

Dr. 14 BK. 54 Dr. 14

OFFICE OF COUNTY ENGINEER

Storm Sewer Ramsey Co. Minn.

12th St. Survey
Division St. to Long Ave.

Plan Survey
Division St. 8th St. to 12th St.
From To

Storm Sewer — Long Ave,
12th St. to South
Road Acc't. No.

Date Filed 8-3-48

File

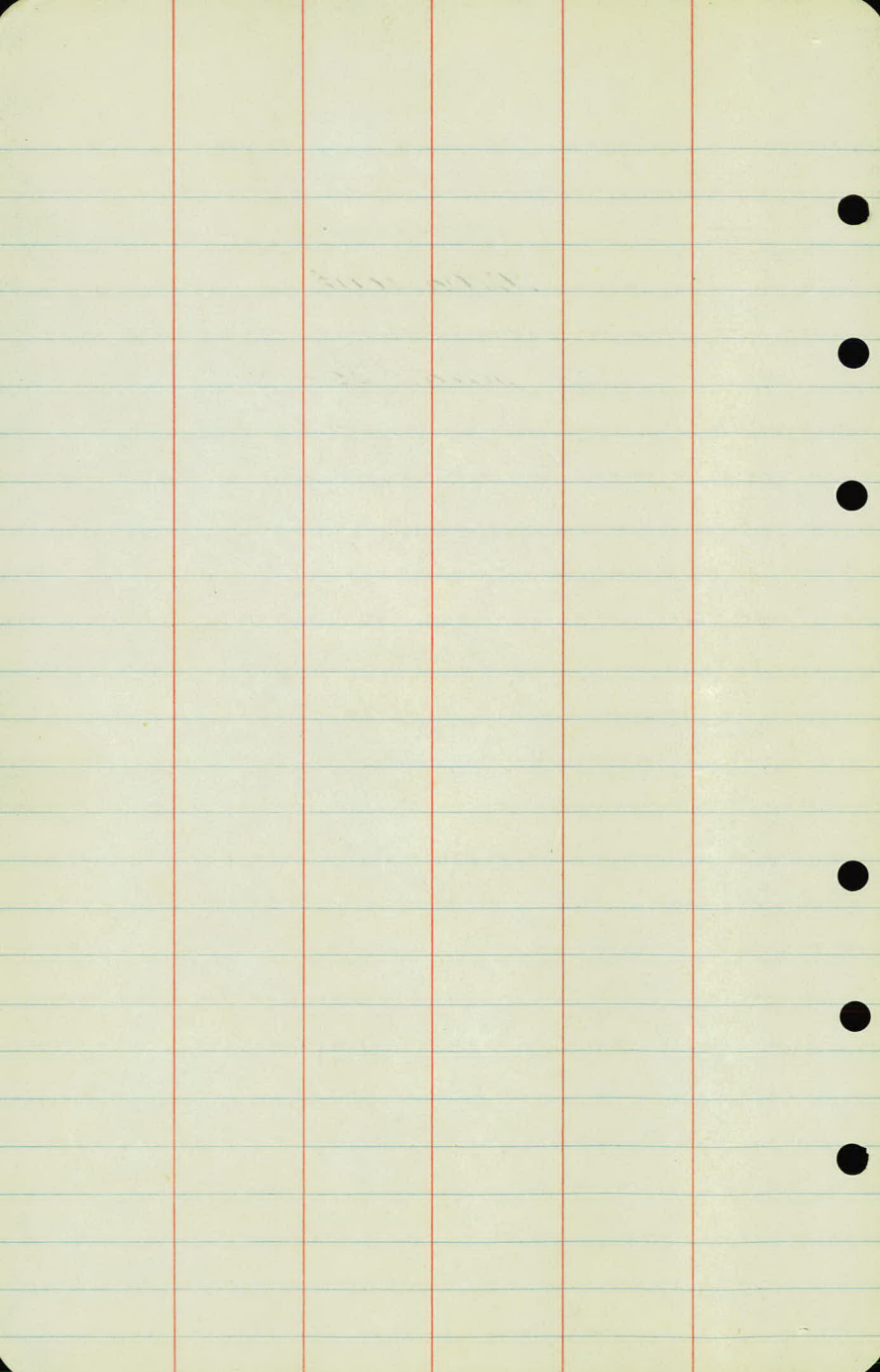
LONG AVE.

Storm Sewer Survey

12th St - South

INDEX	Page
Align -	1-2
Topog -	3-5
Levels -	6-9

Rec 6-23-48

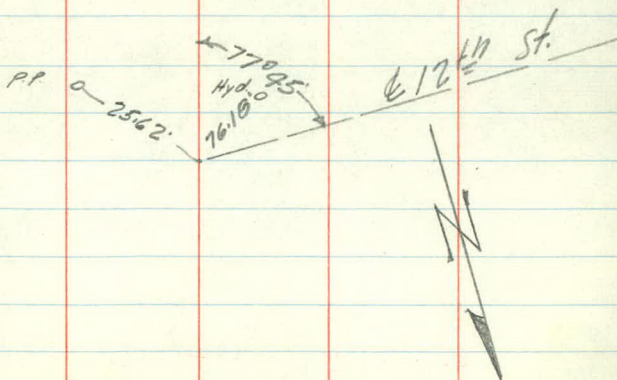


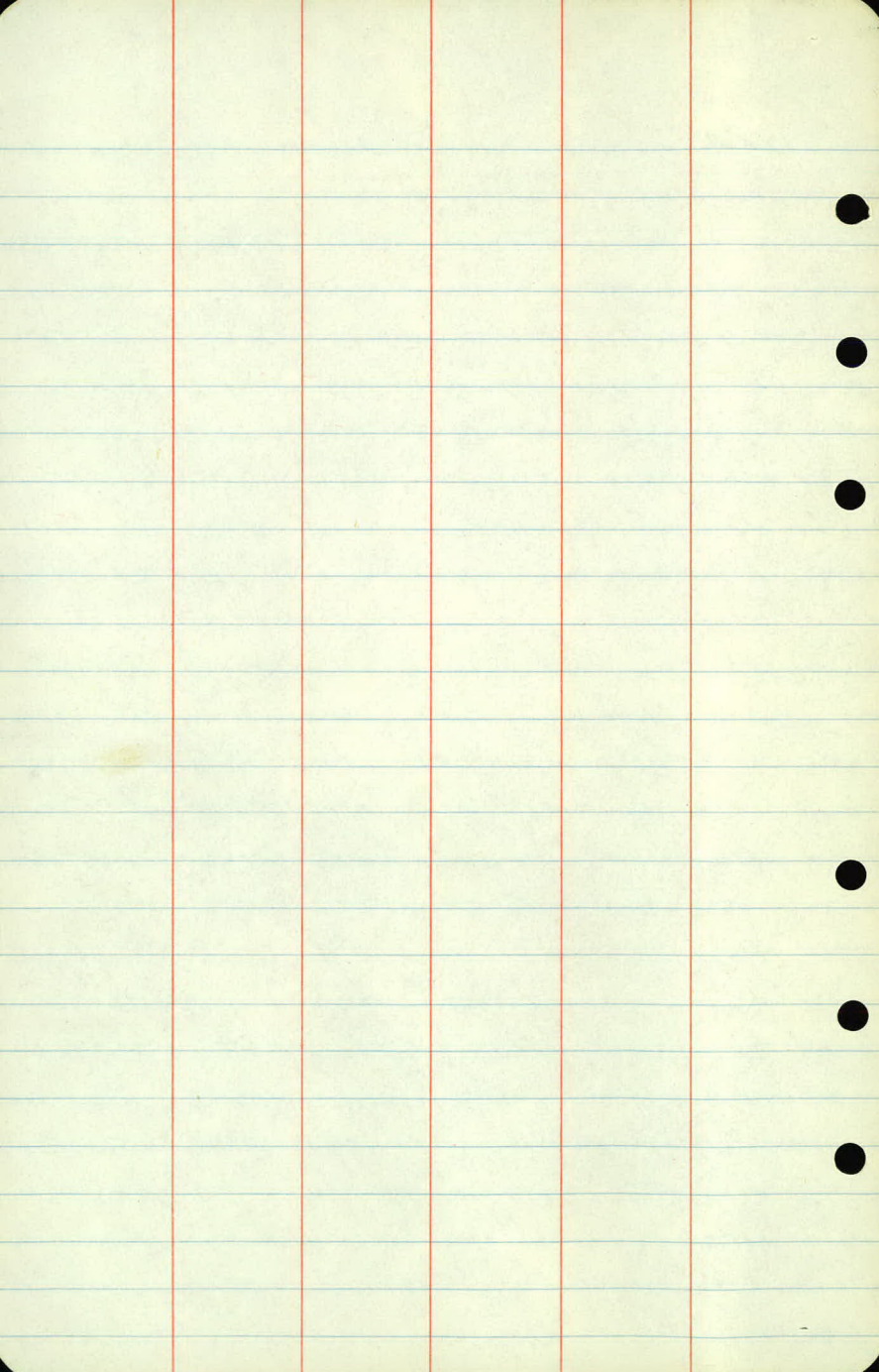
1
Alignment

Long Ave.

Sta	Point	ΔLt	ΔRt
-----	-------	-------------	-------------

$$0 + 00 = 212 \pm 175 \text{ ft}$$





Topography

~~12th St~~

Long Ave

+23-PP-15'

5 4 14'

+90-E.R.R. Xing

4 3' 15'

+62-PP-13'

3 3' 15'

± +24-Iron-16.5' ±

2 1 18'

+84-PP-11'

+23-Ent-

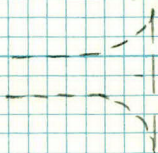
1 0 19'

+23-PP-11'

0 0 17'

6-22-48

4



For detail of 1st see
12th St. Survey

12 7'

+89.5m -
+79.1m - 11.5'

+74.4m - 20'

8

11' 9'

+20.4m - 13'

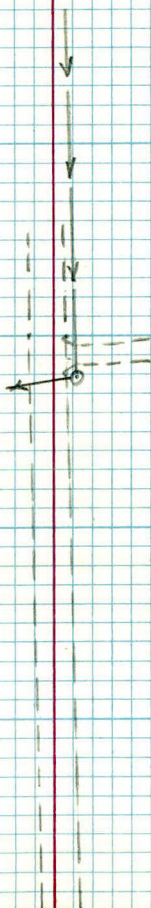
7

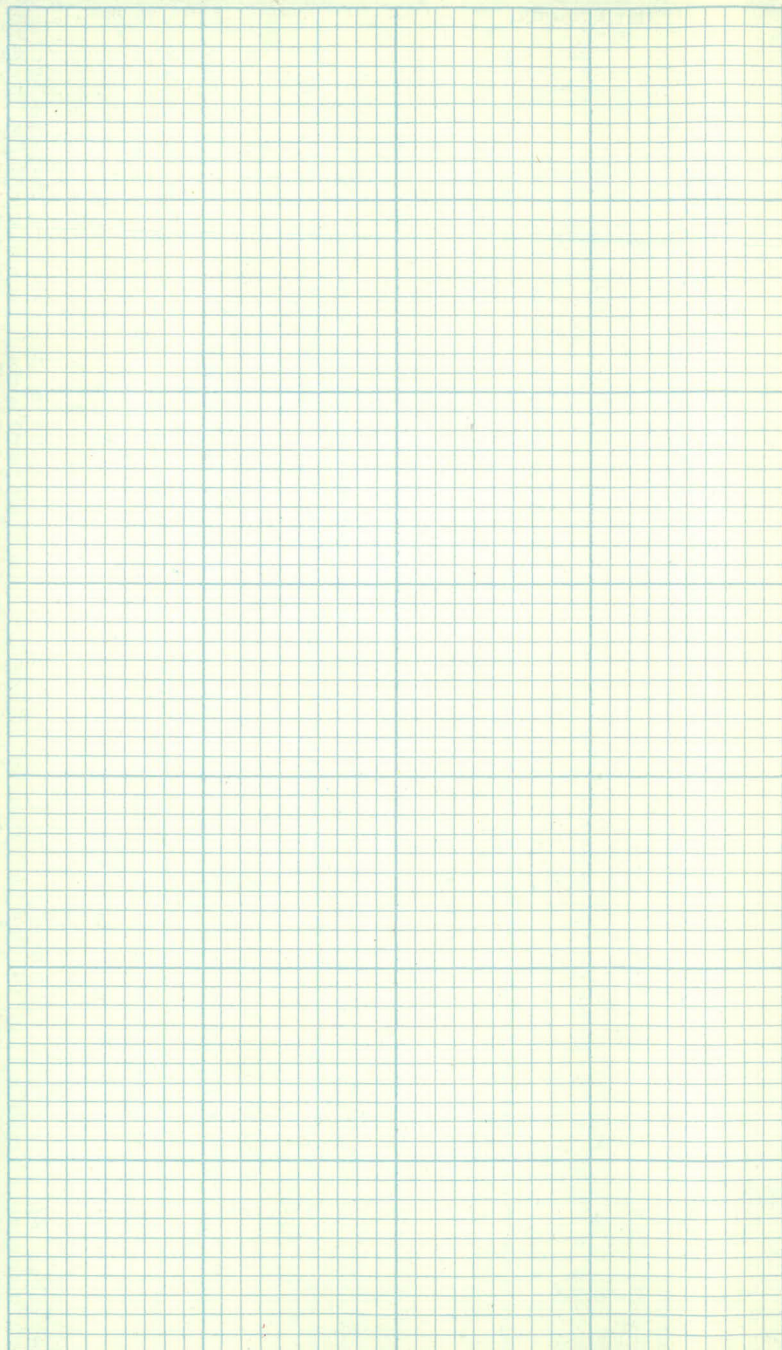
8 11

6

6' 14'

TO E 10TH ST.
SAN. SEWER





PROFILE LEVELS

LONG - AVE

STA	+	π	-	ELEV
		935.72		
B.M			2.73	932.99
0+00				30.3
+33	42			30.4
1	109			30.1
+50	159			29.6
2	209			29.3
+50	259			28.8
3	309			28.5
T.P.	6.43	934.94	7.21	928.51
+50	359			28.3
4	409			28.4
+50	459			28.7
5	509			29.0

Top HYDRT S.W. COR 12TH ST & LONG AVE

5.4

5.3

5.6

HO. 31.22
4.5
92

6.1

6.4

6.9

7.2

6.6

6.5

6.2

5.9

STA	+	π	-	ELEV
		934.94		

5 + 50	559			29.1
--------	-----	--	--	------

6	609			29.4
---	-----	--	--	------

+ 50	659			29.7
------	-----	--	--	------

7	709			30.1
---	-----	--	--	------

+ 50	759			30.5
------	-----	--	--	------

8	809			30.7
---	-----	--	--	------

+ 50	859			30.9
------	-----	--	--	------

+ 79	888			31.0
------	-----	--	--	------

9	909			31.1
---	-----	--	--	------

T.P.	8.28	940.41	2.81	932.13
	6.36	943.54	3.23	937.18

B.M			0.88	942.66 (942.65)
-----	--	--	------	-----------------

LT 4 RT

5.8

5.5

5.2

4.8

4.4

4.2

4.0

3.9

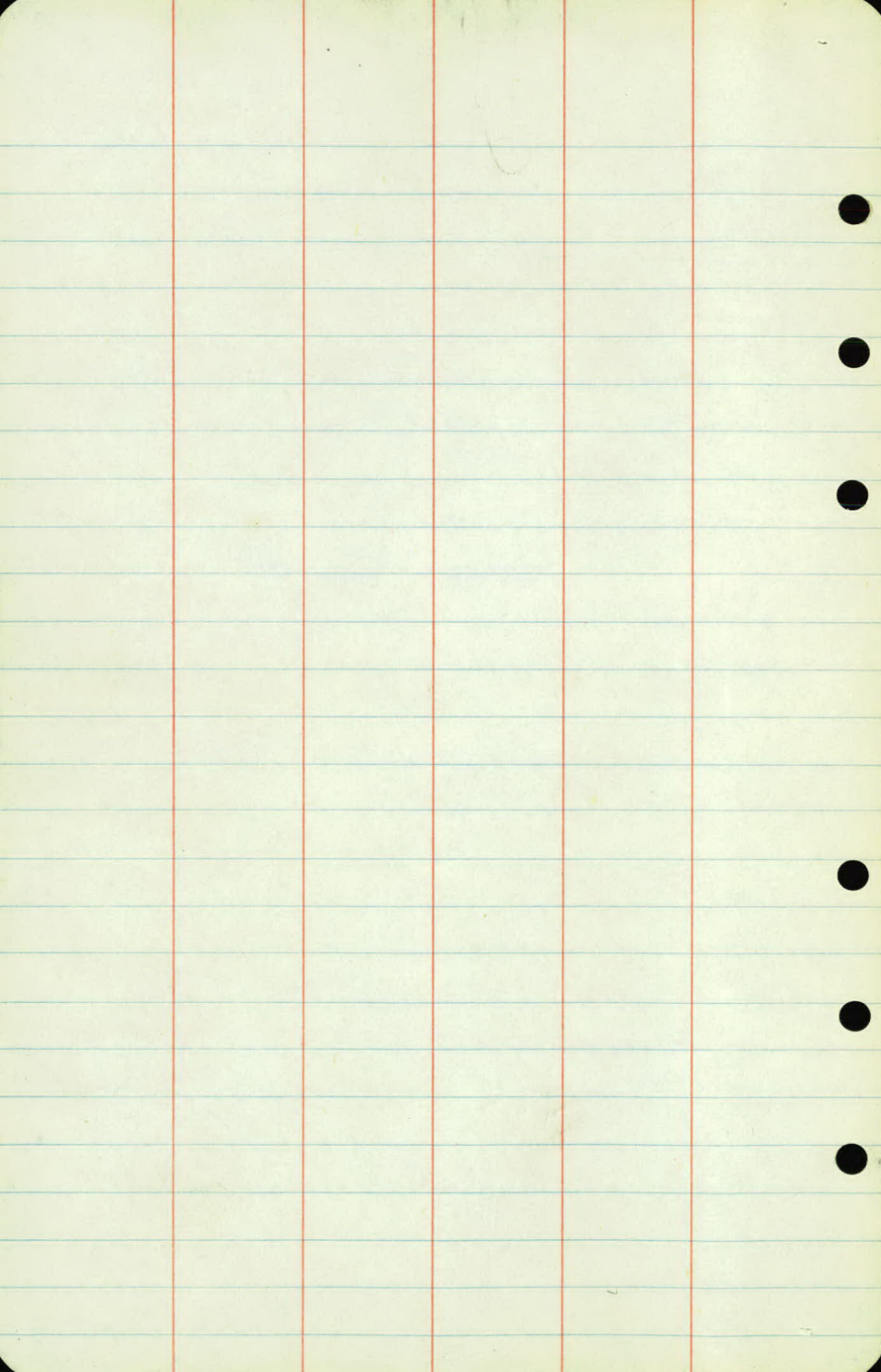
3.8

31.02

Top
M.H.
3.92
11.5

24.02
F.L.
M.H.
10.22
11.5

Top Hydr. N. W. COR 8TH ST. + LONG AV.



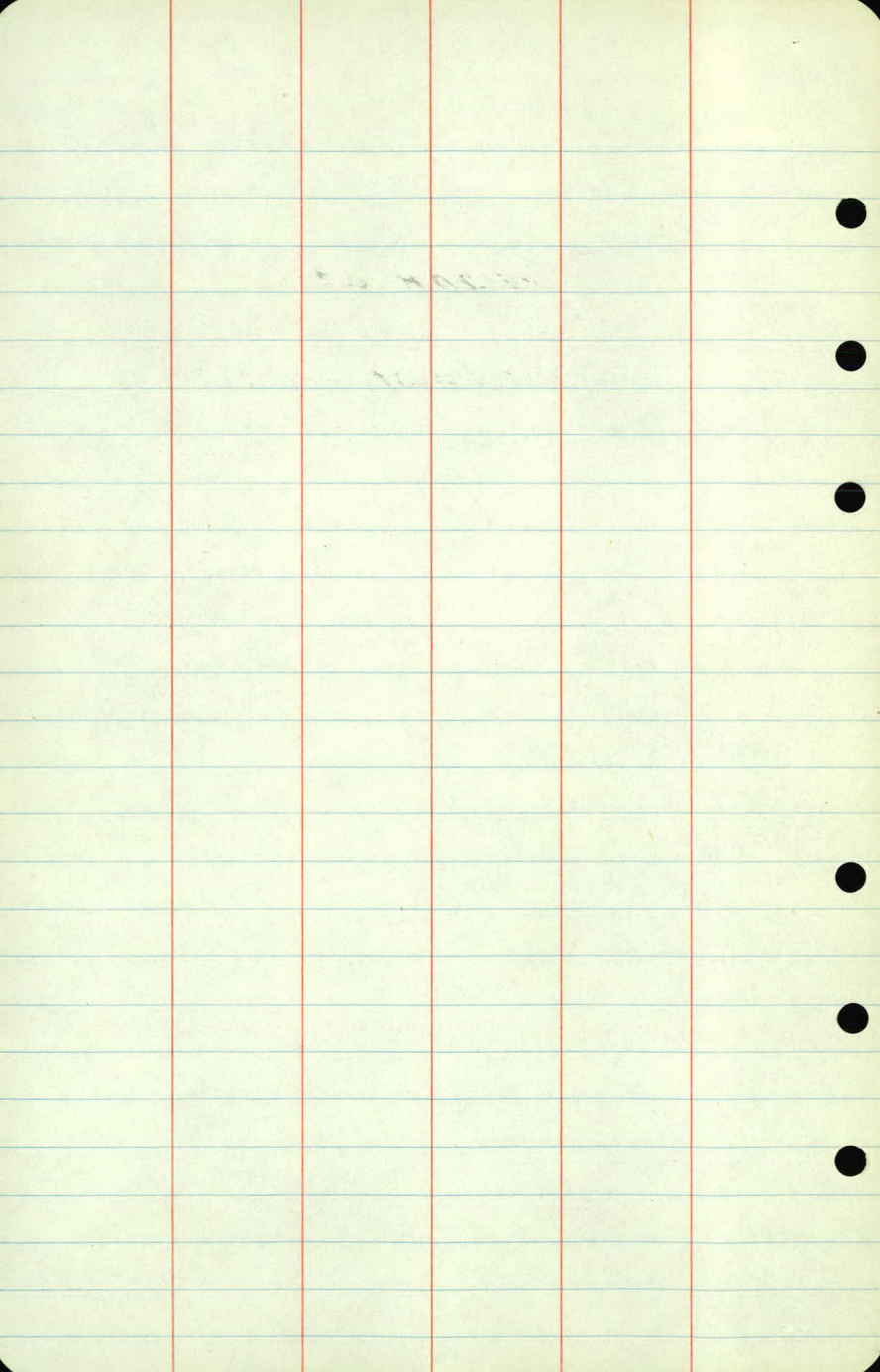
TWELFTH ST.

Storm Sewer Survey

Division St to Long Ave.

INDEX	Page
Align-	1-2
Topog-	3-5
Levels-	6-9

Rec 6-23-48



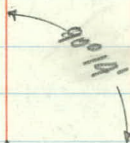
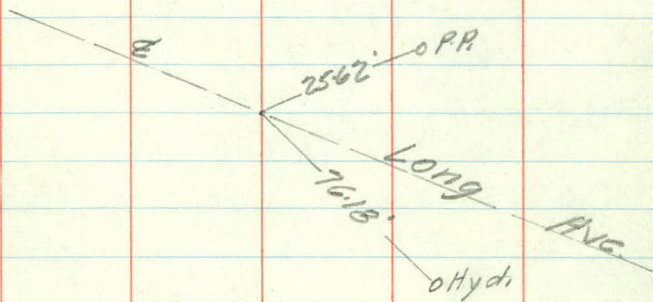
Alignment

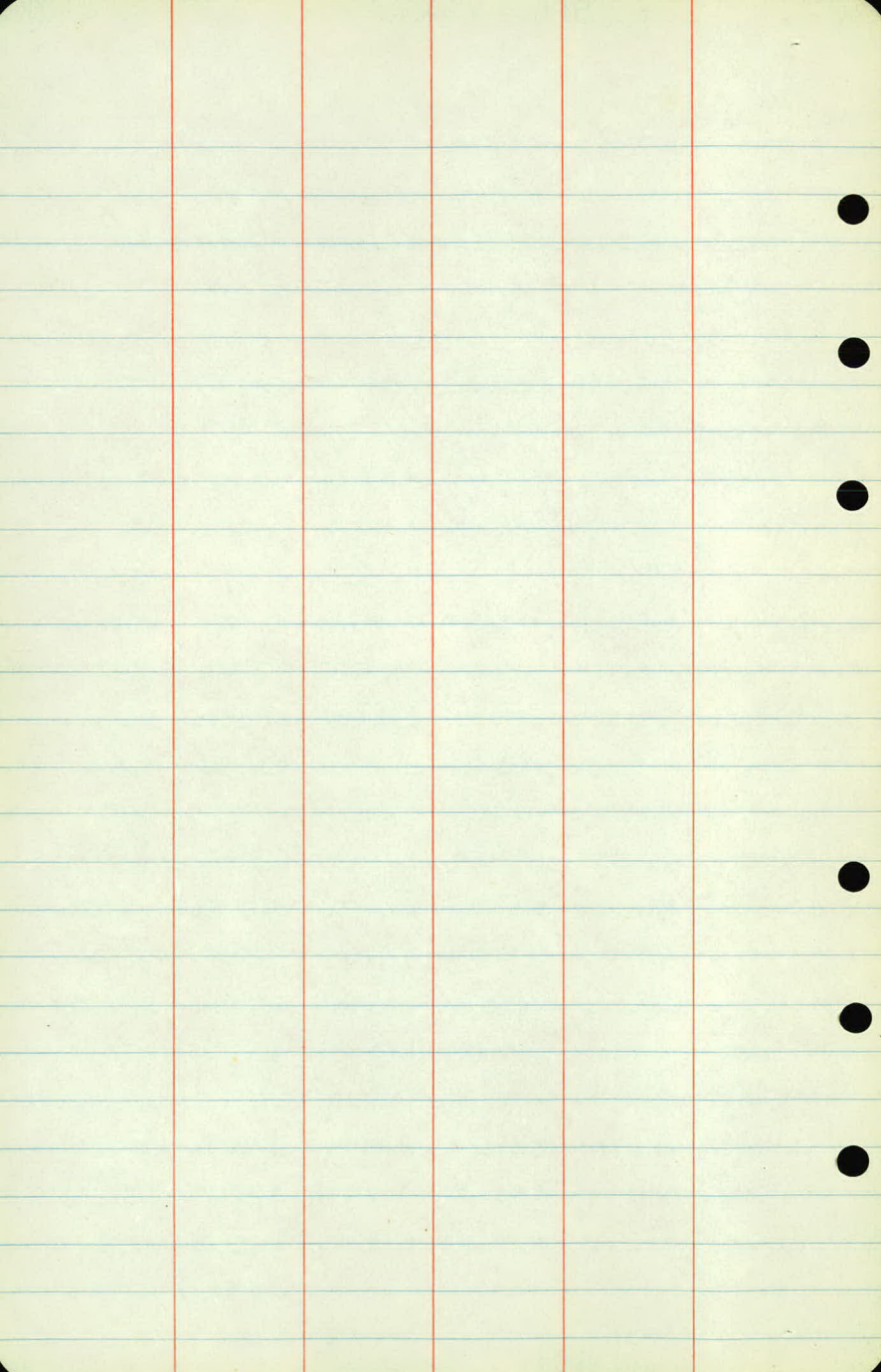
12th St.

Sta	Point	ΔL	ΔPt
-----	-------	------------	-------------

9 +08.98	= E Long Ave.		
----------	---------------	--	--

0 +00	= E Division St		
-------	-----------------	--	--





Topography

12th St.

+54-PP-20'

5 8' 7'

+68-Ent.-
+55-Pg. Cor -33'

4 +30-PP-20'

10' 0' +18-Hyd-24'

+84-Ent.

+75-Cor Hodge-18'

3 11' 5' +36-15' Ppg-20'
+24-15' Ppg-21'
+18-Cor. Hb. -30.5'

+74-Cor. Hodge-18'

+61-10" Apple Tr-19'

2 +19-PP-20.5'

10' 6'

+72-Ent. - 10"X20" CM
15'

+30-Ent. - 12"X20" CM
10'

1 10' 6'

+69-PP-20.5'

12"X26" CM

+65-Pd = 11' 7'

+68-Ent 12" CM -13.5'

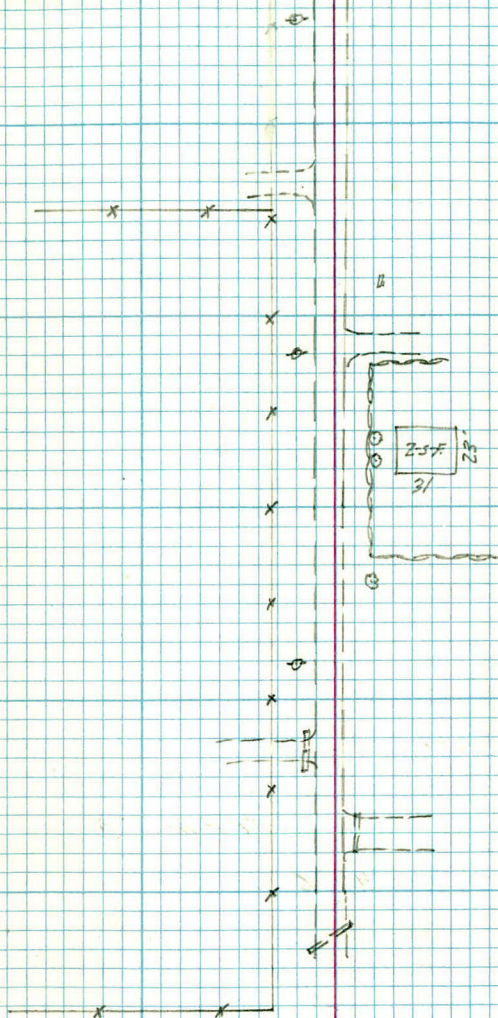
+82-Ent 12" CM -9'

+38-Pg Cor -33'

0 For details of int. see
Division 5 & notes

G-21-48

4



+10-Edge Bl. Top

9

+96-Ed & Bl. Top-28'

+84-Bl. Top & Ed-33'

+85-10' 8" M-24'
+76-10' 8" M-11.5'
10' 8" 6" M.

+75-8'-22'

+50-5'-12'

+37-Hyd-23.6'

8

9 10'

+70-Ent-

+61-Ent-

+26-PR-21.5'

7

10' 9' +09-Ent-

+52-Ent-

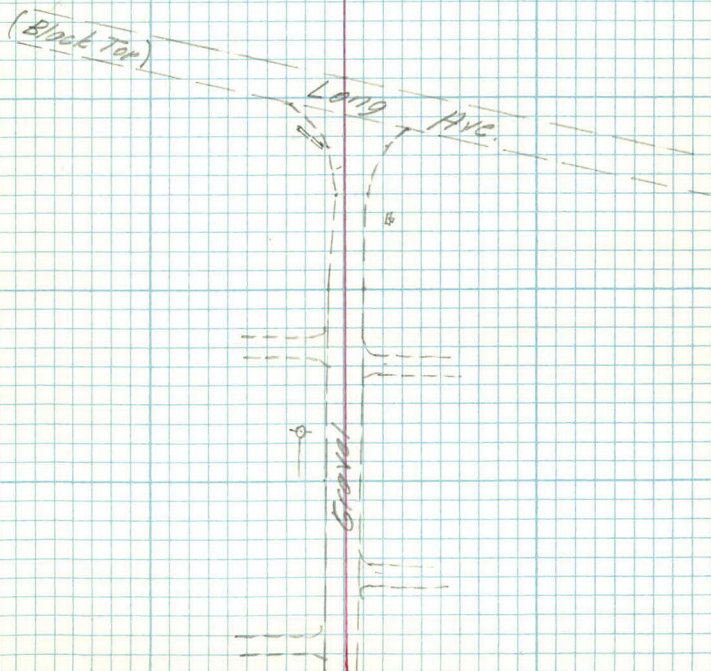
6

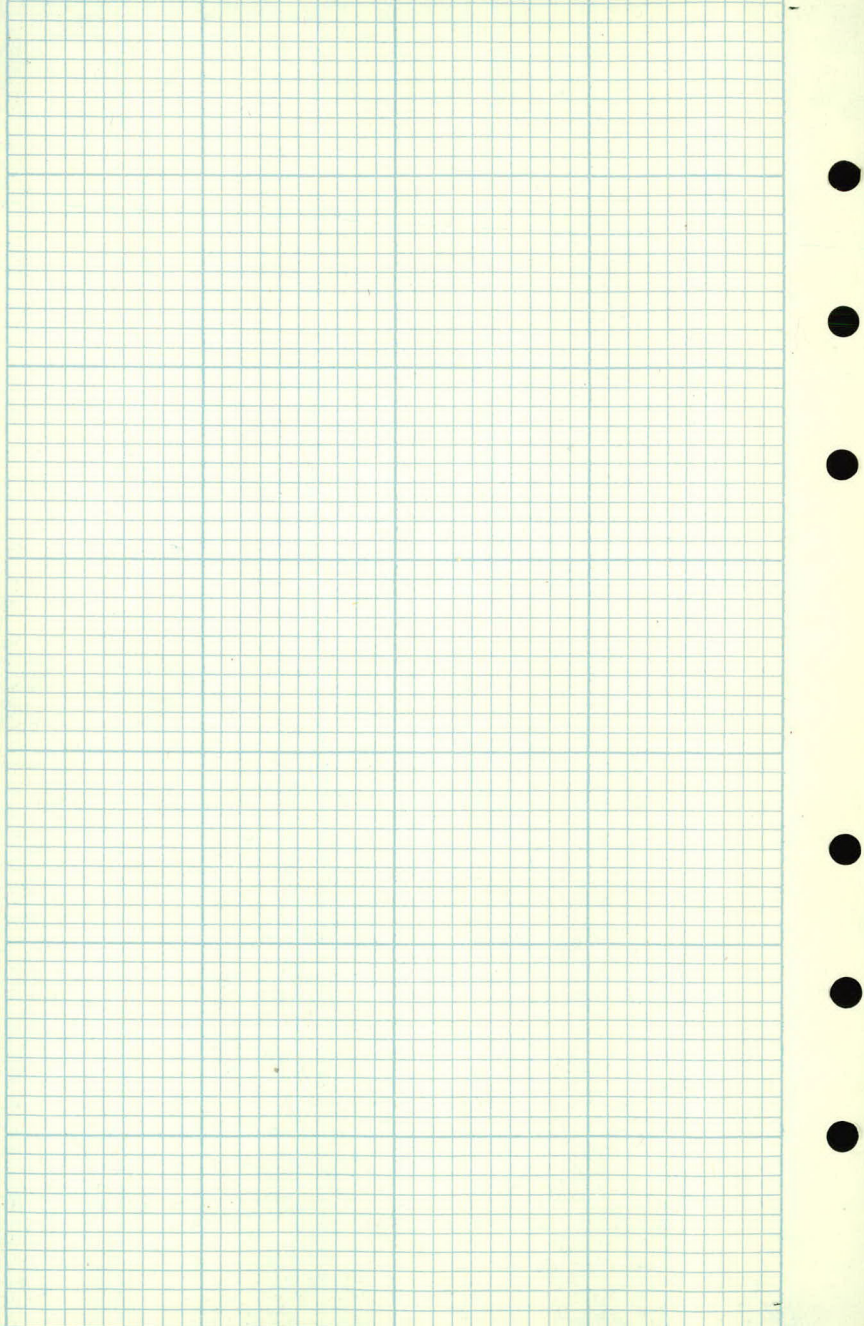
+15-Ent-

10' 7'

6-21-48

5





PROFILE - LEVELS

12TH ST

STA	+	∇	-	ELEV
B.M.	2.11	942.54		940.43
0 + 00				37.6
+30				37.4
+68				37.4
+82				37.5
1				37.5
+30				37.5
2				37.6
+50				37.5
3				37.6

LT.

2

RT

TOP HYDRT S.E. COR DIVISION + 12TH ST

4.9

5.1

5.1

5.0

HO 38.0
4.5
63

5.0

5.0

GARAGE 37.22
5.32
64

4.9

5.0

4.9

STA	+	Δ	-	ELEV
		942.54		

3 + 40				37.4
--------	--	--	--	------

+ 82				36.8
------	--	--	--	------

4				36.7
---	--	--	--	------

+ 50				35.9
------	--	--	--	------

5				35.2
---	--	--	--	------

+ 50				34.7
------	--	--	--	------

6				33.9
---	--	--	--	------

T.P.	1.51	935.72	8.33	934.21
------	------	--------	------	--------

+ 26				33.5
------	--	--	--	------

+ 84				32.4
------	--	--	--	------

7				32.2
---	--	--	--	------

+ 40				31.6
------	--	--	--	------

+ 86				31.2
------	--	--	--	------

LT

C

RT

5.1

HO
4.6 37.94
50

5.7

GARAGE
5.28 37.26
61

5.8

6.6

7.3

7.8

8.6

2.2

HO.
3.0 32.7
70

3.3

HO.
3.8 31.9
58

3.5

4.1

HO.
4.9 30.8
71

4.5

31.28
W
4.44 HO
34.5 4.4 31.32
48

STA	+	π	-	ELEV
		935.72		

8+00				31.0
------	--	--	--	------

+69				30.8
-----	--	--	--	------

+76				30.4
-----	--	--	--	------

9				30.4
---	--	--	--	------

+0898				30.3
-------	--	--	--	------

				30.3
--	--	--	--	------

B.M.			2.73	932.99
------	--	--	------	--------

LT

L

RT

4.7

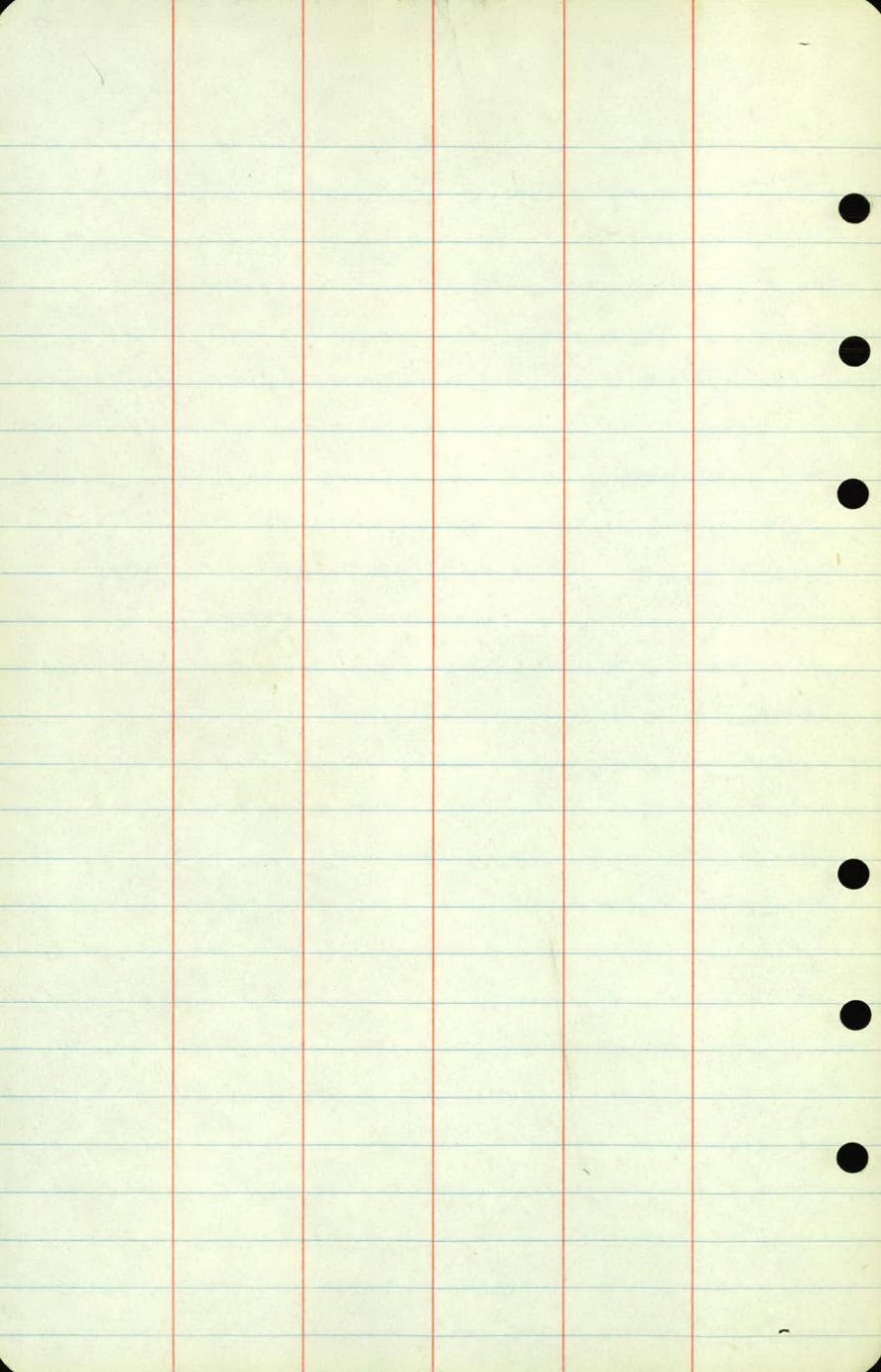
4.9

5.3

5.3

5.4

Top HYDRT. S.W. COR 12TH ST. & LONG. AVE



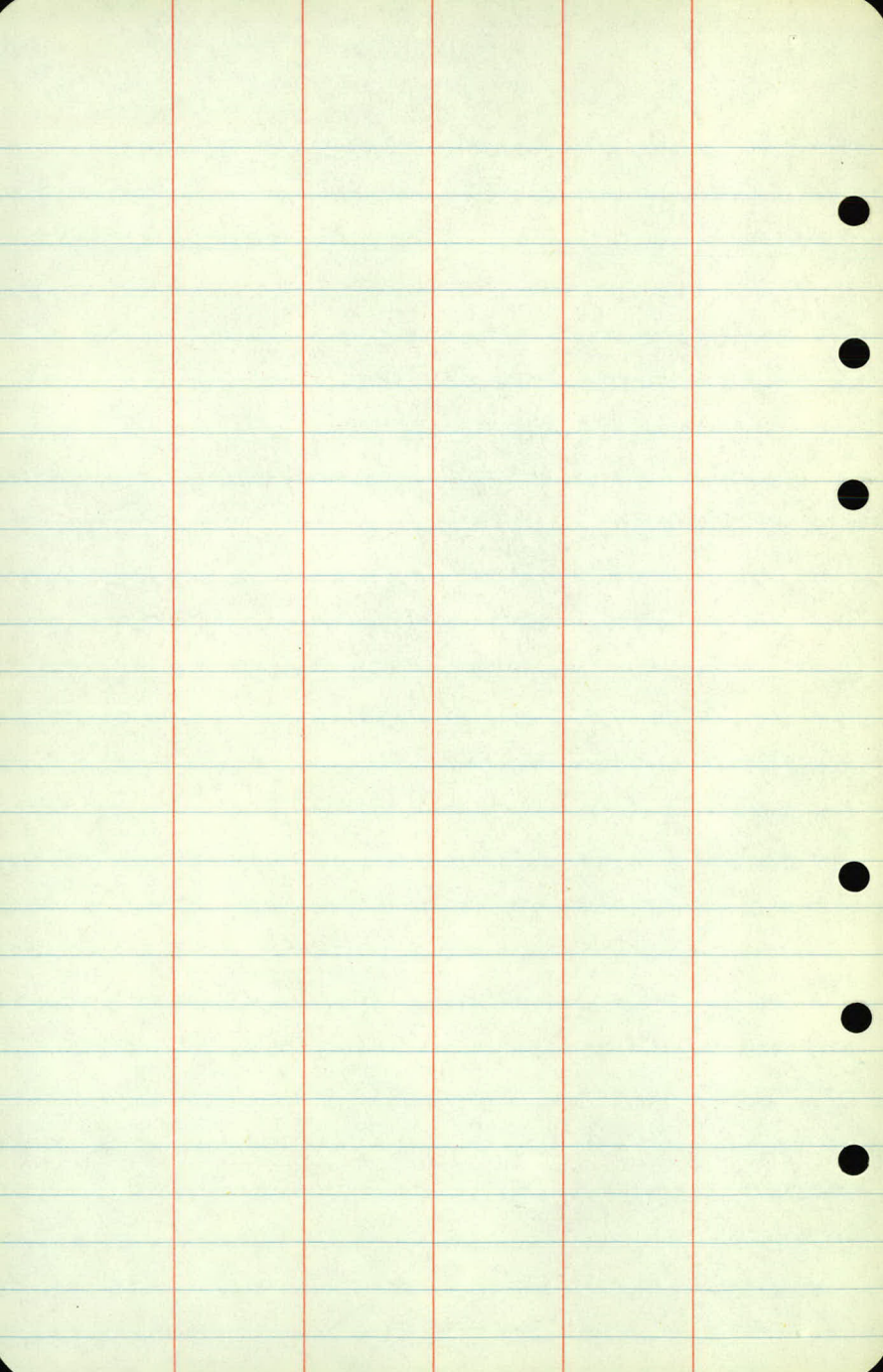
PLAN SURVEY

DIVISION ST

8th St to 12th St.

INDEX	PAGE
Align -	1-2
Topog -	3-6
XSec. -	7-11

Rec 6-23-48



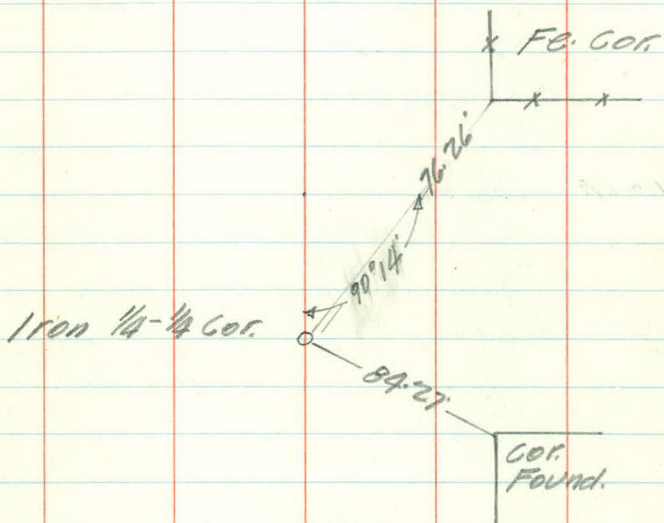
1
Alignment

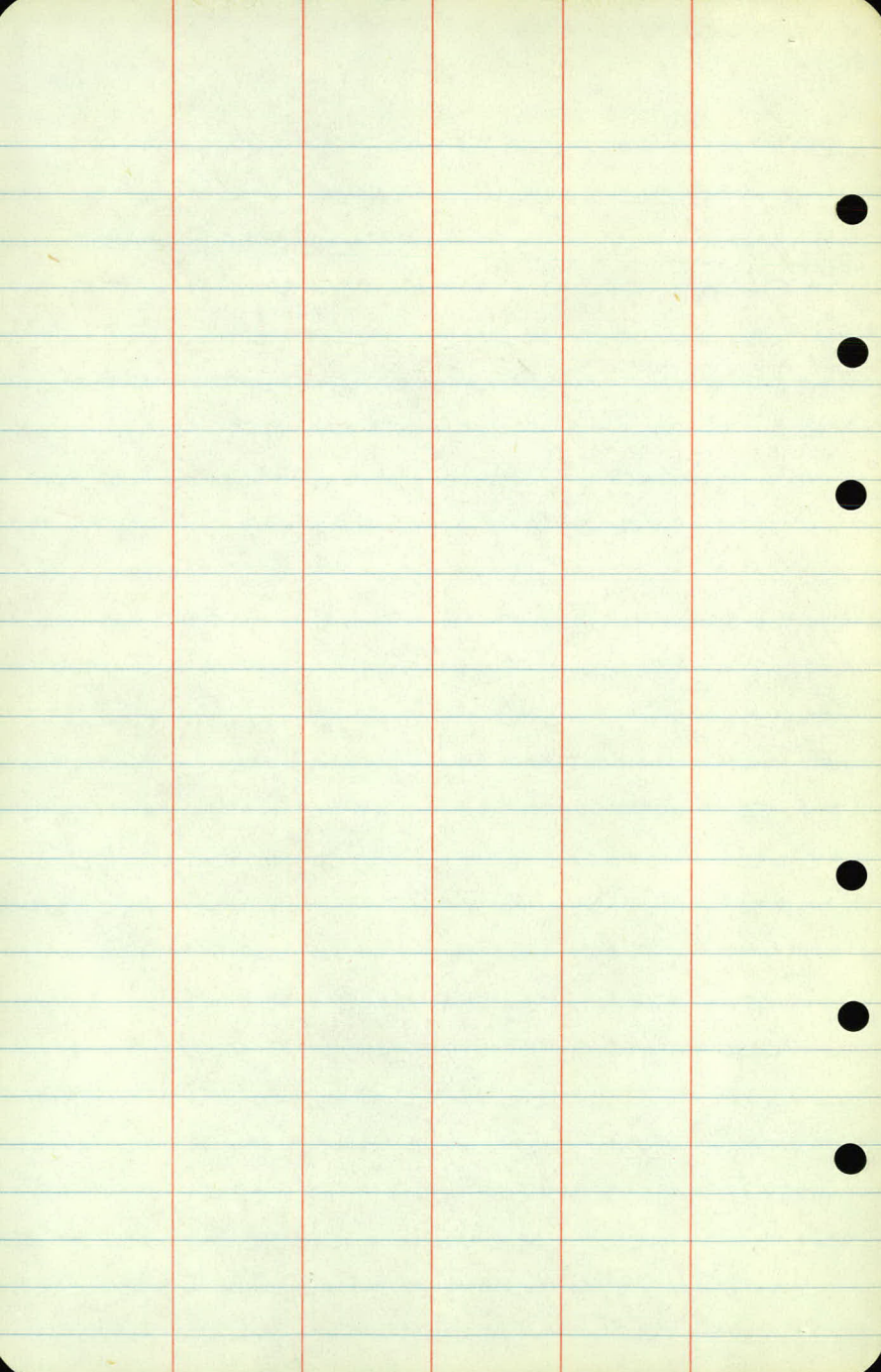
Divisionist

$$16 + 00.8 = \text{E } 12^{\text{th}} \text{ St}$$

$$15 + 67.8 \text{ P.O.T.}$$

$$0 + 00 = \text{E } 8^{\text{th}} \text{ St } (\underline{\underline{\text{Curbs}}})$$





Topography

Division

+96-Ent-

+99-PP-20.5'

+98-18°BE-23'

+52-6 2.5W-31'

+33-Ent-

+10-6 Double Ent-

5

10' 10'

+33-T.P.-22'

+76-83°SW-29.1'

+60-PP-20.5'

+47-Ent-

+38-Ent-

+20-83°SW-30'

+108-Ent-

4

10' 11'

+63-M.H.-5'

+46-Ent-

+35-PP-20.5'

+56-T.P.-21.5'

3

10' 12'

+92-6.3°SW-29'

+49-Ent/SW-22.5-22.5'

+45-Ent-

+14-PP-20.5'

+22-PP-21'

+02-Ent

2

10' 10'

+53-Ent-

1 SW-28.3-22.3'

11' 9' +09-PP-20.5'

+94-PP-20'

SW-28.2-22.2' +30-Ent/Curb-15-15'

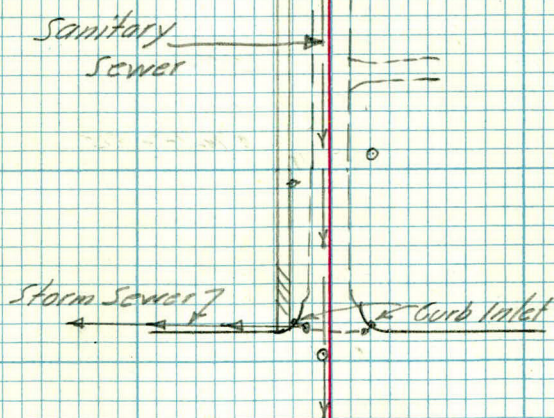
0

+18-M.H.-14.5'

+03-M.H.-4'

6-21-40

4



+64-T.P.-26.5'

12 +18-PP-20.5'

10' 11'

+38-12" C.M.-35.5'-15.5'

+38-12" C.M.-16-32'

+32-Hyd.-30.5'

+28-T.P.-26'

11

9' 12'

+52-PP-21'

+22-Ent-

10

10 12' +06-T.P.-25'

+63-M.H.-1'

+46-Ent-

9 Ent-

11' 12'

+67-PP-21'

+76-T.P.-25'

+46-24" B.E.-25'

8

12' 11' +13-24" B.E.-25'

+89-24" B.E.-25'

+72-Hyd.-20.5'

+59-Ent-

+21-T.P.-24.5'

+32-15" B.E.-25'

+21-Ent-

+23-M.H.-6'

7

11'

+97-PP-21'

+96-E 3 S.W.-32'

+60-Ent-

+32-15" B.E.-25'

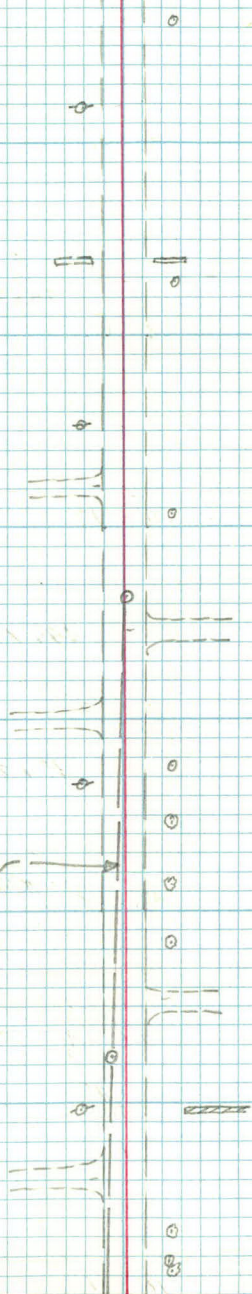
+18-T.P.-23'

+14-15" B.E.-23'

6

10' 12'

SAN. SEWER



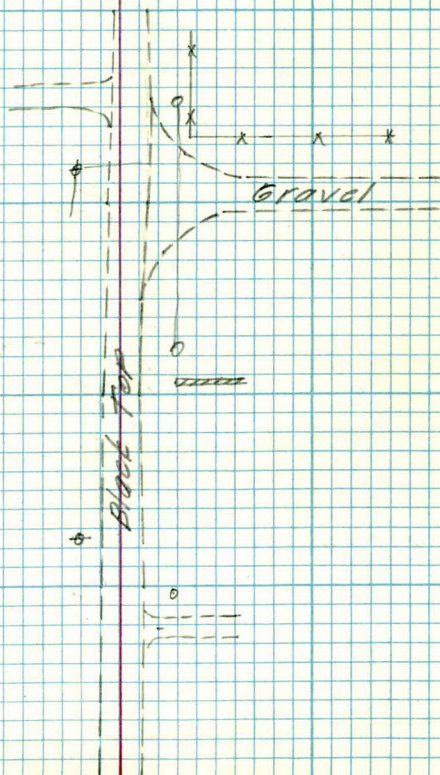
4' 14

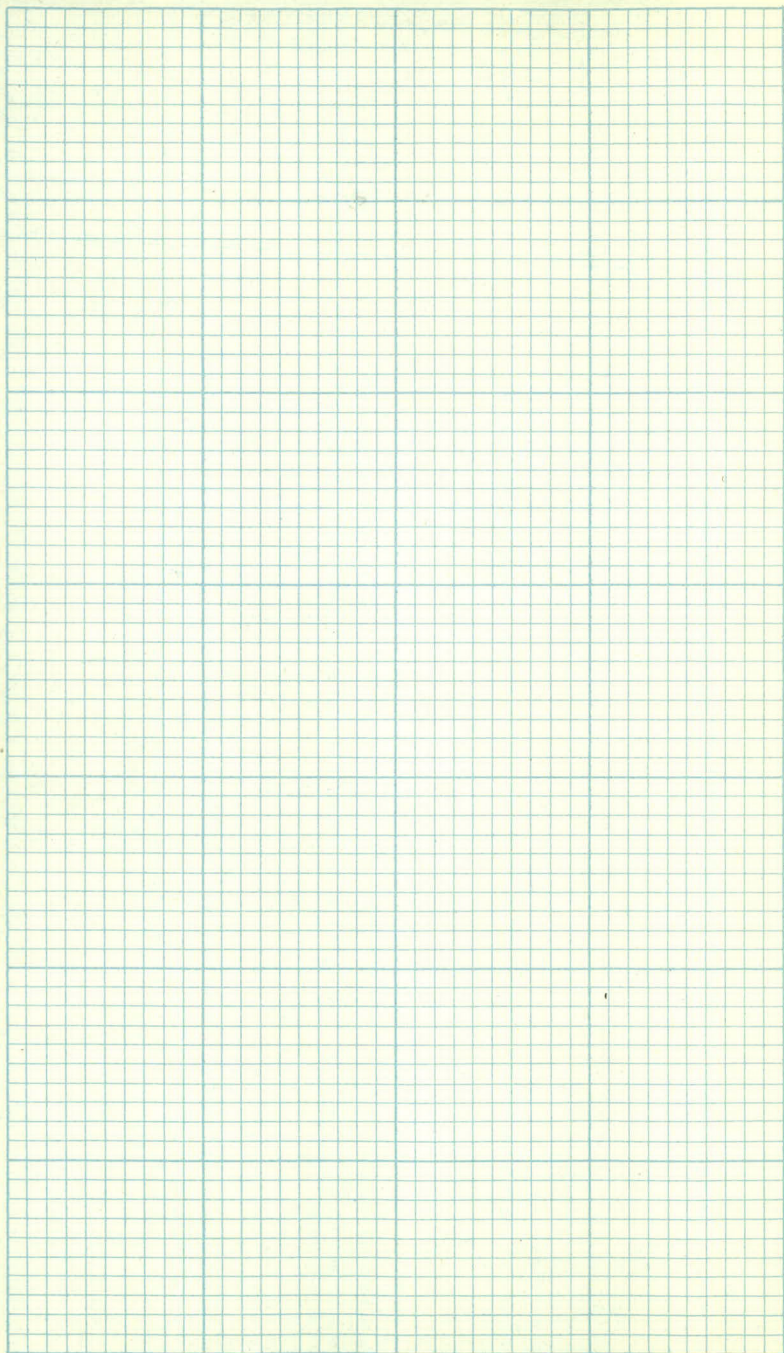
+56-Ent-
16 +19-PP-21'
+40-Rd=5'
7' 14
+34-Rd=16-T.H.-30'
+34-12 Con 38'
+25-Rd=34
+12-Rd=62'
+94-Rd=50'
+75-Rd=22'
10'=+50
+47-Hyd-20'
+24-T.P. 285'
15 9' 10' +106-Q.35W.-29'

+25-PP 20'
14 10' 12'
+97-T.P.-28'
+79-Ent-

13 11' 11

K.A.
D.M.
M.B.
R.C.
C.B.





Xsections

Division St.

Sto.	+	π	-	Elev.
B.M.	1.18	940.92		939.74

0	+00			36.6
---	-----	--	--	------

	+18	M.H.		
--	-----	------	--	--

	+30			
--	-----	--	--	--

				36.4
--	--	--	--	------

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

2				36.5
---	--	--	--	------

	+49	END S.W LT		36.6
--	-----	------------	--	------

	+93	S.W		
--	-----	-----	--	--

3				36.7
---	--	--	--	------

4				36.7
---	--	--	--	------

	+77	S.W.		
--	-----	------	--	--

6-21-48

8

L

E

R

Top Hyd. S.E. Cor. 8th & Division Sts.

4.3

32.49

35.89

M.H

Top

F.L

M.H

8.43

5.03

36.71

14.5

36.27

W W

CURB 36.29

4.4	4.21	4.21	4.1	4.63	5.1	4.7	4.5	5.1	4.65	4.1	4.4
50	28	23	20	15	15	8		15	15	22	50

36.88

W

W

36.89

HO

36.87

4.04	4.03	4.1	5.1	4.8	4.5	4.9	5.2	4.1	4.1
28.6	22.6	19	15	7		9	15	21	44

37.03

W

W

37.05

3.89	3.87	3.9	3.2	4.9	4.4	4.9	5.2	4.4	4.2	5.3	5.0
29.1	23.1	20	14	10		10	15	20	28	33	50

37.35

37.19

3.57	3.73	3.9	5.0	4.3	4.9	5.0	4.1	4.7
28.6	22.6	18	13		12	16	22	50

J.W

3.59

37.33

3.6	3.9	4.3	4.1	4.9	4.8	4.2	4.6	4.8	4.1	3.8	4.4	4.7
50	28	24	18	15	10		10	15	20	29	32	50

5.4	5.2	4.2	4.1	4.6	4.5	4.2	4.3	4.8	4.4	4.7
50	32	27	18	14	9		8	15	19	50

37.0

37.22

STA	+	π	-	ELEV
		940.92		

5				37.2
---	--	--	--	------

T.P	5.15	942.03	4.04	936.88
-----	------	--------	------	--------

6				37.3
---	--	--	--	------

	+95	S.W.		
7				37.3

	+23	M.H		
B.M			2.50	939.53

8				37.1
---	--	--	--	------

9				36.8
---	--	--	--	------

	+63	M.H		
--	-----	-----	--	--

10				36.6
----	--	--	--	------

11				36.4
B.M	2.88	941.26	3.65	938.38

LT

LT

RT

3.3 3.2 3.8 3.8 4.3 4.2 3.7 3.8 4.1 4.1 3.4 3.3 3.5 4.6
50 44 25 18 15 9 6 11 17 21 26 33 50

2.2 2.7 4.3 4.9 5.3 5.1 4.7 5.2 5.2 4.5 4.6 5.5
50 32 27 18 14 9 13 15 20 27 50

W
4.58 37.45
32.2

2.2 2.6 4.3 4.1 5.0 5.0 4.7 5.0 5.1 4.2 4.1 4.5
50 34 27 21 15 10 11 16 20 28 50

Top F.L. 38.18
M.H. M.H.
4.80 10.90
6 6

Top HYDRT 20' RT STA 7+75

4.0 3.7 4.6 4.6 5.3 5.3 4.9 5.1 5.3 5.3 4.6 4.8 5.6 5.3
50 34 27 20 16 12 25 12 15 23 27 34 50

5.9 5.5 5.0 5.3 5.6 5.2 5.6 5.7 4.9 4.3 4.3
50 37 25 18 14 11 13 19 29 50

37.00
Top F.L. 31.90
M.H. M.H.
5.03 10.13

6.2 5.2 5.1 6.0 5.8 5.4 5.7 6.0 5.0 4.9 4.1 4.0
50 31 19 15 10 9 15 20 30 34 50

6.7 5.6 5.5 6.4 6.1 5.6 6.2 6.2 5.5 6.3 6.5 6.5
50 29 20 15 9 7 15 20 27 36 50

Top HYDRT 22' RT STA 11+32

STA	+	π	-	ELEV
		941.26		
11 + 38		12" C.M.		36.4
+ 39		12" C.M.		36.4
12				36.5
13				36.6
T.P.	5.37	941.71	4.92	936.34
14				36.8
15				37.1
+ 06		S.W.		37.1
+ 68				37.4
16 + 01		ϕ 12 TH		37.6
16 + 34				37.6

LT

4

35.36 RT

35.01

34.95

F.L.

F.L.

F.L.

F.L.

6.31 6.0 4.4 4.8 5.9 5.4 5.5 4.9

32 32 29 17 16 16 12

$$\begin{array}{r} 5.9 \\ 50 \end{array} \quad \begin{array}{r} 6.5 \\ 100 \end{array} \quad \begin{array}{r} 6.7 \\ 150 \end{array} \quad \begin{array}{r} 7.1 \\ 200 \end{array}$$

$$\begin{array}{cccccccccccc} 4.9 & 5.4 & 5.9 & 4.9 & 4.6 & 5.2 & 6.2 & 5.4 & 5.6 \\ 12 & 15 & 17 & 24 & 33 & 36 & 39 & 50 \end{array}$$

$$\begin{array}{cc} 6.4 & 6.0 \\ 80 & 100 \end{array}$$

$$\begin{array}{cccccccccccc} 5.1 & 5.0 & 4.5 & 4.5 & 4.6 & 5.4 & 5.5 & 4.8 & 5.3 & 4.4 & 4.6 & 6.0 & 6.0 \\ 50 & 42 & 40 & 29 & 19 & 16 & 12 & & 15 & 22 & 29 & 39 & 50 \end{array}$$

$$\begin{array}{cccccccccccc} 5.2 & 4.9 & 4.4 & 4.7 & 5.3 & 5.3 & 4.7 & 5.1 & 5.2 & 4.5 & 4.3 & 5.2 & 5.3 \\ 50 & 40 & 26 & 18 & 15 & 10 & & 12 & 16 & 20 & 27 & 33 & 50 \end{array}$$

$$\begin{array}{cccccccccccc} 5.5 & 4.9 & 4.8 & 5.6 & 5.4 & 4.9 & 5.3 & 5.4 & 4.7 & 4.8 & 5.3 & 5.7 \\ 50 & 38 & 19 & 15 & 9 & & 12 & 15 & 20 & 29 & 32 & 50 \end{array}$$

$$\begin{array}{cccccccccccc} 4.6 & 4.3 & 4.6 & 5.3 & 5.3 & 4.6 & 5.0 & 5.2 & 4.6 & 4.5 \\ 50 & 28 & 19 & 16 & 12 & & 10 & 15 & 20 & 50 \end{array}$$

4.6

$$\begin{array}{r} W. \\ 4.20 \\ 30 \end{array}$$

37.56

$$\begin{array}{cccccccccccc} 3.8 & 3.8 & 4.7 & 4.7 & 4.3 & 4.9 & 4.8 & 4.4 & 4.5 \\ 50 & 25 & 15 & 10 & 9 & & 17 & 22 & 50 \end{array}$$

$$\begin{array}{cccc} 4.5 & 4.1 & 4.9 & 4.6 & 4.1 \\ 50 & 24 & 13 & 8 \end{array}$$

$$\begin{array}{cccccccc} 4.7 & 4.7 & 4.8 & 4.1 & 4.0 & 4.5 & 5.7 & 4.2 & 4.0 \\ 50 & 21 & 10 & & 12 & 23 & 30-31 & 35 & 50 \end{array}$$

STA	+	π	-	ELEV
		941.71		
16 + 60				37.5
17				37.0
+50				35.3
18				35.3
+50				34.0
19				32.6
+50				31.6
20				30.5
B.M		1.28		940.43

LT

E

RT

4.6	5.1	5.1	4.7	4.7	4.2	4.1	4.5	4.9	<u>5.9</u>	5.2	4.7	4.4
50	29	15	14	8		5	16	21	23-24	26	29	41

L.O.

4.9	4.7	5.0	<u>5.8</u>	5.3	5.0	4.7	4.5	4.8	5.3	<u>6.4</u>	5.7	4.8	4.9
50	30	15	14-13	12	6		5	14	21	24-25	26	30	40

L.O.

6.4

6.4

7.7

9.1

10.1

11.2

Top HYDRT S.E. COR DIVISION + 12th ST

