

BK. 62 Dr. 14

City of White Bear Lake
Storm Sewer Survey
Profile of Streets
West of Bold Eagle Ave
South of 6th St
also

Stadia Survey

6th to 9th St - View by or west of

White Bear School Ditch

Ditch #13 to School

Storm Sewer Survey.

Profile of Sts. & Aves
West of Bald Eagle Ave
E 5th of 6th St

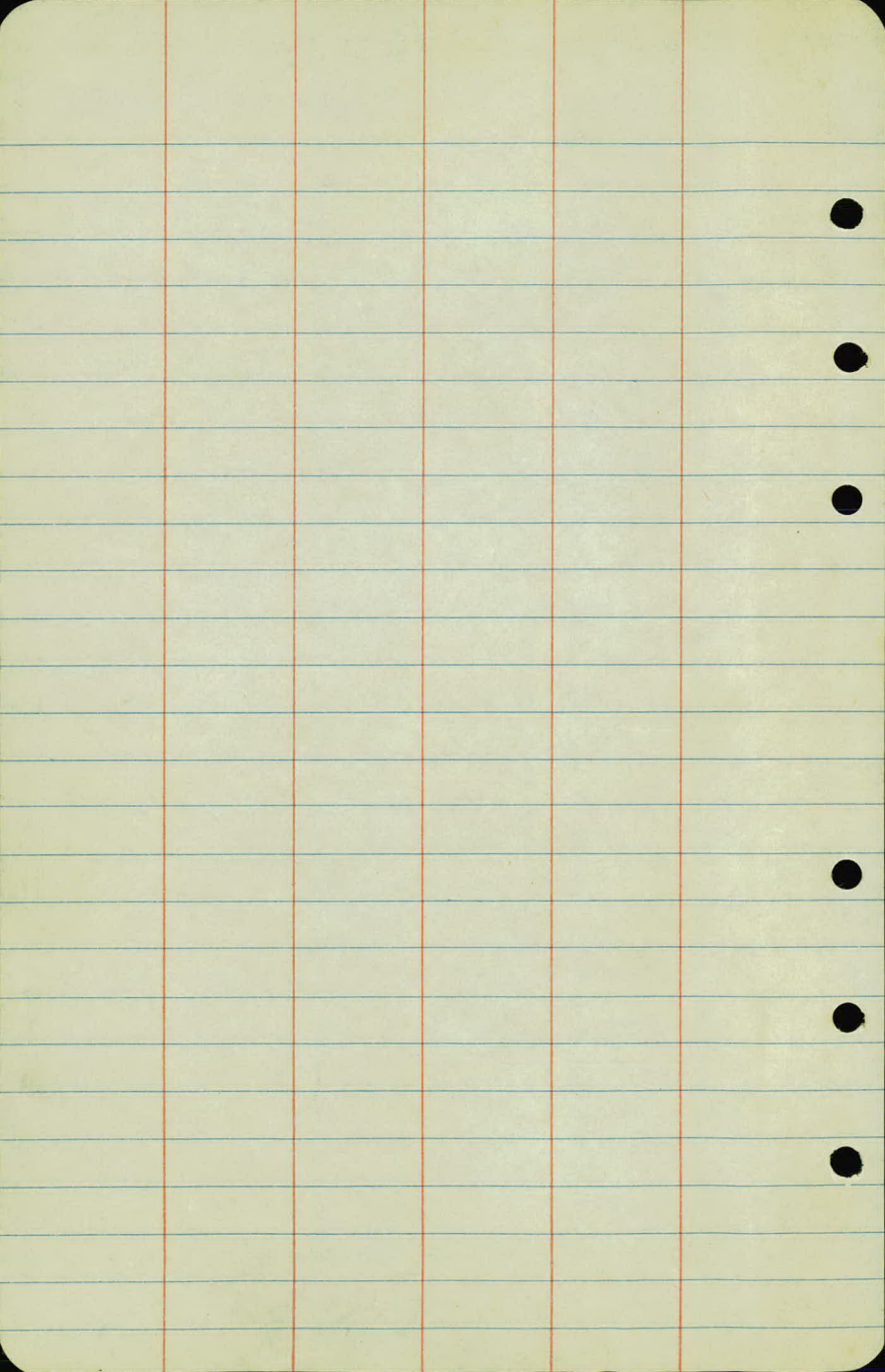
May 1950

GB

AM

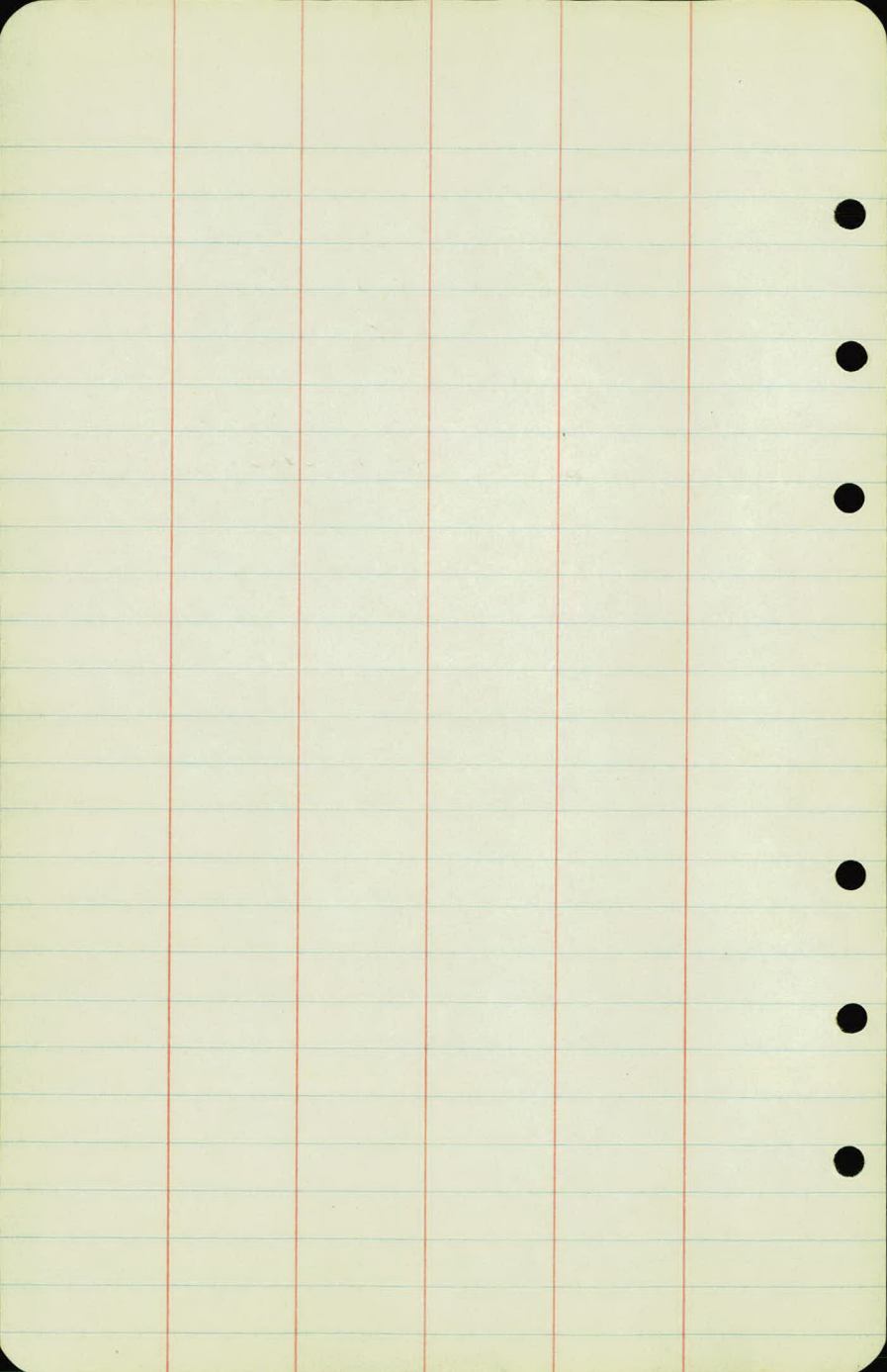
MB

K.R.



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✓

1

Campbell Ave

4th to 6th St.

Profile levels

5-1-50

Sta	+	π	-	Elev
B.M.	4.78	938.59		933.81
0+00				32.94
+20				33.1
+50				33.0
1				33.2
+50				33.2
TP	1.49	938.89	1.19	937.40
2				33.2
+50				33.2
3				33.3

$\frac{1}{2}$

Top Mont at 5th St. & Bald Eagle.

5.65

5.5

5.6

5.4

5.4

5.7

5.7

5.6

Sta	+	π	-	Elev
		938.89		
3+50				33.6
173				33.81
4				33.9
+05.00				34.0
+50				34.0
5				34.0
+50				34.1
6				34.2

2

5.3

20.91

15.9 Top Mt San. Sewer Nps
5.08 FL - 17.98

5.0

4.9

4.9

4.9

4.8

4.7

Sta	+	π	-	Elev
-----	---	-------	---	------

		938.89		
--	--	--------	--	--

6+50				
------	--	--	--	--

				34.5
--	--	--	--	------

7				
---	--	--	--	--

				34.3
--	--	--	--	------

+35				
-----	--	--	--	--

				34.0
--	--	--	--	------

+52.3				
-------	--	--	--	--

				33.8
--	--	--	--	------

T.P.				
------	--	--	--	--

		3.03		
--	--	------	--	--

				935.86
--	--	--	--	--------

				(935.86)
--	--	--	--	----------

2

4.4

4.6

4.9

5.1

Top N.W. Cor. Bottom Step Front of Ho. SE Cor

6th & Campbell

Sta

+

π

-

Elev



6th Street
Campbell Ave to Bald Eagle Ave

¢ Profile

5-1-50

GB
AM
MB
KR

(4 pages) 5 to 8

Sta	+	π	-	Elev
B.M.	3.03	938.89		935.86

0+00	= ϕ Campbell Ave			33.8
------	-----------------------	--	--	------

+50				32.9
-----	--	--	--	------

1.				32.7
----	--	--	--	------

+50				32.6
-----	--	--	--	------

2				32.6
---	--	--	--	------

+50				32.6
-----	--	--	--	------

3				32.9
---	--	--	--	------

+28	Low Spot			
-----	----------	--	--	--

2

Top N.W. Cor B.O.H. Step Front of Ho. C. th & Campbell

5.1

6.0

6.2

6.3

6.3

6.3

6.0

30.69

8.2

40

Sta	+	π	-	Elev
		938.89		
3+50				33.2
4				33.4
+50				33.3
5				33.1
+50				33.0
+75		Gar Floor		
6				33.4
+50				33.8
7				33.9

②

5.7

5.5

5.6

5.8

5.9

33.29

5.6

40

5.5

5.1

5.0

Sta	+	π	-	Elev
-----	---	-------	---	------

		938.89		
--	--	--------	--	--

7 + 34				
--------	--	--	--	--

			34.1	
--	--	--	------	--

+52.7				
-------	--	--	--	--

	West edge Conc.		34.0	
--	-----------------	--	------	--

+62.7				
-------	--	--	--	--

	Q Bald Eagle Ave.		34.2	
--	-------------------	--	------	--

B.M.				
------	--	--	--	--

		2.03		
--	--	------	--	--

			935.86	
--	--	--	--------	--

4

4.8

4.9

4.7

Top N.W. Cor. Bath Step @ Front of Ho. 6th & Campbell

Sta

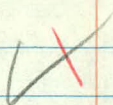
+

π

-

Elev

£



KRECH Ave
Birch Lake Ave to 5th St.

£ Profile

5-2-49

GB.

AM.

MB.

6 pages [#]9 to [#]14

Sta	+	-	Elev
BM	1.50	936.16	934.66

0+02 San Sewer MH

0+00 = ϕ Birch Lake Ave 32.03

+30 31.7

+57 31.3

1 31.3

+50 31.5

2 31.6

+50 31.6

¢

Top of Hyd NE cor. Krech & Birch Lake Ave

23.91	FL	Top MH	
<u>12.25</u>		<u>4.1</u>	32.06
01		01.	

4.13

4.5

4.9

4.9

4.7

4.6

4.6

Sta	+	π	-	Elev
		936.16		
3 + 00				31.8
+50				32.0
4				32.2
+50				32.5
TP	1.74	936.59	1.31	934.85
5				32.9
+50				33.1
6				32.8
+16		San Sewer (8")		

ϕ

4.4

4.2

4.0

3.7

Top Hyd rt @ 4+65

3.7

3.5

3.8

26.09

32.74

FL

Top mt

10.50

3.85

0.5

0.5

Sta	+	π	-	Elev
		936.59		
6 + 15.45	ϕ	Third St		32.74
+50				32.7
7				32.3
+50				31.9
8				31.9
+50				31.7
9				31.7
+18.9				31.68
+29.3	ϕ	4th St.		31.75

2

3.85

3.9

4.3

4.7

4.7

4.9

4.9

21.68

4.91 ← Edge Pavc

4.84 ← Top Conc

Sta	+	π	-	Elev
		936.59		
9+39.3				31.67
+53				32.1
10				32.3
+50				32.1
11				31.6
+50				31.4
12				31.0
+50				31.0

$\frac{1}{2}$

Edge conc.
4.92

4.5

4.3

4.5

5.0

5.2

5.6

5.1

Sta	+	π	-	Elev
-----	---	-------	---	------

		936.59		
--	--	--------	--	--

12 +86				
--------	--	--	--	--

				31.34
--	--	--	--	-------

13				
----	--	--	--	--

				31.2
--	--	--	--	------

B.M.				
------	--	--	--	--

		2.12		934.47
--	--	------	--	--------

2

5.25

5.4

Top Hyd NE Cor Kroch & 4th St.

Sta

+

π

-

Elev



3rd STREET

Krech Ave. to Wood Ave

5-2-50

G.B.

A.M.

M.B.

4 pages 15 to 18

Sta	+	π	-	Elev
BM	2.12	936.59		934.47

0+00	= ϕ	KRECH AVE		32.74
------	----------	-----------	--	-------

+12				32.6
-----	--	--	--	------

+20				32.2
-----	--	--	--	------

+50				32.1
-----	--	--	--	------

1				32.3
---	--	--	--	------

+50				32.2
-----	--	--	--	------

2				32.6
---	--	--	--	------

+50				32.6
-----	--	--	--	------

2

Top Hyd NE cor Krech Ave & 4th St.

26.09	32.74	San Sewer MH
PL	Top	
10.50	<u>3.85</u>	3.85
0.55	0.55	

4.0

4.4

4.5

4.3

4.4

4.0

4.0

Sta	+	π	-	Elev.
		93659		

3	+00			32.5
---	-----	--	--	------

	+50			32.7
--	-----	--	--	------

4				32.6
---	--	--	--	------

	+50			32.8
--	-----	--	--	------

5				32.7
---	--	--	--	------

	+50			32.5
--	-----	--	--	------

6				32.9
---	--	--	--	------

	+30	0		32.4
--	-----	---	--	------

6 + 45 = 0 Wood

	+60			32.1
--	-----	--	--	------

Lt.

¢

Rt.

4.1

3.9

4.0

3.8

3.9

4.1

3.7

4.2

4.5

Sta	+	π	-	Elev
-----	---	-------	---	------

		936.59		
--	--	--------	--	--

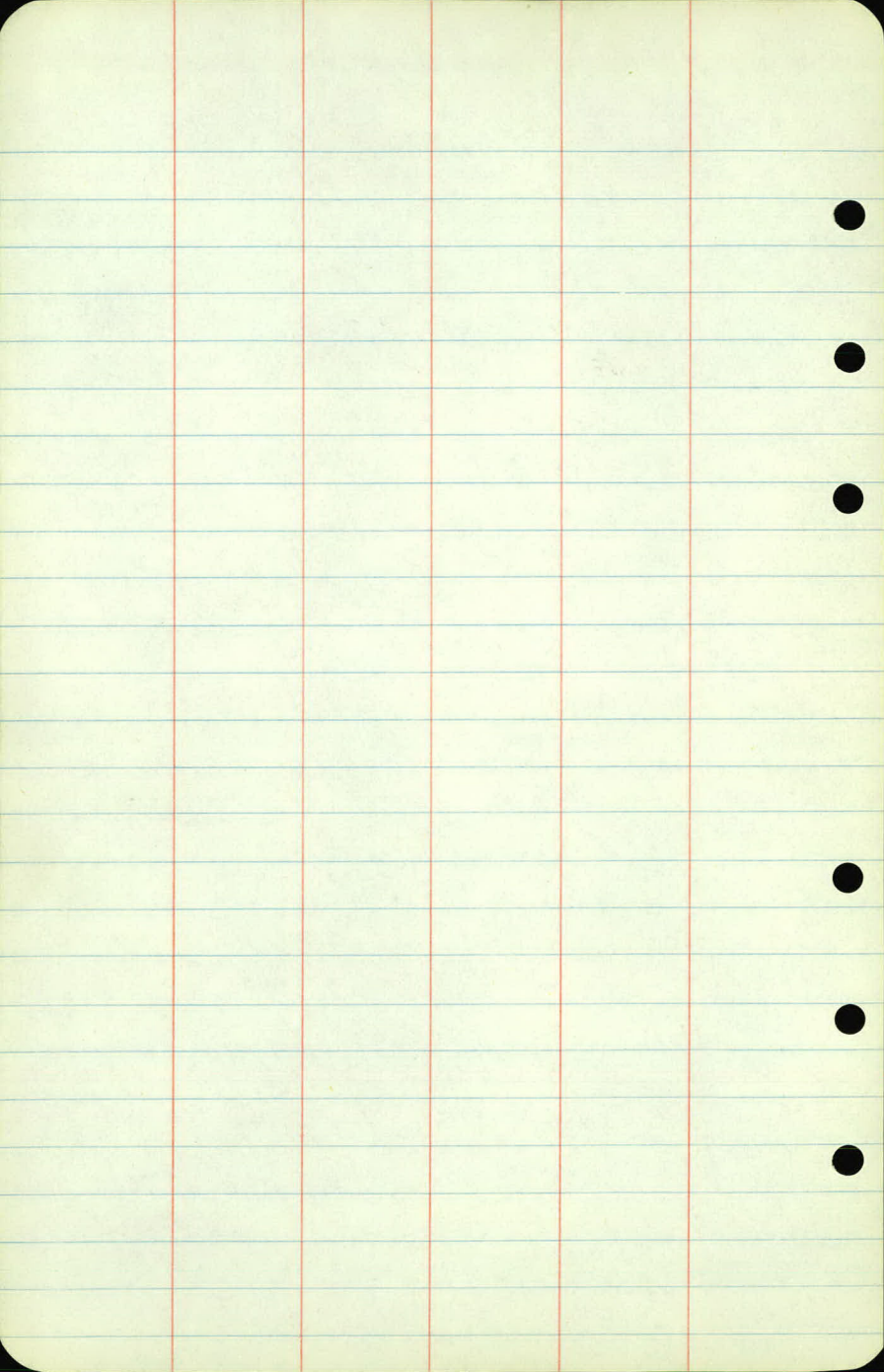
T.P.	1.24	936.52	1.31	935.28
------	------	--------	------	--------

B.M.			1.73	934.79
------	--	--	------	--------

				934.80
--	--	--	--	--------



Top Hyd. Birch Lake Ave & 3rd Ave





WOOD Ave
Birch Lake Ave to 5th St.

2 Profile

Sta	+	π	-	Elev
BM	1.73	936.53		934.80

0 - 25 San. Sew. MH (8")

0 +00 = ϕ Birch Lake Ave

32.1

+11

31.7

+18

31.2

+25

31.7

+33

31.6

+64

31.4

1

31.6

Lt

¢

Rt.

Top Hyd 3rd Ave & Birch Lake Ave

32.13

22.16

Top

FL

4.40

14.37

0.8

0.8

4.4

4.8

5.3

4.8

4.9

5.1

4.9

Sta	+	π	-	Elev.
		936.53		
1 + 50				32.0
2				31.6
+50				32.0
3				33.4
+50				32.6
4				32.3
+50				33.9
5				33.5

Lt

L

Rt

4.5

4.9

4.5

3.1

3.9

4.2

2.6

3.0

Sta	+	π	-	Elev
		936.53		
Sta 50				32.3
6				32.4
+11.3	ϕ 3rd St.			32.4
+56				32.5
7				32.2
+50				32.78
T.P.	2.82	937.18	2.17	934.36
8				32.4
+53				32.3

Lt

¢

Rt

4.2

4.1

4.1

4.0

3.3

3.75

4.8

4.9

Sta	+	π	-	Elev
		937.18		
9+00				32.6
+14				32.5
21.8				32.22
31.8				32.31
41.8				32.22
+48				31.36
Open Gr. C. Basin				
+63				32.2
10				32.3

C

4.6

4.7

4.96

4.87

4.96

31.86
 top CB. ring
5.32
 21'

5.0

4.9

Sta	+	π	-	Elev
		932.18		
10 + 50				32.3
11				32.4
+10.5		MH San. Sewer		
+50				32.3
12				32.3
+50				32.1
13				32.4
+0.4		= Ctr. MH San. Sewer		32.38
+20		$\frac{1}{4}$ Sec Line, 5th St.		32.3
B.M.			2.73	934.45
				934.47

2

4.9

4.8

← Top MH
4.05
32.63

4.9

4.9

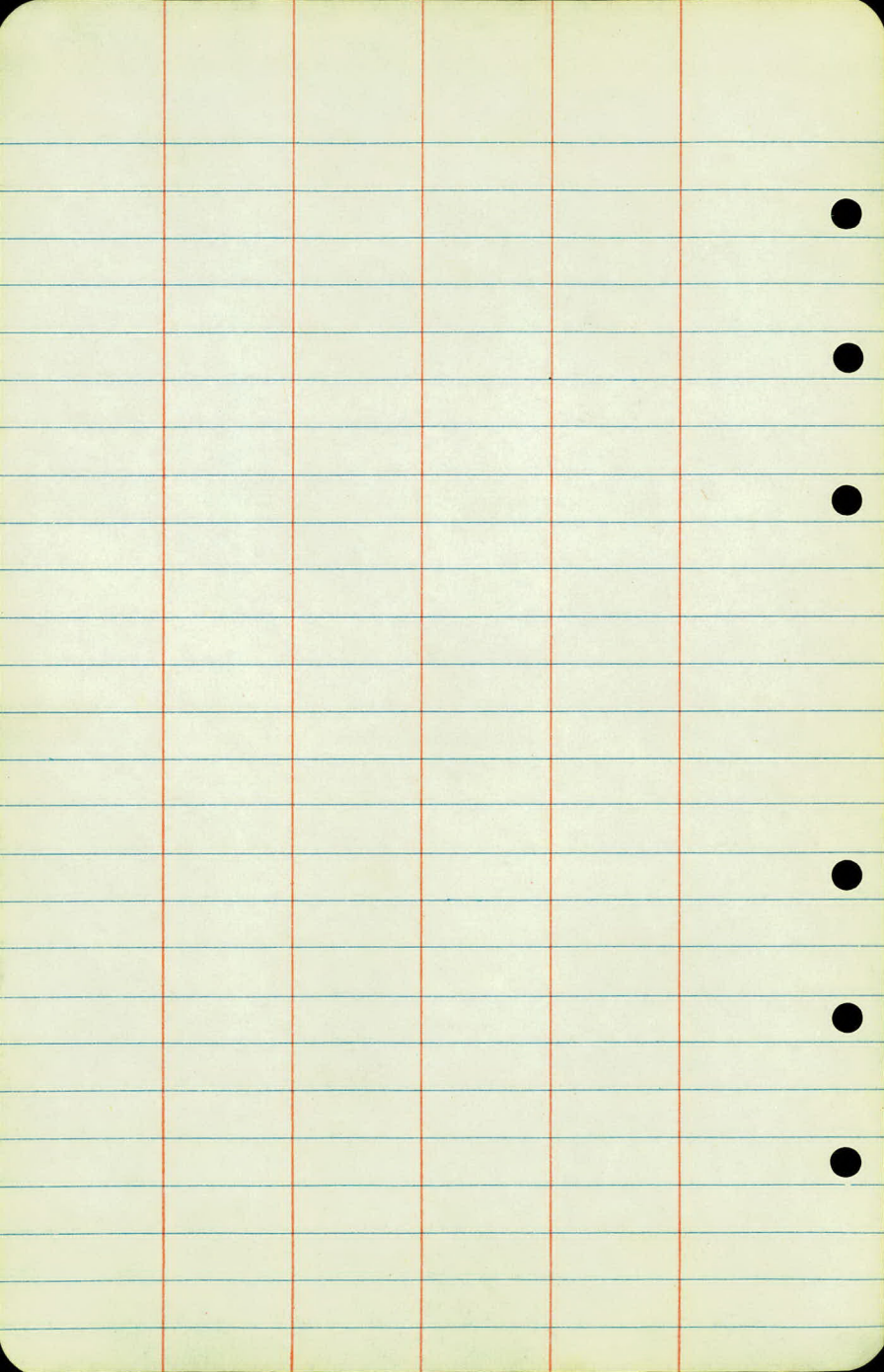
5.1

4.8

← Top
4.80

4.9

Top Hyd 4th St. & Krech Ave.





£ Profile

WEBBER AVE

Co. Ditch # to Bald Eagle AVE.

Sta	+	π	-	Elev
BM	3.97	934.69		930.72
			4.61	930.08
				930.15

0+00 = ϕ Co. Ditch 25.0

+10 29.7

+50 30.2

1 29.6

+50 29.7

2 29.7

+40 29.4

+61 28.1

3 28.3

+50 29.1

4 29.3

5-10-50

26

G/D

AM

MD

KR

Q

Nail in P.P. SE cor. Webster Ave & 4th Ave.

" " " NE " Florence " " " "

9.7

5.0

4.5

5.1

5.0

5.0

5.3

6.6

6.4

5.6

5.4

Sta	+	π	-	Elev
		934.69		
4+50				29.5
5				29.6
+50				29.3
4+86				28.7
+90				29.8
+97	ϕ 4 th Ave			30.1
6				29.9
+50				30.0
7				30.1
+50				30.2
8				30.2
+50				29.9

2

5.2

5.1

5.4

6.0

4.9

4.6

4.8

4.7

4.6

4.5

4.5

4.8

Sta	+	π	-	Elev
		934.69		
9				29.7
T.P.	5.84	935.65	4.88	929.81
BM			1.15	934.50 (934.50)
9+50				30.1
10				31.0
+50				31.0
11				30.9
+06.5	¢ 3rd Ave			30.9
+50				30.8
12				30.5
+50				30.8
13				30.8
+50				31.0

2

5.0

Top Hyd Lt @ Sta. 13+50

5.6

4.7

4.7

4.8

4.8

Gr. H_o 31.35
→ 4.3
70'

4.9

5.2

4.9

4.9

4.7

Sta	+	π	-	Elev
		935.65		
14				30.7
	+10			
	+50			31.3
15				31.1
	+50			31.4
16				31.7
	+16.5	2nd Ave.		31.8
BM	1.60	936.30	0.95	934.70
BM			1.82	934.48
				934.75
				934.51
	+50			31.7
17				31.7
	+50			31.9
18				32.0

2

5.0

$$\begin{array}{r} \text{Gr. @ Ho} \\ \rightarrow 4.6 \quad 31.05 \\ \hline 65 \end{array}$$

4.4

$$\begin{array}{r} \text{Gr. @ Ho} \\ \rightarrow 5.1 \quad 30.55 \\ \hline 85 \end{array}$$

4.6

4.3

4.0

3.9

Top Hyd NE cor Webber & 2nd Ave's

Top " NE cor Florence & 2nd Ave's

4.6

4.6

4.4

4.3

Sta	+	π	-	Elev
		936.30		
18+50				31.9
19				31.9
+20				
+50				32.2
20				32.2
+50				32.4
+65				
21				32.5
+254				33.0
TP	5.15	938.22	3.23	933.07
BM			3.04	935.18
				935.17
21 +50				32.8
22				32.7

4.4

4.4

(Gr. @ No. .
 $\rightarrow \frac{4.1}{65}$ 32.20

4.1

4.1

3.9

(Gr. @ No. .
 $\rightarrow \frac{3.4}{75}$ 32.90

(Gr. @ No. .
 $\rightarrow \frac{3.6}{75}$ 32.70

3.8

Top Mt.
 $\swarrow$
 3.3 $\frac{3.25}{3}$ 33.05

Top Hyd

Florence & Istava.

5.4

5.5

Sta	+	π	-	Elev
		938.22		
22+50				32.9
23				32.9
+50				33.1
24				33.4
+50				33.6
+65.8				
25				33.5
+50				33.3
26				32.9
+28.5				33.17
+38.4				
		ϕ Bald Eagle		33.27

2

5.3

5.3

5.1

4.8

4.44

4.6

Top MH
 $\frac{4.40 \quad 33.82}{3}$

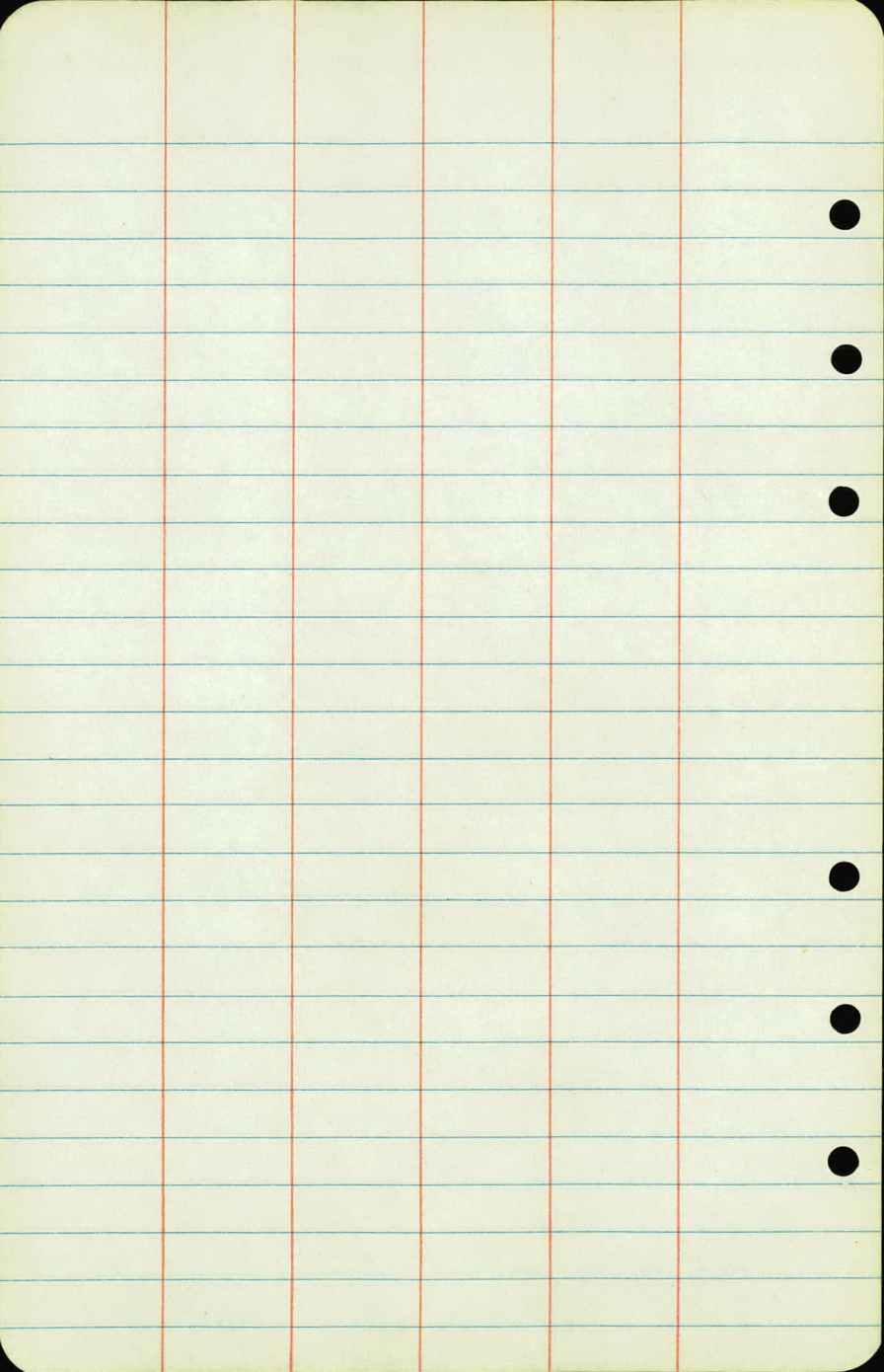
4.7

4.9

5.3

5.05

4.95





FLORENCE AVE.

Co. Ditch # to Bald Eagle Ave

£ Profile

Sta	+	π	-	Elev
BM	202	936.68		934.66
TBM	4.20	934.92	5.96	930.72
BM			4.77	930.15

0+00 = ϕ Co. Ditch # 25.4

+10 29.4

+50 29.7

1 29.8

+50 29.3

2 29.5

+50 29.1

3 29.5

+50 29.0

4 28.9

+50 29.4

2

Top Hyd NE cor Birch Lake Ave & Krech Ave

Nail in PP. SE Cor Weber Ave & 4th Ave

Nail in PP NE Cor Florence Ave & 4th Ave

9.5

5.5

5.2

5.1

5.6

5.4

5.8

5.4

5.9

6.0

5.5

Sta	+	π	-	Elev
-----	---	-------	---	------

934.92

5				29.4
---	--	--	--	------

+50				30.3
-----	--	--	--	------

+95.7	ϕ 4 th St.			30.4
-------	----------------------------	--	--	------

6				30.3
---	--	--	--	------

+50				29.9
-----	--	--	--	------

7				29.6
---	--	--	--	------

+50				29.4
-----	--	--	--	------

8				29.6
---	--	--	--	------

+50				29.7
-----	--	--	--	------

9				29.8
---	--	--	--	------

+50				29.6
-----	--	--	--	------

10				29.7
----	--	--	--	------

Q

5.5

4.6

4.5

4.6

5.0

$$\begin{array}{r} 29.72 \\ 40 \\ \hline 5.2 \\ 65 \end{array}$$

$$\begin{array}{r} 29.22 \\ 40 \\ \hline 5.7 \\ 65 \end{array}$$

5.3

5.5

5.3

5.2

5.1

5.3

$$\begin{array}{r} 29.92 \\ 40 \\ \hline 5.2 \\ 65 \end{array}$$

5.2

Sta	+	π	-	Elev
-----	---	-------	---	------

		934.92		
--	--	--------	--	--

10+50				30.2
-------	--	--	--	------

11				30.4
----	--	--	--	------

T.P.	5.02	935.35	4.59	930.33
------	------	--------	------	--------

+05.0				30.4
-------	--	--	--	------

+50				30.7
-----	--	--	--	------

+75				
-----	--	--	--	--

12				30.9
----	--	--	--	------

+25				30.5
-----	--	--	--	------

+50				30.7
-----	--	--	--	------

13				30.7
----	--	--	--	------

+50				30.8
-----	--	--	--	------

14				30.6
----	--	--	--	------

ϕ

4.7

4.5

5.0

4.7

$$\begin{array}{r} 30.45 \\ H_0 \\ \hline 4.9 \end{array}$$

4.5

4.9

4.7

4.7

4.6

4.8

Sta	+	π	-	Elev
-----	---	-------	---	------

935.35

14 +50

30.8

15

30.8

+50

30.9

16

31.1

+14.2

BM

0.61

934.74

(934.75)

BM

0.84

934.51

+15.8

2 Second St

31.2

+50

30.9

17

31.0

+50

31.1

18

31.4

+50

31.5

Φ

4.6

4.6

4.5

4.3

$$\begin{array}{r} 31.23 \\ 4.2 \\ \hline 2 \end{array}$$

Top Hyd. Webster & Second Ave

Top Hyd. Florence & Second Ave, NE Cor.

4.2

4.5

4.4

4.3

4.0

3.9

Sta	+	π	-	Elev
		935.35		
19+00				31.4
	—		—	
+ P	4.20	937.31	224	933.11
19+25				
+50				31.2
20				31.6
+50				31.4
21				31.6
+25	Q	1st St.		32.1
+50				32.0
BM			2.14	935.19
22				31.8
+50				32.1
23				32.4

4

4.0

31.31

40

6.0

6.1

5.7

31.81

5.9

5.5

5.7

5.2

5.3

Top Hyd NE Cor Florence Ave & 1st Ave

5.5

5.2

4.9

Sta	+	π	-	Elev
-----	---	-------	---	------

		937.31		
--	--	--------	--	--

23+50				
-------	--	--	--	--

				32.6
--	--	--	--	------

24				
----	--	--	--	--

				32.7
--	--	--	--	------

+50				
-----	--	--	--	--

				33.0
--	--	--	--	------

25				
----	--	--	--	--

				33.1
--	--	--	--	------

+50				
-----	--	--	--	--

				33.2
--	--	--	--	------

26				
----	--	--	--	--

				33.3
--	--	--	--	------

+28.5				
-------	--	--	--	--

				33.6
--	--	--	--	------

+37.6				
-------	--	--	--	--

		ϕ Bald Eagle		
--	--	-------------------	--	--

				33.7
--	--	--	--	------

B.M.				
------	--	--	--	--

		1.29		
--	--	------	--	--

		936.02		
--	--	--------	--	--

				936.04
--	--	--	--	--------

2

4.7

4.6

4.3

4.2

4.1

4.0

3.7

3.6

Top Hyd Elm St & Bold Eagle Ave

Sta

+

π

-

Elev



EUGENE Ave

Co. Ditch * to Bald Eagle Ave

£ Profile

5-3-50

G.B.

M.B.

A.M.

K.R.

(8 Pages)

Sta	+	π	-	Elev
B.M.	4.18	934.33		930.15

0+00 = ϕ county Ditch ^{24.3}

+12 30.2

+50 30.9

1 29.9

+31 29.0

+71 27.7

2 27.8

+54 29.1

3 29.4

+50 29.5

4 29.5

+50 29.5

¢

Nail in PP Florence Ave. & 4th Ave

10.0

4.1

3.4

4.4

5.3

6.6

6.5

5.2

4.9

4.8

4.8

4.8

Sta.	+	π	-	Elev
------	---	-------	---	------

	4.18	934.33		
--	------	--------	--	--

5 +00				29.6
-------	--	--	--	------

+50				29.3
-----	--	--	--	------

+80				29.0
-----	--	--	--	------

+82				28.3
-----	--	--	--	------

+86				29.3
-----	--	--	--	------

+94.5				29.7
-------	--	--	--	------

ϕ 4th Ave

6				29.4
---	--	--	--	------

+06				28.4
-----	--	--	--	------

+08				29.1
-----	--	--	--	------

+50				29.0
-----	--	--	--	------

7				28.9
---	--	--	--	------

+50				28.9
-----	--	--	--	------

2

4.7

5.0

5.3

6.0

5.0

4.6

4.9

5.9

5.2

5.3

5.4

5.4

Sta	+	π	-	Elev
-----	---	-------	---	------

934.33

8+00

28.8

+50

28.8

9

28.8

+50

28.7

10

28.6

+16

29.4

+19

28.0

+23

29.1

+55

28.9

11

29.2

TP 4.12 936.63 1.82 932.51

+05.4 $\frac{1}{2}$ Third Ave 29.2

+50

29.2

5

5.5

5.5

5.5

5.6

5.7

4.9

6.3

5.2

5.4

5.1

7.4

7.4

Sta	+	π	-	Elev
		936.63		
12+00				29.8
+50				30.1
13				30.4
+50				30.7
14				30.7
+50				30.9
15				30.9
+50				31.2
16				31.9
+14.8	2ND AVE			32.1
B.M		2.10	934.53	934.51
B.M		2.36	934.27	
+50				31.6

Φ

6.8

6.5

6.2

5.9

5.9

5.7

5.7

5.4

4.7

4.5

Top Hyd NE cor Florence & Second Ave

Top Hyd NE cor Eugene & Second Ave

5.0

Sta	+	π	-	Elev
		936.63		
17+00				31.5
+50				31.6
18				31.8
+50				32.1
19				32.3
+25	Ho	R+		
+50				32.4
+25		Gar. Floor		
20				32.6
+50				32.7
21				32.8
TP	210	940.01	3.72	932.91
+28.8	ϕ	First Ave		33.2

5

5.1

5.0

4.8

4.5

4.3

32.43
40
4.2

4.2

32.13
4.5

Gor

4.0

3.9

3.8

6.8

Sta.	+	π	-	Elev
		940.01		.
21	+50			33.0
22				32.7
	+50			32.8
23				32.9
	+50			33.1
24				33.2
	+30			
	+50			33.6
25				34.0
	+50			34.6
26				35.2
	+27			37.7

ϕ

7.0

7.3

7.2

7.1

6.9

6.8

33.51

Ho

6.5

33.71

Ho

6.3

6.4

6.0

5.4

4.8

2.3

Sta	+	π	-	Elev
-----	---	-------	---	------

		940.01		
--	--	--------	--	--

26+37				37.8
-------	--	--	--	------

BM				
----	--	--	--	--

	3.98	936.03	936.04	
--	------	--------	--------	--

BM				
----	--	--	--	--

	2.95	937.06		
--	------	--------	--	--

Φ

2.2

Top Hyd Elm & Bald Eagle

S.E. cor. conc. footing of Sig. Crossing Base

@ Tracks & STH #96



CLARENCE Ave

¢ Profile

5-4-50

Sta	+	π	-	Elev
B.M.	4.21	934.36		930.15
BM	3.83	932.46	5.23	929.13
BM			3.81	928.65

3+00 29.4

+50 29.3

4) 29.1

+50 28.8

5 28.1

+50

+50 28.2

+74 28.4

+79 27.1

284 27.7

+95 ∇ 4th Ave. 27.7

2

Nail in PP Florence Ave & 4th Ave

Spt in PP. SE cor Clarence & 4th Ave's

NE cor Ent Walk, Ho. in N.W. cor. Park & 4th Ave

3.1

3.2

3.4

3.7

4.4

4.3

4.1

5.4

4.8

4.8

Sta	+	π	-	Elev
		932.46		.
6	+00			27.7
	+50			27.1
7				26.5
	+50	Low Area Rt.		26.8
8				26.9
	+50			26.9
9		Low Area Lt		27.2
	+50			27.8
10				28.5
	+50			29.4
11				30.7
TP	10.97	940.30	3.13	929.33

2

4.8

5.4

6.0

5.7

5.6

5.6

5.3

4.7

4.0

3.1

1.8

25.06

7.4

35

24.96

$$\begin{array}{r} 75 \\ \hline 50 \end{array}$$

Top. W. end 12" cm. S.W. cor Clarence & 3rd Ave's

Sta	+	π	-	Elev
		940.30		
11+05	<u>Q</u>	3rd Ave		30.7
+50				30.9
12				31.1
+58				31.1
13		Low Area Lt		30.9
+50				31.4
+84				
14				32.2
+50				32.8
15				33.6
+50		Gr. @ Ho Lt.		34.5
16				35.6

2

9.6

9.4

9.2

9.2

9.4

8.9

$$\begin{array}{r} 32.21 \\ 809 \overline{) 2609} \end{array}$$

8.1

7.5

6.7

5.8

4.7

$$\begin{array}{r} \text{Gr. @ Shack} \\ 10.6 \\ \hline 60' \end{array}$$

$$\begin{array}{r} 29.1 \\ 11.2 \\ \hline 70 \end{array}$$

$$\begin{array}{r} 33.6 \\ 6.7 \\ \hline 50 \end{array}$$

Sta	+	π	-	Elev
-----	---	-------	---	------

940.30

16+10		Man Hole on ϕ		
-------	--	--------------------	--	--

+15

35.9

+50

36.6

B.M

1.47 938.83

B.M

2.51 937.79

17

37.4

+50

38.8

18

39.7

T.P.

3.53 943.50 0.33 939.97

+50

40.3

19

41.0

+50

41.9

+85

42.6

2

35.84

TOP M₁

446

4.4

3.7

Top Hyd NE cor Clarence & 2nd Ave's.
 Spk in Ave Lt. P., NW cor Park & 2nd Ave's.

2.9

1.5

0.6

3.2

2.5

1.6

42.66

TOP M₁

0.84

2

0.9

Sta	+	π	-	Eleu
		943.50		
20+00				42.6
+16.2	LPT in ϕ			42.3
+50				41.2
21				39.3
+50				37.5
+91	ϕ of R.R. Ave.			36.3
B.M.			6.41	937.19
				937.06

Φ

0.9

1.2

2.3

4.2

6.0

7.2

SE cor. Conc. Footing of Sig. Xing Sign Base

@ N.P. Track & STH #96

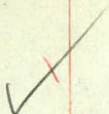
Sta

+

π

-

Elev



642

4th Ave

Park Ave to Birch Lake Ave

Sta	+	π	-	Elev.
BM	2.49	931.14		928.65

0-100				19.4
-------	--	--	--	------

0-50				19.2
------	--	--	--	------

0-20				19.8
------	--	--	--	------

0+00	=	ϕ Park Ave.		21.8
------	---	------------------	--	------

+06				23.6
-----	--	--	--	------

+50				26.4
-----	--	--	--	------

1				28.5
---	--	--	--	------

+58				29.6
-----	--	--	--	------

2				29.3
---	--	--	--	------

+50				29.1
-----	--	--	--	------

3				28.5
---	--	--	--	------

+30.5	ϕ	Clarence Ave		27.6
-------	--------	--------------	--	------

5-8-50

GB-R

AM-T

MB-HC

KR-RC

54

L

N.E. Cor. Ent. S.W. of Ho. in N.W. Cor. Park & 4th Ave's

11.7

11.9

11.3

9.3

7.5

4.7

2.6

1.5

1.8

2.0

2.6

3.5

Sta	+	π	-	Elev
		931.14		
3	+69			26.9
4				26.8
T.P.	7 44	934.68	3.90	927.24
	+50			27.6
5				28.8
	+50			29.6
6				29.7
	+50			29.5
	+74	ϕ Ramoly		30.3
7				30.3
	+50			30.1
8				30.2

$\frac{1}{2}$

4.2

$$\begin{array}{r} 21.54 \\ 9.6 \\ \hline 60 \end{array}$$

4.3

7.1

5.9

5.1

5.0

5.2

4.4

4.4

4.6

$$\begin{array}{r} 30.18 \text{ Gar Floor} \\ 4.5 \\ \hline 60 \end{array}$$

4.5

$$\begin{array}{r} 29.98 \\ 4.7 \\ \hline 60 \end{array}$$

Sta	+	π	-	Elev
-----	---	-------	---	------

934.68

8 + 50

30.1

9

30.1

+ 50

30.1

10

30.1

+ 33.6

q Eugene Ave.

29.8

+ 73

30.0

11

30.0

4.07 934.06 4.69 929.99

+ 50

30.1

12

29.8

+ 50

30.1

13

30.4

+ 49.1

q Florence Ave

30.5

Lt.

E

Rt.

4.6

4.6

4.6

4.6

4.9

4.7

4.7

4.0

4.3

4.0

3.7

3.6

Sta	+	π	-	Elev
		934.06		
BM			3.92	930.14 (930.15)
14+00				29.6
+50				29.7
15				29.7
+50				29.7
16				29.9
+50				29.9
+78	2	Webber Ave		30.2
17				30.3
+50				30.7
18				30.9
+50				31.2

LT

L

RT

Spk in R.R. NE cor. Florence & 4th Aves.

4.5

4.4

4.4

4.4

4.2

$$\begin{array}{r} 29.16 \\ 4.9 \\ \hline 60 \end{array}$$

4.2

3.9

3.8

3.4

3.2

2.9

STA	+	π	-	ELEV
-----	---	-------	---	------

934.06

19

31.4

+50

31.5

20

32.0

+14

Q Birch Lake Ave

32.1

BM

3.31 930.75 930.72

LT

E

RT

2.7

2.6

2.1

2.0

Nail in P.P. SE cor Webber & 4th Ave

STA

+

π

-

ELEV

✓

2

PARK Ave

4th Ave to RR Ave

2 Profile

5-4-50

Sta	+	π	-	Elev
BM.	0.80	929.45		928.65

0 - 100		edge Swamp		20.5
---------	--	------------	--	------

0 - 50		edge Swamp		20.6
--------	--	------------	--	------

0 + 00		edge Swamp		21.9
--------	--	------------	--	------

+ 31				24.0
------	--	--	--	------

+ 75				24.4
------	--	--	--	------

1				24.5
---	--	--	--	------

+ 50				25.1
------	--	--	--	------

2				25.2
---	--	--	--	------

+ 50				26.1
------	--	--	--	------

3				27.9
---	--	--	--	------

T.P.	9.38	938.36	0.47	928.98
------	------	--------	------	--------

3 + 25				
--------	--	--	--	--

£

NE con. Ent. Walk of Ho in N.W. cor Park & 4th.

9.0

8.9

£ 4th Ave. 7.6

5.5

5.1

5.0

4.4

Low area
 $\begin{array}{r} 22.35 \\ 7.1 \\ \hline 40 \end{array}$

4.3

20.95
 Low area Leading
 $\begin{array}{r} 8.5 \\ \hline 70 \end{array}$
 to Swamp

3.41

1.6

29.16
 1 Gar Ent
 9.2

Sta + π - Elev

938.36

3+50

30.3

4

31.4

+50

32.3

5

32.6

+09.8 @ third

32.7

+50

32.6

6

33.1

+25

+50

33.3

7

33.5

+30

+50

34.2

$\frac{1}{2}$

81

7.0

6.1

5.8

5.7

5.8

5.3

$$\begin{array}{r} 31.56 \text{ Ho} \\ \underline{6.8} \\ 100 \end{array}$$

5.1

$$\begin{array}{r} 32.86 \text{ Ho} \\ \underline{5.5} \\ 40 \end{array}$$

4.9

$$\begin{array}{r} \text{Top MH} \\ 33.96 \\ \underline{4.4} \\ 1 \end{array}$$

4.2

Sta + π - Elev

938.36

7 + 60

8

34.7

+ 50

35.1

9

35.8

+ 50

36.0

10

37.2

4.13

941.51

0.98

937.38

3.69

937.82

937.79

+ 16

37.4

+ 19.3

2nd Ave.
Park

37.4

+ 50

37.1

11

36.7

+ 50

36.5

Dist. Road

$$\begin{array}{r}
 33.66 \\
 \downarrow H_0 \\
 4.7 \\
 \hline
 100.
 \end{array}$$

2

3.7

3.3

2.6

2.4

1.2

Spt in Arc Lt. Pole N.W. cor. Park & 2nd Aves.

Top Mt.
4.1

4.1

4.4

4.8

5.0

Sta	+	π	-	Elev
		941.51		

12				36.1
----	--	--	--	------

+50				34.6
-----	--	--	--	------

13				32.4
----	--	--	--	------

+50				30.2
-----	--	--	--	------

14				29.5
----	--	--	--	------

+16	RR Ave.			29.4
-----	---------	--	--	------

B.M.

10.34 ~~927.48~~

931.17

Φ

5.4

6.9

9.1

11.3

12.0

12.1

Top cor. Post, Picket Fe NW cor Park & RR Ave's.

Sta

+

π

-

Elev

Profile Levels
Krech Ave

4th to 5th

M.H. @ 4 & Krech
South of ave.

LT



E

RT

2nd Ave

Hinkley Ave to Birch Lake Ave

STA	+	π	-	ELEV
BM	2.39	941.18		987.79

0+00	ϕ	Hinkley Ave.		37.5
------	--------	--------------	--	------

+50				37.1
-----	--	--	--	------

1				36.4
---	--	--	--	------

+50				36.1
-----	--	--	--	------

2				36.2
---	--	--	--	------

+50				36.8
-----	--	--	--	------

3				37.2
---	--	--	--	------

+13.5	ϕ	Park		37.6
-------	--------	------	--	------

+71				36.8
-----	--	--	--	------

4				36.9
---	--	--	--	------

+50				36.7
-----	--	--	--	------

5				36.3
---	--	--	--	------

5-8-50

GB

AM

MB

KR

64

LT

4

RT

Spk in Arc Lt. Pole Park @ 2nd Ave

3.7

4.1

4.8

5.1

5.0

4.4

4.0

37.35 TOP Mt.
3.83
 31

3.6

4.4

4.3

4.5

4.9

35.28

Ho @ +40

5.9
 70'

STA	+	π	-	ELEV.
-----	---	-------	---	-------

941.18

5+50

36.0

6

35.7

+61

ϕ Clarence

35.9

7

34.9

BM

2.39 938.79

938.83

+50

33.5

8

32.4

+50

31.9

9

31.7

T.P.

3.86

935.51

9.53

931.65

+50

31.3

10

31.6

STA	+	Δ	-	ELEV
-----	---	---	---	------

5.2

5.5

5.3

6.3

Top H-yd NE cor Clarence & 2nd Aves.

7.7

8.8

9.3

9.5

4.2

3.9

STA	+	π	-	Elev
		935.51		
10+26		℄ Ramech		32.2
+63				31.1
11				30.4
+50				30.5
12				30.5
+50				31.0
13				31.0
+54.5		℄ Eugene Ave		32.0
Bm	^{1.36} 4.6	935.51	1.30	934.21 934.27
14				31.6
+50				31.5
15				31.3
+28				

LT

E

RT

3.3

4.4

5.1

5.0

5.0

4.5

4.5

3.5

Top Hyd Eugene + 2nd Ave

4.0

4.1

4.3

31.35

Top Mt

4.22

1

STA	+	π	-	ELEV
-----	---	-------	---	------

935.57

15+50

31.2

16

30.9

+50

31.0

+82

+84

@ Florence Ave

31.3

17

31.1

BM

1.95

936.46

1.04

934.53

934.51

+50

30.8

18

30.9

+50

31.2

19

31.3

+50

31.4

20

31.9

LT

E

RT.

4.4

4.7

4.6

31.24

$$\begin{array}{r} 4.33 \\ \hline 1 \end{array}$$

Top NH

4.3

4.5

Top Hyd Florence & 2nd Ave.

5.7

5.6

5.3

5.2

5.1

4.6

STA.	+	Δ	-	ELEV
------	---	----------	---	------

936.46

20				31.9
----	--	--	--	------

+1620	ϕ	Webber.		31.9
-------	--------	---------	--	------

+50				31.9
-----	--	--	--	------

21				31.8
----	--	--	--	------

+50				32.1
-----	--	--	--	------

22				32.2
----	--	--	--	------

+50				33.3
-----	--	--	--	------

23				32.4
----	--	--	--	------

+45				
-----	--	--	--	--

+48	ϕ	Birch Lake		32.6
-----	--------	------------	--	------

BM			1.72	934.74	934.75
----	--	--	------	--------	--------

LT

Z

RT

4.4

4.6

4.6

4.7

4.4

4.3

3.2

4.1

32.52 Top M1
3.94
 1

3.9

Top Hyd, NE cor Webber & 2nd Ave

STA

+

π

-

ELEV₃



LT

E

RT

3rd Ave

Hinkley Ave to Birch Lake Ave.

STA	+	π	-	ELEV
BM	2.74	940.53		937.79
T.P.	4.96	937.56	7.93	932.60
BM			8.27	929.29 929.33
BM			3.56	934.06

0+00 = ϕ Winkley Ave. 30.9

+20 31.1

+54 30.9

1 31.7

+50 32.5

2 32.9

+50 33.0

3 32.8

+30.6 ϕ Park 32.7

+50 32.4

LT

&

RT

spk in Arc Lt. Pole NW cor Park & 2nd Ave.

Top of W. end, 12" Cm Sw cor Clarence & 3rd Ave

Top Hyd SW cor Hinkley & 3rd Ave's.

6.7

6.5

6.7

5.9

5.1

4.7

4.6

4.8

4.9

5.2

STA	+	π	-	ELEV
-----	---	-------	---	------

932.56

4+00

32.2

+50

32.0

5

31.5

+50

31.0

6

30.4

+60.3

ϕ

30.8

7

30.1

+50

29.6

8

29.4

4.85

934.14

8.27

929.29

+50

29.1

9

28.9

LT

Z

RT.

5.4

5.6

6.1

6.6

7.2

6.8

7.5

8.0

8.2

5.0

5.2

STA	+	π	-	ELEV
-----	---	-------	---	------

934.14

9 +35

28.6

+67

28.8

10

30.4

+14

30.89

+21.5

ϕ Ramely

31.07

+37

30.74

+50

28.0

11

28.7

11 +50

28.8

12

28.7

+50

28.8

13

28.8

L.T.

E

R.T.

5.5

5.3

3.7

3.25

3.07

3.40

6.1

5.4

5.3

5.4

5.3

5.3

STA	+	π	-	ELEV
-----	---	-------	---	------

934.14

13+59

2

29.1

14

28.8

+50

29.1

15

28.9

+50

29.3

16

29.7

+50

29.9

+66

29.2

+80.5

30.3

+92

29.5

17

29.4

+50

29.6

LT

R

RT

5.0

5.3

5.0

5.2

4.8

4.4

4.2

4.9

3.8

4.6

4.7

4.5

STA	+	π	-	ELEV
-----	---	-------	---	------

934.14

18+00

30.0

TP

2.94

935.70

1.38

932.76

+50

29.7

19

29.8

+50

30.2

20

30.5

+10.5

30.8

+50

30.6

21

30.8

+50

31.4

22

32.3

+50

32.3

23

31.7

LT

E

RT

4.1

6.0

5.9

5.5

5.2

4.9

5.1

4.9

4.3

3.4

3.4

4.0

STA	+	π	-	ELEV
-----	---	-------	---	------

		935.70		
--	--	--------	--	--

23 +38				32.1
--------	--	--	--	------

+44/3				32.2
-------	--	--	--	------

+43				
-----	--	--	--	--

BM				
----	--	--	--	--

		1.24		
--	--	------	--	--

			934.46	
--	--	--	--------	--

				934.50
--	--	--	--	--------

LT

-

RT

3.6

3.5

32.18

$\downarrow$ NH TOP
 352

 1

Top Hyd on N side Webster Btwn 2nd & 3rd

STA

+

π

-

ELEV

✓

2

1st. Ave

Ramely Ave to Birch Lake Ave

Sta	+ BM	π	-	Elev
	2.40	937.50		935.10 $\leftarrow ?$

0+00				35.8
------	--	--	--	------

+33				36.0
-----	--	--	--	------

+60				35.5
-----	--	--	--	------

1				35.1
---	--	--	--	------

+50				34.5
-----	--	--	--	------

2				33.9
---	--	--	--	------

+255				33.4
------	--	--	--	------

+73				33.2
-----	--	--	--	------

3				33.4
---	--	--	--	------

+23.8				33.3
-------	--	--	--	------

+59				32.9
-----	--	--	--	------

2 Eugene Ave

5-9-50

GB

AM

MB

K.R.

77

2

Top Hyd NE. cor Eugene & First Ave

35.80 Top AM
1.70
5

1.5

2.0

2.4

3.0

3.6

33.4
4.1 Top AM
00

4.3

4.1

4.2

4.6

Sta	+	π	-	Elev	
		937.50			
4				32.7	
	+50			32.4	
5				32.4	
	+50			32.2	
6				32.2	
56.5	∅	Florence Ave		32.1	
B.M.			2.27	435.23	935.17
7				31.4	
	+50			32.2	
8				32.3	
	+50			32.5	
9				32.8	

£

4.8

5.1

5.1

5.3

5.3

5.4

Top Hyd Florence & 1st.

6.1

5.3

5.2

5.0

4.7

Sta	+	π	-	Elev
		937.50		
9	+50			33.0
	+84.5			
	+87.5	q webber		33.1
10				33.1
	+50			32.9
11				33.1
	+50			33.1
12				33.1
	+50			32.6
13				33.1
	+17			32.70
	+23	q Birch Lake		32.6
BM	1.01	938.18	0.33	937.17
				(937.14)

2

4.5

33.05
4.45 ← Top Mt

4.4

4.4

4.6

4.4

4.4

4.4

4.9

4.4

4.80

4.9

Top Hyd Webber & 1st.

Sta	+	π	-	Elev
-----	---	-------	---	------

		938.18		
--	--	--------	--	--

BM			1.79	936.39
----	--	--	------	--------

T.P.	5.64	938.42	5.40	932.78
------	------	--------	------	--------

			5.13	933.29
--	--	--	------	--------

			243	936.04
--	--	--	-----	--------

				935.99
--	--	--	--	--------

2

Top Hyd. 1st. St & Birch Lake

BM in St Mary's Schoolyard.

Top Hyd. Elm St. & Bald Eagle

Sta

+

π

-

Elev



HINKLEY AVE.

Swamp on W. end. to Bald Eagle Ave

Sta	+	π	-	Elev
BM	1.01	93507		934.06

0+00		low pt. in swamp		19.8
------	--	------------------	--	------

+11				20.9
-----	--	--	--	------

+55				22.4
-----	--	--	--	------

+70				24.8
-----	--	--	--	------

1				25.8
---	--	--	--	------

+50				27.7
-----	--	--	--	------

2				28.5
---	--	--	--	------

+10				
-----	--	--	--	--

+50				29.0
-----	--	--	--	------

3				30.0
---	--	--	--	------

+50				30.6
-----	--	--	--	------

4				30.8
---	--	--	--	------

②

Top hyd. SW cor. Hinkley & 3rd Ave's.

15.3

14.2

12.7

10.3

9.3

7.4

28.87

40

6.2

52

6.6

29.07 old Ho

6.0

53

30.22

Gar Floor

4.85

38

6.1

29.17 Ho

5.9

52

5.1

4.5

40
4.3 30.77

52

4.3

Sta	+	π	-	Elev
-----	---	-------	---	------

93507

4+09.2	±	Third Ave		30.9
--------	---	-----------	--	------

+50				30.9
-----	--	--	--	------

5				31.4
---	--	--	--	------

+50				31.9
-----	--	--	--	------

6				32.1
---	--	--	--	------

+50				32.5
-----	--	--	--	------

+64.5

7				32.7
---	--	--	--	------

+50				33.4
-----	--	--	--	------

8				34.7
---	--	--	--	------

T.P.	6.25	940.35	0.97	934.10
------	------	--------	------	--------

8				34.6
---	--	--	--	------

+50				36.6
-----	--	--	--	------

2

4.2

beg Conc. Driveway

4.2

4.8 30.27
32'

3.7

30.72 Gr. @ 40

3.2

4.35
66'

3.0

Gr. @ 40
4.1 30.97

2.6

32.52

255

Top MH
2.55
3

end conc Dr. W. Sta.
@ 6+75
3.3 31.77

2.4

1.7

0.4 ?

5.8

3.8

Sta	+	π	-	Elev
		940.35		

9+00				37.6
------	--	--	--	------

+18.8	ϕ Hinkley 2nd			37.6
-------	--------------------	--	--	------

+50				37.0
-----	--	--	--	------

10				36.0
----	--	--	--	------

+50				35.6
-----	--	--	--	------

11				35.3
----	--	--	--	------

+436				
------	--	--	--	--

				35.2
--	--	--	--	------

See Railroad ave

1/2 - ②

2.8

2.8

3.4

4.4

4.8

5.1

35.25

5.10

② RR Ave
(Lincoln Ave.)

5.2

Sta

+

π

-

Elev



¢

RAILROAD AVE
(also Lincoln Ave)

from Whitaker Ave to Bald Eagle

Sta	+	π	-	Elev
		940.35		
0-100				21.4
0-50				25.0
0-19				26.2
0-08				28.3
0+00		approx ϕ Whitaker		28.8
+31				29.9
+75				31.2
1				32.2
+50				33.5
2				34.3
+50				35.0
+64		ϕ Hinkley Ave.		35.1

2

from Hinkley Ave.

19.0

15.4

14.2

12.1

11.6

10.5-

9.2

8.2

6.9

6.1

5.4

5.3

Sta	+	π	-	Elev
		940.35		
3+00				34.9
BM			2.86	93.7.49
+50				33.9
+67		ϕ R.R. Xing. (Planking)		
4				32.9
+50				31.9
5				31.0
+50				30.4
6				29.7
+21.5				
+27		ϕ Park		29.4
+61				29.4
7				29.5

2

5.5

Top Hyd NW cor R.R. Ave & Hinkley Ave

6.5

32.85

7.5

66

7.5

8.5

9.4

10.0

10.7

29.30

top m?

1105

1

11.0

11.0

10.9

Sta	+	π	-	Elev	
		940.35			931.17
BM	9.42	940.62	9.15	931.20	927.48
7 + 50				29.8	
8				30.6	
+50				31.9	
9				33.7	
+455					
+61		♂ RR Xing (Planks)			
BM.			0.26	940.36	
+92		♀ clarence		36.3	
10				36.5	
+50				36.6	
11				36.4	

£

Top cor. post. Pocket Fe

10.8

10.0

(Low Area
→ 12.8 27.82
70

8.7

6.9

35.54

5.08

2

6.2 34.42
64

Top Hyd Swear Clarence & R.R. Ave

4.3

4.1

4.0

4.2

Sta	+	π	-	Elev	
		940.62			
11 +50				36.4	
12				36.9	
+50				37.3	
13				37.5	
BM	2.65	939.78	3.49	937.13	937.06
+50				37.5	
14				37.2	
+50				37.2	
93.5					
+94		ϕ Ramsey St.		37.2	
15				37.2	
+50				36.5	
16				36.1	

Lt.

4

Rt.

4.2

3.7

3.3

3.1

SE cor. Conc. footing Sig. King Base NP Tracks $\frac{1}{2}$ ^{STH} #94

2.3

2.6

2.6

250

Top of 2 37.28
250
 2

2.6

2.6

3.3

3.7

Sta.	+	π	-	Elev.
		939.78		

16 + 50				35.4
---------	--	--	--	------

17				34.5
----	--	--	--	------

+ 50				34.2
------	--	--	--	------

18				34.3
----	--	--	--	------

+ 64	⊘ Eugene Ave.			35.0
------	---------------	--	--	------

19				35.0
----	--	--	--	------

+ 50				35.3
------	--	--	--	------

+ 76				
------	--	--	--	--

20	⊘ Bald Eagle Ave.			35.93
----	-------------------	--	--	-------

BM		3.75	936.03	
----	--	------	--------	--

936.04

935.99

$\frac{1}{2}$

4.4

5.3

33.68
Gr. @ 40' $\frac{6.1}{40}$

5.6

5.5

4.8

4.8

4.5

Top NW 2 35.93
 $\frac{3.85}{2}$

3.85

Top Hyd. N.E. cor. Elm & Bald Eagle

Sta

+

π

-

Elev

Manhole Elev

Main Sewer at Whitaker

White Bear Lake

also

Beaver Lake Elevations

Sta	+	π	-	Elev.
BM	0.47	987.96		987.49

M.H. $\pm$ Hinchley & Lincoln

$\pm$ Lincoln & Whitaker

Top M.H. Main Line

Fl. " " "

Top Hyd N.W. Cor Lincoln & Hinckley

985.2

2.8

978.9

2.1 ± 1.0

973.26

967.93 14.70

20.03

10.70

Beaver Lake Levels

Sta	+	x	-	Elev
B.M.	2.24	977.49		975.25
T.P.	1.26	965.47	13.28	964.21
T.P.	2.36	955.53	12.30	953.17
Water Surface Beaver Lake 4-8-54				7.45 948.08
T.P.	13.36	968.73	0.16	955.37
T.P.	9.10	977.69	0.14	968.59
B.M.			2.44	975.25 (975.25)

Top of Mont Sta 26+40.85

Top of Mont Sta 26+40.85



✓
£

ST.

FIFTH ~~AVE.~~

Dillon St to Wood Ave.

Sta	+	π	-	Elev
	1.97	936.44		934.47

0+00	= 16.5' So. of Mont @ W $\frac{1}{4}$ cor sec. 14			29.8
------	--	--	--	------

+09				31.7
-----	--	--	--	------

+24				32.2
-----	--	--	--	------

+50				31.3
-----	--	--	--	------

1				31.4
---	--	--	--	------

+50				31.7
-----	--	--	--	------

2				31.9
---	--	--	--	------

+50				32.0
-----	--	--	--	------

3				32.0
---	--	--	--	------

+50				32.0
-----	--	--	--	------

4				31.8
---	--	--	--	------

+50				31.4
-----	--	--	--	------

5-9-50

92

GB
AM
MB
K.R.

Φ

Top Hyd NE cor Krech & 4th St

6.6

4.7

4.2

5.1

5.0

4.7

4.5

4.4

4.4

4.4

4.6

5.0

Sta + π - Elev

936.44

5 + 00

31.4

+ 50

31.4

6

31.5

+ 58

ϕ Krech Ave

31.2

7

31.0

+ 50

30.8

8

31.1

+ 50

31.4

9

31.5

+ 50

31.5

10

31.5

+ 50

31.6

~~5~~

5.0

5.0

4.9

5.2

5.4

5.6

5.3

5.0

4.9

4.9

4.9

4.8

Sta	+	π	-	Elev
		936.44		.
11 + 00				31.5
	+50			32.0
12				32.3
	+50			32.0
13				32.1
+05	of Wood Ave			
BM			1.97	934.47

Φ

4.9

4.4

4.1

4.4

4.3

$$\begin{array}{r} 32.24 \\ \underline{42} \\ 00 \end{array} \quad \leftarrow \text{TOP MT}$$

Top Hyd NE cor. Krech Ave & 4th St.

Sta

+

π

-

Elev



5/12/50

A.M
M.B
K.R

PROFILE - LEVELS
DITCH #13
FROM 200' SO of PARK AV
TO 5TH ST

STA	+	π	-	ELEV
B.M	3.17	933.77		930.60
0+00				21.1
+50				21.0
1				21.3
+50				21.4
2	=	$\angle$ PARK		21.6
+50				21.8
3				22.2
+50				22.2
4				22.6
+50				22.7
5				22.8
+50				23.0
6				23.3

U.S.G.S. #8

4

12.7

12.8

12.5

12.4

12.2

12.0

11.6

11.6

11.2

11.1

11.0

10.8

10.5

STA	+	π	-	ELEV
-----	---	-------	---	------

933.77

6+50

23.3

7

23.3

+50

23.5

8

23.8

B M

4.43

935.03

3.17

930.60

(930.60)

8+50

23.8

+68.4 So. END 36" C.M. X DRAIN

+97.5

π

S.T.H. #96

30.3

9

30.2

+24 No. END 36" C.M. X DRAIN

+50

24.0

10

24.2

+50

24.3

2

10.5

10.5

10.3

10.0

USGS #8

11.2

F.L. 22.61
12.42

4.7

4.8

F.L. 22.91
12.12

11.0

10.8

10.7

STA	+	π	-	ELEV
-----	---	-------	---	------

935.03

11+00

24.2

+50

24.2

12

24.2

+50

24.2

13

24.3

+50

24.7

14

24.8

+50

25.0

15

25.4

+50

25.3

16

25.4

+50

25.2

17

24.9

£

10.8

10.8

10.8

10.8

10.7

14.3

10.2

10.0

9.6

9.7

9.6

9.8

10.1

STA	+	∇	-	ELEV
-----	---	----------	---	------

935.03

T.B.M	4.50	935.16	4.37	930.66
-------	------	--------	------	--------

17 +50				25.4
--------	--	--	--	------

18				25.4
----	--	--	--	------

+50				24.9
-----	--	--	--	------

19				24.9
----	--	--	--	------

+50				25.3
-----	--	--	--	------

20				25.2
----	--	--	--	------

+50				25.1
-----	--	--	--	------

21				25.2
----	--	--	--	------

+50				25.4
-----	--	--	--	------

+95 SO. END 36" C.M X DRAIN

22				31.0
----	--	--	--	------

+14		6 BIRCH LAKE AV		31.6
-----	--	-----------------	--	------

4

HUB 30' RT STA. 17+00

9.8

9.8

10.3

10.3

9.9

10.0

10.1

10.0

9.8

F.L. 24.26
10.90

42

3.6

STA	+	π	-	ELEV
-----	---	-------	---	------

935.16

22+31		No. END 36" C.M X DRAIN		
-------	--	-------------------------	--	--

B.M.			1.48	933.68
------	--	--	------	--------

+50				25.6
-----	--	--	--	------

23				25.7
----	--	--	--	------

+50				25.8
-----	--	--	--	------

24				25.9
----	--	--	--	------

+50				26.1
-----	--	--	--	------

25				26.0
----	--	--	--	------

T.P	2.76	935.56	2.36	932.80
-----	------	--------	------	--------

+50				26.3
-----	--	--	--	------

26				26.7
----	--	--	--	------

+50				26.8
-----	--	--	--	------

27				26.8
----	--	--	--	------

+50				27.0
-----	--	--	--	------

4

FL 24.29
10.87

Top HYDRT N.E COR BIRCH-LAKE-AD+ DITCH

9.6

9.5

9.4

9.3

9.1

9.2

9.3

8.9

8.8

8.8

8.6

STA	+	∇	-	ELEV
-----	---	----------	---	------

935.56

28+00

27.1

+50

26.9

29

26.7

+50

27.2

30

27.5

+50

27.5

31

27.4

+19 So. END 30" CONC X DRAIN

+44 Φ 4TH ST

31.03

+67 No. END 30" CONC X DRAIN

32

27.8

+50

27.9

33

28.0

8

8.5

8.7

8.9

8.4

8.1

8.1

8.2

FL 27.28
8.28

4.53

8.53 27.03

7.8

7.7

7.6

STA	+	π	-	ELEV
-----	---	-------	---	------

		935.56		
--	--	--------	--	--

33+50				28.0
-------	--	--	--	------

34				28.5
----	--	--	--	------

+50				28.7
-----	--	--	--	------

35				29.5
----	--	--	--	------

+32	$\pm$	5TH ST		30.7
-----	-------	--------	--	------

B.M.	2.27	935.99	1.84	933.72
------	------	--------	------	--------

B.M			1.61	934.38
				934.47

E

7.6

7.1

6.9

6.1

4.9

TOP HYDRT N.E. COR. 4TH ST + DITCH

TOP HYDRT N.E. COR 4TH ST + KRECH

STA	+	π	-	ELEV
-----	---	-------	---	------

2A1102.6
2A1101.4
2A1101.9
2A1101.9
2A1101.9

1

Profile Levels

KRECH AVE.

4th St. to 5th St.

3-Pages

Sta.	+	π	-	Elev.
B.M.	2.22	936.69		(934.47)

0 - 158 M.H.

0	+100 = 4 th st.	4.92	31.77	✓
---	----------------------------	------	-------	---

+10		5.00	31.69	
-----	--	------	-------	--

+33		4.7	31.99	
-----	--	-----	-------	--

+60		4.6	32.09	
-----	--	-----	-------	--

1		4.5	32.19	
---	--	-----	-------	--

+50		4.9	31.79	
-----	--	-----	-------	--

2		5.1	31.59	
---	--	-----	-------	--

K.A.
F.K.
L.C.
A.M.

9/23/52

2

L

Q

R

Top Hyd. N.W. Cor. Kreech & 4th

23.79

31.47

F.L. = 12.90

TOP = 5.22

7.1 $\frac{1}{2}$ deep.

Sta.	+	π	-	Elev.
		936.69		

2	+50		5.5	31.19
---	-----	--	-----	-------

3			5.6	31.09
---	--	--	-----	-------

	+50		5.2	31.49
--	-----	--	-----	-------

	+73		5.4	31.29
--	-----	--	-----	-------

	+80		5.7	30.99
--	-----	--	-----	-------

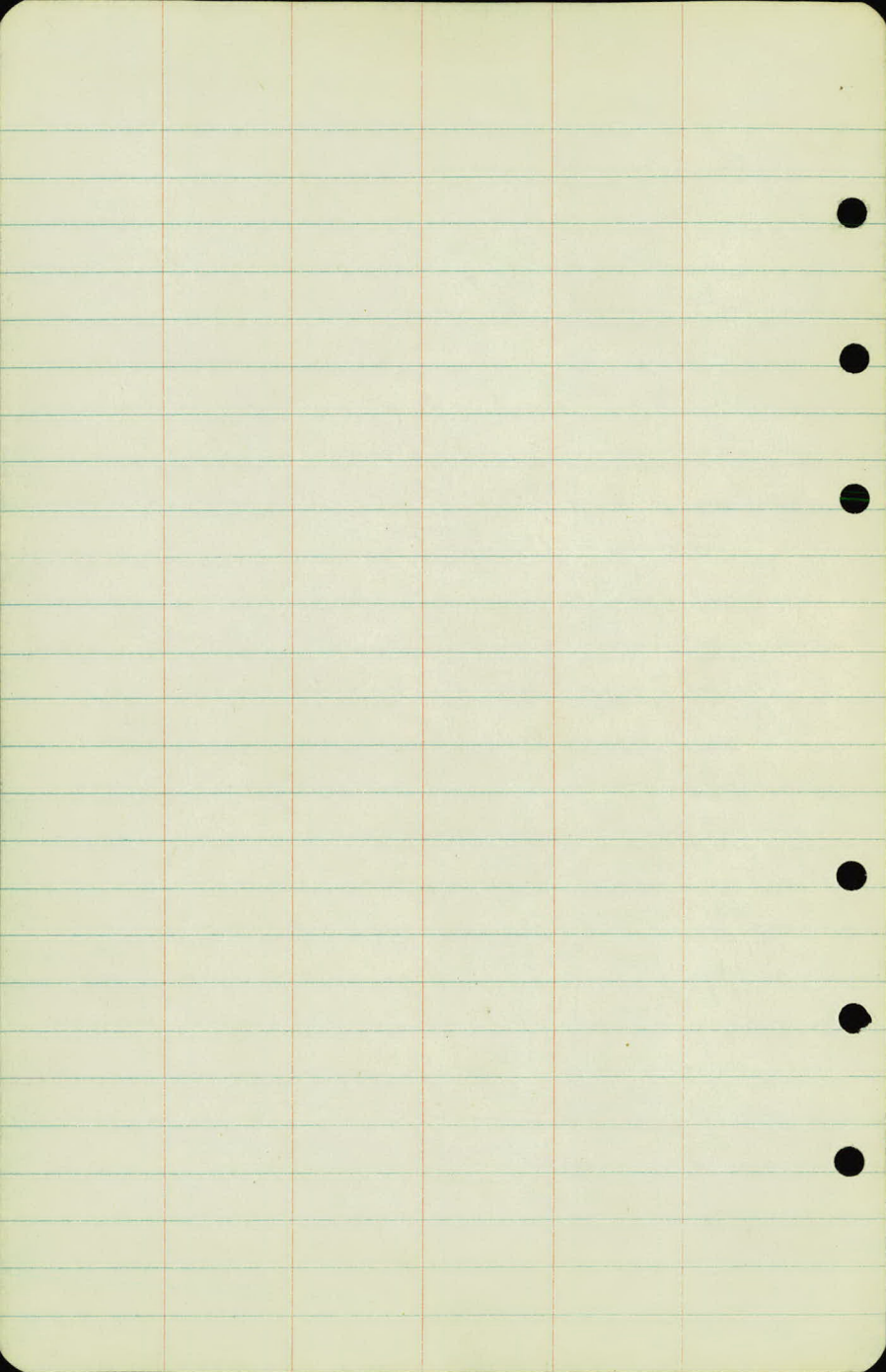
	+86		5.0	31.69
--	-----	--	-----	-------

4			5.2	31.49
---	--	--	-----	-------

L

E

R



DIST.

VERT.
ANGLE

ROD
EQUIV.

ROD

DIFF.

ELEV.

stadia

White Bear City

East + West Wood Ave
Sixth to Ninth

Rec'd. 7/5/51
A.B.

OBJECT

AZI

STADIA

B.M	2.59	938.45		935.86
B.M		L.34	932.11	
H 1	537	937.48	North	
At Hub #1	Iron N.E. Cor	LM Wood	0°00'	
Inv En			181°00'	0.79
Top Manhole			" "	
Check - Az			76°39'	
Grp			354°15'	0.72
"			356°30'	2.50
"			354°40'	2.50
"			345°00'	1.49
"			339°00'	2.65
"			339°40'	1.55
"			329°00'	2.90
"			319°00'	1.89
"			317°30'	3.28
"			302°40'	2.66
"			306°30'	4.15
"			296°30'	3.20
"			301°00'	5.00
"			293°00'	3.60
"			297°00'	5.70
"			288°00'	4.58
"			285°00'	5.50
"			281°00'	4.53

✓

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	-------------	------------	-----	-------	-------

Top N.W. Cor B.H. Step Front of Ho S.E. Cor 6th & Campbell

Top Iron N.E. Cor 6th & Wood

10.58

26.90 ✓

5.15

32.33 ✓

Top North Vent on High School

4.5

33.0 ✓

4.3

33.2 ✓

4.3

33.2 ✓

5.6

31.9 ✓

4.0

33.5 ✓

5.0

32.5 ✓

3.6

33.9 ✓

5.4

32.1 ✓

4.6

32.9 ✓

5.2

32.3 ✓

4.3

33.2 ✓

5.0

32.5 ✓

4.4

33.1 ✓

5.5

32.0 ✓

4.8

32.7 ✓

5.7

31.8 ✓

5.8

31.7 ✓

6.1

31.4 ✓

OBJECT

AZI

STADIA

1

93748

Gen Elev. 278°00' 5.38

" 275°00' 5.30

" 271°00' 3.20

" 268°20' 5.28

" 268°00' 5.26

" 275°20' 4.29

" 265°40' 4.53

" 276°50' 3.50

" 268°15' 4.40

" 278°30' 3.16

" 264°30' 3.58

" 280°00' 2.66

" 268°00' 2.60

" 284°40' 2.06

" 260°40' 1.88

" 290°40' 1.36

" 256°20' 1.28

" 291°20' 1.12

" 268°10' 1.11

" 301°00' 0.98

" 257°00' 0.56

" 325°15' 0.63

" 333°20' 0.55

" 203°20' 0.35

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
			62		31.3 ✓
			73		30.2 ✓
			63		31.2 ✓
			70		30.5 ✓
			61		31.4 ✓
			66		30.9 ✓
			62		31.3 ✓
			56		31.9 ✓
			70		30.5 ✓
			58		31.7 ✓
			56		31.9 ✓
			57		31.8 ✓
			61		31.4 ✓
			65		31.0 ✓
			63		31.2 ✓
			64		31.1 ✓
			59		31.6 ✓
			72		30.3 ✓
			67		30.8 ✓
			68		30.7 ✓
			67		30.8 ✓
			65		31.0 ✓
			55		32.0 ✓
			48		32.7 ✓

OBJECT

AZI

STADIA

#1

937.48'

At #1

To Hub #2

270°00'

7.90

At " #2

937.38

141°52'

To Hub #1

90°00'

7.90

Green Elev

99°20'

1.85

"

103°20'

0.95

"

89°40'

1.83

"

98°00'

0.92

"

77°40'

1.86

"

70°00'

0.96

"

58°30'

2.20

"

46°10'

1.28

"

45°30'

2.73

"

32°00'

1.80

"

36°30'

3.25

"

28°45'

2.05

"

20°30'

2.80

"

25°00'

2.33

"

5°10'

2.65

"

3°00'

2.00

"

4°10'

1.43

"

0.74

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	----------------	---------------	-----	-------	-------

5.30

932.18

932.21

5.17

932.11

6.2

31.2 ✓

5.4

32.0 ✓

6.3

31.1 ✓

5.4

32.0 ✓

6.9

30.5 ✓

5.1

32.3 ✓

6.0

31.4 ✓

5.3

32.1 ✓

5.8

31.6 ✓

4.9

32.5 ✓

4.9

32.5 ✓

4.9

32.5 ✓

4.4

33.0 ✓

5.1

32.3 ✓

4.5

32.9 ✓

3.8

33.6 ✓

3.1

34.3 ✓

4.8

32.6 ✓

OBJECT

AZI

STADIA

At #2

H.I.
937.38

To Hub #3

270°00'

5.25

To Hub #4

0°00'

5.21

At Hub #4

H.I.

To Hub #2 (5.22 = 940.80) ↗

180°00'

5.21

Gen Elev

181°40'

2.15

" "

201°20'

2.30

" "

220°40'

2.80

" "

234°40'

3.80

" " Rd

240°00'

4.20

" "

246°40'

5.10

" "

244°50'

3.13

" "

241°00'

2.64

" "

241°20'

2.00

" "

244°00'

1.33

" "

168°40'

1.30

" "

138°20'

1.90

" "

153°40'

2.43

" "

114°00'

3.52

" "

108°00'

4.80

" "

104°20'

5.90

" "

110°20'

6.10

" "

115°00'

5.52

<u>DIST.</u>	<u>VERT. ANGLE</u>	<u>ROD EQUIV.</u>	<u>ROD</u>	<u>DIFF.</u>	<u>ELEV.</u>
			428		933.10
			1.80		935.58.
			8.62		932.18.
			8.2		32.6 ✓
			8.5		32.3 ✓
			8.8		32.0 ✓
			9.0		31.8 ✓
			8.0		32.8 ✓
			7.8		33.0 ✓
			8.6		32.2 ✓
			8.3		32.5 ✓
			8.4		32.4 ✓
			6.8		34.0 ✓
			6.2		34.6 ✓
			7.3		33.5 ✓
			7.6		33.2 ✓
			8.5		32.3 ✓
			8.2		32.6 ✓
			7.3		33.5 ✓
			8.0		32.8 ✓
			8.0		32.8 ✓

OBJECT

AZI

STADIA

Hub # 4

H. 1940.80

Gen. Elev

		122°20'	4.20
"	"	131°20'	3.43
"	"	143°40'	2.80
"	"	160°20'	2.40
"	"	247°00'	1.33
"	"	242°20'	1.60
"	"	231°20'	.82
"	"	186°20'	.55
"	"	139°20'	.97
"	"	120°20'	1.30
"	"	112°00'	2.00
"	"	107°20'	2.78
"	"	104°00'	3.52
"	"	102°00'	4.04
"	"	100°40'	4.80
"	"	98°00'	5.40
"	"	96°40'	5.92
"	"	90°20'	5.68
"	"	90°20'	4.90
"	"	90°40'	4.00
"	"	91°00'	3.27
"	"	92°20'	3.00
"	"	90°40'	2.90
"	"	93°00'	2.64

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
			8.3		32.5 ✓
			8.4		32.4 ✓
			7.9		32.9 ✓
			8.2		32.6 ✓
			7.2		33.6 ✓
			7.0		33.8 ✓
			5.9		34.9 ✓
			5.7		35.1 ✓
			5.9		34.9 ✓
			6.6		34.2 ✓
			7.3		33.5 ✓
			8.3		32.5 ✓
			8.4		32.4 ✓
			8.9		31.9 ✓
			8.7		32.1 ✓
			7.8		33.0 ✓
			7.0		33.8 ✓
			7.8		33.0 ✓
			7.9		32.9 ✓
			7.8		33.0 ✓
			8.1		32.7 ✓
			8.7		32.1 ✓
			7.7		33.1 ✓
			8.2		32.6 ✓

OBJECT

AZI

STADIA

Hub #4

H.I. 940.80

" "

95°00 292

" "

92°40 237

" "

97°20 190

" "

93°30 190

91°40 168

95°40 157

100°00 142

96°40 124

92°00 100

99°00 80

107°40 71

90°40 30

280°20 37

284°20 90

283°20 147

267°20 152

275°30 200

275°00 236

266°40 248

280°20 238

Φ Flood

287°20 250

" "

291°00 253

"

295°40 230

295°40 200

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	----------------	---------------	-----	-------	-------

8.2

32.6 ✓

7.9

32.9 ✓

7.1

33.7 ✓

7.5

33.3 ✓

6.5

34.3 ✓

7.2

33.6 ✓

6.6

34.2 ✓

7.0

33.8 ✓

(5.8)

5.8

35.0 ✓

6.3

34.5 ✓

5.4

35.4 ✓

6.2

34.6 ✓

5.6

35.2 ✓

6.5

34.3 ✓

8.2

32.6 ✓

8.3

32.5 ✓

8.1

32.7 ✓

8.2

32.6 ✓

8.2

32.6 ✓

7.9

32.9 ✓

7.7

33.1 ✓

8.1

32.7 ✓

6.8

34.0 ✓

7.7

33.1 ✓

OBJECT

AZI

STADIA

Hub #4

H.I. 940.80

" "	300°00	197
" "	299°20	160
± Road	294°00	150
" "	302°20	127
" "	308°00	118
" "	290°20	140
± Road	290°00	88
" "	301°40	7.4
" "	319°40	65
" "	293°20	26
" "	328°20	140
" "	317°40	180
" "	324°00	218
" "	326°00	270
" "	330°00	314
" "	332°00	365
" "	324°00	400
" "	319°40	358
" "	326°40	328
" "	339°00	345
" "	339°20	300
" "	335°00	242
" "	345°20	238
" "	345°00	292

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
			6.5		34.3
			7.3		33.5
			7.2		33.6
			6.9		33.9
			5.6		35.2
			7.7		33.1
			7.2		33.6
			6.3		34.5
			6.4		34.4
			6.3		34.5
			6.1		34.7
			6.3		34.5
			6.7		34.1
			7.0		33.8
			6.9		33.9
			6.9		33.9
			7.3		33.5
			7.7		33.1
			7.1		33.7
			6.6		34.2
			6.6		34.2
			6.5		34.3
			6.3		34.5
			6.3		34.5

OBJECT

AZI

STADIA

Hub # 4 H.I. 940.80

" " 346°00' 332

" " 353°00' 380

" " 353°20' 300

E Road 353°40' 412

" " 344°40' 430

" " 333°30' 460

" " 334°20' 437

S Road 3°20' 418

" " 4°40' 400

" " 6°20' 342

" " 2°20' 300

" " 8°40' 220

" " 353°20' 213

" " 348°40' 136

" " 13°40' 117

" " 346°00' 90

" " 331°00' 108

" " 5°40' 53

" " 346°00' 90

" " 331°00' 108

" " 5°40' 53

" " 346°00' 90

" " 331°00' 108

" " 5°40' 53

At Hub #3 H.I. 5.01 = 938.11.

To Hub #2 0°90' 5.25

To Hub #5 358°00' (8.38) 938'

Open Elev 0°90' 4.60

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
			6.1		34.7 ✓
			6.5		34.3 ✓
			6.5		34.3 ✓
			6.6		34.2 ✓
			6.4		34.4 ✓
			6.4		34.4 ✓
			7.2		33.6 ✓
			6.8		34.0 ✓
			7.2		33.6 ✓
			7.1		33.7 ✓
			6.7		34.1 ✓
			5.9		34.9 ✓
			6.5		34.3 ✓
			5.8		35.0 ✓
			5.4		35.4 ✓
			5.5		35.3 ✓
			5.1		35.7 ✓
			6.0		34.8 ✓
					933.10.
			5.94		932.17 932.18.
			4.85		933.26.
			5.9		32.2 ✓

OBJECT

AZI

STADIA

H.I 938.11

Gen Elev

80°00'

5.00

" "

90°00'

3.64

" "

76°40'

3.92

" "

89°00'

2.70

" "

71°40'

2.80

" "

88°00'

1.73

" "

63°00'

1.92

" "

86°40'

0.72

" "

33°20'

1.08

" "

359°40'

0.96

" "

0°20'

2.00

" "

359°00'

3.04

" "

27°00'

2.13

" "

15°40'

3.04

" "

45°20'

2.70

R Road

26°20'

3.35

Gen Elev

57°40'

3.40

" "

39°00'

3.83

" "

64°20'

4.33

" "

49°40'

4.00

" "

16°40'

4.38

" "

7°20'

4.28

" "

5°40'

6.92

" "

358°40'

4.20

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
			5.3		32.8 ✓
			5.8		32.3 ✓
			5.7		32.4 ✓
			5.6		32.5 ✓
			6.1		32.0 ✓
			6.4		31.7 ✓
			6.6		31.5 ✓
			6.3		31.8 ✓
			6.0		32.1 ✓
			5.6		32.5 ✓
			4.2		33.9 ✓
			5.3		32.8 ✓
			4.9		33.2 ✓
			5.3		32.8 ✓
			6.0		32.1 ✓
			5.4		32.7 ✓
			6.2		31.9 ✓
			6.0		32.1 ✓
			4.7		33.4 ✓
			6.5		31.6 ✓
			5.8		32.3 ✓
			5.7		32.4 ✓
			5.5		32.6 ✓
			5.9		32.2 ✓

OBJECT

AZI

STADIA

H1 938.11

Gen Elev

358°20' 5.95

" "

358°40' 7.10

" "

4°00' 7.60

" "

271°20' 15

" "

271°20' 1.12

" "

271°00' 2.10

" "

271°00' 3.26

" "

271°00' 4.20

" "

271°00' 5.30

" "

271°00' 6.40

" "

270°40' 7.62

" "

270°40' 8.60

" "

270°40' 9.85

" "

270°40' 10.85

" "

270°40' 11.70

" "

273°40' 12.40

" "

274°20' 10.05

" "

274°20' 8.95

" "

275°00' 8.10

" "

275°00' 7.75

" "

276°20' 6.75

" "

277°20' 5.90

" "

279°20' 4.65

" "

281°40' 3.64

DIST.	VERT. ANGLE	ROD EQUIV	ROD	DIFF.	ELEV.
-------	----------------	--------------	-----	-------	-------

6.0

32.1 ✓

6.0

32.1 ✓

5.7

32.4 ✓

5.9

32.2 ✓

6.7

31.4 ✓

6.5

31.6 ✓

7.6

30.5 ✓

7.6

30.5 ✓

7.2

30.9 ✓

7.4

30.7 ✓

7.0

31.1 ✓

6.5

31.6 ✓

6.1

32.0 ✓

5.7

32.4 ✓

5.6

32.5 ✓

5.9

32.2 ✓

5.4

32.7 ✓

(7.5)

4.5

30.6 ✓

5.8

32.3 ✓

6.5

31.6 ✓

6.6

31.5 ✓

6.2

31.9 ✓

7.0

31.1 ✓

7.5

30.6 ✓

OBJECT

AZ.

STADIA

H. 1 938.11

Gen Elev

286°20'

2.60

" "

296°40'

1.63

" "

331°00'

0.81

At Hub #5

(538 = 938.64

938

To Hub #3

178°00'

8.38

To " #6

91°00'

8.20

Gen Elev

181°00'

2.00

" "

178°40'

3.40

" "

209°00'

2.30

" "

198°20'

3.55

" "

229°40'

3.00

" "

213°30'

4.00

" "

239°20'

3.90

" "

224°30'

4.70

" "

247°30'

5.13

" "

234°20'

5.75

" "

252°30'

6.53

" "

241°40'

7.05

" "

255°40'

7.75

" "

245°20'

8.15

" "

257°20'

8.84

" "

249°00'

8.20

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
			5.7		32.4 ✓
			5.9		32.2 ✓
			6.3		31.8 ✓
					733.26
			5.49		933.15.
			5.0		933.64.
			6.5		32.1 ✓
			6.6		32.0 ✓
			5.8		32.8 ✓
			7.1		31.5 ✓
			5.3		33.3 ✓
			7.2		31.4 ✓
			6.1		32.5 ✓
			7.2		31.4 ✓
			6.1		32.5 ✓
			6.9		31.7 ✓
			5.6		33.0 ✓
			6.2		32.4 ✓
			5.5		33.1 ✓
			5.9		32.7 ✓
			5.1		33.5 ✓
			5.4		33.2 ✓

OBJECT

AZI

STADIA

738.64

Gen Elev

259°00

9.90

" "

251°40'

10.30

" "

260°10

11.00

" "

258°30

11.40

" "

261°00

12.20

" "

255°00

12.40

269°20

12.40

± Rd

270°30

12.20

Gen Elev

269°00

11.30

± Rd

270°30

11.30

Gen Elev

269°00

10.20

± Rd

270°30'

10.10

Gen Elev

268°30'

9.15

± Rd

270°10

9.10

Gen Elev

268°20

8.05'

± Rd

270°10

8.05'

Gen Elev

267°45'

6.95'

± Rd

270°10

7.00

Gen Elev

267°30'

5.80

± Rd

270°00

5.90

Gen Elev

266°40

4.85

± Rd

270°10'

4.92

Gen Elev

265°45'

3.95

± Rd

270°10'

3.91

DIST.	VERT. ANGLE	ROD EQUIV	ROD	DIFF.	ELEV.
-------	----------------	--------------	-----	-------	-------

53

33.3 ✓

54

33.2 ✓

51

33.5 ✓

52

33.4 ✓

53

33.3 ✓

53

33.3 ✓

48

33.8 ✓

46

34.0 ✓

49

33.7 ✓

45

34.1 ✓

50

33.6 ✓

48

33.8 ✓

49

33.7 ✓

45

34.1 ✓

48

33.8 ✓

46

34.0 ✓

51

33.5 ✓

48

33.8 ✓

53

33.3 ✓

50

33.6 ✓

57

32.9 ✓

53

33.3 ✓

63

32.3 ✓

55

33.1 ✓

OBJECT

AZ.

STADIA

93866

Gen Elev	264°15'	2.90'
± Rd	270°00'	2.85'
Gen Elev	259°30'	1.66'
± Rd	270°00'	1.65'
Gen Elev	246°00'	0.76'
± Rd	270°00'	0.72'
Gen Elev	146°00'	0.34'
" "	121°00'	0.66'
± Rd	88°00'	0.52'
Gen Elev	101°40'	1.63'
± Rd	89°20'	1.60'
± Woodcrest	100°40'	1.85'
± 9th St	89°30'	1.98'
Gen Elev	97°30'	2.60'
± Rd	89°40'	2.62'
Gen Elev	113°30'	2.83'
± Rd	135°00'	2.58'
Gen Elev	135°00'	3.80'
± 8th St	137°20'	4.60'
± Woodcrest	153°20'	4.05'
Gen Elev	153°20'	4.80'
" "	154°20'	2.30'
" "	157°00'	1.53'
" "	138°30'	1.57'

DIST.	VERT. ANGLE	ROD DOWN	ROD	DIFF.	ELEV.
			5.8		32.8 ✓
			5.2		33.4 ✓
			5.9		32.7 ✓
			5.1		33.5 ✓
			7.1		31.5 ✓
			5.2		33.4 ✓
			6.0		32.6 ✓
			6.4		32.2 ✓
			5.5		33.1 ✓
			5.4		33.2 ✓
			5.2		33.4 ✓
			5.5		33.1 ✓
			4.9		33.7 ✓
			5.4		33.2 ✓
			4.7		33.9 ✓
			6.0		32.6 ✓
			5.3		33.3 ✓
			5.3		33.3 ✓
			5.6		33.0 ✓
			5.6		33.0 ✓
			6.2		32.4 ✓
			6.4		32.2 ✓
			6.4		32.2 ✓
			6.4		32.2 ✓

OBJECT

AZ

STADIA

(543.941.07)

At Hub #6

To Hub #5

269°00' 8.20

To Hub #7

115°00' 8.30

2 RJ

277°20' 98

" "

287°00' 40

Gen Elev

270°00' 1.00

" "

270°00' 0.38

" "

262°20' 1.00

" "

259°00' 0.38

" "

223°40' 1.46

" "

204°00' 0.93

" "

208°30' 2.13

" "

197°30' 1.73

" "

200°30' 2.94

" "

190°10' 2.60

" "

197°40' 3.52

" "

187°30' 3.30

2 Elev

195°30' 4.10

" "

186°00' 4.00

" "

168°00' 4.00

" "

155°40' 4.30

Gen Elev

186°00' 3.46

" "

153°00' 4.00

" "

162°40' 2.78

61✓

DIST.	VERT ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
415					933.64 <u>935.64</u>
				5.72	933.36
			464		936.43
			4.8		934.48
			4.7		34.3 ✓
			5.3		34.4 ✓
			53		33.8 ✓
			41		33.8 ✓
			44		34.5 ✓
			54		34.7 ✓
			69		33.7 ✓
			5.3		33.2 ✓
			5.7		33.8 ✓
			5.2		33.4 ✓
			5.7		33.9 ✓
			5.0		33.4 ✓
			5.5		34.1 ✓
			5.0		33.6 ✓
			5.5		34.1 ✓
			64		33.6 ✓
			63		32.7 ✓
			65		32.8 ✓
			64		32.6 ✓
			63		32.3 ✓
			63		32.8 ✓

OBJECT

929.07
941.07

AZI

STADIA

Gen Elev	148°30	3.32
" "	157°00	2.03
" "	143°00	2.85
" "	141°00	1.19
" "	125°20	2.13
" "	98°45'	0.78
" "	94°00	1.76
" "	91°20	0.76
" "	91°00	1.77
2 9th	80°40	0.78
2 9th	86°40	1.75
2 9th	87°40	2.82
2 9th	88°30	3.72
Gen Elev	90°20	2.83
" "	70°20	3.75
" "	100°20	2.88
" "	97°20	3.73
" "	106°00	3.18
" "	109°30	3.95
" "	129°20	3.72
" "	122°00	4.35
" "	139°20	4.25
" "	130°50	4.80
2 8th	140°10	4.70

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
			63		32.8 ✓
			64		32.7 ✓
			64		32.7 ✓
			55		33.6 ✓
			59		33.2 ✓
			52		33.9 ✓
			53		33.8 ✓
			61		33.0 ✓
			62		32.9 ✓
			53.		33.8 ✓
			54		33.7 ✓
			56		33.5 ✓
			54		33.7 ✓
			58		33.3 ✓
			58		33.3 ✓
			61		33.6 ✓
			54		33.7 ✓
			63		32.8 ✓
			57		33.4 ✓
			62		32.9 ✓
			63		32.6 ✓
			58		33.3 ✓
			64		32.7 ✓
			63		32.8 ✓

OBJECT

AZI

STADIA

939.07

941.07

2 8th	136°20'	5.38
-------	---------	------

Gen Elev	148°10'	5.10
----------	---------	------

" "	138°40'	5.65
-----	---------	------

" "	134°20'	6.15
-----	---------	------

2 Wood	130°00'	6.60
--------	---------	------

2 8th	131°00'	5.70
-------	---------	------

2 Wood	122°30'	6.08
--------	---------	------

Gen Elev	126°00'	5.25
----------	---------	------

2 Wood	114°30'	5.58
--------	---------	------

Gen Elev	116°40'	4.78
----------	---------	------

2 Wood	105°20'	5.25
--------	---------	------

Gen Elev	" "	4.44
----------	-----	------

9th 2 Wood	88°40'	5.18
------------	--------	------

Gen Elev	84°20'	4.30
----------	--------	------

" "	90°20'	4.30
-----	--------	------

2 9th	88°00'	4.00
-------	--------	------

939.63

H.I 5.20 = 941.61

A+Hub #7

To Hub #6

295°00'

8.30

To Hub #

2 9th st	337°40'	3.90
----------	---------	------

Gen Elev	336°40'	3.80
----------	---------	------

" "	331°40'	3.10
-----	---------	------

DIST.	VERT ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
			62		32.9 ✓
			62		32.9 ✓
			53		33.8 ✓
			65		32.6 ✓
			57		33.4 ✓
			67		32.4 ✓
			54		33.7 ✓
			65		32.6 ✓
			54		33.7 ✓
			59		33.2 ✓
			55		33.6 ✓
			55		33.6 ✓
			50		34.1 ✓
			54		33.7 ✓
			58		33.3 ✓
			53		33.8 ✓
					934.03
					936.41
			590		935.64
					933.64
			57		33.9 ✓
			64		33.2 ✓
			62		33.4 ✓

OBJECT

AZ.

STADIA

939.43

941.61

Gen Elev	317°40'	2.10
2 Lombardy Lane	288°00'	1.50
Gen Elev	261°20'	1.46
" "	232°30'	1.75
" "	191°00'	1.12
" "	222°00'	.30
2 Lombardy Lane	307°30'	.27
Gen Elev	338°00'	.80
" "	348°30'	1.60
" "	349°30'	2.63
2 9th St	350°00'	3.60 ✓
" "	11°40'	3.65
Gen Elev	14°00'	3.03
" "	21°00'	2.12
" "	32°40'	1.30
" "	76°00'	.85
" "	130°40'	1.20
" "	154°80'	2.03
" "	163°00'	3.15
" "	149°10'	3.45
" "	136°20'	2.60
" "	110°00'	1.90 ✓
" "	74°00'	1.90
" "	51°40'	2.35

DIST.	VERTI ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
			63		33.3 ✓
			54		34.2 ✓
			57		33.9 ✓
			59		33.7 ✓
			58		33.8 ✓
			51		34.5 ✓
			53		34.3 ✓
			49		34.7 ✓
			60		33.6 ✓
			61		33.5 ✓
			58		33.8 ✓
			54		34.2 ✓
			57		33.9 ✓
			54		34.2 ✓
			39		35.7 ✓
			46		35.0 ✓
			48		34.8 ✓
			60		33.6 ✓
			62		33.4 ✓
			62		33.4 ✓
			62		33.4 ✓
			51		34.5 ✓
			50		34.6 ✓
			45		35.1 ✓

OBJECT

939.63

941.61

STADIA

Gen Elev	35°20	3.25
☼ 9th St	31°00	4.10
" " "	35°40	4.40
Gen Elev	51°20	3.23
" "	65°10	2.80
" "	87°00	2.45
" "	118°20	2.52
" "	135°00	3.00
" "	147°40	3.80
" "	155°40	4.85
" "	145°40	5.45
" "	138°20	4.70
" "	126°40	3.95
" "	113°10	3.40
" "	86°20	3.30
" "	69°30	3.65
" "	54°50	4.18
" "	52°00	4.50
☼ 9th St	52°50	5.80
Gen Elev	62°30	4.60
" "	72°20	4.36
" "	87°00	4.10
" "	97°50	4.10
" "	109°08	4.30

VERT. ANGLE	HORIZ. ANGLE	ROD	DIFF.	ELEV.
		40		35.6 ✓
		48		34.8 ✓
		45		35.1 ✓
		51		34.5 ✓
		59		33.7 ✓
		58		33.8 ✓
		56		34.0 ✓
		61		33.5 ✓
		61		33.5 ✓
		62		33.4 ✓
		66		33.0 ✓
		62		33.4 ✓
		61		33.5 ✓
		59		33.7 ✓
		65		33.1 ✓
		59		33.7 ✓
		44		35.2 ✓
		48		34.8 ✓
		42		35.4 ✓
		48		34.8 ✓
		52		34.4 ✓
		63		33.3 ✓
		56		34.0 ✓
		60		33.6 ✓

OBJECT

AZ.

STADIA

937.63
941.61

Gen Elev	109°00	5.10
" "	101°50	5.25
" "	91°50	5.30
" "	82°00	5.40
" "	72°10	5.80
" "	78°20	6.40
" "	86°20	6.30
" "	94°00	6.30
" "	100°10	6.25
" "	105°40	6.40
" "	109°40	6.60
" "	117°50	6.80
" "	112°50	5.65
" "	124°50	6.10
" "	124°50	5.90

At Hwb # 1 H. 0°00'

H 1 5.40 = 937.51

Wood Ave	356°20	2.44
Gen Elev	2°40	2.40
" "	11°50	2.45
" "	31°00	2.80
" "	45°40	3.40

DIST.	VERT. ANGLE	ROD EQUIM.	ROD	DIFF.	ELEV.
-------	----------------	---------------	-----	-------	-------

			5.6		34.0 ✓
--	--	--	-----	--	--------

			6.3		33.3 ✓
--	--	--	-----	--	--------

			6.1		33.5 ✓
--	--	--	-----	--	--------

			5.0		34.6 ✓
--	--	--	-----	--	--------

			4.4		35.2 ✓
--	--	--	-----	--	--------

			5.0		34.6 ✓
--	--	--	-----	--	--------

			5.6		34.0 ✓
--	--	--	-----	--	--------

			5.3		34.3 ✓
--	--	--	-----	--	--------

			5.6		34.0 ✓
--	--	--	-----	--	--------

			5.7		33.9 ✓
--	--	--	-----	--	--------

			6.0		33.6 ✓
--	--	--	-----	--	--------

			6.1		33.5 ✓
--	--	--	-----	--	--------

			5.8		33.8 ✓
--	--	--	-----	--	--------

			6.0		33.6 ✓
--	--	--	-----	--	--------

			5.6		34.0 ✓
--	--	--	-----	--	--------

93211

			48		32.7 ✓
--	--	--	----	--	--------

			41		33.4 ✓
--	--	--	----	--	--------

			46		32.9 ✓
--	--	--	----	--	--------

			46		32.9 ✓
--	--	--	----	--	--------

			42		33.3 ✓
--	--	--	----	--	--------

OBJECT

AZ.

STADIA

937.51

Crown Elev

49°40

3.83

" "

58°50

4.53

" "

60°20

3.20

" "

52°40

2.40

" "

38°50

1.86

" "

11°45

1.48

" "

37°40

.60

" "

55°20

1.32

" "

61°25

1.90

" "

78°40

2.05

" "

77°50

2.65

" "

77°30

3.90

" "

79°00

4.75

" "

81°00

5.90

" "

79°20

7.20

" "

79°40

8.05

" "

83°00

7.65

" "

86°00

6.80

☐ Sixth St

92°10

7.80

" " "

92°40

6.60

" " "

93°00

5.60

" " "

93°50

4.55

" " "

94°40

3.88

" " "

96°00

2.70

DIST.	VERT ANGLE	ROD EQUIV	ROD	DIFF.	ELEV.
-------	---------------	--------------	-----	-------	-------

			43		33.2 ✓
--	--	--	----	--	--------

			39		33.6 ✓
--	--	--	----	--	--------

			41		33.4 ✓
--	--	--	----	--	--------

			47		32.8 ✓
--	--	--	----	--	--------

			53		32.2 ✓
--	--	--	----	--	--------

			55		32.0 ✓
--	--	--	----	--	--------

			57		31.8 ✓
--	--	--	----	--	--------

			55		32.0 ✓
--	--	--	----	--	--------

			55		32.0 ✓
--	--	--	----	--	--------

			61		31.4 ✓
--	--	--	----	--	--------

			57		31.8 ✓
--	--	--	----	--	--------

			44		33.1 ✓
--	--	--	----	--	--------

			44		33.1 ✓
--	--	--	----	--	--------

			46		32.9 ✓
--	--	--	----	--	--------

			63		31.2 ✓
--	--	--	----	--	--------

			71		30.4 ✓
--	--	--	----	--	--------

			73		30.2 ✓
--	--	--	----	--	--------

			43		33.2 ✓
--	--	--	----	--	--------

			49		32.7 ✓
--	--	--	----	--	--------

			45		33.0 ✓
--	--	--	----	--	--------

			36		33.9 ✓
--	--	--	----	--	--------

			40		33.5 ✓
--	--	--	----	--	--------

			40		33.5 ✓
--	--	--	----	--	--------

			42		33.3 ✓
--	--	--	----	--	--------

OBJECT

AZI

STADIA

9 37.51

6th st

100°00

1.65

" " "

119°00

.58

DIST.	TEFT ANGLE	FOOT COIN	ROD	DIFF.	ELEV.
-------	---------------	--------------	-----	-------	-------

49

32.6 ✓

54

32.1 ✓

OBJECT

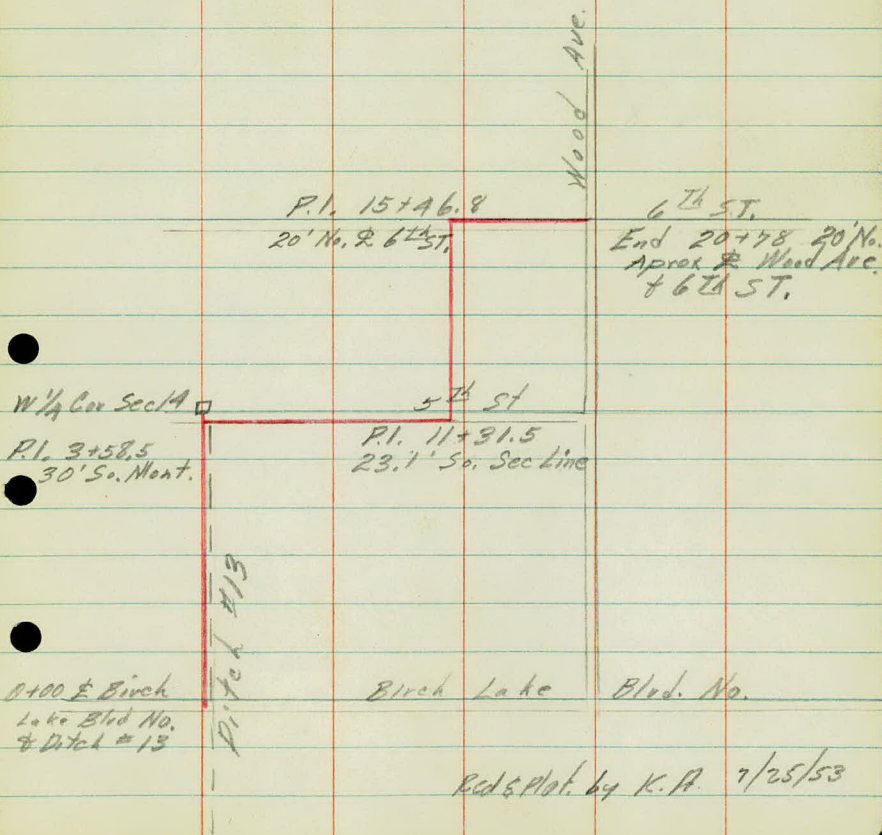
AZ.

STADIA

White Bear School Ditch

From Ditch #13

8 pages



Sta	+ π -	Elev
BM	5.88936.98	931.10

0+00 E Birch Lake Blvd No 4 Ditch #13

+24 FL 30" Culvert No End

+50

27.5

1

27.2

+50

27.5

2

27.9

+50

28.0

3

28.1

22 July 1953
FK
LC
MMc
JB

2

£

Pave £ Birch Lake Blvd No 4 Ditch #13

31.10

5.88

2718 ✓

9.80

9.5

9.8

9.5

9.1

9.0

8.9

Sta + K - Elev

936.98

3 + 50

27.8

+ 58.5 Pl 30' South Main W $\frac{1}{4}$ Cor. Sec. 14

27.7

+ 70

30.3

4

30.3

+ 50

30.0

5

30.2

+ 50

30.7

6

30.4

ϕ

9.2

9.3

6.7

6.7

7.0

6.8

6.3

6.6

Sta	+	X	-	Elev
		936.98		

6+50

30.5

7

30.6

4.36 936.38 4.95 932.03

+50

31.0

8

31.0

+50

31.0

9

30.9

+50

31.2

10.

31.2

$\frac{1}{2}$

6.5

6.4

4.9

5.4

5.4

5.4

5.5

5.2

5.2

Sta + X - Elev

936.38

10+05 FL 15" x 24' CM W. End

+29 FL 15' x 24' CM E. End

BM

1.91 934.47 934.47

30.4

+50

11

30.4

+31.5₂₀ P1 16.5' 50 ± 5th St 30.4

+46.0 ± 5th St

31.0

+58 N Ditch 5th St

30.5

2

283
31.2

5.26

30.30

30.40

6.08

31.0

5.4
2.54
10.54

6.0

6.0

6.0

5.3

5.9

Sta + X - Elev

936.38

12 30.4

+50 30.3

13 30.6

+50 30.5

14 30.8

+50 31.2

15 30.8

+11 30.8

~~2~~

4.1

6.0

4.0

6.1

5.8

5.9

5.6

5.2

5.6

5.6

Sta + X - Elev

936.38

15+29.4 ϕ 6th St 31.4

+346 N Ditch 6th St 30.6

15+46.8 P.I. 20' N of ϕ 6th St ^{30.6}

TP 5.49 936.12 5.75 930.63

16 30.3 30.3

+50 30.6

17 ^{31.1}
~~31.0~~

+50 31.4

18 31.4

ϕ

5.0

5.8

5.8

5.8

5.5

5.0

4.7

4.7

Sta + π - Elev

936.12

18+50

31.2

19

30.9

+50

30.5

20

30.6

+50

31.1

+65

32.0

+70

32.3

+78 Approx $\pm$ Woodst 20 Note at 6th St. ^{32.7}

BM 1.05 937.08 0.09 936.03

BM 3.57 933.51 (933.60)

$\frac{1}{2}$

4.9

5.2

5.6

5.5

5.0

4.1

3.8

3.4

Top Hyd S.E. Cor 6th St & Wood Ave.
Spk in PP SEC. Wood Ave & 6th St

391.2

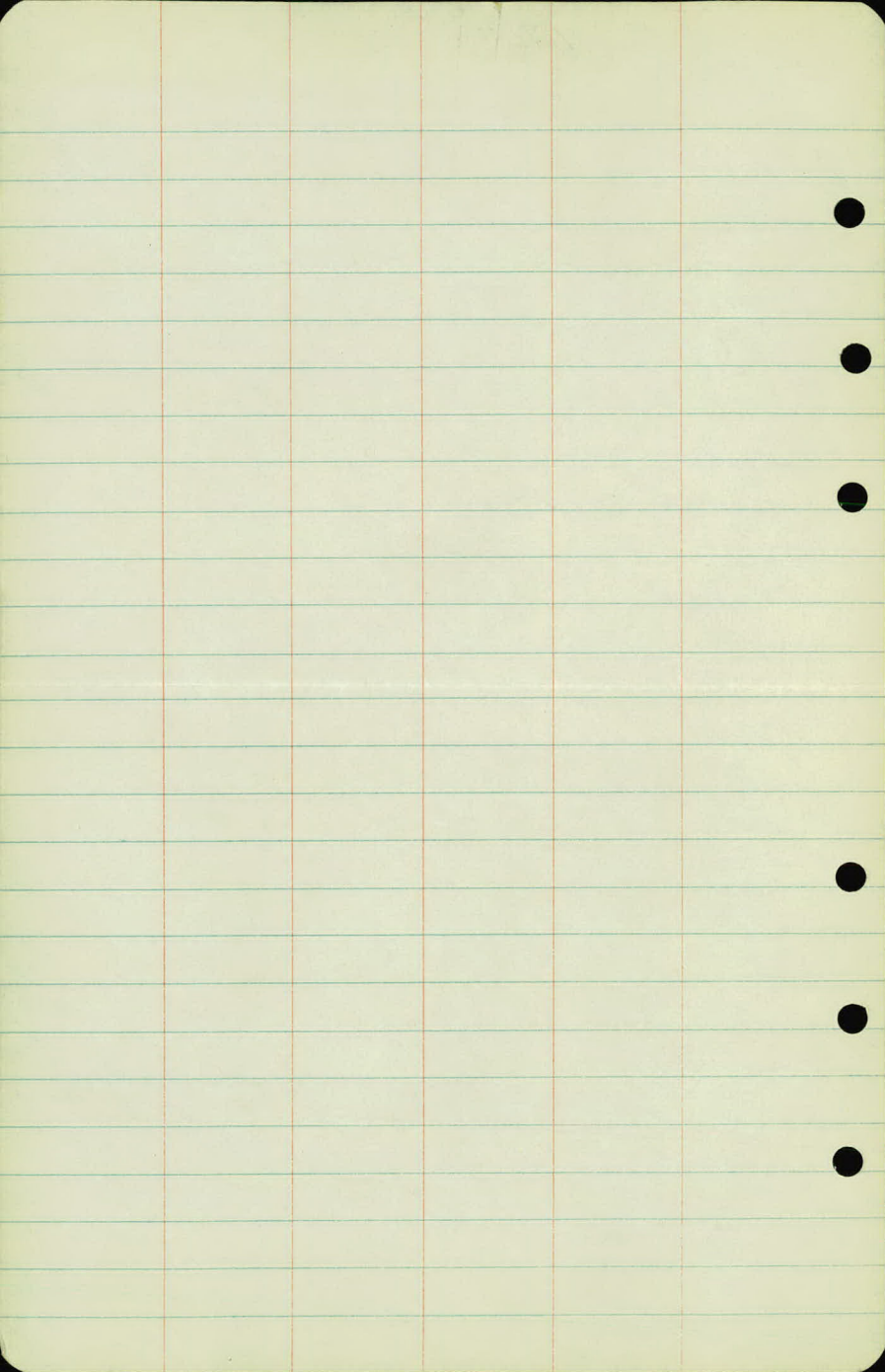
30 June 1953

6th St. White Bear Lake

B+65.5 Ch. MH 7.3' Lt

Top Elev 933.94

FL " 923.34



1

White Bear School

Drainage Ditch

FINALS

Rec. 9/25/53

File
K.A.

Sta	+	π	-	Elev
BM	1.74	932.84		931.10

0+24 N. End FL

+50

1

+50

2

+50

3

+50

25 Sept 1953

FK
AM
LC

2

2

4th St & Ditch #3 (Pave)

927.15.

5.69

FK

27.4

5.4

27.5

5.3

27.2

5.6

27.2

5.6

27.2

5.6

27.5

5.3

27.4

5.4

Sta + X - Elev
932.84

4

+50

5

+50

6

+50

7

+02 FL 18" x 44' CM

TP 3.86 933.07 362 929.22

ϕ $\begin{array}{r} 27.2 \\ 5.6 \end{array}$ $\begin{array}{r} 27.49 \\ 5.35 \end{array}$ $\begin{array}{r} 27.6 \\ 5.2 \end{array}$ $\begin{array}{r} 27.6 \\ 5.2 \end{array}$ $\begin{array}{r} 27.6 \\ 5.2 \end{array}$ $\begin{array}{r} 27.69 \\ 5.15 \end{array}$ $\begin{array}{r} 27.7 \\ 5.1 \end{array}$ $\begin{array}{r} 27.70 \\ 5.14 \end{array}$

Sta + x - Elev

933.07

7+46 FL 18" x 14' CM

+60

8

+50

9

+50

10

+50

27.87
5.20
FL

27.6
5.5

27.6
5.5

27.6
5.5

27.8
5.3

27.8
5.3

27.8
5.3

27.9
5.2

Sta	+	x	-	Elev
		933.07		

11

+50

12

TP	3.56	933.55	3.08	929.99
----	------	--------	------	--------

+20

+50

13

+50

14

27.8
5.3

27.9
5.2

2.9
2.3
4.7

28.4
4.7

28.4
5.2

28.40
5.15

28.1
5.5

28.3
5.3

28.3
5.3

Sta + x - Elev

933.55

14+50

15

+50

16

+50

17

+50

18

28.5
5.1

28.50
5.05

28.60
4.95

28.6
5.0

28.7
4.9

28.9
4.7

28.90
4.65

28.9
4.7

26+90
20 40
650

Sta + π - Elev

933.55

18+50

19

+50

647.5

20

+40 Beg 15" SCP Sewer

ID 7.81 938.47 2.89 930.66

BM 4.92 933.55 933.60

23+20.7 C.B.

$\frac{1}{2}$

28.9

4.7

28.9

4.7

29.10

4.45

29.2

4.4

29.20

4.35

33.34

5.13

TOP

29.46

Top 4.4 x 3.4

9.01

FL 15" SLP

28.46

10.01

B. + Samp

32.34

6.13

Inlet of CB

Sta + * - Elev

938.47

26+88' End 15" SCP Sewer

+88 Headwall

26+90

27

+50

28

20440

8

6475

2687.5

29.97

8.50
FZ

32.14

32.07

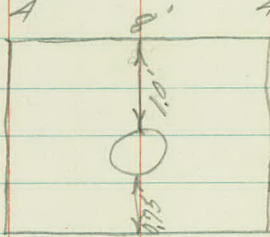
6.33

6.40

Hd Wall
N. End
A

Hd Wall
S End
A

0.7 thick



30.5
8.0

30.6
7.9

30.7
7.8

30.6
7.9

930.47

28+50

29

+50

30

+50

31

+50 25' Beyond Ditch

BM

2.57 935.90

935.86

2

30.72

2.25

30.8

2.7

31.2

2.3

31.1

2.4

31.1

2.4

31.3

2.2

32.0

6.5

Top NW Cor Bett's stop Ho SE Cor 6th & Campbell

