Book X-9-D, Dr. 11-A

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

FINAL X-SECTION Survey

NO. COUNTY LINE

From ..... To .....

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

Date Filed ..... File .....

1-16

6/21/35

Purtell
Bell
Skoog
Goldberg

Final X-Sections
and Farm Ent & Culvert Measurements

Nor. County Line

Sta	+	π	−	Elev.	
BM.	5.24	884.39		879.15	
⊙	6.75	889.81	1.33	883.06	
59					81.0
+50					82.0
60					83.0
+50					83.6
61					84.4
+50					84.9
62					85.4
+50					85.6
63					85.3
+50					84.6

Spk. in 20" OaK 120' Lt Sta. 55+84

8.5

11.6 10.4 9.0 8.8 9.1 10.4 9.7 9.7
33 18 13 0 12 17-21 22 33

7.6

10.0 8.0 7.8 8.1 9.4 9.6 9.2 9.0
33 - 18 13 0 13 17 21 22 33

6.6

9.1 8.7 7.0 6.8 7.0 8.2 8.7 7.6 7.2
33 17 13 13 17 22 23 33

5.9

7.6 7.3 7.8 6.1 6.2 6.4 7.4 7.3 6.4 6.2
33 22 21-17 13 13 17 22 24 33

5.2

6.2 6.0 7.1 7.0 5.6 5.4 5.4 6.7 6.8 5.2 5.0
33 23 22 17 13 13 16 22 24 33

4.9

4.8 4.6 6.6 4.9 4.9 4.9 6.6 3.1 3.0
33 26 20 - 17 13 13 19-22 30 33

4.6

2.3 2.4 6.1 4.5 4.4 4.5 6.6 6.5 1.6 1.4
40 31 21 - 17 13 13 19 23 33 40

1.7 1.8 6.0 4.4 4.2 4.3 6.5 6.3 2.0 2.2
40 33 23-17 13 13 19 24 33 40

2.5 2.4 6.1 4.5 4.5 4.5 6.1 3.5 3.7
40 33 23-18 13 13 19-23 33 40

4.0 4.0 6.8 5.2 5.2 5.2 7.0 6.8 5.0 5.0
40 33 23 - 19 13 13 19 23 31 40

Sta	+	↑	−	Elev.
		889.81		
64				83.8
	+50			83.0
65				81.5
	+50			80.0
66				78.6
⊙	3.11	881.69	11.23	878.58
	+50			77.0
67				75.3
	+50			73.5
	+68			72.5
68				71.7
	+20			71.3
⊙	2.75	873.37	11.07	870.62

7.2 6.8 7.5 7.5 6.1 11.7
40 31 26 19 13 6.0 6.0 7.7 7.7 5.7 5.7
13 19 23 32 40

8.2 7.5 8.5 8.6 6.7 5.0
40 31 24 19 13 6.8 6.8 8.4 6.0 6.0
13 19-23 33 40

8.6 8.4 9.8 8.1 7.0
40 31 23-19 13 8.3 8.2 10.0 10.0 8.0 8.2
13 19 24 31 40

9.8 11.2 11.3 9.7 9.4
40-31 24 19 13 9.8 9.7 11.2 10.2 10.4
13 19-26 31 40

9.3 9.5 12.8 11.3 10.9
40 33 23-19 13 11.2 11.2 12.7 13.0 11.6 11.7
13 19- 26 32 40

Top Lt Blue top Sta 66+00

1.2 1.5 6.4 4.7 4.2
40 33 22-18 13 4.7 4.7 6.2 4.0 4.1
13 19-24 33 40

3.0 2.3 7.6 7.7 6.4 6.4
40 33 22 18 13 6.4 7.7 7.8 6.6
13 19 26 31-40

4.9 5.4 9.4 8.2 8.6
40 33 22-18 13 8.2 8.1 9.6 9.9
13 19-27 33

6.8 7.4 10.5 9.1 9.7
40 33 24-19 13 9.2 9.2 10.7 11.4
13 19 33

8.1 8.6 11.2 9.8 11.0
40 32 24-19 13 10.0 9.8 13.7 14.6
13 29 40

9.4 9.7 11.8 11.7 10.4 11.7
40 31 25 18 13 10.4 10.4 14.6 14.7
13 31 40

Top Lt. Blue top Sta 68+50

Sta	+	x 87337	−	Elev
68+50				70.7
69				69.7
+50				69.0
70				68.5
+50				68.5
71				68.7
+50				68.6
72				68.8
+50				69.1
+60				69.2
+80				69.1
+85				69.0

4.5

3.6/33 4.0/27 4.8/23 4.7/19 4.2/18 2.7/13 2.7 2.7/13 6.4/27 6.2/40

5.6

6.2/33 6.4/21 3.8/13 3.7 3.8/13 6.7/24 6.7/33

6.0

6.6/33 6.7/21 4.5/13 4.4 4.5/13 6.7/21 6.8/33

6.6

7.3/33 7.5/23 4.9/13 4.9 5.0/13 7.7/23 7.6/33

6.4

6.8/33 7.0/20 5.0/13 4.9 5.0/13 6.7/20 6.7/33

6.7

6.8/33 6.8/20 5.0/13 4.7 4.9/13 6.6/20 6.0/33

6.1

6.8/33 5.0/20 5.0/13 4.8 5.0/13 6.6/21 6.5/33

6.5

6.8/33 7.0/21 4.8/13 4.6 4.8/13 7.4/25 6.8/29 7.0/33

6.3

6.9/33 6.8/22 4.6/13 4.3 4.5/13 6.7/22-34

6.8

33 - 6.6/21 4.7/13 4.2 4.6/13 9.7/27 9.0/33

11.6/30 10.4/25 4.5/13 4.3 4.5/13 9.6/26 10.1/33

Flare —— 12.00 C.M.

11.8/31 10.0/25 4.5/13 4.4 4.6/13 9.3/26 9.3/33

Sta	+	x	-	Elev.	
		873.37			
72+95					69.0
73					69.2
+50					69.8
74					70.6
+50					71.2
75					71.9
+40					72.7
+50					73.0
⊙	10.73	883.44	0.66	872.71	
76					73.6
+50					74.4
+76					74.8
77					75.2

FLine 11.45

6.8 7.3 4.4 4.4 4.5 9.1 8.0
33 24 13 13 13 23 33

6.4 7.3 4.3 6.8 4.4 11.2
33 24 13 4.2 13 26-33

6.6 6.5 3.8 6.5 3.7 6.9
33 24 13 3.6 13 26-33

5.8 5.3 3.0 5.4 3.0 5.0 5.2
33 22 13 2.8 13 22 33

5.5 4.8 2.4 2.6 2.3 3.8 3.0
33 23 13 2.2 13 20-27 32-40

3.5 3.0 3.1 3.0 1.5 1.8 1.4 3.1 1.6 1.8
40 33 30 21 13 1.5 13 20-26 31 40

2.8 2.0 2.5 0.9 1.4 1.0 2.6 1.2 1.1
40 30 27-19 13 0.7 13 21-28 33 40

2.4 1.9 2.5 2.3 0.7 1.3 0.7 2.4 2.5 1.3 0.7
40 31 29 20 13 0.4 13 20 27 32 40

13.1 13.2 10.0 12.1 10.0 12.4 12.2
33 26 13 9.8 13 24 33

13.0 9.2 11.7 9.0 11.8
33-29 13 9.0 13 25-33

11.2 11.0 8.6 10.7 8.6 10.4
33 27 13 8.6 13 22-33

8.2 8.4 9.8 8.1 9.3 8.1 9.8 8.8
40 31 25-20 13 8.2 13 19-28 31-40

Sta	+	π	-	Elev	
		883.44			
77+50					76.1
78					77.0
+50					77.7
79					78.8
+50					79.7
80					80.5
+50					81.0
81					81.7
+50					82.4
82					82.9
⊙	2.78	885.55	0.67	882.77	
+50					83.0
83					82.9

6-10

83.77
3.78
86.55

7.4

6.3 6.4 9.1 9.0 7.4 7.3 7.4 8.8 6.5
40 33 24 19 13 13 20-24 33-40

5.6

4.2 4.4 8.2 6.4 6.4 6.4 7.8 5.6 6.1
15 38 23-19 13 13 20-24 33 40

4.1

4.4 4.8 7.5 5.7 5.7 7.3 5.0
40 33 24-19 13 13 20-25 31-40

4.7

5.0 5.3 6.5 4.7 4.6 4.6 6.4 6.7
40 31 26-20 13 13 20 33

4.7

6.2 5.5 6.0 5.8 3.9 3.7 4.0 6.2 6.3
33 26 25 19 13 13 21 33

3.6

5.5 4.5 3.1 2.9 2.9 5.7 6.0
33 19 13 13 24 33

2.7

4.6 4.0 2.4 2.5 4.8 5.3
40 19-20 13 24 13 25 33

1.4

2.8 2.3 3.4 1.7 1.8 3.7 4.0
40 31 26-20 13 1.7 13 23 33

0.7

1.4 0.8 0.8 1.8 2.8 1.1 1.0 1.1 2.6 2.6 2.3 2.6
40 33 32 31 24-18 13 13 19 22 23 33

10.1

0.8 0.2 0.5 0.6 2.5 0.7 0.5 0.8 2.3 1.3 1.8
40 33 32 31 19-24 13 13 18-21 23 33

Top Lt Blue top Sta 82 to 0

2.6 1.9 2.5 2.8 4.2 2.6 2.6 2.6 4.2 4.0 1.5 1.4
40 32 33 30 24-19 13 2.6 13 18 22 26 33

1.3

2.6 2.0 2.4 2.5 4.1 2.6 2.7 2.8 4.3 4.4 1.2 1.6
40 33 32 30 24-19 13 13 17 21 26 33

1.3

Sta	+	⌅	−	Elev	
		885.55			
83+50					82.9
84					82.8
+50					82.5
B.M.			0.95	884.60	884.57
85					82.2
+50					81.7
86					81.4
+50					80.9
87					80.9
+50					80.7
88	6.15	886.82	4.88	880.67	
					80.9
+50					80.9
89					81.1
+50					81.3

7-10

60 88 53
84.57
.9 8

2.1
3.1 2.5 2.9 4.5 4.4 2.7 2.7 2.6 4.1 4.0 1.2 1.0
40 33 31 27 19 13 13 18 22 26 33

2.7
4.0 3.5 4.7 4.5 2.9 2.8 2.6 4.3 4.0 2.0 1.9
40 33 26 20 13 13 18 22 25 31

3.1
5.3 4.7 4.5 3.0 3.1 3.0 4.6 2.0 1.4
40 30 19 13 13 18-22 27 33

Spk in 20" Pop Rt. Sto 84+75
3.4
5.8 4.8 5.0 4.9 3.5 3.4 3.6 5.0 4.8 2.5 2.1
33 27 25 19 13 13 18 22 26 33

4.1
6.0 5.3 5.5 5.4 3.9 3.9 5.4 5.7 2.6 2.8
40 31 28 19 13 13 18 21 26 33

5.0
6.8 6.1 6.4 6.1 4.3 4.2 4.3 6.2 5.8
40 32 30 19 13 13 18-23 25-33

6.5
8.7 8.3 7.6 4.7 4.7 4.7 8.4 8.7
33 28 24 13 13 28 40

6.9
7.8 7.5 4.8 4.7 4.8 8.0 8.6 9.0
33-28 23 13 13 25 29 40

6.4
6.0 6.2 6.6 4.9 4.7 5.0 7.3 7.8 8.0
40 30 26-21 13 13 23 29 40

Lt. Blue Top 87+50
7.0
6.7 8.0 7.9 6.3 5.9 6.4 8.0 8.5 8.8
40-33 26 20 13 13 21 27 40

6.4
6.2 5.1 6.0 7.8 6.2 5.9 6.3 7.5 7.9 8.4
40 34 31 25-20 13 13 20 24-30 40

5.0
5.2 4.8 5.3 7.7 7.6 6.0 5.7 6.0 7.5 7.1
45 38 34 26 21 13 13 20-28 32-40

4.4
4.7 4.5 4.8 7.2 5.8 5.5 5.7 7.3 6.5
40 37 33 25-20 13 13 20-27 31-40

Sta	+	π	−	Elev.
		886.82		~~81.6~~
90				81.6
+50				81.7
91				81.9
+50				82.0
92				82.3
+50				82.2
93				82.3
+50				82.0
94				81.7
+50				81.7
95				81.6
⊙	7.59	889.25	5.16	881.66
+50				81.9
+70				82.1
+86				82.3

4.5

4.0 4.4 6.8 6.9 5.5 5.2 5.6 7.0 7.0 6.5
40- 37 33 25 19 13 13 21 27 31-40

5.3

38 4.1 4.5 6.7 6.8 5.4 5.1 5.3 6.9 6.8 6.3
40 31 33 25 19 13 13 20 27 31-40

5.7

5.5 5.5 6.7 6.6 5.2 4.9 5.2 6.9 7.1 6.9 6.8
38 33 26 20 13 13 21 28 32 40

5.5

5.1 5.3 5.6 6.5 6.6 5.0 4.8 5.0 6.4 6.6 6.4 6.1
40 34 31 26 20 13 13 21 25 31 40

4.6

4.7 4.9 6.5 6.4 4.9 4.6 4.9 6.3 6.4 6.0 5.7
40- 36 31 25 20 13 13 21 26 31 40

5.3

4.6 4.9 6.4 4.9 4.6 4.9 6.2 6.3
40- 34 30 24- 20 13 13 21 25- 37

6.0

5.1 5.6 6.5 5.0 4.5 5.0 6.7 7.2 7.3
40- 35 31 21- 20 13 13 20 24 33

6.3

6.0 6.7 5.1 4.8 5.1 7.1 7.5
40- 31 27- 20 13 13 20 24

6.3

6.0 6.8 6.7 5.2 5.1 5.2 7.2 7.5 8.0
40- 31 26 19 13 13 19 23 33

6.0

5.8 5.9 6.6 5.1 5.1 5.2 7.0 7.3 7.7
40 31 26- 20 13 13 19 23 33

5.9

5.1 5.0 6.5 5.2 5.2 5.2 6.7 7.1 7.3
40 31 25- 20 13 13 18 22 33

6.5

7.6 8.9 7.4 7.4 7.4 9.0 9.4 9.6
31 25- 20 13 13 20 23 33

F.L. 24 6M
12.03

12.0 9.0 8.5 7.3 7.2 7.2 8.5 8.8
33- 27 22 18 13 13 19 23-33

6.6

7.5 7.7 8.8 8.5 7.2 7.0 7.2 8.4 8.6 8.5
40 33 27 20 13 13 20 22 33

F.L. 24 6M
12.09

Sta	+	X	-	Elev
		889.25		
96				82.3
	+50			82.8
97				83.2
	+50			84.0
98				84.5
	+47			84.8
	+52			85.0
	+58			85.0
	+65	Shoulder		85.2
	+79.05	Hodgson Rd		85.3
BM.			477	884.48

8.3

7.5 7.8 8.5 8.6 7.1 7.0 7.2 8.5 12.0
40 31 27 20 13 13 21 27-30

7.5

6.2 6.3 7.8 8.2 8.0 6.6 6.5 6.6 7.7 8.0 8.3
40 31 26 22 19 13 13 19 23-31 40

6.9

4.6 4.9 7.5 7.6 7.3 6.1 6.1 6.1 7.3 7.7 7.3 6.1
40 34 25 22 18 13 13 18 22 25 31-40

5.9

3.2 3.6 6.5 6.9 6.6 5.6 5.3 5.6 6.8 7.0 6.8 5.7
40 36 26 23 19 13 13 18 21 25 31-40

5.2

2.3 2.5 5.8 6.2 5.9 4.9 4.8 4.9 6.1 6.4 6.1 4.9
45 38 24 21 18 13 13 19 22 25 31-40

4.9

2.1 2.3 5.3 5.8 5.6 4.4 4.5 4.5 5.5 5.9 5.5 3.7 3.4
45 37 26 22 19 13 13 18 22 25 33 40

4.7

4.9 4.4 5.5 5.4 4.5 4.3 4.6 5.5 5.4
46 36 27 22 15 16 21-28 40

4.5

5.8 5.5 4.6 4.3 4.5 4.6 5.6 6.2
50 30 22 15 26 35 50

4.8 4.4 4.1 4.5 4.8
50 27 22 50

4.3 4.0 4.3
50 50

Spk. in T.P. SE Cor Hodgson & No Co. Line

64+41 Field Ent Rt

72+40 Field Ent Rt

72+95 ℄ Culvert Inp

83+97 Farm Ent Rt

84+85 Farm Ent Rt

95+87 ℄ Culvert Inp

12"X20' C.M. - 23' Rt. Ent = 18' X 12' X 1.5 Deep
24' long X 15 Top - 1' Deep - No Culvert

24"X56' C.M. Culv

15"X20' CM - 19' Rt. Ent = 18' X 6' X 2' Deep

15"X20' C.M. 19' Rt. Ent = 18' X 6' X 2 Deep

24"X60' C.M. Culv.