

COUNTY DITCH No 8  
Alignment and  
cross section.

Snell School

FIELD BOOK

361

191



Cuco

INDEX

Time sheet	Aug.	1
" "	Sept.	60
Levels Main Ditch		52-56
Lot # 1		44
Lot # 2		50
Plat showing cor's to be recorded		75
Tr of Wl. notes		77-108
Small School house		109-110
Town line bet 140-26 & 139-26		111-113



**AUDITOR'S NOTICE OF PENDENCY  
OF PETITION.**

State of Minnesota, County of Cass, ss.  
Whereas, the petition of D. A. Clabough and others, bearing date the 1st day of June, A. D. 1916, praying for the establishment of a public ditch along the route proposed therein, has been filed in my office;

Now, therefore, notice is hereby given of the pendency of said petition, and that the same will be heard and considered by and before the board of county commissioners, at their regular session to be held at Walker, in the County of Cass, on the 11th day of July, 1916, at three (3) o'clock p.m.

A true copy of said petition is as follows, to-wit:

To the County Board of the County of Cass, State of Minnesota:

The undersigned land owners, whose lands will be liable to be affected by, or assessed for, the expense of the construction of the county ditch herein-after described, would respectfully represent that the public health, convenience and welfare and the reclamation of wet and overflowed lands require the establishment and construction of county ditch along the following described route in the Town of Remer, in said County of Cass, and that the construction of the same would be of public benefit and utility, and is necessary for the following reasons, to-wit: Nearly all the months of the year, stagnant water stands in several pockets or pug-holes that can be drained by a ditch constructed as requested below. Said water is a menace to public health, also overflows two roads leading into the Village of Remer, making travel over said road almost impossible.

A general description of the proposed starting point, route and terminus of said ditch is as follows:

Commencing at a point that is known as the Barrow pit, on the north side of the Soo railroad tracks, in the nw $\frac{1}{4}$  of the nw $\frac{1}{4}$  of section 1, township 141-26, then running south about 700 feet, then westerly across section line into section 2, thence south to a point about 20 feet. West of the quarter-post between sections 1 and 2, thence in a southwesterly course to a point in the se $\frac{1}{4}$  of the sw $\frac{1}{4}$  of section 2, thence following the swamp in a southeasterly course through the last described forty in section 2, and the following forties in section 11, the ne $\frac{1}{4}$  of the nw $\frac{1}{4}$ ; nw $\frac{1}{4}$  ne $\frac{1}{4}$ ; sw $\frac{1}{4}$  of the ne $\frac{1}{4}$ , se $\frac{1}{4}$  of the ne $\frac{1}{4}$ , and the ne $\frac{1}{4}$  of the se $\frac{1}{4}$ , to a point connecting with ditch established by the state in section 12, for draining the state road.

And terminating at the point where it connects with the ditch already established and before mentioned in section 12.

As its outlet, will be into ditch established by the state, in section 12, said ditch flows into Willow river.

And your petitioners pray that you will proceed to establish such county ditch and cause the same to be constructed as provided by chapter two hundred thirty (230) of the General Laws of Minnesota for 1905 and acts amendatory thereof.

Dated June 1st, 1916.

John M. Greene,  
H. C. Schultz,



# AUDITOR'S NOTICE OF PENDENCY OF PETITION.

State of Minnesota, County of Cass, ss.  
Whereas, the petition of D. A. Clabaugh and others, bearing date the 1st day of June, A. D. 1916, praying for the establishment of a public ditch along the route proposed therein, has been filed in my office;

Now, therefore, notice is hereby given of the pendency of said petition, and that the same will be heard and considered by and before the board of county commissioners, at their regular session to be held at Walker, in the County of Cass, on the 15th day of July, 1916, at 10 o'clock p.m.

A true and correct copy of the petition is located 6 miles west and 6 miles south of Pine River, as follows.

County  
whose  
ed by.  
con-  
ree on  
rein-  
rep-  
ven-  
tion  
the  
or  
le-  
er  
of  
ach club must have its yearly dues  
paying members or major traction  
arge and one delegate for each 25  
ach club is allowed one delegate  
sure before the delegates will be  
0 cents per member paid into the  
ed.  
eol.  
ach club must have its yearly dues  
paying members or major traction  
arge and one delegate for each 25  
ach club is allowed one delegate  
sure before the delegates will be  
0 cents per member paid into the  
ed.  
eol.

Wm. G. Hanson,  
James McMahon,  
J. F. Denneen,  
Carl Zitzloff,  
W. L. Tallerday,  
Fred L. Sanborn,  
Chas. A. Graham,  
Dr. R. E. Spinks,  
M. B. Patten,  
Alex Bush,  
D. A. Clabaugh,  
J. M. Egan,  
J. G. Hermes,  
Wm. Parise,  
Petitioners.  
(Seal)

C. D. BACON,  
County Auditor,  
Cass County, Minn.  
(6-23;7-7)

Dated June 14, 1916.



Bridge No. 3324

B.M. Miss. Riv. Comm.  
near Sec. house of M. & O.  
R.R. at Pine River, Miss.

Sta P. R. - L. R.  
B.M. Elev. 1326.54 Sp. in  
N.W. Cor of Bridge on stringer  
Water Elev 1316.55

Hock - Long. (P)  
971 + 71.5 @ Large Birch Hut

~~Total~~  
~~B.M. Spike in Id. Pole~~  
~~30' Lt Sta 971 + 30~~  
~~1329.68~~



29850

1337+78.5 on P.R. L. Road =

OX H.L. Road 976+40.1

R.P.s Shump N.E. 22.5

J.P S.E. 29.8

Top of Bridge 1324.75

P.R. J. Road

B.M. 1328.79

Shike in Tel. Pole

25' Rt to 1322.50

Bridge

1324+90 to 1325+08.0

B.M. 1331.31

Shike, in Tel Pole 40'R  
1321+15



# COUNTY DITCH N<sup>o</sup> 8

## INDEX

TIME SHEET	August	Page 1
	Sept. --	" 60

Levels. Main Ditch	--	52-56
Lat. #1.	"	44
Lat. #2.	"	50

Plat. showing Corners to be recorded.	"	75
Right of way notes		77
Externals and Reference Notes		78
ROW. Notes Lat No 2		79
Reference Notes Lat No 2 and Externals.		80
{ Cross section of Co ditch No 8 }		81-90
Lat No 2 of Co ditch No 8		91-92
Lat No 1 " " " " "		93
Lowering off take East side of S R H 83. Beginning at Sta 109+68.5		
Ditch No 8		95-105







Friday 10 am Saturday Aug 5/16

J. F. Wilson Asst. Engineer +  
H. F. Baldwin Rodman

A W Moulster takes us  
in his Auto to Remer from Pine  
River Minnesota to commence  
the Survey of County Ditch No 8  
as per petition attached to front  
leaf of this note book.

We arrive in Remer about  
2 P.M. having had dinner at  
a creek - A W Moulster supplying  
the eatables.

J. F. Wilson + H. F. Baldwin  
immediately start out to  
locate the starting point of said  
ditch after looking over part of  
the proposed location we  
go back to town and consult  
several of the petitioners.

We have supper at the  
Remer Hotel A W Moulster arranged for our  
here while on this survey.

J. F. Wilson



3

Sunday Aug. 6/16

We consult John Green  
Re. corners of sections in the  
immediate vicinity of Ditch ~~Proposed~~  
route.

Green also shows us the  
approximate location of  $\frac{1}{4}$  between  
H 2-141-26 as per the Sec Ry  
Survey -

he spend the <sup>rest of</sup> day at the  
Rever Hotel.

F. Wilson



4  
Monday Aug 7/16

Time & Cost.

J. F. Wilson Asst. Engineer  
H. F. Baldwin Rodman

We run preliminary levels  
from starting point of ditch  
to the proposed outlet it being  
ditch E from near the  
 $\frac{1}{4}$  Cor between 11 & 12 141-26  
being the outlet of side ditches  
on State Rural Highway No 81

We spend the balance of the  
day in finding I.M. 500 Ry  
 $\frac{1}{4}$  Cor between 1 & 2 141-26  
I. Pin square head N.W. cor of  
Sec. 1 141-26.

We quit at 6 P.m.

J. F. Wilson



5

County District No 8

Twp 141-26

Aug 7/16  
Preliminary Levels

Sta.	+S	HI	-S	Elev	
000	11.28	111.28		100	Water Level in Barometer
B.M.	4' spike S. of Pole N.S. do Ry. at Barrow		7.38	103.90	
TP	4.95	106.13	10.10	101.18	
TP.	4.93	106.16	4.90	101.23	
TP.	6.34	107.21	5.29	100.87	B.M.
TP	3.68	107.21	3.68	103.53	
TP	9.48	114.00	2.69	104.52	
TP.	5.66	114.82	4.84	109.16	
TP.	3.65	110.01	8.46	106.36	
TP.	5.40	107.35	8.06	101.95	
TP.	6.04	104.72	8.67	98.68	
TP.	1.97	103.65	3.04	101.68	
TP.	4.74	96.59	11.80	91.85	
TP.	5.05	95.92	5.72	90.87	
TP.	4.46	94.40	5.98	89.94	
Bottom	C.M. Culvert W End		7.60	86.80	
"	" " E "		7.85	86.55	
	Bottom Dict W		8.15	86.25	
	" " E		8.17	86.23	
Mail in	B.M.		3.76	90.74	
3' Jammed N.E.					



County Ditch N<sup>o</sup> 8  
Twp. 141-26

6

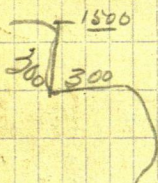
Tuesday Aug. 8/16

J. H. Wilson Asst Engineer -  
H. F. Baldwin Rodman.

We go to the  $\frac{1}{4}$  Cor between 1436  
and run section line west to  
N.W. cor of Sec. 1 141-26

000  $\frac{1}{4}$  Cor 1+35 141-26

871 approx center of sheet 1315  
E Rumer Hotel.



1500 S. Lough just comes to  
section line

2678.8 N.W. cor Sec. 1 141-26  
L S 88° 33' E.

We get Soo. Ry. land ties Sec. 1  
141-26 and check the location  
of T.M.  $\frac{1}{4}$  Cor. between 1+2  
141-26 -

As we cannot get clearance for  
200 a day I phone A.W. Moulsten  
who is willing to pay \$2.50 per day



7

Tuesday Aug. 7/4

We then run Sec. line S<sup>4</sup>  
from N.W. Cor. sec. 1.

000 N.W. cor. sec. 1,

Lc. S 88° 33' E

1315.1 C of R.R. L N 135° 32' E

1331.6 Hub

1347.9 Jack in Tie Siding

1355.8 1/2 Cor (supposed) Plym

2704.1 I.M. 1/4 Cor Section 142

I purchase 2 Bds. of Lath  
from Rees Lumber Co. 50¢

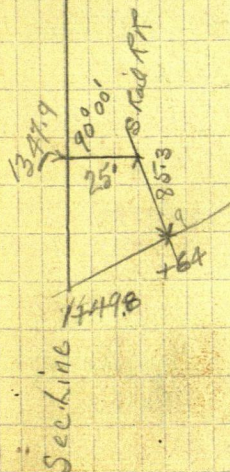
F. Wilson



County Detch No 8 8  
 Trip 141-26 Wednesday Aug 9/16

F. J. Wilson Asst. Engineer  
 H. F. Baldwin Roadmaster & Claimant  
 Alex Bush Atkeman

We stake  $\frac{1}{4}$  of Ditch 25' E of  $\frac{1}{4}$  Sec.



000 Head of Ditch  
 20'  $\frac{1}{4}$  Bonow Pit  
 +20 Edge of Bonow Pit  
 +40 N. End of Culvert (Prop.)  
 +64  $\frac{1}{4}$  R.R.  
 1 S End of Culvert (Prop.)

1449.8 Hub.  
 $\angle$  5134° 26' NE

13450 Cross Flynn Road

134864 Cross  $\frac{1}{4}$  line E & W

14450 Hub.

Lat\* 1 N 135° 21' SE



9

H. F. Baldwin goes to Federal Union  
on the 3 P.M. Train

Alex Bush & I locate approx.  
Q of Ditch along road <sup>west</sup> in  $\frac{1}{4}$  lane  
in 2 about 1000 feet. then  
South into meadow thence  
S. westerly into Swamp.

We quit at 6 P.M.

J. F. Wilson



County Ditch No 8 10  
Twp. 141-26

Hot.

Thursday Aug 10/16

J. F. Wilson Asst Engineer  
Alec Bush Asst  
John Shelton Asst

We continue cutting S west  
into Swamp up to the  $\frac{1}{4}$  line N 4 S  
in sec 2.

In P.M.

H. F. Baldwin returns from  
Federal Dam & we go to  
Sec Cor. 1, 2, 11, 12 & run line  
west we cut about 2100  
feet and quit at 6 P.M.

J. F. Wilson



11

County Ditch No 8

Twp. 141-26

Friday Aug 11/16

J. H. Gibson Asst Engineer.

H. F. Baldwin Redman, Alex. Bush

✓ John Skelton Asst Engr.

Continue line west to  $\frac{1}{4}$  Cor  
between 2 & 11

000 Sec. Cor. 1, 2, 11, 12

1800 Hub.

1447.5 Hub.

1906.5 Hub.

1920 enter Spruce &amp; Poplar.

2507.2 Hub. enter Swamp Paper

2664.9 Hub.  $\frac{1}{4}$  Cor. stands S 55.9'

from Hub 2664.9 turn angle E 92° 30' S

Set Hub 541' Turn angle N 92° 40' W

3 Hub.  $\frac{1}{4}$  Cor 1.8' S + 3' E1322 Supposed.  $\frac{1}{16}$  Cor.

2645 Sec Cor. 2, 3, 10, 11, stands N 1'

all BTS here



County Dist No 8  
Twp. 141-2a

12  
Friday Aug 11/16

We run N from Sec. Cor 2, 3, 10, 11  
LN 91° 31' E

Swamp.

000 Sec. Cor 2, 3, 10, 11

1003.2 Hub.

1320.5 supposed  $\frac{1}{4}$  cor 1.3' W

1684.9 <sup>Jack</sup> Hub & note in tan string

2200 leave Swamp

2676.5 Hub.

J. Flynn, surveyor & cruiser has reference  
ties to  $\frac{1}{4}$  cor between 2 & 3 + we will  
make correction as soon as we can  
get notes from Flynn  
We quit at 6 P.M.

Grailson

Note. —

2672.2 Hub.

$\frac{1}{4}$  cor. sets W 22.9 ft.



13

County Ditch No 8.  
 Sep-141-26 Saturday Aug 13/14  
 Cloudy

F. F. Wilson Asst. Engineer  
 F. F. Baldwin Redman, Alex  
 Bush & John Shelton Adams.

We go to Sec Cor 2, 3, 10, 11 &  
 run line South.  $LS 88^{\circ} 29' E$

000 Sec Cor 2, 3, 10, 11  
 $LS 88^{\circ} 29' E$   
 1000 leave San Swamp  
 1249.6 Hub.  
 1631.8 Hub.  
 2002 Hub.  
 2200 enter San Swamp.  
 2662 Hub.  $\frac{1}{4}$  Cor between 10, 11  
 Starts W  $11.9'$

We run East  $LS 89^{\circ} E$

000 Hub. 2662  $+ 11.9' E$  of  $\frac{1}{4}$  Cor.  
 2100 leave swamp.

We quit at 5. P.m.

F. F. Wilson



County Ditch No 8

<sup>14</sup>  
Sunday Aug 13/16

Val. do not work.



15 <sup>County Ditch No 8</sup>  
Twp. 141-26  
Cloudy Monday Aug 11/16.  
F. F. Wilson Asst engineer  
H. F. Baldwin Rodman & Fly  
Alex Bush, John Shelton etc

We continued running line  
E from  $\frac{1}{4}$  between 10 + 11

2259.7 Hub

2850.8 Hub

3538 Hub

3950 enter muskeg

4500 ridge

4556.1 Hub Swamp

4686 Hub

4725 enter Swamp

5340.8 Hub.  $\frac{1}{4}$  Cor between 11 + 12  
Shuck Post,

Note Chainage from  $\frac{1}{4}$  Post to  $\frac{1}{4}$  Post  
 $= 5340.8 + 11.9 = \underline{\underline{5352.7}}$



County Dist No 8

Twp. 141-26-

16

Monday Aug. 14/16

We run section line between  
11 & 12 N from  $\frac{1}{4}$  Cor.

000  $\frac{1}{4}$  Cor. between 11 & 12  
 $\angle$  W  $88^{\circ} 21' N$

1278.6 Sub

2653.7 Sec. Cor. 12, 11, 12

Into L<sup>6</sup> S  $92^{\circ} 24' W$  with  
Random line run west along N by of 11  
Road deflection going N  
Defl.  $1^{\circ} 18'$  Right

Into L<sup>6</sup> S W Cor Sec 2

with Random line run west from  
S.E. Cor. of sec. W  $88^{\circ} 54' N$ .

000 Sec. Cor. 12, 11, 12

Note:-

367.6 Sub.

Correct dis. 2637.5 I.M.  $\frac{1}{4}$  Cor. between 11 & 12  
is 2646.2', so Deflection going N.  
indications are that  $1^{\circ} 25'$  Left.  
the point that they used as Sec. Cor.  
is 8.7' North of true Cor.



17

County Ditch No 8  
Twp. 141-26

Tuesday Aug. 15/16

Warm &amp; clear

J. F. Wilson Asst. Engineer  
H. F. Baldwin Rod & Flag  
Alex Bust & John Shelton Atmen

We set  $\frac{1}{4}$  Cor. between 2 & 3  
from J. Flynn's notes he having  
placed corner & witness trees to same  
from Gromit Bearing trees which  
were destroyed in making Town Road.  
on  $\frac{1}{4}$  line E & W. in Sec 2.

B. to  $\frac{1}{4}$  Cor Sec 2 & 3 - 141-26

Tan 10 S 16 E 41'

Tan 13 N 8 W 29'

$\frac{1}{4}$  Cor stands W 22.9' from Sec 3  
2672.2 on our line run N from  
Sec Cor 2, 3, 10, 11.

We run line E of

000  $\frac{1}{4}$  Cor. between 2 & 3

022.9 - Sec 3 2672.2

LS 88° 43' E

1334 Fence  $\frac{1}{4}$  Cor supposed.



County Ditch No 8  
Twp. 141-26

18

26 59 (fence.) supposed  $\frac{1}{16}$   
26 64 old fence C of Sec

2793.8 Hub.

4101.2 Hub

5359  $\frac{1}{4}$  Cor between H 2  
stands 11.3' S.

We make correction + set  
Hub 4101.2 S 8.6'

correction

$$\frac{11.3}{5359} \times 4101.2 = \underline{\underline{8.6'}}$$

We run C of ditch 25' South  
of  $\frac{1}{4}$  line E & W



19

County Ditch No 8

Tuesday Aug 14/17

We continue ditch @ 25' S  $\frac{1}{4}$  mile  
on Sec. 2

14+13 Hub.

L<sup>c</sup> N 87° 45' N

Deflection 92° 15' Right

→ 27+02 Hub

L<sup>c</sup> E 88° 06' S

Deflection 91° 54' Left.

See Change  
Pages 35 & 36

→ 31+50.4 Hub.

L<sup>c</sup> W 122° 01' N

Deflection 57° 59' Right

48 + 56.3 Hub.

Fence E 122° 17' S

We quit work at 6 P.M.

F. Wilson



County Ditch N<sup>o</sup> 8

20

Wednesday Aug 15/16

Cloudy + Hot

H. F. Wilson Asst Engineer

H. F. Baldwin Rod & Flag.

Alex Bush & John S. Kelton Ape.

We locate E of Ditch in  
SE  $\frac{1}{4}$ , NW  $\frac{1}{4}$ , Sec 11 - T41 - R6

It rains in afternoon  
about 2 P.m.

H. F. Baldwin assists me in  
calculating & writing notes.

H. F. Wilson



21

County Ditch No 8

Thursday <sup>aug</sup> 11/17

Extremely hot + millions of mosquitoes

J. F. Wilson Asst. Engineer  
H. F. Baldwin Rodman & Hay  
Alex Bush Aftonian

We locate Ditch # through  
NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  Sec 11-141-26 &  
into NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  Sec 11-141-26  
We use Compass on location  
survey.

J. F. Wilson



County Ditch N<sup>o</sup> 8

22

Friday Aug 18/16

Hot & Extremely Sultry

F. F. Wilson Asst Engineer  
H. F. Baldwin Rodman & Flag  
Alex Bush & John Shelton

We cut  $\frac{1}{4}$  of Ditch through NW $\frac{1}{4}$   
NE $\frac{1}{4}$  Sec 11 into NE $\frac{1}{4}$  NW $\frac{1}{4}$   
Sec 11 about 700 feet.

We continue  $\frac{1}{4}$  Ditch from  
Sta 48+56.3 to Sta 55+50

48+56.3 Sub  
Island.

5200

55+50 Sub.

LE 22° 17' S

Defl. 57° 43' Left



23

County Dist N<sup>o</sup> 8

Saturday Aug 19/16

Rain + Cloudy Very Kothin P.M.

F.F. Wilson asst. Engineer

H.F. Baldwin Rod + Flag

Alex Bush + John Shelton Ake.

In A.M. I write notes  
 + H.F. Baldwin to get an iron  
 from Station of Soc. Ry - J.W.  
 Curo having shipped several  
 to Remer. I go to.

1/4 Cor between secs 1 + 36  
 141-26 — 142-36 where Goot  
 notes call for the following  
 B.T.S.

Prop dist,  
 Pop. 4 N 65 E 10 Cts. = 6.6 7.1,  
 W.P. 8 S 38 W 58 Cts. = 38.3 41.2  
 will find U.S. B.T.S. and.

Set I.M. + pits 4' E + 4' W

B.T.S. proportional stand

Pop 10 N 55 E - 7.1'  
 Stp. W.P. 14 S 48 W - 41.2



County Ditch No 8 24

Saturday Aug 19/  
18

In P.M. with crew continue  
cutting E of main Ditch thro  
S.E.  $\frac{1}{4}$  S.W.  $\frac{1}{4}$  Sec. 2 + N.E.  $\frac{1}{4}$  N.W.  $\frac{1}{4}$   
Sec. 11 + N.W.  $\frac{1}{4}$  N.E.  $\frac{1}{4}$  of Sec. 11.  
Twp. 141-26. Return Twp.

55+50 Hub.

L E  $122^{\circ}17'S$

Defl.  $57^{\circ}43'$  Left.

64+19.5 intersect S by Sec 2  
 $\frac{1}{4}$  between 2+11 & lands  
S  $88^{\circ}25'E$  589.6'

66+14 Hub

L N  $119^{\circ}47'E$

Deflection  $60^{\circ}13'$  Left

92+14.1 Hub.

L S  $145^{\circ}37'N$

Deflection  $34^{\circ}23'$  Right

We quit work at 6 P.M.

F. Swilson



25

County Ditch No 8

Sunday Aug 20/18

We do not work

J. Wilson



County Ditch No. 8

Monday Aug 21<sup>26</sup>  
11/18

Rain + Cool.

J. J. Wilson Asst. Engineer  
H. J. Baldwin Rod + Flag.

In A.M. we work on notes  
and in P.M. we go to  $\frac{1}{4}$  Cor.  
between <sup>Sta</sup> 2 + 3 - 141 - 26  
and set I.M. with Bearing  
lines as follows

Tam. Stp 10 S  $19^{\circ}$  E 41'  
" Stp. 13 N  $21^{\circ}$  W 29'

" We set I.M. line Sec Cor. 1, 2, 35, 36  
New B.T.S

Norway 8 S  $45^{\circ} 50'$  W 56.7'  
Poplar 18 N  $8^{\circ} 15'$  W 58.7'

J. J. Wilson



27

County Ditch No 8

Tuesday Aug 22/16

Cool & cloudy to Fair & warm,

F. F. Wilson Asst Engineer  
 M. Baldwin Rod & chain  
 Alex Bush & John Shelton etc.

We continue E of Ditch to  
 outlet,

92+14.1 Hub

L S  $145^{\circ} 37' W$

Defl.  $34^{\circ} 23'$  Right

105+52.1 Hub = 49+11.9  $\frac{1}{4}$  line W

L N  $116^{\circ} 55' E$

Defl  $63^{\circ} 05'$  Left

109+68.5 Hub

L S  $92^{\circ} 08' N$

Defl  $87^{\circ} 52'$  Right

113+73.3 Hub End of Ditch.

Note Sta. 109+68.5 to Sta. 113+73.3

E. West Bank of Side ditch S.R.H.

S.R.H. # 83. E  $25'$  W sec line.



# County Ditch No 8.

28

Aug 22/16

## Levels.

Sta	+S	H.I.	-S	Elev	Remarks
B.M.	4.84	Nail in 3" Saw E side Road at State Ditch		90.64	
W End of Culvert.		95.48	8.68	86.80	
113+133			6.6 ground 8.6 Ditch	88.7 88.9	
113			6.9 ground 8.3 Ditch		
112			6.3 ground 8.5 Ditch		
111			6.25 7.80		
110			6.3 8.0	89.0 88.5	
109+6815			6.41 8.30		
Tr.	5.03	94.98	5.53	89.95	
109			5.30		
108			5.40		
107			5.10		
106			4.8		
105+52.1			5.2		
B.M.	sg'd 7" Saw s/p Jack in painted top		2.30	92.68	
Tr.	4.96		4.24	90.14	



29

County Ditch N<sup>o</sup> 8

Aug 22/16

Sta	+S	HI	-S	Elev	Remarks
		95.70			
105			5.7	904	
104			5.9	898	
103			5.4	903	
102			5.4	903	
101+50			5.9		
101			5.4		
TP	5.17	95.81	5.06	90.64	
100			4.9		
99			5.0		
+30			4.6		
98			4.3		
97			5.0		
96			5.0		
95+50			4.8		
TP	5.72	96.93	4.60	91.21	
95			6.0		
94			5.6		
93			5.1		
92+141			5.40		
BM	Sgd. 3" spruce painted top 50' <u>N.N.W</u>		4.42	92.51	
TP	4.96		4.67	92.26	



# County Detach No 8

Aug 22/16 <sup>30</sup>

Sta.	+5	HI	-5	Elev	Remarks
92		97.22	6.0		
91			5.5		
90			5.2		
89			4.8		
88			5.1		
87			4.9		
86			5.0		
TP	3.52	98.65	2.09	95.13	
85			6.1		
84			5.8		
83			5.3		
82			5.3		
81			5.0		
80			5.0		
TP	4.24	99.66	3.23	95.42	
79			5.6		
78			5.3		
77			5.4		
76			5.3		
75			5.5		
74			5.5		
TP	5.38	100.21	4.83	94.43	



31

County Detach No 8

Aug 22/16

Sta	+S	H I	-S	Elw	Remarks
		100.21			
73			5.5		
72			5.2		
71			5.1		
70			5.4		
69			5.6		
68			5.2		
TP	4.27	100.30	4.08	96.13	
67			5.0		
66+14			5.1		
66			5.1		
65			4.7		
64			5.2		
TP + BM	4.84	100.64	4.50	95.80	Nail in Fence Post
63			5.0		
62			5.4		
61			5.3		
60			5.3		
59			5.4		
58			5.2		
TP	4.68	100.86	4.46	96.18	



# County Ditch No 8

32

Aug 27/16

Sta	+S	HI	-S	Elev.	Remarks.
57		98.66	5.6		
58			5.1		
55+50			5.3		
55			5.1		
54			5.4		
53.			4.6		
T.P.	5.73	104.19	2.40	98.46	
52			8.80		
+10			8.6		
51			8.6		
50			4.8	99.4	
49			5.6	98.6	
B.M.			4.0	100.19	4" nail in 6" Birch 15' N



## County Ditch No 8

Wednesday Aug 23/16

Clear &amp; warm

T. H. Wilson Asst Engineer

H. T. Baldwin Flag &amp; Chain

Al &amp; Bush &amp; John Shelton Ake.

We go to  $\frac{1}{4}$  Cor. between 2 & 11-14126  
- 1 run  $\frac{1}{4}$  line N + S.

Closed Swamp	000	$\frac{1}{4}$ Cor. between 2 & 11
	1258	Intersect main ditch R. at Hub 48+56.
	1470	Klement water hole 25' W
	1850	Land.
	25.98	Klement N fence limit
Poplar	2655	Fence N side road $\frac{1}{4}$ line E & W
	2800	Swamp
	2906.7	Hub. Clear Swamp
	3531.9	Hub.
Spaced & Staked	3700	enter Swamp.
	3959	Spike in Swamp E 2.5' supposed $\frac{1}{4}$ Cor.
	4122	Hub.
	4250	Clear Swamp proper
Spaced Poplar Baldwin Bush	4888.4	Hub
	5298	$\frac{1}{4}$ Cor. between 2 & 35 stands E 1.5'

We find out U.S. B.T. S.E. & set Cor. Swamp



County Ditch No 8

Aug 23 <sup>34</sup> / 16

the run way Sec 2 E

000 — 53 01.5 Herb.

L & E 88° 49' S

300 met.

500

1265 Herb

mequit work at 6 PM

J. F. Wilson



35

County Ditch No 8

Thursday Aug 24/16

Clear &amp; warm

J. Harrison Asst. Engineer

J. B. Baldwin Hdg &amp; Chain

Cliff Bush &amp; John Shelton etc

We continue running W by of Sec. 2

1335.1 ✓ 1265 Hub

1350.0 1337.8  $\frac{1}{2}$  800.0 by

2/2685.1, 1719.1 Hub

1342.5 2161.2 Hub

30  
1312.5

2670.2 Sec Cor 1, 2, 35, 36

Stands N 1° 8'

L<sup>2</sup> S 91° 42' WWe change location of R main  
Ditch Sta. 27+02 to Sta 32+59

27+02 Hub.

27+88 Sub.

L 88° 47' E

Deflection 91° 13' Left

32+96.4 Hub

L W 122° 41' N

Deflection 57° 19' Right

Note. Sta 32+59 = Sta 32+96.4



County Ditch No 8

Aug 24/16 <sup>36</sup>

Sta 32 to Sta 33 = 137.4'

We locate Lateral #2 in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$   
Sec. 2.

000 Hub = Sta 2788 main Ditch  
L W  $88^{\circ} 47' N$

0+58 Hub  
L NW  $141^{\circ} 20' S$   
deflection  $38^{\circ} 41'$  Left

7 high land W 1000 E 400

8 point

9+25 leave point W  $\frac{1}{4}$  line E+W

11 high land W 200 E 400

13 " " W 300 E 400

14+18.6 Hub

L  $156^{\circ} 24' W$

Defl.  $23^{\circ} 36'$  Left

19+95 Hub End of Ditch

=  $39^{\circ} 59' N$   $\frac{1}{4}$  line N+S



31

County Ditch No 8

Aug 24/16

Lateral # 1

000 Hub. 14+13 Main Ditch

0+37 Hub

L N  $135^{\circ} 25' E$

Sep.  $44^{\circ} 35'$  Left

16

7+66 Onts fence

11+80 Into Road

12+00 End of Lateral # 1



County Ditch No 8

38

Friday Aug. 25 / 16

Rain & Cloudy

F. F. Neilson Asst. Engineer

H. J. Baldwin Flag & Chain & Rod.

Alex Bush & John Shelton Axe

Set I. M. and dig pits

4' E & 4' W at  $\frac{1}{4}$  Cor. between  
2 & 35.

Loc Run Levels Sta. 49 to  
Sta. 2788 main Ditch  
and Lateral #2 from Sta 0+00  
to Sta 19+95 End of Ditch.



39

County Ditch No 8  
Main Ditch

Aug. 25/16

Sta	+ S	H.I.	- S	Elev	Remark
B.M.	4.59	104.78		100.19	nail in 6" box at Sta 49+0
48+56.3			5.9		
48			5.7		
47			4.7		
46			5.0		
45			4.8		
44			5.3		
43			5.1		
T.P.	3.52	104.92	3.38	101.40	
42			5.5		
41			5.4		
40			5.4		
39			4.6		
38+50			3.4		
38			3.7		
37			5.05		
T.P.	2.90	104.94	2.88	102.04	
36			5.6		
35			5.5		
34			4.9		
33			5.5		
32+59 = 32+96.4			5.4		
T.P.	6.11	106.83	4.72	100.22	



# County Ditch No 8

Aug. 25/16

Sta	+5	HI	-5	elev	Remarks
32		106.33	6.3		
31			5.9		
30			4.3		
29			3.8		
28			3.8		
27+88			4.2		
TP			3.75	102.58	Main Ditch
TP			4.43	101.90	Lateral #2

## Lateral # 2

TP	5.67	107.57	4.43	101.70	
0+58			5.40	101.90	
1			5.5		
2			5.9		
3			4.7		
4			4.9		
5			5.0		
TP	5.72	109.17	4.12	103.45	
6			6.4		
7			6.2		
8			5.5		
9+50			4.1		
9			4.6		
10			6.4		
11			6.5		



#1 Lateral #2 County Det. No 8

Aug 28/6

Sta.	+S	H.I.	-S	Elev	Remark
TP	5.17	108.95	5.59	103.58	
12			5.1		
13			5.4		
14			5.0		
14 + 14			5.5		
<u>B.M.</u>			<u>3.0</u>	105.75	4' nail in bal. Sta 25 W
15			4.1		
16			6.6		
16 + 50			6.9		
17			6.8		
TP	5.27	108.84	5.13	103.57	
18			6.5	102.3	
19			5.7	103.1	
19 + 95			5.45	103.4	



# County Ditch No 8

42

Saturday Aug 28/16

H. Wilson Asst Engineer

L. H. Baldwin Rodman

Alex Bust & John Skelton Atkinson

One Run Rebels - in Am.

Sta	+S	H T	-S	Elev	Remarks
Tr.	5.62	107.90		102.28	Hub at 27+88
27			5.9	102.0	
26			5.9	102.0	
25			5.2	102.7	
24			5.3	102.6	
23			5.7	102.2	
22			6.4	101.5	
Tr.	4.36	106.33	5.94	101.97	
21			5.0	101.3	
20			5.2	101.1	
19			5.1	101.2	
18			5.4	100.9	
17			5.6	100.7	
16			5.8	100.5	
Tr. B.M.	4.84	105.94	5.23	101.10	4" nail in place Post 25' N
15					
14+35			4.5	101.4	
14+13			4.9	101.0	
14			5.1	100.8	
Tr. B.M.			5.08		Hub. Previous Hub.



43

County Ditch No 8

Aug. 26/16

Sta	+S	HI	-S	Elev	Remarks
13		105.94	5.1	100.8	
12			5.3	100.6	
TP.	4.77	106.39	4.32	101.62	
11			5.7	100.7	
10			5.4	101.0	
9			5.1	101.3	
8			5.4	101.0	
7			5.5	100.9	
6			5.7	100.7	
TP.	4.85	106.59	4.65	101.74	
5			6.0	100.6	
4			5.6	101.0	
3			5.3	101.3	
2+50			5.4	101.2	
2			<del>6.4</del>		
			6.9	99.7	
1+49.8			6.5	100.1	
TP.	10.46	111.22	5.85	100.74	
1+25			8.9	102.3	
1			3.50	107.7	
0+85			3.20	108.0	
0+45			9.40	101.8	
0+20			10.20	101.0	
Water Level	1.5' water		11.82	100.00	
B.M.			7.79	103.43	4" spike in Trel Pole 25' to Sta 0+40



County Ditch No 8 44

Sat. Aug 26/16

Lateral #1

Sta	TS	HI	-S	Elev.	Remarks.
0+37		105.89	5.2		
1			5.3		
2			5.9		
TP.	4.99	105.49	5.39	100.50	
3			5.7		
4			5.6		
5			5.4		
6			5.2		
7			4.7		
8			4.9		
TP.	5.28	107.05	3.72	101.77	
9			6.5	100.6	
10			5.5		
11			3.7		
11+50			3.9		
12			5.3	101.75	
B.M.			4.31	<u>102.74</u>	As spike NW cor mill



45

County ditch No 8

Saturday Aug. 26/16

In P.M. we ran section line  
between Deas 2+3 141-26  
North from  $\frac{1}{4}$  Post.

Poplar - Birch - Pine - Brush -  
 000  $\frac{1}{4}$  cor. stands W 22.9'  
 L N 91° E Angle of Juto.  
 with true  $\frac{1}{4}$  line E & N  
 thro' center of Sec 2.  
 1600 Land 800' E drains E  
 2000 Land 700' E drains E  
 2046.3 Hub.  
 26 38.9 Sec. Cor 2, 3, 34, 35  
 stands W. 33.4'

We find U.S. B.T.

W.P. 24 S 18° W 24.4'

We set I.M. from this B.T. and  
take new BTS as follows

W.P. 51/2 25 N 26° E 45'

Poplar Stb. 10 N 45° 30' W 13.7'



County Ditch No 8 46  
Sat Aug 26/16

W.P. Stp. 20 S  $45^{\circ}$  E 18.2'

Went out at 5 P.M.  
Today Cloudy.

J. F. Wilson



47

County Ditch No 8

Sunday Aug 27/16

Warm & Clear

J. F. Wilson Asst Engineer  
H. F. Baldwin Rodman

Check Levels from Sta  
113 + 73.3 to Sta. 12 on main ditch



49

County Ditch No 8

Monday Aug 28 / 16

F. Wilson Asst Engineer  
 H. Baldwin  
 John Shelton.

I take Shelton & check  
 Levels Lateral #2

Baldwin sets Irons at  
 $\frac{1}{4}$  between 2 & 11 } 141-26  
 $\frac{1}{4}$  " 10 & 11 }  
 See Cor. 2, 3, 10, 11 Taking  
 Near Bearing Lines as follows

$\frac{1}{4}$  cor between 2 & 11

W. Birch 10 N 50° E 37'

Balsam 7 N 63 W 46.2'

See Cor 2, 3, 10, 11

Tam 5 S 62° 30' W 18.2'

Tam 5 S 59 E 10.3'

Tam 5 N 23 E 33.9

Tam 5 N 75 W 38.7

$\frac{1}{4}$  cor between 10 & 11

Balsam 5 S 43° 30' W 15'

Tam 5 12 N 21° W 11.6'



County Detel No 8

50

Monday Aug 29/16

Lateral # 2

Sta.	+S	H.I.	-S	Elev.	Remarks
19+95		107.47	4.40	103.07	
stp. BM			2.87	104.60	Stn 1/16 Cor. at 1995
19			5.0		
18			5.6		
17			5.9		
16			5.8		
15			3.6		
14+18			4.8		
TP	3.44	107.61	3.30	104.17	
14			4.7		
13			4.9		
12			5.5		
11			5.1		
10			5.3		
9			3.7		
8			4.6		
TP	3.63	107.60	3.64	103.97	
7			5.5		
6			5.7		



51

County Ditch N<sup>o</sup> 8

Aug. 28/16

Sta	+S	HI	-S	Elev	Remarks
4		107.60	5.4		
3			5.4		
2			5.5		
TP	3.48	106.73	4.35	108.25	<u>sub.</u>
1			5.0		
+58			5.05		
0+00			4.46	102.27	<u>sub.</u>



# County Ditch 1108

## Main Ditch Checked Levels

52

Sta	+S	H.I.	-S	Elev	Remarks
B.M.	4.62			90.70	4" nail in T.M. 50' L
Top Culvert	6.52 TP	95.32	6.52	88.80	West end of Culvert 88' L #28
113+78.5				88.90	
113				88.70	
112				89.20	
111				89.20	
110				89.20	
109+66.5				89.10	
109				89.70	
108				89.60	
107				89.80	
106				89.90	
105+52.1				89.70	
B.M.			2.70	92.52	Tack in syd T.M. 50' L
TP	4.52	95.15	4.69	90.63	
105					
104					
103					
102			5.1		
101			5.1		
100			4.5		
99			4.7		
TP	3.10	95.75	2.50	92.65	
98			4.9		
97			5.0		
96			5.1		
95			4.9		
94			4.6		
93			4.3		
92+14			4.4		
B.M.			3.20	92.45	Tack Syd Spd STP 50' L
TP	4.40	96.67	3.56	92.19	
92			5.4		
91			5.3		
90			4.8		
89			4.7		
88			4.7		
88.56			4.7		
TP	3.14	90.22	1.54	95.03	



53

# County Ditch No 8.

## Main Ditch Levels

Sta.	+S	H.I.	-S	Elev.	Remarks
		98.22			
85			5.8		
84			5.8		
83			5.4		
82			5.1		
81			4.9		
80			4.7		
TP	3.77	99.16	2.83	95.39	
79			5.4		
78			5.3		
77			5.3		
76			5.0		
75			5.0		
74			4.9		
TP	4.97	99.75	4.38	94.78	
73			5.5		
72			5.2		
71			5.1		
70			5.2		
69			5.1		
68			4.9		
TP	3.88	99.94	3.69	96.06	
67			4.7		
66+14			4.9		
66			4.9		
65			4.4		
64			4.5		
BM. TP	4.39	100.22	4.11	95.83	4' nail in fence post
63			5.3		
62			5.1		
61			5.2		
60			5.1		
59			5.0		
58			4.6		
TP	4.20	100.47	3.95	96.27	



## County Ditch No 8

54

Main Ditch

Levels

Sta.	+S	H.I.	-S	Elev.	Remarks
57		100.47	5.2		
56			4.9		
55			4.8		
54			5.0		
53			4.1		
TP	5.22	103.80	1.89	98.58	
52			8.4		
51			8.4		
50			4.8		
49			5.40		
B.M.			3.81	99.99	4" nail in Birch 10' E.
48			5.2		
47			4.4		
TP	3.96	104.06	3.70	100.10	
46			4.9		
45			4.6		
44			5.0		
43			4.6		
42			5.1		
41			5.3		
TP	6.39	105.57	4.88	99.18	
40			6.9		
39			6.0		
38			4.9		
37			6.0		
36			6.7		
35			6.8		
TR	5.25	104.12	6.70	98.87	
34			4.7		
33			5.1		
32+59=32+964			4.9		
32			4.6		
31			4.3		
TP	5.64	107.18	2.66	101.46	



55

## County Ditch #8

Main Ditch

Levels

Sta.	+5	H.I.	-5	Elev.	Remarks
		107.10			
30			5.9		
29			4.9		
28			5.0		
27+88			4.83	102.27	Hub Tp
27+88			5.2		
27			5.4		
26			5.5		
TP	3.67	106.67	4.10	103.00	
25			4.4		
24			4.4		
23			4.6		
22			5.2		
21			5.7		
20			5.6		
TP	4.70	105.49	5.88	100.19	
19			4.6	100.7	
18			4.9	100.7	
17			5.0	100.5	
B.M.			4.47	100.86	4" nail in fence Post
16			5.0	100.5	
15			5.0	100.5	
14+13			4.9	100.6	31.6.
TP. B.M.	4.77		3.87	101.62	Hub at 12+00
13					
12					
11			5.7		
10			5.4		
9			5.1		
8			5.4		
7			5.5		
6			5.7		
TP	4.85	106.59	4.65	101.74	
5			6.0		
4			5.6		
3			5.3		
2+50	{ Top Bot.		5.4		
			6.4		



# County Ditch No. 8

## Main Ditch Levels

56

Sta.	+5	H.I.	-5	Elev.	Remarks.
2			6.9		
1+49.8			6.5		
TP	10.48	111.22	5.85	100.74	
1+25	Foot		10.80		
	TOP		9.1		
1			8.9	102.3	
+85			3.5	108.7	
+60			3.2	108.0	Crossing the Soo. Ry tracks.
+45			9.40	101.8	
+20			10.2	101.02	
Water Level			11.22	100.00	Barrow Pt 1.5' water
B.M.			7.79	103.43	Nail in Tel. Pole 25' L



57

County Detach No 8

Monday Aug. 28/16

F. F. Wilson & A. J. Baldwin  
 take the 3<sup>00</sup> Pm. Soo. Train  
 to Bemiji. Have supper at  
 Markham House and take the  
 midnight W & S Train to Walker.  
 we stay at the Chase Hotel in  
 Walker.

R.R. fare Keme, <sup>to Cass Lake,</sup> to Bemiji	\$1.26 each
Supper Markham	.50 each
R.R. Bemiji to Walker	.69 each

F. F. Wilson



County Ditch No 8 28

Tuesday Aug. 29/16

J. H. Wilson Asst Engineer & H. F. Baldwin take the 7:20 AM train to Pine River. Baldwin spends the day working on estimates County Ditch No 8 & I spend part of day on estimates Ditch No 8.

Expense Chase Hotel .75<sup>00</sup> each  
Ridings & Breakfast

R.R. Walker to Pine River .67 each.

J. H. Wilson



59

County Detach No 8

Sept. 5/16

F. H. Wilson Post Engineer.  
I work on Estimated County  
Detach No 8 — in Armstrong's  
Office at Pine River

F. H. Wilson



60

September 1916

F. K. Wilson

Board  
Travellers Hotel Pine River

Expense

R.R. Fine River to Walker	.67
Supper Hotel Chase	.40
R.R. Walker to Fine River	.67



61

County Ditch No 8

Sept 6/16

Work on Estimates County  
Ditch No 8

Garrison



County Siltat No 8

62

Tuesday Sept. 12/16

I worked on Plate County Siltat  
No 8

H. Wilson



63

County Ditch No 8  
Wed. Sept. 12/16

Work on Plato County  
Ditch No 8

K. Wilson



County Detach No 8.

64

Shurs. Sept 13/16

Work on Plats & Estimates

County Detach No 8

F. J. Wilson



65

Sept. 14/16

Work on Plats & Estimates  
County Ditch No 8

H. Wilson



Sept 15/16

Invergow Estimates

County Ditch No 8

F. Kailson



67

County Ditch No 8

Saturday Sept. 16/16

I work on Plots  
Estimates County Ditch No  
8 —

J. H. Wilson



County Ditch No 8

68

Monday Sept. 18/16

Work on Estimate. County  
Ditch No 8

I go to Walker on the 3:15  
P.M. train to get information  
to complete plat County Ditch  
No 8.

Expense R.R. Pine River Walker .67  
Supper Hotel Chase .40  
R.R. Walker Pine River .67

H. G. Wilson



69

County Detek No 8  
Tuesday Sept. 19/16

Two Kan Estimates  
County Detek No 8.

J. Wilson

County Ditch No 8 70

Wednesday Sept 11/16

I worked on Estuaries County  
Ditch No 8.

F. Wilson



71

County Detach No 8  
Thursday Sept 24/12

Work on Estuaries County  
Detach No 8

F. J. Wilson

County Ditch No 8 72

Tuesday Sept 22/16

Work on Estimation County  
Ditch No 8

J. Wilson



73

Sat. Sept 23/16

Work on Estimates County  
Ditch No 8.

F. J. Wilson

County Ditch No 8

74

Monday Sept 25/16

Work on Estimates County  
Ditch No 8.

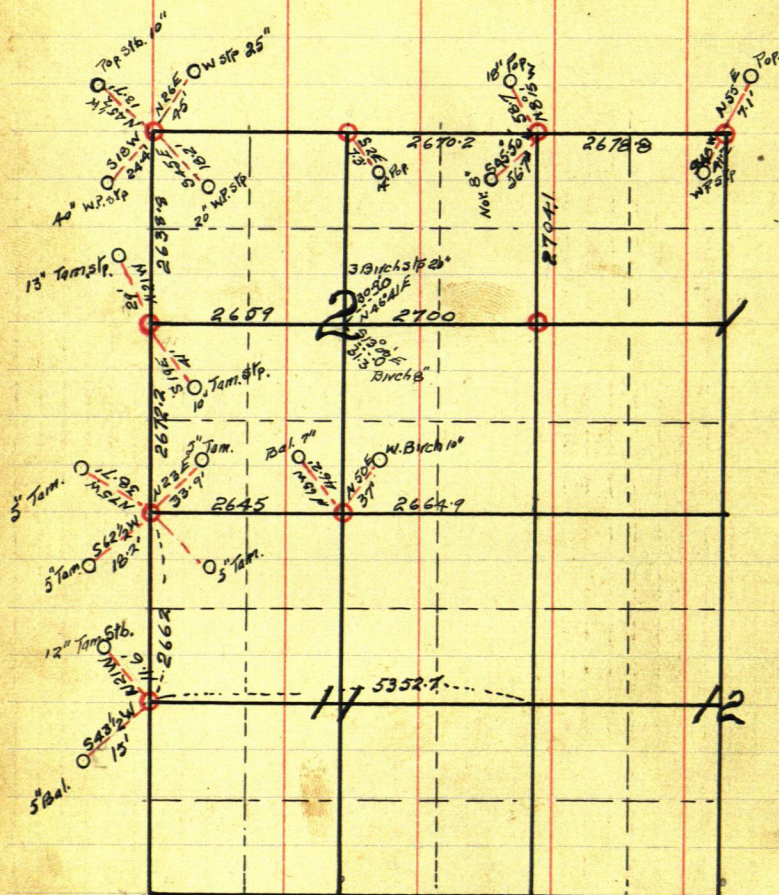
J. J. Wilson



75

## County Ditch No 8

Plat secs. 1, 2, 11, 12. Twp. 141, Rg. 26.

Showing I.M.'s. & B.T.'s. To be recorded,



County Ditch No 8.

76

Tuesday Sept. 26 /16

I work in Ammons' land  
office at Pine River

and finish making plots, profiles  
& estimates County Ditch No 8.

J. J. Wilson



77

Right of way notes on Co  
Ditch No 8. May 1917  
Main Ditch

Sta	to sta	total Dist	width of R.O.W.	Sq Feet	Acres
2+56 <sup>0</sup>	3+87 <sup>0</sup>	131 <sup>0</sup>	30 FT.	3930	.0902
11+75 <sup>0</sup>	13+00	125 <sup>0</sup>	30 FT	3750	.0860
18+56	52+00	3381.4	35 FT	118349	2.7196
Note.		long sta		total Dist	including long
32+00	33+00	137.4	35	sta.	
52+00	113+73.3	6173.3	30.		4.2515
					<u>7.1423</u>

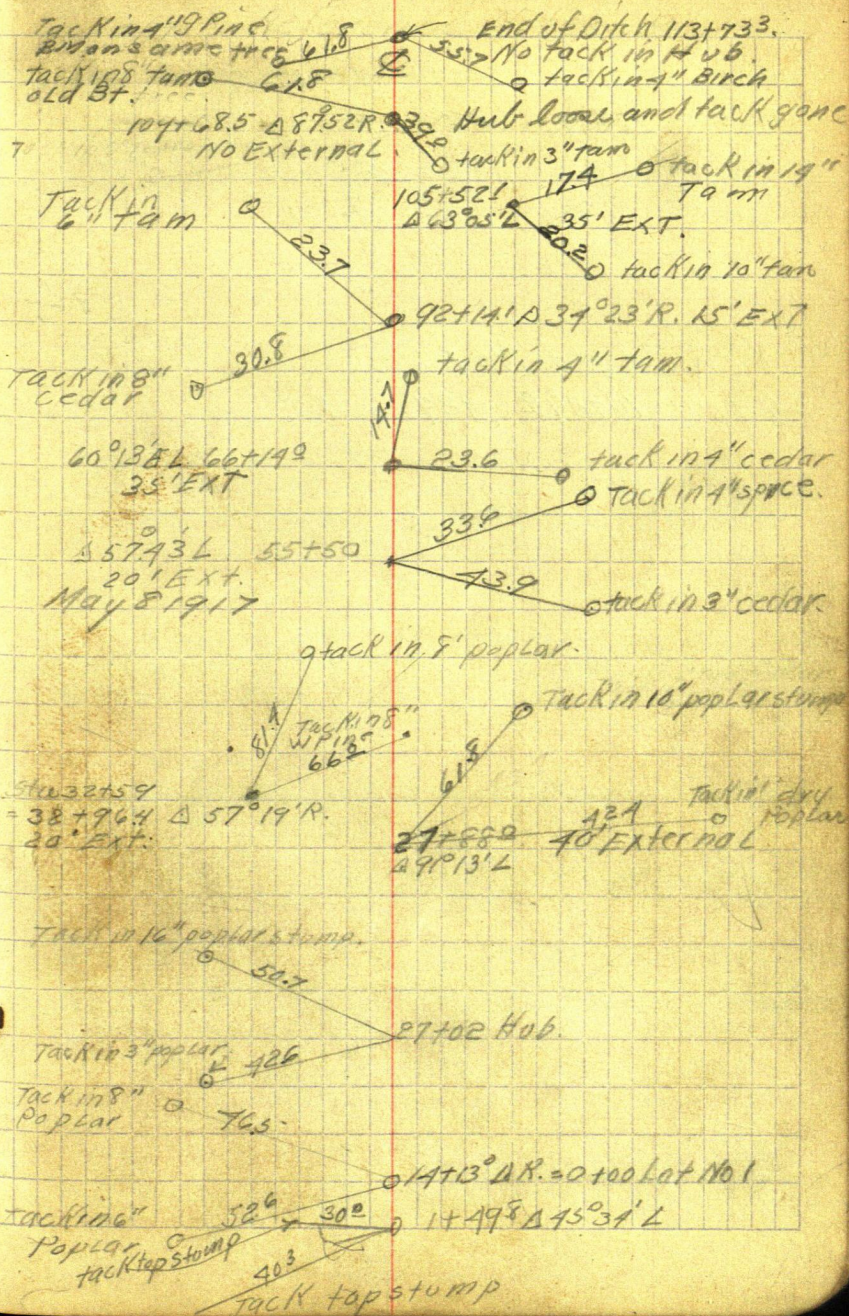
For Grubbing M.D.

2+56 <sup>0</sup>	3+87 <sup>0</sup>	131	30'	.0902
11+75 <sup>0</sup>	13+00	125	30'	.0860
15+00	27+88	1288	30'	.8870
				<u>1.0632</u>

1.063  
30  
31.890



J.F. Bonasch Asst Engr. Ext and  
P. Crossman. Foreman. Reference No 28





79

## Row of Way

Lat No 2 of Main Ditch No 8.

sta to sta Dist. <sup>width</sup> of ROW. Sq Ft. Acres.

27+88.2 28+17 29. 35'

on Main Ditch. Diagram <sup>Row of Lat No 2 to intersect</sup> <sub>at Lat 27+88 M.D. with curve.</sub>

60 16+00 1600 35' 1.309

17+17 19+95 278 25' 0.160

1.469

Lat No 1.

6+00 10+29.2 429. 25'

0.246

1.715





# 81 Elev of Cross section of Co Ditch No 8

Bottom out. 60 yds

113+733 86.80 2.1

5.4 2

113 86.80 1.9

8.2 2

112 86.85 2.4

9.8 4

111 86.90 2.3

9.8 2

110 86.95 2.3

50.9

109 2.7

53.9

108 2.5

50.9

107 2.6

53.9

106 2.6

53.9

105 2.5

50.9

104 2.5

53.9

103 2.7

50.9

102 87.15 2.3

452.4

continued on next page.

Contractors  
Road Construction Co.  
Wadena Minn.

Est. for Month of Aug 1917.

Sta 28 to 113+733  
6994.1 cu bds

Sept 1. 1917

3

82

Sta.	Elev of Bottom	C.O.T.	EXCA CU yds.	Main Ditch
			45.2 ✓	
101	87.85	2.2	48.0 ✓	
100		2.4	53.9 ✓	
99		2.5	53.9 ✓	
98		2.7	53.9 ✓	
97		2.5	48.0 ✓	
96		2.3	45.2 ✓	
95		2.3	45.2 ✓	
94		2.3	45.2 ✓	
93		2.3	50.9 ✓	
92		2.7	50.9 ✓	
91		2.4	57.0 ✓	
90	88.95	2.9	63.4 ✓	
continued on next page			660.7 ✓	cubic yds

10/10

Final grade out May 16/1918



Sta	Elev of Bottom	CUT.	EXCA. cu yds.	COUNT
89	8900	2.9	60.1 ✓	
88		2.7	57.0 ✓	
87		2.7	57.0 ✓	
86		2.8	63.4 ✓	
85		3.0	63.4 ✓	
84		2.9	66.7 ✓	
83	.10%	3.2	77.0 ✓	
82		3.3	80.6 ✓	
81		3.5	88.0 ✓	
80	89.95	3.6	91.8 ✓	
79		3.8	93.7 ✓	
78		3.7	91.8 ✓	
77		3.7	890.5 ✓	cu yds.

T Y DITCH No 8

SEPT. 1, 1917.

84

STA.	ELEV OF Bottom	CUT.	EXCA CU. YDS.
------	-------------------	------	------------------

76	90.36	3.8	95.7 ✓
----	-------	-----	--------

75	90.95	3.8	95.7 ✓
----	-------	-----	--------

74		3.8	95.7 ✓
----	--	-----	--------

73		3.7	91.8 ✓
----	--	-----	--------

72		3.7	91.8 ✓
----	--	-----	--------

71	10.0	3.8	95.7 ✓
----	------	-----	--------

70		3.7	91.8 ✓
----	--	-----	--------

69		3.7	91.8 ✓
----	--	-----	--------

68		3.7	99.7 ✓
----	--	-----	--------

67		4.0	99.7 ✓
----	--	-----	--------

66		3.8	99.7 ✓
----	--	-----	--------

65	91.45	4.0	103.7 ✓
----	-------	-----	---------

103.7 ✓

1244.6 cubic yds



Sta.	Elev of Bottom.	cut	EXCA. cu yds.
85-			
64	91.55	3.9	3' Bottom
		3.	88.0 ✓ 1 to 1 slope
63		3.3	
	10%		85.6 ✓
62	0%	3.4	
	1.		77.0 ✓
61		3.2	
			73.5 ✓
60	91.95	3.2	
			73.5 ✓
59		3.1	
			73.5 ✓
58		3.2	
			69.7 ✓
57		2.8	
			63.4 ✓
56	10%	2.9	
	2.		63.4 ✓
55		2.8	
			53.9 ✓
54		2.4	
			53.9 ✓
53		2.7	
			45.2 ✓
52		1.9	812.6 cu. yds.

Sept 1917

86

Sta	Elev of Bottom	Gut	EXCH Cu yds	
			32.0 ✓	3' Bottom
51	20.0	1.7	80.6 ✓	1 to 1.5 lops
50	93.95 XXXXXX	5.1	138.7 ✓	
49		4.4	125.0 ✓	
48		4.5	143.4 ✓	
47		5.1	148.1 ✓	
46		4.9	143.4 ✓	
45	10.0	4.9	134.0 ✓	
44		4.5	134.0 ✓	
43		4.9	129.5 ✓	
42		4.3	112.0 ✓	
41		4.0	103.7 ✓	
40	94.95	3.9	116.3 ✓	
			1540.7 cu yds	



87 3' Bottom 1:1 slope Co Ditch No 8

Sta Elev of Bottom cut cu yds

39 95.05 4.6 148.1 ✓

38 95.15 5.5 148.1 ✓

37 95.25 4.4 103.7 ✓

36 95.35 3.6 84.3 ✓

35 95.45 3.4 91.8 ✓

34 95.55 3.9 91.8 ✓

33 95.65 3.4 120.9 ✓

32 95.80 3.7 95.7 ✓

31 95.90 3.9 129.5 ✓

30 96.00 5.2 183.7 ✓

29 96.10 6.1 200.0 ✓

28 96.20 5.9 183.7 ✓

27 96.30 5.4

Road Construction  
Wadena Min

Est. for Month of Aug 1917  
Sta 28 to Sta 113 + 73.3  
6999.1 cu yds

Note. From Sta 32  
To Sta 33 = 137.4'  
Long Sta.

Dist

137.4

100

Coditch No 8 9/1.17

Sta	Elev of Bottom	Cut	Exc. cu yds.	3' Bottom 10' slope	88
			162.9	Brat Frd 183.7	
26	96.40	5.2	173.1		
25		5.8	189.0		
24		5.7	178.4		
23		5.4	148.1		
22		4.6	120.6		
21		4.1	103.7		
20	X 97.00	3.9	95.7		
19		3.7	88.0		
18		3.5	80.6		
17		3.3	77.0		
16		3.3	77.0		
15	97.25	3.2	77.0	1571.1 1754.8	

10.0

10.0



Sta	EL of Bottom	Cut	Corditch No 8	
			Excld Cuyds	3' Bottom 111 Slope
14	97.30	3.4	84.3	
13		3.5	80.6	
12		3.2	77.0	
11		3.3	80.6	
10	-0.50%	3.5	84.3	
9		3.5	84.3	
8		3.4	80.6	
7		3.3	73.5	
6		3.0	66.7	
5		2.9	70.0	
4		3.2	80.6	
3	97.85	3.5		
150	97.88	3.3	<u>10.3</u>	902.8

## CO. ditch No 8

Sept 11 1917

sta	Elev of Bottom	cut	EXCA cu yds.	
			27.0	
2	97.90	18	510.0	
+25	97.94	4.1	29.1	
1	97.95	4.4	67.2	
+40	97.98	4.6	16.9	
+20	97.99	3.0	6.4	
00	98.00	1.0		

3' Bottom 1:1 slope 90

Road Cont Co.  
Est Jorman W  
Sept 11 1917  
Sta 1100 to 28  
2763.70 cu yds.  
Lat 1101 698.7  
Lat 1102 2345.7  
5808.1

Cement tile  
culvert 2' x 60'

Summary		cu yds.
M.D.	- - - -	9781.6
Lat 1101	- - - -	698.7
Lat 1102	- - - -	2345.5

Total 12827.8

Deepening of  
off take for 2680 343.9

Grand total 13171.7  
EXCA

Clearing M.D.	7.14 #
" " Lat 1101	1.72 #
" " Lat 1102	1.17 #
Total Clear	10.33
Grubbing M.D.	1.06 #



# LAT No 1 of Co. Clinton

Sta.	Bottom Elev	Cut	Cu yds
------	----------------	-----	--------

00	9730	33	
----	------	----	--

Note  
00 = 14 + 13 M.D.

137	9730	34	
-----	------	----	--

292 3' Bottom  
1 to 1 slope

48.5

1	9740	32	
---	------	----	--

63.4

2	9750	25	
---	------	----	--

48.0

3	9760	22	
---	------	----	--

42.4

4	9770	22	
---	------	----	--

45.2

5	9780	23	
---	------	----	--

46.6

6	9790	24	
---	------	----	--

53.4

7	9800	28	
---	------	----	--

57.0

8	9810	25	
---	------	----	--

49.5

9	9820	24	
---	------	----	--

57.0

10	9870	29	
----	------	----	--

88.0

11	9920	42	
----	------	----	--

70.0

12	9970	20	
----	------	----	--

698.7 cu yds

Read construction Co.  
Est for month of Sept 1917  
Sta 00 to 12700 to 9870 cu yds

10%

50%

No 8. Sept 1, 1917.

94



Nov 8 / 1917

95	BS	HI	FS	ELEV	B/M
	2.23	94.75			92.52
00				6.0	888.
—				8.0	868.
1				6.2	886
—				8.0	868
2				6.3	885
—				7.8	870
3				6.4	884
—				8.0	868
T.P.	3.33	<sup>8.02</sup> 92.73		5.35	89.90
+95				5.5	872
—				6.3	864
4				5.2	875
+06				2.9	846
+15				1.8	90.9
+25				2.7	90.0
+30				4.7	880
+34				4.7	880
—				6.4	863
5				4.2	885
—				6.6	863
6				4.4	883
—				6.4	863
7				1.9	878
—				6.6	861

Continuation of Ditch No 8

96

from 109+68.5 M.D. = 0100

00 = 109+68.5

in ditch

in ditch

in ditch

in ditch

west end culvert top

in ditch

to e slope

Edge Road SRH 83

center

Edge

to e slope

End culvert

End culvert in ditch

5

in ditch

in ditch



97	BS	HI	FS	ELCV	
		9273		7	
8			53	87.1	
—			44	86.1	
9			19	87.8	
—			68	85.9	
10			48	87.9	
—			70	85.7	
11			57	87.0	
—			72	85.5	
T.P	190	123 9150	3.13		89.60
12			43	87.2	
—			3.9	85.6	
13			42	87.3	
—			62	85.3	
14			45	87.0	
—			5.9	85.6	
+32.6 Δ			5.0	86.5	
—			6.0	85.5	
BM			30.5		88.95
15			4.8	86.7	
—			6.4	85.1	
16			5.1	86.4	
—			6.4	85.1	
17			5.5	86.0	
—			6.4	85.1	

Nov 8 1917 Foggy

95

in ditch

in ditch

in ditch

in ditch

in ditch

in ditch

in ditch

in ditch

Tall in 1' hum stump 25' L: 14+50

in ditch

in ditch

in ditch



99

BS

HI

FS

ELCV

91.50

18

18+44 A

51

86.4

64

85.1

19 #

51

86.4

73

84.2

T.P.

310

90.35<sup>15</sup>

42.5

87.25

20

A

40

86.4

55

84.4

20+79.5

A

21

46

85.5

56

84.8

22

45

85.9

58

84.6

23

45

85.9

58

84.6

23+43 A

T.P.

210

89.65<sup>70</sup>

3.10

87.25

24

42

85.5

51

84.4

25

42

85.5

55

84.2

+25

AL

24

44

85.1

52

84.4

A 26 + 28 AL

Nov 8 1917 Fo

100

From page 101

1331.4 Gas. Sto. Base

1.5

Rod

1332.9 H. 1

1327.9

5' Av. Ground

1324.7

8.2 con. N.

1325.75

7.15 " S

13244.55

8.35 "

1323.5 overflow 9.4

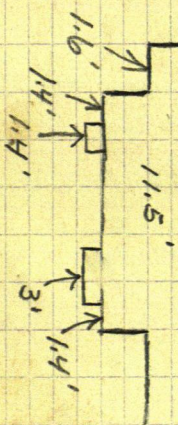
1322.5 Fishway 10.4

1321.5 opening

Water 4" over dam

Level of water

1324.0 8.95  
above





101	B.S	H.I	F.S
		89.65	
26780			43 83.9
B.M.		2.83	8682

June 20, 1933

Notes on levels at Longville.

Pine River - Longville Road  
 tied to Miss. River Comm. B.M. at  
 Pine River, B.M. near section house.

1337+78.5 on P.R.-L. Road =  
 OX H.L. Road 976+40.1

		Elev
1322+50 - 25' Rt	Sp. in Tel pole	1328.79
Bridge West end	1324+90	Gone
East end	1325+08	
1321+15 - 40' Rt.	Sp in Tel pole	1331.31
	<u>Gone</u>	
Hack-Long. Road.		

B.M. Spike in Tel. Pole  
 Sta. 971+30 - 30' Left Gone 1329.68  
 Approx. Elev 1334.65 Sta. 1316.65 Top. Cul

H.I	1337.80	
	2.15	
	9.15 ✓	
T.P	1328.65	Rail on Bridge
	4.9	
	3.95	
H.I.	1333.55	
	2.15	
	1324.70	✓ Bridge Floor
L	1331.70	
		Cement base
		Gas Sta.

H.I 1334.65



1334.65

102

in ditch 26780 End of ditch Balance  
 way water follows old channel to Willow River  
 good fact.

DM. top cedar stump 25' R 25+25 1' stump

B. M. s Hack-Long Road

Sp. in 6" pop. 130' Lt. Sta.  $953+50=1332.50$

Sp. in 5" pop. 30' Lt. Sta.  $930+70=1344.15$

$953+69.6 \angle$  R.R. Grade  $\angle$  N.E.  $88^{\circ}46'$

$944+17.9 \circ \angle 25^{\circ}17' L$

B. M. s Pine River - Longville Road

Sp. in 5" Pop. 30' Rt. Sta. 1318

Culvert + 1316+65 Top 1334.65

Culvert 1313+40 Top 1329.15

Bridge Floor from plans - est. 1325.2

1324+90  
 1318  
 6+90



103	Surface Elev	Bottom Elev	Area	cu yds
00	88.8	86.30	1.75	7.2
1	88.6	86.19	2.16	10.6
2	88.5	86.08	3.51	12.8
3	88.4	85.97	3.39	8.9
+95	87.2	85.86	1.75	0.8
4	87.5	85.86	6.40	2.4
+106	89.8	85.86	15.60	5.3
+15	90.9	85.84	14.40	6.2
+25	90.0	85.83	16.80	14.2
+30	88.0	85.83	8.80	1.3
+34	88.0	85.82	8.80	12.6
5	88.5	85.75	1.53	8.5
6	88.3	85.64	3.03	10.7
7	87.8	85.53	2.79	10.0
8	87.4	85.42	2.59	8.9
9	87.8	85.31	2.14	8.0
10	87.9	85.20	3.92	15.4
11	87.0	85.09	4.41	18.0
12	87.2	84.98	5.28	12.2
13	87.3	84.87	1.36	15.9
14	87.0	84.76	7.27	6.3
+32.6	86.5	84.72	3.19	6.0
15	86.7	84.65	1.54	11.9
16	86.4	84.54	4.82	14.8
17	86.0	84.43	3.13	

1:1 slope  
3:1 bottom  
10% grade



L R

$\frac{+0.5}{20}$   $\frac{+0.5}{20}$   $\frac{+0.5}{20}$  Lower water 1/2  
Ft from M. D.

$\frac{+0.6}{21}$   $\frac{+0.6}{21}$   $\frac{+0.6}{21}$

$\frac{+0.9}{24}$   $\frac{+0.9}{24}$   $\frac{+0.9}{24}$

$\frac{+0.8}{23}$   $\frac{+0.8}{23}$   $\frac{+1.1}{26}$

$\frac{+0.3}{20}$   $\frac{+0.3}{20}$   $\frac{0.3}{20}$

$\frac{+1.6}{2}$   $\frac{1.6}{2}$   $\frac{+1.6}{2}$

$\frac{+3.9}{2}$   $\frac{3.9}{2}$   $\frac{+3.9}{2}$

$\frac{+7.1}{2}$   $\frac{7.1}{2}$   $\frac{+7.1}{2}$

$\frac{+7.2}{2}$   $\frac{7.2}{2}$   $\frac{+7.2}{2}$

$\frac{+2.2}{2}$   $\frac{2.2}{2}$   $\frac{+2.2}{2}$

$\frac{+2.2}{2}$   $\frac{2.2}{2}$   $\frac{+2.2}{2}$

$\frac{+0.6}{21}$   $\frac{+0.6}{21}$   $\frac{+0.6}{21}$

$\frac{+0.9}{24}$   $\frac{+0.9}{24}$   $\frac{+0.9}{24}$

$\frac{+0.9}{24}$   $\frac{+0.9}{24}$   $\frac{+0.9}{24}$

$\frac{+0.7}{22}$   $\frac{+0.7}{22}$   $\frac{+0.7}{22}$

$\frac{+0.6}{31}$   $\frac{+0.6}{31}$   $\frac{+0.6}{21}$

$\frac{+0.8}{23}$   $\frac{+0.8}{23}$   $\frac{+0.5}{20}$

$\frac{+0.4}{34}$   $\frac{+0.4}{20}$   $\frac{+0.4}{18}$

$\frac{+0.6}{37}$   $\frac{+0.6}{23}$   $\frac{+0.6}{15}$

$\frac{+0.4}{19}$   $\frac{+0.4}{19}$   $\frac{0.4}{19}$

$\frac{+0.8}{37}$   $\frac{+0.8}{15}$   $\frac{+0.8}{20}$

$\frac{+0.8}{33}$   $\frac{+0.8}{4}$   $\frac{+0.8}{23}$

$\frac{+0.4}{19}$   $\frac{+0.4}{19}$   $\frac{+0.4}{19}$

$\frac{+0.6}{34}$   $\frac{+0.6}{23}$   $\frac{+0.6}{20}$

$\frac{+0.7}{21}$   $\frac{+0.7}{10}$   $\frac{+0.7}{22}$

EXCA FOR CULVERT

$\frac{+1.9}{34}$   $\frac{+1.9}{20}$   $\frac{+1.9}{18}$   $\frac{+1.9}{20}$   $\frac{+1.9}{34}$   
 $\frac{+2.2}{37}$   $\frac{+2.2}{23}$   $\frac{+2.2}{15}$   $\frac{+2.2}{20}$   $\frac{+2.2}{37}$   
 $\frac{+0.4}{19}$   $\frac{+0.4}{19}$   $\frac{0.4}{19}$   
 $\frac{+0.8}{37}$   $\frac{+0.8}{15}$   $\frac{+0.8}{20}$   $\frac{+0.8}{20}$   $\frac{+0.8}{37}$   
 $\frac{+0.8}{33}$   $\frac{+0.8}{4}$   $\frac{+0.8}{23}$   
 $\frac{+0.4}{19}$   $\frac{+0.4}{19}$   $\frac{+0.4}{19}$   
 $\frac{+0.6}{34}$   $\frac{+0.6}{23}$   $\frac{+0.6}{20}$   $\frac{+1.9}{23}$   $\frac{+1.9}{34}$   
 $\frac{+0.7}{21}$   $\frac{+0.7}{10}$   $\frac{+0.7}{22}$



105

Surface  
ElevFLW  
Bottom

Area

18	86.4	84.32	4.50	14.6
19	86.4	84.21	1.75	11.7
20	86.4	84.10	3.04	8.9
21	85.8	83.99	3.04	11.3
22	85.9	83.88	2.59	10.4
23	85.9	83.77	4.07	12.4
24	85.5	83.66	3.14	13.3
25	85.5	83.55	3.50	12.2
26	85.1	83.44	5.00	15.7
+28	83.4	83.4	4.87	4.2
+80		83.4	00	6.7

352.3

8.1

313.9

cords deducted for 3'x32' GIP



V

R

$$\begin{array}{r} +21 \\ 36 \end{array} \quad \begin{array}{r} +20 \\ 20 \end{array} \quad \begin{array}{r} +08 \\ 15 \end{array} \quad \begin{array}{r} +08 \\ 23 \end{array} \quad \begin{array}{r} +08 \\ 23 \end{array}$$

$$\begin{array}{r} +20 \\ 35 \end{array} \quad \begin{array}{r} +20 \\ 25 \end{array} \quad \begin{array}{r} +10 \\ 2 \end{array} \quad \begin{array}{r} +00 \\ 15 \end{array} \quad \begin{array}{r} +00 \\ 15 \end{array}$$

$$\begin{array}{r} +08 \\ 23 \end{array} \quad \begin{array}{r} +08 \\ 23 \end{array} \quad \begin{array}{r} +08 \\ 23 \end{array}$$

$$\begin{array}{r} +08 \\ 23 \end{array} \quad \begin{array}{r} +08 \\ 23 \end{array} \quad \begin{array}{r} +08 \\ 23 \end{array}$$

$$\begin{array}{r} +07 \\ 22 \end{array} \quad \begin{array}{r} +07 \\ 22 \end{array} \quad \begin{array}{r} +07 \\ 22 \end{array}$$

$$\begin{array}{r} +08 \\ 23 \end{array} \quad \begin{array}{r} +08 \\ 20 \end{array} \quad \begin{array}{r} +08 \\ 22 \end{array} \quad \begin{array}{r} +20 \\ 36 \end{array} \quad \begin{array}{r} +21 \\ 36 \end{array}$$

$$\begin{array}{r} +08 \\ 33 \end{array} \quad \begin{array}{r} +07 \\ 17 \end{array} \quad \begin{array}{r} +07 \\ 17 \end{array} \quad \begin{array}{r} +07 \\ 17 \end{array} \quad \begin{array}{r} +18 \\ 33 \end{array}$$

$$\begin{array}{r} +06 \\ 21 \end{array} \quad \begin{array}{r} +06 \\ 34 \end{array} \quad \begin{array}{r} +19 \\ 34 \end{array}$$

$$\begin{array}{r} +18 \\ 33 \end{array} \quad \begin{array}{r} +10 \\ 25 \end{array} \quad \begin{array}{r} +10 \\ 25 \end{array}$$

$$\begin{array}{r} +10 \\ 25 \end{array} \quad \begin{array}{r} +17 \\ 32 \end{array} \quad \begin{array}{r} +17 \\ 32 \end{array}$$

$$\begin{array}{r} +00 \\ 15 \end{array} \quad \begin{array}{r} +00 \\ 15 \end{array} \quad \begin{array}{r} +00 \\ 15 \end{array}$$



Right of Way Notes on Off to the  
 4+45 to 26+80 25' Ro/Way

Cross section  
 At 500 Line tracks.

00	98.00	cu yds.
		1.0
+13	97.99	
		8.9
+16	97.98	
+40	97.96	16.8
1	97.90	↓ Culvert
		26.4
+23.6	97.88	
		1.8
+26	97.87	
		12.9
+50	97.95	
		9.9
+75	97.82	
		8.6
2	97.80	
		14.3
+36	97.77	
+92	97.76	1.5

total 102.1



8' opening to be deducted for Ref. way  
already cleared

3' Base 1:1 slope 1:

$$\begin{array}{r} +04 \\ 19 \end{array} \quad \begin{array}{r} +04 \\ 19 \end{array} \quad \begin{array}{r} +04 \\ 19 \end{array}$$

$$\begin{array}{r} +08 \\ 23 \end{array} \quad \begin{array}{r} +08 \\ 23 \end{array} \quad \begin{array}{r} +08 \\ 23 \end{array}$$

$$\begin{array}{r} +26 \\ 71 \end{array} \quad \begin{array}{r} +26 \\ 71 \end{array} \quad \begin{array}{r} +26 \\ 71 \end{array}$$

$$\begin{array}{r} +36 \\ 51 \end{array} \quad \begin{array}{r} +36 \\ 51 \end{array} \quad \begin{array}{r} +36 \\ 51 \end{array} \quad \text{24" X 60' culvert} \quad \text{culvert}$$

$$\begin{array}{r} +42 \\ 37 \end{array} \quad \begin{array}{r} +42 \\ 37 \end{array} \quad \begin{array}{r} +42 \\ 37 \end{array}$$

$$\begin{array}{r} +41 \\ 36 \end{array} \quad \begin{array}{r} +41 \\ 36 \end{array} \quad \begin{array}{r} +41 \\ 36 \end{array}$$

$$\begin{array}{r} +22 \\ 37 \end{array} \quad \begin{array}{r} +22 \\ 37 \end{array} \quad \begin{array}{r} +22 \\ 37 \end{array}$$

$$\begin{array}{r} +22 \\ 37 \end{array} \quad \begin{array}{r} +22 \\ 37 \end{array} \quad \begin{array}{r} +22 \\ 37 \end{array}$$

$$\begin{array}{r} +20 \\ 35 \end{array} \quad \begin{array}{r} +20 \\ 35 \end{array} \quad \begin{array}{r} +20 \\ 35 \end{array}$$

$$\begin{array}{r} +16 \\ 33 \end{array} \quad \begin{array}{r} +16 \\ 33 \end{array} \quad \begin{array}{r} +16 \\ 33 \end{array}$$

$$\begin{array}{r} +23 \\ 38 \end{array} \quad \begin{array}{r} +23 \\ 38 \end{array} \quad \begin{array}{r} +23 \\ 38 \end{array}$$

$$\begin{array}{r} 00 \\ 19 \end{array} \quad \begin{array}{r} 00 \\ 19 \end{array} \quad \begin{array}{r} +23 \\ 38 \end{array}$$



109 Snell School

Dec. 3, 1920

Commencing at a point 436 feet South of the N.E. Cor. of Lot 1, Sec. 14, 140-27 and containing one acre of ground, thence running west  $13\frac{1}{3}$  rds, thence south 12 rods, thence east  $13\frac{1}{3}$  rds to the east line of above described lot, thence north along the East line of the above described lot.

Sept. 20, 1919

Same as above, except possession and occupancy clause with reversion.

Dec. 1, 1921

Commencing at a point  $387\frac{1}{2}$  feet south of the N.E. Cor. of Lot 1, Sec. 14-140-27, thence running west 17.88 rds., thence south 17.88 rds., thence east 17.88 rds., thence North 17.88 rds to point of beginning.



N.E. Cor. Lot 1

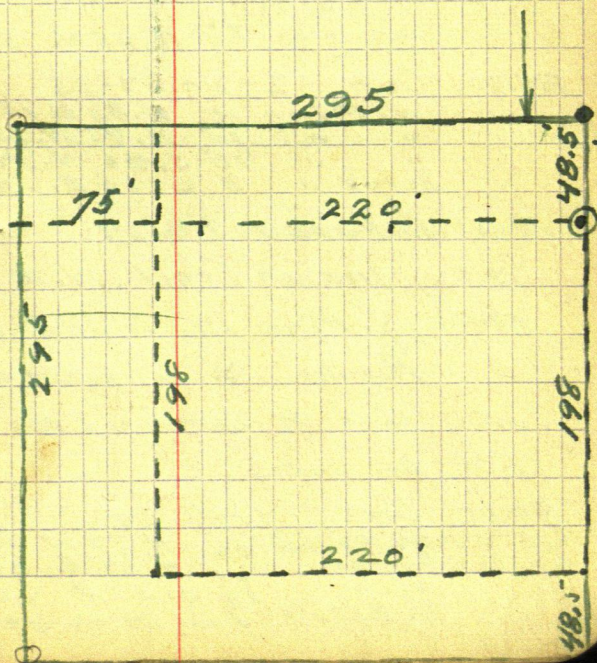


1712.	1324.5
6.4	1318.1
<u>1705.6</u>	<u>6.4</u>
295.0	
2000.6	

1324.5	1318.1
387.5	387.5
<u>1712.0</u>	<u>1705.6</u>
295.0	295.0
2007.0	2000.6
2636.1	

Oct. 18-27 Set 41. M. S. as per  
 George W. Rouse - Axe & chain  
 John M. Greene - Transit & chain  
 Rouse 1/2 day @ \$4.00 = \$2.00  
 Greene 13.50

387.5  
 436





T. 140 N. R. 26 W. 5<sup>th</sup> Mer.  
S. Town Line

Cor. 139 & 140, R. 25 & 26

W. Pine 30' N. 50 E 116

" " 24 S. 48 E. 103

" " 30 S. 22 W. 31

" " 22 N. 38 W. 36

West on true line bet 1 & 36

40.00 Set 1/4 post W. Pine 15' N. 80 E 53  
" " 12 S. 89 W 44

80.00 Cor 1 & 2, 35 & 36

Aspen 9 N. 20 E 44

Maple 7 N. 25 W. 15

" 14 S. 78 W 47

Birch 12 S 65 E 15

West bet. 2 & 35

40.00 W. Pine 12' S. 25 E. 28

" " 7' N 22 W. 33

80.00 Cor. 2-3-34-35

W. Pine 10 N. 82 E 15

" " 15 N. 75 W. 73

" " 15 S. 80 W. 94

Scrub " 9 S. 33 E. 15

West between 3 & 34

24.00 Indian Trail N. & S

40.00 Y. Pine 14 N. 18 E 60

Aspen 9 S 69 W 55

53.00 Tam & Spruce Swp. N. & S

61.00 Lv. same

80.00 Cor. 3-4-33-34

Y. Pine 12 N 30 W 35

" " 21 N 34 E 56

W. " 13 S. 57 E 60

W. Birch 7 S. 24 W. 66



West bet. 4 & 33

40.00 W. Pine 24" S. 22 E 62

" " 14' N. 62 W. 21

80.00 Cor. 4-5-32-33

R. Oak 9 N. 62 E. 32

" " 12 N. 33 W. 57

W. Pine 24 S. 37 W. 48

" " 20 S. 60 E. 67

West bet. 5 & 32

10.52 M.C. W. Birch 3" S. 85 E 28

Bl. Ash 4" N. 64 E 6

23.53 Set M.C. W. Cedar 14" N. 85 W 52

Horcrosspoint " Ash 9" S. 68 W. 33

38.68 Set M.C. Elm 9" S. 50 W 9

Y. Pine 15" N. 65 E 7

57.93 Set M.C. W. Birch 10" N. 80 W 14

" Pine 10 S. 10 E 67

80.00 5-6-31-32

W. Pine 18 N. 62 E 130 lbs

Pine stub 10" N. 62 W 38

Y. Pine 15 S. 40 W 49

" " 15 S. 10 E 90

West bet. 6 & 31

37.00 Tam swp N.W & S.E

40.00 Tam. 3" S. 70 W 12

" 4" N. 50 E 8

41.00 Lv. swp N.W & S.E

43.62 Set M.C. W. Pine 18 N. 82 E 33

" " 10 S. 40 E. 25



Cor. 5 & 6 sets 60/ks S. of pond  
brs. N.E. & S.W-pond 4.40 wide

Cor. 4 & 5 sets 11.5 chs. south of pond.  
Line between 32 & 33 140-26

11.50 Edge of pond

East 2.00

North 4.50

West 2.00

16.00 Over pond.

Line bet 31-32 - 140-26

0.60 Edge of pond brs. N.E. & S.W

E. 2.00 ch.

N. 4.40

W. 2.00 regain line

5.00 Over pond brs. N.E. & S.W.

33.50 Pond marsh

36.00 Over " to Island

40.00 1/4 post N. Pine 8" S. 44 E 14

W. " 16 West 18

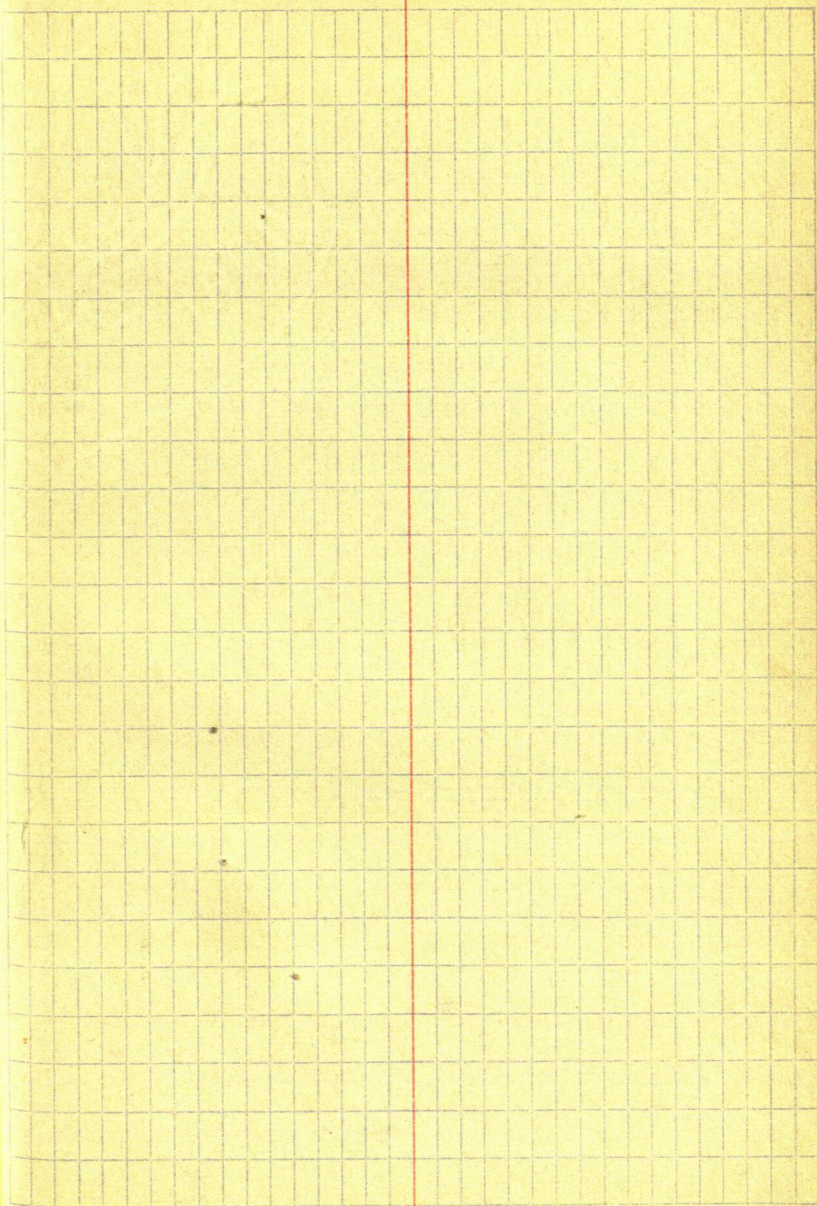
43.00 N. Edge of Island E & W.

44.51 Over pond br. E. & W.

58.00 Enter open swp.

63.00 Lv. "

80.00 Cor. 29-30-31-32





$$\begin{array}{r}
 26 \\
 \hline
 142 \\
 \hline
 144 \\
 \hline
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 36 \\
 \hline
 12 \\
 \hline
 19 \\
 \hline
 36 \\
 \hline
 \hline
 \hline
 \end{array}$$



R W. Block.

Possible change of  
a mud sill culvert  
for a G.I.P. Cochise Nos  
at Road Sta about 54  
Channel cleaning can  
be let by Mellers  
request Nos

Nos grubbing along  
Road leveling

8.857

14 ) 1.30  
12 2 00  
2 0 00

26  
26  
2.86



DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES  $1\frac{1}{2}$  TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

MADE IN GERMANY.