

BK. 47

DR. 14

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

PROFILE

Survey

BEAVER ST.

From STILLWATER To PARK-AVE

Road Acc't. No.

Date Filed 1-31-45

File

9 | 44

493

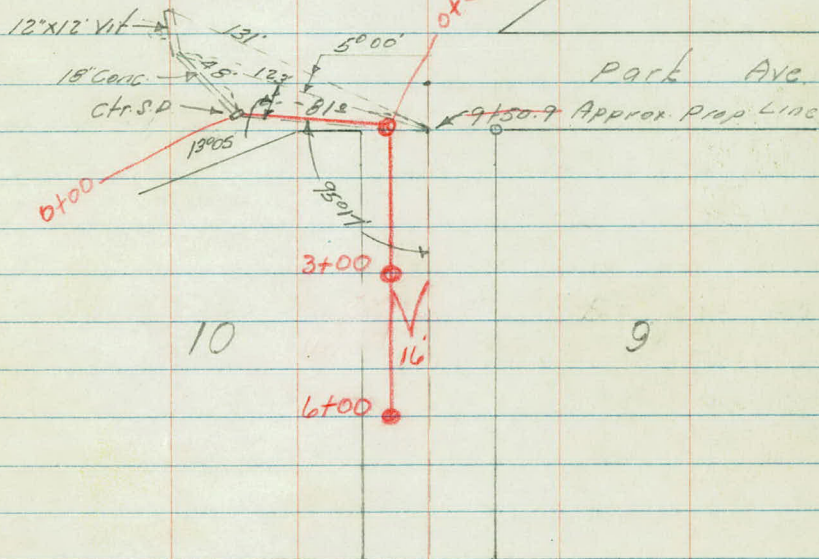
5x5

9

Stillwater

~~0100~~

54



Sta	+	π	-	Elev
B.M.	1.90	931.13		(929.23)

0	+00		1.8	29.3
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	+25		2.4	28.7
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	+50		3.1	28.0
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1			3.6	27.5
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	+50		3.5	27.6
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2			3.6	27.5
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	+50		4.1	27.0
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3			4.4	26.7
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	+61 at X Drain		4.7	26.4
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4			4.8	26.3
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	+50		4.9	26.2
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5			4.6	26.5
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7-21-44

Lt.

2

Rt.

Spk in 24" O. N.E. Cor. Stillwater + Beaver

Approx. 2 Stillwater St.

Sta	+	Σ	-	Elev
		931.13		
5	+50		42	26.9
6			36	27.5
T.P.	2.07	930.32	2.88	928.25
	+50		27	27.6
7			26	27.7
	+50		22	28.1
8			30	27.3
	+50		40	26.3
9			50	25.3
	+45		59	24.4
	+75		77	22.6
	+81		75	22.8

Lt.

2

Et

Approx 2. Park Ave

Sta	+	π	-	Elev
		990.32		
Top S.D.			9.36	21.0
FL S.D.	} 18" Gang.		12.36	18.0 ✓
FL. Culv.			12.9	17.4
FL. 12" Vit			14.5	15.8
B.M.			9.60	920.72

81
 9.51

 1032
 361

671
 .003 ✓

 2.013

18.0
 2.0

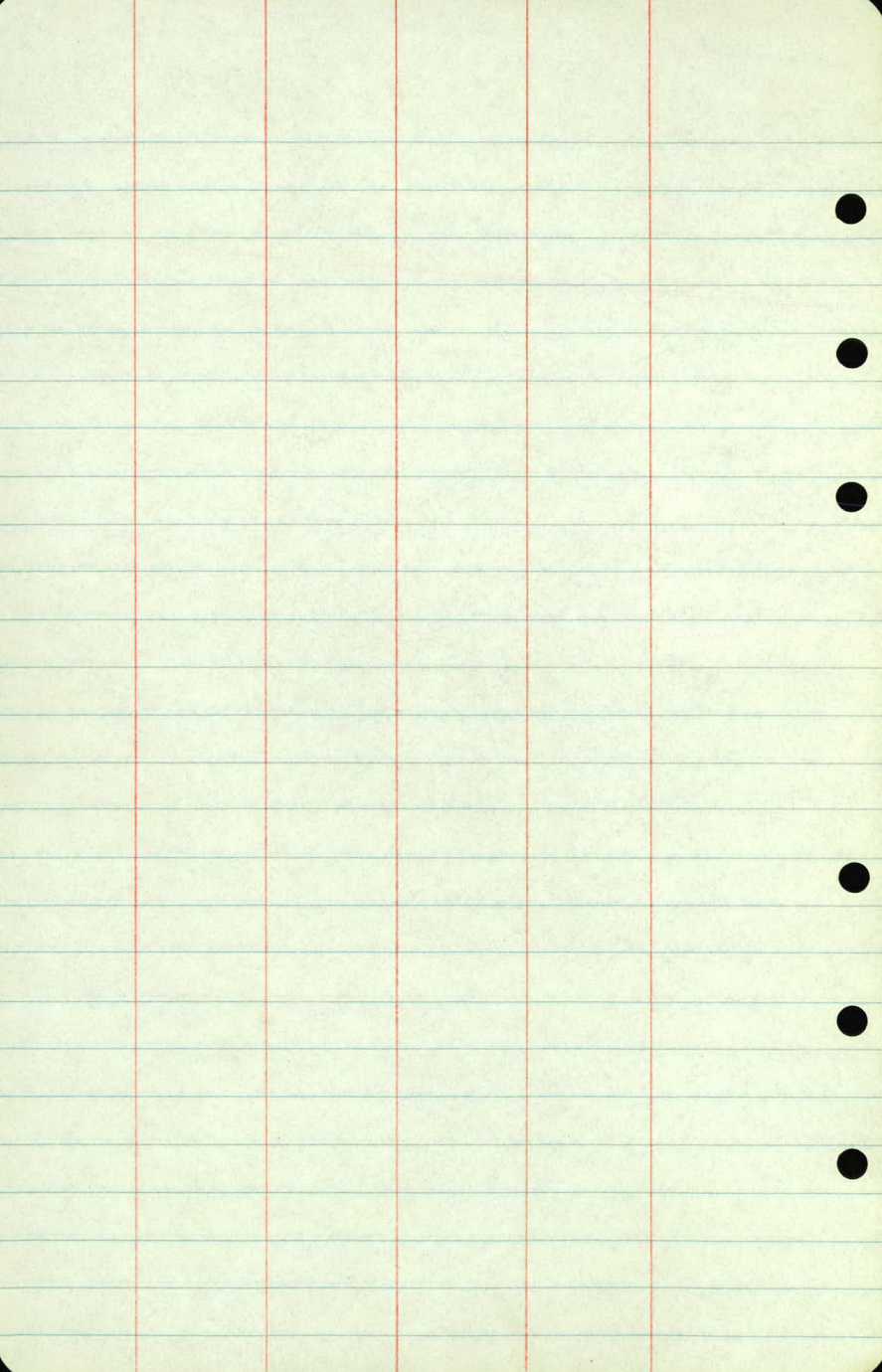
 20.0

Lt.

C

Rt.

Top Elbow of Outlet Pipe at Pump Ho.



Beaver St Sewer

Grade Stakes

Sewer is 16' Lt. of E

Sta	+	π	-	Grade	Gr. Rod
B.M.	9.61	930.30		920.69	

0+00	C.B.			18.0	12.3
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+30				18.12	12.18
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+65	M.H.			18.26	12.04
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1				18.4	11.9
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+50				18.6	11.7
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2				18.8	11.5
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+50				19.0	11.3
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3	=M.H.			19.2	11.1
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I.P.	4.64	932.08	2.86	927.44	
+50				19.4	12.68

4				19.6	12.48
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+50				19.8	12.28
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9-25-44

Lt.

E

Rt.

Top of Elbow of Outlet Pipe of Bald Eagle Pump Ho.

$$6.18 = +6.0$$

$$6.00 = +6.0$$

$$4.9 = +7.0$$

$$2.7 = +9.0$$

$$1.5 = +10.0$$

$$1.3 = +10.0$$

$$2.1 = +9.0$$

$$4.68 = +8.0$$

$$3.48 = +9.0$$

$$3.28 = +9.0$$

Sta	+	Σ	-	Grade	Gr. Rod
		932.08			
5+00				20.0	1208
4+50				20.2	1198
6				20.4	1168
I.P.	5.57	932.30	535	926.73	
B.M.			3.07	929.23	(929.23)

$$4.08 = +8.0$$

$$6.88 = +5.0$$

$$8.68 = +3.0$$

Spk. in 24" O. N.E. Cor. Beaver F. ¹⁰ 54 1/2" under st.

$$\begin{array}{r} 5.35 \\ 24 \overline{) 2462} \\ \underline{0+65} \\ 3 .27 \end{array}$$

Stk	+	π	-	Grade	Gr. Rod
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[illegible][illegible]

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Stadia Survey

Vicinity of Stillwater & Beaver Sts.

Azimuth	Vert Ang.	Dist	Red.	Elev.
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At E. Beaver St. 261' North of E. Stillwater St.

0°00' = North 532 926.98

H.I. = 3.07 above B.M. El. 929.23

H.I. = 932.30

180°—		89	4.8	27.5	✓
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0°00'		75	5.7	26.6	✓
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0°00'		155	6.0	26.3	✓
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0°00'		97	5.8	26.5	✓
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162°—		94'	4.1	28.2	✓
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130°15'		130'	5.2	27.1	✓
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120°15'		165'	7.1	25.2	✓
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111°—		193'	6.2	26.1	✓
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107°45'		180'	6.8	25.5	✓
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97°45'		135'	8.2	24.1	✓
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98°—		87'	8.5	23.8	✓
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104°30'		22'	7.2	25.1	✓
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11°—		79	7.6	24.7	✓
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130°—		79'	8.9	23.4	✓
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150°15'		80	7.4	24.9	✓
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330		68'	8.7	23.6	✓
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64°30'		83	8.9	23.4	✓
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41°45'		105	7.5	24.8	✓
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1-11-44

Description

24' D. N.E. Cor Beaver & Stillwater

E Beaver St.

Ground

"

"

"

"

"

"

"

Top Bank

E 1' ditch

Top Bank

Reg. Ditch

Ground

"

Azimuth	Vert Ang.	Dist	Pod	Elev	
H.I. = 932.30					
59°30'		148'	6.3	26.0	✓
70°—		187'	5.3	27.0	✓
74°—		228'	5.1	27.2	✓
89°—		238	5.4	26.9	✓
130°15'		165	6.5	25.8	✓
70°15'		98	6.5	25.8	✓
90°40'		99	9.2	23.1	✓
10°—		99'	9.2	23.1	
110°15'		100'	7.5	24.8	✓
354°30'		101'	7.0	25.3	✓
361°10'		101	9.5	22.8	✓ 21.5
350°15'		101'	9.3	23.0	✓
350°15'		101'	9.7	23.6	
326°—		17'	6.0	26.3	✓
314°—		22'	7.9	24.4	✓
305°—		28	8.1	24.2	✓
307°—		26'	8.8	23.5	✓
301°30'		30'	6.0	26.3	✓
295°—		74	5.4	26.9	✓
316°—		142	6.4	25.9	✓
346°15'		98	7.6	24.7	✓
356°—		138	7.2	25.1	✓
354°—		139	9.6	22.7	✓
354°—		141'	8.5	23.8	✓

Description

Ground

"

"

Shoulder

FL 15" G.M.

Toe slope ditch

Ground Top back slope

Shoulder

FL 15" G.M.

Toe slope ditch

Top back slope

Shoulder

Toe slope

" "

in ditch

Top back slope

Ground

"

Top Back slope

Shoulder

Δ in 1' bottom ditch

Top back slope

Azimuth	Vert Ang	Dist	Pod	Elev	
		H.I. = 932.30			
352°30'		139	8.5	23.8	
355°45'		180	84	23.9	✓
356° -		243	5.7	26.6	✓
324°24'		277	4.78	927.52	✓
		932.07 932.08			
		H.I. 932.08			
			4.57	927.52	
144°24'		277'	5.09	926.98	✓
123°15'		154	9.5	22.6	✓
124° -		157'	84	23.7	✓
122°30'		154	84	23.7	✓
116° -		115	10.5	21.6	✓
115°30'		113	88	23.3	✓
117°30'		83	7.7	24.4	✓
179°30'		81	4.9	27.2	✓
224° -		149	4.5	27.6	✓
262°15'		100	4.1	28.0	✓
278° -		90	3.9	28.2	✓
349° -		13'	5.2	26.9	✓
90° -		40'	6.8	25.3	✓
95°30'		80	7.5	24.6	✓
32°30'		108	4.1	28.0	✓
0°00'		91	6.7	25.4	✓
321°15'		96	6.3	25.8	✓

description

Top back slope.

Toe slope

Δ #1

At Δ #1

To E Beaver St 261 No. of Stillwater St
& Δ in 1' bottom ditch

Top Back slope

" " "

Bag. 6" Vit. sewer

Ground

"

"

"

"

"

"

"

"

"

"

"

Azimuth	Vert Ang.	Dist.	Red		Elev.
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H.I. = 982.08

297°30'		168	112	20.9	✓
359°30'		182	85	23.4	✓
343°30'		173'	12.6	19.5	✓
329°—		163'	124	19.7	✓

T.P.	4.45	982.96	3.57	928.51	✓
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B.M.			12.23	920.73	(920.69)
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H.I. = 1.27 above B.M. Elev. 920.69

0°00' = So. between Lot Line 4 & 5

H.I. = 921.96

277°15'		280	0.0	22.0	✓
271°15'		278	1.8	20.2	✓
285°30'		165'	3.7	18.3	✓
308°—		70'	6.7	15.3	✓
321°15'		186'	29	19.1	✓
344°—		240'	3.8	18.2	✓
358°—		242	3.2	18.8	✓
15°30'		270'	3.0	19.0	✓
22°45'		269'	3.7	18.3	✓
24°—		322	1.0	21.0	✓
38°—		251	2.0	20.0	✓
56°—		160'	4.9	17.1	✓
74°45'		131'	5.5	16.5	✓
84°30'		125	4.2	17.8	✓

Description

Ground

"

Top elbow out lot pipe at Pump Ho.

At a pt. 45' No. of lot corners 4+5 Block 10 on
lot line between 4+5 produced.

Ground

"

"

"

"

"

"

"

"

"

© Pav

Azimuth	Vert. Ang.	Dist	Pod	Elev.	
		921.96 920.69			
2° 30'		13.0	5.1	16.9	✓
0° 00'		37	89	13.1	✓
2° —		78	74	14.6	✓
310° 30'		201	10.6	22.6	✓
296° 30'	+1° 35'	253 260	3.0	26.1	✓
175° 30'		33	10.9	11.1	✓
159° 30'		43	9.8	12.2	✓

H.I. 12.20 above B.M. EL-920.69

0° 00' = North H.I. = 932.89

356° 15'	-	310	84	24.5	✓
352° 30'		163	34	29.5	✓
340° —		60	4.9	28.0	✓
195° 30'		70	42	28.7	✓
180° —		65	5.6	27.3	✓
163° —		94	6.4	26.5	✓
137° 30'		142	7.4	25.5	✓
156° 15'		54	41	28.8	✓
10° —		120	1.8	31.1	✓
72° 30'		135	50	27.9	✓
0° 00'		304	8.7	24.2	✓
0° 00'		218	6.9	26.0	✓
0° 00'		106	4.9	28.0	✓
180° —		80	5.8	27.1	✓

9-11-44

Description

E Pav.

FL. 24" Cong. Culv.

Ground

"

FL. 24" Cong. Culv.

FL. 8" C.M. Culv.

at a Pt. on E Beaver St. opposite corner 8 & 9
Block 9

Ground.

"

"

"

E Beaver

Ground

"

"

"

"

E Beaver St.

" " "

" " "

" " "

Object Azimuth stadia Vert. Ang.

B.M. = 24' 0" at Beaver + Stillwater Sts.
 At Int. Division +
 Stillwater Sts. 0° 00' = North Approx. Division

To & Stillwater St. 270° -

& Stillwater St. "

" " " "

" " " "

& Division St. 207° -

" " " 353° -

" " " 10° -

Ground 285° 30'

" 289° -

" 316° 45'

" 190° -

" 132° -

" 96° -

1' Bottoms
 Big Ditch 91° -

Ground 25° -

" 90° -

" 18° -

" 329° -

" 36° -

To Δ 2 85° 31'

	Dist	Pod	Elev.	
H.I. =	933.90			
		4.67	929.23	
		5.02	928.87	✓
	128'	36	30.3	✓
	238'	40	29.9	✓
	376'	47	29.2	✓
	106	26	31.3	✓
	53	45	29.4	✓
	144	50	28.9	✓
	291'	41	29.8	✓
	178'	54	28.5	✓
	57'	59	28.0	✓
	45	60	27.9	✓
	53'	80	25.9	✓
	105'	87	25.2	✓
	132	92	24.7	✓
	41	54	28.5	✓
	144	60	27.9	✓
	160'	48	29.1	✓
	190	57	28.2	✓
	196	76	26.3	✓
	272	76.5	25.125	✓

Object	Azimuth	Vert Ang	Stadia
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A & E Division

255 No. of Stillwater
To E Division
+ Stillwater

180°

15" side drain

{ 215°
250°

Top Backslope

254° -

Ground

255° -

FL 24" Conc X Drain

{ 287° -
77° -

Top back slope

342° -

" " "

19° -

E Rd ditch

349° -

" " " " " " "

17° -

E Division

0°00'

Ground

51° -

+2° -

1.38

E Division

0°00'

E Rd ditch

9° -

" " "

254°30'

Top Back slope

12°30'

" " "

352° -

Ground

130°30'

"

Dist Rod Elev
H.I. = 933.79 ✓

544 928.35

~~255~~

255 4.92 928.87 ✓ ✓

32 8.3 25.5 ✓

20 8.6 25.2 ✓

31 6.2 27.6 ✓

116 6.6 27.2 ✓

20 10.2 23.6 ✓

22 10.3 23.5 ✓

104 6.1 27.7 ✓

105 6.3 27.5 ✓

103 8.2 25.6 ✓

103 8.8 25.0 ✓

100 5.2 28.6 ✓

138 ✓ 11.0 27.6 ✓

200 5.3 28.5 ✓

201 9.1 24.7 ✓

206 9.0 24.8 ✓

203 6.4 27.4 ✓ 6.4 - 100' East ✓

208 6.2 27.6 ✓

148 7.4 26.4 ✓ 23' Low or 75' East Lowland ✓

Object	Azimuth	Vert Ang	Stadia
Top back slope	354° -		
" " Ground	7° 30'		
E Rd ditch	355° 30'		
" " "	5° 30'		
E Division	0° 00'		
E ent.	355° 30'		
E Rd ditch	357° -		
Fl 10" C&A side drain	{ 3° 15'		
		3° 00'	
E Division	0° 00'		
E Rd ditch	357° 30'		
" " "	3° —		
Top back slope	356° —		
" " "	4° —		
E Rd ditch	358° 30'		
" " "	1° 30'		
" " "	1° 30'		
" " "	358° —		
E Park Ave.	0° 00'		
E Division St.	0° 00'		
Top Back slope	83° —		
Ground	89° —		
Beg. 1 st Bath ditch	93° —		

Dist Rod Elev

H.I. = 933.79

310	58	28.0	✓	
310	85	25.3	✓	15' higher 100' East
308	7.8	26.0	✓	
308	86	25.2	✓	
307	55	28.3	✓	
328	6.2	27.6	✓	
363	7.9	25.9	✓	
405	83	25.5	✓	
422	83	25.5	✓	
456	58	28.0	✓	
460	7.7	26.1	✓	
460	85	25.3	✓	
460	6.8	27.0	✓	
462	7.0	26.8	✓	LO. East.
622	9.0	24.8	✓	
620	9.9	23.9	✓	
690	94	24.4	✓	
690	89	24.9	✓	
735	84	25.4	✓	
563	6.3	27.5	✓	
34	87	25.1	✓	
96	75	26.3	✓	
124	85	25.3	✓	3' higher 45' NE. = L in ditch lower cots Lowland north

Object	Arm with	Vert Ang	Stadia
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Ground	96°30'		
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"	98° -		
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"	111° -		
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"	121° -		
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FL. No. End 8" Tile	120°15'		
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& 1' Bottom ditch	119°30'		
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Box ditch toward	118° -		
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Ground	139° -		
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"	111° -		
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At Δ 2

To E ^{Stillwater} Division	265°31'		
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Ground	273°30'		
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"	270° -		
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& ditch 2' wide	265°45'		
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FL. So. End 8" Tile	268°30'		
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FL. 24" BR culv	263° -		
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conc.	223°30'		
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& Ditch = End	196°30'		
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Ground	192° -		
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& Track	239° -		
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& 1' Bottom ditch	26°30'		
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Top back slope	17° -		
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Dist	Rad	Elev
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H.I. = 939.79

157	69	26.9	✓
242	3.8	30.0	✓
250	5.8	28.0	✓
168	87	25.1	✓
173	102	23.6	✓
169	9.8	24.0	✓
141	9.5	24.3	✓
93	74	26.4	✓
25	87	25.1	✓

935.86 } H.I. = 935.86 ✓
935.85 }

	461	931.25	✓
271	6.98	928.87	✓ ✓
97	89	27.0	✓
73	10.3	25.6	✓
70	12.3	23.6	✓
73	9.2	26.7	
68	13.6	22.3	✓ 20.2?
73	12.6	23.3	✓
Ground =	12.0	23.9	
145	12.6	23.3	✓
Not Ground	11.8	24.1	
215	11.2	24.7	✓
110	47	31.2	✓
36	12.2	23.7	✓
44	49	31.0	✓

Object	Azimuth	Vert Ang	Station
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Top Back slope	49°-		
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& ditch	54°30'		
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Top bank	61°-		
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& Track platform	69°15'		
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Shoulder	66°-		
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& V Ditch	60°30'		
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Top Bank slope	58°-		
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Δ #3	65°16'		
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At Δ 3

To Δ 2	225°16'		
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& Track	240°45'		
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& Bottom ditch	251°30'		
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Top back slope	257°15'		
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" " "	305°-		
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& Ditch	298°-		
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& Track	241°-		
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" "	89°-		
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" "	57°30'		
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& Ditch	29°30'		
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" "	44°30'		
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Top Back slope	17°30'		
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" " "	42°-		
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Dist. Rod Elev.
H.I. = 935.86 ✓

110'	5.5	30.4	✓
108	12.9	23.0	✓
105	3.8	32.1	✓
268'	45	31.4	✓
265	52	30.7	✓
220	134	22.5	✓
222	8.5	27.4	✓
538	633	929.53	✓

^{934.78}
934.78 H.I. = 934.78 ✓

	524	929.53	
538	3.53	931.25	✓
152	3.6	31.2	✓
153'	136	21.2	✓
150'	105	24.3	✓
64	11.5	23.3	✓
46	14.8	20.0	✓
30	50	29.8	✓
85	60	28.8	✓
208	63	28.5	
100	156	19.2	✓
208	15.8	19.0	✓
106	14.2	20.6	✓
204	14.8	20.0	✓

Object	Azimuth	Vert Ang	Stadia
E. Track	56°30'		
" " Long Ave	65° —		
N. End 54" Conc. Culv	51°15'		
Δ in ditch	47° —		
Ground	47° —		
End X in ditch	50°30'	-1°16'	
Big 5" Tile	50° —		
Ground	50°30'		
"	51°30'		
End 5" Tile	39° —		
Ground	39° —		
"	39° —		
Ground	31° —	-1°08'	
E. East Ave	359° —		
" " "	359° —		
Approx E Park & Fast Aves.	359°14'		
T.P.	6.27	930.50 ✓	10.55 924.23 ✓
T.P.	3.55	928.95 ✓	5.10 925.40 ✓
B.M.		8.23	920.72 (920.69) ✓

Dist Rod Elev
HI = 934.78

335	6.5	28.3	✓	
508	6.5	28.3	✓	
Ground =	15.3	19.5	✓	
500	18.5	16.3		
300	16.4	18.4	✓	
490	11.8	23.0	✓	
405 ✓	8.0	24.9	?	
		18.3		
408	16.5	End plugged	✓	
408	15.0	19.8	✓	
475	13.3	21.5	✓	
448	16.6	18.2	✓	to ditch 5' No. of
		17.8	✓	culv. in ditch
	17.0 =	Δ in ditch		approx 30' NW from
		end of file		
440	13.2	21.6	✓	
335	5.0	29.0	✓	
130	138	21.0	✓	
350	113	23.5	✓	
732'	10.55	924.23	✓	

Top of elbow outlet pipe Bald Eagle Pump Ho.

