

Bk 20 - Dr. 16

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

_____TopographySurvey

_____WHITE BEAR BEACH

From El Lake Ave To 450' East

Also x-Sections between 10th & 11th Sts, 1947

Road Acc't. No. _____

Date Filed 10-26-39

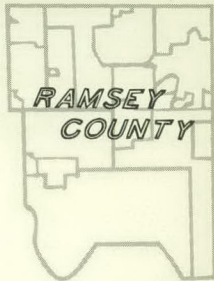
File _____

Also Topo. near Lake Ave.
and 12th St 1956 5-pages
" 1960 5 Pages

Ramsey County
Engineers Department

3377 RICE STREET
SAINT PAUL, MINNESOTA 55112

BOB
BOCK



484-8491

928-74

PAINT SPOT

S. E. CORNER OF DISCHARGE PIPE SLAB

Pumphouse #1

Mariton Island

1-7-47

ARMY W.P.
1/8/46 W.S.D.1-6-47
A.W.L.
A.E.M.
W.T.
R.K.

X-SECTIONS

WHITE BEAR BEACH

EAST EDGE	LT.		RT.
OF GUTTER	H.I. 944.13	H.I. 934.35	W.S. = 924.93
0+00	$\frac{3.9}{114}$ $\frac{4.1}{102}$	$\frac{5.5}{76}$ $\frac{6.3}{50}$ $\frac{5.672}{54.19}$ $\frac{5.1}{50}$	$\frac{-1.8}{100}$ $\frac{-2.9}{150}$ $\frac{-3.2}{200}$
+50	$\frac{3.7}{125}$ $\frac{3.7}{114}$	$\frac{5.3}{91}$ $\frac{6.0}{50}$ $\frac{2.1}{6.6}$ $\frac{2.1}{39}$	$\frac{-3.4}{250}$ $\frac{-3.4}{300}$ $\frac{-4.1}{350}$ $\frac{-4.3}{400}$
1+00	$\frac{3.7}{123}$ $\frac{4.0}{116}$	$\frac{5.0}{100}$ $\frac{5.9}{50}$ $\frac{8.0}{6.6}$ $\frac{8.0}{39}$	$\frac{5.1}{35}$ $\frac{-0.7}{50}$ $\frac{-4.2}{100}$ $\frac{-4.1}{150}$
+50	$\frac{4.2}{122}$ $\frac{4.4}{117}$	$\frac{5.1}{100}$ $\frac{5.8}{50}$ $\frac{8.2}{6.2}$ $\frac{8.2}{37}$	$\frac{-2.8}{200}$ $\frac{-2.6}{250}$ $\frac{-2.9}{300}$ $\frac{-3.3}{350}$ $\frac{-4.4}{400}$
2+00	$\frac{5.1}{118}$ $\frac{5.2}{113}$	$\frac{4.1}{95}$ $\frac{5.6}{50}$ $\frac{7.8}{6.7}$ $\frac{7.8}{23}$	$\frac{5.1}{35}$ $\frac{-1.0}{50}$ $\frac{-3.9}{100}$ $\frac{-4.3}{150}$ $\frac{-3.2}{200}$
+50	$\frac{5.6}{114}$ $\frac{5.8}{109}$	$\frac{4.1}{88}$ $\frac{6.7}{80}$ $\frac{5.8}{50}$ $\frac{8.1}{6.7}$ $\frac{8.1}{32}$	$\frac{-2.2}{250}$ $\frac{-2.3}{300}$ $\frac{-3.1}{350}$ $\frac{-3.7}{400}$
3+00	$\frac{6.6}{107}$ $\frac{6.7}{101}$	$\frac{5.2}{81}$ $\frac{6.0}{70}$ $\frac{5.6}{50}$ $\frac{7.8}{6.9}$ $\frac{7.8}{40}$	$\frac{5.1}{76}$ $\frac{-0.7}{50}$ $\frac{-3.6}{100}$ $\frac{-4.0}{150}$ $\frac{-4.0}{200}$
+50	$\frac{7.6}{99}$ $\frac{7.4}{93}$	$\frac{5.0}{81}$ $\frac{6.0}{69}$ $\frac{5.4}{50}$ $\frac{7.2}{7.1}$ $\frac{7.2}{41}$	$\frac{-2.1}{350}$ $\frac{-2.5}{300}$ $\frac{-2.5}{350}$ $\frac{-3.1}{400}$ $\frac{-4.4}{450}$
4+06.5	$\frac{8.8}{89}$ $\frac{8.8}{83}$	$\frac{5.9}{68}$ $\frac{5.7}{55}$ $\frac{6.5}{6.9}$ $\frac{5.1}{52}$ $\frac{5.1}{57}$	$\frac{-4.0}{100}$ $\frac{-4.0}{150}$ $\frac{-4.0}{200}$
			$\frac{-2.2}{250}$ $\frac{-2.3}{300}$ $\frac{-2.4}{350}$ $\frac{-3.1}{400}$

1-7-47

0+00

 $\frac{-4.6}{450}$ $\frac{-5.3}{500}$ $\frac{-7.1}{550}$ $\frac{-7.6}{600}$

1+00

 $\frac{-4.5}{450}$ $\frac{-4.9}{500}$ $\frac{-7.0}{550}$ $\frac{-7.5}{600}$

2+00

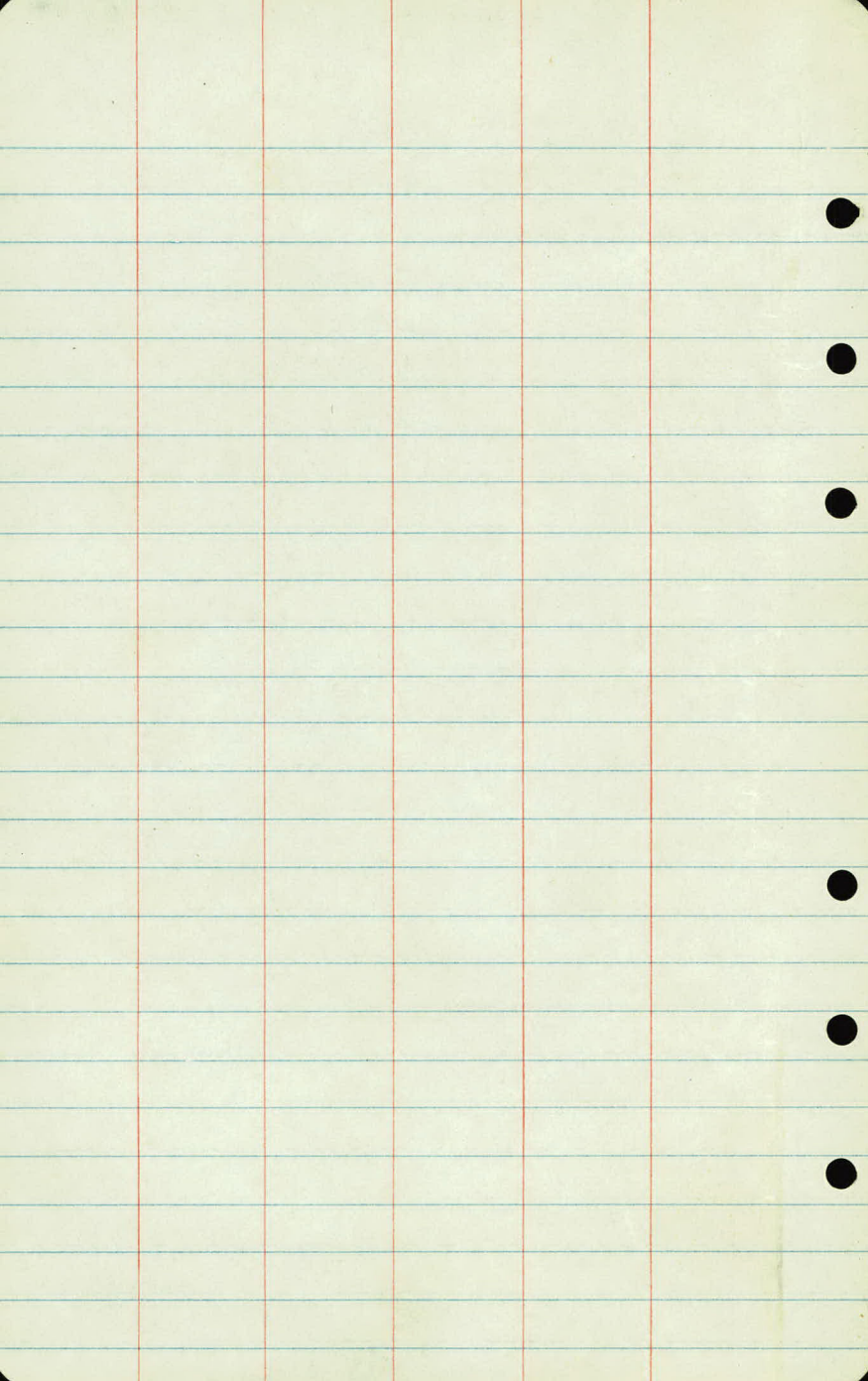
 $\frac{-4.5}{450}$ $\frac{-4.7}{500}$ $\frac{-5.7}{550}$ $\frac{-7.4}{600}$

3+00

 $\frac{-4.4}{450}$ $\frac{-4.7}{500}$ $\frac{-5.1}{550}$ $\frac{-7.3}{600}$

4+06.5

 $\frac{-4.2}{450}$ $\frac{-4.5}{500}$ $\frac{-4.8}{550}$ $\frac{-5.5}{600}$



WHITE BEAR BEACH 1-6-47

SOUNDINGS

EAST GUTTER

4+06.5

109'

11TH ST.
4+06.5

LAKE AVE. WHITE BEAR

3+00

BASE
LINE

2+00

90° 00'

1+00

EAST GUTTER

117° 00'

121.5

HOLES

100

200

300

400

500

600

10TH ST
0+00

BASE
LINE

WHITE BEAR LAKE 1-7-47

STA. + H.I. — ELEV. B.M.

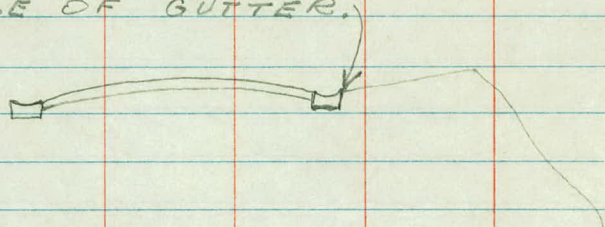
W.S. 9.42 934.35 924.93

T.P. 10.78 944.13 1.00 933.35

NOTE:

SOUNDINGS TAKEN ON EVERY STATIONS.
GROUND ELEV. TAKEN ON EVERY AND
+ 50 STATIONS.

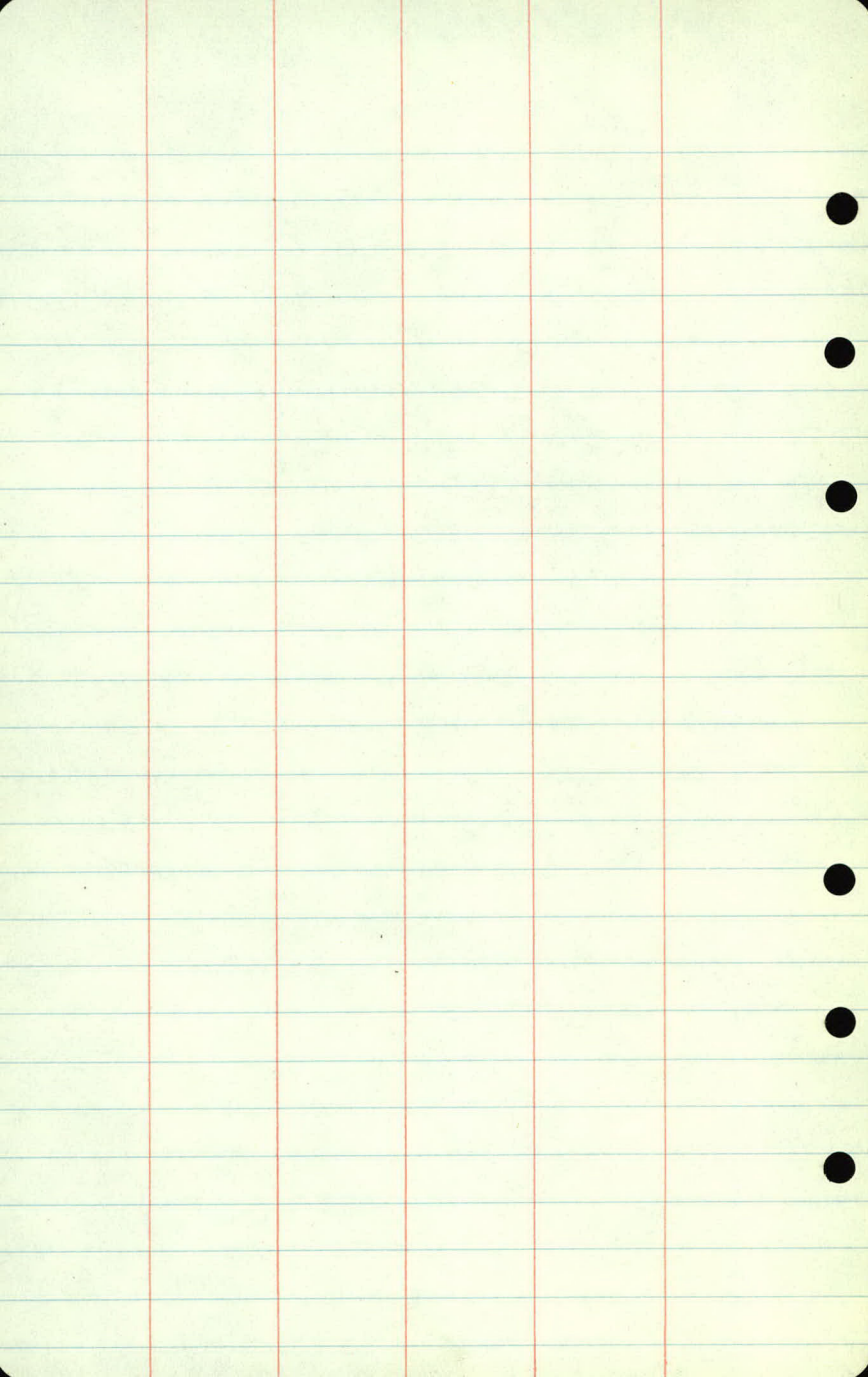
CURR SHOTS TAKEN ON EAST
EDGE OF GUTTER.



SURVEY
White Bear Beach

INDEX.

Align	1-2
Baseline	
Tape	3-4
"T" Line	
Tape	5-7



Alignment

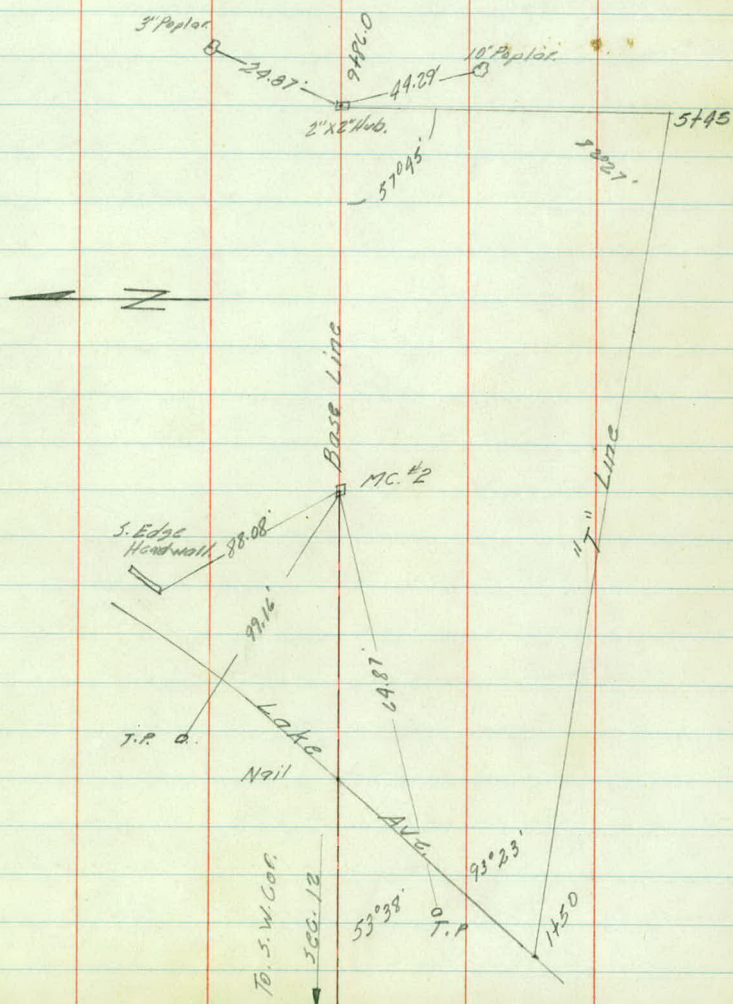
4 150 P.O.T.

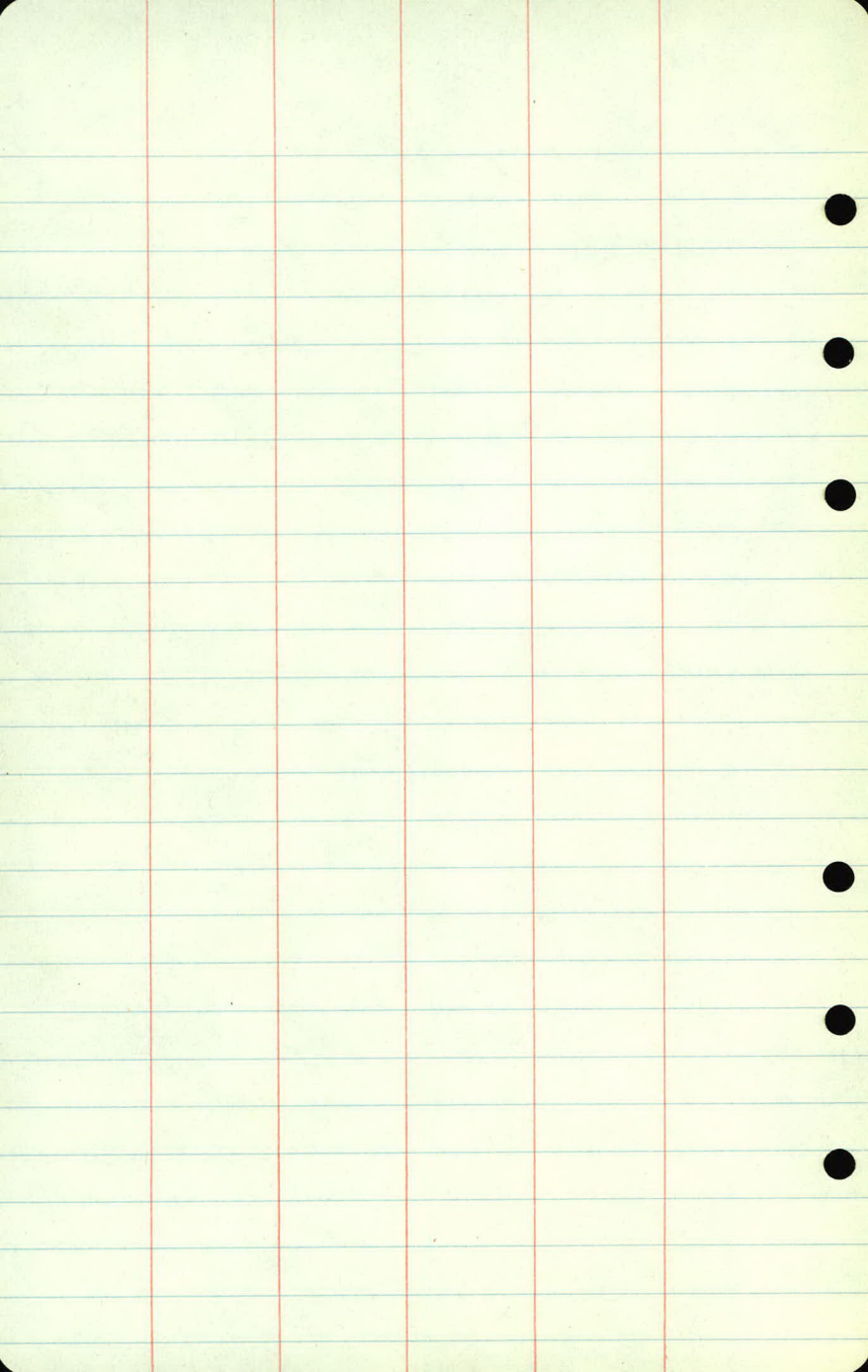
0 12202 P.O.T.

0 100 = 2 Lake Ave

6/13/38
 K.H.
 L.B.H.
 L.G.
 A.B.

6 + 00 = Approx End Brush





Topography
Base Line

5

4

3

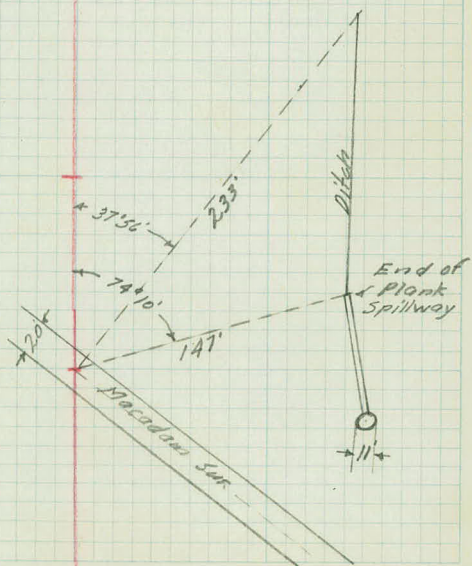
2

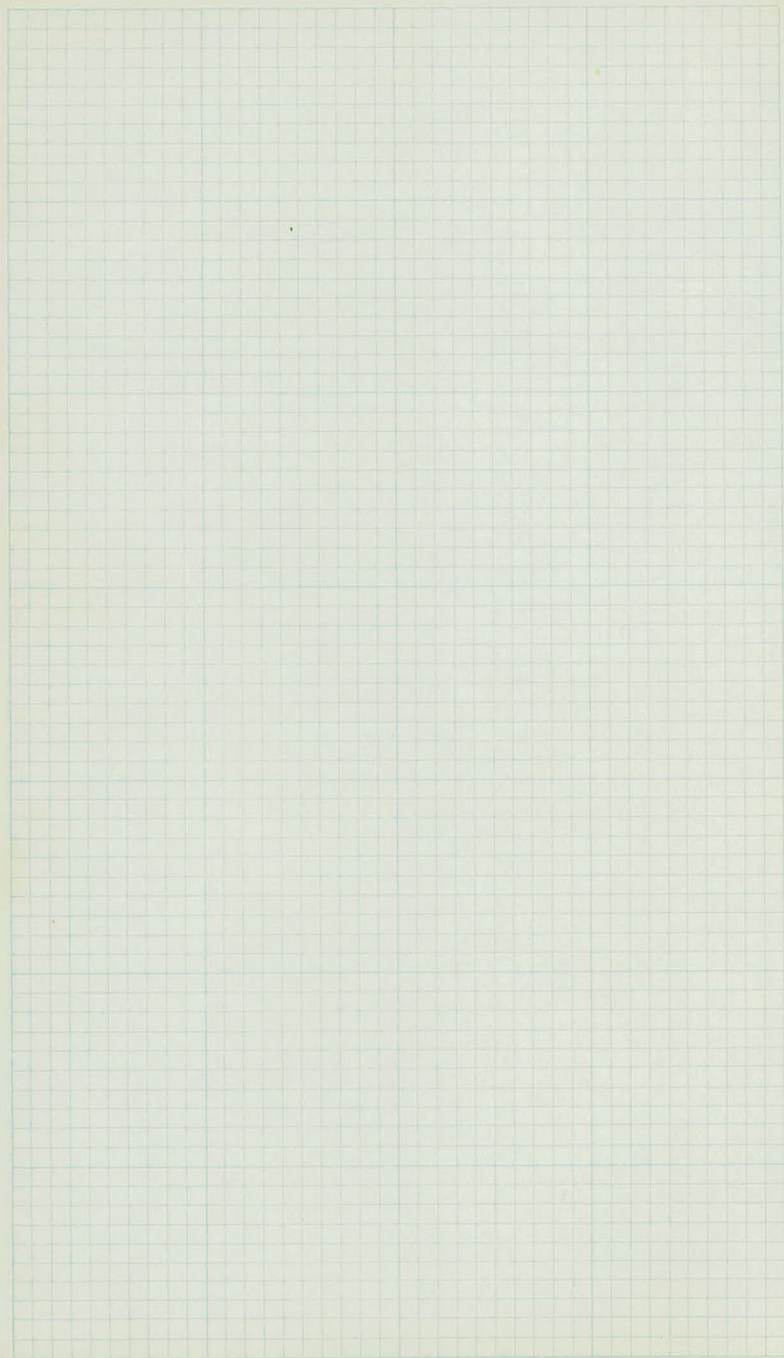
1

0100

-27.9-C/H Pump Ho. - 151.9'
11' Dia.

Brush & Trees on N. side of Ditch





Topography
"T" Line

5 End Trail - 12'

+50-Trail - 13'

4 Trail - 12' Trail - 107'

+41-Trail X3-R

3 Trail - 42'

Trail - 4'

+22 Trails down Together

2 Trail - 6'

Trail - 4'

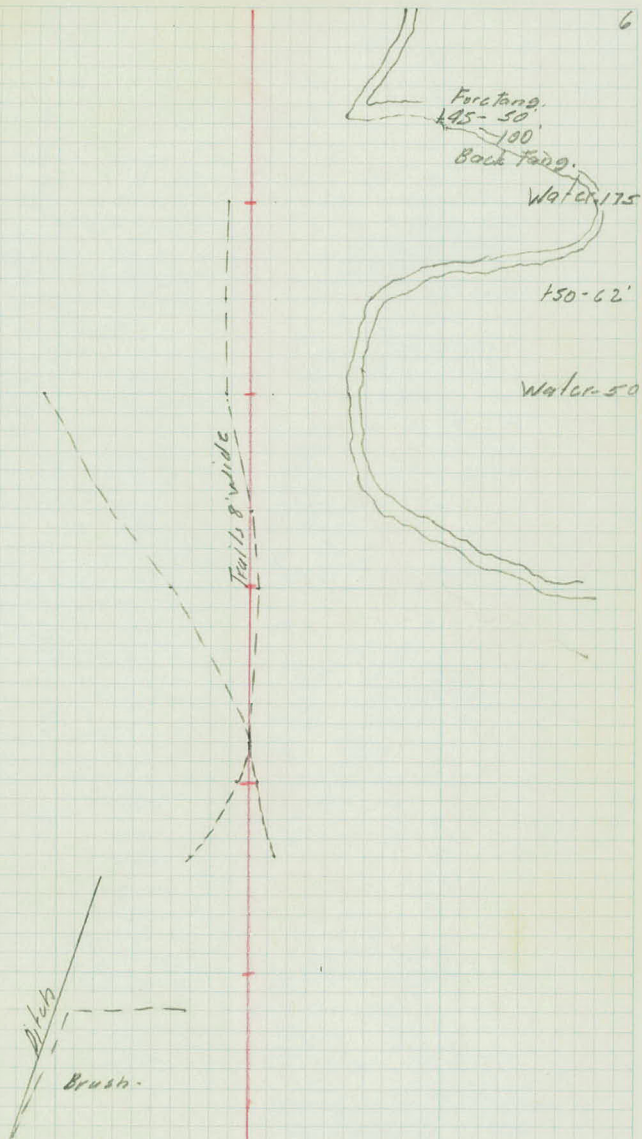
+70-PP - 2'
+61-Trail - 30'

Trail - 12'

/

+80-End Brush

0400



10

9

Edge Brush - 225'

8

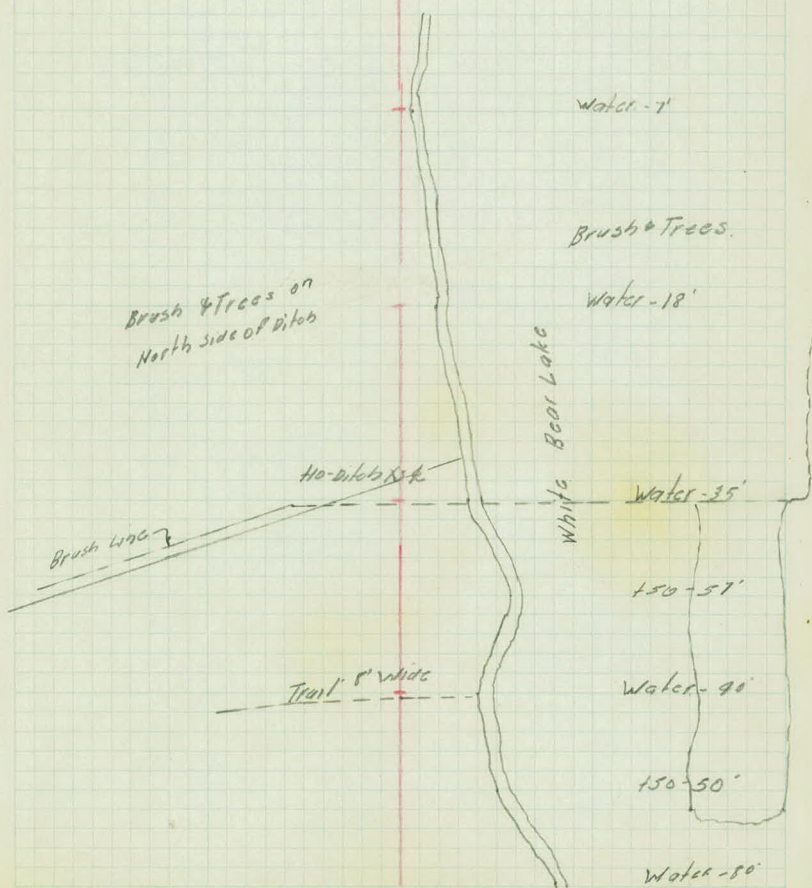
Dec Heavy Brush - 215'

7

198 Trail / 150

190-805. Brush - 150' - 200'

6





DIST.

VERT.
ANGLEROD
EQUIV.

ROD

DIFF.

ELEV.

White Bear Lake Beach

Shore Line

5-Pages

Rec. 2/14/56

Platted 2/19/56

924.50

OBJECT

AZ.

STADIA

BM	0.44	929.18		928.74
----	------	--------	--	--------

T.P.	9.79			
Water Surface		933.22	5.75	923.43

B.M.			5.71	927.51
------	--	--	------	--------

Hi = 5.30

H.I. 933.22

K at	M.C.	Cor #2		
------	------	--------	--	--

To SW. Cor Sec. 11		270° -		
--------------------	--	--------	--	--

check AZ		198° 10 1/2'		
----------	--	--------------	--	--

check AZ		185° 03 1/2'		
----------	--	--------------	--	--

Normal S. Line		201° 20'	495'	
----------------	--	----------	------	--

" "		195° 15'	390'	
-----	--	----------	------	--

" "		192° -	340'	
-----	--	--------	------	--

☿ Lake Ave		218° 55'	510'	
------------	--	----------	------	--

" "		219° -	440'	
-----	--	--------	------	--

" "		219° 25'	325'	
-----	--	----------	------	--

Normal S. Line		181° -	300'	
----------------	--	--------	------	--

" "		166° 10'	303'	
-----	--	----------	------	--

☿ Lake Ave		220° 40'	221'	
------------	--	----------	------	--

PA
 LC
 AB
 CW

Feb. 10, 1936 2
 VERT. ROD
 ANGLE EQUIV. ROD DIFF. ELEV.

Cor Conc footing for Pump #1 outlet

Top outlet pipe of pump at Beach

H.I. 5.30 927.92

To peak of pump Ho at Beach
 West Edge of pump Ho #1

8.7	24.5
8.7	24.5
8.7	24.5
+ 1.3	34.5
+ 0.3	33.5
2.0	31.2
8.7	24.5
8.7	24.5
3.7	29.5

OBJECT	AZ.	STADIA
Normal S. Line	151° 40'	277'
" "	134° 20'	246
" "	117° —	275'
± Lake Ave	223° 20'	132'
" "	271° 25'	20'
" "	23° 10'	82'
" "	22° 15'	374'
Normal S. Line	110° 10'	322
" "	99° —	338
± Lake Ave.	26° 10'	174'
" "	24° —	275'
" "	21° 10'	467'
Normal S. Line	88° 45'	360'
" "	80° 10'	397'
" "	72° 35'	435'
± Lake Ave	20° 25'	560'
" " ± R.R. Track	20° 10'	624'
Normal S. Line	65° 10'	466'

DIST.	VERT. ANGLE	ROD EQUIV.	Feb 10, 1954 ROD	DIFF.	ELEV. 3
	$H.I. = 933.2$				
			8.7		24.5
			8.7		24.5
			8.7		24.5
			4.8		28.4
			5.0		28.2
			5.3		27.9
			5.1		28.1
			8.7		24.5
			8.7		24.5
			5.4		27.8
			5.4		27.8
			4.8		28.4
			8.7		24.5
			8.7		24.5
			8.7		24.5
			4.6		28.6
			4.2		29.0
			8.7		24.5

OBJECT	85 46	AZ.	STADIA
E Track		11° 55'	503'
" "		25° 40'	750'
Normal S. Line		56° —	370'
" "		46° —	390'
" "		40° 55'	450'
" "		36° 10'	508'
F. L. E. End Culv.		33° —	94'
F. L. W. " "		11° 20'	101'
& outlet ditch		48° 30'	116'
" "		58° —	148'
" "		62° 20'	204'
" "		59° 50'	242'
Normal S. Line		33° 20'	605'
" "		33° 30'	655'
E outlet ditch		60° 10'	280'
" "		63° 15'	315'
" "		68° 30'	347'
" "		72° —	380'

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
Feb 10, 1956 4					
H.I. = 933.22					
			5.2		280.
			3.4		298.
			8.7		245.
			8.7		245.
			8.7		245.
			8.7		245.
3 - 24" conc. pipes			8.60		246.
3 - 24" " "			10.0		232.
			8.3		249.
			8.5		247.
			8.5		247.
			8.5		247.
			8.7		245.
			8.7		245.
			8.7		245.
			8.8		244.
			9.3		239.
			9.0		242.

OBJECT	AZ.	STADIA
£ outlet ditch	353° -	125'
" "	351° 20'	158'
" "	352° -	194'
" "	347° 40'	232'
" "	345° 40'	272'
" "	315° 05'	298'
F.L. 36" Conc. Culv.	315° 05'	300'
Elev. pump H. at Door		
£ spillway	194° 35'	152'
" "	186° -	148'
" "	175° -	145'
" "	164° 40'	148'
" "	155° 40'	158'
" "	148° -	172'
" "	134° 40'	208'
" "	125° 15'	250'
End. "	120° 40'	280'

Feb 10, 1954

5

DIST.

VERT.
ANGLEROD
EQUIV.

ROD

DIFF.

ELEV.

H.I. = 933.22

10.3

22.9.

10.0

23.2

10.3

22.9.

10.3

22.9.

11.6

21.6

11.6

21.6

12.57

20.65

5.48

27.74

7.3

25.9.

7.9

25.3.

8.8

24.4

9.9

23.3.

9.9

23.3.

9.9

23.3.

9.4

23.8.

9.4

23.8.

9.6

23.6.

STADIA

1
White Bear Lake

Normal Elev.

Shore Line Location

at

MC #2

5 pages

Obj AZ. Station

A at MC#2

to Peak of Pump# 198° 10' 1/2'

to W Edge P.H.#1 185° 03' 1/2'

SHORE LINE AT NORMAL 162° 15' 289' ✓

" 149° 45' 295' ✓

" 139° 45' 305' ✓

" 128° 50' 330' ✓

" 124° 50' 287' ✓

" 115° 20' 283' ✓

" 108° 00' 332' ✓

" 95° 00' 347' ✓

" 85° 00' 372' ✓

" 78° 00' 414' ✓

TRANS POINT B 76° 58' 1/2" 406' ✓

H.I. = 9.29.27
~~989.27~~

A AT POINT B

TO MC#2 256° 58' 1/2' ✓

SHORE LINE AT NORMAL 273° 40' 70' ✓

" 314° 00' 63' ✓

PA
SL
WM
JH
DF
HG

August 10, 1960

2

Rod

Elev

5.77

WS

~~973.5~~

923.5

OBS.

AZ

STADIA

X AT POINT B

TO MC[#] 2

256° 58½'

✓

SHORE LINE AT NORMAL

335° 55' 90'

✓

"

344° 40' 121'

✓

"

350° 05' 164'

✓

"

350° 45' 189'

✓

"

353° 20' 228'

✓

"

346° 46' 276'

✓

"

347° 40' 324'

✓

"

349° 00' 370'

✓

"

350° 20' 408'

✓

TO PEAK OF PUMP HO.[#] 3

241° 20'

SHORE LINE AT NORMAL

351° 20' 454'

✓

"

351° 15' 475'

✓

"

359° 15' 534'

✓

"

9° 30' 660'

✓

"

14° 20' 730'

✓

"

17° 45' 770'

✓

Aug 10, 1960
Rod

3
ELD.

End Fill Area

OBS.

AZ

STADIA

T AT POINT B

TO MC #2

256° 58½'

LOCATION OF ^{NEW} DITCH 15'

252° 40'

52'

✓

"

259° 30'

106'

✓

"

262° 15'

160'

✓

"

264° 35'

215'

✓

"

265° 40'

273'

✓

"

267° 50'

340'

✓

T AT MC #2

to Peak of Pump ^{H. #3} 198° 10½'

9.46 932.96 ✓

923.5

(973.5) ✓

E of Lake Ave.

222° 45'

154'

"

245° 45'

35'

"

22° 10'

79'

"

25° 10'

225'

"

22° 10'

383'

GE

333° 30'

155'

E of Lake Ave. AT Railroad

20° 00'

620'

FA
JL
WM
JH
DF

Aug 11, 1960

Rod

ELV. ⁴

5.2

5.4

4.8

4.8

5.6

4.5

4.3

✓

928.7

4.8

✓

928.2

5.0

✓

928.0

5.3

✓

927.7

4.9

✓

928.1

9.1

✓

923.9

4.1

✓

928.9

OBJ.

Az

STADIA

π at MC #2

to Peak of Pump Ho[#] 3 $198^{\circ} 10\frac{1}{2}'$

GE W side of LAKE $298^{\circ} 00'$ $153'$

GE " $273^{\circ} 00'$ $129'$

August 16, 1960 5
Rod E.L.V.

9.6 ✓ 923.4

8.2 ✓ 924.8

