

BK.60 Pr.14

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

Miscel. Survey

Listed Below

From _____ To _____

Road Acc't. No. _____

Date Filed. 10-24-50

File _____

4th St & Bald Eagle to East,
6th St. Bald Eagle Ave. to West,
Eugene & 2nd Ave.,
Ramaley St. & Lincoln, West to City limits,

Topography

4th St & Bald Eagle

To East

7-15-49

G B

A M

M B

B C

Rec. 7-18-49

San. S.
N 45 + E
Nothing going West

+115 MH

2+00

SW 23 = 29' Curb - 15.7 +75 curb 15.07 - SW - 22.2 - 28.2
+ 66 12" E/Hy - 21.5

+ 45 end R - 14.9
+ 43 Beg R - 16.9
+ 33 end R - 16.7
+ 31 Beg - 14.9
(+ 23 end R - 14.8)
(+ 21 Beg R - 16.7)
(+ 27 PP - 21)
+ 00 + 02 end Rad - 14.8
SW 22.5 + 28.5 - Beg Rad 14.8
+ 93.7 - Cor. Bldg - 30.3
+ 93. 4" Drain Tile - 15'
+ 67 up right and 1 1/2" Pipe - 22

+ 35 end Conc Slab 16.5 - 22.5
+ 23 cor. Bldg - 15.6
(+ 35 end R - 15)
(+ 33 Beg R - 17)
+ 35 30" Elm & Beg Hydr 29'
+ 18 beg SW 28.5 - 22.5
+ 18 30" elm - 30
Slab 15.5 - 22.5

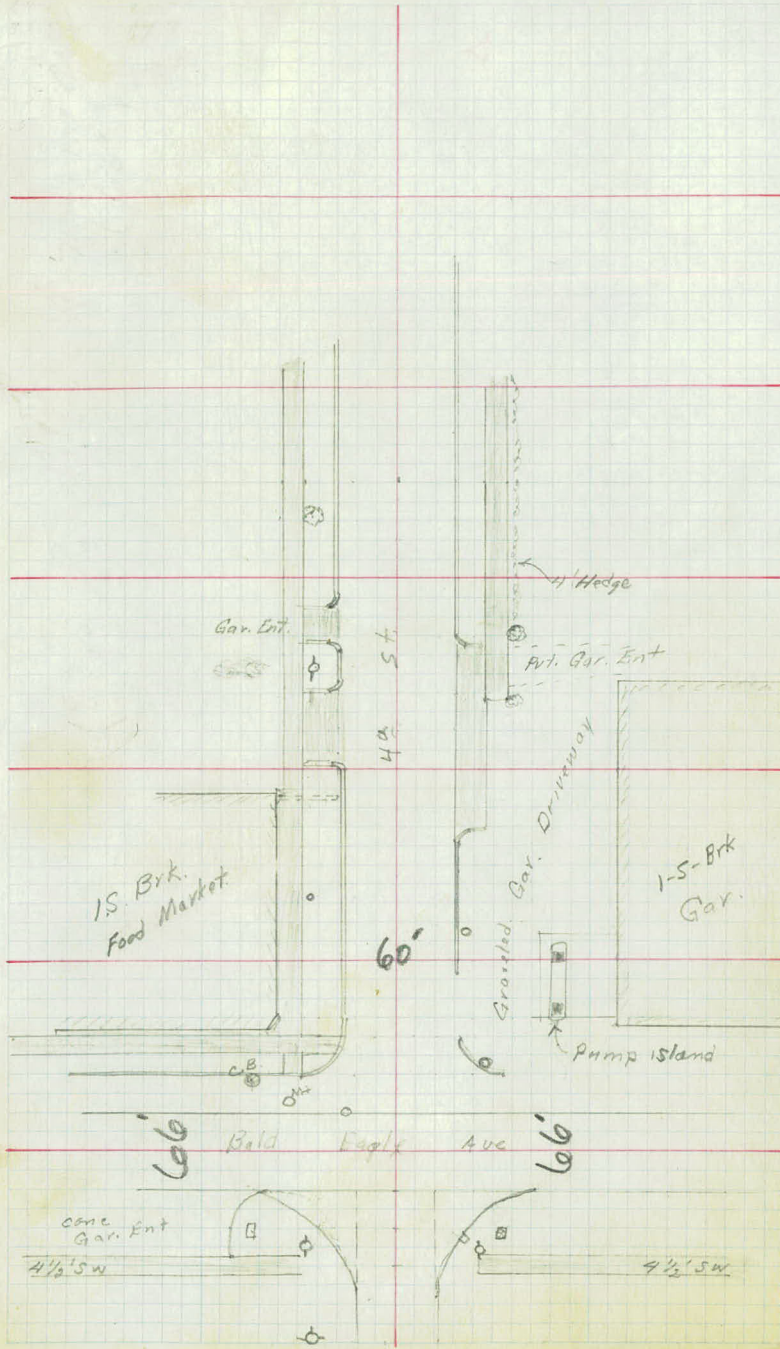
+ 54 Beg Conc. Slab - 15.6 - 22.6
+ 84 end Co. Rad. - 19'
+ 81 Beg Co. Rad. - 15.6

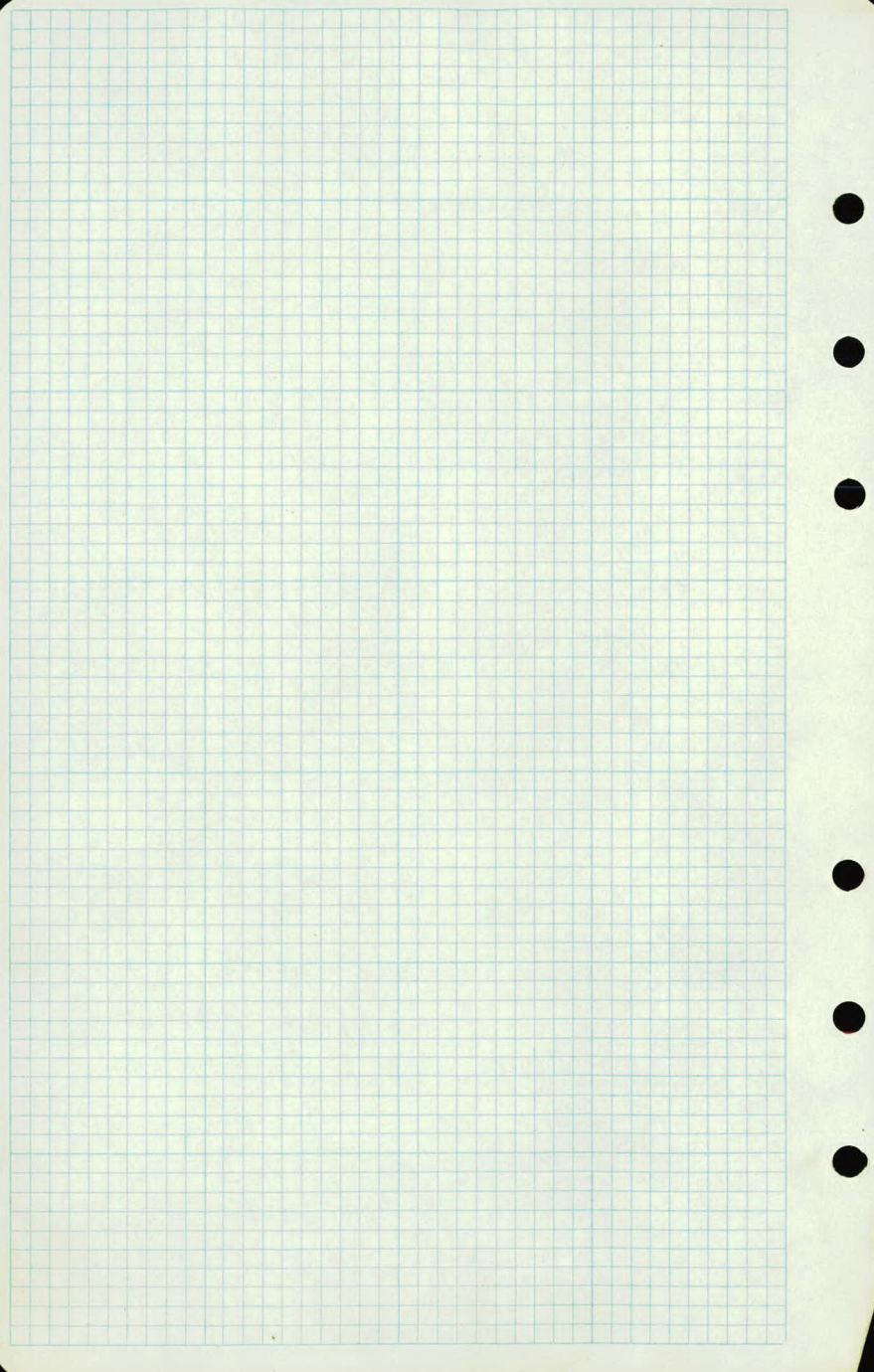
+

+ 33.6 end R - 14.5
+ 19.7 Beg R - 24.4
+ 13.3 NH - 26'
+ 18.6 E C.B. - 37'
+ 32.8 Cor 15 Br - 33.3
+ 35.9 Cor 15 Br - 30.5
+ 25.6 W edge 4 1/2" SW
10.9 W. Shut off - 13.2

+ 57.7 G.P. - 18
+ 50.03 2nd Bar - 42.2
+ 36.27 G.P. Bar - 41.8
+ 25.8 W edge 4 1/2" SW - 19'
+ 32.8 Cor. G.P. - 57.4
+ 47.7 Beg Curb - 15.4
+ 27.9 end Rad - 16.8
+ 23' C.M. - 23
+ 19' Beg R - 28'

at 00
- 28 Beg SW 24.6
- 28 E. edge SW, Beg Ap. R. - 43.2
- 10.2 end 4 Beg Conc R. - 33
- 21.4 ctr. 5' x 2 C.B. - 37
- 24.4 PP - 23.6
- 36.6 end conc R - 10
- 48.2 F.Hyd. - 21.6
- 10' end conc. R - 36
- 26.7 PP - 21
- 21.4 C.B.
- 28.4 E edge SW 4 1/2" - 22.6
- 23.5 Ctr C.B. 15" x 15" opening grate - 15.8
- 37.8 Beg Conc R - 18





B/M = Top Hyd. NW Cor.

936.71

HI = Elev + 1.73

$\frac{1.73}{938.44} = 141.$

open G. Catch Basin
Top. 5.76 = 3268
FL - 7.53

Storm Sewer
15" N & S

Top - 5.37, Elev = 938.07
Inv. 10.24, Elev = 928.20

Top Grate 485

FL 12" Vit = 8.51

929.93



0+00

18" CONC.

15" Vit

Top - 5.34

FL to N 7.67

Covered Storm Int
2' X 5' X 3' deep pit

FL 18" CONC. from E - 8.23

Top 5.50

FL 15" Vit to S. - 7.57

open Grate G.B.

15" Vit from N - 7.92

15" Vit S to G.B. - 7.87

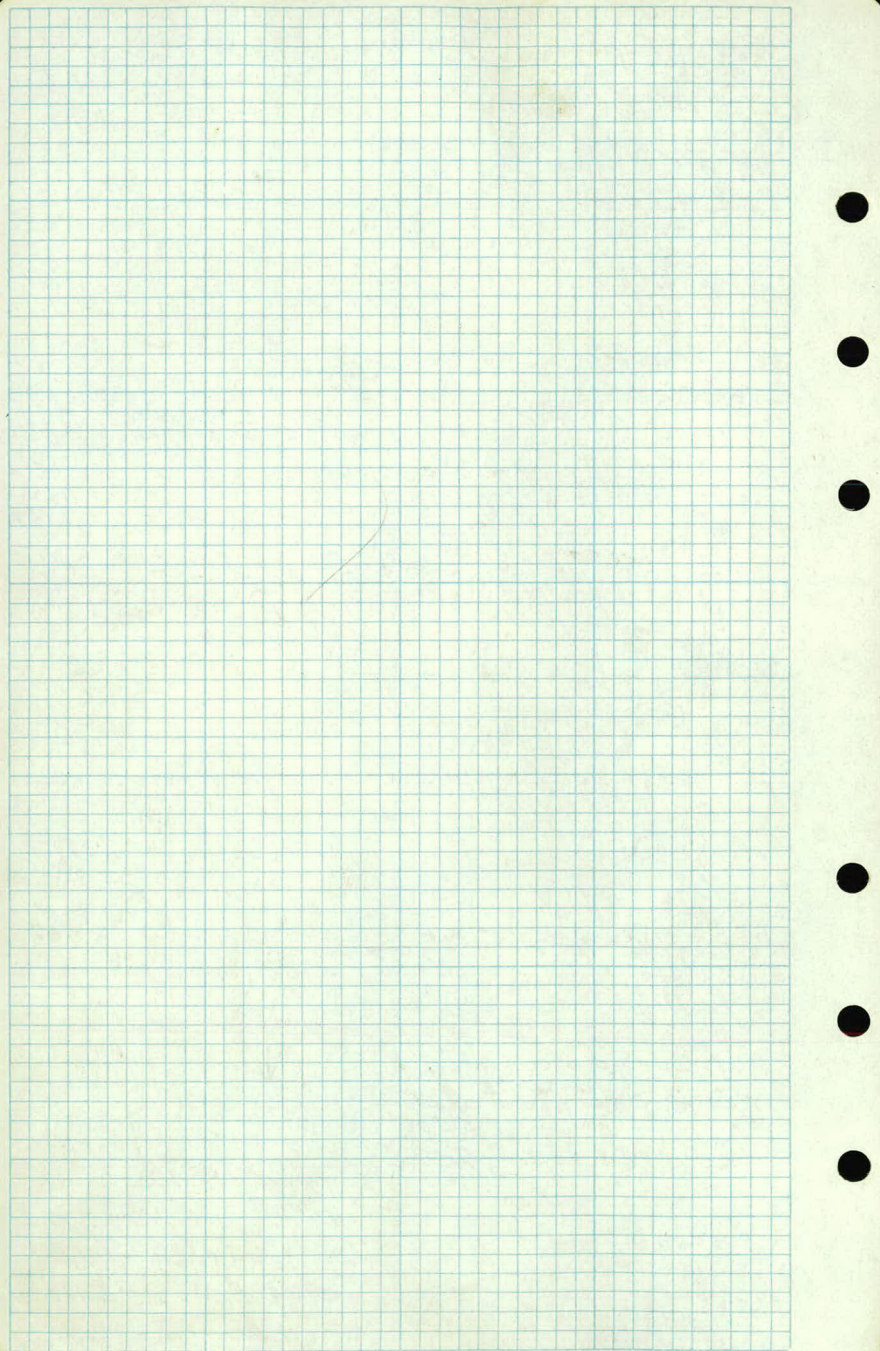
15" Vit to W - 7.96 ✓

15" Vit Dead head. - 7.91

To E

933.22

TOP C.B. 5.22



X Sections

4th St & Bald Eagle Ave
To East

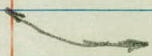
7-15-49

G/B

AM

MB

BC

Sta	+	π	-	Elev	
BM	1.46	938.17		936.71	See Bald Eagle Notes
0 - 50				33.45	
- 32		outside SW		33.45	
- 28		E side SW		33.43	
- 20				33.39	
- 10				33.41	
0 + 00				33.45	
+ 10				33.20	

Lt

Q

Rt

Top Hyd NW Cor

4th St & Bald Eagle.

Conc. Apron.

$\frac{4.60}{29}$	$\frac{4.64}{25}$	$\frac{5.0}{16}$	$\frac{4.88}{10}$	4.92	$\frac{4.83}{10}$	$\frac{4.9}{15}$	$\frac{5.4}{19}$	$\frac{4.9}{28}$	✓
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SW

$\frac{4.56}{44}$	$\frac{4.50}{29}$	$\frac{4.62}{34.5}$	$\frac{4.9}{15}$	$\frac{5.1}{12}$	$\frac{4.92}{10}$	4.72	$\frac{4.90}{10}$	$\frac{4.9}{14}$	$\frac{5.1}{16}$	$\frac{4.62}{23}$	$\frac{4.40}{36}$	$\frac{4.64}{28}$	✓
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SW

$\frac{4.58}{44}$	$\frac{4.62}{25}$	$\frac{4.82}{23}$	$\frac{5.1}{15}$	$\frac{5.0}{15}$	$\frac{4.78}{15}$	4.74	conv. R	$\frac{4.91}{12}$	$\frac{5.03}{12}$	$\frac{5.04}{16}$	$\frac{4.14}{36}$	SW ✓
-------------------	-------------------	-------------------	------------------	------------------	-------------------	------	---------	-------------------	-------------------	-------------------	-------------------	------

edge line

$\frac{5.12}{50}$	$\frac{5.20}{41}$	$\frac{4.7}{31}$	$\frac{5.2}{22}$	$\frac{5.12}{18.5}$	4.78	$\frac{5.04}{16.6}$	$\frac{5.1}{20}$	$\frac{4.9}{22}$	$\frac{4.8}{26}$	✓
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$\frac{4.4}{50}$	$\frac{4.9}{31}$	$\frac{5.8}{29}$	✓
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$\frac{4.90}{50}$	$\frac{4.92}{27}$	4.76	$\frac{4.95}{21}$	$\frac{5.02}{50}$	✓
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$\frac{4.78}{50}$

4.72

$\frac{4.87}{50}$

$\frac{5.02}{50}$

$\frac{5.17}{24}$

4.97

$\frac{4.98}{50}$

Sta	+	π	-	Elev
		938.17		
0 +19				33.26
+19.7			Top Curbs	
+25.8		Wedge SW		33.3
+30.3		Edge SW		33.3
+30.3		Top Curbs		
+47.7				33.2
+47.7		Top Curbs		

L+

Q

R+

$\frac{5.1}{50}$

$\frac{5.5}{29}$

$\frac{5.4}{24}$

4.91

$\frac{5.5}{22}$

$\frac{5.3}{27}$

$\frac{4.8}{50}$

$\frac{4.87}{24}$ ✓

$\frac{4.93}{27}$ L

$\frac{4.82}{50}$

endsw
 $\frac{5.00}{16}$

$\frac{4.6}{22}$ $\frac{5.3}{18}$

$\frac{5.4}{16.5}$

$\frac{4.5}{28}$

$\frac{4.4}{50}$

$\frac{4.96}{18}$ ✓

$\frac{4.95}{18}$

$\frac{4.4}{50}$

$\frac{4.3}{30}$

$\frac{4.5}{22.5}$

$\frac{5.4}{14.5}$

4.9

$\frac{5.4}{16.5}$

SW

$\frac{4.95}{29}$

$\frac{4.74}{50}$

$\frac{4.96}{14.5}$ ✓

$\frac{4.92}{16.5}$ ✓

Bldg
 $\frac{3.94}{30}$

5 edgesw
 $\frac{4.14}{22.5}$

$\frac{5.4}{14.5}$

5.0

5.4

$\frac{5.4}{15.5}$

Conc.
Gas Ex.
 $\frac{4.25}{29}$

Bldg
 $\frac{4.4}{50}$

$\frac{4.91}{14.5}$ L

$\frac{4.97}{15.5}$ L

Sta	+	π	-	Elev
		938.17		

+81

33.4

+81

Top Curb

+84

33.4

+84

1+00

33.5

1+00

Top Curb

+02

33.5

+02

Top curb

Lt

C

R+

SW 131dg

$$\begin{array}{r} \underline{3.87} \\ 30 \end{array} \quad \begin{array}{r} \underline{4.01} \\ 22.5 \end{array} \quad \begin{array}{r} \underline{5.3} \\ 14.5 \end{array} \quad 4.8 \quad \begin{array}{r} \underline{5.3} \\ 15.5 \end{array} \quad \begin{array}{r} \underline{4.45} \\ 50 \end{array} \quad \checkmark$$

$$\begin{array}{r} \underline{4.73} \quad \checkmark \\ 14.5 \end{array}$$

$$\begin{array}{r} \underline{4.95} \quad \checkmark \\ 15.5 \end{array}$$

$$\begin{array}{r} \underline{3.87} \\ 30 \end{array} \quad \begin{array}{r} \underline{4.01} \\ 22.5 \end{array} \quad \begin{array}{r} \underline{5.3} \\ 14.5 \end{array}$$

4.8

4.92

edge slab

$$\begin{array}{r} \underline{4.68} \\ 19 \end{array} \quad \begin{array}{r} \underline{4.59} \\ 22.5 \end{array} \quad \begin{array}{r} \underline{4.45} \\ 50 \end{array} \quad \checkmark$$

$$\begin{array}{r} \underline{5.3} \\ 15 \end{array}$$

Top Curb

$$\begin{array}{r} \underline{4.68} \\ 19 \end{array}$$

$$\begin{array}{r} \underline{3.86} \\ 30 \end{array}$$

$$\begin{array}{r} \underline{3.98} \\ 22.5 \end{array}$$

$$\begin{array}{r} \underline{5.1} \\ 14.5 \end{array}$$

4.7

$$\begin{array}{r} \underline{5.1} \\ 15 \end{array}$$

edge Conc Apron

$$\begin{array}{r} \underline{4.55} \\ 22.5 \end{array}$$

$$\begin{array}{r} \underline{4.32} \\ 50 \end{array}$$

$$\begin{array}{r} \underline{4.621} \\ 14.5 \end{array} \quad \checkmark$$

$$\begin{array}{r} \underline{3.86} \\ 30 \end{array}$$

$$\begin{array}{r} \underline{3.98} \\ 22.5 \end{array}$$

$$\begin{array}{r} \underline{4.40} \\ 16.5 \end{array}$$

$$\begin{array}{r} \underline{5.0} \\ 14.5 \end{array}$$

4.7

$$\begin{array}{r} \underline{5.1} \\ 15 \end{array}$$

$$\begin{array}{r} \underline{4.55} \\ 22.5 \end{array}$$

$$\begin{array}{r} \underline{4.32} \\ 50 \end{array}$$

$$\begin{array}{r} \underline{4.6} \\ 16.5 \end{array} \quad \checkmark$$

sta + $\overline{A}$ - Elev
938.17

+18

Beg SW

33.6

+21

33.7

+21

Top Curb

+23

33.7

+23

Top Curb

+31

33.7

+31

Top Curb

$$\begin{array}{r} \text{SW} \\ \hline 4.05 \quad 4.1 \\ 28.5 \quad 22.5 \end{array} \quad \begin{array}{r} \hline 5.1 \\ 14.5 \end{array} \quad 4.4 \quad \begin{array}{r} \hline 5.1 \\ 15 \end{array} \quad \begin{array}{r} \text{SW} \\ \hline 4.39 \quad 4.12 \\ 22.5 \quad 28.5 \end{array}$$

$$\begin{array}{r} \hline 4.1 \\ 28.5 \end{array} \quad \begin{array}{r} \hline 4.12 \\ 22.5 \end{array} \quad \begin{array}{r} \hline 4.8 \quad 5.05 \\ 16.5 \quad 14.5 \end{array} \quad \begin{array}{r} \hline 5.1 \\ 15 \end{array} \quad \begin{array}{r} \hline 4.39 \quad 4.1 \\ 22.5 \quad 28.5 \end{array}$$

$$\begin{array}{r} \hline 4.48 \\ 16.5 \end{array}$$

$$\begin{array}{r} \hline 4.38 \\ 28.5 \end{array} \quad \begin{array}{r} \hline 4.13 \\ 22.5 \end{array} \quad \begin{array}{r} \hline 4.62 \quad 4.5 \\ 14.5 \end{array} \quad \begin{array}{r} \hline 5.1 \\ 15 \end{array} \quad \begin{array}{r} \hline 4.39 \quad 4.1 \\ 22.5 \quad 28.5 \end{array}$$

$$\begin{array}{r} \hline 5.0 \\ 14.5 \end{array}$$

$$\begin{array}{r} \text{SW} \\ \hline 4.4 \quad 4.45 \\ 28.5 \quad 22.5 \end{array} \quad \begin{array}{r} \hline 5.0 \\ 14.6 \end{array} \quad 4.5 \quad \begin{array}{r} \hline 5.0 \\ 15 \end{array} \quad \begin{array}{r} \hline 4.32 \quad 4.12 \\ 22.5 \quad 28.5 \end{array}$$

$$\begin{array}{r} \hline 4.48 \\ 14.6 \end{array}$$

sta + π - E/ed
938.17

+33 Big P. Pt. end P. Pt. 33.7

+33 Top Curbs

+35 33.7

+35 Top Curbs

+43 33.7

+43 Top Curbs

+45 33.7

+45 Top Curbs

LT

Q

RT

$$\begin{array}{r} 452 \\ 28.5 \end{array} \quad \begin{array}{r} 4.55 \\ 22.5 \end{array} \quad \begin{array}{r} 4.9 \\ 16.5 \end{array}$$

$$\begin{array}{r} 5.0 \\ 14 \end{array} \quad 4.5$$

$$\begin{array}{r} 5.0 \\ 15 \end{array} \quad \begin{array}{r} 4.9 \\ 17 \end{array} \quad \begin{array}{r} 4.26 \\ 22.5 \end{array} \quad \begin{array}{r} 4.12 \\ 28.5 \end{array}$$

$$\begin{array}{r} 4.47 \\ 14 \end{array} \quad \checkmark$$

$$\begin{array}{r} 4.44 \\ 17 \end{array} \quad \checkmark$$

$$\begin{array}{r} 4.53 \\ 28.5 \end{array} \quad \begin{array}{r} 4.55 \\ 22.5 \end{array} \quad \begin{array}{r} 5.1 \\ 14 \end{array}$$

$$4.5$$

$$\begin{array}{r} 5.0 \\ 15 \end{array}$$

$$\begin{array}{r} 4.3 \\ 22.5 \end{array}$$

$$\begin{array}{r} 4.15 \\ 28.5 \end{array}$$

$$\begin{array}{r} 4.47 \\ 15 \end{array} \quad \checkmark$$

$$\begin{array}{r} 4.51 \\ 28.5 \end{array} \quad \begin{array}{r} 4.56 \\ 22.5 \end{array} \quad \begin{array}{r} 4.9 \\ 16.5 \end{array}$$

$$\begin{array}{r} 5.0 \\ 14.5 \end{array} \quad 4.5$$

$$\begin{array}{r} 5.0 \\ 15 \end{array}$$

$$\begin{array}{r} 4.31 \\ 22.5 \end{array}$$

$$\begin{array}{r} 4.20 \\ 28.5 \end{array}$$

$$\begin{array}{r} 4.47 \\ 14.5 \end{array} \quad \checkmark$$

$$\begin{array}{r} 4.45 \\ 15 \end{array} \quad \checkmark$$

$$\begin{array}{r} 4.50 \\ 28.5 \end{array} \quad \begin{array}{r} 4.54 \\ 22.5 \end{array} \quad \begin{array}{r} 4.9 \\ 14.5 \end{array}$$

$$4.5 \quad \checkmark$$

$$\begin{array}{r} 4.42 \\ 14.5 \end{array} \quad \checkmark$$

Sta	+	T	-	Elev
		938.17		

1 + 75				33.7
--------	--	--	--	------

+ 75		Top Curb.		
------	--	-----------	--	--

		Top Mt.	33.94	
--	--	---------	-------	--

BM		1.46	936.71	✓
----	--	------	--------	---

Lt.

£

Rt

✓

4.34
28.5-

4.33
22.5-

4.8
14.5

4.5-

4.8
15-

4.23
22.5-

4.16
28.5-

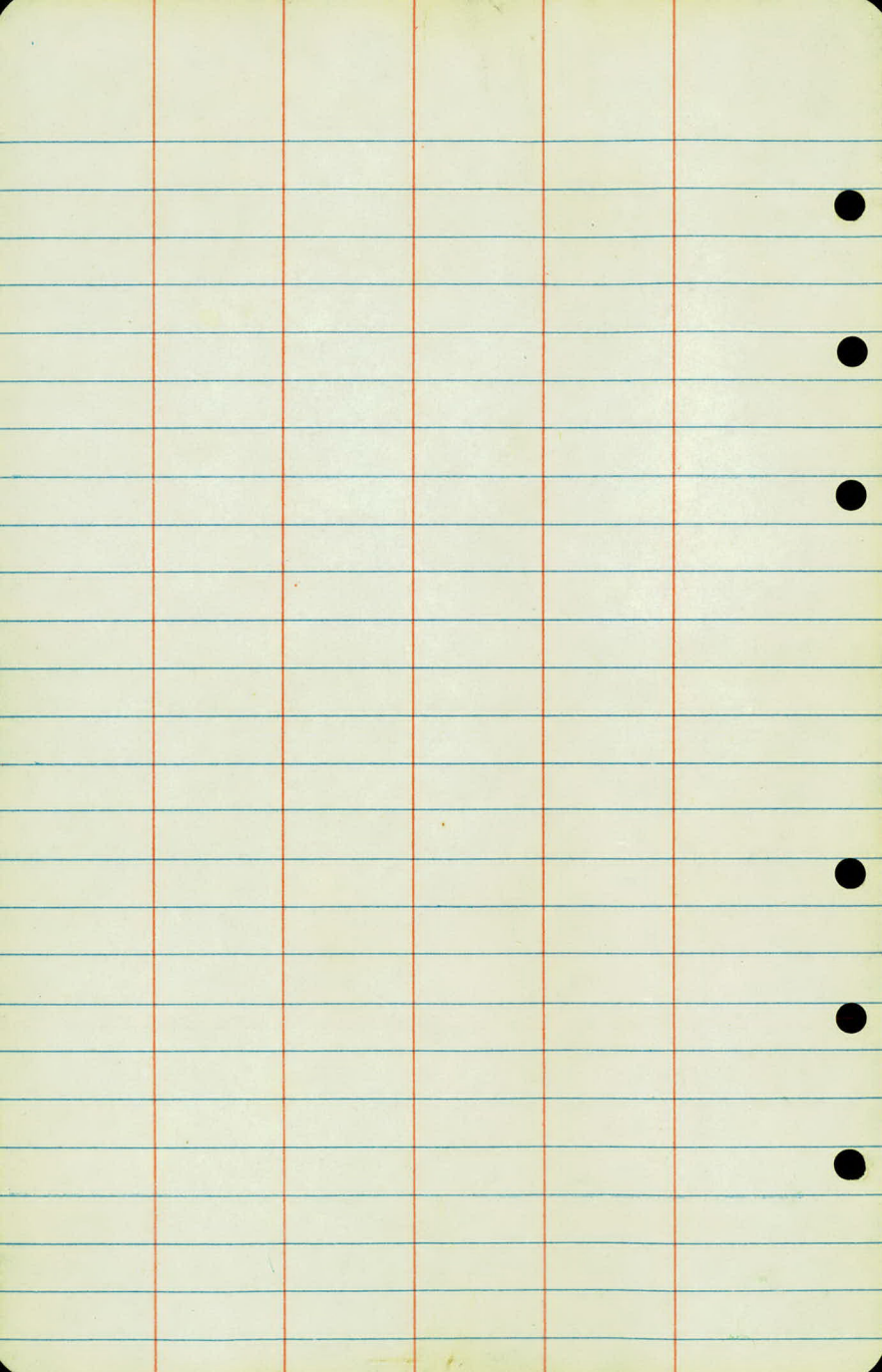
33.94
4.23
14.5

✓

33.9
4.27
15-

✓

4.23



6th St.
Bald Eagle Ave to West

Profile & Ditch Profile

Storm Sewer Survey

8-24-50

G.B.

A.M.

M.B.

K.R.

938.18

Sta	+	π	-	Elev
B.M.	8.34	}		929.84
-0-	4.84			933.34
T.P.	4.48	937.40	5.26	932.92
0-15				34.1
0+00	E Bald Eagle Ave			934.2
+33				34.2
+50				33.9
1				33.8
+50				33.3
2				33.1
+50				33.0
3				33.2
+	Driveway So.			33.2
4				33.2

£

F.L. open Grate C.B.
 Inv. " " "

3.3

3.2

3.2

3.5

3.6

32.4

4.1

S. ditch

5.0

4.3

32.3
 ↙ N ditch

5.1

32.1

4.4

5.3

4.2

32.3

5.1

32.2

5.2

4.2

31.8

5.6

4.2

32.4

5.0

32.9

4.5

4.5

937.40

Sta + π - Elev

4+36 12" cm X Drain 33.0

+50 32.9

5 32.7

+50 32.7

6 32.5

TP 5.06 939.02 3.44 933.96

0-15 36.5' So. 5.01 ^{934.01} = Top (934.00)
 9.95 = FL 929.07
 9.1 ^{929.92} = Top Brk

20+19 =

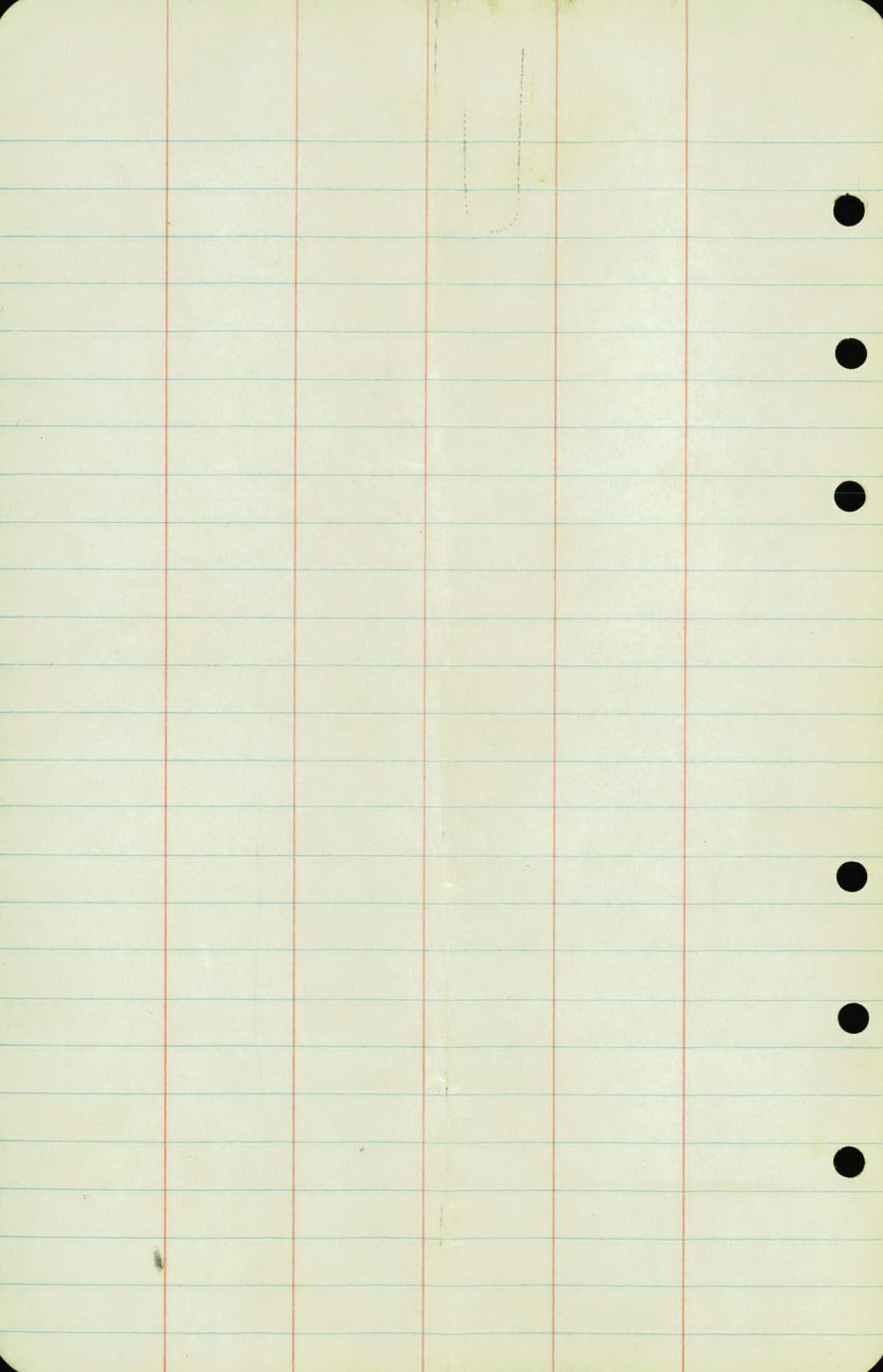
BM 5.68 933.34 checks
 0.0.

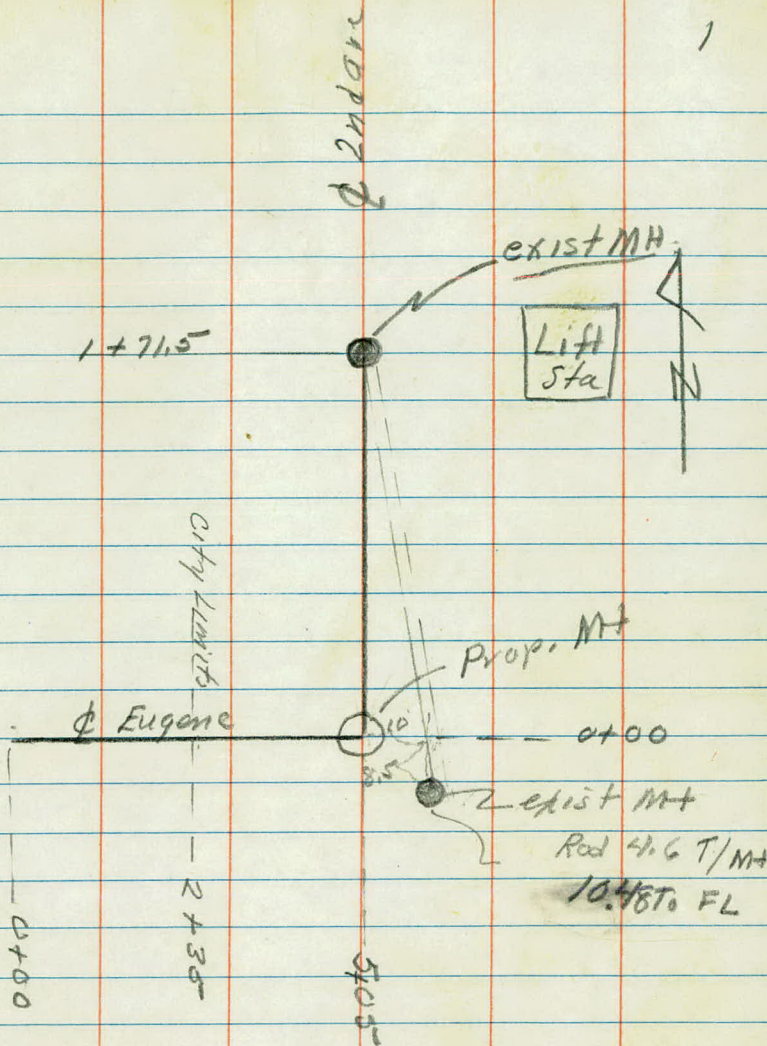
LT	¢	RT.
31.3		30.7
FL		FL 12"
6.10	4.4	6.7
31.7		29.2
50. Ditch		8.2
		100
	4.5	
5.7	4.7	
	4.7	
32.0		
5.4	4.9	

} MH @ Sta 19+82.5 Bald Eagle.

Approach ¢ 6th St.

open grate C.B.





Survey for Sanitary Sewer.

✓ Drawing sent to
Mr. Eddington 8-16-50
White Bear Lake,

8-15-50
GB
AM
KR

Sta	+	π	-	Elev
BM	5.20	936.55	932	931.35

0+00 = ϕ Eugene @ City Limits 29.5

+50 29.1

1 29.7

H₀²+45 Water table 2.5 34.1

+50 30.1

2 30.4

+35 City Limits

+50 30.6

3 30.7

+50 30.9

£

Top of MH @ Lift. Station 171.5' N. of Eugene

7.1

7.5

6.9

6.5

6.2

6.0

5.9

5.7

936.55

4+00

31.0

4+50

31.2

5

31.9

+05 prop. 111

32.0

5.6

5.4

4.7

4.6

Sta	+	π	-	Elev
		936.55		
0+00		proposed MH		32.0
+50				31.5
1				31.4
+50				31.3
+71.5		top exist MH		31.35
House		1.4		35.2
House		2.5		34.1

②

4.6

5.1

5.2

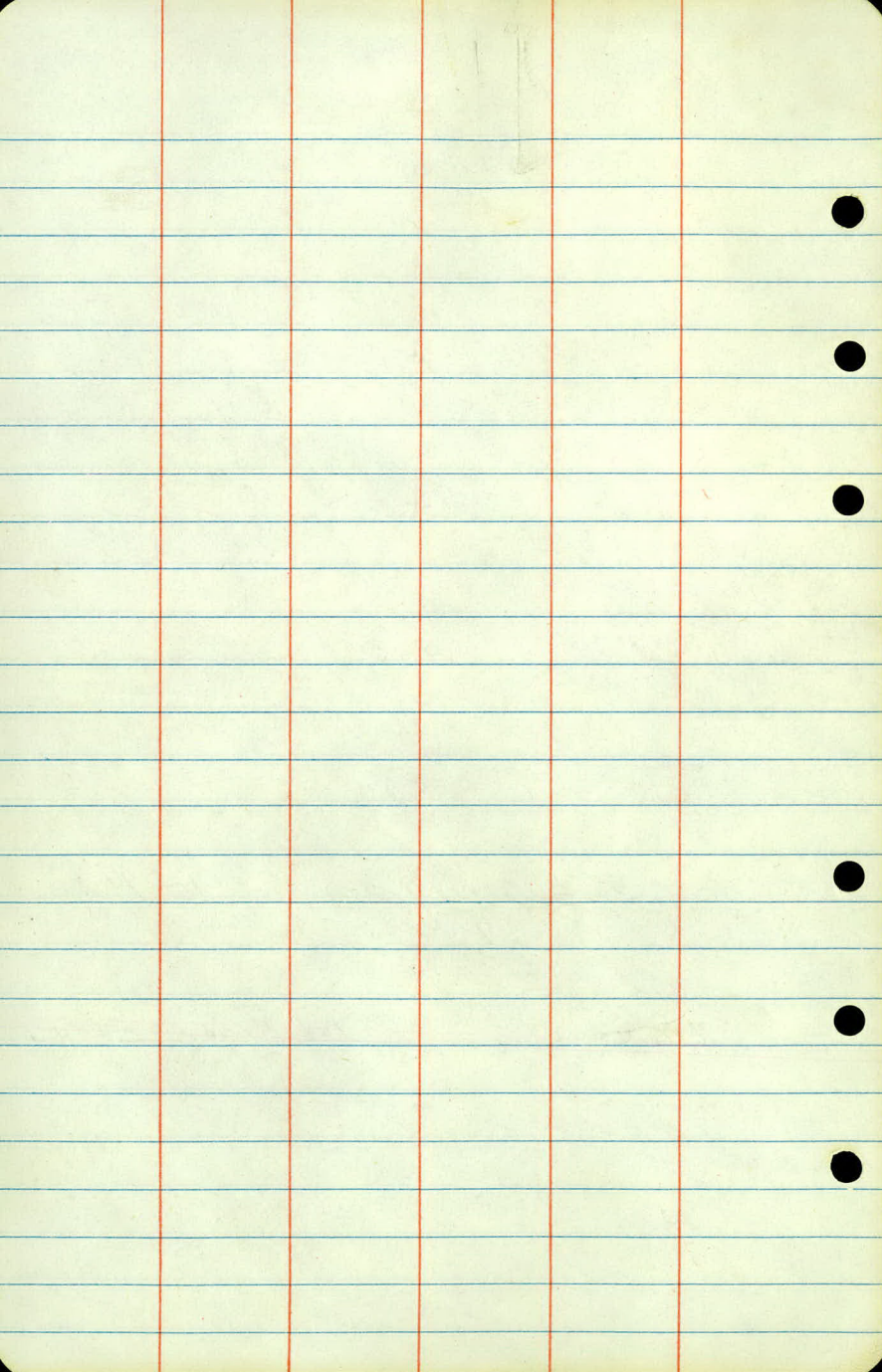
5.3

5.20

SW cor. Eugene & 2nd Ave 1st Floor,
7' Basement

NW cor.

1st Floor Elev.



Preliminary Survey
for
Sanitary Sewer

Rameley St (Hwy #96) & Lincoln
West to City Limits

7-29-49

G.B.

B.C.

J.F.

Platted 8-2-49

Sta	+	π	-	Elev
$\approx 0 \pm 0^\circ = \text{Approx } \& \text{ Lincoln St.}$				
B.M.	15.71	941.29		925.56
FL			16.10	25.17
+ 50				38.4
+ 100				38.2
+ 50				38.0
2				37.7
+ 50				37.1
NH / + 76.		NH	FL = 26.51 14.70	36.92
3				36.5
+ 50				35.8
4				35.4
+ 50				35.1
NH / + 75		NH	FL = 27.06 14.21	34.93

1

¢

invert 8" V.C.P. going West

" 15 " " N

~~28.36~~

12.91 To Top.

~~27.97~~

13.3 To top.

2.9

3.1

3.3

3.6

4.2

30.94

10.35 FL to Top.

8" E & W

4.35

4.8

5.5

5.9

6.2

33.40

~~6.34~~

7.87 To FL

6.34

174.21

Sta	+	π	-	Elev
		941.27		
5	+100			34.8
	+50			34.5
6				34.2
	+50			34.0
7				33.8
	+50			33.6
	+89			33.4
T P	3.40	936.78	7.89	933.38
8				33.3
	+50			33.1
9				32.9
	+50			32.9
	+95			

ϕ

6.5

6.8

7.1

7.3

7.5

7.7

7.9

3.5

3.7

3.9

3.9

1st Floor elev
 $+ 0.8 = 37.6$
 75

Sta	+	π	-	Elev
		936.28		
10				32.9
	+40			
	+58			32.8.
	+88			
11				32.6.
	+38			
	+58			32.5.
	+90			
12				32.5.
	+40			
	+50			32.4.
	+87	$\frac{1}{2}$ Third St.		32.3.
13				32.3.
14				32.1.
15				32.1.
16				31.9.
17	3.73	935.39	5.12	931.06
				31.7

2

1st Floor Elev.

$$\begin{array}{r} +0.5 \\ \hline 25 \end{array} = 37.3$$

3.9

4.0

$$\begin{array}{r} +0.3 \\ \hline 25 \end{array} = 37.1$$

4.2

$$\begin{array}{r} -0.2 \\ \hline 75 \end{array} = 36.6$$

4.3

$$\begin{array}{r} -0.5 \\ \hline 95 \end{array} = 36.3$$

4.3

4.4

4.5

4.5-

4.7

4.7

4.9

5.1

1st Floor Elev

$$\begin{array}{r} \hline 70 \end{array} \text{ No. Base.}$$

$$\begin{array}{r} -0.8 \\ \hline 70 \end{array} = 36.0$$

Sta + π - Elev

935.39

18 31.4

19 31.3

20 31.1

21 31.2

22 31.6

BM

3.56 931.83

930.60

TP 5.83 936.52 4.70 930.69

TP 6.18 939.40 3.30 933.22

13.85 925.55 925.56

Φ

4.0

4.1

4.3

4.2

3.8

4565 #8

Sta + π - Elev