

PLANS SURVEY
DELLWOOD CONNECTION

From Stewart Ave
To East County Line
CO. PROJ. N^o 24-53

Office of Ramsey Co. Engineer
ST. PAUL, MINN.

Date Filed 3 26-24

File No. '11"

Office of Ramsey Co. Engineer
ST. PAUL, MINN.

Date Filed 3-26-24

File No. "11" (24-53)

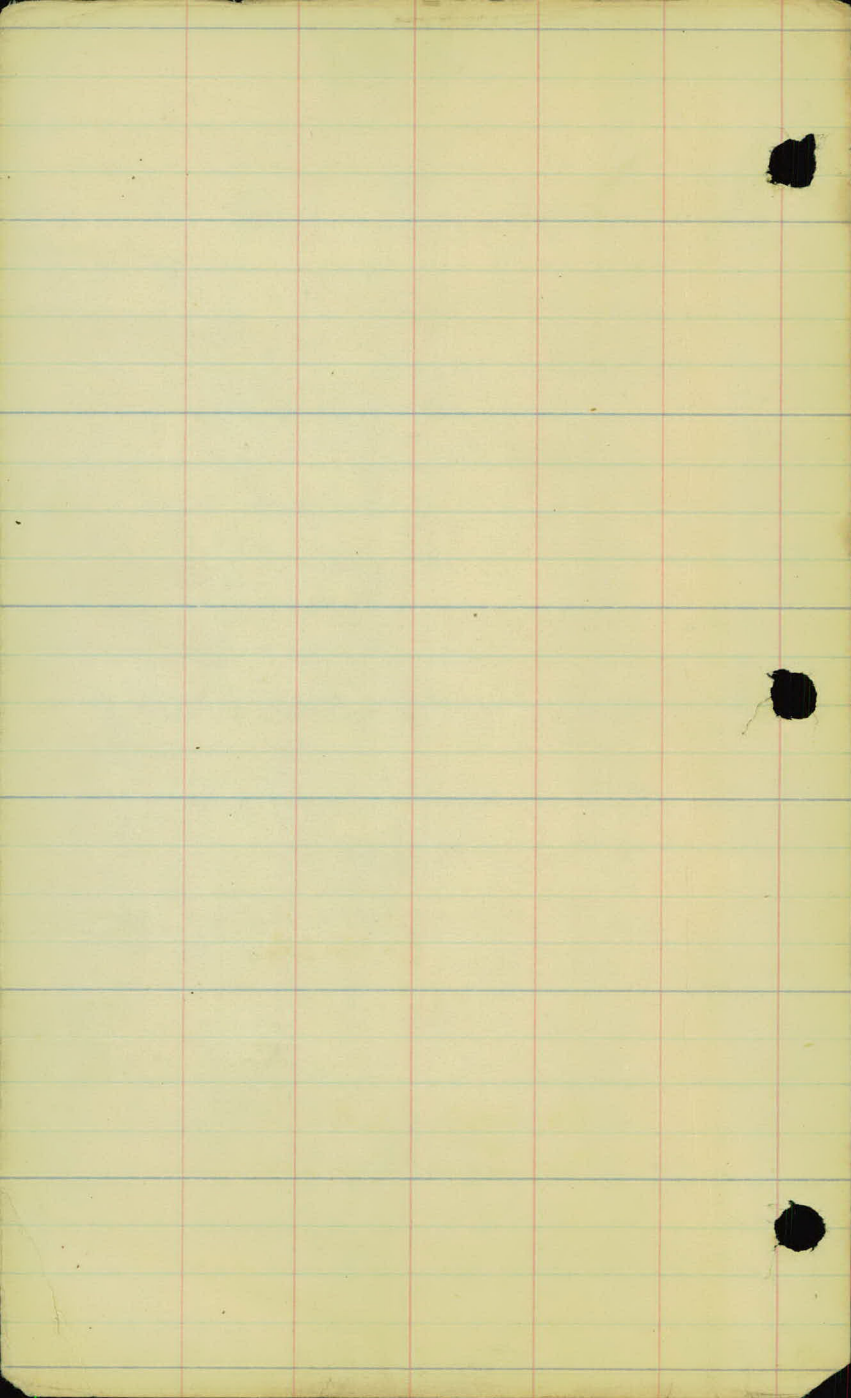
DELLWOOD CONNECTION

12 Str. Notes - Complete

Lake Ave. Notes - "

Ties to property Corners along Lake Ave.

(23-58) (24-53)



LAKE AVE. SURVEY

ALIGNMENT NOTES

Dellwood Connection

Proj. ~~23-53~~

24-53

Office of Ramsey Co. Engineer
ST. PAUL, MINN.

Date Filed 2-13-24

File No. "11"

Co. Proj. 24-53
Dellwood Connection.-

Aug. 6. Aug. 11.

N45°36'E
N44-36E

6+939 F.C.

6+280 P.I.

1019'

5+623 B.C.

N44°17'E

N43°17'E

4+767 F.C.

2+389 P.I.

9°32'

B.C.

2° curve.

N34°45'E

Lake Ave. Surrey White Bear

Sta. Def
 5+622 - 0000
 6+00 - 0° 11 1/2'
 +939 - 0° 39 1/2'

Sta. Def
 0+00 - 0000
 1+00 - 10 00'
 2+00 - 20 00'
 3+00 - 30 00'
 4+00 - 40 00'
 +767 - 40 46'

1° Curve Rt.
 $\Delta = 1019'$
 S.T. = 65.8
 5+622 = B.C.
 131.7 = length
 6+939 = E.C.

2° Curve Right
 $\Delta = 9032'$
 S.T. = 238.9
 0+00 = B.C.
 476.66 = length
 4+767 = E.C.

Lake Ave

P.I.
 2+767

55+532
 State Highway P.I.

43° 03' 24"

B.C. 0+00 = 54+489 State Highway Curve

4-3-23

Ang. L. Ang. R.

N17033'W
N18033W

20+78¹ E.C.

20+355 P.I. 25041'

19+90^L B.C.

16+99⁶ E. 0th. St.

N80-08'E.
N70-08E.

16+69⁴ E.C.

15+05^I P.I. 37°28'

14+128³ B.C.

N44-30'E.

L

Sta. Oct

19+90± - 0°00'

20+00 - 1°26'

+50 - 8°41'

+78± - 12°50½'

29° Curve left.

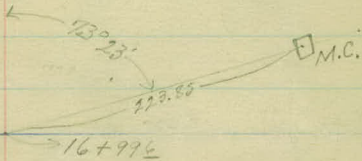
 $\Delta = 25°41'$

✓ S.T. = 45.4

B.C. = 19+90±

length = 88.6

E.C. = 20+78±

30±
20±

L Sta. St.

13+28± - 0°00'

14+00 - 3°55'

15+00 - 9°25'

16+00 - 14°55'

+69± - 18°44'

11° Curve Left.

 $\Delta = 37°28'$

S.T. = 176.9

13+28± = B.C.

340.6 = length.

16+69± = E.C.

142±
116±

Aug. 6. Aug. R.

30 + 355 P.O.T

N 110° 58' W

N 12° 58' W

29 + 216 E.C.

28 + 178 P.I

6° 12'

27 + 138 B.C.

N 18° 12' W

N 19° 12' W

24 + 985 E.C

24 + 660 P.I 0° 39'

24 + 385 B.C.

Sta. Def.
 27+13.8 - 0°00'
 28+00 - 1°18'
 29+00 - 2°48'
 +216 - 3°07'

0.000 in P.P.S.
 0.000

3° Curve, Right
 $\Delta = 6°14'$
 S.T. = 104.0
 B.C. = 27+13.8
 length = 207.8
 E.C. = 29+21.6

Sta - Def

1° Curve Left
 $\Delta = 0°34'$
 S.T. = 32.5
 B.C. = 24+33.5
 length = 65.0
 E.C. = 24+78.5

0.000 Back
 0.000

Ang h Ang TR.

N 27° 48' E
N 26° 48' E

37 + 77⁸ F.C.

36 + 21⁸ P.I. 32° 06'

34 + 56⁸ B.C.

N 4° 18' W
N 5° 18' W

33 + 38^L F.C.

32 + 42⁸ P.I. 7° 40'

31 + 46⁴⁵ B.C.

Sta.	Det.
34+56.8	- 0° 00'
+50	-
35+00	- 20° 10'
+50	- 40° 40'
36+00	- 70° 10'
+50	- 90° 40'
37+00	- 120° 10'
+50	- 140° 40'
4778	- 160° 00'

100 Curve, Rt.

$\Delta = 32^{\circ} 06'$

S.T. = 165.05

B.C. = 34+56.75

length = 321.2

E.C. = 37+77.75

Sta.	Det.
31+46.45	- 0° 00'
32+00	- 10° 04'
33+00	- 30° 04'
+39'	- 30° 50'

40 Curve, Rt.

$\Delta = 70^{\circ} 40'$

S.T. = 96.15

B.C. = 31+46.45

length = 191.65

E.C. = 32+38.1

Ang. h Ang. R.

N 80° 22' E

N 77° 22' E

51 + 692 ± N.P. R₄

48 + 025 E.C.

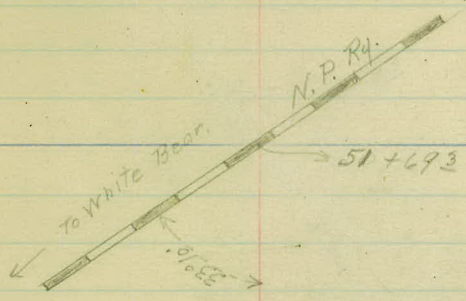
46 + 962 P.I. 19° 26'

45 + 862 B.C.

N 270° 48' E

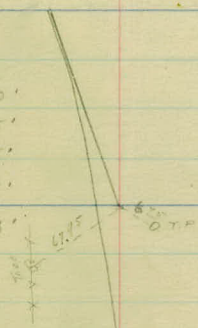
N 260° 48' E

K



Sta.	Def.
45+86.2	- 0000'
46+00	- 0035'
47+00	- 5005'
48+00	- 9055'
+028	- 9043'

90° Curve left.
 $\Delta = 19026'$
 S.T. = 109.15
 B.C. = 46+86.3
 length = 215.9
 E.C. = 48+028



215.9
 109.15
 46+86.3

M.C. 45+86.2
 E.C.
 M.C. #2
 L-33° 10' 00"

⑥

Ang. h $\frac{1}{2}$ Ang. RN61°29'
N60°-29'EEQUATION

$$\begin{array}{l} = 61+71.5 \\ 61+61.5 \end{array} \left. \begin{array}{l} \text{P.T.} \\ \text{E.C.} \end{array} \right\}$$

58+80.2 P.I

19°51'

55+94.4 B.C.

N41°38'E

N40°-38'E

54+17.3 E.C.

53+62.3 P.I

33°16'

53+02.6 B.C.

Lake Ave Survey
White Bean

Sta.	Def.
55+94±	0°00'
56+00	0°06'
57+00	1°51'
58+00	3°36'
59+00	5°21' ¹⁰ / ₁₀₀
60+00	7°06'
61+00	8°51'
+61±	9°55' ¹ / ₂

R.T.E.

3°30' Curve, R.H.
 $\Delta = 19°51'$
 S.T. = 286±
 B.C. = 55+94±
 length = 567±
 F.C. = 61+61±

Sta.	Def.
53+02±	0°00'
+50	6°52'
54+00	14°07'
+17±	16°38'

51° O.T.P.
 52± O.T.P.

29° Curve, R.H.
 $\Delta = 33°16'$
 S.T. = 59.7
 B.C. = 53+02±
 length = 114.7
 F.C. = 54+17±

Ang h Ang R

82°15' ✓
N83-15E

75+79₆ ✓ F.C.

75+01₄ P.I. 12°34'

74+22₅ ✓ B.C.

71 41 ✓
N70-41E

72+27₅ ✓ F.C.

75+11₄
7577
7244
7180
7014
7072

71+77₀ P.I. 10°12'

71+25₈ ✓ B.C.

N61°29E ✓
N60-29E

Proj 24-53

Sta. - Def.
 74+22.5 - 0°00'
 75+00 - 3°06'

42.30 St. Sign Post.

036.7

8° Curve, Right
 $\Delta = 120.34'$
 S.T. = 78.9 ✓
 B.C. = 74+22.5
 Length = 157.1 ✓
 E.C. = 75+79.6

Sta. - Def.
 71+25.8 - 0°00'
 72+00 - 3°43'
 +27.8 - 5°06'

T.P. 35242

44.80
 Iron
 Sign
 Post.

10° Curve, Right
 $\Delta = 100.12'$
 S.T. = 51.2 ✓
 B.C. = 71+25.8
 Length = 102.0 ✓
 E.C. = 72+27.8

(8)

Ang. h ~~h~~ Ang R

Lake Ave. Survey
White Bear

88+70[±] = East. County line

569-04E ✓
S. 80°-04E

86+92[±] ✓ E.C.

85+26[±] P.I. 10° 00'

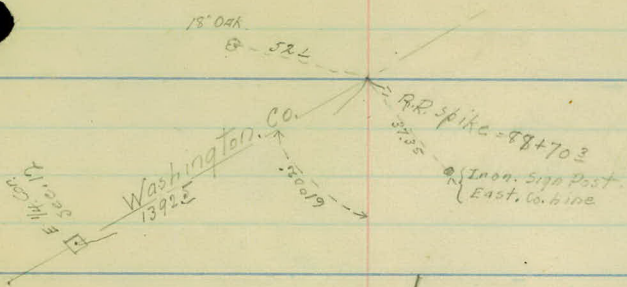
83+59[±] ✓ B.C.

579 04E ✓
S. 87°-36'E

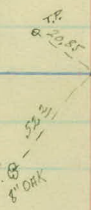
82+01[±] ✓ E.C.

80+83[±] P.I. 16° 41'

79+63[±] ✓ B.C.



Sta.	Def.
83+59±	0°00'
84+00	0°37'
85+00	2°07'
86+00	3°37'
87±	5°00'

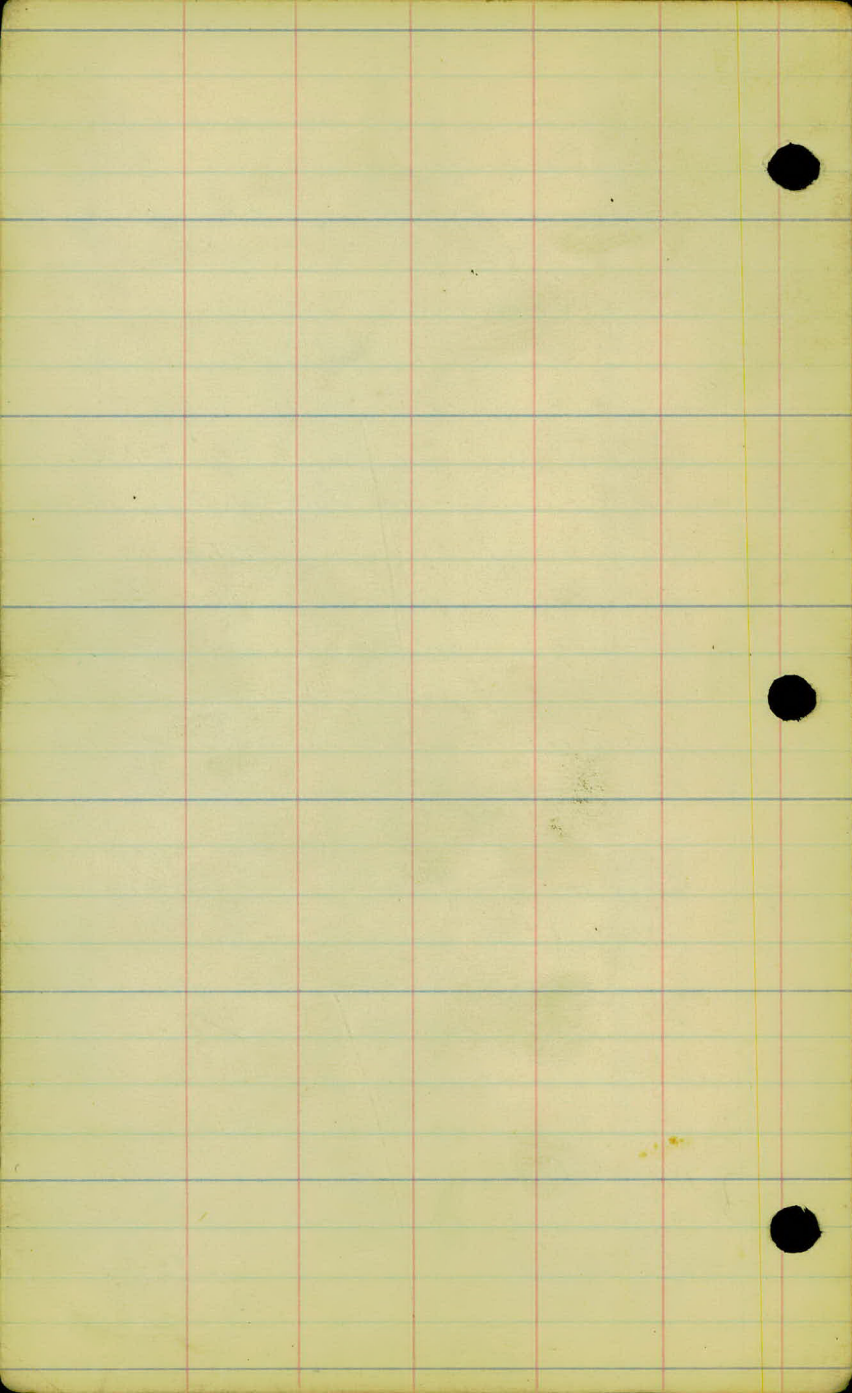


3° Curve. RT.
 $\Delta = 10°00'$
 S.T. = 167.1 ✓
 B.C. = 83+59±
 length = 333.3 ✓
 F.C. = 86+92±

Sta.	Def.
79+63±	0°00'
80+00	1°17'
81+00	4°37'
82+00	8°17'
81±	8°20 1/2'



7° Curve Right
 $\Delta = 16°41'$
 S.T. = 120.1 ✓
 B.C. = 79+63±
 length = 238± ✓
 F.C. 82+01±



4-9-23

① 0125 +50

Lake Ave
White Bean

5' 24" tree

Small trees

3+00

177 20 E 477 E.P.

Concrete
257 Slope 12' : 439

+50

2+00

White Bean Park

+50

+0+00

Stewart Ave

Stone 1' 14" Stone Ho
247

1+00

2477 Part 24'

+50

151 E.P. 22'

1350 23'

1378 21'

0+00

159 = 5'

91

② of

lake. Ave.
White Bear.

299 EP 100'

+50 Rail Road

+55 E 21'

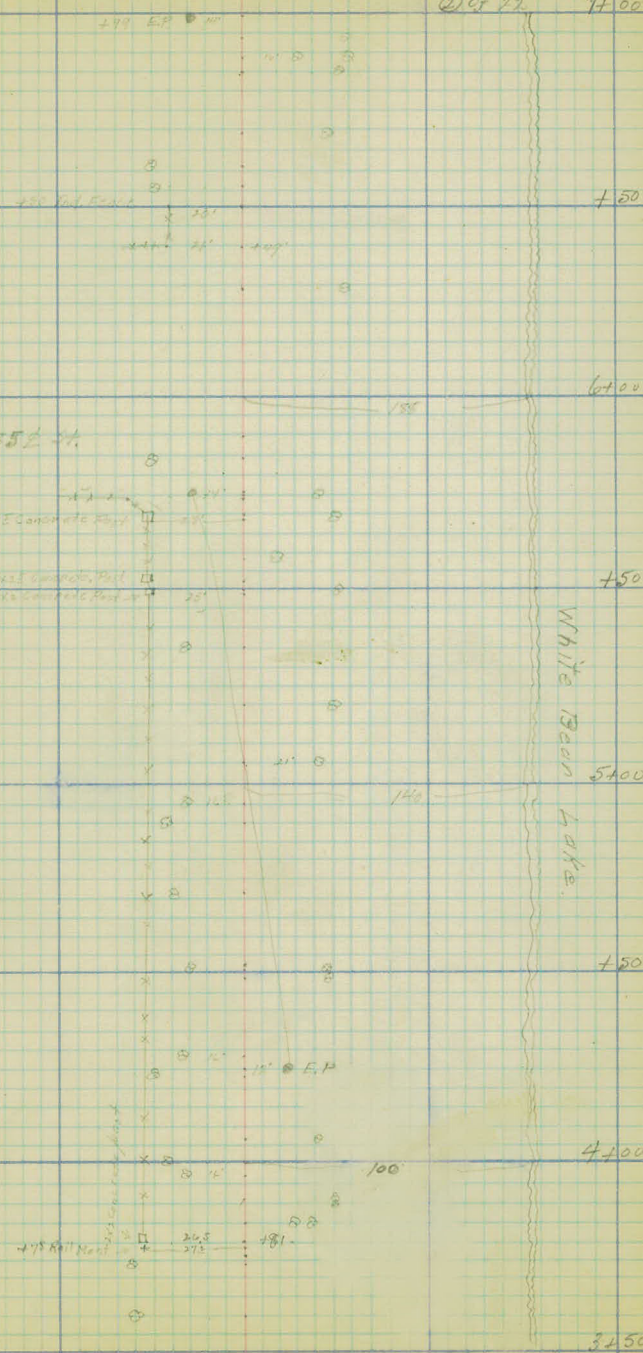
+57-35x35 Concrete Road

+52 20x25 Concrete Road

+57 20x Concrete Road

+75 Rail Road

215 Concrete Road



3
Lake Ave.
White Bear.

+317 Johnson Rec

50

220 Image 0 242

0 0

0 0

10200

105 0 300

0

0

120 150 0 151

+50

0

0

0

175 0

9400

0 210

177 x x x x 275

0

0

0

0

+50

177 230 11

0

0

0

10 0 1000 110 steps

8700

177 0 20' 210
0 17'

22' 0

0 21

x x x x 32' 244

0 20'

0

+50

0

0 235

0

0 24' 35 x 25 steps + 11

160

7100

White Bean holes

Lake Ave

White Bear

(4) of 22

14100

175 Contour - 175

125 Contour - 125

+50

13100

+50

White Bear Lake

10200

+50

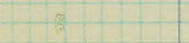
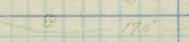
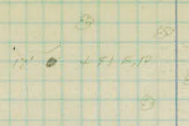
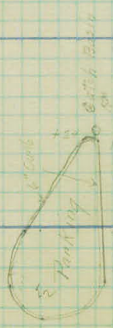
11100

10650

contour 175

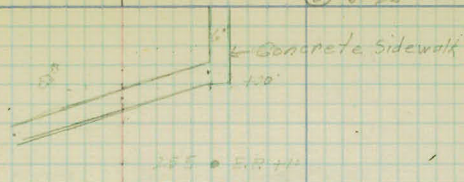
175 Cont

175 Cont



⑤ of 22

Lake Ave
White Bear



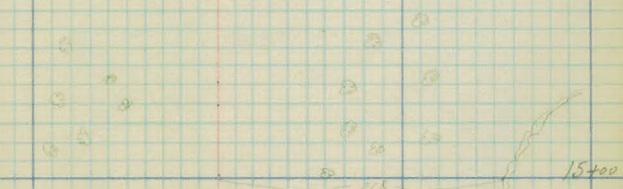
17+00



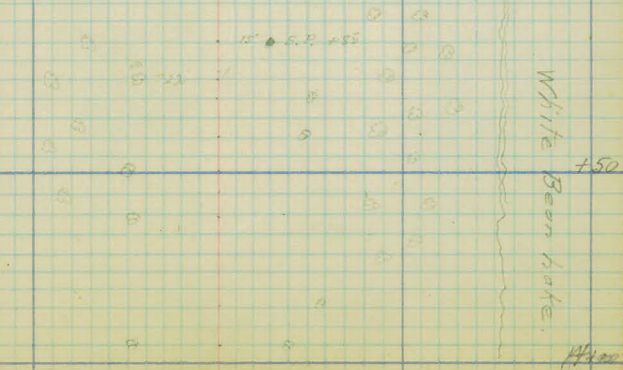
16+00



15+00



14+00



13+00

14+00

⑥ of 22

Lake Ave
White Bear

E.R. 177

155
Hpt

100

(6) of 22

2100

175 ft

11' E.R.

White Bear Lake

+50

90
30
20
10

2000

115

+50

11' E.R. 133

1900

+50

→
100 ft. Rd. Manitowish Island

1800

11' E.R. 133

11' E.R. 135

4' sidewalk

1750

Lake Ave.
White Bear

140 ± 5'

7'0"

12' 00"
10' 00"
Stairs 3 1/2' x 10'
9'

24' 00

12' 00"

450

7' 0" A.P. 405

23' 00

2' 00"
100'
489
22' 00' 3127

White Bean Nake

450

End Walk 4' 02"

12'

4' 02"

L' Concrete Sidewalk

22' 00

21'

7' 00" A.P. 413

450

1 Sq = 5'

4 1/2' concrete walk

135'

100'

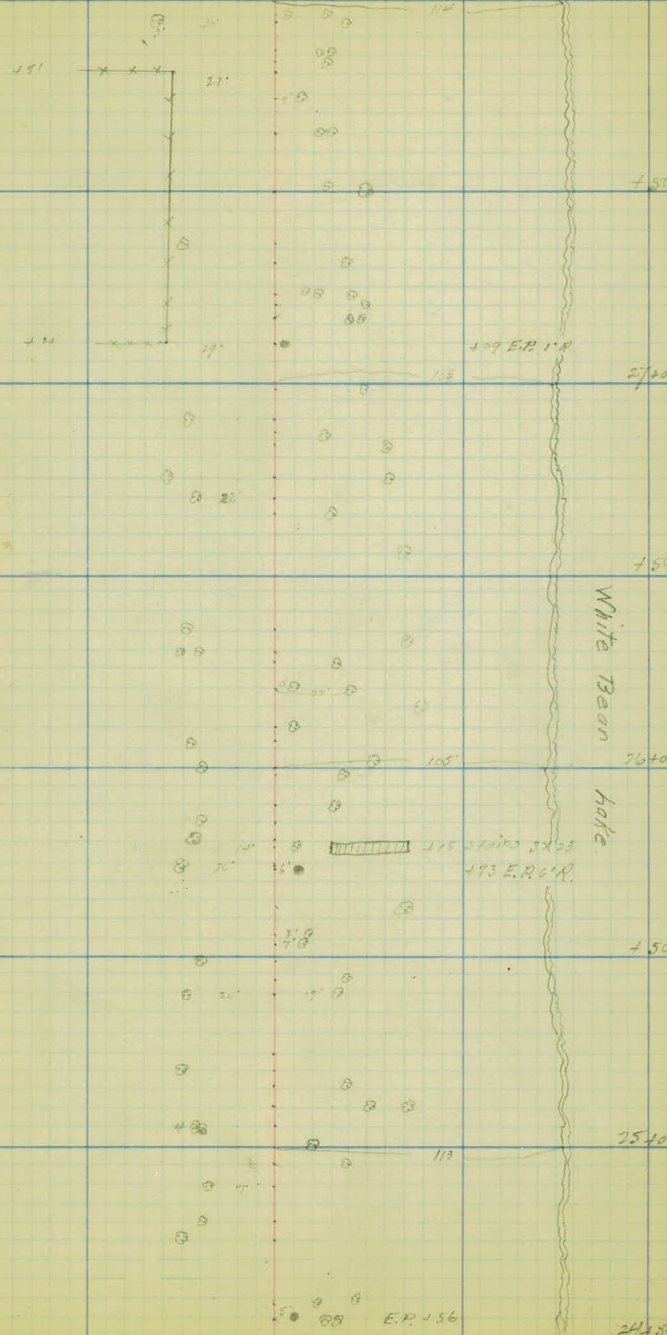
21' 00

lake Ave.

White Bear

⑧ of 22

25400



+50

27200

+50

White Bean Lake

26400

+50

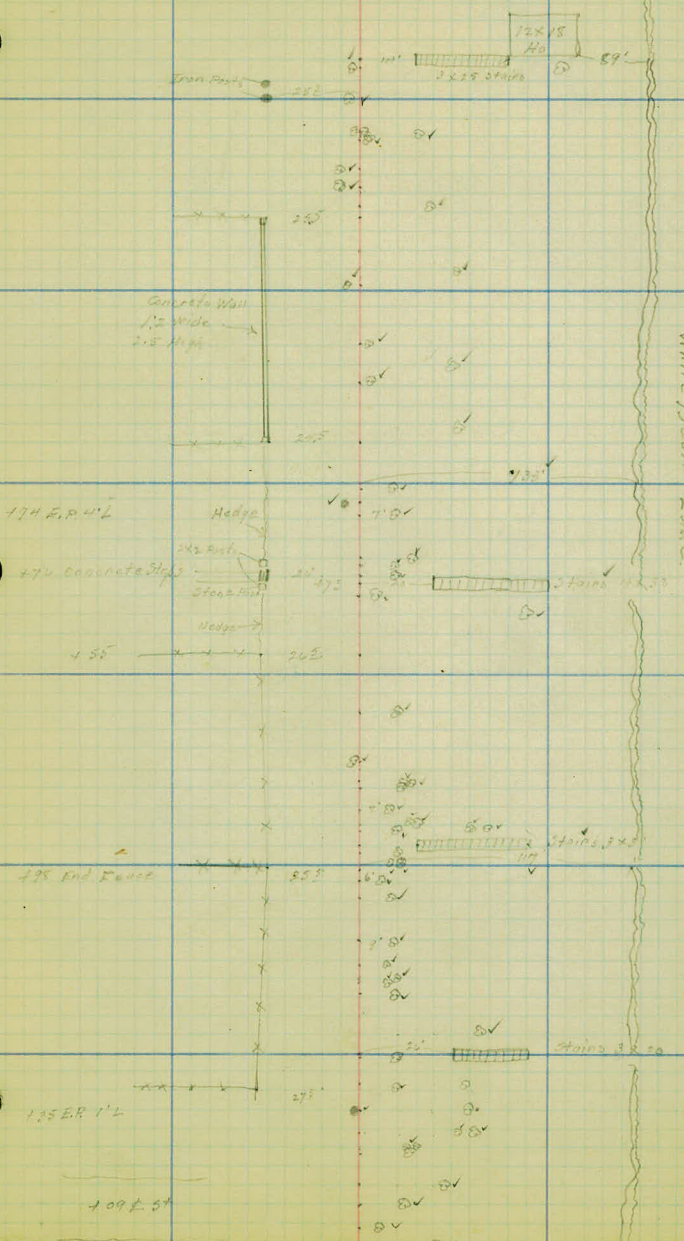
25400

E.P. 1-56

24400

hako Ave
White Bear

White Beam Lake



21400
150
3400
450
29400
+ 20
26400

174 E.R.U.L

174 Concrete Steps

175 End Fence

175 ER 1'2

109 L 57

7-10-23

Lake Ave
White Bear

+00 = End Fence
+75 7/ sign Post 155 L
+89 Guy Pole 145 L

X X X X 245

170'

White Bear Lake.

Concrete Wall

104 E.R. 250

Stairs 5x10

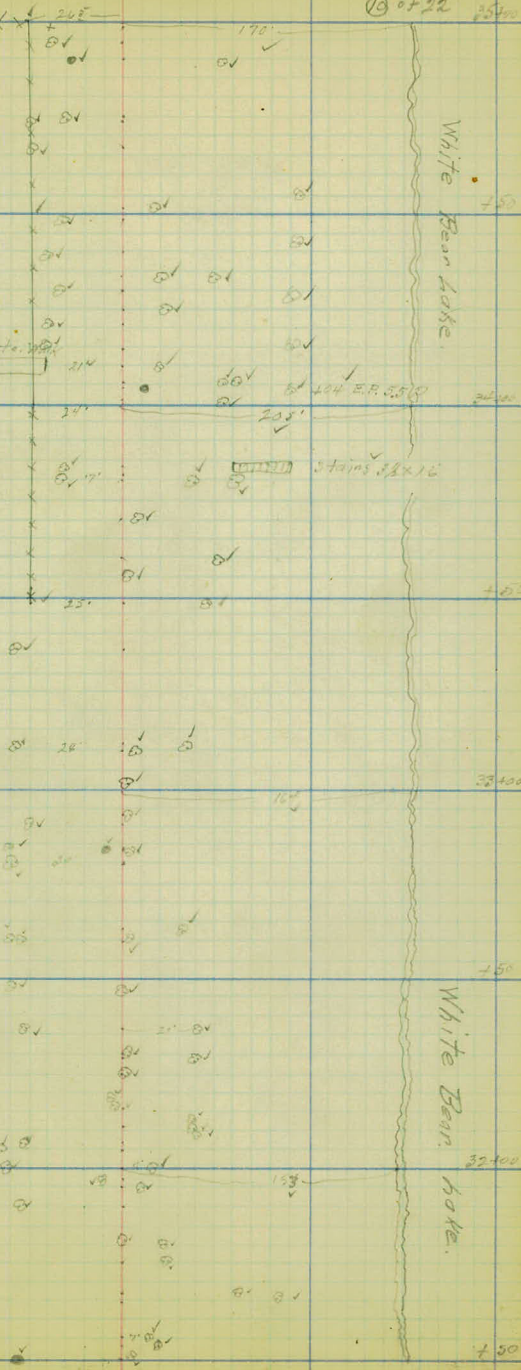
+49 50y. Fence

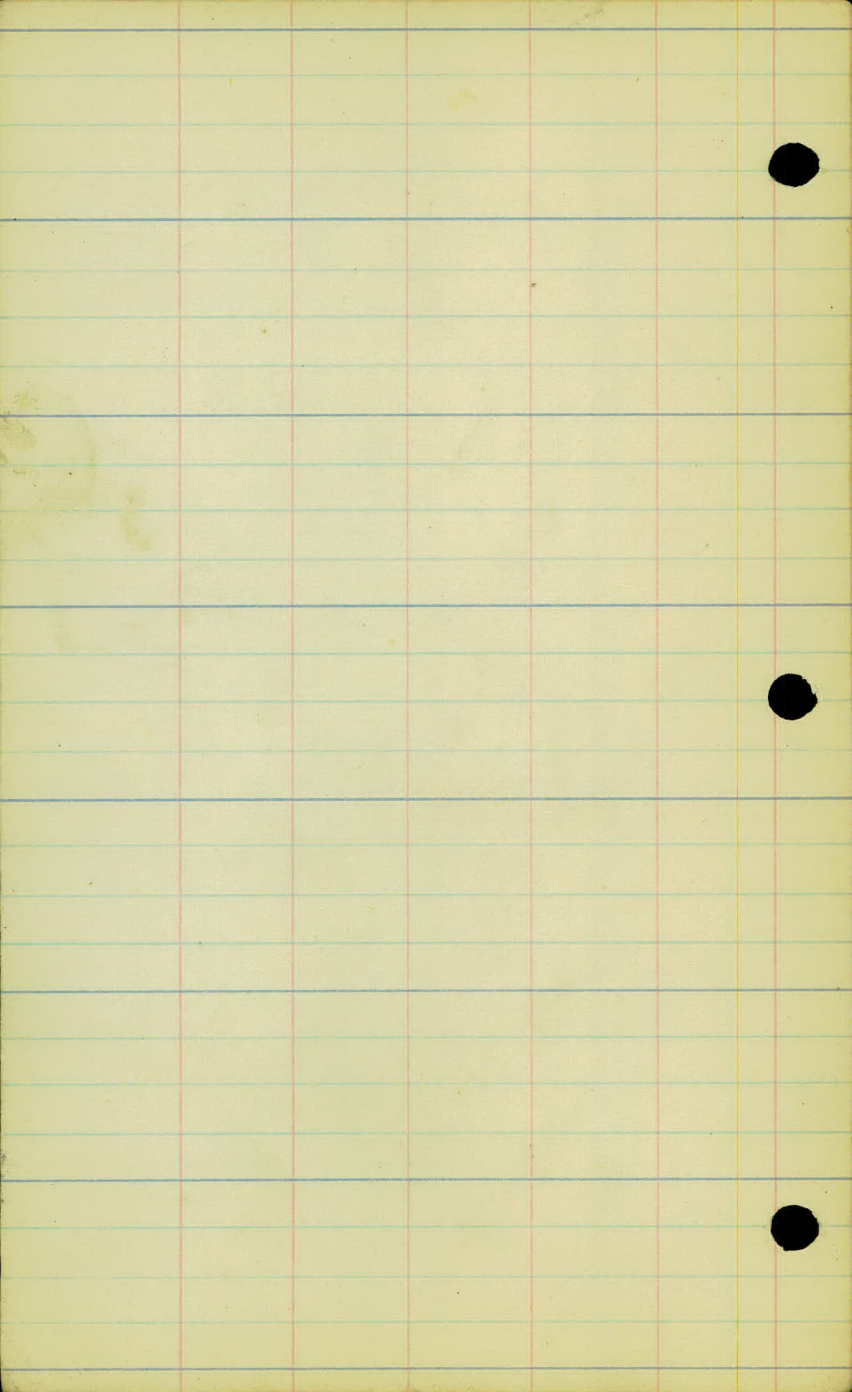
+47 E.R. 250 L

White Bear Lake.

+44 50

+50 E.R. 250 L





22' ✓
DV

" ✓
" ✓

+33 E.P.
+30 T.R.

8V
DV

215

170

36400

8V
DV

205



Stairs 3' x 4'

+50

8V
DV

22

+36 E.P.

White Boon Lake

20

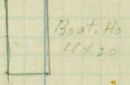


Stairs 3 1/2' x 2'

37400

8V
DV

150



Boat. Ho
16 x 20

+50

8V
DV

21

+42 E.P.

21' ✓
DV

185'

36200

+63 Bop. Fence

8V ✓

+73 E.P. 12' R

+53 E.P. ✓

8V ✓

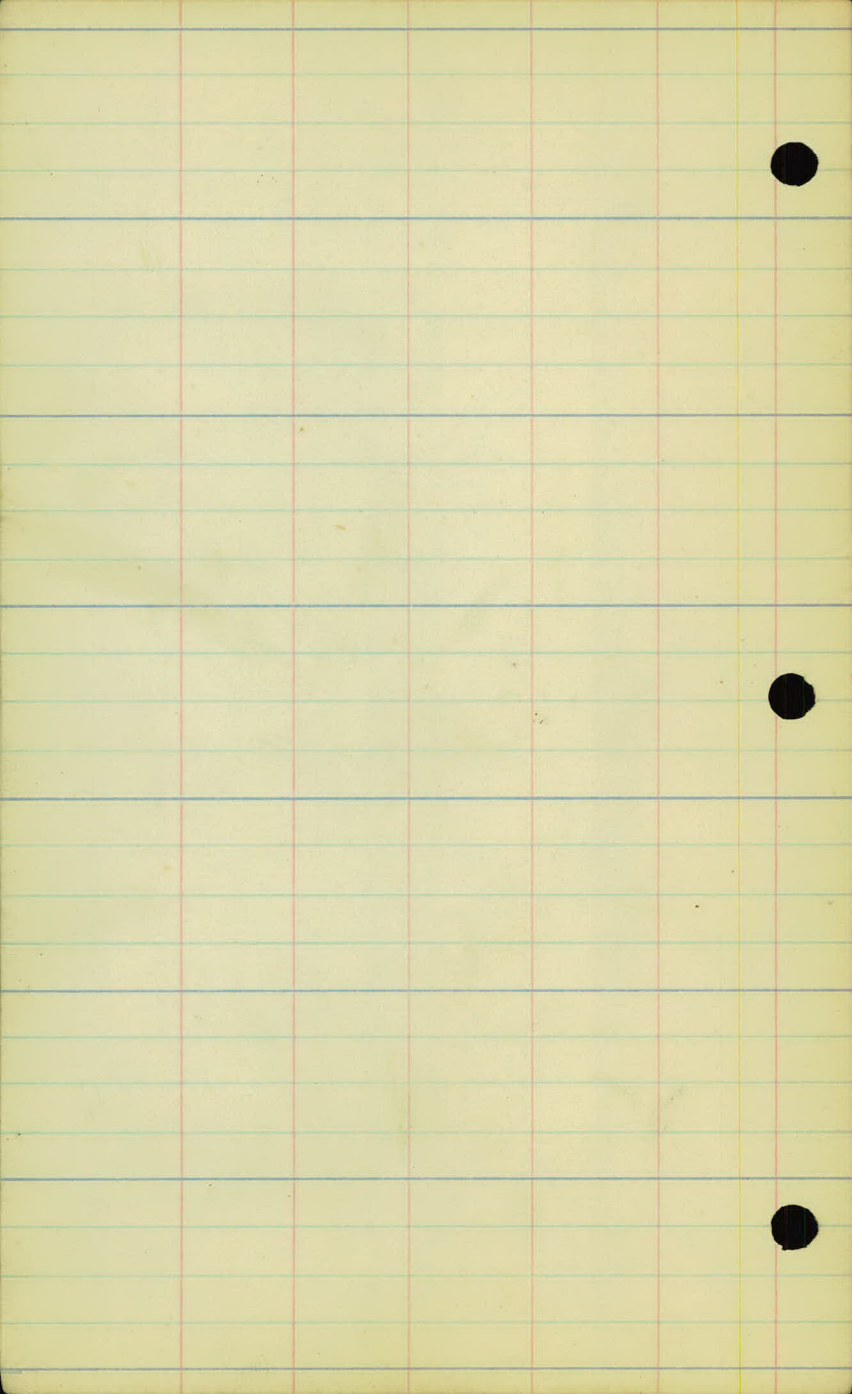
+57 E.P. 12' R

+50

8V ✓

+17 Guy. Pole 20' R

35700



20' 115

82V

+50

143 T.P.

124 T.P. 14' L

21' 21V

41+00

125 T.P.



21'

STONE 40'

144'

+50

14 T.P.

White Bean Lake

40+00

20' V

171 T.P.

19' V

11 T.P. G.P.V.

164 Box Home

X X

20' V

5' G.P.

+50

G.P. V

170

~~140 of Rd~~

11 T.P.

G.P. V

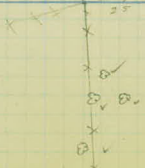
39+00 Ent. Lane

20 25

170

170

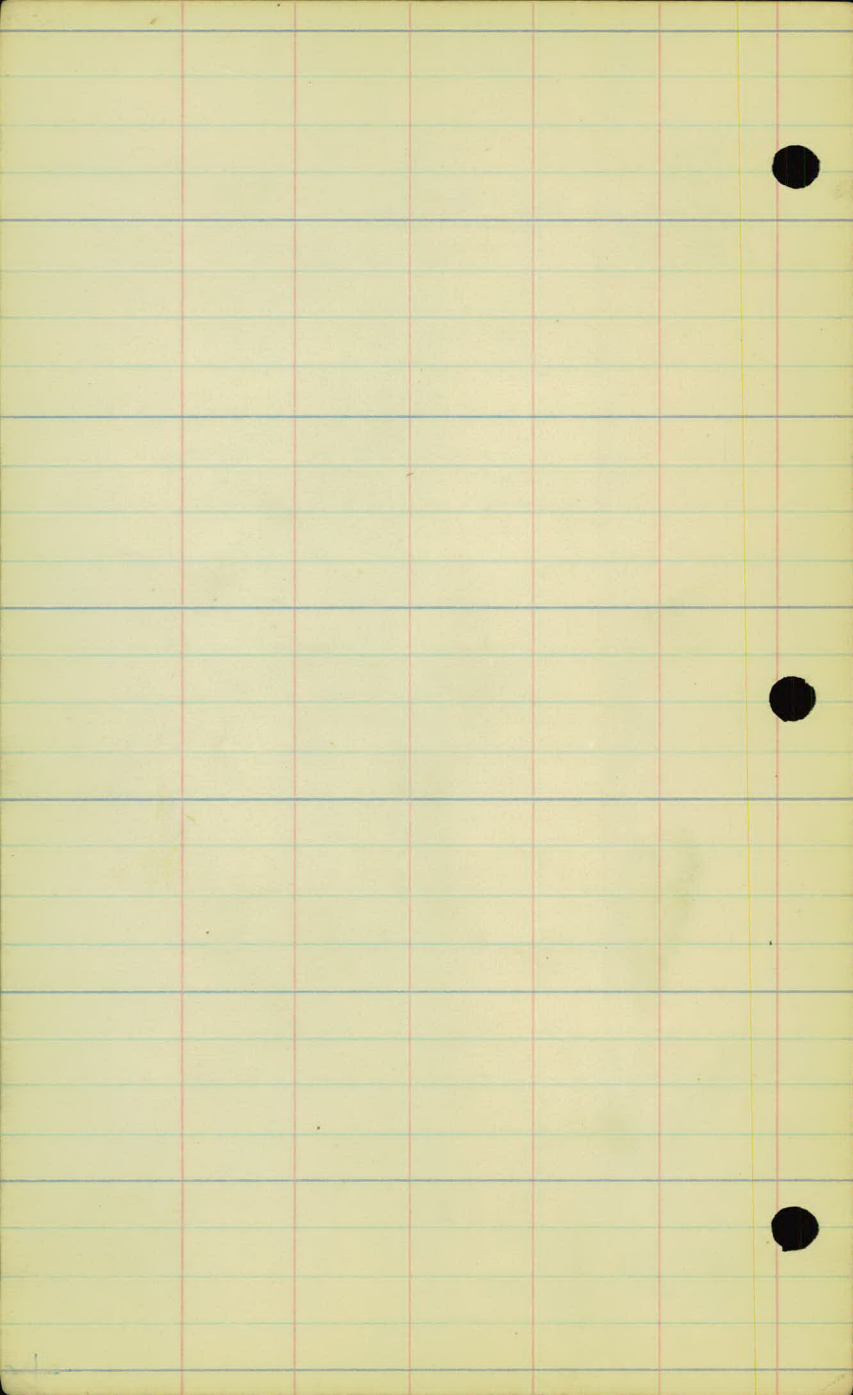
39+00



8V

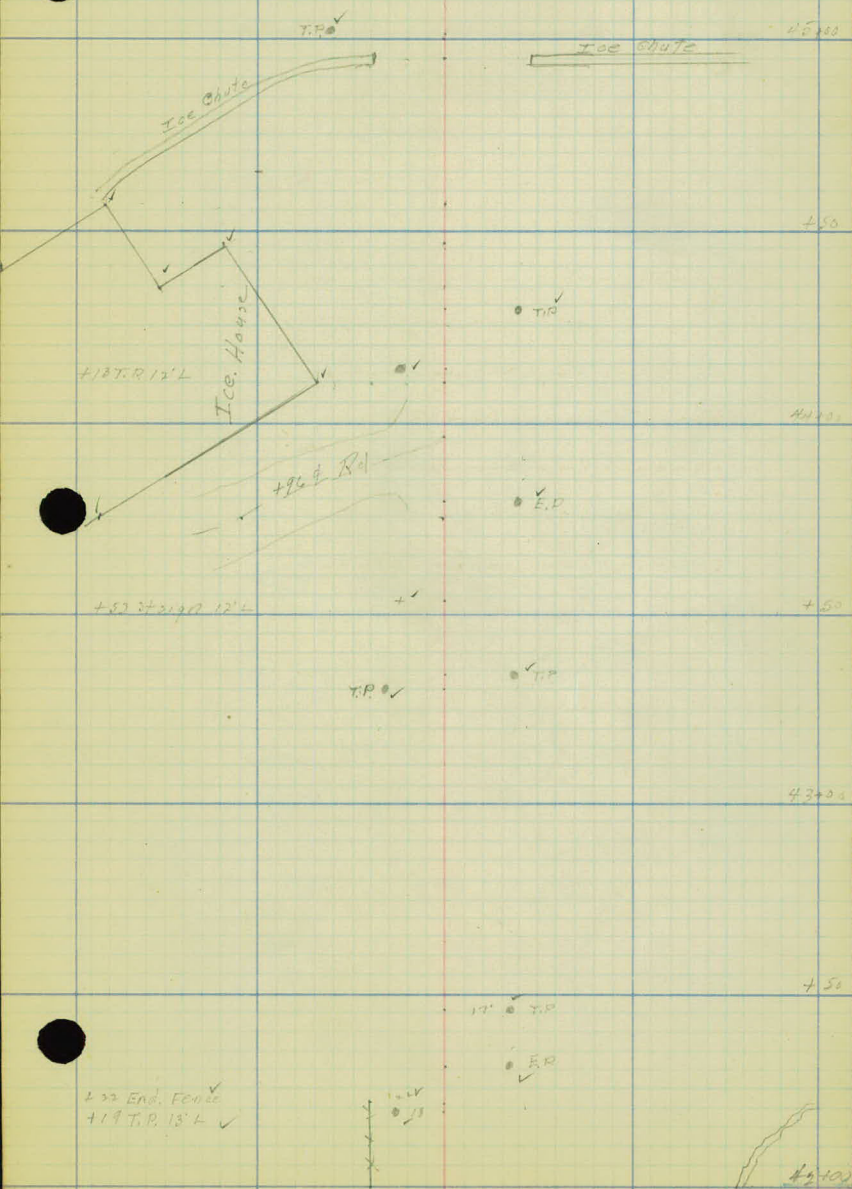
8V

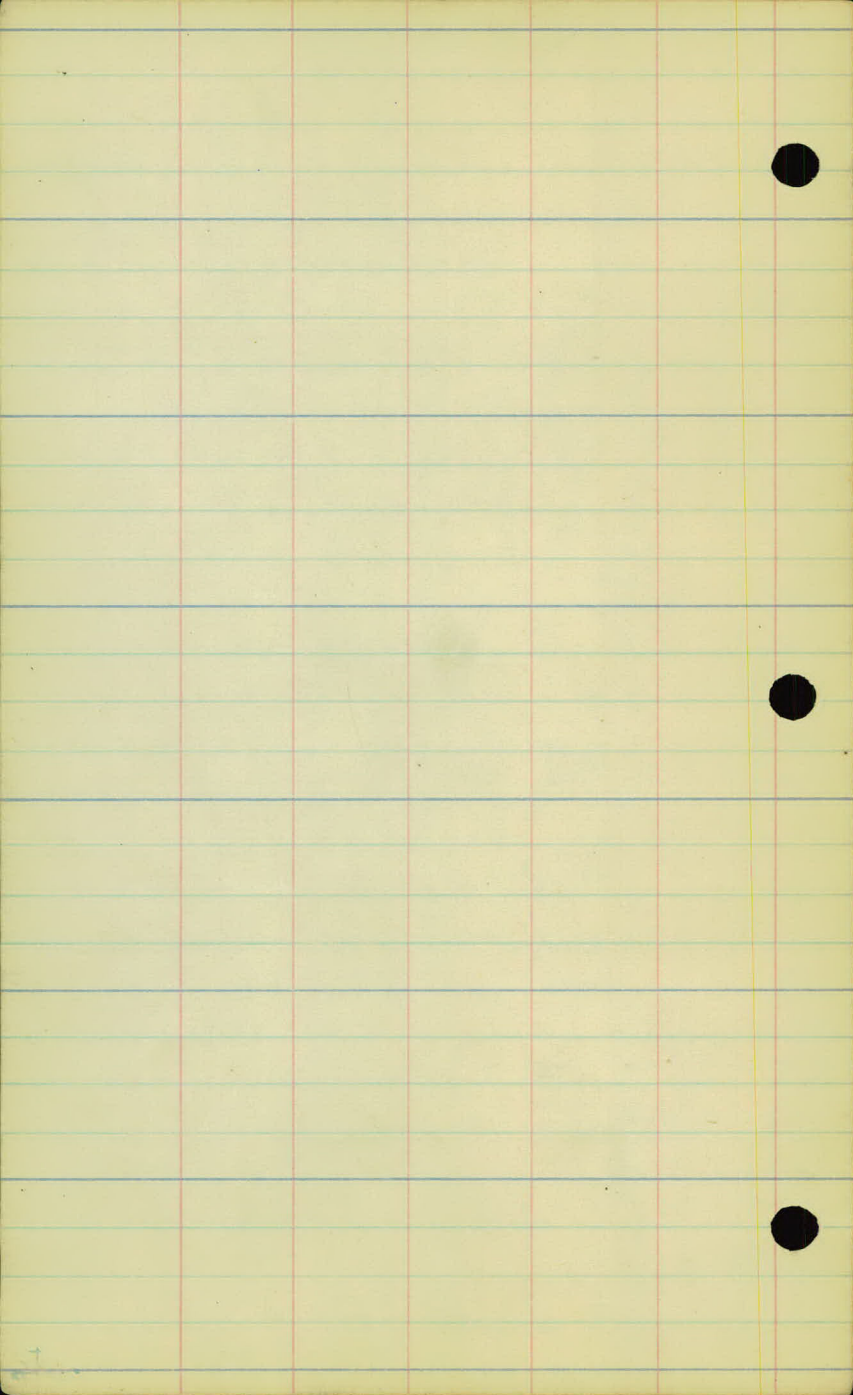
+50



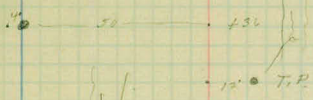
4-11-23

(3) of 32 450





+50



48.00

Willow Bush

Willow Bush

+50

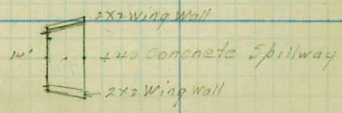


47.00

Bush

T.P.

+50



46.00

T.P.

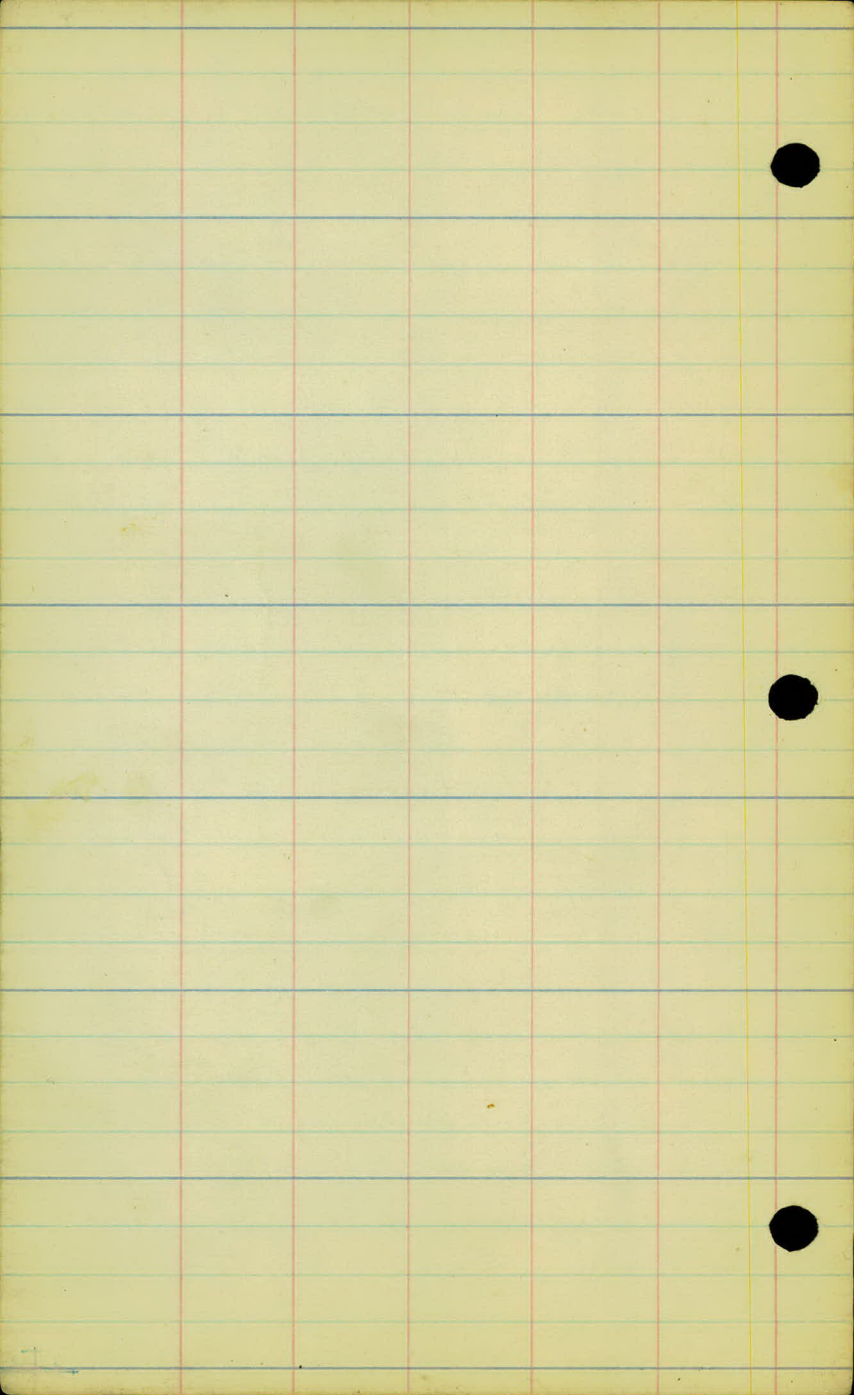
Willow Bush

+36

Reg Fence

12'

+50



+03 R.R. T.P. 192

52+00

E.P.

Roof

51+99.3

+ R.R. King Post
T.P.

Brook P.

+53

+06 End Face 11'4

T.P.

51+00

T.P.

+50

85'

83'

21'

+57

G.P.

50+00

E.P.

T.P.

+50

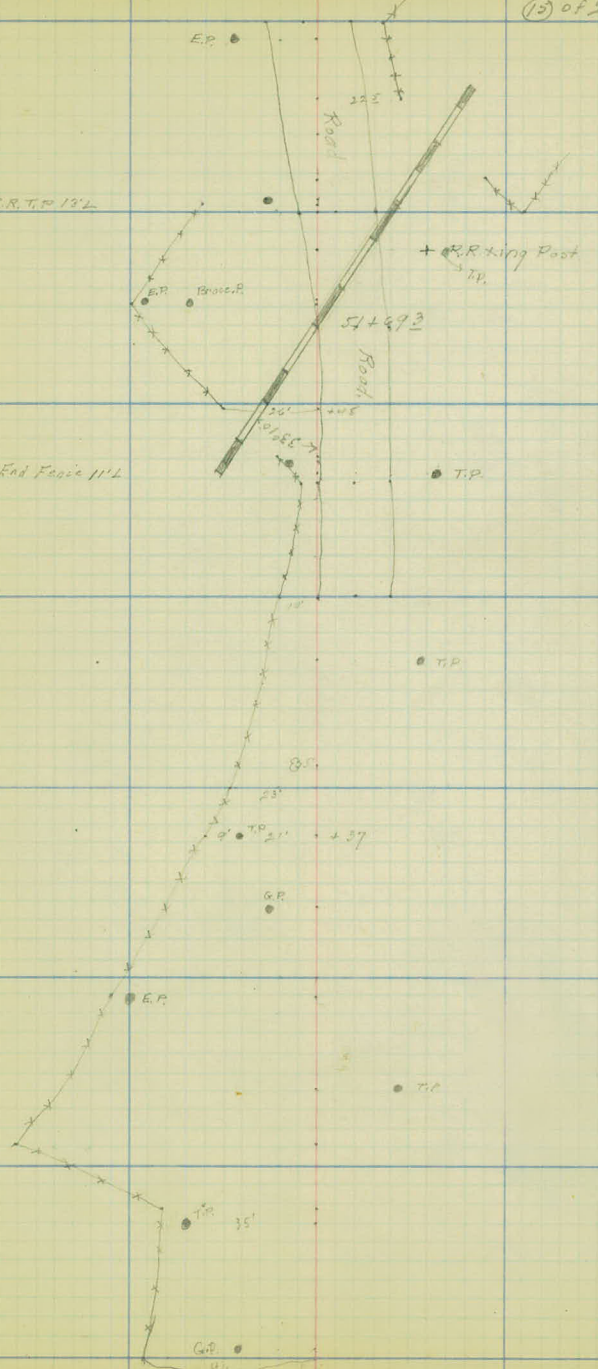
T.P.

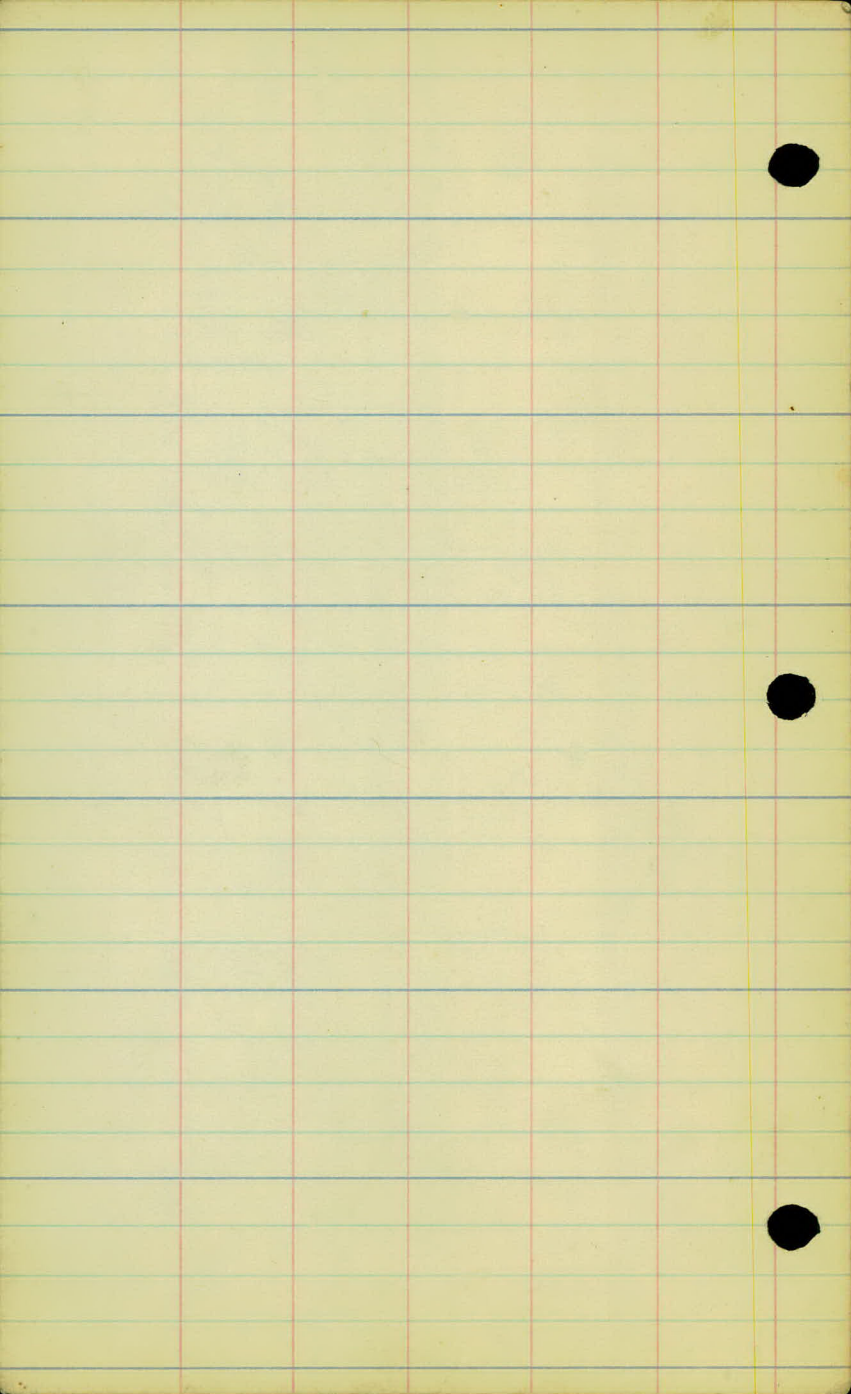
35'

G.P.

49+00

46'





56100

25'

68'

43'

+50

K.P.

T.P.

55100

25'

+50

61'

T.P.

E.P.

477'

E.P.

E.P.

54100



Reg. Force 122

11'

779'

53100



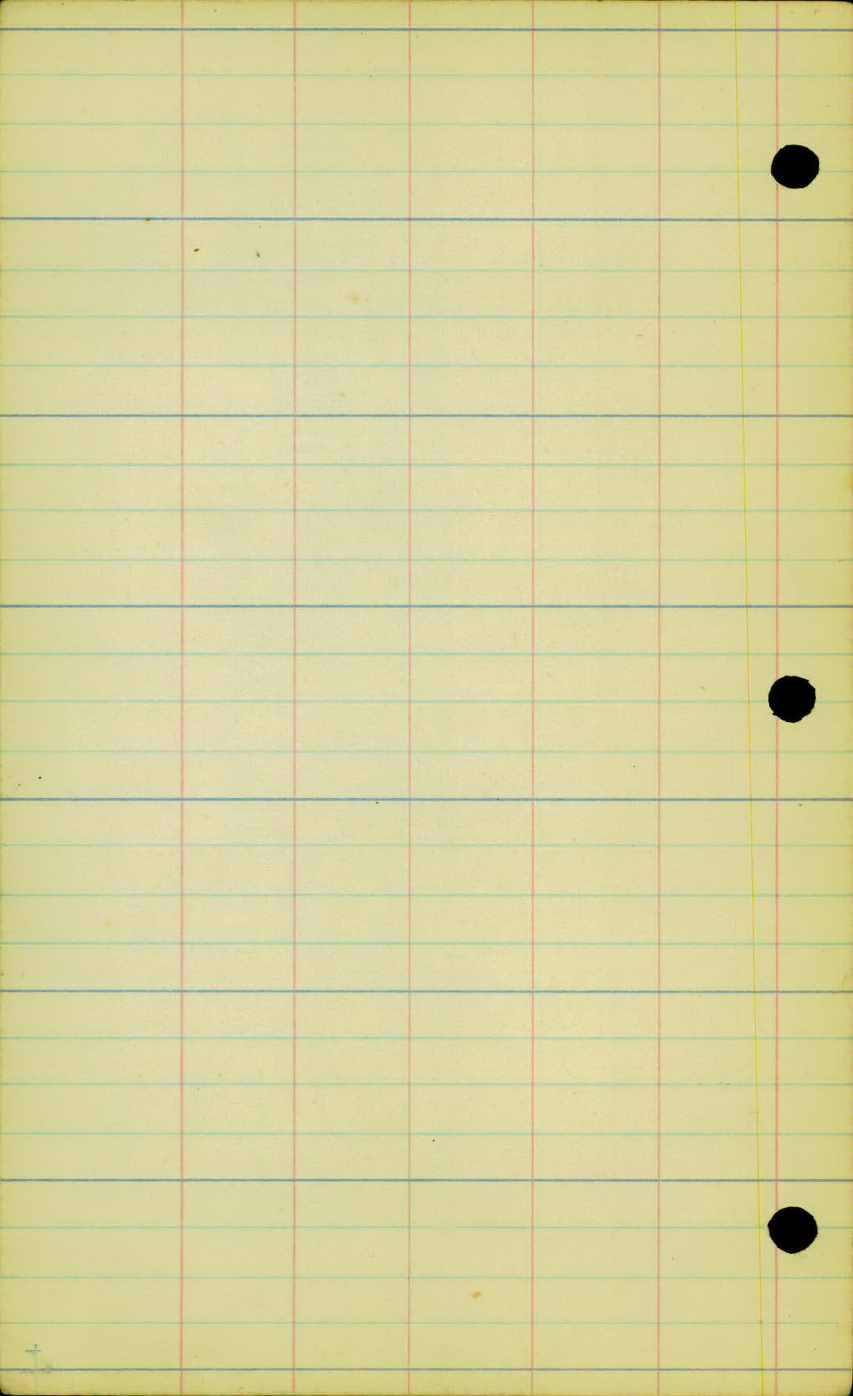
E.P.

T.P.

53100

T.P.
E.P.

+50



Small Trees and Brush

V.P. X.P.

59200

Small Trees and Brush

59500



58400

+68 T.P. 175

E.P.

59500

24.2

63'

57400

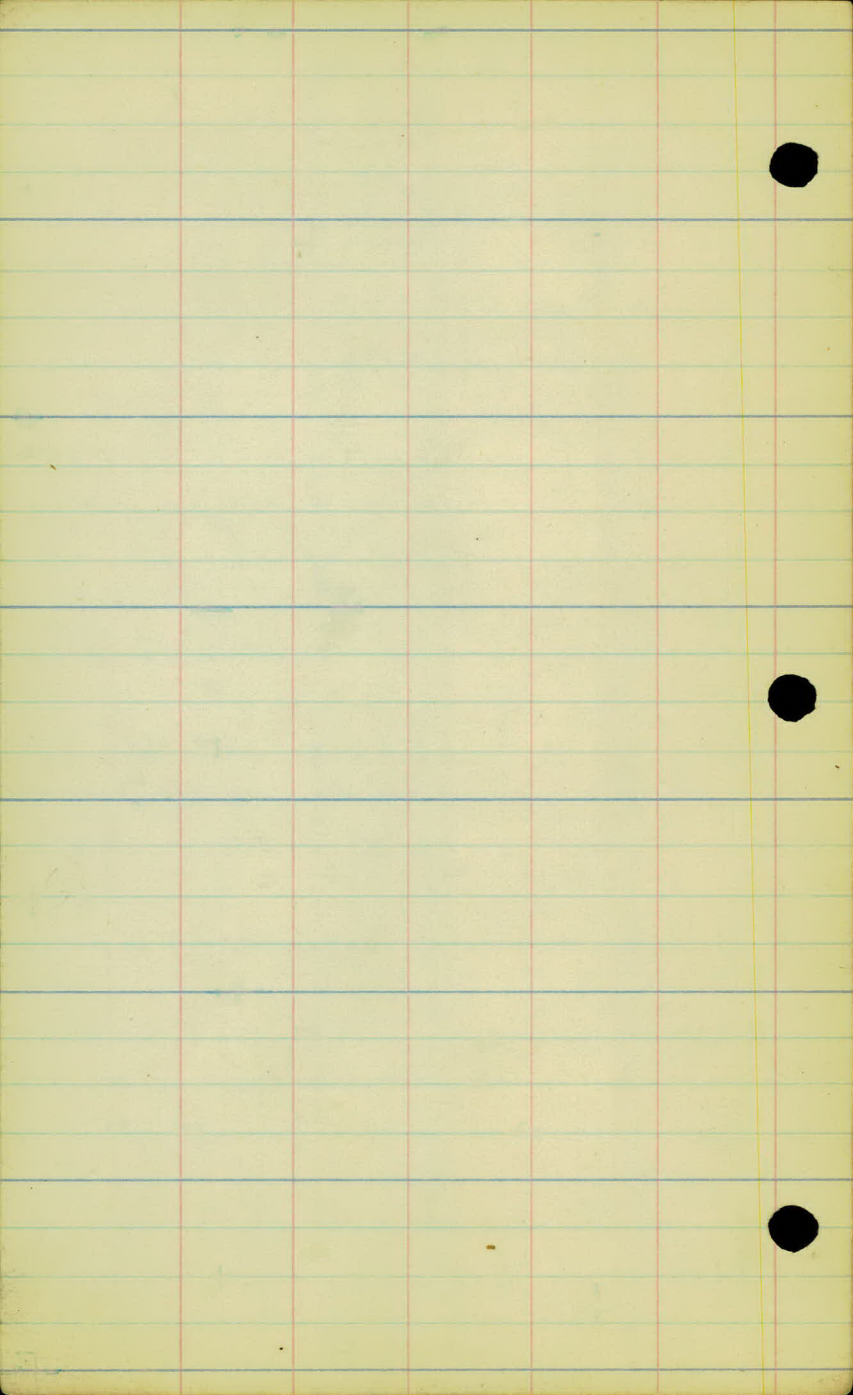
20.3

E.P.

59500

T.P.

58200



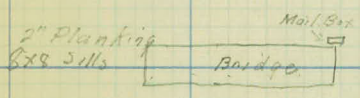
(17) of 22

63+00

85
85
E.P.

69'

+80



62+00

15' +84

"Equation" { = RT + 715
 } E.C. + 615

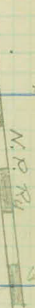
By W.H.C.

85'

+50

77 T.P. 14'

E.P.



64+00

+50

77 T.P. 16'

E.P.

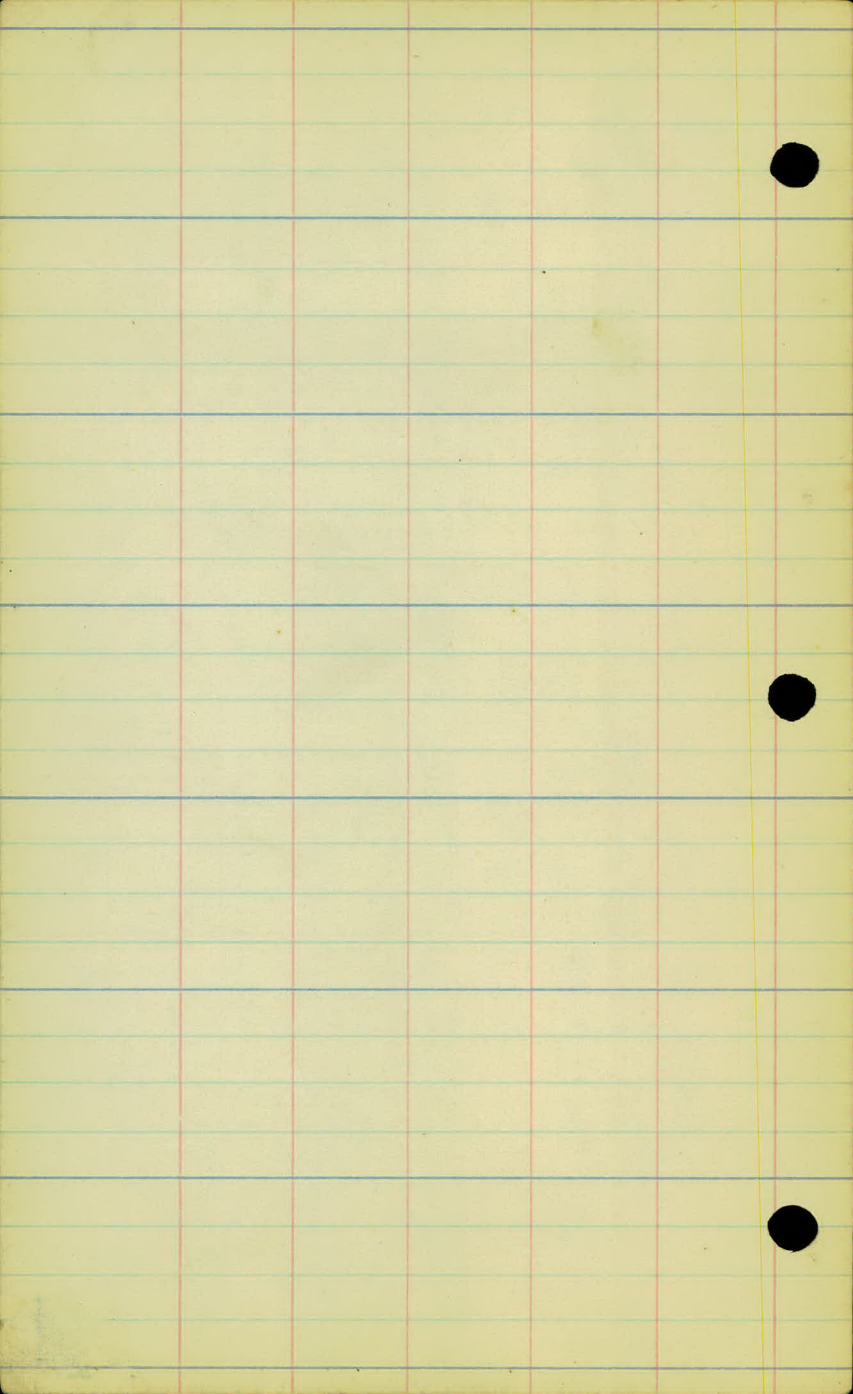
End South

53'

45'

60+00

+50



159 = 10'

495 T.P. 10' R

70000
70000
+90 E.P. 18' R

3. Rd 17'
45
63.5

+100 E.P. 24' R
69000
+80 T.P. 5' R
+70 T.P. 5' R

Rd 22'

+100 E.P. 45' R 68000

43'

+37 T.P. 1' L

Rd 16'

67000

Small Yuccas

+70 E.P. 55' R

+100 T.P. 7' L

1. Rd
32
60.3

66000

+44 E.P. 28' R

65000

+60 T.P. 18' L

53'

+110 E.P. 31' R

64000

54'

Clump. Scrub Oak

+22 T.P. 16' L

159 = 10'

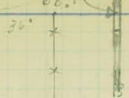
52'

63000

75401.4 P.I.

71477⁰ P.I.

+76 E.P. 15'L



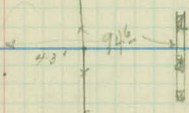
76+00

+53 E.P. 15'L
+49 T.P. 29'L
+40 Sign Post 21'L

+75 T.P. 26'R

75+00

+65 Sign Post 10'L



+59 T.P. 25'R

74+00

+30 E.P. 25'L

44'

+07 E.P. 26'L

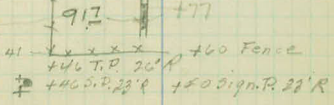
43'

+05 T.P. 28'R 73+00

72+00

+ To Gas Tank 33'

49'



71+00

+70 E.P. 21'L

8
8 19'

71+00

+03 T.P. 13'R 70+00

80+83 Σ P.I

44

+93 E.P. 19' L

83+00

+47

85'

+70 T.P. 33' R

E.C. of R.R.

82+00

+70 E.P. 13' L
+64 Guy. P. 13' L
+52 E.P. 12' L

+64 T.P. 25' R

42

81+00

+83.75

39'

90'

+73 T.P. 30' R

+46 E.P. 11' L

80+00

36

+43 T.P. 20' R

+23 T.P. 11' L

79+00

30

+15 T.P. 25' R

+00 E.P. 15' L

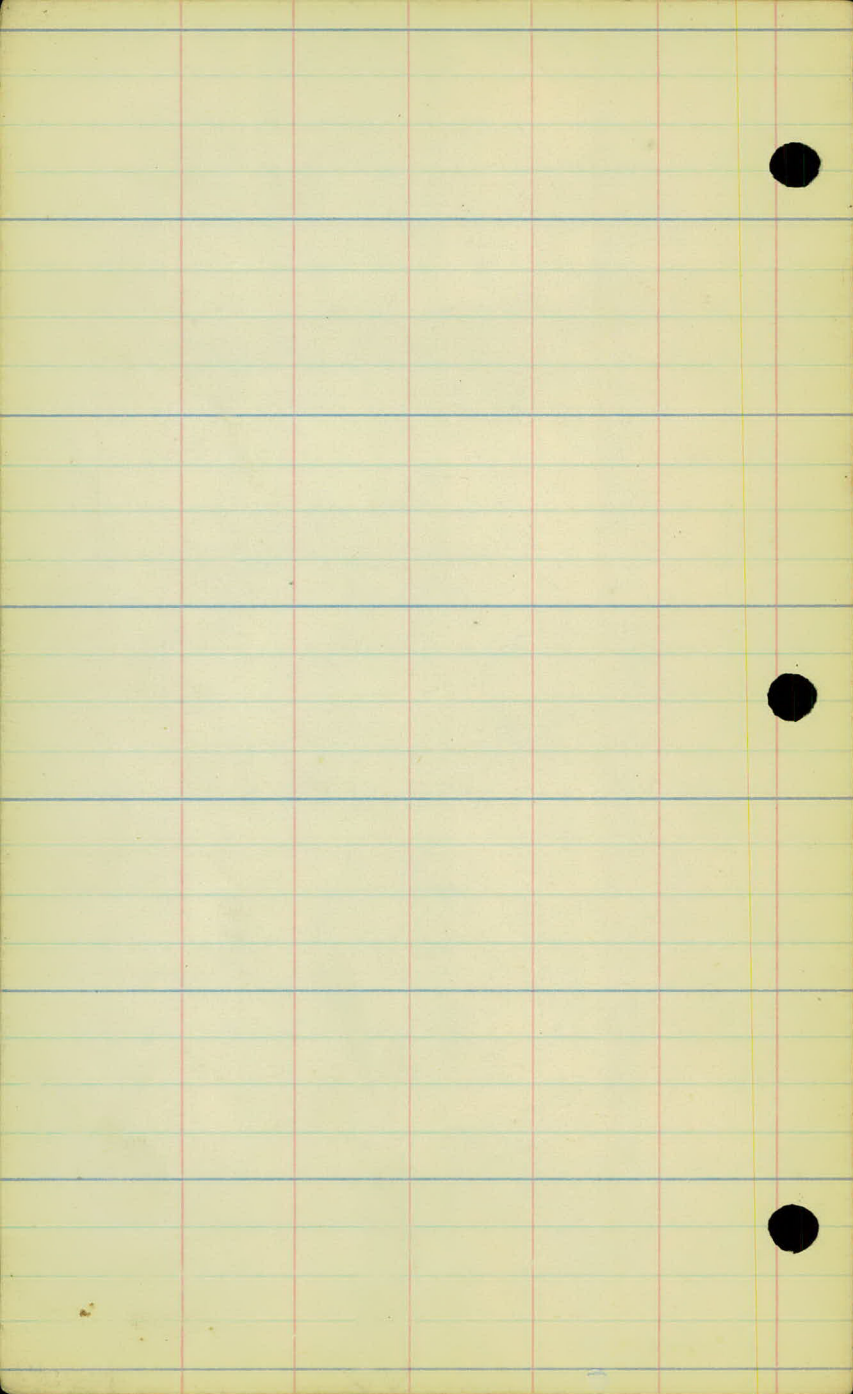
78+00

36

68.4'

+10 T.P. 25' R

77+00



+91 E.R. 19' L

+67 E.R. 22' L

+45 E.R. 19' L

+22 E.R. 16' L



+51 Sign Post 16' R
 +35 Sign Post 14' R
 +15 T.P. 22' R

88400

87400

+77 T.P. 28' R

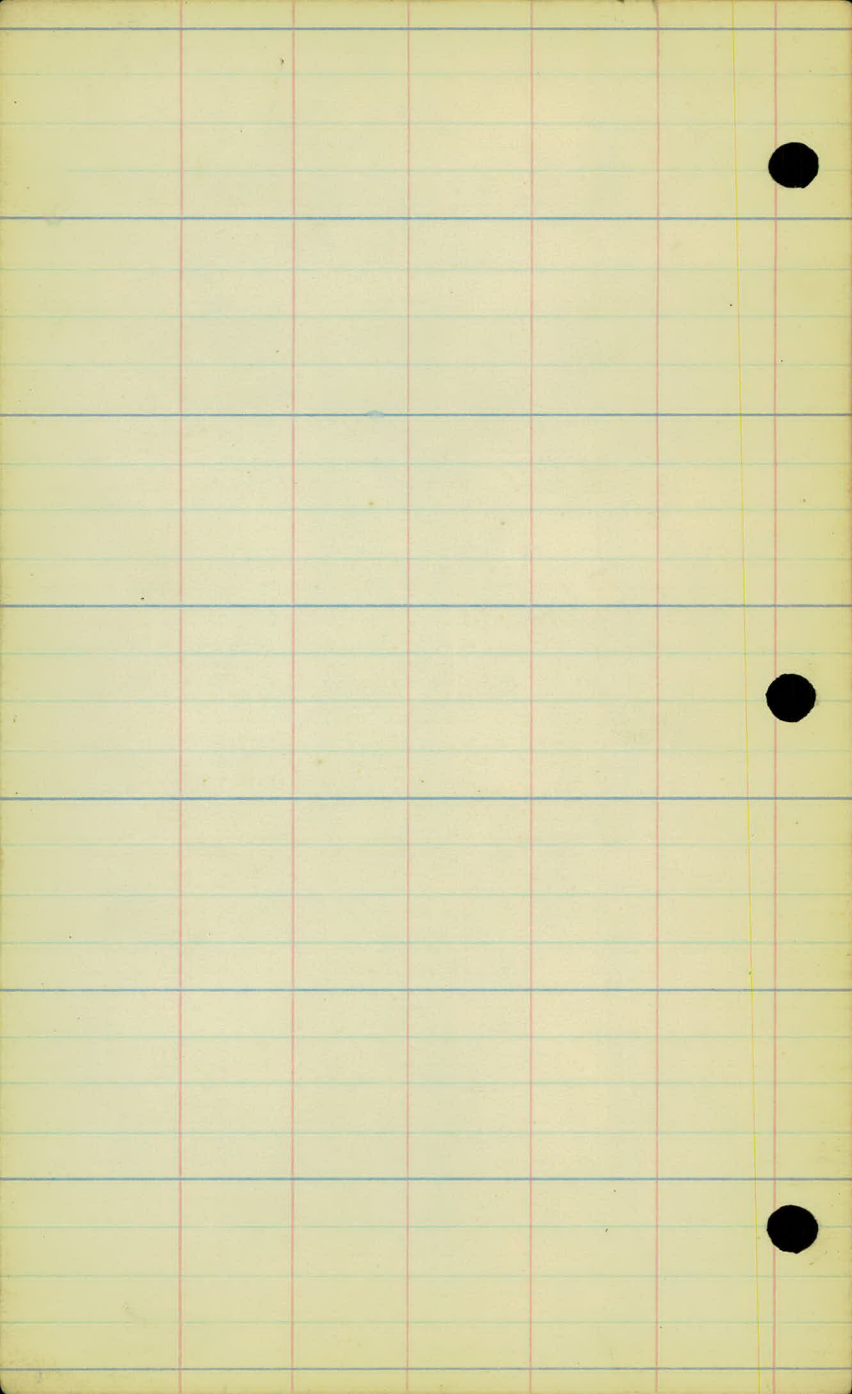
86400

+25 T.P. 30' R

85400

+24 T.P. 34' R

84400



LEVELS
LAKE AVE - DELLWOOD LINE

9 SHEETS

RIL
W.M.

LAKE AVE-DELLWOOD Sheet #1 of 9

Station	B.S.	I.I.	F.S.	Rod	Elev	
					244.19	✓
374	248.13	✓	192		246.21	✓
212	249.23	✓	206		247.27	✓
235	250.12	✓	613		243.99	✓
603	250.02	✓	293		247.09	✓
090	247.99	✓	867		239.22	✓
486	244.18	✓			40.19	✓
21.70			1.49		242.69	✓
			2320		1.50	
			2170			
			1.50			
			485		239.33	✓
857	247.90	✓	082		247.08	✓
291	249.19	✓	590		244.03	✓
495	248.98	✓	169		247.29	✓
207	249.46	✓	334		246.22	✓
209	248.31	✓	412		244.19	✓
2060			2068			
2068						
001						

B.M. "BE" Live Elec Pole 17+06 Elev 244.4



TP

R.I.L.
W.M. } 4-3-23

TP

TP

TP

TP



B.M. Elec Pole 1457 25' Left.

TP

TP

TP

TP



TP

B.M.

LAKE AVE. - DELLWOOD - SHEET #2

Station	B.S.	I.I.	F.S.	Rod	Elev
	319	245.88	✓		242.69 ✓
0+00				7.5	238.4 ✓
1+00				6.1	239.8 ✓
2+00				5.2	240.7 ✓
3+00				4.5	241.4 ✓
4+00				4.4	241.5 ✓
5+00				4.5	241.4 ✓
6+00				4.3	241.6 ✓
7+00				3.9	242.0 ✓
8+00				3.7	242.2 ✓
			3.52		242.36 ✓
	2.14	244.50 ✓			
9+00				2.8	241.7 ✓
10+00				3.6	240.9 ✓
11+00				4.1	240.4 ✓
12+00				4.7	239.8 ✓
13+00				5.1	239.4 ✓
14+00				5.7	238.8 ✓
15+00		243.74		5.9	238.6 ✓
16+00		242.69 1.10		5.6	238.9 ✓
			4.96		239.54 ✓
	8.91	248.45 ✓			
+ 6.94	110.5 31.9		8.43 26.6	8.8	239.6 ✓
17+00	142.4 13.4		73.4	8.2	240.2 ✓
18+00	110			6.1	242.3 ✓

B.M. Elec Pole 1+57 25' Left Elev. 242.69

C of Stewart Ave

R.I.L. } 4-3-23
W.M. }

~~TP~~ *

~~TP~~

~~P~~

LAKE AVE - DELLWOOD SHEET #3

Station	B.S.	H.I.	F.S.	Rod	Elev
		248.45 ✓			
			4.66		243.79 ✓
18+43				53	243.1 ✓
	6.50	250.29 ✓			
19+00				59	244.4 ✓
20+00				44	245.9 ✓
+50				39	246.4 ✓
+75				38	246.5 ✓
21+00				36	246.7 ✓
22+00				30	247.3 ✓
23+00				34	247.9 ✓
24+00				14	248.9 ✓
			1.13		249.16 ✓
	7.15	256.31 ✓			
24+48	0.84			71	249.2 ✓
25+00	$\frac{14.49}{9.70}$	$\frac{248.59}{243.79}$		73	249.0 ✓
26+00	4.79	4.79		66	249.7 ✓
27+00		$\frac{5.71}{3.99}$		55	250.8 ✓
+138		9.70		50	251.3 ✓
+33				5.3	251.0 ✓
				3.5	252.8 ✓
28+00				51	251.2 ✓
+10				56	251.1 ✓
29+00				48	251.5 ✓
+21.6				39	252.4 ✓
30+00				35	252.8 ✓
31+00				4.8	251.5 ✓
			4.58		251.73 ✓
			5.71		

B.M. Elec Pole 18+03 28' R
 C of Manitow Island Road.

R.L. }
 W.M. } 4-4-23

C of E 6th St

T.P.

C of 7th St

C 8th St

E.C.

T.P. on spike 30+465 IBC.

Station	B.S.	H.I.	F.S.	Rod	Elev
					251.73 ✓
	0.84	252.57 ✓			
32+00				17	250.7 ✓
+32				33	249.3 ✓
33+00				53	247.3 ✓
-1361				57	246.9 ✓
34+00				53	247.3 ✓
			399		248.58 ✓
	2.69	251.27 ✓			
35+00				40	247.3 ✓
+42				41	247.2 ✓
+50				41	247.2 ✓
36+00				37	247.6 ✓
+50				36	247.7 ✓
37+00				42	247.1 ✓
+50				48	246.5 ✓
38+00				54	245.9 ✓
39+00				79	244.3 ✓
40+00				89	242.4 ✓
41+00				10.8	240.5 ✓
			1021		241.06 ✓
	0.22	241.28 ✓			
42+00			696	30	238.3 ✓
	291		1711		
			291		
	248.58		1420		
	234.38				
	<u>14.20</u>				

4-4-23

X

B.M. Tele Guy Pole 34+20 25' R

Q of 10th St

4-5-23

R.I.L }
WM } 4-5-23

RP on stake 41+00

LAKE AVE - DELLWOOD SHEET #5

Station	B.S.	H.I.	F.S.	Rod	Elev
			241.28 ✓		
43+00				5.4	235.9 ✓
44+00				6.0	235.3 ✓
45+00				6.3	235.0 ✓
46+00				6.6	234.7
			6.90		234.38 ✓
	512	239.50 ✓			
46+45				5.1	234.4
47+00				5.0	234.5
48+00				5.2	234.3
49+00				5.1	234.4
50+00				4.9	234.6
51+00				5.1	234.4
+71.55				3.64	235.86
52+00				4.0	235.5
			299		236.51 ✓
	471	241.25 ✓			
53+00	986			6.6	234.6
+50	7.63				
	2.23		7.64	6.6	234.6
54+00			7.63	5.9	235.3
55+00				5.5	235.7
56+00		236.61		5.1	236.1
		234.38			
57+00		223		4.6	236.6

4-5-23

R.I.L }
W.M. } 4-5-23

Top of South wall of concrete overflow

West rail N.P. RR

B.M. Tele Pole 53-132 X 15' Left

R.I.L
W.M.

4-6-23

LAKE AVE - DELLWOOD SHEET #6

Station	B.S.	H.I.	F.S.	Rod	Elev
		241.25 ✓			
58+00				4.1	237.1
59+00				4.4	236.8
60+00				5.0	236.2
61+00				5.1	235.1
61+54.5				4.9	236.3
			4.64		236.61 ✓
	4.50	241.11 ✓			
62+00				4.9	236.2 ✓
63+00				4.8	236.3 ✓
64+00				5.1	236.0 ✓
65+00				5.0	236.1 ✓
66+00				5.3	235.8 ✓
67+00				5.8	235.3 ✓
67+50				6.7	234.4 ✓
+65				9.2	231.9 ✓
68+00				9.5	231.4 ✓
69+00				7.3	233.8 ✓
+65				3.9	237.2 ✓
70+00				3.3	237.8 ✓
			3.05		238.06 ✓
	2.91	242.05 ✓	3.93		
71+00	8.49		6.98	3.3	238.7 ✓
+25.8	6.98			3.1	238.9 ✓
	1.51				
		238.12			
		236.61			
		1.51			

RIL }
W.M. } 4-6-23

TP

TP, Top of stake 69+00

BC,

LAKE AVE - DELLWOOD SHEET #7

Station B.S. H.I. F.S. Rod Elev

72+00		242.05 ✓	3.5	238.5 ✓
+27.6			3.7	238.3 ✓
73+00			3.8	238.2 ✓
74+00			4.4	237.6 ✓
		3.93		238.12 ✓
	273	240.85 ✓		
74+22.5			3.0	237.8 ✓
75+00			3.5	237.3 ✓
76+00			3.6	237.2 ✓
77+00			4.4	236.4 ✓
78+00			4.6	236.2 ✓
79+00			4.4	236.4 ✓
79+63.4			4.1	236.7 ✓
80+00			3.8	237.0 ✓
81+00			4.4	237.4 ✓
		✓ 1.34		239.51 ✓
	10.53	250.02	5.34	
82+00	13.26		6.7	243.3 ✓
83+00	6.73		4.6	245.4 ✓
+159.5	6.53		4.0	246.0 ✓
84+00		244.65	4.0	246.0 ✓
85+00		238.12	3.9	246.1 ✓
		6.53		
86+00			3.9	246.1 ✓
87+00			4.8	246.2 ✓

R.I. }
W.M. } +6-23

EC,

B

B.M. Elec Pole 73+29 25' Left

BC,

EC,

T.P. Top of stake 80+00

BC,

Station B.S. H.I. F.S. Rod Elev

250.04 ✓

58 +00

7.4

242.6 ✓

+30

8.5

241.5 ✓

1 + 70.3

5.39

244.65 ✓

Check Levels

378

241.90

238.12

480

237.06

408

241.14

460

236.52

281

239.35

1067

500

234.35

1444

1067

377

238.12

3435

277

R.L. }
W.M. } 4-6-23

End of Line

B.M. Elec Pole 86+98-18' Left

B.M. 73+28

B.M. 53+32 Elev 236.51

T.P. On Top of South wall concrete overflow
LAKE OVER FLOWED HERE IN 1906

Station B.S. H.I. F.S. Rod Elev

Check Levels 244.58

514	253.77	259	257.20
165	252.85	617	246.68
186	248.54	572	242.52
			242.69

302	245.71		
		423	241.48
491	246.39		
←		260	243.79
794	251.78		
		315	248.63
917	257.80		
		466	248.14
322	251.36		
		1030	241.06
976	241.84		

29.09		715	234.39
		37.39	
		29.09	
		8.30	
			242.69
			34.39
			8.30

R.I.L.
W.M. } 4-9-33

B.M. Elec Pole 1+57 25' Left Elev 242.69

B.M. Elec Pole 18+03 28' R Elev 243.79

T.P. Top of stake 41+00

T.P. Top of south wall concrete overflow

LAKE AVE - DELLWOOD
CROSS SECTIONS

9 SHEETS

RIL RECORDER
W.M HANDLEVEI
EER TAPEMAN
J.C. RODMAN

LAKE AVE - DELLYWOOD SHEET #1

Station	Elev	
0+00	238.4 ✓	R.I.L. W.M. E.R. J.C. } 4-9-29
1+00	239.8 ✓	
+22	240.3	
2+00	240.7 ✓	
3+00	241.4 ✓	
4+00	(241.5) ✓	
5+00	241.4 ✓	
6+00	241.6 ✓	
+15	241.8	
7+00	242.0 ✓	
8+00	242.2 ✓	
9+00	241.7 ✓	
10+00	240.9 ✓	
+50	240.9	
11+00	240.4 ✓	

Sheet #1

L

Q

R

$$\frac{06}{33} \frac{00}{23} - \frac{09}{21} - \frac{09}{19} + \frac{03}{16} + \frac{04}{6} - \frac{02}{7} - \frac{05}{16} - \frac{42}{24} - \frac{55}{33}$$

$$+ \frac{11}{33} + \frac{08}{22} - \frac{03}{17} - \frac{03}{14} \frac{00}{11} - \frac{04}{10} - \frac{10}{20} - \frac{60}{33}$$

Q of Stewart Ave

$$+ \frac{09}{33} + \frac{34}{33} + \frac{27}{21} - \frac{05}{12} - \frac{05}{11} - \frac{02}{9} - \frac{05}{14} + \frac{03}{20} - \frac{60}{33}$$

$$+ \frac{31}{33} + \frac{25}{20} - \frac{06}{11} - \frac{06}{12} - \frac{02}{10} - \frac{05}{9} - \frac{07}{13} - \frac{07}{14} - \frac{02}{16} - \frac{08}{25} - \frac{79}{37}$$

$$+ \frac{05}{33} + \frac{02}{16} - \frac{06}{14} - \frac{06}{13} - \frac{02}{11} - \frac{04}{10} - \frac{12}{15} - \frac{14}{20} - \frac{90}{36}$$

$$\frac{00}{33} \frac{00}{16} - \frac{06}{13} - \frac{06}{12} - \frac{03}{10} - \frac{08}{10} - \frac{15}{13} - \frac{15}{14} - \frac{11}{19} - \frac{45}{26} - \frac{78}{33}$$

$$+ \frac{03}{33} - \frac{02}{12} - \frac{01}{9} - \frac{04}{9} - \frac{09}{11} - \frac{08}{12} - \frac{06}{14} - \frac{10}{20} - \frac{74}{35}$$

Q of Moorehead Ave

$$\frac{00}{33}$$

$$+ \frac{06}{33} + \frac{03}{16} \frac{00}{8} - \frac{02}{7} - \frac{07}{11} - \frac{07}{12} - \frac{02}{16} - \frac{05}{25} - \frac{88}{33}$$

$$+ \frac{15}{33} + \frac{05}{13} \frac{00}{8} - \frac{03}{10} - \frac{08}{11} - \frac{08}{12} - \frac{00}{15} - \frac{04}{28} - \frac{88}{40}$$

$$+ \frac{14}{33} + \frac{05}{16} - \frac{03}{12} - \frac{03}{11} \frac{00}{9} - \frac{04}{10} - \frac{08}{11} - \frac{08}{12} - \frac{04}{21} - \frac{16}{27} - \frac{100}{41}$$

$$+ \frac{10}{33} + \frac{05}{15} - \frac{04}{10} - \frac{04}{9} - \frac{02}{7} - \frac{03}{9} - \frac{03}{15} - \frac{08}{21} - \frac{30}{30} - \frac{87}{32}$$

Q of Johnson Ave

$$\frac{+06}{33}$$

$$+ \frac{10}{33} \frac{00}{15} - \frac{05}{14} - \frac{06}{9} - \frac{11}{11} - \frac{11}{12} - \frac{10}{17} - \frac{15}{30} - \frac{77}{40}$$

CROSS SECTIONS

Station	Elev		
12+00	239.8 ✓		
13+00	239.4 ✓		
14+00	238.8 ✓		4-9-23 RIL WM EER JC
15+00	238.6 ✓		
16+00	238.9 ✓	X	
+69.4	239.6 ✓		
17+00	240.2 ✓		
18+00	242.3 ✓		
+43	243.1 ✓		
19+00	244.4 ✓		4-10-23
20+00	245.9 ✓		
+50	246.4 ✓		
+75	246.5 ✓		
21+00	246.7 ✓		
22+00	247.3 ✓		
23+00	247.9 ✓		
24+00	248.9 ✓		
+48	249.2 ✓		

L

C

R

$$\begin{array}{r}
 + \frac{11}{33} + \frac{01}{19} \frac{00}{15} \frac{-02}{14} - \frac{02}{9} - \frac{10}{24} - \frac{15}{33} \\
 + \frac{20}{33} + \frac{12}{19} - \frac{04}{12} - \frac{04}{10} - \frac{01}{7} \quad \frac{00}{9} - \frac{06}{15} - \frac{06}{22} - \frac{12}{33}
 \end{array}$$

$$\begin{array}{r}
 + \frac{13}{33} + \frac{10}{21} - \frac{09}{17} - \frac{09}{15} + \frac{02}{11} - \frac{02}{10} + \frac{09}{15} - \frac{18}{24} - \frac{24}{33}
 \end{array}$$

$$\begin{array}{r}
 + \frac{20}{33} + \frac{15}{25} - \frac{07}{20} - \frac{07}{17} + \frac{03}{15} - \frac{01}{6} - \frac{10}{15} - \frac{17}{33}
 \end{array}$$

$$\begin{array}{r}
 + \frac{19}{33} + \frac{14}{30} - \frac{05}{24} - \frac{05}{21} + \frac{03}{19} + \frac{04}{9} - \frac{01}{4} - \frac{10}{10} - \frac{15}{33}
 \end{array}$$

Φ of ESTth St

$$\begin{array}{r}
 + \frac{07}{33} - \frac{01}{5} - \frac{09}{15} - \frac{17}{33}
 \end{array}$$

$$\begin{array}{r}
 + \frac{20}{33} + \frac{18}{25} \frac{00}{16} - \frac{02}{11} - \frac{06}{7} + \frac{02}{7} - \frac{06}{22} \frac{00}{25} \frac{00}{33} \\
 - \frac{07}{33} \quad \text{Monitow Island Road}
 \end{array}$$

$$\begin{array}{r}
 + \frac{15}{33} + \frac{12}{19} - \frac{01}{9} \frac{00}{6} - \frac{03}{7} - \frac{01}{12} + \frac{03}{15} \frac{00}{33}
 \end{array}$$

$$\begin{array}{r}
 + \frac{05}{33} + \frac{02}{14} - \frac{05}{15} \frac{00}{10} \frac{00}{7} - \frac{04}{14} - \frac{09}{22} - \frac{02}{33}
 \end{array}$$

$$\begin{array}{r}
 + \frac{06}{33} + \frac{04}{24} - \frac{06}{19} \frac{00}{11} - \frac{03}{8} - \frac{05}{10} + \frac{05}{15} + \frac{06}{33}
 \end{array}$$

Φ of E 6th St

sidewalk

$$\begin{array}{r}
 + \frac{04}{33} \\
 + \frac{02}{33} \frac{00}{14} \frac{04}{13} - \frac{01}{8} - \frac{02}{7} - \frac{02}{9} + \frac{02}{11} - \frac{04}{26} - \frac{10.5}{19}
 \end{array}$$

$$\begin{array}{r}
 + \frac{05}{33} \frac{00}{25} - \frac{02}{16} + \frac{02}{11} \frac{00}{4} \frac{00}{8} - \frac{02}{15} - \frac{10}{25} - \frac{10.4}{45}
 \end{array}$$

$$\begin{array}{r}
 + \frac{04}{33} + \frac{02}{23} - \frac{02}{16} + \frac{02}{11} - \frac{01}{5} - \frac{03}{6} - \frac{01}{15} - \frac{06}{27} - \frac{13.5}{46}
 \end{array}$$

$$\begin{array}{r}
 + \frac{13}{33} + \frac{08}{26} + \frac{03}{17} - \frac{02}{15} \frac{00}{12} - \frac{03}{6} \frac{00}{8} - \frac{10}{21} - \frac{15.0}{45}
 \end{array}$$

Φ of E 7th St

$$\begin{array}{r}
 + \frac{06}{33}
 \end{array}$$

LAKE AVE-DELLWOOD CROSS SECTIONS

Station	Elev	
25+00	249.0	✓
26+00	249.7	✓
27+00	250.8	✓
+33	252.8	✓
28+00	251.2	✓
+10	251.1	✓
29+00	251.5	✓
30+00	252.8	✓
31+00	251.5	✓
+72	248.3	
32+00	250.9	✓
+56	249.4	
33+00	247.3	✓
34+00	247.3	✓
35+00	247.3	✓
+32	247.2	✓

R.I.L.
W.M.
EER } 4-10-23
J.C.

$$+\frac{04}{33} + \frac{03}{12} - \frac{02}{7} - \frac{08}{17} - \frac{138}{45}$$

$$-\frac{02}{33} + \frac{02}{19} + \frac{06}{18} + \frac{05}{10} - \frac{02}{3} - \frac{07}{12} - \frac{150}{45}$$

$$\frac{00}{33} + \frac{01}{19} \frac{00}{11} - \frac{03}{3} + \frac{05}{1} + \frac{12}{10} \frac{00}{19} - \frac{164}{46}$$

$$+\frac{10}{33} + \frac{05}{21} + \frac{02}{17} + \frac{04}{10} + \frac{06}{2} + \frac{20}{5} + \frac{15}{24} - \frac{22}{33}$$

$$\frac{05}{33} \overset{+0.5}{\frac{05}{23}} + \frac{06}{12} + \frac{01}{2} + \frac{06}{4} + \frac{05}{20} - \frac{165}{45}$$

Φ of E 8th ST

$$\frac{00}{33} + \frac{10}{33} + \frac{08}{25} + \frac{04}{21} + \frac{06}{13} - \frac{01}{2} + \frac{03}{5} - \frac{02}{15} - \frac{170}{48}$$

$$+\frac{08}{33} + \frac{06}{27} - \frac{06}{22} \overset{-0.4}{15} - \frac{08}{4} + \frac{03}{3} + \frac{01}{6} - \frac{05}{17} - \frac{18.5}{48} - 2$$

$$+\frac{05}{33} - \frac{02}{23} \frac{00}{14} - \frac{04}{7} \frac{00}{5} - \frac{02}{17} - \frac{20.5}{47}$$

Φ of E 9th ST

$$\frac{-15}{33} \frac{-11}{6} \frac{01}{5} - \frac{11}{33} - \frac{12}{25} - \frac{11}{18} - \frac{10}{6} - \frac{02}{5} + \frac{02}{13} + \frac{01}{14} - \frac{20.5}{44}$$

$$-\frac{05}{33} - \frac{05}{30} + \frac{01}{13} + \frac{03}{5} + \frac{10}{9} + \frac{10}{18} - \frac{18.5}{42}$$

$$\frac{00}{33} \frac{00}{25} + \frac{08}{16} - \frac{03}{7} + \frac{05}{16} - \frac{11.8}{33}$$

$$\frac{00}{33} \frac{00}{22} + \frac{05}{9} - \frac{01}{3} + \frac{03}{11} \frac{00}{27} - \frac{3.3}{33}$$

$$\frac{00}{33} - \frac{02}{20} - \frac{05}{17} + \frac{03}{8} - \frac{02}{11} + \frac{03}{13} - \frac{00}{24} - \frac{43}{33}$$

Φ of 10th ST

$$\frac{00}{33}$$

LAKE AVE-DELLWOOD CROSS SECTIONS.

Station	Elev	
36+00	247.6	✓
37+00	247.1	✓
38+00	245.9	✓
39+00	244.3	✓
+48	244.2	?
40+00	242.4	✓
41+00	240.5	✓
42+00	238.3	✓
43+00	235.9	✓
+85	235.6	
44+00	235.3	✓
45+00	235.0	✓
46+00	234.7	

RIL
W.M.
E.E.R.
J.C. } 4-10-23

$$\frac{+2.0}{33} + \frac{+1.1}{21} + \frac{+0.3}{14} - \frac{-0.1}{13} - \frac{0.0}{9} - \frac{0.2}{6} - \frac{0.4}{9} - \frac{0.3}{18} - \frac{7.2}{33}$$

$$\frac{+0.2}{33} - \frac{0.0}{17} - \frac{0.3}{12} - \frac{0.4}{9} + \frac{0.3}{5} - \frac{0.3}{15} - \frac{0.4}{20} - \frac{10.7}{40}$$

$$\frac{0.0}{33} - \frac{0.0}{14} - \frac{0.0}{11} - \frac{0.1}{7} - \frac{0.4}{10} - \frac{9.5}{33}$$

$$-\frac{0.6}{33} + \frac{0.4}{19} + \frac{0.2}{16} + \frac{0.2}{7} - \frac{0.5}{8} - \frac{1.2}{10} - \frac{9.0}{33}$$

☐ of E 11th St

2.9
33

$$-\frac{0.6}{33} - \frac{0.0}{20} + \frac{0.2}{7} - \frac{0.3}{10} - \frac{1.6}{25} - \frac{7.4}{33}$$

$$\frac{+1.2}{33} + \frac{+0.7}{17} - \frac{0.2}{15} - \frac{0.2}{12} - \frac{0.0}{7} - \frac{0.4}{7} - \frac{0.2}{13} - \frac{4.5}{24} - \frac{5.0}{33}$$

$$-\frac{1.1}{33} - \frac{0.3}{20} - \frac{0.0}{15} - \frac{0.2}{10} - \frac{0.2}{10} - \frac{0.4}{12} - \frac{0.0}{15} - \frac{0.0}{21} - \frac{2.2}{28} - \frac{2.0}{33}$$

$$-\frac{1.0}{33} - \frac{1.0}{19} - \frac{0.0}{12} - \frac{0.0}{10} - \frac{0.4}{15} - \frac{0.0}{20} - \frac{1.1}{33}$$

-0.5
33

☐ of Johnson Ave.

$$\frac{-2.9}{33} - \frac{1.5}{26} - \frac{1.0}{19} - \frac{1.0}{16} - \frac{0.5}{10} - \frac{0.0}{6} - \frac{0.8}{13} - \frac{0.5}{25} - \frac{1.0}{33}$$

$$-\frac{2.9}{33} - \frac{2.6}{23} - \frac{0.7}{17} - \frac{0.2}{8} - \frac{0.2}{7} - \frac{0.5}{12} - \frac{1.3}{15} - \frac{1.0}{21} - \frac{1.6}{33}$$

$$-\frac{2.4}{33} - \frac{2.3}{23} - \frac{1.2}{20} - \frac{0.2}{13} - \frac{0.0}{6} - \frac{0.0}{10} - \frac{0.4}{16} - \frac{1.5}{20} - \frac{1.3}{33}$$

LAKE AVE - DELLWOOD CROSS SECTIONS

Station	Elev	
47+00	234.5	
48+00	234.3	
49+00	234.4	4-10-23 RIL W.M. E.E.R J.C
50+00	234.6	
51+00	234.4	
+71.55	235.9	E. of N.P.R.R
52+00	235.5	
53+00	234.6	
54+00	235.3	X
55+00	235.7	4-11-23
56+00	236.1	
57+00	236.6	
58+00	237.1	

$$-\frac{31}{33} - \frac{27}{20} - \frac{04}{13} - \frac{03}{8} - \frac{03}{10} - \frac{13}{14} - \frac{15}{33}$$

$$-\frac{27}{33} - \frac{25}{20} - \frac{00}{13} - \frac{01}{10} - \frac{15}{16} - \frac{14}{33}$$

$$-\frac{29}{33} - \frac{26}{21} - \frac{02}{12} - \frac{03}{10} - \frac{07}{15} - \frac{22}{20} - \frac{25}{33}$$

$$-\frac{27}{33} - \frac{27}{21} - \frac{00}{9} - \frac{05}{7} + \frac{02}{7} - \frac{00}{20} - \frac{16}{33}$$

$$-\frac{13}{33} - \frac{27}{28} - \frac{09}{11} + \frac{41}{3} + \frac{05}{11} - \frac{01}{24} - \frac{20}{33}$$

$$-\frac{39}{33} - \frac{39}{22} - \frac{13}{10} - \frac{00}{20} - \frac{14}{33} \rightarrow \text{N.P.R.R.} \rightarrow \text{Stillwater}$$

$$-\frac{41}{33} - \frac{46}{21} - \frac{30}{13} - \frac{03}{7} + \frac{03}{13} + \frac{07}{26} - \frac{00}{38}$$

$$-\frac{24}{33} + \frac{05}{15} + \frac{48}{7} - \frac{05}{8} - \frac{10}{18} - \frac{15}{33}$$

$$-\frac{34}{33} - \frac{30}{24} - \frac{20}{17} - \frac{06}{10} - \frac{07}{14} - \frac{25}{21} - \frac{30}{28} - \frac{20}{33}$$

$$-\frac{20}{33} - \frac{16}{24} - \frac{25}{20} - \frac{05}{14} - \frac{10}{14} - \frac{20}{17} - \frac{32}{30} - \frac{08}{24} - \frac{05}{33}$$

$$-\frac{34}{33} - \frac{30}{24} - \frac{03}{15} - \frac{05}{13} - \frac{12}{16} - \frac{10}{20} - \frac{38}{33}$$

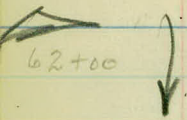
$$-\frac{19}{33} - \frac{25}{28} - \frac{17}{22} - \frac{02}{15} - \frac{03}{12} - \frac{10}{20} - \frac{35}{33}$$

$$-\frac{19}{33} - \frac{14}{22} - \frac{15}{18} - \frac{06}{15} - \frac{03}{12} - \frac{10}{16} - \frac{07}{18} - \frac{07}{30} - \frac{25}{33}$$

LAKE AVE - DELLWOOD CROSS SECTIONS

Station	Elev
59+00	236.8
60+00	236.2
61+00	235.1
62+00	236.2 ✓
63+00	236.3 ✓
64+00	236.0 ✓
65+00	236.1 ✓
66+00	235.8 ✓
+30	236.4
67+00	235.3 ✓
+50	234.4 ✓
+75	231.9
68+00	231.6 ✓
69+00	233.8 ✓
+65	237.2 ✓

RIL
 W.M
 E.E.R } 4-11-23
 J.C.



$$\frac{-2.0}{33} \frac{-1.4}{17} \frac{-0.6}{11} \frac{-0.4}{14} \frac{-1.1}{18} \frac{-1.1}{24} \frac{-0.3}{24} \frac{-0.1}{33}$$

$$\frac{-3.0}{33} \frac{-3.0}{30} \frac{-1.8}{17} \frac{-0.2}{11} \frac{-0.4}{15} \frac{-1.0}{22} \frac{-0.2}{33}$$

$$\frac{-3.6}{33} \frac{-3.7}{27} \frac{-2.4}{24} \frac{-2.5}{21} \frac{-0.4}{11} \frac{-0.2}{14} \frac{-1.0}{20} \frac{0.3}{26} \frac{-0.4}{33}$$

$$\frac{-4.0}{33} \frac{-4.0}{27} \frac{-5.3}{25} \frac{-5.3}{24} \frac{-3.8}{23} \frac{-3.0}{19} \frac{-0.1}{11} \frac{-0.2}{12} \frac{-0.3}{15} \frac{0.0}{19} \frac{1.2}{33}$$

$$\frac{-4.0}{33} \frac{-4.0}{30} \frac{-5.1}{26} \frac{-5.1}{24} \frac{-2.7}{21} \frac{-0.3}{13} \frac{-0.4}{11} \frac{-0.4}{11} \frac{-0.5}{14} \frac{0.0}{17} \frac{0.9}{33}$$

(15)

$$\frac{-3.4}{33} \frac{-1.3}{23} \frac{0.0}{16} \frac{+0.3}{12} \frac{0.0}{11} \frac{-0.5}{13} \frac{-0.7}{14} \frac{+0.7}{25} \frac{+1.4}{33}$$

$$\frac{-3.2}{33} \frac{-3.2}{27} \frac{-0.3}{17} \frac{+0.5}{11} \frac{-0.2}{9} \frac{-0.2}{16} \frac{+0.6}{20} \frac{+1.3}{33}$$

$$\frac{-4.6}{33} \frac{-3.5}{17} \frac{-0.3}{9} \frac{+0.4}{3} \frac{0.0}{2} \frac{0.0}{20} \frac{+0.6}{25} \frac{+1.3}{33}$$

$$\frac{-5.0}{33} \frac{-4.6}{14} \frac{-0.4}{5} \frac{-0.2}{22} \frac{+0.6}{26} \frac{+1.6}{33}$$

$$\frac{4.8}{33} \frac{-3.6}{10} \frac{+1.1}{5} \frac{+0.7}{6} \frac{+1.1}{16} \frac{+0.6}{29} \frac{+1.5}{33}$$

$$\frac{3.0}{33} \frac{-2.7}{4} \frac{+2.1}{8} \frac{+1.5}{10} \frac{+1.6}{19} \frac{+4.6}{33}$$

$$\frac{-0.6}{33} \frac{+2.0}{2} \frac{+2.7}{12} \frac{+4.1}{14} \frac{+4.5}{21} \frac{+4.5}{33}$$

$$\frac{-0.5}{33} \frac{+3.9}{4} \frac{+4.6}{13} \frac{+4.0}{15} \frac{+4.5}{21} \frac{+4.8}{33}$$

$$\frac{-0.6}{33} \frac{-0.5}{2} \frac{+3.3}{9} \frac{+3.5}{19} \frac{+3.2}{31} \frac{+2.5}{33}$$

$$\frac{-2.7}{33} \frac{-1.3}{9} \frac{+0.5}{2} \frac{0.0}{24} \frac{0.0}{27} \frac{+1.5}{33}$$

LAKE AVE - DELLWOOD CROSS SECTIONS

Station	Elev	
70+00	237.8 ✓	
71+00	238.7 ✓	R.I.H. E.E.R. W.M. J.C.
+ 25.8	238.9 ✓	
72+00	238.5 ✓	
73+00	238.2 ✓	
74+00	237.6 ✓	
75+00	237.3 ✓	
76+00	237.2 ✓	
77+00	236.4 ✓	
78+00	236.2 ✓	
79+00	236.4 ✓	
80+00	237.0 ✓	

4-11-23

$$-\frac{2.5}{33} - \frac{2.0}{19} - \frac{0.3}{10} + \frac{0.2}{5} - \frac{0.2}{13} - \frac{0.5}{19} + \frac{2.0}{27} + \frac{1.5}{33}$$

$$-\frac{0.4}{33} - \frac{0.6}{12} - \frac{0.2}{16} + \frac{1.1}{33}$$

Q of Buffalo Ave

$$\frac{0.0}{33}$$

$$\frac{0.0}{36} - \frac{1.0}{29} - \frac{1.0}{15} - \frac{0.6}{19} + \frac{0.2}{21} + \frac{0.0}{33}$$

$$-\frac{0.5}{33} - \frac{0.9}{15} - \frac{0.5}{13} - \frac{0.5}{15} - \frac{1.5}{21} - \frac{1.5}{33}$$

$$\frac{0.0}{33} - \frac{0.4}{29} - \frac{0.9}{17} - \frac{0.4}{12} - \frac{0.3}{14} - \frac{0.0}{19} - \frac{0.0}{33}$$

Q of Portland Ave

$$+\frac{0.6}{33}$$

$$-\frac{0.3}{15} - \frac{1.3}{19} - \frac{1.4}{33}$$

$$+\frac{0.5}{33} - \frac{0.4}{26} - \frac{0.1}{11} - \frac{0.6}{13} - \frac{3.6}{17} - \frac{3.8}{33}$$

$$-\frac{3.5}{33} - \frac{3.5}{20} - \frac{0.6}{13} - \frac{0.7}{12} - \frac{3.5}{17} - \frac{3.6}{33}$$

$$\frac{3.4}{33} - \frac{3.4}{21} - \frac{0.4}{13} - \frac{0.8}{12} - \frac{3.2}{15} - \frac{3.2}{33}$$

$$-\frac{3.2}{33} - \frac{3.2}{22} - \frac{0.3}{14} - \frac{0.2}{10} - \frac{3.0}{15} - \frac{3.0}{33}$$

$$-\frac{4.0}{33} - \frac{4.0}{27} - \frac{1.5}{19} + \frac{0.4}{14} - \frac{0.4}{10} - \frac{3.3}{13} - \frac{3.3}{33}$$

LAKE AVE - DELLWOOD CROSS SECTIONS

Station	Elev	
81+00	239.4 ✓	
+45	241.6	R.I.L.
82+00	243.3 ✓	W.M. } 4-11-23
		E.E.R. }
		J.C. }
83+00	245.4 ✓	
+59	246.0 ✓	
84+00	246.0 ✓	
+30	246.0	
85+00	246.1 ✓	
+26	246.6	
86+00	246.1 ✓	
87+00	246.2 ✓	
88+00	242.6 ✓	
+15	242.1	
+30	241.5 ✓	
+70.3	241.1	

$$\begin{aligned}
 &= \frac{3.2}{33} - \frac{2.2}{21} - \frac{0.2}{10} - \frac{0.4}{22} - \frac{3.5}{18} - \frac{4.5}{33} \\
 &+ \frac{3.7}{33} + \frac{2.3}{19} + \frac{1.5}{14} + \frac{0.2}{12} - \frac{0.2}{13} + \frac{0.1}{15} - \frac{1.4}{33} \\
 &- \frac{8.7}{33} + \frac{8.1}{21} + \frac{1.4}{12} + \frac{0.1}{10} + \frac{0.2}{12} + \frac{0.8}{33}
 \end{aligned}$$

$$\begin{aligned}
 &\frac{8.2}{33} + \frac{1.4}{20} + \frac{0.2}{13} - \frac{0.4}{12} - \frac{0.0}{12} - \frac{1.0}{16} - \frac{1.0}{18} - \frac{0.0}{25} + \frac{0.5}{33} \\
 &+ \frac{1.2}{33} + \frac{2.2}{18} + \frac{1.2}{13} + \frac{0.2}{9} - \frac{0.4}{13} - \frac{1.3}{17} - \frac{0.7}{27} - \frac{0.1}{33} \\
 &\frac{5.0}{33} + \frac{4.5}{20} + \frac{0.7}{13} + \frac{0.3}{11} - \frac{0.2}{10} - \frac{0.3}{13} - \frac{0.5}{18} + \frac{0.4}{29} + \frac{1.0}{33} \\
 &- \frac{0.7}{33} - \frac{0.3}{30} + \frac{0.4}{26} + \frac{0.0}{18} + \frac{0.0}{10} - \frac{0.0}{14} - \frac{0.8}{20} - \frac{0.5}{33} \\
 &\quad - \frac{0.0}{33} - \frac{0.2}{10} - \frac{0.4}{14} - \frac{0.0}{16} - \frac{1.1}{33} \\
 &+ \frac{2.0}{33} + \frac{0.5}{25} + \frac{0.2}{12} - \frac{0.2}{14} - \frac{0.2}{33} \\
 &\quad + \frac{1.5}{33} - \frac{0.1}{12} - \frac{0.3}{14} + \frac{0.0}{18} - \frac{0.2}{33}
 \end{aligned}$$

$$+ \frac{3.0}{33} + \frac{0.6}{22} + \frac{0.6}{19} - \frac{0.1}{15} - \frac{0.8}{14} - \frac{0.8}{20} - \frac{2.0}{29} - \frac{2.0}{33}$$

$$\begin{aligned}
 &+ \frac{5.0}{33} + \frac{5.0}{28} - \frac{0.2}{18} - \frac{0.5}{15} - \frac{0.3}{10} - \frac{0.8}{29} - \frac{1.1}{33} \\
 &\quad + \frac{2.5}{33} + \frac{0.5}{25} - \frac{0.2}{10} + \frac{0.3}{13} + \frac{0.5}{25} - \frac{0.6}{26} - \frac{0.6}{30} - \frac{0.0}{33} \\
 &\quad + \frac{0.7}{33} - \frac{0.0}{9} + \frac{0.4}{20} - \frac{0.9}{24} - \frac{0.4}{33}
 \end{aligned}$$

End of Line

$$+ \frac{1.0}{33} - \frac{0.4}{10} - \frac{0.2}{12} - \frac{0.2}{14} - \frac{5.0}{27} - \frac{5.5}{33}$$

Sheet #9

LAKE AVE - DELLWOOD CROSS SECTIONS

Station

Elev

LAKE AVE - DELLWOOD

CULVERTS

2 SHEETS

RIL }
W/M }

Station

L Q R

1+55 12" Corrugated Pipe

$\frac{11}{239.1}$	240.7	$\frac{30}{235.9}$	$\frac{50}{231.7}$
--------------------	-------	--------------------	--------------------

Flows Right Length 41'

4+80 8" Corrugated Pipe

$\frac{14}{240.3}$	241.6	$\frac{24}{238.0}$	$\frac{50}{231.6}$
--------------------	-------	--------------------	--------------------

Flows R Length 38'

11+32 12" Vitrified Pipe

$\frac{14}{238.6}$	240.7	$\frac{42}{236.7}$	$\frac{60}{234.2}$
--------------------	-------	--------------------	--------------------

Flows Right Length 56'

14+46 14" Corrugated Pipe

$\frac{14}{237.1}$	239.3	$\frac{27}{236.3}$	$\frac{50}{236.0}$
--------------------	-------	--------------------	--------------------

Flows Right Length 41'

24+80 10" Corrugated Pipe

$\frac{15}{248.2}$	249.2	$\frac{27}{242.8}$	$\frac{50}{235.4}$
--------------------	-------	--------------------	--------------------

Flows Right Length 42'

24+96.5 10" Corrugated Pipe

249.0	$\frac{5}{246.2}$	$\frac{22}{246.6}$
-------	-------------------	--------------------

Intake 5' R of Q

Flows R Length 17'

43+60 12" Corrugated Pipe

$\frac{17}{233.7}$	235.9	$\frac{13}{233.4}$	$\frac{50}{233.1}$
--------------------	-------	--------------------	--------------------

Flows Right Length 30'

LAKE AVE - DELLWOOD
CULVERTS

Station

46+40

$\frac{50}{2327}$ $\frac{23}{2307}$

$\frac{50}{2421}$ $\frac{50}{2327}$

Station Time

Project 24-53.

Sta 0+00 - 30+87.1

Transit Notes

4-Pages

R. E. Austin

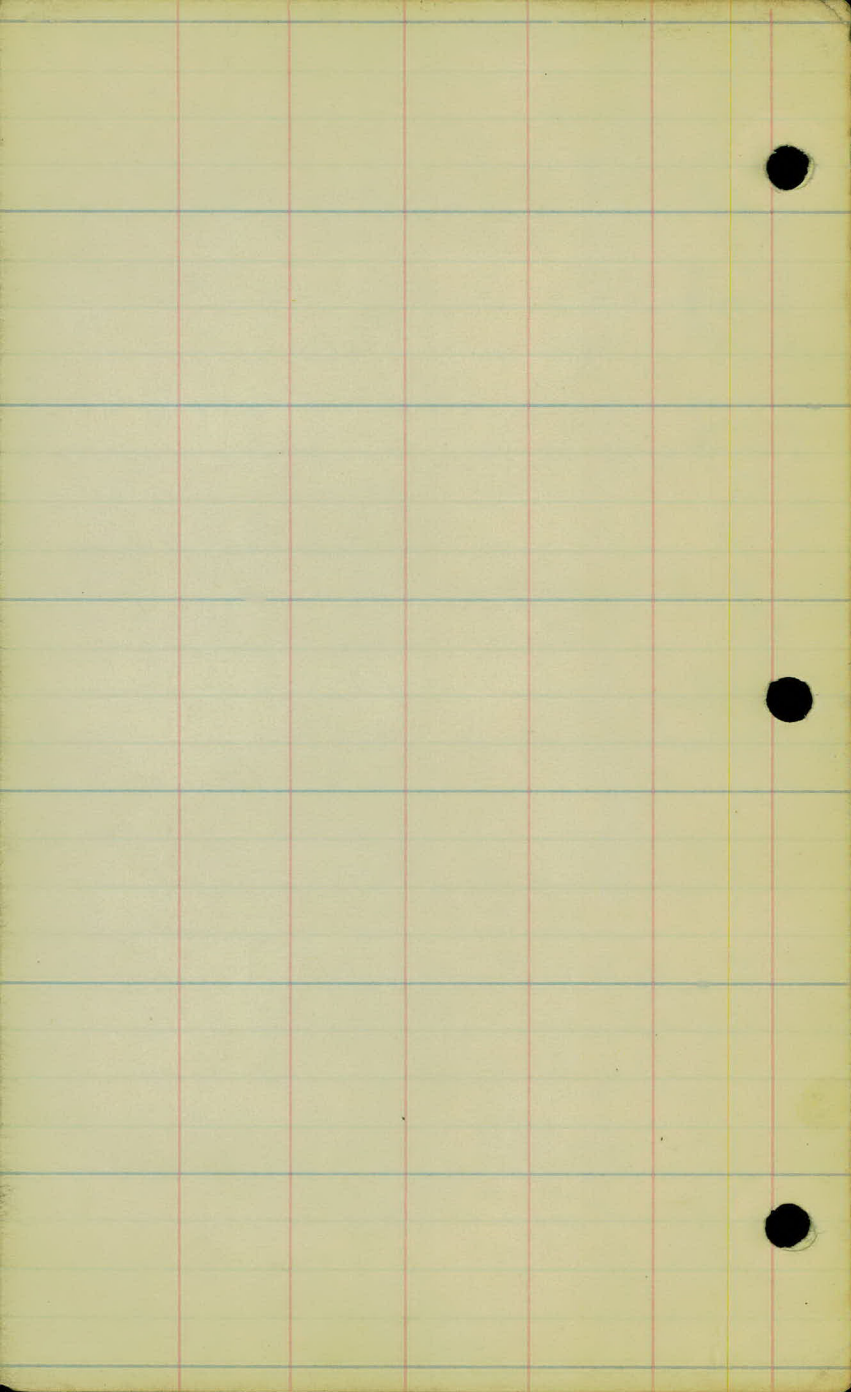
D. K. Skooglund

W. Maloney

M. Golvin

} Party.

1-2-24



Meat
W.W.
Cor. 13

98+84

147.0
410.39
48.15
589.47
Iron Pipe

97+74.4

12th. St.

0+00
471.5
Iron Pipe

Project
24-53

North ↑

TRD 8+44.2 TRD

85+00

N 08° - 18' W
Stewart Ave S.T.H No. 1

Manhead Arc

Iron Pipe

Fourth. St.

68+52.3

(62+08.2 = 68+52.3)

TRD 22.6 TRD
123

0 of N

£

Ang. ht. Ang. Rt.

Job-24-53

11461.4 P.O.T.

11430⁸ ✓ B.C.

9140⁵ P.I 39°48'

7432⁸ ✓ B.C.

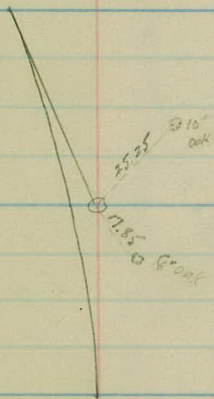
5420 P.O.T

0+00 £ Stewart Ave.

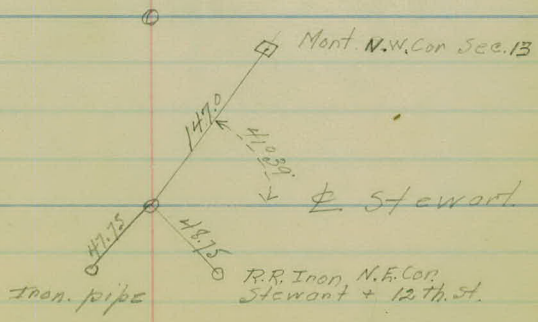
Job - 24-53



- Sta. - Det
- 7+32.8 - 0°00'
 - 8+00 - 3°21 1/2'
 - +50 - 5°51 1/2'
 - 9+00 - 8°21 1/2'
 - +50 - 10°51 1/2'
 - 10+00 - 13°21 1/2'
 - +50 - 15°51 1/2'
 - 11+00 - 18°21 1/2'
 - +30.8 - 19°54'



10° Curve left.
 $\Delta = 39°48'$
 S.T = 207.67 ✓
 B.C. = 7+32.8 ✓
 Length = 398.0 ✓
 E.C. = 11+30.8 ✓



②

~~4~~

Ang. Ht. Ang. Rl.

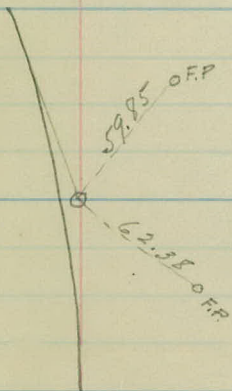
Job-24-53

20+76.6 ✓ F.C.

20+00 P.I. 1°32'

19+23.3 ✓ B.C.

18+57¹⁵ P.O.T



10 curve left

$\Delta = 103.2'$

S.T. = 76.67 ✓

B.C. = 19423.3

length = 153.3 ✓

F.C. = 20 + 76.6



4
Anght. Ang. R.

Proj-2453

$$\text{Equation } \begin{cases} 30+87L & \text{12th St. line} \\ = 61+61.5 & \text{Lake Ave. line} \end{cases}$$

$$30+70.8 \checkmark \text{ F.C.}$$

$$27+81.9 \text{ P.I.}$$

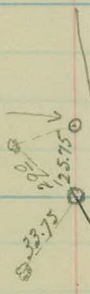
$$21^{\circ}27'$$

$$26+84^u \text{ P.O.S.T.}$$

$$24+85.8 \checkmark \text{ B.C.}$$



Old P.I. 58+80.9



Sta - Def

- 24+85.8 - 0°00'
- 25+00 - 0°15 1/2'
- 26+00 - 2°05 1/2'
- 27+00 - 3°55 1/2'
- 28+00 - 5°45 1/2'
- 29+00 - 7°35 1/2'
- 30+00 - 9°25 1/2'
- +70.8 - 10°43 1/2'

3°40' Curve R4.

$\Delta = 21^\circ 27'$

Rad = 1562.88

S.T. = 296.0

T.B.C. = 24+85.8

length = 585.0

A.C. = 30+70.8

200



12-28-23

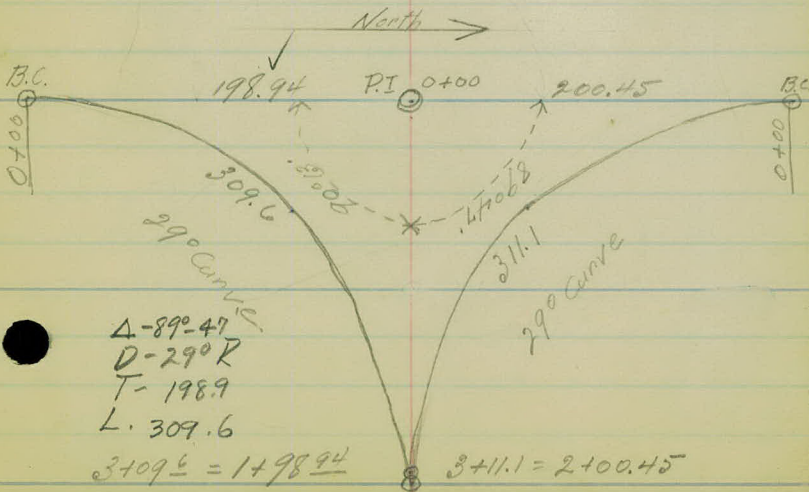
9 of 11

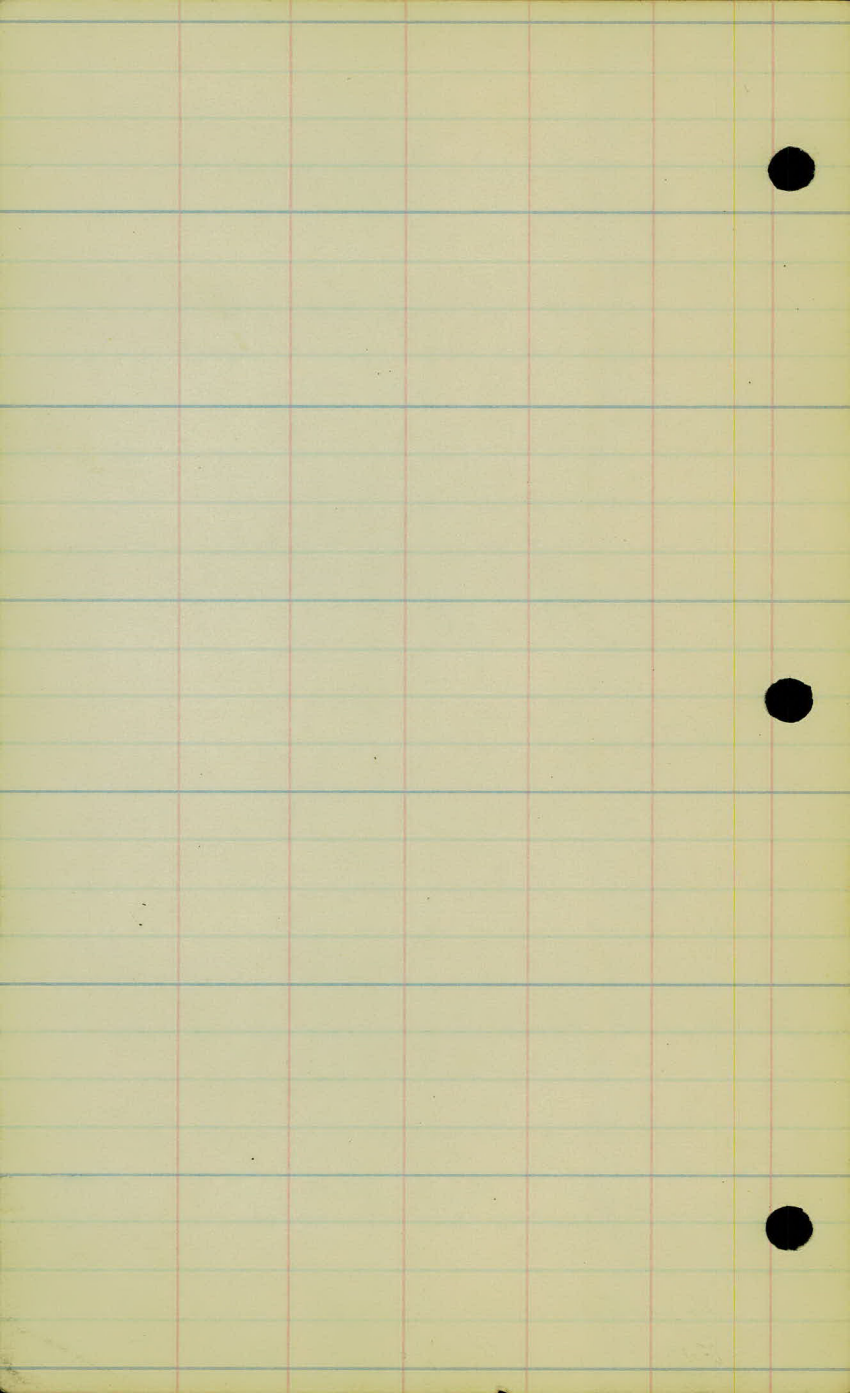
Proj. - 24-53.

North and South Connections
At 12th St 9th Stewart Ave.

0+00 - 0000'
+50 - 70 15'
1+00 - 140 30'
+50 - 210 45'
2+00 - 290 00'
+50 - 360 15'
3+00 - 430 30'
+09.6 - 440 53 1/4'

0+00 - 0000'
+50 - 70 15'
1+00 - 140 30'
+50 - 210 45'
2+00 - 290 00'
+50 - 360 15'
3+00 - 430 30'
+11.1 - 450 06 1/2'





Project 24-53

Levels and X-sections

Sta. 0+00 to 30+87'

6-Pages.

1-2-24

R. E. Huston

D. N. Skooglund

W. Maloney

M. Golvin

} Party.

Station	+	H.I.	-	Rod.	Elev.
B.M.	4.71	940.66 ✓			935.95
T.P.	1.74	936.11 ✓	6.29	934.37 ✓	
0+00	South Connection			2.4	33.7 ✓
+50				4.8	31.3 ✓
1+00				6.8	29.3 ✓
+50				7.3	28.8 ✓
2+00				6.3	29.8 ✓
+50				7.1	29.0 ✓
3+00	See Page (2) Sta 2.			9.8	26.3 ✓
<u>Equation $3+096 = 1+98.94$</u>					
0+00	North Connection			8.5	27.6 ✓
+50				9.4	27.7 ✓
1+00				9.0	27.1 ✓
+50				8.2	27.9 ✓
2+00				9.6	28.5 ✓

Proj-24-53

H.

E

R.

① of 6

Nail in 24" Oak 55' Rt Sta 90+15 S.T.H #1 Datum.

$\frac{-1.5}{40.0}$	$\frac{+2.5}{35.0}$	$\frac{+1.0}{25.0}$	$\frac{+0.2}{14.0}$	$\frac{+0.3}{8.0}$	$\frac{+1.2}{10.0}$	$\frac{+1.8}{13.0}$	$\frac{+1.7}{24.0}$	$\frac{+2.5}{40.0}$
---------------------	---------------------	---------------------	---------------------	--------------------	---------------------	---------------------	---------------------	---------------------

$\frac{-1.3}{40.0}$	$\frac{0.0}{33.0}$	$\frac{+0.3}{21.0}$	$\frac{+0.2}{10.0}$	$\frac{+0.2}{4.0}$	$\frac{+1.1}{7.0}$	$\frac{+1.1}{14.0}$	$\frac{+1.3}{30.0}$	$\frac{+0.7}{40.0}$
---------------------	--------------------	---------------------	---------------------	--------------------	--------------------	---------------------	---------------------	---------------------

$\frac{0.0}{33.0}$	$\frac{+0.3}{21.0}$	$\frac{-0.3}{12.0}$	$\frac{+0.5}{10.0}$	$\frac{+0.9}{26.0}$	$\frac{+1.4}{33.0}$
--------------------	---------------------	---------------------	---------------------	---------------------	---------------------

$\frac{-1.0}{33.0}$	$\frac{-0.5}{13.0}$	$\frac{+1.2}{20.0}$	$\frac{+1.7}{33.0}$
---------------------	---------------------	---------------------	---------------------

$\frac{-0.4}{33.0}$	$\frac{0.0}{14.0}$	$\frac{+0.6}{23.0}$	$\frac{+0.9}{33.0}$
---------------------	--------------------	---------------------	---------------------

$\frac{0.0}{33.0}$	$\frac{-1.0}{31.0}$	$\frac{-1.0}{19.0}$	$\frac{-1.2}{7.0}$	$\frac{0.0}{4.0}$	$\frac{0.0}{21.0}$	$\frac{+0.4}{33.0}$
--------------------	---------------------	---------------------	--------------------	-------------------	--------------------	---------------------

$\frac{+2.0}{33.0}$	$\frac{+1.7}{23.0}$	$\frac{+2.5}{21.0}$	$\frac{+2.5}{8.0}$	$\frac{+0.2}{5.0}$	$\frac{0.0}{23.0}$	$\frac{+0.3}{33.0}$
---------------------	---------------------	---------------------	--------------------	--------------------	--------------------	---------------------

$\frac{-2.0}{40.0}$	$\frac{-1.7}{22.0}$	$\frac{-1.1}{13.0}$	$\frac{0.0}{10.0}$	$\frac{+0.2}{4.0}$	$\frac{-0.2}{5.0}$	$\frac{-1.2}{8.0}$	$\frac{-2.2}{17.0}$	$\frac{-2.3}{33.0}$	$\frac{-2.3}{40.0}$
---------------------	---------------------	---------------------	--------------------	--------------------	--------------------	--------------------	---------------------	---------------------	---------------------

$\frac{-2.1}{40.0}$	$\frac{-2.1}{21.0}$	$\frac{-1.3}{11.0}$	$\frac{0.0}{4.0}$	$\frac{+0.1}{8.0}$	$\frac{-1.2}{12.0}$	$\frac{-1.7}{24.0}$	$\frac{-2.0}{40.0}$
---------------------	---------------------	---------------------	-------------------	--------------------	---------------------	---------------------	---------------------

House	$\frac{+1.3}{30.0}$	$\frac{+0.6}{24.0}$	$\frac{+0.1}{10.0}$	$\frac{+0.2}{12.0}$	$\frac{+0.4}{23.0}$	$\frac{+0.5}{32.0}$	$\frac{0.0}{32.0}$	$\frac{-0.3}{40.0}$
-------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	--------------------	---------------------

House	$\frac{+0.3}{32.0}$	$\frac{+0.2}{12.0}$	$\frac{+0.2}{14.0}$	$\frac{0.0}{33.0}$
-------	---------------------	---------------------	---------------------	--------------------

$\frac{-0.5}{33.0}$	$\frac{-0.1}{14.0}$	$\frac{0.0}{6.0}$	$\frac{+0.2}{5.0}$	$\frac{+0.4}{11.0}$	$\frac{-0.2}{13.0}$	$\frac{0.0}{28.0}$	$\frac{0.0}{33.0}$
---------------------	---------------------	-------------------	--------------------	---------------------	---------------------	--------------------	--------------------

Station	+	H.I	-	Rod	Elev.
		936.11 ✓			
2 + 50				8.6	27.5 ✓
3 + 00				9.7	26.4 ✓
<u>Equation 3 + 11.1 = 2 + 00.45</u>					
0 + 00	E. Stewart + 12th St			8.6	27.5 ✓
1 + 00				8.0	28.1 ✓
+ 50				8.8	27.3 ✓
2 2 + 00				10.2	25.9 ✓
↓ T.P.	4.18	930.84 ✓	9.45	926.66 ✓	
B.M.				4.24	926.60 ✓
+ 50				6.3	24.5 ✓
3 + 00				6.2	24.6 ✓
+ 50				6.1	24.7 ✓
4 + 00				4.7	26.1 ✓
+ 50				3.1	27.7 ✓
5 + 00				3.7	27.1 ✓

Proj. 24-53

67.

4

RT.

② of 4

$$\begin{array}{r} +0.8 \\ 33.0 \end{array} \quad \begin{array}{r} +0.8 \\ 26.0 \end{array} \quad \begin{array}{r} +1.4 \\ 12.0 \end{array} \quad \begin{array}{r} 0.0 \\ 16.0 \end{array}$$

$$\begin{array}{r} +0.4 \\ 15.0 \end{array} \quad \begin{array}{r} +0.5 \\ 14.0 \end{array} \quad \begin{array}{r} +1.5 \\ 17.0 \end{array} \quad \begin{array}{r} +2.4 \\ 33.0 \end{array}$$

$$\begin{array}{r} +0.9 \\ 33.0 \end{array} \quad \begin{array}{r} +0.7 \\ 20.0 \end{array} \quad \begin{array}{r} 0.0 \\ 19.0 \end{array} \quad \begin{array}{r} +0.3 \\ 18.0 \end{array}$$

$$\begin{array}{r} 0.0 \\ 5.0 \end{array} \quad \begin{array}{r} +0.6 \\ 7.0 \end{array} \quad \begin{array}{r} +0.9 \\ 21.0 \end{array} \quad \begin{array}{r} +1.4 \\ 33.0 \end{array}$$

$$\begin{array}{r} +0.5 \\ 33.0 \end{array} \quad \begin{array}{r} +0.4 \\ 15.0 \end{array}$$

$$\begin{array}{r} +0.5 \\ 14.0 \end{array} \quad \begin{array}{r} +0.9 \\ 33.0 \end{array}$$

$$\begin{array}{r} +0.4 \\ 33.0 \end{array} \quad \begin{array}{r} +1.8 \\ 27.0 \end{array} \quad \begin{array}{r} +0.7 \\ 20.0 \end{array} \quad \begin{array}{r} +0.4 \\ 8.0 \end{array}$$

$$\begin{array}{r} +0.2 \\ 3.0 \end{array} \quad \begin{array}{r} +1.0 \\ 5.0 \end{array} \quad \begin{array}{r} +1.8 \\ 19.0 \end{array} \quad \begin{array}{r} +2.2 \\ 33.0 \end{array}$$

$$\begin{array}{r} +1.0 \\ 33.0 \end{array} \quad \begin{array}{r} +1.8 \\ 21.0 \end{array} \quad \begin{array}{r} -0.1 \\ 19.0 \end{array} \quad \begin{array}{r} +0.3 \\ 7.0 \end{array}$$

$$\begin{array}{r} +0.1 \\ 8.0 \end{array} \quad \begin{array}{r} +1.5 \\ 6.0 \end{array} \quad \begin{array}{r} +1.7 \\ 18.0 \end{array} \quad \begin{array}{r} +2.1 \\ 33.0 \end{array}$$

$$\begin{array}{r} +1.2 \\ 33.0 \end{array} \quad \begin{array}{r} +0.7 \\ 21.0 \end{array} \quad \begin{array}{r} +0.1 \\ 20.0 \end{array} \quad \begin{array}{r} +0.7 \\ 15.0 \end{array} \quad \begin{array}{r} +0.3 \\ 6.0 \end{array}$$

$$\begin{array}{r} -0.8 \\ 3.0 \end{array} \quad \begin{array}{r} +0.2 \\ 9.0 \end{array} \quad \begin{array}{r} 0.0 \\ 21.0 \end{array} \quad \begin{array}{r} +0.5 \\ 33.0 \end{array}$$

Nail in 24" Elm. 60' height Stg 2 +15

$$\begin{array}{r} +0.1 \\ 33.0 \end{array} \quad \begin{array}{r} +0.5 \\ 29.0 \end{array} \quad \begin{array}{r} +0.2 \\ 19.0 \end{array} \quad \begin{array}{r} +0.6 \\ 16.0 \end{array} \quad \begin{array}{r} +0.7 \\ 7.0 \end{array}$$

$$\begin{array}{r} -0.5 \\ 5.0 \end{array} \quad \begin{array}{r} +0.3 \\ 8.0 \end{array} \quad \begin{array}{r} +0.8 \\ 33.0 \end{array}$$

$$\begin{array}{r} +0.2 \\ 33.0 \end{array} \quad \begin{array}{r} 0.0 \\ 21.0 \end{array} \quad \begin{array}{r} -0.6 \\ 20.0 \end{array} \quad \begin{array}{r} +0.5 \\ 15.0 \end{array} \quad \begin{array}{r} +0.6 \\ 6.0 \end{array}$$

$$\begin{array}{r} -0.4 \\ 4.0 \end{array} \quad \begin{array}{r} -1.0 \\ 6.0 \end{array} \quad \begin{array}{r} -0.5 \\ 10.0 \end{array} \quad \begin{array}{r} 0.0 \\ 33.0 \end{array}$$

$$\begin{array}{r} +1.5 \\ 33.0 \end{array} \quad \begin{array}{r} +1.3 \\ 25.0 \end{array} \quad \begin{array}{r} +1.1 \\ 9.0 \end{array}$$

$$\begin{array}{r} -0.2 \\ 5.0 \end{array} \quad \begin{array}{r} 0.0 \\ 17.0 \end{array} \quad \begin{array}{r} +0.4 \\ 33.0 \end{array}$$

$$\begin{array}{r} +0.9 \\ 33.0 \end{array} \quad \begin{array}{r} +0.5 \\ 14.0 \end{array}$$

$$\begin{array}{r} +0.2 \\ 13.0 \end{array} \quad \begin{array}{r} 0.0 \\ 33.0 \end{array}$$

$$\begin{array}{r} -0.7 \\ 33.0 \end{array} \quad \begin{array}{r} -0.3 \\ 22.0 \end{array} \quad \begin{array}{r} 0.0 \\ 9.0 \end{array}$$

$$\begin{array}{r} +0.7 \\ 9.0 \end{array} \quad \begin{array}{r} +0.4 \\ 21.0 \end{array} \quad \begin{array}{r} +0.5 \\ 33.0 \end{array}$$

$$\begin{array}{r} -1.5 \\ 33.0 \end{array} \quad \begin{array}{r} -1.6 \\ 25.0 \end{array} \quad \begin{array}{r} -0.4 \\ 14.0 \end{array}$$

$$\begin{array}{r} +0.6 \\ 10.5 \end{array} \quad \begin{array}{r} +1.2 \\ 17.0 \end{array} \quad \begin{array}{r} +0.9 \\ 33.0 \end{array}$$

③

Station	+	H.I.	-	Rod	Elev.
5+50		930.84 ✓		5.7	25.1 ✓
6+00				7.0	23.6 ✓
7+00			✓	7.3	23.5 ✓
T.P.	7.32	930.71	7.45	923.39	✓
8+00				7.3	23.4 ✓
+50				6.7	24.0 ✓
9+00				6.1	24.6 ✓
+50				5.7	25.0 ✓
10+00				5.7	25.0 ✓
+50				6.9	23.8 ✓
+78				6.9	23.8 ✓
+84				9.4	21.3 ✓
+89				9.4	21.3 ✓
+95				7.1	23.6 ✓
11+00				6.7	24.0 ✓
12+00				7.6	23.1 ✓

Prof-24-53

H.

4

H.

$$\begin{array}{r} -1.1 \\ 33.0 \end{array} \quad \begin{array}{r} -1.1 \\ 21.0 \end{array} \quad \begin{array}{r} -0.5 \\ 9.0 \end{array}$$

$$\begin{array}{r} 11.5 \\ 15.0 \end{array} \quad \begin{array}{r} 12.2 \\ 26.0 \end{array} \quad \begin{array}{r} 12.0 \\ 39.0 \end{array}$$

$$\begin{array}{r} -0.7 \\ 33.0 \end{array} \quad \begin{array}{r} 0.0 \\ 22.0 \end{array}$$

$$\begin{array}{r} +0.3 \\ 10.0 \end{array} \quad \begin{array}{r} +0.8 \\ 21.0 \end{array} \quad \begin{array}{r} +2.2 \\ 38.0 \end{array}$$

$$\begin{array}{r} +0.6 \\ 33.0 \end{array} \quad \begin{array}{r} 10.3 \\ 15.0 \end{array}$$

$$\begin{array}{r} 0.0 \\ 12.0 \end{array} \quad \begin{array}{r} 10.3 \\ 25.0 \end{array} \quad \begin{array}{r} +0.3 \\ 35.0 \end{array}$$

$$\begin{array}{r} 10.3 \\ 33.0 \end{array} \quad \begin{array}{r} +1.2 \\ 18.0 \end{array}$$

$$\begin{array}{r} +0.5 \\ 18.0 \end{array} \quad \begin{array}{r} +0.5 \\ 38.0 \end{array}$$

$$\begin{array}{r} -0.3 \\ 33.0 \end{array} \quad \begin{array}{r} -0.5 \\ 13.0 \end{array}$$

$$\begin{array}{r} +0.9 \\ 13.0 \end{array} \quad \begin{array}{r} 10.4 \\ 26.0 \end{array} \quad \begin{array}{r} +0.2 \\ 33.0 \end{array}$$

$$\begin{array}{r} -1.0 \\ 33.0 \end{array} \quad \begin{array}{r} -0.5 \\ 23.0 \end{array} \quad \begin{array}{r} -0.7 \\ 8.0 \end{array}$$

$$\begin{array}{r} 10.6 \\ 7.0 \end{array} \quad \begin{array}{r} 18.9 \\ 22.0 \end{array} \quad \begin{array}{r} 11.0 \\ 33.0 \end{array} \quad \begin{array}{r} 11.0 \\ 50.0 \end{array} \quad \begin{array}{r} 10.9 \\ 95.0 \end{array}$$

$$\begin{array}{r} -0.5 \\ 33.0 \end{array} \quad \begin{array}{r} -0.5 \\ 29.0 \end{array} \quad \begin{array}{r} -0.6 \\ 8.0 \end{array}$$

$$\begin{array}{r} 12.1 \\ 10.0 \end{array} \quad \begin{array}{r} 14.4 \\ 22.0 \end{array} \quad \begin{array}{r} 15.0 \\ 28.0 \end{array} \quad \begin{array}{r} 16.5 \\ 48.0 \end{array} \quad \begin{array}{r} 17.4 \\ 73.0 \end{array}$$

$$\begin{array}{r} -1.1 \\ 33.0 \end{array} \quad \begin{array}{r} -1.0 \\ 20.0 \end{array} \quad \begin{array}{r} -1.0 \\ 9.0 \end{array}$$

$$\begin{array}{r} 11.0 \\ 6.0 \end{array} \quad \begin{array}{r} 15.0 \\ 28.0 \end{array} \quad \begin{array}{r} 16.9 \\ 43.0 \end{array} \quad \begin{array}{r} 17.7 \\ 59.0 \end{array}$$

$$\begin{array}{r} 10.4 \\ 33.0 \end{array} \quad \begin{array}{r} -0.1 \\ 29.0 \end{array} \quad \begin{array}{r} -2.3 \\ 25.0 \end{array} \quad \begin{array}{r} -2.2 \\ 22.0 \end{array} \quad \begin{array}{r} 0.0 \\ 15.0 \end{array} \quad \begin{array}{r} 10.1 \\ 4.0 \end{array}$$

$$\begin{array}{r} 10.8 \\ 10.0 \end{array} \quad \begin{array}{r} 11.8 \\ 19.0 \end{array} \quad \begin{array}{r} 15.0 \\ 33.0 \end{array} \quad \begin{array}{r} 18.8 \\ 50.0 \end{array}$$

(15)

$$\begin{array}{r} 0.0 \\ 33.0 \end{array} \quad \begin{array}{r} 10.4 \\ 13.0 \end{array} \quad \begin{array}{r} -2.2 \\ 8.0 \end{array} \quad \begin{array}{r} -2.1 \\ 5.0 \end{array}$$

$$\begin{array}{r} 10.4 \\ 11.0 \end{array} \quad \begin{array}{r} 10.5 \\ 23.0 \end{array} \quad \begin{array}{r} 12.7 \\ 36.0 \end{array} \quad \begin{array}{r} 12.8 \\ 46.0 \end{array}$$

Bot. Ditch

$$\begin{array}{r} 12.7 \\ 33.0 \end{array} \quad \begin{array}{r} 12.5 \\ 7.0 \end{array} \quad \begin{array}{r} 10.1 \\ 3.0 \end{array}$$

$$\begin{array}{r} 12.9 \\ 5.0 \end{array} \quad \begin{array}{r} 13.5 \\ 17.0 \end{array} \quad \begin{array}{r} 13.5 \\ 33.0 \end{array} \quad \begin{array}{r} 15.0 \\ 45.0 \end{array}$$

rr rr

$$\begin{array}{r} 12.7 \\ 33.0 \end{array} \quad \begin{array}{r} 12.5 \\ 5.0 \end{array}$$

$$\begin{array}{r} 10.2 \\ 3.0 \end{array} \quad \begin{array}{r} 12.8 \\ 8.0 \end{array} \quad \begin{array}{r} 13.5 \\ 20.0 \end{array} \quad \begin{array}{r} 14.0 \\ 45.0 \end{array}$$

$$\begin{array}{r} -0.5 \\ 33.0 \end{array} \quad \begin{array}{r} 0.0 \\ 16.0 \end{array}$$

$$\begin{array}{r} -2.5 \\ 6.0 \end{array} \quad \begin{array}{r} -2.6 \\ 9.0 \end{array} \quad \begin{array}{r} 0.0 \\ 13.0 \end{array} \quad \begin{array}{r} 10.5 \\ 16.0 \end{array}$$

$$\begin{array}{r} -0.4 \\ 33.0 \end{array} \quad \begin{array}{r} -0.3 \\ 12.0 \end{array}$$

$$\begin{array}{r} -0.3 \\ 6.0 \end{array} \quad \begin{array}{r} -3.0 \\ 18.0 \end{array} \quad \begin{array}{r} -2.4 \\ 13.0 \end{array} \quad \begin{array}{r} -0.3 \\ 18.0 \end{array} \quad \begin{array}{r} 10.5 \\ 54.0 \end{array} \quad \begin{array}{r} 0.0 \\ 46.0 \end{array}$$

$$\begin{array}{r} 0.0 \\ 33.0 \end{array} \quad \begin{array}{r} +0.2 \\ 17.0 \end{array}$$

$$\begin{array}{r} 10.3 \\ 17.0 \end{array} \quad \begin{array}{r} 10.6 \\ 29.0 \end{array} \quad \begin{array}{r} -2.1 \\ 35.0 \end{array} \quad \begin{array}{r} -2.1 \\ 38.0 \end{array} \quad \begin{array}{r} 10.2 \\ 71.0 \end{array}$$

Station	+	H.I.	-	Rod.	Elev.	
13 + 00		932.71 ✓		8.0	22.7 ✓	
T.P.	3.17	926.73	7.15	923.56 ✓		
+ 04.5				6.6	20.1 ✓	
+ 08.5				6.6	20.1 ✓	
+ 12.5				4.8	22.4 ✓	
14 + 00				5.0	21.7 ✓	
15 + 00				4.9	21.8 ✓	
B.M.				3.21	923.52 ✓	
16 + 00				4.9	21.9 ✓	
17 + 00				3.6	23.1 ✓	
+ 50				2.3	24.4 ✓	
18 + 00				1.6	25.1 ✓	
T.P.	6.60	932.55 ✓	0.78	925.95 ✓		
18 + 18				5.9	26.8 ✓	
+ 37				3.4	29.2 ✓	
+ 57				5.0	27.6 ✓	
+ 64				6.7	25.9 ✓	

Proj-24-53

St.

±

Rt.

(4) of 6

$\frac{0.0}{33.0} \frac{+0.7}{12.0} \frac{-2.5}{5.0} \frac{-2.4}{7.0} \frac{+0.3}{10.0} \frac{+0.6}{35.0} \frac{-2.1}{38.0} \frac{-2.5}{40.0} \frac{+0.8}{42.0}$

Ditch Bottom

$\frac{+3.0}{33.0} \frac{+3.0}{26.0} \frac{+2.7}{7.0} \frac{+0.7}{3.0} \frac{+2.8}{8.0} \frac{+3.3}{35.0} \frac{+0.9}{37.0} \frac{+0.9}{40.0} \frac{+3.2}{43.0}$
 $\frac{+3.0}{33.0} \frac{+2.5}{8.0} \frac{+0.3}{4.0} \frac{+2.4}{5.0} \frac{+3.2}{7.0} \frac{+3.2}{36.0} \frac{+0.7}{39.0} \frac{+0.5}{41.0} \frac{+3.0}{42.0}$
 $\frac{+0.3}{33.0} \frac{0.0}{14.0} \frac{-2.5}{9.0} \frac{-2.5}{6.0} \frac{+0.2}{13.0} \frac{+0.6}{35.0} \frac{-2.2}{38.0} \frac{-2.2}{40.0} \frac{+0.7}{42.0}$

$\frac{+0.2}{33.0} \frac{+0.2}{16.0} \frac{+0.5}{23.0} \frac{+0.7}{34.0} \frac{-1.5}{36.0} \frac{-1.5}{39.0} \frac{+1.0}{42.0}$

$\frac{-0.2}{33.0} \frac{-0.2}{18.0} \frac{+2.6}{20.0} \frac{+0.4}{34.0} \frac{-1.6}{36.0} \frac{-1.6}{39.0} \frac{+0.6}{42.0}$

Nail in T.P. 60' Rt. 5+0 15+00

$\frac{-0.2}{33.0} \frac{0.0}{21.0} \frac{0.0}{15.0} \frac{+1.4}{33.0} \frac{-1.4}{36.0} \frac{-1.4}{39.0} \frac{+0.8}{42.0}$

$\frac{+0.1}{33.0} \frac{+0.3}{16.0} \frac{+0.2}{19.0} \frac{+0.5}{35.0} \frac{-1.5}{37.0} \frac{-1.6}{39.0} \frac{+0.4}{42.0}$

$\frac{-0.6}{33.0} \frac{0.0}{17.0} \frac{+0.8}{18.0} \frac{0.0}{34.0} \frac{-2.5}{37.0} \frac{-2.5}{40.0} \frac{-0.3}{43.0}$

$\frac{+2.5}{100.0} \frac{+2.3}{75.0} \frac{+1.2}{50.0} \frac{+0.5}{11.0} \frac{-0.7}{19.0} \frac{-0.3}{27.0} \frac{-3.0}{36.0} \frac{-3.0}{38.0} \frac{-1.0}{41.0}$

$\frac{+6.5}{150.0} \frac{+6.5}{100.0} \frac{+5.0}{70.0} \frac{+4.0}{50.0} \frac{+2.5}{28.0} \frac{+0.8}{10.0} \frac{-0.9}{9.0} \frac{-2.0}{33.0} \frac{-5.0}{37.0} \frac{-5.0}{39.0} \frac{-2.5}{42.0}$

$\frac{+8.0}{150.0} \frac{+7.7}{100.0} \frac{+6.8}{70.0} \frac{+6.0}{50.0} \frac{+5.0}{27.0} \frac{+2.4}{6.0} \frac{-1.0}{5.0} \frac{-2.4}{9.0} \frac{-3.2}{18.0} \frac{-4.0}{33.0} \frac{-7.2}{36.0} \frac{-7.2}{39.0} \frac{-5.0}{41.0}$

$\frac{+11.5}{150.0} \frac{+12.0}{100.0} \frac{+12.0}{70.0} \frac{+12.0}{60.0} \frac{+10.0}{26.0} \frac{+9.0}{21.0} \frac{+5.0}{15.0} \frac{-0.5}{9.0} \frac{-1.0}{26.0} \frac{-1.5}{33.0} \frac{-4.0}{36.0} \frac{-4.0}{39.0} \frac{-2.0}{41.0}$

Station	+	H.I.	-	Rod	Elev.
		932.55 ✓			
19+00				7.9	24.7 ✓
20+00				9.3	23.3 ✓
21+00				8.8	23.9 ✓
T.P	9.92	933.85 ✓	8.62	923.93 ✓	
+80				10.0	23.9 ✓
22+00				8.5	25.4 ✓
+38				5.7	28.2 ✓
23+00				5.0	28.9 ✓
B.M.	4.83	935.00 ✓	3.68		930.17 ✓
24+00				5.7	29.3 ✓
25+00				5.1	29.9 ✓
26+00				4.5	30.5 ✓
27+00				4.2	30.8 ✓
28+00				4.3	30.7 ✓
29+00				4.8	30.2 ✓

H. E. R.

$\frac{+165}{-150}$	$\frac{+165}{+150}$	$\frac{+150}{80}$	$\frac{+138}{60}$	$\frac{+100}{50}$	$\frac{+50}{35}$	$\frac{+11}{24}$	$\frac{-0.5}{26}$	$\frac{+0.2}{33}$	$\frac{-2.5}{35}$	$\frac{-2.5}{37}$	$\frac{00}{40}$
---------------------	---------------------	-------------------	-------------------	-------------------	------------------	------------------	-------------------	-------------------	-------------------	-------------------	-----------------

$\frac{-0.6}{50}$	$\frac{-0.5}{33}$	$\frac{+0.4}{32}$	$\frac{-1.0}{34}$	$\frac{-1.0}{37}$	$\frac{+1.0}{41}$
-------------------	-------------------	-------------------	-------------------	-------------------	-------------------

$\frac{+1.0}{50}$	$\frac{+0.5}{33}$	$\frac{-0.0}{20}$	$\frac{+0.4}{24}$	$\frac{+0.3}{33}$	$\frac{+0.6}{50}$
-------------------	-------------------	-------------------	-------------------	-------------------	-------------------

$\frac{-0.3}{33}$	$\frac{-0.2}{27}$	$\frac{+1.0}{24}$	$\frac{+0.4}{13}$	$\frac{-0.5}{10}$	$\frac{+0.5}{19}$	$\frac{+1.5}{31}$	$\frac{+5.0}{42}$
-------------------	-------------------	-------------------	-------------------	-------------------	-------------------	-------------------	-------------------

$\frac{-1.8}{33.0}$	$\frac{-2.0}{16.0}$	$\frac{-0.2}{8.0}$	$\frac{+1.0}{11.0}$	$\frac{+3.0}{21.1}$	$\frac{+4.1}{37.1}$
---------------------	---------------------	--------------------	---------------------	---------------------	---------------------

$\frac{-4.0}{38.0}$	$\frac{-2.9}{28.0}$	$\frac{-2.1}{7.0}$	$\frac{-0.8}{4.0}$	$\frac{+0.8}{15.0}$	$\frac{-0.9}{31.1}$	$\frac{-1.0}{38.0}$
---------------------	---------------------	--------------------	--------------------	---------------------	---------------------	---------------------

$\frac{-3.9}{33.0}$	$\frac{-2.5}{7.0}$	$\frac{-1.9}{15.0}$	$\frac{-0.5}{12.0}$	$\frac{+0.1}{5.1}$	$\frac{-0.7}{10.0}$	$\frac{-1.4}{14.0}$	$\frac{-2.2}{20.0}$	$\frac{-2.4}{28.0}$	$\frac{-1.0}{33.0}$
---------------------	--------------------	---------------------	---------------------	--------------------	---------------------	---------------------	---------------------	---------------------	---------------------

(Spike in T.P. 12' left 23+50 = 15.M. on lake. H.V.
 line sta 53+32 Elev. 236.51 **Note:**)

$\frac{-2.0}{33.0}$	$\frac{-2.4}{29.0}$	$\frac{-2.7}{21.0}$	$\frac{-0.3}{15.0}$	$\frac{+0.2}{7.0}$	$\frac{-0.3}{7.5}$	$\frac{-1.1}{13.0}$	$\frac{-2.2}{16.5}$	$\frac{-2.1}{21.0}$	$\frac{0.0}{33.0}$
---------------------	---------------------	---------------------	---------------------	--------------------	--------------------	---------------------	---------------------	---------------------	--------------------

$\frac{-2.8}{33.0}$	$\frac{-2.5}{23.0}$	$\frac{-1.0}{15.0}$	$\frac{-0.2}{7.0}$	$\frac{-0.4}{9.0}$	$\frac{-1.3}{18.0}$	$\frac{-3.0}{33.0}$
---------------------	---------------------	---------------------	--------------------	--------------------	---------------------	---------------------

$\frac{-2.0}{33.0}$	$\frac{-2.0}{20.0}$	$\frac{-0.8}{15.0}$	$\frac{-0.4}{9.0}$	$\frac{-0.4}{11.0}$	$\frac{-1.0}{21.0}$	$\frac{-4.5}{38.0}$
---------------------	---------------------	---------------------	--------------------	---------------------	---------------------	---------------------

$\frac{-2.0}{33.1}$	$\frac{-2.0}{17.0}$	$\frac{-0.8}{14.0}$	$\frac{-0.5}{10.1}$	$\frac{-0.2}{10.0}$	$\frac{-0.8}{17.0}$	$\frac{-1.4}{30.0}$	$\frac{-2.5}{33.0}$
---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------

$\frac{-1.4}{33.0}$	$\frac{+1.8}{24.0}$	$\frac{-1.7}{15.0}$	$\frac{-0.5}{12.0}$	$\frac{+0.2}{5.0}$	$\frac{-0.8}{16.0}$	$\frac{-1.5}{24.0}$	$\frac{-0.5}{28.0}$	$\frac{-0.7}{33.0}$
---------------------	---------------------	---------------------	---------------------	--------------------	---------------------	---------------------	---------------------	---------------------

$\frac{-2.0}{33.0}$	$\frac{-1.3}{17.0}$	$\frac{-0.3}{8.0}$	$\frac{0.0}{9.0}$	$\frac{-0.6}{17.0}$	$\frac{-0.4}{25.0}$	$\frac{-0.4}{33.0}$
---------------------	---------------------	--------------------	-------------------	---------------------	---------------------	---------------------

Proj. 24-53 + H.I - Rod. Elev.

935.00 ✓

80+00

5.3

29.7 ✓

+70.8

4.9

30.1 ✓

Ht.

Z

At.

$\frac{-2.7}{33.0}$	$\frac{-2.5}{22.0}$	$\frac{-1.0}{14.0}$	$\frac{-0.5}{11.0}$	$\frac{+0.3}{6.0}$	$\frac{-0.1}{15.0}$	$\frac{-1.0}{25.0}$	$\frac{+0.5}{33.0}$
---------------------	---------------------	---------------------	---------------------	--------------------	---------------------	---------------------	---------------------

$\frac{-3.5}{33.0}$	$\frac{-4.1}{29.0}$	$\frac{-4.0}{22.0}$	$\frac{-2.3}{17.0}$	$\frac{-0.7}{12.0}$	$\frac{0.0}{5.0}$	$\frac{-0.6}{14.0}$	$\frac{-0.1}{18.0}$	$\frac{-0.1}{29.0}$	$\frac{0.0}{33.0}$
---------------------	---------------------	---------------------	---------------------	---------------------	-------------------	---------------------	---------------------	---------------------	--------------------

Culverts.

12" C.M.P.

3+06

Extends 5' Right

vv 19.5 feet.

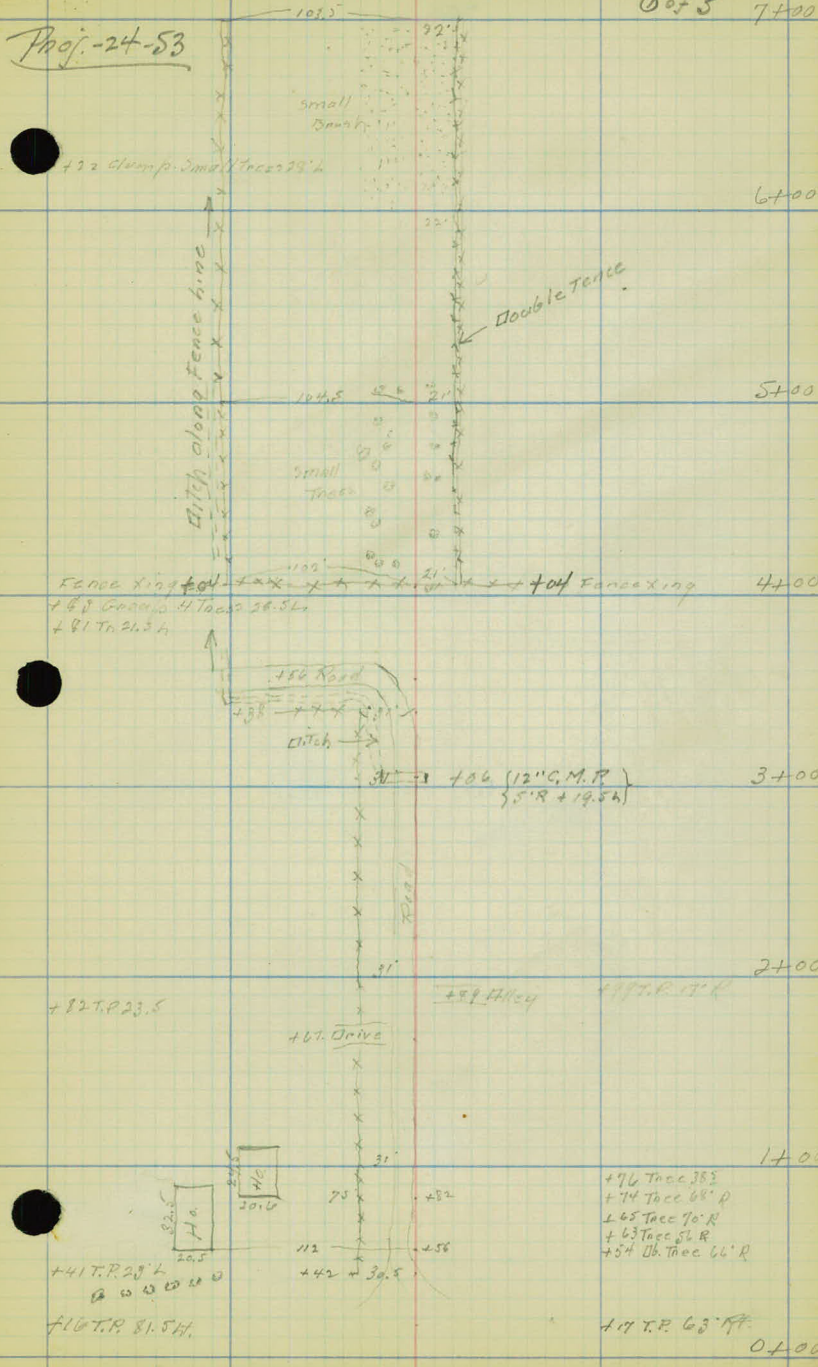
Intake Elev. 922.82

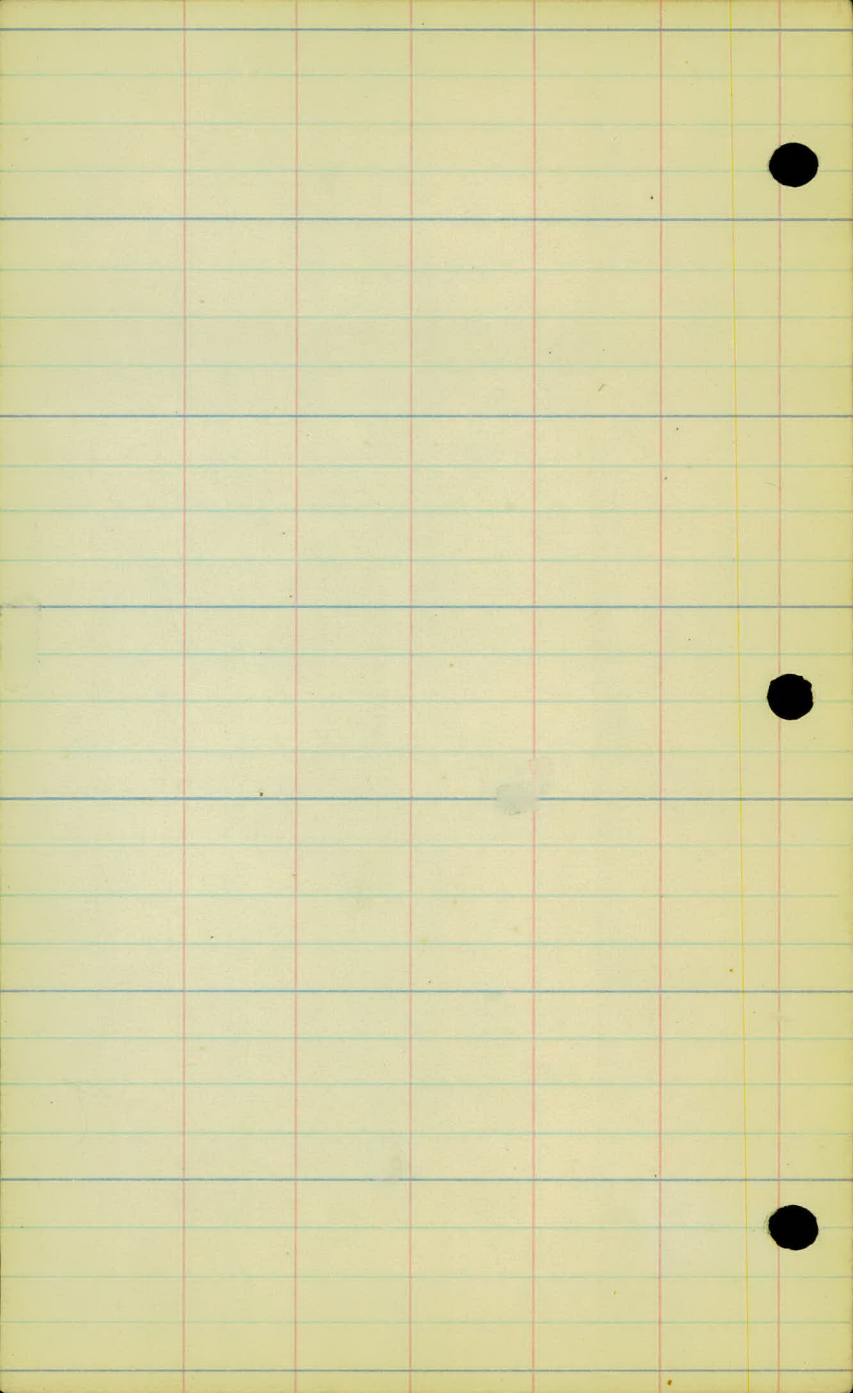
Invert. vv 922.42

Drains left.

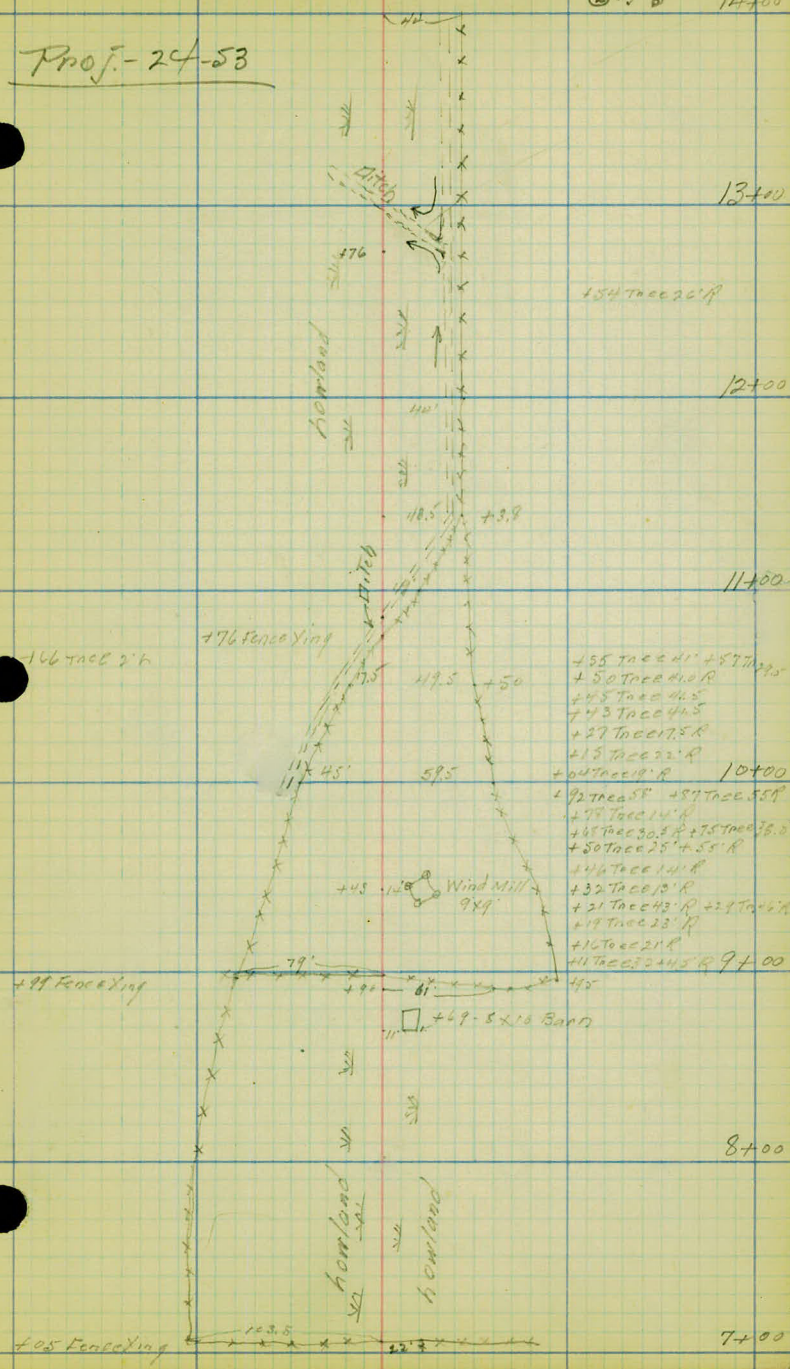
Proj. -24-53

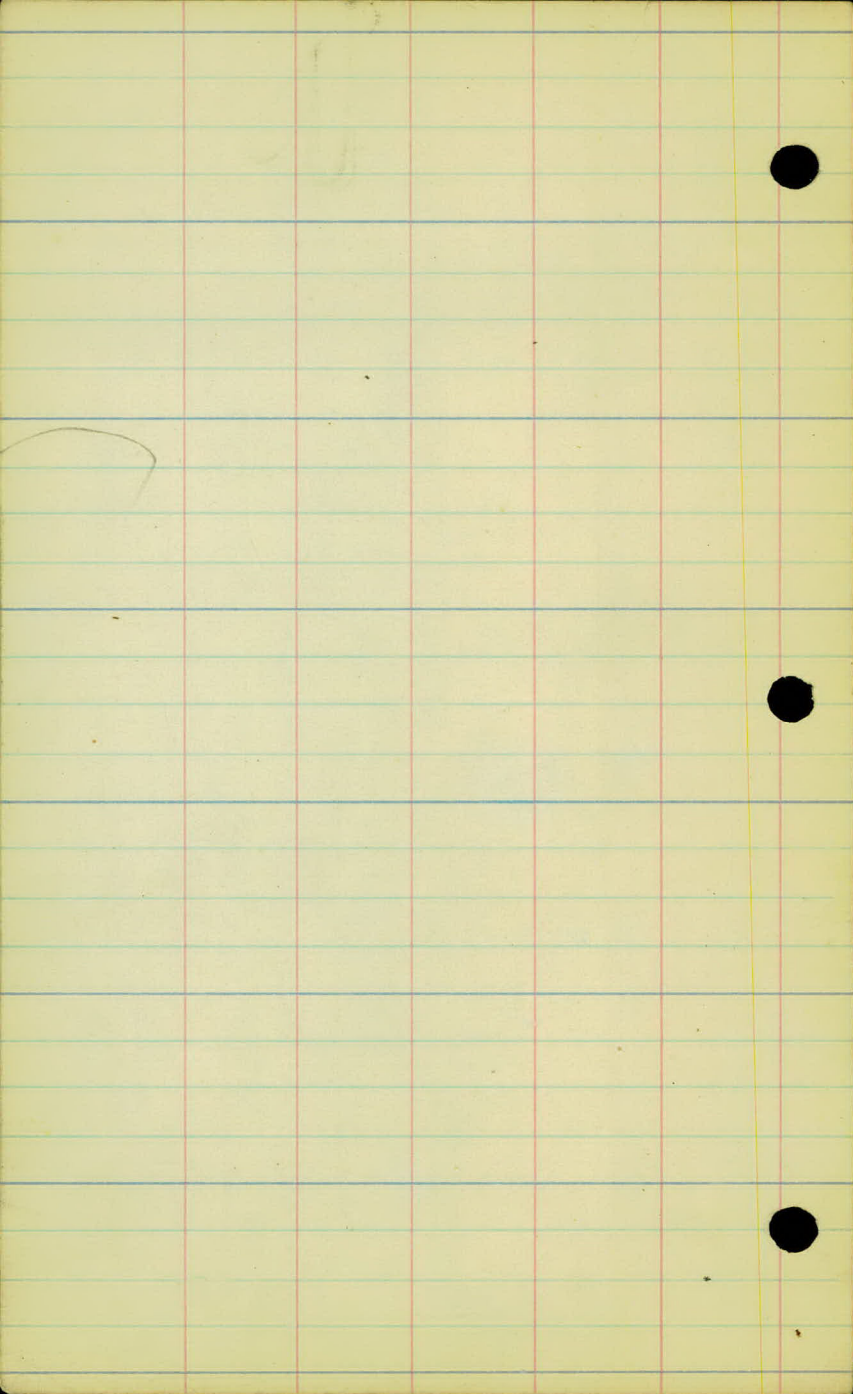
0 of 5 7+00





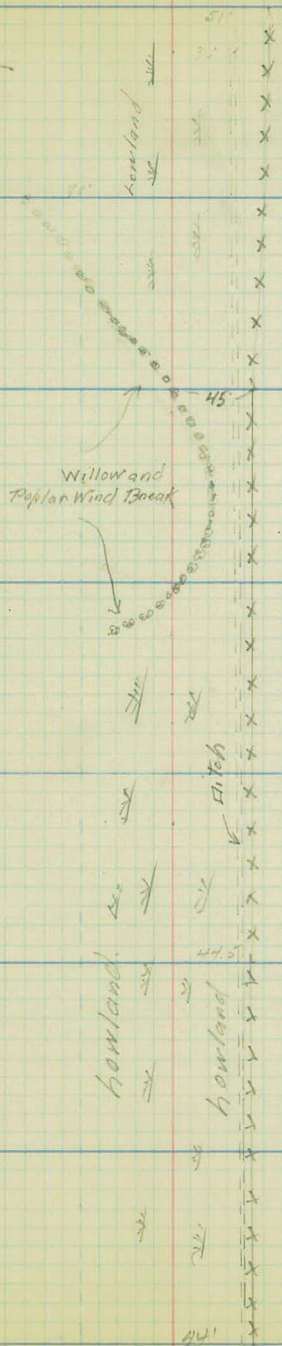
Proj. - 24-53





Proj. 24-53

774 End Ditch Right



20+00

19+00

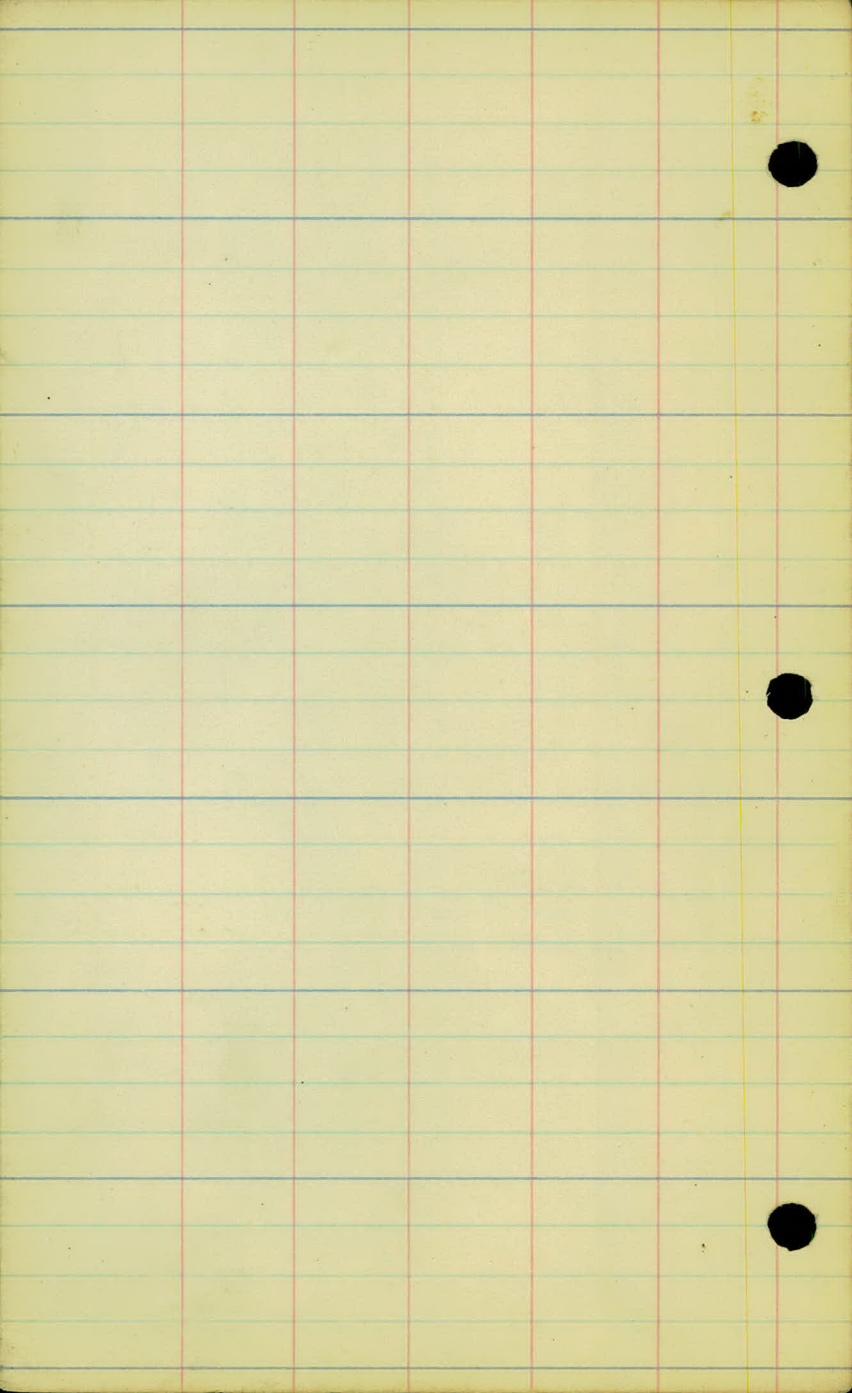
18+00

17+00

16+00

15+00

14+00



Prof-24-53

+94 T.P. 15L ✓

+59 End Fence

+53 T.P. 17.5L ✓

+32 T.P. 14.5L ✓

+26 T.P. 14.1L ✓
+25 E.P. 23.5A ✓

+19 Reg. Fence
+18 T.P. 25.1A ✓



+03 E.P. 44R ✓ 27+00

26+00

+17 E.P. 37A ✓

25+00

+52 E.P. 80A ✓

24+00

+11 E.P. 97A ✓

+23 E.P. 97A ✓

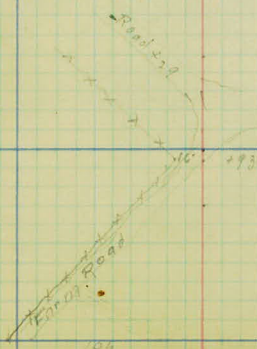
23+00

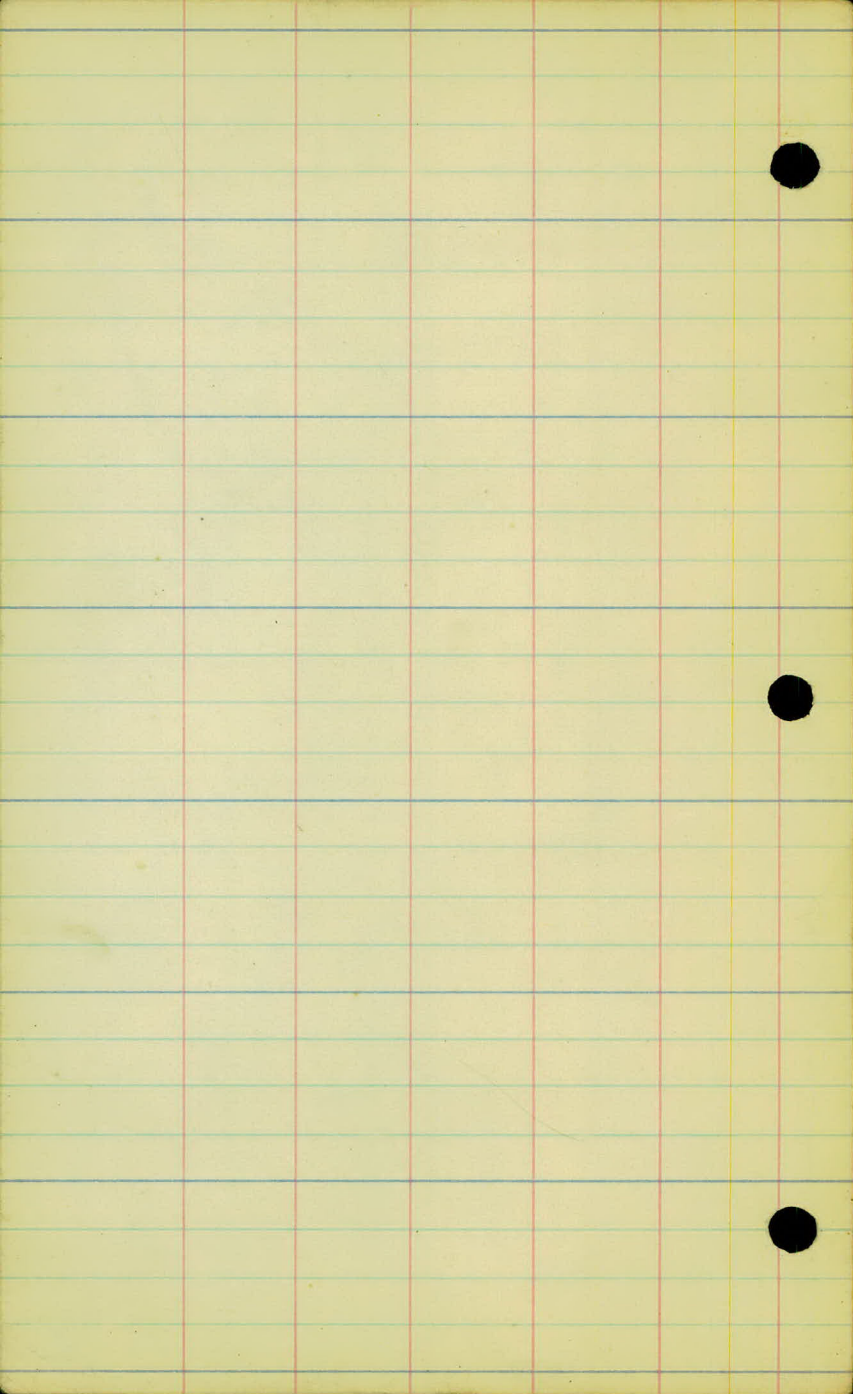
+36 E.P. 99A ✓

22+00

+70 E.P. 31A ✓

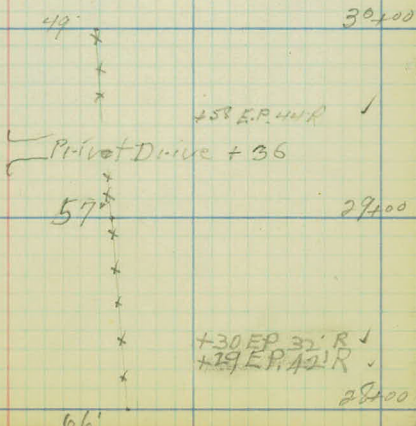
21+00





Proj 24-53

+52 T.P. 14' h ✓



Privet Drive + 36

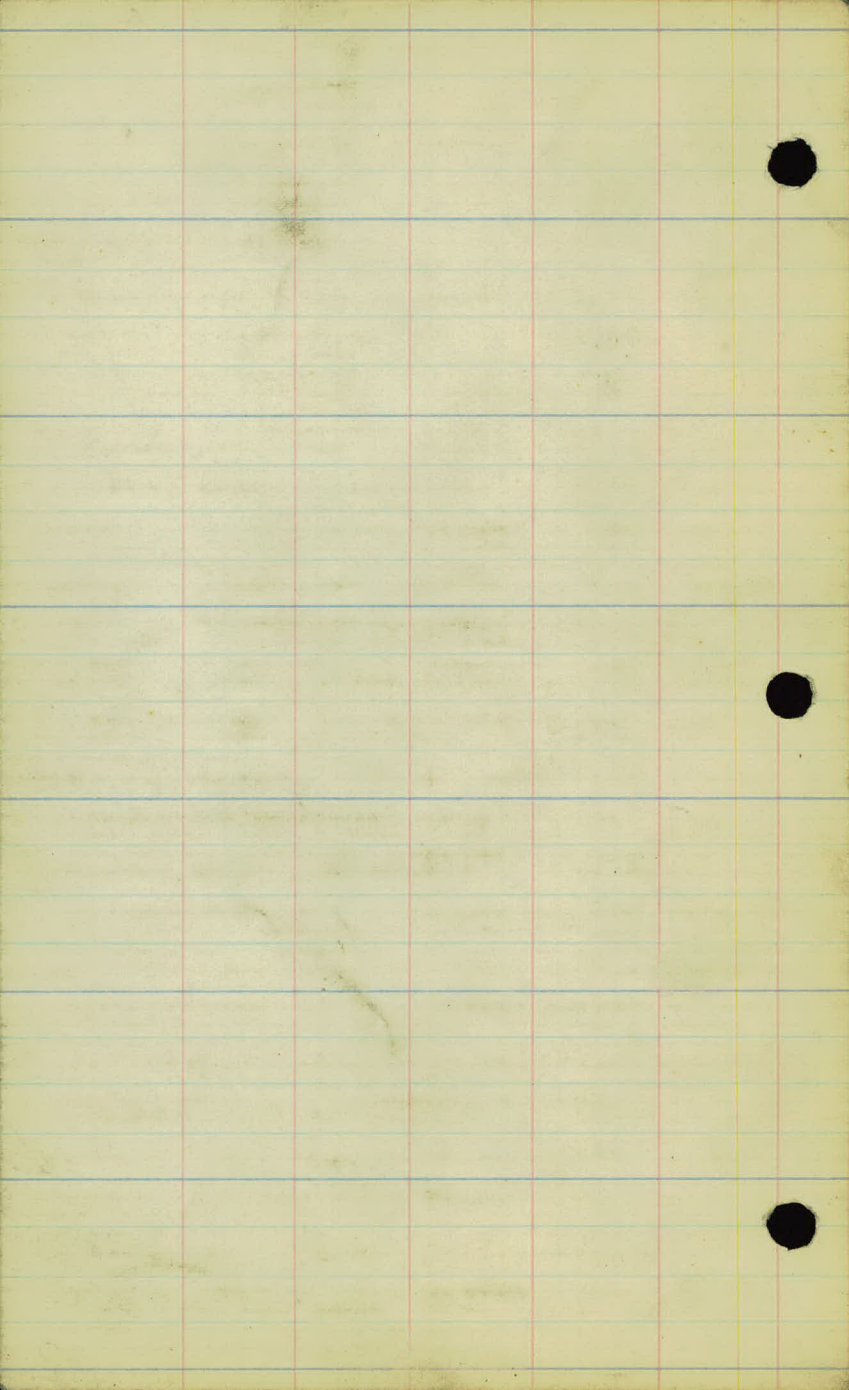
+58 E.P. 44' R ✓

+30 E.P. 32' R ✓

+29 E.P. 42' R ✓

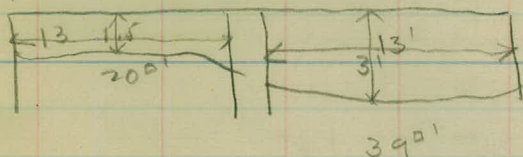
+30 T.P. 16' L ✓

28.00



Proj. 24-53

N.P.Ry. Pile Bridge



Total Opening - 60'0" Approx

88+65 L - 60' - 15" C.M.

Portland Ave - L

St. 50' - 12" C.M.

Some 12" C.M. emp. could not determine length or condition

Town section ditch L
Portland Ave. to Buffalo St.

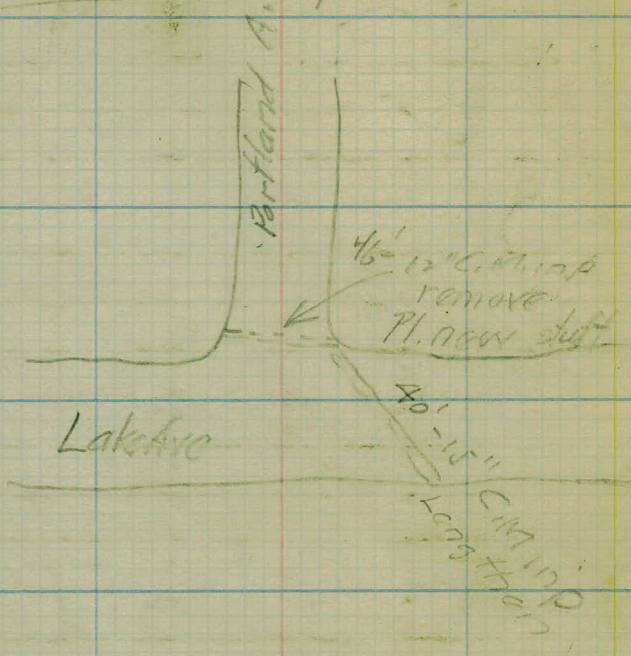
70+50 - 71+50 cut out ditch R.

13+06 Ditch is skew include 75 C.R. hand ditching and put in a curb at right angles to \perp P.W. 103

Call for gravel backfill - 2' thick

9+00 I.D. R.
P. 12" x 24" C.M.

3+05 Remove curb
not req. - 12" x 26" C.M.



Sta 6.

0-6 ft. soft black bog.
6-10 fine white sand. (medium soft.)

Sta 7

0-6 ft soft black bog.
7-7 ft. white sand (solid)

Sta 8

0-6 - soft black bog.
6-8 solid black material
bearing a small amount
of sand.

Sta 11+30

0-3 1/2 ft. soft black bog
3 1/2 - 5 1/2 solid material at
5 1/2 ft. enters into white sand.

Sta 12

0-3 1/2 soft black bog
3 1/2 to 4 solid white sand
40 strokes 10 pipe circumference
6 inches penetration

14

sta 13

0-10 soft black bog no bottom

sta 14

0-10 ft soft black bog no bottom

sta 15

0-10 ft soft black bog - no bottom

sta 16

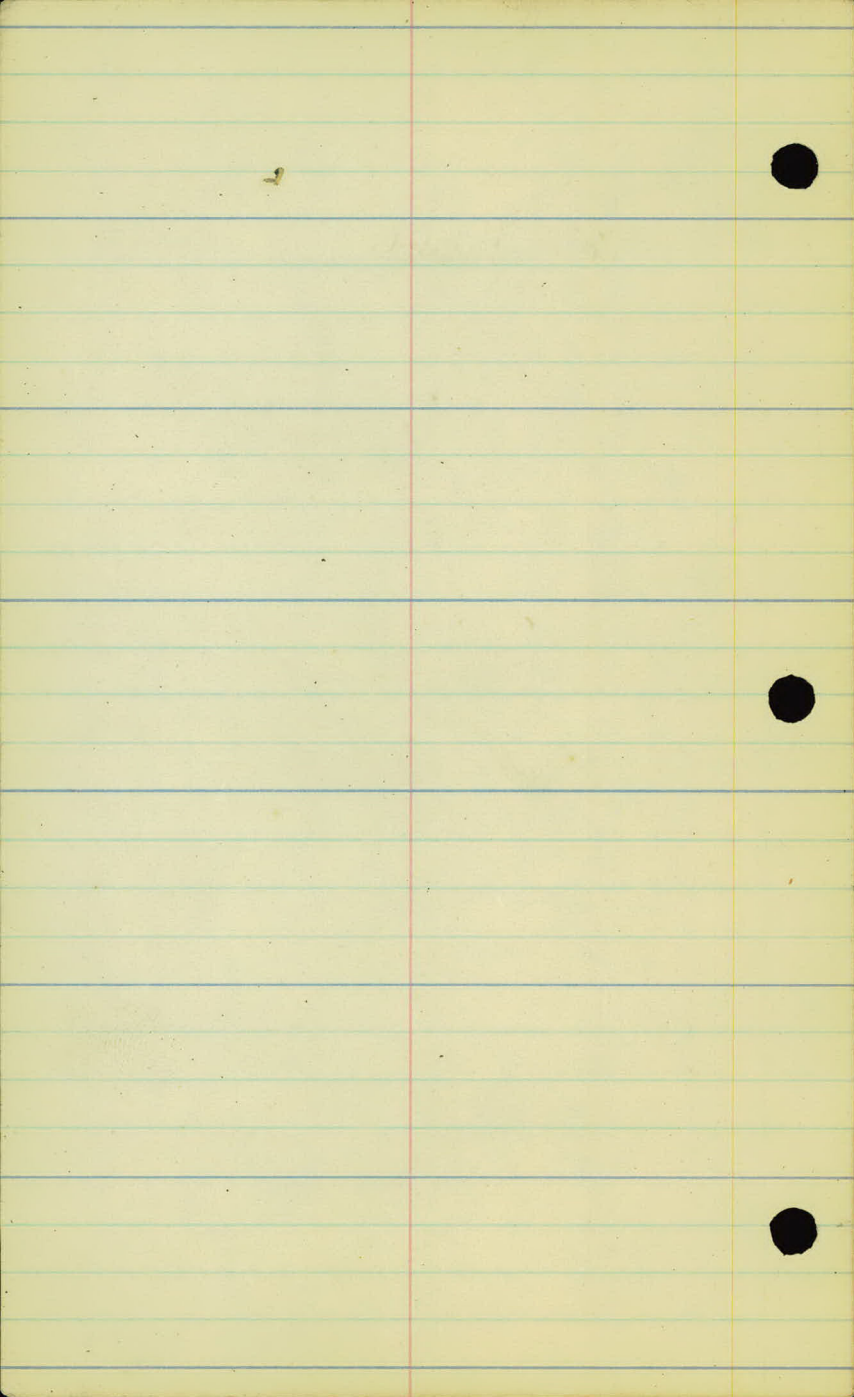
0-10 ft soft black bog - no bottom

sta 17

0-9 ft soft black bog. apparently
solid bottom at 9 ft possibly
sand seemed to be some
gilt on side of rock.
no sand was obtained
from bottom.

19750

0-5 ft. soft black bog
5 ft white sand firm bottom



Sta 20

0-6 ft soft black bog
6 ft. below firm white sand.

Sta 21 ~~solid white sand on surface~~

0-1 soft black bog
1 ft. white sand.

Sta 21 + 25

0-1 soft black bog
1 ft white sand.

Class You Every
Dellwood
Gravel Pit.

Projet 24-53

Additional Center Line Levels.

Lake Avenue Survey.

Notes for additional ties to

N.R.R. see original Topog Notes.

Station	+	H.I	-	Elev.
B.M.	0.93	245.58 ✓		244.65 ✓
88 (for check.)			2.7	242.9 ✓ 242.6 } orig notes
+30 (for check.)			3.9	241.7 ✓ 241.5 }
+70.3			5.0	240.6 ✓
89+00			5.3	240.3 ✓

Along E Stillwater Road

0+00 = 89+00			5.3	240.3 ✓
1			7.8	237.8 ✓
2			9.5	236.5 ✓ 235.1
3			10.4	235.2 ✓
4			11.7	233.9 ✓

Along E Dellwood Road

0+00 = 89+00			5.3	240.3 ✓
1			7.1	238.5 ✓
2			8.7	236.9 ✓
3			10.1	235.5 ✓
4			10.5	235.1 ✓
5			8.4	237.2 ✓

West along E. County Line

0+00 = 88+70.3			5.3	240.3 ✓
+50			3.6	242.0 ✓
1+00			0.8	244.8 ✓
T.P.	1222 ✓	257.00 ✓	0.80	244.78 ✓

W.H.C. }
C.E.J. } Jan. 10, 24 snow &
M.S.A. } cold.
T.F. }

R.R. spike in Pole #446 87+93 - 18' Left.

East County Line.

Approx Junction of Stillwater & Dellwood Roads.

Station	+	H.I		Elev.
		257.00 ✓		
2400			5.0	252.0 ✓
3			2.0	255.0 ✓
750			1.2	255.8 ✓
4			3.4	253.6 ✓

24-53

Equation in Levels

Stewart Ave Project

&

Lake Ave Project.

+ H.I. - Elev.

B.M. 2.91 245.60 242.69

T.P. 7.44 250.54 2.50 243.10

B.M. 4.14 246.40 = 240.17

(checking back)

B.M. 4.14 244.31 240.17

T.P. 1.87 239.80 6.38 237.93

B.M. 3.35 236.45 = 242.69

W.H.C.
C.E.W.
M.S.A. } 4-10-24
T.F.

On Lake Ave, nail in Elec. Pole 25' L. Sta. 1457

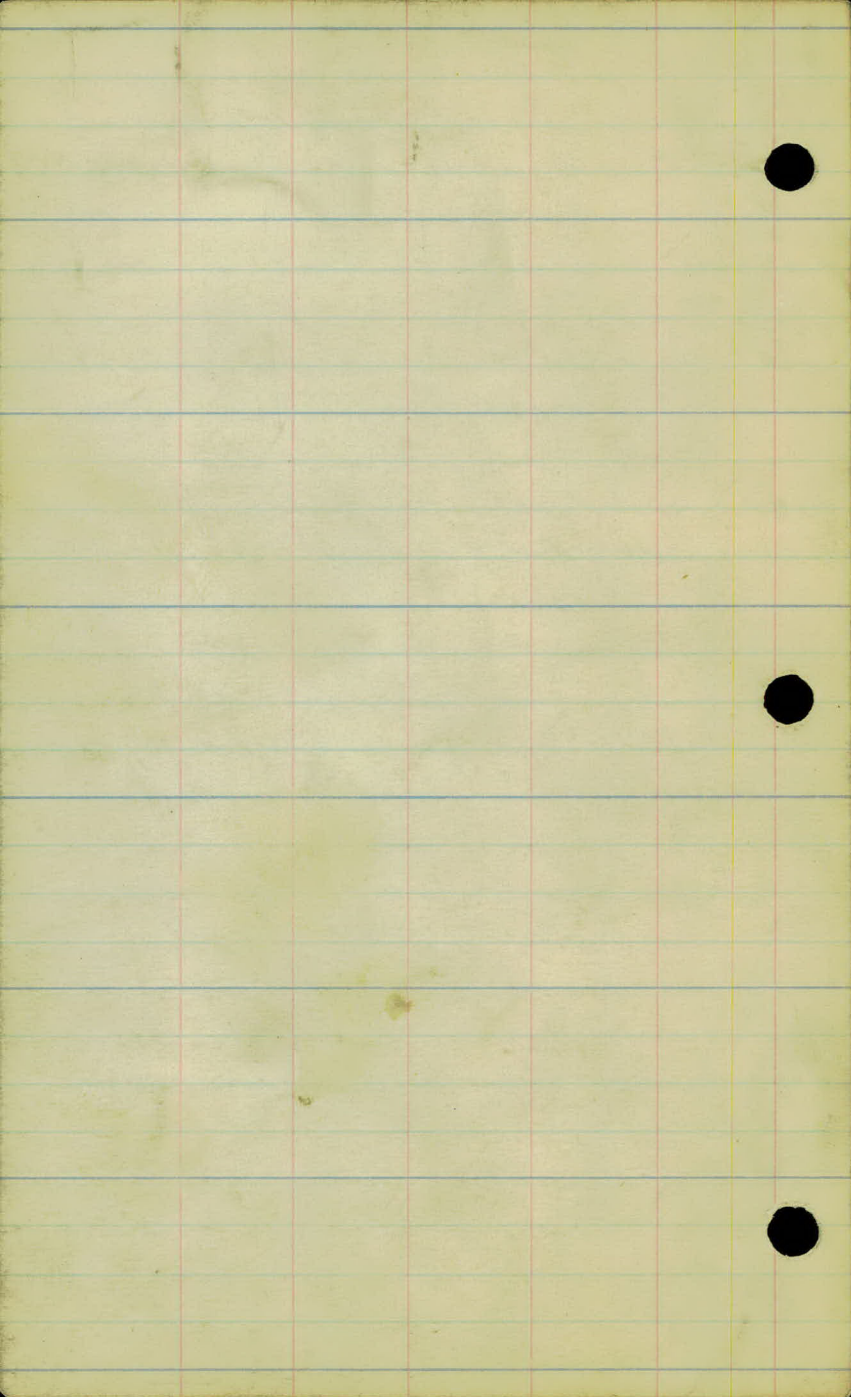
On Stewart Ave. spike in Tl. Pole 23' L. Sta. 59458

On Stewart Ave.

940.17
246.40
693.77 →

on Lake Ave.

936.45
242.69
693.76 →



Proj. 24-53

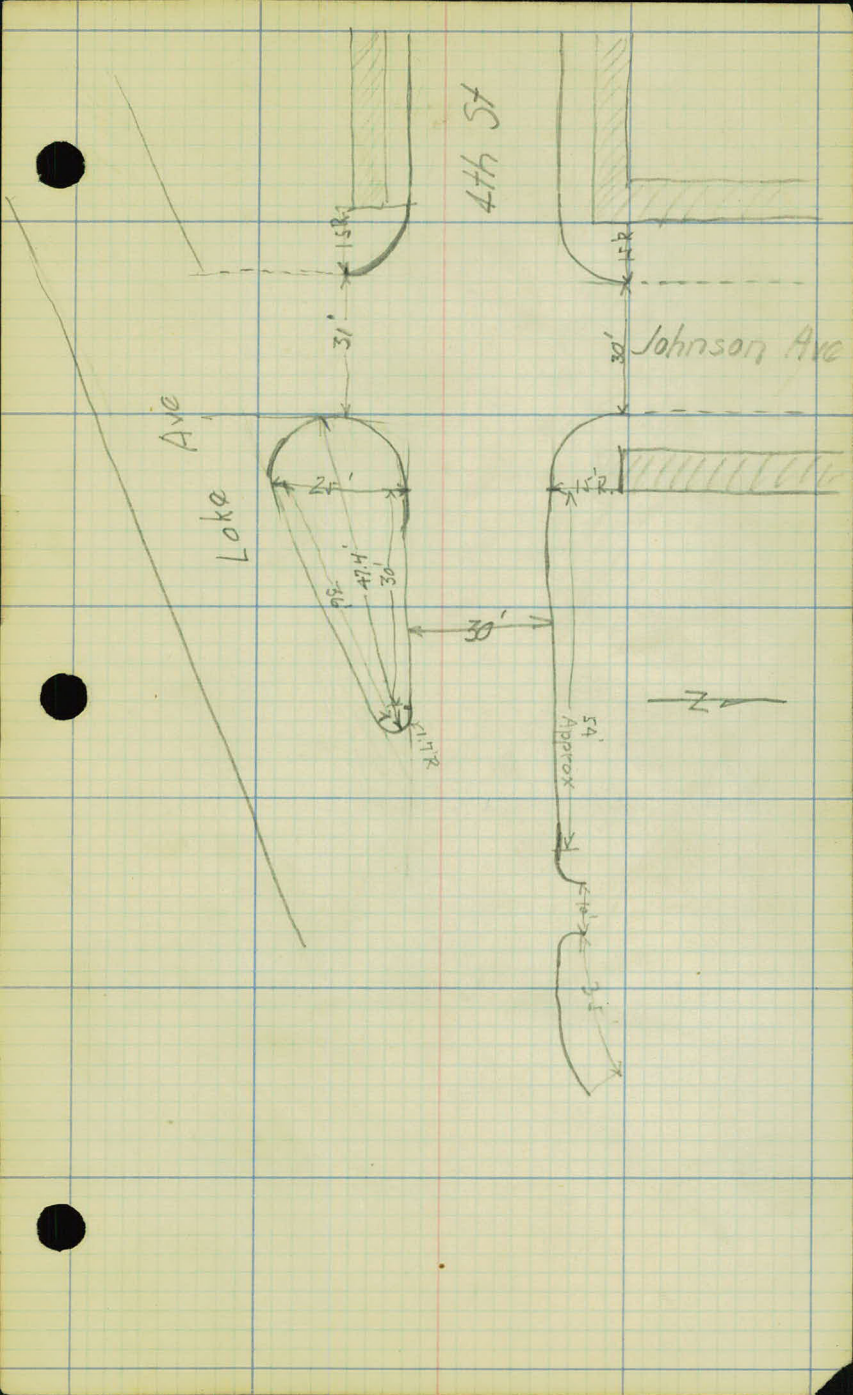
Lake Ave.

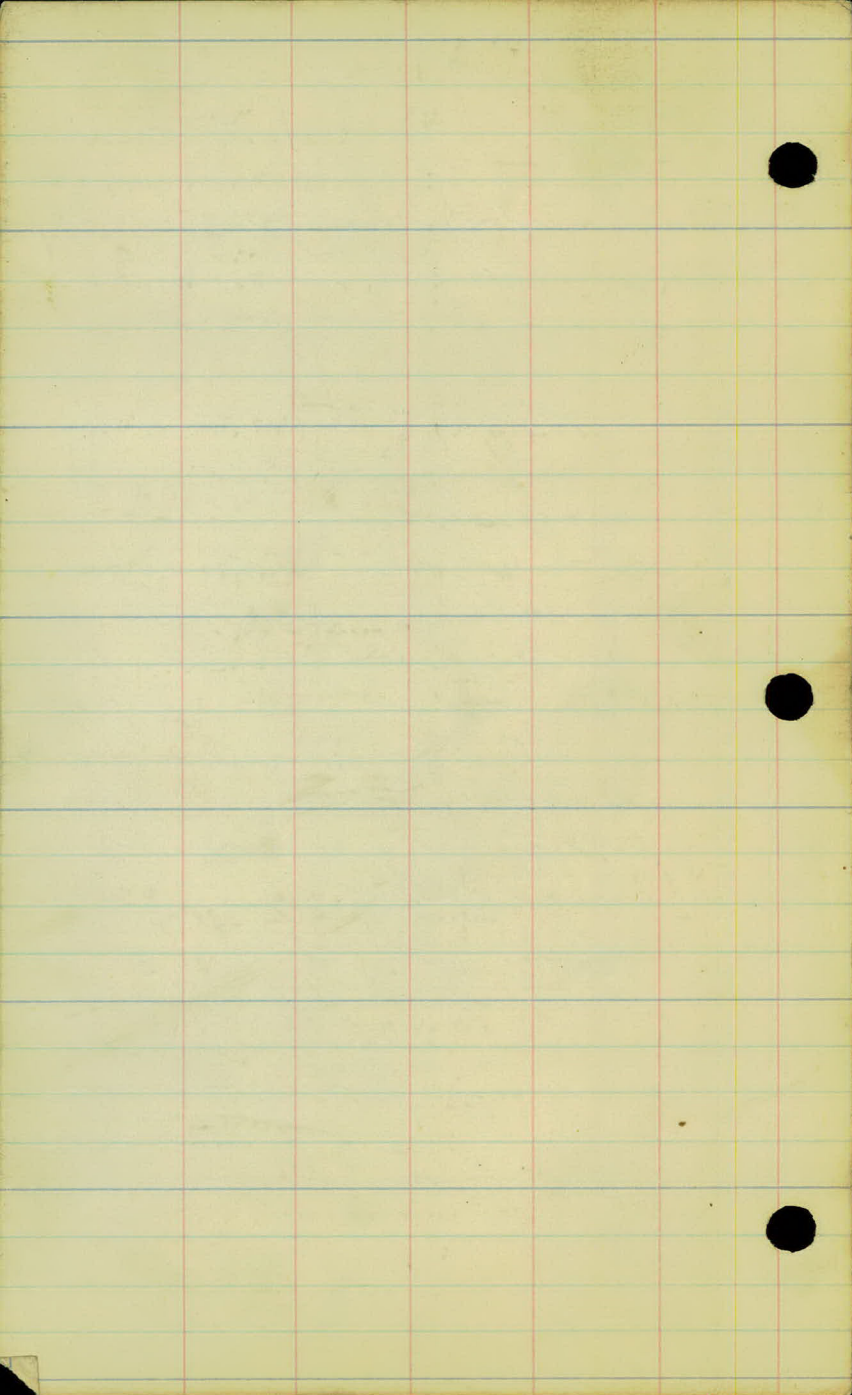
Dellwood Conn





2/3





1+70

38' - 10" C.M. 11p. cond OK

Remove

4+50

6" x 36' C.M. 11p

Remove

11+20 - Drop Inlet imp
also 15" x 52' - V.R.

Remove

14+35

36' - 12" C.M. Remove

& replace

18+60

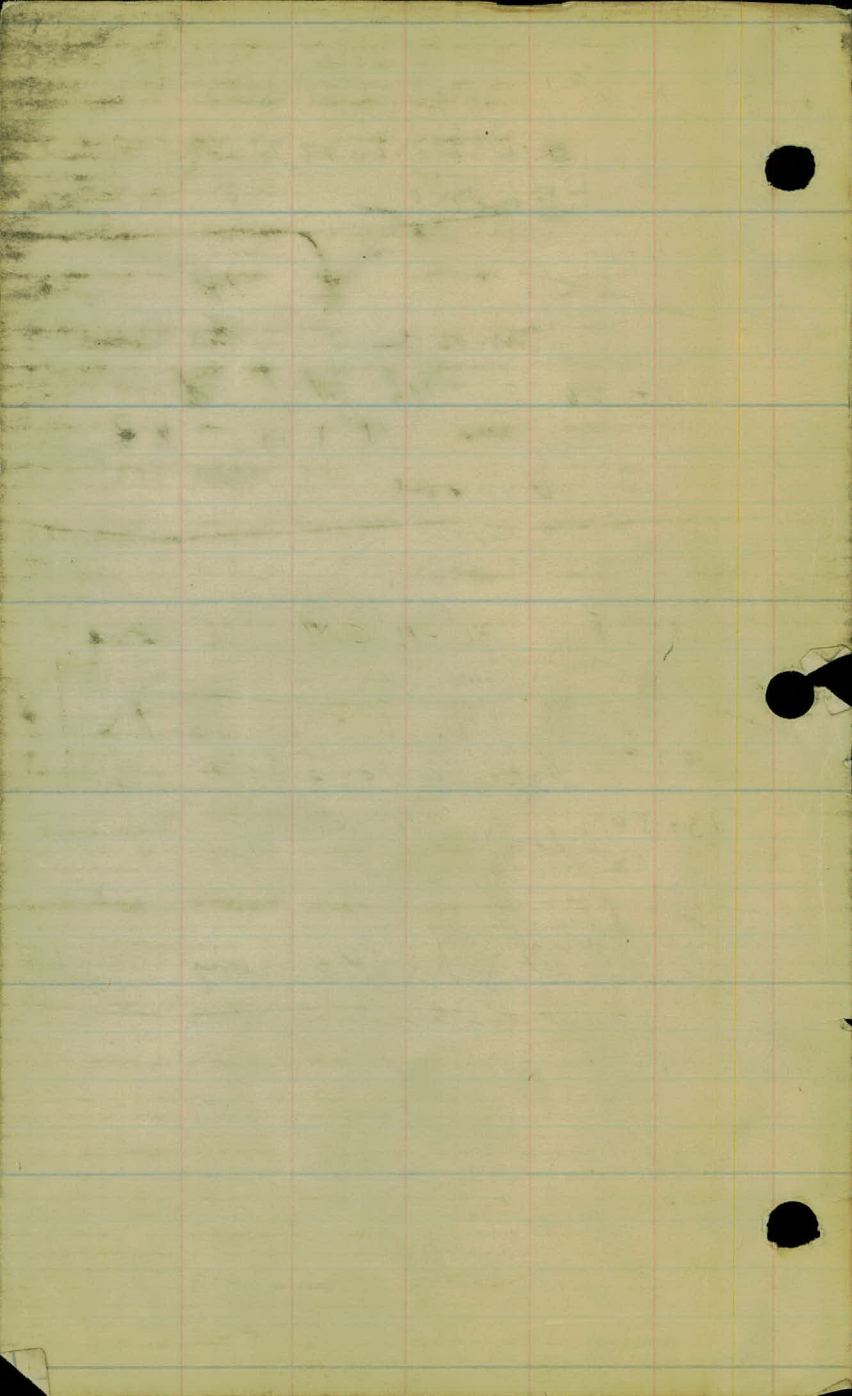
R. cut out drop inlet &
pipe across road

43+50

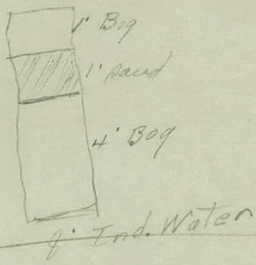
15" x 30' C.M. 11p - Remove

at Spelway

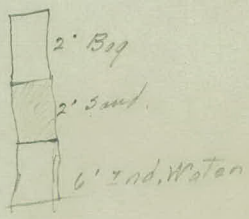
P. 3 - 24" P3 culos



Sta 21+00 Test Hole.



19+50



6+00 } 2' bog.
firm sand under

7+00 } 1/2' bog.
indications of water

8+00 } 2' bog.
firm sand under

13+00 } 6' bog. indications of
16+00 } water at 8ft.
17+25 }

U 2467