

Book 37 Dr. 12A

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

PLAN Survey

FITCH STR.

From Kohlmann Av To 1700' No

Road Acc't. No. N-89

Date Filed 1-30-43 File

Align

Fitch str

From Kohlman Ave To 1700' Ns

Rec'd. 10-2-41 wJB 9/30/41
done 10/13/41 wJB HAW
AM
LL
CN.

Sta

Pt.

ΔL

ΔB

16+62

P.O.T

0+00

N.E. Cor Barn

Nail in
Door Sill

25.02'

7.32'

Boat Spk

35.50'

T.P.

99°22'

86.11'

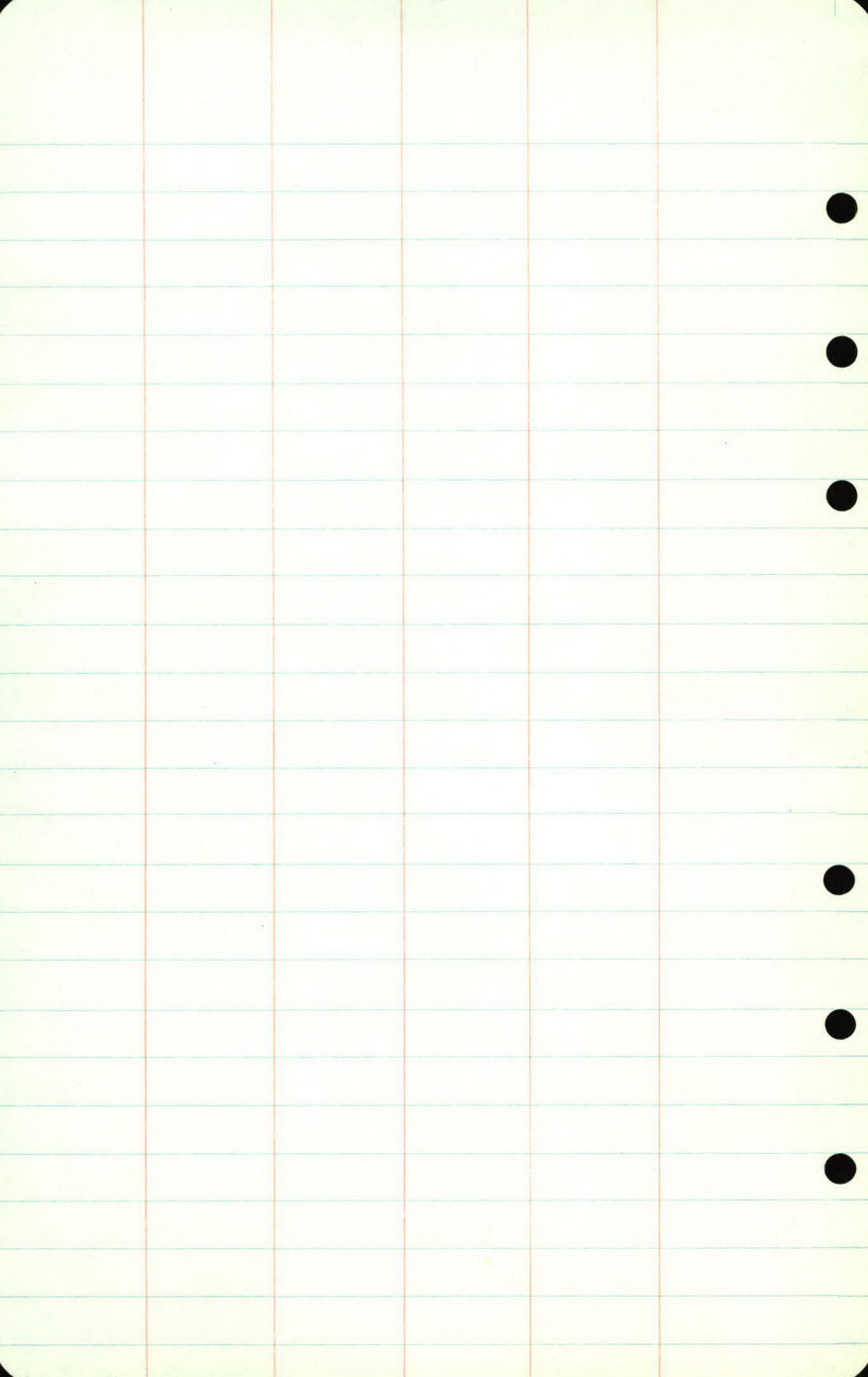
T.P.

2"X2 Hub.

± Kohlmann Ave.

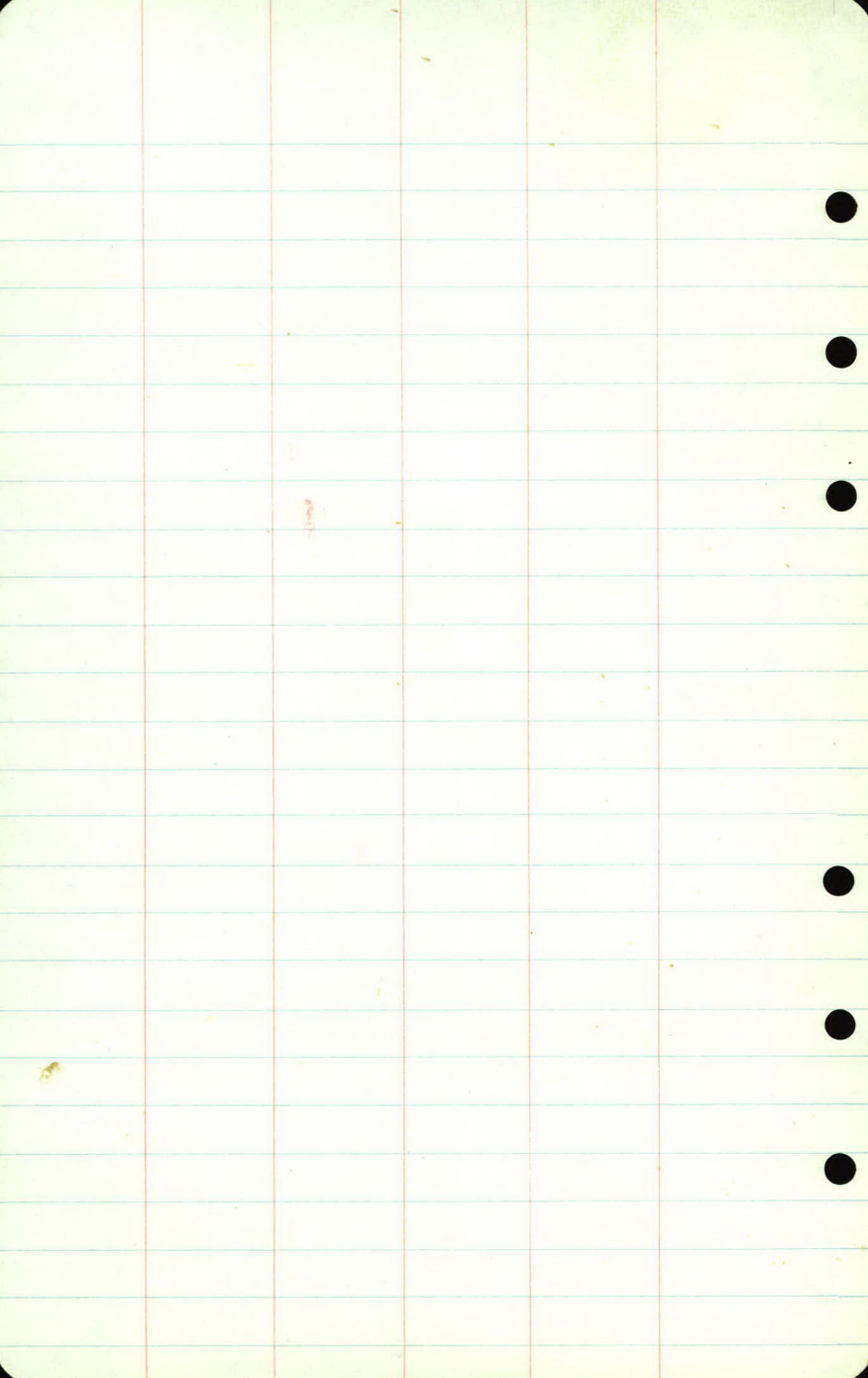
84.38'

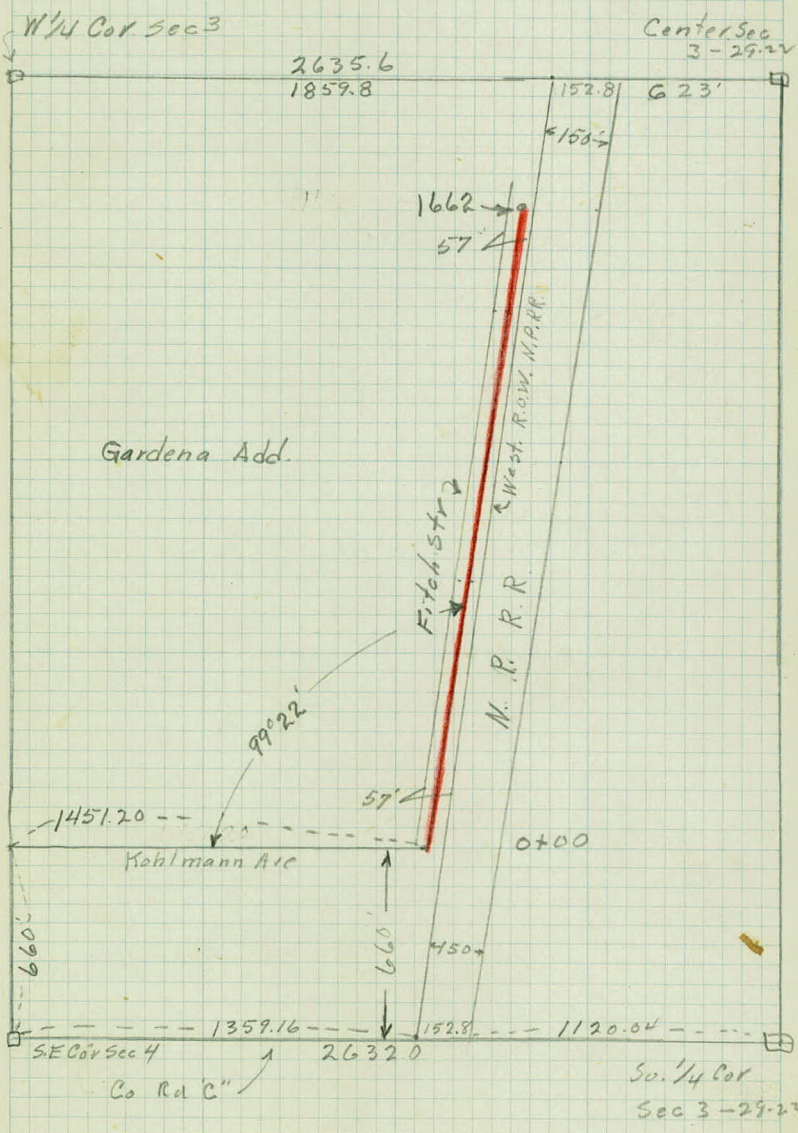
T.P.



Layout.

Fitch str







Bench Levels

Sta	+	π	-	Elev
B.M	1.58	930.63		929.05
	0.40	925.39	5.64	924.99.
B.M	6.16	919.05	12.50	912.89.
	0.91	908.92	11.04	908.01.
	0.34	896.26	13.00	895.92.
B.M.	1.25	884.95	12.56	883.70.
	6.64	881.18	10.51	874.44
B.M			3.00	878.08.

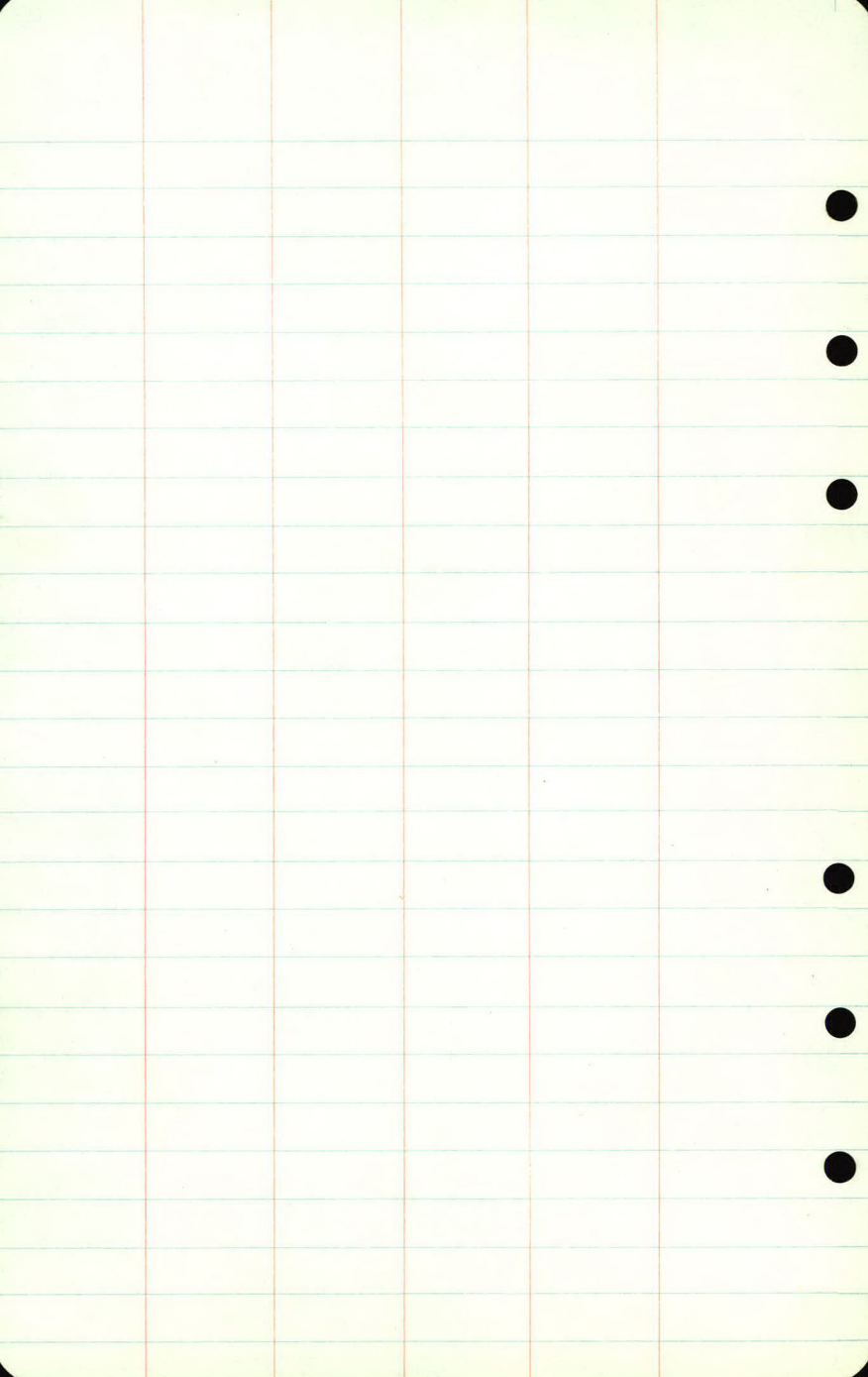
Description

Top Curb N.W. cor P.R. Bridge Co Rd. & N.P.R.R.

Spk. in T.P. 30' Rt Sta 0-75

Spk in T.P. 40' Rt Sta 7+28

Spk. in S.E. Cor. Barn S' Lt. Sta 16+40



Cross Sections

Sta	+	π	-	Elev
B.M.	6.70	919.59		912.89.
0-20				15.1

0+00 16.2
Profile Kohlman Ave

+20				14.9
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+55				13.0
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/				11.0
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+50				11.2
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2+00				07.2
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T.P.	1.86	909.87	11.58	908.01
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+20				05.3
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+60				02.5
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3+00				00.8
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+41				99.8
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T.P.	0.49	898.44	11.92	897.95
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4+00				97.2
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Lt

L

Rt

8

$$\frac{5.1}{50} \quad \frac{4.8}{22} \quad 4.5 \quad \frac{4.5}{25} \quad \frac{3.7}{27} \quad \frac{4.2}{36} \quad \frac{7.8}{42} \quad \frac{13.7}{50}$$

$$\frac{10.3}{250} \quad \frac{8.5}{200} \quad \frac{5.7}{150} \quad \frac{4.9}{100} \quad \frac{5.3}{50} \quad \frac{4.0}{16} \quad 3.4 \quad \frac{3.1}{23} \quad \frac{2.7}{27} \quad \frac{3.3}{37} \quad \frac{12.8}{50}$$

$$\frac{8.1}{50} \quad \frac{6.2}{36} \quad \frac{5.1}{30} \quad 4.7 \quad \frac{3.5}{23} \quad \frac{4.2}{37} \quad \frac{12.8}{50}$$

$$\frac{10.3}{50} \quad \frac{9.1}{42} \quad \frac{7.9}{33} \quad \frac{6.9}{21} \quad 6.6 \quad \frac{6.5}{23} \quad \frac{9.0}{41} \quad \frac{14.3}{50}$$

$$\frac{11.6}{50} \quad \frac{9.9}{28} \quad 8.6 \quad \frac{7.5}{26} \quad \frac{4.6}{41} \quad \frac{12.9}{50}$$

$$\frac{10.8}{50} \quad \frac{9.5}{29} \quad 8.4 \quad \frac{8.5}{10} \quad \frac{9.0}{12} \quad \frac{8.9}{24} \quad \frac{6.5}{26} \quad \frac{6.3}{39} \quad \frac{13.6}{50}$$

$$\frac{11.8}{50} \quad \frac{11.1}{32} \quad \frac{11.8}{16} \quad 12.4 \quad \frac{12.8}{10} \quad \frac{13.0}{24} \quad \frac{11.7}{26} \quad \frac{12.5}{45} \quad \frac{15.5}{50}$$

$$\frac{3.2}{50} \quad \frac{2.8}{35} \quad 4.6 \quad \frac{4.7}{25} \quad \frac{5.4}{30} \quad \frac{5.6}{50}$$

$$\frac{6.5}{50} \quad \frac{6.2}{39} \quad 7.4 \quad \frac{7.1}{10} \quad \frac{7.0}{25} \quad \frac{7.8}{26} \quad \frac{8.1}{50}$$

$$\frac{10.9}{50} \quad \frac{10.1}{27} \quad 9.1 \quad \frac{8.2}{12} \quad \frac{8.2}{27} \quad \frac{6.9}{50} \quad \frac{4.22}{\text{Elev. Track}}$$

$$\frac{14.9}{50} \quad \frac{12.6}{27} \quad 10.1 \quad \frac{9.5}{11} \quad \frac{9.5}{24} \quad \frac{8.1}{27} \quad \frac{8.0}{50}$$

$$\frac{4.8}{50} \quad \frac{1.9}{20} \quad 1.2 \quad \frac{2.0}{9} \quad \frac{2.6}{10} \quad \frac{2.7}{23} \quad \frac{0.8}{25} \quad \frac{2.7}{43} \quad \frac{3.0}{50}$$

Sta	+	π	-	Elev.
		898.44		
4+5d				92.5.
5				90.7.
+50				89.8.
6				87.9.
+45				85.9.
T.P.	1.24	890.31.	9.37	889.07.
7				80.0.
B.M.	6.64	890.31.	6.64	883.67. 883.70
+50				76.7.
T.P.	5.10	883.46.	11.95	878.36.
8				75.3.
+50				75.7.
9				77.7.
+50				77.5.
10				75.3.

Lx

x

Rt

$$\frac{6.4}{50} \quad \frac{5.4}{30} \quad 5.9 \quad \frac{6.0}{24} \quad \frac{7.3}{30} \quad \frac{7.0}{43} \quad \frac{5.1}{50}$$

$$\frac{5.7}{50} \quad \frac{6.1}{33} \quad 7.7 \quad \frac{8.6}{24} \quad \frac{9.3}{27} \quad \frac{9.1}{38} \quad \frac{6.3}{50}$$

$$\frac{4.2}{50} \quad \frac{5.5}{29} \quad 8.6 \quad \frac{10.1}{8} \quad \frac{10.6}{9} \quad \frac{10.3}{24} \quad \frac{11.0}{26} \quad \frac{11.1}{33} \quad \frac{7.5}{58}$$

$$\frac{4.4}{50} \quad \frac{7.1}{26} \quad 10.5 \quad \frac{11.9}{8} \quad \frac{12.5}{9} \quad \frac{12.5}{24} \quad \frac{11.8}{38} \quad \frac{8.4}{50}$$

$$\frac{8.3}{50} \quad \frac{10.0}{23} \quad 12.5 \quad \frac{14.0}{7} \quad \frac{14.9}{8} \quad \frac{14.9}{22} \quad \frac{14.0}{24} \quad \frac{13.1}{33} \quad \frac{8.0}{50}$$

$$\frac{9.2}{50} \quad \frac{9.8}{27} \quad 10.3 \quad \frac{10.6}{5} \quad \frac{11.1}{6} \quad \frac{10.7}{21} \quad \frac{8.7}{25} \quad \frac{6.1}{39} \quad \frac{0.5}{50}$$

Spk in TP 40' Rt Sta 7+28

$$\frac{15.1}{50} \quad \frac{14.9}{35} \quad 13.6 \quad \frac{12.8}{20} \quad \frac{11.4}{25} \quad \frac{8.0}{39} \quad \frac{2.2}{50}$$

$$\frac{9.3}{50} \quad \frac{8.9}{24} \quad 8.2 \quad \frac{7.2}{19} \quad \frac{5.1}{25} \quad \frac{4.0}{31} \quad \frac{2.5}{42}$$

$$\frac{7.6}{50} \quad \frac{9.1}{25} \quad 7.8 \quad \frac{7.0}{16} \quad \frac{4.5}{22} \quad \frac{1.8}{33} \quad \frac{0.0}{45}$$

$$\frac{8.3}{50} \quad \frac{7.4}{26} \quad 5.8 \quad \frac{5.1}{15} \quad \frac{2.3}{21} \quad \frac{1.2}{29} \quad \frac{+0.8}{43}$$

$$\frac{8.5}{50} \quad \frac{7.6}{28} \quad 6.0 \quad \frac{5.9}{14} \quad \frac{3.5}{21} \quad \frac{2.2}{29} \quad \frac{0.0}{42}$$

$$\frac{10.2}{50} \quad \frac{9.4}{28} \quad 8.2 \quad \frac{7.6}{5} \quad \frac{7.3}{14} \quad \frac{4.2}{21} \quad \frac{3.6}{25} \quad \frac{2.2}{33} \quad \frac{0.0}{44}$$

Sta	+	π	-	Elev
		883.46		
10450				73.8.
11				73.9.
+50				74.2.
12				73.6.
T.P.	1.11	880.54	4.03	879.43
+50				73.8.
13				73.5.
+50				72.3.
14				72.4.
+50				73.0.
15				73.8.
+50				74.4.
16				75.9.

Lt

Z

Rt

10

$$\frac{10.7}{50} \frac{10.4}{29} 9.7 \frac{9.0}{4} \frac{8.6}{15} \frac{6.5}{20} \frac{4.2}{32} \frac{2.7}{38} \frac{0.0}{42}$$

$$\frac{9.9}{50} \frac{9.7}{28} 9.6 \frac{9.0}{4} \frac{8.7}{16} \frac{6.7}{20} \frac{4.6}{29} \frac{3.0}{37} \frac{0.0}{43}$$

$$\frac{10.5}{50} \frac{10.0}{29} 9.3 \frac{8.6}{3} \frac{8.3}{14} \frac{6.7}{16} \frac{3.7}{32} \frac{1.0}{41} \frac{0.0}{42}$$

$$\frac{11.5}{50} \frac{11.1}{26} \frac{10.5}{5} 9.9 \frac{9.2}{3} \frac{8.9}{14} \frac{6.2}{19} \frac{4.0}{31} \frac{0.4}{41}$$

R.R.

$$\frac{9.5}{50} \frac{8.6}{35} \frac{7.7}{13} 6.7 \frac{6.0}{4} \frac{5.7}{13} \frac{3.5}{18} \frac{0.0}{32} \frac{+4.0}{39}$$

F. 11 Slope

$$\frac{9.8}{50} \frac{9.2}{24} \frac{7.8}{5} 7.0 \frac{6.5}{4} \frac{6.2}{14} \frac{4.1}{18} \frac{0.7}{31} \frac{+4.0}{38}$$

$$\frac{9.5}{50} \frac{9.2}{24} \frac{8.7}{2} 8.2 \frac{7.3}{2} \frac{7.0}{14} \frac{4.6}{17} \frac{2.7}{26} \frac{0.0}{32}$$

$$\frac{9.7}{50} \frac{9.4}{22} \frac{8.9}{11} 8.1 \frac{7.5}{3} \frac{6.7}{15} \frac{4.8}{19} \frac{2.0}{29} \frac{0.0}{33}$$

$$\frac{9.4}{50} \frac{9.3}{21} \frac{8.5}{3} 7.5 \frac{6.6}{12} \frac{5.3}{14} \frac{2.0}{30} \frac{0.0}{34}$$

$$\frac{8.3}{50} \frac{9.0}{31} \frac{7.9}{4} \frac{7.1}{3} 6.7 \frac{6.5}{12} \frac{4.7}{13} \frac{1.8}{26} \frac{0.0}{33}$$

$$\frac{5.7}{50} \frac{6.5}{30} \frac{6.4}{8} 6.1 \frac{6.0}{11} \frac{4.7}{13} \frac{3.6}{18} \frac{1.0}{29} \frac{0.0}{31}$$

$$\frac{3.4}{50} \frac{3.5}{30} \frac{4.5}{7} 4.6 \frac{4.4}{10} \frac{2.1}{15} \frac{1.4}{33} \frac{+5.0}{41}$$

Sta + Δ - Elev

880.54

16442

76.8.

B.M.

2.43

878.11.

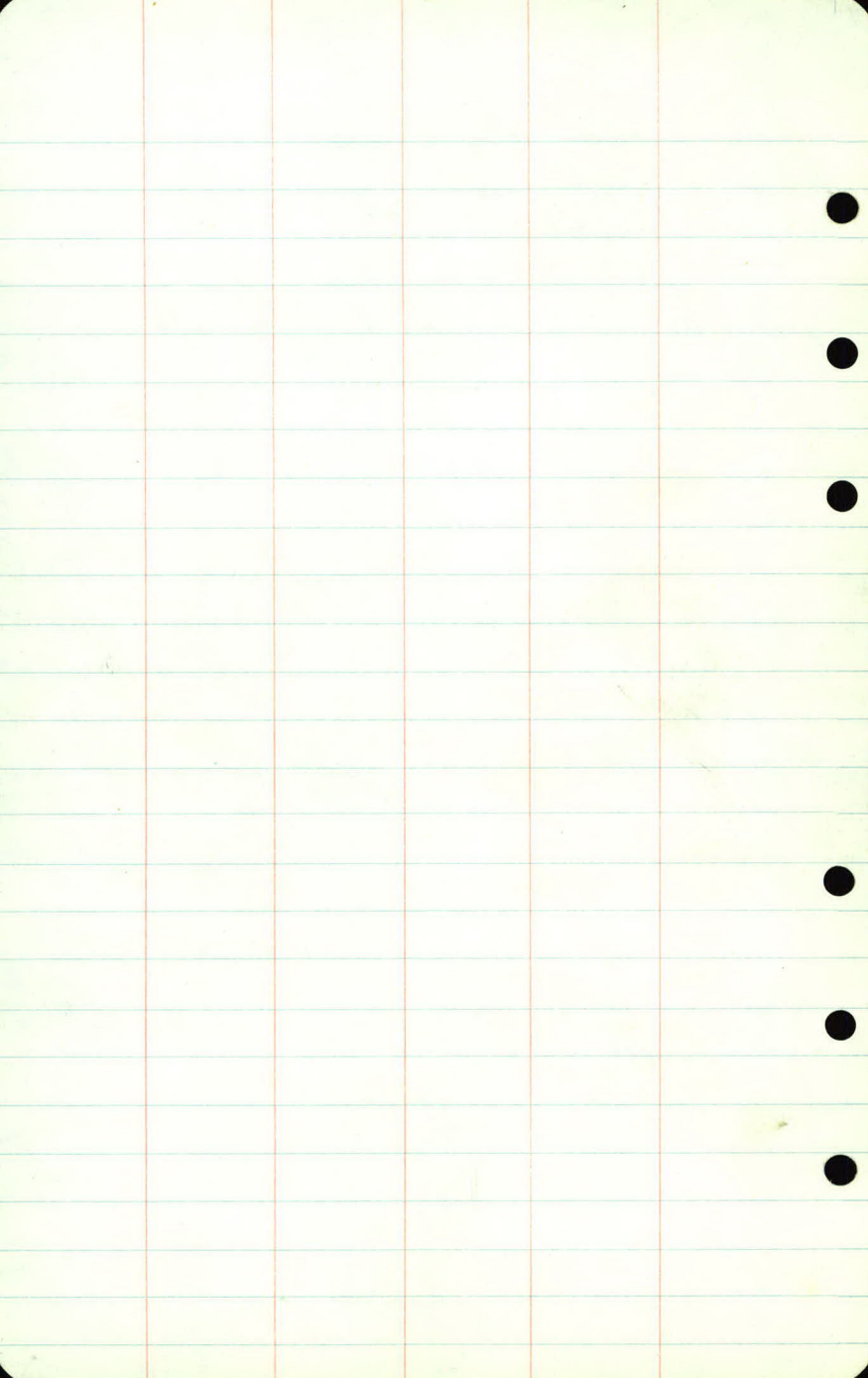
Lt

~~2~~

Rt.

$$\frac{2.5}{50} \frac{2.5}{41} \frac{2.2}{24} \frac{3.0}{7} \frac{3.6}{4} 3.7 \frac{3.5}{9} \frac{1.5}{13} + \frac{3.4}{33}$$

Spk in S.E. Cor. of Barn Sta 16+40



Topography

5

10' - 23'

4

10' - 24'

3

12' - 22'

2

12' - 23'

1

12' - 24'

0

No Edge 0+42 Rd. X *

East Edge 0+13 Rd. X *

Cultivated

Fc. 25'

+71 T.P. 36'

 $\pm$ R.P. Trunk 835.78.0
Fc 26'

+41 T.P. 36'

Fc. 27'

+08 T.P. 36'

Fc. 27'

Fc 28'

+80 T.P. 36'

+47 End Rad. 13'

+00 Fc. 30'

 $\pm$ R.R.Tr. 81.4.98.5

+13 Beg Rad 23

+00 Rd 25

0-03 Beg Rad 43

12

3' - 14'

11

4' - 15'

10

4' - 13'

9

5' - 14'

8

9' - 19'

+42 En/xe

7

8' 19'

6

10' - 21

+90 End Cult.

14

+50 T.P. 33'

Fc 19'

+24 T.P. 34'

Fc 20'

Fc. 21'

+95 T.P. 35'

+00 G. Oak 20'
Fc. 22'

+61 T.P. 36'

Fc. 21'

+26 T.P. 36

Fc 23

+00 T.P. 36
Fc. 26

Cultivated

17

0-10

16

0 9'

15

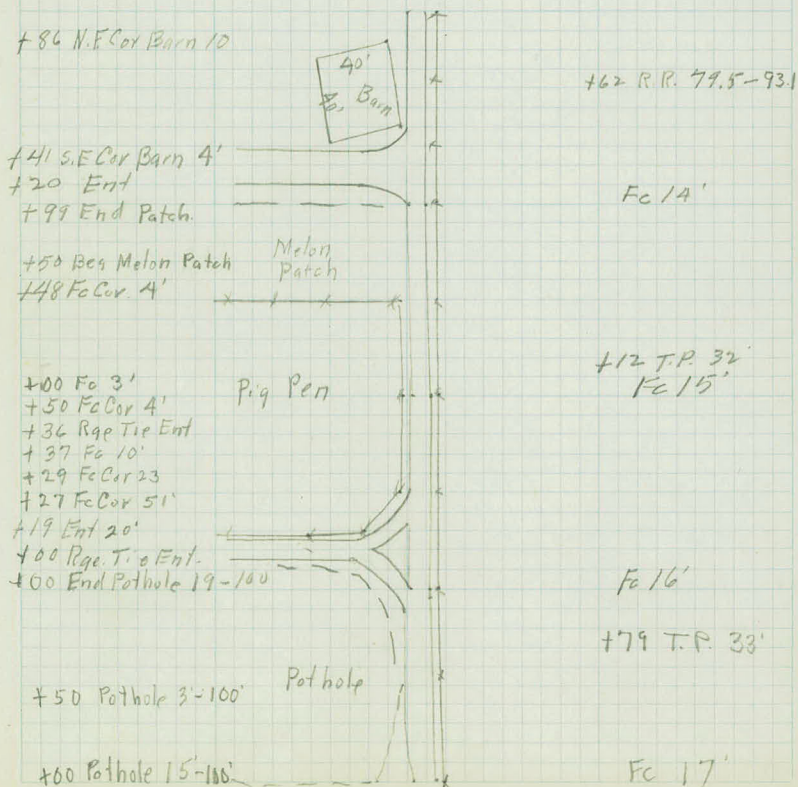
2'-11'

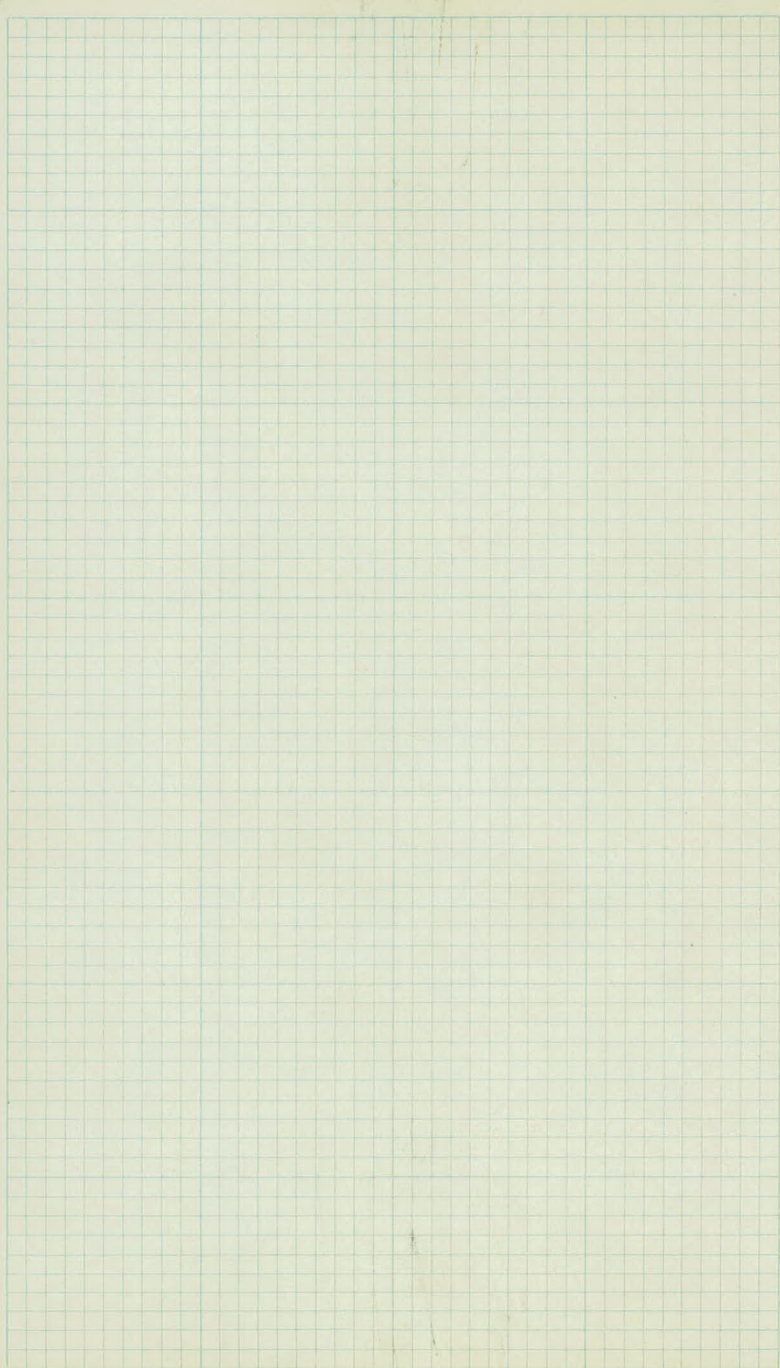
14

2'-11'

13

3'-15'





Slope Stakes

Fitch Str.

£ 7' West From
Original

Sta	+	π	-	Elev	
BM	6.10	91899		912.89	
0+00				15.0	14.5

+20				14.5	14.0
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+55				13.4	12.9
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1				11.4	10.9
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+50				08.8	08.3
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2				06.2	05.7
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+20				05.2	04.7
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T.P.	0.54	90735	1218	906.81	
+60				03.1	02.6

3				01.0	00.5
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+41				98.9	98.4
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4				95.8	95.3
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T.P.	1.98	896.04	13.29	894.06	
+50				93.2	92.7

L1

L2

R1

SpK 17 T.P. 30 R1 0-75

4.0 4.5

 $\frac{3.8}{C0.7/14.4}$ $\frac{3.0}{C1.0}$ $\frac{2.6}{C1.2/12.8}$

4.5 5.0

 $\frac{4.4}{C0.6/14.2}$ $\frac{4.3}{C0.2/}$ $\frac{3.5}{C1.5/16.0}$

5.6 6.1

 $\frac{6.5}{F0.4/13.8}$ $\frac{6.2}{F0.1}$ $\frac{6.3}{F0.2/13.4}$

7.6 8.1

 $\frac{9.0}{F0.9/14.8}$ $\frac{8.4}{F0.8}$ $\frac{7.5}{C0.6/14.2}$

10.2 10.7

 $\frac{8.9}{C1.8/16.6}$ $\frac{8.2}{C2.0}$ $\frac{8.1}{C2.4/16.2}$

12.8 13.3

 $\frac{11.2}{C2.1/17.2}$ $\frac{11.4}{C1.4/}$ $\frac{12.1}{C1.2/15.4}$

13.8 14.3

 $\frac{12.9}{C1.4/15.8}$ $\frac{13.5}{C0.3}$ $\frac{14.1}{C0.2/13.4}$

4.3 4.8

 $\frac{4.3}{C0.5/14.0}$ $\frac{4.6}{F0.3}$ $\frac{5.0}{F0.2/13.4}$

6.4 6.9

 $\frac{7.4}{F0.5/14.0}$ $\frac{6.6}{F0.2}$ $\frac{6.4}{C0.5/14.0}$

8.6 9.0

 $\frac{9.7}{F0.7/14.4}$ $\frac{8.2}{C0.3}$ $\frac{7.0}{C2.0/17.0}$

11.6 12.1

 $\frac{11.2}{C0.9/14.8}$ $\frac{10.3}{C1.3}$ $\frac{10.8}{C1.3/15.6}$

2.8 3.3

 $\frac{3.0}{C0.3/13.4}$ $\frac{3.3}{F0.5}$ $\frac{4.0}{F0.7/14.4}$

Sta	+	+	-	Elev	
		89604			
5+00				90.6	90.1
+50				88.0	87.5
6				85.4	84.9
+45				83.1	92.6
	0.90	884.60	12.55	883.69	883.70
7				80.5	80.0
B.M.			12.55	78.8	78.3
+50					
8				77.6	77.1
B.M.	0.09	883.79	0.90	883.70	
+50				77.0	76.5
9				76.7	76.2
+50				76.4	75.9
10				76.1	75.6
+50				75.8	75.3

Lt

L

Rt

5.4 5.9 $\frac{4.0}{C1.9/16.8}$ 4.9 C0.5 5.9 F0.0/13.0

8.0 8.5 $\frac{3.1}{C5.4/21.5}$ 5.5 C2.5 7.5 C1.0/15.0

10.6 11.1 $\frac{4.2}{C6.9/21.5}$ 7.1 C2.5 9.9 C1.2/15.4

12.9 13.4 $\frac{7.5}{C5.9/21.5}$ 9.4 C3.5 12.4 C1.0/15.0

Spr in P.R. 40 R1 SL 7+28

4.1 4.6 $\frac{4.1}{C0.5/14.0}$ 4.4 F0.3 5.3 F0.7/14.4

5.8 6.3 $\frac{9.0}{F2.7/14.4}$ 8.2 F2.4 7.5 F1.7/15.4

7.0 7.5 $\frac{10.0}{F2.5/18.0}$ 9.6 F2.6 8.7 F1.2/15.4

Spr in T.P. 40 R+ SL 7+28

6.7 7.2 $\frac{9.2}{F2.0/10.0}$ 6.7 F1.4 7.6 F0.4/13.8

7.0 7.5 $\frac{7.3}{C0.2/13.4}$ 6.7 F0.3 5.5 C2.0/12.0

7.4 7.9 $\frac{7.3}{C0.6/14.2}$ 7.0 C0.4 6.2 C1.7/16.4

7.7 8.2 $\frac{9.6}{F1.4/15.8}$ 9.0 F1.3 8.0 C0.2/13.4

8.0 8.5 $\frac{10.6}{F2.1/17.2}$ 10.1 F2.1 9.2 F0.7/14.4

Sta	+	π	-	Elev	
		883.79			
11+00				75.5	75.0
+50				75.2	74.7
12				74.9	74.4
T.P.	4.90	879.35	9.30	874.49	
+50				74.6	74.1
13				74.4	73.9
+50				74.4	73.9
14				74.5	74.0
+50				74.8	74.3
15				75.2	74.7
+50				75.2	75.1
16				76.0	75.5
			1.25	878.13	
B.M				878.08	

L+

E

R4

8.3	8.8	10.1 F1.3/15.6	10.2 F1.9	9.3 F0.5/14.8
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8.6	9.1	10.2 F1.5/15.2	10.1 F1.5	9.1 C0.0/13.0
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8.9	9.4	11.3 F1.9/16.8	10.9 F1.0	9.5 F0.1/13.2
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4.8	5.3	7.0 F1.7/16.4	6.1 F1.3	4.7 C0.6/14.2
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5.0	5.5	7.9 F2.4/17.9	6.9 F1.9	5.2 C0.3/13.6
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5.0	5.5	7.9 F2.4/17.8	7.9 F2.9	6.0 F0.5/14.0
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4.9	5.4	8.2 F2.8/18.6	7.6 F2.7	6.0 F0.6/14.2
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4.6	5.1	8.1 F3.0/19.0	7.5 F2.9	5.9 F0.8/14.6
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4.2	4.7	7.6 F2.9/18.8	6.9 F2.7	5.4 F0.7/14.4
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3.8	4.3	5.3 F1.0/15.0	5.1 F1.3	4.9 F0.6/14.2
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3.4	3.9	2.5 C1.4/15.8	3.4 F0.0	3.3 C0.6/14.2
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Sph in S.E. Cor. Barn 5'lt 16/40

