

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

Plan

Survey

Fifth Str.

From Stickley Blvd To Banning Ave

Road Acc't. No. White Bear City

Date Filed

File

BK 34 215

Plan Survey

FIFTH ST.

Stickleley Blvd. to Banning

5/10/40

R.P.
A.M.
L.G.
C.F.

Plans Completed

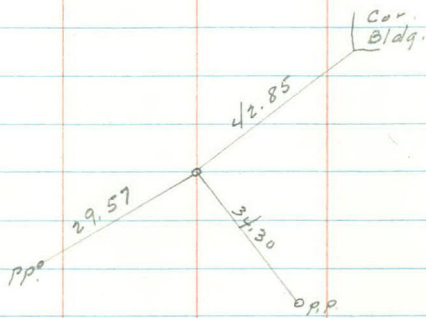
5/20/40

Now W.B.V. & H.D.C.

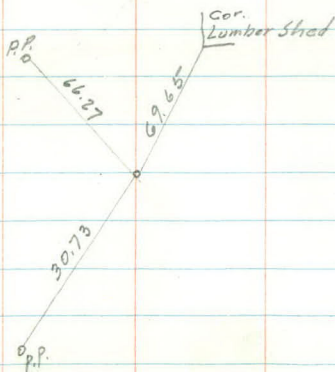
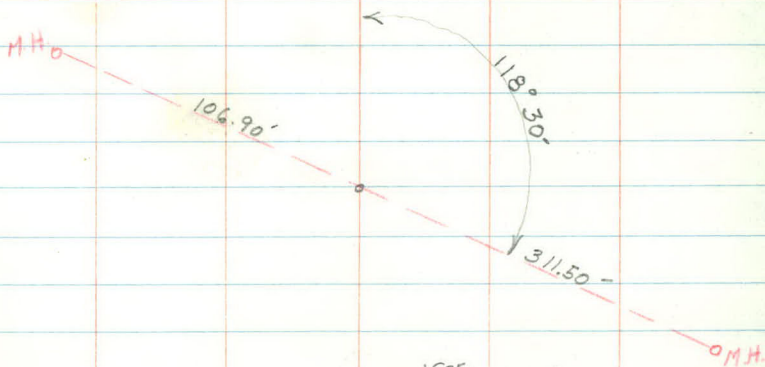
3+50.6 £ Banning

0+28.06 Storm Sewer xs £

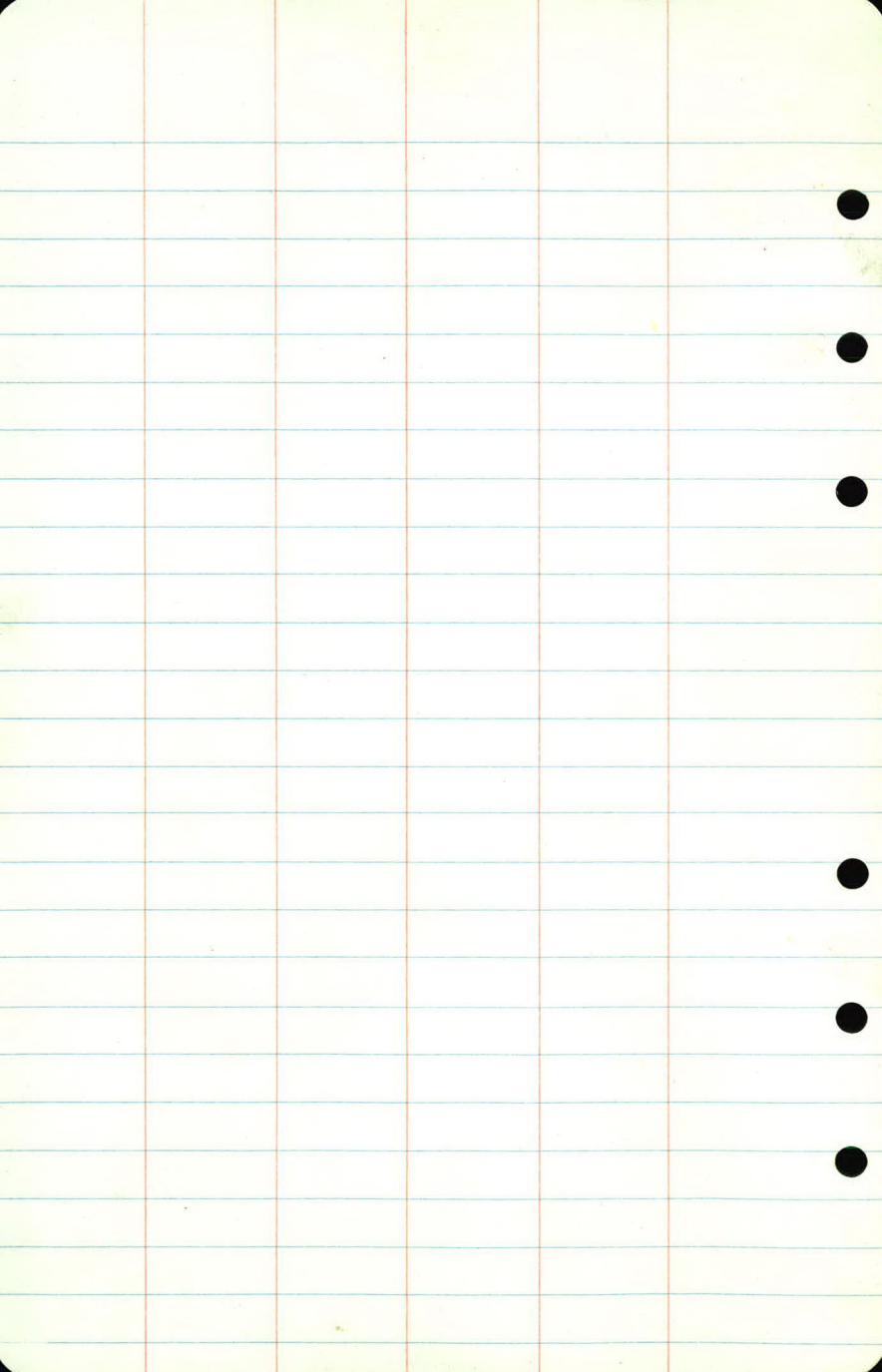
0+00 £ Stickley Blvd.



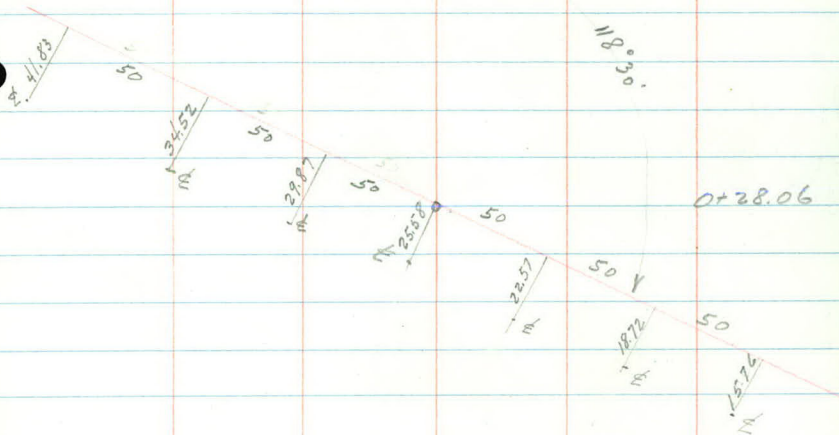
Nail Est. by.
H. Bratager



Nail Est. by
H. Bratager



Pavement Ties



Sta	+	π	-	Elev.
B.M.	2.88	943.69		940.81
T.P.	3.72	942.79	4.62	939.07
B.M.			1.26	941.53
M.H. Storm Sewer				30.29
Left. =				12.50 F.L. = 18" V.I.
M.H. Storm Sewer				31.39
Rt. =				11.40 F.L. = 18" V.I.
B.M.	1.98	943.51		941.53
0+00			5.43	38.08
+38			4.9	38.6
+46			4.8	38.7
+63			4.6	38.9
1			4.9	38.6
+50			5.0	38.5
2			5.2	38.3
+50			5.3	38.2
3			5.6	37.9

Top Hyd at 7th st. between Wash. and RR.

Top Hyd. N.E. Cor Stickley Blvd and Fifth st.

$\frac{5.9}{50}$ $\frac{5.82}{46}$ 5.43 $\frac{5.15}{35}$ $\frac{5.11}{50}$

$\frac{5.3}{50}$ $\frac{5.1}{24}$ 4.9 $\frac{5.0}{15}$ $\frac{5.0}{41}$

$\frac{5.3}{50}$ $\frac{4.5}{28}$ $\frac{4.29}{22}$ $\frac{4.9}{17}$ 4.3 $\frac{5.0}{8}$ $\frac{5.2}{39}$ $\frac{4.62}{39}$

$\frac{4.19}{41}$ $\frac{4.2}{30}$ $\frac{4.62}{27}$ $\frac{4.65}{22}$ 4.6 $\frac{4.6}{3}$ $\frac{5.0}{5}$ $\frac{5.1}{16}$ $\frac{4.63}{16}$ $\frac{4.59}{22}$ $\frac{4.48}{28}$

32.60

F.L. - 8" vit.

10.91

Top M.H. = 4.76 38.75

+ 80 M.H. Sanitary

$\frac{4.6}{29}$ $\frac{4.78}{27}$ $\frac{4.81}{22}$ $\frac{4.9}{18}$ 4.9 $\frac{5.3}{12}$ $\frac{4.8}{15}$ $\frac{4.69}{22}$ $\frac{4.63}{27}$

$\frac{5.11}{27}$ $\frac{5.13}{21}$ $\frac{5.5}{14}$ 5.0 $\frac{5.4}{12}$ $\frac{5.0}{18}$ $\frac{4.89}{22}$ $\frac{4.86}{27}$

$\frac{5.13}{27}$ $\frac{5.10}{22}$ $\frac{5.1}{18}$ $\frac{5.22}{13}$ $\frac{5.7}{13}$ 5.2 $\frac{5.6}{12}$ $\frac{5.3}{15}$ $\frac{5.10}{22}$ $\frac{5.08}{27}$

$\frac{5.40}{27}$ $\frac{5.43}{22}$ $\frac{5.3}{18}$ $\frac{5.49}{14}$ $\frac{5.9}{13}$ 5.3 $\frac{5.7}{12}$ $\frac{5.2}{17}$ $\frac{5.18}{22}$ $\frac{5.09}{27}$

$\frac{5.64}{27}$ $\frac{5.66}{22}$ $\frac{5.6}{18}$ $\frac{5.68}{13}$ $\frac{6.0}{13}$ 5.6 $\frac{5.9}{13}$ $\frac{5.2}{18}$ $\frac{5.41}{22}$ $\frac{5.30}{27}$

Sta	+	↑	-	Elev.
		943.51.		
3+24			5.8	37.6
+ 31			6.0	37.5
+ 31			6.0	37.5
P.M.				
+50.6	± Banning		5.5	38.0
+ 70			6.1	37.4
+70			6.1	37.4
+77			6.0	37.5
4			5.7	37.8
B.M.			1.98	941.53
				941.53

$$\begin{array}{r} 5.63 \\ 27 \end{array} \quad \begin{array}{r} 5.75 \\ 22 \end{array} \quad \begin{array}{r} 5.73 \\ 14 \end{array} \quad \begin{array}{r} 6.1 \\ 14 \end{array} \quad 5.8 \quad \begin{array}{r} 5.9 \\ 13 \end{array} \quad \begin{array}{r} 5.50 \\ 13 \end{array} \quad \begin{array}{r} 5.46 \\ 21 \end{array} \quad \begin{array}{r} 5.42 \\ 33 \end{array}$$

$$\begin{array}{r} 5.62 \\ 30 \end{array} \quad \begin{array}{r} 5.65 \\ 16 \end{array} \quad \begin{array}{r} 6.1 \\ 16 \end{array} \quad 6.0 \quad \begin{array}{r} 6.0 \\ 14 \end{array} \quad \begin{array}{r} 5.45 \\ 14 \end{array} \quad \begin{array}{r} 5.48 \\ 37 \end{array}$$

$$\begin{array}{r} 6.1 \\ 30 \end{array} \quad 6.1 \quad 6.0 \quad \begin{array}{r} 6.0 \\ 14 \end{array} \quad 37$$

$$\begin{array}{r} 5.4 \\ 31 \end{array} \quad 5.5 \quad \begin{array}{r} 5.4 \\ 50 \end{array}$$

+ 59.3E M.H.

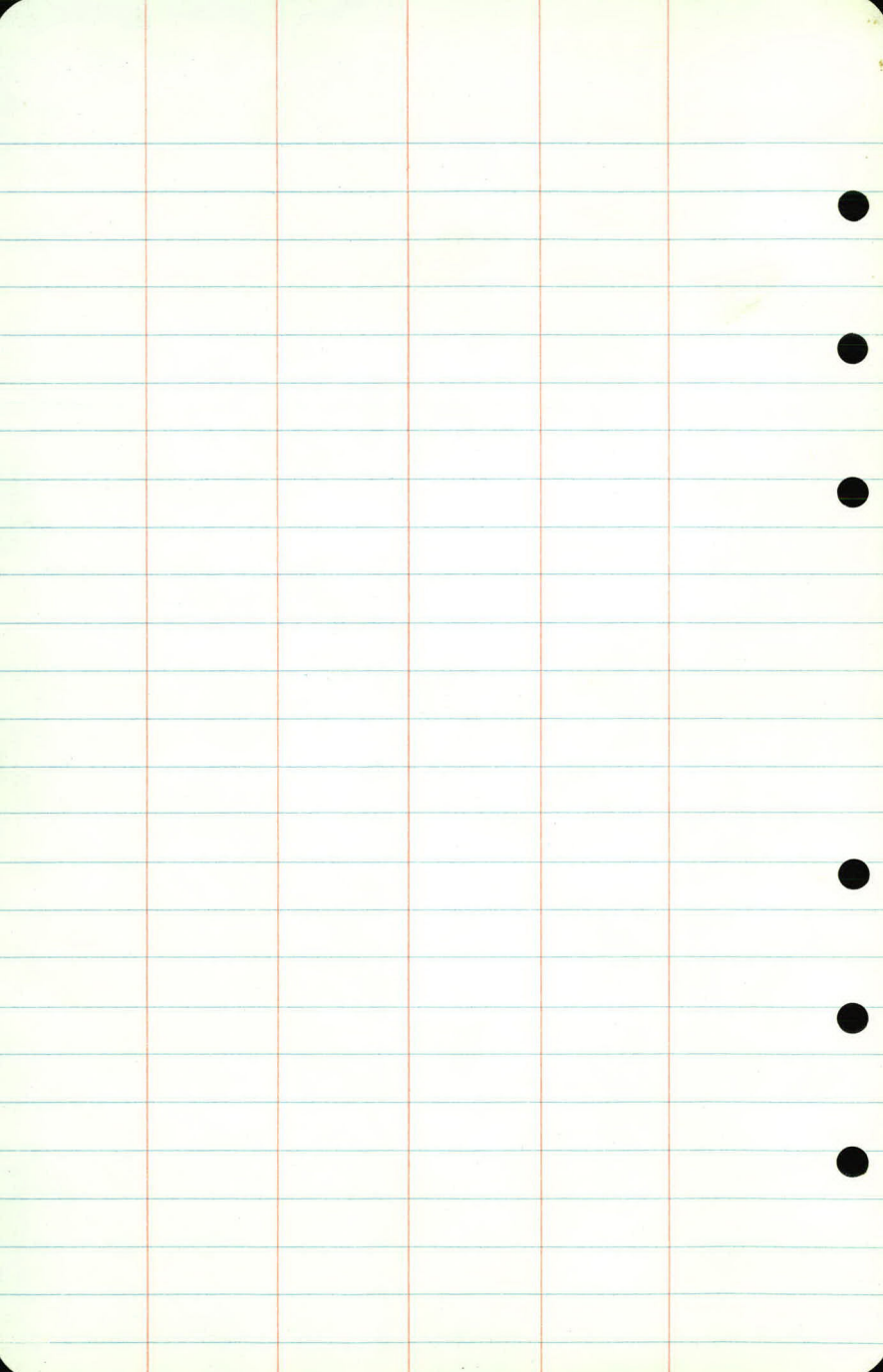
$$\begin{array}{r} 31.50 \\ 12.01 \end{array} \quad \begin{array}{r} \text{Inv. 8" V.t.} \\ 12.01 \end{array} \quad \begin{array}{r} \text{Top M.H.} \\ 5.48 \end{array} \quad 38.03$$

$$\begin{array}{r} 6.2 \\ 32 \end{array} \quad 6.1 \quad 6.0 \quad \begin{array}{r} 6.0 \\ 14 \end{array} \quad \begin{array}{r} 6.0 \\ 34 \end{array}$$

$$\begin{array}{r} 5.66 \\ 32 \end{array} \quad \begin{array}{r} 5.73 \\ 16 \end{array} \quad \begin{array}{r} 6.1 \\ 16 \end{array} \quad 6.1 \quad \begin{array}{r} 6.0 \\ 14 \end{array} \quad \begin{array}{r} 5.52 \\ 14 \end{array} \quad \begin{array}{r} 5.31 \\ 34 \end{array}$$

$$\begin{array}{r} 5.60 \\ 34 \end{array} \quad \begin{array}{r} 5.75 \\ 22 \end{array} \quad \begin{array}{r} 5.74 \\ 14 \end{array} \quad \begin{array}{r} 6.1 \\ 14 \end{array} \quad 6.0 \quad \begin{array}{r} 6.0 \\ 13 \end{array} \quad \begin{array}{r} 5.48 \\ 13 \end{array} \quad \begin{array}{r} 5.31 \\ 28 \end{array} \quad \begin{array}{r} 5.30 \\ 42 \end{array}$$

$$\begin{array}{r} 5.60 \\ 28 \end{array} \quad \begin{array}{r} 5.62 \\ 22 \end{array} \quad \begin{array}{r} 5.6 \\ 19 \end{array} \quad \begin{array}{r} 5.62 \\ 14 \end{array} \quad \begin{array}{r} 5.9 \\ 14 \end{array} \quad 5.7 \quad \begin{array}{r} 6.0 \\ 13 \end{array} \quad \begin{array}{r} 5.40 \\ 13 \end{array} \quad \begin{array}{r} 5.3 \\ 18 \end{array} \quad \begin{array}{r} 5.31 \\ 22 \end{array} \quad \begin{array}{r} 5.29 \\ 27 \end{array}$$



Topography

5th St.

Stickley Blvd to Banning

3

13

+50

2

+97 24" Pop. 18.0

12

+50

1

14

13

+50

+21.9 Pop. 15 d.

0

-21.5 Pop. 15 d.

Curb 14.0
+87.20' Cor. 18.4

+72 24" P.P. 18.4

+45 Ent.

+34 2' S.W. 14.3

+13 Cor. Bldg 30

S.W. 21.7 27.6

+97 Curb 13.6

+94.3 Curb - 15.3 21.7

+89 Ent.

+81 12" Oak 18.8

+70 P.P. 16.5

+46 End Fe.

and Cor. Bldg 30

+34 Ent.

Fe. 29.4

S.W. 21.4 27.0

+80 M.H. 01'

+74 Ent.

+62.5 Fe Cor 29.3

+60 Hyd. 20.4

+59 P.P. 28.5

+54 Cor S.W. 21.1

+49 Cor S.W. 21.1

+51 Rge Tie Fe.

+39 Rge Tie S.W.

+21 Ent.

S.W. 21.7 27.7

+70 P.P. 16
+70 Cor Bldg 30

+44 Ent.

Bldg. 30'
S.W. 21.9' 27.8'

+70 End Curb 13.25
+63 Cor. Bldg 30
+69 Rge Tie Curb
+63 Cor S.W. 27.9
+58 Curb 22

Water Line

20' from 1st
Prop Line
(Hole here)

4

150

+59.3 d. M. W.
Sanitary

S.W. 22.5-28.4
Curb 14.4

+78.5 S.W. 14.5
+74.5 S.W. 14.5
+72 Hyd 33
+70 Cor Curb 14.3
+70 S.W. 22.3-28.3

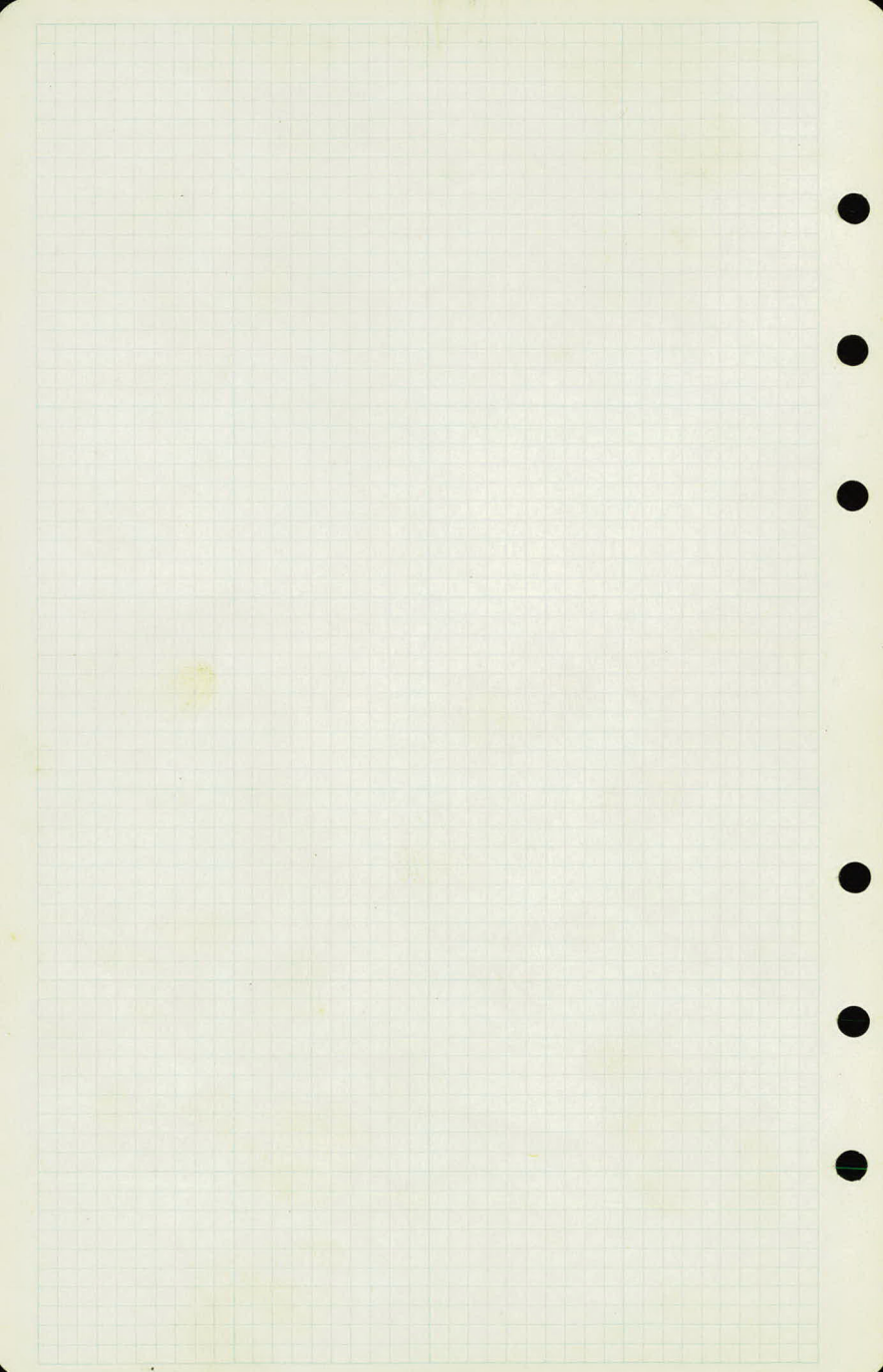
BANNING AVE.

+31 Cor Curb 14.3
+31 S.W. 22.0-22.8
+27 R.R. 2.0
+26 S.W. 14.5
+22 S.W. 14.5

Curb 13.5
S.W. 21.6-27.5

+88 P.R. 16
+81.5 Cor. Bldg 29.8
+80.5 S.W. 13.9
+75.5 S.W. 13.9
+70 S.W. 21.5-27.5
+70 Cor Curb 13.6

+31 Curb Cor. 13.6
+31 S.W. 21.7-27.5
+26 S.W. 14.0
+22 S.W. 14.0
+20.5 Bldg Curb 13.5
+20 R.R. 16



Curb stakes
Fifth St

Sta	t	π	-	Grade
B.M.	1.76	943.29		(941.53)

1 +50

+65

+75

2

+25

+50

+75

3

+16

B.M.	2.70	940.59	(940.60)
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7-14-41

Lt.	Gr. Rod	Grade	Grade	Gr. Rod
-----	---------	-------	-------	---------

Top Hydrant N.E. Cor. Sth & Stickley Blvd.

✓ 5.12	38.17	38.21	5.08 ✓
--------	-------	-------	--------

✓ 5.12	38.17	38.21	5.08 ✓
--------	-------	-------	--------

✓ 5.19	38.10	38.15	5.14 ✓
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✓ 5.29	38.00	38.00	5.29 ✓
--------	-------	-------	--------

✓ 5.34	37.95	37.99	5.30 ✓
--------	-------	-------	--------

✓ 5.39	37.90	37.98	5.31 ✓
--------	-------	-------	--------

✓ 5.44	37.85	37.97	5.32 ✓
--------	-------	-------	--------

✓ 5.48	37.81	37.97	5.32 ✓
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✓ 5.51	37.78	37.96	5.33 ✓
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Top Hyd N.E. Cor Sth St & Banning Ave.

Grade Change Rt.

Sta.	+	60 X	-	Grade
B.M.	2.68	943.28		940.60

1	+65			38.26
---	-----	--	--	-------

	+75			38.24
--	-----	--	--	-------

2				38.19
---	--	--	--	-------

	+13			38.16
--	-----	--	--	-------

	+33		40	38.12
--	-----	--	----	-------

	+50		20	38.09
--	-----	--	----	-------

	+75		10	38.04
--	-----	--	----	-------

3				37.99
---	--	--	--	-------

	+16			37.96
--	-----	--	--	-------

	+20			37.96
--	-----	--	--	-------

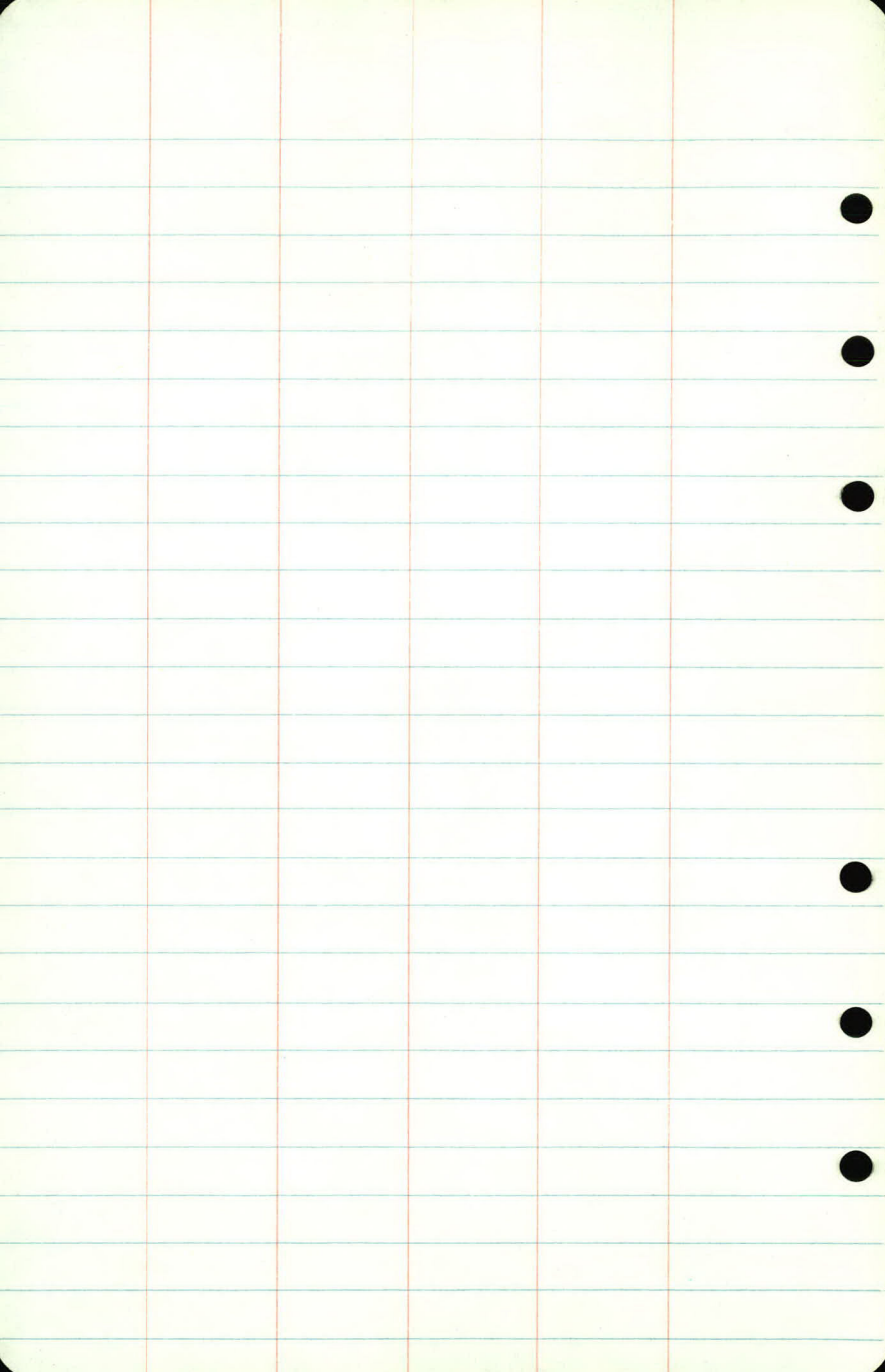
Gr. Sod. Lt

Top Hyd. N.E. Cor. Banning Ave. & 5th St

4.87

✓
5.02✓
5.04✓
5.09✓
5.12✓
5.16✓
5.19✓
5.24✓
5.29✓
5.32

5.32



Corp Stokes Change
Fifth St.

Sta	+	π	-	Elev.
B.M.	2.25	943.78		(941.53)

0 +62

0 +75

1 +100

+25

+34.5 = Rod. Pt. R.L.

+37

+50

+56

7-16-41

Lt.	Gr. Rod	Grade	Gr. Rod	et	inside S.W.
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Top Hyd. N.E. Cor. 5th St. & Stickley Blvd.

Curb 19 ft. from &

Curb 20.5 ft. from &

4.74	39.07				
4.87	38.91	38.83	4.95	4.90	
5.12	38.66	38.76	5.02	4.97	
5.37	38.41	38.69	5.09	5.00	
		38.65	5.13	5.08	
5.70	38.28				

Vertical curve data on the left side of the table:

- 4.74
- 4.87
- 5.12
- 5.37
- 5.70

Vertical curve data on the right side of the table:

- 39.07
- 38.91
- 38.66
- 38.41
- 38.28

Vertical curve data in the middle of the table:

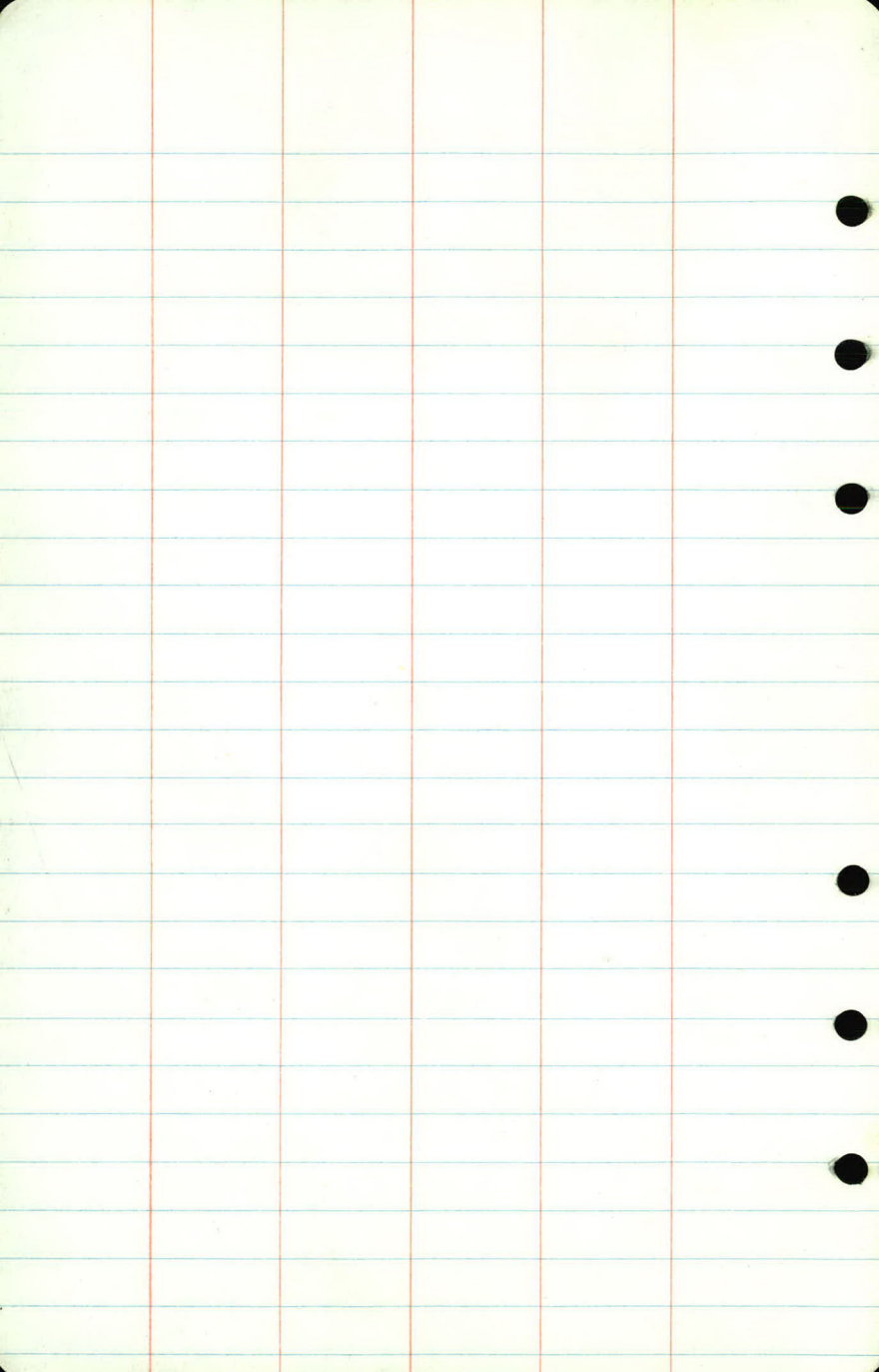
- 38.83
- 38.76
- 38.69
- 38.65

Vertical curve data on the far right side of the table:

- 4.95
- 5.02
- 5.09
- 5.13

Vertical curve data on the far left side of the table:

- 4.90
- 4.97
- 5.00
- 5.08



5th st

Curb Change.

B.M. 1.80 943.33

(941.53)

0 +62 Rad. Pt. Lt.

+86.7 Rad. Pt. Lt.

1

+22 Rad. Pt. Lt.

+42 Rad. Pt. Lt.

+54 Rad. Pt. Lt.

+75

2

+15 Rad. Pt.

+25

+37 Rad. Pt. Lt.

7-17-41

Lt.

Q.

Rt.

Gr. Rod

Grade

Grade

Gr. Rod.

Curb 19' Lt. From to

Curb 20.5' Rt. From to

S.W. = $\frac{1}{4}$ " per ft. rise = + 0.17'

4.29

39.04

4.51

38.82

4.63

38.70

4.83

38.50

5.00

38.33

38.21

38.52

3.81

5.08

38.25

38.47

3.86

5.14

38.19

38.40

3.93

38.35

3.98

5.20

48.13

5.23

48.10

