

PLANS SURVEY
CENTERVILLE ROAD
"S" Line (Old Road)
ROAD % N^o 2

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

Date Siled 4-15-23

File No. "5"

"S" line
Centerville Road.

Transit Notes

3 Pages

Old Road

R.F. Austin Transit
Stooplin } chain
Ruttenberg }
Gullen } R.Ting
Walsh } Stake Marked

Proj. 23-03.

① 05.

⊕

4-12-23.

Ang. L

Ang. R

Calc
Bear.

"S" line

10+06.4 ✓ E.C.

N24°-51'E

9+48.1 P.I 80 11'

8+89.5 ✓ B.C.

1+29.5 ✓ E.C.

N33°-02'E

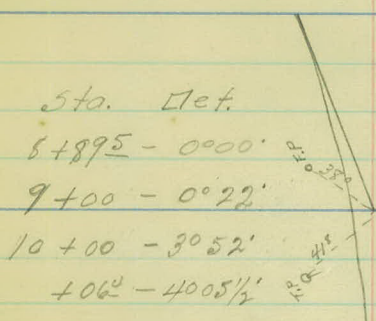
0+75.4 P.I.

33° 02'

0+15.9 ✓ B.C.

N0°-0'E (assumed)

0+00 { End. Pavement, Edgerton St.
= Beginning of "S" line



Sta. Def.

8+89.5 - 0°00'

9+00 - 0°22'

10+00 - 3°52'

10+06.5 - 40°5 1/2'

70° Curve best.

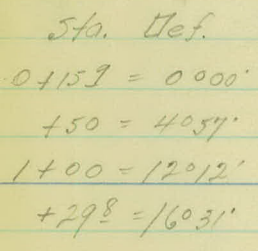
$\Delta = 80''$

S.T. = 58.6 ✓

B.C. = 8+89.5 ✓

length = 1+16.9 ✓

E.C. = 10+06.5



Sta. Def.

0+159 = 0°00'

+50 = 4°57'

1+00 = 12°12'

+298 = 16°31'

290° Curve. RT.

$\Delta = 33°02'$

S.T. = 59.2 ✓

B.C. = 0+159

length = 1+139 ✓

E.C. = 1+298

0+00 — End Pavement Edgerton St.

Ang h ~~h~~ Ang R.

"5" hinc

Centerville Rd.

14+23⁸ ↓ F.C.

N32°51'E

13+66⁸ P.I.

8°00' ✓

13+09⁵ ↓ B.C.

11+31⁰ ~~h~~ RR

N24°51'E

Sta.	Def.
13+095	- 0000'
14+00	- 30 10'
14+238	- 4000'

7° Curve. RT.

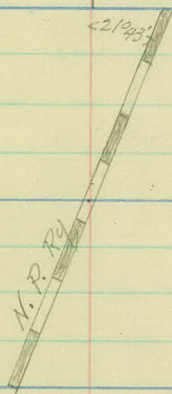
 $\Delta = 8^{\circ}00'$

S.T. = 57.3 ✓

B.C. = 13+095

length = 114.3 ✓

E.C. = 14+238



E
Ang. L Ang. R

"S" line
Centerville Rd.

Equation $\left\{ \begin{array}{l} 21+309 \text{ "S" line} \\ = 21+3909 \text{ S.C. line} \end{array} \right.$

21+309 ✓ E.C.

N37°-21'E

19+06 P.I

4°30' ✓

16+803 ✓ B.C.

N32°-51'E

"5" hinc.

Centerville, Rd.

Sta - Def.

16+80² - 0°00'

17+00 - 0°06'

18+00 - 0°36'

19+00 - 10°06'

20+00 - 10°36'

21+00 - 2°06'

+30² - 2°15'50¹/₂ - 0 F.P.

T.P.C. - 582

10° Curve Rt.

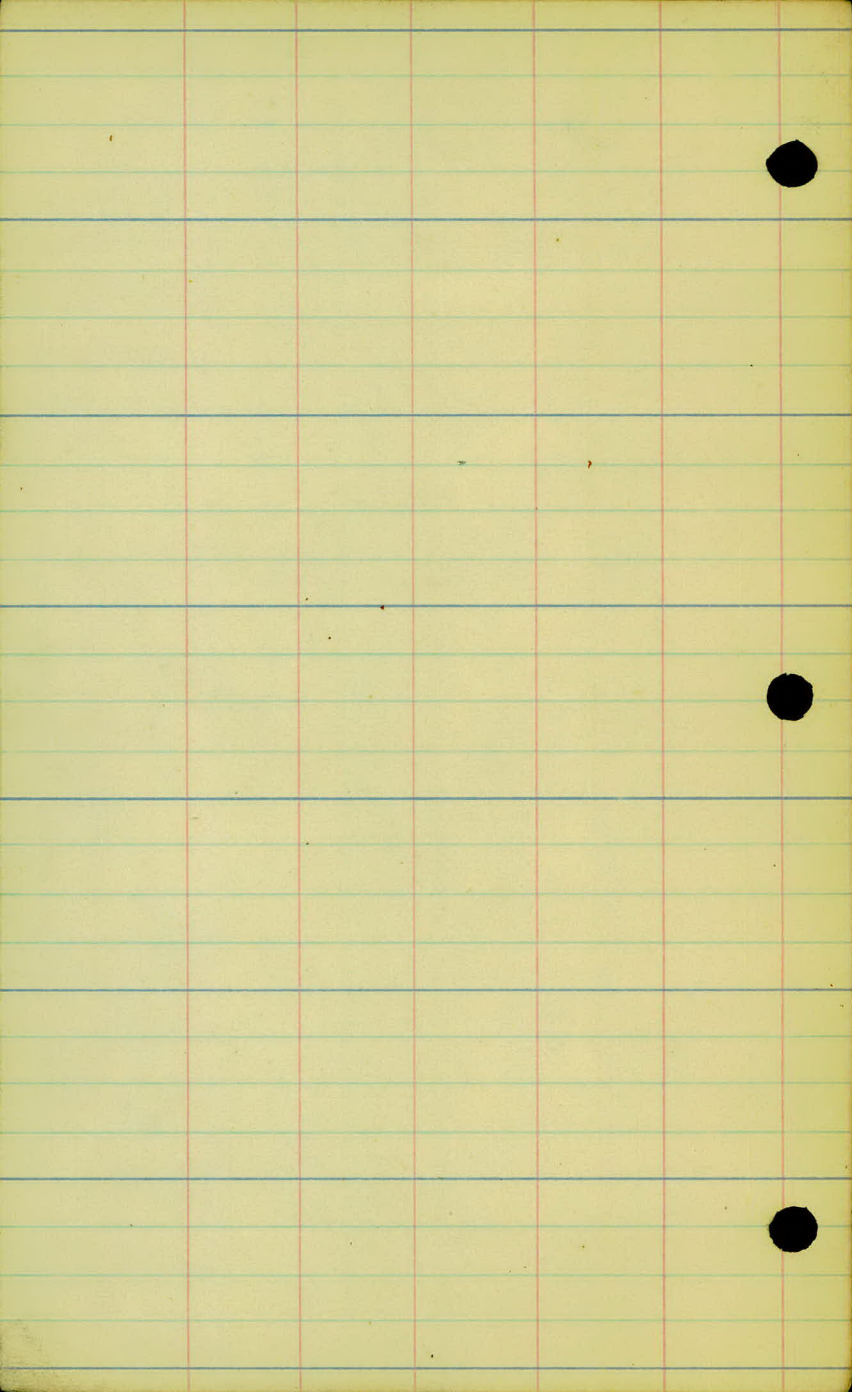
 $\Delta = 4^{\circ}30'$

S.T. = 225.13 ✓

B.C. = 16+80²

length = 450' ✓

E.C. = 21+30²



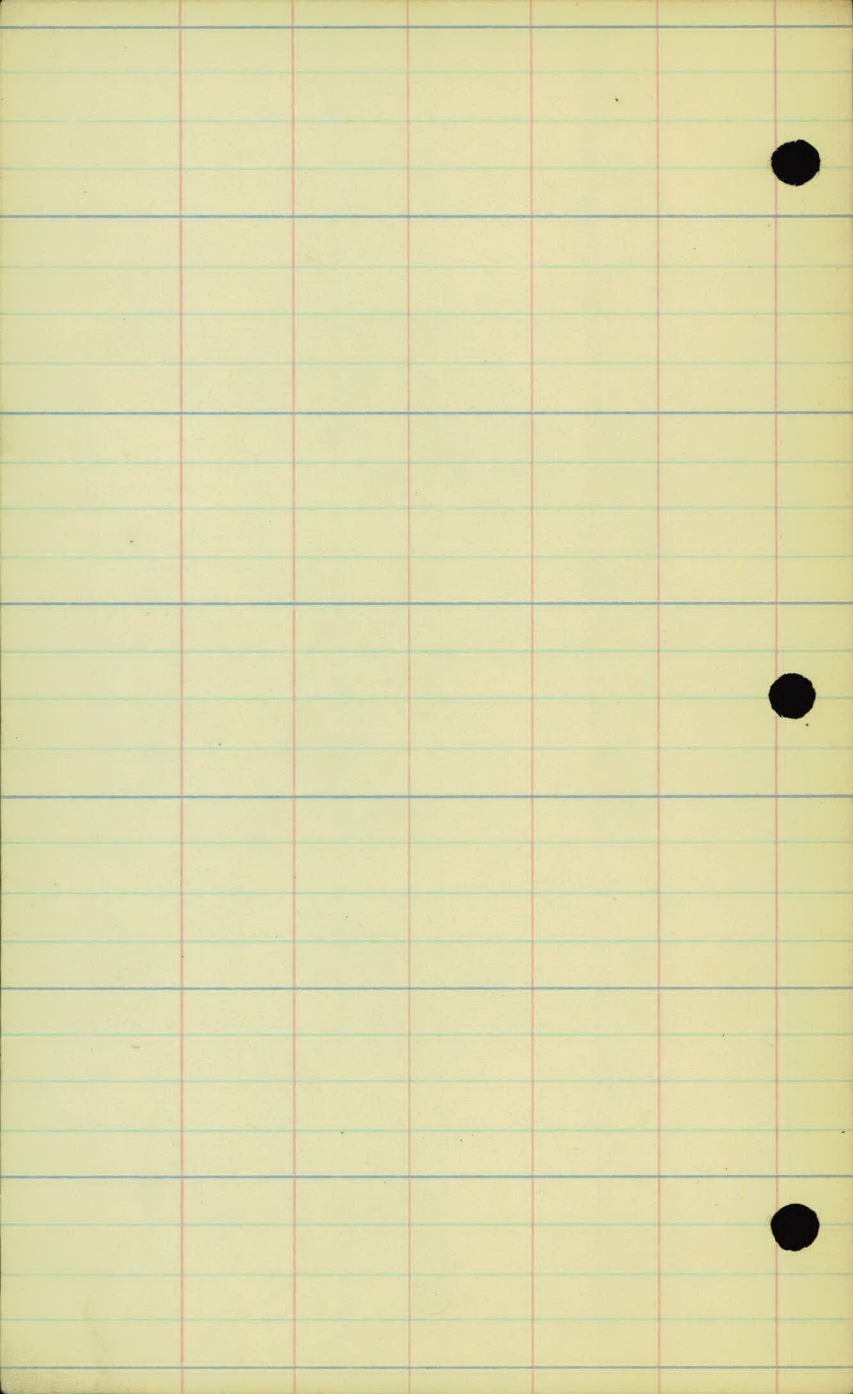
"S" line
Centerville Road.

Artificial Topography.

6 Pages

R. B. Austin. Notes.

Skoglund } chain.
Walsh }



"S" hinc
Centerville Rd.

+16 Mail Box 12' L



19' : +14

200

30'



+58 T.R. 17' L

+50

+45

30'

+80 Tree 20' L

+69 Tree 31' L

+03 University

200

+44 Mail Box 12' L

25'

+75 T.R. 15' L

+65 Tree 31' L

+50

Vadnais Blvd +28

+400

+80

15'

+79 5' 7" R 31' L

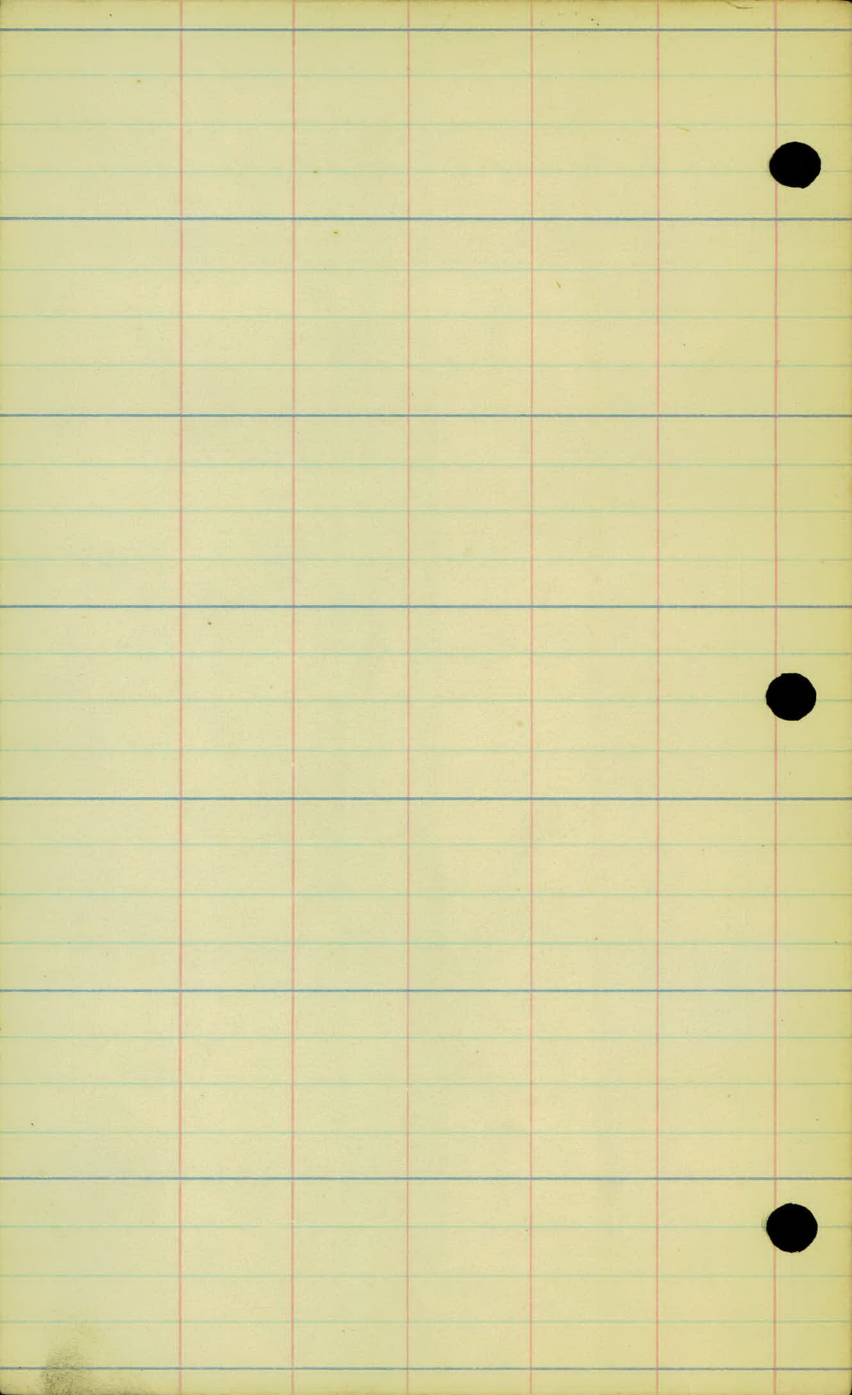
+71 5' 90" R 30' L

+56 T.R. 40'

+68 5' 90" R 12' R

+58 T.R. 17' R

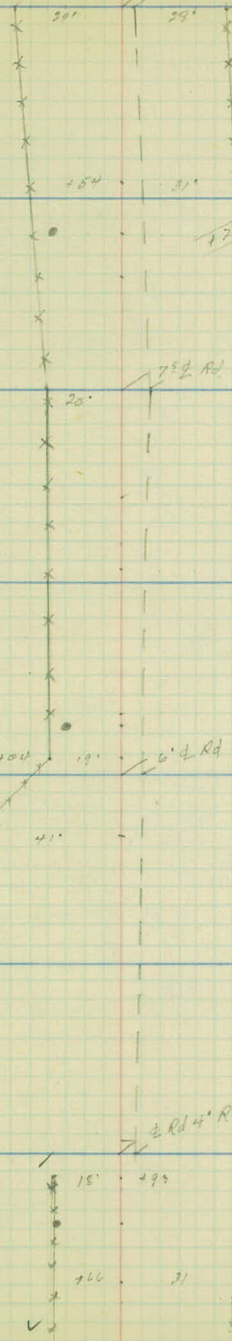
+50



+41 T.P. 18' L

+12 T.P. 15' L

+32 T.P. 17' L



+23 R.R. Rd

+52 Rd

+6 Rd

+4 Rd

+15 G.P. 34' R

+03 Tree 33' R 4+00

+50

+200

+50

+10

+50

+50

"5" line
centerville Rd

+37 Gd. Roll 12" R

10400

+ 50

+17 T.P. 24" L

9400

+78 T.P. 12" R

+ 50

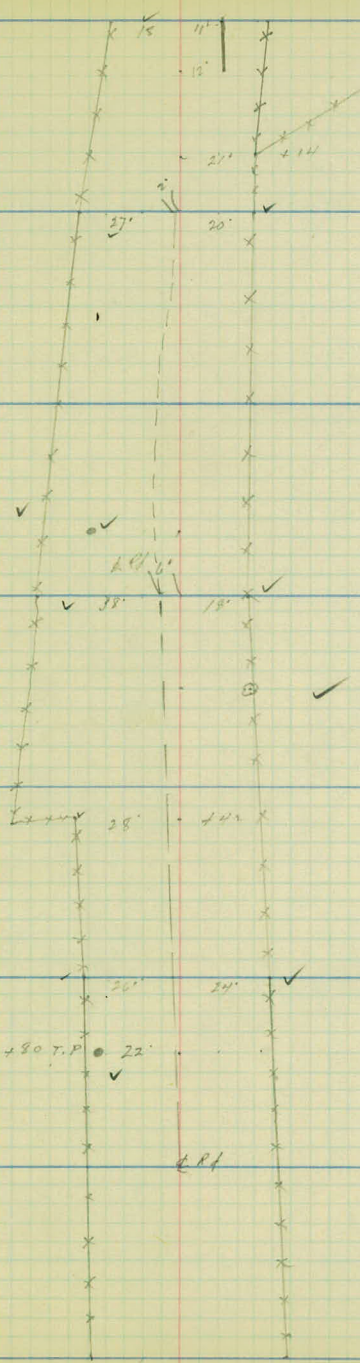
8400

+80 Sign. P. 30" L

+80 T.P. 22" L

+ 50

7400



5" line

Centerville Rd.

④ of 6 14400

65'

+ 50

126 T.P. 20' R

13400

37'

+ 50 Mail Box 17' L

+ 50

22'

+ 27 Driveway

+ 08 T.P. 5' R

12400

28' 221°43'

+ 75 End. Fence

17'

+ 50

+ 41 X Sign 30' L

10'

11431 E.R.R.

+ 22 X Sign 13' R

11400

+ 91 Bag Fence 75' L

25'

30'

+ 91 End Gd. Rail 9' R

+ 78 End. Gd. Rail 12' L

Gd. Rail

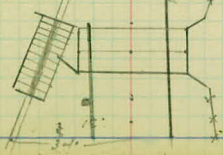
+ 72 Culvert

+ 59 T.P. 12' L

+ 50 Gd. Rail 11' L

+ 53 End. Fence

+ 50 Gd. Rail 11' L + 50



"5" hine

Centerville Rd.

⑤ of 4

+50

+22 T. R. 17' R

12' L. R.

17+00

+50

11' L. R.

+95 T. R. 22' R

16+00

+50

15+00

+72 T. R. 24' R

+50

1238 13' L. R.

+21 Highway

14+00

"5" line
Centerville, Rd.

+33 Fence 26' L

+33 Trace 24' L

+157 R. 21' R

+20 Trace 28' L 21400

+55 Trace 22' R

21400

+50 T. R. 20' R

19400

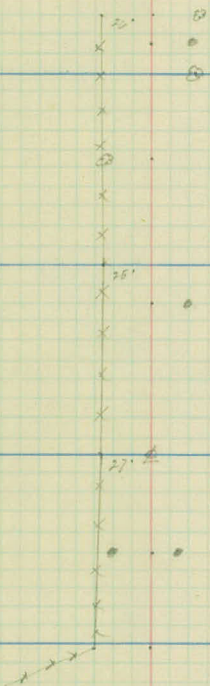
+50 Guy R. 21' L

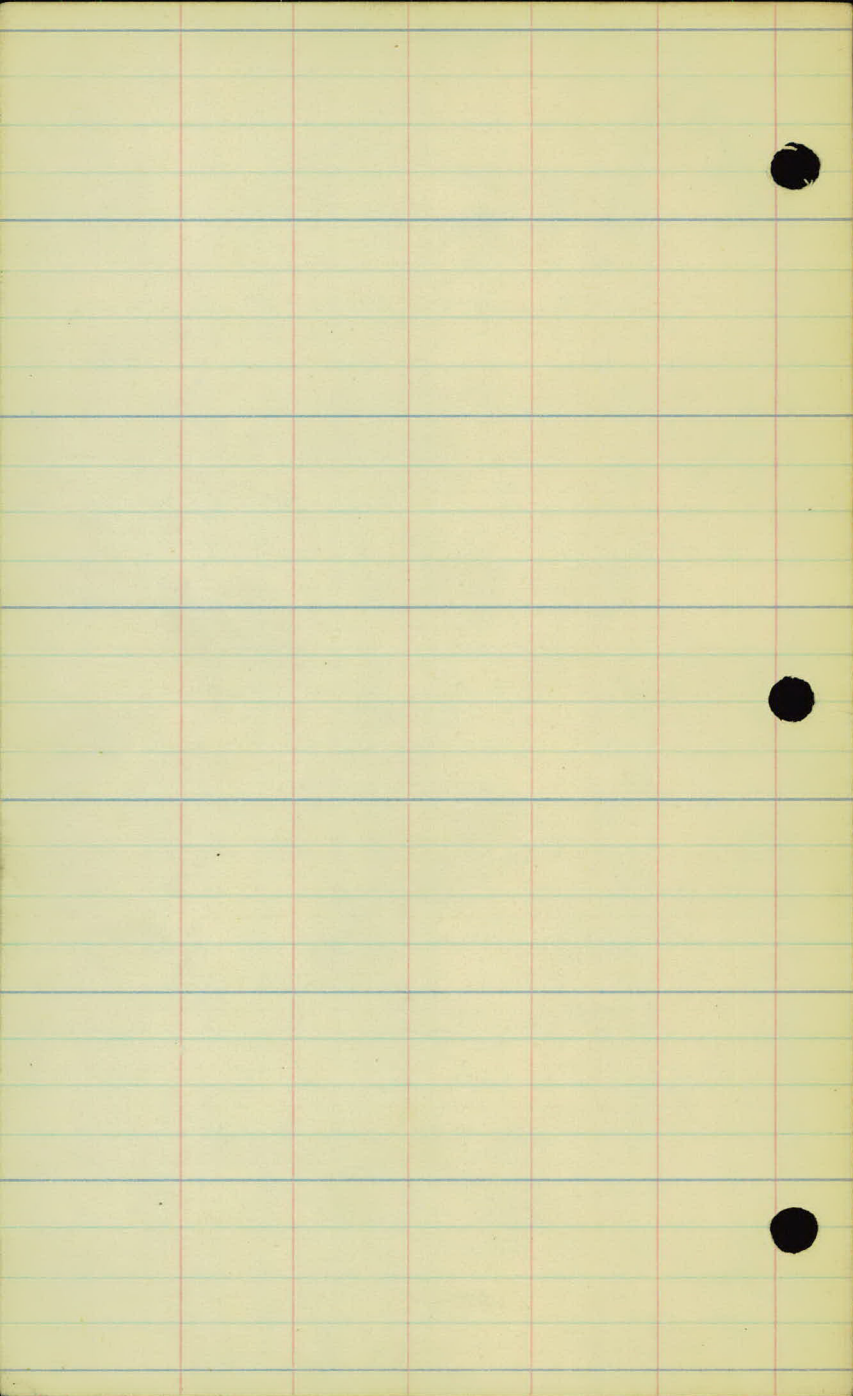
+50 T. R. 15' R

18200

+98 Bay. Fence 31' L

17100





5" Line Levels

2 Sheets

R/L } 4-14-23
W.M. }

Proj 23-03,

"5" Line Levels Sheet #1 of 3

Station	B.S.	H.I.	F.S.	Rod	Elev
					220.00
	3.85	223.85			
0+00				4.85	219.00
0+15.9				4.6	219.2
+5.0				4.7	219.1
1+00				4.8	219.0
+29.8				4.2	219.6
2+00				4.0	219.8
3+00				4.0	219.8
4+00				3.8	220.0
5+00				3.8	220.0
			3.96		219.89
	3.09	222.88			
	<u>7.34</u>				
6+00				3.1	220.3
7+00				3.1	220.3
8+00				3.5	219.9
9+00				4.4	219.0
10+00				6.3	217.1
11+00				7.1	216.0
+33.4				7.29	216.09
12+00				6.5	216.9
13+00				5.1	218.3
			3.71		219.67
	6.48	226.15	7.67	220.00	
			<u>7.34</u>	219.67	
			3.3	.33	

Sheet #1 of 3

B.M. Cherry Tree NE Cor Edgerton &
Centerville Rds Elev 220.00

Top of Paving ϕ of Edgerton Road Elev 219.00

Top of North rail N.P.R.R.

B.M. Tele Pole 13+28 15' R Elev 219.66

"5" Line Levels Sheet # 2 of 3

Station	B.S.	I.I	F.S.		
		226.15			
14+00			6.7		219.4
15+00			5.1		220.2
16+00			5.2		220.9
17+00			4.9		221.2
18+00			4.2		221.9
19+00			3.7		222.4
20+00			3.2		222.9
21+00			3.0		223.1
+ 30.9			2.78		223.37
	6.48				219.67
	<u>2.78</u>				<u>3.70</u>
	3.70				

End of line on spike

"5" Line Levels Sheet #3

"S" Line Culverts

1 Sheet

R.I.L.)
W.M.)
R.W.) 4-16-23
J.C.)

D_r

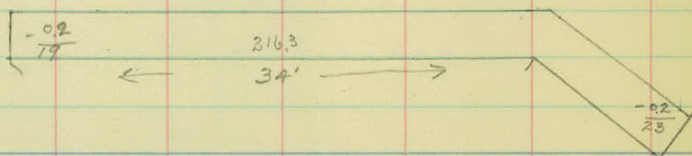
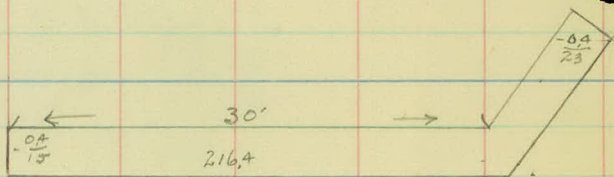
Station	L	±	R
10+77	$-\frac{0.4}{15}$	216.4	$-\frac{0.4}{23}$
Top of South Bent			

10+72 ²⁶/₁₇ Creek Elevations

$\frac{202.0}{19}$	202.9	$\frac{202.8}{23}$	$\frac{203.9}{50}$
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10+67	$\frac{0.2}{19}$	216.3	$-\frac{0.2}{23}$
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Top of North Bent.



"S" Line
Cross Section

4 Sheets

R.L.
W.M.
R.W.
J.C. } 4-16-23

5" Line Cross Sections

Station	Elev
6+00	220.3
5+00	220.0
4+00	220.0
3+00	219.8
2+00	219.8
+65	219.7
+59	219.7
+29.8	219.6
1+00	219.0
0+50	219.1
0+159	219.2
0+00	219.0

R

Q

L

$$-\frac{0.2}{33} \quad \frac{00}{20} \quad -\frac{0.5}{15} \quad -\frac{0.7}{9} \quad \frac{00}{6} \quad \begin{array}{l} \text{Q of Rd} \\ +\frac{0.5}{7} \quad \frac{00}{18} \quad -\frac{1.2}{22} \quad -\frac{1.0}{29} \quad -\frac{0.3}{33} \end{array}$$

$$-\frac{1.0}{33} \quad \frac{00}{22} \quad -\frac{0.5}{12} \quad -\frac{0.2}{7} \quad \begin{array}{l} \text{Q of Cent Rd} \\ +\frac{0.5}{7} \quad +\frac{0.2}{18} \quad -\frac{1.3}{24} \quad -\frac{1.2}{33} \end{array}$$

$$\text{Driveway} \quad \frac{00}{33} \quad -\frac{0.5}{5} \quad \frac{00}{15} \quad +\frac{0.2}{16} \quad -\frac{1.5}{22} \quad -\frac{1.0}{33}$$

$$-\frac{0.3}{33} \quad -\frac{0.6}{16} \quad -\frac{1.0}{15} \quad \frac{1.0}{13} \quad -\frac{0.3}{10} \quad -\frac{0.3}{15} \quad -\frac{0.5}{20} \quad -\frac{0.5}{33}$$

$$+\frac{1.4}{33} \quad \frac{00}{24} \quad -\frac{0.4}{18} \quad \frac{1.3}{16} \quad -\frac{1.3}{14} \quad -\frac{0.3}{12} \quad -\frac{0.3}{10} \quad -\frac{0.1}{33} \quad \text{Driveway}$$

$$-\frac{0.1}{33} \quad -\frac{0.9}{20} \quad -\frac{1.6}{14} \quad -\frac{1.8}{17} \quad -\frac{0.1}{15} \quad \frac{00}{8}$$

$$-\frac{2.2}{33} \quad -\frac{0.7}{12} \quad \frac{00}{3} \quad -\frac{0.4}{10} \quad -\frac{1.0}{17} \quad -\frac{1.0}{27} \quad -\frac{0.2}{29} \quad -\frac{00}{33}$$

Q of Edgerton

$$-\frac{1.5}{33} \quad \frac{00}{3} \quad -\frac{0.2}{10} \quad \frac{00}{14} \quad -\frac{0.6}{18} \quad -\frac{0.6}{26} \quad \frac{00}{28} \quad +\frac{0.4}{33}$$

Q of VauNais Rd

$$-\frac{0.5}{33} \quad -\frac{0.2}{7} \quad \frac{00}{8} \quad +\frac{0.5}{10} \quad -\frac{0.2}{14} \quad -\frac{0.2}{22} \quad \frac{00}{24} \quad +\frac{1.0}{33}$$

Q of Centville

$$+\frac{0.5}{33} \quad +\frac{0.5}{22} \quad -\frac{0.1}{10} \quad -\frac{0.4}{11} \quad -\frac{0.4}{15} \quad +\frac{0.5}{17} \quad +\frac{1.1}{33}$$

$$-\frac{0.2}{33} \quad \frac{00}{17} \quad \frac{00}{15} \quad -\frac{0.5}{17} \quad -\frac{0.5}{20} \quad +\frac{0.7}{22} \quad +\frac{0.4}{33}$$

$$+\frac{1.2}{33} \quad +\frac{0.6}{25} \quad -\frac{0.7}{27} \quad -\frac{0.7}{20} \quad +\frac{0.4}{16} \quad +\frac{0.4}{10} \quad \frac{00}{10} \quad +\frac{0.5}{15} \quad -\frac{0.6}{18} \quad -\frac{0.6}{21} \quad +\frac{0.8}{24} \quad +\frac{1.1}{33}$$

"5" Line Cross Sections

Station	Elev
---------	------

17+00	221.2
-------	-------

16+00	220.9
-------	-------

15+00	220.2
-------	-------

14+00	219.4
-------	-------

13+00	218.3
-------	-------

12+00	216.9
-------	-------

11+00	216.0
-------	-------

10+00	217.1
-------	-------

9+00	219.0
------	-------

8+00	219.9
------	-------

7+00	220.3
------	-------

$$+\frac{16}{33} + \frac{12}{24} + \frac{02}{17} + \frac{00}{15} \frac{00}{10} \quad \frac{00}{12} - \frac{10}{15} - \frac{12}{19} - \frac{15}{33}$$

$$+\frac{13}{33} + \frac{15}{27} + \frac{08}{19} - \frac{02}{16} - \frac{02}{9} \quad \frac{01}{2} - \frac{02}{11} \frac{00}{17} - \frac{13}{33}$$

$$+\frac{16}{33} + \frac{14}{24} \frac{00}{16} - \frac{02}{12} - \frac{01}{9} + \frac{03}{5} \frac{00}{14} \frac{00}{19} - \frac{09}{33}$$

$$+\frac{13}{33} \frac{00}{20} - \frac{08}{16} - \frac{08}{13} - \frac{03}{10} + \frac{01}{3} - \frac{04}{15} - \frac{15}{33}$$

$$+\frac{25}{33} + \frac{18}{24} + \frac{07}{20} - \frac{08}{17} - \frac{08}{14} - \frac{04}{12} - \frac{02}{12} + \frac{02}{25} - \frac{04}{33}$$

$$+\frac{15}{33} + \frac{06}{27} - \frac{02}{24} \frac{00}{20} + \frac{06}{8} + \frac{05}{5} \frac{00}{9} + \frac{05}{15} - \frac{16}{19} - \frac{06}{22} - \frac{05}{28} - \frac{10}{33}$$

$$- \frac{25}{33} - \frac{07}{25} \frac{00}{18} \frac{00}{8} - \frac{01}{5} - \frac{06}{7} - \frac{07}{12} - \frac{53}{24} - \frac{62}{33}$$

$$- \frac{26}{33} \frac{00}{29} \frac{00}{23} - \frac{07}{20} - \frac{02}{10} \frac{00}{19} \frac{00}{14} + \frac{03}{5} - \frac{02}{9} - \frac{08}{10} - \frac{08}{15} + \frac{22}{21} \frac{20}{33}$$

$$-\frac{06}{33} - \frac{05}{22} + \frac{03}{19} + \frac{03}{16} + \frac{06}{7} - \frac{01}{5} - \frac{03}{6} - \frac{05}{8} - \frac{05}{10} - \frac{04}{14} + \frac{06}{16} + \frac{07}{32}$$

$$+\frac{11}{33} - \frac{04}{33} - \frac{04}{16} - \frac{07}{22} - \frac{08}{12} - \frac{08}{16} - \frac{03}{12} \quad \frac{00}{10} - \frac{05}{12} - \frac{11}{14} - \frac{11}{16} - \frac{02}{17} + \frac{06}{24} - \frac{06}{33}$$

$$+\frac{04}{33} \frac{00}{20} - \frac{13}{18} - \frac{13}{15} - \frac{06}{13} - \frac{06}{11} + \frac{01}{8} + \frac{02}{5} - \frac{03}{14} - \frac{05}{16} - \frac{13}{20} \frac{13}{22} \frac{10}{28} \frac{10}{33}$$

'S' Line Cross Sections

Station

Elev

21+39.04 "SC" Line

21+30.9 "S" Line

+30.9

223.4

21+00

223.1

20+00

222.9

19+00

222.4

18+00

221.9

L

Φ

R

$$-\frac{0.2}{33} + \frac{0.5}{24} - \frac{0.0}{15} - \frac{0.7}{14} - \frac{0.7}{10} - \frac{0.0}{8} - \frac{0.0}{7}$$

$$+\frac{0.6}{33} + \frac{0.2}{23} + \frac{0.4}{16} - \frac{1.0}{11} - \frac{1.0}{10} - \frac{0.2}{9} - \frac{0.2}{8}$$

$$+\frac{1.0}{33} + \frac{0.4}{23} + \frac{0.7}{17} - \frac{0.7}{13} - \frac{0.7}{12} - \frac{0.1}{9} - \frac{0.1}{8}$$

$$+\frac{0.5}{33} + \frac{1.0}{26} + \frac{0.7}{22} - \frac{0.7}{18} - \frac{0.7}{16} - \frac{0.2}{13} - \frac{0.1}{11}$$

$$+\frac{1.5}{33} + \frac{0.5}{27} - \frac{0.3}{17} - \frac{0.3}{14} - \frac{0.1}{11}$$

Φ of Rd

$$+\frac{0.2}{3} - \frac{0.2}{15} - \frac{1.2}{16} - \frac{1.2}{18} - \frac{0.0}{21} - \frac{0.4}{33}$$

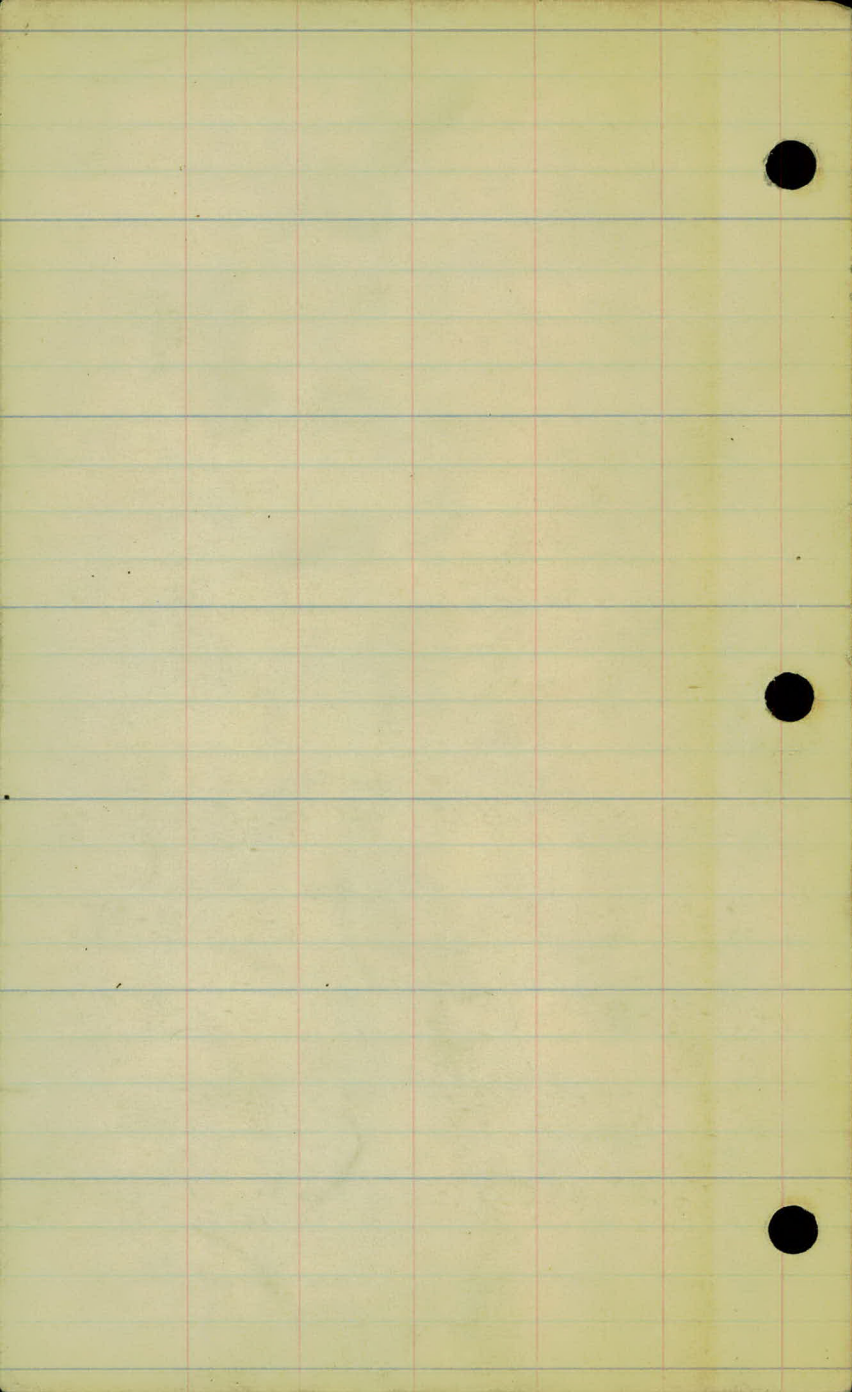
Φ of Rd

$$+\frac{0.1}{3} - \frac{0.6}{15} - \frac{1.0}{16} - \frac{1.0}{17} - \frac{0.0}{20} - \frac{0.4}{33}$$

$$-\frac{0.7}{13} - \frac{1.2}{16} - \frac{1.2}{18} - \frac{0.5}{20} - \frac{1.0}{33}$$

$$-\frac{0.7}{11} - \frac{1.2}{13} - \frac{1.2}{15} - \frac{0.5}{16} - \frac{1.2}{33}$$

$$-\frac{0.5}{12} - \frac{1.4}{14} - \frac{1.4}{15} - \frac{0.8}{16} - \frac{1.7}{33}$$



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