

Book- 2, Dr. 13

OFFICE OF COUNTY ENGINEER  
RAMSEY CO. MINN.

*Grading Plan* Survey

*7TH St, 8TH St & 4TH Ave*  
*New Brighton*

From..... To.....

Road Acc't. No. *33-N.B.B*

Date Filed. *1933*

File.....

Alignment

8<sup>th</sup> St.

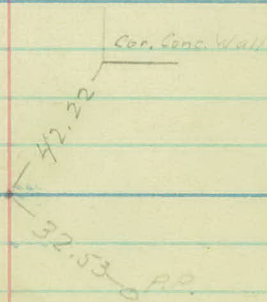
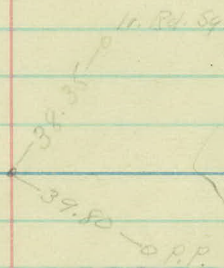
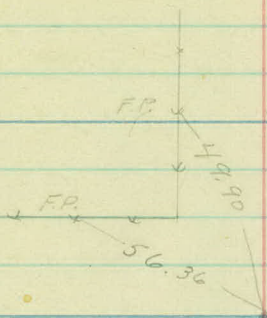
STH 63 to 3<sup>rd</sup> Ave

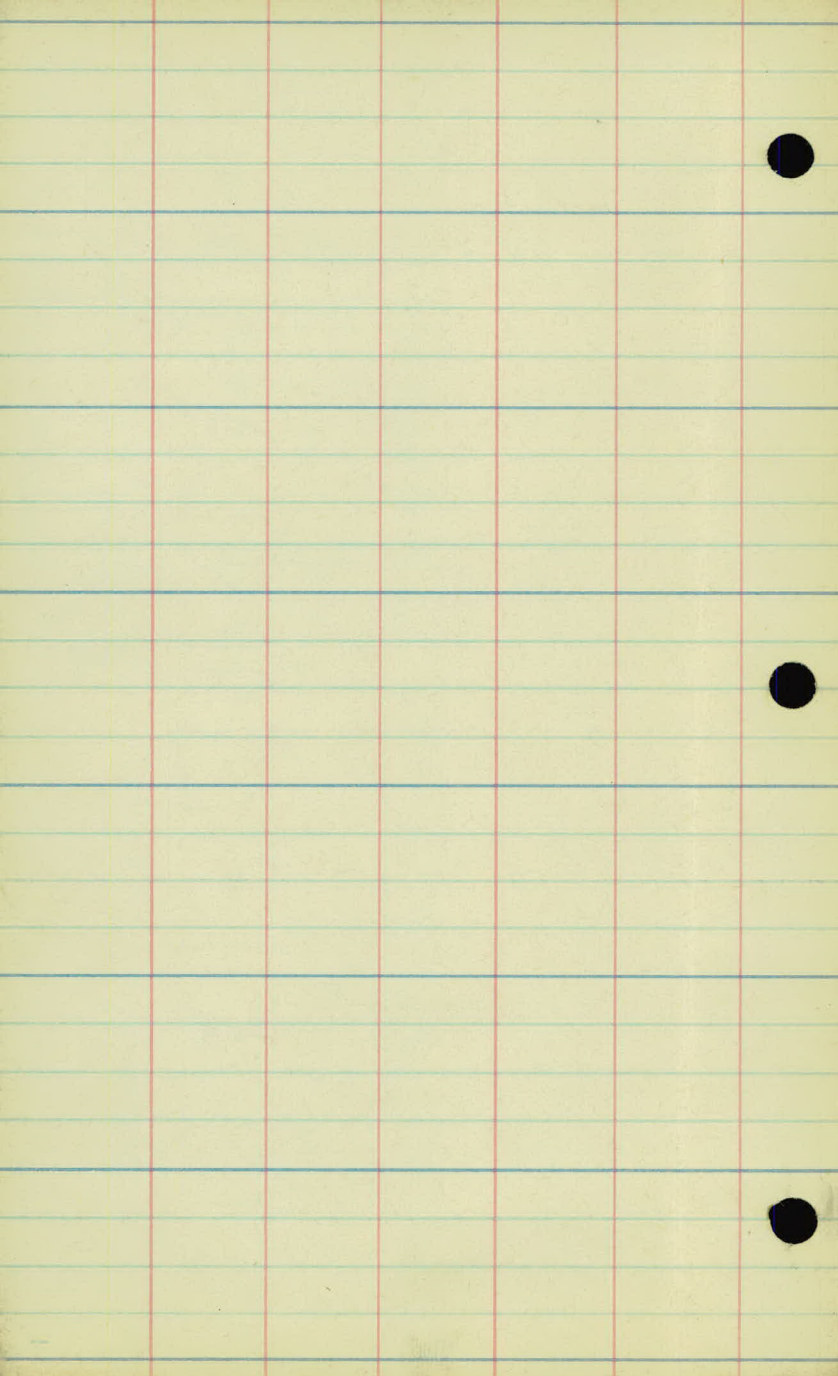
33-N.B.8

6+52.18 E 319 Ave

3+26.18 P.O.T.

0+00 E S.T.H. 8





Topog.

8<sup>th</sup> St.

S.T.H. #63 to 3<sup>rd</sup> Ave

6

5

4

110

127

3

2

1

0+00

+16-End F. 16'  
F. 17'

F. 18'

+02-24" Stu. 12'  
F. 19'

F. 19'

+08-4" Tr. 16'  
F. 20'  
+97-6" Tr. 15'

+51-6" P. 15'

+97-F. 21'

+52-Stop Sq. 24'  
+46-F.C. 41'  
+45-18" Tr. 48'-

+29-15'X72' C.M.  
+15-Edge Pavement

E 3<sup>rd</sup> Ave

13.5' Vis.

+34-18"X30' C.M.  
+34-Rd. Sq. 20'  
+32-P.P. 22'

+02-P.P. 22'  
+90-Ed Alley

+02-P.P. 22'

+48-Rd. Sq. 32'

+26-E 4<sup>th</sup> Ave  
+16-9" Vit Storm Sewer  
+01-9"X15' Vit 32'

+93-P.P. 22'

+57-4" Tr. 35'  
+56-6" Tr. 34'  
+48-2-4" Tr. 32'  
+40-4" Tr. 34'  
+34-4" Tr. 33'

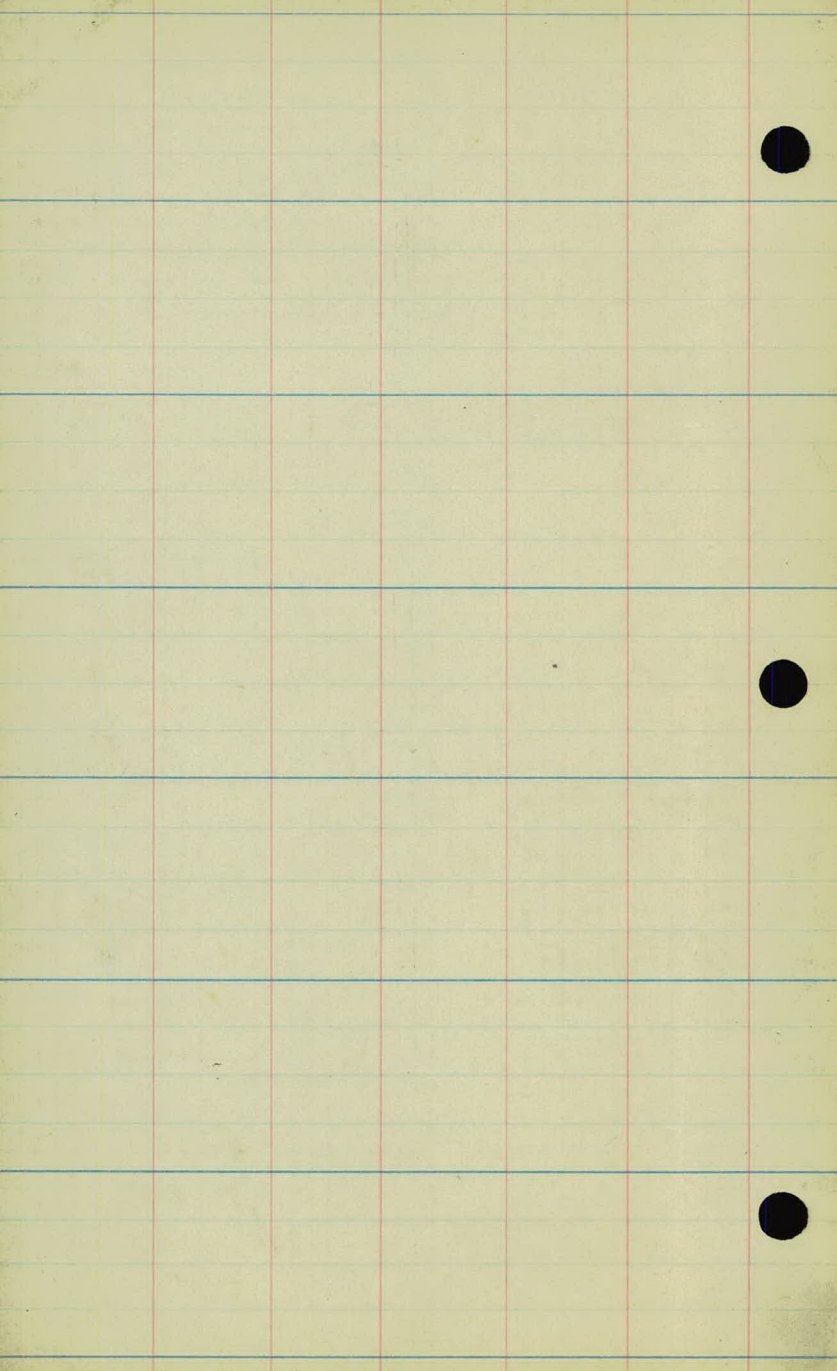
+02-4" Tr. 30'

+53-6 Dr. 30'  
+60-6 Alley  
+56-P.P. 21'

+40-Conc. Wall 29'

+56-P.P. 21'  
+31-Rd. Sq. 21'  
+305-Conc. Wall 29'  
+245-Conc. SW. 29'  
+15-Conc. Spillway 30'

SITING #63



X-Sections

8<sup>th</sup> St.

S.T.H. #63 to 3<sup>rd</sup> Ave

B.M. 13.65 899.77<sup>✓</sup> 886.12

0+00 4 Pavement S.T.H. #63 895.0

+15 Edge of Pavement 94.8

+16 Top of Curb 95.1

+24 15" x 72" C.M.

+30 94.4

+35 94.2

+50 93.4

+75 92.3

1 91.0

+38 88.7

+42 88.5

+54 88.1

Spk. in 30" Oak S.E. Cor. 4<sup>th</sup> Ave & 8<sup>th</sup> St.

$$\frac{6.3}{50} \quad 4.8 \quad \frac{4.1}{30}$$

$$\frac{6.3}{45} \quad 5.0 \quad \frac{4.3}{25} \quad \frac{4.2}{30}$$

$$\frac{6.0}{45} \quad 4.7 \quad \frac{4.0}{25} \quad \frac{3.9}{30}$$

$$\frac{9.5}{42} \quad \frac{6.4}{30}$$

$$\frac{6.8}{50} \quad \frac{6.2}{41} \quad \frac{5.2}{20} \quad \frac{5.3}{8} \quad 5.1 \quad \frac{5.5}{10} \quad \frac{4.7}{21} \quad \frac{3.8}{29} \leftarrow S.W.$$

$$\frac{7.1}{50} \quad \frac{8.4}{42} \quad \frac{6.4}{38} \quad \frac{6.2}{24} \quad \frac{5.5}{9} \quad 5.6 \quad \frac{5.8}{6} \quad \frac{5.9}{11} \quad \frac{5.7}{14} \quad \frac{5.3}{25} \quad \frac{5.3}{29} \quad \frac{1.2}{29} \text{ Tap of wall}$$

$$\frac{9.9}{50} \quad \frac{9.4}{41} \quad \frac{7.2}{31} \quad \frac{6.9}{26} \quad \frac{7.1}{21} \quad \frac{6.3}{7} \quad 6.4 \quad \frac{7.0}{8} \quad \frac{6.4}{10} \quad \frac{5.7}{24} \quad \frac{6.0}{29} \quad \frac{1.6}{29}$$

$$\frac{9.4}{40} \quad \frac{8.8}{34} \quad \frac{7.7}{30} \quad \frac{7.9}{23} \quad \frac{8.8}{21} \quad \frac{8.8}{19} \quad \frac{9.0}{14} \quad \frac{7.6}{6} \quad 7.5 \quad \frac{7.6}{3} \quad \frac{8.0}{8} \quad \frac{6.5}{10} \quad \frac{6.2}{20} \quad \frac{6.7}{23} \quad \frac{6.9}{29} \quad \frac{1.6}{29}$$

$$\frac{11.5}{40} \quad \frac{9.1}{29} \quad \frac{8.7}{20} \quad \frac{9.8}{18} \quad \frac{9.8}{16} \quad \frac{9.1}{13} \quad \frac{8.7}{6} \quad 8.8 \quad \frac{8.7}{5} \quad \frac{9.2}{7} \quad \frac{9.2}{9} \quad \frac{8.0}{11} \quad \frac{7.5}{14} \quad \frac{7.8}{24} \quad \frac{7.8}{29} \quad \frac{3.3}{29}$$

$$\frac{13.8}{40} \quad \frac{11.2}{30} \quad \frac{11.3}{23} \quad \frac{10.8}{17} \quad \frac{11.3}{15} \quad \frac{11.0}{5} \quad 11.1 \quad \frac{10.9}{6} \quad \frac{10.7}{10} \quad \frac{10.3}{13} \quad \frac{9.4}{18} \quad \frac{9.3}{23} \quad \frac{8.4}{27} \quad \frac{8.3}{29}$$

$$\frac{14.6}{40} \quad \frac{13.8}{36} \quad \frac{11.6}{24} \quad \frac{11.7}{22} \quad \frac{11.1}{16} \quad \frac{11.5}{14} \quad \frac{11.1}{5} \quad 11.3 \quad \frac{11.2}{5} \quad \frac{11.0}{9} \quad \frac{10.5}{12} \quad \frac{9.0}{22} \quad \frac{7.4}{32} \quad \frac{5.7}{40}$$

$$\frac{15.7}{40} \quad \frac{12.6}{27} \quad \frac{11.4}{15} \quad \frac{12.1}{12} \quad 11.7 \quad \frac{11.2}{10} \quad \frac{10.6}{16} \quad \frac{8.4}{30} \quad \frac{6.2}{40}$$

899.77

1459

T.P.

0.47

891.74

8.50

891.27

87.9

+87

86.7

2

86.2

+50

84.9

+80

84.4

3

93.7

+26

4 4th Ave

82.7

+52

82.0

+59

81.9

4

81.1

+50

80.6

5

80.5

+50

80.3

B.M.

0.51

886.63

562

886.12

$$\frac{14.3}{42} \quad \frac{15.3}{35} \quad \frac{13.0}{28} \quad \frac{12.7}{20} \quad \frac{12.1}{12} \quad 11.9 \quad \frac{11.3}{10} \quad \frac{10.7}{18} \quad \frac{9.6}{30} \quad \frac{6.9}{58} \quad \frac{2.3}{9} \quad \text{E Alley}$$

$$\frac{10.3}{40} \quad \frac{9.1}{34} \quad \frac{6.8}{26} \quad \frac{5.6}{16} \quad \frac{4.9}{12} \quad 5.0 \quad \frac{4.0}{19} \quad \frac{3.3}{29} \quad \frac{2.3}{40}$$

$$\frac{10.6}{40} \quad \frac{7.8}{26} \quad \frac{6.8}{19} \quad \frac{5.5}{13} \quad 5.5 \quad \frac{5.3}{10} \quad \frac{5.3}{20} \quad \frac{4.6}{26} \quad \frac{2.5}{32} \quad \frac{1.9}{40}$$

$$\frac{12.4}{40} \quad \frac{11.4}{29} \quad \frac{8.8}{45} \quad \frac{6.8}{8} \quad 6.8 \quad \frac{6.8}{11} \quad \frac{7.2}{17} \quad \frac{7.2}{25} \quad \frac{6.4}{29} \quad \frac{3.2}{35} \quad \frac{2.7}{40}$$

$$\frac{12.1}{40} \quad \frac{11.3}{21} \quad \frac{9.9}{15} \quad \frac{8.5}{10} \quad \frac{7.7}{8} \quad 7.3 \quad \frac{7.7}{11} \quad \frac{7.5}{18} \quad \frac{8.0}{23} \quad \frac{7.9}{33} \quad \frac{3.4}{43} \quad \frac{2.7}{50}$$

$$\frac{11.4}{40} \quad \frac{10.4}{18} \quad \frac{9.0}{12} \quad \frac{8.4}{7} \quad 8.0 \quad \frac{8.2}{7} \quad \frac{7.8}{18} \quad \frac{7.7}{27} \quad \frac{9.0}{33} \quad \frac{8.2}{35} \quad \frac{7.4}{50}$$

$$\frac{11.8}{40} \quad \frac{11.4}{22} \quad \frac{10.6}{16} \quad \frac{9.3}{11} \quad 9.0 \quad \frac{9.0}{6} \quad \frac{8.5}{9} \quad \frac{8.0}{18} \quad \frac{7.0}{31} \quad \frac{7.1}{40}$$

$$\frac{12.0}{40} \quad \frac{11.4}{19} \quad \frac{10.8}{12} \quad \frac{9.9}{7} \quad 9.7 \quad \frac{9.8}{6} \quad \frac{9.0}{9} \quad \frac{8.7}{13} \quad \frac{9.5}{18} \quad \frac{8.6}{22} \quad \frac{7.8}{40}$$

$$\frac{12.0}{40} \quad \frac{11.4}{19} \quad \frac{10.9}{11} \quad \frac{10.0}{6} \quad 9.8 \quad \frac{9.7}{13} \quad \frac{9.4}{16} \quad \frac{9.9}{25} \quad \frac{9.7}{40}$$

$$\frac{12.9}{40} \quad \frac{12.3}{20} \quad \frac{11.5}{11} \quad \frac{10.9}{8} \quad 10.6 \quad \frac{10.8}{5} \quad \frac{12.2}{17} \quad \frac{12.1}{22} \quad \frac{11.3}{40}$$

$$\frac{12.8}{40} \quad \frac{13.1}{22} \quad \frac{12.0}{11} \quad \frac{11.2}{9} \quad \frac{10.8}{2} \quad 11.1 \quad \frac{11.3}{9} \quad \frac{12.6}{9} \quad \frac{12.8}{26} \quad \frac{12.5}{40}$$

$$\frac{12.8}{40} \quad \frac{12.8}{30} \quad \frac{13.3}{23} \quad \frac{12.5}{15} \quad \frac{11.4}{10} \quad 11.2 \quad \frac{11.3}{5} \quad \frac{12.2}{8} \quad \frac{12.2}{20} \quad \frac{11.8}{40}$$

$$\frac{13.0}{40} \quad \frac{12.6}{16} \quad \frac{11.3}{10} \quad \frac{11.1}{3} \quad 11.4 \quad \frac{11.8}{5} \quad \frac{12.5}{8} \quad \frac{12.0}{20} \quad \frac{11.5}{30} \quad \frac{10.5}{35} \quad \frac{10.3}{40}$$

✓  
886.63

6

80.7.

+30

81.0.

+33

81.0.

+34 18" X 30' C.M.

+36

81.0.

+40

80.9.

+52

± 3<sup>rd</sup> Ave

B.M.

0.51

✓  
886.12

80.9.

X

$$\begin{array}{r} 8.0 \\ 40 \end{array} \quad \begin{array}{r} 8.1 \\ 29 \end{array} \quad \begin{array}{r} 7.5 \\ 15 \end{array} \quad \begin{array}{r} 6.2 \\ 9 \end{array} \quad 5.9 \quad \begin{array}{r} 6.4 \\ 6 \end{array} \quad \begin{array}{r} 7.0 \\ 7 \end{array} \quad \begin{array}{r} 6.8 \\ 26 \end{array} \quad \begin{array}{r} 6.2 \\ 30 \end{array} \quad \begin{array}{r} 4.9 \\ 33 \end{array} \quad \begin{array}{r} 4.8 \\ 40 \end{array}$$

$$\begin{array}{r} 7.9 \\ 40 \end{array} \quad \begin{array}{r} 7.6 \\ 19 \end{array} \quad \begin{array}{r} 6.8 \\ 14 \end{array} \quad \begin{array}{r} 6.0 \\ 11 \end{array} \quad 5.6 \quad \begin{array}{r} 5.9 \\ 12 \end{array} \quad \begin{array}{r} 6.7 \\ 13 \end{array} \quad \begin{array}{r} 6.3 \\ 33 \end{array} \quad \begin{array}{r} 5.5 \\ 35 \end{array} \quad \begin{array}{r} 5.5 \\ 40 \end{array}$$

$$\begin{array}{r} 8.1 \\ 40 \end{array} \quad \begin{array}{r} 7.6 \\ 15 \end{array} \quad \begin{array}{r} 6.0 \\ 12 \end{array} \quad 5.6 \quad \begin{array}{r} 5.8 \\ 14 \end{array} \quad \begin{array}{r} 7.9 \\ 18 \end{array} \quad \begin{array}{r} 7.8 \\ 40 \end{array}$$

78.5

$$\begin{array}{r} 8.1 \\ 13.5 \end{array}$$

78.6

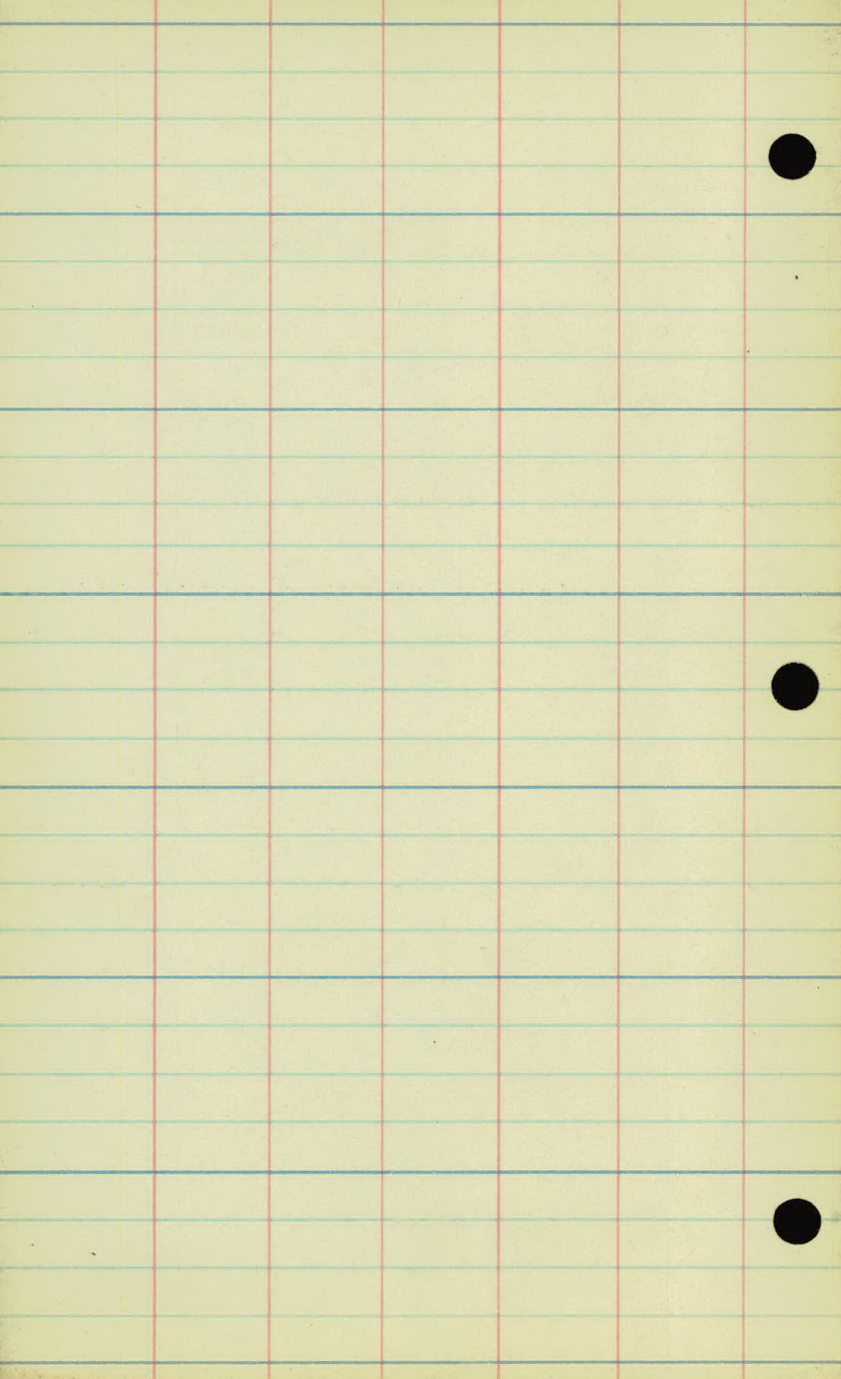
$$\begin{array}{r} 8.0 \\ 14.5 \end{array}$$

$$\begin{array}{r} 8.0 \\ 40 \end{array} \quad \begin{array}{r} 7.6 \\ 15 \end{array} \quad \begin{array}{r} 6.1 \\ 12 \end{array} \quad 5.6 \quad \begin{array}{r} 6.0 \\ 15 \end{array} \quad \begin{array}{r} 7.8 \\ 18 \end{array} \quad \begin{array}{r} 7.8 \\ 40 \end{array}$$

$$\begin{array}{r} 6.5 \\ 40 \end{array} \quad \begin{array}{r} 6.1 \\ 24 \end{array} \quad 5.7 \quad \begin{array}{r} 5.6 \\ 13 \end{array} \quad \begin{array}{r} 5.9 \\ 23 \end{array} \quad \begin{array}{r} 5.9 \\ 40 \end{array}$$

$$\begin{array}{r} 6.0 \\ 40 \end{array} \quad 5.7 \quad \begin{array}{r} 5.5 \\ 40 \end{array}$$

Spk. in 30" Out S.E. Cor. 4<sup>th</sup> Ave + 8<sup>th</sup> St.



4 Levels

7<sup>th</sup> St.

4<sup>th</sup> Ave to S.T.H. #63

B.M. 3.55 912.35 913.80

0+00 E 4<sup>th</sup> Ave 13.4

0-100 11.7

0-200 09.9

0-300 08.0

0-326 E S.T.H. #63 07.8

B.M. 3.55 913.80

Spk. in T.P. S.W. Cor. 4<sup>th</sup> Ave x 7<sup>th</sup> St.

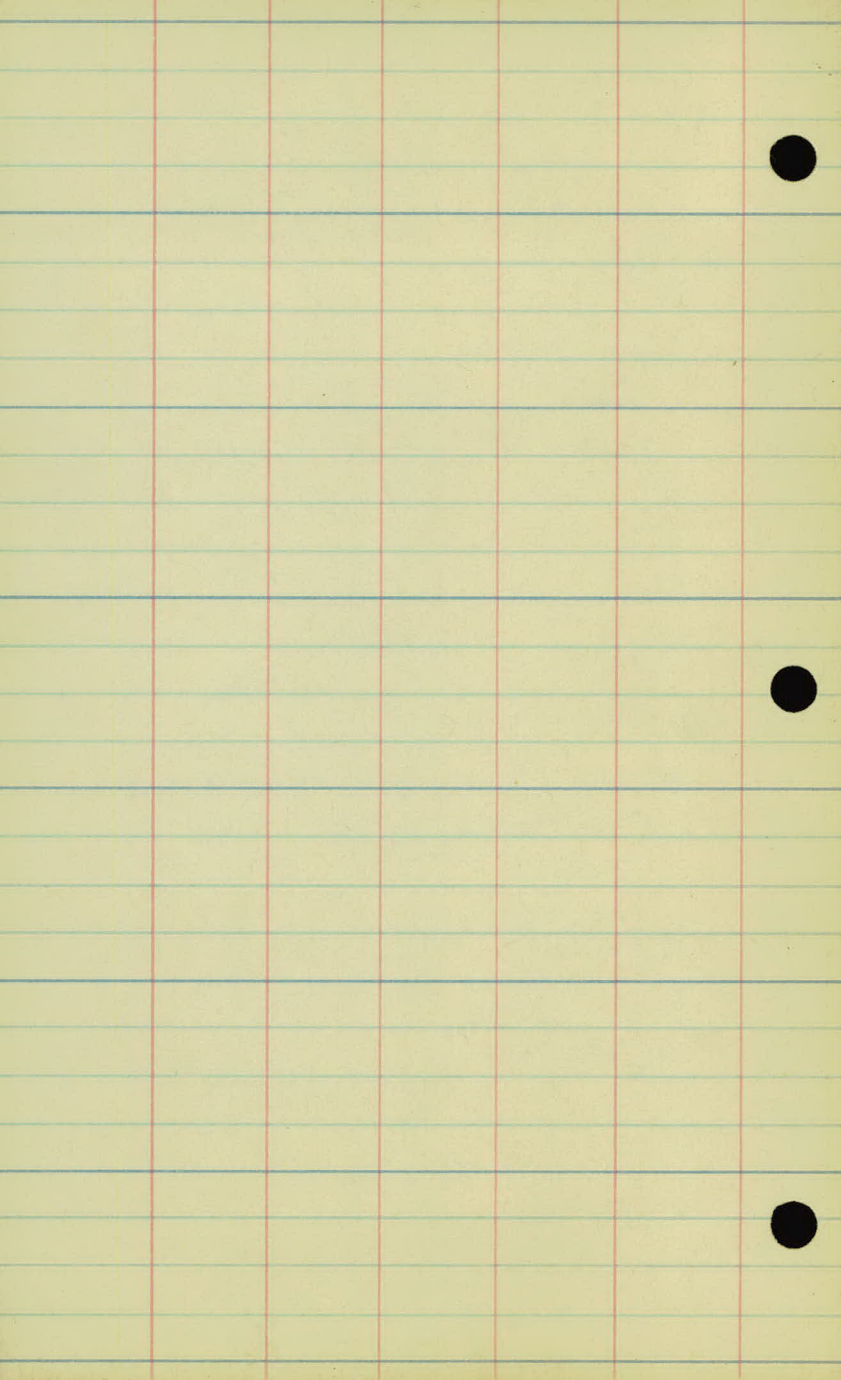
4.0

5.7

7.5

9.4

9.6



Alignment  
7<sup>th</sup> St.  
4<sup>th</sup> Ave to 3<sup>rd</sup> Ave

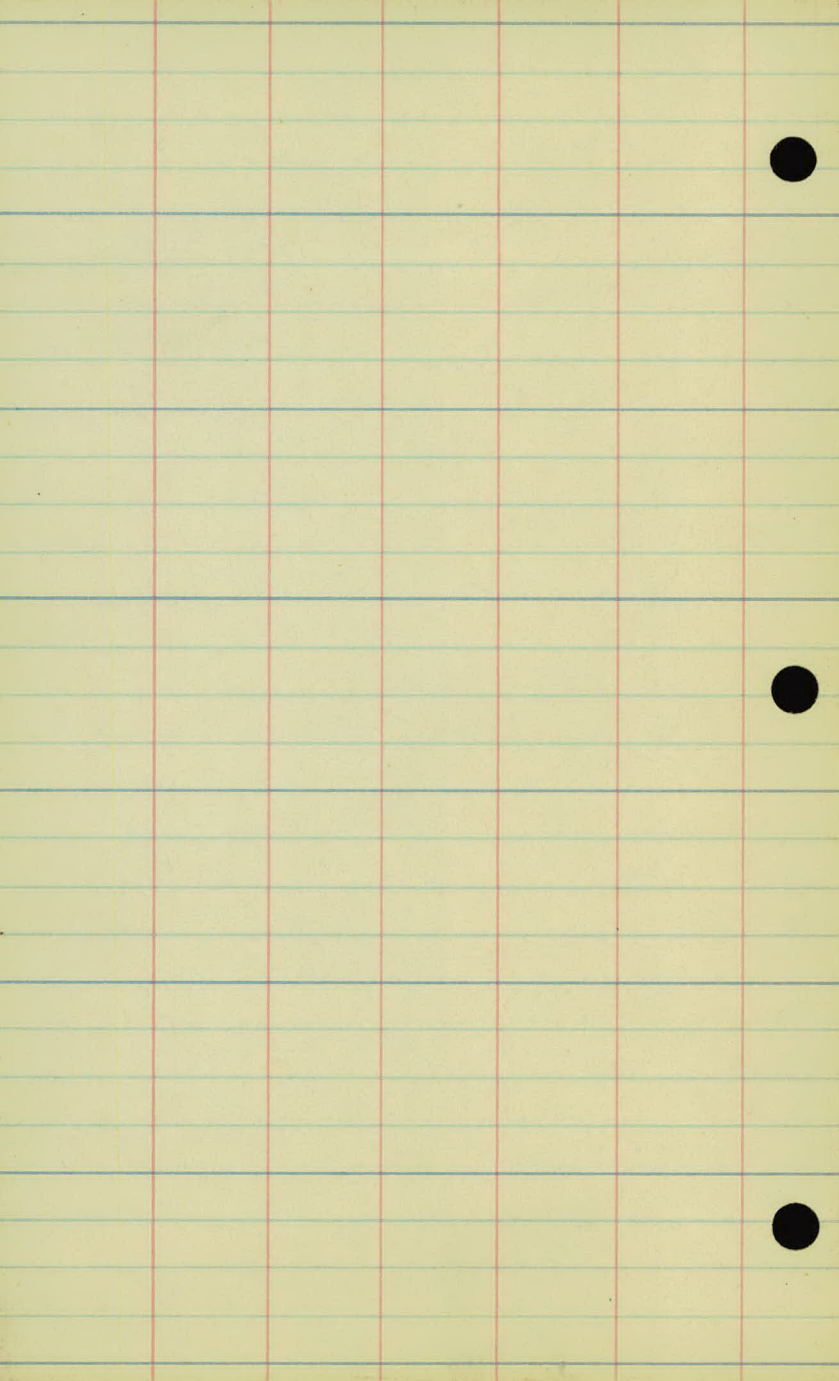
33-N.B.8

3+26 E 3<sup>rd</sup> Ave

0+00 E 4<sup>th</sup> Ave

P.P. 2 — 78.02 —  
P.P. 0 — 31.51 —

P.P. 0 — 30.0 —  
34.38 — T.P.



Topog.  
7<sup>th</sup> St.

3

2

1

0+00

+04 - R.P. 21'  
 +03 - Rd. Sq. 19'  
 +00 - 12" Tr. 27'

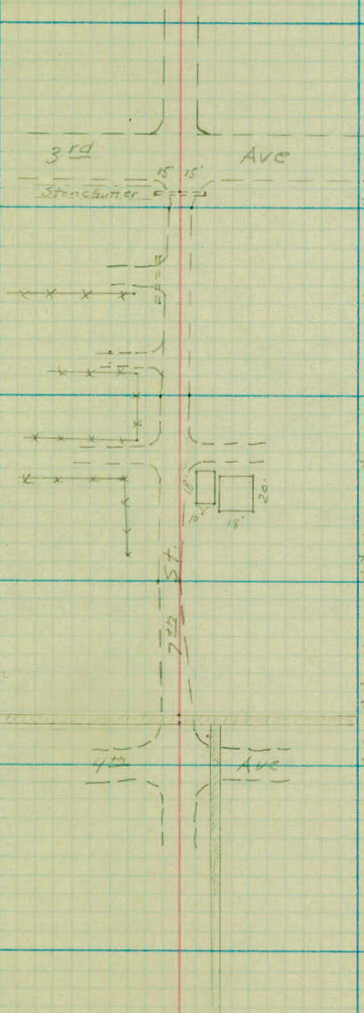
+80 - 4" Tr. 27'  
 +62 - E Dr. } 13'  
 10" x 24" C.M.  
 +05 - F. 26'  
 +54 - 15" Tr. 30'  
 +33 - 12" Tr. 30'  
 +18 - G Dr.  
 +11 - F.C. 26'

+77 - R.P. 23' - F.C. 26'  
 +70 - E Alley  
 +56 - F.C. 32'  
 +45 - G Dr.

+13 - Beg. F. 30'  
 +13 - 15" Tr. 30'

+87 - R.P. 22.5'  
 +53 - 20" Tr. 23.6'

+25 - 4' S.W. E  
 +21 - 8" Tr. 24'



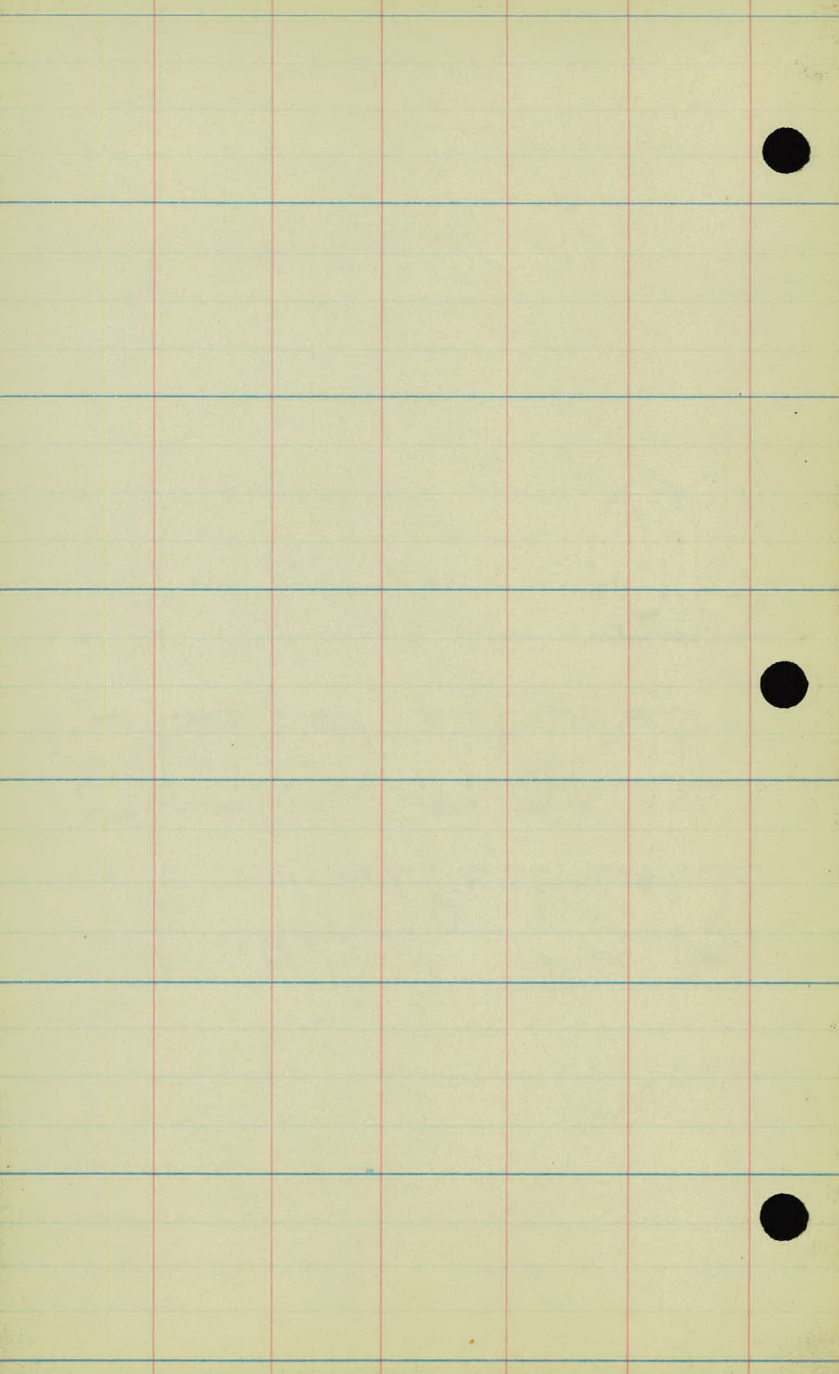
+08 - 15" x 30" C.M.

+54 - G.P. 16'

+70 - E Alley  
 +62 - T.P. 17'

+41 - G.P. 10'  
 +38 - Barn 22'  
 +15 - 8" Tr. 24'

+63 - T.P. 17'  
 +56 - 24" Tr. 16'  
 +29 - Water Shut Off 4'  
 +21 - Rd. Sq. 17'  
 +17 - C.B. 17'  
 +00 - 4' S.W. 19'



X-Sections

7<sup>th</sup> St.

4<sup>th</sup> Ave to 3<sup>rd</sup> Ave

|      |                       |        |   |        |          |
|------|-----------------------|--------|---|--------|----------|
| B.M. | 4.84                  | 918.64 | ✓ | 913.80 |          |
| 0+00 | E 4 <sup>th</sup> Ave |        |   | 913.31 |          |
| +25  | E X-Walk              |        |   | 13.51  |          |
| +29  | Top of Water Shut off |        |   |        |          |
| +33  |                       |        |   | 13.61  |          |
| +65  |                       |        |   | 14.21  |          |
| 1    |                       |        |   | 15.41  |          |
| +35  |                       |        |   | 17.11  |          |
| T.P. | 4.85                  | 920.92 | ✓ | 2.57   | 916.07 ✓ |
| +60  |                       |        |   | 17.21  |          |
| +70  | E Alley Lt. + Rk.     |        |   | 17.31  |          |
| 2    |                       |        |   | 17.71  |          |
| +15  |                       |        |   | 17.71  |          |
| +50  |                       |        |   | 15.81  |          |
| 3    |                       |        |   | 13.91  |          |

Spk. in T.P.-S.W. Cor. 4<sup>th</sup> Ave & 7<sup>th</sup> St.

920.29

$$\frac{5.7}{40} \quad 5.3 \quad \frac{5.5}{40}$$

$$\frac{5.0}{40} \quad 5.1 \quad \frac{5.2}{40}$$

$$\frac{4.8}{4}$$

$$\frac{4.9}{40} \quad \frac{5.1}{26} \quad \frac{4.8}{13} \quad 5.0 \quad \frac{4.5}{3} \quad \frac{4.8}{14} \quad \frac{5.0}{40}$$

$$\frac{3.5}{40} \quad \frac{3.6}{28} \quad \frac{3.8}{75} \quad \frac{4.1}{14} \quad \frac{4.0}{6} \quad 4.4 \quad \frac{4.2}{2} \quad \frac{4.3}{11} \quad \frac{4.1}{22} \quad \frac{4.0}{40}$$

$$\frac{2.0}{40} \quad \frac{2.3}{22} \quad \frac{2.5}{16} \quad \frac{3.3}{13} \quad \frac{3.0}{6} \quad 3.2 \quad \frac{2.7}{7} \quad \frac{2.5}{15} \quad \frac{2.6}{40}$$

$$\frac{1.0}{40} \quad \frac{1.0}{30} \quad \frac{1.2}{18} \quad \frac{1.9}{16} \quad \frac{2.1}{10} \quad \frac{2.0}{1} \quad 1.5 \quad \frac{1.3}{21} \quad \frac{1.5}{40}$$

$$\frac{3.0}{40} \quad \frac{2.9}{35} \quad \frac{3.3}{30} \quad \frac{3.4}{15} \quad \frac{3.9}{12} \quad 3.7 \quad \frac{3.6}{10} \quad \frac{3.2}{11} \quad \frac{3.2}{40}$$

$$\frac{4.0}{40} \quad \frac{2.4}{24} \quad \frac{2.6}{15} \quad \frac{3.6}{12} \quad 3.6 \quad \frac{3.6}{15} \quad \frac{3.1}{40}$$

$$\frac{3.3}{40} \quad \frac{3.1}{26} \quad \frac{2.9}{15} \quad \frac{3.2}{11} \quad 3.2 \quad \frac{3.2}{7} \quad \frac{3.7}{10} \quad \frac{3.6}{13} \quad \frac{1.7}{16} \quad \frac{2.0}{25} \quad \frac{1.8}{40}$$

$$\frac{4.6}{40} \quad \frac{3.5}{25} \quad \frac{3.0}{15} \quad \frac{3.2}{11} \quad 3.2 \quad \frac{3.6}{6} \quad \frac{3.8}{12} \quad \frac{3.9}{14} \quad \frac{1.9}{17} \quad \frac{1.4}{22} \quad \frac{1.4}{40}$$

$$\frac{5.3}{40} \quad \frac{4.8}{24} \quad \frac{4.4}{26} \quad \frac{4.2}{14} \quad \frac{5.3}{13} \quad 5.1 \quad \frac{5.2}{10} \quad \frac{5.4}{12} \quad \frac{5.0}{14} \quad \frac{1.6}{18} \quad \frac{0.8}{40}$$

$$\frac{6.4}{40} \quad \frac{5.5}{18} \quad \frac{9.2}{15} \quad \frac{8.5}{12} \quad \frac{7.7}{9} \quad 7.0 \quad \frac{7.0}{11} \quad \frac{8.2}{14} \quad \frac{8.2}{17} \quad \frac{2.6}{22} \quad \frac{2.1}{40}$$

920.92 ✓

3+07

713.6.

+08

15" X 30" C.M.

+10

13.6,

+13

13.4.

+26

± 3<sup>rd</sup> Ave.

13.3.

B.M.

0.62

920.30

920.29 ✓

$$\frac{12.5}{40} \quad \frac{10.5}{16} \quad \frac{8.3}{12} \quad 7.3 \quad \frac{7.0}{13} \quad \frac{8.6}{16} \quad \frac{7.7}{20} \quad \frac{6.3}{40}$$

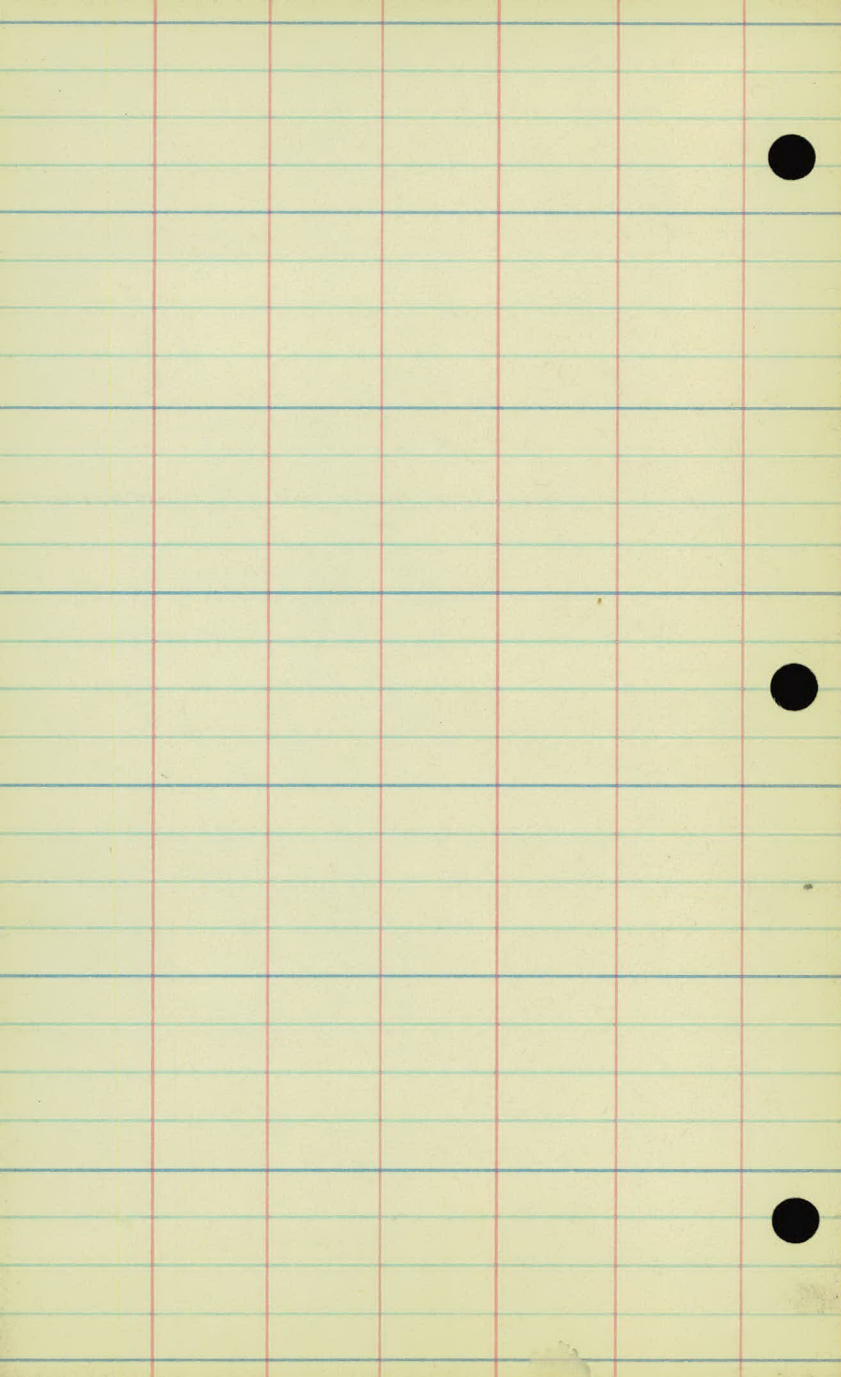
$$\frac{10.5}{15} \quad \frac{8.6}{15}$$

$$\frac{12.1}{40} \quad \frac{10.4}{17} \quad \frac{8.8}{15} \quad \frac{8.2}{11} \quad 7.3 \quad \frac{7.0}{14} \quad \frac{8.1}{17} \quad \frac{7.8}{23} \quad \frac{6.3}{40}$$

$$\frac{10.0}{40} \quad \frac{8.9}{16} \quad 7.5 \quad \frac{6.7}{18} \quad \frac{5.2}{40}$$

$$\frac{11.9}{50} \quad \frac{9.9}{25} \quad 7.6 \quad \frac{6.0}{25} \quad \frac{4.4}{50}$$

Spk. in G.P. - S.W. Cor. 7<sup>th</sup> St. + 3<sup>rd</sup> Ave



Alignment  
4th Ave  
7th St. to 8th St.

33-N.B.8

6+583 £ 8<sup>th</sup> St.

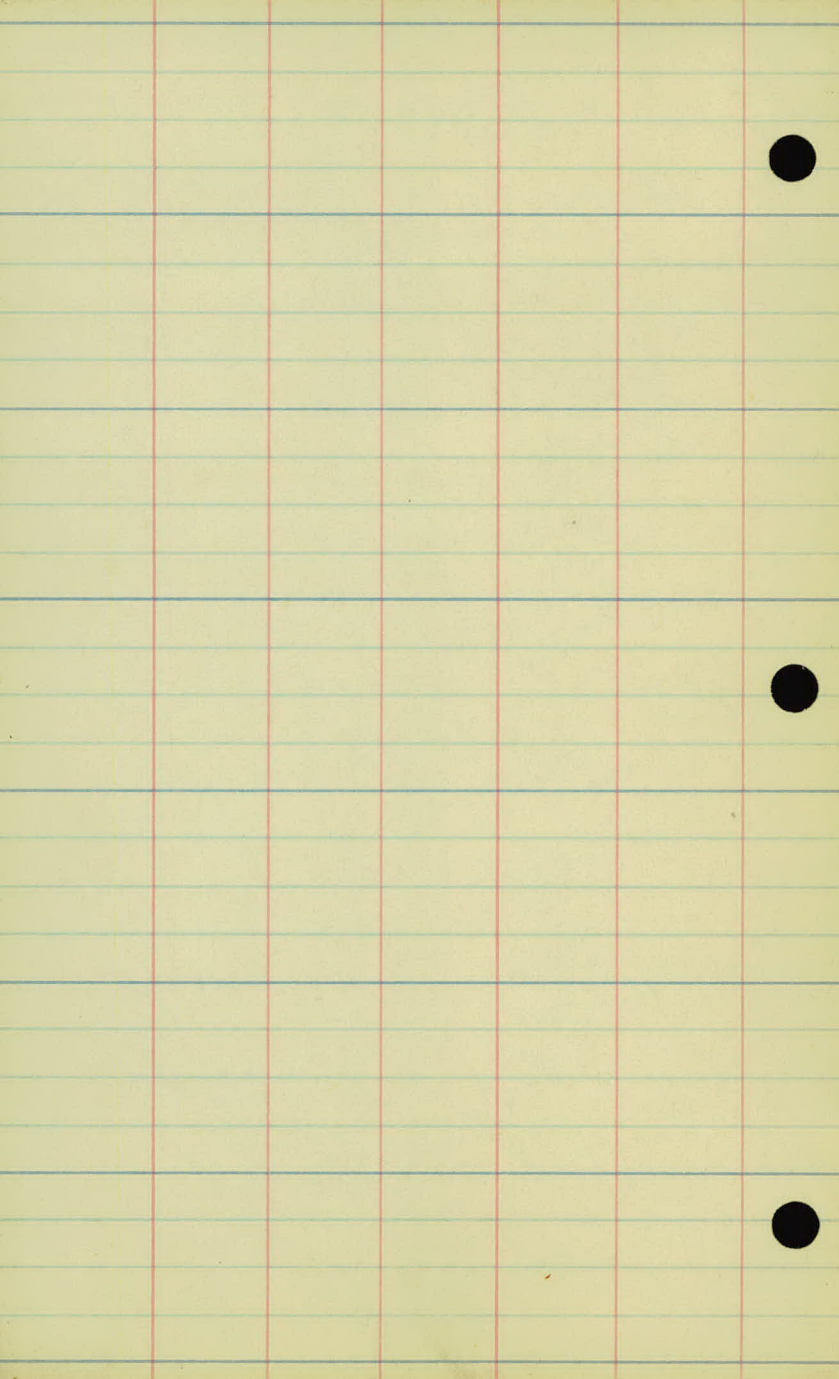
1+00 P.O.T.

0+00 £ 7<sup>th</sup> St.

P.P. 0 — 39.80 — 38.35 — O/r. Rd. Sq.

F.P. — 41.32 —  
F.P. — 33.10 —

P.P. — 30.0 —  
T.P. — 34.38 —



Topog.

4<sup>th</sup> Ave

7<sup>th</sup> St. to 8<sup>th</sup> St.

6

5

4

3

2

1

0+00

+78-End. 9" Storm Sewer 10'

+26-9" V.I. 25'

820 St.

+25-Rd. Sq. 2415'

+68-6-6" Tr. 34'  
+51-24" Tr. 29'  
+45-18" Tr. 34'  
+25-4 Dr.  
+10-10" Tr. 33'  
+04-24" Tr. 32'  
+94-18" Tr. 32'  
+86-18" Tr. 32'  
+77-18" Tr. 31'  
+71-4 Dr.  
+66-18" Tr. 31'  
+65-F. 30'  
+32-4 Dr.  
+25-F.C. 30'

9" V.I. Storm Sewer

4th Ave

+70-F.C. 29'  
+64-18" Storm 24'  
+59-24" Tr. 26'

+69-4 Dr.  
+54-F.C. 30'

+76-4 Dr.  
+89-End S.W. 22.5'  
+81-10" Tr. 20'  
+69-18" Tr. 20.5'  
+55-4 Dr.

+17-4 Dr.

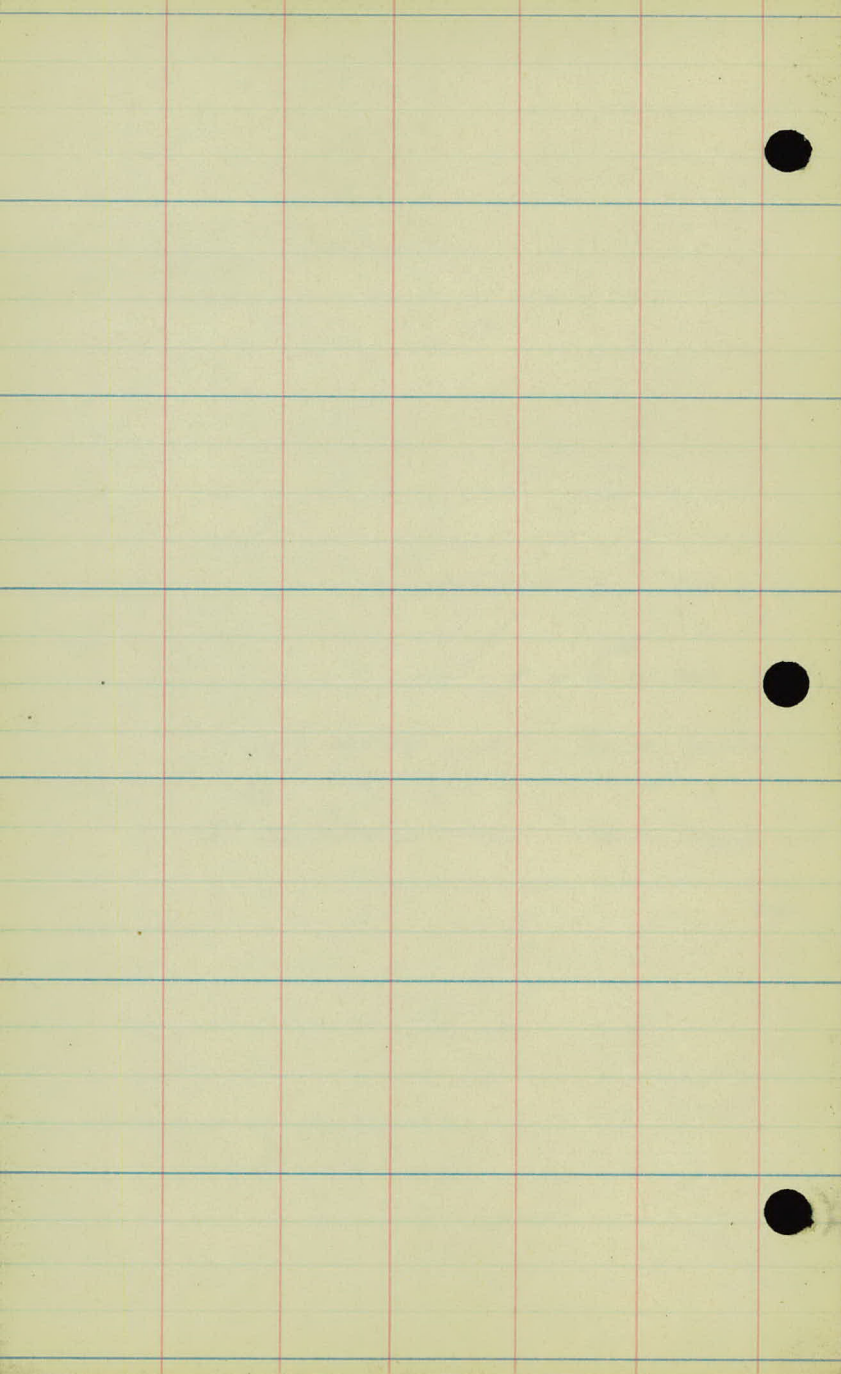
+60-4 Dr.  
+33-F.C. 30'  
+24-P.P. 19'

+50-24" Tr. 17'

+24-6" Tr. 20.5'

7th

4" Conc. S.W.  
St.



X-Sections

4<sup>th</sup> Ave

7<sup>th</sup> to 8<sup>th</sup>

B.M. 4.90 918.70 ✓ 913.80

0400 4 7<sup>11</sup> 54 913.4,

+13 13.2,

+28 13.1,

+37 12.8,

+70 13.1,

1 12.9,

B.M. 2.08 915.88 ✓ 4.90 913.80 ✓

+50 11.2,

2 08.6,

+50 05.5,

3 02.3,

T.P. 3.32 906.51 ✓ 12.67 903.19 ✓

+22 901.0,

+67 897.9,

Spk in T.P.-S.W. Cor 4<sup>th</sup> Ave + 7<sup>th</sup> St.

|                  |                  |     |                  |                  |                  |
|------------------|------------------|-----|------------------|------------------|------------------|
| $\frac{6.3}{40}$ | $\frac{5.7}{17}$ | 5.3 | $\frac{5.2}{23}$ | $\frac{5.2}{27}$ | $\frac{4.9}{40}$ |
|------------------|------------------|-----|------------------|------------------|------------------|

|                  |                  |                  |     |                  |                  |                  |                  |                  |
|------------------|------------------|------------------|-----|------------------|------------------|------------------|------------------|------------------|
| $\frac{6.5}{40}$ | $\frac{6.4}{27}$ | $\frac{5.8}{14}$ | 5.5 | $\frac{5.6}{15}$ | $\frac{5.1}{23}$ | $\frac{5.1}{27}$ | $\frac{4.9}{29}$ | $\frac{4.9}{40}$ |
|------------------|------------------|------------------|-----|------------------|------------------|------------------|------------------|------------------|

|                  |                  |                 |     |                  |                  |                  |                  |                  |
|------------------|------------------|-----------------|-----|------------------|------------------|------------------|------------------|------------------|
| $\frac{6.1}{40}$ | $\frac{6.1}{23}$ | $\frac{6.2}{8}$ | 5.6 | $\frac{5.8}{15}$ | $\frac{5.4}{18}$ | $\frac{5.1}{23}$ | $\frac{5.1}{27}$ | $\frac{5.0}{40}$ |
|------------------|------------------|-----------------|-----|------------------|------------------|------------------|------------------|------------------|

|                  |                  |                  |                  |                  |                  |     |                  |                  |                  |                  |                  |
|------------------|------------------|------------------|------------------|------------------|------------------|-----|------------------|------------------|------------------|------------------|------------------|
| $\frac{4.5}{40}$ | $\frac{4.5}{32}$ | $\frac{5.4}{28}$ | $\frac{5.5}{24}$ | $\frac{6.1}{20}$ | $\frac{6.3}{11}$ | 5.9 | $\frac{5.9}{15}$ | $\frac{5.5}{18}$ | $\frac{5.1}{23}$ | $\frac{5.1}{27}$ | $\frac{4.7}{40}$ |
|------------------|------------------|------------------|------------------|------------------|------------------|-----|------------------|------------------|------------------|------------------|------------------|

|                  |                  |                  |                  |                  |                  |     |                  |                  |                  |                  |                  |                  |                  |
|------------------|------------------|------------------|------------------|------------------|------------------|-----|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| $\frac{4.4}{40}$ | $\frac{4.4}{30}$ | $\frac{5.2}{28}$ | $\frac{5.4}{23}$ | $\frac{6.2}{18}$ | $\frac{6.1}{12}$ | 5.6 | $\frac{5.9}{10}$ | $\frac{6.3}{19}$ | $\frac{5.4}{23}$ | $\frac{5.4}{27}$ | $\frac{5.2}{30}$ | $\frac{4.4}{33}$ | $\frac{4.0}{40}$ |
|------------------|------------------|------------------|------------------|------------------|------------------|-----|------------------|------------------|------------------|------------------|------------------|------------------|------------------|

|                  |                  |                  |                  |                  |                  |                  |                 |     |                  |                  |                  |                  |                  |                  |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----|------------------|------------------|------------------|------------------|------------------|------------------|
| $\frac{4.4}{40}$ | $\frac{4.6}{30}$ | $\frac{5.1}{28}$ | $\frac{5.5}{21}$ | $\frac{6.2}{18}$ | $\frac{6.7}{15}$ | $\frac{6.3}{12}$ | $\frac{6.1}{9}$ | 5.8 | $\frac{6.6}{13}$ | $\frac{6.7}{19}$ | $\frac{5.8}{23}$ | $\frac{5.8}{27}$ | $\frac{3.8}{34}$ | $\frac{3.5}{40}$ |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----|------------------|------------------|------------------|------------------|------------------|------------------|

|                  |                  |                  |                  |                  |                  |                 |     |                  |                  |                  |                  |                  |                  |
|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----|------------------|------------------|------------------|------------------|------------------|------------------|
| $\frac{3.3}{40}$ | $\frac{3.3}{30}$ | $\frac{3.9}{24}$ | $\frac{5.3}{20}$ | $\frac{5.3}{16}$ | $\frac{4.7}{12}$ | $\frac{4.8}{7}$ | 4.7 | $\frac{4.8}{10}$ | $\frac{4.5}{19}$ | $\frac{4.4}{23}$ | $\frac{4.4}{27}$ | $\frac{2.5}{32}$ | $\frac{1.9}{40}$ |
|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----|------------------|------------------|------------------|------------------|------------------|------------------|

|                  |                  |                  |                  |                  |                  |                 |     |                 |                  |                  |                  |                  |
|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----|-----------------|------------------|------------------|------------------|------------------|
| $\frac{5.9}{40}$ | $\frac{5.2}{30}$ | $\frac{5.5}{24}$ | $\frac{8.0}{19}$ | $\frac{7.9}{17}$ | $\frac{2.4}{13}$ | $\frac{7.4}{7}$ | 7.3 | $\frac{7.3}{8}$ | $\frac{7.2}{17}$ | $\frac{7.0}{20}$ | $\frac{6.5}{24}$ | $\frac{5.6}{40}$ |
|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----|-----------------|------------------|------------------|------------------|------------------|

|                  |                  |                  |                   |                  |                  |      |                  |                   |                   |                  |                  |                  |                  |
|------------------|------------------|------------------|-------------------|------------------|------------------|------|------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|
| $\frac{6.9}{40}$ | $\frac{7.0}{26}$ | $\frac{9.7}{20}$ | $\frac{10.3}{14}$ | $\frac{10.4}{7}$ | $\frac{10.8}{6}$ | 10.4 | $\frac{10.1}{4}$ | $\frac{10.2}{12}$ | $\frac{10.2}{17}$ | $\frac{9.8}{22}$ | $\frac{9.7}{26}$ | $\frac{8.1}{33}$ | $\frac{8.2}{40}$ |
|------------------|------------------|------------------|-------------------|------------------|------------------|------|------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|

|                  |                  |                   |                   |                  |                  |      |                  |                   |                   |                   |                   |                   |
|------------------|------------------|-------------------|-------------------|------------------|------------------|------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| $\frac{8.3}{40}$ | $\frac{8.6}{29}$ | $\frac{11.2}{24}$ | $\frac{12.2}{17}$ | $\frac{13.4}{8}$ | $\frac{13.9}{6}$ | 13.6 | $\frac{13.4}{5}$ | $\frac{13.7}{17}$ | $\frac{13.3}{21}$ | $\frac{13.2}{26}$ | $\frac{12.8}{30}$ | $\frac{13.0}{40}$ |
|------------------|------------------|-------------------|-------------------|------------------|------------------|------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|

|                  |                  |                  |                 |                 |     |                 |                  |                  |                  |                  |                  |
|------------------|------------------|------------------|-----------------|-----------------|-----|-----------------|------------------|------------------|------------------|------------------|------------------|
| $\frac{0.0}{40}$ | $\frac{0.2}{29}$ | $\frac{4.7}{12}$ | $\frac{5.3}{7}$ | $\frac{5.7}{6}$ | 5.5 | $\frac{5.3}{5}$ | $\frac{5.8}{16}$ | $\frac{5.4}{21}$ | $\frac{5.4}{26}$ | $\frac{4.8}{30}$ | $\frac{4.6}{40}$ |
|------------------|------------------|------------------|-----------------|-----------------|-----|-----------------|------------------|------------------|------------------|------------------|------------------|

|                  |                  |                  |                  |                 |                 |     |                 |                  |                  |                  |                  |
|------------------|------------------|------------------|------------------|-----------------|-----------------|-----|-----------------|------------------|------------------|------------------|------------------|
| $\frac{1.2}{40}$ | $\frac{1.4}{27}$ | $\frac{6.6}{20}$ | $\frac{7.6}{14}$ | $\frac{7.9}{8}$ | $\frac{8.3}{5}$ | 8.6 | $\frac{8.6}{5}$ | $\frac{8.9}{19}$ | $\frac{8.7}{22}$ | $\frac{8.5}{29}$ | $\frac{8.9}{40}$ |
|------------------|------------------|------------------|------------------|-----------------|-----------------|-----|-----------------|------------------|------------------|------------------|------------------|

906.51 ✓

3+72

897.4.

4

95.2.

+25

93.4.

+30

93.1.

T.P.

5.40

900.39 ✓

11.52

894.99 ✓

+80

90.1.

+90

89.5.

5

T.P.

3.73

892.06 ✓

12.06

888.33 ✓

88.9.

+20

88.0.

+50

86.7.

6

B.M.

4.90

891.02 ✓

5.94

886.12 ✓

886.12

85.1.

+13

84.8.

+26

84.4.

+26

Flow Line 9' Vlt.

|                  |                  |                  |                  |                 |                 |     |                  |                  |                  |                  |
|------------------|------------------|------------------|------------------|-----------------|-----------------|-----|------------------|------------------|------------------|------------------|
| $\frac{3.4}{40}$ | $\frac{3.8}{27}$ | $\frac{7.3}{20}$ | $\frac{8.1}{13}$ | $\frac{8.4}{7}$ | $\frac{8.7}{5}$ | 9.1 | $\frac{9.2}{15}$ | $\frac{9.1}{23}$ | $\frac{9.0}{30}$ | $\frac{9.2}{40}$ |
|------------------|------------------|------------------|------------------|-----------------|-----------------|-----|------------------|------------------|------------------|------------------|

|                  |                  |                  |                   |                  |                  |      |                  |                   |                   |                   |                   |                   |                   |
|------------------|------------------|------------------|-------------------|------------------|------------------|------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| $\frac{3.9}{40}$ | $\frac{4.8}{28}$ | $\frac{9.3}{21}$ | $\frac{10.5}{14}$ | $\frac{10.9}{6}$ | $\frac{11.3}{4}$ | 11.3 | $\frac{11.2}{6}$ | $\frac{11.4}{15}$ | $\frac{11.7}{19}$ | $\frac{11.1}{21}$ | $\frac{11.1}{26}$ | $\frac{10.6}{30}$ | $\frac{11.2}{40}$ |
|------------------|------------------|------------------|-------------------|------------------|------------------|------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|

|                  |                  |                  |                   |                   |                  |                  |      |                  |                   |                   |                   |                   |                   |
|------------------|------------------|------------------|-------------------|-------------------|------------------|------------------|------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| $\frac{4.6}{40}$ | $\frac{4.8}{35}$ | $\frac{6.0}{30}$ | $\frac{11.5}{20}$ | $\frac{12.5}{14}$ | $\frac{12.6}{5}$ | $\frac{12.9}{3}$ | 13.1 | $\frac{13.0}{7}$ | $\frac{13.4}{19}$ | $\frac{13.1}{23}$ | $\frac{12.6}{26}$ | $\frac{13.0}{30}$ | $\frac{13.0}{40}$ |
|------------------|------------------|------------------|-------------------|-------------------|------------------|------------------|------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|

|                  |                  |                  |                  |                   |                   |                  |                  |      |                  |                   |                   |
|------------------|------------------|------------------|------------------|-------------------|-------------------|------------------|------------------|------|------------------|-------------------|-------------------|
| $\frac{6.5}{40}$ | $\frac{6.9}{33}$ | $\frac{7.9}{30}$ | $\frac{8.5}{27}$ | $\frac{12.2}{18}$ | $\frac{12.9}{13}$ | $\frac{13.0}{5}$ | $\frac{13.3}{2}$ | 13.4 | $\frac{13.3}{7}$ | $\frac{13.7}{19}$ | $\frac{14.5}{40}$ |
|------------------|------------------|------------------|------------------|-------------------|-------------------|------------------|------------------|------|------------------|-------------------|-------------------|

|                  |                  |                  |                  |                  |                   |                  |      |                  |                   |                   |                   |                   |                   |
|------------------|------------------|------------------|------------------|------------------|-------------------|------------------|------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| $\frac{1.1}{40}$ | $\frac{1.5}{35}$ | $\frac{4.3}{29}$ | $\frac{2.1}{24}$ | $\frac{9.1}{18}$ | $\frac{10.2}{11}$ | $\frac{10.2}{4}$ | 10.3 | $\frac{10.2}{7}$ | $\frac{10.8}{15}$ | $\frac{11.1}{22}$ | $\frac{10.7}{25}$ | $\frac{10.3}{29}$ | $\frac{10.9}{40}$ |
|------------------|------------------|------------------|------------------|------------------|-------------------|------------------|------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|

|                  |                  |                  |                  |                   |                  |      |                  |                   |                   |                   |                   |
|------------------|------------------|------------------|------------------|-------------------|------------------|------|------------------|-------------------|-------------------|-------------------|-------------------|
| $\frac{7.5}{40}$ | $\frac{7.5}{37}$ | $\frac{7.8}{28}$ | $\frac{9.4}{21}$ | $\frac{10.6}{12}$ | $\frac{10.8}{4}$ | 10.9 | $\frac{10.8}{7}$ | $\frac{11.6}{17}$ | $\frac{11.7}{23}$ | $\frac{11.5}{26}$ | $\frac{11.5}{40}$ |
|------------------|------------------|------------------|------------------|-------------------|------------------|------|------------------|-------------------|-------------------|-------------------|-------------------|

|                  |                  |                  |                   |                   |                   |                  |      |                  |                   |                   |                   |                   |
|------------------|------------------|------------------|-------------------|-------------------|-------------------|------------------|------|------------------|-------------------|-------------------|-------------------|-------------------|
| $\frac{8.5}{40}$ | $\frac{8.7}{32}$ | $\frac{9.6}{29}$ | $\frac{10.0}{23}$ | $\frac{11.0}{14}$ | $\frac{11.4}{11}$ | $\frac{11.3}{4}$ | 11.5 | $\frac{11.4}{7}$ | $\frac{12.0}{16}$ | $\frac{12.3}{24}$ | $\frac{11.8}{30}$ | $\frac{12.1}{40}$ |
|------------------|------------------|------------------|-------------------|-------------------|-------------------|------------------|------|------------------|-------------------|-------------------|-------------------|-------------------|

|                  |                  |                  |                  |                  |                 |                 |     |                  |                  |                  |
|------------------|------------------|------------------|------------------|------------------|-----------------|-----------------|-----|------------------|------------------|------------------|
| $\frac{0.5}{40}$ | $\frac{1.0}{32}$ | $\frac{2.5}{29}$ | $\frac{3.8}{18}$ | $\frac{3.9}{10}$ | $\frac{3.7}{5}$ | $\frac{4.0}{3}$ | 4.1 | $\frac{4.1}{10}$ | $\frac{5.0}{22}$ | $\frac{5.8}{40}$ |
|------------------|------------------|------------------|------------------|------------------|-----------------|-----------------|-----|------------------|------------------|------------------|

|                  |                  |                  |                  |                 |                 |                 |     |                 |                  |                  |
|------------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|-----|-----------------|------------------|------------------|
| $\frac{1.1}{40}$ | $\frac{1.9}{33}$ | $\frac{5.6}{26}$ | $\frac{5.2}{17}$ | $\frac{4.7}{8}$ | $\frac{4.9}{5}$ | $\frac{5.4}{3}$ | 5.4 | $\frac{5.3}{7}$ | $\frac{6.0}{20}$ | $\frac{6.8}{40}$ |
|------------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|-----|-----------------|------------------|------------------|

|                  |                  |                  |                  |                 |                 |     |                  |                  |                  |                  |                  |                  |                  |
|------------------|------------------|------------------|------------------|-----------------|-----------------|-----|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| $\frac{2.7}{40}$ | $\frac{3.4}{35}$ | $\frac{2.4}{28}$ | $\frac{2.7}{16}$ | $\frac{7.2}{9}$ | $\frac{7.4}{7}$ | 7.0 | $\frac{7.0}{13}$ | $\frac{7.5}{15}$ | $\frac{7.5}{17}$ | $\frac{7.1}{19}$ | $\frac{7.8}{27}$ | $\frac{7.1}{32}$ | $\frac{7.3}{40}$ |
|------------------|------------------|------------------|------------------|-----------------|-----------------|-----|------------------|------------------|------------------|------------------|------------------|------------------|------------------|

Spk. in 30" Oak S.E. Cor. 4<sup>th</sup> Ave & 8<sup>th</sup> St.

|                  |                  |                  |                  |                  |                  |     |                 |                  |                  |                  |                  |                  |
|------------------|------------------|------------------|------------------|------------------|------------------|-----|-----------------|------------------|------------------|------------------|------------------|------------------|
| $\frac{2.4}{50}$ | $\frac{2.6}{40}$ | $\frac{6.8}{32}$ | $\frac{7.0}{18}$ | $\frac{4.6}{14}$ | $\frac{6.2}{12}$ | 6.2 | $\frac{6.2}{5}$ | $\frac{6.7}{16}$ | $\frac{6.4}{18}$ | $\frac{7.0}{26}$ | $\frac{8.6}{32}$ | $\frac{8.8}{40}$ |
|------------------|------------------|------------------|------------------|------------------|------------------|-----|-----------------|------------------|------------------|------------------|------------------|------------------|

|                  |                  |                  |                  |                  |     |                 |                  |                  |                  |                  |                  |                  |
|------------------|------------------|------------------|------------------|------------------|-----|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| $\frac{7.0}{50}$ | $\frac{7.5}{37}$ | $\frac{8.0}{27}$ | $\frac{7.1}{24}$ | $\frac{6.9}{11}$ | 6.6 | $\frac{6.5}{4}$ | $\frac{7.7}{15}$ | $\frac{7.1}{18}$ | $\frac{7.6}{27}$ | $\frac{9.1}{31}$ | $\frac{9.8}{41}$ | $\frac{9.5}{50}$ |
|------------------|------------------|------------------|------------------|------------------|-----|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|

82.8  
8.3  
25

891.02 ✓

+ 40

883.8,

+58

Q 8<sup>th</sup> St.

82.7.

+78

Flow Line - End 9" Vitr. Storm Sewer.

B.M.

4.90 886.12 ✓

|                  |                  |                  |                  |                  |     |                 |                  |                  |                  |                  |                  |                   |
|------------------|------------------|------------------|------------------|------------------|-----|-----------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| $\frac{6.8}{50}$ | $\frac{6.8}{40}$ | $\frac{7.2}{30}$ | $\frac{7.0}{14}$ | $\frac{6.6}{10}$ | 7.2 | $\frac{7.3}{9}$ | $\frac{7.8}{18}$ | $\frac{8.5}{19}$ | $\frac{8.7}{25}$ | $\frac{8.3}{27}$ | $\frac{9.2}{35}$ | $\frac{10.0}{50}$ |
|------------------|------------------|------------------|------------------|------------------|-----|-----------------|------------------|------------------|------------------|------------------|------------------|-------------------|

|                  |                  |     |                  |
|------------------|------------------|-----|------------------|
| $\frac{6.5}{50}$ | $\frac{7.7}{21}$ | 8.3 | $\frac{9.5}{50}$ |
|------------------|------------------|-----|------------------|

|                   |
|-------------------|
| $\frac{10.5}{10}$ |
|-------------------|

