

PLANS SURVEY
CLEVELAND AVE.

From City Limits
To Larpenteur Ave.
CO. PROJ. NO. 23-05
RD. % NO. 5

Office of Ramsey Co. Engineer
ST. PAUL, MINN.

Date Filed 4-4-23

File No. "3"

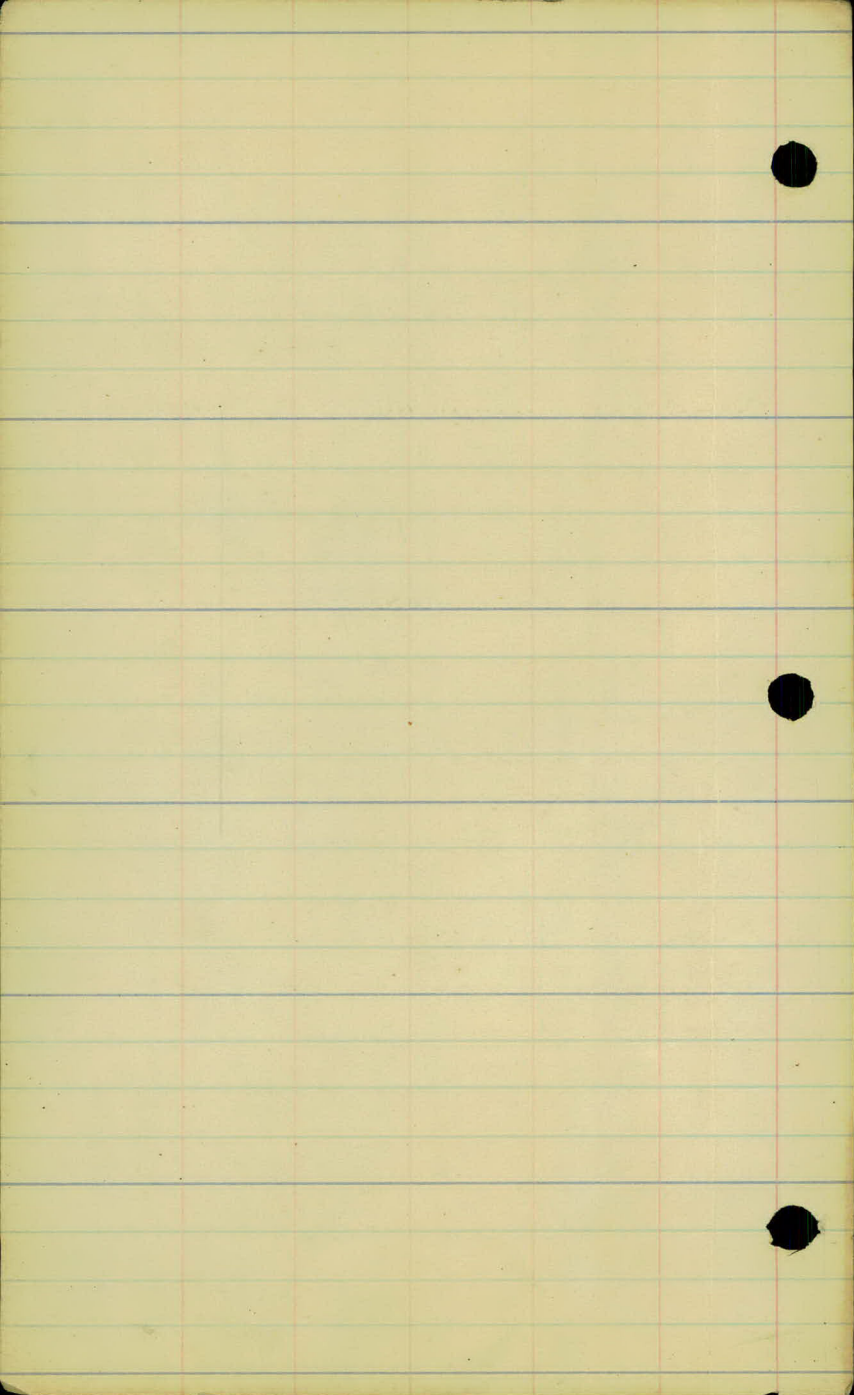
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Cleveland Ave. from City
Limits to Larpentar Ave.

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3 - 5	Topography	0+00 - 13+17 $\frac{3}{2}$
6 - 8	ϕ Elevations	0+00 - 13+17 $\frac{3}{2}$
9 - 11	Xsections	0+00 - 13+17 $\frac{3}{2}$

Proj. 23-05

G. Reifler Inst.
M.W. Carley Level
H.L. Persons Rod
Don Webber Hd. Chain
J. Mahoney Pr. "
J. Carr Stokes
M. Galvin Flag



Alignment
Cleveland Ave.
City Limits to Larpentar.

Station Point Left. Right

Calc. Mag. Bearing.

13+17.3 Mont & Larpentar

N00°02'W

0+00 P. 1 0-02'

N00°00'W

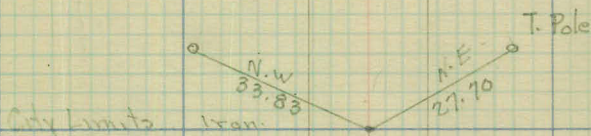
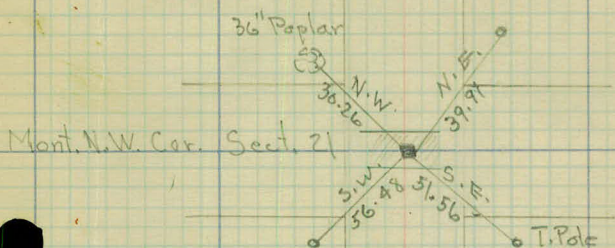
Mont West 1/4 Corner Sect. 21

Job 23-05

4-2-23

(2)

Cleveland Ave. - City Limits to Lanponton Ave

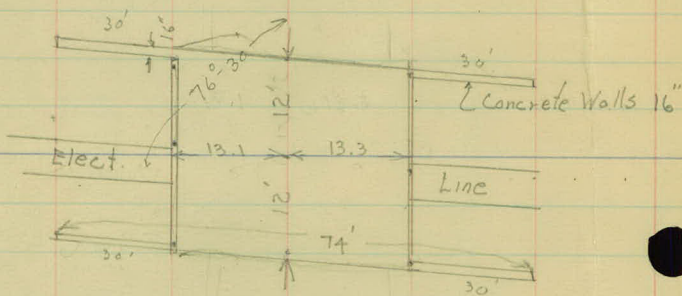


Mont. W. 1/4 Corner Sect. 21

4-2-23

Cleveland Ave - City Limits
to Carpenter Ave

Concrete Bridge 20' span.



Concrete Slab supported by 11-12" I beams

1+00

0+00

@+58-33' R bagm. w. w. Fee
Iron Posts
@+75-25' R T. Pole
@+30-36' R -+16' oak

@+22-20' T. Pole

5+00 @00-30' L Fee

Cult. Field

University Farm

4+00

@+31-20' T. Pole

3+60-30' L Fee. Cont.

3+19-33' Fee. Cont.

3+00

@+57-16' L T. Pole

2+00 @00-28' L Fee.

@+43-18' L T. Pole
@+42-27' L 10 oak

1+00

@+44-32' bagm

@+30-17' L T. Pole

0+00

@+52-25' R T. Pole

@+43-24' T. Pole

@00-61' R & Trk.

@+13-32' R Trk. Pole

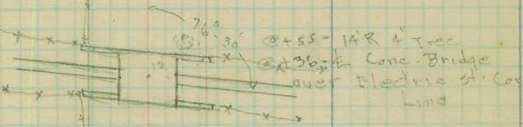
@+50-30' R Trk. Pole
@+50-45' R & Trk

@+11-25' R Cable Pole
@00-47' R & Elec. Trk.

University

bar
fence
Fe. un.

oak



4-2-23

Cleveland Ave.

L E R

B
B
B
B
B

11

Trees - 14'

@+53-31' L Fca. Corn
@+36-22' T. Pole.

@+57-258-T. Pole

10

field

9

@+04-16' T. Pole
@00-31' Fca

@+24-25' R T. Pole

@00-33' R Fca

Cult.

8

@+42-21' T. Pole

@+42-25' R T. Pole

@+50-14' R Iron Caution sign

@+67-31' R 14" Oak

7

@00-31' R Fca

@00-33' R Fca

@+64-21' T. Pole

@+60-31' R 10" Oak

@+64-25' T. Pole

@+55-31' R 10" Oak

@+41-31' R 10" Oak

@+26-31' R 14" Oak

6+00

Cult Field.

University

Experimental

Farm

5+00

4-2-23

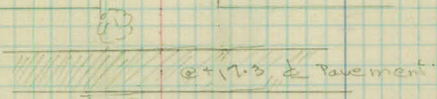
Cleveland Ave.

13+17.3

±

Larp. Ave.

32



13

@+96-59' R. Pole
 @+66-21' T. Pole
 @+61-end Trees - 45'

@+96-45' R. Pole
 @+65-55' R. Fee. Cor
 @+66-25' R. Pole

12

@+55-24' T. Pole
 @+20-90' R. Low School S.E. Cor.

22'
 30'
 24' Tree Line

@+20-24' R. Fee.
 @+70-28' R. T. Pole

11



University
 Experimental
 Farm.
 Cultivated

sheet 5 of 11 sheets

4/2/23

Cleveland Ave.

Level's Job #23-05

Carley-Level
Persons-Rod.

4/2/23

Sheet # 6 of 14 sheets

Sta	+	H.I.	-	Rod	Elev
B.M.	2.53	303.15			300.62
0 + 00				2.9	300.3
+ 50				4.3	298.9
1				5.7	297.5
+ 50				7.2	296.0
2				8.3	294.9
+ 50				9.2	294.0
3				10.3	292.9
T.P.	2.53	299.84	10.84		292.31
+ 30	5.06			2.3	292.5
+ 50				2.8	292.0
4				3.4	291.4
+ 50				4.4	290.4
5				5.7	289.1
+ 50				7.3	287.5
6				8.6	286.2
B.M.	6.63	289.67	11.80		283.04
7			22.64	5.3	284.4
8				5.9	283.8
9				5.6	284.1
10				5.2	284.5
11				4.8	284.9

22.64
5.06
 17.58

300.62
283.04
 17.58

M. J. Curry

Job 23-05

Carley-level Persons-Rod ⁽⁷⁾

R.R. spike in tele pole 25' Ref sta 00+15

⊥ on bridge

R.R. spike in tele pole 35' Ref sta 6+69

4/2/23 sheet #7 of 11 sheets

Sta + H.I. - Rod Elev

6.63 287.67

12 4.2 285.5

13 B.M. 2.4 287.3

B.M. 2.07 287.60

13+17³ 287.60

Levels checked 5-9-23

2/1/23

Levels on Job 23-05 M. W. Carley

(8)

Top of masonry cor. of Carpenter & Cleveland
On Top of Pavement Carpenter Ave.

Sheet # 8 of 11 sheets

Cleveland Ave.

4/3/23

Xsections Job #23-05

M.W. Carley-level
D. Persons-Rod.

4/3/23

Sheet #9 of 71 sheets

Sta	Elev
+50	287.5
5	289.1
+50	290.4
4	291.4
+50	292.0
3	292.9
+50	294.0
2	294.9
+50	296.0
1	297.5
+50	298.9
0 + 00	300.3

Clay-sub-soil

Heavy

Black soil

Job 23-05 X-sections

$$\begin{array}{cccc|cccc} -12.1 & -5.0 & -0.9 & \sqrt{0.5} & -5.5 & -7.8 & -7.7 & \\ \hline 33 & 20 & 10 & 9 & 19 & 26 & 33 & \end{array}$$

$$\begin{array}{cccc|cccc} -15.2 & -10.0 & -5.0 & \sqrt{0.5} & -0.9 & -5.0 & -9.7 & -9.7 \\ \hline 35 & 28 & 18 & 10 & 10 & 18 & 29 & 33 \end{array}$$

$$\begin{array}{cccc|cccc} -15.5 & -10.0 & -5.0 & \sqrt{0.3} & -0.9 & -5.0 & -10.1 & -10.1 \\ \hline 36 & 27 & 20 & 12 & 11 & 20 & 30 & 33 \end{array}$$

$$\begin{array}{cccc|cccc} -16.0 & -10.0 & -5.0 & \sqrt{0.5} & 0.7 & -5.0 & -12.0 & \\ \hline 37 & 27 & 20 & 10 & 10 & 18 & 33 & \end{array}$$

$$\begin{array}{cccc|cccc} -19.0 & -10.0 & -5.0 & \sqrt{0.3} & 0.5 & -5.0 & -10.0 & -12 & -18.0 \\ \hline 36 & 28 & 20 & 10 & 10 & 17 & 25 & 33 & \text{Fall} \end{array}$$

→ same section at south end of bridge

$$\begin{array}{cccc|cccc} -10.6 & -5.0 & -0.3 & \sqrt{0.7} & -11.3 & -11.3 & & \\ \hline 33 & 20 & 10 & 12 & 30 & 33 & & \end{array}$$

$$\begin{array}{cccc|cccc} -7.8 & -6.3 & -1.0 & \sqrt{0.6} & 0.2 & -8.0 & -9.0 & -9.1 \\ \hline 33 & 28 & 15 & 12 & 9 & 26 & 30 & 33 \end{array}$$

$$\begin{array}{cccc|cccc} -4.0 & -3.5 & -3.3 & \sqrt{0.4} & -0.5 & -2.0 & -2.0 & 7.1 & -1.0 \\ \hline 33 & 29 & 19 & 12 & 9 & 16 & 19 & 22 & 33 \end{array}$$

$$\begin{array}{cccc|cccc} 0.0 & 0.0 & -1.2 & \sqrt{0.4} & -0.3 & -1.2 & -0.3 & +1.5 & +2.7 \\ \hline 33 & 25 & 22 & 17 & 12 & 8 & 13 & 18 & 24 & 33 \end{array}$$

$$\begin{array}{cccc|cccc} -0.5 & -0.5 & -0.8 & \sqrt{0.2} & -0.8 & -1.5 & -1.5 & -0.3 & +2.0 & +2.0 \\ \hline 33 & 27 & 19 & 15 & 9 & 13 & 15 & 20 & 23 & 33 \end{array}$$

$$\begin{array}{cccc|cccc} -0.5 & -1.0 & -0.5 & \sqrt{0.5} & 0.0 & +3.8 & +5.3 & +10.6 & & \\ \hline 33 & 21 & 16 & 8 & 16 & 21 & 25 & 32 & & \end{array}$$

Sta

Elev.

~~14~~ 88

287.3

12

285.5

11

284.9

10

284.5

9

284.1

8

283.8

7

284.4

6

286.2

Job 23-05 Xsections

L ≠ R

(11)

$$\frac{-0.7}{33} \quad \frac{-0.8}{25} \quad \frac{-1.0}{15} \quad \sqrt{\frac{-1.0}{10}} \quad \frac{-0.6}{16} \quad \frac{-1.5}{17} \quad \frac{-0.5}{22} \quad \frac{-0.5}{33}$$

$$\frac{-0.1}{33} \quad \frac{-0.2}{16} \quad \frac{-0.9}{14} \quad \sqrt{\frac{-0.3}{10}} \quad \frac{-1.0}{13} \quad \frac{0.0}{21} \quad \frac{0.0}{33}$$

$$\frac{-1.7}{33} \quad \frac{-1.6}{17} \quad \frac{-0.7}{13} \quad \sqrt{\frac{-0.2}{10}} \quad \frac{-1.2}{17} \quad \frac{-1.5}{19} \quad \frac{-1.0}{22} \quad \frac{-1.0}{33}$$

$$\frac{-1.8}{33} \quad \frac{-1.8}{17} \quad \frac{-0.6}{13} \quad \sqrt{\frac{-0.6}{12}} \quad \frac{-1.9}{17} \quad \frac{-2.3}{19} \quad \frac{-1.2}{21} \quad \frac{-1.2}{33}$$

$$\frac{-2.5}{33} \quad \frac{-2.4}{21} \quad \frac{-1.0}{12} \quad \sqrt{\frac{-0.6}{12}} \quad \frac{-2.5}{16} \quad \frac{-2.0}{33}$$

$$\frac{-2.5}{33} \quad \frac{-2.2}{19} \quad \frac{-0.7}{11} \quad \sqrt{\frac{-0.5}{12}} \quad \frac{-1.8}{16} \quad \frac{-1.8}{33}$$

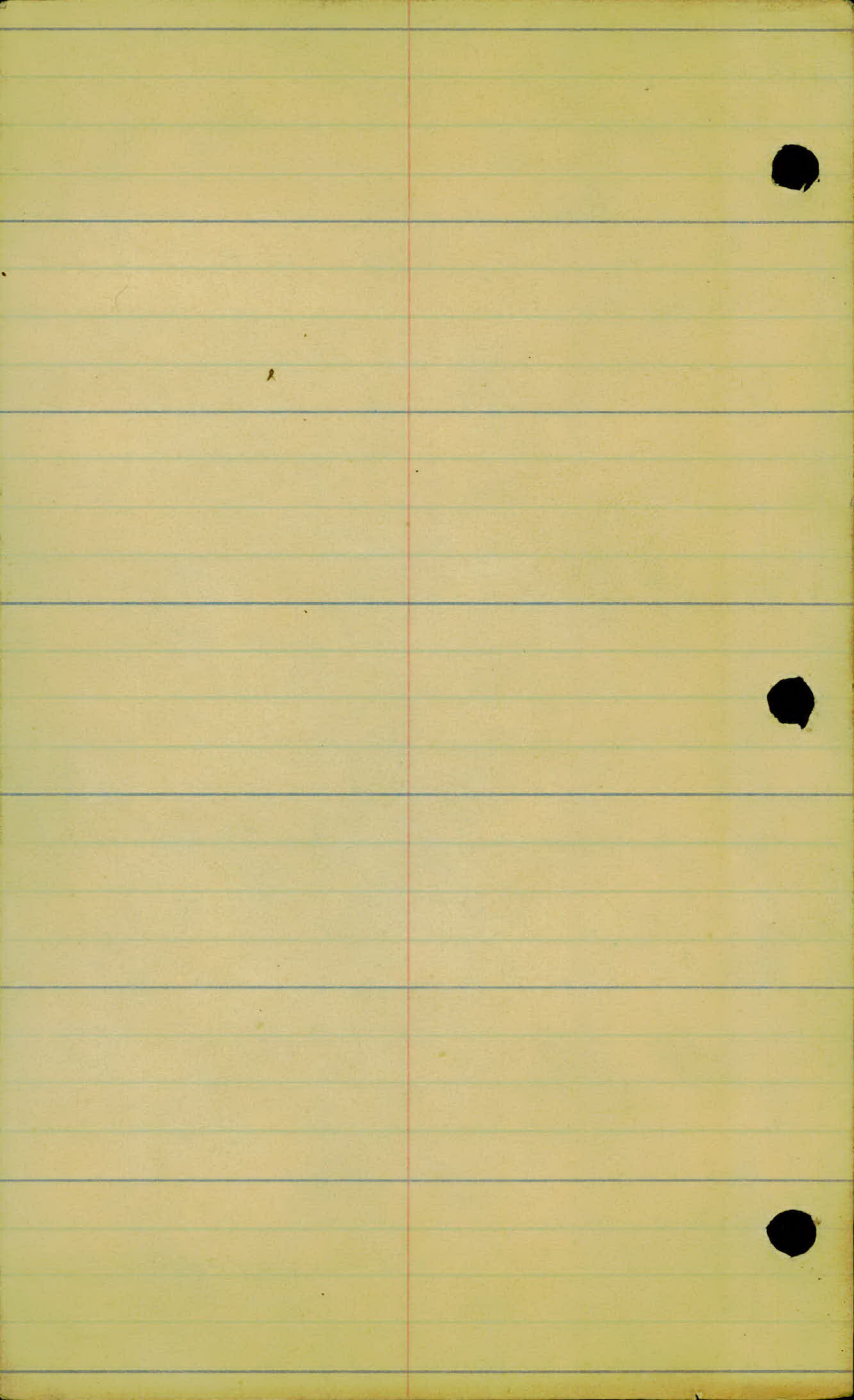
$$\frac{-4.7}{33} \quad \frac{-4.0}{18} \quad \frac{-0.6}{10} \quad \sqrt{\frac{-0.6}{10}} \quad \frac{-2.3}{17} \quad \frac{-2.2}{33}$$

$$\frac{-8.1}{33} \quad \frac{-7.2}{21} \quad \frac{-0.4}{10} \quad \sqrt{\frac{-0.5}{10}} \quad \frac{-5.3}{21} \quad \frac{-5.3}{33}$$

Sheet # 11 of 11 sheets

City Datum. —

B.M. on Mont. Cor. of Larpenteur and Cleveland Avenues —	285.24-
Grade at Dudley Ave. —	304.3
B.M. on Hydrant S.W. Cor. of Dudley & Cleveland —	305.42
Dist. from Dudley to Larp. —	$\begin{array}{r} 53 + 56 \\ 37 + 08 \\ \hline 16 \quad 48 \end{array}$
" " City Limits " " —	$\underline{13.17.3}$
" " " " to Dudley —	$3 \quad 30 \quad \overset{3}{3}$



02496