T-149N R-28W

LAKE SURVEY
BENCH MARKS

DIETZGEN

MINING
TRANSIT BOOK
No. 472F

#125

T-149N R-28W

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1.

For Single Track Embankment.

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

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

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M

M burntover

Tb

Burntover
NO cover Type

BURN

SOME AB

10

M

M

1/6 COR #3 sec 1 F.S. POSTER on BALSAM B.T.
1/4 COR 2/1 " " " ASPEN "
BT Scribed: 1/4 S1-BT.

Sec

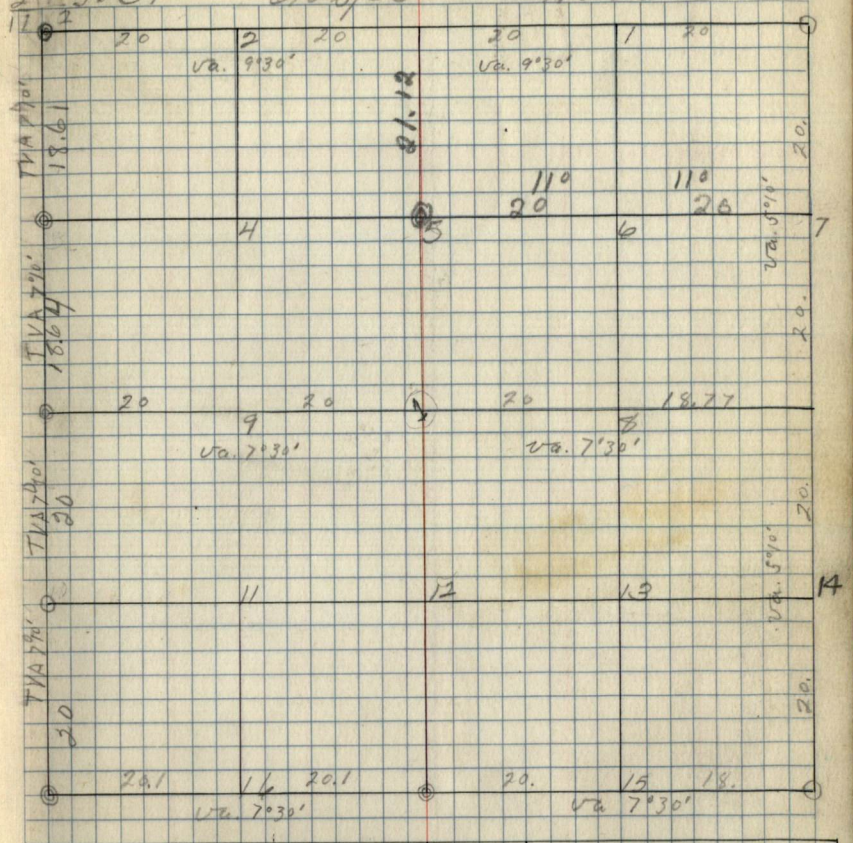
35	36
2	1

F.S. POSTER on ~~ASPEN~~ Birch 8" 1 Links

SOUTH

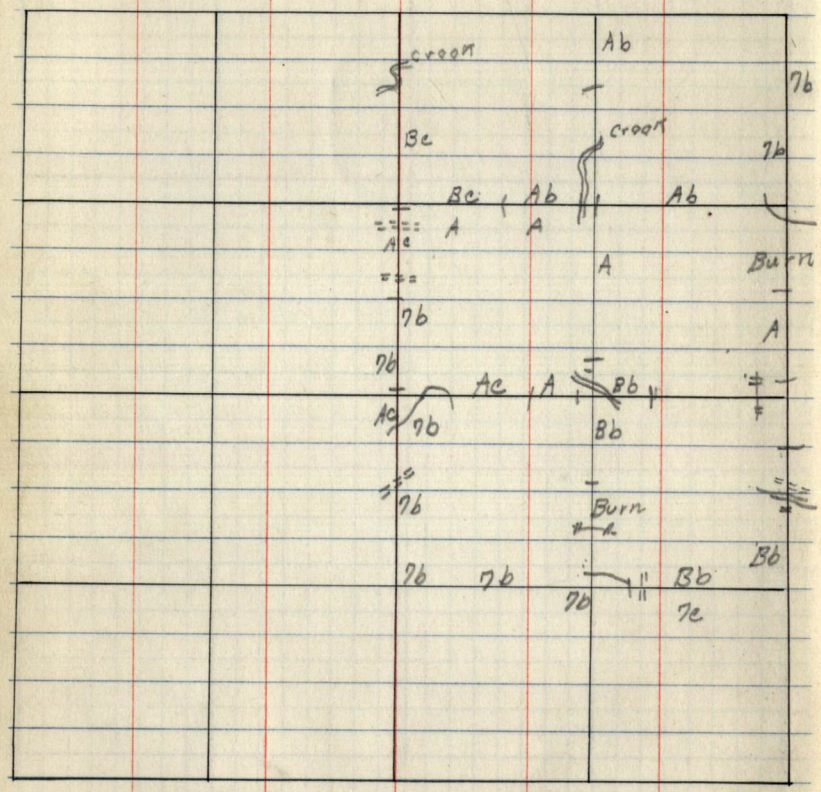
Changes made by Larson & McGinnis 4/9/36

21 Sec 1 6/28/35 21. Adams



COR	Bearing Trees									
	SPECIE	DBH	BEARING	DIST						
1/4 #3 S1	BALSAM	8"	NH5°W	20 Links						
	SPRUCE	11"	S78°E	"						
1/4 2/1	ASPEN	8"	S6H E	30 Links						
21 / 11 12	Cam	8"	S. 60° W.	18						
	THIS IS A COUNTY COR.									

sec 2

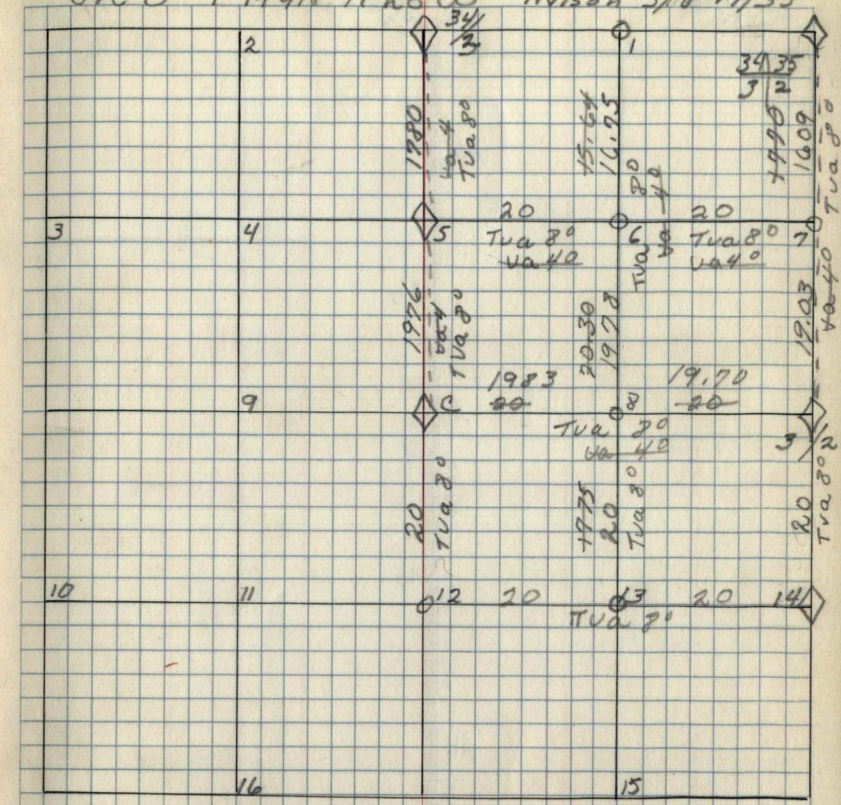


1/4 Cor 3/2: Post: 30" good Cond scribed (W) 1/4 S3
F.S. post: 14" Bir. Corbears E 15 (E) 1/4 S2

C 1/4 Cor: Post 36" good Cond Scribed (N) 1/4 S
(W) 1/4 S3 Center (S) 1/4 S (E) 1/4 S
BTs Scribed "1/4 C S3" No FS posts or

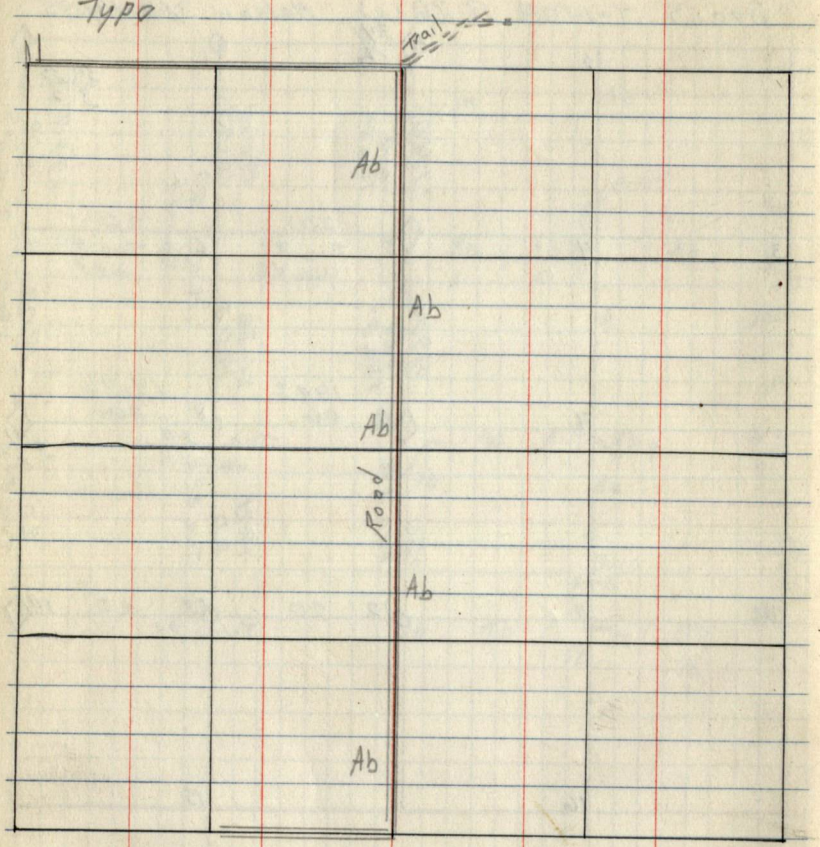
1/16 Cor #5: 30" Post in good Cond Scribed (NW)
Cor Post 30" good Cond 1/16 #5 S3
1/16 Cor #14 Scribed 1/16 S3, 1/16 S3
FS posts on 15" Bal N 15° W .23 Ch

Sec 3 T-149N R-28 W Nelson 3/8-19/35



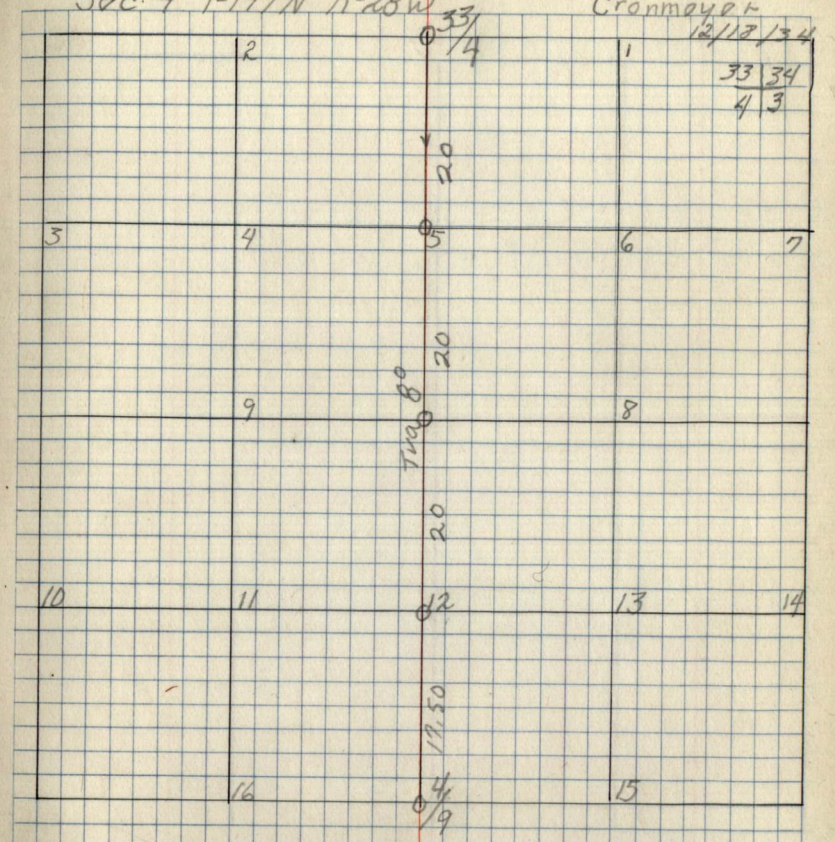
Cor	B.T.'s Spc	DBH	Bear	Dist
1/4 3/2	No Bear Trees			
1/4 C	Ced	10"	N40°W	.36
1/16 #14 (N)	Bal	15"	N65°W	.23
1/16 (S)	Bal	5"	S39°E	.19

Typo



Sec. 4 T-149N R-28W

Cronmeyer



Sec 5

Sec 6

Sec 7

Soc 8

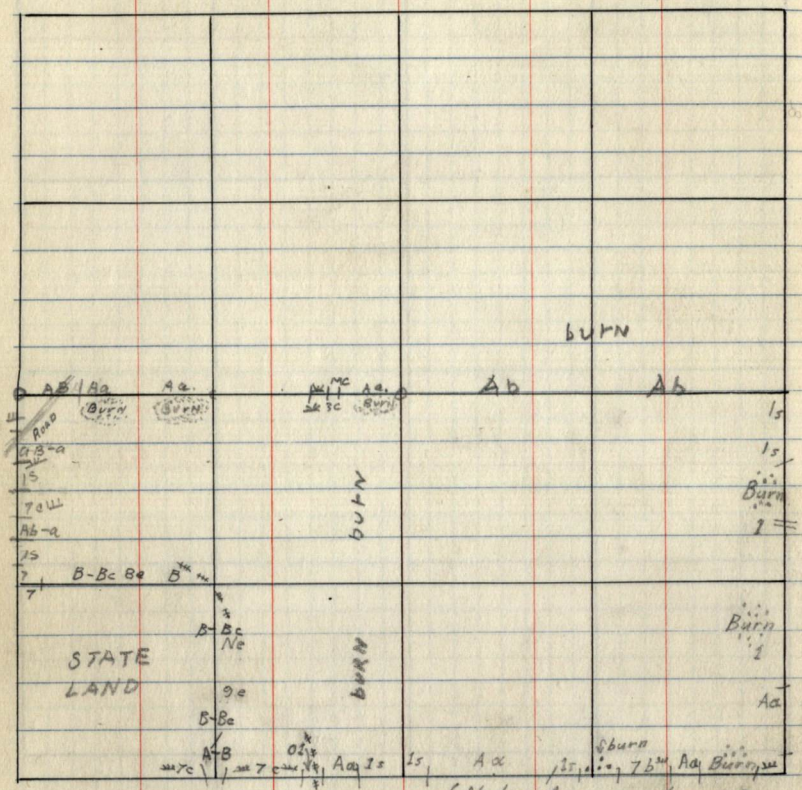
COR	B1								

Sec 9

Sec 10

Soc 11

Sec 12



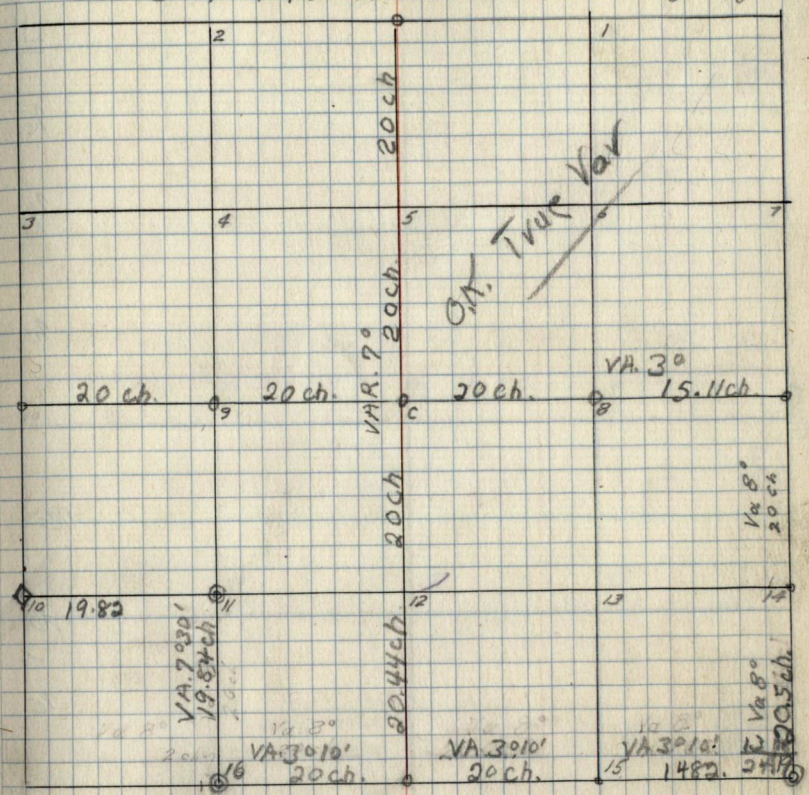
(Note: Aa very dense & overstocked)

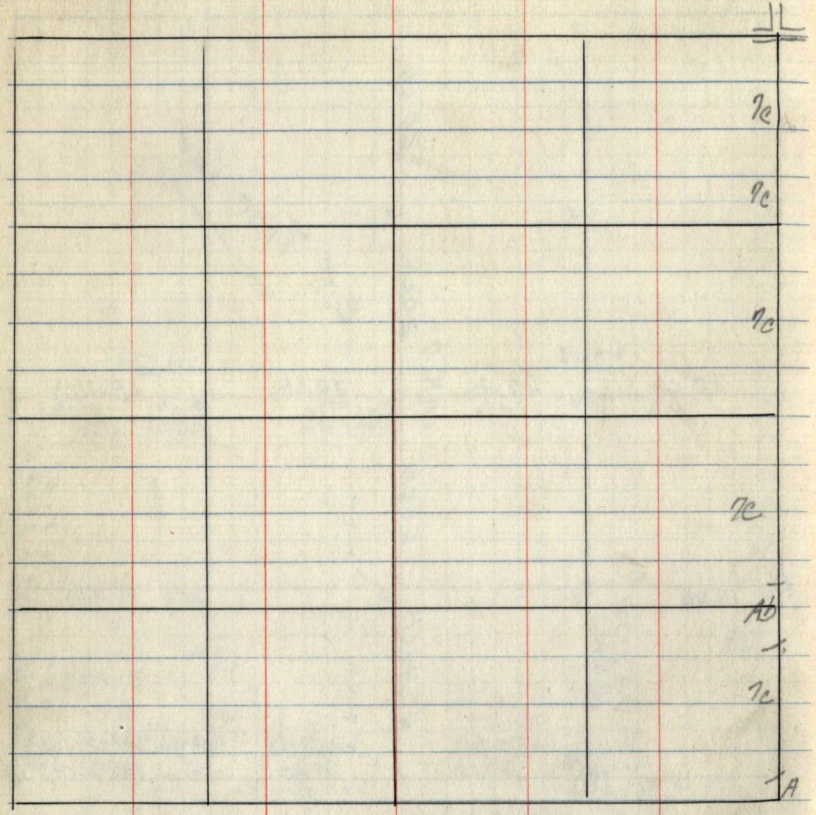
Corner	Description
1/4-sec. 13-18	No cor. found. Loc. po. on Maple, bearing S. 50°E., 0.16ch. distant, P.B.H. 5"
1/16 No. 14	No cor. found. Loc. po. on Aspen, 0.36ch. distant, bearing N. 65° E. of cor., 18" P.B.H.
Cor. sec.'s 13+18 / 24+19	LOGGING CORNER AT POINT 36.5 LKS. E. OF LINE AT 40.50chs. S. of 1/4 13/18
1/16 No. 15	No cor. found. Loc. po. on birch, bearing S. 23° W., 0.44ch. dist., 12" P.B.H.
1/4-sec. 13-24	No cor. found. Loc. po. on aspen, bearing S. 87° W., 0.25ch. dist. 7" P.B.H.
1/16 No. 16	LOGGING CORNER. LOC. POS. ON TAM.

(cont'd on Pg. 91)

CHANGES by McG by Taylor

Sec 13 T. 149 R. 28 5 M.


20 ch.
20 ch.
20 ch.
20 ch.
20 ch.
20 ch.
20.44ch.
VAR. 7°
VA. 3°
15.11ch.
19.82
VA. 7° 30'
19.54ch.
VA. 3° 10'
20 ch.
VA. 3° 10'
20 ch.
VA. 3° 10'
14.82
Va 8°
20 ch.
Va 8°
20.05ch.
Va 8°
20 ch.
Va 8°
20 ch.
Va 8°
20

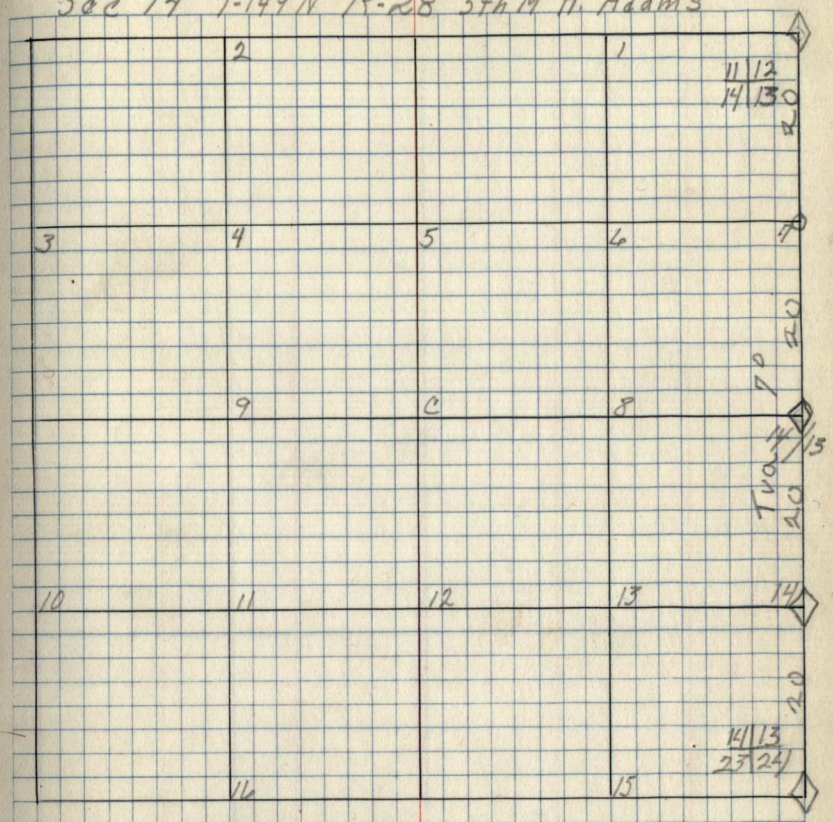


S Cor 14/23 13/24 Cor post: 25" Wood post Cond: rotted
Scribed NW - S. 14
No B. T. SW - T.149 S23
SE - R28 S24
NE - S 15

Sec Cor 11/14 12/13 Cor Post Not in.
BT Scribed: Sec 11 - BT
FS Poster on 12" Asp on SE side of tree. Cor Bears N 50° W
99 Links

Con. on Page 38

Sec 14 T-149 N R-28 5th M H. Adams



Cor	Bearing Trees Spe	DBH	Bear	Dist
S 14/23 13/24	No B. Ts			
1/4 14	Asp	20"	N59°E	.14
S 11/14 12/13	Asp	12"	N50°W	.92

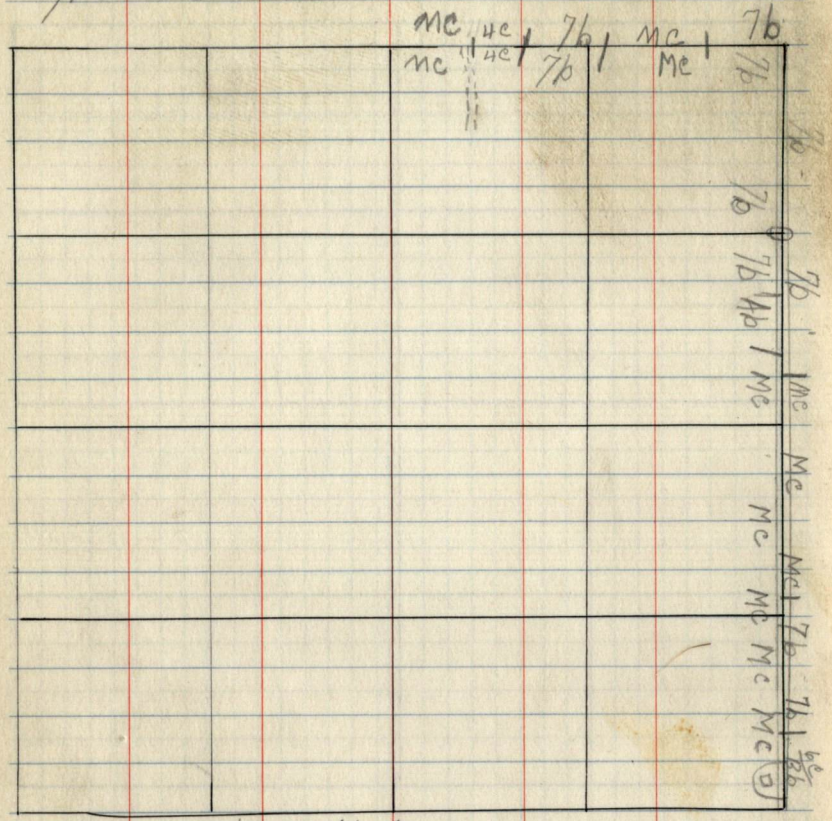
Sec 15

Soc 16

Sec 17

Sac 18

Type

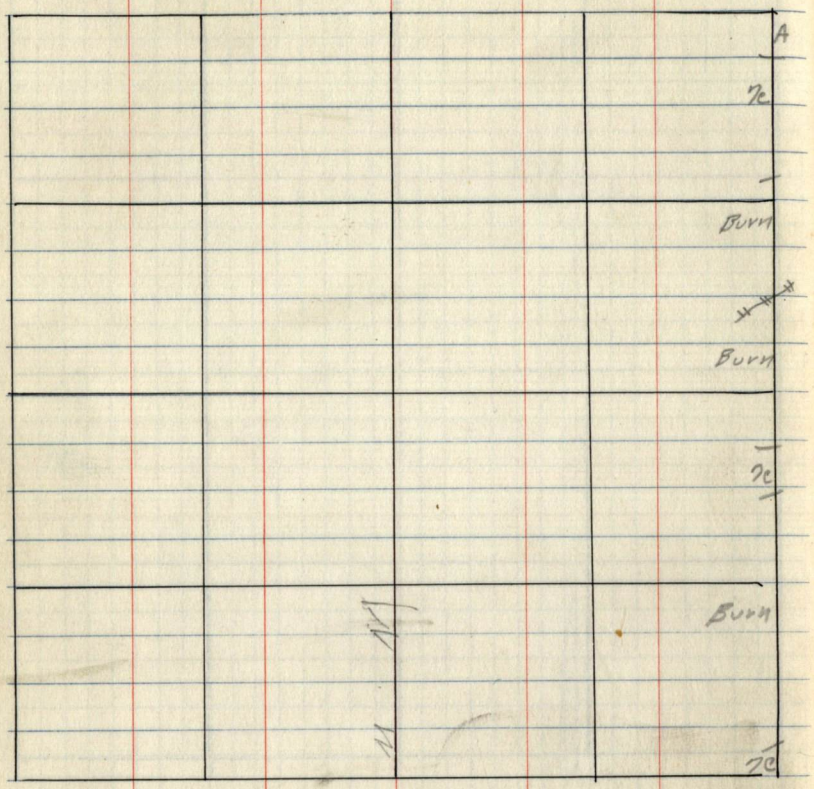

MC
4C
7b
MC
7b
MC
7b
7b
7b

Sec 20

Sec 21

Soc 22

Type

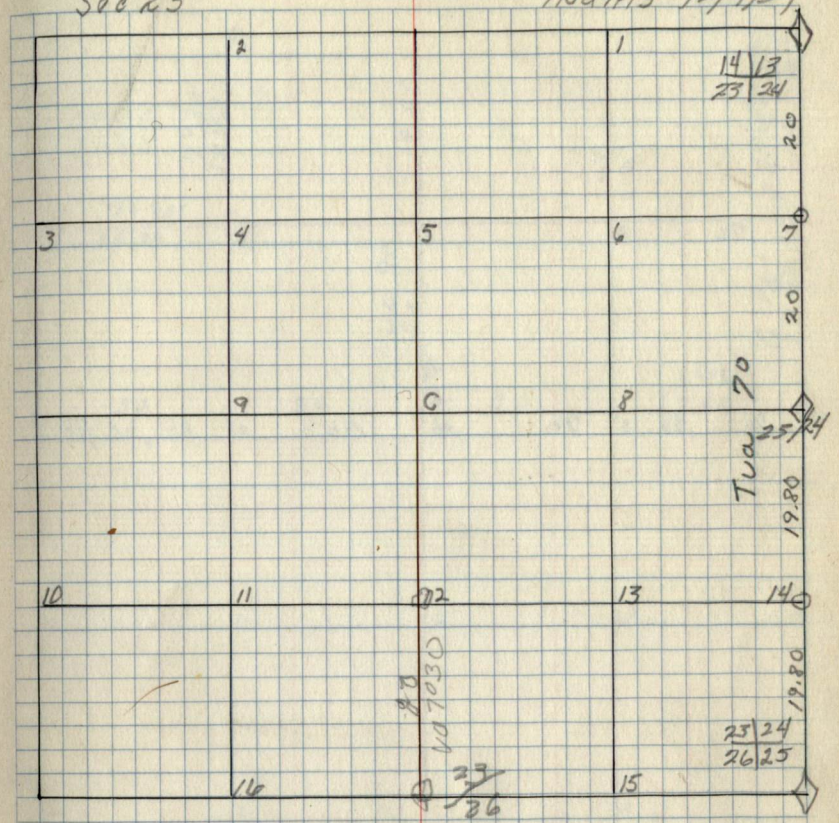


Sec Cor 23/24 26/25 Cor post on ground Poor Cond
Scribed (1) S-23 (2) S (3) R28W S
(4) T-149N S

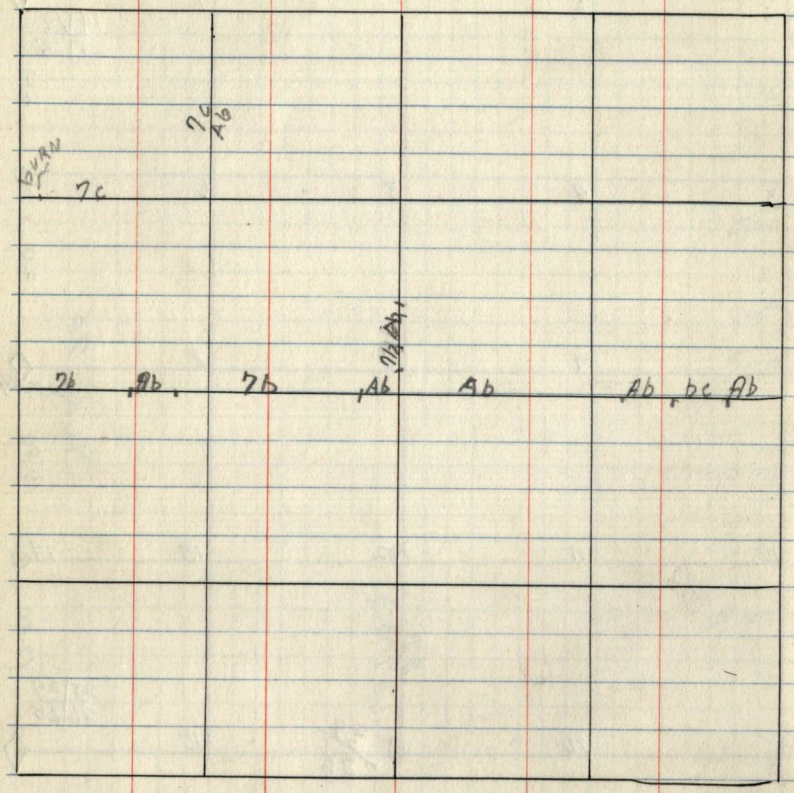
BT's Scribed (1) T-149N R28W S23 BS
(2) T-149N R28W S26 BT
(3) T-149N R28W S26 BS
(4) BT (Poor Cond)

1/4 Cor 23/24 BT Scribed 1/4 S"

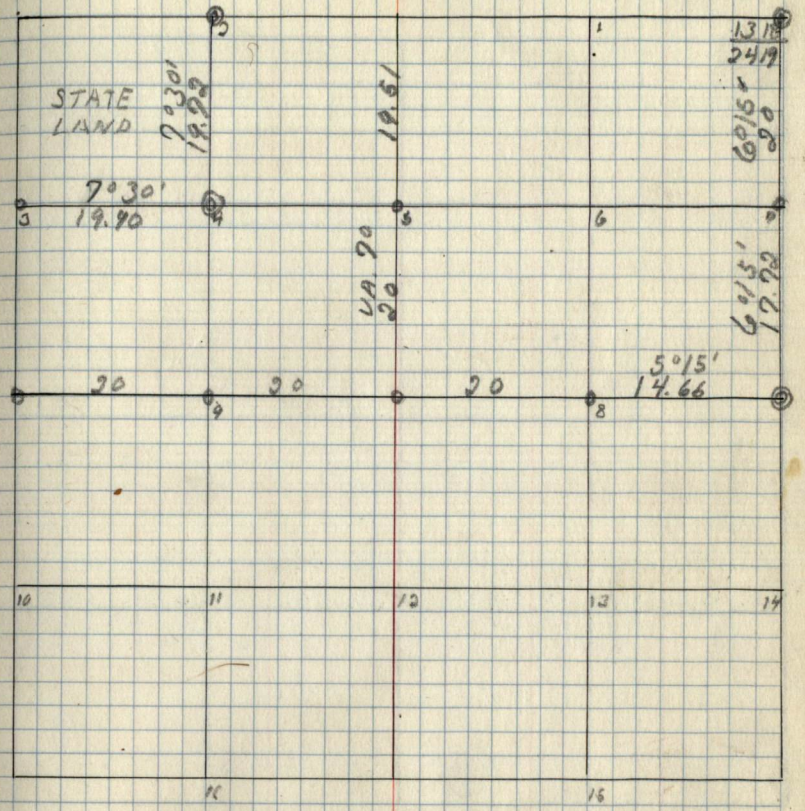
Sec 23 Adams 12/4/34



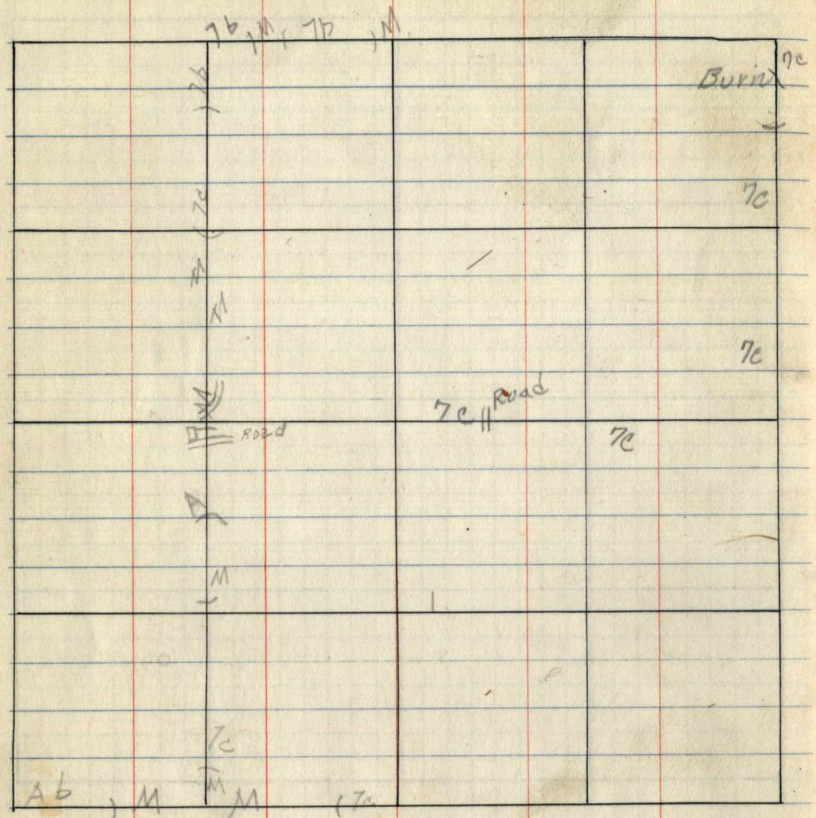
Cor	Bearing Trees							
	Spr	DBH	Bear	Dist				
S 23 24	S pr.	6"	N30°W	.08				
26 25	S pr.	8"	S11°W	.15				
	S pr	7"	S12°W	.36				
	Tam	5"	N61°E	.15				
1/4 23/24	Tam	8"	N35°W	.06				
	Tam	9"	S56°E	.36				



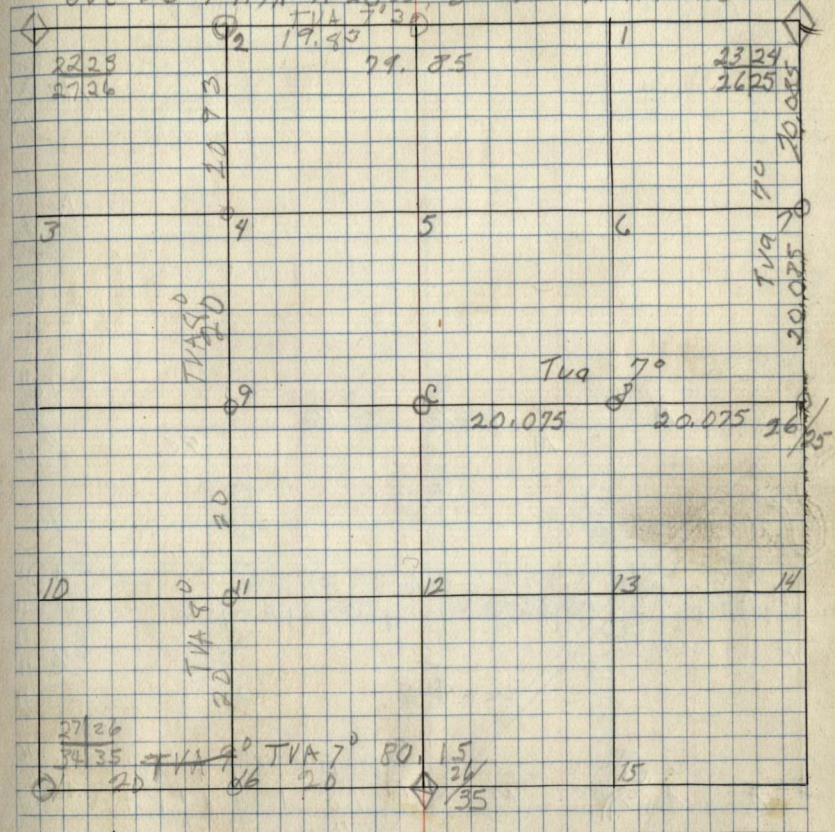
Sec 24 by McGINTY



See 25



Sec 26 T-149N R-28W 5th M H Adams 12-4-34



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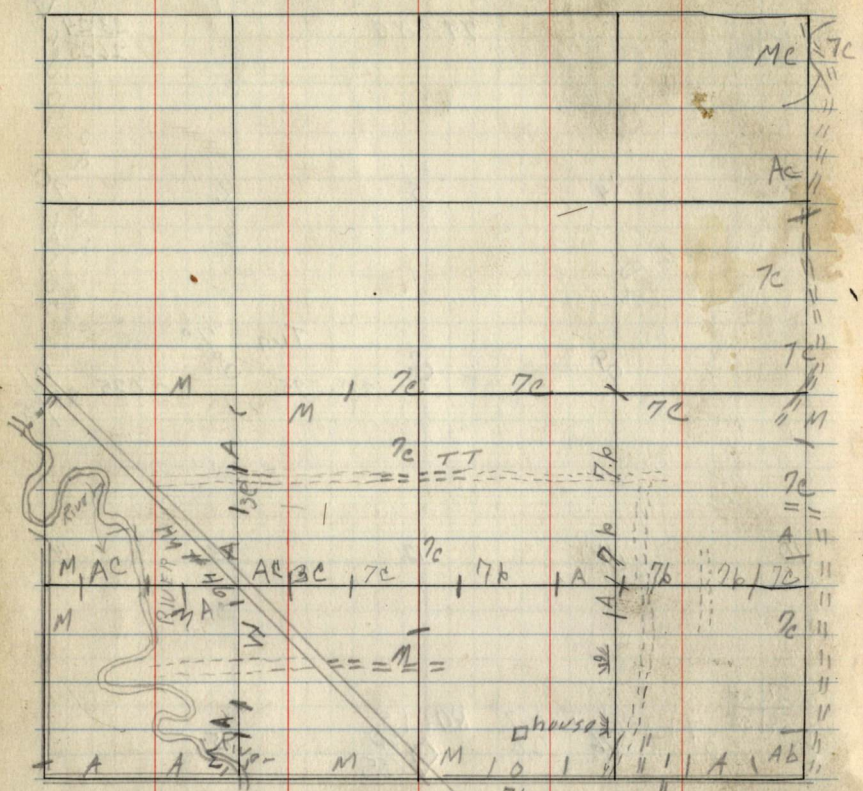


1/4 Cor 27/26 No post FS post for on 6" Spr. Snag 10 Li South BT scribed - 1/4 S BT

Sec Cor 27/26 / 34/35 FS post for on 5" Asp N20 Links

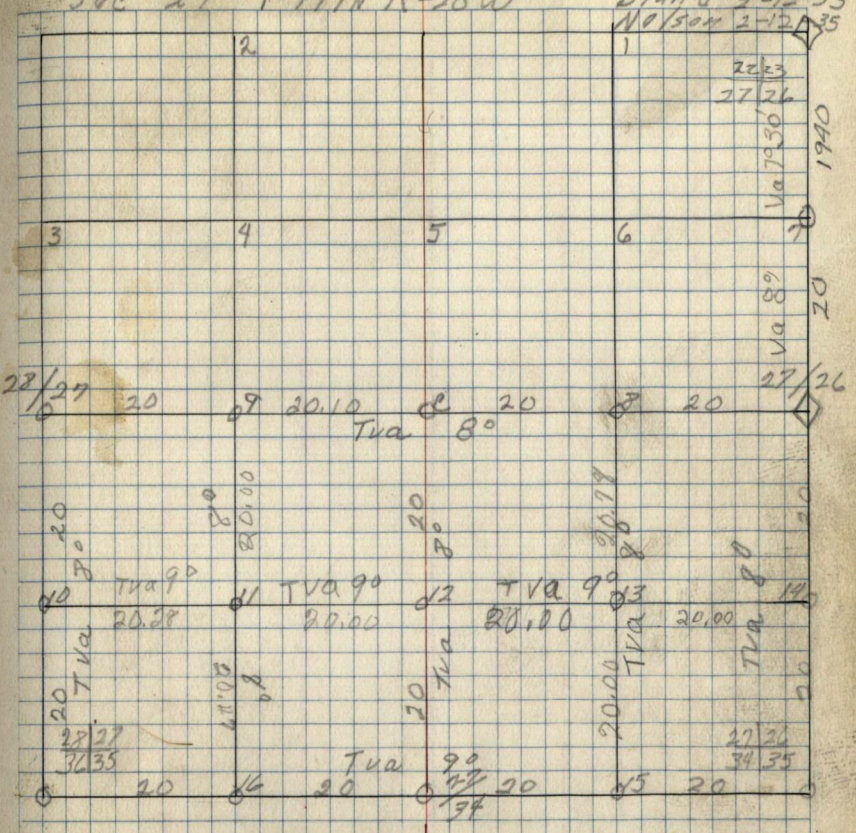
1/4 Cor 27/34 : FS post for on Tele. pole (W) .25 ch Cor Post :

Ran LINE FROM APROX "1/16" Cor #12, 20.00 ch WEST TO "1/16" Cor #11. Ran LINE SOUTH FROM APROX "1/16" Cor #11 to "1/16" Cor #16. VERY HEAVY SLASH

(TURN TO PAGE 39)

Sec 27 T-149N R-28W

Jayor 4/11/37
Bland 2-12-35
No/Sor 2-12-35



Cor	Bear Trees Spe	DBH	Bear	Dist
1/4 27/26	Spruce stump		S	.10
S 22/23 27/26	Spr St.	17"	N43°W	.51

Sec 28

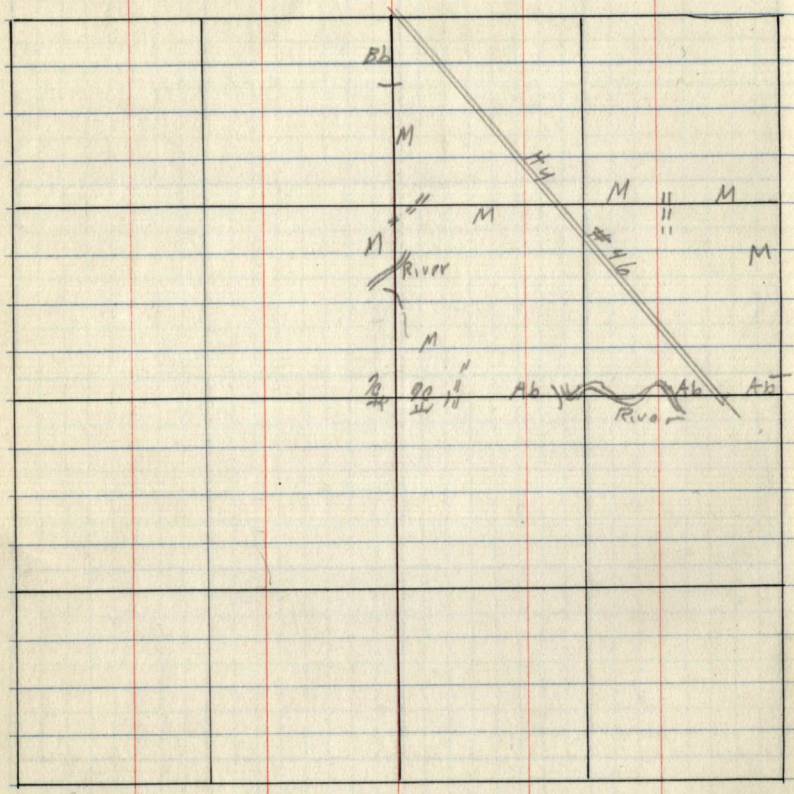
Sec 29

Soc 30

Sec 31

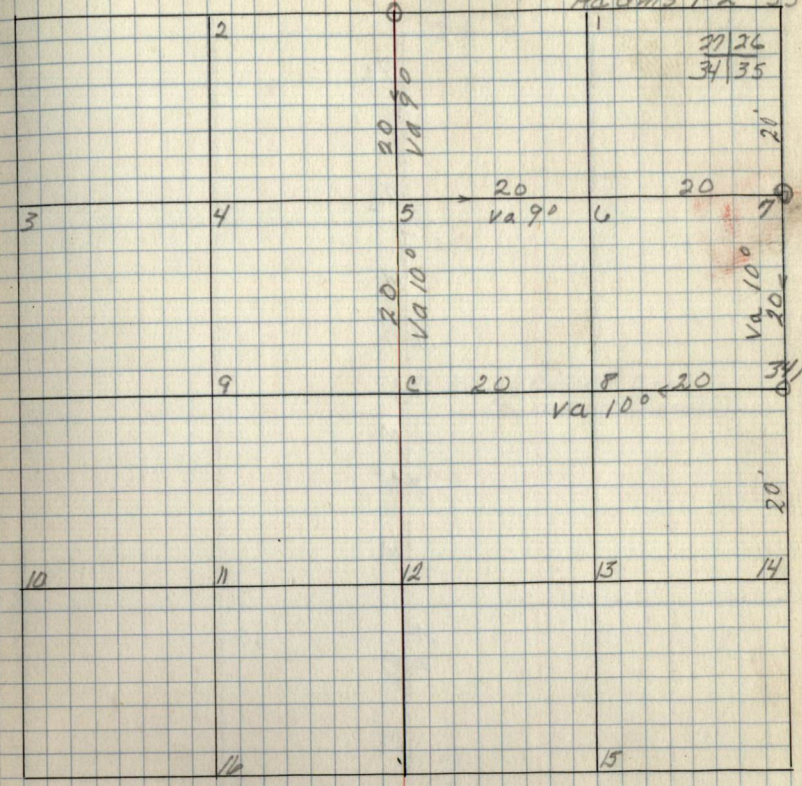
Sec 32

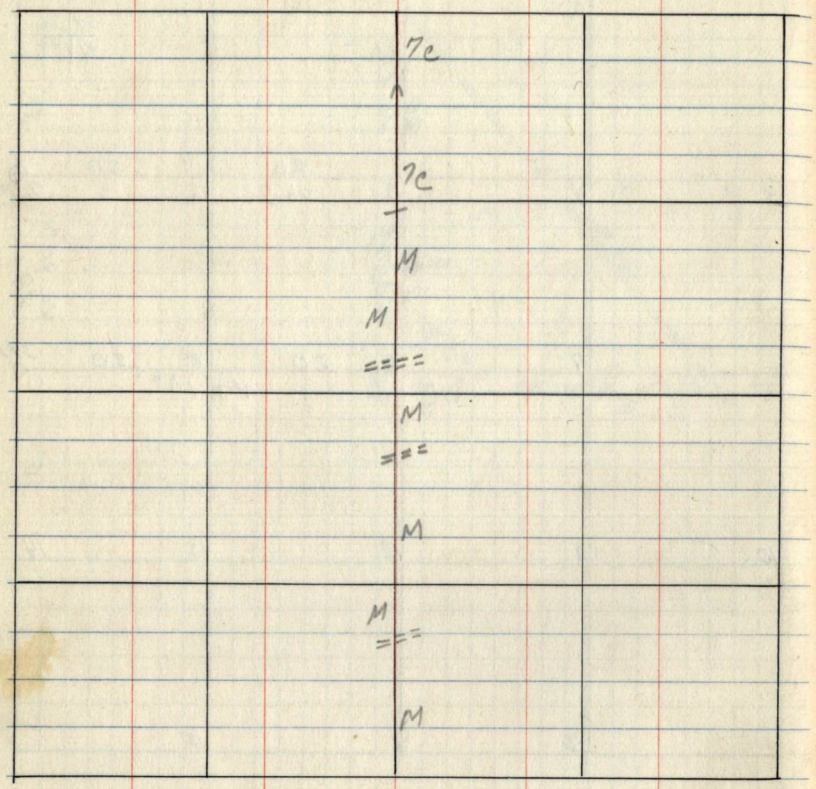
Sec 33



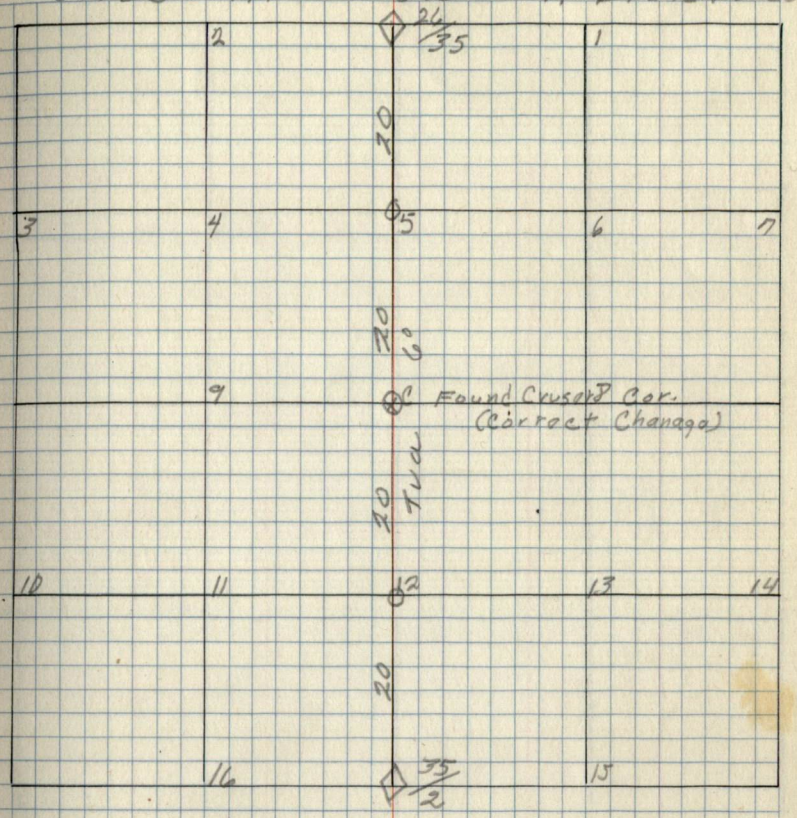
FS poster on 4" Asp at 4.72 W of ¼ Cor 34/35
.10 N of are line.

Sec 34 T-149N R-28W 5th M Bland 1-26/28-35
Adams 1-2-35





Sec 35 T-149N R-28W 5th M Bland 1-2-35



Cor	Spc	DBH	Bear	Dist.
1/4 35/2	Asp	14"	N13°E	.69
	Bass	14"	N51°W	.58
1/4 26/35	Spr.	4"	N11°E	.21

Sec 36

Sec 14 T-149N R28W

$\frac{1}{4}$ Cor 14/13 Post scribed: $\frac{1}{4}$ 514
also Iorn pipe $\frac{1}{4}$ 513

$\frac{1}{16}$ Cor #14 Cor post scribed: $\frac{1}{16}$ 514
also Iorn pipe $\frac{1}{16}$ 513
State land Tag on
10" Hsp N 70 E 24 Links from Cor.

Sec 27- T-149N R28W

Ran Line East From "1/16" Cor #10 To "1/16" Cor #11. (20.28 ch)

Ran Line North From "1/16" Cor #11 To "1/16" Cor #9. (20.00 ch)

Ran Line North From "1/16" Cor #15 To "1/16" Cor #8 (40.19 ch)

Swamped out From "1/16" Cor #15 To "1/16" Cor #13
Very Heavy Slash.

Ran Line East From "1/16" Cor #12 To "1/16" Cor #14. (40.08 ch)

Sec Cor 22 23 Cor Post 36" Ash (not Scribed)
27 26 B.T. Scribed: T149N, R28W, S22 BT
F.S. Pos for on Sec Cor Post on
the South Side

Sec 19 – T-149N – R-28W – (Con't From P. 19) 40

S 19/20 30/29 F.S. Poster on 14" W. Spruce

N69°E 59 Links

B. T.'s Spruce-18" scribed (T149N R28W S20)

Spruce-Stump scribed (T149N R28W S20 B.T.)

Birch-Stump-scribed (T149N R28W S19 B.T.)

Put in Cor Post

CHANGES by W. McGINTY

(Cont'd. from Pg. 13, Sec. 13

Corner	Description
1/16 No. 11	LOGGING CORNER. ON. BLAZED LINE. STATE FORTY
1/16 No. 10	G.L.O. CORNER. B.T.s. AND IRON PIPE IN GROUND. LOC. POS. 10" ASP. N, 30° E. 22 LKS.
1/4 SEC 13-14	No COR FOUND Loc. po. ON D. WILLOW BEARING S 5° E 0.04 CAS. DISTANCE D.B.H. 4"
1/16 No. 9	No COR FOUND Loc. Po. ON Birch SNAG BEARING S 38° W 0.33 LINKS 8" D.B.H. D.B.H. 8"
1/4 CEN COR	SEC 13 No COR FOUND Loc. Po. ON Birch SNAG BEARING N 7° W 0.20 LINKS D.B.H. 10"

LAKE SURVEY
BENCH MARKS

MUD LAKE BENCH MARK.

+S	H.I.	-S	Elev.	
			100.00	Ice Elev.
6.23	106.23			
		3.88	102.35	B.M #1

SHALLOW POND BENCH MARK

			100.00	Ice Elev
6.10	106.10			
		3.44	102.66	B.M. #1

GLOVE LAKE BENCH MARK

			100.00	Ice Elev.
7.24	107.24			
		0.46	106.78	B.M #1

Note: All B.M. elev. placed on Tree.

REMARKS.

Elev. of water on Mud Lake Feb. 13, 1937

B.M. #1 located 14 chains - 57 links South of Sec. Cor. common to Sections 19, 20, 29, 30 T150N - R28W - and 55 links W to B.M which is a Spike on 11" Aspen.

Elev. of water on SHALLOW Pond Feb. 13, 1937

B.M #1 located 21 chains 75 links South of Sec. Cor. Common to Secs 31 & 32 T150N-R28W ; 5 & 6 T149N-R28W ; and 75 lks W to B.M. which is a spike on 14" Elm

Elev of water on Glove Lake as Feb. 13, 1937

B.M #1 located 1.14 chs North & 0.24 chs West of Sec. cor. common to Sec's 21, 22, 27, 28 T150N-R27W. which is a spike in a 12" birch

MITT LAKE BENCH MARK

+S	H.I.	-S	Elev.	
			100.00	Ice Elev.
5.50	105.50			
		2.22	103.28	B.M. #1

HENDRICSON LAKE

8.42	108.42		100.00	Ice Elev.
		2.82	105.60	B.M. #1

WELCH LAKE

5.06	105.06		100.00	Ice Elev.
		3.90	101.16	B.M. #1

REMARKS.

Elev. of water on MITT Lake as of Feb. 13, 1937

B.M. #1 located 1.64 chs North & 0.06 chs West of ¼ cor common to Sec's 16 & 21 & T150N-R27W, which is a spike in 5" black Spruce.

Elev. of water on Hendricson Lake as of Feb. 13, 1937

B.M. #1 located 2.50 chs South & 0.70 chs West of Sec. cor. 23/24 / 26/25 - spike in 10" Aspen - which is on right side of path leading from Logging camp down to Lake shore.

Elev. of water on Welch Lake as of Feb. 13, 1937

B.M. #1 located in 5" Mountain Ash 32.50 chs NORTH & 6.50 chs East of ¼ cor common to Sections 14/23

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19/20 - S 14-57 lks. E 55 lks
30/29 W to B.M #1 on aspen
11" Dia B.B.H.

Elev. Lake 100.00
B.S. 6'-2.8"
F 6.23
H.I 106.23
F.S. 3.88
Elev B.M. 102.35

Mud Lake

6 - 1.2

23
6 / 2.8
12
24
38
12 / 10.6
96
100
.44
12 / 5.30
48
50

31 Oct 02
6/5

19 ch. 75 lks S of ~~Lake~~ Con
& 75 lks W to B.M.

Elev Lake 100.00
B.S. 6.10
H.I. 106.10
F.S. 3.44
Elev. 102.66
B.M 1
Shallow Pond.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	25.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

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

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