N. 71°20' E at
 " S. 72°15' E. 80.0' sta 2358.8 on random line = temp.
 To S.M.C. on E. 1/4 line sec. 30 M.C. We continue meanders from
 Thence S. 88° E. 129.0' this point
 " N. 62°30' E. 122.0' Thence S. 21° E. 280.0'

May 19.

C

Thence S. 44° W. 108.0'
 " S. 5° W. 264.0'
 " S. 45° E. 260.0'
 " S. 44° 15' E. 214.0'
 " S. 67° E. 170.0'
 To S.M.C. on N. 1/4 line
 Thence S. 66° E. 216.0'
 " N. 85° E. 133.0'
 " N. 67° 30' E. 87.0' ^{S.M.C. on N. 1/4 line}
 " N. 89° E. 263.0'
 " S. 84° E. 124.0'
 " S. 60° 30' E. 164.0'
 " S. 8° W. 48.0'
 " S. 55° 45' W. 309.0'
 " S. 29° W. 461.0'
 " S. 12° 30' W. 277.0'
 To S.M.C. on N. & S. 1/4 line
 Thence S. 59° W. 279.0'
 " S. 17° W. 94.0'
 To S.M.C. on E. & W. 1/4 line
 Thence S. 5° 30' W. 194.0'
 " S. 46° E. 232.0'
 " S. 83° 45' E. 113.0'
 To S.M.C. on N. & S. 1/4 line sec. 30
 Thence S. 84° E. 67.0'
 " S. 21° E. 96.0'
 " S. 33° W. 186.0'
 To S.M.C. on N. & S. 1/4 line
 Thence N. 83° 30' W. 116.0'
 " N. 80° 30' W. 141.0'
 " S. 59° W. 244.0'
 " S. 20° 30' W. 267.0'
 " S. 5° W. 285.0'
 " S. 18° 45' E. 200.0'
 To the S.M.C. on S. 1/4 line
 Thence S. 30' E. 144.0'
 " S. 72' E. 261.0'
 " S. 60' 30' E. 92.0'
 " S. 50' E. 141.0'
 on random E. 18.0' S. of S.M.C.
 Thence S. 52° E. 240.0'
 " S. 84° 45' E. 236.0'
 " S. 39° 00' E. 52.0'
 " S. 48° 30' W. 157.0'
 " S. 14° 30' W. 393.0'
 To point on sec. line bet. 30-31
 19.0' W. of M.C.

May 20, 1921

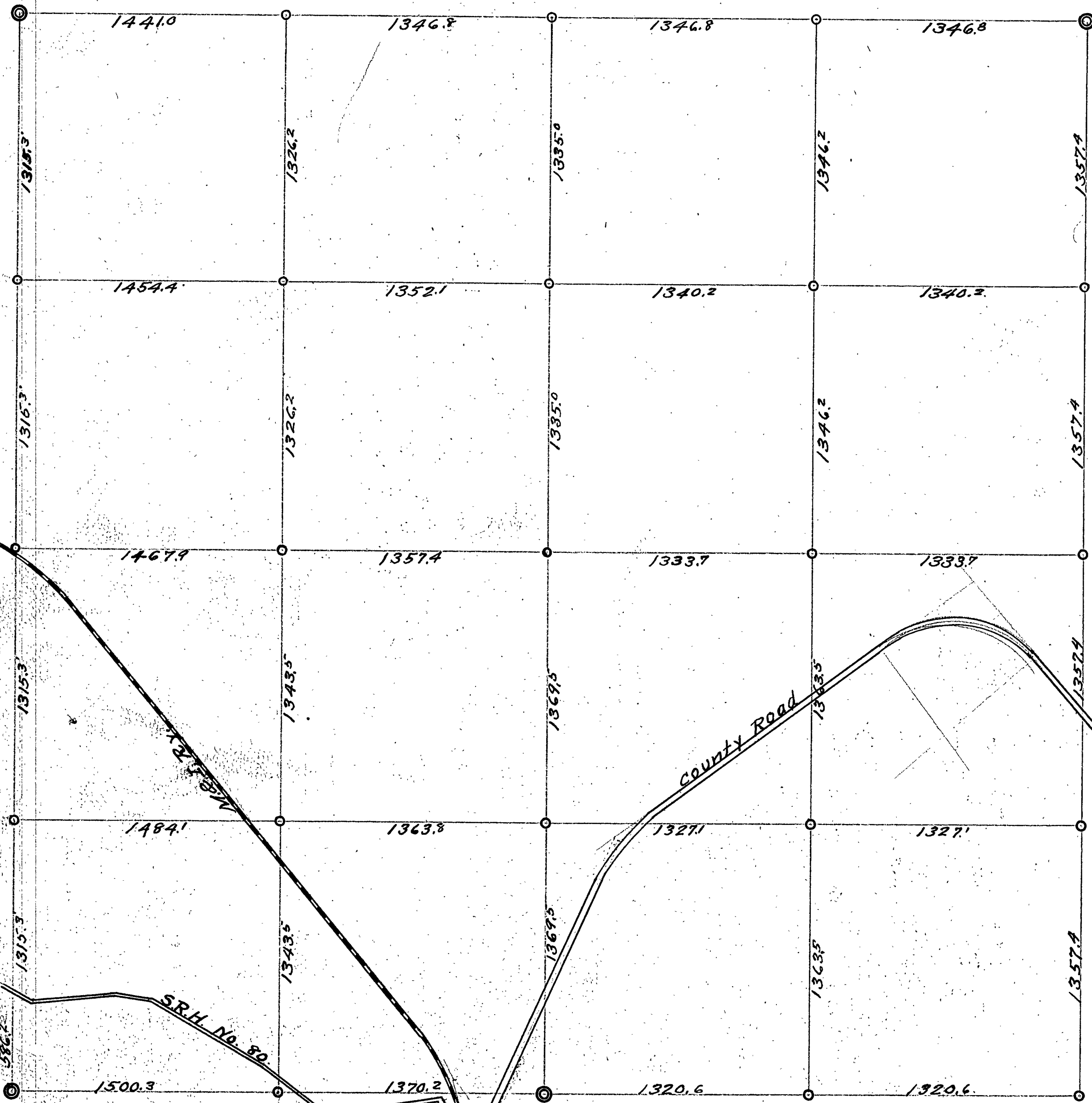
Thence S. 14° E. 170.0' in sec. 31
 " S. 56° 15' W. 211.0'
 " S. 82° W. 111.0'
 To S.M.C. on N. & S. 1/4 line sec. 31
 Thence N. 75° W. 106.0'
 " N. 46° 30' W. 91.0'
 " N. 16° E. 65.0'
 M.C. bet sec. 30-31
 Thence N. 28° 30' E. 229.0' in sec. 30
 " N. 58° 30' W. 209.0'
 " West 256.0'
 " S. 37° 30' W. 252.0'
 " S. 21° W. 133.0'
 " S. 32° 30' W. 86.0'
 " S. 17° W. 151.0'
 To M.C. bet. sec. 30-31 which
 is place of beginning an com-
 plete meander of Howard
 lake in sec. 30-31-141-30
 May 21-23-24-25 I work in
 office computing corrections +
 latitudes + departures for setting
 I.M.s in sec. 30-31-141-30
 July 14-15-16-1921.
 E.B. Horst, E.A. McPherson, Mike +
 Joe Poncelet, set Iron monuments
 at all points in sec. 30 + 31-141-31
 except the W.C. at S.W. cor. S. 31 - the N.W.
 cor. S. 31 the NW. cor. sec. 30.
 which were previously set by the
 Hubbard County Surveyor
 and are O.K.
 We set a 2"x48" Iron Mon. at the
 N.W. cor. of Twp. 140-31.
 New bearings to cor. sec. 19-20-29-30
 141-31 are W.P. 20 N. 71° 00' W. 83.7 ft. Var.
 Pop. 9" S. 13° 45' W. 28.8 ft. } 87° 45' E.

Recorded Jan. 30, 1922.
 James H. Flynn,
 County Surveyor,
 E.B. Horst, Deputy.

F.B. 177.

141-30
31

C



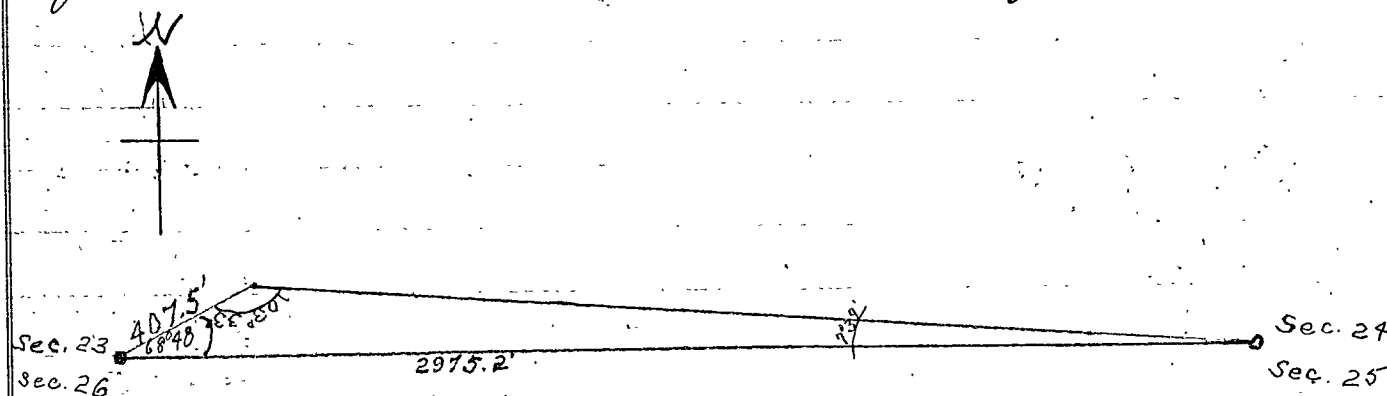
Survey Record No. 467.

Field notes of the survey of sec. 25-26 Twp. 141 N. Rge. 30 W. of the 5th P.M. + sec. 30 Twp. 141 N. Rge. 30 W. of 5th P.M. Jan 12, 1920 E. B. Horst, engineer in charge, appointed by county board to make a survey of sec. 25-26-141-30 to begin Jan 12, 1920. I take notes and plat and hire Motor Inn car to drive me to Ten Mile Lake where I look for the M.C. on the sec. line bet. sec. 25-26 but am unable to find it on account of 7 ft. of snow drifted in from the lake. I go to the N. line of sec. 26 where same int. the N. shore of Portage Lake and make a throo search for M.C. thru but snow is 3 ft. deep so I decide to quit work until snow leaves.

June 22, 1920 E. B. Horst, E. L. Fuster, Bert Anderson, Glenn Bacon, drive to Ten Mile Lake and begin survey of sec. 25-26-30 T. 141 R. 30-31. We begin at cor. of sec. 25-26-30-31 and run N. at sec. cor., sight W. on N. line sec. 36 + turn N.W. $\angle 88^{\circ}30'$. New B.F. for this cor. N. Pine 8 S. $67^{\circ}11'$ W. 32.0' + N. Pine 10 N. $43^{\circ}30'$ W. 89.0'

At 584.0' State Highway hrs. N. $68^{\circ}11'$, at 748.8' set hub, at 961.4' hub, 1126.9' hub, 1282.0' hub, 1688.8' hub, 1907.8' hub, 2217.6' hub, 2749.0' hub in M. & S. R.R. N.W. $\angle 56^{\circ}55'$, 3273.5' hub, 3815.3' hub, 4818.5' hub, 5069.4' hub, 5280.0' set temp. cor. to sec. 25-26-30-31. Horst, Mackey, Green, + Goble go to M.C. on E. side Portage Lake (previously established by Co. Surveyor J. M. Greene + Dep. E. B. Horst from N. S. B.F.) where we take the following new B.F. for Nor. Pine 9 N. $23^{\circ}34'$ W. 10.5', + Nor. Pine 8 original N.S.B.F. S. $46^{\circ}03'$ E. 4.0'. We run E. at $8^{\circ}45'$ var. at 57.4' hub; 229.5' hub; 255.0' hub, stake 8.0' S. We look for 1/4 S. cor. + B.F. which are obliterated. Cont. E. At 282.5' Pt. A. of triangulation; 340.0' int. lake; set Pt. B. on M. & S. Ry grade, set Pt. C. 400.0' N. on E. side of grade. Angle ABC = $73^{\circ}19'$; Angle BCA = $82^{\circ}01'$; Dist. B. to C. 400.0', $AB + BC = 1187.0'$. $1187.0' + 282.5' = 1469.5'$. At 1085.0' E. lv. lake; at 1485.8' & Ry track; 1600.0' lv. swp.; 1744.5' hub; 2065.0' hub; 2208.7' hub; 3066.7' P.T. on N. & S. random line at 5349.0' N.

June 28 Horst with Bert Anderson, Glen Bacon, More Morris, E. Fuster, Clarence Greene, + Ray Goble goes to M.C. bet. sec. 23-26-141-31 on W. side Portage Lake and triangulates to M.C. on E. side of lake bet. sec. 24-25 as follows:



C

Lincoln Mackey, with Bob Ayleworth walked to M.C. bet. sec. 24+25 on E shore of Portage Lake and set I.M. (2"X48"). I set transit over this cor. & turn angle from random line. D. $\pm 0^{\circ}26'$ to M.C. bet. sec. 23+26 on W. shore of lake. Hunt, Mackey, & both crews go to M.C. bet. sec. 23+26, sight on M.C. across lake and run W on a rand line bet. sec. 23+26. At 351.2' hub; 433.6' & scenic Highway bro. N. $44^{\circ}15'W$; 522.0' ent. marsh; 700.0' lv. same; 1076.1' hub; 1270.0' ent. marsh; 1390.0' lv. marsh; 1605.0' hub; 1815.5' hub; 1927.0' set hub for temp $1/4$ s cor. bet. sec. 23+26 and make there search for old cor. but find no trace of it; 2293.0' hub; 2662.5' hub; 2918.9' hub; 3329.0' hub; 4050.3' hub; 4577.1' look for cor. to sec. 22-23-26-27 but find no trace of same.

June 29

Cont. W. bet. sec. 22+27. At 5095.0' hub; 5500.0' hub; 5890.7' hub; 6638.5' hub; 7415.0' hub; 8009.7' fall 111.4' S. of M.C. bet. sec. 22-27. I reestablish this cor. from the two cor. & D.B. which I find. Both trees show plain scribe marks recorded and described in in Gov't notes as follows; Yel. Pine 8 N. $88^{\circ}E$. 17' ch. & Yel. Pine. 3' S. $18^{\circ}E$. 07' ch. I set 2"X48" post.

June 30

Lincoln Mackey, with Mose Morris, Bob Ayleworth & Clarence Green walk to hub set at 4577.1' and begin a new search for cor. to sec. 22-23-26-27. I find an old yellow pine stump with part of an old "B" at bottom. I set my instrument over same and turn N. $55^{\circ}W$ and measure 7.7' on this line & set a point. I set over this point and turn the recorded bearings for the other D.B.'s. I find the N.W. & N.E. D.B.'s agree with recorded bearings & distances. I accept this as true point and set a 2"X48" I.M. from which W. Oak 10' S. $54^{\circ}E$. 60.0' & W. Oak N. $86^{\circ}30'W$ 24.5'. I set transit on this cor. & run S. on a rand. line bet. sec. 26+27. At 859.0' hub; 1169.7' hub; 1320.0' temp $1/16$ s cor; 1677.0' ent. swp; 2095.0' lv. swp; 2262.3' hub; 2573.2' hub; 2640.0' temp $1/4$ s cor. Make there search for old cor. but find no trace of same; 2798.0' ent. swp; 2962.0' lv. swp; 3049.4' hub; 3142.0' ent. swp; 3442.0' lv. swp. 3468.5' hub; 3579.0' ent. swp; 3681.0' lv. swp; 3812.5' hub; 3960.0' temp S. $1/16$ s cor; 4027.0' ent. swp; 4585.0' lv. swp; 4675.4' hub; 4785.3' hub; 5199.5' hub; 5280.0' set temp point for cor. to sec. 26-27-34-35.

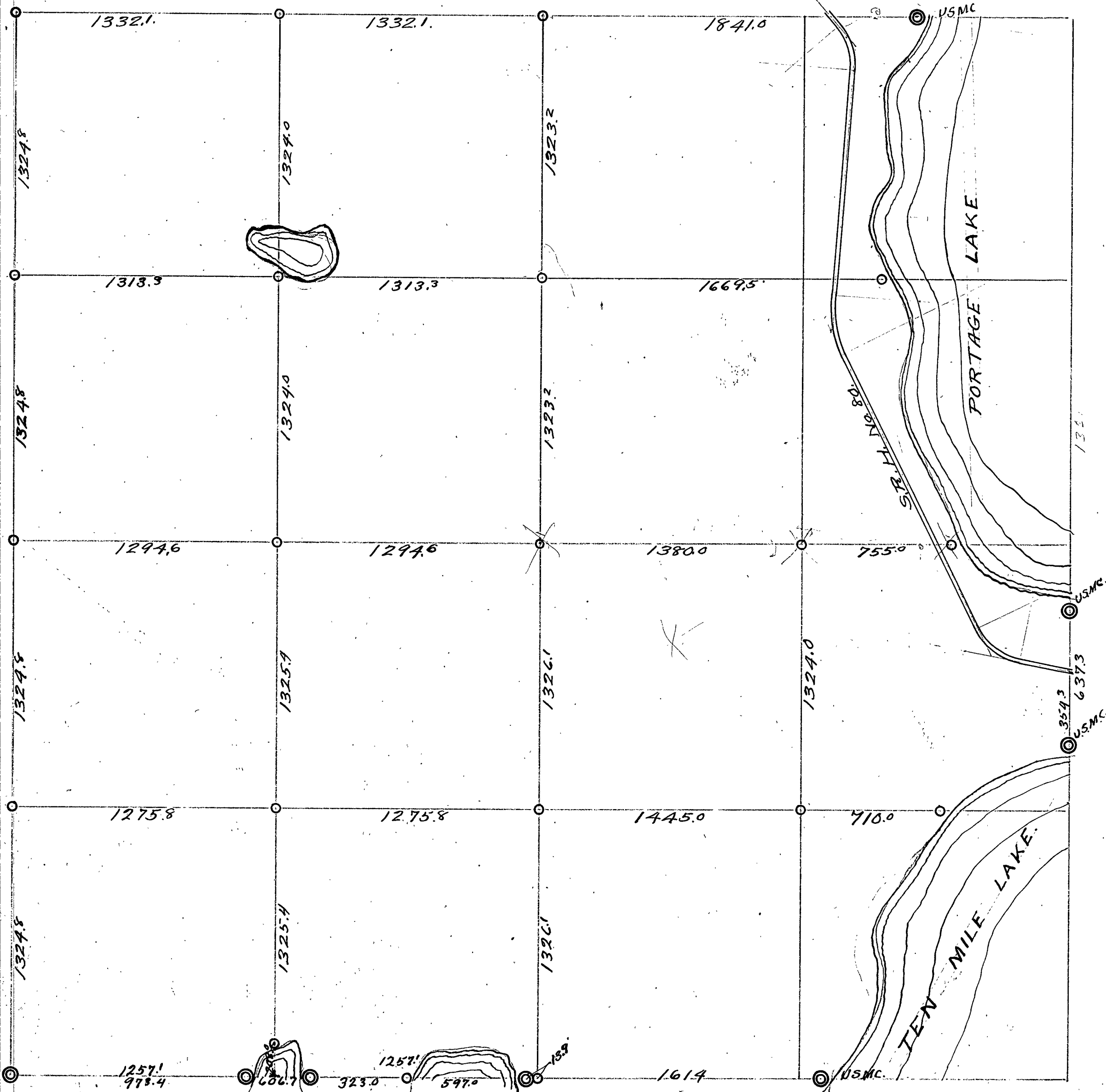
July 1.

Look for cor. to sec. 26-27-34-35 but find no trace of same. Set transit over hub at sta. 5280.0' S. & cont. S. to find M.C. on Ten Mile Lake bet. sec. 35+35. At 5341.0' ent. meadow; 5487.4' P.S.; 5798.0' lv. meadow; 5811.7' hub; 5860.0' ent. swp. 6631.0' lv. swp; 6667.4' hub; 6758.4' hub; 7406.8' hub; 7507.9' hub; 7750.6' hub; 7848.0' ent. swp; 7900.0' hub; 8100.0' lv. swp; 8171.8' hub; 8265.0' old road N.E. & S.W.; 8296.8' hub; 8795.9' hub; 9032.0' hub 32.0' N. of Water edge. Look for M.C.

C

Survey Record No. 467. Plat 4.

S. 26-141-31
Plat of Sec. 26, Twp. 141 N. Rge. 31 W. 5th. P.M.



- ⊙ Monumented U.S. Survey Corners.
- Monumented Resurvey and subdivision corners.

July 5

Mose Morris, Ray Goble, + Bob Aylworth in Goble's car go to Ten Mile Lake + look for sec. line bet sec. 25 + 26. Find line est. with capped I.M. at M.C. on Ten Mile + also on Portage lake.

July 6

Horst + 2 crews hire Bill Bush to take us to M.C. bet sec. 34-35-141-31 on W. side of Ten Mile lake. We find N.S.B.T.s stumps of the Nor. Pine 24" N. 72° E. 11 lks + Birch 8" N 82° W. 19 lks. from which we set a wood post for true M.C. New B.T.s as follows Nor. Pine 12" N. 60° 25' E 41.3' + Jack pine 12" N. 77° 33' W. 16.8'. At Sta. 9032.0' S. on rand. line the true M.C. sets N. 71° 52' E. 92.0'. At sta. 9003.6' S. M.C. sets E. 87.5'. We walk N. on random line + look for sec. cor. to sec. 26-27-34-35 but cor. is obliterated. We begin at M.C. No. 12 which we reestablished from N.S.B.T.s and run E. I sight across arm of Ten Mile Lake and set pt. B. of triangle turn L. 31° 43' run 232.0'. Angle at C. = 130° 47'. Dist. A to B = 584.2' + 22.5'. At 606.7' true M.C. No. 11 sets S. 4.8'. We find both trees marked. I take new B.T.s as follows: N.P. 12" N. 29° 30' E. 12.7' + N.P. 10" S. 20° 15' E. 19.9'. I set transit over this M.C., back sight on M.C. No. 12 and run E. At 168.5' set hub; at 323.0' set a point on W. side of arm of Ten Mile lake. Look for B.T.s, obliterated. I set a point on E. side of lake cross over + set overpoint Turn S.W. < 103°, chain base line 150.0'. Angle at C. = 65° 57'. Dist. A to B = 597.0'. The true M.C. No. 9 est. by E.B. Horst sets N. 3.6'. I set over M.C. 9, backsight W. to pt. A + attempt to sight E. on old rand. line but brush is too high.

July 7

Horst + crew begin at M.C. at S.W. cor. of Crescent Beach and meander Ten Mile Lake as follows. Sight N. on sec. line bet sec. 25 + 26. Thence S. 78° 15' W. 389.0' - S. 67° W. 191.0' - S. 31° W. 306.8' - S. 22° 15' W. 222.0' - S. 31° 30' W. 269.0' - S. 0° 45' E. 309.5' - S. 22° 30' W. 305.5' - S. 39° 30' W. 150.0'. From M.C. No. 9 I back sight on M.C. No. 11 + run E. to Ten Mile Lake. N.S. M.C. #8. I set M.C. M.C. 28.0' W. of water. New B.T.s as follows: Basswood 12" N. 21° 45' W. 24.0' + W. Oak 14" S. 41° 15' W. 13.6'. From M.C. M.C. I sight to M.C. E. of Ten Mile Lake, def. angle = L 1° 20'. Cont. meanders S. to sec. line. Thence S. 41° 30' W. 346.7' to M.C. M.C. bet sec. 26 + 35. Sec. line R. 49° 37'. At M.C. M.C. No. 8 I back sight W. on line, foresight E. across lake + turn L 1° 20' to M.C. on E. side of lake. I go to M.C. on E. side of lake, backsight E. on line transit telescope, + turn L 1° 11' to M.C. M.C. on W. side.

Morris + Fusler begin at cor. to sec. 22-23-26-27 and back sight S. on rand. line + run N. At 1860' ent. sup. (C + M); at 2640.0' look for 45 cor. (gone); at 4664.0' int. S.R.N. No. 80; at 5111.4' the I.M. at cor. to sec. 14-15-22-25 sets E. 74.0'

July 8

From S.M. at M.C. bet sec. 25 + 26 at S.W. cor. Crescent Beach, sec. line = N. Thence S. 79° 30' E. 532.0' - S. 73° 15' E. 739.0' - S. 65° 30' E. 501.0' - S. 54° 30' E. 861.0' - S. 45° 30' E. 437.0' - S. 34° 36' E. 331.0' to M.C. bet sec. 25-36 (S. 89° 01' E. on sec. line)

Survey Record No. 467.

C

July 10

Tusler, Goble, Greene, set N. B. transit over $\frac{1}{4}$ S. cor. I.M. bet sec. 25+36 - turn N.W. angle $93^{\circ}45'$ and run N. At 356.9' hub; 702.0' E state road; 716.0' ent swp; 1241.0' lv. swp; 1298.0' hub; 1344.0' ent swp; 1775.0' lv. swp; 1858.0' hub; offset 90° W. 315.2'; at 4236.1 hub, 90° offset E. 811.5' turn 90° angle from sec. line, at hub

July 14

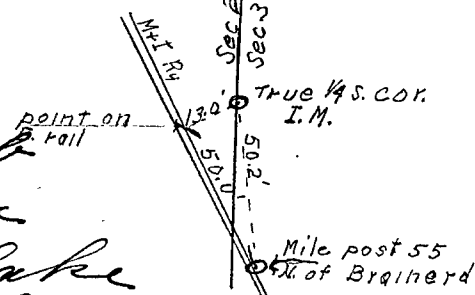
Go to sec. cor. 24-25-141-30 + 19-30-141-30 and run E. bet. sec. 19-30 (var $8^{\circ}45'$) At 165.0' lv. swp; 378.1' hub; 561.0' ent. swp; 759.0' lv. swp; 1023.0' old road N+S.; 1084.3' hub; 1412.4' temp. $\frac{1}{16}$ S. cor.; 2005.0' hub; 2441.5' hub; 2567.4' ent swp; 2732.4' temp. $\frac{1}{4}$ S. cor. (Found old post S. 105.6 with no B.V.O.); 2897.4' lv. swp; 3920.0' ent. swp; 4052.4' temp $\frac{1}{16}$ S. cor.; 4184.0' lv. swp; 4195.6' hub; 4534.2' hub; 4777.0' hub; 5108.4' hub.

July 15

Go to hub at sta. 5108.4' N. and look for B.V.O. to sec. cor. sec. 19-20-29-30. B.V.O. were as follows: Yel. pins 15 N. $49^{\circ}30'$ W. 50.0'; W. Pine 10 S. $20^{\circ}30'$ W. 38.0'; W. Pine 13 S. 43° E. 11.0'; Jam. 12 N. 46° E. 66.0'. We find nothing but stamps which check pretty close but do not use them.

July 16

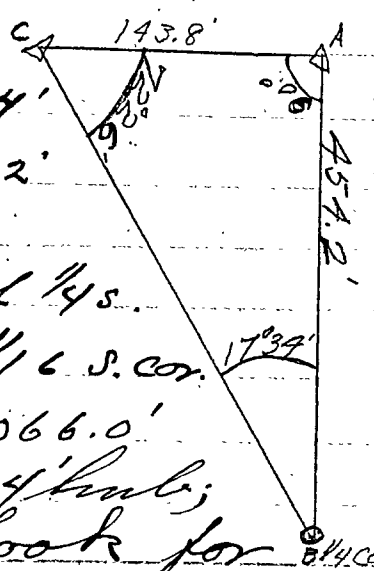
Morris + Tusler rechain E. line of sec. 25 and find 100.0' error bet. sta. 4-6. Horst + crew complete N. + S. $\frac{1}{4}$ line of sec. 25. At 1858.0' N. right N across lake + set point B. of triangle, cross over, backsight S, + turn L. $85^{\circ}45'$ and chain 261.3' base. $\angle ACB = 86^{\circ}44'$ Dist. AB = 1994.3' From point B right N. + turn L 6° + set pt. D on N. side of second lake. $\angle CBD = 88^{\circ}15'$ $\angle DCB = 84^{\circ}26'$ $\angle BDC = 7^{\circ}19'$ Dist. across second lake = 2042.1' which is N. of E. + W. sec. line and from point B I turn L to pt. on sec. line in N. + S. Ry 1475.8' E. Dist from pt. D to sec. line = 747.8' Horst + crew set I.M. at $\frac{1}{4}$ S. cor. on rgl. line bet. sec. 25+30 at 2648.8' N. + 80.6' E. From which we turn N.W. angle $90^{\circ}44'$ from true sec. line ($88^{\circ}59'$ from rand. line) and run N. on E. + W. E. sec. 25. Ref points to $\frac{1}{4}$ S = At 602.0' hub; 1115.9' hub; 1244.0' P.I. on E $\frac{1}{16}$ line 2645.0' N.; 1254' temp C.E. $\frac{1}{16}$; 1704.5' hub; 1918.4' triang. hub, set a hub W of lake, then with transit still on same hub I turn L. 25° to pass lake + run S.W. At 100.0' ent. swp; 280.0' lv. swp; 330.0' cen. of high point W. end; 433.0' ent. same swp; 599.3' P.I. on N. + S. E. at 2383.3' N.; 862.9' thence right $109^{\circ}45'$ 377.8' back to $\frac{1}{4}$ line. Thence cont. W. on E. 0.0' lv. swp; 181.5' hub; 353.0' ent. swp; 918.0' lv. swp; 964.5' hub; 1045.0' ent swp; 2140.0' lv. swp; 2142.5' hub on seawal E. of Portage lake. Thence L. $40^{\circ}30'$ 452.4' - R. $32^{\circ}56'$ 159.6' to M.C. on sec. line at S. end of lake + at hub 2142.5' to M.C. = L $32^{\circ}05'$ (At M.C. from sec. line



R. 58° 33' to hub 2142.5) (S.E. \angle of $\frac{1}{4}$ to W. sec. line = 90° 38')

July 17. Morris + crew on meanders of Portage lake. From a point on sec. line 19.3 W. of M.C. on E side of lake, thence S 14° E. 160.0 to A.P. 1 - S 8° 15' W. 200.0 to A.P. 2 - S 1° E. 250.0 to A.P. 3 - S 26° W 330.0 to A.P. 4 - S 52° 15' W 400.0 to A.P. 5 - S 38° 30' W 170.0 to A.P. 6 - S 52° W 300.0 to A.P. 7 - S 79° W 800.0 to A.P. 8 - S 78° 45' W 200.0 to A.P. 9 - S 41° W 900.0 to A.P. 10 - S 33° W 940.0 to A.P. 11 - S 89° 15' W. 2865' to I.M.

July 18 Picked up line from sec. cor 30-31 E run by B. Bartlett at 9949 hub; 580.0' svp.; 700 lv svp.; 9100' svp.; 1482.7' 1/16 cor set by B.B.; 1561.0' $\frac{1}{4}$ state highway; 1964.0 lv svp.; 2204.0' hub; 2216.0' $\frac{1}{4}$ R.R.; 2416.3' Δ hub. From this hub set pt. B. across svp. at 14 cor, turn 90° angle from pt. A + set pt. C. Total distance from sec cor. to 14 cor. 2870.5'. Gov't. dist. 2765.4'. Gov't. dist. of W 409.0' = 1445.0'. Our chain 2870.5' by Gov't chain 2765.4' = 1.038 x Gov't. dis. for 18" fraction = 1500.3' for W. 40 + 1370.2' for E. 40 a. New B.T. s; Tam. 8 S. 55° W. + Tam. 6 N 62° 45' E.



July 19. Continue line E. bet. 30-31 which fell 6.2' S. of 1/4 s. cor. at 348.0' hub; 824.9' lv svp.; 1262.8' hub; 1320.0' temp 1/16 s. cor. 1477.0' hub; 1725.8' hub; 1800' ent svp.; 2000 lv svp.; 2066.0' hub; 2160.0' ent svp.; 2270 lv svp.; 2877.5' hub; 2489.4' hub; 2560.0' ent svp.; 2640.0' set temp sec cor. 29-30-31-32. Look for cor but fail to find same.

Turned N.W. angle 88° 14' from E 1/16 cor. on S. of sec 25 + run N. At 129.0' lv svp.; 289.0' hub; 399.0' ent svp.; 859.0' lv svp.; 927.0' $\frac{1}{4}$ of state road; 979.0' hub; 1084.0' ent svp.; 1209.0' lv svp.; 1254.8' hub; 1309.0' ent svp.; 1384.0' lv svp.; 1762.4' hub; 1914.0' ent svp.; 2109.0' lv svp.; 2163.0' hub; 2451.3' hub; 2734.1' hub; 2953.5' hub; 3059.0' ent svp.; 3219.0' lv svp.; 3448.3' Cen. R.R.; 3572.0' hub; 3786.0' ent svp.; 4449.0' lv svp.; 4520.2' hub; 4684.0' ent svp.; 4784.0' lv svp.; 5103.6' hub; 5234.0' P.I. fell 14.0' E. of cor.

Begin at sta. 1424.4 on random line bet. sec. 25-30. Set hub at 1324.4. Turn L. 88° 44' transit telescope + sight C. 40.3' + set 26x25" for S. 1/16 cor. Thence run W. at 8745' hub; 1202.8' P.I. on E. 1/16 line at sta. 1323.3' N.; 1772.4' hub; 2071.8' hub; 2396.4' P.I. on 1/4 line at sta. 1322.1' N.; 2577' hub; 2668.0' ent svp.; 3450.0' lv svp.; 3575.0' hub; 3785.0' $\frac{1}{4}$ state road; 3880.7' hub; 4076.4' point on Ten Mile lake E. of A.P. 2 129.1'

July 20. Meandering N. side of Portage. Set up over I.M. M.C. on W. side of lake sighted across lake + set pt. E of I.M. 22 lks on lake shore (chained with $\frac{1}{2}$ 50 link Gunter's chain) thence S 7° 45' W 200 lks - S 41° W 450 lks - S 7° 45' E 400 - S 12° E 350 - S 14° W 100 - S 54° 30' W 100 - S 24° W 350 - S 16° E 250 - S 8° 30' E 800 - S 14° W 150 - S 40° 30' W 450 - S 11° 45' E 200 - S 54° 15' E 400 - S 36° 30' E 150 - S 19° 30' E 500 - S 50° E 350 - S 66° 30' E 1085 lks to I.M.

Horst, Bacon, Greene, + Gabel go to sta 3973.2 N. + set the N. 1/16 s. cor. I.M. bet. sec. 25-30 from which we turn N. W. L. 89° 29' from random

C

91°14' from true line + run W. on N.W. line of sec. 25. At 121.0 hub on random line; 468.0' ent. swp.; 800.0' lv. swp.; 894.5' hub; 1135.0' ent. swp.; 1287.0' P.I. on E.W. line at 3953.0' N.; 1400.0' lv. swp.; 1600.0' of M. & J. Ry.; 1677.0' hub; 2072.0' hub; 2144.0' ent. swp.; 2558.0' int. & at 3994.6' N. S.E. $\angle = 87^\circ 47'$; 2824.0' cen. of creek N.S.; 3580.0' lv. swp.; 3663.7' hub; 3754.0' hub; 3793.0' temp. S.M.C. Portage Lake; 3836.5' hub at edge of lake. Fall 16.8' l. of A.P. No. 7. We go to sta 3940.8 on E.W. & set pt. 7.5' S. of random line, turn S.W. $\angle 91^\circ 22'$ and run S. on W.W. line to Ten Mile lake. At 200.0' lv. swp.; 292.0' hub; 603.9' hub; 758.0' hub; 1130.7' hub; 1272.0' & state rd. N.W.-S.E.; 1288.8' P.I. on S.W. line at 3797.6' W.; 1327.8' hub; 1400' set temp. S.M.C.; 1428.0' Ten Mile Lake.

July 21 Go to Sup. line + look for sec. cor. sec. 23-32 Gov't notes call for W. Pine 20 N 67° W 58 + P. stub 22 N 60° E 96. Fail to find any trace of cor. Thence N on Rge. line to cor. sec. 13-24-18-19 S.E. to look for cor. sec. 18-19-18-20. Find no trace of B.T.s. Gov't notes call for W. Pine 24 S 57° 30' E 37 - Pop 12 S. 55° W 77 - Pop. 7 N 42° 30' W 107 - W. Pine 24 N 26° E 227.

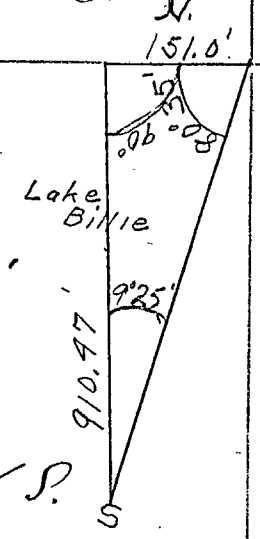
July 22. Start at temp. cor. sec. 30-31 2640.0' E of Gov't 14 cor. bet. 30-31 + run S. on 8°45' var. Look for 14 cor. B.T.s (2 poplars). Fail to find any trace of them. Heavy Brush - swampy - at 4100.0' quit for day.

July 26 Cont. line S. At 5424.8' int. E.W. line run by B.B.B. Chain W from sec. cor. 5-6-14-30 to our int. = 328.6' Go to sec. cor. 19-20-29-30 set transit over temp point that checks from stumps, and run S. on 8°45'. At 5451.6' E. P.I. + at 30.8' S. P.I. At 108.3' hub; 346.8' hub; 502.3' hub; 654.7' hub; 1120.0' ent. swp.; 1320' point in swp.; 1820.0' lv. swp.; 1899.0' hub; 2011.3' hub; 2369.0' ent. swp.; 2640.0' temp. stake; 2831.0' lv. swp.; 2932.5' hub.

July 27. Continue S. At 2975.0' & R.; 3216.0' hub; 3361.8' hub; 3518.6' hub; 3540.0' swp.; 3633.0' & East Branch; 3846.2' hub; 4364.0' A.P. hub. At hub 2489.4' E on rand. line bet. sec. 30-31 we set P.I. on a random line bet. sec. 29-30. N.W. $\angle = 85^\circ 11'$ P.I. on E.W. line = 2911.2' E. P.I. on N+S line = 5493.7' S. At 3233.5' hub East; 3519.3' hub East.

July 28 Continue random line E. bet. sec. 29-32. At 5292.7' we find 14 sec. cor. bet. 29-32 set 91133.2' of random line Cor. sets 50.0' S. of middle of Lake Martha. We go to where sec. cor. 29-30-31-32 was supposed to be and look for. N.S. B.T.s. Entirely obliterated.

July 29. Fusler + R. Goble go to NE cor. of sec. 30 and int. E.W. and N.S. random lines. S.W. $\angle = 92^\circ 20'$ P.I. at 5451.6' E. + 30.8' S. Then go to N.W. cor. sec. 30 and examine cor. set. by Lincoln Mackey. We find the original N.E. U.S. B.T. plainly marked from which run S 11° W 35.64' where we dig up the original cor. post 1.0' under moss. We find stumps of the remaining B.T.s but they are burned off at the roots and now marks remain. We set a 2 1/2 x 30' capped.



- 1.M. where we found the original post. No objects near for bearing. Horst, Fudler, Morris, Smith, Bacon, Goble, & Green were all witnesses to this cor. True cor. sets $L 34^{\circ} 45' 63.0'$ from false cor. Btg. from E. & W. random line. From P.I. hub. the cor. sets $L 6^{\circ} 30' 110.0'$.
 More Morris & Perry Smith rechain line running E from S.W. cor. sec. 30. Dist. = 2870.5'
- June 15, 1921. E.B. Horst & E.A. McPherson drive to Ten Mile Lake to check chaining & angles of sec. 25-141-31 which we find ok.
- June 18. Horst & McPherson work on N.W. cor. sec. 26, 141-31 where we look for the original sec. cor. to sec. 22-23-26-27. We decide to continue the random line bet. 22-27 W. to sec. cor. 21-22-27-28 for further information and leave outfit at N.W. cor. sec. 26.
- June 20. Work in office compiling notes of previous surveys in S.E. cor. of Twp. 141-31 & S.W. cor. Twp. 141-30 for use in work on sec. 25-26-141-31 & 30-141-30.
- June 22. Begin at sta. 8009.7 W. of Portage Lake bet. sec. 22-27 being a point 111.4' S. of the U.S.M.C. on E. side of Saddle Lake. A right W. across lake, set a point on line, cross over & right E. Turn $L 110^{\circ}$ & chain out 243.6'. Set over this point - interior angle = $50^{\circ} 03'$. Dist. over lake = 630.6'. At 8640.3 lv. lake; 8800.0' neck of swp.; 8971.5' tack in W.P. stump; 9025.0' ent. tan swp.; 9515.0' lv. swp.; 9740.0' hub on E. side road. No. 1; 9827.5' fall 76.0' W. of the original U.S. sec. cor. to 21-22-27-28 being a $4\frac{1}{2} \times 48$ " stake.
- June 23. Horst, McPherson, Goble, Aflworth make an all day search for sec. cor. & accessories to 19-20-29-30 & for evidence of the sec. line bet. 29-30 but are unable to locate anything of value.
- June 24. Set 1.M. on N. line of sec. 25. At sta. 325.0' E. of the U.S.M.C. on E. side of Portage Lake and on the true sec. line set a $2\frac{1}{2} \times 48$ " I.M. for M.C. on W. side small lake. 14 S. cor. falls E. 186.8' in water. We go E. of this lake and on true line at sta. 1100.0' E. of U.S.M.C. set a $2\frac{1}{2} \times 48$ " I.M. for M.C. This point is 588.2' E. of 14 S. cor. At sta. 1843.9' E. of U.S.M.C. set a $\frac{1}{2} \times 30$ " capped I.M. at true E. 16 S. cor. bet. 24-25-141-31.
- July 7-8. E.B. Horst, McPherson, & Goble set 1.M. in sec. 25-141-31.
- Dec 21, 1921. Horst-Beach & Beach begin at 14 S. cor. sec. 25-36 chain W. across Ten Mile Lake. At 34.2' M.C.; 3006.0' set temp point for sec. cor. on ice = 0.00' W. At 1363.0' M.C. on W. side lake bet. sec. 26-35; 1406.0' temp M.C. M.C. We chain from temp. sec. cor. N. bet. sec. 25-26. At 1312.0' set pt. for S.W. S. cor., 1755.0' I.M. at M.C. sec. 25-26.
- Dec 23. Horst & same crew begin at U.S. M.C. # 8 & chain W on sec. line. At 28.0' W. of M.C. M.C. we set a $2\frac{1}{2} \times 48$ " I.M. At 1628.0' U.S. M.C. # 9. We chain E. of M.C. # 9 13.9' and set a $2\frac{1}{2} \times 48$ " I.M. at the true 14 S. cor. bet. sec. 26-35 from which we run N. $3^{\circ} 30'$ E. on a random E.
- Dec 23. Con. E. N. and chain up what we run before. At 300.0' ent. swp.; 800.0' run along E. end of highland; 1000.0' swp. extend. W.; 1300.0' set temp stake & lv. swp.; 2175.0' ent. swp.; 2600.0' stake; 2675.0' lv. swp.; 4000.0' stake; 5316.0' P.I. on rand. line at 1950.0' W.

- Dec 27. of M.C. at Portage Lake + 108.6' N. of point for true 1/4 S. cor. bet 23-26. We go to Portage Lake + set temp. corners on ice for all points that fall in lake being the N.E. cor. sec 26 at 823' N. of M.C. - N 1/6 cor. bet. 25-26 S. 1314.0' - 1/4 cor. 25-26 S. 2628.0' - M.C. S. of lake S. 2916.0'. We walk to M.C. bet. sec. 26-35 near the S.W. cor. sec 26 + run the courses + distances given in N.S. meander notes for the purpose of tying to the U.S. M.C. bet 34-35. Beginning at M.C. 26-35 thence S. 32° W. 11.00 chains - 726.0'; thence S. 45° E. 7.00 ch. or 462.0' - S. 65° E. 7 ch. - S. 110° W. 7 ch. - S. 44° W. 10 ch. - 660.0' - S. 70° W. 10 ch. Courses do not check out. (Gut.)
- Dec 28. We set 1.M. on S. line sec. 26 at M.C. #10 #11 + #12 all 2" x 48". From M.C. #12 chain E. 288.5' ^{run N 40° E 208.0'} + set S.M.C. on popple point 1.M. N. 1/6 S.M.C. So west on sec. line to P.I. at 5487.4' S and 747.8' N. of M.C. #12 and chain W. 225.9' to the cor. to sec. 26-27-34-35 where we set a 2" x 48" 1.M.
- Dec 29. Same crew. Begin at the 1/4 S. point on Portage Lake and run N. 89° 30' W. (mag. brg. - Var 8° 45') on a random E + W. L. At 550.0' lv. lake; 625.0' set temp. S.M.C.; 1441.7' mark pine snag; 2400.0' ent. swp.; 2815.0' P.I. on N. + S. rand. L. at 2664.2' N. Continue W. and fall 24.8' N. of the true 1/4 S. cor. bet. sec. 26-27 which we establish by chaining N. 211.6' from a 3094.4 S, then W. 82.9° at 90° to random section line.
- Dec 30. Same crew. Go to sta 4162.6' S. on random line bet sec. 26-27 where we chain W. at 90° to random line 154.3 and set S. 1/6 S. cor. from which we run S. 89° 30' E. (mag) and int. the N. + S. L. 26.0' N. of the C.S. 1/6 cor. set true C.S. 1/6 cor. from which we run S. 89° 30' E. (mag) At 1445.0' set true S.E. 1/6 cor. At 2155.0' set S.M.C. on lake shore. Int. the stake at S. 1/6 cor. on ice.
- Dec 31. E. B. Horst in office on sec. 18-142-31. B.M. Beach with C.D. Beach begin at W. 1/6 cor. bet sec. 26-35 and run N. 4° E. (mag. brg.) on the W. 1/6 line and int. the sec. line bet. 23-26 92.0' N. of the true W. 1/6 S. cor.
- Jan 2, 1922. B.M. + C.D. Beach set the true C.N. 1/6 cor. sec. 26 from which we run E. on mag. brg. on N. 1/6 line. At 1519.0' int. state road; 1669.5' set S.M.C.; 2711.0' fall 1.4' S. of N. 1/6 point on Portage Lake. We go to the C.N. 1/6 cor. + run W. on N. 1/6 line and fall 13.0' S. of the true N. 1/6 bet. Secs. 26-27.
- Jan 3. Same crew setting 2" x 48" 1.M.s at all points not previously set and completing survey of sec. 26, 141-31.
- rec. 30 Jan 12. E. B. Horst, B.M. Beach, C.D. Beach, + Guy Goble begin at the 1/4 S. cor. (1.M.) bet. 30-31-140-30 and sight S. on random sec. line S. 87° 01' E. then run N 0° 21' E. on random L. sec. 30. At 260.0' lv. swp.; 327.0' county road on old grade; 520.0' ent. swp.; 630.0' lv. swp.; 820.0' ent. swp.; 1158.0' lv. swp.; 1300.0' stake; 1515.0' ent. swp. 1743.0' lv. swp.; 2600 stake; 3557.0' ent. swp.; 4000.0' stake; 4050.0' lv. swp.; 4688.0' ent. swp.; 4900.0' lv. swp.; 5240' ent. swp.; 5489.0' 1/4 S. cor. set to N. 36.3'

C

We go to sta. 1395.0' E. on random sec. line bet. 19-30 and sight S. 89°30' E. on sec. line. Then run S. 0°33' W. on random W. 1/6 line sec. 30.

Jan 13. Same crew + Albert Thomas continue W. 1/6 line + int. sec. line 23.6' W. of the W. 1/6 S. cor. 30-31. We go to random sec. line bet. sec. 29-30 at sta. 2640.0' S. + chain S 74.8' + W 135.0' + set true 1/4 S. 29/30. Run N. 89°20' W. on rand. & sec. 30. At 2100.0' svwp; 420.0' ent svwp; 1350.0' temp staki; 1400' lv. svwp; 1700.0' road; 2170.0' ent svwp; 2390.0' lv. svwp; 2649.4' P.I. on N. + S. & at sta. 2728.8' W., 3230.0' ent svwp; 3828.0' lv. svwp; 4039.0' P.I. on W. 1/6 line; 4178.0' old trail;

Jan 14. Continue & W. At 4212.0' ent. svwp; 4675.0' lv. svwp; 5492.8' 1/4 S. cor bet sec. 25-30 sets N. 20.6' (I.M.) We go to temp E. 1/6 cor. bet. 30-31 and chain E 0.6' + N 32.5' + set true E 1/6 cor. Thence N. 0°41' E. on rand. E. 1/6 line sec. 30. Set P.I. on E. + W. & at sta. 1333.7' W. From this point & chain N. 50.5' set post for true C.E. 1/6 S. cor. Continue N. + fall 9.6' W. of true E. 1/6 cor. bet. sec. 19-30

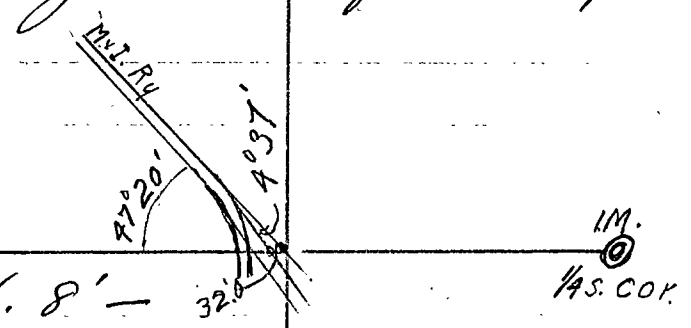
Jan 16. Same crew. Go to rand. sec. line bet. 29-30 at sta. 1357.4' S. + chain W. 67.5' + set post for true N. 1/6 S. cor. from which we run N. 89°30' W. Set P.I. on E. 1/6 line; int. & at sta. 4091.5' W. + fall 35.0' N. of I.M. at the N. 1/6 S. cor. bet. sec. 25-30 on range line.

Jan 17. E. B. Horst in Walker getting Lothrop plat + other docs. B. M. Beach in charge of crew sets true C. S. 1/6 cor. and thence S 89°44' E. on S. 1/6 line. Set P.I. on E. 1/6 line. Fall 35.7' N. of true S. 1/6 cor. bet. 29-30. Return to C. S. 1/6 S. cor. + run N. 89°50' W. on S. 1/6 line about 1/4 mile.

Jan 18. High wind + heavy snowstorm. Horst returns from Walker with I.M. S. Beach + crew setting I.M. + at following points; W. 1/6 bet. 19-30 - 1/4 S. bet. 19-30 - E. 1/6 bet. 19-30 - Sec. cor. 19-20-29-30 - W. 1/6 bet. 29-30 - 1/4 S. bet. 29-30 - C. E. 1/6 S. - C. 1/4 S. - C. S. 1/6 S. E. 1/6 bet. 30-31 - W. 1/6 bet. 30-31. Horst setting angle points on state highway.

Jan 19. Complete the S. 1/6 line W. of N. + S. & fall 11.1' S. of I.M. which is not at its true point for the S. 1/6 bet. sec. 25-30. This I.M. goes S 91° + W. 13.0' from where it now stands. Go to P.I. of M + I R₄ + true S. line sec. 30 + take following data:

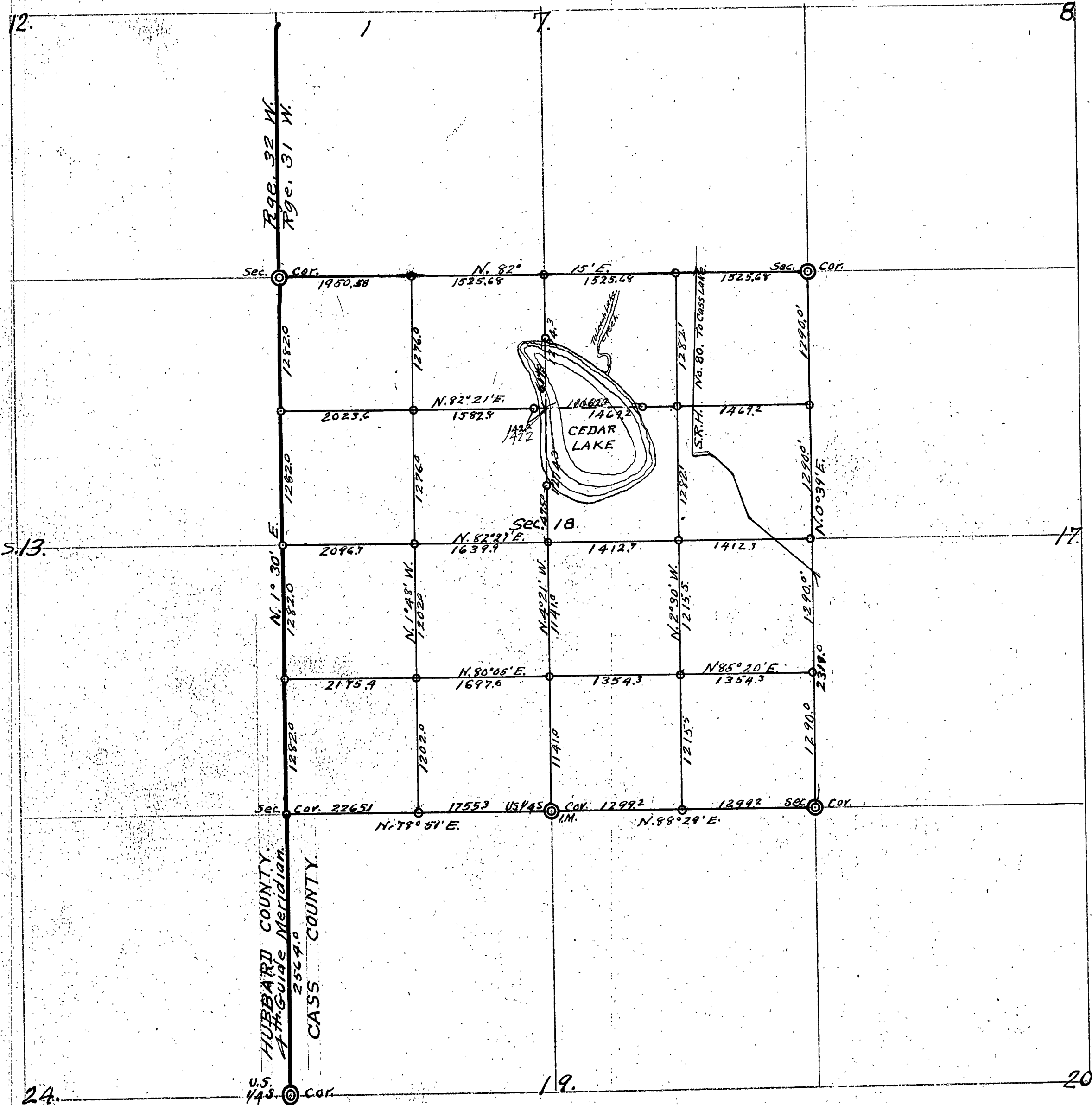
L. H. R. #80 traverse in sec. 30. S. line =
N. 88°30' W. From top in road 57.3' E. of
W. 1/6 cor. Thence N. 46°40' W. 170.5' - N. 53°55'
W. 847.8' - N. 87°05' W. 352.3' - S. 80°06' W. 746.8' -
N. 72° W. 165.0' to random W. boundary at 684.0' W.



Recorded Feb. 7, 1922 James H. Flynn, County Surveyor.
By E. B. Horst, Deputy

S. 18-142-31

Twp. 142 N. R. 31 W.
Secs. 17-18-19.



(●) Iron monuments at Gov't Corners.
 (○) " " " established corners.

Field notes of the subdivision of sec. 18 - Twp. 142 N. Rge. 31 W. of the 5th P.M.

Under contract of Dec. 2, 1919 E. B. Hout + Bert Anderson walk to E. side sec. 18 where we look for line cut by J. W. Carmen. Find same + follow it to established cor. 17-18-19-20 which is a capped I.M. set by J. W. Curo from Govt B.T.s. We walk N. on Carmen's line to P.I. of line + state road No. 1. Cross same + set transit 10.0' W. of Carmen's line + about 3000' N. of state Road.

- Dec 14, 1919 Erect 25.0' pole at cor. to sec. 17-18-19-20. Return to transit and begin cutting line S. to cor. thru heavy cedar + tan. swp.
- Dec 15. Continue cutting E. line of sec. 18 S. to sec. cor. From this cor. chain N. Sec. cor. = sta. 0.00 Thence N. 0° 42' E. on random line. At 630.0' ent swp.; 890.0' old road; 1300.0' stake; 1520.0' lv. swp.; 1600.0' top of ridge; 1700.0' ent swp.; 2300.0' lv. swp.; 2319.0' cen. state road No. 1; 2600.0' stake; 2623.0' hub on high ridge;
- Dec 16 Continue N. At 2640.0' look for 1/4s. cor. bet. 17-18. U.S. notes call for Yel. pine 5 S. 16° W. 15 lbs. + Birch 4' N. 82° E. 7 lbs. We do not find cor.; 3007.3' hub;
- Dec 20 Continue N. At 3267.5' hub; 3604.0' hub; 3900.0' stake; 4211.8' tack in birch stump; 4934.0' point on log; 5160.0' I.M. at cor. to sec. 17-8-17-18 sets N. 5.0' I set transit over sta 5160.0' + sight on E. 1/4 cor. bet. 7+18. S. W. angle = 81° 36' Mag. Var = 8° 45' E. Thence return to cor. sec. 17-18-19-20, turn N. W. angle 92° 48' from random line + run W. on N. side Chase's fence. Cut 1/2 mile without chaining.
- Dec 22 U.S. notes call for Y. Pine 90 N. 52° E. 14 lbs. + Poplar 6 S. 89° W. 53 lbs. at the 1/4 cor. bet. 18-19. We look for this cor. but are unable to find it. I learn from Frank Breece that Mickey Jude has in the past run cruiser's lines from this corner.
- Dec 23 Begin at cor. sec. 17-18-19-20 + chain W. At 740.0' hub; 863.0' fence cor. S. 20.0'; 900.0' ent swp.; 980.0' lv. swp.; 1300.0' farm ditch; 1400.0' stake; 1480.0' int. small pond; 1927.0' hub on high hill; 2436.0' marsh; 2570.0' lv. marsh; 2640.0' stake 2784.0' set hub A.P. Turn L. 93.0'. Sta. 2784.0' = 0.00. At 860.0' hub.
- Dec 26 Continue rand. sec. line W. At 1100.0' cross ravine; 1300.0' ent. tan. swp.; 1551.7' hub; 1800.0' lv. swp.; 2344.2' hub; 2910.0' E. side of lake; 3190.0' lv. lake; 3340.0' ent swp.; 3665.0' lv. swp.; 3734.0' set post. Turn N. E. = 78° 03' + run N. about 700.0' We look for cor. + B.T.s at 3734.0' W. but find nothing.
- Dec 27 Cut W. random sec. line N. about 4000.0' without chaining.
- Dec 29 Continue W. line + chain same from hub. 3734.0' W. At 300.0' N. ent. swp.; 600.0' lv. swp.; 1056.0' hub; 1110.0' ent swp.; 1500.0' swp. extends E. into sec. 18; 1770.0' lv. swp.; 1900.0' swp. 30.0' E.; 2121.6' stake; 2300.0' ent swp.; 2530.0' lv. swp.; 2817.1' hub; 3300.0' ent swp.; 3400.0' lv. swp.; 3825.3' stake; 3933.3' hub; 5037.0' hub; 5140.0' sec. cor. (I.M.) sec. 17-12-13-18 sets N. 8.4'. We go to the I.M. at E. 1/4 cor. bet. sec. 17-18. I sight E. to sec. cor. + turn S. E. = 96° 01' + run about 1/4 mile.

C

- Dec. 30. Continue E. 1/6 random line S. to random sec. line & int. same at sta. 1311.2' W. We walk W. & set a temp 1/4 s. cor. from the Nor. pine stub described by A. K. McPherson. I set transit at sta. 2600.0' W. on rand. sec. line & turn angle to 1/4 s. which sets 28.8' W. at sta. 2578.5' W. With transit at same pt. turn N. W. = 88° 05' and run N on rand 1/4 line. At 29.0' 1/4 s. sets E. 2.5'. Run N. 1/2 mi.
- Dec 31. Continue random 1/4 line to sec. line bet. 7-18 & int. 39.0' E. of 1/4 s. corner (I.M.). I accept McPherson's information and decide to use the Norway stub as evidence on the ground indicate it as N. S. B.T. Also very old lines run to this pt.
- Jan 2, 1920. I send Carl Rau & Earl McDougal to cut a picket line S. from sta. 3734.0' W. on random S. boundary of sec. 18. They cut about 1500.0' S. to a small marsh & chain 1300.0' & set stake.
- Dec 6, 1921. E. B. Horst, B. W. Beach & C. D. Beach look all day for the S. W. cor. of sec. 18-142-31 but all evidence is obliterated. I decide to continue the random W. boundary sec. 18 S. 0° 21' W. to the 1/4 s. cor. bet. sec. 19 & 24.
- Dec 7. Begin at P.I. hub near S. W. cor. of 18 & run S. 0° 21' W. At 565.0' hub; 1360.0' tam. sup.; 1575' lv. sup.; 1841 hub; 2227' hub; 2343.0' hub; I see the stumping of a 30' W. pine. N. S. notes call for W. Pine 30 S. 4° W / 35' lko., & Tam 5 S. 30° E. 52 lko. The W. pine stump is burned out on the blazed side but a part of the blaze bearing scribe marks is standing inside the stump. From this tree I set the 1/4 s. cor. on the 9th Guide Meridian, bet. Cass & Hubbard counties, bet. Rg. 31-32, sec. 19-24. The tam. B.T. is gone. I return to hub 2343.0' S. The true 1/4 s. bears S. 36° W. 258.0'. At sta. 2551.8' S. the 1/4 s. sets W. 151.6'. Therefore the S. W. cor. sec. 18 is located as follows: $5140 + 2551.8 = 7691.8 \div 3 = 2563.9 \times 2 = 5127.8'$ Tem. pt. goes N. 12.2' & W. 103.9'. Set true cor.
- Dec 8. Go to sta 1574.6' W. on S. boundary sec. 18, chain N 14.5' & set 2" x 48" I.M. for true W. 1/6 s. cor. 189 in a spruce sup. and run N. 1° 48' turn sec. 18 on W. 1/6 line.
- Dec 9. Complete W. 1/6 line & fall 1.6' E. of I.M. at the W. 1/6 cor. (I.M.) bet. 7-18. We walk to the W. 1/6 cor. bet. sec. 17-18 where we chain S. 70.0' from stake mhd. 3900.0' N. & W. 3.75' and set post for true W. 1/6 cor. from which we run S. 82° 07' W.
- Dec 10. Continue W. 1/6 line S. 82° 07' W. to W. 1/6 line thru heavy brush, spruce, tam, & cedar. Set P.I. at E. 1/6 line. From P.I. W. to Cedar Lake = 460.0'. At P.I. on N. & S. E. we set 20.0' tam pole in lake (9' of water). From this P.I. to W. side of lake = 160.0'. Set hub on P.I. at W. 1/6 line.
- Dec. 12. We complete the W. 1/6 line & set P.I. on random sec. line & fall 26.0' S. & W. 32.2'.
- Dec. 13. E. B. Horst & same crew setting I.M. in sec. 18. We set 2x48" I.M. at W. 1/6 S. cor. bet. 17-18 - N. E. 1/6 s. cor. - S. W. C. on N. side Cedar lake on N. & S. 1/4 line 617.0' N. of point for E. W. 1/6 cor. At E. W. 1/6 cor. set a 20 ft tam. pole in Cedar lake. From this point we chain W. on W. 1/6 line 142.2' & N. to true line & set 2x48"

for S.M.C. on 1/6 line - At N.W. 1/6 S. cor. set I.M.

Dec. 14. E. B. Horst + same walk to N. 1/6 S. cor. on W side sec. 18 + set 2"x48" I.M. We walk S to A 2817.1 S., chain S. 293.8' + set hub. Thence chain S.

82° 27' W. 56.6' + set 2"x48" I.M. for true 1/4 cor. bet sec. 18-13. From this point we run N. 82° 27' E. on random 1/4 line to rand. 1/4 S. E.

Dec. 15. Continue E. + W. E. and set P.I. on E. 1/6 line. Cut about 500.0' into Cedar swp. then go to a point on high hill near the 1/4 S. cor. to set Transit on our random E. but cannot see across swp on account of snow storm. We set I.M.s at the 1/4 S. cor. bet. 17-18 - at the S.M.C. on N. 1/6 line on E. side. Cedar Lake 1062.2' E. of C.N. 1/6 S. cor. at the S.M.C. on S. side of lake we set wood post 475.0' N. of P.I. on random E. S.

Dec. 16. Complete E. + W. E. Int. sec. line 17-18 15.0' N. of 1/4 S. cor.

Go to stake mhd. 1300.0' N. on rand. sec. line 17-18 + chain S. 10.0' + W. 1.25' + set 2"x48" I.M. for true S. 1/6 S. cor. (in swp) from which we run S. 85° 20' W. and set P.I. on E. 1/6 line.

Dec. 17. Continue S. 1/6 line to N. + S. E. + set P.I. Then chain from the 1/4 S. cor. sec. 18-19 N. to C. 1/4 S. cor. Dist. = 2282.0'. Point for C.S. 1/6 cor. = 1141.0'. P.I. is at 1133.0' N. From the true C.S. 1/6 cor. we run S. 86° 05' W. on S. 1/6 line. Set P.I. on W. 1/6 line + cont. W. to sec. line. We go to sta. 1056.5' N. + chain N. 237.5' on random sec. line + W. 80.0' + set 2"x48" I.M. for S. 1/6 cor. Continue S. 1/6 line W. + fall 24.0' N. of 1/6 cor. We set 2"x48" I.M.s at S.W. cor. sec. 18, at S.W. 1/6 cor., at C.S. 1/6 cor., at 1/4 S. cor. bet. 18-19, at E. 1/6 cor. bet. 18-19, at S.E. 1/6 cor., at C.E. 1/6 cor., and a 78"x8" iron rod for the S.M.C. on N. + S. E. on S. side of Cedar lake being 483.0' N. of C. 1/4 cor.

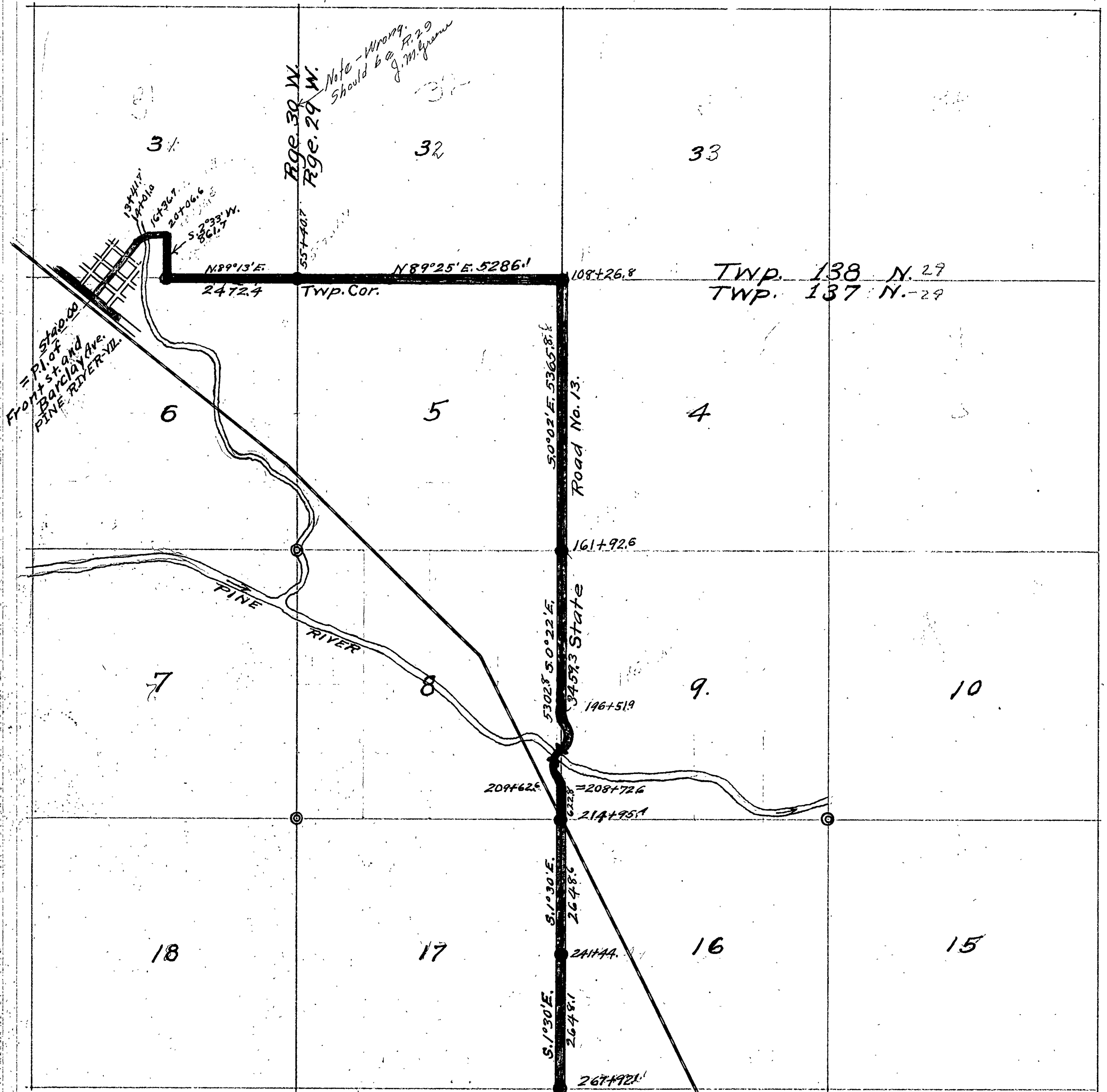
Recorded Feb. 9, 1922

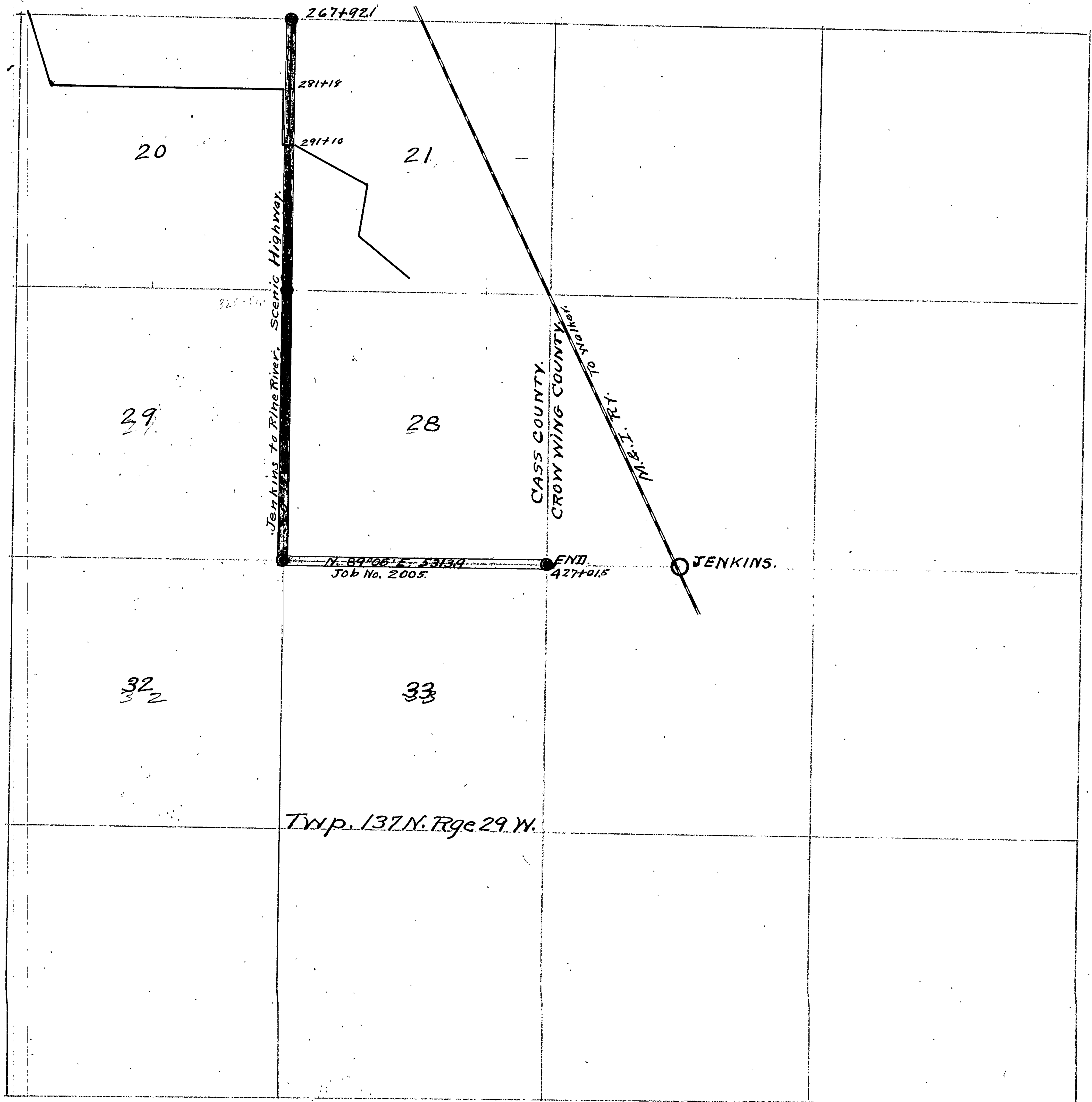
James H. Flynn, Co. Surveyor.
E. B. Horst, Deputy.

C

Survey Record No. 469.

Plat. 1





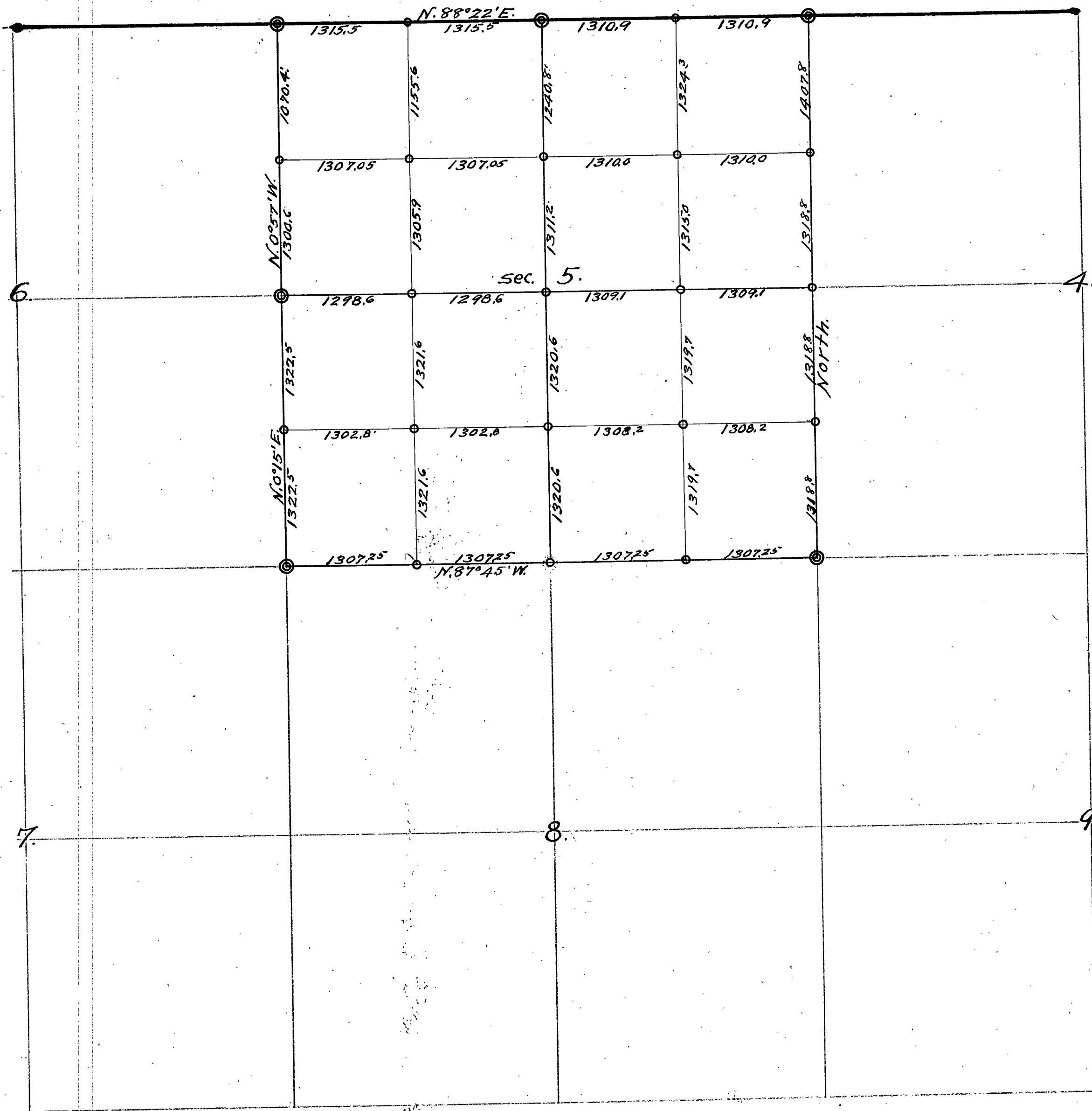
© 2" X 4' Iron Monuments at Corners.

Survey Record No. 470.

Plat.

Twp. 145 N., Rge. 31 W., 5th P.M.

Secs. 4-5-6-7-8-9.



C

Field notes of the subdivision

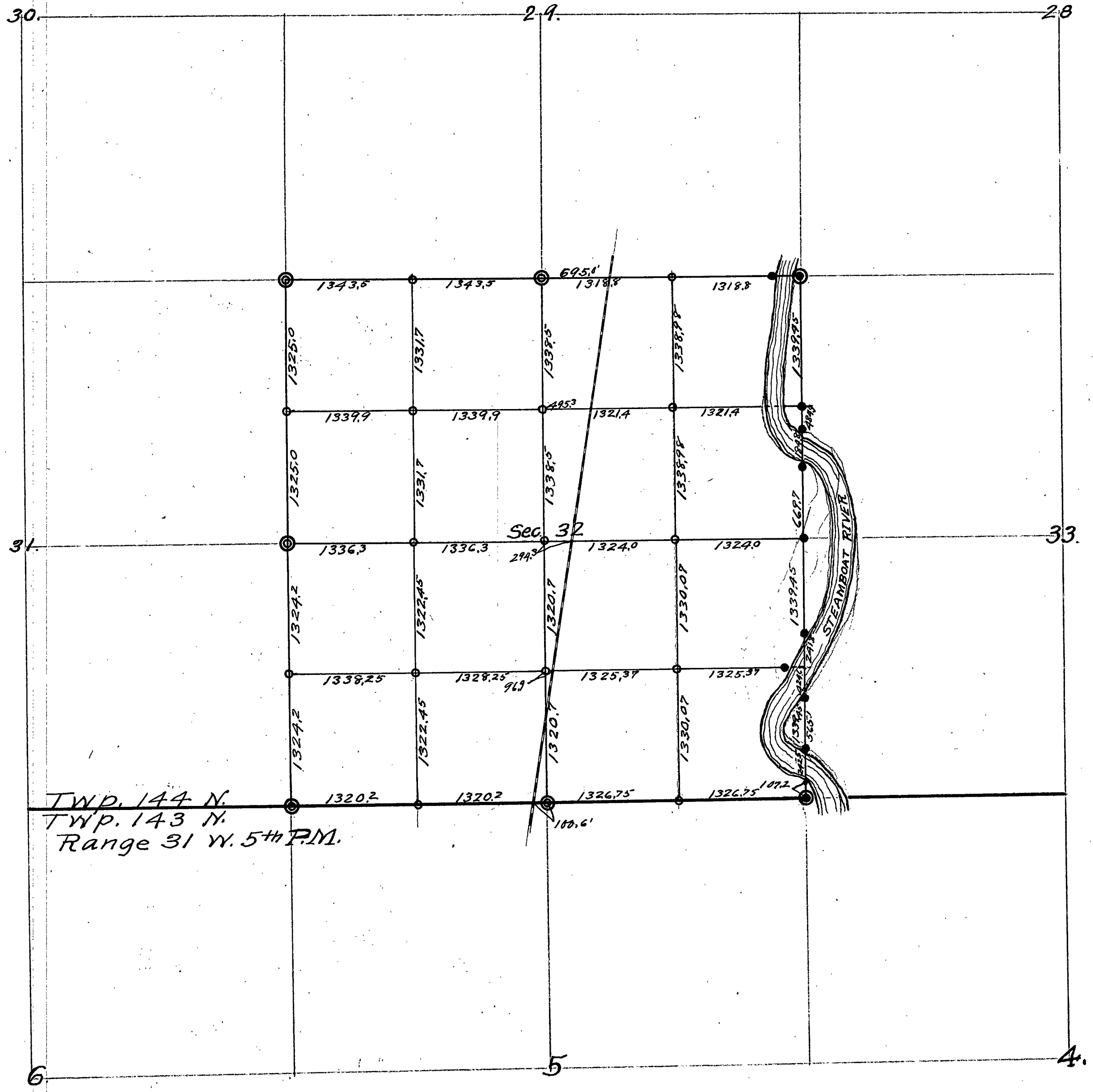
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C

C
Plat.

Survey Record No. 471.

144-31



TWP. 144 N.
TWP. 143 N.
Range 31 W. 5th P.M.

C

Field notes of the resurvey and subdivision of Sec. 32, Twp. 144 North, Range 31 West of the Fifth Principal Meridian.

Sunday, Jan. 10, 1915. Old field notes of previous surveys of this section read as follows:

Feb. 5, 1905. John W. Curo, Joseph Marsholek, E. W. Shapely, J. Shapely, and O. T. Wills go to the 1/4 S. cor. bet. sec. s 29-32-144-31 where U.S. notes call for a stake and the following B.T. - Nor. Pine 12" N. 32° W. 622 links and we find the B.T. from which we run S. 32° E. 410.52' where we find the old stake. We set a new stake and mark a new B.T. with an aspen 5" S. 76° W. 12.5' 130

Curo's notes of the reestablishment of this same 1/4 S. cor. and dated Aug. 13, 1914 read as follows: John W. Curo, J. S. Knouf, and crew go to the 1/4 S. cor. bet. sec. s 29-32-144-31 previously established by me where we find the old 1/4 stake. The stump of the old U.S. bearing tree still stands plainly marked and checks out for course and distance with the old stake we set. We set a new stake and mark bearings as follows: Nor. Pine 14 S. 39° 33' E. 58.25 + Twin Popples 10 N. 43° 24' E. 55.17' to flat spot at base of trees for bearings to the true 1/4 S. cor. bet. sec. s 29-32-144-31. On Nov. 2, 1914 Roy Bryant and an axeman furnished by J. S. Knouf run a transit line S. and W. from this 1/4 cor. We find their old out out line. 154

Herbert D. German, transitman, new Shuley transit in perfect adjustment. We run double center hubs. John W. Curo and J. S. Shapely, chainmen, 100' steel tape, plumb. bob, Louis Shapely, and J. S. Knouf, axeman. We go to the 1/4 S. cor. on S. line of sec. 32-144-31 where U.S. notes call for a post and the following B.T.s: Asp. 4" S. 75° E. 40 links and Asp. 3" N. 8° W. 47 links. We find the old stake and the stump of the N.W. bearing tree plainly marked from which we set a hub and tack for the true 1/4 cor. and mark new bearings as follows:

Pop. 8" S. 18° 10' W. 34.0 + Tam. 7" N. 73° 47' W. 9.42' at 9045' var. to head of 20' spike driven in flat spot at base of tree. We start a line N. at 7° var. Curo and I run a line N. thru 32 on 8° 35' var. to get a line on the buildings that may be in our way. Beginning at the true 1/4 S. cor. on S. side sec. 32-144-31 run N. on 9° 45' var. 100.0' set pin; at 100.4' cor. of S. N. Ry. bears N.E. + S.W.; 600' stake; 1000' spike in sand; 1180' spike in sand (var. changes to 8° 35'); 1200' stake; 2078.25' spike in sand (var. reads 8° 25'); 2095.0' road N.E. + S.W.; 2100.0' stake, quit for night. 241

Jan. 11, 1915. Same crew - continue W. At 2640.0' camp sec. cor. True cor. sets 0.4' W. + 51.0' S. At this point U.S. notes call for post and fol-

lowing bearing trees: Asp. 7" S. 58° W. 72 lks. (+7.52'), Asp. 7" N. 44° W. 97 lks. (64.02), Asp. 3" N. 77° E. 99 lks. (65.34), Asp. 4" S. 68° E. 130 lks. (85.80)

We find the S.E. B.T. standing green and the tall stump of the N.W. B.T. plainly marked from which we set true cor. by proportionate measurement. We find the old N.S. post at which point we drive a small green hub for true cor. from which the old N.W. B.T. bears

C

N. 44° W. 63.55', the old S. E. B.T. bears S. 68° E. 85.17' at 8° 45' var. E. We make new B.T.s as follows W.P. 14 S. 50° 36' W. 28.75', W.P. 8 64° 27' E. 55.65', W.P. 12 N. 40° 18' W. 56.95', & W.P. 14 N. 56° E. 77.0' to head of 20^g spike driven in flat spot at base of trees at 8° 45' E. for the true cor. to sec. 32: at 31-32-5-6 bet Twp 143-144-31. Correcting the S. boundary of sec. 32: at 2640.4' W. sec. cor sets S. 51.0'; at 2078.25' chain S. 39.49' set spike and tall stake marked "true sec line", at 1320.2' W. we chain S. 25.50' at which point we drive spike for the true W. 1/4 cor. bet. sec. 32-5 and mark new B.T.s as follows: Pop. 2 S. 63° 50' E. 56.2' & W.P. 10 S. 14° 50' W. 53.0' 8° 45' var.

Jan 12

Started at previously established stake at S.W. cor. sec. 32 & run a random line N. at 8° 30' var. At 600.0' set hub; 1320.0' set hub & stake; 1920.0' set hub & stake, 2640.0' hub temp. 1/4 cor. bet. sec. 31-32 the true 1/4 cor. sets N. 8.4' & E. 10.15'. At 2654.0' center of Co. Rd. bears E. & W.; 3340.0' hub; 3960.0' hub temp 1/16 cor.; 4560.0' hub; 5280.0' hub; 5295.0' the true cor. to sec. 29-30-31-32 sets 37.80' E. At the 1/4 cor. bet. sec. 31-32 N. S. notes call for a post and the following B.T.s: Pop. 4 N. 55° W. 3 lks (19.8') & Pop. 4 S. 62° E. 10 lks. (6.6') On Feb. 6, 1905. John W. Curo who was then Co. Surveyor of Cass Co. found this stake and old B.T.s from which he set a 4x4" tam. post and marked new bearings as follows: Tam. 7 S. 39° E. 64.75' & W.P. 6 N. 56° 45' E. 57.0' The post is gone but we find both new B.T.s still standing which check out perfectly with a stone which was buried in place of the stake Var. 8° 15'.

Jan 13

Gorman - Shapely Bros. - & Knopf work. Start Bill Knopf & Louis Shapely cutting line N. thru cen of W. 1/2 of sec. 32. We Shapely and Gorman go to the 1/4 cor. previously established bet. sec. 29-32 and chain W. over the transit line run by Roy Bryant. At 600.0' hub; 1320.0' hub; 2120' hub; 2640.0' hub; at 2687.0' the true cor. to sec. 29-30-31-32 sets 27.8' S. Begin @ 1/4 cor. bet. 5-32 & run N. var 6° E. thru cen of sec. 32. At. 600.0' hub; 1320.0' hub; 1920.0' hub; 2640.0' hub temp cen of sec. 32-144-31. To correct W. side of S.W. 1/4 of sec. 32. at 2648.4' the 1/4 S. cor. goes E. 10.15' & at sta. 1324.2' W. the 1/16 cor. goes E. 5.07'.

Jan 14

Continue transit line N. thru cen. of sec. 32. At. 3340.0' hub; 3960.0' hub temp. 1/16 cor.; 4560.0' hub; 5280.0' hub; at 5314.7' the 1/4 S. cor. sets 190.9' W. To correct N. & S. E. 5314.7' goes W. 190.9'; 3960.0' goes W. 142.24'; 2640.0' goes W. 94.83' & 1320.0' goes W. 47.41'.

Jan 15

Beginning at the 1/4 cor. bet. 29-32 run E. on 9° 30' var. At. 600.0' hub; 695.0' cross S.N. Ry. which bears N.E. & S.W.; 1320.0' hub; 1920.0' hub; 2640.0' hub temp. N.E. cor. of sec. 32. Leave this line and begin at 1/4 S. cor. bet. sec. 5-32 and run E. on 9° 45' var. At 200.0' ent. sup.; 600.0' stake; 1320.0' temp 1/16 cor.; 1920.0' stake; 2640.0' temp. cor. sec. 4-5-32-33. True cor. sets N. 5.5' & E. 13.5'. At this point U.S. notes call for post and following B.T.s: Tam 3 N. 49° W. 95 lks. (62.7'); Tam. 3 N. 54° W. 100 lks. (66.0'), Tam. 2 1/2 S. 58° W. 55 lks. (36.3'), Tam. 3 S. 52° W. 59 lks. (38.94') We find the old stake set well into the mud from which the two N.W. B.T.s stand correct for course and distance. We take

C

new bearings as follows: Spike in Cedar post 4' bears N. 52° W. 65.6'.
Beginning at a point 1320.0' N. of the S.W. cor. of 32 & start
two men cutting line E. on $9^{\circ}45'$ var. thru cen. of S. $\frac{1}{2}$ sec. 32.
Then correct the S. boundary of the S. E. $\frac{1}{4}$ of sec. 32 as
follows: At sta. 1326.75' true $\frac{1}{16}$ cor. goes N. 2.75' and mark new
bearings as follows: Tam. 7 S. $51^{\circ}49'$ W. 37.0' & Tam. 6 N. $34^{\circ}15'$ E.
46.5' var. $9^{\circ}30'$

Jan. 16.

Setting transit on a hub 2640.0' E. of the $\frac{1}{4}$ cor. bet. 29-32 &
focus telescope on the true S. E. cor. of 32 and cause a spike hub
to be set in the big open swp. near the $\frac{1}{4}$ cor. bet. 22-33. Then
carry transit to S. E. cor. sec. 32 focus telescope on hub spike
about half mile N. & cause a line of pickets to be set.
Begin at S. E. cor. sec. 32 chain N. along line of pickets. A 600.0'
set stake; 1320.0' set stake; at 1920.0' stake; 2640 stake temp. $\frac{1}{4}$
cor.; 3340.0' set stake; 3960.0' stake; 4560.0' stake; 5280.0' stake.

Jan. 18.

Begin at E. $\frac{1}{16}$ cor. bet. 5-32 & run N. thru E. $\frac{1}{2}$ of sec. 32 in big
swp. thru small scattering dead trees. Var. about $9^{\circ}15'$ E. Not chained

Jan. 19.

Begin at W. $\frac{1}{16}$ cor. bet. 5-32 & run N. thru W. $\frac{1}{2}$ of sec. 32. Run
about a mile N. without chaining. Then begin at a point
1320.0' N. of the S.W. cor. of 32 and continue our transit line E.
on S. $\frac{1}{16}$ line sec. 32. Run about 1 mi. E. without chaining

Jan. 20.

We begin at E. $\frac{1}{16}$ bet. 5-32 & chain E. $\frac{1}{16}$ line. at 600, 1320, 1920,
2640, 3340, 3960, 4560, & 5280' set measure stakes but do not use
transit. Begin at W. $\frac{1}{16}$ W. $\frac{1}{16}$ cor. bet. 5 & 32 & chain W. $\frac{1}{16}$ line N.
at 600, 1320, 1920, 2640, 3340, 3960, 4560, & 5280' set measure stakes but
do not use transit.

Jan. 21.

Begin at a point 1320.0' N. of S.W. cor. sec. 32 being 4.2' S. & 5.07' W.
of true $\frac{1}{16}$ cor. run transit line E. on S. $\frac{1}{16}$ line sec. 32. var. $9^{\circ}30'$
At 1320.0' spike, 2640.0' spike, about 2765.0' cross Ry., 3240.0' int. swp.,
3960.0' spike 5280.0' spike in ice near W. branch of Steamboat R.

Jan. 22.

Curo comes from Walker, via Bemidji. Arrives at Wilkinson 7:40 A.M.
Curo, Gorman, Shapely Bras, & Bill Knoud go to the cor. to sec. 3
29-30-31-32 where U.S. notes call for post and fol. B.T.s: N. O. 11 N. 15° E.
225 lbs. (48.5); Nor. Pine 12. N. $32^{\circ}30'$ W. 28 lbs. (18.48); Asp. 4 S. 39° E. 14 lbs. (9.24)
We find the stump of the N.W. tree plainly marked and the N.E. tree
standing green and plainly marked but they do not quite check
out for course and dist. We set true cor. by proportionate measure-
ment. (4x4x36 post) from which a spike in old N.W. B.T. stump
bears N. $16^{\circ}37'$ W. 19.08'. Old N.E. B.T. bears N. E. 142.18' & Spike in
8" dead Nor. Pine bears N. $80^{\circ}12'$ W. 19.50'. var. $8^{\circ}50'$.

Jan. 23.

We check chain the W. side of the N.W. $\frac{1}{4}$ also N. boundary sec. 32.
Curo & Gorman try to locate the N.E. cor. sec. 32 & figure correction.
Curo & Gorman figure corrections and look for B.T.s to N.E.
cor. sec. 32. We check chain S. side of S. E. $\frac{1}{4}$ of 32. Begin at cor.
to 32-33-4-5 we chain N. along a line of stakes. At 105.6 set temp.
N.C. on N. bank of Steamboat R. which runs S. E. at this point
U.S. notes call for post and Tam. 3 N. 84° W. 55 lbs. (50.82) & Tam.

and tam. $7 S 76^{\circ} W. 83$ lks. (54.78'). All are gone and we continue N. At 344.52 set stake for temp M.C. for S.E. cor. of Gov't Lot 5 sec. 32. Due left bank of river at which point U.S. notes call for post and Tam. $371^{\circ} E. 760$ lks. (501.6'). Obliterated. Continue N. At 901.56 set stake for temp M.C. at N.E. cor. Gov't lot 5. Ent. left branch of Steamboat river at which point U.S. notes call for post and Tam. $38.64^{\circ} E. 343$ lks. (226.38') and Tam. $377^{\circ} E. 329$ lks. (217.14') All are gone + we continue N. At 1320.0' set temp $1/6$ cor on ice 20.0' E of W. branch of river for temp M.C. on E. side of Lot 4 sec. 32 where U.S. notes call for tam. $5 N 61^{\circ} W 195$ lks. (128.7') + tam. $577.5^{\circ} W. 190$ lks. (125.74'). All are gone. Cont. N. At 1700.0' lv. Right bank of river, at 2640.0' set temp $1/4$ cor. bet. 32-33 where U.S. notes call for post and Tam. $38 49^{\circ} W. 105$ lks. (69.30') + Tam. $37.75^{\circ} W. 65$ lks. (42.9') Obliterated. Cont. N. 3300.0' set temp M.C. on E. side of Lot 3. Ent. R. bank of river at which pt. U.S. notes call for post + Tam. $5 S 85^{\circ} W. 120$ lks. (79.2') - Tam. $4 S 75^{\circ} W. 107$ lks. (70.62') All are gone. Con. N. At 3482.16 set stake on ice for temp M.C. for S.E. cor. Gov't lot 1 where U.S. notes call for: Tam. $4 N 3^{\circ} E. 700$ lks. (264.0') Tam. $47.4^{\circ} E. 500$ lks. (330.0') All are gone. Cont. N. At 3505.0' lv. left bank of Steamboat river; 3960.0' temp $1/6$ cor; 5280.0' temp cor. sec. 28-29-32-33-144-31 where U.S. notes call for spruce $4 N 67^{\circ} E. 950$ lks. (627.0') + Tam. $4 E. 800$ lks. (528.0') Do not look for corner.

Jan 24. Check up on $1/4$ cor bet 29-32 where we find the stump of the old N.W. B.T. which checks out with a spike driven for the true cor. At wood hub sets. $9' S. 4.4'$ E of true $1/6$ cor. Begin at the $1/4$ cor. bet. 31-32 run E along cutout Co. Rd. var. $9^{\circ} 0'$. At 1320.0' set stake; 2180.0' stake; where we set transit, back sight on true $1/4$ cor and cont. E. At 2400.0' hub; 2600 + 2700 hub; 2969.4' & E. N. 14. 3200 stake.

Jan 25. Cont E+W. E sec. 32. At 3550.0' ent. prop; 3969.85' hub; 5321.50' hub; 5322.50' about int. N+S. line of stake at a pt. 65.7' N. of temp. $1/4$ cor. 2705.7' N. of S.E. cor. sec. 32. At 5320.0' int. the true sec. line at a pt. 96.80' N. of the $1/4$ cor. bet 32-33. To put in the N.E. cor. of sec. 32. Begin at $1/4$ cor. bet. 29-32 run E. At 1732.0' an old Birch line tree stands $3.0'$ N.; at 2640.0' set hub. Thence N. 4.62' so as to have my line pass thru the old Birch line tree. At the cor. to sec. 28-29-32-33 U.S. notes call for a post and Spruce $4 N 67^{\circ} E. 950$ lks. (627.0') + Tam. $4 E. 800$ lks. (528.0'). We find the 4" Tam. from which we chain W. 528.0' to an intersection of our line at a point 2632.6' E. of the $1/4$ cor. at which point we a cedar post 20 ft. into the soft meadow from which the stump of the old N.E. B.T. stands correct for course and distance. The cedar post at the cor. to sec. 28-29-32-33 is a $30' \times 7"$ pole driven top end down with the squared butt end sticking 10 ft. above the level of the meadow and sets $33.0'$ E. + $132.0'$ S. of the E. bank of Steamboat River. Working transit on line near the $1/4$ cor. bet 32-33 focus telescope on stake at S.E. cor. of 32. back sight on N.E. cor. then chain N. At 1320.0' temp $1/6$ cor; 2640.0' temp $1/4$ cor; 3960.0' temp $1/6$ cor; 5280.0' temp. sec. cor. the true sec. cor. sets N. $77.8'$ Connecting back,

C

3960.0' goes N. to 4018.35' where we set stake for true N. $\frac{1}{16}$ cor. 2640.0' goes N. to 2678.9' where we set stake for true $\frac{1}{4}$ cor. 1320.0' goes N. to 1339.45' where we set stake for true S. $\frac{1}{16}$ cor.

Jan. 26. Correcting E. & W. $\frac{1}{2}$ sec. 32 At 5320.6 E. the $\frac{1}{4}$ cor. goes S. 26.8'; at 3963.85 the $\frac{1}{16}$ cor. goes S. 19.97'; At 2672.6 the cen. of sec 32 goes S. 13.46' At 1336.3' the $\frac{1}{16}$ cor. set. S. 6.7'. Begin at true $\frac{1}{4}$ cor. on S. side sec. 32 run N. Var. $7^{\circ}15'$ E. At 1400.0' hub; 2600.0' hub; 3100' hub; 4000' stake; 4149.85' hub. Fit pop. tree near H. E. Knopf's house and offset 12.0' W. & run N. 12.0' W. of random line. At 4337.3' hub; 4779.6' hub. Offset 12.0' E. to hub on random line. Cont. N. At 5318.4 the $\frac{1}{4}$ s. cor. bet. sec. 29-32 set. 1.2' E. Correcting back. 5318.4' goes E. 1.2'; 4779.6' goes E. 1.08; 4337.3' goes E. .98; 4149.85' goes E. .94; 3100.0' goes E. .70; 2600.0' goes E. .59; 1320.0' goes E. .50' At a pt. 2641.4' N. of the $\frac{1}{4}$ cor. on S. side of sec 32 the true cen. of sec 32 set. E. 60'. Correcting S.; at 1320.7' N. we chain E. .80' where we drive a spike in the ground for the Cen. S. $\frac{1}{16}$ cor. of sec. 32. At a pt. 2672.6' E. of the $\frac{1}{4}$ cor. bet. sec. 29-32 the true cen. of sec. 32 set. S. 13.46'. Correcting W. At a pt. 1336.3' E. we chain S. 6.7' to true Cen. W. $\frac{1}{16}$ cor. We set cen. of sec. 32 at a pt. where the true E. & W. $\frac{1}{2}$ cross the true N. & S. $\frac{1}{2}$ and drive a spike in the S. side of the Co. road for true cen. $\frac{1}{4}$ cor. sec. 32.

Jan. 27. Gorman & Shapely Bros. work. I start at $\frac{1}{4}$ cor. bet. sec. 29-32 & run new random line E. At 1320.4' set hub from which we set a short line of pickets for correction purposes. At 2637.6' the true cor. to sec. 28-29-32-33 set. N. 8.7'. Correcting back, At 1320.4' we chain W. 1.6' to 1318.8' & N. 4.35' where we set spike for true E. $\frac{1}{16}$ cor. bet. sec. 29-32 with new B.T.s as follows: N. Pine 8 S. $17^{\circ}05'$ W. 78.85' & N. Pine 67 $1^{\circ}08'$ E. 11.9' to head of spike in flat spot at base of trees. With transit on true $\frac{1}{16}$ cor. focus telescope on true cor. sec. 28-29-32-33 from which we chain W. along true line. At 33.0' set post for true M.C. on W. side of Steamboat River. Thence W. along true line 52.2' where we drive tall stake in meadow for Wit. cor. to M.C. on W. bank of river. At 905.6' W. int. an old birch stub on true line. This birch was blazed by U.S. surveyors & shows that our line is correct. At 1318.8' int. $\frac{1}{16}$ cor. just set. True line reads $9^{\circ}15'$. Beginning at $\frac{1}{4}$ cor. bet. sec. 29-32 run a new random line W. Needle reads $9^{\circ}45'$ E. At 212.0' road N. & S.; 393' hub; 1300.0' hub; 1944' hub; 2687.0' the cor. to sec. 29-30-31-32 set. S. 21.65'. Correcting back: 1944' goes S. 15.66', set stake mkd. "true line". At 393' set stake S. 3.17'. At 1300' we chain W. to 1343.5' thence S. 10.82' where we drive spike for true W. $\frac{1}{16}$ cor. bet. sec. 29-32 with B.T.s as follows: J. Pine 13 S. $75^{\circ}31'$ W. 22.8' and N. Pine 14 N. $34^{\circ}19'$ E. 65.4' to spike in flat spot in base of trees.

Beginning at a pt. 37.85' W. of cor. to sec. 29-30-31-32 run S. over cutout transit line. At 600.0' hub; 1233.5' hub; 2000.0' hub; 2650.0' the $\frac{1}{4}$ cor. bet. sec. 31 & 32 set. E. 10.15'. Correcting back, 2000.0' goes E. 16.94; 600.0' goes E. 31.58; 1233.5' goes S. to 1325.0' thence E. 24.5' where we drive a spike for true $\frac{1}{16}$ cor. bet. sec. 31-32 with B.T.s as follows: J. Pine 12 S. $20^{\circ}16'$ W. 194.2'

C

J Pine 10 S. $87^{\circ}57'$ W. 111.9' Connecting S. half of W. boundary sec 32. At a pt. 2648.4' N. of the cor. to sec. 5-6-31-32 the $\frac{1}{4}$ cor. bet. sec. 31-32 sets E. 10.15'. 1320.0 goes N. 4.2' + E. 5.07' where a spike for S. $\frac{1}{16}$ cor. bet. sec. 31-32 with B.T.s as follows: W. Pine 14 N. $70^{\circ}15'$ E. 39.2' + Pop 12 S. $48^{\circ}22'$ E. 42.25' Beginning at S. $\frac{1}{16}$ cor. 31-32, run E. over cutout transit line At 600.0' hub; 1320.0' hub; 2656.5 the C.S. $\frac{1}{16}$ cor. sec. 32 sets S. 24.5' Mark B.T.s for this cor. as follows: Tel. Pole 10 S. $86^{\circ}40'$ E. 58.35' + Non Pine 12 N. $10^{\circ}31'$ E. 70.4'

Jan 28.

Start Lewis Shapely cutting line E. from Cen S. $\frac{1}{16}$ cor. Gorman & Uri Shapely begin at the $\frac{1}{4}$ cor. bet. sec. 31-32 + run E. thru cen. of sec. 32. at 1300.8' st. line of stakes, at 2672.6' the cen. of sec. 32 sets S. 13.46' Correcting back, at 1300 we chain E. to 1336.3 thence S. 6.7' where we drive a spike for true C.W. $\frac{1}{16}$ cor. with B.T.s as follows: Pop. 8 N. $20^{\circ}22'$ W. 44.3' + J. Pine 10 S. $53^{\circ}30'$ W. 52.2'. We establish the true S.W. $\frac{1}{16}$ cor. as follows. At a pt. on our random line 2656.5' E. of the S. $\frac{1}{16}$ cor. bet. sec. 31-32 the C.S. $\frac{1}{16}$ cor. sets S. 24.5'. Correcting back, at 1328.25' E. we chain S. 12.25' which int. the true W. $\frac{1}{16}$ line at a pt. 1322.45' S. of the cen. of the W. half and at a pt. 2644.9' N. of the W. $\frac{1}{16}$ cor. bet. sec. 31-32 the true $\frac{1}{16}$ cor. in cen. of W. half of sec. 32 sets W. 30.0'. Correcting back, at 1322.45' N. we chain W. along the true E. + W. cen. line of the S.W. $\frac{1}{4}$ of sec. 32 a dist. of 15.0' at which pt. we int. the stake previously set for the true cen. of S.W. $\frac{1}{4}$ where we drive a spike for the true S.W. $\frac{1}{16}$ cor. with B.T.s as follows: J. Pine 8 N. $13^{\circ}45'$ W. 49.0' + W. Pine 6 S. $65^{\circ}20'$ W. 47.2' Correcting N. + S. E., at a pt. 5318.4' N. of the $\frac{1}{4}$ cor. on S. side sec. 32 the $\frac{1}{4}$ cor. on N. side sets E. 1.2'; 3979.9' N. the $\frac{1}{16}$ cor. goes E. .089' where we drive a spike for true C.W. $\frac{1}{16}$ cor. with B.T.s as follows: N. Pine 10 S. $15^{\circ}12'$ W. 86.95' + N. Pine 6 S. $6^{\circ}32'$ E. 39.30'. I run a random line W. on N. $\frac{1}{16}$ line. Curo arrives from Walker.

Jan 29.

Curo & Wm Knowf work in one crew while Gorman & Uri Shapely work in another. Gorman & Shapely set cedar stakes bet. sec. 32-33. Curo & Knowf check chain the W. $\frac{1}{2}$ of N. boundary of 32 + cut out the N. $\frac{1}{2}$ of the W. boundary. Gorman & Shapely go to the N. $\frac{1}{16}$ cor. bet. 32-33 + set 15.0' cedar pole 12.0' into mud for true $\frac{1}{16}$ cor. Thence go to $\frac{1}{4}$ cor. bet. 32-33 + drive 30.0' cedar 20.0' into the mud for true $\frac{1}{4}$ cor. Thence go to a point 851.15' N. of the S.E. cor. of sec. 32 + place a 5" cedar 17.0' into the mud for Wit. Cor. 50.5' S. of M.C. at N.E. cor. of lot 5 on E. side of Steamboat River.

Jan 30.

Curo, Gorman & Bill Knowf begin at N. $\frac{1}{16}$ cor. bet. 31-32 + run E. At 1339.9' hub; 2265.0' hub; 2679.8' the $\frac{1}{16}$ cor. (Cen. N.) sets N. 1.6'. Correcting back. 2679.8' goes N. 1.6'; 2265.0' goes N. 1.36', 1339.9' goes N. 8'. Then begin at a pt. on cut out transit line 30.6' E. of the C.W. $\frac{1}{16}$ cor. + chain N. on W. $\frac{1}{16}$ line. At 732.0' hub; 1331.7' hub on true N. $\frac{1}{16}$ line; 1932.0' hub; 2663.4' W. $\frac{1}{16}$ cor. bet. sec. 29-32 sets W. 50.85'. Correcting back, 1932.0' goes W. 45.29'; 732.0' goes W. 36.17'; 1331.7' we chain W. along N. $\frac{1}{16}$ line 40.72' where we drive spike for true N.W. $\frac{1}{16}$ cor. with B.T.s as follows: J. Pine 12 S. $21^{\circ}48'$ E. 75.85' + Twin J. Pines 14 S. $45^{\circ}48'$ W. 64.87'. Angle of N. $\frac{1}{16}$ line = $88^{\circ}18'$.

Jan. 31

At a pt. on random line 5338.1' N of the E. $\frac{1}{16}$ cor. bet. sec. 29-32 the E. $\frac{1}{16}$ cor. bet. 29-32 sets W. 95.6'. Correcting back, at 1399.12 we chain W along true N. $\frac{1}{16}$ line 70.7' where we set a cedar post in swp. for N. E. $\frac{1}{16}$ cor. with B.T.s as follows. Cedar stump 7 S. 70° E. 10.78' + Cedar stump 8 S. 45° W. 9.03' to nail in flat spot at base of stump. To get the true N. $\frac{1}{16}$ line we set transit on N. $\frac{1}{16}$ cor. bet. 32-33 focus telescope on E. N. $\frac{1}{16}$ cor. and run a true line W. to an intersection with the true E. $\frac{1}{16}$ line. To get the C. E. $\frac{1}{16}$ cor. we begin at a pt. on E. $\frac{1}{16}$ line 2660.15' N. and chain W. 47.8' where we set a cedar post in swp. for the true C. E. $\frac{1}{16}$ cor. with B.T.s as follows: Cedar stump 4 S. 50° W. 1.98' + Cedar stump 4 N. 10° E. 13.5'. To get the E. + W. $\frac{1}{16}$ at this point, we begin at hub 3963.85' on E + W ran. $\frac{1}{16}$, chain S. 19.97' where we set transit, backsight on true C. E. cor. + run E to an int. of the true N. + S. $\frac{1}{16}$. To get the S. E. $\frac{1}{16}$ cor. we set transit on S. $\frac{1}{16}$ line, backsight on true cen. S. $\frac{1}{16}$ cor. + run E. at 97.0' cross cen. of S. N. Ry; 1325.37' hub; 2550.75' stake; 2650.75' int. sec. line 39.1' N. of the S. $\frac{1}{16}$ cor. bet. sec. 32-33. Correcting back, at 2550.75' we chain S. 38.37' to a pt. on true S. $\frac{1}{16}$ line 100.0' W. of the S. $\frac{1}{16}$ cor. bet. 32-33 where we set a wit. cor. being a 10' cedar pole in swp. at 1325.37' we chain S. 19.55' along the true E. $\frac{1}{16}$ line where we place a 10' cedar post in swp. for the true S. E. $\frac{1}{16}$ cor. with B.T.s as follows: Tam. stump 5 S. 45° E. 4.05' + Tam. Stump 5 N. 10° E. 9.88' to nail in flat spot at base of stumps. At about 1330.07' N. on random line we chain 23.9' along true $\frac{1}{16}$ line to $\frac{1}{16}$ cor. Going to random N. + S. $\frac{1}{16}$, at hub 4779.6' N. we chain E. 1.08' to true N. + S. $\frac{1}{16}$ where we set transit. At hub 4337.3' N. we chain E. 0.98' where we set stake on which I focus telescope, then backsight on true $\frac{1}{16}$ cor. bet. 29-32, then run S. and set a line of small stakes in snow. The N. W. cor. of Knouf's house is 0.8' E. of the line + the S. W. cor. of the house which is 4295.0' N. sets just 0.3' E. of the line. At 3100.0' N. we chain E. 0.7' and set tall stake mk'd. "true E.". At 4337.3' N. we chain E. 0.98' and set stake at Knouf's fence mk'd. "True line".

Nov. 18, 1915

Molynens at Cass Lake ships 20 2 1/4" x 48" galvanized gas pipes with caps to Wilkinson to monument sec. 32-144-31.

Nov. 19

Molynens + Harig leave Cass Lake and go to Wilkinson to set I.M.s at subdivision corners of sec. 32 as surveyed by Cus + Gorman. We get Louis Shepley to help us as he work on the survey and knows where to find the corners. We drive I.M.s at all cor. on the W. boundary the W. $\frac{1}{16}$ + the N. + S. $\frac{1}{16}$. All these cor. are mk'd. with B.T.s and check for dis. All corners are driven 36" in the ground, leaving 12" above ground.

Nov. 20, 1915

Molynens, Harig + Shepley put in I.M. along E. $\frac{1}{16}$ line. In setting these I.M. we put the I.M.s on 8 to 10 foot piling. We do not attempt to set I.M.s on E. boundary sec. 32 on acc. of the deep soft mud. We now proceed to tie in the S. N. Ry + the W. boundary of the big swp. (See Plat. P. 486)

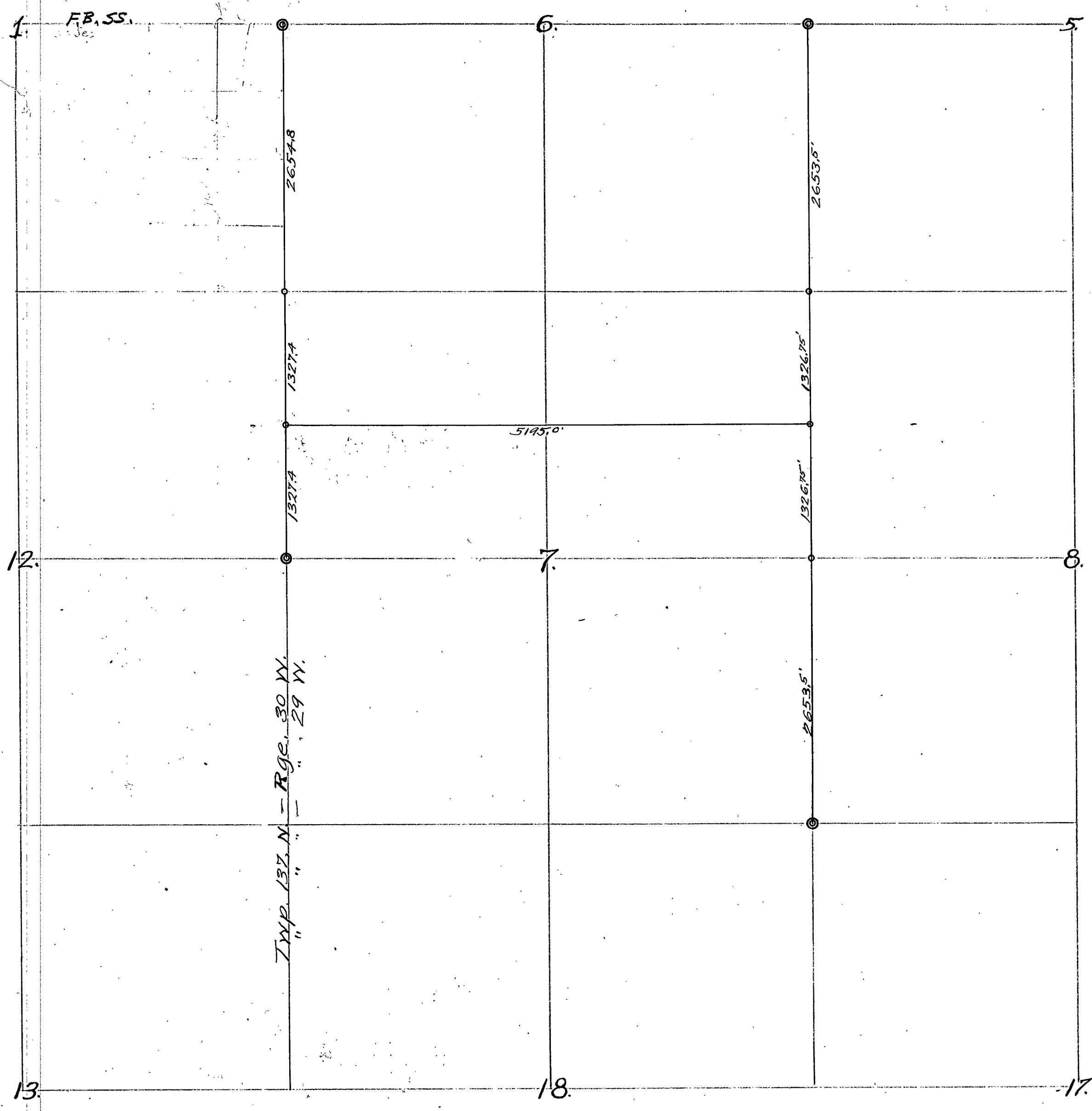
Recorded Feb. 27, 1922.

James H. Flynn, County Surveyor.
By E. B. Horst Deputy.

C
Plat. t

Survey Record No. 472.

57-137-2?



FB, SS.

Twp. 137. N. - Rge. 30 W. - Sec. 29 W.

1.

6.

5.

12.

7.

8.

13.

18.

17.

2654.8

1327.4

1327.4

5145.0

2653.0

1326.75

1326.75

2653.5

Field notes of the resurvey & subdivision of sec 7, Twp. 137 N. Rge
30 W. of the Fifth principle Meridian

Feb 8, 1912. Subdividing sec 7 for James N. Ramsey. Ramsey gets Lively
team & Miller drives us to cor of sec. 7-8-17-18-137-29 where U.S. notes
call for Asp. 3 N. 48° E 56 lks. & Asp. 3 N. 29° W 72 lks, W Pine 24 S 48° W
100 lks. & Aspen 3 S. 33° E 40 lks. We find a stone previously established
by me for the true cor. set so that the highest pt. on the W. side is
the true cor. The tall stub of the W. Pine B.T. still stands and the cor.
post of Taten's fence stands 20' S. E. showing that he has built his fence
20' too far E. for his true line. We shovel off the snow and find the
sharp rock upon which we set a backsight and shovel snow around
it to hold it in place. With transit set over $\frac{1}{4}$ of a mile N. in the E.
edge of a new graded road (N. & S.) backsight on stake set at cor. to
sec. 7-8-17-18 and run N. on $8^{\circ}45'$ mag. var. Melvin J. Ramsey & I
chaining perfect plumb line. At 200.0' cross N. & S. wire fence; 300.0'
set hub in snow; 600, 900, 1200.0' set wood pin in snow; 1920.0' set
hub; 1500.0' pin; 1800.0' pin; 2100.0' pin; 2400.0' pin, 2640.0' set hub for temp.
 $\frac{1}{4}$ cor where Gov't. notes call for a post and Asp. 5 S. 76° E. 12 links,
Asp. 5 S. 82° W. 24 links. These are both gone as I looked for them yr
ago. At 2700 & 3000 set pins; 3026.9' set hub 10.0' E. of road; 3300.0' pin; 3385.0'
int. cen of grade of old Gov't. wagon road which bears N.W. & S.E.; 3600.0'
set pin; 3663.7' set hub E. of Ramsey's barn. H. & B. Transit, 300' steel
tape, Otto J. Anderson, John Halstrom, & James N. Ramsey, axemen, Melvin J.
Ramsey & I chain. Over night with Geo. Eisenham.

Feb 9. Same crew & Martin Hougson. Begin a pin No. 12 cont. our Transit
line N. At 3663.7' hub; 3930.0' Ent. Pine River; 3960.0' set snow hub
on ice for temp $\frac{1}{16}$ cor; 5280.0' set snow hub on ice in Norway
brook. The true N.E. cor. sec. 7 bears N. $68^{\circ}18'$ E. $80.1'$ angle turned from
our preliminary first run. I have established the N.E. cor. sec. 7
years ago from old Gov't. B.T.s and set a wood post in the river
with B.T.s as follows: 7° Var. Nor. Pine 10 N. $8^{\circ}23'$ E. 113.32', Elm 24 S. 62° E.
 $98.85'$ & Asp. 8 N. $0^{\circ}42'$ W. 203.5' to tack heads driven in face of blaze.
 $\frac{1}{4}$ of a mile N. of the N.E. cor. sec. 7. I established the $\frac{1}{16}$ cor. and put
in new B.T.s as follows: Tack in fence post S.E. 24.65' & tack in fence
post W. 18.25'. At the $\frac{1}{4}$ cor on E. side of sec. 6-137-29 I set a 1x12" iron
pin for the true $\frac{1}{4}$ cor. from both old B.T.s and a spike in the
stump of the S.E. tree bears S. 35° E. 7.92' so in order to check on
these three cor. I set the transit over the spike and at $8^{\circ}46'$ var. I run
N. 35° W. 7.92' and set a back sight over the old iron cor. pt. which is
at this time too badly frozen in to find. Taking transit $\frac{1}{4}$ mi S.
I set up over tack in old $\frac{1}{16}$, back sight on true $\frac{1}{4}$ cor and run S. on 7° var.
At 1327.45' int. tack in true $\frac{1}{16}$, then chain S. 1327.45' more and at 2654.9'
drive 10th nail in ice for true cor and find old B.T.s stand perfect. At 7° var.
temp snow hub 5280.0' bears S. 29.65' & W. 74.1'

Feb. 10

Same crew. Correcting the E. line of sec. 7-137-29. At hub N. of S. E. cor. sec. 7, 5280' true N. E. cor. bears N. 68° 18' E. 80.1'. At 3960.0' we run N. 68° 18' E. 60.08' where we cut a hole in the ice and drive an iron for the true 1/6 cor with new bearings as follows: Nor. line 14 N. 78° 51' E. 221.82'; Willow 3 N. 9° 09' W. 76.38'; Elm 6 S. 20° 30' W. 145.5' + Elm 5 S. 30° 30' E. 159.61'. 2640' goes N. 68° 18' E. 40.05' where we drive iron with new bearings as follows: Oak 3 N. 37° 12' E. 75.25' + Pop. 3 S. 59° 32' E. 45.9'. At 1320.0' we set N. 68° 18' E. 20.02' and drove iron: No B.T.s. Begin at 1/6 in Pine River S. of N. E. cor. + run W. on 7° 30' var. James K. Ramsey + I chaining without plumb-bob 2nd class. At 1158.5' snow hub; 1245.0' cen of Gov't sea road bears N. W. & S. E.; 1320.0' set stake; 1461.8' snow hub; 2606.3' snow hub; 2640.0' stake; 3851.0' snow hub; 3900.0' pin; 3960.0' stake.

Feb. 11

James K. Ramsey + John Halstrom axemen, Curro + M. J. Ramsey chaining. Cont. transit line W. At 4400.0' ent S. end of meadow; 4500 pin in meadow 100.0' N. of S. end; 4600.0' lv. meadow; 4743.0' hub; 4800.0' pin; 5200.0' pin; 5195.0' true 1/6 cor. sets S. 15.55'. Going to 1/4 cor. on W. side sec. 7 Gov't notes call for oak 6 N. 80° W. 34 lbs. (22.44'), Birch 14 N. 75° E. 20 lbs. (132.0'). We find the old N. W. oak standing green and an oak stake previously set by me for the true 1/4 cor. and as the stake is a little too high we cut it off and drive an oak hub for the true 1/4 cor. with a tack in E. edge after which a tack in a new spot on the old B.T. bears N. 80° W. 22.44' at 9° 10' var. which is the course of the range line. We set new bearings as follows: Oak 7 N. 51° 30' E. 53.6' + oak 10 S. 54° 22' W. 67.0' to tack heads. From this pt. being 1/4 cor. on W. side sec. 7 run N. up cut out road way on 9° var; chaining perfect. At 250.0' ent. swp. E + W.; 300.0' pin in corduroy; 350.0' lv. swp.; 600 pin; 884.0' snow hub; 900 pin; 1200 pin; 1285.75 snow hub; 1500 pin ent. swp. E + W.; 2000 lv. same; 2100 pin; 2348.0' main road E + W.; 2367.0' road E + W.; 2387.3' hub; 2400 pin on top of high bank; 2516.0' ent. Pine river; 2640.0' pin lv. river; true N. W. cor. sec. 7 bears N. 15.48' + E. 9.2'. At 2655.48' true cor. sets E. 9.2' At the N. W. cor. sec. 7, being M.C. no. 29, Gov't notes call for a post and Asp. 5 N. 41° E. 77 links (50.82') + W. Pine 20 N. 34° W. 140 lbs. (92.40'). We find the plainly mk'd stump of the old N. W. B.T. and at 9° 20' var. a tack in the cen. of tree bears N. 34° W. 92.4' A. tack in the N. root of the old stump bears N. 38° 27' W. 92.0'. We find the point of the old Gov't stake which sets perfect for course & distance which we pull up to make room for a new stake which we set. Correcting S. At hub 1289.75 we chain N. 37.99' + set hub 1327.74' then E. 4.6' where we are unable to drive a hub on account of a stone so we make a cross in the stone and make new bearings as follows: 9° var. to tack heads: White Pine Stump 36 N. 47° 27' W. 56.02' + W. Pine 14 N. 30° 01' E. 79.77' Correcting E. on N. 1/6 line, At 5195.0' W. the true 1/6 cor. bears S. 15.55' 4743.0' goes S. 14.2'; 3851 goes S. 11.53'. In order to get "about" the E. line of Otto J. Anderson's forty I find in "rough chain" the total length of Gov't chain should be 5192.0' and we find it 5195.0' our chain or about 3.0' long so I set stake No. 3960.0' W. 2.3' this is not his line as we could not find it without subdividing the whole section but it is about his portion of the total dist. as his forty is fractional.

Feb. 12.

Cont. correcting E. 2606.3 goes S. 7.8'; 1461.8 goes S. 4.38'; 1158.5' goes S. 3.47'. Pin 2640.0 goes W. 1.5' + 1320.0 goes W. 0.75'.
 James N. Ramsey & I are working for Cass Co. in setting I.M. but I will finish setting over the three last hubs and at about 2000' W. the line hits a 14" Nor. Pine and I have Ramsey make a white spot on E. side into which I set a tack 2" N. of the S. side of the tree but the top of the tree leans over S. onto Ramsey's land. At the cor. to sec.s 5-6-7-8-137-29 we drive a galvanized iron pipe 1 1/4" by 9' driven solid with a 13" maul. Over this we slip a 2" capped galvanized pipe 4' long and drive the two pipes. The bottom of Norway Brook is 18" below the top of the ice and we drive the pipe until it sticks 1' above the ice. At the 1/6 cor. 1/8 mi S. we drive a 1 1/4" x 9' capped galvanized pipe in Pine River. I get dinner at Barclay Hotel at 1:30 P.M. and Ramsey pays me in full in a check for \$17.80 Feb 8-11 inclusive and \$1.80 Ry fare - Walker to Pine River + back. Ramsey pays Eisenhauer \$2.00 per day for my board - 8.50 and as I get in one day for Cass Co. I hand Ramsey \$2.00 which I will charge to Cass Co.

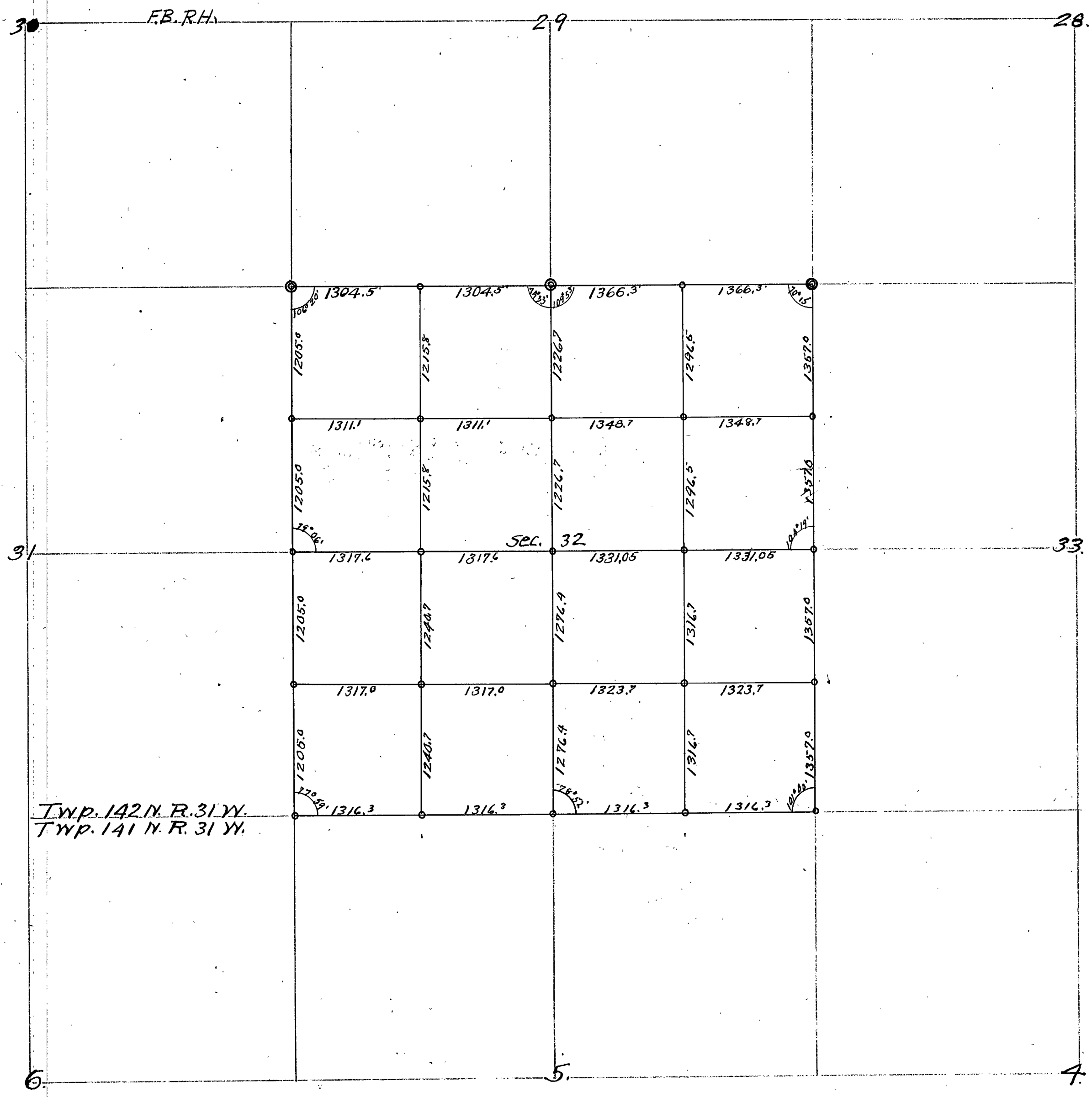
Survey made by John W. Cuno, Feb. 8 to Feb 12, 1915.

Recorded Feb. 24, 1922

James N. Flynn, Co. Surveyor.
 By E. B. Horst, Deputy

C
Plat at
142-31

Survey Record No. 473.



Twp. 142 N. R. 31 W.
Twp. 141 N. R. 31 W.

⊙ Iron monuments at Govt corners.
○ Iron " " " " established corners.

Field notes of the survey of sec. 32, Twp. 142 N. Rge 31 W. of the 5th Principle Meridian, Cass County, Minnesota.
 Feb. 17, 1919. E. B. Horst begins survey of sec. 32, as per notice of survey published in the Cass Co. Pioneer, by order of the Co. Board Feb. 4, 1919. I take a compass, steel tapes and complete field notes copied from certified U.S. field notes and also take notes of sec. 29 - same Twp. and go to John Ecken's place. John is not at home. I investigate the I.M.'s set bet. sec. 29-32 and find them all O.K. except the $\frac{1}{4}$ cor. which is under a foot of ice and snow, but the Elm B.T. N.W. of cor. is still O.K. The snow is 18" to 20" deep in the woods so I decide not to continue this survey until the snow goes away.

Mar. 24-1919. E. B. Horst, Engineer, John Rodekuhr, John Leier, John Ake, axemen, Begin completion of subdivision of sec. 32-142-31. Beginning at the I.M. at the N.W. cor. of sec. 32, previously established, and run S. bet. sec. 31 & 32 which I turn from Baldwin's line as given on page 24 (this book). Set transit over I.M., sight to point on line & turn $4^{\circ}52'$ W. from line and run S. $5^{\circ}E$ of Mag. N. (I will take an observation on polaris later to determine true course of line). We cut line S. to Trip. line without chaining and int. Taps. line 0.4' E. of I.M. at S.W. cor. of sec. 32. Land hilly, light brush, and scattering Asp. timber. I set transit over S.W. cor. sec. 32 and turn N.E. angle from true W. boundary to I.M. at $\frac{1}{4}$ cor. on S. side sec. 32. Angle = $77^{\circ}57'$. Set transit over $\frac{1}{4}$ cor. and back sight on S.W. cor. and run E. on Trip. line. Set E. boundary of sec. 32 6.0' N. of I.M. at S.E. cor. of sec. 32. Send to Walker for a chainman.

Mar. 25. Crew reports for work but are unable to work acct. rain.

Mar. 26. E. B. Horst, Engr., Mearns Bateman & Alf T. Green, Chainmen, J. Rodekuhr, J. Leier, & J. Ake, axemen, report for work. John Ake claims he knows where the $\frac{1}{4}$ cor. bet. 31-32 is located. Horst's notes call for two 3" pop. which are gone and Ake is unable to find anything from which we can set a cor. We look for S.W. cor. sec. 32 which Ake thinks he can find. We look at trees and stumps shown by Ake but none check with notes. We walk to $\frac{1}{4}$ S. cor. bet. sec. 29-32 and turn S.E. angle $109^{\circ}54'$ from sec. line and run S. on $\frac{1}{4}$ line thru sec. 32. Rt. 11.0' wire fence; 191.0' hub; 585.0' hub; 920.0' hub; 1131.5' ~~hub~~ fence; 1253.0' set temp. pt.; 1360.0' hub; 1816.0' pt. on pop. stump; 2388.5' hub; 2506.0' temp. pt. near E; 3117.0' hub; 3759.0' temp. pt.; 4060.0' hub; 4778.5' hub; 5004.3' int. 3.5' W. of $\frac{1}{4}$ S. cor. bet. sec. 29-32. We walk to the $\frac{1}{4}$ S. cor. bet. sec. 32-33 from which I turn N. on sec. line and turn N.W. angle $104^{\circ}25'$ and run W. on E. & W. rand. E. of sec. 32. At 268.0' wire fence; 448.0' hub; 468.0' road; 1150.0' hub; 1304.0' hub; 1325.0' temp. pt.; 1832.5' hub; 2204.5' hub. - E. B. Horst.

Mar. 27 Horst + same crew cont. W. on E. + W. E. At 2586.0' ent. Leier's clearing; 2663.6' P.I. on N. + S. E. at 2492.0' S.; 2830.0' lv. clearing; 2857.5' hub; 3970.0' temp. pt. 4287.0' hub; 4600.5' hub; 4993.0' pt. on Nor Pine stump; 5112.5' cen. S. R. H. No. 80, 5298.0' P.C. on W. line of sec. 32 - 2365.0' N. of S.W. cor. Horst, Rodekuba, Leier, and Ake go to E. 1/16 S. cor. bet. sec. 29-32, sight E. on sec. line + turn S. E. \angle 109° 49' 30" and run S. on E. 1/16 line of sec. 32. At 114.0' hub; 266.0' hub; 342.0' wire fence; 455.0' hub; 899.0' hub; 944.0' fence; 1086.0' ent. sup; 1279.5' hub; 1360.0' fence; 1435.0' small lake; 1605.0' S. side of lake; Discontinue chaining and cont. line S. Int. sec. line at temp. E. 1/16 cor. Bateman + Green begin at S.W. cor. sec. 32 + chain N. on W. boundary. At 439.5' hub; 496.5' cen. of S. R. H. No. 80; 800.5' hub; 1140.5' hub; 1205.0' set temp. pt.; 1570.0' water hole; 1636.0' lv. water hole; 1841.0' hub; 2260.0' ent. meadow N.E. + S.W.; 2365.0' P.I. on E. W. E.; 2485.0' road; 2700.0' water hole; 2833' lv. meadow; 3006.5' hub; 3278.0' hub; 3618.0' temp. pt.; 3894.5' hub; 4458.5' hub; 4820.0' cor. to sec. 29-30-31-32. Begin at S.W. cor. sec. 32 + chain E. on Twp. line. At 650.0' Olson's clearing; 933' lv. clearing; 1317' set temp. pt.; 2632.5' 1/4 S. cor. I.M.; 2746.0' hub; 3090' hub; 3678' hub; 3950' set temp. E. 1/16 cor.; 4032.5' hub; 4548' marsh; 4710' lv. marsh; 5041' hub; 5213' hub; 5265.0' I.M. at S.E. cor. sec. 32 sets S. 6.2'

Mar. 28 Horst with same crew begin at W. 1/16 S. cor. bet. sec. 29-32 sight E. to 1/4 S. cor., turn S. E. angle \angle 05° 54' + run S. on W. 1/16 line. Set temp. point on E. + W. E. + int. sec. line at 8.4' W. of temp. W. 1/16 cor. Chain N. on true line from W. 1/16 cor. At 373' N. Olson's garage W. of line; 507.3' pt. on line in line with S. side of N. W. Olson's house. Horst + Bateman rechain E. line of sec. 32 + find I.M. at 1/4 S. cor. 37.0' too far S. and the S. 1/16 123.5' too far S. due to chaining correction S. from hubs instead of N. I correct S. 1/16 cor. and turn N.W. \angle 102° 43' + run W. on S. 1/16 line of sec. 32 and set P.C. on N. + S. interior lines. Quit for night at S. R. H. No. 80.

Mar. 29 Horst + same crew finish S. 1/16 line of sec. 32 and int. W. line of sec. 32 at 1191.0' N. of S.W. cor. We walk to N. 1/16 cor. bet. sec. 32 + 33 and turn N.W. angle 107° 05' and run N. 1/16 line W. Set P.T. on E. 1/16 line + on N. + S. E. and turn 2° 13' more to the right and cont. W. At W. 1/16 line set P.T. At sec. line on W. side sec. 32 int. 1.0' S. of temp. N. 1/16 cor. We walk to a point on W. line of sec. 32, 496.0' N. of S.W. cor. in cent. of S. R. H. No. 80 to run traverse of said S. R. H. Thence right N. on sec. line + turn N. 56° 42' E. 453.5' - thence N. 62° 3' W. 4864.5' - thence N. 27° 37' E. 571.3' - thence N. 8° 33' W. 1070.0' - thence N. 14° 43' E. 192.7' - thence N. 32° 56' E. 840.0' to N. line of sec. 32 - thence N. 73° 51' E. 493' on sec. line to W. 1/16 cor.

Mar. 31 Horst, Bateman, Rodekuba, Ake, + Leier setting 2" x 48" I.M.s. At C. N. 1/16 cor. I.M. from which Nor. Pine 10 N. 34° W. 76.0' + Aspen 14 S. 29° W. 27.9'. At C. 1/4 S. cor. + C. S. 1/16 cor. no trees near for B.T. At 1/4 S. cor. bet. 32-5 set I.M. 3.0' S. to true pt. from which W.O. stump 20" sets W. on line 5.4' + rock 14" x 20" on line E. 24.0'

Set I.M.s at $\frac{2}{16}$ cor. bet. 5-32, $\frac{1}{8}$ E $\frac{1}{16}$, C.E. $\frac{1}{16}$, N.E. $\frac{1}{16}$ on pole in swamp,
 N.W. $\frac{1}{16}$, C.W. $\frac{1}{16}$, C.S. $\frac{1}{16}$, W. $\frac{1}{16}$ bet. 5-32, S. $\frac{1}{16}$ bet. 31-32; $\frac{1}{4}$ bet. 31-32,
 + N. $\frac{1}{16}$ bet. 31-32. No trees near for B.T.s. This completes field
 work of survey of sec. 32. Length of E. boundary = 5428.0'
 Length of S. boundary = 5265.0' - Length of W. boundary = 4824.0'
 " " W. $\frac{1}{2}$ N. " = 2609.0' " " E. $\frac{1}{2}$ N. " = 2732.6'

Corners on N. boundary established from Gov't B.T.s.
 Corners on S. boundary established by proportionate measure-
 ment from known corners N.S. E. & W. of Each point established
 at sec. corners. This method of establishing the Township line
 was recommended by W.D. Kidder, Associate Supervisor of Sur-
 veys, General Land Office, Washington, D.C., after I had per-
 sonally submitted information gathered from extensive
 surveys in the field to him for his opinion.

Recorded Feb. 24, 1922.

Jas. H. Flynn, Co. Surveyor.
 By E. B. Hoyt, Deputy.

2

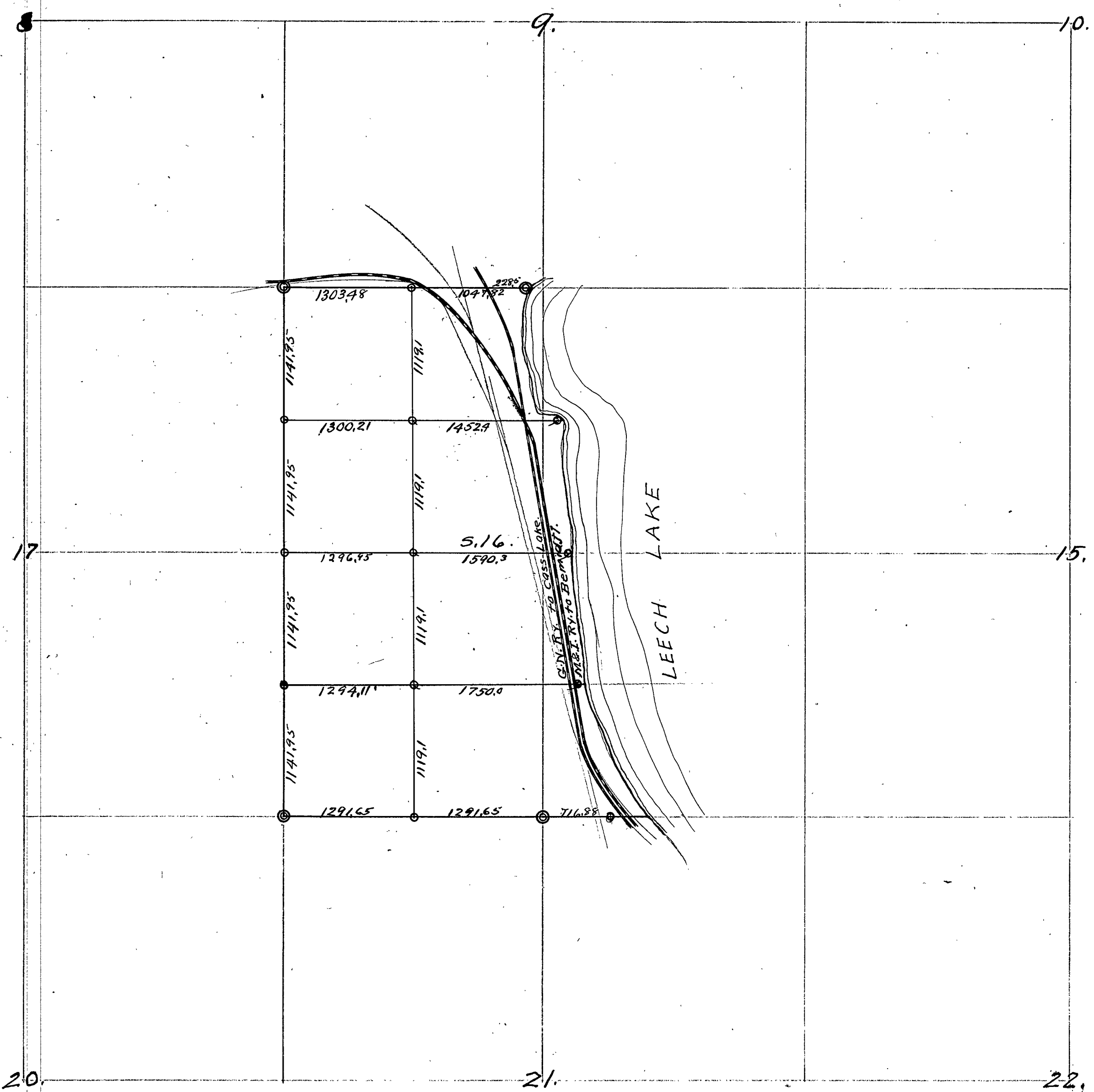
473

Survey Record No. 474.

Plat:

C

TWP. 142 N. R. 31 W. 5th P.M.



- Field notes of the subdivision of sec. 16-142-31
- Feb. 5, 1916. I get notes & plat preparatory to survey of sec. 16-142-31. Knowing said sec. to be irregular in shape, I run compass line on W. boundary to save time & expense of running at random with transit & crew. Beginning at S.W. cor. 1.M. of sec. 16 with compass I run N. var $9^{\circ}30'$. Coming to N.W. cor. sec. 16, I am 75.0' too far E.
- Feb. 7. Hout, transit, Hansen, axe & flag. Beginning at S.W. cor. sec. 16. We run transit line N. var $10'$, setting hubs on spikes.
- Feb. 8. Hout & Hansen cont. line N. on W. side sec. 16. We reach cor. at gutting time. John Hansen assists in P.M.
- Feb. 9. Hout & Hansen chain W. boundary sec. 16 beginning at S.W. cor. At 770.6' hub; 1496.8' hub; 2188.3' hub; 2964.8' hub; 3517.0' hub; 3650' ent. spruce sup; 3768.5' hub; 3920' lv. sup; 4084.4' hub; 4498.9' hub. Here I turn angle N. $27^{\circ}14'$ E. and sight to cor. dist. being 77.5'. At sta. 4567.8' cor. sets E. 35.46'. Cor. previously est. by J.W. Curo. In P.M. John Hansen & Frank Shore join us and Earnest Blackburn works on S. boundary line. We cut a rand. line E. on N. boundary, sec. 16 to S.N. Ry. Angle to true line of W. boundary is $90^{\circ}05'$.
- Feb. 10. Hout & Hansen chain N. boundary sec. 16 from N.W. cor. going E. At 1232.5' hub; 2052.0' cen. of S.N. Ry. I go to shore of Leech Lake and look for B.T. to M.C. but find nothing which is as I expected and prepared for. I have maps of S.N. Ry. which shows the N. boundary line crossing at a pt. 1164.0' N.W. of the crossing of the M.C. & S.N. Ry. This being the only evidence we can get regarding this M.C., we est. cor. from same. I turn angle from hub on random line in cen. of S.N. Ry. to a pt. found by chaining from Ry. crossing, back-sighting W. & reversing telescope & turning angle ($63^{\circ}47'$) a dist. of 160.3'. Pt. on true line in S.N. track sets S. 143.8' at sta. 2122.8' E. Chaining back on rand. line 300.0', I set hub on true and cont. true line E. to Leech Lake. At sta. 2351.3 I set Wit. cor. to M.C. and take following B.T.: B. Oak 8 N. $32^{\circ}W$ 28.5' & ash 8 S. $68^{\circ}W$ 14.5'. P.M. E. Blackburn & John Hansen join us and we run S. boundary line sec. 16 E. from S.W. cor. 1.M., cutting about $\frac{1}{2}$ mi.
- (Note: June 6, 1916 I pass at above W.C. and find that water has washed shore away within a few feet of 1.M. so I take an additional B.T.: B. Oak 18 N.W. 60.0')
- Feb. 11. Hout, transit, Hansen, axe & flag, E. Blackburn, axe, cont. S. boundary line E. & chain. At 92.9' hub; 642.7' hub; 1344.3' hub; 1854.2' hub; 2368.0' hub, turn S. $12^{\circ}26'$ & sight to $\frac{1}{4}$ cor. 1.M. - dist. 220.5'. At sta. 2583.3' $\frac{1}{4}$ cor. sets S. 47.5'. At hub 1854.2' I set hub on true line, correction being .018387 per ft. I set transit on $\frac{1}{4}$ cor. and back-sight to hub on true line and run E. to Leech Lake. At 463.0' road; 776.5' S.N. Ry.; 810.2' M. & S. Ry.; 835.0' water edge of lake. I set W.C. to M.C. 714.2' E. of $\frac{1}{4}$ cor. at W. line of Right-of-way. Wit. cor. to M.C. = 170.2' M.C. in lake.

C

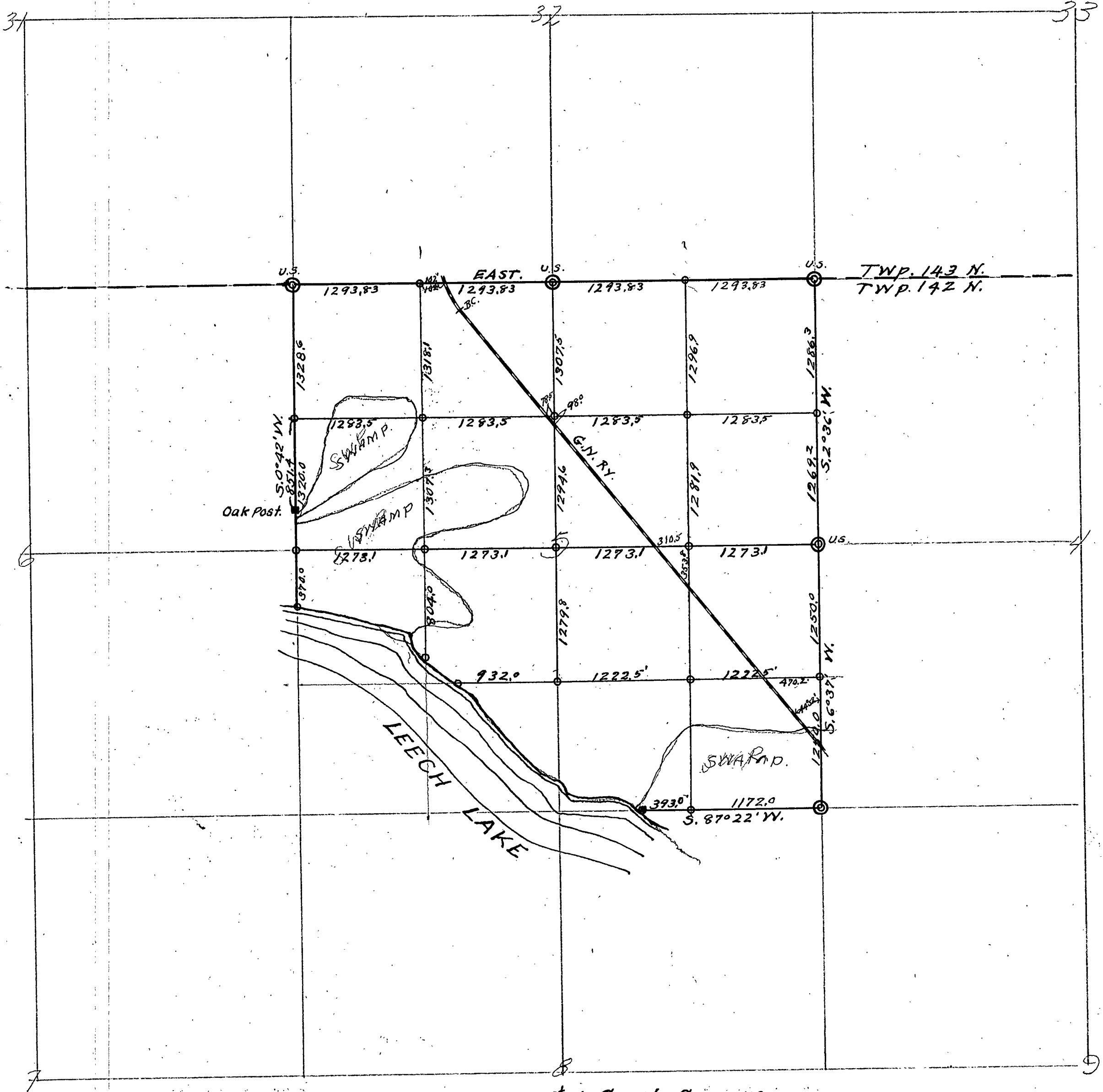
- Feb. 12. Horst, Transit, Hans Hansen, axe. We set W. $\frac{1}{16}$ post on S. boundary of sec. 16 turn angle from rand. line & cut line thru to W. $\frac{1}{16}$ cor. N. boundary. ³⁴
- Feb. 14. Horst, Hansen, & Shane go to N. $\frac{1}{16}$ cor. on W. boundary sec. 16 and start N. $\frac{1}{16}$ line E. I leave Shane to cut brush and Hansen & I chain W. $\frac{1}{16}$ line beginning on S. side. At 151.3' hub; 1206.1' hub; 2355.1' hub; 3454.6' hub; 4476.0' int. N. boundary W. $\frac{1}{16}$ cor. sets E. 1.6'. We work an hour or so cutting on N. $\frac{1}{16}$ line & go home. ⁷³
- Feb. 15. Horst, Hansen & Shane cont. N. $\frac{1}{16}$ line E. At int. of W. $\frac{1}{16}$ line we miss cor. 5.4' S. I chain back and set hub on true line. Set transit on cor., back right & extend line E. to Leech Lake setting hubs as follows: At 134.0' hub; 683.8' hub; 1007.0' road; 1735.0' cen. of M. & S. Ry.; 1137.7' cen. of S. N. Ry.; Ry crossing 17.0' S. of int. At 1220.4' tack in stump; 1487.4' M.C. at Leech Lake 4" x 4" post. ⁹¹
- Feb. 16. Horst, Hansen, & Billings go to $\frac{1}{4}$ cor. on W. boundary line turn angle & run $\frac{1}{4}$ line E. to int. of W. $\frac{1}{16}$ line, missing cor. on S. side 7.2'. I chain back on rand. line & set hub on true line. Set transit over cor. and back right to hub on true line. Cont. true line E. to Leech Lake setting hubs as follows: 128.6' hub; 1294.0' road; 1355.2' hub W. of Ry. cut; 1389.2' S. N. Ry.; 1415.8' M. & S. Ry.; 1465.8' hub; 1600.3' M.C. at Leech Lake. ⁹⁴
- Feb. 17. Horst, transit, Hansen & Billings, axe & flag. We set S. $\frac{1}{16}$ cor. on W. line and run S. $\frac{1}{16}$ line E. missing cor. on W. $\frac{1}{16}$ line N. 9.2'. I chain back on random line & set hub on true line. I set transit over cor. & run true line E. to lake setting hubs as follows: At 600.0' wire fence; 684.0' hub; 1206.7' hub; 1639.2' S. N. Ry.; 1664.7' M. & S. Ry.; 1735.7' hub; 1750.0' M.C. on Leech Lake; 1759.0' to lake.

Recorded Feb. 25, 1922.

J. H. Flynn, Co. Surveyor.
By E. B. Horst, Deputy.

Plat. *Plot 475* Survey Record No. 475.

TWP. 142, R. 31, Sec. 5.



● Iron monuments set at Gov't Corners.
 ○ " " " established corners.

- Field notes of the re-survey of Sec 5 T. 142 N. R. 31 W. of the 5th P.M. Contract No. 10, May 4, 1915. Survey to start May 25, 1915.
- May 25, 1915. John W. Curo copies some field notes and goes to pt. near 1/4 cor. on E. side sec. 5 where U.S. notes call for a post and B.P.s. I can find nothing and go to S.E. cor. but find the water so deep I cannot get to the cor.
- Sept. 17, 1915. Curo & Baldwin spend the day at sec. 5-142-31. On arriving at sec. we secure Char. Clarine to assist us for the day. We search for B.P.s to 1/4 cor. bet. sec. 4-5. P.M. we search for B.P.s to the sec. cor. 5-6-31-32 which we find. Curo with compass finds stumps of old B.P.s to check from post standing. He starts compass line S on $9^{\circ}10'$ variation.
- Sept. 18. Baldwin, Scott, King & Tucker leave camp on sec. 284 come up with the S.N. men on gasoline car. at 7:00 A.M. Baldwin and King go to N.E. cor. sec. 5 + Transit, check and chain random line on N. bound. sec. 5 as fol: 437.1' hub; 1213.9' hub; 1295.0' hub, an old 1/6 cor. stake sets N. 44.0; 1740.2' hub; 2021.9' tack on W.P. stump; 2206.1' tack on oak stump; 2582.3' hub, a gate post at cor. of fence sets N. 90°; 2722.9' hub; 3040.5' hub; 3590.0' edge of Ry. cut; 3625.0' E of S.N. Ry. 3562+740' N.P. ch.; 3645.8' int. Ry. tangent from S. produced and read S.E. $50^{\circ}59'$ B.C. of curve 3560+741' Ry. ch.; 3661.6' hub.
- Sept. 19. Baldwin & Scott go to rand. line on N. bound. sec. 5 + cont. checking line W. 4 at 4486.7' hub; 5175.3' the true sec. cor. sets N. (E.P.M.) 178.6'. We work here till noon, then go to dinner. P.M. go to Walker
- Sept. 20. Baldwin, with Aloe transit, Alvin Clarine, axe and flag, Char. S. J. O'Connell, axe, drive hub at true cor. 5-6-31-32 and start cutting true line E. At 4486.7' hub goes N. 154.84'
- Sept. 21. Set true W. 1/6 cor. at sta 3881.48' on rand. line. The true 1/6 cor. sets N. 133.95' and we cut the true line from the N.W. cor. sec. 5 thru to this cor. at sta 2587.65' the true 1/4 cor. sets N. 89.30'. Cut true line to E. 1/6 cor. At sta. 1293.83' of rand. line the true E. 1/6 cor. sets N. 44.65'. The hub at 437.1' corrects N. 15.08' from here we cut to the N.E. cor. sec. 5.
- Dec. 11, 1915. Molyneux & Baldwin hunt up all the notes on sec. 5 that they can find in the office. Unable to find any of Bryant's notes.
- Dec. 13. Molyneux and Baldwin, being unable to get up to take them to S. J. O'Connell to work on sec. 5, borrow a hand sled, load up survey outfit, and drag sled across Luch Lake to O'Connell's reaching there at 11 A.M. P.M. Baldwin, transit, Molyneux, head chain, O'Connell, rear chain, Alvin Clarine, axe & flag. We go to N.E. cor. sec. 5. We check up E. end of random line on N. side to determine exact line at N.E. cor. With transit at N.E. cor. sec. 5, and sighting N. flag on hub at 437.1' of rand. line turning transit to R. to flag on hub on true N. Found angle to be $1^{\circ}59'$

C

Transit as before and sighting on flag on hub at sta. 437.1' of rand. line for N. boundary, turning transit to L. on flag on hub of random line run for E. boundary, find angle to be $80^{\circ}59'$. We now check alignment and rechain rand. line run E. for boundary as fol. At 700.0' lv. swp.; 950.0' ent. swp.; 1280.0' lv. swp.; 1326.7' hub; 2197.6' hub; 2506.4' old $\frac{1}{4}$ sec. cor. stake sets W. ($90^{\circ}R$) 39.9; 2555.8' $\frac{1}{4}$ sec. cor. set from old B.T. sets E. ($90^{\circ}L$) 198.0'; 2640.0' hub; 3607.8' hub; 3960.0' hub; 4132.0' & S.N. Ry. (Ang. N.W. $45^{\circ}18'$); 4270.0' B.T. stump sets E. ($90^{\circ}L$) 112.2' 4445.0' Edge of marsh

Dec. 14.

We now go to sta. 3499.0' of Ry. chaining on S.N. Ry. which sta. is marked on the rail. and set up transit here and looking up the track for a front sight and turn an angle of $32^{\circ}58'$ L, then telescoping we run E. 507.0' which pt. falls in Secch Lake. We are unable to find any signs of the two oak U.S. B.T.s. From the track we now run W. 653.0' which checks on the stake marking the cor. of sec. 3-4-8-9. From the sec. cor. I run a line S. 575.0' and look for U.S. M.C. B.T.s This pt. falls in a likely place for the M.C. From the sec. cor. we go W. 1617.7' and look for B.T. to Gov't M.C. #25 which calls for two oak trees. The pt. falls on the lake shore among oak stumps, but no signs of marks. We go and pick up Scott's random line on W. side of the sec. at sta. 2181.2 and hub and chain same S. across Kalkona bay to connect with Gov't's survey of sec. 7 as follows: At 2208.0' ent. swp.; 3056.0' lv. swp. & ent. lake; 7586.2' offset $672.0'$ $90^{\circ}L$; 8208.2' E. of M. & S. Ry.; 8262.2' I.M. M.C. on E. & W. $\frac{1}{4}$ line, which I.M. sets 223.0' E. of the I.M. at the cen. of the E. $\frac{1}{2}$ of sec. 7-142-31.

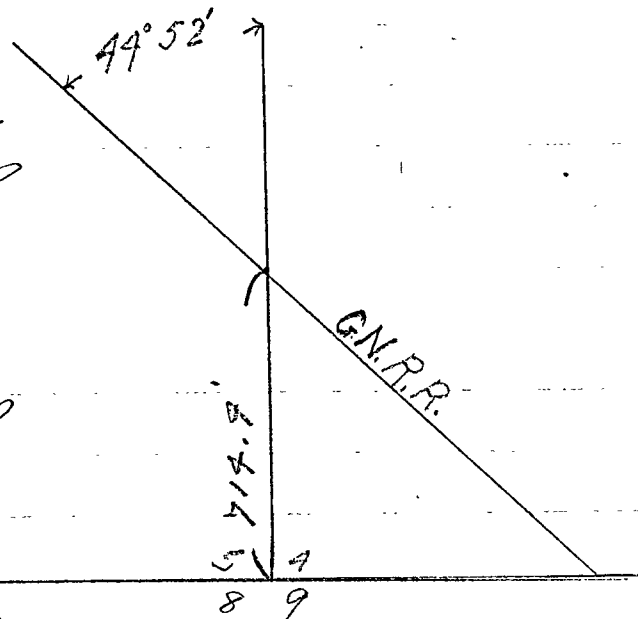
Dec. 15.

Molgneux, Baldwin, & Alvin Clarence go to N.W. cor. of sec. line and brush and hub a new rand. line S. for the W. side sec. 5 to the marsh. We find no new evidence of W. boundary. After brushing this line S. to the marsh, we go to the W. $\frac{1}{6}$ cor. on N. boundary and brush & chain the true line E. to the E. of the S.N. Ry. dist. of 192.0'. Baldwin & Molgneux go out to look for B.T. to the $\frac{1}{4}$ cor. on E. side sec. 5. We find the stump of the one described by the U.S. notes as follows: Spl. Pine 24 S. $38^{\circ}W$. 15.0' with T plainly scribed and a portion of the B showing balance of the B having been burned off. From this stump we set a stake for the $\frac{1}{4}$ cor. From this stake a fallen $\frac{1}{2}$ " log 20" lay on the ground which so far as we can determine checks for dist. but is S. $80^{\circ}W$. instead of S. $40^{\circ}W$. as it should be. We tie this point to the rand. line for E. side of sec. 4 as fol: Sta. 2555.8 the $\frac{1}{4}$ cor. sets E. ($90^{\circ}L$) 198.0'. We now go and hunt for the B.T. which should stand 1203 links N. of the S. E. cor. of sec. 4 but are unable to find any signs of it.

Dec. 16

Molgneux, O'Connell, & the two Clarence's on the work. We go and locate the N. $\frac{1}{6}$ cor. on the E. boundary and from there brush & hub the N. $\frac{1}{6}$ line S. $89^{\circ}24'$ W. and int. Scott's random

- line for the E. boundary at sta 1334.4. From the $\frac{1}{4}$ cor. on the E. side of the sec. We hub & brush the E. & W. $\frac{1}{4}$ line about $\frac{3}{4}$ mi. to the marsh, S. $89^{\circ}01' W$.
- Dec. 19. Molyneux & O'Connell chain the E. & W. $\frac{1}{4}$ line as follows: 1254.0' int. E $\frac{1}{16}$ line; 1283.0' $\frac{1}{2}$ of $\frac{1}{4}$; 2534.4' N. & S. $\frac{1}{4}$ line; 3817.6' W. $\frac{1}{16}$ line; 3875.0' ent. open marsh; 5027.5' Scott's rand. line at sta. 2647.2' (5092.4')
- Dec. 17. Molyneux, O'Connell, & the two Clarens go to W. side sec. 5 and pick up E & W. $\frac{1}{4}$ line and hub the same W. where this line crosses Scott's random line for the W. side sec. 4. We commence chaining and cont. W. to Range line on which we M.C. cor. on N. bank of lake and Trip. cor. We now go to E. boundary and A range into line bet. the S.E. cor. sec. 5 and the $\frac{1}{4}$ cor. bet. 4 & 5 and drive a nail in cen. of track and measure from cor. to track and measure the angle. We go to the $\frac{1}{4}$ cor. on N. side sec. 5 and brush & hub a line S. $1^{\circ}22' W$. for $\frac{3}{4}$ mi. intersecting the N. $\frac{1}{16}$ and the E & W. $\frac{1}{4}$ line. This line should have been S. $1^{\circ}16' W$.
- Dec. 18. Molyneux, O'Connell, & Clarence Bras. working. We go to the E. $\frac{1}{16}$ cor. on the N. boundary and brush & hub a line S. $1^{\circ}41' W$. intersecting the N. $\frac{1}{16}$ & the E. & W. $\frac{1}{4}$ lines. We now go to E. boundary line and run E. boundary line from $\frac{1}{4}$ cor. on E. side S. to track 1785.6' + 714.4' = 2500.0' length of E. boundary. From $\frac{1}{4}$ cor. to cor. of sec. ~~5~~ $\frac{3}{4}$. We set a point midway bet. these corners - 1250.0'. We go to W. $\frac{1}{16}$ line and brush and hub a line S. $1^{\circ}10' W$. intersecting the N. $\frac{1}{16}$ & the E. & W. $\frac{1}{4}$ line.
- Dec. 20. Measure angle at S.E. cor. - $99^{\circ}15'$. Course of S. boundary is S. $87^{\circ}22' W$. From the S. $\frac{1}{16}$ cor. on E. boundary we run S. $88^{\circ}10' W$. and brush & hub a line west to the lake. We spot the N. $\frac{1}{16}$ cor. on W. boundary, also the $\frac{1}{4}$ cor. and on M.C. on lake shore S. of the $\frac{1}{4}$ cor. 370.0'. We then run the W. $\frac{1}{16}$ line S. from the W. $\frac{1}{16}$ cor. on the E. & W. $\frac{1}{4}$ line as fol: 80.0' ent. marsh; 240.0' br. marsh; 804.0' set point on lake bank for M.C.; 823.0' shore line; 1294.8' int. S. $\frac{1}{16}$ line on ice. Thence measure E. on S. $\frac{1}{16}$ line 310.0' = shore line; 330.6' pt. on bank for M.C. From this point - the M.C. on S. $\frac{1}{16}$ line - I run a meander line along lake shore as fol: N. $27^{\circ}30' W$. 350' - N. $44^{\circ}30' W$. 217' - N. $32^{\circ}15' W$. 128.6' - N. $22^{\circ} W$. 178' - N. $80^{\circ} W$. 1080.5' to W. boundary of sec. to M.C. 370.0' S. of $\frac{1}{4}$ cor.
- Dec. 23. Commencing at the M.C. on S. boundary of sec. 5 I run as fol: N. $83^{\circ}45' W$. 391' - N. $58^{\circ} W$. 382.0' - N. $35^{\circ}30' W$. 351' - N. $57^{\circ} W$. 324.0' - N. $41^{\circ} W$. 702' to M.C. on S. $\frac{1}{16}$ line.



C

Dec. 21, 1915. Molgnewf, O'Connell, & the two Clarens setting I.M.s in sec. 5. At N. 1/6 cor. on E. boundary we mark Red Oak 12" S. 63° 30' W. 57.8'; & Red Oak 8" S. 1° E. 61.0' and at N.E. cor. of sec. 5 we mark Nor. Pine 12" N. 15° 30' E. 224.0'; Nor. Pine 12" N. 22° 30' W. 170.0'; & Oak 20" S. 49° W. 207.4'

Dec. 22. Same crew continue setting I.M.s at all cor. & M.C.s. Then take track measurements along E. N. Ry. from the intersection of the E. of the Ry. with E. boundary of sec. 5. At 658.4' int. S. 1/6 line; 1768.6' int. E. 1/6 line; 2224.0' E & W. 1/4 line; 2727.4' N. & S. 1/4 line; 3849.7' N. 1/6 line; 5491.7' N. boundary.

Recorded Feb. 28, 1922.

James H. Flynn, Co. Surveyor.
By E. B. Forest, Deputy.

Field notes of the subdivision of sec. 28 & 29-142-31 W. of 5th P.M.
 Aug. 4, 1915. Baldwin, compass, Rice & Swanberg, axe, look for B.T. to Gov't M.C. # 31. We find Tam. 14 N. 33° E. 10 (B.T. shows on stump) & Tam. 14 N 30° W. 10 (Stump 5' high plainly mkd) from true cor. bet 6.6' distant from each Tam. B.T. on 9'10' var. set picket on line for cutting. Going to I.M. at S.W. cor. sec. 28. B.T. W.P. 36° S. 57° E. 81 checks for course & dist. as proportioned by Curo previously. From I.M. at S.W. cor. 28, we run line W. on 9'10' var. At 30.0' road; 314.4' hub; 553.5' hub; 719.8' hub; 893.0' road; 1076.4' hub; 1270.0' old Ry. grade used as wagon road.

Aug. 5. Donner, transit, Rice, Tuler, Hungerford, & Horst, axe, Baldwin & Swanberg, chaining. At 1464.9' hub; 1938.7' hub; 2239.3' hub; 2389.3' hub; 2585.0' hub; 2619.7' hub. True cor. stands S. 43.6'. Baldwin & Swanberg find B.T. to 1/4 cor. S. sec. 28 as called for in U.S. survey notes. W.P. 30° S. 67° E. 69. Set cor. from this B.T. stamp with "T" plainly showing. P.M. Miller, Transit, Horst, Hungerford, & Rice, axemen. Baldwin goes out and figures corrections & helps start line from 1/4 cor. E. Hub at 2585.0' goes S. 43.0' & hub at 2389.3' goes S. 39.77'. Setting transit at true 1/4 cor. and back sight on hub 2389.3' true line turn angle L. 162°48'. Cont. this line 398.5' hub; 452.0' hub; 742.6' hub; 1006.0' tel. line; 1025.0' top cut bank; 1046.0' int. & E. N. track.

Aug. 6. Miller, Transit, Horst & Rice, axe, Baldwin & Curo, chaining. Look for B.T.s to M.C. No. 32 but find nothing. At 1046.0' = 3270+91' & E. N. (R.R. chainage) angle at Pl. = 86°49' N. E. at 1062.0' top cut bank; 1100.2' hub & tel. line; 1197.0' hub; 1473.8' hub; 1530.0' hub, road; 1614.0' hub; 1733.6' hub; 1780.8' hub; 1785.0' shore of Long Lake. No B.T.s to be seen. Miller continuing W. on true line W. from 1/4 cor. bet. 28-33 sets hub at true 1/16 cor. 21.8' S. of 1309.8' on sand. line E. at each hub on true line W. a stake is placed mkd "true line". Miller, Horst, & H. Curo go to I.M. at S.W. cor. sec. 28 and recut an old line cut by Todd. They brush & hub this line but do not chain it. Baldwin & Rice place a tack in hub a true cor. at M.C. 31 and run N. 9'10'. At 142.2' hub. Cutting previously cut is off line & we cut thru bet Lake May & Long Lake.

Aug. 7. Horst & H. Curo cont. line N. on W. side sec. 28, Todd's old cutting. Look for B.T.s to 1/4 cor. but find nothing. Find N.W. cor. sec. 28 mkd by I.M. Baldwin & Rice chain N. At 246.0' shore Lake May. Find Gov't B.T. W. line stamp 15 S. 50° E. 30 & W.P. stamp 18 S. 55° W. 10. True cor. at 249.6' - M.C. 34. Set hub across Lake May at intersection E. N. track.

Aug. 9. Baldwin & H. Curo chain N. on Rand. line at W. side sec. 28. 0.00' = I.M. S.W. cor. 28. At 1321.9' hub; 1400.0' house 80.0' left; 1650.0' lv. road. From I.M. line has followed Akely road; 1667.0' fence; 1850.0' hub; 2000.0' old road; 2352.7' hub; 2495.7' hub; 2675.0' road; 2744.0' fence; 2838.7' hub; 3355' hub; 3595.0' Todd's chainage stake 3600; 3602.8' hub; 3672.0' true cor. mkd. by I.M. stands

W. 230.4' Miller, Horst, + Rice cont. cutting N. on line at E. side sec. 28. Baldwin, Horst, Curo start rand. line E. on 9°10' var. from 2 1/4 x 48" I.M. at N.E. cor. sec. 28. At 232.2 hub. Set tack on W.P. stump on S. shore Lake May from which to triangulate.

241.7' Miller, Tueler, + Swanberg setting transit at int. of rand. line + Ry. set tack 287.75' N.E. on Ry. Angle at int. is 137°44'30". With transit on tack 287.95' N.E. int. backsight on tack at 241.7' and turning 35°29' to tack at int. rand. line and Ry. Then cut N. on rand. line E. boundary sec. 28.

Aug. 10.

Baldwin, Horst, + Curo cont. line E. at N. of sec. 28. Barb wire fence 7.0' N. of line runs parallel. At 611.0' hub; 1398.5' hub; 2592.0' true cor. sets S. 57.0'; 2600.0' Road.

Aug. 11.

Baldwin takes transit to S.W. cor. sec. 28 and reads angle 82°11' bet. rand. lines. Baldwin goes to 1/4 cor. bet. 21-28 + figures corrections checked by Scott. True 1/4 cor. established by Curo sets S 51.0' of 2592.0' on rand. line. We check Curo's cor. wh'd by iron track spike with old Gov't B.F.O. W. Pm 36 N. 86° E. 82 + W.P. 30 S. 88 W. 136. Hub at 2295.5 corrects S. 45.2' With transit on true 1/4 cor. backsight on tall stake at hub 2295.5' on true line + cont. E. on new rand. line. Cut brush to intersection on rand. line running N. + S. set hub near int. Go to 1/4 cor. bet. 28-33 With backsight on 2389.3' rand. line running E. + N. + B. Transit North of true cor. turns angle 93°49' R.

Aug. 12.

Cont. line N. from 1/4 cor. bet. sec. 28 + 33. At 192.2' hub; 458.6' hub; 788.7' hub; 1134.9' hub; 1541.4' hub; 1972.3' Cut line to Akely road.

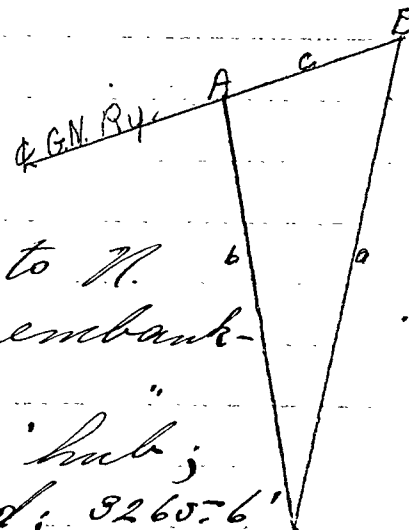
Aug. 13.

Scott + Horst cont. N. on 1/4 line, Baldwin + H. Curo chaining. At 2439.0' road; 2450.0' rd. to Akely; 2554.0' fence; 2739' hub. cen. old Ry. grade; 2843.0' road; 3121.6' hub; 3224.0' hub; 3479.9' hub; 3574.8' hub. The true 1/4 cor. sets E. 8.65' We go to W. 116 cor. at S. of sec. 28. With transit at 1309.8' backsight on random line W. + turn 94°11' R. From true 116 cor. we cont. N. on this line.

Aug. 14.

Scott + Horst cont. N. on W. 116 line without chaining Baldwin + H. Curo on E. rand. line sec. 28.

We wish to find dist. b (see cut). c = 287.75' B = 35°29' C = 6°46'30" b:c :: sin B: sin C. $\sin 35^\circ 29' = .58047$
 $\sin 6^\circ 46' 30" = .11796$ $b = \frac{287.75 \times .58047}{.11796} = 1415.31' + 241.7' =$



1657.51' from Gov't M.C. No. 31. Chaining back to N. shore. At 1571.0' shore Lake May; 1607.0' bottom embankment E. N. Ry; 1657.5' hub & E. N. Ry; 1708.0' " " ; 2086.2 hub; 2160.0' road; 2328.2' hub; 2705.5' hub; 2865.0' road to Walker; 2900.0' road; 3265.6' hub; 3287.4' N = 49.52.4' E. Angle intersection 94°12'30" S.W.

Aug. 16

Scott + Horst cont. W. 116 line N. Baldwin + H. Curo chain W. 116 line. At 122.0' hub; 359.0' hub; 685' fence; 892.9' hub; 1210.0' fence 1419.2' hub; 1450' road; 1516.5' hub; 1520' top cut bank; 1575.0' & old Ry grade; 1600' top cut bank; 2008.0' & S.R.R. to Akely; 2034.0' fence

2361.0' road; 2389.0' fence; 2403 fence; 2450 barn 22' R.; 2524 fence; 2534.0' fence; 2550 chicken house; 2579 hub; 2560.2' hub; 2689 fence; 2791.2 hub; 3654.3 int. E & W. rand line at sta. 1308.9' E.; 3628.3' true 1/16 cor sets W. 11.95'

Scott & Horst at 1296.0' on rand line running E at N. boundary sec. 28 set true W. 1/16 cor bet. 21-28 26.55' S. Baldwin, Horst, & Scott go to intersection rand. lines at N.E. sec. 28 and look for true cor. Baldwin starts line S. on 9°10' from post supposed to be true cor. 21-22-27-28. John W. Curo comes & he & Baldwin go to look for B.F. to M.C. No. 34. Found none. Scott & Horst cont. line S. from N.E. cor. sec. 28.

Aug. 17. Baldwin, Scott, Horst, & J. Curo go to intersection rand. lines at N.E. cor. sec. 28 & cont. rand line E to true cor. Baldwin & Curo chain E. from true 1/4 cor. N. of sec. 28. At 160.4' hub; 66 old road 1079.8' hub; 1302 road; 1068.7' hub; 2135.7' hub; 2139.5' int rand. line from S. at 3287.4' N.; 2897' hub; 2567.05' hub; 2605.35' true N.E. cor. sec. 28 sets N. 47.95'. Baldwin & Scott run line from S. N. Ry. N. to N.E. cor. sec. 28. This line was started by J. W. Curo. He checked figures of correction. The true cor. 21-22-27-28 sets W. 07.2' We offset W. to true line bet. M.C. No. 34 and N.E. cor. sec. 28.

Aug. 18. Miller & Swanberg go to cor. 21-22-27-28 and cut brush for several rods around cor. while Baldwin & Scott figure triangulation from M.C. 34 to pt. of intersection of S. N. Ry. E. with true line bet. M.C. 34 & N.E. cor. sec. 28. Chaining N. to N.E. cor. 28. At 1585' Shore; 1645' top cut bank; 1711.8' hub at intersection S. N. Ry. E.; 1800' top cut bank; 1856.7' hub; 2175.0' road; 2290.4' hub; 2640' Walker to Skely road; 3085.0' cor. In triangulation; rand line = 1415.31'; Corrected line = 1711.29'

Aug. 21. Scott, Horst, Curo, & Truster run true line N. from cor. 28-29-32-33 on W. boundary sec. 28. On old rand. line at 3672.0' true cor. 20-21-28-29 sets W. 230.4'. Hub at 1321.9 goes W. 82.94' & Hub at 1850.0 goes W. 116.08'

Aug. 23. Baldwin, Scott, Horst, & J. Curo go to true line running N. at W. boundary sec. 28 and cont. N. to N.W. cor. 28. Cor. sets W. 1.0". We take 14 1/2" x 48" x 2 1/4" and distribute them at N. line sec. 28.

Aug. 24. We go to rand. line at W. side sec. 29 and cont. N. Then we cont. W. old rand line used by Miller in survey of sec. 20. Run these lines to intersection. Miller keeps notes in detail.

Aug. 25. Go to line started S. from 1/4 cor. 20-29 & cont. S.

Aug. 26. We tie in 1/4 rand. line run yesterday. True 1/4 cor. bet. 29-32 sets E. 104.0'. Angle at intersection is 68°46' N.E. Going to E. 1/16 cor. at S. side sec. 29, backsight on hub W. & turn angle 110° 20' True 1/16 cor. sets W. 56.2'

Aug. 27. Going to rand. line at E. side sec. 29 we set hub at 2754.0' and turn angle, running line W. to int. true line. Here we backsight S. & turn 82°42' R. Cont. W. & hub at intersection E. 1/16 line, 1/4 line, & 1/16 W. line.

Aug. 29. Cont. N. 1/16 rand. line W. The true N. 1/16 cor. bet. sec. 29-30 sets N. 71.3'. We set 1/4 cor. bet. 29-30 to which Miller & crew tie.

Aug. 30 & 31. Work on sec. 29. Notes in detail in F.B. No. 83. by Miller. Cont to Page 516 this book.

476 C

Sept. 1-1915 We go to W. boundary sec. 28 where we set 2 1/4" x 48" capped I.M. at 1/4 cor. & S. 1/16 cor. bet. 28-29 & 1/16 cor. N bet. 28 & 29.

Sept. 2. Baldwin, Harig, H. Curo, & Tueler start at M.C. No. 31 & cut meander line along shore of lake. Then going to M.C. 34 we cut meander along Lake May. We cut to pickets but use no transit. J. W. Curo comes out and we go to look for M.C. No. 32. We find old stake which may be original cor. post. We go to M.C. 31 & cross the therofare to M.C. 30 on E. side of Long Lake. Here we find I.M. at W. C. of M.C. No. 30.

Sept. 3. Baldwin & H. Curo produce rand. line at S. boundary sec. 28, setting hub across Long Lake on E. side. Then setting transit over I.M. W.C. we produce S. boundary sec. 27 W. to water's edge where we find Carmen's old stake at true M.C. which sets S. 1420'. I.M. at W. C. sets N. 1.5' from our rand. line. Thence go to M.C. 31. Backsight N. and turn to L. 107° 30' N.W. L. at 55.0' shore; 45.0' br. shore; 66.0 cross shore & bank; 664.0' hub. S.E. angle 119° 32'. At 666 br. shore.

Sept. 4. Baldwin & H. Curo go to N.W. cor. sec. 28. With transit over I.M. backsight S. on true line bet. 28 & 29, turn angle L. to rand. line at N. of sec. 28. 92° 06'. Baldwin & Scott go to N. 1/16 cor. bet. 28-29 & turn angle S.E. 88° 55' & start rand. line E.

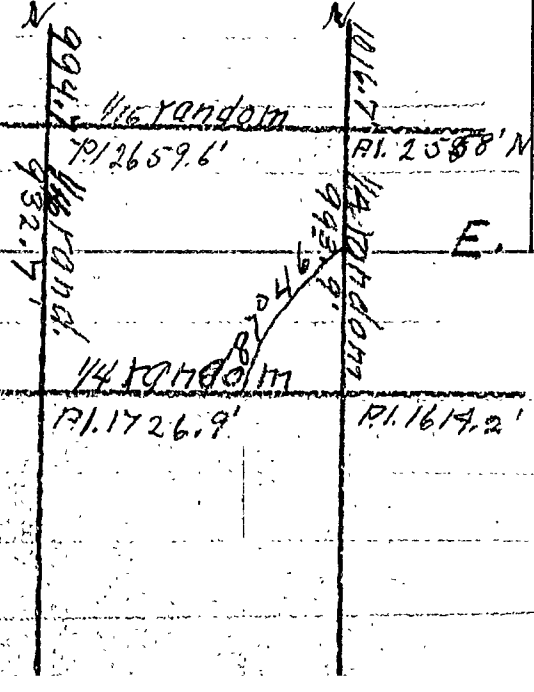
Sept. 6. Cont. N. 1/16 line E. Tueler goes to Walker & brings back I.M.s

" 7. Baldwin & Tueler go to the W. 1/16 cor. at N. boundary sec. 28 & drive 2 1/4" x 48" I.M. Then go to 1/4 cor. & W. 1/16 on S. boundary sec. 28 & drive 2 1/4" x 48" I.M. at each. Scott & crew finish N. 1/16 line P.I. at 1927.7' N. on sec. line. True 1/16 cor. sets N. 90.8'. Scott goes to 1/4 cor. bet. 28-29 & from true sec. line turns S.E. angle 88° 18' & runs line.

Sept. 8. Cont. 1/4 rand. line E. N.W. angle at P.I. E.S. = 87° 46'. Cont. E. to intersection of S.N. Ry. N.E. angle reads 125° 27'. Baldwin & Harig chain to P.I. E. boundary sec. 28. E. S. N. Ry. 924.1 We set stake at 1670' E. S. Ry. & to shore is 170.0'. With E. S. N. Ry. as base line for dist. 924'. S.W. angle at P.I. E. boundary & S. Ry. is 33° 32' 30". Rand. 1/4 line produced int. E. boundary sec. 28 at 1711.3 - 753.2 = 958.1. But true 1/4 should have set at 961.0'. True 1/4 sets 2.9' N. of rand. line. Baldwin & Scott with 50' metallic tape tie in P.I. of rand. line as follows.

Sept. 9. Go to S. 1/16 cor. bet. 28-29 & turn S.E. angle 90° 46' from true sec. line cut to W. 1/16 line. P.M. Put in hub by string intersection at P.I. true E. boundary sec. 28 & N. 1/16 line. Read 87° 31' W. S.W. angle. Scott & Harig cont. E. on S. 1/16 line. Set P.I. at W. 1/16 line.

Sept. 10. Cont. E. on S. 1/16 line to N. & S. E. At 807.8' set true 1/16 cor. 1.9' E. of 1/4 rand. line. True cor. sets 0.95' N. of rand. S. 1/16 line.



Sept. 14. We go to M.C. No. 31 and chain to new position of true M.C. No. 34. Which is 4.0' E. of old pt. 252.78' U.S. chain = 247.9' our chain. Our chainage is 4.88' short of U.S. At 123.62' N. of M.C. 31 x 124.28' S. of M.C. 34. We set hub at true $\frac{1}{16}$ cor. and turn $76^{\circ}30'$ N.W. angle and run rand. line W. We set hub for W.C. 7.0' S. of M.C. 34 & W.C. 3.0' N. of M.C. 31. We cross E. N. Ry. on curve with S. $\frac{1}{16}$ line. We set hub on rand. line at P.I. of S. tangent produced and read the S.E. angle $98^{\circ}58'$.

Sept. 15. Cont. S. $\frac{1}{16}$ line W. We start chaining from S. $\frac{1}{16}$ cor. bet. sec. 27-28. At 86.4' hub; 376.5' hub at old road; 501.6' hub int. field; 810' road; 1055.0' top of cut bank; 1800' E. N. Ry; 1124.8' hub = P.I. S. tangent; E.N. Ry produced S.E. angle $98^{\circ}58'$. At 1160.0' int. brush; 1240' old Ry grade N. & S.; 1304.6' hub; 1320.0' old road; 1370.0' int. marsh; 1470' cr. marsh; 1594' hub;

Sept. 16. Cont. S. $\frac{1}{16}$ line W. At 1917.5' hub; 2107.9' hub; 2428.5' true $\frac{1}{16}$ cor. sets N. 4.9'. At P.I. of rand. lines S.E. angle = $81^{\circ}6'$. We go to N. side sec. 28. At 1302.7' set hub on rand line & turn S.E. $92^{\circ}35'$. We set true $\frac{1}{16}$ cor. at right angles to and 24.0' N. of rand. line & start rand. line S. from true cor.

Sept. 25. Baldwin, Johnston, Harig, & M.C. Mahon cont. S. on E. $\frac{1}{16}$ line. P.I. E. $\frac{1}{16}$ line & E. N. Ry = 3276.65.8' R.R. chainage. P.I. E. $\frac{1}{16}$ + S. rand. = 1202.7' E. & N.W. angle at P.I. = $77^{\circ}41'$. Go to hub near N. of E. $\frac{1}{16}$ line & cut to P.I. of N. $\frac{1}{16}$ line.

Sept. 27. To correct S. boundary sec. 28-142-31. At a pt. 1785' E. of the $\frac{1}{4}$ cor. bet. 28-33 U.S. M.C. No. 32 sets S. 8.71' U.S. notes call for Willow 3 N. 67 W. 5: 94' & Prop. 4 S. 19 W. 13.86' at this pt. At 1202.4' the $\frac{1}{16}$ cor. sets S. 5:87'. We set 2" x 4" capped I.M.s at all cor.s M.C. & W.C. in sec. 28. & dig witness pits at each.

Recorded Mar. 6, 1922.

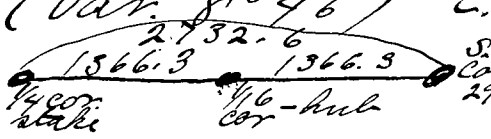
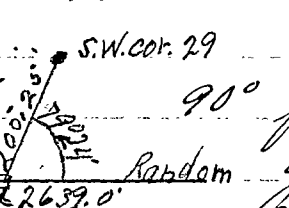
James H. Flynn Co. Surveyor.
By E. B. Hunt Deputy.

Field notes of the survey of sec. 29 Twp 142 N. Rge 31 W. of the Fifth Principle Meridian

Aug. 17

E. W. Miller, Harris, & Swanberg start at the I.M. S. E. cor. sec. 29 & chain W. along the road. At 2750.0' we look the I.M. 1/4 cor. on S. side sec. 29 but find nothing.

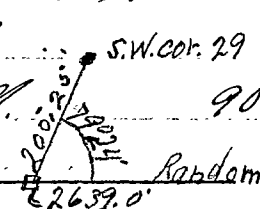
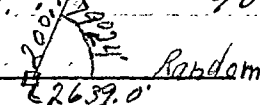
Aug. 19

I get Curo's notes on the 1/4 cor. on S. side sec. 29 which calls for Pop. 12 S. 15° 43' W. 21.45'. We find stump of the pop from which we set the 1/4 cor. & make new B.T. Elm 16 N. 46° 30' W. 66.0' (Var. 8° 46') E. 1/4 of S. Boundary runs on S. 73° 30' W. var. 8° 46'  Setting over this 1/4 cor., backsight E. on true  line & run W.

Aug. 20.

We measure the angle at the S.E. cor. sec. 29 as fol:
We cont. W. on rand. S. boundary sec. 29. Start chaining at 1/4 cor. At 740.6' hub; 1106.6' hub; 1380.8' hub; 1603.5' hub; 1978.0' Walker-Akeley road; 2375.2' hub; 2639.0' hub.

Aug. 21.

We find the non S.W. cor. sec. 29 and tie our rand. line to it as fol:  from which I figure; @ 2601.2' the S.W. cor. sec. 29 sets N. 90° from rand. line 201.75'. Correcting back, hub at 1300.6'  goes 100.88' N. (90° from rand.) to the true W. 1/16 cor. on S. side sec. 29. I now set transit over the iron S.W. cor. sec. 29 backsight on hub at 2639' rand. S. line, deflect 5° 13' R. & run N. on 8° 30' Var. From above data & later data I figure S.W. angle sec. 29 to be 75° 31'.

Aug. 23.

Cont. N. on rand. W. boundary. At 156.8' hub; 759.6' hub; 886.6' hub; 1099.5' hub; 1461.6' hub; 2081.9' hub;

Aug. 24.

Cont. N. At 2163.2' hub; 2463.6' hub; 2897' hub; 3115.4' hub; 3473.8' hub; 3647' hub; 4120.9' hub; 4464.7' hub; 4660' log house 6.0' W.; 4951.2' hub; 5068.9' hub, P.L. with rand. S. boundary sec. 20 run during subdivision of sec. 20. At 5047.6' the true N.W. cor. sec. 29 sets E. 273.4'. Scott, Miller, & Harris go to the true W. 1/16 cor. on N. side 29 and run rand. line S. Baldwin, H. J. Curo, Tucker, & Ford, go to true 1/4 cor. on N. side 29 & run E. & S.

Aug. 25.

Scott & crew run S. on rand. W. 1/16 cor. line about 1/2 mi without chaining. Baldwin & crew cont. E. to S. boundary and miss true 1/4 cor. 104.1' W.

Aug. 26

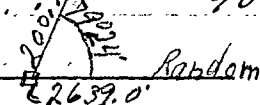
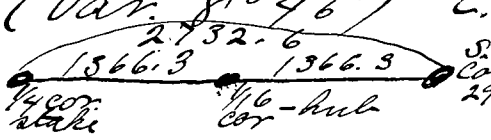
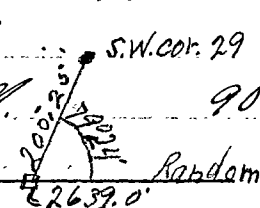
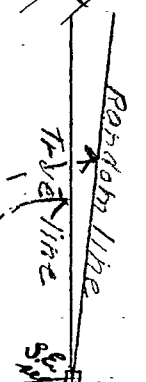
Scott & crew cont. S. on W. 1/16 line about 3/8 mi thru heavy cutting. Baldwin & crew start at the true E. 1/16 cor. on S. side 29 & run E. 1/16 line N. Int. N. boundary 29-36.2' E. of true E. 1/16 cor. Ford & Baldwin look for the 1/4 cor. on W. side sec. 29 where U.S. notes call for a post & Pop. 5 N. 27° W. -18 & Red Oak 4 N. 40° E. 11 but are unable to find any trace of the B.T.s.

Aug. 27.

Scott & crew complete W. 1/16 line & fall 122.5' W. of true W. 1/16 cor. Thence go to 1/4 cor. on E. side sec. 29, backsight on true line S., turn 78° 54' R. & run W. on rand. E. setting P.L. at int. Baldwin & crew go to N. 1/16 cor. on E. side 29, backsight S. on true line, turn 82° 42' R. & run W. on rand. N. 1/16 line setting P.L. @.

Aug. 29.

Scott & crew complete E. & fall 76.6' S. of true 1/4 cor. bet 29-30.



C

Baldwin & crew cont. W. on Rand. N. 1/6 line & fall 71.3' S. of true N. 1/6 cor. on W. Boundary. Baldwin measures angle of int. of N. 1/6 line & W. 1/6 line. S. E. angle = 98° 27'

Aug. 30. Baldwin, Scott & both crews go to P.I. of 1/4 rand. lines in cen. of sec. 29, figure correction, & set true E. 1/4 cor. We then chain from a pt. on Rand. E. at R. angle from I.M. to 1/4 cor. bet. sec. 29-32. At 37.4 S. P.I. Random lines, 967.6' hub; 1400.0' int. brush; 2022.3' hub; 2325.45' P.I. of random lines. 2575.75' - 140.45' = 2435.30' to 2285.0' true 50' true sect. E. to 109.924. At 1142.5' we chain E. 78.05' at Rt. angles to rand. line and drive I.M. 2 1/4" x 48" at true 1/6 cor. Here we backsight on hub at 1142.5' on rand. and deflect 16° 30' L & run rand. line E. The true 1/6 cor. sets N. 13.2' also Scott with Transit over 1/6 S. just set backsight on hub at 1142.5' & run rand. line W. Turn angle L. 13° 38'. True 1/6 cor. sets S. 24.5'

Aug. 31. We set 2 1/4" x 48" capped I.M.s at all corners & dig witness pits except at those which fall in roads.

Recorded Mar. 6, 1922
James H. Flynn, Co. Surveyor
By E. B. Hunt, Deputy

Field notes of the subdivision of sec. 6 Twp. 137 N. Rge. 29 W. 5 P.M.

Oct. 9-1915 We locate 1/4 cor. sec. 6 & after offsetting 10.0' E. to avoid fence & wood-piles, we run S. on 9° var. At 441.7' fence E & W.; 1174.05' hub; 1285.5' fence; 1480.5' fence; 2632.0' hub;

Oct. 11. Cont. rand. line S. at 2646.22 post mk'd 1/4 cor. sets 14.88' W.; 3920' W. meadow; 4384.4' hub; 5057.9' hub; 5297.7' hub; 5300.42 post marking sec. cor. sets 13.2' W. 91.5' N. & 35.3' W. to stump of White Pine. Notes call for White Pine N. 34° W. 92.4'

Oct. 12. Johnston, transit, M. Mahon & Felton, flag & axe, begin rand. line E. from post at S. W. cor. At 13.3 int. N. & S. rand. line at chainage 5300.8. Angle bet. rand. lines = 89°50'. At 1297.8' hub on W. side of road N. of bridge. From this hub we offset 109.7' to avoid river. At 1993.6' hub; 2579.11' hub; 2830.87' hub. From this hub we offset 109.7' S. to get back on original line. At 3409.0' hub.

Oct. 13. Cont. E. on Rand. line. At 3918.0' fence; 4596.8' hub; 5107.85' hub; 5265.65' hub on side of river. From hub 5265.65' start rand. line N. at 90°36' from S. rand. line of sec. 6. At 273.4' hub.

Oct. 14. Starting S. from 1/4 cor. on N. side sec. 6 (mk'd by a 6" granite monument) on 9°45' var. At 761.7' hub. From this hub triangulate across river. At 481.0' edge of river; 602.5' S. side of river; 641.66' hub; 888.7' hub; 1321.0' hub; 1659.6' cen. of M. & A. Ry. Line int. Ry. at 47°50' angle. At 1975.5' hub;

Oct. 15. Cont. S. on N. & S. E. At 3575.2' hub; 4227.85' hub; 4957.9' hub; 5284.3' hub a intersection of S. boundary at 2733.87' E. Angle = 90°08'.

Oct. 18. With J. W. Curo & M. Mahon visited the 1/4 cor. on E. side sec. 6 & we search for 1/16 cor. established by Curo. We are unable to locate this 1/16 cor. and Curo instructs me to run as closely as possible using the cutting of his line as guide and locate the 1/16 cor. on line with wire fence running E. from 1/16 cor. He advised me to establish S. E. cor. by cont. this line S., making the S. 1/16 the same length as the line from the 1/4 cor. to the aforementioned fence running E. from 1/16 cor. Curo also told me to est. 1/4 cor. on W. side sec. 6 from stump of tree as mentioned in notes. He said the post for this 1/4 cor. was probably incorrectly placed. His instructions were to accept post at S. W. cor. as correct. Therefore, setting transit about mid-way bet. N. E. cor. & 1/4 cor. on E. side, I work in on true line. Then chained this line from N. E. cor. Chainage = 2668.5'. U.S. survey makes N. 1/16 20240' & S. 1/16 2000.0'. In same proportions our chainage N. 1/16 is 1342.2' & S. 1/16 = 1326.3'.

Oct. 19. Begin at N. E. cor. sec. 6 & run true line to 1/4 cor. on N. side sec. 6. Chainage = 2671.05'. At N. E. cor. angle bet. true sec. lines = 88°49'. 1/4 cor. is mk'd by stone mon. At 1335.0' set hub for 1/16 cor. Then run traverse from 1/4 cor. N. side to N. W. cor. sec. 6. First angle read from rand. line run S. from 1/4 cor. 4°15' R. - 866.0'. Thence 89°09' L. 401.85' - 28°25' L. 231.3' - 20°21' 30" L. 400.87' - 77°45' 30" L. 316.36' - 78°55' L. 986.05' - 47°21' R. 904.75' At 98.3' on last course

Oct. 20.

of traverse int. cen. of Ry. Angle bet. last course of traverse and rand. line S. from N.W. cor. is $87^{\circ}49'$
 Directed by R.E. Mc Mahon, I set $\frac{1}{4}$ cor. on W. side sec 6 $1.5'$ S. of stake mk'd by cor. placed previously by my survey. With $\frac{1}{4}$ cor. fixed, then on rand. line S. from N.W. cor. at chainage 0.0 N.W. cor. lies 10.0' W. - 2646.97' $\frac{1}{4}$ cor. lies 14.66' W. - 5299.5' S.W. cor. lies 13.3' W. We then set $\frac{1}{16}$ cor. on W. side as fol. From N.W. cor. S. to $\frac{1}{4}$ cor. is 2646.97' Govt. notes give N. 40 chainage of 2005' Dividing 2646.97 in ratio of 2000×2005 we get 1325.1 + 1321.8'. $\frac{1}{16}$ cor. is offset from 1325.1' 12.3' W. Placing a hub at 3973.2' on rand. line which is midway bet $\frac{1}{4}$ cor. & S.W. cor. I drive hub 14.0' W. to mark $\frac{1}{16}$ cor.

Oct. 21.

Setting up over $\frac{1}{4}$ cor. E. side sec 6, sighted on true N.E. sec. cor. & turned $79^{\circ}52'$. Line falls on fence so I offset 5.2' S. & run W. on E. and int. W. rand. line 6.0' S. of W. $\frac{1}{4}$ cor. Deducting offset of 5.2' shows error of 0.8'

Oct. 22

Set upon hub on W. rand. line at 1325.1, right S. on rand. line and turn L. $89^{\circ}07'$ & run E. After crossing W. $\frac{1}{16}$ line offset 2.0' N. to avoid trees in front yards of town residences & cont. E. Int. true E. sec. line 3.6' N. of N. $\frac{1}{16}$ cor. Deducting offset, error in this line is 1.6' N. Then going to $\frac{1}{4}$ cor. on N. side sec 6 set up over concrete mon. & sighting on true N.E. cor. transit telescope & turn angle of $0^{\circ}11'$ N. & run W.

With Mc Mahon I walk to E. $\frac{1}{4}$ cor. and set instrument over bolt marking E. $\frac{1}{4}$ cor. Following Curis instructions I sight S. on cen. of old cutting west side of river to get true sec. line. I find this line falls very close to hub near bank of river so I accept this hub as true line and using it as foresight, run S. on true sec. line. At 1326.15 fence; 1326.65 hub; 1447.0 cen. of Ry. angle $42^{\circ}51'$; 1626.2 old hub found near bank of river; 1697 edge of marsh; 1771.0 edge of river; 1875 S. side of river; 2276.9 hub. From this hub I tie to S. rand. line by turning $79^{\circ}56'$ R. & sight on hub at 5107.85 on rand. line. Chaining across we find dist. to be 317.9. Setting up at hub 5107.85 and sighting on hub 2276.9 on E. sec. line I turn L. $120^{\circ}44'$ to hub on S. rand. line. Then true E. sec. line cuts S. rand. line at 5266.5. Chainage of intersection on E. sec. line is 2550.2. My instructions from Co. Surveyor were to place S.E. cor. as far S. of $\frac{1}{16}$ cor. as the $\frac{1}{4}$ cor. was N. of it. Dist. from $\frac{1}{4}$ cor. to $\frac{1}{16}$ cor. = 1326.15'. Dist. from $\frac{1}{4}$ cor. to S.E. cor. = 2652.3'. It follows therefore that the S.E. cor. is 102.1' S. of intersection with S. rand. line.

Oct. 23.

Set transit over hub marking E. $\frac{1}{16}$ cor. on N. true sec. line, sight on true N. $\frac{1}{4}$ cor., turn L. $89^{\circ}37'$ & run S. on E. $\frac{1}{16}$ line. Int. Ry. at angle of $49^{\circ}05'$. Int. S. rand. line at angle of $88^{\circ}50'$ at chainage 3952.1. Setting instrument on hub

4596.8' on S. sand line & sighting W. on line & place hub at 3932.1 and changing transit to this hub turn 90° and drive stake to mark true E. 1/4 cor. 76.3' S. In a similar manner I place hub at 2599.2' and drive hub to mark true 1/4 cor. 50.5' S. Continuing 1/16 line we find it passes true E. 1/16 cor. on S. line 18.5' E.

Oct. 25. Setting instrument over hub on W. sand line from which S. 1/16 cor. was offset, I sight N. on sand line & turn 90° 57' R. & run S. 1/16 line across sec. 6. Set P. at N. & S. interior lines & miss S. 1/16 cor. on E. sec. line 0.5' S. At the S. E. cor. sec. 6. new B.T. N.P. 10 N. 81° 23' E. 113.32' - Elm 24 S. 62° E. 98.85' - Pop. 8 N. 0° 42' W. 203.0' to tacks driven in flat spot at base of trees on 7° Var. S. 1/16 cor. on E. side of sec. 6 B.T. in tack in fence post S. E. 24.65' & tack in fence post W. 18.25'. Using these notes I set the S. 1/16 cor. on E. line by chaining from reference pts. then setting transit on 1/4 cor. on E. side and sighting on true N. E. cor. I find the 1/16 cor. 0° 04' left. With 1/16 cor. as foresight I set hub in cen. of Ry. & one on N. bank of River. Chaining I from 1/4 cor. E. sec. line we have 1326.3' 1/16 cor. 1568.65' hub. from which we triangulate distance across river. Chainage at hub on S. side of river is 1568.65 + 311.3 = 1880.0'

Oct. 26. Made traverse along Ry. beginning at intersection of Ry. with E. sec. line 1418.0' S. of 1/4 cor. Sighting N. on E. sec. line turn L. 4358' - 834.2' - thence L. 1046' - 694.7' - thence L. 4016' - 477.0' to E. & W. sand. & - thence 0° 88' R. 246.0' to cen. of river & cont. at same angle to N. side sec. Cont. S. on E. sec. line 2041.4' hub; 2360.2' hub; 2550.9' int. S. sand. line; 2588.0' edge of river. At chainage 2652.6' drove stake in river to mark true S. E. sec. cor. Stake checks exactly with B.T. The true E. sec. line int. S. sand line at angle of 91° 55' and as dist. from intersection to S. E. cor. is 101.7' then a perpendicular from cor. to sand line will int. sand line at 5213.4. Length of true S. line = 5214.4'

Oct. 27. I set hub with transit at 3893.6' on S. line 75.9' S. of sand line for true 1/16 cor. Similarly I offset hub at 1/4 cor. 50.2' S. from hub at 2573.7. From true 1/4 cor. I run N. and die to N. & S. sand 1/4 line at hub 321.

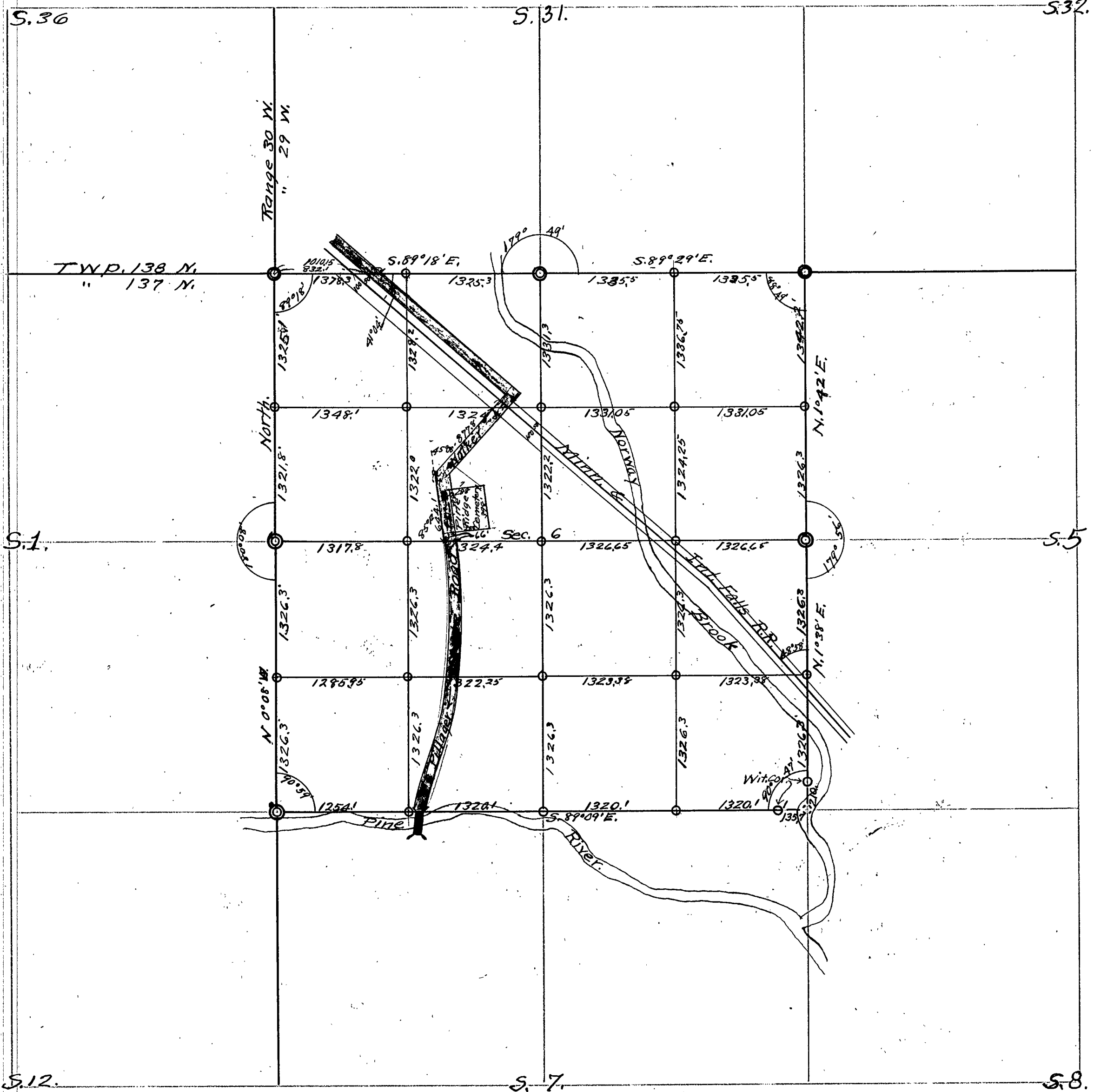
Oct. 28-29. We set I.M. s. at all cor. in sec. 6 except at S. E. cor. Here we set I.M. 210.0' N. of S. E. cor. on bank of Nor. Brook for Wit. sec. cor. Beginning at E. E. 1/16 cor. we run traverse as fol: From I.M. W. along E. 120.3' to cen. of Ry., thence N. W. along cen. of track at 205' cen. of river on Ry. bridge; 1582.7' intersection with N. & S. 1/4 line 2016.65' intersection with N. 1/16 line 3325.1' intersection with W. 1/16 line; 4041.6' int. N. boundary about Molyneux in trying in remaining part of town right. Recorded Mar. 8, 1922.
James H. Filymny, Co. Surveyor.
Ry. E. B. Horst, Deputy.

Survey Record No. 477 Plat: C 6 Secs.

Sec 6 - 137-29 F.B. 89

Sec. 6, T. 137 N., Rge. 29 W. 5th P.M.

F.B., R.S.



Field notes of the survey of sec. 25 Twp. 142 N. Rge 30 W. 5th P.M.
 May 17, 1916. Horst, compass, Fred Hawkins & Robt Delury, chain, working for Fred Hawkins. We go to S. E. cor. Twp. 142-31 where we find an I.M. set by Euro. From this point we run compass line N. & chain roughly to keep our position. At 2627.0' N. I find old U.S. B.T.s to 1/4 cor. on E. side sec. 36 where notes call for Nor. Pine 14 S. 79°30' E. 5.94' + Nor. Pine 12 N. 43° W. 17.16' both plainly m'kd from which I set a 4x4x60" wood post for true cor. & cont. compass line N. to S.E. cor. sec. 25-142-31 where notes call for Y. Pine 18 N. 20° E. 15.84' + Y. Pine 16 N. 79°30' W. 63.16'. I find both B.T.s plainly m'kd from which I set a 3x3x40" popl. post for true S.E. cor. sec. 25. We cont. N. bet. sec. 25-30. At about 2640 where U.S. notes call for 1/4 post + Birch 3 N. 46° W. 11.22' + Red Oak 4 S. 45° E. 5.28'. We look over about an acre of ground but are unable to find any evidence of a 1/4 cor. or B.T.s but we find a cedar post m'kd 2640. At about 4040.0 we mt. S. shore of Leech Lake where U.S. notes call for post + Birch 5 S. 63°30' E. 2.64' - Balsam 6 S. 69°30' W. 4.62'. We are unable to find anything and are informed that this cor. has been gone for an indefinite period of time.

May 18 Horst, Transit, Hawkins & Delury, axe, cross Leech Lake in launch and land at M.C. No. 21-142-31 bet. sec. 19-24 on N. bank of lake where U.S. notes call for Y. Pine 24 N. 49° E. 18.48' - Y. Pine 20 N. 65° W. 7.26'. Stumps of both trees still remain, both plainly m'kd, and checking perfectly. We set wood post at true point for cor. and erect a tall sight N. of cor. We then cross lake & set hub 128.0' S. of lake. I set transit over hub and backsight N. to M.C. 21 and start line S. var. 7°30'. Hawkins & I triangulate lake by chaining W. at 90° angle 200' where we set hub and tack. I set transit over hub & backsight to hub on rand. line and turn N.E. angle to M.C. 21. Angle = 85°28' but on account of the short base line & high wind I am afraid the triangulation is not correct. Dist. according to reading is 2522.5' to hub. Along this hub as sta. 2522.5 we cont. line S. bet. sec. 25-30. At 2677.7' hub; 2936.0' hub; 3010.0' ent. cedar swop.; 3107.1' hub; 3329.0' lv. cedar swop.; 3390.3' hub; 3817.9' hub; 4217.5' hub; 4696.4' set hub.

May 19 Horst & same crew cont. line S. bet. sec. 25-30. At 4851' hub; 5531' hub; 5879.6' hub; 6007.5' hub; 6396.0' S.E. cor. sec. 25-142-31 sets W. 109.0'. I set transit over true sec. cor. and run rand. line W. bet. sec. 25-36 at about 10° var. We cut about 2000.0'

May 24 Horst & same crew cont. S. line sec. 25 W. to lake & Hawkins & I go to S.E. cor. 25 & chain W. At 54.0' hub; 581.1' hub; 1471.8' hub; 1872.4' hub; 2113.7' hub; 2210.7' hub; 2212.0' water edge of lake. We look for B.T.s to M.C. No. 2. U.S. notes call for post and Y. Pine 30 S. 47° E. 44.88' - Y. Pine 24 N. 45° W. 42.9'. We are unable to get to all the stumps along the shore on account of high water so we leave it for the present.

May 25

Horst & same crew go across lake in Delury's launch and land near point where plat. shows M.C. No. 6 to be and where U.S. notes call for a post and W. Pine 30 N. 64° W. 9.24' + Y. Pine 24 S. 18° W. 11.88'. We find the N.W. B.T. stumps bearing the B.T. The shore is washed away to cen. of stump but stump is still in its original position. The S.W. stump also bears B.T. but has fallen into the water. From the N.W. B.T. I set a 4x4x60" wood post for true cor. We erect a tall sight at this cor. and cross lake where notes call for M.C. No. 22, being on E. side of lake bet. sec. 19-30-142-30. U.S. notes call for post and Buick W.S. 74° E. 97.02' + Oak 7 N. 89° E. 93.72'. We look carefully along lake shore for 1/4 mile but find nothing. Quit for night.

Dec. 14-1916

Horst & Hawkins go to M.C. No. 21 N. side of Leech Lake on Rge. line and chain S. on ice along sand. Rge. line run last May. At 6.0' ent. Leech Lake; 2278.0' Lv. Lake; 2406.0' hub used as triangulation hub and marked 25-22.5' S. which is wrong on account of high wind and short base line. Difference = 116.5'.
 Corrections on Rge. line: Hub mk'd 25-22.5' = 2406.0' + goes W 41.79' to true line. Hub mk'd 2677.7' S. = 2561.2' and goes W. 44.46'.
 " " 2936.0' S. = 2819.5' " " " 48.95'
 " " 3107.1' S. = 2990.6' " " " 51.92'
 " " 3390.3' S. = 3273.8' " " " 56.83'
 " " 3817.9' S. = 3701.4' " " " 66.28'
 " " 4217.5' S. = 4101.0' " " " 71.19'
 " " 4696.4' S. = 4579.9' " " " 79.51'
 " " 4851.0' S. = 4735.5' " " " 82.19'
 " " 5531.0' S. = 5414.5' " " " 94.0'
 " " 5879.6' S. = 5763.1' " " " 100.05'
 " " 6007.5' S. = 5891.0' " " " 102.27'
 " " 6396.0' S. = 6279.5' " " " 109.0'

Dec. 15

to S.E. cor. sec. 25-142-31. Quit for night. We return to M.C. No. 2-142-31 where U.S. notes call for Y. Pine 24 N. 45° W. 42.9' + Y. Pine 30 S. 47° E. 44.88'. The S.E. tree stump has washed away with the shore but is still there as drift wood. The N.W. B.T. stump 6.0' high is still there from which I set a 4" spike on ice 6.0' from shore for true M.C. No. 2. Returning to hub 2113.7' W. on sand. S. boundary sec. 25. I turn S.E. angle 100° from line to true M.C. No. 2. Dist = 268.0' at sta. 2160.2' W. M.C. No. 2 sets S. 265.9' Correction = .1231' S. for each foot W. Quit for night.

Dec. 16

Horst, transit, with Hawkins & two other helpers set hub 581.1' W. - S. 71.5' + hub 54.0' goes S. 6.65'. I set transit over S.E. cor. sec. 25, sight W. to hub 54.0' W. + turn angle 7° 01' S. to corrected hub and run true line W. to Leech Lake. Angle of true E. & S. boundaries of sec. 25 = 99° 30' (N.W. Angle). At sta 2100.7' W. set Wit. Cor. to M.C. No. 2 with new B.T. o

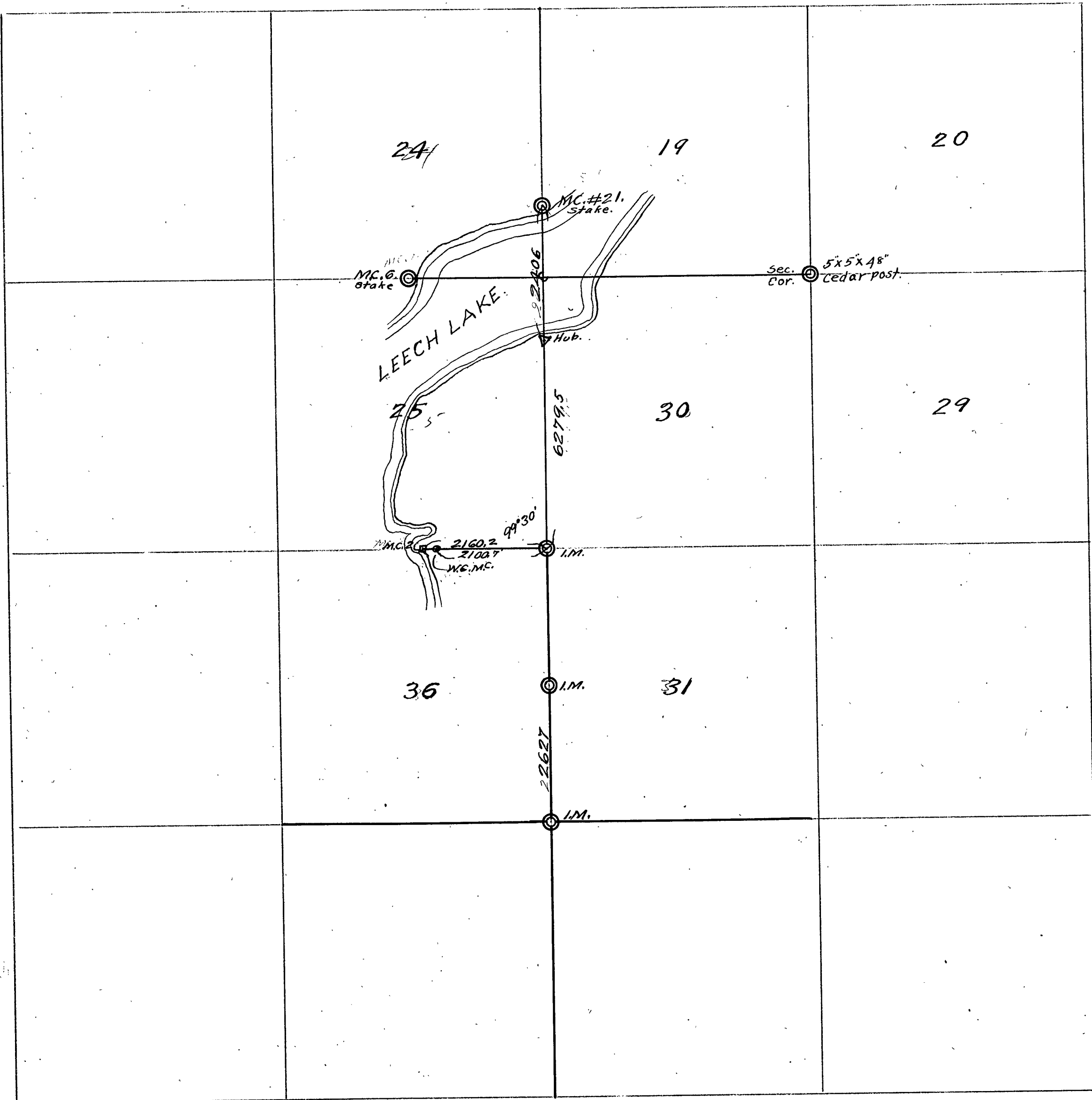
Red Oak 4 N. $30^{\circ}20' E$ 20.6' + Red Oak 4 S. $39^{\circ}30' W$ 18.25' - 17° Var. Wit. Cor. sets E. of M.C. 59.5' I set Transit over wit. Cor. and turn N.E. angle of $129^{\circ}48'$ from true S. boundary and chain N.W. along this line across small bay of lake. At 198.0' ent. overflow; 310' to overflow ent. bay; 1259.0' to bay; 1188.5' I set a 1 1/2 x 3/8" iron bar with following B.T. N.W. cor. stone of house N. $86^{\circ}45' E$ 77.55'. S.W. cor. stone of house S. $69^{\circ}30' E$ 75.80 to outside cor. of stone.

Dec. 18. I get I.M.s at Walker and in P.M. go to Hawkins' and survey a few lots on the sandy point. Setting transit over sq. I.M. I sight S.E. to wit. cor. reverse telescope and turn R. $55^{\circ}13'$ chain 87.4 and set 2x48" I.M. 29.0' E of lake being on S. side of lot 1. Setting transit over this I.M. and backsighting to sq. I.M. then fore-sight and turn R. $3^{\circ}29'$ chain N. 60.02' + set wood stake on line bet. lots 1 & 2, then chain N. 60.02' + set wood stake on line of lot 2. Again backsighting on sq. I.M. I turn $91^{\circ}20' S. E.$ + chain E. 246.0' and set 2x48" I.M. I set transit over this I.M. and backsight W. and turn N.W. angle $91^{\circ}20'$; chain N. 60.02' + set wood stake. At 120.04' set I.M. and check chain lot 2 on N. line. Find it O.K. Length of lots E. & W. = 275.0' to water.

Recorded March 9, 1921
 James H. Flynn, Co. Surveyor
 By Elmer B. Horst, Deputy

(8 Secs)

Twps. 142 N. Rges. 30-31 W. 5th P.M.



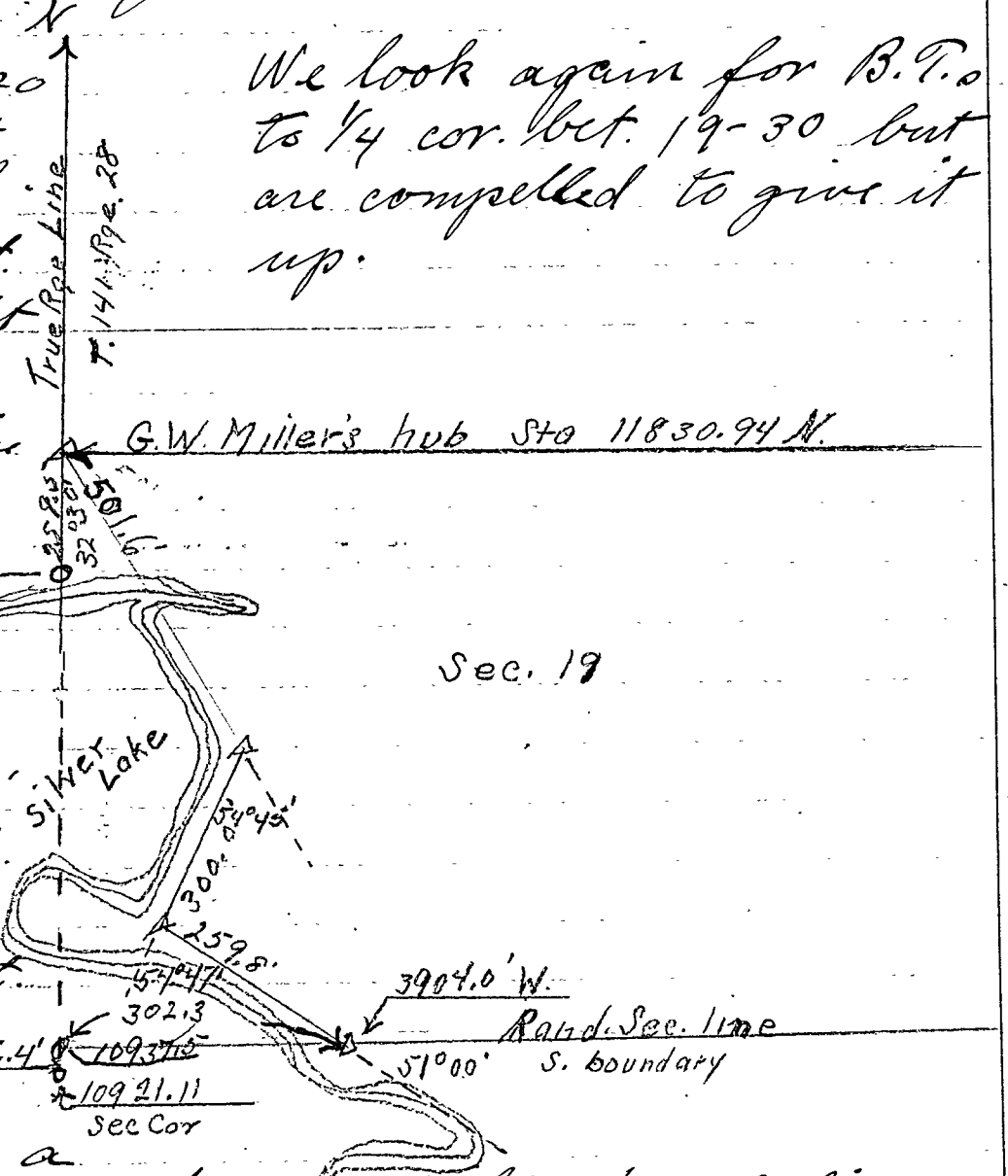
Field notes of the resurvey and partial subdivision of sec 19, Twp. 141 N. Rge. 28 W. of the 5th Jan. Mer.

May 23, 1917. E. B. Horst, transit, John Toland & Wm. Stem, eye walk to S. side sec 19 near point for 1/4 cor. bet. sec. 19-30 where U.S. notes call for a post + Pop. 10 N. 21° E. 24.42 + J. Pine 7 S. 42° 31.02'. We are unable to find same and proceed to run sec. line W. from cor. to sec. 19-20-29-30 established by me from U.S. B.T. and mkd. by a 2 1/2 x 48" capped I.M. With transit over this cor. I sight S. on true sec. line bet. 29-30 + turn S.W. angle 98° 44' + set hub W. about 1000.0'. Transit on same point I sight N on true line bet. 19-20 + turn N.W. angle to hub. Angle = 89° 15'. We run line W. to Silver Lake but do not chain. P. M. Chas. Farnsworth assisted in place of John Toland.

May 24. Horst & Toland begin chaining at cor. to sec. 19-20-29-30 W. on rand. line. 742.6' cross rd.; 982.1' hub; 1404.0' hub 180' W. of sm. lake = Hub 'A' of triangle. Set hub 'B' on line across lake, Transit on 'B' sight on 'A', turn 90° N.E., chain base line N. 282.5' + set hub 'C'. Transit on 'C', turn angle from 'A' to 'B' L = 63° 47'. Dist. across lake = 573.3'. Hub 'B' = 1977.3'. From hub 'B' E. to lake is 300.0'. Cont. W. 2264.5' hub; 3047.4' hub; 3594.8' hub; 3904.0' hub 40.0' E. of lake. Beginning at sta 11830.94 N. on rgl. line of E. W. Miller's survey we connect rgl. line and S. boundary of sec. 19 as per diagram:

May 25. We go to cor. of sec. 17-18-19-20 mkd. by a 2 1/2 x 48" capped I.M. set by me from U.S. B.T. on 300.0' S. of cor. I set hub on true line bet. 19-20. With transit over cor. I sight S. to corrected hub + turn S.W. angle 90° 10' + run rand. sec. line W. at 159.8' W. set hub; 581.5' hub; 919' hub; 1359.1' hub on Wit. Cor. pine hill; 2050.0' ent. Island Lake swp.; 2200' lv. " " ; 2275.0' hub on point; 2297' fence; 2325.0' ent. swp.; 2640.0' set stake + look for 1/4 cor. No B.T. Cont. W. At 3055.7' hub lv. swp.; 3475.1' hub; 4114.4' hub; 4300' ent. swp.; 4470' lv. swp.; 4499.7' hub; 4755.6' hub on rgl. line road. Cor. to sec. 13-18-19-24 mkd. by a 2 1/2 x 48" I.M. sets 94.0' N. S. E. angle of rand. line to rgl. line = 84° 10'

We look again for B.T. to 1/4 cor. bet. 19-30 but are compelled to give it up.



May 26. Horst & same crew begin at I.M. at 1/4 cor. on rgl. line bet. 19-24 to which I take new bearings as follows: U.P. stump 20 N. 50° 50' W. 27.9' + Pam. 4 N. 27° 22' E. 42.4'. I sight S. on rgl. line to E. W. Miller's hub + turn S.E. angle 82° 25' + run E. thru

C

May 28.

cen sec. 19. At 404.9' hub on old Ry grade bro. N.E. $20^{\circ}12'$; 783.2' hub; 1508.0' hub; 1910' fence; 2174' hub; 2335' ent. marsh; 2515' lv. marsh; 2642' hub; 2668' cen of road; 3100' marsh; 3300' lv. marsh; 3412' ent. sup; 3600' lv. sup; 4066.8' hub. $\frac{1}{4}$ cor. bet. 19+20 ($2\frac{1}{2} \times 48''$ I.M.) sets L. $9^{\circ}38'$ - 420.0'. At 4480.9' E. cor. sets N. 70.3'. We walk to point for $\frac{1}{4}$ cor. bet. 19-30. U.S. chain for S. boundary of sec. 19 = 5262.18'. My chain = 4206.3'; $\frac{1}{4}$ cor. sets at sta. 2110.26' W. & 8.23' S. of rand. line. At hub 1977.3' I set hub on true line. With transit on true $\frac{1}{4}$ cor. I sight E. to corrected hub, turn N.E. angle $93^{\circ}34'$ & run N. thru sec. 19.

Forst & crew cont. $\frac{1}{4}$ line N. thru sec. 19. At 140' hub; 448.5' hub; 2218.3' hub; 2609.4' hub; 2670.0' int. E & W. E at sta. 2230.2' W.; 3000' ent. sup; 3115' lv. sup; 3135' cen. of grade; 3307.5' hub; 3895.1' hub; 4567.1' hub; 4900.6' hub; 5240.0' ent. Tam. sup; 5366.4' int. N. rand. line sec. 19 at sta. 2891.6' S.W. $\angle = 98^{\circ}00'$.

At sta. 2381.28' W. on rand. N. boundary line I chain N. 47.07' & set true $\frac{1}{4}$ cor. ($4'' \times 4'' \times 36''$ Pop. post) With Transit on hub 5366.4' $\frac{1}{4}$ cor. sets N. $145^{\circ}5'$ E. 48'. At sta 5413.0' N. $\frac{1}{4}$ cor. sets 12.4' E.

We walk E. on N. sec. line to sta 1190.64' W. where I set hub on line & chain N. 23.53' & set a $4'' \times 4'' \times 36''$ Pop. for true E. $\frac{1}{16}$ cor. bet. 18-19 Pop. 4 N. 9.0' & Pop. 3 W. 8.2'. From hub on rand. line I turn S. W. angle $91^{\circ}30'30''$ & run E. $\frac{1}{16}$ line intersecting true E. & W. E. 6.0' W. of cen of E. $\frac{1}{2}$ sec. 19. I set $4'' \times 4'' \times 36''$ pop. for true cor. C.E. $\frac{1}{16}$.

May 29.

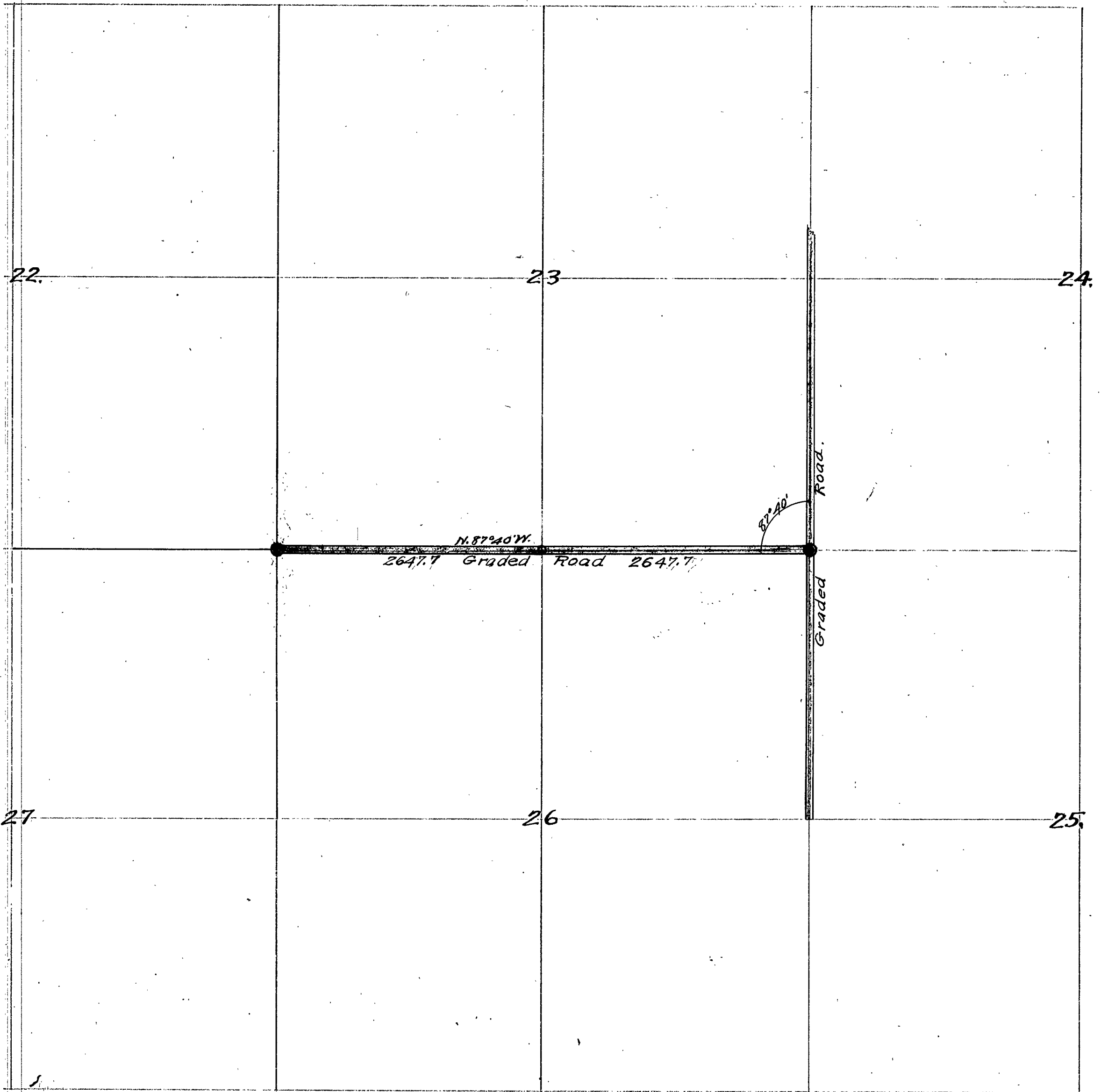
At cen. sec. 19. I int. true E. & W. & N. & S. E. & set a $2\frac{1}{2} \times 48''$ I.M. for true cen. sec. 19. At sta. 1553.25' N. on N. & S. rand. E. I chain E. 3.1' & set $4'' \times 4'' \times 36''$ oak post for C.S. $\frac{1}{16}$ cor. From hub on rand. line I turn N.W. angle $86^{\circ}21\frac{1}{2}'$ & run S. $\frac{1}{16}$ line W. Offset S. to true line at first hub, cont. W. on true line & int. rge. line 0.9' N. of S. $\frac{1}{16}$ cor. sec. 19 being a wood post set in 1915 to which I take bearings as follows: W.P. stumps 24 N. 80° E. 80.9' & W.P. stumps 20 W. 10.8' At sta. 4059.75' N. on N. & S. E. rand. I set hub & chain E. 8.3' & set $4'' \times 4'' \times 36''$ oak post for C.N. $\frac{1}{16}$ cor. I turn $94^{\circ}01\frac{1}{2}'$ S.W. angle from rand. line & run N. $\frac{1}{16}$ line W. Offset N. on true line at first hub & int. range line 4.8' N. of N. $\frac{1}{16}$ cor. bet. sec. 19-24. I set cedar post in road, bearings as follows: Oak 4 N. E. 37.3' & Pop. 4 N.W. 52.7'. Beginning at sta 143.3' S. of $\frac{1}{4}$ cor. bet. 19-24 where rge. line int. old grade (State Road No. 11) we run over old grade. Chain E. on grade 1000.0' thence N. 8° . At 1120.0' in front of school house; at 2220.0' turn L. $18^{\circ}15'$ At 1515' E. int. E. line sec. 19 - 1218.5' S. of N.E. Cor.

Recorded Mar 10, 1922

James H. Flynn, Co. Surveyor.
J. E. Bedout, Deputy.

Survey Record No. ^{Plot 480} 480 Plat: C (6. SECS.)

T. 140N., R. 25 W. 5th P.M. Minn.



Field notes of the survey of a Township road in sec. 22-23
 24-25-26-27 Twp. 140 N. Rge. 25 W. of the ^{5th} Principle Meridian.
 Nov. 12-1920 E. B. Horst leaves Walker for Cass Lake on S. N. train 6:30
 P.M. Bus fare 25¢ R.R. fare 70¢ Supper at Cass Lake 50¢
 Lodging \$1.25 Breakfast 50¢ Fair Cass Lake to Shovel Lake
 \$1.72. J. Howard Swanberg joins me at Cass Lake as chain-
 man. At Remer we meet Corner, Chairman of Twp. board
 who has come to Remer instead of Shovel Lake. He drives
 us to his place for supper & overnight.
 Nov. 14. E. B. Horst + J. H. Swanberg + Carl Noull and car drives
 us to the N.E. cor. of sec. 26-140-25 where a road runs W. from
 the N. + S. road and at which point I saw the stump of one
 of the original U.S. B.T.s before the road running. I was
 constructed, said stump having been grubbed and thrown
 beside the roadbed. I set pt. at P. 1. of road N.E. cor. sec. 26
 140-25. New B.T.s: S.W. cor. of school house N. $49^{\circ}53' E.$ 160.4;
 Tel. Pole N. $77^{\circ}30' W.$ 32.8 + Pop. 8 S. $53^{\circ}45' E.$ 70.8. U.S. notes call
 Aspen 5 S. $38^{\circ} W.$ 14. which have all been grubbed out in con-
 structing roads. From this pt. I sight N. on road, mag.
 var. $7^{\circ}30' E.$ Thence N. $86^{\circ}15' W.$ on graded road E. at 442.5'
 set pt.; 1200.0' set pt.; 1960.0' grade over sup. N. + S. W.; 2477.5'
 cen. of bridge over ditch. A fence par. to rd. is 30.0' S. of E.
 W. side of private drive bears S. 30.0' from E. of road. At
 2600 set pt. in S. wheel track at W. side of sup. + turn L.
 $2^{\circ}53' N.$ $89^{\circ}08'$. At 2665 bend in rd. L.; 3765.0' 5.0' bridge
 over creek; 4869.0' pt. on top of hill $0^{\circ}47' N.$ $88^{\circ}21' W.$ at
 5297.0' W. pt. for cor. to sec. 22-23-26-27 which I found on
 Jan. 1, 1916 when I was crissing for sec. cor. in Smoky Hollow
 B.T.s which were grubbed and thrown aside when building
 road which was not quite completed at that time. I blazed
 a 6" cedar on N. side of road and a 10" tam. on S. side of
 road and also set the stake made by Watton, 20.0' S. of cen.
 of rd. which a Mr. McLaughlin identified and told me where
 to find. Cedar 6" N. 17.0' + Tam. 10" S. 23.4'. Set stake 33.0' S. of E.
 At 2640.0' W. of cor. 23-24-25-26 I make a very throo search
 for evidences of the Orig. U.S. 14 sec. cor. 23-26 but find nothing.
 I ask a Mr. Jackson about this cor. and he claims that he
 knows where it is and that it cannot be pulled up with
 teeth but he absolutely refuses to give any information as
 to its whereabouts and further claims that the court is the
 place to establish that cor. and that is where he will dis-
 close his information. Mr. Jackson also states that Martin
 Watton established this cor. and that he was a U.S. surveyor
 at that time. I personally interviewed Martin Watton at

C

at his home on Nov. 13, 1920 in the presence of J. H. Cooner and he claims that he found either two Pam. trees or two Spruce trees but kept no notes of same and could not relocate the cor. by any method to its original position.

Being unable to find any evidence of the orig. 1/4 sec. cor. bet. sec.s 23-26-140-25, I proceed to establish same by proportionate measurement and in line with the N. E. and N. W. sec. cor.s of sec. 26. Recorded U. S. notes of this 1/4 S. cor. give part of Azimuth 6 S. 40° W. 8 lks - 5.28' + Spruce 5' N. 47° 30' E. 9 lks. or 5.94' at sta. 2648.5' W. set pt. for 1/4 sec. cor. 23-26-140-25 S. 64.9' with following New B.P.s
Tel. Pole N. 70° 45' E. 116.3' + Tel. Pole N. 66° 20' W. 114.6'

+S	Ht. - S	elev.	obj
5.0	105	100.0	assumed in cen. of rd. at sta 2600 W.
	7.0	98.0	in swp. 100.0' N. of rd.
	8.5	96.5	in ditch at N. end of culvert (box)
	5.0	100.0	top of box culvert 30" wide
	5.5	99.5	in ditch in cen. of drive to Jackson's
	8.8	96.2	in bottom of ditch at W. end.
	6.8	98.2	same place on bank of ditch
	5.0	100.0	in side ditch on S. edge of rd. at 2800' W.
	3.7	101.3	on sm. hill in side ditch at 2900 W.
	3.2	101.8	on sm. hill about 3000 W. hill sloping S.
	10.0	95.0	in pothole about 100.0' W. of outlet of ditch.

Recorded March 13, 1922

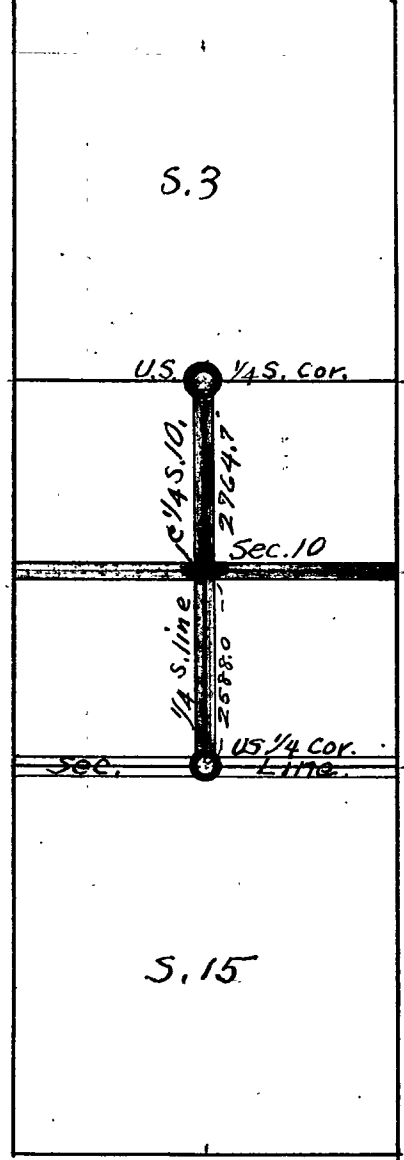
James H. Flynn, Co. Surveyor.
By E. B. Forest, Deputy.

Notes 481 Sec. 3-10-15-140-25
 F.B. 68 300 words Plat 481

Field notes of the survey of a Township road in sec. 10 Township 140 N. Range 25 W. of the Fifth Principle Meridian.
 Nov. 15, 1920 E. B. Forst, Engineer, Howard Swanberg, chairman, J. H. Corner & two other helpers survey the N. & S. E. of sec. 10 for a road to be build in the S. 1/2 of sec. 10, 140-25.

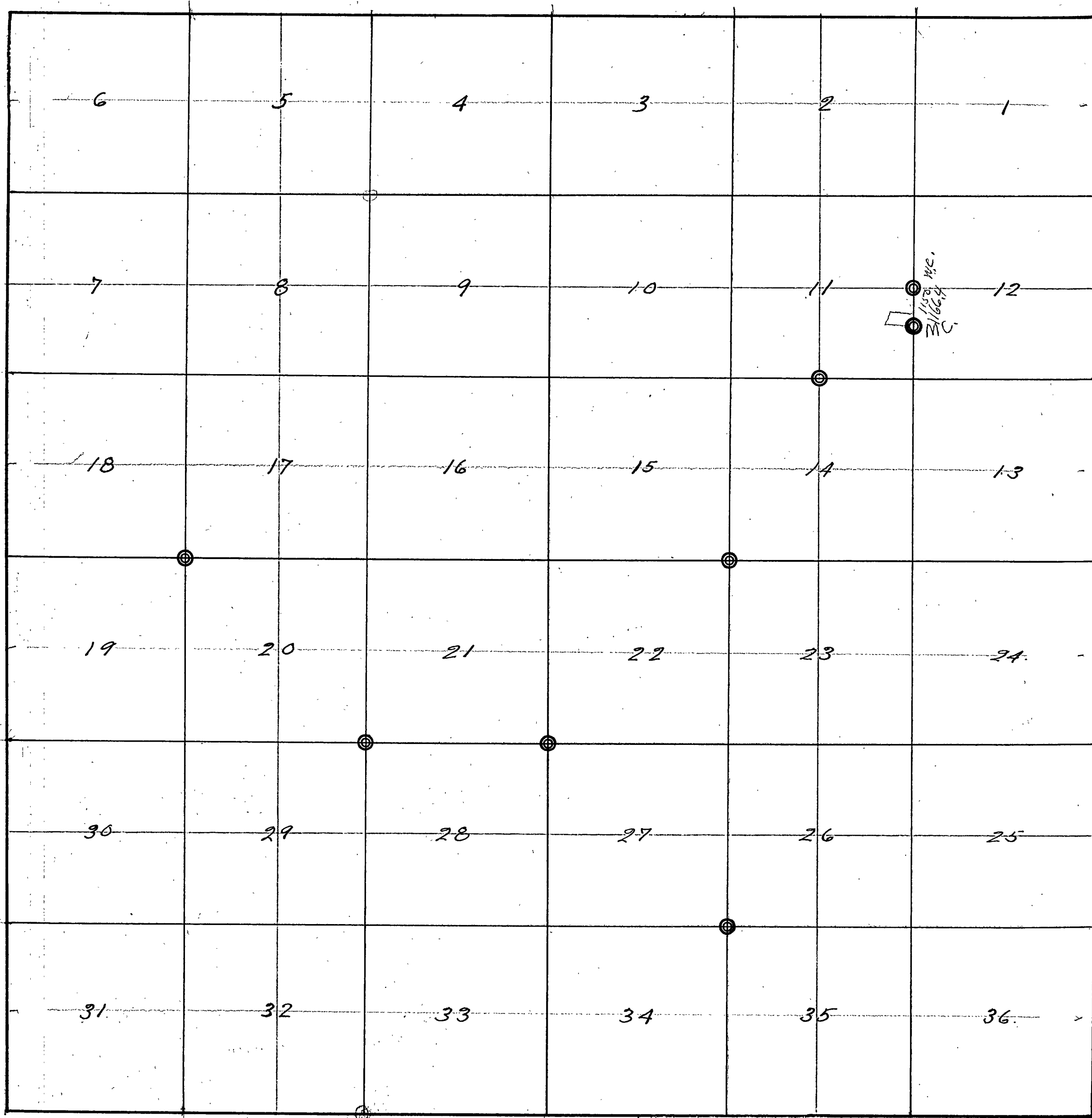
Begin at the 1/4 cor. bet. sec. s 10 & 15-140-25 where U.S. notes call for Gel. Pine 10 S. 88° E. 37 lks. & Aspen 57. 81° 30' W. 10 links of which I find the stumps bearing the original scribe marks & also find a fallen stake near true pt. for cor. I set a large hub for the true 1/4 cor. from which new B.T.s are White Pine 9 N. 76° 45' E. 35.7' & White Pine 8 N. 52° W. 43.0'. Run N. on rand. line at 78.30' var. At 390.0 hub; 822.3 hub; 1320 set stake; 2567.0' wire fence on S. side road; 2600 E. of E. & W. road; 2631.0' fence N. of road; 4020 hub, fence cor E. 30'; 5223.4' hub; N. 14° 30' 133.3' to 1/4 sec. cor. bet. sec. s 3-10-140-25 which was a 4" W. Pine for cor. & Asp. 5 N. 43° 30' E. 4 lks. & Fir 3 S. 56° W. 5 lks. Now is: 4" Pine for cor. lying on ground & Asp B.T. mk'd lying on ground from which I set a large 4x4x48" stake & hub new B.T.s as fol: Balsam 7 N. 80° W. 28.0' & N. Pine 10 S. 20° E. 13.8'. At sta. 5352.7 N. on rand. E. the 1/4 S. cor. bet. sec. s 3-10 sets C. 33.4'. C. 1/40. at 2588 N. & E. 16.5'. C. N. 1/46 sec. 10 at 3970.3 N. & E. 24.7'

Recorded March 13, 1922
 James H. Elynn, Co. Surveyor
 By E. B. Forst, Deputy.



Record No. 481. Plat.
 Twp. 140 Rge. 25,
 3 Secs.

140-25



Field notes of the survey of a cemetery in Smokey Hollow Twp.
Twp. 139 + 140 N. Rge. 25 W. of the 5th P. M.

- Dec. 27, 1915 Copy notes + leave for Shovel Lake. Stay in Cars take over mite.
- Dec. 28. Go to Shovel Lake + stay over mite with J. L. Richards.
- Dec. 29. J. L. Richards is not at home so I walk to Moose river to see him about surveying Smokey Hollow cemetery. Some one has taken the deed from the Clerk's office and the Clerk sends to Walker for a copy. Corbin Young, town clerk, + I go to Shovel Lake after survey tools via of sleigh. I board at J. L. Richards.
- Dec. 30. I take U. S. notes, compass, chain + axe and cruise for Kov't cor. s. At N. C. No. 3 B. T. green + plainly m'kd. M.C. #6 all gone, from here I go W. to 1/4 cor. bet. sec. 11-14 where I find W. Pine B. T. still standing. I take new B. T. as fol: Balsam 5 S. 32°30' E. 6.6 + Fir N. 5° E. 83.5'. I cont. W. to cor. of sec. 10-11-14-15 where I find no B. T. or post, but I find a live tree and go S. at 8°30' Var. No B. T. at 1/4 cor. Cont. S. At sec cor. of 14-15-22-23 I find one tam. B. T. still standing. I set cor. from this tree + take new B. T. as follows: Dead Tam. 10 N. 16° W. 6.4; Spruce 8 N. 62° E. 45.5; Dead Tam. 8 S. 40° W. 14.8 + Spruce 5 S. 52° E. 15.7. Trees all loaded with snow. Nearly all spruce swamp and full of windfalls. Travel very slow.
- Dec. 31. I take Gurley compass, 100 ft. chain, note + plat book and go to cor. of sec. 14-15-22-23 + run S. one mi. var. 8°30'. I find crumbers cor. post and old live tree but no B. T. U. S. notes call for Tam 8 N. 78° W. 7 - Tam. 5 N. 32° E. 9 - tam 8 S. 40°30' W. 5 - Tam. 6 S. 62° E. 19. I cont. S. at same var. one mi to cor. of sec. 26-27-34-35. U. S. notes call for W. Pine 12 N. 54° E. 18 - Tam. 10 S. 73° E. 34 - Tam. 10 N. 9° W. 16 - Fir 3 S. 72°30' W. 19. Find nothing but some blazed trees. Here I turn W. at 8°30' var. + go W. one mi to cor. of 27-28-33-34. No B. T. but very heavy brush + windfalls. From this cor. I go N. 45° W. to locate McLaughlin's house where I stay over night - C. B. Horst.
- Jan. 1, 1916 I take Mr. McLaughlin along to show some B. T. at cor. of 28-29-32-33 but find nothing to establish cor. from. We then go N. one mi. to cor. of 20-21-28-29 and find one B. T. still standing. Not many marks left. U. S. notes: Black Oak 12 N. 53°30' W. 39 - B. Oak 8 S. 53° W. 22 - Maple 5 N. 20° E. 14 - Birch 10 S. 28° E. 42. From B. Oak 12 N. 53°30' W. 39 I set post for cor. + take new B. T. (20-21-28-29) Bass Wood 10 N. 24° E. 31.0 - W. P. stump 18 N. 67°30' W. 44.1 - Maple 5 S. 46°30' W. 56.2 - W. P. stump 30 S. 62°30' E. 58.0 We go to McLaughlin's for dinner at 2 P.M. I start to snow so we quit.
- Jan. 2. Snowing. I stay at Richards all day and work on notes.
- Jan. 3. I go to 1/4 cor. on S. side of sec. 12 + pace E. 1/2 mi. to locate S. E. cor. sec. 12 but every thing is burned up there. I return to the house and work on notes balance of day.
- Jan. 4. I take compass, chain, etc and go to cor. of 13-14-23-24 where U. S. notes call for Asp. 10 S. 19° E. 31 - W. P. 8 N. 70° W. 5 - W. P. 5 N. 78° E.

487

C

40 links + W.P. 8 S 76° W. 10 links but find nothing. I cont. S. 8° 30' var. one mi. to cor. of 23-24-25-26 where U.S. notes call for W. Birch 18 N. 49° E. 14 - Asp. 4 S. 11° E. 9 - Fir 4 N. 40° W. 12 - Asp. 5 S. 38° W. 14. All these were grubbed out in building a road. I cont. S. at same var. to next cor. 25-26-35-36 where U.S. notes call for one fir & thus cedars B.T.s. Cor. is in cedar sup. in slashings but I cannot find anything. A lumberman shows me where it was but we cannot find it. I then go W. one mi. with a teamster who shows me cruiser's cor. at cor. of 26-27-34-35. Here I find a W.P. stump plainly m'kd. U.S. notes call for W.P. 12 N. 54° E. 18 - Tam. 10 S. 73° E. 34 - Tam. 10 N. 9° W. 16 - Fir 3 S. 42° 30' W. 19. I find W.P. and S.E. Tam. plainly m'kd. but down. I set ~~444~~ cor. post & take new bearings as follows: W.P. 12 N. 8° W. 32.4 - W.P. stump 20 N. 53° E. 10.5' Cedar 10 S. 71° W. 25' - Balsam 8 S. 61° E. 27'. I stay at Rens Middendorps lumber camp for the night.

Jan. 5

The deed having arrived from Walker for the Lakeview Cemetery and the weather has cleared up so I take transit and outfit and go to M.C. #5 on W. boundary sec. 11-140-25 to resurvey cemetery. This cemetery was surveyed by O'Hara of Dutken Co. but not located according to deed. I reclaim lots and walks and rerun boundaries. E. B. Horst, engineer, Corbin Young, assisting.

Jan. 6

Horst, transit, Corbin Young, axe & chain. We go to 14 cor. bet. sec. 11-12 where U.S. notes call for Spruce, 6 N. 46° W. 10 - Asp. 4 N. 62° E. 4. We find no such trees here. The Twp. has notes which were copied and sent from U.S. land office which calls for an Oak 8 N. 30° W. 52. We find the Oak plainly m'kd, establish the cor. from this and take new bearings: Oak 8 N. 30° W. 34.3' + Balsam 8 N. 34° 30' E. 65.8'. Run line S. on graded road to M.C. #5 previously established from W.P. stump 18 N. 5° W. 25' plainly m'kd. Course of this line N. at 9° 30' var. chainage to M.C. 1166.4'. I set wit. cor. N. 16.4' M.C. being in lake. Deed for cemetery calls for cemetery to start at M.C. #5, run W. 33.0' to a starting pt., thence 24 rods N., thence 16 rods W., thence 18 rods S. to lake shore, thence meander on lake shore. S. 50° E. 4 rods, thence S. 70° E. 6 rods, thence S. 75° E. 6 rods & ten links to pt. of beginning. The cemetery has been surveyed as follows: From M.C. #5 run N. 47° 45' W. 44.7' to starting. Balance of description same as above. At 16.4' N. of M.C. #5 I set 1x18" iron pin for a wit. cor. to M.C. at S.E. cor. of cemetery. I also set 1x18" iron pin for cemetery cor. This leaves 33.0' along E. side of cemetery for road. Twp. board prefers changing the deed in preference to re-taking the cemetery. See diagram page 12, Field Book #68.

Jan. 7

Clear cold day, snow 14" deep. I take compass, chain, axe, notes and go to cor. sec. 9-10-15-16 and look for B.T.

U.S. notes call for 4 Tam. B.T.s but they have all been and it is a dense spruce swp. I then go W. to cor. of 8-9-16-17 where notes call for cor in a small pond and B.T.s as follows: W.P. 8 N 20° W. 160 - Fir

3 N. 5° E. 148 - Birch 4 S. 42° W. 40 - Tam. 3 S. $27^{\circ}15'$ E. 32. All gone so I cont. W. another mi. to cor. of 7-8-17-18. notes call for spruce 4 N. 38° W. 9 - spruce 10 N. 38° E. 12 - spruce 4 S. 69° W. 21 - spruce 5 S. $65^{\circ}30'$ E. 7. Can find no traces of any B.T.s here.

Jan 8. I go to meeting of Smoky Hollow Town Board to present the location of cemetery surveyed by me according to their orders but not according to the requirements of their deed. They bring up the question and decide to have the deed changed to read commencing at M.C. #5 + run N. $47^{\circ}45'$ W. 44.7; instead of reading run W. 33.0' to place of beginning. I draw plat of the cemetery for the Township Board to use in selling and locating the lots.

Jan 11. I go to cor. of sec. 17-18-19-20 where U.S. notes call for B.T.s as follows: W. Birch 12 N. $57^{\circ}30'$ E. 11 - W.P. 10 N. $29^{\circ}30'$ W. 43 - W.P. 8 S. 20° W. 33 - W.P. 5 S. $32^{\circ}30'$ E. 16. I find W. birch still standing and W. Pine stump 10 N. $29^{\circ}30'$ W. 43 the stump remains, plainly mk'd. I establish cor. from these B.T.s and mark new B.T.s as follows: W.P. 8 N. 4° E. 46.8 - Birch 12 N. 45° W. 34.6 - W.P. 8 S. 34° W. 24.0 - W.P. 8 S. 32° E. 70.6. I go one mi. S. var. $8^{\circ}30'$ to cor. sec. 19-20-29-30 on W. side of small lake in dense spruce swp but can find no B.T.s so I cont. S. another mi. at same var. crossing country of swp.s + windfalls, snow knee deep. I arrive at Ariel Baker's farm house at dark. Stay over night.

Jan 12. The day dawns with a terrific N.E. wind blowing and driving blinding gusts of snow with it. Temperature 38° below. I am still at Ariel Baker's. I go about 20 rods N.W. of Baker's house to a post set by Martin Watson for the cor. of sec. 29-30-31-32 where U.S. notes call for N. Pine 18 S. 9° W. 100 - W.P. 10 S. 19° E. 235 - N. Pine 14 N. $84^{\circ}30'$ W. - B.T.s are all burned to the ground. I stay at Ariel Baker's again for the night.

Jan 13. I go to stake set by Cruise as cor. of 29-30-31-32 and go S. one mi. to top line of 140-25 + 139-25 sec. 31-32-5-6 where U.S. notes call for Y. Pine 8 N. 40° W. 63 - Y. Pine 10 N. 18° E. 504 - W. Pine 8 S. $3^{\circ}30'$ E. 600 - Y. Pine 10 S. 67° W. 81. Cor. supposed to be in W. edge of small swp. Country all burned over and no B.T.s can be found. I cont. S. bet. 5-6 var. $7^{\circ}30'$ to cor. of 5-6-7-8 where U.S. notes call for 4 Tam. B.T.s in swp. Trees all down and burned up or decayed. I cont. S. at same var. bet. 7-8. Country all burned over, no timber standing. At cor. of 7-8-17-18. notes call for 3 maples + a double ash B.T.s. No timber of any kind here and stumps all burned low. It is nearly dark + I see a house to S.W. where I go for the night.

Jan 14. I go to cor. of sec. 17-18-19-20 where U.S. notes call for 3 Tam. B.T.s and Jewett plat shows cor. to be in or very near a small creek but fires have destroyed nearly all timber. I can find no B.T.s.

A Mr. Meecham living near by thinks he can locate the cor. We return to the place again but cannot find anything. I remain at L. F. Chisvert's again for the night as there are no settlers on my way back. I pay L. F. Chisvert \$2.00 for board & lodging.

Jan. 15. I intended to start at cor. of sec. 16-17-20-21 which is in a cedar swamp but cannot get in to where cor. is on account of down timber & large pile of slashings. Cor. of 8-9-16-17 is in same swamp and I cannot get into it. I go to cor. of 4-5-8-9 which is on the N. side of a ravine. Country is very rough; timber is all destroyed by fire, and a dense growth of popple & oak brush have grown up. I can find no B. T. or cor. here. I go N. at 7° 30' var but it gets dark before I reach cor. of 4-5-139-25 & 32-33-140-25. From vicinity of this cor. I go N. 22° E. nearly to reach M. Laughlin's for night where I stay over night.

Jan. 16. I pay M. Laughlin 75¢ and start for Shovel Lake (at cor. of 21-22-27-28) I find a B. T. where U. S. notes call for W. Pine 6 N. 5° W. 43. Fir N. 32° 15' E. 44 - Fir 4 S. 34° E. 65. I find Fir N. 32° 15' E. 44 plainly marked & W. Pine Stamp 6 N. 5° W. 43 slightly marked. From here I establish cor. and take following new B. T.s: W. Pine 5 N. 29° E. 59.4 - W. Pine 8 N. 20° W. 83.0 - Tam. 3 S. 40° E. 30.8 - Tam. 4 S. 75° W. 85.5. I reach Shovel Lake at 2 P.M. Lunch a restaurant 25¢ at P.O. I get letter from Curio to go to Remer. No trains till Mon. P.M. I go to Corbin Young's to see if he will deliver survey tools at Shovel Lake. I stay at Ratcliffe Hotel over night.

Recorded Mar. 14, 1922.

James H. Flynn Co Surveyor
By E. B. Horat, Deputy.

- Field notes of the survey of a County road in Twp 139 Rge 25, Twp 140 Rge 25 and Twp 140 Rge 26 W. of the 5th P. M.
- June 16, 1920. Ben Clark, surveyor, Roy Rose, flag & chain, John Kinier chain & axe begin work for Cass Co. on a Co. road known as the W. J. Kinier road. Begin at the cor. of sec. 22-23-26-27-140-26 in State Road. We get Spooner with his car and drive to Ben Draper's for dinner. Then Draper drives us to John Kinier's in his car and we hire Kinier to assist in road survey.
- June 17. Clark, Rose, & Kinier go to the cor. sec. 22-23-26-27-140-26 & found a twin white pine. Notes call for twin W. Pine 12 N. 40° W. 56.8' & W. Pine 10 N. 55° E. 70.2'. We dig in cen. of State road and look for pt. but find nothing. Thence set a birch 14x4" mk'd sec. 22-23-26-27 with tack in cen. & set up my transit. Transit in good order. I take angle of State road N. which is 6°55'. The angle N. is 8°30' var. Thence run E. bet. sec. 23-26 544.2' sta. 1; 1690.1' sta. 2; 2374.0' sta. 3; 2640.0' set temp. 1/4 cor.; 2923.0' ent. swp.; 3552.0' lv. swp.; 3881.0' lv. top. road, ent. brush; 4414.0' sta. 4; 4896.5' sta. 5; 5345.7' the cor. to sec. 23-24-25-26. Thence look for the wit. Found a tam. 6 S. 42° E. 13 links. N. of Cor. 23.0' Thence made an oak post 3x48" & mk'd it sec. 23-24-25-26. Thence set true 1/4 post E 32.8' & S 11.5'. Set 1/16 cor. E. 49.2' & S 17.2'. True line closed at 5°30'. Thence run true line back W. bet. sec. 23-26 & closed on nail in cen. of pt. for cor. to sec. 22-23-26-27-140-26.
- June 18. Clark, Rose, & Kinier begin at the established Gov't cor. to sec. 23-24-25-26 & run sand line E. bet. sec. 24-25 on 5°30' Cor. sets in edge of swp. At 170' lv. swp., ent. brush; 660.0' set temp. hub; 1100' sta. 1; 1320' set temp. 1/16 cor.; 1373.3' sta. 2; 1794' sta. 3; 2640' set temp. 1/4 cor.; 2774' sta. 4;
- June 19. Cont. E. bet. sec. 24-25. At 3765.0' ent. swp.; 3610' lv. swp.; 4291.3' sta. 5; 4875.0' ent. swp. N.W. & S.E.; 5286' the sec. cor. to 24-25 on rge line set is 7.7' N. Cor. is a tam. post 5"x6" mk'd sec. 19-30-24-25 with the following wit. trees: Tam 3 N. 87° W. 19. Tam 3 N. 10° E. 37. Tam 3 S. 50° W. 19. Tam 3 S. 53° E. 29. Thence set 1/4 cor. 3.0' E. & N. 3.8'. Set 1/16 cor. 1.5' E. & 1.9' N.
- June 20. Setting iron corners.
- June 21. Clark, Rose, & Kinier set over on true line at the 1/16 cor., back sight on the cor. sec. 23-24-25-26 & run true line back E. bet. sec. 24-25 & closed on nail in post at cor. of sec. 24-25-19-30 on rge line. True line closes at 5°35' var.
- June 22. Ben Clark & Roy Rose begin at the Gov't cor. to sec. 24-25-19-30 on range line bet. 140-25 & 140-26 & run S. bet. sec. 25-30. At 100.0' lv. swp.; 168' sta. 1; 500' ent. Tam. swp.; 1040' lv. swp.; 1320' set temp. 1/16 pt.; 1483.8' sta. 2; 1600' ent. swp.; 1900' lv. swp.; 2172.6' sta. 3; 2430' ent. meadow; 3618' sta. 4; lv. meadow; 3960.0' set temp. 1/16 cor.; 4394.7' sta. 5; 4950' ent. bog; 5277.9'

- June 23. the cor. to sec. 30-31-25-36 E of post ^{true post 21} 22.2 N found an old post mk'd sec. 30-31-25-36 with witness stumps. Thence set $\frac{1}{4}$ sec. cor. N. 1.05' & 11.1'. Set $\frac{1}{16}$ pt. N. 1.5' & W. 16.6'. Then set over in true line and run N. and pass over nail in the $\frac{1}{4}$ sec. post & claw on the nail in cor. to sec. 24-25-19-30 on range line. The true line $6^{\circ}15'$ var. This cor. was set by me two years ago when I found the old B.G. wit. stumps. Thence set a hub 3.5' N. of the cor. to sec. 30-31-25-36; thence turn a R. angle E. and measured 521.6'; Thence turn a R. angle S. & chained S.
- June 24. Measured on S. around lake from the cor. of sec. 30-31-25-36 a dist. of 1399.8'. Thence set hub, turn R., run W. 521.6'. The dist. across lake is 1049.8'. Thence turn a R. angle & run S. bet. sec. 31-36 on $6^{\circ}15'$ var. At 1049.8' sta. 1; 1270.6' sta. 2; 1320 set temp. $\frac{1}{16}$ pt.; 2285.0' ent. swp.; 2553' lv. swp.; 2640 set temp $\frac{1}{4}$ pt. in edge of swp.; 2800' lv. swp.; 3238.6' sta. 3.
- June 25. Cont. S. bet. sec. 31-36. At 4542.6' sta. 4; 5269.4' the true cor. to 140-26-140-25-139-25 sec. 31-36-6-1 E of post 19.1. A Norway post 4" sq. mk'd sec. 31-36-6-1 with fol. wit. trees: W.P. stamp 30 S. 22° W. 31 lks. - W.P. stamp 22 N. 38° W. 36 lks. - W.P. 15 N. 80° E. 49 lks. - W.P. 12 S. 89° E. 44 lks. Thence set $\frac{1}{4}$ pt. N. 5.3' & W. 9.5'. Set $\frac{1}{16}$ point N. 2.6' & W. 4.7'. Set over on true line, run back, & closed on nail in post for cor. to sec. 1-6-31-36. True line closes at $6^{\circ}02'$. Begin at cor. to sec. 1-6-31-36 & run S. on range line bet. sec. 1-6. at 75.0' ent. hay swp.; 595.0' lv. swp.; 1320 set temp $\frac{1}{16}$ pt. Run on S. bet. sec. 1-6. At 1424.0' sta. 1; 2579.2' sta. 2; 2640 set temp. $\frac{1}{4}$ pt.; 2935.0' ent. hay meadow; 3200 in hay meadow; 3960 set temp. $\frac{1}{16}$ pt.; 5200' lv. hay meadow; 5280 set temp cor. and search for cor. to sec. 1-6-7-12 but find nothing.
- June 26. Ben Clark, Roy Raze, Will Knier run on S. on a range line bet. sec. 7 & 12 on range line var. $6^{\circ}02'$. At 5330.3' sta. 3; 5445' ent. swp.; 5800' lv. swp.; 6087.0' hay meadow & lake run E & W; 6180' sta. 4. Turn a R. angle & run W. 314.8'. Thence turn R. angle & run S. dist. of 7300. Over lake at 7450' sta. 5. Turn R. angle & run E. 314.8'. At 7920 set temp $\frac{1}{4}$ pt.
- June 29. Search for the $\frac{1}{4}$ cor. bet. 7-12 but find nothing. Thence run on S. on same line var. $6^{\circ}02'$. At 8263.9' sta. 6; 8383.0' ent. meadow; 8692' lv. meadow; 9684.8' sta. 7; 10566.0' set temp. pt. for cor. to sec. 7-12-13-18. Search for cor. but all timber is burned out at this place and could not find any sign of corner.
- July 1. Cont. line S. on same variation. At 11175.0' sta. 8; 11614.2' sta. 9 on bank of Moose Lake. Thence turn R. angle & run W. 518.6'. Thence turn R. angle & run S. to 12960.8'. Thence turn R. angle & run E. 518.6' & back sight on range line.

The dist. across lake is 1346.6' At 12960.8' sta. 10; 13066.7' sta. 11;
13735.4' sta. 12.

- July 2. Cont. S. on rgl. line. At 14528.2' sta. 13; 15580.0' sta. 14; at 15820.8' int. E & W line W. of the cor. to sec. 13-24-18-19. Post 4" sq. x 2' W. of post 150.3' Found a W. Pine wit. tree 15 N. 45° E. 160.4'. Short in the true line run 37.2' True line at 7° 28' Set cor. to sec. 1-6-7-12 N. 12.4' & E. 50.1'. Cor. to 12-13-7-18 sets N. 24.8' & E. 100.2'. 1/4 cor. bet. 1-6 sets N. 6.2' & E. 25.5'. N. 1/4 cor. sets North 3.1' & sets East 12.5'.
- July 3. So being satisfied this is the old Gov't cor. to sec. 18-19-13-24, we run E. on a sand. line on 7° 45' var. At 694.0' sta. 1; 1166.0' sta. 2; 1875' end of cut out road; 2672.0' the 1/4 cor. on N. side sec. 19 bet. 18-19 found a post in cen. of graded road. No witness trees. Witnessed by Will Kinser & Fred Bottinian.
- July 6. Ben Clark, Roy Rose, Will Kinser. Set over pt. on true range line bet. 139-26-139-25. Begin at the Town cor. N. & run true line S. bet. sec. 1-6 and closed on the nail on pt. for cor. to sec. 16-7-12.
- July 7. Run on S. bet. sec. 7-12 and tied on the nail on the cor. to sec. 12-13-7-18. Thence run on S. on true bet. sec. 13-18 on rgl. line on 7° 28' var. & closed on nail on post for cor. to sec. 13-24-18-19.
- July 8. Ben Clark, Roy Rose, & Will Kinser set a 2 1/2" x 36" iron pipe (capped) for cor. to sec. 13-24-18-19 with wit. trees as follows: W. P. 15 N. 45° E. 160.4'. Thence went to the old Gov't 1/4 cor. bet. sec. 18-19 & set a 2 x 48" iron monument with new witness trees as follows: Ash 6 S. 17° 30' W. 39.3' & Cedar 6 N. 17° 30' E. 43.1'.
- July 9. Thence went to the established cor. to sec. 12-13-7-18 & set 2 1/2" x 36" capped I.M. with new witness trees: Nor Pine 8 S. 63° E. 69.6'. Thence went N. to the cor. sec. 1-12-6-7 & set 2 1/2" x 36" I.M. (capped) Wit. trees: Ironwood 6 N. 60° 45' 37.8' & Basswood 10 S. 55° 45' 66.0'. Thence went to Twp. cor. to Twp. 139-20; 140-20; 139-26, & 140-26. Found old B.T. pine stumps 30 S. 22° W. 31 lbs. - 22 N. 38° E. 36 lbs. - 15 N. 80° E. 53 lbs. - 12 S. 89° W. 44 lbs. So being satisfied that this is the old Gov't cor. to township, I set a 2 1/2" x 36" capped I.M. & made new B.T.s: Elm 8 N. 6° W. 122.4' & Oak 5 S. 9° W. 125.6'.
- July 10. Begin at sta. 1049.8' S. of the cor. to sec. 31-30-25-36 & run line around Backs Lake on E. shore of lake. Thence N. 53° 30' 649.7' Thence N. 6° 30' W. 665.0' int. sec. line bet. 30-31. E of cor. of 30-31-25-36 521.6'. Thence set hub in sec. line bet. sec. 30-31 thence run N. 48° 30' - 782.5' int. sand. line bet. 25-30. 588.6' N. of cor. to 25-36-30-31. Thence set I.M. to cor. of sec. 25-36-30-31. No wit. trees.
- July 11. Thence set a capped I.M. for cor. to sec. 19-30-24-25 & made new wit. trees Tam. o 8 N. 29° E. 32.5' - 5 N. 53° 30' E. 39.7' - 6 S. 70° E. 59.6' - 5 S. 33° W. 52.7'.

Recorded March 15, 1922.

James H. Flynn, Co. Surveyor
By E. B. Horst, Deputy.

- Field notes of the survey of sec. 17 Twp. 141 N. Rge. 25 W. 5th P.M.
 May 27, 1920. Ben F. Clark, surveyor, Roy Rose & Fred Craft went to the N.W. cor. sec. 17. Found a W. birch 14 N. $43^{\circ}30'W$ 36.0' & an Elm 20 N. $27^{\circ}15'E$ 84.4'. Dug down in cen. of township road & found pt. of old post. Thence run E. on town road on true line $5^{\circ}15'$ var. at 2665.8' found a 4" sq. post in cen. of Remer-Shovel Lake road. Thence measured on E. on same road $5^{\circ}15'$ var. Begin at the $\frac{1}{4}$ cor. on N. side sec. 17. At 405.2 cen. of bridge 17' wide; 1620.0 set hub; 2643.6 found pt. of post in road, so being satisfied that this is old Gov's cor. I set up my transit on a nail & run S on a rand. line on E. side sec. 17 on $7^{\circ}W$. At 27.0' plowed field; 262.4' sta. 1; 323 clover field; 632 ent. swp; 644 fence; 1320 set temp. hub; 2000 lv. swp. 2133 sta. 2; 2574.5 sta. 3; 2640 temp. hub; 2657.5' old post at E. end of fence.
- May 28 Cont. S. At 2685 ent. swp; 3620 Hill Lake tote road; 3960 temp. $\frac{1}{16}$ cor.; 4000 lv. swp; 4169.5' sta. 4; 5311.8 cor. to sec. 16-17-20-21 E. of post 16.4'. True line $6^{\circ}49'$. Found an old post 3.0' long mk'd S 16-17-20-21 with a Fir stump mk'd B.T. Spruce 8 N. $73^{\circ}W$ 14 lks. - W. Birch 7 N. $55^{\circ}E$ 21 lks. So being satisfied this is the old Gov's cor. I set the $\frac{1}{4}$ cor. S. 15.9' & W. 8.2'. Set N. $\frac{1}{16}$ cor. S. 7.9' & W. 4.1'. Set S. $\frac{1}{16}$ cor. S. 23.8' & W. 12.3'. Thence run true line back S & close on post cor. 16-17-20-21
- May 29 Went to the $\frac{1}{4}$ cor. bet. sec. 17-20 & found a brick stump 12 S. $32^{\circ}W$ 21.1'. Set hub & run W. at 1320 set temp $\frac{1}{16}$; 2625.5' ent. brook; 2652 lv. bridge; 2642.7 found a cedar 6 S. $61^{\circ}13'W$ 76.8' & found old Elm S. B.T. set a hub in side of field on W. side of ditch 12.0' from bridge. Thence begin at the $\frac{1}{4}$ cor. on S. side & run E. on boundary on $7^{\circ}30'$ var. At 20.73 lv. end of town road & ent. swp; 1320 set temp. $\frac{1}{16}$ post W. side Soo R.R.; 1070 cross Soo R.R.; 1600.0' sta. 3; 1610 lv. Soo R.R.; 2571.6 int. sec. line bet. sec. 16-20 N. of cor. to sec. 17-16-20-21 - 120.2'. Set $\frac{1}{16}$ cor. W. 34.7' & S. 60.1' & made witness trees: Elm 12 N. $29^{\circ}E$ 34.8' & Elm 8 S. $25^{\circ}W$ 24.0'. Set up a flag on post & run true line back E. & tied in cen. of post for cor. to sec. 16-17-20-21. True line closes on 35°
- Begin at the cor. to sec. 17-18-19-20 measured N. on a town road on W. side of ditch. At 2691.8' found post in cen. of road. Begin at same pt. & run N. var. $7^{\circ}30'$. At 1320 set post; 1558 Soo R.R.; 2637.3 old post. Set $\frac{1}{16}$ cor. post at 1345.9' At 2640 set temp. hub; 3290 ent. brook; 3482.2' sta. 4; 3960 set temp $\frac{1}{16}$ pt.; 4403 sta. 5; 5260 int. Remer-Shovel Lake road W. of the $\frac{1}{4}$ cor. 23.8'. Thence set cor. E. 11.9'. True line closes at $7^{\circ}49'$ = N. & S. $\frac{1}{4}$ line.
- May 30 Thence run S. to 666 sta. Set sta. 1 No. 666 S. 2.5' & E. 2.95'. put nail on cen. of post, back sight on the $\frac{1}{4}$ cor. in cen. of town road. Begin at the $\frac{1}{4}$ cor. hub in cen. of

May 31.

Township road bet. sec. 17-20 & run N. on 1/4 line on 8° var. At 660 set temp. sta. 1; 772.9' sta 2; 1320 temp 1/16 hub; 1582.4' sta. 3; 1594 cen. Soo RR - sup;

Thence run true line N. on 7°49' & closed on nail on the 1/4 cor. on N. side sec. 17 in cen. of Shovel Lake road. Thence begin at the 1/4 cor. on W. side sec. 17 in cen. of township road & run E. on E. var. 5°52'. At 524 sta. 1; 500 ent. sup; 660 set temp hub; 918 brook; 1320 set temp stake; 1602 sta 2; 1615 ent. Soo Ry; 2675.5 int. N. & S. line.

June 1.

Cont. E. on E. Int. of E. s = sta. 000. At 40.67 lv. sup; 503 sta 3; 909.5 sta. 4; 1070 ent. sup; 1200 fence; 1320 set temp. 1/16 cor; 2609 the 1/4 cor. on E. side sec. 17. N. of post 8.3. Set the 1/16 pt. W. 15.5 & S. 6.2. Thence set a 2x60" iron rod in sup. for C. E. 1/16 cor. 1304.8' to each 40a. from center to the 1/4 cor. bet. sec. 16-17.

June 2.

Thence set C. 1/4 cor. S. 4.1'. Set a 2 1/2 foot iron pipe for cor. Mark an old cedar stump 6 N. 42° W. 11.0'. Thence at the 1/16 in W. half equidistant bet. the C 1/4 & the 1/4 on W. side sec. 17. distance = 1334.3'. 1/16 cor. goes S. 1.3'. Thence set 1/16 cor. on sec. line bet. 8-17 on E. 1/2 of sec. in cen. of Shovel Lake road

June 3.

Thence set the 1/16 cor. at 1323.6' equal distance bet the C 1/4 s. & the 1/4 s. on the N. side sec. 17. Thence at the 1/16 cor. on S. E. half sec. 17 & run N. on a 1/16 line 7°19' var. to the iron post on the E. & W. E. Closed on cen. of post. Run on N. on same line. At 695 sta. 1; 1320 set temp. 1/16 cor.; 1448 sta 2; 1800 ent. sup; 5401 int. sec. line W. of 1/16 post 14' on Shovel Lake road. Thence set the 1/16 cor. N. 1327.0' & E. 7 lbs. iron rod 5' x 1" & run W. to the 1/16 cor. on N. & S. line. Closed on post & set I.M. for cor. Set I.M. in cen. of Shovel Lake road bet. 17-8 for E. 1/16 cor. Set 3' x 30" I.M. at all remaining cor. in sec. 17. For B.T. see notes in field book # 162.

Recorded March 16, 1922.

J. H. Flynn, Co. Surveyor.
By E. B. Horst, Deputy.

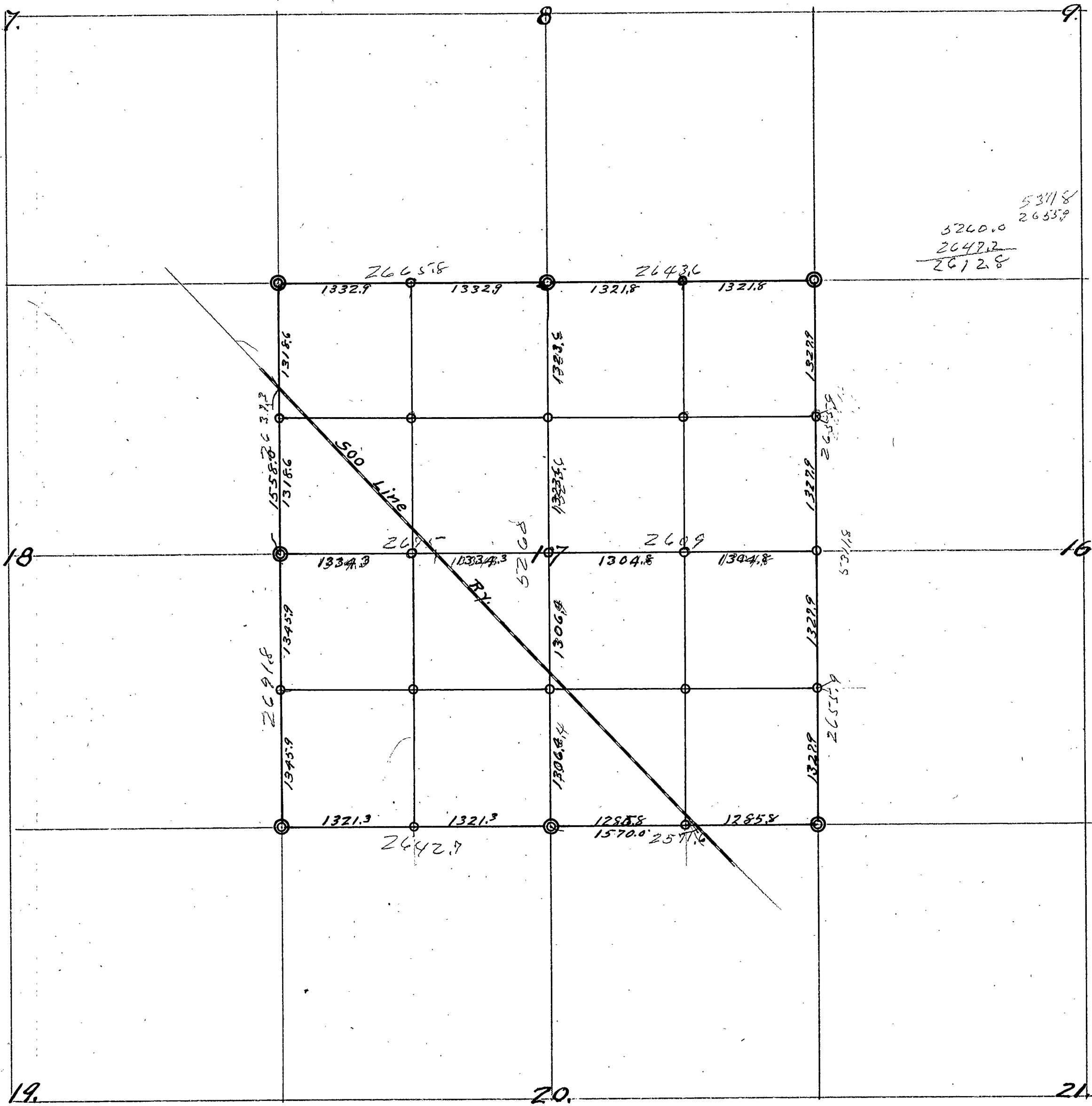
Plat 484

Sec 17 - Plat 25

Survey Record No. 484.

S. 17, T. 141 N. R. 25 W. 5th P.M.

9 Secs



Survey Record No 485.

Plat 485
Road
Twp. 143-144 N. Rge. 25 W.
Plat. 94

C

24-sec. 5.

30

29

30

29

TWPs. 143-144 N. Rge. 25 W.

17330' 26670'
45. cor.

31

32

TWP. 144 N. Rge. 25 W.
TWP. 143 N. Rge. 25 W.

3

2

26291'

5223.2

5223.2

1210.6

8

9

10

5558.5

12

26578

26739

5713.27

5713.27

17

16

15

14

13

20

22

71.2658 E.

River

21

49.06

45.05

30

29

28

27

2652.4'

7980.7'

25291.5
10582.0582.3

31

31

32

32

33

33

34

- Field notes of the survey of a Township road for Wahneua Twp. Twp. 143-144 N. Rge. 25 W of the 5th P. M.
- Sept. 16, 1914. F. D. Donner, transit, assisted by Geo. Boileau, Louis Kuit, Neb Loan, & B. H. Giech throok walk to cor. of sec. 29-30-31-32-144-25 where U.S. notes call for Cedar 8 S. 35° E. 1.98' - Cedar 6 N. 65° W. 9.24' - Cedar 6 S. 54° W. 27.78' - & Lind 6 N. 29° E. 17.82'. I set over cor. and take following bearings from old B. T. to Cedar 14 N. 37° W. 11.9' & Spruce 8 S. 70° W. 26.0' Var. 8° I run due W. on 8° var. At 500 lv. sup.; 2667.0' int. road line 10.9' S. of true 1/4 cor. of sec. 30-31-144-25 to which old Bass tree bears S. 14° E. 21.6'. Hub at 2600 goes N. 10.6'. I set over true 1/4 cor. and using the corrected hub at 2600 for backsight, cont. W. on line line & set road center with hubs. At 735' from 1/4 cor. set last road center & hub. Correcting back from 1/4 cor. Hub at 2300 goes N. 9.4' - 2000 goes N. 8.18' - 1700 goes N. 6.95' - 1333 goes N. 5.44' - 1000 goes N. 4.09' - 700 goes N. 2.86' - 400 goes N. 1.63'. Quit for night. Donner, transit man.
- Sept. 17. We go to 1/4 cor. bet. 16-21-143-25. I set over 1/4 cor. where U.S. notes call for Cedar 3 N. 28° E. 3.96' - Tam. 9 S. 3° W. 15.6'. I take bearings from old B. T. to Cedar 3 N. 20° E. 5.5' & Tam 9 S. 5° W. 16.0'. Var. 9°. We run S. to about 1200'.
- Sept. 18. Cont. S. At 3200 lv. sup.; 3615 cross road; 4300 ent. sup.; 4345 ent. Vermillion Creek; 4460 lv. Vermillion Creek & ent. sup.; 5300 look for 1/4 cor. bet. sec. 21-28-143-25. We find an old cor. but it is not the true cor.
- Sept. 19. We go to the 1/4 cor. bet. 16-21-143-25 established by Curo & run E. on 7°30' var. S. 87° E. At 860 cross brook; 1000 ent. Tam. sup.; 2658 cross temp. line running N. & S. at 2679 S.; 3200 lv. sup.; 3767 cross Vermillion road; 4340 ent. little Vermillion Lake.
- Sept. 21. I set over true sec. cor. of sec. 9-10-15-16-143-25. U.S. notes call for Birch 5 N. 56° E. 3.3' - Birch 12 N. 69° W. 33.0' - W. P. 4 S. 29° E. 6.6' - W. P. 10 S. 13° W. 9.9'. Curo's notes call for Pop. 6 S. 55° W. 163.1' - Pop. 4 S. 10° E. 114.4' - Oak 8 N. 88° E. 168.1' - Balm Kiln 3 N. 58° W. 69.74'. I set over true cor. & take bearings from old B. T. to Pop. 5 S. 52° W. 163.8' - Pop. 4 S. 3°30' E. 114.2' - B. S. 3 N. 74°30' W. 70.0' - B. Oak 7 N. 89°30' E. 168.0'. Var. 8°30'. I run W. from true cor. N. 89° W. At 400 ent. sup.; 900 lv. sup.; 1400 ent. sup.; 2500 lv. sup.; 2673.9 the 1/4 cor. bet. sec. 9-16-143-25 (established by Donner from the old B. T.) sets S. 57.8'.
- Sept. 23.57. We go to 1/4 cor. bet. 9-16 & run N. 89°40' W. var. 8°. At 2000 ent. sup.; 2657.8' the sec. cor. of sec. 8-9-16-17-143-25 (set by Donner from old B. T.) sets S. 12.6' where U.S. notes call for Birch 5 N. 56° E. 3.3' - Birch 12 N. 68° W. 33.0' - W. P. 10 S. 13° W. 9.9' - W. P. 4 S. 29° E. 6.6'. I set over true sec. cor. 8-9-16-17 & run N. 8°10' var. We run about 900' & quit for night.
- Sept. 28. I set over true cor. of 10-11-14-15 where U.S. notes call for Spruce 10 N. 59° E. 6.5' - Lind 6 S. 40° E. 5.28' - Fir 10 N. 87° W. 16.5' - Fir 16 S. 12° W. 19.8'. Curo's notes call for Cedar stump S. 50°14' W.

Sept. 29.

S. W. cor. school foundation N. $36^{\circ}45'$ E. 81.45' - Elm 13 S $26^{\circ}E$ 58.74'
I set over cor. and take following B.T.s Elm 14 S. $24^{\circ}8'E$. 58.7'
Balsam stump S. $52^{\circ}15'$ W. 40.1 - cor. of school house N. $38^{\circ}47'E$. 81.45'
Var. $8^{\circ}30'$. I run due E. var. $7^{\circ}30'$. At 985.1 hub; 1733 hub;
2010 ent. meadow; 2300 lv. meadow; 2487.5 hub; 3066.3 hub;
We run to about 3900 & quit on account of rain.

Cont. E. At 3900 ent. sup; 4400 lv. sup; 4564 set hub;
5713. 27 the true sec. cor. of sec. 11-12-13-14-143-25 (set by flat
chain from S.E. & N.W. B.T.s by Donner) sets S. $15^{\circ}5'$. I set
over true cor. to which asp. stump lvs S $16^{\circ}26'E$. 66.0'
Tam. stump N. $23^{\circ}36'W$. 18.8' - asp. N. $7^{\circ}27'W$. 58.7'. I mark
new B.T.; Aspen 12 N. $28^{\circ}23'W$. 77.5'. Var. $8^{\circ}30'$. I set over
true cor. & run N. on 9° var. at 772.8' hub; 1294.5 hub;
2190.1 hub; 2320.2 hub; 2664 hub; 3410.5' 58' from water's
edge of Mississippi River.

Sept. 30.

I set over hub at 3410.5' N. & turn $70^{\circ}W$. from sand line
& at 5531' set hub. Still over hub at 3410.5' I set hub across river
on sand line. I set over hub at 5531' W. & my plate set at
zero I turn on hub at 3410.5' N. Then I turn and right
on hub set across river and read 94° . I set over hub
across river from which the true sec. cor. of sec. 1-2-11-12
bears N. $86^{\circ}04'W$. 57.5'. var. 9° . I set over true sec. cor. of 1-2-11-
12 & take B.T.s as fol: Cedar 8 S. $40^{\circ}44'W$. 6.5' - Cedar 6 S. $57^{\circ}20'E$.
13.5' Spruce 8 N. $7^{\circ}22'E$. 25.4'. var. $8^{\circ}30'$.

Oct. 1.

I work transit on line on W. side of river running No.
 $90^{\circ}W$. From hub A which I set under transit after I was
on line & using cor. C the true cor. to 1-2-11-12 for back sight
I turn $84^{\circ}E$ & set hub B. I set over hub B & with plate at
zero & sighting on hub A, I turn to cor. C & read $61^{\circ}37'$ angle.
Giving the total dist. from A to B. 1210.0'. I set over hub A
and using cor. C for back sight I run W. At 1681 set hub;
2317.4 hub; 2686.4 hub; 2800 ent. sup. Quit at 3600.

Oct. 2.

Cont. W. At 3959.4 hub; 4200 lv. sup; 4611.1 hub; 5005.5
hub; 5206.4 hub; 5214.7 hub. We look for cor. to sec. 2-3-10-11
where U.S. notes call for Fir 4 N. $30^{\circ}W$. 20 lks - Fir 5 N. $15^{\circ}E$. 18
lks. - Tam. 10 S. $63^{\circ}W$. 30 lks. We are unable to find anything.

Oct. 11.

I walk to 1/4 cor. bet. 11-14 and look for cor. but find
nothing. I walk to Skiff Bonas place & he tells me the 1/4
cor. bet. 11-14 was established by Flynn and the old B.T.s
were plain at that time. but in the last five they have
become obliterated. I decide to divide the sec. equally.

Oct. 12.

We go to the 1/4 cor. bet. sec. 2-3-143-25. Var. $3^{\circ}40'$
We find old B.T. established by Flynn and from this
I set true 1/4 cor. bet. sec. 2-3. I set over true 1/4 cor.
just established by me where U.S. notes call for N. Pine
15 N. $75^{\circ}E$. 3.3' W. P. 6 S. $24^{\circ}W$. 19.8' Flynn's notes call for
W. P. stump 24 S. $77^{\circ}E$. 29.0'. I cannot find any of U.S. B.T.s

485
C

but we find post driven down where an old U.S.B.T was. This is what Geo. Boilian says for he put it in at the time the road was built. This post bears S. 38° 45' W. 19.15'. I set new B.T.s: N.P. 4 N. 19° 36' E. 119.0' & N.P. 5 S. 56° 45' W. 75.5'. I set iron pin 2.5' long full length in ground for true 1/4 cor. bet. 2-3.

I work transit on line bet. 1/4 cor. just est. & 1/4 cor. bet. sec. 10 & 11 est. by Curran 1913. I chain this mi on true line var. 330'. Total dist = 5258.2'. I set woodpost 4x4x48" at 2629.1 for true cor. of sec. 2-3-10-11-143-25 with new B.T. as follows: Asp. 4 N. 17° 54' W. 144.8' - Asp. 3 N. 63° 34' E. 103.2' - B. Dil. 5 S. 63° 58' W. 100.0' - Fence Post S. 37° 07' E. 44.5'. With true line from 1/4 cor. to 1/4 cor. we int. temp. line running W. from 1-2-11-12 at 5223.2' & 124.1' N. of true cor. I set over true 1/4 cor. bet. 10-11 & run S. 90° E. var. 8° at 808 set hub; 900 ent. swp.; 1025 lv. swp.; 1138.8 hub; 1500 ent. meadow; 1765 cross Vermillion Creek (450' wide); 1975 lv. meadow; 2165 hub; We go over & triangulate the Miss. River again.

Oct. 13. Cont. on line E. from hub 2165. At 2343.2 hub; 2600 ent. swp.; 3100 lv. swp.; 3264.8 hub; 4205.5' hub; 4300 ent. swp.; 4500 lv. swp.; 4856 hub; 4950 ent. slew; 5150 lv. slew; 5583 hub. I set over hub at 2664 N. on the true temp. line running N. from sec. cor. of sec. 11-12-13-14-143-25 & set hub at 2778.5' for middle of sec. I set over hub at 2778.5' & set true 1/4 cor. bet. 11-12 N. 86° 04' W. 28.75' where U.S. notes call for Birch 10 S. 70° W. 10.56' & Birch 8 S. 44° E. 9.4'. We look for old cor. but are unable to find any. I set new 1/4 cor. with new B.T.s as follows: Aspen 3 N. 22° 45' W. 159.5' - B. Dil. 4 N. 77° 35' E. 150.1'. Cor. of log barn S. 26° W. 156.7'. At 5558.5' E. I int. rand. line running E. from 1/4 cor. bet. sec. 10-11-143-25. 980' S. of true 1/4 cor. bet. 11-12 just established.

Oct. 14. We walk to 1/4 cor. bet. 11-14 where U.S. notes call for Cedar 4 N. 2° W. 3.96' - Spruce 6 S. 56° E. 7.92'. Flynn's notes call for B. Oak 5 S. 20° E. 36 - Cedar 10 N. 17° W. 53. and as we are unable to find any of these old B.T.s I established a true 1/4 cor. bet. 11-14 at the cen. of the sec. On rand. line I set hub at 2856.63 for cen. of sec. from which true 1/4 cor. sets N. 7.75'. I take new B.T.s: Cedar 8 N. 3° 22' E. 82.5' & W. Pine stump 30 S. 38° 06' E. 47.9' Var. 7° 30'. I run N. from true 1/4 cor. bet. 11-14 Var. 9°. At 460' N. cross old road; 790 set hub; 1568.8 hub; 2320 hub; 2500 ent. swp.; 2665.3' int. N. & S. rand. line; 3300 lv. swp.; 3457.9 hub; 4096.3 hub.

Oct. 15. I set over hub at 4096.3' & set hub across creek. Then turn 90° & run 639.2' at which pt. we set hub. I set over hub at 639.2' & using hub at 4096.3' for backsight I turn on hub across creek & read 63° 14'. I set true 1/4 cor. bet. 2-11-143-25 from this rand. line I set over hub on rand. line at 2686.4' & set hub at 2611.6 for cen. of the side of sec. 11-143-25. Correcting back. Hub at 2611.6 goes S. 62.05' where I set a cedar hub 4x4x48" 24" in ground for the true.

1/4 cor. bet. 2-11 with the fol. B.T.o. Tam. 5 S. 33° W. 53.7' + N.P. N. 69° 03' W. 106.05'. The true 1/4 cor. bet. sec. 2-11 sets S. 83° 45' E. 117.45' of the hub I set across creek on N. & S. rand. line thru cen. of sec. 11. Correcting back on N. & S. rand. line thru cen. of sec. 11. Hub at 2681.76 goes E. 58.72'. Correcting back on E. & W. rand. line thru cen. of sec. 11. Hub at 1389.6 goes N. 24.5'. Hub at 2779.2 goes N. 79.0'. Hub at 2847.7 goes N. 50.1'. N. & S. rand. line int. E. & W. rand. line at 2665.3' E. E. & W. rand. line int. N. & S. line at 2789.0' N. I set over hub 58.72' E. of hub at 2681.76 on N. & S. rand. line & using hub at 2847.7' E. on E. & W. rand. line for back sight I set the true cen. of sec. 11 50.1' N. of hub at 2847.7' with new B.T.o. as follows: y. birch P.S. 78° 48' W. 20.3' + B. Birch Oak 7 N. 14° 48' E. 57.8'. Var. 8° 50'. Correcting back on N. & S. rand. line I set hub with road cen. Hub at 2320 goes E. 50.8' - 1568.8 goes E. 37.35' - 1440.8 goes E. 31.55' - 790.0 goes E. 17.3'. Quit for night with Boileau.

Oct. 16. We walk to the 1/4 cor. bet. 9-16-143-25 established by me. I set over 1/4 cor. & check dist. & angle to B.T.o. All O.K. Set new B.T.o.: Balsam 6 N. 33° 19' W. 40.3' + Aspen 5 S. 57° 04' W. 49.3' Var. 8°. We walk to sec. cor. 8-9-16-17 est. by me where U.S. notes call for Birch 5 N. 56° E. 3.5' - Birch 12 N. 18° W. 33.0' - W.P. 10 S. 13° W. 9.9' - W.P. 4 S. 29° E. 6.6'. We find S.W. & S.E. B.T.o. plainly mk'd from which I set true sec. cor. with new B.T.o. Spruce 5 N. 52° 48' E. 30.2' Tam. 7 S. 54° 07' E. 52.4' - Tam. 7 S. 43° 15' W. 55.1' - Tam. 6 N. 68° 19' W. 94.6'. We run N. on old compass line, var. 8° 10'. At 769.4 hub; 900 lv. sup; 1200 ent. sup; 1650 lv. sup; 2448 hub; We look for the 1/4 cor. bet. 8-9 where U.S. notes call for Lind 6 S. 88° W. 9.9' - Cedar 8 S. 35° E. 9.1'. We find the S.E. B.T.o. plainly mk'd but blown down and by hard labor we manage to set the tree back in its natural position from which I set the true 1/4 cor. bet. 8-9 with new B.T.o. Aspen 3 S. 39° 54' W. 41.6' + Aspen 4 S. 68° E. 47.4' Var. 8°. True 1/4 cor. of sec. 8-9 sets W. 8.5' from hub at 2561.0'. Correcting back: hub at 1200 goes W. 4.25' - hub at 769.4 goes W. 2.54'.

Oct. 17. Move headquarters to fisherman's camp on Big Sugar Lake.

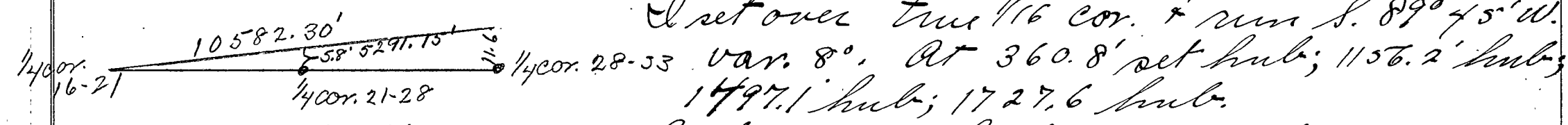
Oct. 18. Bill Kirt & I go to sec. cor. 8-9-16-17-143-25. Correcting back: hub at 2000 goes N. 9.48' + hub at 1200 goes N. 5.68' - hub at 700 goes N. 3.31'. Set with hub & road centers. Correcting back E. from 1/4 cor. bet. 9-16: hub at 21 goes S. 43.56' - 18 goes S. 38.88' - 15 goes S. 32.4' - 12 goes S. 25.92' - 9 goes S. 19.44' - 6 goes S. 12.96' - 3 goes S. 6.48'. Quit for dinner with Boileau.

Oct. 19. We go to 1/4 cor. bet. 21-28-143-25 where U.S. notes call for Spruce 6 N. 8° E. - 10 lks. - Spruce 8 S. 42° E. 5 lks. As we are unable to find this 1/4 cor. I set transit over compass line which I run to the 1/4 cor. bet. 21-28 & find it O.K. We cont. line S. At 5500 lv. sup; 5665.2' hub; 5700 ent. sup; 6100 lv. sup; 6154.1 hub; 6377.3' hub. Quit for night. Over night at fisherman's camp.

C

Oct. 20. Ed Bergen walks out with me & we look for the 1/4 cor. bet. sec. 28-33 where we find both B.T.s plainly mk'd. Bergen goes back to camp & I go cross country to work. Crew is at work when I get there. We cont. line S. At 6644 hub; 7127 hub; 7263.8' hub; 7842 hub; 8165.1 hub; 8843.3 hub; 9134.8 hub; 9530.9' hub.

Oct. 21 We cont. S. 9889.2' hub; 10339.9' hub; 10584.0' hub. We look for 1/4 cor. bet. sec. 28-33 where U.S. notes call for Ash 10 S. 55° E. 11.88' - Maple 8 N. 50° E. 9.24'. We find both trees plainly mk'd from which I set a 4x4x48" nonwood post. I int. N. & S. rand. line at 10582.30 S. 11.6' E. of true 1/4 cor. 28-33. Correcting back: hub at 9259.6 goes W. 10.15' where I set a 4x4x48" post for true 1/16 cor. N. of the 1/4 cor. bet. 28-33 with B.T.s Sugar 5 N. 54° 45' E. 38.7' - Balsam 5 S. 33° 56' E. 35.1' Var. 8°



Oct. 22. We cont. W. 2079.4' hub; 2247.8' hub; 2400 ent. swp.; 2950 lv. swp.; 3156 hub; 3551 hub; 3850 ent. swp.; 4147 hub; 4160 ent. lake; 4950 lv. lake. ent. meadow; 5092.7' hub; 5125 lv. meadow; 5410.5' hub; 5548 cross brook; 5928 hub; 5975 cross Big Vermillion Brook 10.0' wide; 7082 cross brook; 7980.7' hub.

Oct. 23. We walk to sec. cor. of sec. 29-30-31-32 where U.S. notes call for Tam. 8 S. 69° E. 2.47' - Tam. 10 N. 43° W. 24.74' - Tam. 6 S. 82° W. 8.1' - Cedar 3 N. 29° E. 19.8' We find S.E. & S.W. B.T. plainly mk'd from which I set 4x4x48" cedar hub for the true sec. cor. of sec. 29-30-31-32-173-25 with new B.T.s as follows: Cedar 7 S. 48° 35' E. 7.6' - Cedar 5 N. 45° 45' W. 19.1' - Cedar 7 N. 26° 33' E. 36.2' - Spruce 6 S. 81° 40' W. 8.4' Var. 8° 30' We run N. var. 9°. At 592.7' hub; 872.7' hub; 1151.3 cross E. & W. rand. line; 1160.2 hub; 2652.4' hub. We look for 1/4 cor. bet. 29-30 where U.S. notes call for Cedar 10 N. 6° W. 9.9' - Spruce 14 N. 52° E. 19.8'. We find N.E. stump with marks which I make out to be B.T., from which I set a 4x4x48" hub with new B.T.s: Cedar 4 S. 10° 15' E. 29.4' - Dead Cedar 5 N. 60° 45' E. 36.3' Var. 8° 30' for the true 1/4 cor. bet. 29-30 which sets 66.0' W. of hub at 2652.4' on N. & S. rand. line. Correcting back: hub at 1326.2 goes W. 33.0' hub at 1160.2' goes W. 28.76'. Running on true line N. & S. I int. rand. E. & W. line thru cen. of sec. 29 at 7997.0' N - 174.9' S. of 1/16 cor. bet. 1/4 cor. 29-30 & sec. cor. 29-30-31-32.

Oct. 24. Correcting back on E. & W. rand. line thru the cen. of sec. 28-29: hub at 6664.6' goes N. 145.75'. I set 4x4x48" hub here for true 1/16 cor. with bearings: Aspen 8 S. 45° W. 29.2' - Aspen 4 N. 72° W. 22.2'. Hub at 5928' goes N. 129.46' - 5410.5' goes N. 118.16' - 5092.7' goes N. 111.22' - 4147' goes N. 90.55' - 3156' goes N. 68.91' - 2247.8' goes N. 49.06' - 1497.1' goes N. 32.69'. Correcting back on 1/4 line thru sec. 28. Hub at 8843.8' goes W. 9.63' - 7842' goes W. 8.54'.

C

Hub at 7127 goes W. 7.76' - 6644 goes W. 7.24' - 61541 goes W. 6.7' -
5665.1 goes W. 6.17' - 5291.2' goes W. 5.8' for the true $\frac{1}{4}$ cor. bet. sec.
21-28-143-25 with new B.T.s. Cedar 10 N. 23° 35' W. 5.6' and
Cedar 3 S. 29° 30' W. 8.3' - var. 9°. Hub at 4000 goes W. 4.56' -
3568.3' goes W. 3.88'. Here we int. the State road at 10396.8' at
which point this road ties on to State road.

Recorded March 21, 1922.

James H. Flynn, Co. Surveyor.
By E. B. Horst, Deputy.

Field notes of the survey of the Federal Dam - Sugar Point Co. road in Twp. 143 N. Rge. 28 W. of the 5th Principal Meridian.

March 1, 1916. E. B. Horst + Fred Beaulieu take tools + go to cor. of sec. 3-4-9-10 where we find Elm 6 N. 39° W. 20 still standing + B-kitead 12 S. 7° E. 18 a 10:0 snag remains standing, both plainly mkd. I establish cor. from these + start line S. 9° var. across small field. At 430.0' wire fence bears W.; 1300 hub; 2196.0' hub; 2500 pass new shack, deserted; 3793.0' hub. We return to town for the night. We were unable to locate the 1/4 cor. It is evidently lost.

March 2. Horst, transit, Fred Beaulieu, Harold Olson, + Geo. White, axemen. We cont. line S. At 4485.2 hub; 4800 ent. large log; 5280.0 we set a 4' pop. stake + look for cor. + B.T.s. Notes call for 4 Tam. No timber standing. Nearly all trees that are decayed are large cedars down and snow 3.0' deep. We find no evidence sufficient to establish a cor. so we go W. one mi + look for a cor. that was recently established but on acct. of deep snow + dense growth of small spruce we are unable to find it before night. We return for supper.

March 3. Horst, transit. Same crew. We go to 1/4 cor. bet. 7-18 + find post set by Curo., also old B.T.s. I start line E. at 9° var. At 2600 set hub; 5000 hub; 5280 set small stake; 5900 set hub. Var. changes to 10°.

March 4. Horst + same crew cont. E. from 5900. At 7400 set hub; 7800 set hub. From this hub I sight to cor. of 8-9-16-17. Deflection angle is 63° 12' - dist. = 367.0'. By lat. + dep. at sta. 796.54' cor. sets S. 82° 7.6'. I set transit over cor. + start new line E. at 9° var. At 2600 set hub.

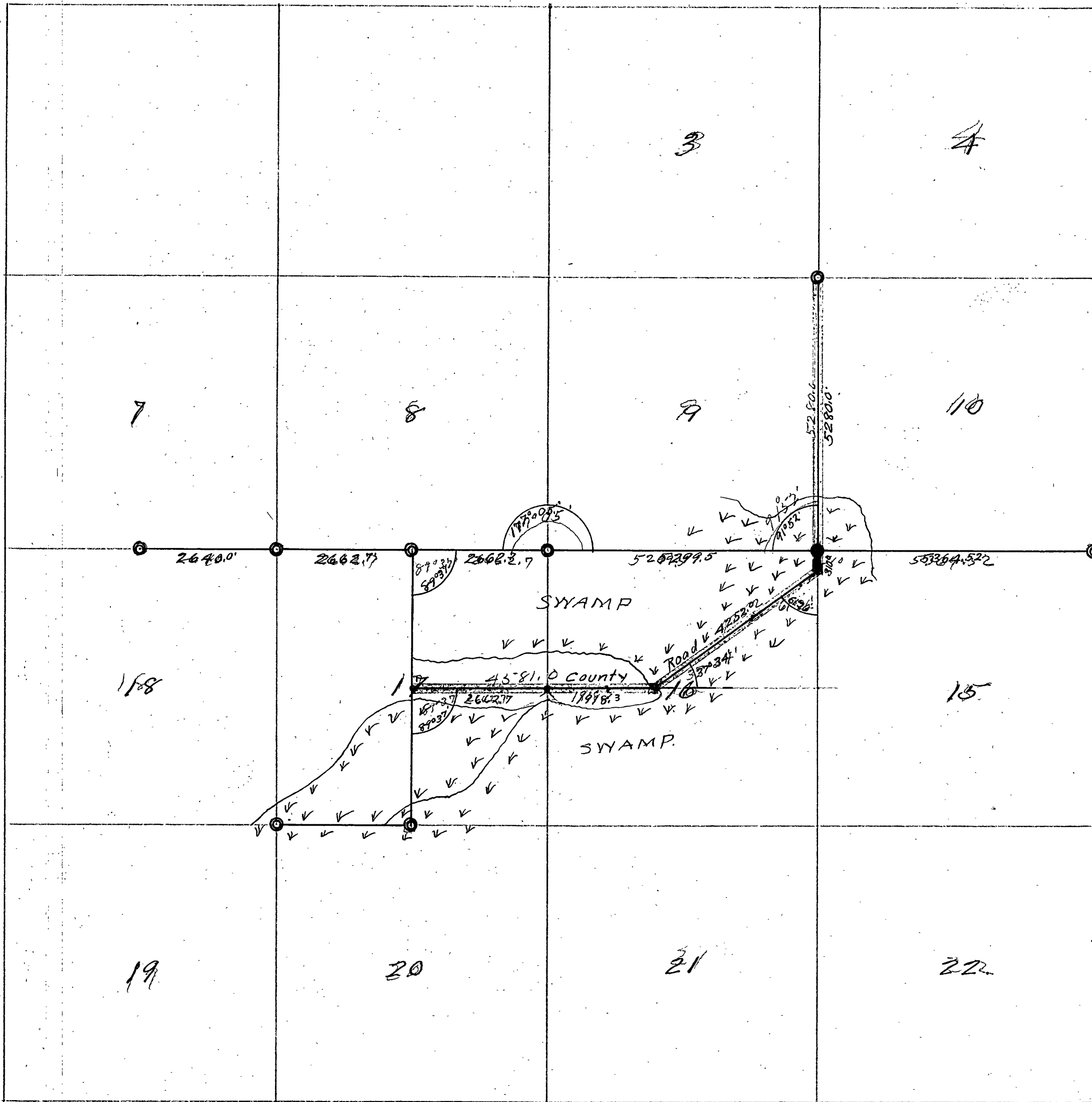
March 6. Horst + same crew go to cor. of sec. 8-9-16-17 and cont. line E. At 2600 hub. It begins to snow so fast that we cannot use the transit so we cut line + set pickets. We cut to sta. 5280 + quit.

April 3. I hire Fred Beaulieu as axe + flagman and we walk from E.L. Warren's hotel to S.W. cor. of sec. 17-143-28. We run compass line + pace E. to where 1/4 cor. on S. side of sec. 17 should be and look for B.T. We find old Gov's blazes + follow them to where we find B.T. to 1/4 cor. where U.S. notes call for Tam. 5 N. 64° W. 19 - Tam. 8 64° E. 19. We find B.T. to N. + establish 1/4 cor. from this driving a 4" x 10' pole in swp. all but 3' + set a 15' sight behind cor. I run line N. at 18° var. as this seems to be the direction we should go. We cut + chain 1500'.

April 14. Horst + Beaulieu cont. N. on rand. 1/4 line across Tam. swp. across a strip of highland to a large spruce swp. + quit for night.

April 10. Horst, Beaulieu + Geo. Comstock. Comstock cont. cutting N. + Beaulieu + I go to sta. 1500 N. + 1/4 cor. on S. side sec. 17 + chain to At 2700 lv. Tam. swp.; 2839.5 hub; 2890 road; 3051.5 hub; 3380.5 hub; 3580 ent. swp.; 3620 lv. swp.; 3950 ent. large spruce log; 4190 round island; 4287.7 hub; 4300 lv. island 5608 ent. rand. line on N. side sec. 17 at sta. 4312.7' E. of 1/4 cor. bet. sec. 18-7. S.C. angle = 80° 45'. We go W. on rand. sec. line + look for cor. to 7-8-17-18. We find old stake + a small spruce which I accept as the U.S. B.T. as the blazed + scrub

Twp. 143 N., Rge. 28 W. 5th P.M. Minn.



marks are very old, bears S. 3° W. 14 links as called for in U.S. note. Sec. cor. sets at 2640 E. on rand. line + 207.0' S. N.E. cor. sec. 17 at sta 7965.4' E. sets S. 327.6'. $\text{Sine} = .02264 = 1^{\circ} 18'$. True length of N. boundary of sec. 17 = 5325.4'. At equal dist. from sec. cor. I look for 1/4 cor. N. side sec. 17 + find stakes several yrs. old + U.S. B.F. 4 N. 70° W. 17 with B.F. scribbles marks on stump. Only stump remains. 1/4 cor. sets in line with sec. cor. + 2662.7' from each. I calculate distance from 1/4 cor. to N. + S. rand. 1/4 line. At sta. 5268.0' N. on rand. 1/4 cor. sets E. 929.8'. $\text{Sine} = .17650 = 10^{\circ} 10'$. Angle of true N. + S. 1/4 line + N. sec. line = 89° 37'.

April 17. Forest, transit, + same crew. At sta. 2634.0' N. on N. + S. 1/4 rand line I turn 90° E + cut 464.9' E. + set cen. post of sec. 17 for road cen., also end of petitioned road. I set transit over this cor. back-sight to pt. on rand. line + turn angle to right 10° 10' + run road line E. We cut 1/2 mile + quit for night.

April 18. Forest + same crew. Comstock cont. cutting E. + W. 1/4 line. Beaulieu + I go back to chain up. At 260.0' ent. sup; 480.0' lv. sup; 499' hub; 1015' hub; 1020' ent. bog; 1125' lv. bog; 1860 cross log road; 1535 cross log road; 1630.4' hub; 2295.3' hub; 2662.7' set temp. 1/4 cor. bet. 16 + 17 from which W. Birch 10 S. 46° W. 36.5' + pop. 4 N. 19° E. 37.7'. Cont. E. into sec. 16. At 3028.0' set hub; 3369.6' hub; 3804.9' hub; 4581.0' hub on end of pt. of highland. B.F. to this hub: Pop. 5 S. 55.0' + Pop. 6 N. 45° W. 74.5'.

April 19. At hub 4581 E. I back-sight on line W., reverse telescope + turn angle 37° 34' to N. + run line N. E. across large spruce bog. At 150.0' N. E. ent. bog; 1038 set stake road cen.; 1544 set road cen.; 2029 road cen.; 2526 set road cen.; 3052 set road cen.; 3812 set road cen.; 4422 set hub road cen. Sec. cor. to 9-10-15-16 being gone, we chain E. on a cut out line along S. side sec. 10 from hub 5280 S. on rand. bet. 9-10 to establish cor. At 5100 I set stakes + look for B.F. to cor. of 10-11-14-15 on road. I find U.S. B.F. cedar 6 N. 77° W. 48. From this tree I take course + measure required dist. and drive 4" cedar stake 3.0' long at pt. for cor. + chain to cor. from sta. 5100.0' E. Dist from rand. line to cor. = 5192.0'. We quit for night.

April 21. We chain E. from hub 5280' E on E. + W. rand. bet. 9 + 16 to hub 5280 S. on N. + S. rand. bet. 9 + 10. Dist = 192.0'. $5200 + 5192 + 192 = 10664.0'$ = total length of S. boundary of secs. 9 + 10. U.S. chain for sec. 9 = 49.86. My chain = 5299.5'. U.S. chain for sec 10 = 80.84. My chain = 5364.52. True cor. sets W. of hub 5280 (on rand. sec. line bet. 9-10) 172.5'. Sine for N. + S. line = .03267. Correcting back on line bet. 9 + 10. Hub at 430 goes W. 14.05' - 1300 goes W. 42.47' - 2196 goes W. 71.74' - 2640 the 1/4 cor. sets W. 86.25' - 2932.7 goes W. 95.8' - 3793 goes W. 123.92' - 4485.2 goes W. 146.53' - Sec cor. 5280 sets W. 172.5'. At sta. 3455 road line strikes pt. of sup. and at 3753 lv. sup. which rand. line did not touch. From sec. cor. to 9-10-15-16, We cut line S. to int. line coming across bog from

hub 4581 on E. & W. $\frac{1}{4}$ line in sec. 16. Dist = 310.0' Inside angle = $52^{\circ}26'$. We bring outfit to Federal Dam & take train enroute to Walk, via Bemidji.

Novak's notes on the Federal Dam-Sugar Point road in Twp. 143-29 W. of the 5th P. M.

Nov. 21, 1916

Ed Ralley & I with Gurley transit & 100' tape walk to sec. cor. 3-4-33-34 where I set a tall flag. We then walk to sec. cor. 4-5-32-33. This cor. is marked by the stump of a small spruce squared up & was found by Curo on March 15, 1914 and from which he marked new B.T.s: Dead Jam. S. $54^{\circ}E$ 120' Jam. $4S$ $23^{\circ}W$ 85.35' - Jam. $5N$ $57^{\circ}W$ 65.35' - Jam. $3N$ $16^{\circ}40'E$ 57.4'. I find the B.T.s & they check for course & distance. I then back-sight on flag on sec. cor. 3-4-33-34 & start cutting line thru island about 400 ft W. of cor. I start transit line W. from cor. of sec. 4-5-32-33 on true line bet. sec. 5-143-29 & 32-144-29 var. $8^{\circ}15'$. At 376 ent. island; 636 lv. island ent. sup.; 700 hub; 1602 hub; 2201.5 hub; 2798 hub; 3402.3 hub; 4400.8 hub. We set chaining pins at every 100'. Quit at 5300.

Nov. 22

We go to pin at 5300. I set up at 4400.8 & set hub at 5303.5 W. & chain back to 5280 & set a 4x120" post in sup. for true cor. to sec. 5-6-31-32. No B.T.s. We cont. W. at $7^{\circ}45'$ var., setting pins every 100.0'. At 6101 set hub; 6834 ent. lake; 6899.5 hub; From pin 6900 we chain back to 6825 where I drive a 5"x2 cedar post for witness cor. At 7600.35 set hub; 7650 the lake is open so we quit and return to town.

Nov. 23

I set up over hub at 7600.35 W. & turn $90^{\circ}R$ & run S., setting pins every 100'. At 1002.3 hub; 1900.5 hub on shore. Thence turn $90^{\circ}L$ & run W. At 8901.4' W. and 1900.5' S. of sec. cor. 4-5-32-33 set up on ice on edge of open lake. I turn $90^{\circ}R$ & run S. Hub = 1900.5' S. At 3902.0 set hub; 4400 set pin on shore of lake; 4399.85' set hub. This hub is 8901.4' W. Here I turn $135^{\circ}L$ & run S.W. hub 20.0' at 1202' set hub; 2345.61 set hub on range line which is 10560' W. & 6058.85' S. of sec. cor. to sec. 4-5-32-33-143-29. Return to town for night.

Nov. 24

We go to hub on range line 10560' W. & 6058.85' S. of sec. cor. 4-5-32-33, turn $135^{\circ}R$ & run S. on range line bet. 143-28 & 143-29, var. $8^{\circ}30'$. Hub is sta. 6058.85'. Set pins every 100'. At 6310 lv. lake ent. sup.; 7001.5 set hub; 7820 set hub. I then set two high flags from which to start a pocket line and we take the survey outfit to 5 mi. pt.

Nov. 25

Ed Ralley quits and I look for more men - No use.

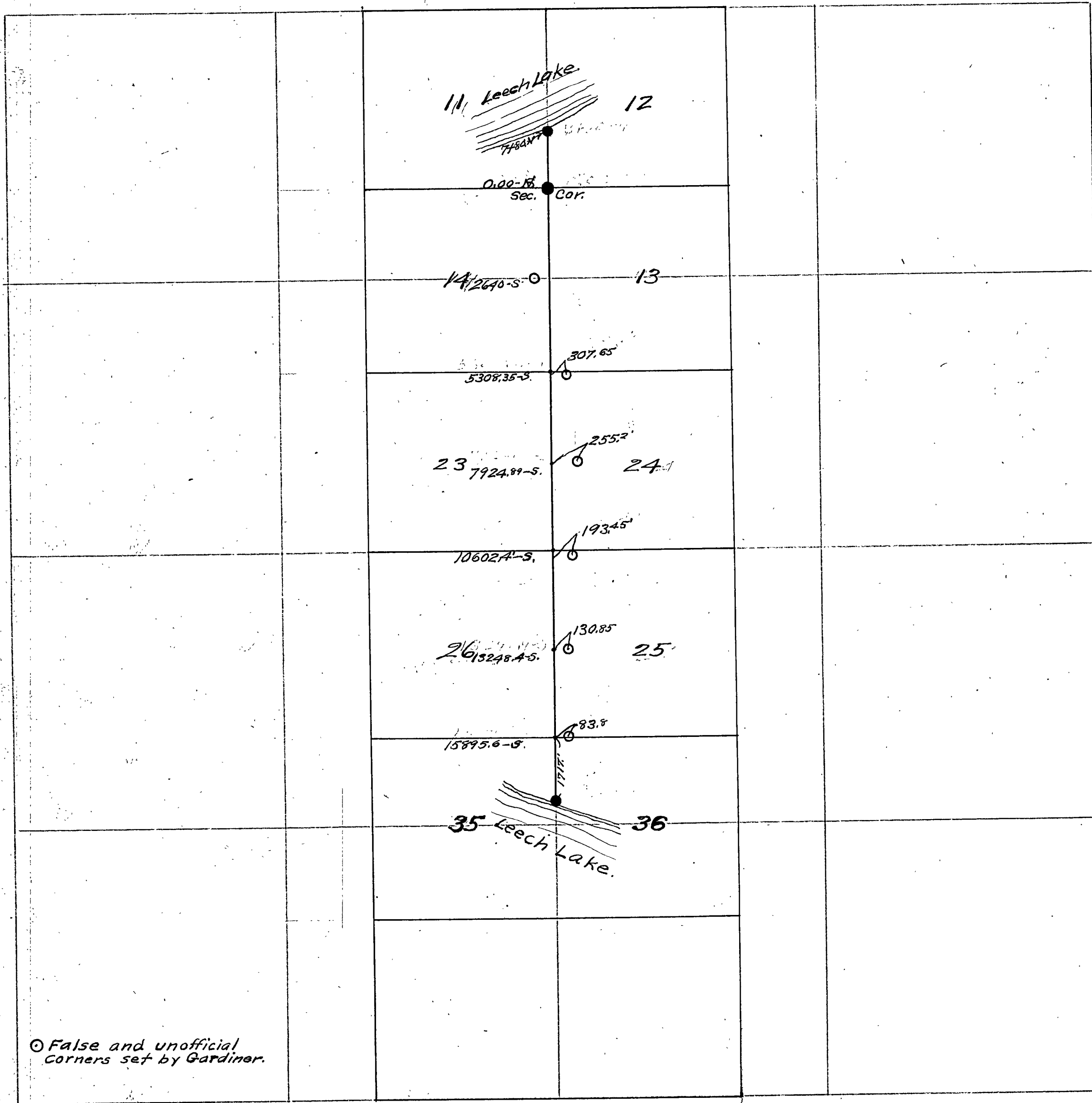
Nov. 26

I go to Federal Dam and secure two men.

Nov. 27

Albert W. Merrick, Ed L. Wiley & I take survey outfit and go to cor. of sec. 11-12-13-14-143-29, a 3" hub established by Curo, and chain N. bet. 11-12. At 780' set pin on edge of lake. Gov's notes call for post for M.C. with W. Oak stub $24^{\circ}S$ $14^{\circ}W$ 70 lks.

Twp. 143 N., Rge. 29 W., 5th P.M. Minn.



○ False and unofficial
Corners set by Gardiner.

Nov. 30. thing except Gardner's sec. cor. which sets 193.45' E x 42.4' S of hub 10560. I learn that Gardner used a compass only. We go to hub 10560 x cont. S. bet. 25-26. At 11205.8' tack in log; 11560 ent. cedar swp.; 11880 hub; 12682 tack in log; 12700 ent. open swp.; 13200 hub and search for th¹⁴ cor. bet. 25-26 where Gov't notes call for: Sugar 20 S. 20° W. 34 & Sugar 14 N. 57° W. 25. We do not find anything except Gardner's cor in the swp. 130.85' E x 48.4' S of hub 13200.0'.

Dec. 1. We go to hub 13200 on our rand. line. I pass W. to a picket line started by Curo which starts from an old Elm tree which Curo found in the water and which he believes to be the 20 inch Elm called for in the Gov't notes as D. 7 to the M.C. We cont. S. At 14520 hub; 15090 hub; 15840 hub and search for sec. cor. to sec. 25-26-35-36 where U.S. notes call for: Oak 9 N. 7° W. 16 - Sugar 13 N. 22° E. 50 - Linn 9 S. 30° E. 15 - Sugar 12 S. 14° W. 49 but find nothing. Gardner's post sets 83.8' E. & 55.6' S of hub 15840. We cont. S. bet. 35-36. At 16167 cross road N.E. & S.W.; 16435 hub. Offset 4.0' W. At 17260 hub on offset line and another 4.0' E on rand. line; 17303 cross fence; 17557 set hub on edge of lake, also on rand. line 4.0' E. We search for M.C. but find nothing.

Dec. 2. We go to hub 7820' S. on range line bet. 143-28 & 143-29 set on Nov. 24 & run S. on 7° 45' var. At 8700 set hub; 9240 hub; 10000 set hub; 10560 hub; 11060 lv. swp.; 11200 tack in log. We go to hub 10560 S. on our range line. I turn 90° L. & run W. At 800 lv. swp. ent. lake; 1250 lv. lake, ent. swp.; 1700 lv. swp.; 2100 ent. cedar swp.; 2201.5 tack in log; 2640 hub.

I receive order from Curo to come to Walter A. Nowak, Eng.

Recorded March 24, 1922.

James H. Flynn, Co. Surveyor.
By E. B. Horst Deputy.

- Field notes of the survey of sec 22 Twp. 140 N. Rge. 28 W. of the 5th Principle Meridian.
- Jan. 11, 1920. Ben F. Clark, Roy Rose drove down to H.C. Houser's place and from there went to the M.C., a 4" spruce post and two witness B.T.s, set by ~~E.B. Houser~~. Thence set up on a hub on a high hill S, backsight on M.C. post, and sight S. on hub and run S. on his true line, var. $8^{\circ}05'$, to Meadow Lake 2.0' E. 22-23-26-27, an iron post as cor. Thence chained N. At 621.8' Sta. 1; 741 Redell road; 1100 ent. arm of Boy Lake; 1320 set temp. $\frac{1}{16}$ pt.; 1686 lv. arm of lake; 1923.6 Sta. 2; 2640 set temp $\frac{1}{4}$ pt.; 2674.6 Sta. 3; 3762 M.C. post ent. Boy Lake; 3960 set temp $\frac{1}{16}$ pt.; 5280 set temp. sec. cor. sec. 14-15-22-23 on ice. Thence set up my transit & sight across Boy Lake to the M.C. on N. shore, an iron post. Angle changes to 6° . Thence set $\frac{1}{16}$ post on a true line bet. the two M.C.s and from the M.C. on S. shore of Boy Lake to cor. of 22-23-26-27 is 8° .
- Jan. 13. Begin at the I.M. sec. cor. 15-16-21-22 and run E. on a true line, var $7^{\circ}05'$. At 225 ent. bog; 824 ent. lake; 1320 set temp. $\frac{1}{16}$ pt.; 1425 lv. lake; 1759 hub. sta. 1; 2025 ent. N. h. pm R.R. grade; 2081 ent. Boy Lake, a cedar post M.C. sets 7' S. At 2640 set temp. $\frac{1}{4}$ cor.; 3960 temp. $\frac{1}{16}$ pt.; 5157.3 temp. sec. cor.; 5280 set temp. pt.; 7500 lv. Boy Lake and search for M.C. but did not find it so cont. E. At 7789.5 sta. 2; 7929 set temp. pt.; 8161.3 we found stake mk'd 4800 set by ~~E.B. Houser~~. Ben Clark when we run W. from a U.S. $\frac{1}{4}$ cor. at Mc Carthy Lake. We find the dist. = 12961.3' N. Boundary sec. 22 = 5230.6'. Thence came back to cor. of sec. 14-15-22-23 & set the cor. W. 49.4' on ice. Set the $\frac{1}{4}$ cor. W. 24.7' & the $\frac{1}{16}$ W. 12.3'.
- Jan. 14. Begin at the I.M. sec. cor. 22-23-26-27 & run W. on $6^{\circ}45'$. At 189 sta. 1; 240 ent. Wabedo Lake; 1320 set temp. $\frac{1}{16}$ pt.; 2640 set temp. $\frac{1}{4}$ pt.; 3215 lv. lake; 3248.3 I.M. M.C.; 3914.3 an iron post; 3960 set temp. pt. Angle from M.C. W. changes to $7^{\circ}45'$.
- Jan. 15. Cont. W. At 4000.7 sta. 4; 4478.2 sta. 5; 4879 sta. 6; 5226 the cor. to sec. 21-22-27-28, E. of the I.M. 11.0'. Thence went back E. & set the W. $\frac{1}{16}$ E. 40.5', the $\frac{1}{4}$ cor. goes E. 27.0' on ice, & the E. $\frac{1}{16}$ cor. goes E. 13.5' on true line on ice. We go to cor. of sec. 15-16-21-22, an I.M., set up transit, backsight on $\frac{1}{16}$ pt. on true sec. line bet. 15-16 & run S. bet. sec. 21-22.
- Jan. 17. Cont. on S. bet. sec. 21-22. on $7^{\circ}07'$ var.
- Jan. 18. Chained S. At 125 ent. bog; 599 lv. bog; 1383 sta. 1; 1837.2' sta. 2; 2455 sta. 3; 2640 set temp. $\frac{1}{4}$ pt.; 2899.8' sta. 4; 3704.7 sta. 5; 3995.7 sta. 6; 4415 ent. lake; 5205 lv. lake ent. swp; 5313.0' the cor. to sec. 21-22-27-28 E. of the I.M. 4.2'. Thence set the $\frac{1}{4}$ cor. S. 16.5' & W. 2.1' on true line. True line = $7^{\circ}04'$. Total length of E. side sec. 22 = 5243.0'. W. side = 5313.0'. N. side = 5230.6' & S. side = 5226.0'. So not being satisfied with the N.C. cor. sec. 22, Ben Clark & Roy Rose measured on N.

C

- across Bay Lake. Begin at 5280' N of the U.S. cor. to sec. 22-23-26-27. At 12447.5' the U.S. M.C. a 2 1/4" capped I.M. with B.T.s; Pine stump. 4 N. 16° W. 10 links & W. Oak 9. N. 73° E. 40 links. This M.C. sets S. of the 1/4 cor. ~~600'~~. Thence cor. of sec. 14-15-22-23 goes S. 370'. Set the 1/4 cor. bet. 22-23 S. 18.5' & E. 61.2'. Thence set the 1/6 pt. S. 27.7' & E. 92.8'. Set the 1/4 cor. bet. 15-22 S. 18.5'. Set the 1/6 S. 9.2' & E. 29.6'. Thence set M.C. #32.
- Jan. 19. Ben Clark & Roy Rose set a 1" x 1.24" iron pin for the 1/4 cor. bet. sec. 21-22, equal dist. bet. the two sec. cor.s. The cor. to sec. 14-15-22-23 sets E. of rand. line 124.0'. The cor. to sec. 14-15-22-23 set in Bay Lake N. of the M.C. 1490.8'. Thence set the M.C. with wit. trees: Elm 8 S. 9° 30' E. 24.5' & Elm 10 S. 23° 30' W. 3.2'. Thence went S. & set the 1/4 cor. S. 18.5' & E. 61.2' on true line. 6° 15' var.
- Jan. 20. Begin at the 1/4 cor. bet. sec. 22-23 & run W. on E, var 7° 01' to the 1/4 cor. bet. sec. 21-22. Fall 13.4' S. of cor. true line is 6° 58'.
- Jan. 21. Ben Clark, Roy Rose, & S. House begin at the 1/4 cor. bet. sec. 22-27 in Wabedo lake & run N. on E, var. 6° 40'.
- Jan. 22. Intercept 3.0' W. of the 1/4 cor. in Bay Lake. Thence set the Cen. 1/4 cor. E. 1.5' & N. 6.7' where the true 1/4 lines cross & made fol. wit: Nor. Pine 18 S. 8° 30' E. 2.96 - Pine 10 S. 20° W. 107.3' & Elm 30 N. 63° W. 4.42. Begin at the 1/4 cor. bet. 22-27 & chained W. on the E. at 181.1 sta. 1; 389 sta. 2; 770.4 sta. 3; 870 ent. Bay Lake; 1320 set temp. 1/6 pt.; 1685 ent. island; 1807 lv. island ent. lake; 2617.4 the Cen. 1/4 cor. Thence begin at the Cen. 1/4 cor. & cont. W. at 375 lv. lake; 395 cen. old RR grade; 438.8 sta. 4; 1075.4 sta. 5; 1808.7 set temp. 1/6 pt.; 2617.4 the 1/4 cor. bet. sec. 22-21. Begin at the 1/4 cor. on Wabedo Lake bet. sec. 22-27 & chain N. on E. At 652 lv. lake & ent. field; 795 sta. 1; 1100 ent. river bet. Wabedo & Bay Lake; 1453 ent. bog; 1800 lv. bog & ent. river; 2120 lv. river ent. bog; 2262 ent. old RR grade; 2302.7 sta. 2; 2330 ent. Bay Lake; 2626.3 the Cen. 1/4 cor. sec. 22. Thence begin at cen. 1/4 cor. cont. N. At 555 lv. Bay Lake; 637.5 sta. 3; 935 ent. Bay Lake; 1000 lv. lake; 1117 ent. lake; 1340 lv. lake; 1571 sta. 4; 1841 ent. lake; 2630 the 1/4 cor. bet. sec. 15-22.
- Jan. 24. Ben Clark, Roy Rose, & C. Hauser begin at the 1/6 pt. bet. sec. 22-27 on S. E. 1/4 on Wabedo Lake & run N. on a 1/6 line, var. 6° 26'. At 500 lv. Wabedo lake; 522 set a 2" x 30" I.M.; 606 old road; 750 sta. 1; 850 sta. 2; 968 old RR grade; 988 set a 2" x 30" I.M.; 1030 ent. Bay Lake; 2625.2' the 1/6 pt. on the E. & W. E. on E. half.
- Jan. 25. Ben Clark, Roy Rose, & S. Hauser begin at the W. 1/6 cor. bet. sec. 22-15 & run S. on W. 1/6 line, var. 6° 52' and hit the nail on the E. W. 1/6 cor.
- Jan. 26. Thence chained E. on same 1/6 line. At 350 lv. lake; 845.5' sta. 1; 1320 set temp. 1/6 pt.
- Jan. 28. Ben Clark & Roy Rose set the 1/4 S. M.C. on N. & S. 1/4 line. 652.0' N. of the 1/4 cor. bet. sec. 22-27 which is a R.R. spike 6"

long in Wabado lake. Set a 2x6" I.M. for M.C. + made fol. wit. trees: Elm 8 N. 28° E. 82.0' + Ash 5 N. 50° W. 12.0'.
 Thence set a 4"x4"x15' cedar post for 1/16 cor. + thence came on N. + set a R.R. spike for the 1/4 cor. + marked a Nor. Pine S. 20° E. 10.0'. Thence went to the arm of Bay Lake in sec. line bet. secs. 22-23 1686.0' N. of the cor. to sec. 22-23-26-27 + set a 3"x3"x6' ash post for M.C. + made witness tree as follows: Ash 6 N. 50° W. 19.5'. Thence went S. across arm of Bay Lake in sec. line bet. 22-23 + set a M.C. at 1100' N. of the cor. to sec. 22-23-26-27. Thence went N. to the 1/4 cor. + set a cedar post + made wit. tree: N. Pine 7 S. 36° W. 37.4'.
 Jan. 29 Ben Clark + Roy Rose went to the 1/4 cor. bet. secs. 21-22, a 4' iron driftbolt + made wit. trees: W. Pine 6 S. 45° E. 15.0' + N. Pine 10 N. 35° E. 30.4'. Thence went E. to the 1/16 + made a wit. tree: Birch 5 S. 45° E. 7.4'. Thence went N. to the 1/16 on the N. W. 1/4 sec 22 + set a 1/16 pt. + made wit. trees: Nor. Pine 3 N. 50° E. 8.0'.
 Thence set a 1/4 cor. M.C. pop. post with following wit. trees: Pop. 7 N. 32° W. 10.5' + W. Pine 6 S. 50° W. 21.6'. Cen. sec. 22 in Bay Lake distance of 381.0'.

Recorded March 25, 1922

James H. Flynn, Co. Surveyor.
 By E. B. Horst, Deputy.

C

July 31, 1914.

Field notes of the survey of a township road in Twp. 137 N. Rge. 29 W. of the 5th Principle Meridian. F. G. Donney, J. W. Curo, & Geo. Newman. Geo. Ellis drives us to cor. 8-9-16-17-137-29 where U.S. notes call for B.P. 7 N. 53° E. 40 lks. - B.P. 10 N. 70° W. 36 - B.P. 9 S. 62° 30' W. 33 - B.P. 6 S. 40° E. 11 links. We find stump of N. E. tree from which we set hub & tack for true cor. with new B.T. as follows: J.P. 5 N. 33° E. 79.77' - J.P. 8 S. 24° 40' W. 134.97' - J.P. 3 S. 66° 25' E. 71.70'. Var. 9°. To correct the transit line run by Kato bet. sec. 16 & 17. We set over hub on sand. line 5280' N. of cor. to sec. 16-17-20-21. From this pt. we run N. 11.64' to 5291.64' thence E. 14.44' to cor. of sec. 8-9-16-17. Var. 9° 40'. Correcting S. 2640 goes N. 5282' & E. 7.22' at which pt. we set hub & tack for true 1/4 cor. bet. sec. 16-17 with new B.T. as follows: J.P. 10 N. 28° 35' E. 57.17' - J.P. 10 S. 74° 12' E. 63.55'. Var. 9°. Retracing transit line run by Kato. Setting transit over a hub set 5279.4' E. of the cor. to sec. 7-8-17-18 the new cor. to sec. 8-9-16-17 sets S. 33° 44' E. 91.8', mag. var. about 9° 20'. Retracing transit line run by Kato from a sharp stone at the cor. to sec. 7-8-17-18 & following the line S. to a hub and tack set by Kato for the true 1/4 cor. bet. sec. 17-18 sets S. 13.18' to 2653.18 S. thence W. 22.0' to the true 1/4 cor. bet. sec. 17-18.

Still retracing Kato's transit line we begin at the new 1/4 cor. on W. side sec. 17 & walk E. At 1099.7 we find a hub also at 1320 - 2124 - 2640. At 5311.8 E. the new 1/4 cor. just set by us bet. 16-17 sets N. 33.4'. To correct E & W. E. of sec. 17, at 5311.8' E. the 1/4 cor. on E. side sec. 17 sets N. 33.4'. Correcting back. Hub at 2640 goes E. 15.9' & N. 16.7' which should fix true cor. of sec. 17 but as Kato may not have chained this E & W. line close enough, we decide to run the N & S. E. before fixing true cor. Correcting W. Hub 2124 goes N. 13.34', Hub 1320 goes N. 8.29', Hub 1009.7 goes N. 6.54'. Driving to cor. of sec. cor. to 16-17-20-21 where U.S. notes call for: B.P. 10 N. 15° E. 83 links, & B.P. 12 N. 6° 30' W. 94 links. We find a flat iron rod previously established by Curo for the 1/4 cor. with the 1/4 cor. with B.T.s as follows: J.P. 5 S. 42° 33' W. 51.75' - Cap. 4 N. 62° 20' E. 57.25' - J.P. 6 S. 27° 30' E. 46.65'; var. 9°.

Aug. 1.

Geo. Ellis & I drive to cor. of sec. 8-9-16-17 previously established by Curo where we pull up wood hub & put in its place a galvanized pipe 2" x 48" set in concrete for true cor. Driving to 1/4 cor. bet. 16-17 we pull up wood hub and set a 2x48" galvanized pipe in bed of cement for true 1/4 cor. Thence go to cor. of 16-17-20-21 & set 2x48" I.M. in cement for true cor.

Aug. 3

Aug. 4

We set the 1/4 cor. bet. sec. 7-8 in same manner also 7-8-17-18. Retracing Kato's transit line beginning at the cor. to sec. 7-18-17-18 & following S. At 2640 the new 1/4 cor.

established by Gato sets 13.18' S + 22.0' W. At 5280' S the true cor. to sec. 17-18-19-20 sets 26.36' S + 44.0' W. Rechainning the sand line bet. sec. 8-17. At 2638.5' E. find hub; 5277' find hub from which the true iron cor. of sec. 8-9-16-17 sets S. 33°44' E. 91.8'. Correcting back. At 2638.5' we run S. 33°44' E. 45.9' + set hub + tack for true 1/4 cor. bet. 8+17. Beginning at new cor. set by Gato at cor. 17-18-19-20 we follow Gato's transit line E. At 1000' find hub; 1320 hub; 1500 hub; 1800 hub; 2700 hub.

Aug. 5. ~~Wm~~ Jokela, Lester Pollock & myself drive to cor. of sec. 17-18-19-20 + set 2x 48" galvanized I.M. for true cor. Thence go to 1/4 cor. bet. 17-18 + put in I.M. in concrete, thence to sec. cor. 7-8-17-18 + set I.M. in concrete, thence to 1/4 cor. bet. 7-8 + set I.M. in concrete. + take the following B.T.s: Asp. 67° 89' W. 128.8' + Oak 41° 37' 52" E. 75.0'. Thence go to 1/4 cor. bet. 8-17 + set I.M. in concrete with following B.T.s. Oak 12° S. 32° 31' W. 69.15' + Oak 107° 6' 9" W. 118.2'. We drive to cen. cor. sec. 17 + at 2640' E. find hub. I set up over hub and looking W. I find an old backsight used by Gato + I use this for my backsight + run E. 15.9' + drive a spike for hub. I set up over this spike + using the same backsight I turn 90° which brings the mag. needle to 8° var. N. I set a hub 16.7' N. on this line for true E. 1/4 cor. of sec. 17-18-19-20.

Aug. 6. Oscar Sarbiako joins us. We drive to cen. 1/4 cor. sec. 17 + run N. on 9° var. At 375' N. set hub; 1387 hub; 1532.2 hub; 2622.7 hub. This sand line runs 17.5' W. of the true 1/4 cor. I set up over true 1/4 cor. + from 9° var. turn 90° W. + intersect sand. line at 2622.7'. Correcting back. Hub at 375' goes E. 2.5' R.L. from sand. line. I set over true cor. E. 1/4 of sec. 17 and using hub on true line at 375.0' for backsight I run true line S. and set road center to 1/4 cor. H.A. Donner.

Recorded March 24, 1922

James H. Flynn, Co. Surveyor.

By E. B. Horst, Deputy.

Field notes of the survey of a trap road in Twp.

137 N. Rgl. 31 W. of the 5th P. M.

Sept. 13 1920. Mose Morris & Bert Anderson leave Walker on M. & I. train for Pine River. Hire Vern Hardy, with car to take us to C. Arnold's place. Morris, Anderson, C. Arnold, D. Arnold, & R. Arnold set up at 1.M. cor. of 11-12-13-14 & run W. on 8° 30' var. At 1500 set hub; 2640 set hub; 4089.1 set hub; 5444 found wood stake in cen. of road set by road overseer of Pyngo Twp, Geo Copenburg. Fell 117.6' S. of cor. Three asp. Gov't D.T. all gone. S.W. cor. of school house sets N. 40° 15' E. 141.4'. Burr Oak 12 S. 55° E. 93.0'. Set 1/4 cor. bet. sec. 11-14 58.8' N. & 82.0' W. of 2640.0' hub. on random line with following B.T. Tam. 20 N. 61° W. 97.0'

Sept. 14. Run S. from 1/4 cor. on 8° 30' var. Morris, Anderson, C. Arnold, R. Arnold, & H.V. Young cont. line S. from 1/4 cor. At 125' ent. sup; 213' ent. creek; 228' leave creek; 300 set hub; 527.6' set hub; 1102.2' set hub; 1270.0' leave swamp; 1276.7 set hub on E. of road; 1300 enter swamp; 1900 leave swamp and enter field; 2600 set hub; 3700 set hub; 4500 set hub; 5280 set hub and look for 1/4 cor. & old Gov't Tam. & Balsam B.T. No trace of them.

Same crew with L. Wise run S. from 1.M. cor. sec. 13-14-11-12 on 8° 30' var. Correction to Road cen.

Hub	109.5'	gone	1.1' W.
Swamp	300.0'		
Hub	990.7'	"	10.5' W.
"	1476.5'	"	15.6' "
Lv. Sup.	2000.0'		
Hub	2154.5'	"	22.8' W.
Sup.	2250.0'		
Hub	2640.0'	"	28.5' W. & 29.8' to 1/4 S.
"	3058.0'	"	32.3' "
"	3668.0'	"	38.8' "
E. of Ditch	3672.0'		
Hub	4200.0'	"	44.5' "
"	5339.6'		

an old wood stake set in meadow for sec. cor. to sec. 13-14-23-24. Set up over stake & checked old B.T. Found 3 Tam. stumps that checked within 03' for chainage & 30' for course. Accepted this cor. from old stumps & evidence of H.V. Young, Laurence Wise, & Lambert Wise. At 5339.6' hub fell 57.0' E. of cor. No trees available for B.T.

Notes 489 7⁰⁰ west

Q

Sept. 15, 1920. Morris, Anderson, C. Arnold, L. Wine, & R. Arnold
 begin at cor. 13-14-23-24 & run S. on 8°15' var.
 Hub 609.3' goes 9.1 W. to Pdt. cen.
 Lv. Sup. 900.0'
 Hub 1187.0' " 17.7' " " " "
 " 1547.4' " 23.0' " " " "
 " 1912.3' " 28.6' " " " "
 Ent. Sup. 2400.0'
 E of ditch at 2602.0'
 Hub 2640.0' goes 39.6' " " " "
 " 3057.5' " 45.4' " " " "
 " 3400.0' " 57.6' " " " "
 Lv. Sup. at 3540
 Hub 3620.0' " 54.9' " " " "
 " 3982.0' " 59.3' " " " "
 " 4191.4' " 62.4' " " " "
 Ent. field 4257.0'
 Lv. field 4485.0'
 Hub 4600.0' " 68.5' " " " "
 " 4757.7' " 70.9' " " " "
 " 5287.7' " 79.3' W. to stone in

center of road for cor. testified to by Frank Peterson.
 Set 2 B. to vis. 9.1 pole N. 54° W. 33.4'
 large Post S. 43° E. 30.0'

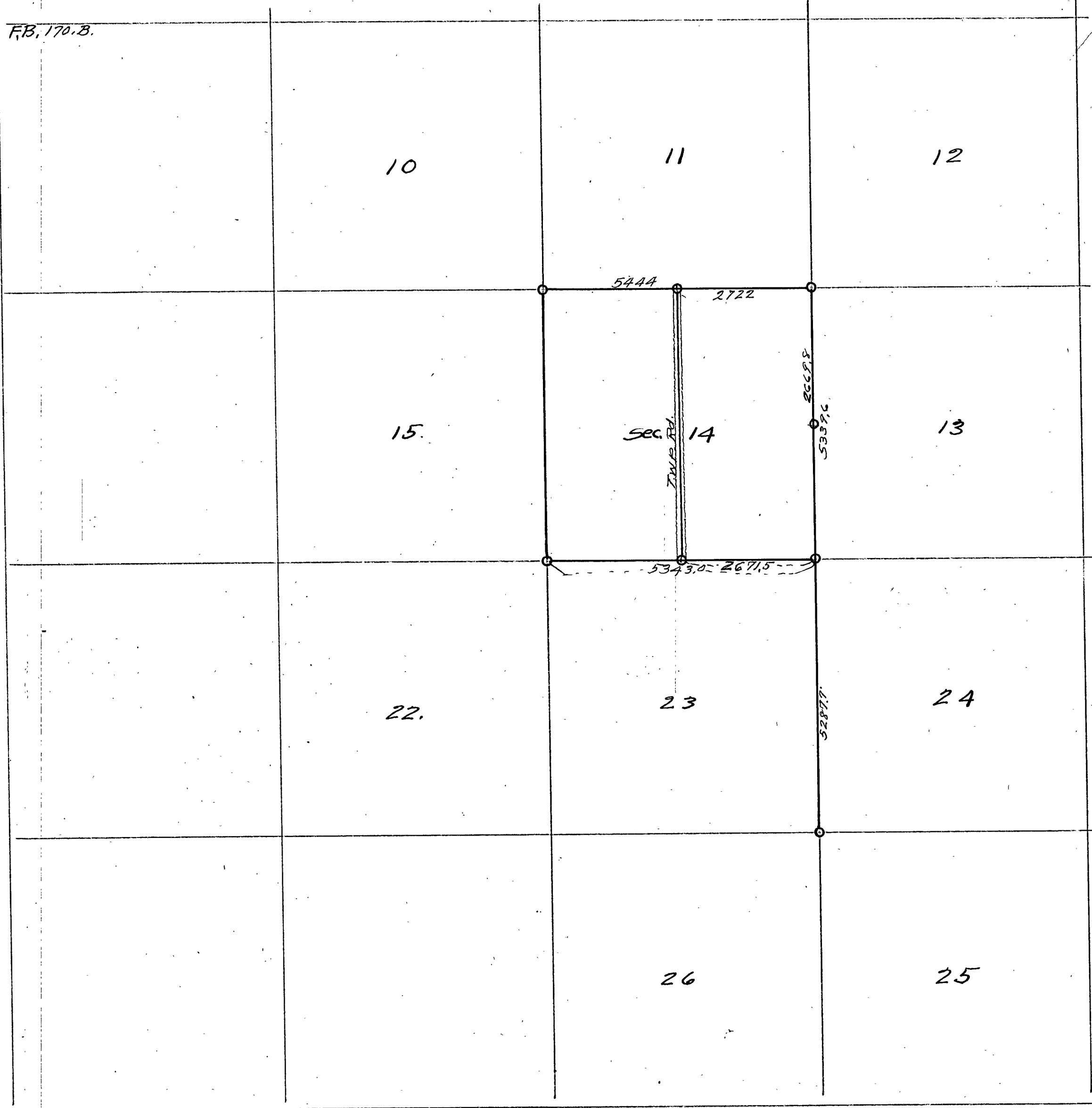
All hubs corrected to road center.
 S. boundary sec. 14. Set flag at S.E. & S.W. cor.,
 set transit at 14 cor., & sighted both ways until
 in line. Measurement for S. side sec. 14 = 5343.0'
 P. 1. with N. & S. E. from E = 2667.7' - 7.0' N. of 5280 hub.
 Set 14 cor. at 2671.5' on true line bet. 14-23. Our
 line from N. falls 3.8' E. of 14 cor. New B. P. Pap. 8 N.
 70° E. 66.5'. S.W. cor. sec. 14 is a large stone
 sunk in cen. of road by J. W. Curo.

Recorded March 27, 1922
 J. H. Flynn, Co. Surveyor.
 By E. B. Horst, Deputy.

C

Plat: Twp. Road. T. 137 N. R. 31 W. 5th P.M.

FB, 170.8.

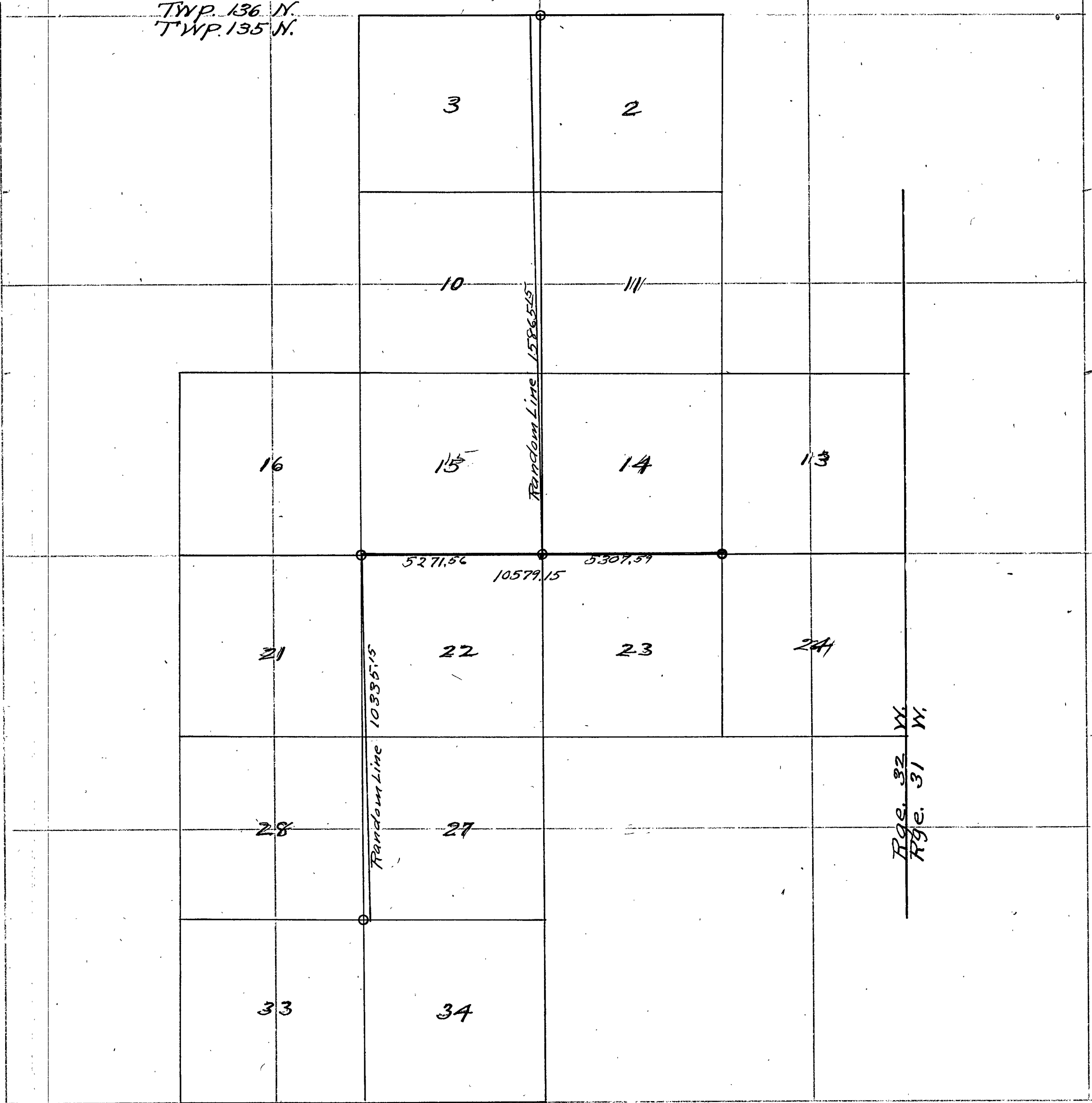


C

Incorrect Survey.

See Horst's Resurvey of 1915.

*TWP. 136 N.
TWP. 135 N.*



Field notes of the survey of a twp. road in Twp.
 135 N. Rge. 32 W. of the 5th P.M.
 July 9, 1915. R. E. Bryant, transitman. Chas. S. Hanley & some
 prepare team & buggy & we go to cor. bet. sec. 14-15-22-
 where we establish a temp. cor. from supposed bearing.
 Old notes call for post & bearing as follows: Pin 14 S. 20
 W. 113 lks. - Spruce 8 W. N. 62° E. 87 lks. - Y. Pine 22 S. 8° E. 139
 We find one stump which is perhaps one of the old B.T. but
 no marks can be found. Thence we go to cor. sec. 15-16-21
 where we find one B.T. plainly mkt'd on stump from w
 we establish the cor. Old notes call for post & B. Pine 5
 59° E. 136 lks. - B. Pine 8 N. 4° W. 149 lks. - B. Pine 6 S. 29° 30' W.
 lks. - B. Pine 8 N. 4° W. 149 lks. is the tree we find. Chas. S. Hanley
 & I go to cor. of sec. 2-3-10-11 where we look for cor. Old
 notes call for B. Pine 6 N. 11° 30' W. 256 lks. - Tam. 6 S. 57° W.
 265 lks. We do not find anything so we go to cor. of
2-3-34-35 & look for B.T. but do not find anything.
 Old notes call for Y. Pine 8 N. 22° E. 15 lks. - Y. Pine 9 N. 53°
 27 lks. - Y. Pine 7 S. 57° E. 22 lks. - Y. Pine 6 S. 59° W. 14 lks.
 We do not find any of these so we go to cor. of sec. 1-2-
 and look for B.T. but do not find anything. Notes call
 for: Tam. 5 N. 15° E. 25 links; Tam. 5 N. 14° W. 56 links; Tam.
 8 S. 55° W. 83 links; Tam. 7 S. 51° 30' E. 32 links. Thence we go
cor. of sec. 1-6-31-36 on twp. line & look for B.T. but do not
 find them. Notes call for: Oak 9 N. 81° 45' W. 60 links; Oak 12
 57° 45' W. 23 links; Oak 13 S. 51° 45' E. 33 links; Aspen 13 S. 84° 45'
 59 links. We find an old stone set by Hallett but would
 use it as there was no pt. from which we could check. We then
 go to cor. of sec. 25-30-31-36 in twp. E. of Byron but find
 no marks or B.T. so we quit for night.

July 10. Chas. S. Hanley, Edger Allee & I go to cor. of sec. 15-16-21-22
 which was previously set by me from old B.T. & run tran-
 line S. at 975' var. one mi. and do not find anything. No
 brush cutting, on graded road, chaining & hubbing as we go
 At 507.1' hub; 739.5' hub; 2100' cut. marsh; 2640' temp. 1/4 cor.; 50
 hub on rear in swp; 5280' temp. cor. sec. 21-22-27-28. We search
 for old B.T. but do not find anything. Cont. S. At 5857.15' hub
 6500.6' hub; 7030.5' hub. We cut about 600' farther & search for
 cor. but find nothing. Quit for night.

July 12. We go to hub 7030.5' & cont. line S. Bryant, transit &
 chain, Chas Hanley, chain & axe, Edger Allee, axe, & Henry
 Walkenburg, axe. At 7885.5' hub; 8075.0' hub; 9907.1' hub; 10
 hub from which we turn 90° to true cor. 27-28. 33-34. Found a
post badly burned & 1 B.T. Check to hair for measurement
not very good for course. True cor. sets W. of rand. line 72
from hub plainly mkt'd 10335.15'. Correcting back. As they do
 not want true road cor. or 1/16 cor., we set only 1/4 & sec.

10560 goes N. 154.85' + W. 27' to true cor. 7920 goes N. 118.1' + W. 54.6' to true 1/4 cor. 5280 goes N. 79.2' + W. 36.4' to true sec. cor. sec. 21-22-27-28. 2640 goes N. 39.6' + W. 18.2' to 1/4 cor. bet. 21-22

We then set transit over true sec. cor. of 15-16-21-22 + run rand. line E. on 9°15' var. down graded road. Set hub at 2680 temp. 1/4 cor. At 5351.8 where we int. true sec. cor. of sec. 14-15-22-23. At this pt. we were 14" too far S. with rand. line.

uly 13.

Commencing at temp. sec. cor. hub of 14-15-~~21-22~~²²⁻²³ we cont. E. At 5765.15 hub; 7030.85 hub; 7980.15 hub for temp. 1/4 cor. bet. sec. 14-23. Search for B.T. but find nothing we can use so cont. line E. 9685.15 hub. Cont. on E. to sec. cor. of 13-14-23-24 where we int. a large rock sunk + mkt'd. We find no bearings but Hanley says cor. is O.K. so we use it. Correcting back 10579.15 goes N. 28.4' to true sec. cor. sec. 13-14-23-24. 7920 goes N. 7.0' + W. 4.0' to true 1/4 cor. bet. sec. 15-22.

14.

Beginning at true cor. of sec. 14-15-22-23 we run N. on 9°15' var. At 2640 set pin for temp. 1/4 cor; 5280 set temp. sec. cor. 10-11-14-15; 5297.15 Hallett's cor. At this pt. we find an old iron cor. set by Hallett. Could not find any bearings so cont. N. At 7920 hub at 1/4 cor; 10560 hub temp. sec. cor. 2-3-10-11. We search for bearings at this pt. but find nothing so cont. our line thru to top line. At 13200 temp. 1/4 cor bet. sec. 243. We search for bearings at this pt. but do not find them so cont. N. to top line. At 15865.15 true sec. cor. to 34-35-2-3. We find one B.T. so cor. is O.K. Cor. sets to W. 6.15' of rand. line. Correcting back 15865.15 goes W. 6.15' to true sec. cor. 13200 goes W. 5.01' to true 1/4 cor. 10560 goes W. 4.01' to true sec. cor. 7920 goes W. 3.1' to true 1/4 cor. 5280 goes W. 2.0' to true sec. cor. 2640 goes W. 1.0' to true 1/4 cor. We work until 8 o'clock finishing up.

Recorded March 27, 1922

James H. Flynn, Co. Surveyor.
By E. B. Horst, Deputy.

Field notes of the resurvey & subdivision of sec. 7 Twp. 141 N. Rge. 31 W. of the Fifth Principle Meridian.

- Aug. 5; 1915. Grindal's auto takes Curo, Donner, Ernest Tusler, & Howard Swanberg to H. C. Hager's place from Baldwin's camp. We unload our goods at Hager's where we intend to camp. We walk to the $\frac{1}{4}$ cor. on the W. side of sec. 18-141-31 where we find a 3" post set for the true $\frac{1}{4}$ sec. cor. & a tall stub mk'd $\frac{1}{4}$ S. B.T. We set over the 3" post & look for the U.S. B.T.s we find the Y. Pine in the S.W. which checks for course & distance but badly burnt by fire where the old B.T. was placed. Fall snag bears S. $73^{\circ}30'$ E. 15.0' to the true $\frac{1}{4}$ cor. on S. side sec. 18-141-31. We walk back to H. C. Hager's and copied necessary field notes. Curo goes back to Walker & the crew fix up camp.
- Aug. 6. Hager, Tusler, Swanberg, & Donner walk to the true $\frac{1}{4}$ sec. cor. on W. side of sec. 18 from which we run N. var. $9^{\circ}25'$. At 383.6' hub; 929.1' hub; 1320.05' hub; 2496.1' cross G. N. Ry.; 2862' cross Co. road; 2957.8' set hub; 3756.5' hub; 3915.35' hub, cross Co. rd. Cont. about 800' & quit for night.
- Aug. 7. Donner, transit. We cont. N. At 2825' set hub, 4900' cont. meadow; 5200' lv. meadow. We look for the $\frac{1}{4}$ cor. on W. side sec. 7 where U.S. notes call for: Y. Pine 14 S. 15° W. 92 links & Aspen 4 N. 20° E. 46 links. We find the S. W. stump with the B.T. plainly mk'd from which I set a $3'13'136''$ asp. post for the true $\frac{1}{4}$ sec. cor. var. $9^{\circ}30'$. At 5266.2' the true $\frac{1}{4}$ cor. on the W. side sec. 7 sets E. 8.3'. Correcting back. Hub at 2633.1' goes E. 4.15' where I set a $3'13'136''$ aspen post for the temp. S.E. sec. cor. of sec. 7.
- Aug. 10. Geo. W. Miller's Notes. I leave Walker in Grindal's car. Go to headquarters camp (sec. 28-142-31) and get Ernest Tusler, Howard Swanberg, and Gurley engineer's transit. We then drive to H. C. Hager's place, where we expect to camp during the survey of sec. 7-141-31. I notice in Donner's notes that on Aug. 7 he incorrectly established the S. $\frac{1}{16}$ cor. on W. boundary of sec. 7. I set the transit over hub 3915.35' on sand line W. boundary sec. 7, intending to correct the S. $\frac{1}{16}$ cor. previously mentioned. I notice that Donner's backsights do not line up, so I go down to the true $\frac{1}{4}$ cor. on W. boundary sec. 18 and hub the line thru again to the true $\frac{1}{4}$ cor. on W. boundary sec. 7.
- Aug. 11. I decide to check chain the line run by Donner & corrected by me. Starting at the $\frac{1}{4}$ cor. on W. side sec. 18, we chain N. very carefully. At 2632.1' hub; 2956.8' hub; 3913.75' hub; 4822.9' hub; 5264.0' the true $\frac{1}{4}$ cor. on W. side sec. 7 sets E. 8.3'. Correcting back. Hub 4822.9' goes E. 7.62'. Hub 3948.0' goes E. 6.23' to true S. $\frac{1}{16}$ cor. on W. side sec. 7. Hub 2956.8' goes E. 6.66'. Hub 2632.0' goes E. 4.15' to true cor. sec. 7-18-141-31. I now set over the true $\frac{1}{4}$ cor. on W. side sec. 7, back sighted on corrected hub 4822.9', transit telescope & run N. At 133.9' hub; 269.55' hub; 505.15' hub; 737.0' hub. Quit for night.
- Aug. 12. We cont. N. on W. boundary sec. 7. From hub 737.0' we triangulate lake. Hub across lake = 1359.7'. At 1518.5' hub; 1668.9' hub; 1715' cont. lake; 2000' lv. lake; 2138.9' hub; 2243.5' hub.

Aug. 13. Miller, Tinsler, & Swanberg look for the cor. to sec. 6 & 7 where U.S. notes call for a post & the following B.T.s Y. Pine 14 S. 16° E. 99.66' - Y. Pine 12 N. 52° E. 124.74' - W. Pine 16 N. 25° W. 23.1' - W. Pine 16 S. 42° W. 173.58'

We find the stumps of all except the S.W. tree, which is gone. From them we set a stake for the cor. to sec. 6 & 7. We now cont. N. with our rand. line. At 2617.0' the cor. to sec. 6 & 7 sets 3.8' W. Correcting back. Hub 2243.5' goes W. 3.26'. Hub 1308.5' goes W. 1.9' to true N. 1/16 cor. on W. side sec. 7. I now set over the N.W. cor. sec. 7, backright S. on corrected hub 2243.5 turn 90° L. & run E. At 157.2 nail in 10" J.P. stump; 627.2 hub; 914.7 hub.

Aug. 14. Nick Harig joins us. We cont. E. on rand. N. boundary sec. 7. At 1415.5' hub; 1522.2' hub; 1576 state road N. & S.; 2337.4' hub; 2692.0' hub; We run about 200' further & stop to look for the 1/4 cor. on N. side sec. 7 where U.S. notes call for a post & following B.T.s J. P. P. S. 16° W. 14.52' - W. Pine 16 N. 32° W. 12.54'. We find nothing. Quit account of rain.

Aug. 16. We cont. E. with rand. N. boundary sec. 7. At 2990.7 hub; 3126.6 hub; 3353.6' hub; 4211.2' hub; 4537.0' hub. Over night at headquarters.

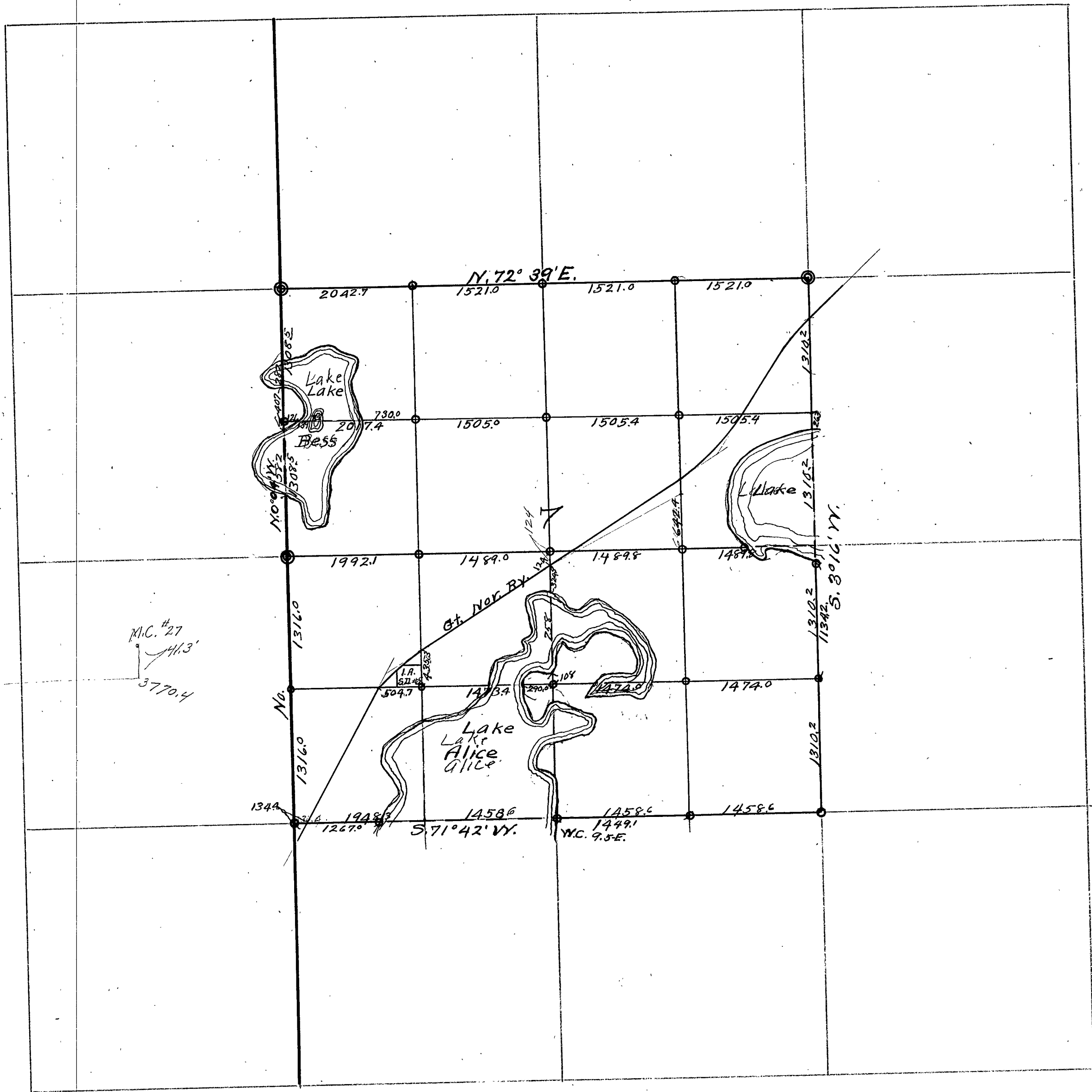
Sept. 3, 1915. Geo. E. Cronis Notes on sec. 7. Cronis, Transit, Tinsler, & Harig axe & flag. Tinsler & Harig and I go N. to locate the cor. of sec. 7. We go N. on road to the N. line of sec. 7 (run by Miller) then taking his line we go E. At about 40' S. of sta. 3600 or more I find two old people trees blazed, indicating that these are old original line trees. I now go E. until I am near the N.E. cor. sec. 7. Here I find a burnt dead W.P. 24" broken off 12" from the ground 40' W. of S.N. Ry on Right of way. This tree has been partly cut off then left for some reason. It may be a B.T. I then find a 10" dead Y. Pine broken off 20" from the ground about 100' E. of S.N. track at N. end of embankment & along supposed N. line of sec. 7. This tree has old blazes on E. & W. sides also blazed stub about 60' S.W. & another stub 45' W. These latter stubs are on E. & W. sides of an old road. Not being able to locate anything more regarding the N.E. cor. sec. 7 we go S. along the line bet. sec. 7 & 8. I find a lake bet. 7-8 extending S. about 40 rods from the N.E. cor. sec. 7 & into the E. side of sec. 7 about 10 rods. I went around the W. side of this & picked up the supposed E. line of sec. 7 & found same S. At about 6 rods S. of the lake I found one Nor. & one Y. Pine with old line blazes, indicating that they are old line trees. At about 160 rods S. of the N.E. cor. I found a pile of split W.P. logs against a W.P. stump, indicating that it is the location of the 1/4 cor. No other marks. I then proceed S. to approximate S.E. cor. sec. 7 where I find no B.T.s or anything other than two Y. Pines with old E. & W. line blazes. Then I proceed W. along supposed S. boundary of sec. 7. I find markings indicating the location of the 1/4 cor., but at about 200 rods W. of S.E. cor. I find a lake which extends W. to within about about 50 rods of the S.W. cor. of sec. 7 which I find located by Geo. W. Miller.

Sept. 4. Nick, Cronis, & I go to the S.W. cor. sec. 7, turn 90° R. from Miller's W. line of sec. 7 & proceed to run rand. line, Mag. bearing N. 80° 10' E. In the timber bet. the S.W. cor. & the lake I find some old trees blazed E. & W.

- Sept. 7. I am running along the line of these trees. I triangulate across a lake on the rand. line on the S. line of sec. 7. On E. side of the lake I find several more old line trees blazed E. & W. along my random line. We go about 1/2 mi E. on rand. line with out chaining. Dist across lake = 991.7'. Curo, Baldwin, & Tueler take hand-car and go to sec. 7-141-31. We look for U.S. corner & run rand. lines on E. side. Find nothing.
- Sept. 17. Scott, Harig & Tueler take hand-car to sec. 7. Begin at a pt. on G. W. Miller's transit line 4537.0' E. of N.W. cor. & cont. E. At 5275.4 intersect G. N. Ry. We then go to true N.E. cor. set by John W. Curo & run line S. until we intersect G. N. Ry. Thence we run traverse (see P. 42 F.B. 58) We cont. running S. on E. rand. line & int. lake shore at 1509.3' (P. 42 F.B. 58).
- Sept. 22. Baldwin's notes. Baldwin goes to J.W. Curo's office & work out corrected N. boundary rand. line for sec. 7 (see P. 45 F.B. 58) Go to sec. 7 on hand-car. From true N.E. cor. sec. 5-141-31 we turn 72° 50' S.W. from Scott's rand. line S. & cont. W. At 460 ent. meadow; 650 lv. meadow; 912 hub; quit for night. Curo & Johnston in camp.
- Sept. 23. Baldwin, Hurley, Compass, Johnston, transit, Harig & Tueler, axe & flag. We cont. E. on N. boundary sec. 7 as started yesterday. At 1118.4 hub; 1400.9 hub; 1497.9 hub; 1710.8' hub; 2314.7 hub; 2718.4 hub.
- Sept. 24. Johnston's Notes. Johnston, Harig & Mc Mahon. We cont. W. on N. boundary. At 2923.8 hub; 3526.7 hub; 4280.0' hub; 4550 cen. of road angle = 144° 39'; 4823 hub; 5329.7 hub; 5609.3 hub.
- Sept. 27. Cont. W. on N. boundary sec. 7. Made string intersection with true W. boundary & found angle 106° 52'. At 6605.6' hub true N.W. cor. sec. 7 lies 46.25' S. Transit was then set up over cen. of part 2" square marking cor. of sec. after hub had been set 43.02' S. from hub at 6145.0'. This marks pt. on corrected N. boundary. Correction for hubs on line (0.007001). Angle bet. corrected N. boundary & Miller's rand. line 17° 17'. Angle bet. corrected N. boundary & true W. boundary = 107° 17'.
- Sept. 29. Checked work done at N.W. cor. of sec. Carried all instruments & tools to E. rand. line. Began by checking triangulation. Found base line to be 268.4'. Read all three angles (51° 54' - 115° 26' - 120° 40') & found them to be correct. This makes dist. bet. hubs across lake 1105.4'. Chainage of hub S. of lake = 2614.7'. Cont. S. on line.
- Sept. 30. Mc Mahon, transit, Tueler & Harig, axe & flag. Go to sec. 7 on hand car & proceed S. on E. rand. line from hub 2614.7' on S. side of lake. At 2660.1' hub; 3204.6 hub; 3764.2' hub; 4454.5' hub.
- Oct. 1. Harig, transit, Mc Mahon & Tueler, axe & chain, cont. S. on E. line sec. 7. At 5142.7' hub; 5199.2' hub; 5239.9' hub. look for cor. but find none.
- Oct. 8. Baldwin & Mc Mahon, with Hurley compass, walk to sec. 7. We cut rand. E. boundary farther S. & search for B.T. to cor. 7-8-17-18 but find none. Mr. Oliver found a Norway blazed like a B.T. but no scribble marks & a Jack pins blazed on 4 sides which he thought was the cor. but U.S. notes call for: Oak 4 S. 50° E. 32 - Pop. 3 S. 40° W. 32 - Pop. 4 N. 64° W. 34 - Pop. 3 S. 61° E. 20.
- Oct. 9. Baldwin, Harig & Mc Mahon, with N.E. transit go to sec. 7. We cont. S. on E. rand. line. At 5436.4' a hub. We do not chain any farther but

- Oct. 16. cut brush & run transit line. We set stake on bank of Shingober River.
- Oct. 21. J. A. Johnston & R. E. McMahon produce N. rand. to Shingober River. Forest, transit, Tinsler, axe. We go to sec. 7 to chain line running S. bet. sec. 17 & 18 to 1/4 cor. Beginning at hub 5436.4' we chain S. at 7428.2' hub; 7629.1' hub; 7966. Shingober River & look for 1/4 cor. B.T. bet. 17-18 on N. & S. line but find nothing.
- Oct. 25. Scott & Tinsler go to sec. 7. & start picket line. Go to creek & start crossing S. on 9° var. for 1/4 cor. on E. line previously run. Nothing.
- Nov. 1. O. W. Scott's Notes. Scott, Tinsler, & McMahon go to sec. 7 & start new S. rand. We cut brush & hub till dark.
- Nov. 3. We chain & produce line started by Curo on Oct. 30. at 530.5' hub; 981.3' hub. We produce line across Lake Alice.
- Nov. 4. We triangulate Lake May. Dist. = 2454.9'. At 1058.7' hub; 1083.1' hub; 1271' int. lake; 3407.0' br. lake; 3512.8' hub; 3649.2' hub; 3738.3' hub; 3981.0' hub; 4490.5' hub on S. random line.
- Nov. 5. We cont. S. boundary until we intersect E. boundary. At 5055.5' hub. At 6169.8' hub; 6324.0' S. E. cor. sec. 4 sets 27.15' N.
- Nov. 6. We go to sta. 526.6' on E. rand. line and at 90° to S. we set hub over 28.12'. With this as F.S. & true N. E. cor. as transit pt. we start true line S., hubbing & brushing but not chaining.
- Nov. 8. We cont. S. on E. correction line. Mac gets N. E. angle which is 69° 35'.
- Nov. 9. Curo gives me orders to produce map S. rand. line until I int. Anway Lake. We brush & hub until dark.
- Nov. 10. We cont. S. rand. line. At 528.4' hub; 833.4' hub from which I triangulate Tam. sup. to hub 2038.8'. At 2601.3' hub; 3036.1' hub; 3254.8' hub; 3753.3' hub. 3770.4' N. E. # 27 sets 41.3' N.
- Nov. 16. We go to the 1/4 cor. on W. side sec. 7 & with 1/4 cor. as transit pt. & hub on true as F.S. I turn S. E. $\pm 108^{\circ}46'$ & start E. & W. 1/4 line.
- Nov. 17. We cont. E. & W. 1/4 line to int. E. rand. line. We are about 200' off.
- Nov. 18. We re-triangulate Lake Alice & find our former chamage O.K. At 526.6' hub; 952.5' hub; 1310.15 chain stake; 1329.3' hub; 1562.0' lake shore; 2620.3' nail in ice; 2782.0' lake shore; 3038.7' hub; 3270.2' hub; 3720.5' hub; 393.45' chain stake; 5240.6' we find previous chamage 6.1' long.
- Nov. 19. Hager sets 1.M.S. on S.W. cor. & 1/4 cor. on W. side sec. 7. I re-tri in S. E. cor. & set N. & S. 1/16 cor. on E. line & 1/4 cor. Also find E. & W. 1/4 rand. line runs 115°. No true true 1/4 cor. We go to Miller's W. rand. line & set hub at 3948' & 90° from rand. E. 6.23'; we set S. 1/16 cor. on W. side sec. 7. With this as transit pt. & true line as F.S. we turn 71° 59' R. & start S. 1/16 line. Cut & hub till dark.
- Nov. 20. We cont. on S. 1/16 rand. line until we int. E. line sec. 7. Find true 1/16 cor. sets N. 2.6'. We then go to N. 1/16 cor. on W. side sec. 7. At 1308.5' we set hub on Miller's rand. line. & 1.9' W. of this hub we establish true N. 1/16 cor. With 1/16 cor. as transit pt. & true line as F.S. we turn \pm of 72° 19' previously figured. We cut brush & hub running E.
- Nov. 22. I remain in office. McMahon cont. running E. on N. 1/16 rand.
- Nov. 23. We cont. E. on N. 1/16 line until we int. E. line sec. 7. Find true

Plat 491 Survey Record No. 491
See 7-141-31
F.B. 5-8. 6 Secs.



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- Nov. 24. N. $\frac{1}{16}$ cor. on E. line sets N. at $90^{\circ} 51'$. We then go to N. sand. line sec. 7 & set E. $\frac{1}{16}$ cor. at sta. 1521. Turn N.W. angle $70^{\circ} 35'$ & run S. We cont. S. on E. $\frac{1}{16}$ sand. line. Set P.I. on N. $\frac{1}{16}$ - E. & W. $\frac{1}{4}$ & S. $\frac{1}{16}$. Intersect S. sand. line 45' E. of true E. $\frac{1}{16}$ cor. on S. boundary sec. 7.
- Nov. 26. We go to E. $\frac{1}{16}$ on N. sand. line & set same on true line & run S. on W. $\frac{1}{16}$ sand. line. Set P.I. at N. $\frac{1}{16}$ & E. & W. $\frac{1}{4}$ lines.
- Nov. 27. Cont. W. $\frac{1}{16}$ line S. Set P.I. at S. $\frac{1}{16}$ line and then I find that Mac has made a bull on his chainage at the N.W. $\frac{1}{16}$ cor. So in reality true W. $\frac{1}{16}$ cor. on S. boundary sets W. 8.4'. We go to 3407' on S. sand. line sec. 7, set $\frac{1}{4}$ post & start N. & S. sand. $\frac{1}{4}$ line. P.I. at int. o.
- Nov. 28. Cont. N. on E. & int. N. boundary 4.5' E. of $\frac{1}{4}$ cor.
- Nov. 29. I am in office working on notes until 11 o'clock, then get Grundal to take me out to sec. 7. Take all the I.M. I can find. McMahon & Kager set I.M.s at N.E. cor. - the E. $\frac{1}{16}$ - $\frac{1}{4}$ & W. $\frac{1}{16}$ cor. on N. boundary. I go to S.E. cor. & take angle. Then check N.W. cor. find it O.K.
- Nov. 30. McMahon & Kager set I.M.s on N.W. cor. & S. $\frac{1}{16}$ on W. boundary. Burkholder & I start meandering Lake Alice. Start at $\frac{1}{4}$ cor. on S. side sec. 7. N.E. angle $70^{\circ} 06'$, 490.0' - R. $65^{\circ} 29'$, 143' - L. $43^{\circ} 42'$, 108' - L. $44^{\circ} 42'$, 437' to int. N. & S. $\frac{1}{4}$ line. S.E. angle $111^{\circ} 10'$, 284' - L. $52^{\circ} 27'$, 94' - L. $108^{\circ} 15'$, 294' to int. N. & S. $\frac{1}{4}$ line. S.W. angle $10^{\circ} 30'$, 294' - R. $128^{\circ} 45'$, 344' to int. S. $\frac{1}{16}$ line. N.E. angle $61^{\circ} 26'$, 161' - R. $68^{\circ} 19'$, 260' to int. N. & S. $\frac{1}{4}$ line. I go to Walker to get some I.M.s.
- Dec. 1. I get Grundal's car & take 20 I.M.s to Kager's for sec. 7. We set I.M. at all pts for M.C. and at all true corners.
- Dec. 3. We run traverse of King Lake. Start at M.C. S. on E. line sec. 7. S.W. angle 88° , 400' - 42° L. 300' - $60^{\circ} 45'$ R. 151' - $72^{\circ} 15'$ R. 523' - $30^{\circ} 45'$ R. 663' - $38^{\circ} 10'$ R. 500' int. E. line 11' from shore. Traverse Lake Alice starting where we quit Nov. 30. Along N. & S. line going N. $175'$ - 70° R. $659'$ - $71^{\circ} 5'$ R. 200' - $93^{\circ} 30'$ R. 300' - 71° R. $80'$ - $84^{\circ} 50'$ R. 492' - $109^{\circ} 17'$ R. 298' - $68^{\circ} 27'$ L. 820' - 26° L. 23' int. N. & S. $\frac{1}{4}$ line.
- Dec. 4. Traverse Lake Alice starting where we left off. N.W. angle $94^{\circ} 37'$, 166' - $86^{\circ} 15'$ L. 160' - $34^{\circ} 10'$ R. 270' - $20^{\circ} 30'$ L. 675' - 43° R. 335' - $29^{\circ} 30'$ L. 678' - $41^{\circ} 45'$ R. 510' int. W. $\frac{1}{16}$. From P.I. S. & W. $\frac{1}{16}$ lines to M.C. = 391.5'. Thence $21^{\circ} 30'$ L. ~~653'~~ - $47^{\circ} 30'$ L. 132' - $50^{\circ} 30'$ R. 240' - 39° L. 208' - $74^{\circ} 10'$ L. 258' - $21^{\circ} 30'$ L. 164' - int. S. line W. of M.C. 1267'. Traverse Lake Bear. On W. line S. shore look N. along W. line 134° R. 208' - $107^{\circ} 15'$ L. 370' - 65° L. 515' - 46° R. 378' - $12^{\circ} 50'$ L. 406' to int. N. $\frac{1}{16}$ line. Thence 64° L. 415' - $48^{\circ} 50'$ R. 270' - $80^{\circ} 15'$ L. 214' - $19^{\circ} 10'$ R. 190' - 54° L. 210' - 40° L. 625' to int. W. line. Starting on N. side of peninsula, look S. along true W. line, thence $55^{\circ} 10'$ L. 340' - $92^{\circ} 35'$ R. 180' - $36^{\circ} 25'$ L. (90' int. N. $\frac{1}{16}$) 165' - $54^{\circ} 15'$ R. 152' - $66^{\circ} 45'$ R. 75' int. W. line. Starting on W. side of island, looking E. along N. $\frac{1}{16}$ line: Thence $97^{\circ} 45'$ R. 90' - $40^{\circ} 45'$ L. 160' - $137^{\circ} 05'$ L. 240' int. N. $\frac{1}{16}$ - 5° L. 96' - $48^{\circ} 25'$ L. 106' - $114^{\circ} 05'$ L. 160' int. N. $\frac{1}{16}$ line.

Recorded March 28, 1922

James H. Flynn, Co. Surveyor.

By E. B. Forst, Deputy

County Record Book of Surveys Book C.

closed this 29th day of April A. D. 1922.

Elmer B. Horst,
Deputy County Surveyor.
Cass County.

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