

Book # 41-Dr # 8

MAINT. SURVEY  
SNELLING AVE.

From W $\frac{1}{4}$  Cor. Sec. 10-29-23

To Seminary Road  
RD.  $\frac{1}{2}$  N $^{\circ}$  8

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

Date Filed 4-16-24

File No. "13"

Art. Topog.

Snelling Avenue

Maintenance Work.

Road #8

W.H.C.)  
C.E.J.) April 1924  
M.S.P.)  
T.F.)

station

1/

3

2

1

0+00

+09 T.P. 22' <sup>30 1/2</sup> 118

+56 F. Cor. 21' x x x x  
+54 P.P. 33'

+33 -10' Plum Tree 27'

+34 P.P.

+72 T.P.

+62 F.E. { 12" x 26 C.M. 11 L. 7

+46 M. Bx. 12'

+32 T.P. 75'

+77 P.P.

Cultivated

+02 T.P. 46'

Cultivated

+0+01 F. Cor. 26' x x x x

+27 P.P. 15'

+0+01 F. Cor. 35' x x x x x x x x

station

9

8

7

6

5

4

+10-T.P. 21'

+09 T.P. 22'

+08 P.O.P. 17'

clover field

+66 T.P. 23'  
+65 P.O.P. 18'

+42 P.O.P.

+44 T.P.

Cultivated

+93 P.O.P. 17'

Pasture



station.

15

14

13

12

11

10

9

+50-Po. P. 13'

+74-T.P. -22'

+92-Po. P. 12'

+89-T.P. 20'

+10-T.P. 19'

+20 Po. P. 12'

cultivated

+76 T.P. 18'  
+76 Eng. Wire 25'

+62 Po. P. 12'

+84-6" Ex. E. 6. 34'

clover field

+88-T.P. 37'

+63 Po. P. 16'

Station.

21

20

+20 Overhead Power Line & Wires.

19

+15 18" x 31' C.M.

18 Lake Shore 255' Left

Distances taken } #15-24  
to Lake }

17

16

15

+23-T.P. 21'

From 8" W. 1/4

guy wire

+90-12" Tr. W. 1/4 25'

+90 T.P. 19'

+13-Sign Board 05'

+90, S.E. Cor. Steep / Over 29'

+84-F. Cor. 12'

+75-T.P. 22'

Fence E.S.W.

guy wire

To Lake.

16' 18'

Ditch

+95 P.O.P. 16'

+36-T.P. -40'

+04-T.P. -19'

over Fidd. → Lakeshore.

guy wire

10'

cultivated

+70-P.O.P. 22'

+58-P.O.P. 15'

Fence E.S.W.

+09 P.O.P. 21'  
+07 F. Cor. 23'

station.

27

26

Lake Shore 120' Left

25

24

23

Lake Shore 145' Left

22

21



Station.

+55

<sup>30</sup>  
12" x 36' C.M.

33

32

Lake Shore 140' Left.

31

Side drain.

+14

12" x 25' Vit. Tile. 16' (4) R.

30

Lake Shore 185' Left

29

+71- 3' concrete walk 23' Right

+44 4-12" x 16' C.M. - 15' Right

28

27



Station.

39

38

Lake Shore 147' Left.

+65 15" X C.M.

37

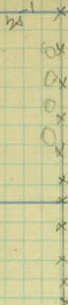
36

35

34

Lake Shore 90' Lt.

33



+87 T.P. 22'

+35-10" Pop. 27'

Box of Brush

+77 T.P. - 22

+48 F. cor. 27' Rt.

+44 - P.O. P. 49' Lt.  
 +27-24" Cott. 25'

+10 - In. Rd. Sign 12' Lt.  
 R.R. Fence 38' Lt.

PUMP

+46 - (2 T.P.) 30' & 37'



+64 - 8" P. 27'

Fence 32' Rt

- P. 27 7 2 2

+75 - R.R. Fence 30'

+75 - 8" Oak 36' Rt.

+62 T.P. - 22' Lt.  
 +61 B.P. - 22' Lt.

+50 - 26" Rd. C. 27' Rt

+02 E. Fence 27' Lt. Cattle Guard.

+09 T.P. 29' Rt

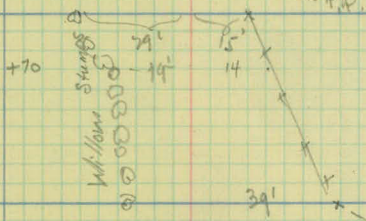
+98 - R.R. King Sq. 17' Lt.

+63 - T.P. 29'

+41 - P.O. P. 16' Lt.

+42 - E. Fence 13' Rt

See align for line to R.R.



+81 - T.P. 29'  
 +70 - F. cor. 14'

+25 - B.P. 34'

+17 - 12" Oak 38'  
 +17 - Fence 39'  
 R.R. Fence

station

45

44

43

42

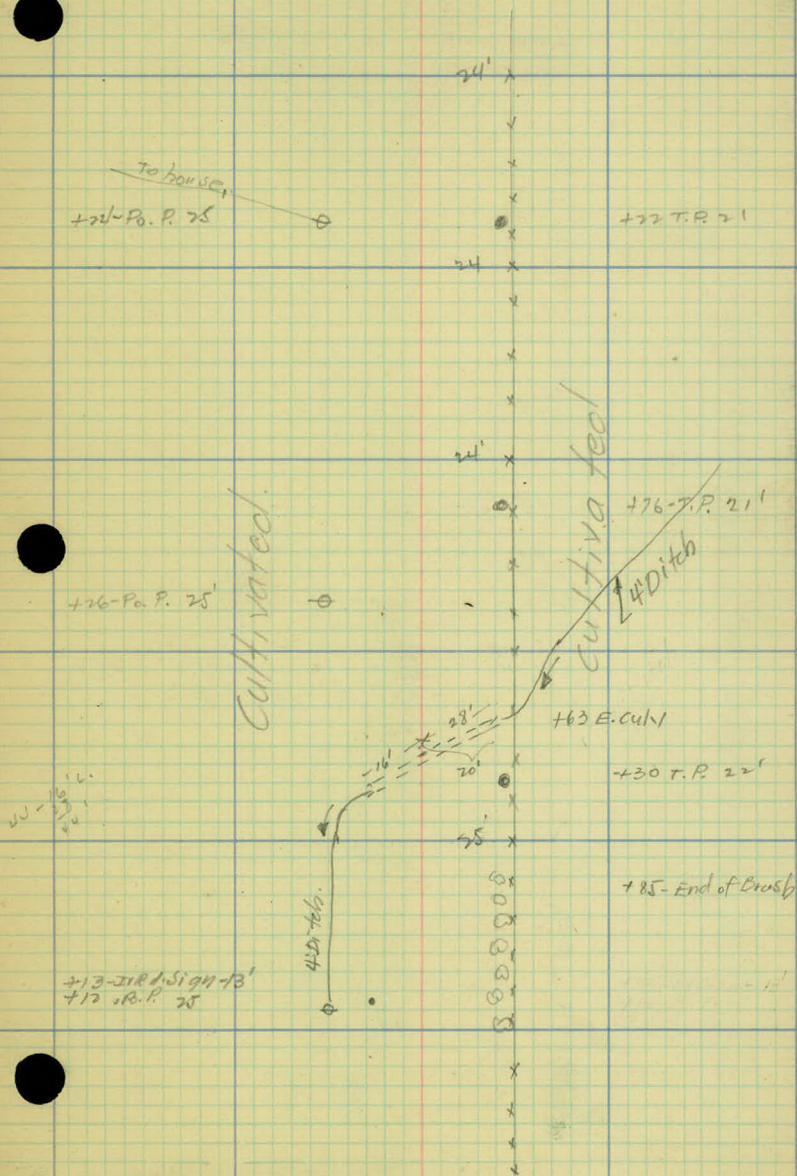
+43

18" x 44' C.M.

41

40

39



station.

139 L.F.E. Right.

51

50

49

48

47

46

45

34'

Cultivated

+39-12"X16" C.M.  
+36-F. Cor. 32'

+70-18" Bx Eld. 32'

+75-18" Bx Eld. 32'

+40-14" Bx Eld 32'

+19-F. Cor. 23'  
+11-T. R 23'

39'

Oak Grove

Pasture

Cultivated

+60 T. R 22'

P.I. +36  
40' 24'

+56-F. cor. 42'

25'

+18 T. R. 21'

cultivated.

+71 T. R 21'

24'

station.

57

56

+11 20' x 40' C.M.

55

54

53

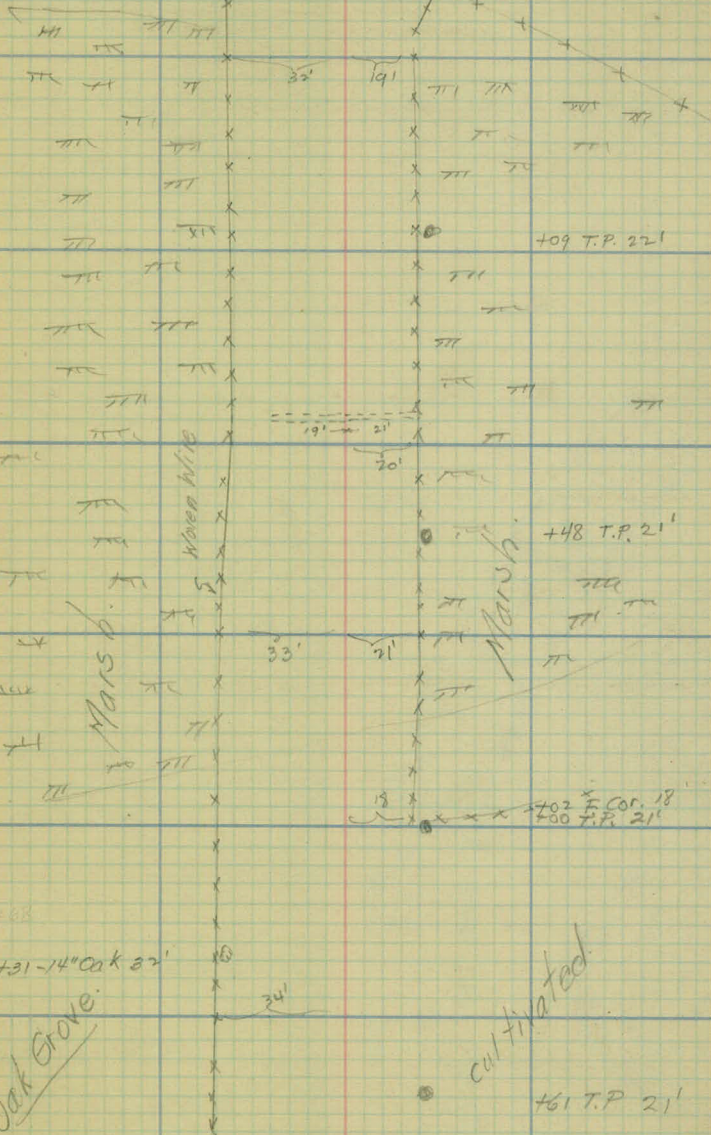
52

51

3-8" Willow

+44 T.P. 21'

+38 F. Cor. 25'



Station.

63

62

61

60

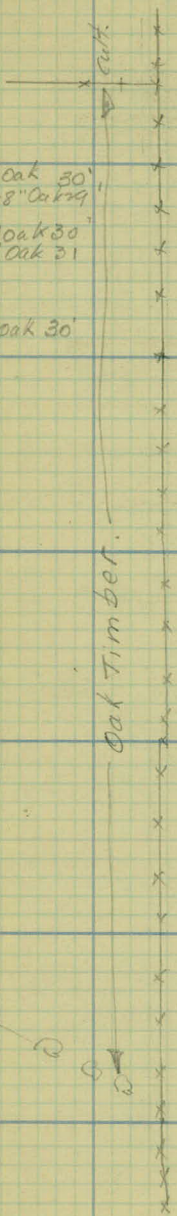
115

F. Ent. Rt.

59

58

57



+95-12" Oak 30"  
 +85-12-8" Oak 29"  
 +66-8" Oak 30"  
 +62-8" Oak 31

+15-6" Oak 30"

Oak Timber

32"

32"

32"

+38-T.P. 21'

Cultivated

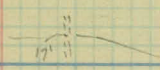
+83-T.P. 21'

+94-6" Bx 1/4 27'

+61-Litro Bus 30'

+32-T.P. 21'  
 +53-18" Bx 1/4 23'

+15-12" x 18" C.M.



Station.

69

68

67

66

65

64

63

+03-6" Oak 27'

+81-T.R. 19' R.  
+71-10" Oak 31'

Cultivated

31'

36'

Cultivated

+42-T.R. 20'

+06-Tw 8" Oak 33'

+68-Tw 8" Oak 33'

+97-T.P. 20'

+70-Tw 6" Oak 35'

+04-12" Oak 26'

+89-4" (2) Oak 30'

+43-6" Oak 27'

+41-T.P. 21'

+22-(3)-4" Oak 28'

31'

34'

+92-6" Oak 23'

+43 Fence Cor. 33'  
— 6 — 6 —

+20-4" Oak 27'  
+08-4" Oak 31'  
+02-Tw 4" Oak 31'

+97-4" Oak 32'

+89-T.P. 21'

+79-4" Pop. 31'

+69-(3) 4" Pop 30'

+46-Fence Cor. 34'

station.

75

74

73

72

71

70

69

+03-8" oak 18'

Cultivated

Q

(D small Brush

B

co

Q

Q

24'

27'

28'

28'

29'

29'

42'

41'

40'

39'

38

38

+87-12" oak 35'

+67 T.P. 21'

+41-10" oak 31'

+18-10" oak 36'

+93-4" oak 24'

+85-10" oak 25'

+72-10" " 28'

+74-10" oak 34'

+78-13-8" oak 28'

+41-T.P. 19'

+39-10" oak 28'

+98-12" 10" oak 38'

+07-12" oak 27'

+77-T.P. 19'

+92-10" oak 30'

+77-10" oak 33'

+41 T.P.-19'

+83-10" oak 34'

+71-8" " 36'

+69-6" " 36'

+60-10" " 30'

+56-6" " 31'

+46-8" " 32'

+15-14" " 36'

Cultivated.

station

77

+54.2°

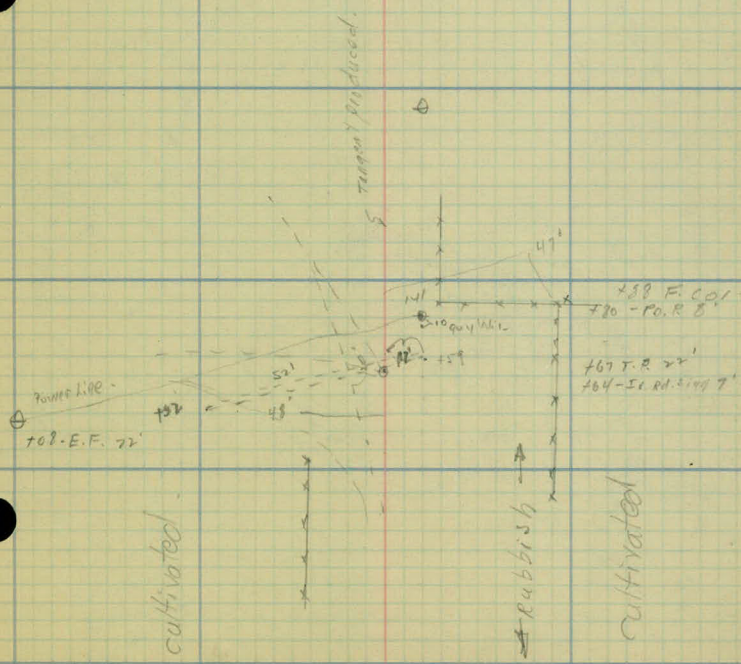
P.I.

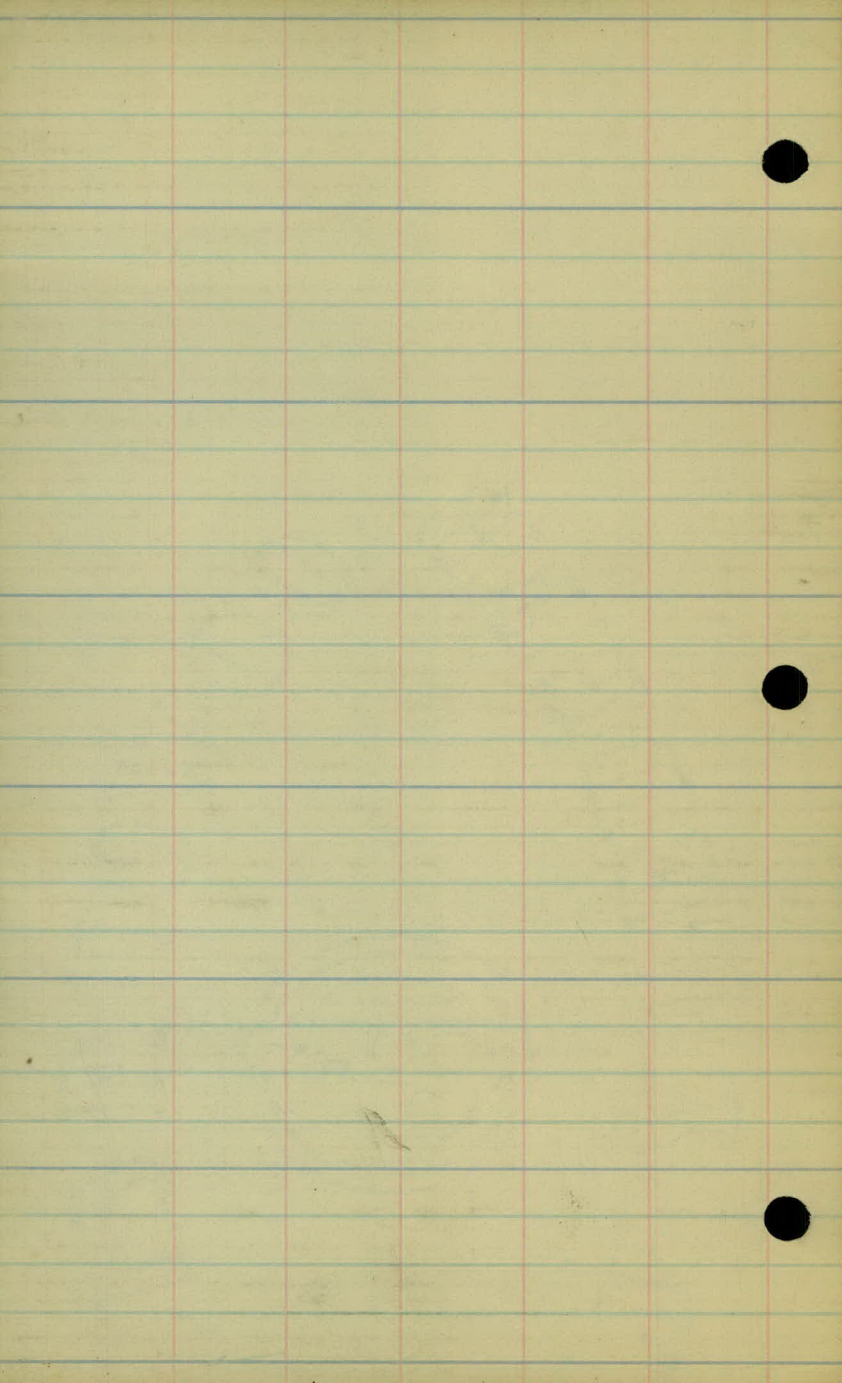
+54

12" X 64" C.M.

76

75





Center Line Levels.

Snelling Avenue

Maintenance Work

Road #8

W.H.G.  
C.E.J.  
M.S.A.  
T.F. } April 1924

| Station | +    | M.I      | -     | Elev.    |
|---------|------|----------|-------|----------|
|         | 1.28 | 201.28 ✓ |       | 200.00   |
| - 2+00  |      |          | 2.8   | 198.5 ✓  |
| - 1+00  |      |          | 3.8   | 97.5 ✓   |
| - 0+30  |      |          | 4.2   | 97.1 ✓   |
| 0+00    |      |          | 4.31  | 196.91 ✓ |
| +40     |      |          | 4.9   | 96.4 ✓   |
| 1+00    |      |          | 5.6   | 95.7 ✓   |
| 2       |      |          | 7.6   | 93.7 ✓   |
| 3+00    |      |          | 10.9  | 90.4 ✓   |
| T.P.    | 0.03 | 189.66 ✓ | 11.65 | 189.63 ✓ |
| 3+55    |      |          | 1.2   | 88.5 ✓   |
| 4       |      |          | 3.1   | 86.6 ✓   |
| +40     |      |          | 4.7   | 85.0 ✓   |
| 5       |      |          | 6.7   | 83.0 ✓   |
| 6       |      |          | 9.8   | 80.2 ✓   |
| +65     |      |          | 11.6  | 78.1 ✓   |
| T.P.    | 1.65 | 179.28 ✓ | 12.03 | 177.63 ✓ |
| 7       |      |          | 2.3   | 77.0 ✓   |
| 8       |      |          | 5.5   | 73.8 ✓   |
| 9       |      |          | 8.5   | 70.8 ✓   |
| +50     |      |          | 9.9   | 69.4 ✓   |
| 10      |      |          | 11.5  | 67.8 ✓   |
| B.M.    | 0.52 | 169.34 ✓ | 10.46 | 168.82 ✓ |
| +50     |      |          | 2.4   | 66.9 ✓   |
| 11      |      |          | 3.7   | 65.6 ✓   |

R.R. spike in 30' Tree, 200' S. of Mon. 0+00

Top of Stone Mon.

R.R. spike in T.P. - 37' L. 9+88

station + H.I - Elev.

169.34

12+00 5.7 163.6

13 7.7 61.6

14 9.2 60.1

15 10.6 58.7

T.P. 3.24 162.70 10.48 158.86

+50 4.3 58.4

16 4.8 57.9

+50 5.0 57.7

17 5.0 57.7

+50 4.7 58.0

18 4.7 58.0

+50 4.8 57.9

19 5.2 57.5

+50 5.2 57.5

20 5.0 57.7

+50 4.8 57.9

21 4.5 58.2

22 3.7 59.0

T.P. 8.52 167.13 4.09 158.61

23 7.0 160.1

24 5.3 61.8

25 4.3 62.8

+50 3.6 63.5

26 3.1 64.0

+50 2.7 64.4

Top. Stake 15.

Nail in Pb. Pole. 17' R. 22 + 13

| stations | +    | H.I    | -    | Elev.  |
|----------|------|--------|------|--------|
|          |      | 167.13 |      |        |
| 27       |      |        | 2.3  | 164.8  |
| +50      |      |        | 2.8  | 64.3   |
| 28       |      |        | 3.3  | 63.8   |
| T.P.     | 3.14 | 166.71 | 3.56 | 163.57 |
| +50      |      |        | 3.3  | 63.4   |
| 29       |      |        | 3.8  | 62.9   |
| +60      |      |        | 4.5  | 62.2   |
| 30       |      |        | 4.7  | 62.0   |
| 31       |      |        | 6.1  | 60.6   |
| +50      |      |        | 6.6  | 60.1   |
| 32       |      |        | 7.2  | 59.5   |
| +50      |      |        | 7.9  | 58.8   |
| 33       |      |        | 8.6  | 58.1   |
| 34       |      |        | 9.4  | 57.3   |
| 35       |      |        | 9.0  | 57.7   |
| T.P.     | 4.52 | 161.28 | 9.35 | 157.36 |
| +50      |      |        | 4.5  | 57.4   |
| +68      |      |        | 4.44 | 57.44  |
| 36       |      |        | 5.0  | 56.9   |
| +50      |      |        | 5.2  | 56.7   |
| 37       |      |        | 5.0  | 56.9   |
| +25      |      |        | 5.1  | 56.8   |
| 38       |      |        | 5.0  | 56.9   |
| +14.45   |      |        | 4.9  | 57.0   |
| B.M.     |      |        | 4.77 | 157.11 |

Nail in ~~to~~ P. 16' R.T. 28409

Top Stake 35  
 $\text{rod} = \frac{14.9}{147.0} = \text{Elev. Water (Lake Robinson)} (4-15-24)$   
 Top of Rail

P.I.

R.R. spike 30" Cottonwood N.W. Cor. of Road Int.

| Station | +     | H.I      | -     | Elev.    |
|---------|-------|----------|-------|----------|
|         |       | 161.88   |       |          |
| 39      |       |          | 5.1   | 156.8    |
| 40      |       |          | 5.1   | 156.8    |
| 41      |       |          | 5.0   | 156.9    |
| 42      |       |          | 3.4   | 158.5    |
| 43      |       |          | 1.8   | 160.1    |
| T.P.    | 8.02  | 167.77 ✓ | 2.13  | 159.75 ✓ |
| 44      |       |          | 6.7   | 61.1     |
| 45      |       |          | 6.0   | 61.8     |
| 46      |       |          | 5.4   | 62.4     |
| 47      |       |          | 5.1   | 62.7     |
| 48      |       |          | 5.6   | 62.2     |
| +36     |       |          | 5.7   | 62.1     |
| 49      |       |          | 6.6   | 61.2     |
| +60     |       |          | 7.6   | 60.2     |
| 50      |       |          | 9.1   | 58.7     |
| T.P.    | 0.56  | 162.58 ✓ | 5.75  | 162.02 ✓ |
| 51      |       |          | 7.4   | 55.2     |
| 52      |       |          | 12.3  | 50.3     |
| T.P.    | 0.23  | 151.02 ✓ | 11.79 | 150.79 ✓ |
| 53      |       |          | 5.0   | 146.0    |
| 54      |       |          | 8.2   | 142.8    |
| 55      |       |          | 10.9  | 140.1    |
| 56      |       |          | 10.9  | 140.1    |
| 57      |       |          | 8.7   | 42.3     |
| +37     |       |          | 8.0   | 43.0     |
| T.P.    | 10.48 | 152.76 ✓ | 8.74  | 142.28 ✓ |

Top stake  $4/3$

P.I.

Nail in Po. R. R. Sta. 50+10 (Nail on E side of Pole.)

Nail in T.P. at Sta. 57+ $\frac{1}{2}$

| Station | +    | H. I   | -     | Elev.  |
|---------|------|--------|-------|--------|
|         |      | 152.76 |       |        |
| 58100   |      |        | 8.5   | 144.3  |
| 59      |      |        | 6.8   | 146.0  |
| 60      |      |        | 5.4   | 147.4  |
| 61      |      |        | 4.5   | 148.3  |
| 62      |      |        | 2.8   | 50.0   |
| 63      |      |        | 0.9   | 51.9   |
| T.P.    | 6.19 | 158.67 | 0.28  | 152.48 |
| B.M.    |      |        | 2.93  | 155.74 |
| 64      |      |        | 5.8   | 52.9   |
| 65      |      |        | 4.7   | 54.0   |
| 66      |      |        | 4.7   | 54.0   |
| 67      |      |        | 4.6   | 54.1   |
| 68      |      |        | 3.9   | 54.8   |
| 69      |      |        | 1.6   | 57.1   |
| T.P.    | 9.73 | 167.75 | 0.65  | 158.02 |
| 70      |      |        | 7.2   | 160.0  |
| 71      |      |        | 5.7   | 62.1   |
| 72      |      |        | 4.0   | 63.8   |
| 73      |      |        | 3.2   | 64.6   |
| 74      |      |        | 4.9   | 62.9   |
| 75      |      |        | 8.5   | 59.3   |
| T.P.    | 2.11 | 158.91 | 10.95 | 156.80 |
| 76      |      |        | 4.4   | 54.5   |
| +54.2   |      |        | 5.8   | 53.1   |
| B.M.    |      |        | 3.97  | 154.94 |

(Over)

4/14/24  
Cold & Windy

28

Stake 64

R.R. spike in 30" Oak Lt. 63+14

R.R. spike 30" Oak N.W. cor. Road Intersection

| Station | + H.I | - | Elev. |
|---------|-------|---|-------|
|---------|-------|---|-------|

158.91

± Levels along Road West

0+00 = P.I. Sta 76+54.2

5.8

53.1  
151.1

1

4.3

54.6

2

3.7

55.2

3

2.8

56.1

158.91

± Levels along Road North West

0+00 = P.I. Sta 76+54.2

5.8

53.1  
151.1

1

5.2

53.7

2

4.7

54.2

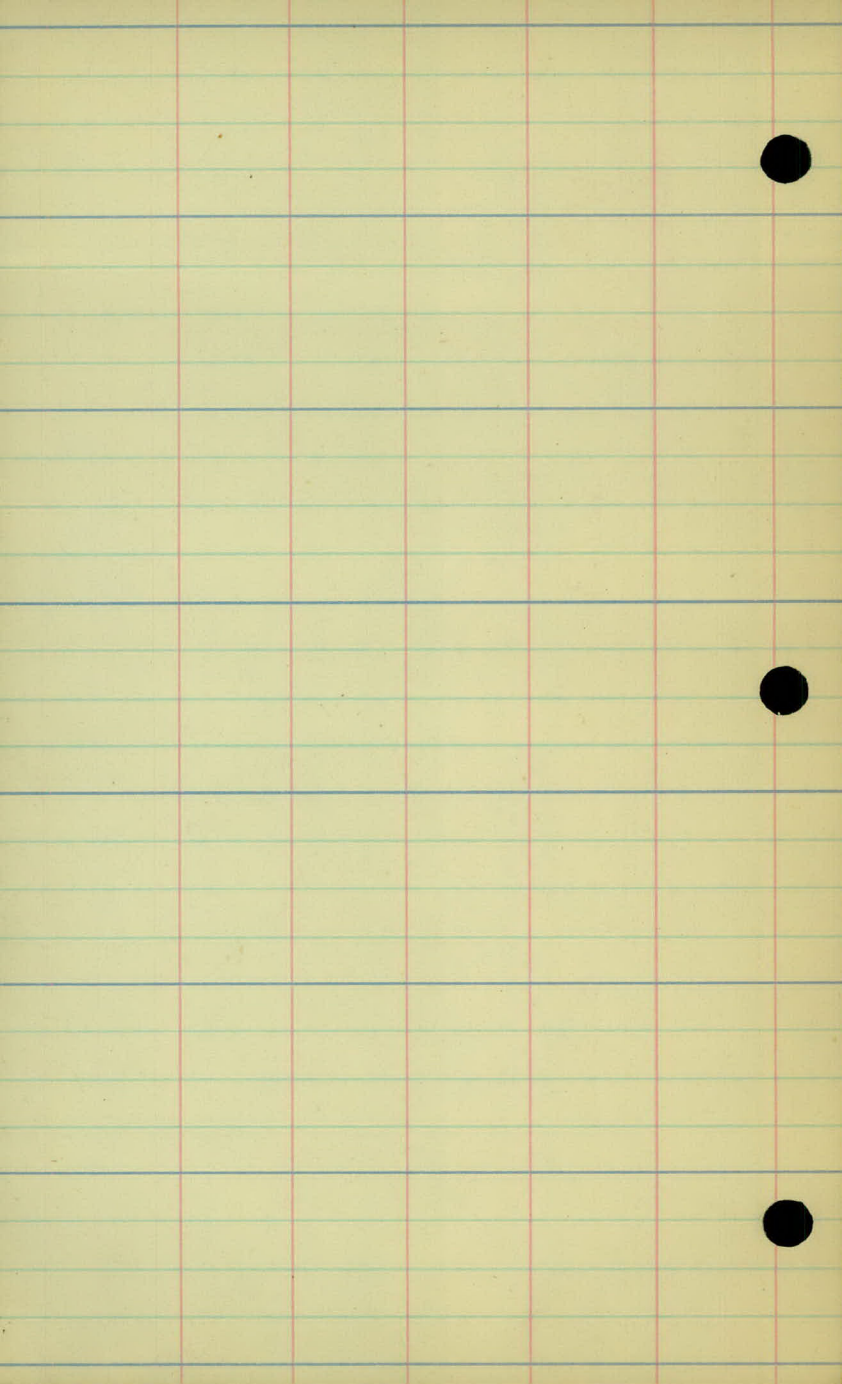
3

4.4

54.5

4/14/24.

29



check Levels

Snelling Avenue

Road #8

|            | +     | H.I    | -     | Elev.  |         |
|------------|-------|--------|-------|--------|---------|
| B.M.       | 1.72  | 201.72 |       | 200.00 |         |
| T.P.       | 1.16  | 193.18 | 9.70  | 192.02 |         |
| T.P.       | 2.08  | 183.81 | 11.45 | 181.73 |         |
| T.P.       | 0.79  | 173.45 | 11.15 | 172.66 |         |
| B.M.       |       |        | 4.65  | 168.80 | }       |
| "          |       |        |       | 168.82 |         |
| T.P.       | 0.94  | 162.53 | 11.86 | 161.59 |         |
| T.P.       | 8.10  | 165.54 | 5.09  | 157.44 |         |
| (New) B.M. |       |        | 9.43  | 156.11 |         |
| T.P.       | 1.95  | 166.69 | 0.80  | 164.74 |         |
| T.P.       | 5.08  | 161.56 | 10.21 | 156.48 |         |
| B.M.       | 4.24  | 161.34 | 4.46  | 157.10 | = 57.11 |
| T.P.       | 7.17  | 166.91 | 1.60  | 159.74 | 59.75   |
| T.P.       | 0.21  | 162.24 | 4.88  | 162.03 | 62.02   |
| T.P.       | 0.89  | 151.89 | 11.24 | 151.00 |         |
| T.P.       | 5.65  | 146.73 | 10.81 | 141.08 |         |
| B.M.       |       |        | 4.44  | 142.29 |         |
| T.P.       | 10.07 | 156.28 | 0.52  | 146.21 |         |
| B.M.       | 4.26  | 160.01 | 0.53  | 155.75 |         |
| T.P.       | 10.26 | 166.77 | 3.50  | 156.51 |         |
| T.P.       | 1.96  | 160.23 | 8.50  | 158.27 |         |
| B.M.       |       |        | 5.30  | 154.93 |         |

4/8/24  
Very Windy 31

R.R. spike in 30" Tree 200' So. of Mon. = 0100

R.R. spike in T.P. 37' L. H. 9+88

R.R. spike in 30" Cottonwood. Left 22+80

R.R. spike in 30" Cottonwood - N.W

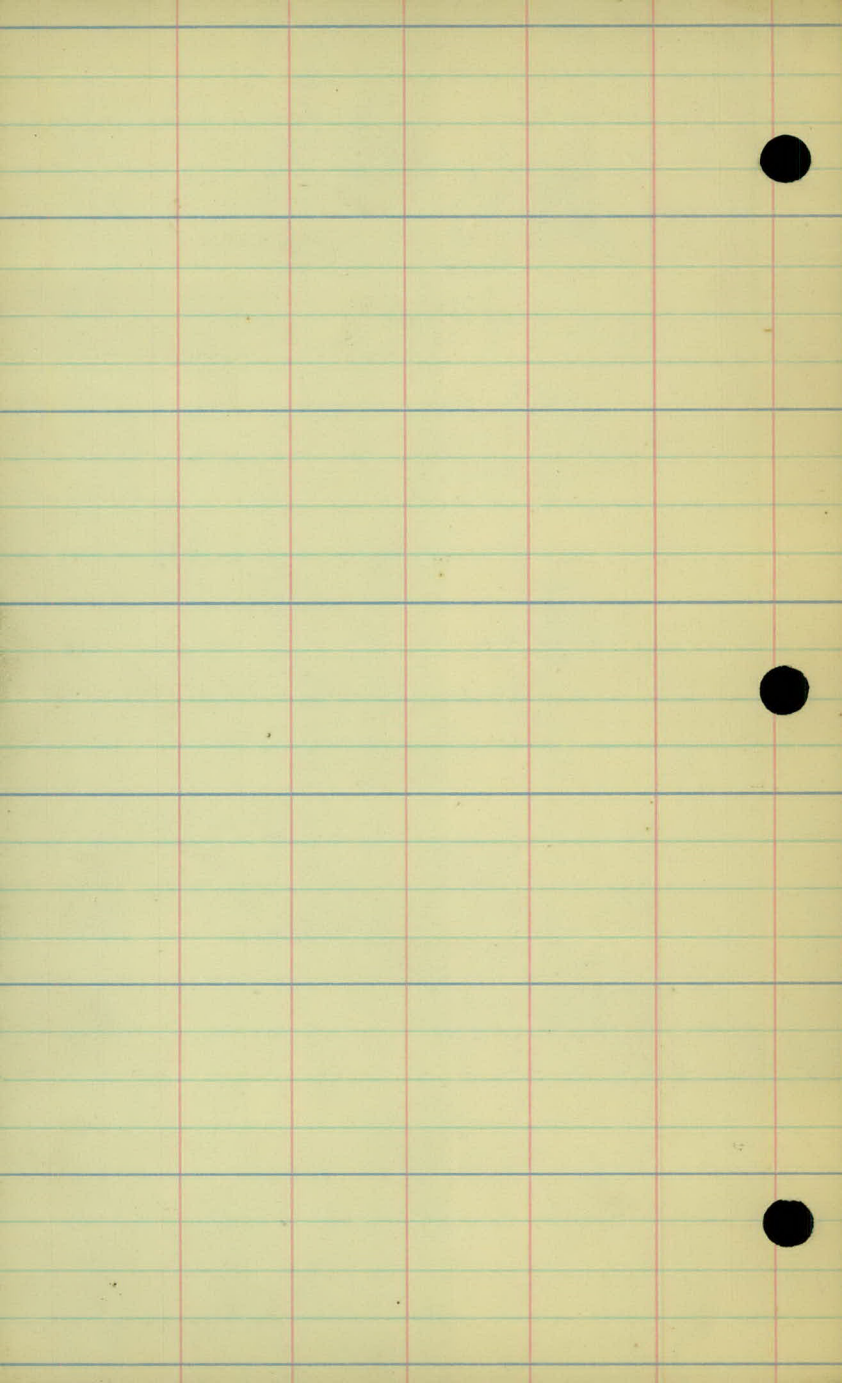
Nail in R.R. R. Sta 50+10-

4/15/24  
Clear & Windy.

Nail in T.P. Rt. Sta 57+42

R.R. spike in 30" Oak Lt. 63+14

R.R. spike in 30" Oak N.W cor Rd. Intersection



Cross Sections.

Shelling Avenue.

Maintenance Work

Road #8

W.H.C.  
C.E.J.  
M.S.A. } April 1924  
T.F.

station

Elev.

+40

-1.6

185.0

4+00

186.6

+55

188.5

3+00

190.4

+50

-1.2

192.5

2+00

193.7

1+00

195.7

+40

196.4

0+00

196.91

-0+30

197.1

-1+00

+0.4

197.5

L.

E

R

33

$$\begin{array}{ccc} -1.9 & -2.2 & -0.9 \\ 33 & 18 & 12 \end{array}$$

51

$$\begin{array}{ccc} -1.1 & -3.1 & -2.5 \\ 14 & 22 & 33 \end{array}$$

$$\begin{array}{ccc} -1.4 & -1.6 & -0.7 \\ 33 & 17 & 12 \end{array}$$

12

$$\begin{array}{ccc} -0.4 & -0.3 & -1.1 \\ 2 & 14 & 19 \end{array}$$

-0.8  
33

$$\begin{array}{ccc} +0.5 & -0.6 & -1.3 \\ 33 & 21 & 17 \end{array}$$

-1.4

-0.9

-0.2

23

$$\begin{array}{ccc} -0.5 & -1.2 & -1.9 \\ 9 & 15 & 19 \end{array}$$

-2.1  
33

$$\begin{array}{ccc} +4.1 & +3.2 & -1.4 \\ 33 & 22 & 17 \end{array}$$

-1.4

-0.8

12

$$\begin{array}{ccc} 0.0 & -0.8 & -0.8 \\ 12 & 15 & 16 \end{array}$$

+1.9

+3.3

33

$$\begin{array}{ccc} +2.4 & +1.2 & -1.0 \\ 33 & 24 & 19 \end{array}$$

-1.0

-0.1

16

$$\begin{array}{ccc} -0.4 & -1.7 & -1.3 \\ 10 & 13 & 15 \end{array}$$

+2.7

+4.1

33

$$\begin{array}{ccc} +0.5 & +0.8 & -1.7 \\ 33 & 25 & 21 \end{array}$$

-1.8

-1.6

15

$$\begin{array}{ccc} -0.5 & -0.8 & -1.3 \\ 9 & 11 & 14 \end{array}$$

+2.1

+2.3

33

$$\begin{array}{ccc} -1.1 & -0.7 & -1.4 \\ 33 & 24 & 22 \end{array}$$

-1.4

-0.2

15

$$\begin{array}{ccc} -0.6 & -1.6 & -2.2 \\ 9 & 13 & 15 \end{array}$$

+0.5

+0.7

33

$$\begin{array}{ccc} -1.5 & -1.3 & -1.8 \\ 33 & 25 & 23 \end{array}$$

-1.5

-0.2

17

$$\begin{array}{ccc} -0.4 & -1.8 & -1.6 \\ 7 & 12 & 14 \end{array}$$

-0.4

-0.1

33

$$\begin{array}{ccc} -1.8 & -1.4 & -1.9 \\ 33 & 25 & 24 \end{array}$$

-1.9

-0.4

90

9

$$\begin{array}{ccc} -0.4 & -1.1 & -1.1 \\ 7 & 10 & 14 \end{array}$$

-0.3

-0.6

33

$$\begin{array}{ccc} -1.2 & -1.4 & -0.9 \\ 33 & 25 & 24 \end{array}$$

-0.9

-0.4

00

8

$$\begin{array}{ccc} -0.4 & -0.9 & -0.2 \\ 10 & 14 & 19 \end{array}$$

-0.7

33 = A Line

$$\begin{array}{ccc} +0.6 & +0.5 & -0.9 \\ 20 & 24 & 22 \end{array}$$

-1.0

-0.1

16

$$\begin{array}{ccc} -0.4 & -1.5 & -1.2 \\ 10 & 13 & 15 \end{array}$$

+0.8

+0.3

-1.3

33

Note: All X-sections taken with Wyo level.

| Station | Elev. |
|---------|-------|
| 14+00   | 160.1 |
| 13+00   | 161.6 |
| 12+00   | 163.6 |
| 11+00   | 165.6 |
| +50     | 166.9 |
| 10+00   | 167.8 |
| +50     | 169.4 |
| 9+00    | 170.8 |
| 8+00    | 173.8 |
| 7+00    | 177.0 |
| +65     | 178.1 |
| 6+00    | 180.2 |
| 5+00    | 183.0 |

$$\begin{array}{cccccc} L & & & & Z & & & R \\ -2.5 & -1.8 & -1.7 & -0.6 & 20 & -0.3 & -1.5 & -2.2 & -2.0 & -0.6 \\ \underline{33} & \underline{19} & \underline{14} & \underline{11} & & \underline{10} & \underline{16} & \underline{19} & \underline{21} & \underline{33} \end{array}$$

$$\begin{array}{cccccc} -2.2 & -1.4 & -2.0 & -1.4 & -0.6 & 18 & -0.4 & -1.0 & -2.7 & -3.2 & -2.5 & -0.7 \\ \underline{33} & \underline{20} & \underline{17} & \underline{15} & \underline{12} & & \underline{9} & \underline{14} & \underline{17} & \underline{18} & \underline{21} & \underline{33} \end{array}$$

$$\begin{array}{cccccc} +0.2 & -0.1 & -0.6 & -0.4 & 17 & -0.5 & -2.1 & -2.2 & -0.7 \\ \underline{33} & \underline{20} & \underline{18} & \underline{12} & & \underline{11} & \underline{16} & \underline{18} & \underline{33} \end{array}$$

$$\begin{array}{cccccc} 10.1 & -0.4 & -1.1 & -0.4 & -0.1 & 19 & -0.1 & -0.6 & -2.2 & -2.4 & -0.8 \\ \underline{33} & \underline{18} & \underline{17} & \underline{15} & \underline{11} & & \underline{12} & \underline{16} & \underline{18} & \underline{20} & \underline{33} \end{array}$$

$$\begin{array}{cccccc} +0.7 & -1.0 & -1.0 & -0.3 & 16 & -0.3 & -1.2 & -1.5 & -0.9 \\ \underline{33} & \underline{21} & \underline{16} & \underline{11} & & \underline{5} & \underline{13} & \underline{16} & \underline{33} \end{array}$$

$$\begin{array}{cccccc} -1.0 & -1.0 & -0.4 & 0.0 & 22 & -0.9 & -0.5 & -0.5 \\ \underline{33} & \underline{28} & \underline{16} & \underline{6} & & \underline{10} & \underline{22} & \underline{33} \end{array}$$

$$\begin{array}{cccccc} -1.3 & -1.1 & -0.9 & 0.0 & & -1.0 & -2.0 & -2.4 & -0.9 & -1.0 \\ \underline{33} & \underline{16} & \underline{10} & \underline{5} & & \underline{16} & \underline{22} & \underline{27} & \underline{31} & \underline{33} \end{array}$$

$$\begin{array}{cccccc} -1.7 & -1.1 & -0.6 & & & -0.5 & -1.4 & -1.7 & -1.4 \\ \underline{33} & \underline{18} & \underline{11} & & & \underline{12} & \underline{15} & \underline{25} & \underline{33} \end{array}$$

$$\begin{array}{cccccc} -2.7 & -2.5 & -1.1 & -0.7 & & -0.4 & -0.6 & -2.5 & -3.3 & -2.5 & -3.1 \\ \underline{33} & \underline{18} & \underline{14} & \underline{9} & & \underline{6} & \underline{11} & \underline{17} & \underline{22} & \underline{24} & \underline{33} \end{array}$$

$$\begin{array}{cccccc} -0.8 & -1.2 & -0.9 & -0.6 & & -0.4 & -1.1 & -1.7 & -2.1 \\ \underline{33} & \underline{20} & \underline{17} & \underline{11} & & \underline{10} & \underline{12} & \underline{18} & \underline{33} \end{array}$$

$$\begin{array}{cccccc} +0.1 & -0.3 & -0.4 & & & -0.6 & -1.1 & -1.0 \\ \underline{33} & \underline{18} & \underline{11} & & & \underline{12} & \underline{19} & \underline{33} \end{array}$$

$$\begin{array}{cccccc} -0.9 & -1.4 & -0.7 & & & -0.8 & -2.3 & -2.1 \\ \underline{33} & \underline{15} & \underline{13} & & & \underline{12} & \underline{12} & \underline{33} \end{array}$$

$$\begin{array}{cccccc} -2.7 & -2.8 & -1.0 & & & -0.4 & -1.4 & -4.4 & -4.6 \\ \underline{33} & \underline{16} & \underline{13} & & & \underline{6} & \underline{14} & \underline{19} & \underline{33} \end{array}$$

Station

Elev.

21 158.2 .

+50 157.9 .

20 157.7 .

+50 157.5 .

19 157.5 .

+50 157.9 .

18 158.0 .

+50 158.0 .

17 157.7 .

+50 157.7 .

16 157.9 .

+50 158.4 .

15 158.7 .

$$\begin{array}{ccccc} -\frac{5.0}{33} & -\frac{3.9}{18} & -\frac{0.5}{11} & \frac{4.5}{11} & -\frac{0.5}{9} & -\frac{1.2}{11} & -\frac{2.0}{14} & -\frac{0.3}{19} & -\frac{0.5}{33} \end{array}$$

$$\begin{array}{ccccc} -\frac{5.3}{33} & -\frac{3.7}{18} & -\frac{0.7}{12} & \frac{4.7}{11} & -\frac{0.3}{7} & -\frac{0.9}{10} & -\frac{1.3}{15} & -\frac{0.9}{17} & -\frac{0.3}{33} \end{array}$$

$$\begin{array}{ccccc} -\frac{4.8}{33} & -\frac{3.2}{17} & -\frac{0.4}{11} & \frac{4.8}{11} & -\frac{0.5}{12} & -\frac{1.1}{15} & -\frac{0.9}{17} & -\frac{0.2}{19} & \frac{0.0}{33} \end{array}$$

$$\begin{array}{ccccc} -\frac{4.4}{33} & -\frac{2.6}{14} & -\frac{0.6}{10} & \frac{5.1}{11} & -\frac{0.3}{12} & -\frac{0.6}{16} & -\frac{1.3}{18} & -\frac{0.9}{20} & +\frac{0.1}{22} & +\frac{0.4}{33} \end{array}$$

$$\begin{array}{ccccc} -\frac{4.6}{33} & -\frac{3.4}{17} & -\frac{1.9}{14} & -\frac{0.9}{11} & \frac{5.0}{11} & -\frac{0.6}{13} & -\frac{0.6}{20} & \frac{0.3}{33} \end{array}$$

$$\begin{array}{ccccc} -\frac{3.7}{33} & -\frac{3.2}{17} & -\frac{1.3}{12} & -\frac{0.5}{8} & \frac{5.2}{11} & -\frac{0.3}{12} & -\frac{0.9}{18} & -\frac{1.9}{21} & -\frac{1.0}{24} & -\frac{0.6}{33} \end{array}$$

$$\begin{array}{ccccc} -\frac{3.7}{33} & -\frac{2.6}{19} & -\frac{1.6}{16} & -\frac{0.6}{11} & \frac{5.1}{11} & -\frac{0.3}{11} & -\frac{1.5}{18} & -\frac{2.7}{22} & -\frac{2.8}{23} & -\frac{1.5}{28} & -\frac{1.4}{33} \end{array}$$

$$\begin{array}{ccccc} -\frac{3.1}{33} & -\frac{2.5}{20} & -\frac{1.4}{16} & -\frac{1.1}{14} & -\frac{0.9}{11} & \frac{5.1}{11} & -\frac{0.4}{12} & -\frac{1.4}{18} & -\frac{0.5}{33} \end{array}$$

$$\begin{array}{ccccc} -\frac{4.9}{33} & -\frac{3.2}{16} & -\frac{1.4}{12} & -\frac{0.5}{9} & \frac{5.3}{11} & -\frac{0.2}{14} & -\frac{0.8}{22} & -\frac{0.5}{24} & -\frac{0.8}{32} & \frac{0.0}{33} \end{array}$$

$$\begin{array}{ccccc} -\frac{5.2}{33} & -\frac{3.5}{16} & -\frac{2.2}{13} & -\frac{1.4}{10} & -\frac{0.6}{8} & \frac{5.4}{11} & +\frac{0.2}{15} & -\frac{0.5}{21} & -\frac{0.6}{33} \end{array}$$

$$\begin{array}{ccccc} -\frac{4.7}{33} & -\frac{3.6}{25} & -\frac{1.4}{11} & -\frac{0.8}{9} & \frac{5.0}{11} & -\frac{0.2}{13} & -\frac{0.8}{16} & -\frac{0.3}{33} \end{array}$$

$$\begin{array}{ccccc} -\frac{3.6}{33} & -\frac{3.0}{24} & -\frac{1.9}{19} & -\frac{1.1}{13} & -\frac{0.7}{11} & \frac{4.8}{11} & -\frac{0.4}{10} & -\frac{1.6}{17} & -\frac{1.2}{19} & -\frac{0.7}{33} \end{array}$$

$$\begin{array}{ccccc} -\frac{3.4}{33} & -\frac{2.8}{23} & -\frac{1.1}{15} & -\frac{0.7}{12} & \frac{4.7}{11} & -\frac{0.6}{10} & -\frac{1.6}{16} & -\frac{1.2}{33} \end{array}$$

Station

Elev.

+50

163.4

28

163.8

+50

164.3

27

164.8

+50

164.4

26

164.0

+50

163.5

25

162.8

+54

+0.7

162.5

24

161.8

+70

-0.5

161.3

23

160.1

22

159.0

$$\begin{array}{ccc} -2.7 & -1.7 & -1.1 \\ \hline 33 & 23 & 19 \end{array} \quad 25 \quad \begin{array}{ccccccc} -0.3 & -0.8 & -0.9 & -0.2 & 0.0 \\ \hline 12 & 14 & 15 & 17 & 33 \end{array}$$

$$\begin{array}{ccc} -3.0 & -1.6 & -0.9 \\ \hline 33 & 17 & 15 \end{array} \quad 27 \quad \begin{array}{ccccccc} -0.6 & -1.3 & -1.3 & -1.0 & -0.2 \\ \hline 13 & 14 & 16 & 17 & 33 \end{array}$$

$$\begin{array}{ccc} -4.0 & -1.9 & -0.7 \\ \hline 33 & 19 & 13 \end{array} \quad 31 \quad \begin{array}{ccccccc} -0.1 & -0.8 & -0.7 & -0.2 & +2.0 \\ \hline 13 & 14 & 16 & 18 & 33 \end{array}$$

$$\begin{array}{ccc} -7.7 & -4.4 & -1.6 \\ \hline 33 & 22 & 14 \end{array} \quad 31 \quad \begin{array}{ccccccc} -0.8 & -0.7 & -0.7 & -0.2 & +0.8 & +0.7 \\ \hline 15 & 16 & 18 & 19 & 27 & 33 \end{array}$$

$$\begin{array}{ccc} -7.3 & -2.9 & -1.2 \\ \hline 33 & 17 & 13 \end{array} \quad 35 \quad \begin{array}{ccccccc} -0.3 & -1.2 & -0.5 & +0.2 & -0.2 \\ \hline 15 & 17 & 19 & 25 & 33 \end{array}$$

$$\begin{array}{ccc} -6.4 & -3.7 & 0.0 \\ \hline 33 & 24 & 12 \end{array} \quad 37 \quad \begin{array}{ccccccc} -0.6 & -1.4 & -0.8 & 0.0 & -0.1 \\ \hline 14 & 16 & 19 & 22 & 33 \end{array}$$

$$\begin{array}{ccc} -6.1 & -4.4 & -0.3 \\ \hline 33 & 25 & 16 \end{array} \quad 45 \quad \begin{array}{ccccccc} -0.3 & -0.8 & -1.4 & -1.4 & -0.4 & +0.7 & 0.9 \\ \hline 10 & 13 & 14 & 16 & 19 & 21 & 33 \end{array}$$

$$\begin{array}{ccc} -6.0 & -4.5 & -0.9 \\ \hline 33 & 26 & 18 \end{array} \quad 52 \quad \begin{array}{ccccccc} -0.5 & -1.4 & -1.4 & +0.3 & +0.8 & +1.8 \\ \hline 11 & 13 & 15 & 19 & 23 & 33 \end{array}$$

$$\begin{array}{ccc} -6.1 & -4.3 & -0.8 \\ \hline 33 & 24 & 15 \end{array} \quad 56 \quad \begin{array}{ccccccc} -0.3 & -1.5 & -1.2 & +2.2 & +3.9 & +3.8 \\ \hline 9 & 14 & 15 & 22 & 25 & 33 \end{array}$$

$$\begin{array}{ccc} -4.6 & -2.6 & -1.0 \\ \hline 33 & 26 & 20 \end{array} \quad 63 \quad \begin{array}{ccccccc} -0.6 & -1.6 & -0.9 & +1.1 & +4.0 & +5.0 & +4.8 \\ \hline 13 & 16 & 18 & 23 & 25 & 29 & 33 \end{array}$$

$$\begin{array}{ccc} -6.8 & -5.6 & -0.6 \\ \hline 33 & 27 & 12 \end{array} \quad 67 \quad \begin{array}{ccccccc} -0.3 & -1.6 & -0.6 & +4.2 & +4.6 \\ \hline 10 & 13 & 17 & 27 & 33 \end{array}$$

$$\begin{array}{ccc} -6.0 & -4.3 & -2.9 \\ \hline 33 & 20 & 11 \end{array} \quad 74 \quad \begin{array}{ccccccc} -0.4 & -2.0 & -1.7 & +1.1 & +2.0 & +1.8 \\ \hline 11 & 14 & 16 & 22 & 28 & 33 \end{array}$$

$$\begin{array}{ccc} -6.4 & -7.8 & -0.4 \\ \hline 33 & 16 & 11 \end{array} \quad 86 \quad \begin{array}{ccccccc} -0.4 & -1.6 & -1.5 & -0.5 & -0.4 \\ \hline 12 & 16 & 17 & 42 & 33 \end{array}$$

Station.

Elev.

35+00

157.7

+50

+0.1

157.4

34

157.3

+35

-0.2

157.9

33

158.1

+50

158.8

32

159.5

+50

160.1

31

160.6

+45

-0.6

161.4

30

162.0

+60

162.2

29

162.9

$$\begin{array}{r} -54 \\ \underline{33} \end{array} \quad \begin{array}{r} -3.6 \\ \underline{17} \end{array} \quad \begin{array}{r} -0.9 \\ \underline{11} \end{array} \quad \begin{array}{r} -0.4 \\ \underline{9} \end{array}$$

$$\frac{-0.5}{92} \quad \frac{-1.1}{15} \quad \frac{-2.5}{19} \quad \frac{-2.3}{22} \quad \frac{-1.7}{25} \quad \frac{-1.8}{33}$$

$$\begin{array}{r} -4.6 \\ \underline{33} \end{array} \quad \begin{array}{r} -3.7 \\ \underline{17} \end{array} \quad \begin{array}{r} -0.4 \\ \underline{9} \end{array}$$

$$\begin{array}{cccc} -0.4 & -2.0 & -2.2 & -0.6 \\ \hline 12 & 17 & 25 & 33 \end{array}$$

$$\begin{array}{r} -6.8 \\ 33 \end{array} \quad \begin{array}{r} -54 \\ 17 \end{array} \quad \begin{array}{r} -0.8 \\ 10 \end{array}$$

$$\begin{array}{cccc} -0.4 & -2.0 & -1.9 & -2.2 \\ \hline 12 & 17 & 28 & 33 \end{array}$$

$$\begin{array}{r} -7.5 \\ 33 \end{array} \quad \begin{array}{r} -5.1 \\ 17 \end{array} \quad \begin{array}{r} -0.6 \\ 10 \end{array}$$

$$\frac{-0.3}{10} \quad \frac{-2.0}{15} \quad \frac{-1.4}{1.8} \quad \frac{-0.7}{32}$$

$$\begin{array}{r} -5.7 \\ 2.2 \\ \hline \end{array} \quad \begin{array}{r} -4.2 \\ 1.8 \\ \hline \end{array} \quad \begin{array}{r} -0.9 \\ 1.3 \\ \hline \end{array}$$

$$\frac{-0.4}{12} \quad \frac{-1.2}{15} \quad \frac{-0.8}{18} \quad \frac{+0.2}{23}$$

$$\begin{array}{r} -0.5 \\ 12 \end{array} \quad \begin{array}{r} -1.9 \\ 16 \end{array} \quad \begin{array}{r} -0.2 \\ 20 \end{array} \quad \begin{array}{r} +0.5 \\ 33 \end{array}$$

$$\begin{array}{cccc} -3.3 & -2.5 & -1.1 & -0.6 \\ \hline 33 & 22 & 10 & 12 \end{array}$$

55

$$\frac{-0.5}{12} \quad \frac{-1.5}{14} \quad \frac{-1.5}{15} \quad \frac{-0.9}{17} \quad + \frac{1.5}{23}$$

$$\begin{array}{r} -29 \\ 33 \end{array} \quad \begin{array}{r} -1.5 \\ 17 \end{array} \quad \begin{array}{r} -19 \\ 16 \end{array} \quad \begin{array}{r} -1.8 \\ 14 \end{array} \quad \begin{array}{r} -1.0 \\ 13 \end{array}$$

27

$$\begin{array}{ccccc} -0.5 & -1.5 & -1.5 & +0.2 & +2.1 \\ 11 & 12 & 12 & 17 & 30 \end{array}$$

$$\begin{array}{r} -2.6 \\ 33 \end{array} \quad \begin{array}{r} -1.2 \\ 16 \end{array} \quad \begin{array}{r} -1.8 \\ 15 \end{array} \quad \begin{array}{r} -1.7 \\ 14 \end{array} \quad \begin{array}{r} -0.8 \\ 12 \end{array}$$

46

$$\begin{array}{cccccc} -0.6 & -1.8 & -1.8 & -0.9 & +3.4 \\ 13 & 15 & 17 & 18 & 32 \end{array}$$

$$\frac{-1.1}{33} \quad \frac{-1.1}{21} \quad \frac{-1.0}{18} \quad \frac{-1.8}{16} \quad \frac{-1.7}{15} \quad \frac{-0.7}{12}$$

2

|           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|
| -0.2      | -1.4      | +1.3      | +0.2      | +1.1      |
| <u>13</u> | <u>16</u> | <u>17</u> | <u>20</u> | <u>22</u> |

$$\begin{array}{r} \cdot 1.9 \\ 33 \end{array} \quad \begin{array}{r} - 1.2 \\ 18 \end{array} \quad \begin{array}{r} - 1.5 \\ 17 \end{array} \quad \begin{array}{r} - 1.4 \\ 15 \end{array} \quad \begin{array}{r} - 0.8 \\ 14 \end{array}$$

38

|      |      |      |      |      |
|------|------|------|------|------|
| -0.5 | -1.0 | -1.0 | -0.5 | +2.4 |
| 13   | 14   | 16   | 18   | 33   |

$$\begin{array}{r} -7.2 \\ 23 \end{array} \quad \begin{array}{r} -1.9 \\ 22 \end{array} \quad \begin{array}{r} -0.8 \\ 13 \end{array}$$

3

|      |      |      |     |      |      |      |
|------|------|------|-----|------|------|------|
| -0.1 | -0.1 | -0.7 | 0.0 | +0.5 | +1.5 | +1.5 |
| 13   | 15   | 17   | 18  | 26   | 28   | 33   |

Station

Elev.

39+00

156.8

+60

-0.1

156.7

+36

-0.1

156.9

38+14.45

-0.1

157.0

E. &amp; W.

38+14.45

0.0

157.0

W. &amp; S.

38

-0.1

156.9

+65

-0.1

157.0

+22

-0.1

156.8

37

-0.1

156.9

+50

156.7

36

156.9

+68

157.44

35+50

157.4

L

F

R

38

$$\begin{array}{r} 3.1 \\ 33 \end{array}$$

$$\begin{array}{r} 4.2 \\ 28 \end{array}$$

$$\begin{array}{r} -4.7 \\ 26 \end{array}$$

$$\begin{array}{r} -3.7 \\ 25 \end{array}$$

$$\begin{array}{r} -2.7 \\ 16 \end{array}$$

$$\begin{array}{r} -0.7 \\ 10 \end{array}$$

$$\begin{array}{r} -0.9 \\ 11 \end{array}$$

$$\begin{array}{r} -1.0 \\ 15 \end{array}$$

$$\begin{array}{r} -3.2 \\ 18 \end{array}$$

$$\begin{array}{r} -2.4 \\ 26 \end{array}$$

$$\begin{array}{r} -2.5 \\ 28 \end{array}$$

$$\begin{array}{r} -2.1 \\ 33 \end{array}$$

$$\begin{array}{r} -4.6 \\ 23 \end{array}$$

$$\begin{array}{r} -5.1 \\ 28 \end{array}$$

$$\begin{array}{r} -4.2 \\ 25 \end{array}$$

$$\begin{array}{r} -3.8 \\ 18 \end{array}$$

$$\begin{array}{r} -0.8 \\ 12 \end{array}$$

46

$$\begin{array}{r} -0.4 \\ 11 \end{array}$$

$$\begin{array}{r} -0.8 \\ 18 \end{array}$$

$$\begin{array}{r} -2.6 \\ 21 \end{array}$$

$$\begin{array}{r} -3.1 \\ 26 \end{array}$$

$$\begin{array}{r} -3.1 \\ 33 \end{array}$$

$$\begin{array}{r} -4.7 \\ 33 \end{array}$$

$$\begin{array}{r} -3.7 \\ 22 \end{array}$$

$$\begin{array}{r} -1.0 \\ 14 \end{array}$$

45

$$\begin{array}{r} -0.3 \\ 17 \end{array}$$

$$\begin{array}{r} -1.1 \\ 33 \end{array}$$

$$\begin{array}{r} -3.4 \\ 37 \end{array}$$

$$\begin{array}{r} -0.1 \\ 33 \end{array}$$

44

$$\begin{array}{r} 0.0 \\ 33 \end{array}$$

= 37 + 81 on F

$$\begin{array}{r} -6.8 \\ 33 \end{array}$$

$$\begin{array}{r} -6.8 \\ 28 \end{array}$$

$$\begin{array}{r} -0.8 \\ 13 \end{array}$$

41

$$\begin{array}{r} 0.0 \\ 33 \end{array}$$

= 38 + 47 on F

$$\begin{array}{r} -6.6 \\ 33 \end{array}$$

$$\begin{array}{r} -6.2 \\ 28 \end{array}$$

$$\begin{array}{r} -0.3 \\ 11 \end{array}$$

44

$$\begin{array}{r} -0.3 \\ 21 \end{array}$$

$$\begin{array}{r} -1.0 \\ 33 \end{array}$$

$$\begin{array}{r} -5.6 \\ 33 \end{array}$$

$$\begin{array}{r} -4.0 \\ 22 \end{array}$$

$$\begin{array}{r} -0.3 \\ 9 \end{array}$$

44

$$\begin{array}{r} -0.1 \\ 6 \end{array}$$

$$\begin{array}{r} -0.8 \\ 16 \end{array}$$

$$\begin{array}{r} -3.3 \\ 22 \end{array}$$

$$\begin{array}{r} -3.0 \\ 25 \end{array}$$

$$\begin{array}{r} -2.7 \\ 28 \end{array}$$

$$\begin{array}{r} -4.3 \\ 33 \end{array}$$

$$\begin{array}{r} -3.1 \\ 18 \end{array}$$

$$\begin{array}{r} -0.5 \\ 13 \end{array}$$

$$\begin{array}{r} -0.7 \\ 11 \end{array}$$

$$\begin{array}{r} -2.6 \\ 16 \end{array}$$

$$\begin{array}{r} -1.9 \\ 18 \end{array}$$

$$\begin{array}{r} -1.5 \\ 33 \end{array}$$

$$\begin{array}{r} -2.2 \\ 33 \end{array}$$

$$\begin{array}{r} -2.7 \\ 28 \end{array}$$

$$\begin{array}{r} -2.1 \\ 22 \end{array}$$

$$\begin{array}{r} -0.9 \\ 16 \end{array}$$

$$\begin{array}{r} -0.3 \\ 13 \end{array}$$

$$\begin{array}{r} -1.2 \\ 16 \end{array}$$

$$\begin{array}{r} -2.9 \\ 20 \end{array}$$

$$\begin{array}{r} -0.6 \\ 26 \end{array}$$

$$\begin{array}{r} -0.4 \\ 33 \end{array}$$

$$\begin{array}{r} -2.5 \\ 33 \end{array}$$

$$\begin{array}{r} -3.8 \\ 27 \end{array}$$

$$\begin{array}{r} -3.2 \\ 23 \end{array}$$

$$\begin{array}{r} -0.7 \\ 20 \end{array}$$

$$\begin{array}{r} +0.4 \\ 13 \end{array}$$

$$\begin{array}{r} +0.7 \\ 33 \end{array}$$

= 4 record on

$$\begin{array}{r} -1.1 \\ 33 \end{array}$$

$$\begin{array}{r} -0.7 \\ 24 \end{array}$$

$$\begin{array}{r} -1.2 \\ 22 \end{array}$$

$$\begin{array}{r} -0.3 \\ 15 \end{array}$$

$$\begin{array}{r} 0.0 \\ 28 \end{array}$$

$$\begin{array}{r} -2.0 \\ 33 \end{array}$$

$$\begin{array}{r} -3.5 \\ 33 \end{array}$$

$$\begin{array}{r} -3.5 \\ 25 \end{array}$$

$$\begin{array}{r} 0.0 \\ 14 \end{array}$$

$$\begin{array}{r} -0.4 \\ 9 \end{array}$$

$$\begin{array}{r} -1.1 \\ 15 \end{array}$$

$$\begin{array}{r} -1.8 \\ 21 \end{array}$$

$$\begin{array}{r} -1.7 \\ 25 \end{array}$$

$$\begin{array}{r} -1.7 \\ 33 \end{array}$$

$$\begin{array}{r} -4.0 \\ 33 \end{array}$$

$$\begin{array}{r} -3.6 \\ 27 \end{array}$$

$$\begin{array}{r} -2.3 \\ 16 \end{array}$$

$$\begin{array}{r} -0.6 \\ 11 \end{array}$$

$$\begin{array}{r} -0.1 \\ 8 \end{array}$$

$$\begin{array}{r} -0.2 \\ 10 \end{array}$$

$$\begin{array}{r} -0.4 \\ 16 \end{array}$$

$$\begin{array}{r} -1.1 \\ 25 \end{array}$$

$$\begin{array}{r} -1.0 \\ 33 \end{array}$$

Station Elevation

48 162.2

47 162.7

+50 162.7

46 162.4

+75 162.2

45 161.8

44 161.1

43 160.1

42 158.5

+65 157.8

+30 157.2

41 156.9

40+00 156.8

L.

L

R

39

$$\begin{array}{ccccc} +1.6 & +1.7 & -1.4 & -1.3 & -0.7 \\ \frac{33}{33} & \frac{16}{16} & \frac{12}{12} & \frac{11}{11} & \frac{10}{10} \end{array}$$

66

$$\begin{array}{cccccc} 0.0 & -0.8 & -1.6 & -1.6 & +1.7 & +1.5 \\ \frac{5}{5} & \frac{14}{14} & \frac{15}{15} & \frac{17}{17} & \frac{20}{20} & \frac{33}{33} \end{array}$$

$$\begin{array}{ccccc} +5.0 & +4.2 & +2.7 & -0.9 & -0.9 & -0.6 \\ \frac{33}{33} & \frac{21}{21} & \frac{16}{16} & \frac{12}{12} & \frac{10}{10} & \frac{9}{9} \end{array}$$

$$\begin{array}{cccccc} 0.0 & -0.7 & -1.1 & -1.1 & +1.9 & +2.5 \\ \frac{6}{6} & \frac{14}{14} & \frac{15}{15} & \frac{17}{17} & \frac{21}{21} & \frac{33}{33} \end{array}$$

$$\begin{array}{ccccc} +3.2 & +3.0 & +2.0 & -1.0 & -0.9 & -0.5 \\ \frac{33}{33} & \frac{21}{21} & \frac{16}{16} & \frac{13}{13} & \frac{11}{11} & \frac{10}{10} \end{array}$$

$$\begin{array}{cccccc} 0.0 & -0.8 & -1.1 & -1.2 & +0.6 & +1.1 & +0.6 \\ \frac{6}{6} & \frac{15}{15} & \frac{16}{16} & \frac{18}{18} & \frac{20}{20} & \frac{27}{27} & \frac{33}{33} \end{array}$$

$$\begin{array}{ccccc} +1.1 & +1.7 & +0.9 & -0.9 & -1.1 & -0.4 \\ \frac{33}{33} & \frac{22}{22} & \frac{16}{16} & \frac{14}{14} & \frac{12}{12} & \frac{11}{11} \end{array}$$

$$\begin{array}{cccccc} -0.8 & -1.6 & -1.6 & -0.3 & +0.8 & 0.0 \\ \frac{15}{15} & \frac{17}{17} & \frac{19}{19} & \frac{21}{21} & \frac{26}{26} & \frac{33}{33} \end{array}$$

$$\begin{array}{ccccc} +1.8 & +2.5 & -1.0 & -1.1 & -0.6 \\ \frac{33}{33} & \frac{22}{22} & \frac{14}{14} & \frac{12}{12} & \frac{11}{11} \end{array}$$

$$\begin{array}{cccccc} -0.7 & -1.5 & -1.5 & -0.8 & -0.9 & -1.0 \\ \frac{14}{14} & \frac{16}{16} & \frac{18}{18} & \frac{19}{19} & \frac{26}{26} & \frac{33}{33} \end{array}$$

$$\begin{array}{ccccc} +1.9 & +2.3 & -1.0 & -1.1 & -0.5 \\ \frac{33}{33} & \frac{21}{21} & \frac{14}{14} & \frac{13}{13} & \frac{11}{11} \end{array}$$

$$\begin{array}{cccccc} -0.5 & -1.5 & -1.8 & -0.7 & -1.1 & -1.5 \\ \frac{14}{14} & \frac{16}{16} & \frac{18}{18} & \frac{20}{20} & \frac{25}{25} & \frac{33}{33} \end{array}$$

$$\begin{array}{ccccc} +1.9 & +2.6 & -1.3 & -1.4 & -0.7 \\ \frac{33}{33} & \frac{22}{22} & \frac{15}{15} & \frac{13}{13} & \frac{11}{11} \end{array}$$

$$\begin{array}{cccccc} -0.7 & -1.6 & -1.8 & -1.0 & -1.4 & -1.9 \\ \frac{14}{14} & \frac{16}{16} & \frac{18}{18} & \frac{21}{21} & \frac{25}{25} & \frac{33}{33} \end{array}$$

$$\begin{array}{ccccc} +3.0 & +2.3 & -1.3 & -1.3 & -0.6 \\ \frac{33}{33} & \frac{21}{21} & \frac{14}{14} & \frac{13}{13} & \frac{11}{11} \end{array}$$

$$\begin{array}{cccccc} -0.8 & -2.0 & -2.1 & -1.2 & -1.3 & -2.5 \\ \frac{14}{14} & \frac{17}{17} & \frac{19}{19} & \frac{20}{20} & \frac{24}{24} & \frac{33}{33} \end{array}$$

$$\begin{array}{ccccc} +0.9 & +1.1 & -1.8 & -1.9 & -0.5 \\ \frac{33}{33} & \frac{21}{21} & \frac{15}{15} & \frac{13}{13} & \frac{10}{10} \end{array}$$

$$\begin{array}{cccccc} -0.8 & -2.1 & -2.0 & -3.0 & -4.0 \\ \frac{14}{14} & \frac{21}{21} & \frac{24}{24} & \frac{27}{27} & \frac{33}{33} \end{array}$$

$$\begin{array}{ccccc} -0.2 & -0.2 & -2.0 & -2.0 & -1.4 & -0.2 \\ \frac{33}{33} & \frac{23}{23} & \frac{17}{17} & \frac{16}{16} & \frac{15}{15} & \frac{10}{10} \end{array}$$

$$\begin{array}{cccccc} -0.5 & -4.9 & -4.7 & -2.4 & -2.1 \\ \frac{13}{13} & \frac{19}{19} & \frac{22}{22} & \frac{25}{25} & \frac{33}{33} \end{array}$$

$$\begin{array}{ccccc} -1.1 & -1.5 & -2.2 & -2.4 & -0.8 \\ \frac{33}{33} & \frac{21}{21} & \frac{17}{17} & \frac{14}{14} & \frac{10}{10} \end{array}$$

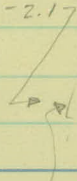
$$\begin{array}{cccccc} -0.8 & -3.7 & -3.7 & -2.9 & -2.8 \\ \frac{16}{16} & \frac{23}{23} & \frac{27}{27} & \frac{28}{28} & \frac{33}{33} \end{array}$$

$$\begin{array}{ccccc} -2.1 & -2.0 & -4.6 & -4.9 & -2.6 & -3.2 & -0.6 \\ \frac{33}{33} & \frac{30}{30} & \frac{26}{26} & \frac{24}{24} & \frac{22}{22} & \frac{18}{18} & \frac{12}{12} \end{array}$$

$$\begin{array}{cccccc} -0.6 & -3.2 & -3.8 & -3.6 & -2.7 & -2.4 \\ \frac{17}{17} & \frac{22}{22} & \frac{25}{25} & \frac{29}{29} & \frac{31}{31} & \frac{33}{33} \end{array}$$

$$\begin{array}{ccccc} -4.2 & -4.5 & -4.3 & -4.5 & -3.6 & -3.5 & -0.6 \\ \frac{33}{33} & \frac{30}{30} & \frac{28}{28} & \frac{25}{25} & \frac{23}{23} & \frac{17}{17} & \frac{12}{12} \end{array}$$

$$\begin{array}{cccccc} 0.4 & -1.3 & -2.5 & -2.7 & -1.5 & -1.0 \\ \frac{13}{13} & \frac{16}{16} & \frac{23}{23} & \frac{27}{27} & \frac{30}{30} & \frac{33}{33} \end{array}$$

| Station |                                                                                   | Elev. |
|---------|-----------------------------------------------------------------------------------|-------|
| 57      |                                                                                   | 142.3 |
| 56      |                                                                                   | 140.1 |
| 55      |                                                                                   | 140.1 |
| 54      |                                                                                   | 142.8 |
| 53      |                                                                                   | 146.0 |
| +52     | -2.17                                                                             | 148.2 |
| 52      |  | 150.3 |
| +54     | +2.4                                                                              | 152.7 |
| 51      | 4                                                                                 | 155.2 |
| +52     | +2.0                                                                              | 157.2 |
| 50      | 4                                                                                 | 158.7 |
| +60     | +1.5                                                                              | 160.2 |
| 49      |                                                                                   | 161.2 |

L

E

R

4/8/24 40

$$\begin{array}{r} -6.1 \\ 33 \end{array}$$

$$\begin{array}{r} -5.1 \\ 20 \end{array}$$

$$\begin{array}{r} -0.7 \\ 14 \end{array}$$

24

$$\begin{array}{r} -1.0 \\ 13 \end{array}$$

$$\begin{array}{r} -5.5 \\ 20 \end{array}$$

$$\begin{array}{r} -5.9 \\ 33 \end{array}$$

$$\begin{array}{r} -5.2 \\ 33 \end{array}$$

$$\begin{array}{r} -4.8 \\ 19 \end{array}$$

$$\begin{array}{r} -1.0 \\ 12 \end{array}$$

$$\begin{array}{r} -0.7 \\ 10 \end{array}$$

$$\begin{array}{r} -4.8 \\ 19 \end{array}$$

$$\begin{array}{r} -5.0 \\ 33 \end{array}$$

$$\begin{array}{r} -5.2 \\ 33 \end{array}$$

$$\begin{array}{r} -4.7 \\ 17 \end{array}$$

$$\begin{array}{r} -1.1 \\ 11 \end{array}$$

$$\begin{array}{r} -0.6 \\ 12 \end{array}$$

$$\begin{array}{r} -4.5 \\ 19 \end{array}$$

$$\begin{array}{r} -5.0 \\ 33 \end{array}$$

$$\begin{array}{r} -6.6 \\ 33 \end{array}$$

$$\begin{array}{r} -6.2 \\ 19 \end{array}$$

$$\begin{array}{r} -0.5 \\ 9 \end{array}$$

$$\begin{array}{r} -1.0 \\ 14 \end{array}$$

$$\begin{array}{r} -5.1 \\ 21 \end{array}$$

$$\begin{array}{r} -6.5 \\ 33 \end{array}$$

$$\begin{array}{r} -5.7 \\ 33 \end{array}$$

$$\begin{array}{r} -4.0 \\ 16 \end{array}$$

$$\begin{array}{r} -0.7 \\ 11 \end{array}$$

$$\begin{array}{r} -0.6 \\ 13 \end{array}$$

$$\begin{array}{r} -3.5 \\ 19 \end{array}$$

$$\begin{array}{r} -3.9 \\ 33 \end{array}$$

$$\begin{array}{r} -4.2 \\ 33 \end{array}$$

$$\begin{array}{r} -3.0 \\ 20 \end{array}$$

$$\begin{array}{r} -2.8 \\ 17 \end{array}$$

$$\begin{array}{r} -1.7 \\ 13 \end{array}$$

67

$$\begin{array}{r} -1.2 \\ 14 \end{array}$$

$$\begin{array}{r} -3.8 \\ 20 \end{array}$$

$$\begin{array}{r} -1.7 \\ 33 \end{array}$$

$$\begin{array}{r} -0.4 \\ 33 \end{array}$$

$$\begin{array}{r} -0.4 \\ 32 \end{array}$$

$$\begin{array}{r} -2.2 \\ 28 \end{array}$$

$$\begin{array}{r} -2.1 \\ 19 \end{array}$$

$$\begin{array}{r} -2.0 \\ 17 \end{array}$$

$$\begin{array}{r} -0.7 \\ 14 \end{array}$$

46

$$\begin{array}{r} -0.6 \\ 15 \end{array}$$

$$\begin{array}{r} -1.2 \\ 16 \end{array}$$

$$\begin{array}{r} -1.2 \\ 18 \end{array}$$

$$\begin{array}{r} -0.2 \\ 21 \end{array}$$

$$\begin{array}{r} +1.7 \\ 33 \end{array}$$

$$\begin{array}{r} +1.0 \\ 34 \end{array}$$

$$\begin{array}{r} -0.4 \\ 31 \end{array}$$

$$\begin{array}{r} -1.4 \\ 16 \end{array}$$

$$\begin{array}{r} -0.5 \\ 14 \end{array}$$

24

$$\begin{array}{r} -0.1 \\ 13 \end{array}$$

$$\begin{array}{r} -1.0 \\ 15 \end{array}$$

$$\begin{array}{r} -1.1 \\ 16 \end{array}$$

$$\begin{array}{r} +0.7 \\ 19 \end{array}$$

$$\begin{array}{r} +2.2 \\ 33 \end{array}$$

$$\begin{array}{r} -0.8 \\ 32 \end{array}$$

$$\begin{array}{r} -1.2 \\ 21 \end{array}$$

$$\begin{array}{r} -1.9 \\ 20 \end{array}$$

$$\begin{array}{r} -1.9 \\ 19 \end{array}$$

$$\begin{array}{r} -0.7 \\ 16 \end{array}$$

76

$$\begin{array}{r} -0.8 \\ 14 \end{array}$$

$$\begin{array}{r} -1.5 \\ 16 \end{array}$$

$$\begin{array}{r} -1.5 \\ 17 \end{array}$$

$$\begin{array}{r} -0.4 \\ 19 \end{array}$$

$$\begin{array}{r} +2.8 \\ 31 \end{array}$$

$$\begin{array}{r} +2.8 \\ 32 \end{array}$$

$$\begin{array}{r} +1.3 \\ 32 \end{array}$$

$$\begin{array}{r} +1.3 \\ 31 \end{array}$$

$$\begin{array}{r} -1.0 \\ 27 \end{array}$$

$$\begin{array}{r} -1.3 \\ 21 \end{array}$$

$$\begin{array}{r} -1.6 \\ 20 \end{array}$$

$$\begin{array}{r} -2.1 \\ 18 \end{array}$$

$$\begin{array}{r} -1.0 \\ 16 \end{array}$$

54

$$\begin{array}{r} -1.0 \\ 14 \end{array}$$

$$\begin{array}{r} -1.6 \\ 15 \end{array}$$

$$\begin{array}{r} -1.6 \\ 17 \end{array}$$

$$\begin{array}{r} +1.9 \\ 24 \end{array}$$

$$\begin{array}{r} +3.7 \\ 33 \end{array}$$

$$\begin{array}{r} +3.9 \\ 30 \end{array}$$

$$\begin{array}{r} +3.9 \\ 32 \end{array}$$

$$\begin{array}{r} -1.0 \\ 27 \end{array}$$

$$\begin{array}{r} -1.6 \\ 19 \end{array}$$

$$\begin{array}{r} -0.7 \\ 17 \end{array}$$

$$\begin{array}{r} -0.3 \\ 10 \end{array}$$

$$\begin{array}{r} -0.5 \\ 14 \end{array}$$

$$\begin{array}{r} -1.3 \\ 15 \end{array}$$

$$\begin{array}{r} -1.3 \\ 16 \end{array}$$

$$\begin{array}{r} +2.8 \\ 22 \end{array}$$

$$\begin{array}{r} +3.5 \\ 26 \end{array}$$

$$\begin{array}{r} +3.5 \\ 33 \end{array}$$

$$\begin{array}{r} +2.7 \\ 30 \end{array}$$

$$\begin{array}{r} +2.7 \\ 24 \end{array}$$

$$\begin{array}{r} -1.7 \\ 18 \end{array}$$

$$\begin{array}{r} -1.7 \\ 18 \end{array}$$

$$\begin{array}{r} -5.0 \\ 18 \end{array}$$

$$\begin{array}{r} -0.7 \\ 13 \end{array}$$

$$\begin{array}{r} -1.6 \\ 14 \end{array}$$

$$\begin{array}{r} -1.4 \\ 16 \end{array}$$

$$\begin{array}{r} +3.4 \\ 22 \end{array}$$

$$\begin{array}{r} +3.2 \\ 27 \end{array}$$

$$\begin{array}{r} +2.5 \\ 33 \end{array}$$

$$\begin{array}{r} +2.7 \\ 30 \end{array}$$

$$\begin{array}{r} +3.2 \\ 20 \end{array}$$

$$\begin{array}{r} -1.3 \\ 14 \end{array}$$

$$\begin{array}{r} -1.3 \\ 19 \end{array}$$

$$\begin{array}{r} -0.6 \\ 11 \end{array}$$

$$\begin{array}{r} -0.6 \\ 12 \end{array}$$

$$\begin{array}{r} -1.4 \\ 13 \end{array}$$

$$\begin{array}{r} -1.4 \\ 16 \end{array}$$

$$\begin{array}{r} +2.9 \\ 20 \end{array}$$

$$\begin{array}{r} +2.8 \\ 28 \end{array}$$

$$\begin{array}{r} +2.7 \\ 33 \end{array}$$

Station

Elev.

63. 151.9

+84 -0.1 151.8

+117 +1.0 151.0

62 150.0

+68 -0.8 149.2

61 148.3

+45 +1.2 148.6

60 147.4

+33 +0.6 146.6

59 146.0

+33 -1.1 144.9

58 144.3

57+37 143.0

$$\begin{array}{ccccccc} +1.6 & +1.1 & -0.3 & -1.3 & -1.2 & -1.1 & 5.0 \\ 33 & 22 & 16 & 12 & 13 & 11 & \end{array}$$

$$\begin{array}{ccccccc} -0.9 & -1.6 & -1.6 & -0.3 & +1.0 & +0.5 & \\ 13 & 14 & 16 & 18 & 23 & 33 & \end{array}$$

$$\begin{array}{ccccccc} +1.1 & +1.8 & -0.6 & -1.1 & -1.7 & -1.7 & -1.1 & 5.0 \\ 33 & 27 & 24 & 16 & 15 & 13 & 12 & \end{array}$$

$$\begin{array}{ccccccc} -1.0 & -1.3 & -1.5 & -0.6 & +1.3 & +1.3 & \\ 13 & 15 & 16 & 18 & 22 & 33 & \end{array}$$

$$\begin{array}{ccccccc} +2.1 & +3.7 & -0.6 & -1.2 & -1.8 & -1.8 & -1.1 & 6.2 \\ 33 & 29 & 25 & 17 & 16 & 14 & 12 & \end{array}$$

$$\begin{array}{ccccccc} -0.8 & -1.2 & -1.2 & +2.2 & +2.9 & & \\ 13 & 16 & 17 & 23 & 33 & & \end{array}$$

$$\begin{array}{ccccccc} +2.5 & +2.8 & -1.0 & -1.4 & -1.9 & -1.9 & -1.1 & 7.2 \\ 33 & 29 & 26 & 17 & 16 & 14 & 12 & \end{array}$$

$$\begin{array}{ccccccc} -1.0 & -1.5 & -1.5 & +1.2 & +1.7 & & \\ 12 & 18 & 15 & 18 & 33 & & \end{array}$$

$$\begin{array}{ccccccc} -0.2 & -0.2 & -0.6 & -0.5 & -1.6 & -1.6 & -0.9 & 1.0 \\ 33 & 29 & 27 & 17 & 16 & 14 & 12 & \end{array}$$

$$\begin{array}{ccccccc} -0.3 & -1.2 & -1.3 & 0.0 & +0.2 & & \\ 12 & 14 & 16 & 17 & 33 & & \end{array}$$

$$\begin{array}{ccccccc} -3.2 & -0.7 & -1.0 & -1.8 & -1.8 & -1.0 & 5.3 \\ 33 & 29 & 18 & 16 & 14 & 13 & \end{array}$$

$$\begin{array}{ccccccc} -0.9 & -1.4 & -1.4 & -0.8 & -2.1 & & \\ 12 & 14 & 16 & 17 & 33 & & \end{array}$$

$$\begin{array}{ccccccc} -0.3 & +0.3 & -0.8 & -1.4 & -1.8 & -1.8 & -1.2 & 5.3 \\ 33 & 27 & 25 & 17 & 16 & 14 & 13 & \end{array}$$

$$\begin{array}{ccccccc} -0.9 & -1.5 & -1.5 & -0.9 & -0.2 & & \\ 12 & 14 & 16 & 17 & 33 & & \end{array}$$

$$\begin{array}{ccccccc} +5.9 & +5.9 & -1.3 & -1.3 & -1.9 & -1.9 & -1.1 & 6.2 \\ 33 & 31 & 23 & 17 & 16 & 14 & 12 & \end{array}$$

$$\begin{array}{ccccccc} -0.6 & -1.3 & -1.2 & 0.0 & +1.9 & & \\ 14 & 15 & 17 & 19 & 33 & & \end{array}$$

$$\begin{array}{ccccccc} +6.6 & +6.6 & -0.8 & -1.1 & -1.6 & -1.6 & -1.0 & 7.2 \\ 33 & 31 & 25 & 20 & 18 & 17 & 14 & \end{array}$$

$$\begin{array}{ccccccc} 0.5 & -1.2 & -1.2 & -0.5 & +1.4 & +2.5 & \\ 15 & 16 & 18 & 20 & 24 & 33 & \end{array}$$

$$\begin{array}{ccccccc} +6.5 & +6.5 & -1.1 & -1.0 & -2.8 & -2.8 & -0.9 & 7.6 \\ 33 & 31 & 24 & 18 & 17 & 16 & 14 & \end{array}$$

$$\begin{array}{ccccccc} -0.3 & -1.2 & -1.2 & 0.0 & +1.0 & & \\ 14 & 17 & 18 & 20 & 33 & & \end{array}$$

$$\begin{array}{ccccccc} +5.1 & +5.1 & -1.5 & -1.3 & -1.9 & -1.9 & -1.0 & 1.1 \\ 33 & 32 & 23 & 18 & 16 & 15 & 12 & \end{array}$$

$$\begin{array}{ccccccc} -0.5 & -1.5 & -1.5 & -0.4 & +0.7 & +1.8 & \\ 13 & 17 & 19 & 21 & 29 & 33 & \end{array}$$

$$\begin{array}{ccccccc} -3.4 & -2.2 & -1.3 & -1.4 & -0.8 & & \\ 33 & 23 & 20 & 14 & 10 & & \end{array}$$

$$\begin{array}{ccccccc} -0.3 & -1.6 & -1.6 & -0.9 & -0.6 & & \\ 15 & 18 & 19 & 22 & 33 & & \end{array}$$

$$\begin{array}{ccccccc} -6.0 & -5.7 & -0.7 & & & & \\ 33 & 25 & 14 & & & & \end{array}$$

$$\begin{array}{ccccccc} -0.9 & -1.1 & -5.0 & -5.7 & & & \\ 13 & 19 & 25 & 33 & & & \end{array}$$

Station.

Elev.

70400  $\uparrow$  = 160.0

+30

+2.0

162.0

158.0

-2.0

69

157.1

+52

+1.2

156.0

68

154.8

+30

+0.1

154.2

67

154.1

+50

0.0

154.0

66

154.0

+76

+0.2

154.3

+92

+0.1

154.1

65

154.0

64

152.9

63 + 45

-0.4

152.5

L

S

R

42

$$\begin{array}{ccccccccc} 0.1 & -0.6 & -1.0 & -0.2 & -1.6 & -1.6 & -0.9 & 9.4 & -0.9 & -2.0 & -2.0 & +0.4 & +1.0 \\ 33 & 21 & 23 & 17 & 16 & 14 & 11 & & 12 & 15 & 17 & 21 & 33 \end{array}$$

$$\begin{array}{ccccccccc} -1.8 & -2.6 & -2.1 & -1.3 & -1.1 & & & & -0.8 & -2.0 & -2.0 & -1.1 & -0.2 \\ 33 & 24 & 19 & 16 & 12 & & & & 13 & 17 & 19 & 20 & 33 \end{array}$$

$$\begin{array}{ccccccc} -5.2 & -4.6 & -0.6 & 2.3 & -0.7 & -1.4 & -2.5 \\ 33 & 18 & 12 & & 13 & 17 & 33 \end{array}$$

$$\begin{array}{ccccccc} -9.3 & -6.2 & -0.8 & 4.5 & -1.0 & -3.3 & -3.2 \\ 33 & 19 & 11 & & 14 & 19 & 33 \end{array}$$

$$\begin{array}{ccccccc} -6.5 & -4.1 & -0.7 & 5.1 & -0.9 & -2.6 & -1.9 \\ 33 & 18 & 10 & & 14 & 18 & 33 \end{array}$$

$$\begin{array}{ccccccc} -4.1 & -3.1 & -0.5 & 5.2 & -0.5 & -3.2 & -4.0 & -0.7 & -0.5 \\ 33 & 18 & 12 & & 12 & 18 & 25 & 29 & 33 \end{array}$$

$$\begin{array}{ccccccc} -4.2 & -3.5 & -0.7 & 5.2 & -0.9 & -1.7 & -0.6 \\ 33 & 19 & 13 & & 12 & 15 & 33 \end{array}$$

$$\begin{array}{ccccccc} -3.7 & -3.0 & -0.9 & 5.3 & -0.7 & -1.7 & -1.7 & -1.0 & -2.0 & -1.9 \\ 33 & 19 & 14 & & 13 & 15 & 17 & 18 & 23 & 33 \end{array}$$

$$\begin{array}{ccccccc} -0.7 & -1.1 & -1.9 & -1.9 & -1.0 & 3.0 & -0.9 & -1.7 & -1.7 & -0.1 & 0.0 \\ 33 & 20 & 19 & 16 & 15 & & 12 & 14 & 16 & 18 & 33 \end{array}$$

$$\begin{array}{ccccccc} +1.6 & +1.6 & -1.2 & -1.2 & -0.7 & 3.2 & -1.0 & -1.6 & -1.6 & +0.6 & +1.7 & +1.8 \\ 33 & 19 & 16 & 14 & 12 & & 11 & 18 & 15 & 16 & 22 & 33 \end{array}$$

$$\begin{array}{ccccccc} +1.6 & +1.4 & -1.3 & -1.3 & -0.7 & 2.3 & -1.0 & -1.7 & -1.7 & +0.4 & +2.2 & +2.2 \\ 33 & 18 & 15 & 13 & 12 & & 11 & 12 & 14 & 17 & 29 & 33 \end{array}$$

$$\begin{array}{ccccccc} +1.8 & +1.5 & -0.9 & -0.9 & -0.4 & 2.2 & -0.9 & -1.3 & -1.3 & +0.3 & +0.6 \\ 33 & 17 & 15 & 13 & 11 & & 11 & 12 & 14 & 17 & 33 \end{array}$$

$$\begin{array}{ccccccc} +2.6 & +2.0 & -1.3 & -1.3 & -0.6 & 4.2 & -1.0 & -1.2 & -1.2 & +0.3 & +0.5 \\ 33 & 18 & 15 & 13 & 11 & & 12 & 15 & 15 & 16 & 33 \end{array}$$

Station

Elev.

+30

-0.7

152.0

153.8

76

152.7

154.5

+54

+2.1

154.8

156.6

75

159.3

+75

-2.7

160.2

74

162.9

+50

-0.5

164.1

73

164.6

+34

+0.5

164.3

72

163.8

+40

+0.6

162.7

71

162.1

70

160.0

$$\frac{-1.4}{42} \quad \frac{-0.6}{30} \quad 5.9$$

$$\frac{-1.0}{19} \quad \frac{-1.3}{33}$$

$$\frac{-1.3}{33} \quad \frac{-1.7}{21} \quad \frac{-0.4}{18} \quad 5.1$$

$$\frac{-0.8}{19} \quad \frac{-3.1}{25} \quad \frac{-3.0}{33}$$

$$\frac{-2.5}{33} \quad \frac{-1.8}{23} \quad \frac{-0.2}{19}$$

$$3.0 \quad \frac{-0.5}{6} \quad \frac{-1.5}{18} \quad \frac{-5.0}{24} \quad \frac{-5.6}{33}$$

$$\frac{-1.5}{33} \quad \frac{-0.9}{18} \quad \frac{-1.5}{17} \quad \frac{-1.5}{15} \quad \frac{-0.6}{13}$$

$$8.0 \quad \frac{0.0}{4} \quad \frac{-1.4}{17} \quad \frac{-2.0}{18} \quad \frac{-2.0}{20} \quad \frac{-1.7}{22} \quad \frac{-2.2}{33}$$

$$\frac{+0.6}{33} \quad \frac{+1.5}{26} \quad \frac{+1.4}{18} \quad \frac{-0.7}{15} \quad \frac{-1.6}{13} \quad \frac{-1.6}{17} \quad \frac{-0.8}{10}$$

$$7.0 \quad \frac{-1.0}{14} \quad \frac{-1.7}{16} \quad \frac{-1.7}{18} \quad \frac{+0.3}{22} \quad \frac{-0.7}{33}$$

$$\frac{+3.1}{33} \quad \frac{+3.1}{20} \quad \frac{-1.4}{14} \quad \frac{-1.4}{12} \quad \frac{-0.7}{11}$$

$$12 \quad \frac{-0.8}{12} \quad \frac{-1.5}{13} \quad \frac{-1.5}{15} \quad \frac{+1.3}{20} \quad \frac{+1.0}{29} \quad \frac{+0.6}{33}$$

x

$$\frac{+2.6}{33} \quad \frac{+3.0}{27} \quad \frac{+3.7}{22} \quad \frac{-1.2}{15} \quad \frac{-1.2}{13} \quad \frac{-0.6}{11}$$

$$8.1 \quad \frac{-0.7}{12} \quad \frac{-1.5}{13} \quad \frac{-1.5}{15} \quad \frac{+0.6}{18} \quad \frac{+3.0}{23} \quad \frac{+2.6}{33}$$

$$\frac{+2.6}{33} \quad \frac{+3.3}{26} \quad \frac{+2.3}{19} \quad \frac{-1.5}{15} \quad \frac{-1.5}{13} \quad \frac{-0.7}{11}$$

$$1.0 \quad \frac{-0.8}{12} \quad \frac{-1.3}{13} \quad \frac{-1.3}{15} \quad \frac{+1.8}{18} \quad \frac{+4.0}{24} \quad \frac{+4.6}{33}$$

$$\frac{+2.0}{33} \quad \frac{+2.3}{27} \quad \frac{+2.3}{26} \quad \frac{+2.9}{18} \quad \frac{-1.2}{14} \quad \frac{-1.2}{12} \quad \frac{-0.6}{10}$$

$$7.9 \quad \frac{-0.5}{12} \quad \frac{-1.2}{13} \quad \frac{-1.2}{15} \quad \frac{+3.8}{21} \quad \frac{+6.3}{28} \quad \frac{+5.9}{33}$$

$$\frac{+1.2}{33} \quad \frac{+1.8}{28} \quad \frac{+2.6}{25} \quad \frac{+2.3}{18} \quad \frac{-1.4}{15} \quad \frac{-1.4}{13} \quad \frac{-0.8}{11}$$

$$1.1 \quad \frac{-0.9}{12} \quad \frac{-1.6}{13} \quad \frac{-1.6}{15} \quad \frac{+3.9}{20} \quad \frac{+5.0}{27} \quad \frac{+4.8}{33}$$

$$\frac{+1.6}{33} \quad \frac{+1.6}{18} \quad \frac{-1.4}{16} \quad \frac{-1.4}{13} \quad \frac{-0.8}{11}$$

$$1.7 \quad \frac{-0.6}{12} \quad \frac{-1.3}{14} \quad \frac{-1.3}{16} \quad \frac{0.0}{23} \quad \frac{+1.6}{33}$$

$$\frac{+2.5}{33} \quad \frac{+2.5}{19} \quad \frac{-1.5}{15} \quad \frac{-1.5}{13} \quad \frac{-0.8}{11}$$

$$3.3 \quad \frac{-0.6}{13} \quad \frac{-1.2}{14} \quad \frac{-1.2}{16} \quad \frac{+2.8}{21} \quad \frac{+2.8}{33}$$

$$\frac{+1.9}{33} \quad \frac{+2.0}{18} \quad \frac{-1.7}{15} \quad \frac{-1.7}{13} \quad \frac{-0.9}{11}$$

$$7.4 \quad \frac{-0.7}{12} \quad \frac{-1.6}{14} \quad \frac{-1.6}{16} \quad \frac{+2.2}{20} \quad \frac{+2.6}{23}$$

station

Elev.

76+88

-1.8

149.4

151.3

76+54.2

151.2

153.1

L

E

R

44

$$\frac{+2.5}{40}$$

$$\frac{+1.8}{27}$$

$$\frac{+1.0}{17}$$

$$\frac{1.3}{5}$$

$$\frac{-1.0}{5}$$

$$\frac{-0.2}{13}$$

$$\frac{-0.1}{33}$$

R<sub>road</sub>

$$\frac{+0.8}{50}$$

$$\frac{+0.8}{40}$$

$$\frac{+5.8}{20}$$

$$\frac{6.5}{10}$$

$$\frac{-0.2}{10}$$

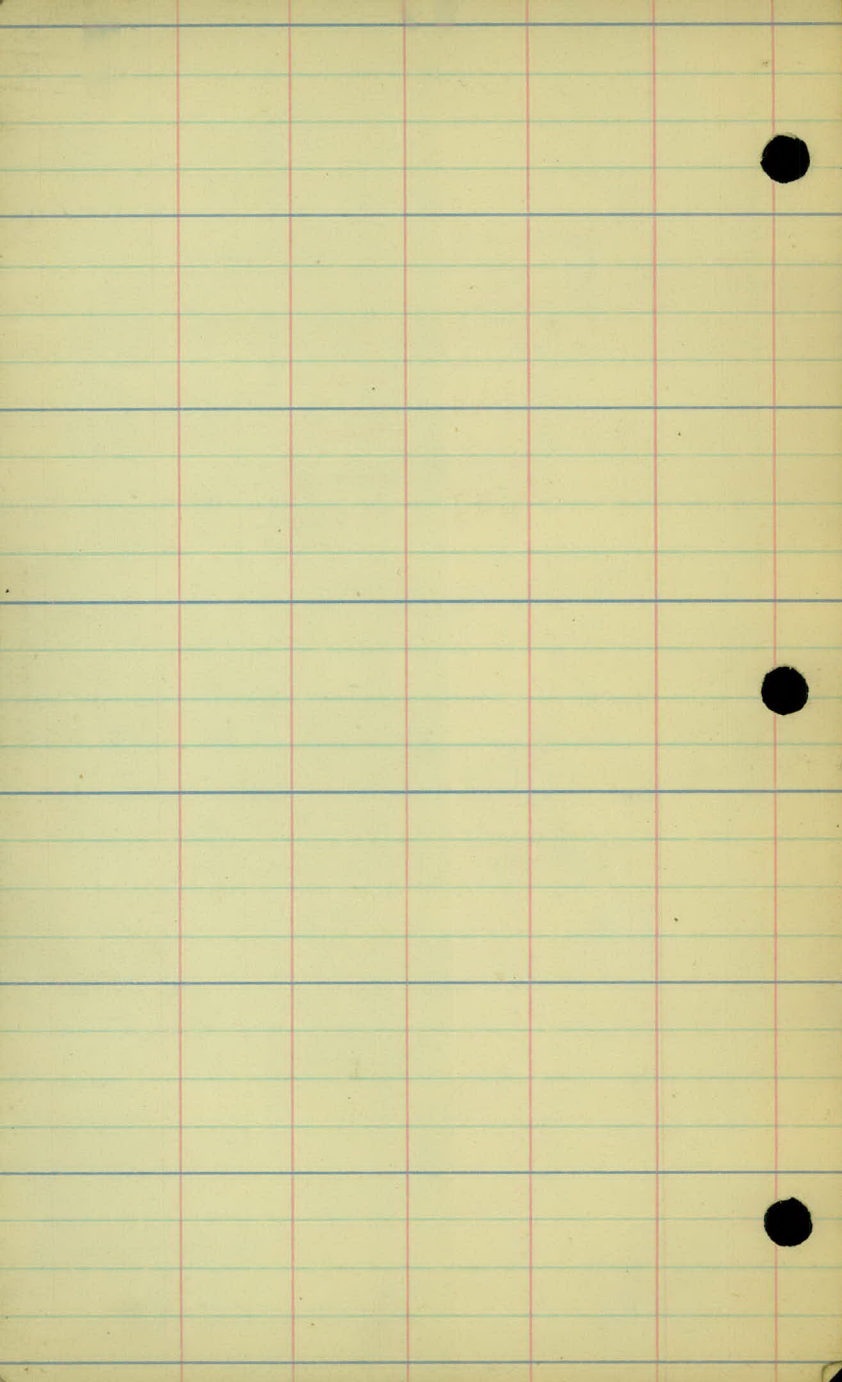
$$\frac{-1.2}{13}$$

$$\frac{-1.0}{18}$$

$$\frac{-0.4}{19}$$

$$\frac{-0.2}{33}$$

R<sub>road</sub>



# Drainage Notes

Snelling Avenue

Maintenance Work

Road #8

| Station | Present Culv.                        | Recom Culv.                                    |
|---------|--------------------------------------|------------------------------------------------|
| 18+15   | 18" X 31' C.M.<br>Ext. 18'R + 13'L.  | O.K.                                           |
| 33+55   | 12" X 36' C.M.<br>Ext. 18'R + 18'L.  | Raise Right end.                               |
| 37+65   | 15" X ? C.M.<br>Ext. 8 Rt. + 20'L.   | Rt. end cannot be<br>found at Road<br>Widened. |
| 41+43   | 18" X 44' C.M.<br>Ext. 28'R. + 16'L. | Full of Dirt.                                  |
| 55+11   | 20" X 40' C.M.<br>Ext. 21'R. + 19'L. | Ends high and<br>center low.<br>Re-lay         |
| 67+80   |                                      | P. 12" C.M.<br>Small Drainage Area.            |
| 76+54   | 12" X 64' C.M.<br>Ext. 12'R. + 52'L. | Ends open cannot<br>see thru.                  |

W.H.C.  
C.E.J.  
M.S.A.  
T.F. } 4-15-24

Inv. Elev. 153.1 53.1 53.0  
Drains Left.  $\frac{13}{25} \quad \frac{35}{35}$

Inv. Elev. 157.6 51.6 49.4  
Drains Left.  $\frac{18}{18} \quad \frac{45}{45}$

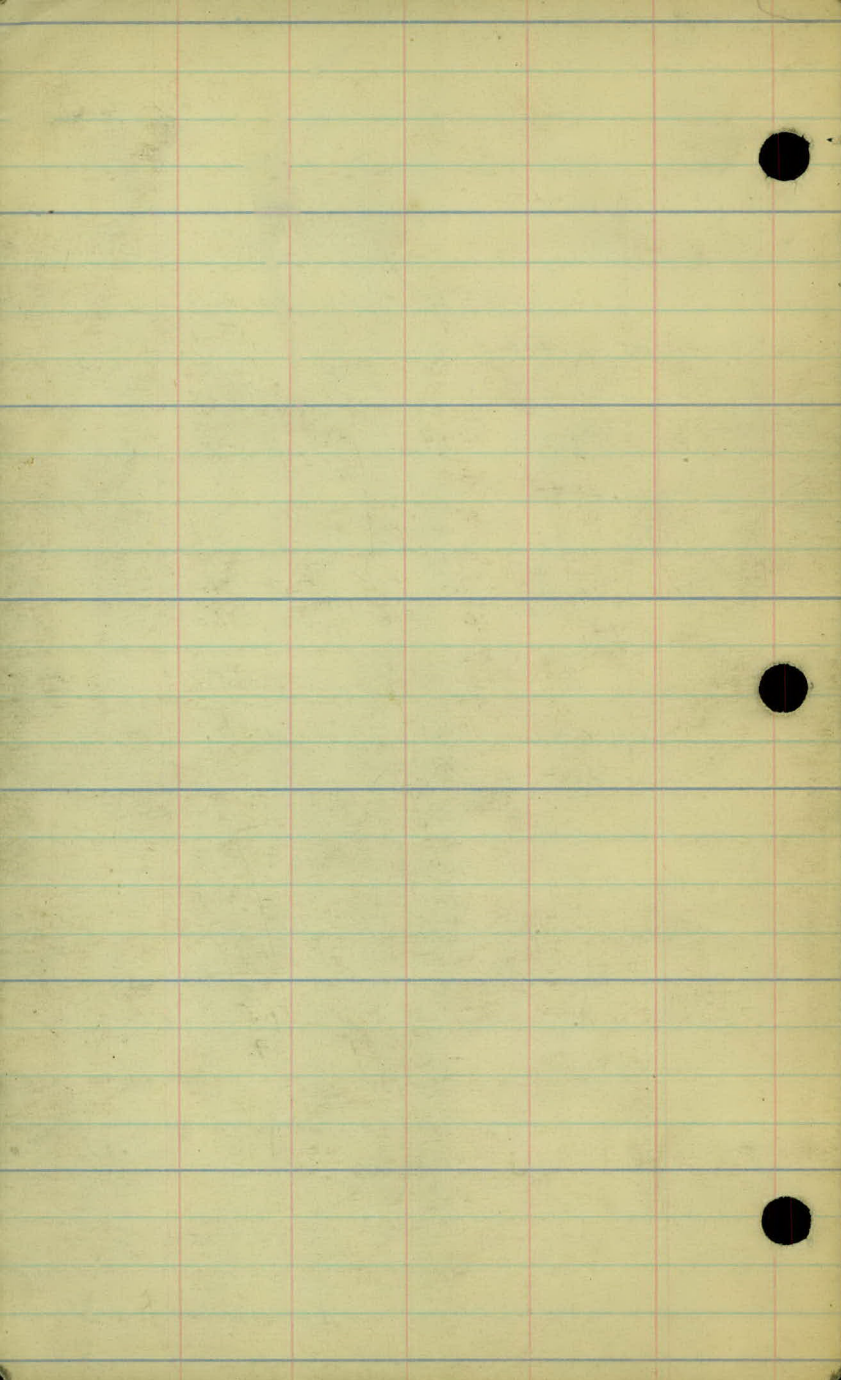
Inv. Elev. 152.4 51.1  
Drains Left.  $\frac{20}{45}$

Inv. Elev. 152.3 53.8 52.7 51.9  
Drains Lt.  $\frac{16}{16} \quad \frac{31}{60}$

Inv. Elev. 134.7 Into Marsh.  
Drains Left.  $\frac{19}{19}$

Drains Lt.

Inv. Elev. 152.9 52.0 51.5  
Drains Right  $\frac{12}{25} \quad \frac{37}{37}$



Snelling Ave. - Rd # 8

5-19-29  
R.H.  
M.W.C.

x 2+62 - L. - F.E. Inp. - 12" X 24' C.M. - Leave

x 10+30 - L. - F.E. - P. - 12" X 24' C.M.

x 18+15 - Inp. - 18" X 32' C.M. - Rem -  
P. - 24" P<sub>3</sub> ~~~~~

x 27+55 R. - F.E. - No Culv. Req. (Summit)

x 28+45 - R. - F.E. - Inp. - 12" X 16' C.M. - Rem

x 29+00 - L. - F.E. - No Culv. Req.

x 30+14 - R. - F.E. - Inp. - 12" X 20' Y.P. - Rem. -  
P. - 12" X 24' C.M.

x 33+55 Inp. - 12" X 36' C.M. - Rem -  
P. - 24" P<sub>3</sub> ~~~~~

x 35+50 - L. - F.E. No Culv. Req.

x 35+95 - P. - 24" X 54' P<sub>3</sub> ~~~~~

38+50 P-24" X B- 

39+50 to 41+50 - Brush R- 0.1 Ac.

41+43 - 1/2 p. 18" X 44' C.M. Rem.  
P-24" B- (45°) 

45+40 to 50 - Change Sec. Line

51+39 R. 1/2 p. 12" X 16' C.M. -  Loose -  
Extend 12" X 8' C.M.

55+11 - 1/2 p. 15" X 18" X 40' C.M. - Rem.  
P-24" B- 

59+10 - R. R.E. - 1/2 p. 10" X 18' C.M. - Rem.  
P-12" X 24' C.M.

61+75 - P-24" X - B.-

76+64 1/2 p. 12" X 64' C.M. Loose -

642  
1217  
17855