

58

FIELD BOOK

360

No. 158

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GUARD RAIL
S.A.R. No 7, Job 2601

R	L	Total Lin. Ft.
2+80		
2+60	4+00	940

S.A.R. No 1 Pine River-Longville

R	L	Total Lin. Ft.
4+80	3+24 at Pine River	
1+50		
1+50		
	2+00 on curve, not bad.	
	1+50 " " "	
2+00		
1+75		
	1+25	
	1+50	
1+00		
0+75		
	2+60	
2+75		
3+25		
1+25		
3+75	At Longville St.	
2430	1209	<u>3639</u> 4579

May 12, 1927

R.A. Dahms
J.M. Walker 1

Panels

L	R
	25
34 408'	22
	564
	<u>408</u>
	972 ✓

28	40	
	12	
	12	
16		
13		
	17	
	15	
11 Not #7		
13		
	7	
21		
14		
10		
126		
		219
		<u>126</u>
		345
		<u>12</u>
		690
		345
		<u>4140</u> ✓
		23
		27
		11
		30-31
		219

325
160

219
126
345
12
690
345
4140 ✓

GUARD RAIL

S. A. R. No 3, Remer - Crooked Lake

R
 0+60
 1+50
 2+56
 7+00
 11+50

L
 0+60
 0+50

Cr. Lake Dr.
 " " "

Total Lin. Ft.

L
 4
 4
 74
 9
 91

R
 5
 4
 19
 28
 91
 119 1/2 = 1428
 8
 127

1316

110.

1426
 4579
 6005

14
 2
 12

54 Anchors @ 3.50 = 189.00
 6000 lin ft. @ 0.25 = 1600.00
 400
 \$1,789.00

1
 1428
 96
 1524

Inguadona Bridge
Transit Notes

9+00 = 0+00
8+56 = 0+44
8+49.6 = 0+50.4

5+45 = 3+55

3+93 L 29°05' N 66°25' W
5+07

0+00 = 9+00

S 84°30' W

Borrow Pit Notes

3+50

0+00

N 71°20' E

5-18-27

Cloudy & Cool

Party

R.A. Johns Engr.
A.R. Taubman Asst. Engr.
E. Nolting Rod
Speiser Chain

RP's { 24" oak (BM) RW 26.0
24" " Stumps 30.7'

S.E. Cor. C.I.R. 3' to the left.
End of Bridge

Beginning of Bridge { 16' spans
Width of Bridge 16'

* RP's { E. side of 24" oak N 2.9'
W. " " " " N 3.1'

RP's { 22" oak N 17.5'
5" " NE 43.0'

* RP's { E. side of 24" oak 2.9'
W " " " " 3.1'

Inguadona Bridge

Sta	X-sec	Notes	Elev	Soundings
BM	106.41	3.37	103.04	
9+00	4.2		102.2	
8+00	4.6		101.8	
7+00	6.2		100.2	
6+00	4.1		102.3	
5+07	4.5		101.9	
5+00	4.2		102.2	
4+00	3.5		102.9	
3+55	2.8	End of Bridge	103.6	
TP	2.74		103.67	
+	110.50	6.83		
3+55	10.5	Water Level	100.00	3.2 2.0
3+00	5.6		104.9	2.2
2+50	4.5		106.0	2.2
2+00	4.0		106.5	2.0
1+50	3.6		106.9	1.8
1+00	3.5		107.0	6.0
0+50.4	4.0	End of Bridge	106.5	1.2
0+50.4	4.0		106.5	
0+00	6.6		103.9	
BM	6.45		104.05	

L				R			
On 24" Oak N of Sta 9+00				9+00			
7.2	5.9	4.8	4.7	5.3	4.4	6.0	7.3
3.2	2.7	1.7	4	9	15	20	26
7.7	7.2	5.1	4.8	7.1			
2.7	2.0	1.5	3	7.5			
9.0	7.6	5.5	5.4	9.4			
23.0	1.9	1.6	3	4			
	8.9	7.8	5.4	9.2	9.7		
	23	16	11	5	8		
CS 9.2 8.4				5.9 7.7 8.2			
	7	4	5.6	11	14	15	CS
	9.1	8.7	5.6	5.6	8.3	10.2	
	13	9	6	5	8	13	
	11.1	9.8	6.0	5.6	8.8	11.2	
	16	11	6	6	13	20	
			12.3				12.5
			8				8
			12.8				13.4
			8				8
			11.3				12.8
			8				8
			12.9				11.7
			8				8
			13.3				12.3
			8				8.0
			16.5				17.0
			8				8
			12.2				12.0
			8				8.0
			12.2	12.0			12.0
			5.7	5.7	8.2		12.0
			6	5	11		14
			5.6	6.2	8.6		10.2
			9.0	23	17		21
			5.6				
			5.6				
On 24" Oak NW of Sta 0+00							

Borrow Pit #1

Sta	-	H1	+	Elev
BM		107.88	4.84	103.04
0+00	57.8			102.1
0+50	51.5			102.4
0+65	51.5			102.4
1+00	6.2			101.7
1+45	51.2			102.7
1+65	4.9			103.0
2+00	51.4			102.5
2+50	6.5			101.4
3+00	7.0			100.9
3+30	7.4			100.5

Bridge Extras.

- 22 - 3"x14"x18' \$117.00
- 16 - 3"x14"x16' returned 53.00 (return cost)
- 41' of Riprap.

Five Piling, 10 drift Pins 25' cables.

\$25.00
putting on splice blocks
14 splice blocks \$5.00.

Ing. Bridge

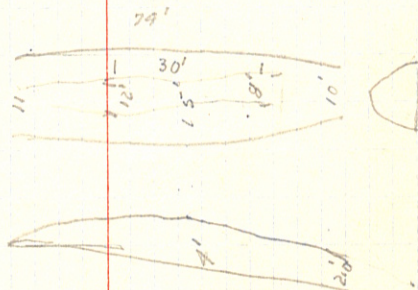
7

L										R									
										Road									
7.4	3.6	4.6				5.7	4.82	5.1	5.3	17	11	4	5.8	12	21	31	41		
8.1	7.3	4.2	5.5			6.8	7.5	5.9	4.6	5.2	6.4								
21	15	10	4	5.6		2	5	12	22	34	44								
8.1	5.9	3.8	4.3	5.2		7.4	8.5	8.4	7.7	5.8	5.7	4.9							
19	12	7	4	1	6.2	3	7	15	19	23	30	40							
7.7	6.9	3.5	4.4			4.8	7.6	8.3	8.4	7.7	6.4	6.0	4.6						
16	13	7	3	5.2		1	7	13	8.8	4.1	4.8	5.5	6.4						
7.8	6.8	3.3	4.4			5.0	7.6	8.3	8.4	7.7	6.4	6.0	4.6						
15	13	8	4	4.9		16	22	36	40	44	55	66	81						
8.1	7.1	5.0	4.1	4.5		6.3	5.6	4.9	5.3	7.8	8.5	8.4	7.7	6.4	6.0	4.6			
19	15	8	4	3	5.4	6	17	29	40	45	48	53	69	73					
8.1	7.1	4.4	5.9			6.9	6.6	5.4	7.4	8.6									
23	17	8	4	6.5		8	5.2	6.2	5.7	7.3									
8.0	6.2	4.3	6.0			6.4	6.7	7.5	7.4										
26	22	13	5	7.0		11	3.8	6.7	8.6										
						7.4	7.5	7.4											
							3.3	6.8											

Yardage at West End. See wall

74' long.

93 CY.



Re- X Sec	Notes	Borrow	Pit #1
BM	104.80	1.76	103.04
0+00	2.7		102.1
0+18	2.8		102.0
0+50	3.6		101.2
0+65	4.5		100.3
1+00	5.0		99.8
1+45	5.3		99.5
1+65	5.8		99.0
1+79	5.8		99.0
2+00	5.4		99.4
2+30	5.8		99.0
2+50	5.5		99.3
2+74	5.6		99.2
2+94	5.4		99.4
3+00	4.0		100.8

Inq. Bridge

8

L R

On 24" N of Sta 0+00

1.3	1.5	3.8	4.3	2.2	2.7		
15	17	16	11				
2.2	2.5	2.6	3.2	2.7			
18	16	8	5	2	28		
		2.4	4.2	4.2		3.4	2.8
		13	11	7	3.6	7	18
		2.3	5.1	4.8	4.6	4.2	3.8
		17	10	8	7	4.5	6
		2.6	5.5	5.3	4.9	5.3	5.0
		12	9	3	2.50	9	18
		3.7	5.5	5.6	5.2	5.3	4.9
		13	11	8	5	3	5.3
		3.1	5.7	6.0	5.5	5.7	4.7
		13	10	5	1.50	9	11
		3.8	5.9	5.8	4.9	4.9	5.7
		13	11	5.8	15	16	22
					22	23	26
					27	36	41
					42	45	
					4.8	5.0	3.4
					4.6	6.8	6.9
					2.5	5.5	5.3
					4	7	5.4
					5.3	5.8	5.7
					4.8	4.9	5.5
					4.9	5.5	5.7
					5.5	5.7	5.2
					5.7	6.2	
					5.7	6.6	
					1.5	2.3	5.9
					6	4	2
					5.6	5.9	5.6
					5.5	5.5	5.5
					5.5	5.7	6.1
					10	4	2.6
					4.5	5.7	6.1
					1.8	5.8	5.7
					5.7	5.7	5.4
					5.6	5.8	5.8
					5.3	5.8	5.3
					13	12	5.5
					16	17	2.5
					4.5	5.5	7.1
					7.2		
					1.8	5.5	5.4
					5.6	5.6	4.5
					4.5	4.6	5.7
					5.9	5.8	5.8
					15	13	5.6
					2.9	3.4	3.9
					5.3	5.4	6.1
					6.2		
					5.2	4.0	
					7.0	7.4	
					1.4	5.5	5.4
					11	9	5.4
					1.5	1.8	
					0.0		

Unorganized 142-25

Slope Stakes

Sta		H	I	+	Ground Elev.	Grade Elev.
BM		102.72	2.72		100.00	
TP	12.07				90.65	
+		94.98	4.33			
5+00	6.1				88.9	88.7
5+30.5	5.9				89.1	87.0
+47	6.2				88.3	86.0
6+00	11.6				83.4	82.6
TP	12.21				82.77	
+		83.85	1.08			
7	7.4				76.5	76.2
TP	12.00				71.85	
+		74.96	3.11			
8	5.3				69.7	70.9
7+40	6.6				68.4	69.3
BM	1.96				73.00	

Note: - All Slope Stakes Computed for Ditch Grades

22	65.1	62.9
23	63.9	62.8
24	65.9	62.7

6-21-27

Party (Taubman Asst Engr 10
O Houston Red
Brown Chain)

L R
On 12" Birch Stub S.E. of Sta 0+00

All Exc. Stakes are set D.C.

RP40'		+0.0	
	O.C. +5.1	+2.1	+5.1 D.C.
	21.1		21.0
		+2.8	
	+3.8	+0.8	+6.5
			22.5
	+2.9	+0.3	+3.7
	18.9		19.7
RP40'	+1.4	-1.2	+1.8
	17.4		17.8

On Ced Stump SW of Sta 8+00

Clea red.	22.0		
RP40'	+2.5	+0.0	+2.5
22	26.5		26.5
23	+3.1	+0.0	+3.4
24	26.1		26.4
	+3.0	+0.0	+3.2
	26.0		26.2

	Ground Elev	Ditch Grade
25	65.5	62.6
26	65.3	62.5
27	65.7	62.3
28	65.4	62.2
29	64.5	62.1
30	64.1	62.0
31	63.2	61.9
+70	63.3	61.8

Off fake Ditch Sta 39+30

BM	Elev
0	64.77
1	61.0
2	60.9
3	60.8
4	60.7
5	60.5
6	60.4
7	60.3
8	60.2
9	60.1
10	60.0
11	59.8
	59.7

	L	
Cleared	+2.7	0.0
22'	23.7	0.0
22'	+3.0	0.0
25'	26.0	0.0
RP40'	+3.4	0.0
21'	26.4	0.0
Cleared	+2.5	0.0
21'	26.5	0.0
Cleared	+2.4	0.0
21'	26.4	0.0
RP40'	+1.8	0.0
	24.8	0.0
		-1.0
		-1.0

	R	
+3.1	Cleared	26'
26.1		21'
+3.4		23'
26.4		25'
+3.4		25'
26.4		25'
+3.4		25'
26.4		25'
+2.8	Cleared	23'
26.8		22'
+2.2		
25.2		
8 stave		

On 12" Spruce Stump SE of Sta 39+00

57770
 58.
 59
 60
 61
 62
 63
 64
 65
 66
 67
 +88

Ground Elev	Ditch Grade
68.9	
69.1	67.1
71.0	66.6
70.3	66.1
67.5	65.5
66.1	64.0
64.8	63.0
64.0	62.0
64.0	61.7
63.6	61.4
63.2	61.1
61.4	60.2

+2.0
18.0
+4.4
23.4
+4.9
23.9
+1.7
20.7
+1.8
+2.3
+1.8
+2.3
+2.2
-0.0
+2.4
+2.3
0.0
-1.0
-1.0
-1.0
-1.0
-1.0
-1.0
-1.0

+2.0
18.0
+4.4
27.4
+4.6
23.5
+2.5
21.5
+2.4
+2.2
+2.0
+2.5
+2.4
+
+2.1
+0.9

RP40
 RP40

# 2	Borrow Pit	Inquadonna	Bridge
	H1	+ E lev	
BM	105.83	5.83	100.00
0+00	7.0		98.8
0+22	7.2		98.6
0+38	7.2		98.6
0+49	7.2		98.6
0+69	7.2		98.6
0+83	7.2		98.6
1+00	7.2		98.6
1+18	6.9		98.9
1+55	7.35		98.48

1+55

0+00

N82°E

10-30' From Sta 0+00 B.P.#1
to Sta " " " " #2

On 10" Cedar N of Sta 1+00

8.4	7.6	6.4	5.3	8.5	8.7	7.2
4.6	4.0	2.5	1.5	1.1		
7.0	7.0	5.9	3.3	2.5	5.4	8.8
5.7	5.3	4.2	3.1	1.8	1.1	7.2
8.6	7.3	4.6	2.7	1.7	8.3	8.7
5.6	5.2	4.1	3.1	2.2	1.3	7.2
7.6	4.2	3.0	3.0	8.4	8.6	
5.7	3.7	2.9	2.0	1.2	8	7.2
7.5	4.3	4.0	8.5	9.4	8.9	7.2
4.6	3.5	2.2	1.5	1.3	9	7.2
6.8	5.6	5.5	8.4	9.4	8.6	
3.8	2.9	1.7	1.4	1.2	9	7.2
7.2	7.1	7.2	8.6	9.2	8.6	8.9
2.2	1.7	1.4	1.1	1.0	9	6.9

RPs { Tel Pole SE 31.9'
12" Birch NE 63.2'

RPs { Tel Pole SW 56.7'
Cedar N 61.0'

Inquadonna Bridge

0 + 18	98.6
0 + 19	98.6
0 + 22	98.6
0 + 38	98.6
0 + 49	98.6
0 + 69	98.6
0 + 83	98.6
0 + 85	98.6
0 + 86	98.6
0 + 88	98.6
0 + 89	98.6

+ 240 Cu. Ft

	6.0	5.4	4.2	5.6	
	33	24	16	12	5.6
NG	5.1	7.0	7.1	6.9	6.1
	36	34	31	19	17
Same			5.2	7.3	6.0
			35	31	12
5.5	7.5	7.6	7.3	6.7	6.2
58	48	44	34	31	25
	6.0	7.5	7.2	6.9	6.5
	50	48	38	29	14
5.8	7.4	7.2	7.2	7.0	6.7
49	44	38	30	18	13
5.7	6.7	6.5	7.0	6.7	5.4
48	41	36	32	19	13
5.6	6.3	6.6	6.6	6.5	4.6
41	48	38	27	20	14
	5.3	6.3	6.6	2.8	2.7
	40	35	24	23	20
	4.6	6.2	6.6	3.4	2.5
	36	34	29	28	20
NGs	4.6	4.2	3.1	2.6	
	38	33	28	20	

Natural Ground

Hackensack Levels
Birch Lake Dam

Sta	-	H1	+	
BM		1390.554	0.380	1390.174
TP	8.530			82.024
+		86.054	4.03	
TP	4.820			81.234
+		86.494	5.26	
	6.990			79.494
	6.220			80.274
	8.560			77.934
	7.730			78.764
TP	5.260			81.234
+		85.964	4.73	
	10.78			75.184
TP	3.940			82.024
+		91.284	9.26	
	17.3			74.0
	1.11			1390.174

Oct. 11th 1927.

R.A. Dahms - Rod
A.R. Taubman - Inst.

15

Govt. BM 10 Meters N of Section House

Top of Spillway

" " Dam Wing

Bottom of Old Creek Bed

Present Water Surface

Bottom of Creek

" " at RR Culvert

Cass-Hubbard Jud. Road #4

Bet. T 145 R 31 & 32

Sta	Defl	Angle	Mag. Bearing	Computed Bearing
P. 1.43+80 435	L	10°08'	N26°45'W	N26°59'W
P. 1.39+45 968	L	12°31'	N16°30'W	N16°51'W
P. 1.29+77 358	L	44°25'	N4°W	N4°20'W
P. 1.26+19	R	46°35'	N40°E	N40°55'E

0+00

N6°30'W

4-12-28

Weather - Clear & Warm

Party

R. A. Johns Engr.
 A. R. Taubman Asst. Engr.
 F. Shepard Chain
 C. Anderson "

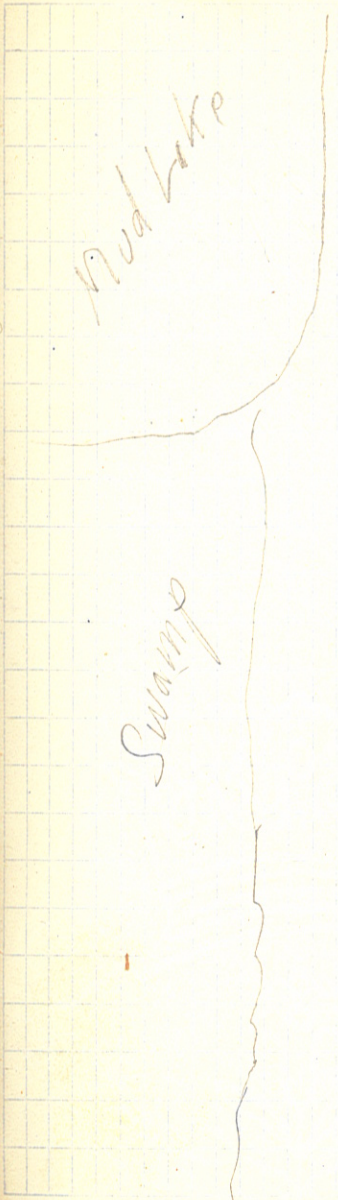
16

Swamp

Little Wolf Lake

S.E. Cor Sec 12-145-32

	Defl	Angle	M. Bear
P.1.68+29 135	L	12°50'	N57°30'W N57°23'W
P.1.66+94 106	L	14°31'	N44°30'W N44°33'W
P.1.65+88 291	L	12°46'	N30°W N30°02'W
P.1.63+47 105	L	6°45'	N17°W N17°06'W
P.1.62+42 132	R	0°37'	N10°W N10°31'W
P.1.61+10 70	R	4°56'	N11°W N11°08'W
P.1.59+40 40	R	13°08'	N16°W N16°04'W
P.1.58+00 135	R	15°12'	N31°W N31°12'W
P.1.56+65 125	L	14°08'	N46°W N46°24'W
P.1.55+20 152	R	14°31'	N32°W N32°16'W
P.1.53+68 368	R	14°21'	N46°30'W N46°47'W
P.1.51+00 252	R	16°47'	N61°W N61°08'W
P.1.48+48 194	L	16°10'	N78°W N77°55'W
P.1.46+54 135	L	20°19'	N61°30'W N61°45'W
P.1.45+19 159 43+80	L	14°27'	N41°15'W N41°26'W



Little Wolf Lake

P. 1.93+59	L	16°51'	N52°W	N53°13'W
P. 1.92+09 ¹⁵⁰	L	22°30'	N35°W	N36°22'W
P. 1.90+82 ¹²⁷	R	56°40'	N12°W	N13°52'W
P. 1.89+06 ¹⁷⁷	R	2°47'	N69°W	N70°32'W
P. 1.87+72 ¹³³	L	12°32'	N71°30'W	N73°19'W
P. 1.86+22 ¹⁵⁰	R	7°16'	N59°W	N60°47'W
P. 1.84+41 ¹⁸¹	L	13°54'	N66°30'W	N68°03'W
P. 1.82+20 ²²¹	L	5°54'	N53°W	N54°59'W
P. 1.80+99 ¹²¹	R	24°00'	N47°30'W	N48°15'W
P. 1.78+56 ²⁴³	L	20°02'	N71°30'W	N72°15'W
P. 1.75+65 ³⁰¹	R	2°43'	N51°W	N52°13'W
P. 1.73+52 ²⁰³	R	14°39'	N54°W	N54°56'W
P. 1.71+57 ¹⁹⁵	R	4°41'	N68°30'W	N69°35'W
P. 1.70+28 ¹²⁹	L	16°53'	N73°30'W	N74°16'W
¹⁸⁹				
⁶³⁺²⁹				

Mid Lake

Lake

P. 97+19
88

L

10740 S61°30'W S60°23'W

P. 96+31

R

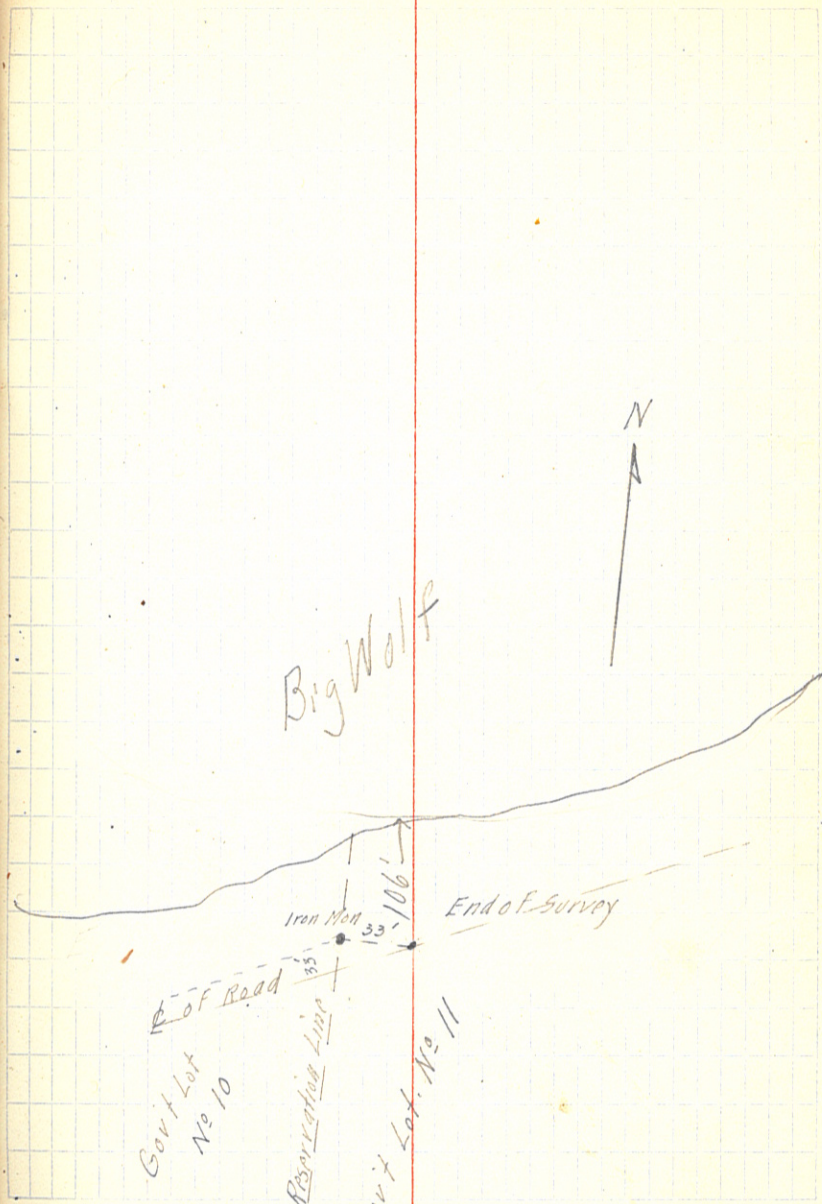
44°19' N11°W N11°57'W

P. 94+85
126

L

3°03' N55°W N56°6'W

93-155



Court House Retaining Wall Survey
Transit Notes

4-26-29
Clear & Warm

Party { R.A. Johns - Egr
A.R. Taubman - T
Leo French - Rod

3+00

10' South of S.E. cor of B 24

2+40

Begin of Garage

2+33

End " Shed

2+18

Begin " Shed

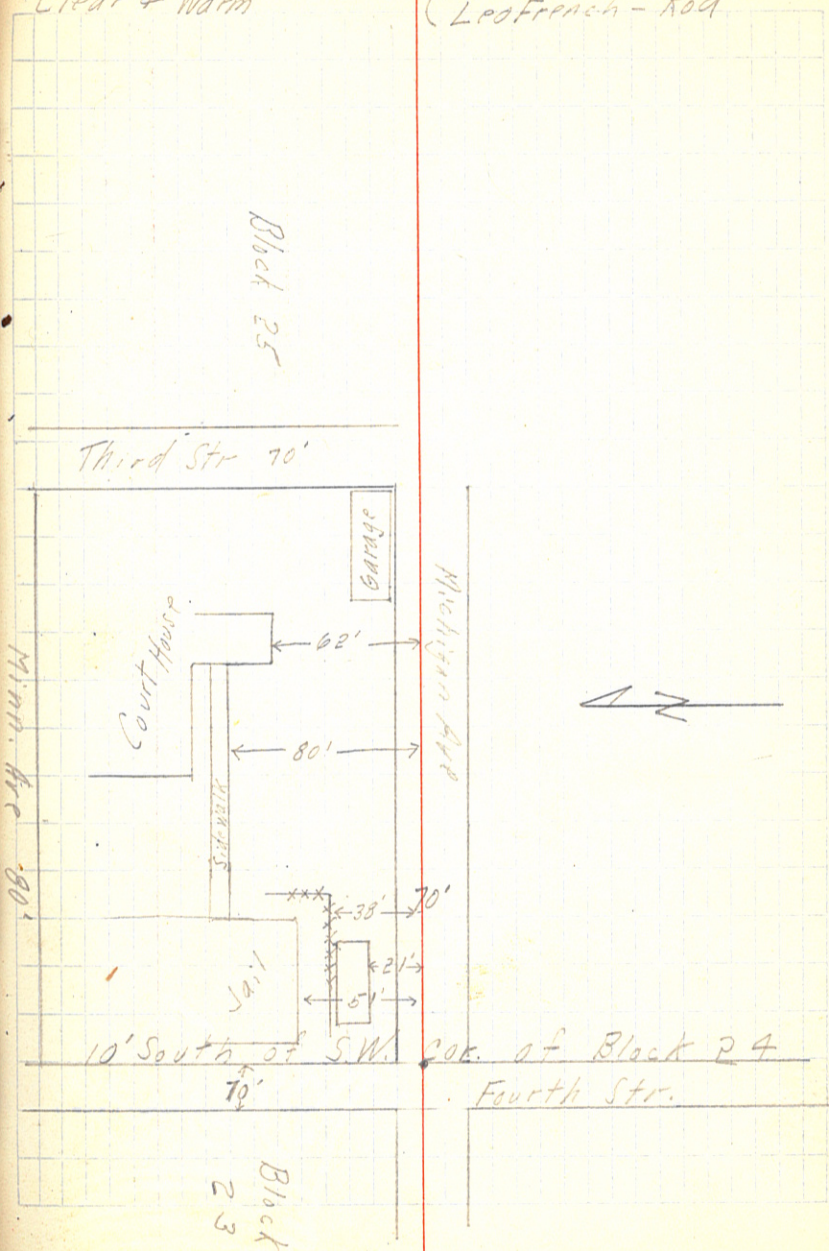
1+88

End of fence

1+63

" " Building

0+00



Court House Retaining Wall Survey

3.6

Sta	Level	X- Sec.	Notes	Lot Line Elev.	Lot Line Elev.
BM	113.33	3.33		110.00	
0+00	3.3			110.00	109.7
0+11	3.8			09.5	108.8
0+12	4.3			09.0	108.5
0+25	7.2			06.1	104.0
+40	8.6			04.7	102.5
+63	7.1			06.2	105.0
+80	6.8			06.5	104.6
+88	5.8			07.5	105.8
+100					
1+25	5.8			07.5	104.9
+50	5.6			07.7	104.5
+75	7.2			06.7	105.1
TP	8.40			104.93	
+		106.60	11.67		
2+00	11.7			04.9	104.2
+25	11.5			05.1	105.4
+40	11.4			05.2	105.8
+50	11.3			05.3	106.6
+75	10.4			06.2	106.3
3+00	10.3			06.3	106.2

On top of S.W. Cor. Monument

	5.3	3.6		2.2	0.3
	4.0	1.1	3.3	2.5	5.34
	6.6	4.9	4.5	2.4	
End of Wall	51	26	10	3.9	2.5
	11.6	11.0	10.2	4.8	2.4
	51	26	11.5	1.2	4.3
			10.8	9.3	2.7
Building	21	10	7.2	2.5	
			11.3	10.8	3.3
			20	10	2.5
Cor. of "		9.4	8.3		2.9
		20	10	7.1	2.5
	11.3	10.1	9.7		3.2
Fence	39	30	10	6.8	2.5
	12.3	11.0	11.5	9.8	7.5
Sidewalk	30	53	34	21	10
	12.4	11.7	10.4	9.7	8.4
	30	66	41	21	10
	12.4	11.5	10.6	8.7	8.8
	30	66	45	19	10
	12.4	11.8	10.8	9.5	8.2
	30	15	58	30	10
	15.6	15.1	14.4	13.1	12.4
	80	75	62	39	10
					11.7
	13.5	13.2	11.0	11.2	10.7
Shed	62	39	13	10	11.5
		13.8	12.8	10.8	10.2
		62	29	10	11.4
		13.5	12.7	10.0	10.0
		62	29	10	11.3
		13.3	12.8	10.3	8.7
		62	29	10	10.4
		14.3	12.8	10.7	8.7
		62	29	10	10.3
					2.5

Brotten Laundry Levels

Station	BM	Level	Level	Level
BM		115.40	5.35	110.05
0+00	5.4			110.0
	6.7			09.7
0+25	5.5			09.9
0+50	5.3			10.1
0+75	5.25			10.15
1+00	5.3			10.1
1+25	5.3			10.1
1+50	5.1			10.3
1+78	4.9			10.5
	7.93			107.5
				107.7

4-26-29

22

Top of curb at Sta 0+00

Top of Curb

" " pipe

" " "

" " "

" " "

" " "

" " "

Bottom of Box

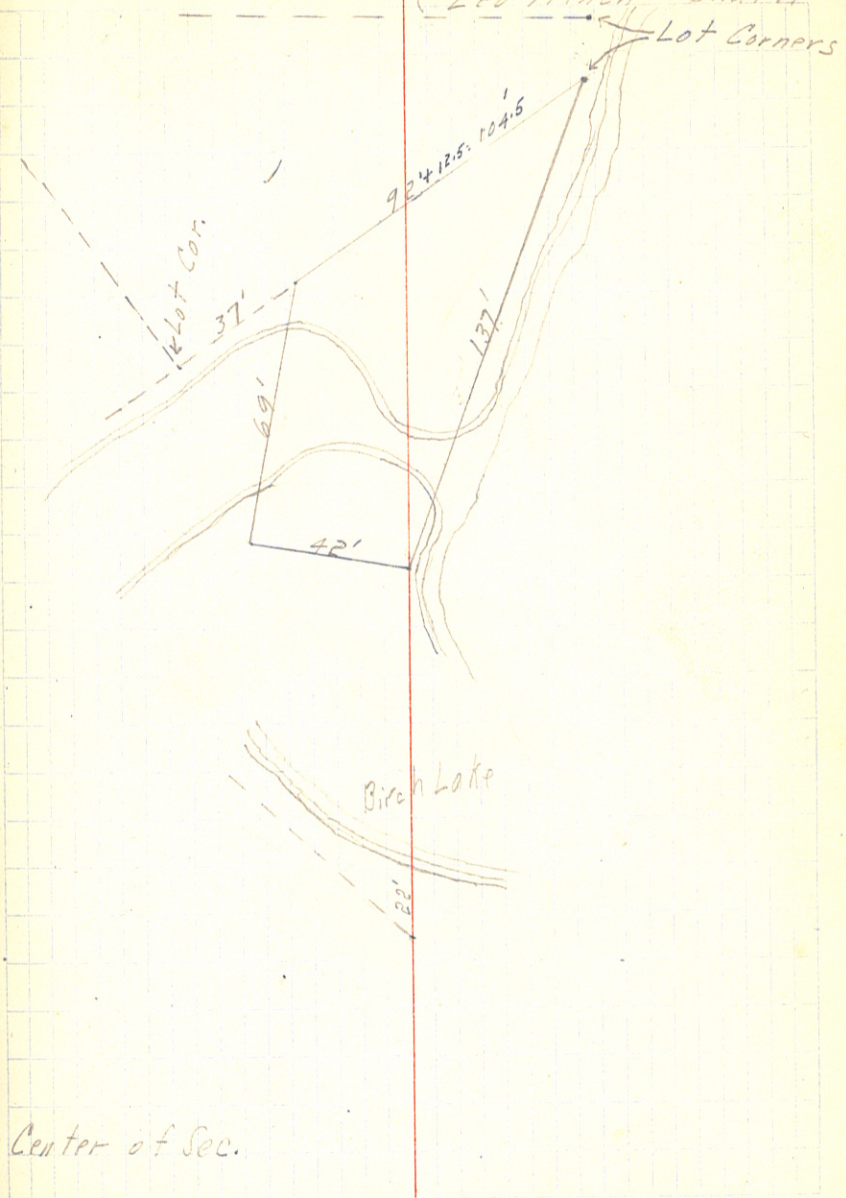
Top of pipe at outlet

Birch Lake Dam Location

4-26-29

Party { R.A. Dahms - Engr
A.R. Taubman - Instr. 23
Leo French - Chain

Sta	Defl.	Angle
12+45	R	46°06'
11+76	R	91°26'
11+34	L	80°15'
8+60.4	R	4°57' S39°W
3+56	L	48°10'
0+00		578°30'W



SURVEY FOR WALKER

WATER SUPPLY

Transit Notes

Sta.	Defl.	Angle	Mag. B.	Col. Bearing
20+00				
16+77 16+52.32	L	77°33'		
15+02.32				
14+42.32				
11+42.32				
10+82.32				
7+82.32				
6+22.32				
4+45				
3+75				
3+50				
2+80				
7+38				
7+29				
0+00				

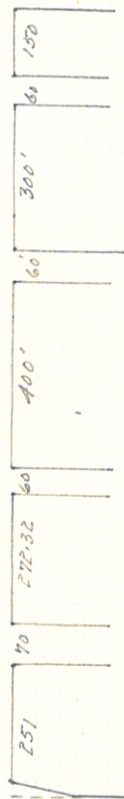
July 24, 1929

Inst. R.A. Dahms
Chain C. Steadland
" A. Cater 24

Tank site

20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0

+38 @ T.H. #34



SURVEY FOR WALKER

WATER SUPPLY

LEVEL NOTES

Sta.	-	H.I.	+	Elev.
B.M.		106.64	6.64	100.00
0+00	6.93			99.71
+38	5.16			101.48
1+00	5.42			101.22
2+00	2.62			104.02
2+80	2.24			104.40
3+00	2.95			103.69
3+50	2.25			101.44
TP -	0.68	117.99	12.03	105.96
3+75	13.58			104.49
4+00	7.45			110.54
4+45	3.44			114.55
5+00	6.52			111.47
6+00	6.72			111.27
6+22	5.52			112.47
6+82	1.00			116.99
TP -	0.10	130.39	12.50	117.89
7+00	11.60			118.79
TP -	0.97	141.54	12.12	129.42
8+00	10.03			131.51
TP -	0.22	153.37	12.05	141.32
9+00	9.28			144.09

July 29, 1929

Level R.A. Dahms
 CK " Carl Stedland 25
 AX. A. Cater

1
 on top of South rail Nor. of Sta. 0+00

G.S. 4'E

" " 4'E

" " 10'E

" " 10'E

" " 8'E

" " 6'E

Sta	-	H.I	+	
B.M.	3.10	153.37		150.27
TP	1.92	156.20	4.75	151.45
10+00	2.77			153.43
10+82	5.30			150.90
11+00	6.90			149.30
11+25	8.22			147.98
11+42	8.37			147.83
11+60	7.88			148.32
12+00	5.59			150.61
TP -	0.65	167.29	11.74	155.55
13+00	5.90			161.39
TP -	0.11	179.25	12.07	167.18
TP -	1.18	189.19	11.12	178.07
14+00	7.77			181.42
14+42	2.26			186.93
TP -	0.81	199.48	11.10	188.38
14+85	0.91			198.57
15+02	1.41			198.07
TP -	1.30	208.95	10.77	198.18
16+00	14.50			194.45
16+52	3.68			205.27
TP -	0.87	219.30	11.22	208.08
16+77	9.40			209.90

B.M. on Light Pole. Nail in base. S.W. sta. 9+00

G.S. 10'E

" " 9 W

begin of fill

" " 3 W

" " 3 W End of fill

13.4

10

14.4

12

" " 12 E

		H.I.	+	
17+00	7.45	219.30		211.85
18+00	9.00			210.30
TP-	0.80	229.95	11.45	218.50
19+00	6.00			223.95
TP-	1.20	238.47	9.72	228.75
20+00	3.00			235.47
B.M.	4.03			234.44

Check Levels

B.M.		238.47	4.03	234.44
TP -	9.72	229.46	0.71	228.75
T.P.	10.99	218.83	0.36	218.47
T.P.	10.78	210.66	2.61	208.05
T.P.	17.50	198.95	0.79	198.16
T.P.	10.60	188.93	0.58	188.35
T.P.	10.88	178.41	0.36	178.05
T.P.	11.74	167.43	0.26	167.17
T.P.	11.89	157.70	2.16	155.54
T.P.	6.76	151.77	0.33	151.44
B.M.	1.52			150.25
T.P.	10.46	141.79	0.48	141.31
T.P.	17.41	130.38	1.00	129.38
T.P.	17.53	117.90	.05	117.85
T.P.	11.93	110.22	4.75	105.97
B.M.	10.19			100.03

Elev at Tank site
on Tel. Pole E of Sta. 20+00

" " " " " "

Nail in telephone pole

Top of S Rail of P.R. TRACK

Co. Aid Road No 6
 Bet Secs. 19 & 30-140-31

Sta.	Def.	Angle	Mag. Bearing
51+88			
45+15			
43+80			
33+30			
31+40			
27+50			
23+00			
16+00			
0+00			10°30'

July 25, 1929

Inst. R.A. Dahms
 Chain A. Cater
 Chain Hrb. Fisher 29

Random 6' Sec. of Cor.

SW cor Sec. 19-140-31

End of dry slough

Begin " " "

End " " "

Begin " " "

End " " "

Begin " " "

Partially cleared

Intersection of
 Graded roads

SEC. 6-141-31
Survey of East Line

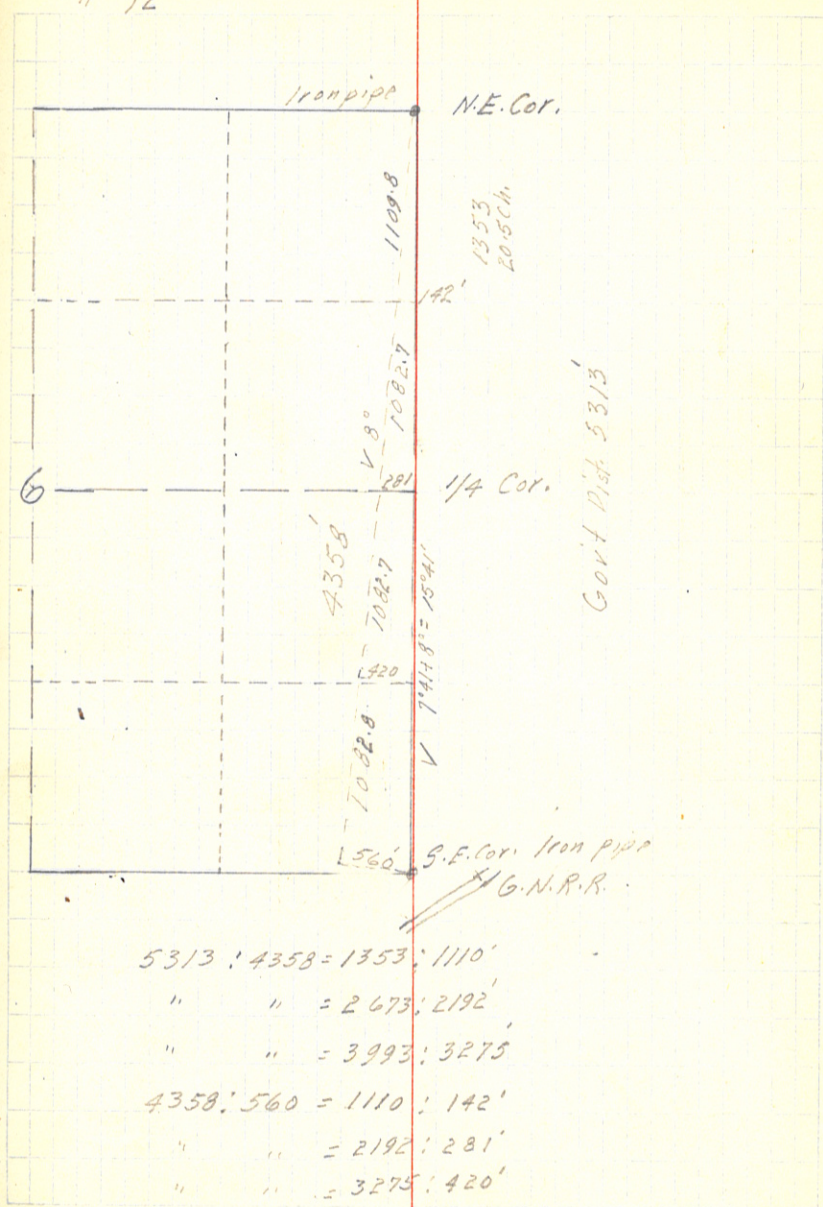
Found an established corner at the NE corner of Sec. 6-141-31.

Found an established corner at the S.E. corner of Sec. 6-141-31

Ran random line in var. of 9° and corrected the 1/4 cor.

Feb. 11, 1931,
Clear & Warm
" 12

R.A. Dahms Inst. 30
V. Suzitsky, Chain
G. Frame Chain



5to

+ 5

Hackensack Levels
 BIRCH LAKE DAM E. 552 of Lake
 H.I. - 5 Elev

B.M. 2.61 1392.784 1390.174

T.P. 5.00 1387.384 10.40 1382.384 Back of field.

T.P. 5.51 1386.744 6.15 1381.234

T.P. 5.95 1385.444 7.25 1379.494

B.M. 4.19 1381.254

7.15 1378.29

6.62 1376.82

Construction Stakes

B.M. + 3.89 1385.144 1381.254

(+ 4.21) (1385.424)

5.070

4.930

4.870

1380.074

1380.284

5.744 (6.064) 1379.400

6.840 (7.164) 1378.300

7.21 (7.534) 1377.930

Sept. 2, 1931

Clear - Warm
 R.A. Dahms Eng.
 C.S. Walker
 R.C. Carter Rod.

31

Cycl. B.M. 10 meters N. of Jac. House

Top of Spillway of old Dam.

12" Oak 40pd. spike on East side of tree
H₂O level

Bottom of old channel

Nov. 2nd 1931

Inst. R.A. Dahms
C. Woods

B.M.

Top of Present Dam N. Abut.

Top of Dam

Top of Spillway

Bot. of Notch

Bot. of Fishway

1385.144

1379.4

5.744

1381.254

3.89

1385.144

5.65

1379.494

Sta	Sec	143-25	H.I.	-5	Elev	B.M.
570	+5		103.73		100.00	
	3.73					
+50						
+75						
1+00						
+25						
+50						
+75						
2+00						
+25						
+50						
+75						
3+00						
+25						
+50						
+75						
4+00						

J.J. Walker - K
M. Dunsen - K
B. Schleiter - chain

Oct. 5-31 Warm-Fair. 33

Tovey Twp. Carl Saverson
Ball Club. Minn.

965	964	932	932	965	963				
1.2	$\frac{73}{70}$	$\frac{100}{19}$	$\frac{100}{23}$	$\frac{72}{25}$	$\frac{74}{27}$				
971	970	941	940	962	960				
6.6	$\frac{67}{70}$	$\frac{96}{115}$	$\frac{97}{25.5}$	$\frac{70}{27}$	$\frac{71}{28}$				
975	975	945	942	969	969				
6.8	$\frac{68}{70}$	$\frac{96}{12}$	$\frac{95}{26}$	$\frac{68}{27.5}$	$\frac{68}{29}$				
977	980	944	941	976	978				
6.0	$\frac{57}{70}$	$\frac{93}{120}$	$\frac{90}{26}$	$\frac{61}{28}$	$\frac{59}{27}$				
981	985	949	950	985	985				
5.4	$\frac{52}{10.5}$	$\frac{89}{13}$	$\frac{87}{26}$	$\frac{53}{28}$	$\frac{52}{30}$				
986	990	951	950	991	990				
5.1	$\frac{47}{70}$	$\frac{56}{13}$	$\frac{57}{28}$	$\frac{46}{31}$	$\frac{50}{32}$				
994	992	957	953	996	997				
4.5	$\frac{44}{10}$	$\frac{50}{13}$	$\frac{41}{27}$	$\frac{41}{29}$	$\frac{40}{30}$				
996	995	986	983	997	1002				
4.1	$\frac{42}{11}$	$\frac{51}{14}$	$\frac{41}{27}$	$\frac{40}{28}$	$\frac{33}{32}$				
998	983	954	962	1006	1002				
4.2	$\frac{54}{12}$	$\frac{38}{14}$	$\frac{35}{28}$	$\frac{31}{32}$	$\frac{32}{33}$				
987	980	951	951	1002	1000				
5.0	$\frac{57}{71}$	$\frac{56}{13}$	$\frac{56}{27}$	$\frac{55}{30}$	$\frac{37}{32}$				
978	969	942	948	975	973				
5.9	$\frac{64}{73}$	$\frac{95}{75}$	$\frac{89}{29}$	$\frac{62}{30}$	$\frac{61}{32}$				
970	970	942	942	962	962				
6.7	$\frac{73}{74}$	$\frac{97}{75}$	$\frac{92}{29}$	$\frac{64}{30}$	$\frac{62}{32}$				
962	982	1003	988	1000	1000				
7.5	$\frac{82}{74}$	$\frac{76}{76}$	$\frac{32}{30}$	$\frac{30}{30}$	$\frac{30}{30}$				
957	882	1008	1002	970	971				
8.0	$\frac{74}{74}$	$\frac{15}{75}$	$\frac{29}{30}$	$\frac{30}{30}$	$\frac{32}{32}$				
971	78	100	100	100	100				
966	14	31	31	31	31				
944	944	937	937	937	937				

Supposed to take out 668 yds.
Took out 670 yds.

LEVELS FOR ATHELETIC PARK
Walker, Minnesota

11/2/33

S.S. Walker, Instr. 34
R.A. Dahms, Rodman

Sta	+5	H 1	-5	BM
0	17.33	112.33		100.00
1+00			13.7	98.6
1+90			13.4	98.9
2+14			1.2	111.1
TI?	11.79	122.95	11.7	111.16
2+75			8.7	114.2
3+00			10.0	112.9
3+56			17.4	105.5
4+00			10.3	112.6
4+52			2.6	120.1
5+00			3.7	119.2
5+34			.05	122.90
6+00			10.0?	112.9?

BM S.W. Cr of School Bldg Foundation.

Description for State Gen.
Indian Hospital

Beginning at a point 463.7 feet West and
56.0 ft. South of the NE Cor. of the SE 1/4
of the SW 1/4 of Section 35-14E-31,
thence South $25^{\circ}30'W$ at no variation, for a
distance of 350 ft, thence North $64^{\circ}30'W$
for a distance of 350 ft, thence N $25^{\circ}30'E$
for a distance of 350 ft, thence S $64^{\circ}30'E$
for a distance of 350 ft to point of beginning.
The above described tract contains 2.81 Acres.

4+63.7

0+00

V $6^{\circ}00'$ N 84° E
S 84° W

3/2/1934
Clear + warm

R. A. Dahms Inst 35
R. Godfrey chain
C. S. Davis chain

A. B. Nichols, Architect
1200 Sec. Ave S. Mpls.



S $25^{\circ}30'W$

463.7

W.
N
E

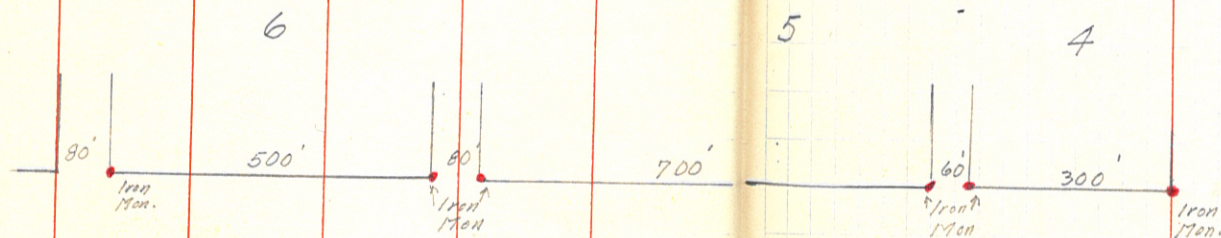
1/16 Cor.

SURVEY, Walker, Comm. Club Add. 7/15/1935

R.A. Dahms Inst. 36
Andrew Bilben Chain.
Doc. Mohler, Chain.

Beginning at known corners, identified by Daniel DeLury of Walker, the south line of Blocks 4, 5 & 6, were re-established and iron monuments were placed as indicated on the accompanying sketch.

A random line was run and then corrected.



Description for R. E. DeLury
Govt. Lot No 3, Sec. 25-141-31

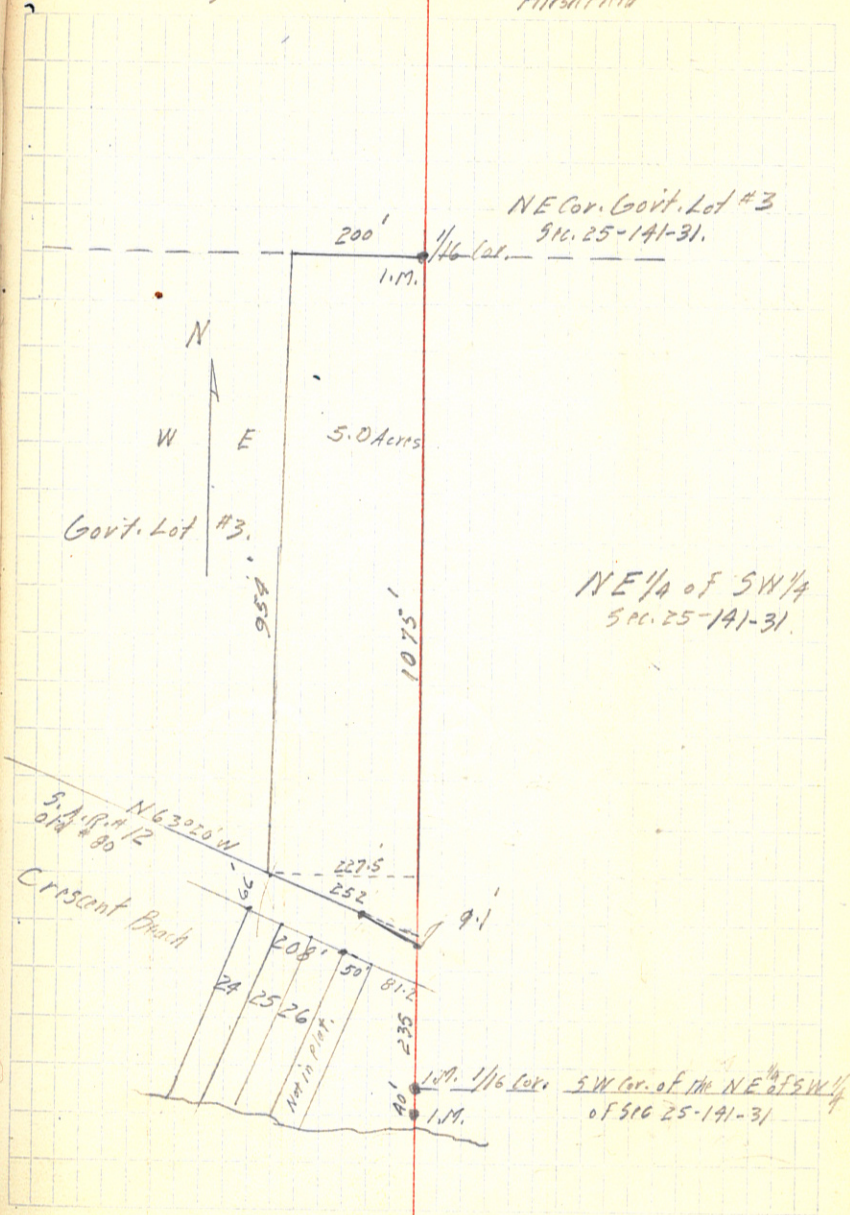
Beginning at a point on the East line of
Govt. Lot #3, 235 ft. North of the
SW Cor. of the NE 1/4 of SW 1/4 of Sec 25, thence
North on 1/16 line 1075 ft. to the NE Cor. of
said Govt. Lot #3, thence West on North line
of said Govt. Lot #3 200 ft. thence in a southwesterly
direction 954 ft. to a point on the
right of way of Cass Co. S. A. R. #12, formerly S. R. H.
No 80, directly 66 ft. opposite the NW Cor. of
lot #24, Block #1, of Crescent Beach Plat, thence
along the North line of said Right of Way a
distance of 252 ft to point of beginning.

Said tract of land consists of approximately
Acres.

Oct. 21, 1935
Cold + Cloudy

R. E. DeLury, Chain.
Fred Parker, At.
Hirshfield

37



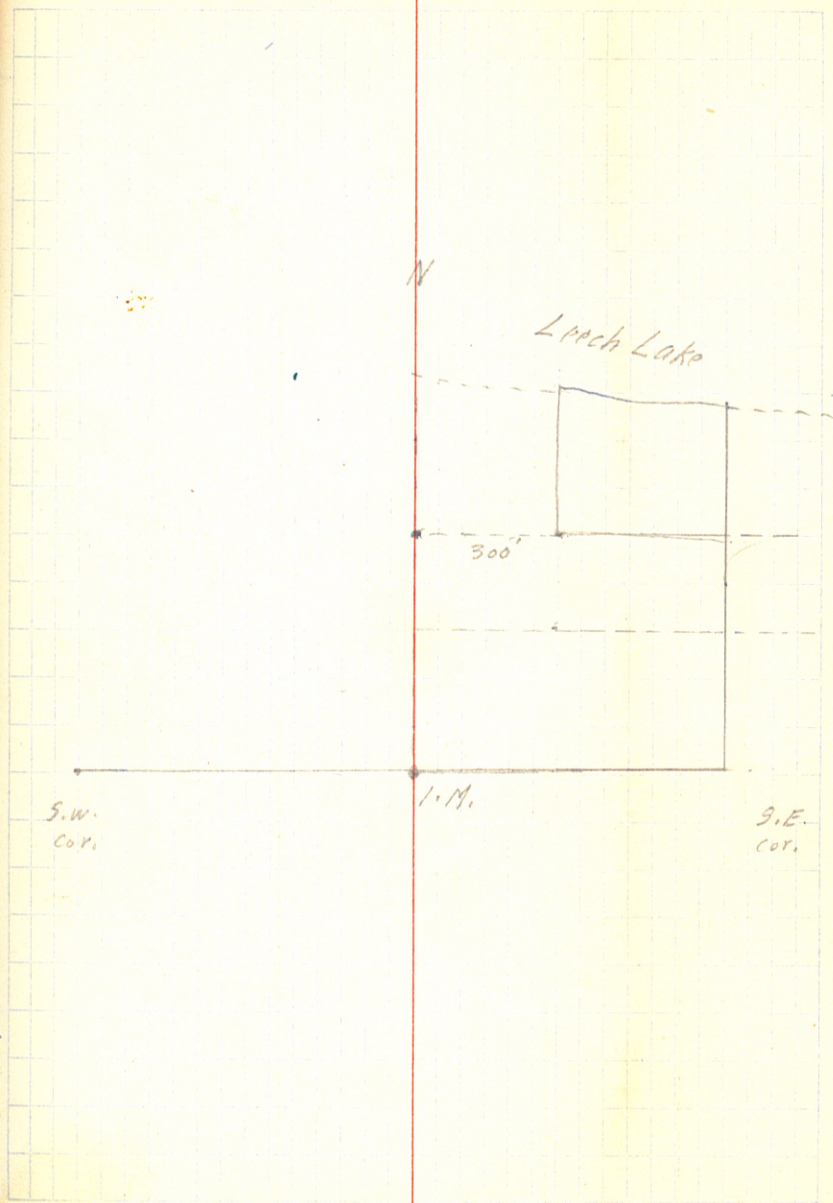
Description for Frank Mack.
Govt. Lot No. 1-141-29

Beginning at an Iron pipe Monument
on the South line of Govt. Lot #1,
Sec. 8-141-29, which is placed midway
between the SE and SW corners of said
Lot, thence

May 26, 1936.

R. A. Dahms, Inst.

38



LEECH LAKE CHANNEL BRIDGE

Sta.	+	H.I.	-	Elev.
		104.5	4.5	100.00
0+00			4.7	99.8
1+00			5.3	99.2
1+88			5.5	99.0
2+00			5.3	99.2
2+12			5.1	99.4
			9.0 -	95.5
			13.0	91.5
			8.3	96.2
			8.5	96.0
3+00			5.3	99.2
4+00			5.1	99.4
4+00				
3+00				
2+12				
2+00				
1+88				
1+00				
0+00				

Dec. 14, 1936
clear & warm

R. A. Dahms, Inst.
F. Bragg, Rod
A. O. Moller, Chain.

39

B.M. on 12" Aspen S.E. of Bridge

Top of road
Top of ice in channel
Bottom of Channel.
Bank of Ditch
Elev. of Agency Bay Top of Ice

4+00

3+00

2+12

2+00

1+88

End of Canal

0+00

1381.254
 4.21
 1385.464
 1379.9
 6.064

1385.464
 1378.3
 7.164

1349.

1385.464
 1377.93
 7.534

42 112
 32 35
 6

4+73.5
 9.8
 4+63.7

Handwritten calculations at the top of the right page, including numbers like 1390.174, 1392.78, and various fractions and subtractions.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
 ROADWAY 14 FEET WIDE. SIDE SLOPES 1 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.
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