

Book - #3 - Dr. 6

OFFICE OF COUNTY ENGINEER  
RAMSEY CO. MINN.

----- *Plan* ----- Survey

----- **BOWLING GREEN - KELLER COURSE** -----

From ----- To -----

Road Acc't. No. -----

Date Filed. **1935** -----

File -----

Contours of Proposed

Bowling Green  
at Keller Course

+       $\pi$       -

|    |       |        |  |        |
|----|-------|--------|--|--------|
| BM | 10.43 | 110.43 |  | 100.00 |
|----|-------|--------|--|--------|

|     |       |        |       |        |
|-----|-------|--------|-------|--------|
| BM. |       |        | 117.1 | 98.72  |
| ○   | 129.3 | 122.88 | 0.48  | 109.95 |

|   |      |        |      |        |
|---|------|--------|------|--------|
| ○ | 8.17 | 128.49 | 2.56 | 120.32 |
|---|------|--------|------|--------|

|     |  |  |     |        |
|-----|--|--|-----|--------|
| BM. |  |  | 422 | 124.27 |
|-----|--|--|-----|--------|

South

So. 21° E

East

So. 21° W

Radius Point of Knoll (Prop. Green-Keeper's Ho. Site)

Top Outlet 12" C.M. at S.W. Car Barn

RR Spk. No Side Ho. at Approx Floor Elev. of Ho

|      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|
| 26.2 | 26.0 | 25.8 | 25.7 | 25.4 | 25.1 | 24.6 | 24.0 | 23.8 | 23.9 |
| 2.3  | 2.5  | 2.7  | 2.8  | 3.1  | 5.8  | 5.9  | 6.5  | 6.7  | 6.6  |
| 0    | 63   | 65   | 70   | 75   | 91   | 100  | 109  | 123  | 129  |

|      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|
| 26.2 | 26.3 | 26.1 | 25.9 | 23.1 | 23.2 | 23.2 | 23.1 | 22.5 |
| 2.3  | 2.7  | 2.4  | 2.6  | 5.4  | 5.3  | 5.3  | 5.4  | 6.0  |
| 0    | 67   | 70   | 75   | 85   | 95   | 111  | 147  | 178  |

|      |      |      |      |      |      |      |      |      |      |       |
|------|------|------|------|------|------|------|------|------|------|-------|
| 26.4 | 26.2 | 26.1 | 26.2 | 26.3 | 23.4 | 23.2 | 18.4 | 18.0 | 17.5 | 17.9  |
| 2.1  | 2.3  | 2.4  | 2.3  | 5.2  | 5.1  | 5.3  | 10.1 | 10.5 | 11.0 | 10.59 |
| 23   | 25   | 30   | 34   | 46   | 58   | 61   | 72   | 81   | 82   | 97    |

|      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 25.6 | 25.3 | 25.3 | 25.0 | 22.1 | 21.6 | 21.5 | 20.7 | 20.1 | 16.7 | 15.2 | 14.7 | 13.5 |
| 2.9  | 3.2  | 3.2  | 3.5  | 6.4  | 6.7  | 7.0  | 7.8  | 8.4  | 11.8 | 13.3 | 13.8 | 15.0 |
| 67   | 69   | 70   | 78   | 88   | 100  | 105  | 117  | 122  | 140  | 157  | 162  | 172  |

West

N 21° W

North

N 21° E

Levels on U.S. Hwy #61

|      |      |        |        |
|------|------|--------|--------|
| B.M. | 4.53 | 128.80 | 124.27 |
|------|------|--------|--------|

0+00 = West Edge Pave 106' Rt Sta 0+00

0

1

2

3

4

|        |      |      |      |      |      |      |      |      |            |      |      |
|--------|------|------|------|------|------|------|------|------|------------|------|------|
| 25.9   | 25.7 | 25.5 | 22.6 | 22.3 | 19.9 | 18.0 | 15.4 | 12.1 | Hand Level | 7.5  | 1.1  |
| SW Ent |      |      | Rd   |      |      |      |      |      |            |      |      |
| 2.6    | 2.8  | 3.0  | 5.9  | 6.2  | 8.6  | 10.5 | 13.1 | 15.8 | 17.1       | 21.0 | 26.9 |
| 23     | 25   | 33   | 44   | 57   | 66   | 75   | 87   | 94   | 103        | 115  | 139  |

|      |      |      |      |    |      |      |      |     |
|------|------|------|------|----|------|------|------|-----|
| 26.0 | 25.8 | 25.5 | 21.9 | Rd | 21.1 | 19.7 | 15.4 |     |
| 2.5  | 2.7  | 3.0  | 6.6  |    | 7.4  | 8.8  | 13.1 | SS. |
| 67   | 70   | 75   | 85   |    | 113  | 131  | 160  | 200 |

|      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 26.1 | 25.9 | 25.7 | 25.1 | 22.2 | 21.7 | 21.5 | 19.6 | Rd   | 18.5 | 16.4 | 15.5 | 14.6 |
|      |      |      |      |      | Rd   |      |      |      |      |      |      |      |
| 2.4  | 2.6  | 2.8  | 3.4  | 6.3  | 6.8  | 7.0  | 8.9  | 10.0 | 12.1 | 13.0 | 13.9 | SS.  |
| 63   | 65   | 70   | 75   | 85   | 88   | 100  | 136  | 154  | 173  | 182  | 200  | 250  |

|      |      |      |      |    |      |      |      |      |      |    |      |
|------|------|------|------|----|------|------|------|------|------|----|------|
| 26.1 | 25.9 | 25.7 | 21.9 | Rd | 21.8 | 20.4 | 18.3 | 15.2 | 13.8 | Rd | 12.2 |
| 2.4  | 2.6  | 2.8  | 6.6  |    | 6.7  | 8.1  | 10.2 | 13.3 | 14.7 |    | 16.3 |
| 67   | 69   | 75   | 84   |    | 97   | 119  | 143  | 171  | 174  |    | 192  |

SpK. in No. Side E.R.A. office

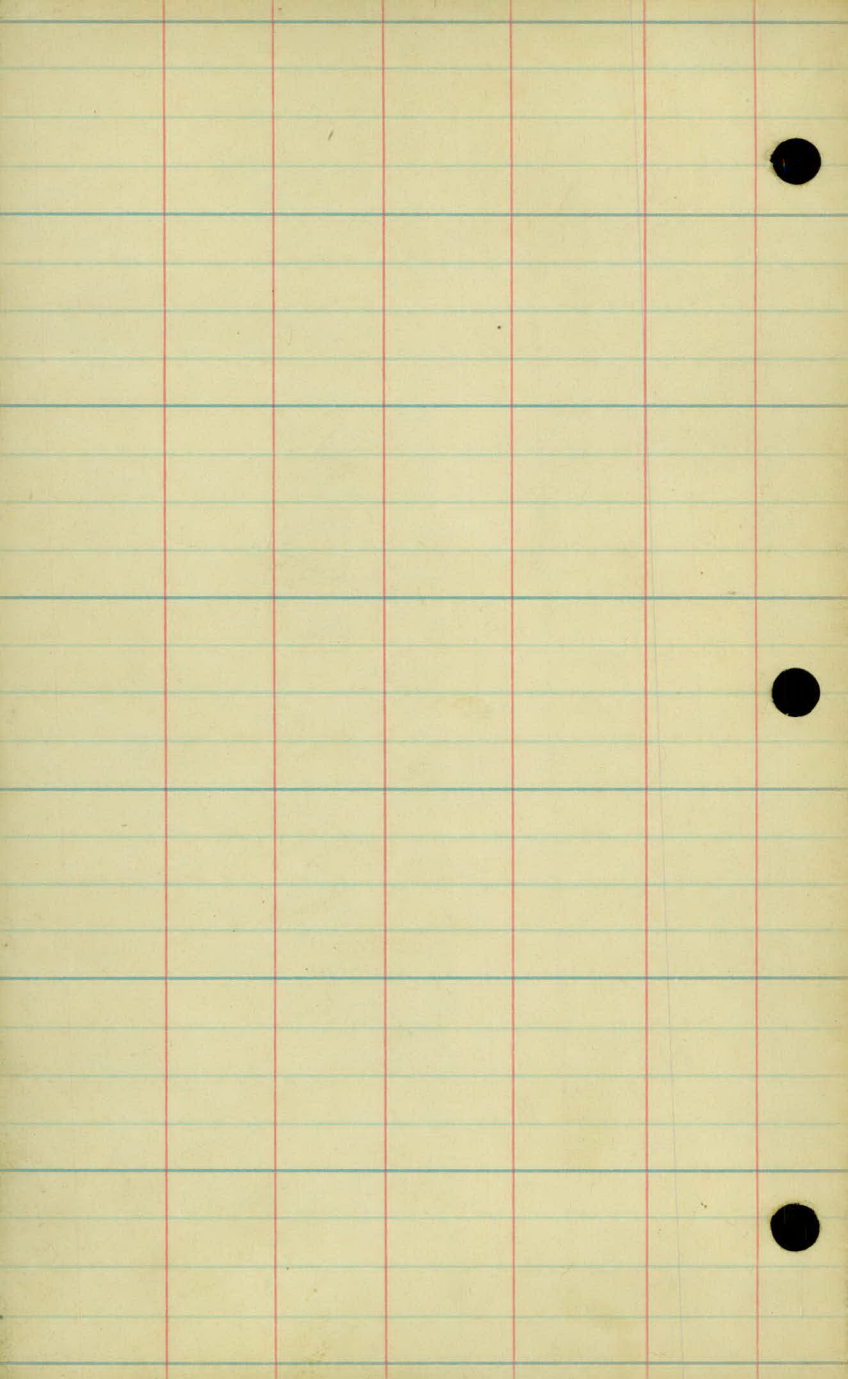
8.47

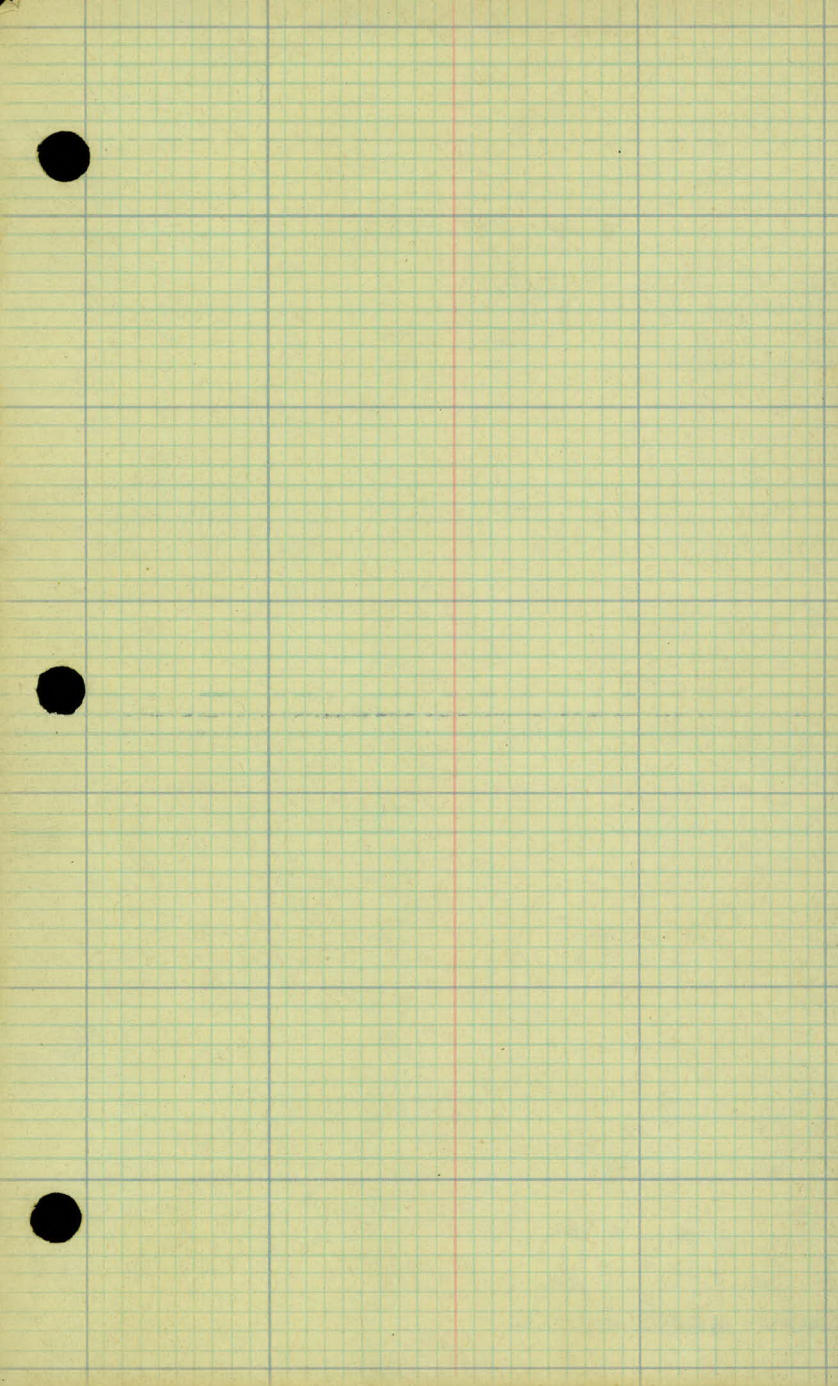
8.79

10.03

12.66

16.1





4

3

+16 Inside Cor WK

29

Ed. Pavc  
155

2

+57 Radius Point

42

Pave edge  
130

+91 Inside Cor WK

7

1

+100 Gar. 12'x22'  
51+11 Cor Ho  
11+22 E. Pavc  
120+91 Cor Ho.  
10

0+00

Ed Pavc  
106

\* No. used in X-Section

North

North 21° E

Kellar Lake

23°  
(No Scale)

90°

310° to Lake  
(No Scale)

Oil Field Structure

Rad. Point

Cut back Surface

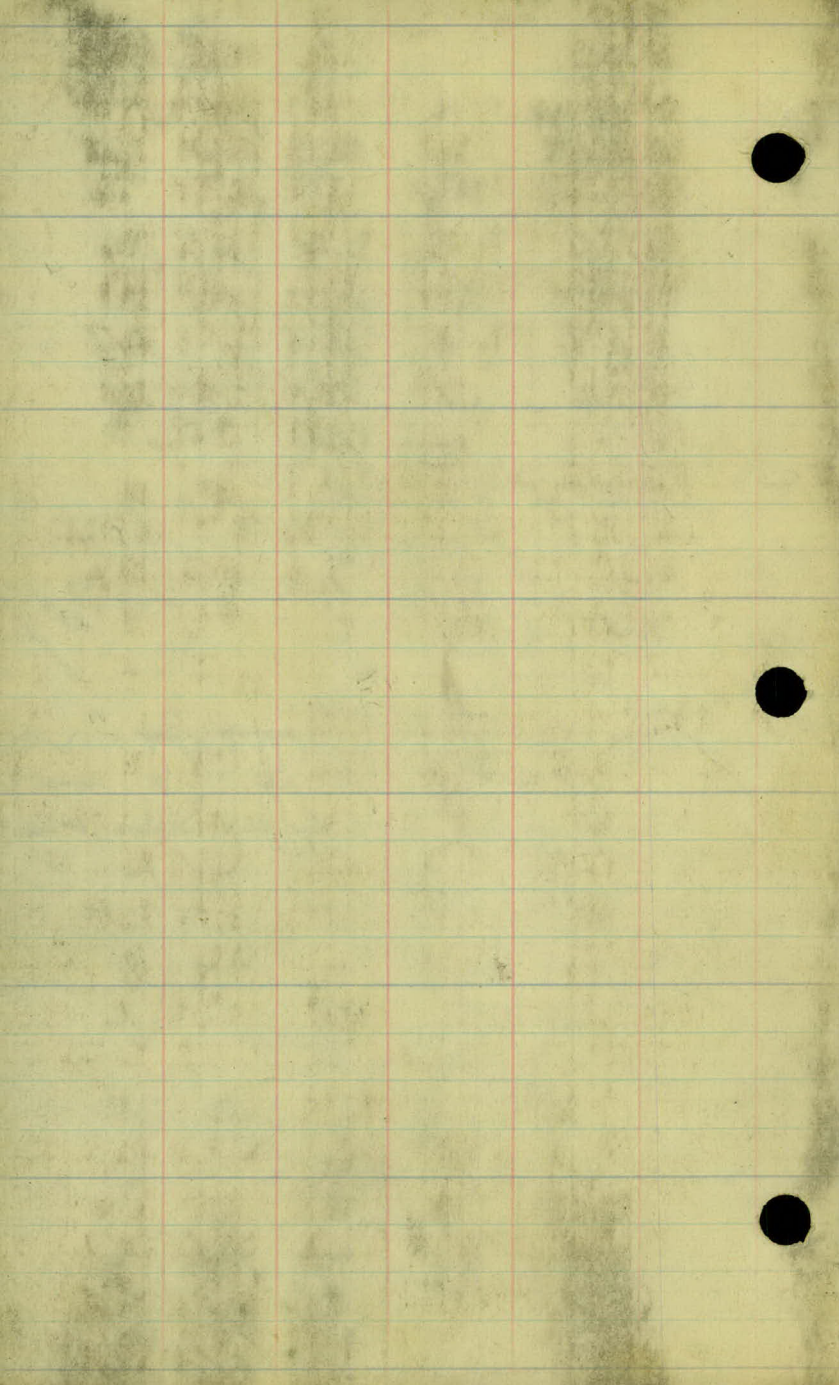
US Hwy #61

22  
Gar

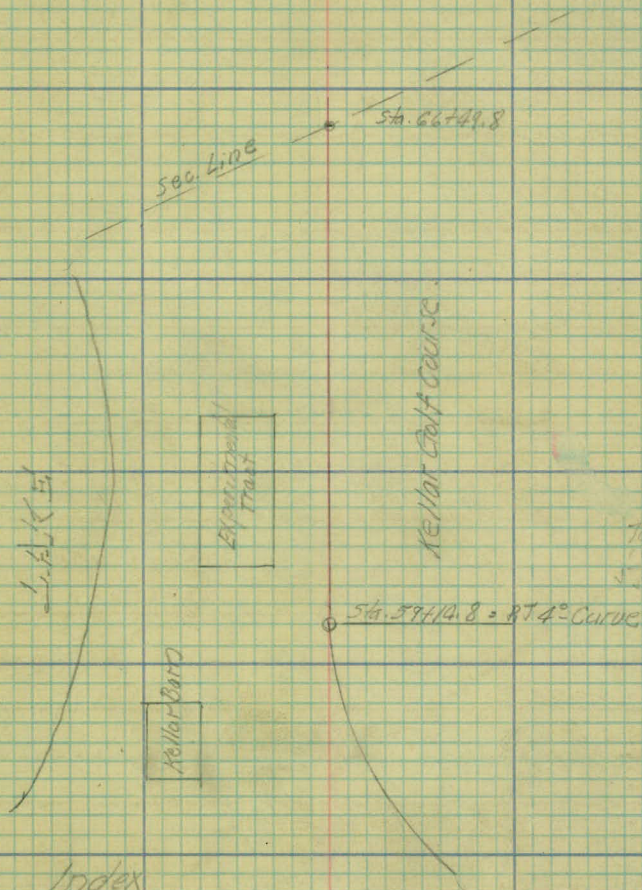
20  
ERA  
Office

Barn

Wash Rack



# Plan Survey Bowling Green



## Index

|        |      |
|--------|------|
| Align. | R1   |
| Topog. | R2-3 |
| X-sec. | R4-7 |

W. H. Carlson  
Nov. 8, 1935

$$E_f = \frac{59 + 14.8}{5 + 0}$$

410

310



62750

6240

750

6140

750

6043-12" oak 23-2

6040

59497-2" oak-226'

5

59450

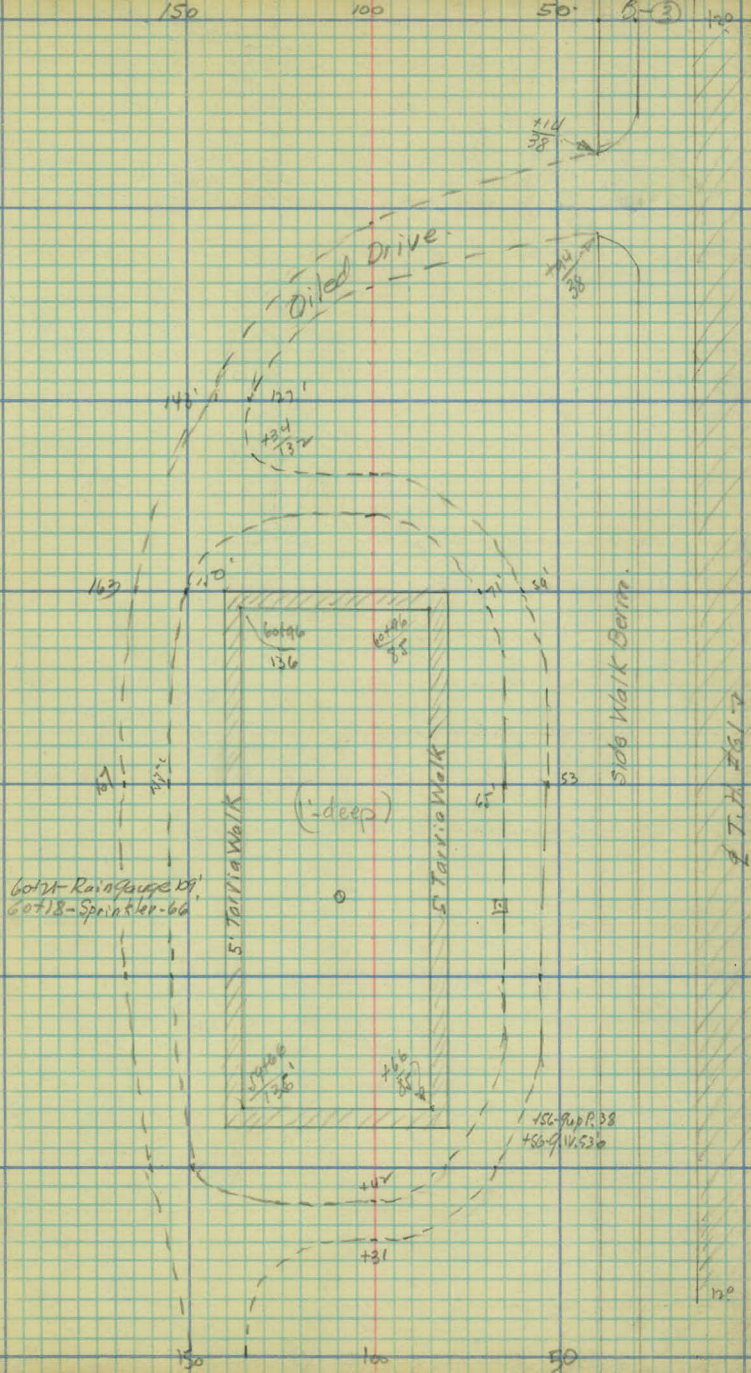
59448-10" B.L. 209'

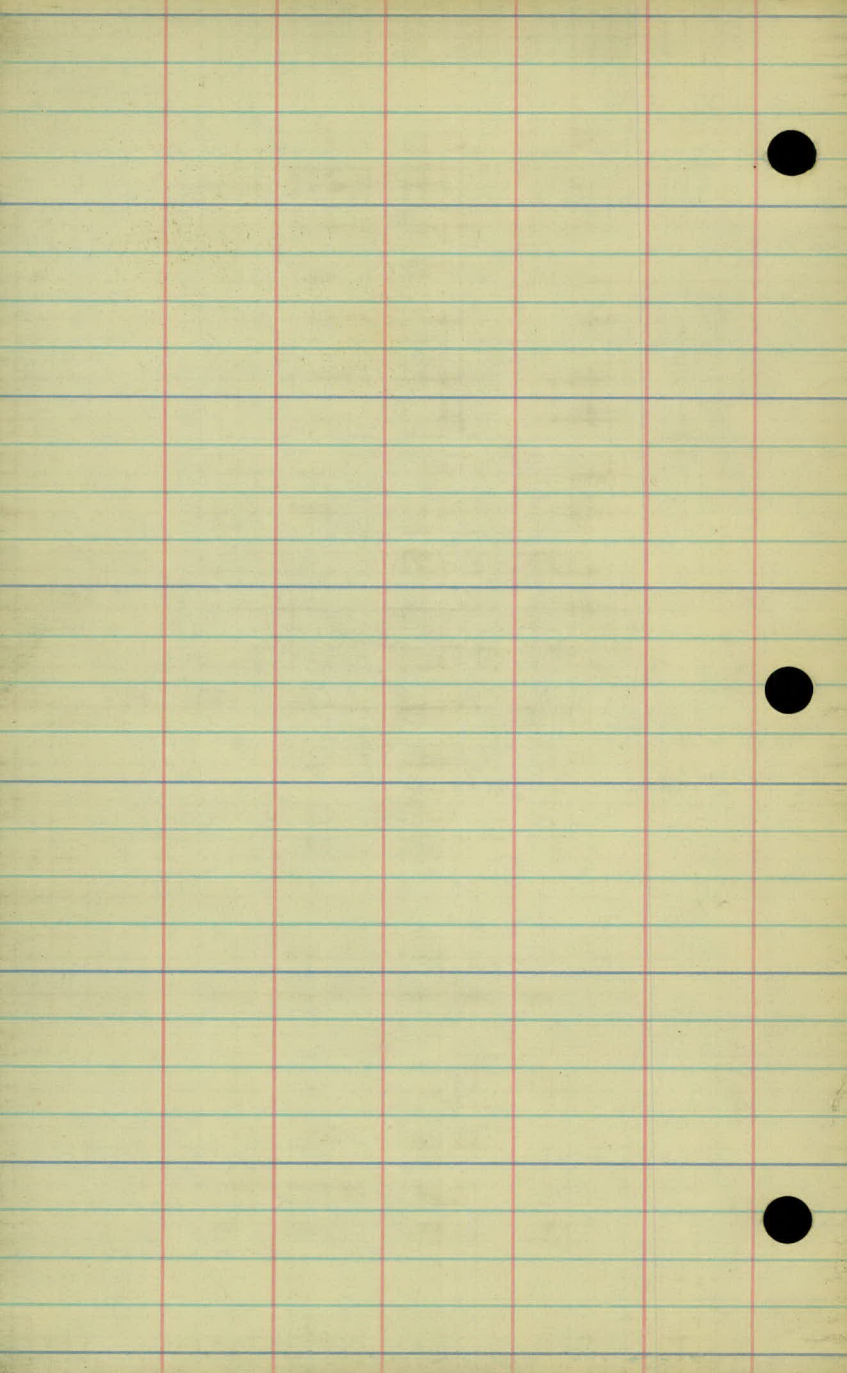
59445-8" B.L. 200'

59435-8" B.L. 201'

59433-8" B.L. 207'

59414.8- P.T.



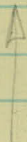


# X-Sections

Bowling Green

| S/a. | +     | +      | -    | Elev.  |
|------|-------|--------|------|--------|
| B.M. | 1248  | 888.32 |      | 875.84 |
| T.P. | 11.38 | 899.64 | 0.06 | 888.26 |
| B.M. | 146   | 901.77 | 2.33 | 897.31 |

3+0



3+50

4+0

4+25

4+45-

4+50



570 = 5941.8



5944.2

0+2 T.H. #61

59450

B.M.

7.22

904.53

146

897.31

Top R.O.W. Mon. Pt. Sta. 66+49.8

Top E. Pav. Sta. 159+148 = P.T. 4<sup>th</sup> Curve.

|      |      |      |      |           |
|------|------|------|------|-----------|
| 78.4 | 83.8 | 97.1 | 97.4 | 97.3      |
| 23.4 | 18.0 | 4.7  | 4.4  | 4.50 P.O. |
| 5.0  | 2    | 28   | 38   |           |

|      |      |      |      |      |         |
|------|------|------|------|------|---------|
| 87.0 | 88.0 | 89.0 | 97.5 | 97.5 | 97.5    |
| 14.8 | 13.8 | 12.8 | 4.3  | 4.3  | 4.25    |
| 57   | 20   | 3    | 23   | 30   | 48 P.O. |

|      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 83.6 | 83.6 | 88.7 | 92.5 | 92.2 | 94.8 | 95.4 | 95.4 | 96.0 | 97.8 | 97.8 | 97.3 | 97.7 |
| 18.2 | 18.2 | 13.1 | 9.3  | 9.6  | 7.0  | 6.4  | 6.4  | 5.8  | 4.0  | 4.0  | 4.5  | 4.14 |
| 110  | 100  | 81   | 65   | 48   | 43   | 13   |      | 8    | 18   | 24.5 | 27   | 44   |

|      |      |      |      |      |
|------|------|------|------|------|
| 86.8 | 91.6 | 95.5 | 97.0 | 97.8 |
| 15.0 | 10.2 | 6.0  | 4.8  | 4.0  |
| 104  | 88   | 68   | 39   |      |

27.3  
H.W. Cor. Barn.

|      |      |
|------|------|
| 97.8 | 97.8 |
| 4.0  | 4.0  |
| 50   |      |

|      |      |      |      |      |      |      |      |      |      |           |
|------|------|------|------|------|------|------|------|------|------|-----------|
| 90.8 | 93.6 | 95.8 | 97.0 | 98.8 | 90.0 | 92.9 | 98.0 | 97.7 | 97.1 | 97.6      |
| 11.0 | 8.2  | 6.0  | 4.8  | 3.0  | 1.8  | 1.9  | 3.8  | 4.1  | 4.1  | 4.15      |
| 127  | 100  | 89   | 68   | 50   |      | 7    | 14   | 23   | 24   | 40.0 P.O. |

|      |      |      |      |       |       |      |      |      |      |      |
|------|------|------|------|-------|-------|------|------|------|------|------|
| 90.8 | 95.0 | 97.6 | 99.7 | 910.8 | 900.3 | 97.7 | 97.4 | 96.7 | 97.2 | 2.40 |
| 11.0 | 6.8  | 4.2  | 2.1  | 1.0   | 1.5   | 4.1  | 4.4  | 5.1  | 4.58 | 4.46 |
| 200  | 163  | 152  | 100  | 50    | 45    | 38   | 28   | 27.5 | 12   | 0    |

900.3  
1.5  
100

|      |      |      |      |      |      |       |      |      |      |      |      |
|------|------|------|------|------|------|-------|------|------|------|------|------|
| 93.8 | 97.5 | 99.2 | 99.5 | 01.4 | 01.7 | 900.5 | 01.0 | 97.3 | 97.0 | 96.3 | 96.8 |
| 8.0  | 4.3  | 2.6  | 2.3  | 0.4  | 0.1  | 1.3   | 0.8  | 4.5  | 4.8  | 5.5  | 4.93 |
| 200  | 166  | 160  | 142  | 127  | 100  | 83    | 47   | 38   | 28   | 27.5 | 12   |

19.7 H. H. 61  
0 = 87.1 H. H. 61

704/53

59+62

60+0

60+

60+50

61+02

61+20

61+50

1.30 896.69 9.14 895.99

62+0

62+50

T.B.M. 0.88 896.27 1.30 895.79

T.P. 1.04 896.60 12.71 883.56

8.77

A-904.5

B-6

899.7 902.5  
4.8 2.0  
150 140

903.4 900.8  
1.1 3.7  
80 72

928 900.0 900.0 027 030 036 032 010 011 900.5 904 961 955 961  
11.7 4.5 4.5 1.8 1.5 0.9 13 35 34 40 81 84 9.0 84  
200 768 155 145 135 85 74 65 54 48 38 28 27.5 12

91.0 896 899.7 902.7 903.5 903.5 123 900.5 900.4 953 95.0 94.3 94.8  
135 49 48 1.8 1.3 1.0 12 4.0 4.1 9.1 9.5 10.2 9.72  
200 768 155 144 135 85 75 65 49 38 28 27.5 12

89.7 96.0 94.1 99.5 902.9  
148 85 5.4 5.0 16  
200 171 163 150 741

903.7 99.3 98.8 93.7 93.4 97.8 93.4  
13 5.2 5.7 10.8 11.1 11.7 11.16  
82 72 50 38 28 27.5 12

989 989  
5.6 5.6  
125 100

89.0 97.8 97.8  
15.5 6.7 6.7  
200 150 100

976 96.2 92.1 91.8 91.2 91.8  
6.9 8.3 12.4 12.7 13.3 12.75  
75 47 38 28 27.5 12

A 896.7

86.4 89.7 92.3 94.4  
703 20 4.4 7.3  
200 180 150 100

93.4 90.9 89.7 89.8  
3.3 5.8 7.0 6.85  
75 50 28 12

82.2 87.2 90.8 90.8 89.6 88.2 88.2 87.8 88.0  
14.5 7.5 5.9 5.9 7.1 8.5 8.5 8.9 8.70  
200 150 100 75 50 38 28 27.5 12

Top Iron Mon. A.O.W. Marker R/L Sta. 66 + 49.8

896.69

2.5

886.30

12.89

883.80

59+14.8

59+50

60

+50

61+0.2

61+50

62

+50

For add X-Sec.  
See Island Survey.

$$\begin{array}{r} 884.9 \\ 1.4 \\ \hline 250 \end{array}$$

$$\begin{array}{r} 85.3 \\ 1.0 \\ \hline 250 \end{array} \quad \begin{array}{r} 886.3 \\ 0.0 \\ \hline 286 \end{array}$$

$$\begin{array}{r} 10.5 \\ 58 \\ \hline 250 \end{array} \quad \begin{array}{r} 85.9 \\ 0.4 \\ \hline 228 - Tree \end{array}$$

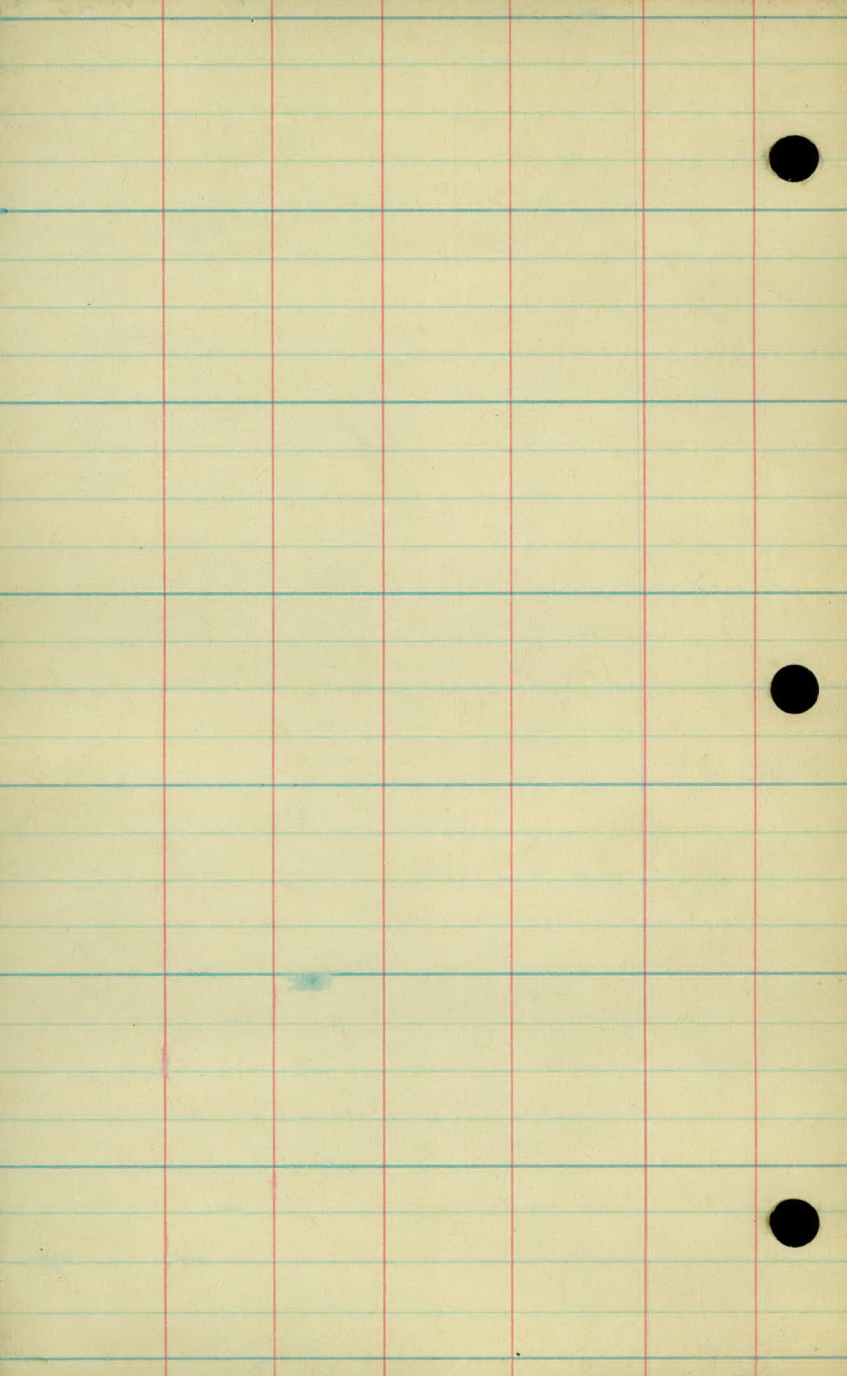
$$\begin{array}{r} 78.5 \\ 7.8 \\ \hline 8.5 \quad 250 \end{array} \quad \begin{array}{r} 78.7 \\ 7.6 \\ \hline 232 - Tree \end{array}$$

$$\begin{array}{r} 79.7 \\ 5.4 \\ \hline 8.5 \quad 250 \end{array} \quad \begin{array}{r} 83.1 \\ 3.2 \\ \hline 241 \end{array} \quad \begin{array}{r} 87.8 \\ 71.5 \\ \hline 220 \end{array}$$

$$\begin{array}{r} 76.3 \\ 10.0 \\ \hline 8.5 \quad 260 \end{array} \quad \begin{array}{r} 81.0 \\ 5.3 \\ \hline 250 \end{array} \quad \begin{array}{r} 82.1 \\ 4.2 \\ \hline 238 \end{array}$$

$$\begin{array}{r} 73.0 \\ 7.3 \\ \hline 8.5 \quad 260 \end{array} \quad \begin{array}{r} 80.3 \\ 6.0 \\ \hline 250 \end{array}$$

$$\begin{array}{r} 70.7 \\ 15.6 \\ \hline 8.5 \quad 250 \end{array} \quad \begin{array}{r} 78.5 \\ 7.8 \\ \hline 237 \end{array}$$



Bowling Green  
Stakes

B.10. 7.55 904.86 897.31

Gr. Root.

8.11 896.75

4.5' outside of 5.86 899.00

outside shield. 4.46 900.4

3.98 901.29 897.31

Drain Pipe

6.82 894.47

6.32 94.97

6.82

1.1

5.72

6.24 95.05

902.9

94.97  
6.72

6.25 901.72

894.97

901.72  
1.1

902.82

2.72 99.0

902.82

3.82 99.0

4.97 902.78

97.31

3.78 999.0

1.88 900.4



Dec. 10. 481 902.12

897.31

7.15 94.97

7.11 8.01

7.07 95.05

7.03 95.09

6.99 95.13

Dec. 16. 5.11 902.44

897.31

7.47 94.97

7.43 95.01

7.39 95.05

7.35 95.09

7.31 95.13

5.07 902.38

897.31

7.33 95.05

7.29 95.09

7.25 95.13

7.21 95.17

902.12  
14.97  
7.15  
5.35  
1.88

902.12  
95.01

902.12  
14.97  
7.15  
5.35  
1.88

902.12  
14.97  
7.15  
5.35  
1.88

902.12  
14.97  
7.15  
5.35  
1.88

355 900.86

897.31

0.46 900.4

0.02 889.05

11.83 889.03

+11.3 900.4

95.01

900.4  
81.1  
1.3

# Sub Grade Elev. Bowling Green.

|     | 120   | 100   | 80    | 60    | 40    | 20    | 0     |
|-----|-------|-------|-------|-------|-------|-------|-------|
| 120 | 94.97 | 95.01 | 95.05 | 95.09 | 95.13 | 95.17 | 95.21 |
| 100 | 95.01 | 95.05 | 95.09 | 95.13 | 95.17 | 95.21 | 95.25 |
| 80  | 95.05 | 95.09 | 95.13 | 95.17 | 95.21 | 95.25 | 95.29 |
| 60  | 95.09 | 95.13 | 95.17 | 95.21 | 95.25 | 95.29 | 95.33 |
| 40  | 95.05 | 95.09 | 95.13 | 95.17 | 95.21 | 95.25 | 95.29 |
| 20  | 95.01 | 95.05 | 95.09 | 95.13 | 95.17 | 95.21 | 95.25 |
| 0   | 94.97 | 95.01 | 95.05 | 95.09 | 95.13 | 95.17 | 95.21 |

$$\begin{array}{r}
 900.4 \\
 895.0 \\
 \hline
 5.4
 \end{array}
 -
 \begin{array}{r}
 900.4 \\
 895.2 \\
 \hline
 5.2
 \end{array}$$

