

NE413-15-2W

COUNTY

1505



See also the 1993-94 Whicker survey.

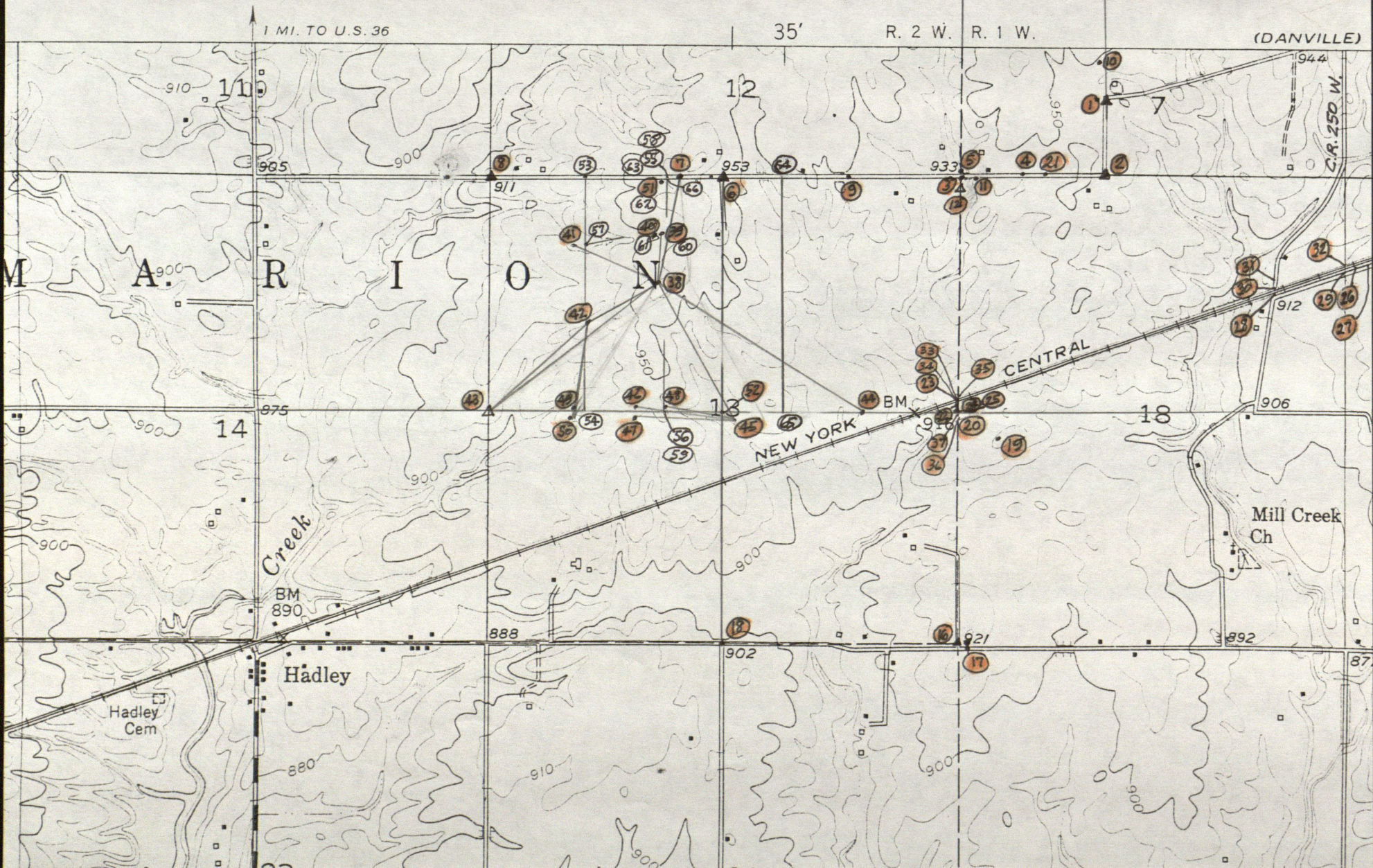
NE 4/13-15-2W

COUNTY

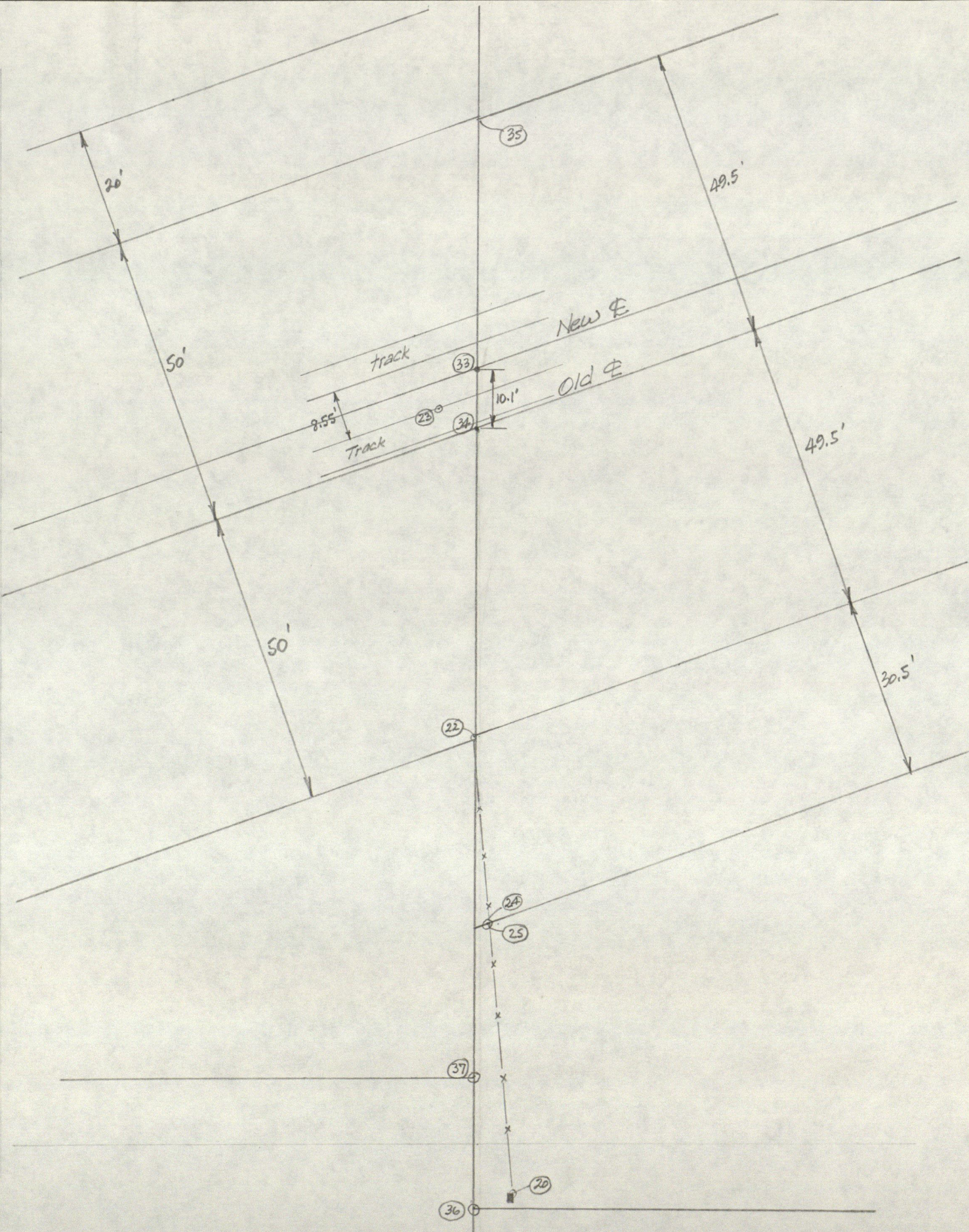


STATES  
OF THE INTERIOR  
AL SURVEY

1" = 1410'









DESCRIPTIONS OF POINTS

- 1 R.R. spike over stone about 52 rods N of 2
- 2 hole in upper of 2 stones at S. qtr. cor. 7-15-1W
- 3 SW cor. 7-15-1W
- 4 calc. position on  $\frac{1}{2}$  7-15-1W 40 rods E. of 3
- 5 temp. point in C.R. 100 S.
- 6 dimple in top of stone at N. qtr. cor. 13-15-2W
- 7 temp. point (P-K nail) on  $\frac{1}{2}$  NW  $\frac{1}{4}$  13-15-2W
- 8 axle over stone at NW cor. 13-15-2W
- 9 approx. loc. of stone at NE cor. W  $\frac{1}{2}$  NE  $\frac{1}{4}$  13-15-2W
- 10 lightning rod atop silo - ref. object
- 11 temp. point (nail) in C.R. 100 S.
- 12 stone found at NE cor. 13-15-2W
- 13 N. qtr. cor. 7-15-1W as restored by me in 1977 Ekin survey
- 14 NW cor. 7-15-1W " " " " " "
- 15 NE " 12-15-2W " " " " " "
- 16 + on stone found at SE cor. 13-15-2W
- 17 temp. point several feet SE of 16
- 18 S  $\frac{1}{2}$  mi. 13-15-2W
- 19 temp. point in field in NW part SW  $\frac{1}{4}$  18-15-1W
- 20 wood cor. post (NE cor.)
- 21 temp. point in C.R. 100 S.
- 22 NE face of N. cor. post of  $\frac{1}{2}$  R.R. near range line
- 23 gauge line N. rail E.B. track of R.R.
- 24 0.35' N. of E.S. cor. post of  $\frac{1}{2}$  R.R. near range line
- 25  $\frac{1}{2}$  S. cor. post of  $\frac{1}{2}$  R.R. near range line
- 26  $\frac{1}{2}$  between Conrail Tracks Monkey survey point 68
- 27 " " " " " " 69
- 28 new  $\frac{1}{2}$  R.R. at C.R. 250 W. " " " 124
- 29 " " " "  $\frac{1}{2}$  Sec. 18 " " " 143
- 30 old " " "  $\frac{1}{2}$  C.R. 250 W. " " " 125
- 31 49.50' NWLY  $\perp$  old  $\frac{1}{2}$  R.R. at  $\frac{1}{2}$  C.R. 250 W. " " " 126
- 32 old  $\frac{1}{2}$  R/W R.R. at  $\frac{1}{2}$  Sec. 18 " " " 145

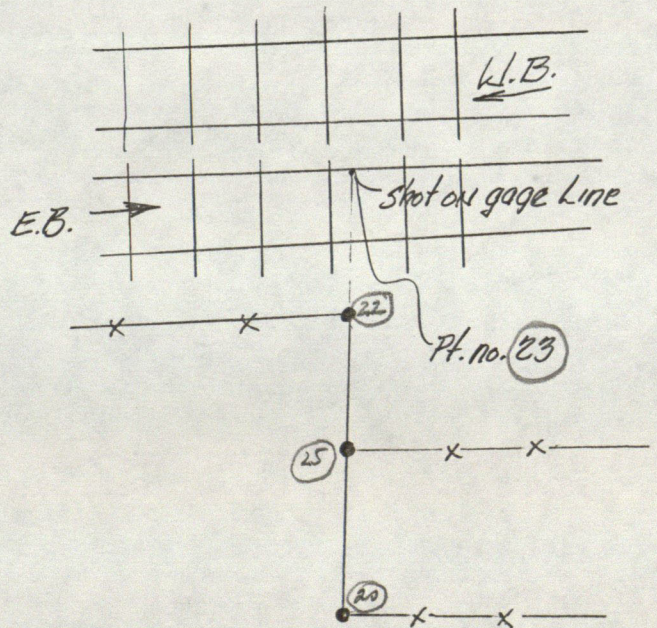
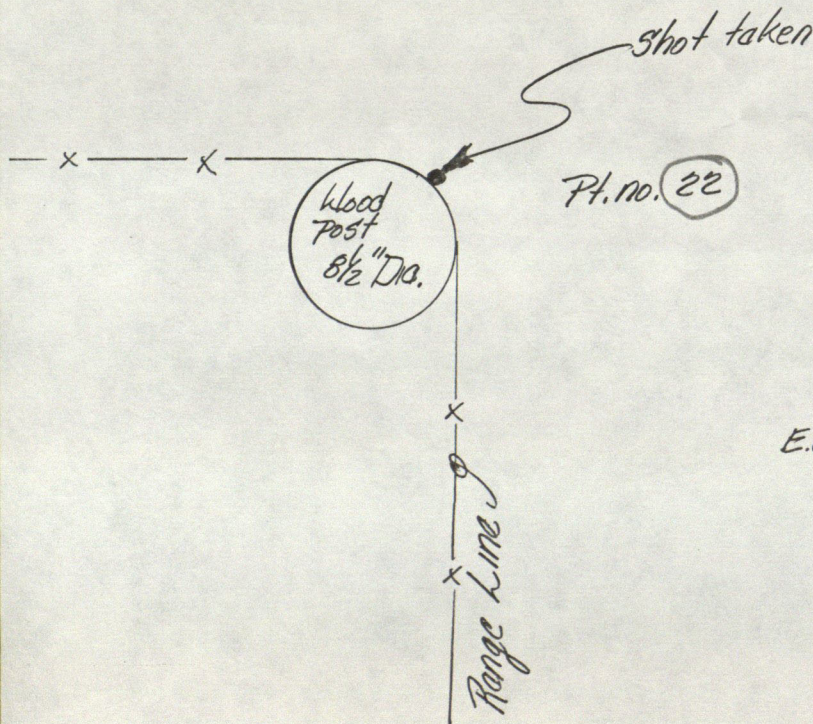
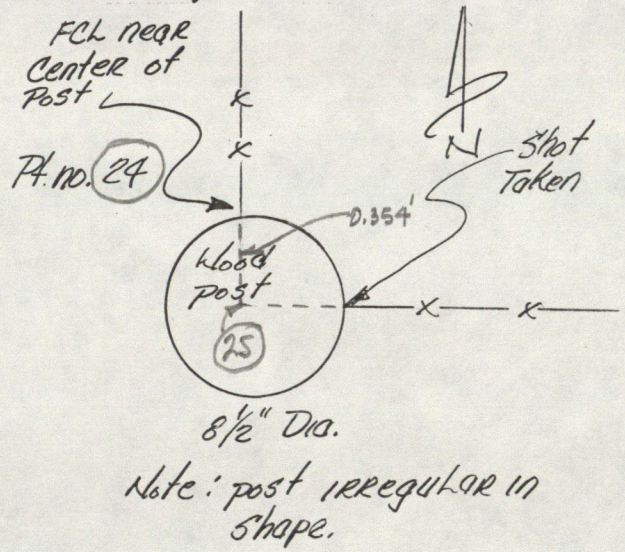
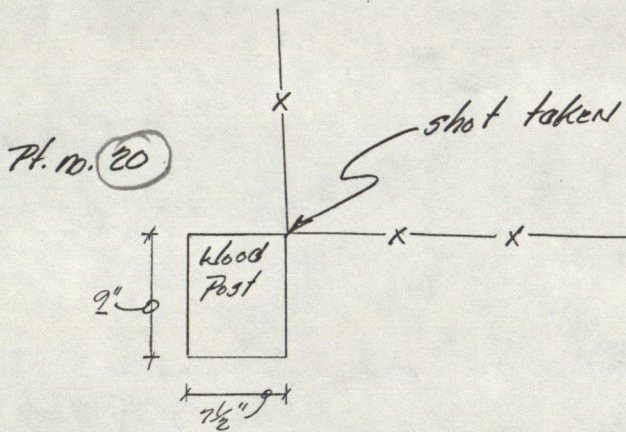


- 33  $\pm$  R.R. tracks at range line
- 34  $\pm$  old R.R. at " "
- 35 Clarke's old cor. 11.24 R. N. of W<sup>2</sup> mi. 18 (on range line 44.5' NWLY  $\perp$  old  $\pm$  R.R.)
- 36 Calc. position of W<sup>2</sup> mi. 18-15-1W
- 37 " " " E<sup>2</sup> mi. 13-15-2W
- 38 temp. point
- 39 broken-off fence post at E. side of field entrance - shot taken at W edge
- 40 " " " W. " " " " " " E "
- 41 old tree stump with wire wrapped around 5.0' E of N-S fence - shot at W edge
- 42 temp. point
- 43 W<sup>2</sup> mi. Stone 13-15-2W found
- 44 SE side of wood cor. post (no wire) near E-W  $\pm$  Sec. 13
- 45 temp. point Eward of cen. Sec. 13
- 46  $\frac{1}{4}$ " I.P. found 2'  $\pm$  above ground
- 47 center of wood post
- 48 " " " " set in concrete
- 49 bent  $\frac{5}{8}$ " rebar found
- 50 center of wood post (no wire)
- 51 " " N. side of wood post - fence S.
- 52 Cen. Sec. 13 - int. of straight lines connecting opposite quarter corners
- 53 on N<sup>2</sup> NW<sup>4</sup> 13 15.75 ch. E of NW cor. Sec.
- 54 "  $\pm$  " " " " " " SW " NW<sup>4</sup>
- 55 " N " " 31.00 " " " NW " Sec.
- 56 "  $\pm$  " " " " " " SW " NW<sup>4</sup>
- 57 on  $\pm$  W. 15.75 ch. of NW<sup>4</sup> Sec. 13 823.4' S. of 53
- 58 591.00' W. of N<sup>2</sup> mi. stone 13
- 59 on  $\pm$  NW<sup>4</sup> 17' W  $\pm$  6'  $\pm$  S of 48
- 60 714.4' S of 58 on R
- 61 final prop. cor.
- 62  $\pm$  C.R. 100 S 616' W of  $\pm$  NW<sup>4</sup> 13
- 63 616' W of 6
- 64 40 R E of 6
- 65 40 R E of 52
- 66  $\pm$  C.R. 100 S 591' W of  $\pm$  NW<sup>4</sup> 13



Post for Sec. 13T15R2W & Sec 18T15R1W

Mr. G. Niemeyer 12/21/93  
© R. McElyea





No Scale

12

R I O

875

13

BM

NEW YORK

23 North Rav  
CENTRAL

22 post  
24 post

20 post

Creek

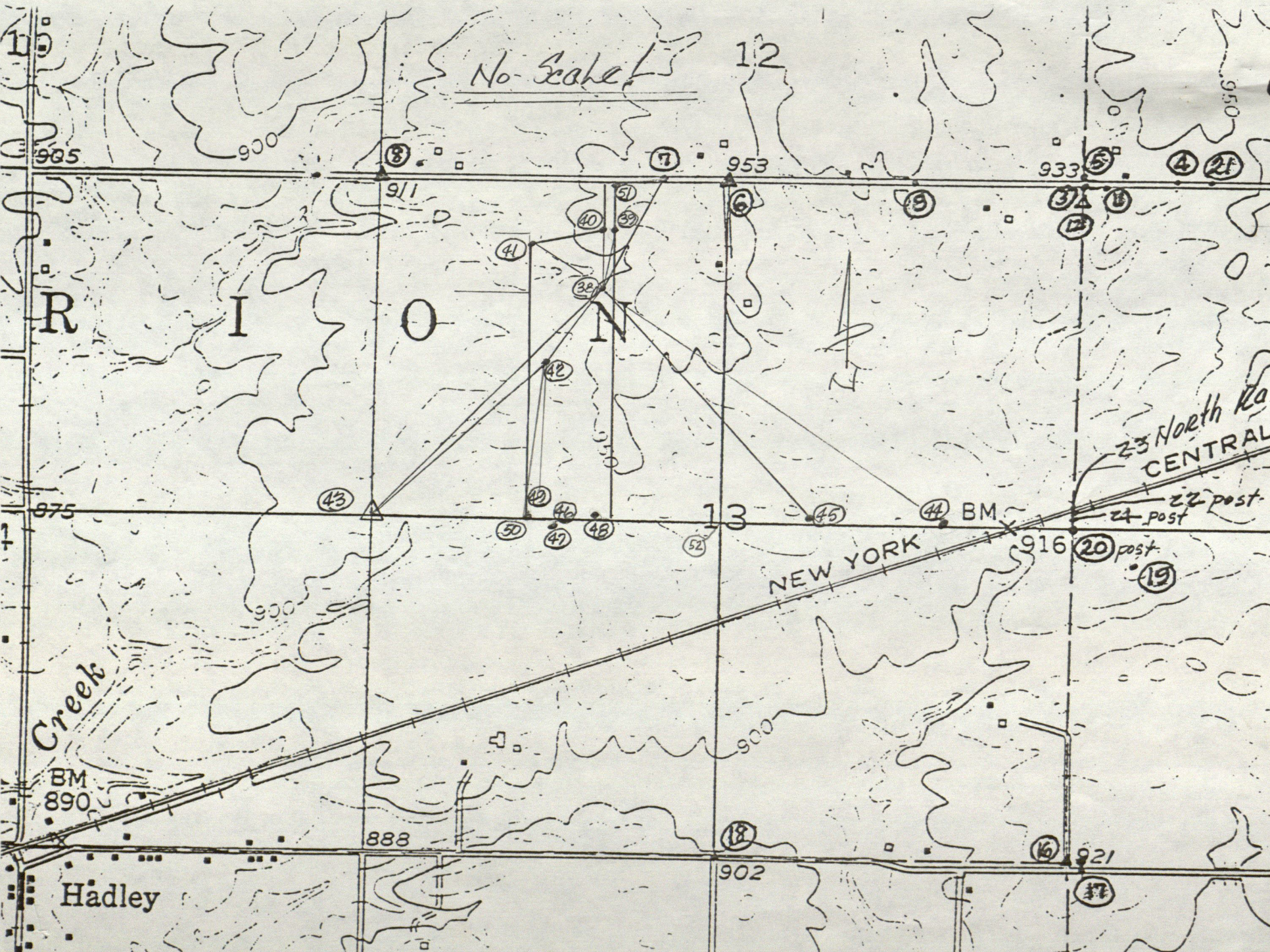
BM  
890

Hadley

888

902

921













Chester A. Parsons, PE

SHEET 3 OF       

Stanley M. Shartle, PE LS

## PARSONS &amp; SHARTLE ENGINEERS, INC.

Job Hend. Co. Sec 13 T15N R21W Date 12/13/93 Hgt. 28.8 Temp. 34 F. -4

| POINT | DIRECTION               | OBSERVED HORIZ. DISTANCE | MEAN DISTANCE      |
|-------|-------------------------|--------------------------|--------------------|
| 17    | 0°00'00"                | 5410.705 .680 .695 .690  | 5410.693 5410.6945 |
| 7     | 81°34'01"               | 3854.720 .720 .715 .715  | 3854.718           |
| 4     | 326°15'54" 81°33'58.5"  |                          |                    |
| C     | 262°15'20"              | 862.215 .220 .220 .220   | 862.219            |
| 4     | 329°01'31" 262°15'22.8" |                          |                    |
| A     |                         | 2345.6 .6                |                    |
| B     |                         | 1313.2 .2                |                    |
| C     |                         | 1105.6                   |                    |
| D     |                         | 1341.5                   |                    |
| E     |                         | 2635.060                 |                    |
| 21    | 0°00'00"                | 5410.700 .695 .700 .690  | 5410.696 5410.6945 |
|       |                         | Previous day check       |                    |
| 10    | 282°12'00"              | 41.440 .445 .440 .440    | 41.441             |
| 4     | 48°48'24" 282°12'06"    |                          |                    |
| 19    | 353°31'51"              |                          |                    |
| 4     | 334°07'36" 353°31'54.0" | 2503.045 .045 .045 .045  | 2503.045 2503.054  |
| 18    | 262°31'29"              | 2690.815 .815 .820 .820  | 2690.816           |
| 4     | 330°06'04" 262°31'31.0" |                          |                    |



**Chester A. Parsons, PE**

**Stanley M. Shartle, PE LS**

# PARSONS & SHARTLE ENGINEERS, INC.

Job Wicker E. Herd Co. Sec 13 T15 R21 Date 12/21/93 Hg. 22.7 Temp. 28 °F.

[illegible]



Chester A. Parsons, PE

Stanley M. Shartle, PE LS

## PARSONS &amp; SHARTLE ENGINEERS, INC.

Job HEND. Co. Sec. 20-15-1E Date \_\_\_\_\_ Hg. 29.15 Temp. 40 F. ppm - 4

| POINT | DIRECTION               | OBSERVED HORIZ. DISTANCE | MEAN DISTANCE |
|-------|-------------------------|--------------------------|---------------|
| 2     | 0°00'00"                | 327.590 .595 .595 .590   |               |
| 5     | 300°02'56"              | 25.765 .765 .760 .760 +R |               |
| 6     | 215°03'18"              | 40.620 .620 .615 .615 +R |               |
| 1     | 0°00'00"                | 327.590 .595 .590 .595   |               |
| 3     | 108°57'05"              | 14.66 chain              |               |
| 4     | 18°18'06"               | 43.080 .080 .080 .075    |               |
| 2     | 0°00'00"                | 4716.930 .930 .940 .925  | 4716.931      |
| 38    | 100°31'12"              | 1206.765 .765 .770 .765  | 1206.766      |
| 4     | 42°04'44" 100°31'11.0"  |                          |               |
| 7     | 0°00'00"                | 1206.750 .750 .755 .755  | 1206.753      |
| 39    | 353°43'27"              | 475.740 .740 .740 .740   | 475.740       |
| 2     | 347°26'57" 353°43'28.5" |                          |               |
| 40    | 350°36'47"              | 473.730 .730 .730 .730   | 473.730       |
| 2     | 341°13'43" 350°36'51.5" |                          |               |
| 41    | 280°10'48"              | 1044.800 .795 .795 .800  | 1044.798      |
| 2     | 200°21'43" 280°10'51.5" |                          |               |
| 42    | 229°54'35"              | 951.855 .855 .850 .850   | 951.853       |
| 4     | 199°36'23" 229°54'35.8" |                          |               |
| 43    | 224°07'19"              | 2496.575 .575 .575 .575  | 2496.575      |
| 4     | 176°29'16" 224°07'19.0" |                          |               |
| 44    | 112°13'39"              | 2724.185 .185 .185 .185  | 2724.185      |
| 2     | 224°27'22" 112°13'41.9" |                          |               |

Above Notes  
Previously  
Given to you

4716.888

1206.760

1206.760



Chester A. Parsons, PE

Stanley M. Shartle, PE LS

## PARSONS &amp; SHARTLE ENGINEERS, INC.

Job WhickerDate 2/22/04 Hg. 30° Temp. 29.05° F. ppm 9

| POINT | DIRECTION               | OBSERVED HORIZ. DISTANCE    | MEAN DISTANCE |
|-------|-------------------------|-----------------------------|---------------|
|       |                         | Continued from previous pg. |               |
| 45    | 138°52'19"              | 1680.900 .900 .895 .900     | 1680.899      |
| 4     | 195°27'02" 138°52'16.5" |                             |               |
| 38    | 0°00'00"                | 1680.890 .895 .890 .890     | 1680.891      |
| 46    | 299°27'17"              | 1099.700 .700 .700 .700     | 1099.700      |
| 2     | 238°54'34" 299°27'17.0" |                             |               |
| 47    | 299°23'26"              | 1101.005 .995 .000 .995     | 1100.999      |
| 2     | 238°46'43" 299°23'21.5" |                             |               |
| 48    | 300°20'56"              | 823.000 .000 .000 .000      | 823.000       |
| 2     | 240°41'48" 300°20'54.0" |                             |               |
| 38    | 0°00'00"                |                             |               |
| 49    | 128°59'23"              | 998.650 .650 .650 .650      | 998.650       |
| 2     | 252°58'47" 128°59'24.0" |                             |               |
| 50    | 128°58'30"              |                             |               |
| 2     | 251°56'58" 128°58'29.0" | 999.195 .195 .200 .195      | 999.196       |
| 43    | 170°39'56"              | 1552.570 .575 .570 .575     | 1552.573      |
| 1     | 372°39'51" 170°39'57.8" |                             |               |
| 38    | 0°00'00"                | 1206.735 .740 .735 .740     | 1206.738      |
| 51    | 74°48'38"               | 180.025 .030 .025 .025      | 180.026       |
| 2     | 149°37'30" 74°48'49.0"  |                             |               |



#C.DAT - Hendricks County Corner Perpetuation Project in Sections 7 and 18-  
#15-1W and in Section 13-15-2W. Bearings and coordinates based on the  
#Mackey Estate survey.

|   |        |             |          |   |   |
|---|--------|-------------|----------|---|---|
| C | 2      | 4679.106    | 2335.918 | ! | ! |
| C | 1      | 5539.468    | 2336.963 | ! | ! |
| M | 2-1-5  | 270-18-28.0 | 1643.126 |   |   |
| M | 2-1-11 | 269-40-48.0 | 1625.490 |   |   |
| M | 2-1-7  | 269-46-37.0 | 4716.844 |   |   |
| M | 11-2-5 | 225-44-31.0 | 25.118   |   |   |
| D | 7-5    |             | 3073.841 |   |   |

STAR\*NET Adjustment Program  
Copyright 1991 STARPLUS SOFTWARE, INC.  
Licensed for Use by Shartle Engineering  
Serial Number 10270  
STAR\*NET V4.065  
Run Date : Tue Nov 23 19:59:41 1993

Default Standard Error for Distances : 0.01600  
Default Standard Error for Angles : 2.800  
Default Standard Error for Directions : 2.800  
Default Standard Error for Az/Bearings : 2.800  
Centering Error for Instrument : 0.0080  
Centering Error for Target : 0.0050  
EDM Parts Per Million : 3.0000

Number of Observations = 9  
Number of Unknowns = 6  
Degrees of Freedom = 3

| Data Type   | Count | Weighted Residuals | Error Factor |
|-------------|-------|--------------------|--------------|
| Distances   | 5     | 0.22               | 0.36         |
| Angles      | 4     | 0.10               | 0.27         |
| Directions  | 0     | 0.00               | 0.00         |
| Az/Bearings | 0     | 0.00               | 0.00         |
| Stations    | 5     | 0.00               | 0.00         |
| Total       | 14    | 0.32               | 0.33         |

Adjustment passes the Chi Square test at 5% level

| At | From | To | Adj Angle    | Residual    | StdErr | StdRes |
|----|------|----|--------------|-------------|--------|--------|
| 2  | 1    | 5  | 270-18-27.29 | -0-00-00.71 | 3.21   | 0.2    |
| 2  | 1    | 11 | 269-40-48.72 | 0-00-00.72  | 3.22   | 0.2    |
| 2  | 1    | 7  | 269-46-36.99 | -0-00-00.01 | 3.14   | 0.0    |
| 11 | 2    | 5  | 225-44-31.94 | 0-00-00.94  | 48.08  | 0.0    |

| At | To | Adj Dist  | Residual | StdErr | StdRes |
|----|----|-----------|----------|--------|--------|
| 2  | 5  | 1643.1211 | -0.0049  | 0.018  | 0.3    |
| 2  | 11 | 1625.4912 | 0.0012   | 0.018  | 0.1    |
| 2  | 7  | 4716.8497 | 0.0057   | 0.022  | 0.3    |
| 11 | 5  | 25.1206   | 0.0026   | 0.017  | 0.2    |
| 7  | 5  | 3073.8367 | -0.0043  | 0.019  | 0.2    |

Adjusted Bearings and Horizontal Distances

| From | To | Bearing       | Distance  |
|------|----|---------------|-----------|
| 2    | 5  | N89-37-22.18W | 1643.1211 |
| 2    | 11 | S89-44-59.25W | 1625.4912 |
| 2    | 7  | S89-50-47.52W | 4716.8497 |
| 11   | 5  | N44-30-28.50W | 25.1206   |
| 7    | 5  | N89-33-46.37E | 3073.8367 |
| 2    | 1  | N00-04-10.53E | 860.3626  |

Elapsed time = 00:00:00

## ADJUSTED COORDINATES:

|    |            |             |
|----|------------|-------------|
| 2  | 4679.10600 | 2335.91800  |
| 1  | 5539.46800 | 2336.96300  |
| 5  | 4689.92243 | 692.83249   |
| 11 | 4672.00759 | 710.44227   |
| 7  | 4666.47188 | -2380.91473 |

*Add 10,000 to the above:*

|    |              |              |
|----|--------------|--------------|
| 1  | 15,539.46800 | 12,336.96300 |
| 2  | 14,679.10600 | 12,335.91800 |
| 5  | 14,689.92243 | 10,692.83249 |
| 7  | 14,666.47188 | 7,619.08527  |
| 11 | 14,672.00759 | 10,710.44227 |



## \*\*\*\* COORDINATE FILE SYSTEM \*\*\*\*

FILE CREATED:

COORDINATE FILE:1352WA LENGTH= 176 POINTS; TIME ON FILE: 0 00 00.00  
 CORNER PERPETUATION \*\*\*\*\* JOB #1993

COORDINATE FILE:1352WA LENGTH = 176 POINTS; TIME ON FILE: 0 00 00.00  
 CORNER PERPETUATION \*\*\*\*\* JOB #1993

\*\*\*\*\* C060 \*\*\*\*\*

| FROM TYPE      | BEARING | DISTANCE | TO | NORTHING | EASTING |
|----------------|---------|----------|----|----------|---------|
| ENTER & ASSIGN |         |          |    |          |         |

|                     |               |             |    |              |              |
|---------------------|---------------|-------------|----|--------------|--------------|
|                     |               |             | 1  | 15,539.46800 | 12,336.96300 |
|                     |               |             | 2  | 14,679.10600 | 12,335.91800 |
|                     |               |             | 5  | 14,689.92243 | 10,692.83249 |
|                     |               |             | 7  | 14,666.47188 | 7,619.08527  |
|                     |               |             | 11 | 14,672.00759 | 10,710.44227 |
|                     |               |             | 13 | 19,997.74000 | 12,267.36100 |
| START               |               |             | 13 | 19,997.74000 | 12,267.36100 |
| 13 TRAV SW          | 89 57 12.00   | 1549.94400* | 14 | 19,996.47759 | 10,717.41751 |
| 14 TRAV SW          | 0 12 12.00*   | 14.51900*   | 15 | 19,981.95868 | 10,717.36599 |
| START               |               |             | 11 | 14,672.00759 | 10,710.44227 |
| 11 TRAV SW          | 37 22 53.25   | 27.48400    | 12 | 14,650.16850 | 10,693.75622 |
| 12 TRAV NE          | 0 15 13.36    | 11.88000    | 3  | 14,662.04838 | 10,693.80882 |
| 3 S.S. NE           | 89 24 17.48   | 1642.19777  | 2  | 14,679.10600 | 12,335.91800 |
| 3 S.S. NE           | 59 05 20.77   | 19.38704    | 11 | 14,672.00759 | 10,710.44227 |
| 3 INV NE            | 0 15 13.36    | 5319.96246  | 15 | 19,981.95868 | 10,717.36599 |
| START               |               |             | 3  | 14,662.04838 | 10,693.80882 |
| 3 TRAV NE           | 89 24 17.48   | 660.00000   | 4  | 14,668.90385 | 11,353.77322 |
| 4 INV NE            | 89 24 17.48   | 982.19777   | 2  | 14,679.10600 | 12,335.91800 |
| START               |               |             | 11 | 14,672.00759 | 10,710.44227 |
| 11 TRAV NA          | 0 00 00.00    | 0.00000     | 0  | 14,672.00759 | 10,710.44227 |
| START               |               |             | 11 | 14,672.00759 | 10,710.44227 |
| 11 S.S. NA          | 315 29 31.21  | 25.12063    | 5  | 14,689.92243 | 10,692.83249 |
| 11 INV NA           | 239 05 20.77  | 19.38704    | 3  | 14,662.04838 | 10,693.80882 |
| 3 INV NA            | 357 59 38.19  | 27.89114    | 5  | 14,689.92243 | 10,692.83249 |
| 5 S.S. NE           | 0 00 00.00    | 0.00000     | 0  | 14,689.92243 | 10,692.83249 |
| START               |               |             | 7  | 14,666.47188 | 7,619.08527  |
| 7 TRAV SE           | 89 41 00.63   | 412.51000   | 6  | 14,664.19325 | 8,031.58898  |
| START               |               |             | 7  | 14,666.47188 | 7,619.08527  |
| 7 TRAV NW           | 89 41 00.63   | 2238.53600  | 8  | 14,678.83713 | 5,380.58342  |
| START               |               |             | 6  | 14,664.19325 | 8,031.58898  |
| 6 TRAV SE           | 89 48 00.63** | 1745.00000  | 9  | 14,658.10736 | 9,776.57836  |
| OFFSETS FROM A LINE |               |             | 8  | 14,678.83713 | 5,380.58342  |

BASE BRG SE 89 41 00.63

| PT | BASE DIST  | OFFSET    |
|----|------------|-----------|
| 7  | 2238.53600 | 0.00000   |
| 6  | 2651.04600 | 0.00000   |
| 9  | 4396.04238 | -3.55320  |
| 12 | 5313.25010 | -0.68077  |
| 3  | 5313.23708 | -12.56076 |

\*Derived from the Akins survey 1977.

\*\* " " " Downard Rd. notes, F.B. 54.



2 6955.22698 -38.68882  
OFFSETS FROM A LINE

6 14,664.19325 8,031.58898

BASE BRG SE 89 41 53.37

PT BASE DIST OFFSET

9 1744.99723 -3.10697

12 2662.20418 0.00000

3 2662.19420 -11.88000

2 4304.19073 -37.58817

OFFSETS FROM A LINE

2 14,679.10600 12,335.91800

BASE BRG NW 0 44 18.60

PT BASE DIST OFFSET

1 860.27706 12.13403

TIME FOR THIS RUN: 0 31 01.82; TOTAL TIME ON FILE: 0 31 01.82  
COORDINATES STORED



#C.DAT - Enlarged net - Hendricks County Corner Perpetuation Project in  
#Sections 7 and 18-15-1W and in Section 13-15-2W. Bearings and coordinates  
#based on the Mackey Estate survey.

|    |         |             |           |   |   |
|----|---------|-------------|-----------|---|---|
| C  | 2       | 14679.106   | 12335.918 | ! | ! |
| C  | 1       | 15539.468   | 12336.963 | ! | ! |
| C  | 21      | 14683       | 11474     |   |   |
| M  | 2-1-5   | 270-18-28.0 | 1643.126  |   |   |
| M  | 2-1-11  | 269-40-48.0 | 1625.490  |   |   |
| M  | 2-1-7   | 269-46-37.0 | 4716.844  |   |   |
| M  | 11-2-5  | 225-44-31.0 | 25.118    |   |   |
| M  | 21-7-2  | 180-41-24.3 | 862.219   |   |   |
| D  | 7-5     |             | 3073.841  |   |   |
| D  | 21-7    |             | 3854.718  |   |   |
| SS | 21-7-17 | -81-33-58.5 | 5410.6945 |   |   |

STAR\*NET Adjustment Program  
Version 5.040  
Copyright 1993 STARPLUS SOFTWARE, INC.  
Licensed for Use by Shartle Engineering  
Serial Number 10270  
Run Date : Tue Dec 21 1993 21:19:25

2 1 N00-04-10.53E 860.3626  
Elapsed Time = 00:00:01

Distances ( Constant ) : 0.0160000 US Feet  
Distances ( PPM ) : 3.0000000  
Angles : 2.0000000 Seconds  
Directions : 2.0000000 Seconds  
Azimuth / Bearings : 2.0000000 Seconds  
Centering Error Instrument : 0.0030000 US Feet  
Centering Error Target : 0.0050000 US Feet

Number of Stations = 6  
Number of Observations = 12  
Number of Unknowns = 8  
Number of Redundant Obs = 4

| Observation | Count | Sum Squares<br>of StdRes | Error<br>Factor |
|-------------|-------|--------------------------|-----------------|
| Angles      | 5     | 0.13                     | 0.28            |
| Distances   | 7     | 0.94                     | 0.64            |

Total 12 1.07 0.52  
Adjustment Passes the Chi Square Test at 5% Level

## ADJUSTED COORDINATES

|    |             |             |
|----|-------------|-------------|
| 1  | 15539.46800 | 12336.96300 |
| 2  | 14679.10600 | 12335.91800 |
| 5  | 14689.92292 | 10692.82911 |
| 7  | 14666.47221 | 7619.07458  |
| 11 | 14672.00699 | 10710.43998 |
| 17 | 9329.29036  | 10706.29388 |
| 21 | 14685.28305 | 11473.72939 |

| Adjusted Angle Observations |      |    |              |             |        |        |
|-----------------------------|------|----|--------------|-------------|--------|--------|
| At                          | From | To | Adj Angle    | Residual    | StdErr | StdRes |
| 2                           | 1    | 5  | 270-18-27.35 | -0-00-00.65 | 2.55   | 0.3    |
| 2                           | 1    | 11 | 269-40-48.65 | 0-00-00.65  | 2.55   | 0.3    |
| 2                           | 1    | 7  | 269-46-37.00 | 0-00-00.00  | 2.45   | 0.0    |
| 11                          | 2    | 5  | 225-44-31.96 | 0-00-00.96  | 48.04  | 0.0    |
| 21                          | 7    | 2  | 180-41-24.31 | 0-00-00.01  | 2.50   | 0.0    |

| Adjusted Distance Observations (US Feet) |    |           |          |        |        |  |
|------------------------------------------|----|-----------|----------|--------|--------|--|
| From                                     | To | Adj Dist  | Residual | StdErr | StdRes |  |
| 2                                        | 5  | 1643.1245 | -0.0015  | 0.0217 | 0.1    |  |
| 2                                        | 11 | 1625.4935 | 0.0035   | 0.0217 | 0.2    |  |
| 2                                        | 7  | 4716.8603 | 0.0163   | 0.0307 | 0.5    |  |
| 11                                       | 5  | 25.1222   | 0.0042   | 0.0171 | 0.2    |  |
| 21                                       | 2  | 862.2107  | -0.0083  | 0.0195 | 0.4    |  |
| 7                                        | 5  | 3073.8440 | 0.0030   | 0.0259 | 0.1    |  |
| 21                                       | 7  | 3854.7007 | -0.0173  | 0.0282 | 0.6    |  |

| Adjusted Bearings and Horizontal Distances (US Feet) |    |               |           |  |
|------------------------------------------------------|----|---------------|-----------|--|
| From                                                 | To | Bearing       | Distance  |  |
| 2                                                    | 5  | N89-37-22.12W | 1643.1245 |  |
| 2                                                    | 11 | S89-44-59.18W | 1625.4935 |  |
| 2                                                    | 7  | S89-50-47.53W | 4716.8603 |  |
| 11                                                   | 5  | N44-30-28.86W | 25.1222   |  |
| 21                                                   | 2  | S89-35-22.27E | 862.2107  |  |
| 7                                                    | 5  | N89-33-46.37E | 3073.8440 |  |
| 21                                                   | 7  | S89-43-13.43W | 3854.7007 |  |



-----  
COORDINATE FILE:1352WA LENGTH = 176 POINTS; TIME ON FILE: 0 31 42.99  
CORNER PERPETUATION \*\*\*\*\* JOB #1993  
-----

\*\*\*\*\* COGO \*\*\*\*\*

-----  
FROM TYPE            BEARING            DISTANCE    TO            NORTHING            EASTING  
-----

ENTER & ASSIGN

|            |             |            |                     |              |              |              |
|------------|-------------|------------|---------------------|--------------|--------------|--------------|
|            |             |            |                     | 5            | 14,689.92292 | 10,692.82911 |
|            |             |            |                     | 7            | 14,666.47221 | 7,619.07458  |
|            |             |            |                     | 11           | 14,672.00699 | 10,710.43998 |
|            |             |            |                     | 17           | 9,329.29036  | 10,706.29388 |
|            |             |            |                     | 21           | 14,685.28305 | 11,473.72939 |
|            |             |            |                     | 26           | 13,718.64500 | 15,260.30200 |
|            |             |            |                     | 27           | 14,555.47800 | 17,675.96800 |
|            |             |            |                     | 28           | 13,351.43800 | 14,201.08100 |
|            |             |            |                     | 29           | 13,629.04200 | 15,002.25000 |
|            |             |            |                     | 30           | 13,356.05800 | 14,201.81700 |
|            |             |            |                     | 31           | 13,411.63000 | 14,210.67400 |
|            |             |            |                     | 32           | 13,689.48700 | 15,002.10500 |
| START      |             |            |                     | 11           | 14,672.00699 | 10,710.43998 |
| 11 TRAV SW | 37 22 53.18 | 27.48400   | 12                  | 14,650.16789 | 10,693.75394 |              |
| 12 TRAV NE | 0 15 13.45  | 11.88000   | 3                   | 14,662.04778 | 10,693.80655 |              |
| 3 INV NE   | 89 24 17.40 | 1642.20005 | 2                   | 14,679.10600 | 12,335.91800 |              |
| START      |             |            | 3                   | 14,662.04778 | 10,693.80655 |              |
| 3 INV NE   | 0 15 13.45  | 5319.96307 | 15                  | 19,981.95868 | 10,717.36599 |              |
| START      |             |            | 7                   | 14,666.47221 | 7,619.07458  |              |
| 7 TRAV SE  | 89 41 00.63 | 412.51000  | 6                   | 14,664.19360 | 8,031.57829  |              |
| START      |             |            | 7                   | 14,666.47221 | 7,619.07458  |              |
| 7 TRAV NW  | 89 41 00.63 | 2238.53600 | 8                   | 14,678.83739 | 5,380.57273  |              |
| START      |             |            | 17                  | 9,329.29036  | 10,706.29388 |              |
| 17 S.S. NW | 69 38 39.07 | 41.44100   | 16                  | 9,343.70558  | 10,667.44085 |              |
| 17 S.S. NW | 89 19 14.07 | 2690.81800 | 18                  | 9,361.19787  | 8,015.66507  |              |
| 17 TRAV NE | 1 41 08.93  | 2503.04500 | 19                  | 11,831.25198 | 10,779.93035 |              |
| 19 S.S. NW | 22 38 57.57 | 257.85600  | 22                  | 12,069.22188 | 10,680.63259 |              |
| 19 S.S. NW | 19 43 26.07 | 312.26500  | 23                  | 12,125.19633 | 10,674.54463 |              |
| 19 S.S. NW | 25 08 49.57 | 228.17900  | 24                  | 12,037.80412 | 10,682.96711 |              |
| 19 TRAV NW | 30 01 20.07 | 185.39400  | 20                  | 11,991.77190 | 10,687.17103 |              |
| START      |             |            | 18                  | 9,361.19787  | 8,015.66507  |              |
| 18 INV SE  | 89 37 19.41 | 2651.83348 | 16                  | 9,343.70558  | 10,667.44085 |              |
| 16 INV NE  | 0 17 02.79  | 5306.52756 | 12                  | 14,650.16789 | 10,693.75394 |              |
| START      |             |            | OFFSETS FROM A LINE |              |              |              |
|            |             |            | 16                  | 9,343.70558  | 10,667.44085 |              |

BASE BRG NE 0 17 02.79

| PT | BASE DIST  | OFFSET   |
|----|------------|----------|
| 20 | 2648.13160 | 6.59916  |
| 24 | 2694.14241 | 2.16704  |
| 22 | 2725.54821 | -0.32324 |
| 23 | 2781.49178 | -6.68868 |

LINE TANGENT TO CIRCLES

|                       |        |  |    |              |              |
|-----------------------|--------|--|----|--------------|--------------|
|                       |        |  | 27 | 14,555.47800 | 17,675.96800 |
| RADIUS =              | 0.000  |  |    |              |              |
|                       |        |  | 23 | 12,125.19633 | 10,674.54463 |
| RADIUS =              | -4.275 |  |    |              |              |
| TANGENT PTS (2nd,1st) |        |  |    |              |              |
|                       |        |  | 33 | 12,121.15852 | 10,675.94881 |
| START                 |        |  | 33 | 12,121.15852 | 10,675.94881 |



OFFSETS FROM A LINE

|          |           |             |    |              |              |
|----------|-----------|-------------|----|--------------|--------------|
|          |           |             | 33 | 12,121.15852 | 10,675.94881 |
| BASE BRG | NE        | 70 49 27.92 |    |              |              |
| PT       | BASE DIST | OFFSET      |    |              |              |
| 23       | 0.00000   | -4.27500    |    |              |              |

LINE TANGENT TO CIRCLES

|                       |       |  |    |              |              |
|-----------------------|-------|--|----|--------------|--------------|
|                       |       |  | 27 | 14,555.47800 | 17,675.96800 |
| RADIUS =              | 0.000 |  |    |              |              |
|                       |       |  | 23 | 12,125.19633 | 10,674.54463 |
| RADIUS =              | 4.275 |  |    |              |              |
| TANGENT PTS (2nd,1st) |       |  |    |              |              |

OFFSETS FROM A LINE

|  |  |  |    |              |              |
|--|--|--|----|--------------|--------------|
|  |  |  | 33 | 12,129.23575 | 10,673.14510 |
|  |  |  | 33 | 12,129.23575 | 10,673.14510 |

BASE BRG NE 70 53 25.88 (New E)

|    |            |          |
|----|------------|----------|
| PT | BASE DIST  | OFFSET   |
| 23 | -0.00000   | 4.27500  |
| 28 | 3733.64567 | 0.10271  |
| 29 | 4581.54646 | 0.07821  |
| 26 | 4854.71216 | -0.10762 |
| 27 | 7411.21987 | 0.00000  |

LINE TANGENT TO CIRCLES

|                       |        |  |    |              |              |
|-----------------------|--------|--|----|--------------|--------------|
|                       |        |  | 30 | 13,356.05800 | 14,201.81700 |
| RADIUS =              | 0.000  |  |    |              |              |
|                       |        |  | 22 | 12,069.22188 | 10,680.63259 |
| RADIUS =              | 50.000 |  |    |              |              |
| TANGENT PTS (2nd,1st) |        |  |    |              |              |

OFFSETS FROM A LINE

|  |  |  |    |              |              |
|--|--|--|----|--------------|--------------|
|  |  |  | 34 | 12,116.40877 | 10,664.09787 |
|  |  |  | 34 | 12,116.40877 | 10,664.09787 |

BASE BRG NE 70 41 20.66 (old E)

|    |            |           |
|----|------------|-----------|
| PT | BASE DIST  | OFFSET    |
| 22 | 0.00000    | 50.00000  |
| 24 | -8.18651   | 80.42214  |
| 30 | 3748.62466 | 0.00000   |
| 31 | 3775.36070 | -49.51644 |
| 32 | 4614.14988 | -50.01881 |

|       |  |  |    |              |              |
|-------|--|--|----|--------------|--------------|
| START |  |  | 24 | 12,037.80412 | 10,682.96711 |
|-------|--|--|----|--------------|--------------|

|            |            |         |    |              |              |
|------------|------------|---------|----|--------------|--------------|
| 24 TRAV SE | 4 14 58.53 | 0.35400 | 25 | 12,037.45109 | 10,682.99334 |
|------------|------------|---------|----|--------------|--------------|

OFFSETS FROM A LINE

|  |  |  |    |              |              |
|--|--|--|----|--------------|--------------|
|  |  |  | 34 | 12,116.40877 | 10,664.09787 |
|--|--|--|----|--------------|--------------|

BASE BRG NE 70 41 20.66 (old E)

|    |           |          |
|----|-----------|----------|
| PT | BASE DIST | OFFSET   |
| 25 | -8.27849  | 80.76398 |

|       |  |  |    |             |              |
|-------|--|--|----|-------------|--------------|
| START |  |  | 16 | 9,343.70558 | 10,667.44085 |
|-------|--|--|----|-------------|--------------|

|           |            |            |   |              |              |
|-----------|------------|------------|---|--------------|--------------|
| 16 B-B NE | 0 17 02.79 | 2788.37855 | 0 | 12,132.04985 | 10,681.26738 |
|-----------|------------|------------|---|--------------|--------------|

|          |             |            |    |              |              |
|----------|-------------|------------|----|--------------|--------------|
| 0 B-B NE | 70 53 25.88 | 7402.62391 | 27 | 14,555.47800 | 17,675.96800 |
|----------|-------------|------------|----|--------------|--------------|

|       |  |  |    |             |              |
|-------|--|--|----|-------------|--------------|
| START |  |  | 16 | 9,343.70558 | 10,667.44085 |
|-------|--|--|----|-------------|--------------|

|           |            |            |   |              |              |
|-----------|------------|------------|---|--------------|--------------|
| 16 B-B NE | 0 17 02.79 | 2778.73696 | 0 | 12,122.40837 | 10,681.21957 |
|-----------|------------|------------|---|--------------|--------------|

|          |             |            |    |              |              |
|----------|-------------|------------|----|--------------|--------------|
| 0 B-B NE | 70 41 20.66 | 3730.48223 | 30 | 13,356.05800 | 14,201.81700 |
|----------|-------------|------------|----|--------------|--------------|

|       |  |  |    |             |              |
|-------|--|--|----|-------------|--------------|
| START |  |  | 16 | 9,343.70558 | 10,667.44085 |
|-------|--|--|----|-------------|--------------|

|           |            |            |    |              |              |
|-----------|------------|------------|----|--------------|--------------|
| 16 B-B NE | 0 17 02.79 | 2788.37855 | 33 | 12,132.04985 | 10,681.26738 |
|-----------|------------|------------|----|--------------|--------------|

|           |             |            |    |              |              |
|-----------|-------------|------------|----|--------------|--------------|
| 33 B-B NE | 70 53 25.88 | 7402.62391 | 27 | 14,555.47800 | 17,675.96800 |
|-----------|-------------|------------|----|--------------|--------------|

|       |  |  |    |              |              |
|-------|--|--|----|--------------|--------------|
| START |  |  | 33 | 12,132.04985 | 10,681.26738 |
|-------|--|--|----|--------------|--------------|

|            |            |           |    |              |              |
|------------|------------|-----------|----|--------------|--------------|
| 33 TRAV SW | 0 17 02.79 | 10.10000* | 34 | 12,121.94997 | 10,681.21729 |
|------------|------------|-----------|----|--------------|--------------|

OFFSETS FROM A LINE

|  |  |  |    |              |              |
|--|--|--|----|--------------|--------------|
|  |  |  | 34 | 12,121.94997 | 10,681.21729 |
|--|--|--|----|--------------|--------------|

BASE BRG NE 70 40 56.78 (old E)

|    |           |          |
|----|-----------|----------|
| PT | BASE DIST | OFFSET   |
| 22 | -17.99443 | 49.56606 |



|    |            |           |
|----|------------|-----------|
| 25 | -26.27649  | 80.32908  |
| 30 | 3730.63599 | 0.00000   |
| 31 | 3757.37776 | -49.51335 |
| 32 | 4596.16699 | -49.91862 |
| 28 | 3728.41312 | 4.11642   |
| 29 | 4576.30840 | 7.17127   |
| 26 | 4849.47297 | 7.97750   |
| 27 | 7405.96343 | 17.36968  |
| 33 | 3.38834    | -9.51468  |

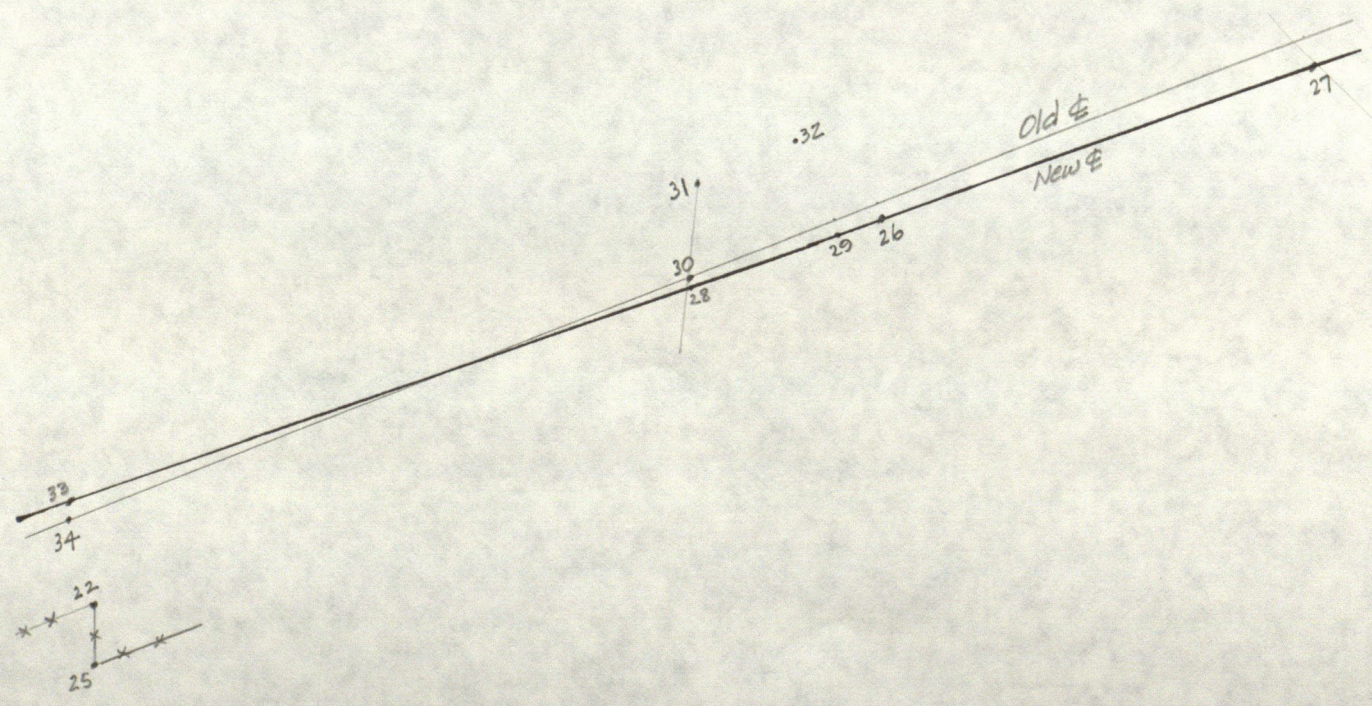
START  
 OFFSET INTERSECTION  
 NE 70 40 56.78 -49.50000  
 NE 0 17 02.79 0.00000

START  
 35 TRAV SW 0 17 02.79 185.46000  
 36 INV NE 67 31 44.81 7.15615  
 START  
 36 TRAV NE 0 17 02.79 22.44000  
 37 S.S. SW 0 17 02.79 2667.80366  
 37 S.S. NE 0 17 02.79 2638.72389  
 37 INV NW 0 02 11.81 57.74545  
 START  
 34 INV SW 0 17 02.79 132.91489  
 RAILROAD MAP DISTANCE = 132.4'

|    |              |              |
|----|--------------|--------------|
| 34 | 12,121.94997 | 10,681.21729 |
| 35 | 12,174.49444 | 10,681.47785 |
| 35 | 12,174.49444 | 10,681.47785 |
| 36 | 11,989.03672 | 10,680.55822 |
| 20 | 11,991.77190 | 10,687.17103 |
| 36 | 11,989.03672 | 10,680.55822 |
| 37 | 12,011.47644 | 10,680.66949 |
| 16 | 9,343.70558  | 10,667.44085 |
| 12 | 14,650.16789 | 10,693.75394 |
| 22 | 12,069.22188 | 10,680.63259 |
| 34 | 12,121.94997 | 10,681.21729 |
| 36 | 11,989.03672 | 10,680.55822 |

|                                    |    |              |              |
|------------------------------------|----|--------------|--------------|
| START                              | 19 | 11,831.25198 | 10,779.93035 |
| 19 S.S. NA 0 00 00.00 0.00000      | 0  | 11,831.25198 | 10,779.93035 |
| 19 S.S. NA 181 41 08.93 2503.04500 | 17 | 9,329.29036  | 10,706.29388 |
| 19 S.S. NA 327 47 50.85 186.46942  | 36 | 11,989.03672 | 10,680.55822 |
| 19 INV NA 331 09 20.45 205.75124   | 37 | 12,011.47644 | 10,680.66949 |

TIME FOR THIS RUN: 1 23 46.51; TOTAL TIME ON FILE: 1 55 29.49  
 COORDINATES STORED





-----  
 COORDINATE FILE: 1352WA LENGTH = 176 POINTS; TIME ON FILE: 1 55 29.49  
 CORNER PERPETUATION \*\*\*\*\* JOB #1993  
 -----

\*\*\*\*\* COGO \*\*\*\*\*

| FROM                            | TYPE              | BEARING             | DISTANCE   | TO | NORTHING     | EASTING      |
|---------------------------------|-------------------|---------------------|------------|----|--------------|--------------|
| START                           |                   |                     |            | 6  | 14,664.19360 | 8,031.57829  |
| 6                               | INV SW            | 0 10 18.96          | 5303.01960 | 18 | 9,361.19787  | 8,015.66507  |
| 18                              | INV SE            | 89 37 19.41         | 2651.83348 | 16 | 9,343.70558  | 10,667.44085 |
| 16                              | INV NE            | 0 17 02.79          | 2667.80366 | 37 | 12,011.47644 | 10,680.66949 |
| 37                              | INV NE            | 0 17 02.79          | 2638.72389 | 12 | 14,650.16789 | 10,693.75394 |
| 12                              | INV NW            | 89 41 53.30         | 2662.21260 | 6  | 14,664.19360 | 8,031.57829  |
| START                           |                   |                     |            | 16 | 9,343.70558  | 10,667.44085 |
| 16                              | INV NE            | 0 17 02.79          | 2645.36366 | 36 | 11,989.03672 | 10,680.55822 |
| 36                              | INV NE            | 0 17 02.31          | 2673.04389 | 3  | 14,662.04778 | 10,693.80655 |
| 3                               | INV NE            | 89 24 17.40         | 1642.20005 | 2  | 14,679.10600 | 12,335.91800 |
| OFFSETS FROM A LINE             |                   |                     |            | 33 | 12,132.04985 | 10,681.26738 |
| BASE BRG NE 70 53 25.88 (New E) |                   |                     |            |    |              |              |
| PT                              | BASE DIST         | OFFSET              |            |    |              |              |
| 37                              | -40.03756         | 113.73345           |            |    |              |              |
| 36                              | -47.48889         | 134.90020           |            |    |              |              |
| OFFSETS FROM A LINE             |                   |                     |            | 34 | 12,121.94997 | 10,681.21729 |
| BASE BRG NE 70 40 56.78 (Old E) |                   |                     |            |    |              |              |
| PT                              | BASE DIST         | OFFSET              |            |    |              |              |
| 37                              | -37.06201         | 104.07261           |            |    |              |              |
| 36                              | -44.59016         | 125.21216           |            |    |              |              |
| PT-PT ANGLES                    |                   |                     |            |    |              |              |
| ANG 16 - 33 - 27 :              | C.W. 250 36 23.09 | C.C.W. 109 23 36.91 | 7402.62391 |    |              | (New E)      |
| PT-PT ANGLES                    |                   |                     |            |    |              |              |
| ANG 16 - 34 - 30 :              | C.W. 250 23 53.98 | C.C.W. 109 36 06.02 | 3730.63599 |    |              | (Old E)      |
| OFFSETS FROM A LINE             |                   |                     |            | 16 | 9,343.70558  | 10,667.44085 |
| BASE BRG NE 0 16 07.99          |                   |                     |            |    |              |              |
| PT                              | BASE DIST         | OFFSET              |            |    |              |              |
| 36                              | 2645.36357        | 0.70287             |            |    |              |              |
| 37                              | 2667.80357        | 0.70883             |            |    |              |              |
| 12                              | 5306.52737        | 1.40994             |            |    |              |              |
| 3                               | 5318.40737        | 1.40679             |            |    |              |              |
| 15                              | 10638.37026       | 0.00000             |            |    |              |              |
| 14                              | 10652.88925       | -0.01661            |            |    |              |              |

TIME FOR THIS RUN: 0 14 33.10; TOTAL TIME ON FILE: 2 10 02.59  
 COORDINATES STORED



-----  
COORDINATE FILE:1352WA LENGTH = 176 POINTS; TIME ON FILE: 2 10 02.59  
CORNER PERPETUATION \*\*\*\*\* JOB #1993  
-----

\*\*\*\*\* COGO \*\*\*\*\*

| FROM TYPE | BEARING | DISTANCE | TO | NORTHING     | EASTING      |
|-----------|---------|----------|----|--------------|--------------|
| -----     |         |          |    |              |              |
| LIST      |         |          |    |              |              |
|           |         |          | 1  | 15,539.46800 | 12,336.96300 |
|           |         |          | 2  | 14,679.10600 | 12,335.91800 |
|           |         |          | 3  | 14,662.04778 | 10,693.80655 |
|           |         |          | 4  | 14,668.90385 | 11,353.77322 |
|           |         |          | 5  | 14,689.92292 | 10,692.82911 |
|           |         |          | 6  | 14,664.19360 | 8,031.57829  |
|           |         |          | 7  | 14,666.47221 | 7,619.07458  |
|           |         |          | 8  | 14,678.83739 | 5,380.57273  |
|           |         |          | 9  | 14,658.10736 | 9,776.57836  |
|           |         |          | 11 | 14,672.00699 | 10,710.43998 |
|           |         |          | 12 | 14,650.16789 | 10,693.75394 |
|           |         |          | 13 | 19,997.74000 | 12,267.36100 |
|           |         |          | 14 | 19,996.47759 | 10,717.41751 |
|           |         |          | 15 | 19,981.95868 | 10,717.36599 |
|           |         |          | 16 | 9,343.70558  | 10,667.44085 |
|           |         |          | 17 | 9,329.29036  | 10,706.29388 |
|           |         |          | 18 | 9,361.19787  | 8,015.66507  |
|           |         |          | 19 | 11,831.25198 | 10,779.93035 |
|           |         |          | 20 | 11,991.77190 | 10,687.17103 |
|           |         |          | 21 | 14,685.28305 | 11,473.72939 |
|           |         |          | 22 | 12,069.22188 | 10,680.63259 |
|           |         |          | 23 | 12,125.19633 | 10,674.54463 |
|           |         |          | 24 | 12,037.80412 | 10,682.96711 |
|           |         |          | 25 | 12,037.45109 | 10,682.99334 |
|           |         |          | 26 | 13,718.64500 | 15,260.30200 |
|           |         |          | 27 | 14,555.47800 | 17,675.96800 |
|           |         |          | 28 | 13,351.43800 | 14,201.08100 |
|           |         |          | 29 | 13,629.04200 | 15,002.25000 |
|           |         |          | 30 | 13,356.05800 | 14,201.81700 |
|           |         |          | 31 | 13,411.63000 | 14,210.67400 |
|           |         |          | 32 | 13,689.48700 | 15,002.10500 |
|           |         |          | 33 | 12,132.04985 | 10,681.26738 |
|           |         |          | 34 | 12,121.94997 | 10,681.21729 |
|           |         |          | 35 | 12,174.49444 | 10,681.47785 |
|           |         |          | 36 | 11,989.03672 | 10,680.55822 |
|           |         |          | 37 | 12,011.47644 | 10,680.66949 |

HAVE A HAPPY DAY LARRY!

TIME FOR THIS RUN: 0 01 33.54; TOTAL TIME ON FILE: 2 11 36.13  
COORDINATES STORED



#C.DAT - Enlarged net - Hendricks County Corner Perpetuation Project in  
#Sections 7 and 18-15-1W and in Section 13-15-2W. Bearings and coordinates  
#based on the Mackey Estate survey.

|      |           |           |   |   |
|------|-----------|-----------|---|---|
| C 2  | 14679.106 | 12335.918 | ! | ! |
| C 1  | 15539.468 | 12336.963 | ! | ! |
| C 21 | 14683     | 11474     |   |   |

|            |             |          |
|------------|-------------|----------|
| M 2-1-5    | 270-18-28.0 | 1643.126 |
| M 2-1-11   | 269-40-48.0 | 1625.490 |
| M 2-1-7    | 269-46-37.0 | 4716.888 |
| M 11-2-5   | 225-44-31.0 | 25.118   |
| M 21-7-2   | 180-41-24.3 | 862.219  |
| M 7-2-38   | 100-31-11.0 | 1206.760 |
| M 38-7-42  | 229-54-35.8 | 951.853  |
| M 38-7-43  | 224-07-19.0 | 2496.575 |
| M 42-38-43 | 170-39-57.8 | 1552.573 |
| D 7-5      |             | 3073.841 |
| D 21-7     |             | 3854.718 |

|             |             |           |
|-------------|-------------|-----------|
| SS 7-38-51  | 74-48-44.0  | 180.026   |
| SS 21-7-17  | -81-33-58.5 | 5410.6945 |
| SS 38-7-39  | 353-43-28.5 | 475.740   |
| SS 38-7-40  | 350-36-51.5 | 473.730   |
| SS 38-7-41  | 280-10-51.5 | 1044.798  |
| SS 38-7-44  | 112-13-41.0 | 2724.185  |
| SS 38-7-45  | 138-52-15.5 | 1680.895  |
| SS 42-38-49 | 128-59-24.0 | 998.650   |
| SS 42-38-50 | 128-58-29.0 | 999.196   |



STAR\*NET Adjustment Program  
Version 5.040  
Copyright 1993 STARPLUS SOFTWARE, INC.  
Licensed for Use by Shartle Engineering  
Serial Number 10270  
Run Date : Thu Feb 24 1994 10:49:44  
Default Instrument Standard Error Settings

21 7 S89-43-13.44W 3854.7113  
2 1 N00-04-10.53E 860.3626

Elapsed Time = 00:00:02

Distances ( Constant ) : 0.0160000 US Feet  
Distances ( PPM ) : 3.0000000  
Angles : 2.0000000 Seconds  
Directions : 2.0000000 Seconds  
Azimuth / Bearings : 2.0000000 Seconds  
Centering Error Instrument : 0.0030000 US Feet  
Centering Error Target : 0.0050000 US Feet  
Number of Stations = 9  
Number of Observations = 20  
Number of Unknowns = 14  
Number of Redundant Obs = 6

### ADJUSTED COORDINATES

| Observation | Count | Sum Squares<br>of StdRes | Error<br>Factor |
|-------------|-------|--------------------------|-----------------|
| Angles      | 9     | 0.60                     | 0.47            |
| Distances   | 11    | 1.24                     | 0.61            |
| Total       | 20    | 1.84                     | 0.55            |

Adjustment Passes the Chi Square Test at 5% Level

| At<br>StdRes | From | To | Adjusted Angle Observations<br>Adj Angle | Residual    | StdErr    |
|--------------|------|----|------------------------------------------|-------------|-----------|
| 2            | 1    | 5  | 270-18-27.39                             | -0-00-00.61 | 2.55 0.2  |
| 2            | 1    | 11 | 269-40-48.60                             | 0-00-00.60  | 2.55 0.2  |
| 2            | 1    | 7  | 269-46-37.01                             | 0-00-00.01  | 2.45 0.0  |
| 11           | 2    | 5  | 225-44-30.31                             | -0-00-00.69 | 48.04 0.0 |
| 21           | 7    | 2  | 180-41-24.30                             | 0-00-00.00  | 2.50 0.0  |
| 7            | 2    | 38 | 100-31-11.00                             | 0-00-00.00  | 2.25 0.0  |
| 38           | 7    | 42 | 229-54-37.08                             | 0-00-01.28  | 2.65 0.5  |
| 38           | 7    | 43 | 224-07-18.02                             | -0-00-00.98 | 2.33 0.4  |
| 42           | 38   | 43 | 170-39-58.50                             | 0-00-00.70  | 2.59 0.3  |

| StdRes | From | To | Adjusted Distance Observations (US Feet)<br>Adj Dist | Residual | StdErr     |
|--------|------|----|------------------------------------------------------|----------|------------|
| 2      | 5    |    | 1643.1290                                            | 0.0030   | 0.0217 0.1 |
| 2      | 11   |    | 1625.4969                                            | 0.0069   | 0.0217 0.3 |
| 2      | 7    |    | 4716.8760                                            | -0.0120  | 0.0307 0.4 |
| 11     | 5    |    | 25.1235                                              | 0.0055   | 0.0171 0.3 |
| 21     | 2    |    | 862.2158                                             | -0.0032  | 0.0195 0.2 |
| 7      | 38   |    | 1206.7600                                            | -0.0000  | 0.0205 0.0 |
| 38     | 42   |    | 951.8464                                             | -0.0066  | 0.0197 0.3 |
| 38     | 43   |    | 2496.5858                                            | 0.0108   | 0.0242 0.4 |
| 42     | 43   |    | 1552.5641                                            | -0.0089  | 0.0215 0.4 |
| 7      | 5    |    | 3073.8552                                            | 0.0142   | 0.0259 0.5 |
| 21     | 7    |    | 3854.7113                                            | -0.0067  | 0.0282 0.2 |

Adjusted Bearings and Horizontal Distances (US Feet)

=====

| From | To | Bearing       | Distance  |
|------|----|---------------|-----------|
| 2    | 5  | N89-37-22.08W | 1643.1290 |
| 2    | 11 | S89-44-59.13W | 1625.4969 |
| 2    | 7  | S89-50-47.54W | 4716.8760 |
| 11   | 5  | N44-30-30.56W | 25.1235   |
| 21   | 2  | S89-35-22.26E | 862.2158  |
| 7    | 38 | S10-21-58.54W | 1206.7600 |
| 38   | 42 | S60-16-35.62W | 951.8464  |
| 38   | 43 | S54-29-16.56W | 2496.5858 |
| 42   | 43 | S50-56-34.12W | 1552.5641 |
| 7    | 5  | N89-33-46.36E | 3073.8552 |

|    |             |             |
|----|-------------|-------------|
| 1  | 15539.46800 | 12336.96300 |
| 2  | 14679.10600 | 12335.91800 |
| 5  | 14689.92327 | 10692.82465 |
| 7  | 14666.47243 | 7619.05892  |
| 11 | 14672.00657 | 10710.43657 |
| 17 | 9329.29047  | 10706.28854 |
| 21 | 14685.28312 | 11473.72433 |
| 38 | 13479.40966 | 7401.91458  |
| 39 | 13953.93756 | 7435.85296  |
| 40 | 13953.07028 | 7410.02167  |
| 41 | 13846.11229 | 6423.58333  |
| 42 | 13007.47091 | 6575.30377  |
| 43 | 12029.20687 | 5369.71069  |
| 44 | 12011.92597 | 9697.05631  |
| 45 | 12035.02923 | 8261.66640  |
| 49 | 12021.85343 | 6414.49329  |
| 50 | 12021.27169 | 6414.66833  |
| 51 | 14651.34088 | 7439.66997  |



-----  
COORDINATE FILE:1352WA LENGTH = 176 POINTS; TIME ON FILE: 2 11 36.13  
CORNER PERPETUATION \*\*\*\*\* JOB #1993  
-----

\*\*\*\*\* COGO \*\*\*\*\*

-----  
FROM TYPE            BEARING            DISTANCE    TO            NORTHING            EASTING  
-----

ENTER & ASSIGN

|    |              |              |
|----|--------------|--------------|
| 5  | 14,689.92327 | 10,692.82465 |
| 7  | 14,666.47243 | 7,619.05892  |
| 11 | 14,672.00657 | 10,710.43657 |
| 17 | 9,329.29047  | 10,706.28854 |
| 21 | 14,685.28312 | 11,473.72433 |
| 38 | 13,479.40966 | 7,401.91458  |
| 39 | 13,953.93756 | 7,435.85296  |
| 40 | 13,953.07028 | 7,410.02167  |
| 41 | 13,846.11229 | 6,423.58333  |
| 42 | 13,007.47091 | 6,575.30377  |
| 43 | 12,029.20687 | 5,369.71069  |
| 44 | 12,011.92597 | 9,697.05631  |
| 45 | 12,035.02923 | 8,261.66640  |
| 49 | 12,021.85343 | 6,414.49329  |
| 50 | 12,021.27169 | 6,414.66833  |
| 51 | 14,651.34088 | 7,439.66997  |

OFFSETS FROM A LINE

BASE BRG NE 0 15 13.45  
PT BASE DIST OFFSET  
3 11.88000 -0.00000  
START

|    |              |              |
|----|--------------|--------------|
| 12 | 14,650.16789 | 10,693.75394 |
|----|--------------|--------------|

OFFSETS FROM A LINE

|    |             |              |
|----|-------------|--------------|
| 16 | 9,343.70558 | 10,667.44085 |
|----|-------------|--------------|

BASE BRG NE 0 17 02.79  
PT BASE DIST OFFSET  
36 2645.36366 0.00000  
37 2667.80366 0.00000  
42 5306.52756 0.00000

|                       |            |              |              |              |
|-----------------------|------------|--------------|--------------|--------------|
| START                 | 21         | 14,685.28312 | 11,473.72433 |              |
| 21 TRAV SW 8 09 14.94 | 5410.69450 | 17           | 9,329.29048  | 10,706.28846 |

ENTER & ASSIGN

|    |             |              |
|----|-------------|--------------|
| 17 | 9,329.29047 | 10,706.28854 |
| 17 | 9,329.29047 | 10,706.28854 |

← USE FROM  
STAR# NET

START  
17 S.S. NW 69 38 39.06 41.44100  
17 S.S. NE 1 41 08.94 2503.04500  
17 TRAV NW 89 19 14.06 2690.81800

|    |              |              |
|----|--------------|--------------|
| 16 | 9,343.70569  | 10,667.43551 |
| 19 | 11,831.25209 | 10,779.92514 |
| 18 | 9,361.19812  | 8,015.65973  |

OFFSETS FROM A LINE

|    |             |              |
|----|-------------|--------------|
| 16 | 9,343.70569 | 10,667.43551 |
|----|-------------|--------------|

BASE BRG NW 89 19 14.06  
PT BASE DIST OFFSET

|                        |          |              |              |              |
|------------------------|----------|--------------|--------------|--------------|
| START                  | 11       | 14,672.00657 | 10,710.43657 |              |
| 11 INV NE 0 00 00.00   | 0.00000  | 11           | 14,672.00657 | 10,710.43657 |
| 11 TRAV SW 37 22 53.13 | 27.48400 | 12           | 14,650.16747 | 10,693.75053 |

OFFSETS FROM A LINE

|    |             |              |
|----|-------------|--------------|
| 16 | 9,343.70569 | 10,667.43551 |
|----|-------------|--------------|

BASE BRG NE 0 17 02.87  
PT BASE DIST OFFSET  
36 2645.36358 0.00437  
37 2667.80358 0.00437  
34 2778.27847 0.00433  
33 2788.37847 0.00432



35 2830.82358 0.00431  
 12 5306.52703 0.00000  
 START  
 16 S.S. NE 0 17 02.87 2645.36358  
 16 S.S. NE 0 17 02.87 2667.80358  
 16 S.S. NE 0 17 02.87 2778.27847  
 16 S.S. NE 0 17 02.87 2788.37847  
 16 TRAV NE 0 17 02.87 2830.82358  
 START  
 34 S.S. NE 70 40 56.86 3730.64007  
 START  
 33 S.S. NE 70 53 21.36 4846.12028  
 33 S.S. NE 70 53 25.92 7402.62799  
 33 S.S. NE 70 53 31.65 3725.05380  
 33 S.S. NE 70 53 29.47 4572.95458  
 START  
 35 S.S. NE 70 40 56.12 3739.75403  
 35 S.S. NE 70 40 37.99 4578.54329  
 START  
 7 S.S. SE 89 41 00.64 412.51000  
 7 S.S. NW 89 41 00.64 2238.53600  
 7 TRAV SE 89 41 00.64 1745.66800  
 START  
 45 S.S. SW 89 35 08.04 823.00000  
 45 S.S. SW 88 41 31.04 1099.70000  
 45 TRAV SW 88 37 35.54 1100.99900  
 OFFSETS FROM A LINE

BASE BRG SE 89 48 31.40  
 PT BASE DIST OFFSET  
 49 1044.80133 3.86545  
 50 1044.97831 4.44661  
 46 1792.59666 13.29683  
 47 1791.33171 14.58742  
 48 2068.96615 -6.77664  
 45 2891.92016 -15.47695  
 44 4327.37920 2.83422  
 37 5310.98403 0.00000

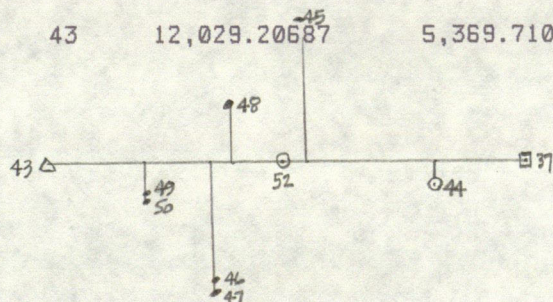
START  
 43 B-B SE 89 48 31.40 2653.93822  
 52 B-B SW 0 10 18.56 2659.16069  
 18 INV NE 0 10 18.56 2659.16069  
 52 S.S. NE 0 10 18.56 2643.85886  
 52 S.S. SE 89 48 31.40 2657.04581  
 52 S.S. SE 89 42 42.06 1673.44338  
 52 S.S. NW 89 08 42.02 585.01133  
 52 S.S. SW 89 18 24.67 861.44419  
 52 S.S. SW 89 13 20.82 862.72985  
 52 S.S. NW 89 56 46.88 1609.14154  
 52 S.S. NW 89 58 01.44 1608.96606  
 52 INV NW 89 48 31.40 2653.93822

OFFSETS FROM A LINE

BASE BRG NW 0 05 03.79  
 PT BASE DIST OFFSET  
 40 -0.82923 -25.83254  
 51 697.39694 4.84415  
 6 709.37812 596.75510  
 48 -1924.86329 0.00000

START

16 9,343.70569 10,667.43551  
 36 11,989.03674 10,680.55384  
 37 12,011.47646 10,680.66512  
 34 12,121.95000 10,681.21297  
 33 12,132.04987 10,681.26305  
 35 12,174.49446 10,681.47354  
 34 12,121.95000 10,681.21297  
 30 13,356.05800 14,201.81700  
 33 12,132.04987 10,681.26305  
 26 13,718.64500 15,260.30200  
 27 14,555.47800 17,675.96800  
 28 13,351.43800 14,201.08100  
 29 13,629.04200 15,002.25000  
 35 12,174.49446 10,681.47354  
 31 13,411.63000 14,210.67400  
 32 13,689.48700 15,002.10500  
 7 14,666.47243 7,619.05892  
 6 14,664.19382 8,031.56263  
 8 14,678.83757 5,380.55707  
 9 14,656.82977 9,364.70029  
 45 12,035.02923 8,261.66640  
 48 12,029.07636 7,438.68793  
 46 12,009.92563 7,162.25297  
 47 12,008.63928 7,160.98372  
 43 12,029.20687 5,369.71069



43 12,029.20687 5,369.71069  
 52 12,020.34685 8,023.63412  
 18 9,361.19812 8,015.65973  
 52 12,020.34685 8,023.63412  
 6 14,664.19382 8,031.56263  
 37 12,011.47646 10,680.66512  
 44 12,011.92597 9,697.05631  
 48 12,029.07636 7,438.68793  
 46 12,009.92563 7,162.25297  
 47 12,008.63928 7,160.98372  
 49 12,021.85343 6,414.49329  
 50 12,021.27169 6,414.66833  
 43 12,029.20687 5,369.71069

39 13,953.93756 7,435.85296

40 13,953.07028 7,410.02167



|                     |             |           |    |              |             |
|---------------------|-------------|-----------|----|--------------|-------------|
| 40 S.S. NE          | 2 25 52.67  | 698.89974 | 51 | 14,651.34088 | 7,439.66997 |
| 40 S.S. SW          | 83 48 42.06 | 992.22004 | 41 | 13,846.11229 | 6,423.58333 |
| 40 S.S. NE          | 88 04 37.30 | 25.84585  | 39 | 13,953.93756 | 7,435.85296 |
| START               |             |           | 43 | 12,029.20687 | 5,369.71069 |
| OFFSETS FROM A LINE |             |           |    |              |             |

BASE BRG NE 0 14 04.35

|    |            |            |
|----|------------|------------|
| PT | BASE DIST  | OFFSET     |
| 49 | -3.07655   | 1044.80395 |
| 5  | 2682.48433 | 5312.17769 |
| 41 | 1821.20424 | 1046.42629 |
| 8  | 2649.65290 | 0.00000    |

OFFSETS FROM A LINE

|    |              |             |
|----|--------------|-------------|
| 43 | 12,029.20687 | 5,369.71069 |
|----|--------------|-------------|

BASE BRG NE 0 10 18.56

|    |            |            |
|----|------------|------------|
| PT | BASE DIST  | OFFSET     |
| 48 | 6.97530    | -584.96974 |
| 39 | 1931.81935 | -593.57704 |
| 40 | 1930.87461 | -619.40562 |
| 51 | 2629.23098 | -591.85145 |
| 6  | 2643.85886 | 0.00000    |

LIST

|    |              |             |
|----|--------------|-------------|
| 52 | 12,020.34685 | 8,023.63412 |
|----|--------------|-------------|

|    |              |              |
|----|--------------|--------------|
| 1  | 15,539.46800 | 12,336.96300 |
| 2  | 14,679.10600 | 12,335.91800 |
| 3  | 14,662.04778 | 10,693.80655 |
| 4  | 14,668.90385 | 11,353.77322 |
| 5  | 14,689.92327 | 10,692.82465 |
| 6  | 14,664.19382 | 8,031.56263  |
| 7  | 14,666.47243 | 7,619.05892  |
| 8  | 14,678.83757 | 5,380.55707  |
| 9  | 14,656.82977 | 9,364.70029  |
| 11 | 14,672.00657 | 10,710.43657 |
| 12 | 14,650.16747 | 10,693.75053 |
| 13 | 19,997.74000 | 12,267.36100 |
| 14 | 19,996.47759 | 10,717.41751 |
| 15 | 19,981.95868 | 10,717.36599 |
| 16 | 9,343.70569  | 10,667.43551 |
| 17 | 9,329.29047  | 10,706.28854 |
| 18 | 9,361.19812  | 8,015.65973  |
| 19 | 11,831.25209 | 10,779.92514 |
| 20 | 11,991.77190 | 10,687.17103 |
| 21 | 14,685.28312 | 11,473.72433 |
| 22 | 12,069.22188 | 10,680.63259 |
| 23 | 12,125.19633 | 10,674.54463 |
| 24 | 12,037.80412 | 10,682.96711 |
| 25 | 12,037.45109 | 10,682.99334 |
| 26 | 13,718.64500 | 15,260.30200 |
| 27 | 14,555.47800 | 17,675.96800 |
| 28 | 13,351.43800 | 14,201.08100 |
| 29 | 13,629.04200 | 15,002.25000 |
| 30 | 13,356.05800 | 14,201.81700 |
| 31 | 13,411.63000 | 14,210.67400 |
| 32 | 13,689.48700 | 15,002.10500 |
| 33 | 12,132.04987 | 10,681.26305 |
| 34 | 12,121.95000 | 10,681.21297 |
| 35 | 12,174.49446 | 10,681.47354 |
| 36 | 11,989.03674 | 10,680.55384 |
| 37 | 12,011.47646 | 10,680.66512 |
| 38 | 13,479.40966 | 7,401.91458  |
| 39 | 13,953.93756 | 7,435.85296  |



|    |              |             |
|----|--------------|-------------|
| 40 | 13,953.07028 | 7,410.02167 |
| 41 | 13,846.11229 | 6,423.58333 |
| 42 | 13,007.47091 | 6,575.30377 |
| 43 | 12,029.20687 | 5,369.71069 |
| 44 | 12,011.92597 | 9,697.05631 |
| 45 | 12,035.02923 | 8,261.66640 |
| 46 | 12,009.92563 | 7,162.25297 |
| 47 | 12,008.63928 | 7,160.98372 |
| 48 | 12,029.07636 | 7,438.68793 |
| 49 | 12,021.85343 | 6,414.49329 |
| 50 | 12,021.27169 | 6,414.66833 |
| 51 | 14,651.34088 | 7,439.66997 |
| 52 | 12,020.34685 | 8,023.63412 |

TIME FOR THIS RUN: 1 03 07.33; TOTAL TIME ON FILE: 3 14 43.47  
COORDINATES STORED



COORDINATE FILE:1352WA LENGTH = 176 POINTS; TIME ON FILE: 3 14 43.47  
CORNER PERPETUATION \*\*\*\*\* JOB #1993

\*\*\*\*\* COGO \*\*\*\*\*

| FROM   | TYPE | BEARING     | DISTANCE   | TO | NORTHING     | EASTING     |
|--------|------|-------------|------------|----|--------------|-------------|
| START  |      |             |            | 6  | 14,664.19382 | 8,031.56263 |
| 6 S.S. | NW   | 89 41 00.64 | 591.000000 | 58 | 14,667.45837 | 7,440.57164 |
| 6 TRAV | NW   | 89 41 00.64 | 616.000000 | 63 | 14,667.59646 | 7,415.57202 |

## LINE TANGENT TO CIRCLES

RADIUS = 0.000

RADIUS = 12.500

TANGENT PTS (2nd, 1st)

START

58 B-B SW 0 18 44.50

59 B-B SE 89 48 31.40

## OFFSETS FROM A LINE

BASE BRG NE 0 18 44.50

| PT | BASE   | DIST   | OFFSET |
|----|--------|--------|--------|
| 00 | 000000 | 000000 | 000000 |
| 01 | 000000 | 000000 | 000000 |
| 02 | 000000 | 000000 | 000000 |
| 03 | 000000 | 000000 | 000000 |
| 04 | 000000 | 000000 | 000000 |
| 05 | 000000 | 000000 | 000000 |
| 06 | 000000 | 000000 | 000000 |
| 07 | 000000 | 000000 | 000000 |
| 08 | 000000 | 000000 | 000000 |
| 09 | 000000 | 000000 | 000000 |
| 0A | 000000 | 000000 | 000000 |
| 0B | 000000 | 000000 | 000000 |
| 0C | 000000 | 000000 | 000000 |
| 0D | 000000 | 000000 | 000000 |
| 0E | 000000 | 000000 | 000000 |
| 0F | 000000 | 000000 | 000000 |
| 10 | 000000 | 000000 | 000000 |
| 11 | 000000 | 000000 | 000000 |
| 12 | 000000 | 000000 | 000000 |
| 13 | 000000 | 000000 | 000000 |
| 14 | 000000 | 000000 | 000000 |
| 15 | 000000 | 000000 | 000000 |
| 16 | 000000 | 000000 | 000000 |
| 17 | 000000 | 000000 | 000000 |
| 18 | 000000 | 000000 | 000000 |
| 19 | 000000 | 000000 | 000000 |
| 1A | 000000 | 000000 | 000000 |
| 1B | 000000 | 000000 | 000000 |
| 1C | 000000 | 000000 | 000000 |
| 1D | 000000 | 000000 | 000000 |
| 1E | 000000 | 000000 | 000000 |
| 1F | 000000 | 000000 | 000000 |
| 20 | 000000 | 000000 | 000000 |
| 21 | 000000 | 000000 | 000000 |
| 22 | 000000 | 000000 | 000000 |
| 23 | 000000 | 000000 | 000000 |
| 24 | 000000 | 000000 | 000000 |
| 25 | 000000 | 000000 | 000000 |
| 26 | 000000 | 000000 | 000000 |
| 27 | 000000 | 000000 | 000000 |
| 28 | 000000 | 000000 | 000000 |
| 29 | 000000 | 000000 | 000000 |
| 2A | 000000 | 000000 | 000000 |
| 2B | 000000 | 000000 | 000000 |
| 2C | 000000 | 000000 | 000000 |
| 2D | 000000 | 000000 | 000000 |
| 2E | 000000 | 000000 | 000000 |
| 2F | 000000 | 000000 | 000000 |
| 30 | 000000 | 000000 | 000000 |
| 31 | 000000 | 000000 | 000000 |
| 32 | 000000 | 000000 | 000000 |
| 33 | 000000 | 000000 | 000000 |
| 34 | 000000 | 000000 | 000000 |
| 35 | 000000 | 000000 | 000000 |
| 36 | 000000 | 000000 | 000000 |
| 37 | 000000 | 000000 | 000000 |
| 38 | 000000 | 000000 | 000000 |
| 39 | 000000 | 000000 | 000000 |
| 3A | 000000 | 000000 | 000000 |
| 3B | 000000 | 000000 | 000000 |
| 3C | 000000 | 000000 | 000000 |
| 3D | 000000 | 000000 | 000000 |
| 3E | 000000 | 000000 | 000000 |
| 3F | 000000 | 000000 | 000000 |
| 40 | 000000 | 000000 | 000000 |
| 41 | 000000 | 000000 | 000000 |
| 42 | 000000 | 000000 | 000000 |
| 43 | 000000 | 000000 | 000000 |
| 44 | 000000 | 000000 | 000000 |
| 45 | 000000 | 000000 | 000000 |
| 46 | 000000 | 000000 | 000000 |
| 47 | 000000 | 000000 | 000000 |
| 48 | 000000 | 000000 | 000000 |
| 49 | 000000 | 000000 | 000000 |
| 4A | 000000 | 000000 | 000000 |
| 4B | 000000 | 000000 | 000000 |
| 4C | 000000 | 000000 | 000000 |
| 4D | 000000 | 000000 | 000000 |
| 4E | 000000 | 000000 | 000000 |
| 4F | 000    |        |        |

|    |            |          |
|----|------------|----------|
| 39 | 1931.62022 | -0.82871 |
|----|------------|----------|

40 1930.61213 -26.65489

51 2629.03399 -0.81379

MOVE 59 WEST 0.5 FEET:

START

59 TRAV NW 89 48 31.4

## OFFSETS FROM A LINE

BASE BRG NE 0 19 23.49

| PT | BASE | DIST | OFFSET |
|----|------|------|--------|
| 00 | 0000 | 0000 | 0000   |
| 01 | 0001 | 0001 | 0001   |
| 02 | 0002 | 0002 | 0002   |
| 03 | 0003 | 0003 | 0003   |
| 04 | 0004 | 0004 | 0004   |
| 05 | 0005 | 0005 | 0005   |
| 06 | 0006 | 0006 | 0006   |
| 07 | 0007 | 0007 | 0007   |
| 08 | 0008 | 0008 | 0008   |
| 09 | 0009 | 0009 | 0009   |
| 0A | 000A | 000A | 000A   |
| 0B | 000B | 000B | 000B   |
| 0C | 000C | 000C | 000C   |
| 0D | 000D | 000D | 000D   |
| 0E | 000E | 000E | 000E   |
| 0F | 000F | 000F | 000F   |
| 10 | 0010 | 0010 | 0010   |
| 11 | 0011 | 0011 | 0011   |
| 12 | 0012 | 0012 | 0012   |
| 13 | 0013 | 0013 | 0013   |
| 14 | 0014 | 0014 | 0014   |
| 15 | 0015 | 0015 | 0015   |
| 16 | 0016 | 0016 | 0016   |
| 17 | 0017 | 0017 | 0017   |
| 18 | 0018 | 0018 | 0018   |
| 19 | 0019 | 0019 | 0019   |
| 1A | 001A | 001A | 001A   |
| 1B | 001B | 001B | 001B   |
| 1C | 001C | 001C | 001C   |
| 1D | 001D | 001D | 001D   |
| 1E | 001E | 001E | 001E   |
| 1F | 001F | 001F | 001F   |
| 20 | 0020 | 0020 | 0020   |
| 21 | 0021 | 0021 | 0021   |
| 22 | 0022 | 0022 | 0022   |
| 23 | 0023 | 0023 | 0023   |
| 24 | 0024 | 0024 | 0024   |
| 25 | 0025 | 0025 | 0025   |
| 26 | 0026 | 0026 | 0026   |
| 27 | 0027 | 0027 | 0027   |
| 28 | 0028 | 0028 | 0028   |
| 29 | 0029 | 0029 | 0029   |
| 2A | 002A | 002A | 002A   |
| 2B | 002B | 002B | 002B   |
| 2C | 002C | 002C | 002C   |
| 2D | 002D | 002D | 002D   |
| 2E | 002E | 002E | 002E   |
| 2F | 002F | 002F | 002F   |
| 30 | 0030 | 0030 | 0030   |
| 31 | 0031 | 0031 | 0031   |
| 32 | 0032 | 0032 | 0032   |
| 33 | 0033 | 0033 | 0033   |
| 34 | 0034 | 0034 | 0034   |
| 35 | 0035 | 0035 | 0035   |
| 36 | 0036 | 0036 | 0036   |
| 37 | 0037 | 0037 | 0037   |
| 38 | 0038 | 0038 | 0038   |
| 39 | 0039 | 0039 | 0039   |
| 3A | 003A | 003A | 003A   |
| 3B | 003B | 003B | 003B   |
| 3C | 003C | 003C | 003C   |
| 3D | 003D | 003D | 003D   |
| 3E | 003E | 003E | 003E   |
| 3F | 003F | 003F | 003F   |
| 40 | 0040 | 0040 | 0040   |
| 41 | 0041 | 0041 | 0041   |
| 42 | 0042 | 0042 | 0042   |
| 43 | 0043 | 0043 | 0043   |
| 44 | 0044 | 0044 | 0044   |
| 45 | 0045 | 0045 | 0045   |
| 46 | 0046 | 0046 | 0046   |
| 47 | 0047 | 0047 | 0047   |
| 48 | 0048 | 0048 | 0048   |
| 49 | 0049 | 0049 | 0049   |
| 4A | 004A | 004A | 004A   |
| 4B | 004B | 004B | 004B   |
| 4C | 004C | 004C | 004C   |
| 4D | 004D | 004D | 004D   |
| 4E | 004E | 004E | 004E   |
| 4F | 004F | 004F | 004F   |
| 50 | 0050 | 0050 | 0050   |
| 51 | 0051 | 0051 | 0051   |
| 52 | 0052 | 0052 | 0052   |
| 53 | 0053 | 0053 | 0053   |
| 54 | 0054 | 0054 | 0054   |
| 55 | 0055 | 0055 | 0055   |
| 56 | 0056 | 0056 | 0056   |
| 57 | 0057 | 0057 | 0057   |
| 58 | 0058 | 0058 | 0058   |
| 59 | 0059 | 0059 | 0059   |
| 5A | 005A | 005A | 005A   |
| 5B | 005B | 005B | 005B   |
| 5C | 005C | 005C | 005C   |
| 5D | 005D | 005D | 005D   |
| 5E | 005E | 005E | 005E   |
| 5F | 005F | 005F | 005F   |
| 60 | 0060 | 0060 | 0060   |
| 61 | 0061 | 0061 | 0061   |
| 62 | 0062 | 0062 | 0062   |
| 63 | 0063 | 0063 | 0063   |
| 64 | 0064 | 0064 | 0064   |
| 65 |      |      |        |

|    |            |          |
|----|------------|----------|
| 39 | 1931.62118 | -0.69383 |
|----|------------|----------|

40 1930.60821 -26.51982

51 2629.03494 -0.81074

START

6 TRAV SE 89 41 53.26

PTS 65 THRU 65 CLEARED

START

6 TRAV SE 89 41 53.26

START

52 TRAV SE 89 48 31.40

WHICKER TO GOOD:

### LOT SUMMARY

|    |                     |             |                      |    |              |              |             |
|----|---------------------|-------------|----------------------|----|--------------|--------------|-------------|
|    |                     |             |                      |    | 6            | 14,667.19382 | 8,031.56263 |
| 6  | NW                  | 89 41 00.64 | 591.00000            | 58 | 14,666.45836 | 7,440.57164  |             |
| 58 | SW                  | 0 19 23.49  | 2645.15725           | 59 | 12,022.34319 | 7,425.65103  |             |
| 59 | SE                  | 89 48 31.40 | 597.98512            | 60 | 12,020.34686 | 8,023.63412  |             |
| 52 | SE                  | 89 48 31.40 | 660.00000            | 65 | 12,018.14350 | 8,683.63044  |             |
| 65 | NE                  | 0 10 18.43  | 2622.88490           | 64 | 14,660.71652 | 8,691.55351  |             |
| 64 | NW                  | 89 41 53.99 | 660.00000            | 6  | 14,664.19382 | 8,031.56267  |             |
|    |                     |             |                      | 6  | 14,664.19382 | 8,031.56263  |             |
|    | SW                  | 87 37 42.96 | 0.00005 CLOSING LINE |    |              |              |             |
|    | 7.796.729 DIST TRAV |             |                      |    |              |              |             |



## PERFECT CLOSURE

-----  
 AREA 3316663.96 SF 76.1401 ACRES  
 -----

GOOD TO WHICKER:

LOT SUMMARY

|            |             |           |  |    |              |             |
|------------|-------------|-----------|--|----|--------------|-------------|
| START      |             |           |  | 58 | 14,667.45837 | 7,440.57164 |
| 58 INV NW  | 89 41 00.64 | 25.00000  |  | 63 | 14,667.59646 | 7,415.57202 |
| 63 TRAV SW | 0 19 23.49  | 714.40000 |  | 61 | 13,953.20783 | 7,411.54229 |
| 61 INV SW  | 84 49 53.17 | 1.52683   |  | 40 | 13,953.07028 | 7,410.02167 |

MOVE 59 WEST 4 FEET:

|            |             |         |  |    |              |             |
|------------|-------------|---------|--|----|--------------|-------------|
| 40 TRAV NW | 89 48 31.39 | 4.00000 |  | 59 | 13,953.08363 | 7,406.02169 |
| START      |             |         |  | 59 | 13,953.08363 | 7,406.02169 |
| 59 TRAV SW | 46 37 34.52 | 4.00000 |  | 59 | 13,950.33662 | 7,403.11413 |

OFFSETS FROM A LINE

|    |              |             |
|----|--------------|-------------|
| 59 | 13,950.33662 | 7,403.11413 |
|----|--------------|-------------|

BASE BRG NE 2 59 24.07

|    |           |          |
|----|-----------|----------|
| PT | BASE DIST | OFFSET   |
| 39 | 5.30377   | 32.50642 |
| 40 | 3.09025   | 6.75554  |
| 51 | 701.95677 | -0.05972 |

START

RADIUS = 0.000

RADIUS = 4.500

TANGENT PTS (2nd,1st)

START

|           |             |            |    |              |             |
|-----------|-------------|------------|----|--------------|-------------|
| 58 B-B SW | 0 08 11.07  | 2645.15136 | 58 | 14,667.45837 | 7,440.57164 |
| 59 B-B SE | 89 48 31.40 | 589.46585  | 52 | 12,020.34685 | 8,023.63412 |

PTS 100 THRU 100 CLEARED

OFFSETS FROM A LINE

|    |              |             |
|----|--------------|-------------|
| 59 | 12,022.31475 | 7,434.17156 |
|----|--------------|-------------|

BASE BRG NE 0 08 19.07

|    |            |           |
|----|------------|-----------|
| PT | BASE DIST  | OFFSET    |
| 39 | 1931.62122 | -2.99227  |
| 40 | 1930.69145 | -28.82138 |
| 51 | 2629.03174 | -0.86267  |

LINE TANGENT TO CIRCLES

RADIUS = 0.000

RADIUS = 17.000

TANGENT PTS (2nd,1st)

START

|           |             |            |    |              |             |
|-----------|-------------|------------|----|--------------|-------------|
| 58 B-B SW | 0 24 36.31  | 2645.16953 | 58 | 14,667.45837 | 7,440.57164 |
| 59 B-B SE | 89 48 31.40 | 601.99808  | 52 | 12,020.34685 | 8,023.63412 |

OFFSETS FROM A LINE

|    |              |             |
|----|--------------|-------------|
| 59 | 12,022.35659 | 7,421.63940 |
|----|--------------|-------------|

BASE BRG NE 0 24 36.31

|    |            |           |
|----|------------|-----------|
| PT | BASE DIST  | OFFSET    |
| 39 | 1931.63323 | 0.38831   |
| 40 | 1930.58109 | -25.43611 |
| 51 | 2629.04600 | -0.78629  |

WHICKER TO GOOD:

LOT SUMMARY

|   |              |             |
|---|--------------|-------------|
| 6 | 14,664.19382 | 8,031.56263 |
|---|--------------|-------------|



|    |    |    |    |       |            |    |              |             |
|----|----|----|----|-------|------------|----|--------------|-------------|
| 6  | NW | 89 | 41 | 00.64 | 591.00000  | 58 | 14,667.45836 | 7,440.57164 |
| 58 | SW | 0  | 24 | 36.31 | 2645.16953 | 59 | 12,022.35658 | 7,421.63939 |
| 59 | SE | 89 | 48 | 31.40 | 601.99808  | 52 | 12,020.34686 | 8,023.63412 |
| 52 | SE | 89 | 48 | 31.40 | 660.00000  | 65 | 12,018.14350 | 8,683.63044 |
| 65 | NE | 0  | 10 | 18.43 | 2642.58490 | 64 | 14,660.71652 | 8,691.55351 |
| 64 | NW | 89 | 41 | 53.26 | 660.00000  | 6  | 14,664.19382 | 8,031.56267 |
|    |    |    |    |       |            | 6  | 14,664.19382 | 8,031.56263 |

SW 89 52 51.53 0.00005 CLOSING LINE

7,800.753 DIST TRAV

PERFECT CLOSURE

-----  
AREA 3321969.69 SF 76.2619 ACRES  
-----

|            |   |    |       |           |    |              |             |
|------------|---|----|-------|-----------|----|--------------|-------------|
| START      |   |    |       |           | 53 | 14,667.59646 | 7,415.57202 |
| 63 TRAV SW | 0 | 24 | 36.31 | 714.40000 | 61 | 13,953.21476 | 7,410.45886 |

GOOD TO WHICKER:

LOT SUMMARY

|    |    |    |    |       |             |    |              |             |
|----|----|----|----|-------|-------------|----|--------------|-------------|
|    |    |    |    |       |             | 58 | 14,667.45837 | 7,440.57164 |
| 58 | NW | 89 | 41 | 00.64 | 25.00000    | 63 | 14,667.59646 | 7,415.57202 |
| 63 | SW | 26 | 49 | 12.09 | 16435.60447 | 57 | -0.7814      | .00029      |
|    |    |    |    |       |             | 58 | 14,667.45837 | 7,440.57164 |

NE 26 53 52.67 16446.77601 CLOSING LINE

16,460.604 DIST TRAV

1.001 PRECISION

-----  
AREA 183854.18 SF 4.2207 ACRES  
-----

|            |    |    |       |            |    |              |             |
|------------|----|----|-------|------------|----|--------------|-------------|
| START      |    |    |       |            | 53 | 0.00000      | 0.00000     |
| START      |    |    |       |            | 8  | 14,678.83757 | 5,380.55707 |
| 8 TRAV SE  | 89 | 41 | 00.64 | 1039.50000 | 53 | 14,673.09562 | 6,420.04121 |
| START      |    |    |       |            | 43 | 12,029.20687 | 5,369.71069 |
| 43 TRAV SE | 89 | 48 | 31.40 | 1039.50000 | 54 | 12,025.73656 | 6,409.20490 |
| START      |    |    |       |            | 53 | 14,673.09562 | 6,420.04121 |
| 53 TRAV SW | 0  | 14 | 04.29 | 823.40000  | 57 | 13,849.70252 | 6,416.67085 |
| 57 INV NE  | 84 | 03 | 12.80 | 999.16434  | 61 | 13,953.21476 | 7,410.45886 |
| START      |    |    |       |            | 54 | 12,025.73656 | 6,409.20490 |
| 54 TRAV SE | 89 | 48 | 31.40 | 1006.50000 | 56 | 12,022.37642 | 7,415.69929 |
| 56 INV SE  | 89 | 48 | 31.40 | 5.94014    | 59 | 12,022.35659 | 7,421.63940 |

OFFSETS FROM A LINE

|    |              |             |
|----|--------------|-------------|
| 56 | 12,022.37642 | 7,415.69929 |
|----|--------------|-------------|

BASE BRG NE 0 32 19.50

| PT | BASE DIST  | OFFSET    |
|----|------------|-----------|
| 48 | 6.91580    | 22.92463  |
| 39 | 1931.66525 | 1.99064   |
| 40 | 1930.55512 | -23.83135 |
| 51 | 2629.07363 | -0.75008  |
| 58 | 2645.19888 | 0.00000   |

GOOD TO WHICKER:

LOT SUMMARY

|    |    |             |            |    |              |             |              |             |
|----|----|-------------|------------|----|--------------|-------------|--------------|-------------|
|    |    |             |            |    |              | 58          | 14,667.45837 | 7,440.57164 |
| 58 | NW | 89 41 00.64 | 25.00000   | 63 | 14,667.59646 | 7,415.57202 |              |             |
| 63 | SW | 0 24 36.31  | 714.40000  | 61 | 13,953.21476 | 7,410.45886 |              |             |
| 61 | SW | 84 03 12.80 | 999.16434  | 57 | 13,849.70251 | 6,416.67085 |              |             |
| 57 | SW | 0 14 04.29  | 1823.98124 | 54 | 12,025.73655 | 6,409.20489 |              |             |
| 54 | SE | 89 48 31.40 | 1012.44014 | 59 | 12,022.35660 | 7,421.63939 |              |             |
| 59 | NE | 0 24 36.31  | 2645.16953 | 58 | 14,667.45838 | 7,440.57164 |              |             |
|    |    |             |            | 58 | 14,667.45837 | 7,440.57164 |              |             |

SE 8 40 11.31

0.00001 CLOSING LINE

7,220.155 DIST TRAV



PERFECT CLOSURE

PRELIMINARY

AREA 1925340.70 SF 44.1997 ACRES

START 59 12,022.35659 7,421.63940  
59 TRAV NW 89 48 31.40 1.00000 59 12,022.35993 7,420.63940  
WHICKER TO GOOD:  
LOT SUMMARY  
6 14,664.19382 8,031.56263  
58 14,667.45836 7,440.57164  
59 12,022.35992 7,420.63936  
52 12,020.34685 8,023.63408  
52 12,018.14350 8,683.63040  
65 14,660.71652 8,691.55348  
64 14,664.19382 8,031.56264  
6 14,664.19382 8,031.56263  
NW 82 19 40.98 0.00001 CLOSING LINE  
7,801.757 DIST TRAV

PERFECT CLOSURE

AREA 3323292.22 SF 76.2923 ACRES

GOOD TO WHICKER:

LOT SUMMARY

58 14,667.45837 7,440.57164  
58 NW 89 41 00.64 25.00000 63 14,667.59646 7,415.57202  
63 SW 0 24 36.31 714.40000 61 14,653.21476 7,410.45886  
61 SW 84 03 12.80 999.16434 54 13,849.70251 6,416.67085  
57 SW 0 14 04.29 1823.98144 54 12,025.73655 6,409.20489  
54 SE 89 48 31.40 1011.44004 59 12,022.35994 7,420.63940  
59 NE 0 25 54.29 2645.17354 58 14,667.45838 7,440.57168  
58 14,667.45837 7,440.57164  
SW 64 31 47.97 0.00004 CLOSING LINE

7,219.159 DIST TRAV

PERFECT CLOSURE

AREA 1924018.17 SF 44.1694 ACRES

OFFSETS FROM A LINE

59 12,022.35993 7,420.63940  
BASE BRG NE 0 25 54.29  
PT BASE DIST OFFSET  
48 6.85224 17.99740  
39 1931.63743 0.65806  
40 1930.57553 -25.16596  
51 2629.04971 -0.78020  
58 2645.17354 0.00000



FOR STAKING:

|                                  |                      |               |                         |                        |             |
|----------------------------------|----------------------|---------------|-------------------------|------------------------|-------------|
| START                            |                      |               | 45                      | 12,035.02923           | 8,261.66640 |
| 45 S.S. NA 329 14 14.04          | 1680.89501           | 38            | 13,479.40966            | 7,401.91458            |             |
| 45 S.S. NA 266 28 13.21          | 238.48467            | 52            | 12,020.34685            | 8,023.63412            |             |
| 45 S.S. NA 269 08 13.04          | 841.12242            | 59            | 12,022.35993            | 7,420.63940            |             |
| START                            |                      | 42            | 13,007.47091            | 6,575.30377            |             |
| 42 S.S. NA 60 16 35.62           | 951.84642            | 38            | 13,479.40966            | 7,401.91458            |             |
| 42 S.S. NA 189 36 10.40          | 995.68628            | 54            | 12,025.73656            | 6,409.20490            |             |
| 42 S.S. NA 349 20 00.23          | 857.04054            | 57            | 13,849.70252            | 6,416.67085            |             |
| START                            |                      | 7             | 14,666.47243            | 7,619.05892            |             |
| 7 S.S. NA 89 50 47.54            | 4716.87600           | 2             | 14,679.10600            | 12,335.91800           |             |
| <del>7 INV NA 196 18 07.71</del> | <del>743.13558</del> | <del>61</del> | <del>13,953.21476</del> | <del>7,410.45886</del> | See p. 21   |

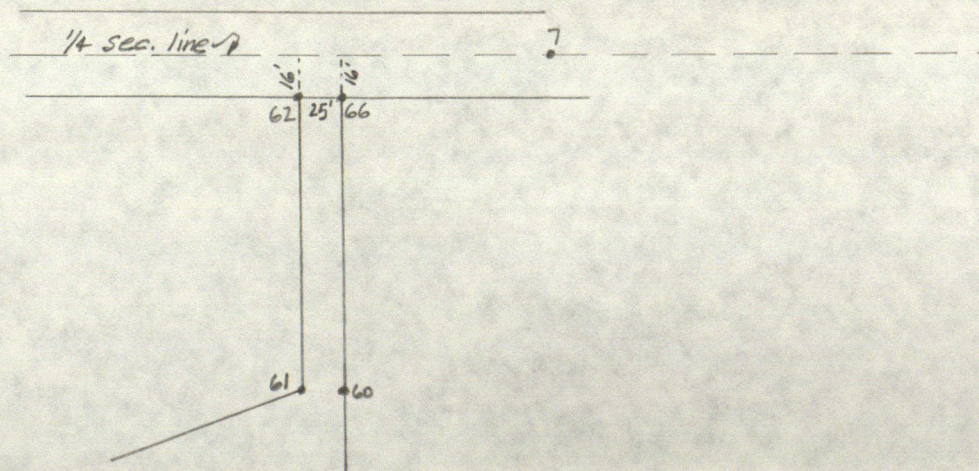
|                     |          |    |              |             |  |
|---------------------|----------|----|--------------|-------------|--|
| START               |          | 58 | 14,667.45837 | 7,440.57164 |  |
| OFFSET INTERSECTION |          |    |              |             |  |
| NA 90 18 59.36      | 16.00000 |    |              |             |  |
| NA 180 25 54.29     | 0.00000  |    |              |             |  |

|                     |          |    |              |             |  |
|---------------------|----------|----|--------------|-------------|--|
| START               |          | 66 | 14,651.45879 | 7,440.45108 |  |
| OFFSET INTERSECTION |          | 63 | 14,667.59646 | 7,415.57202 |  |
| NA 90 18 59.36      | 16.00000 |    |              |             |  |
| NA 180 24 36.31     | 0.00000  |    |              |             |  |

|                         |           |    |              |             |  |
|-------------------------|-----------|----|--------------|-------------|--|
| START                   |           | 62 | 14,651.59685 | 7,415.45751 |  |
|                         |           | 58 | 14,667.45837 | 7,440.57164 |  |
| 58 TRAV NA 180 25 54.29 | 714.40000 | 60 | 13,953.07865 | 7,435.18841 |  |

|                        |           |    |              |             |                 |
|------------------------|-----------|----|--------------|-------------|-----------------|
| START                  |           | 7  | 14,666.47243 | 7,619.05892 |                 |
| 7 S.S. NA 194 27 10.41 | 736.70825 | 60 | 13,953.07865 | 7,435.18841 | OK<br>see p. 21 |
| 7 S.S. NA 196 18 07.71 | 743.13558 | 61 | 13,953.21476 | 7,410.45886 |                 |
| 7 S.S. NA 265 11 42.20 | 179.23775 | 66 | 14,651.45879 | 7,440.45108 |                 |
| 7 INV NA 265 49 16.56  | 204.14411 | 62 | 14,651.59685 | 7,415.45751 |                 |

TIME FOR THIS RUN: 1 40 23.15; TOTAL TIME ON FILE: 4 55 06.62  
COORDINATES STORED





-----  
COORDINATE FILE:1352WA LENGTH = 176 POINTS; TIME ON FILE: 4 55 06.62  
CORNER PERPETUATION \*\*\*\*\* JOB #1993  
-----

\*\*\*\*\* COGO \*\*\*\*\*

| FROM TYPE           | BEARING      | DISTANCE   | TO    | NORTHING     | EASTING      |
|---------------------|--------------|------------|-------|--------------|--------------|
| START               |              |            | 63    | 14,667.59646 | 7,415.57202  |
| 63 TRAV SW          | 0 25 54.29   | 714.40000  | 61    | 13,953.21674 | 7,410.18879  |
| 61 TRAV SE          | 89 41 00.64  | 25.00000   | 60    | 13,953.07865 | 7,435.18841  |
| 60 INV NE           | 0 25 54.29   | 714.40000  | 58    | 14,667.45837 | 7,440.57164  |
| OFFSETS FROM A LINE |              |            | 59    | 12,022.35993 | 7,420.63940  |
| BASE BRG NE         | 0 25 54.29   |            |       |              |              |
| PT                  | BASE DIST    | OFFSET     |       |              |              |
| 60                  | 1930.77354   | 0.00000    |       |              |              |
| 61                  | 1930.72325   | -24.99995  |       |              |              |
| 58                  | 2645.17354   | 0.00000    |       |              |              |
| START               |              |            | START |              |              |
| 7 TRAV NA           | 0 00 00.00   | 0.00000    | 0     | 14,666.47243 | 7,619.05892  |
| START               |              |            | 7     | 14,666.47243 | 7,619.05892  |
| 7 INV NA            | 89 50 47.54  | 4716.87600 | 2     | 14,679.10600 | 12,335.91800 |
| START               |              |            | 7     | 14,666.47243 | 7,619.05892  |
| 7 S.S. NA           | 194 27 10.41 | 736.70825  | 60    | 13,953.07865 | 7,435.18841  |
| 7 INV NA            | 196 19 19.80 | 743.20953  | 61    | 13,953.21674 | 7,410.18879  |

TIME FOR THIS RUN: 0 06 47.33; TOTAL TIME ON FILE: 5 01 53.95  
COORDINATES STORED



COORDINATE FILE:1352WA LENGTH = 176 POINTS; TIME ON FILE: 5 01 53.95  
CORNER PERPETUATION \*\*\*\*\* JOB #1993

\*\*\*\*\* COGO \*\*\*\*\*

FROM TYPE BEARING DISTANCE TO NORTHING EASTING

WHICKER TO GOOD:

LOT SUMMARY

|    |    |             |            |    |              |             |
|----|----|-------------|------------|----|--------------|-------------|
| 6  | NW | 89 41 00.64 | 591.00000  | 58 | 14,664.19382 | 8,031.56263 |
| 58 | SW | 0 25 54.29  | 2645.17354 | 59 | 14,667.45836 | 7,440.57164 |
| 59 | SE | 89 48 31.40 | 602.99808  | 52 | 12,022.35992 | 7,420.63936 |
| 52 | SE | 89 48 31.40 | 660.00000  | 52 | 12,020.34685 | 8,023.63408 |
| 65 | NE | 0 10 18.43  | 2642.58490 | 65 | 12,018.14350 | 8,683.63040 |
| 64 | NW | 89 41 53.26 | 660.00000  | 64 | 14,660.71652 | 8,691.55348 |
|    |    |             |            | 6  | 14,664.19382 | 8,031.56264 |
|    |    |             |            | 6  | 14,664.19382 | 8,031.56263 |
|    | NW | 82 19 40.98 | 0.00001    |    |              |             |

7,801.757 DIST TRAV

PERFECT CLOSURE

AREA 3323292.22 SF 76.2923 ACRES

GOOD TO WHICKER:

LOT SUMMARY

|    |    |             |            |    |              |             |
|----|----|-------------|------------|----|--------------|-------------|
| 58 | NW | 89 41 00.64 | 25.00000   | 58 | 14,667.45837 | 7,440.57164 |
| 63 | SW | 0 25 54.29  | 714.40000  | 63 | 14,667.59646 | 7,415.57202 |
| 61 | SW | 84 03 06.62 | 998.89593  | 61 | 13,953.21674 | 7,410.18878 |
| 57 | SW | 0 14 04.29  | 1823.98124 | 57 | 13,849.70254 | 6,416.67084 |
| 54 | SE | 89 48 31.40 | 1011.44014 | 54 | 12,025.73658 | 6,409.20488 |
| 59 | NE | 0 25 54.29  | 2645.17354 | 59 | 12,022.35997 | 7,420.63939 |
|    |    |             |            | 58 | 14,667.45841 | 7,440.57167 |
|    |    |             |            | 58 | 14,667.45837 | 7,440.57164 |
|    | SW | 30 02 32.66 | 0.00005    |    |              |             |

7,218.891 DIST TRAV

PERFECT CLOSURE

AREA 1924129.59 SF 44.1719 ACRES

WRAY TO WHICKER:

LOT SUMMARY

|    |    |             |           |    |              |             |
|----|----|-------------|-----------|----|--------------|-------------|
| 58 | NW | 89 41 00.64 | 25.00000  | 58 | 14,667.45837 | 7,440.57164 |
| 63 | SW | 0 25 54.29  | 714.40000 | 63 | 14,667.59646 | 7,415.57202 |
| 61 | SE | 89 41 00.64 | 25.00000  | 61 | 13,953.21674 | 7,410.18878 |
| 60 | NE | 0 25 54.29  | 714.40000 | 60 | 13,953.07865 | 7,435.18840 |
|    |    |             |           | 58 | 14,667.45837 | 7,440.57164 |
|    |    |             |           | 58 | 14,667.45837 | 7,440.57164 |
|    | NE | 0 00 00.00  | 0.00000   |    |              |             |

1,478.800 DIST TRAV

PERFECT CLOSURE

AREA 17859.96 SF .4100 ACRES

LIST

1 15,539.46800 12,336.96300

Take acct-156  
to Robt. L. &  
Virginia Moore  
out of this.  
D.R. 332/823(?)



|    |              |              |
|----|--------------|--------------|
| 2  | 14,679.10600 | 12,335.91800 |
| 3  | 14,662.04778 | 10,693.80655 |
| 4  | 14,668.90385 | 11,353.77322 |
| 5  | 14,689.92327 | 10,692.82465 |
| 6  | 14,664.19382 | 8,031.56263  |
| 7  | 14,666.47243 | 7,619.05892  |
| 8  | 14,678.83757 | 5,380.55707  |
| 9  | 14,656.82977 | 9,364.70029  |
| 11 | 14,672.00657 | 10,710.43657 |
| 12 | 14,650.16747 | 10,693.75053 |
| 13 | 19,997.74000 | 12,267.36100 |
| 14 | 19,996.47759 | 10,717.41751 |
| 15 | 19,981.95868 | 10,717.36599 |
| 16 | 9,343.70569  | 10,667.43551 |
| 17 | 9,329.29047  | 10,706.28854 |
| 18 | 9,361.19812  | 8,015.65973  |
| 19 | 11,831.25209 | 10,779.92514 |
| 20 | 11,991.77190 | 10,687.17103 |
| 21 | 14,685.28312 | 11,473.72433 |
| 22 | 12,069.22188 | 10,680.63259 |
| 23 | 12,125.19633 | 10,674.54463 |
| 24 | 12,037.80412 | 10,682.96711 |
| 25 | 12,037.45109 | 10,682.99334 |
| 26 | 13,718.64500 | 15,260.30200 |
| 27 | 14,555.47800 | 17,675.96800 |
| 28 | 13,351.43800 | 14,201.08100 |
| 29 | 13,629.04200 | 15,002.25000 |
| 30 | 13,356.05800 | 14,201.81700 |
| 31 | 13,411.63000 | 14,210.67400 |
| 32 | 13,689.48700 | 15,002.10500 |
| 33 | 12,132.04987 | 10,681.26305 |
| 34 | 12,121.95000 | 10,681.21297 |
| 35 | 12,174.49446 | 10,681.47354 |
| 36 | 11,989.03674 | 10,680.55384 |
| 37 | 12,011.47646 | 10,680.66512 |
| 38 | 13,479.40966 | 7,401.91458  |
| 39 | 13,953.93756 | 7,435.85296  |
| 40 | 13,953.07028 | 7,410.02167  |
| 41 | 13,846.11229 | 6,423.58333  |
| 42 | 13,007.47091 | 6,575.30377  |
| 43 | 12,029.20687 | 5,369.71069  |
| 44 | 12,011.92597 | 9,697.05631  |
| 45 | 12,035.02923 | 8,261.66640  |
| 46 | 12,009.92563 | 7,162.25297  |
| 47 | 12,008.63928 | 7,160.98372  |
| 48 | 12,029.07636 | 7,438.68793  |
| 49 | 12,021.85343 | 6,414.49329  |
| 50 | 12,021.27169 | 6,414.66833  |
| 51 | 14,651.34088 | 7,439.66997  |
| 52 | 12,020.34685 | 8,023.63412  |
| 53 | 14,673.09562 | 6,420.04121  |
| 54 | 12,025.73656 | 6,409.20490  |
| 56 | 12,022.37642 | 7,415.69929  |
| 57 | 13,849.70252 | 6,416.67085  |
| 58 | 14,667.45837 | 7,440.57164  |
| 59 | 12,022.35993 | 7,420.63940  |
| 60 | 13,953.07865 | 7,435.18841  |
| 61 | 13,953.21674 | 7,410.18879  |
| 62 | 14,651.59685 | 7,415.45751  |
| 63 | 14,667.59646 | 7,415.57202  |



|    |              |             |
|----|--------------|-------------|
| 64 | 14,660.71651 | 8,691.55347 |
| 65 | 12,018.14348 | 8,683.63044 |
| 66 | 14,651.45879 | 7,440.45108 |

TIME FOR THIS RUN: 0 11 20.04; TOTAL TIME ON FILE: 5 13 13.99  
COORDINATES STORED



COORDINATE FILE:1352WA LENGTH = 232 POINTS; TIME ON FILE: 10 49 57.20  
CORNER PERPETUATION \*\*\*\*\* JOB #1993

\*\*\*\*\* COGO \*\*\*\*\*

[illegible]

PT-PT ANGLES

|                    |             |             |        |              |             |
|--------------------|-------------|-------------|--------|--------------|-------------|
| ANG 52 - 38 - 43 : | C.W.        | 77 34 01.97 | C.C.W. | 282 25 58.03 | 2496.58583  |
| START              |             |             | 38     | 13,479.40966 | 7,401.91458 |
| 38 INV SE          | 23 04 45.41 | 1586.00109  | 52     | 12,020.34685 | 8,023.63412 |

PT-PT ANGLES

PT-PT ANGLES

ANG 17 - 19 - 37 : C.W. 149 28 12.21 C.C.W. 210 31 47.79 205.75076

ANG 19 - 37 - 52 : C.W. 119 02 07.45 C.C.W. 240 57 52.55 2657.04581

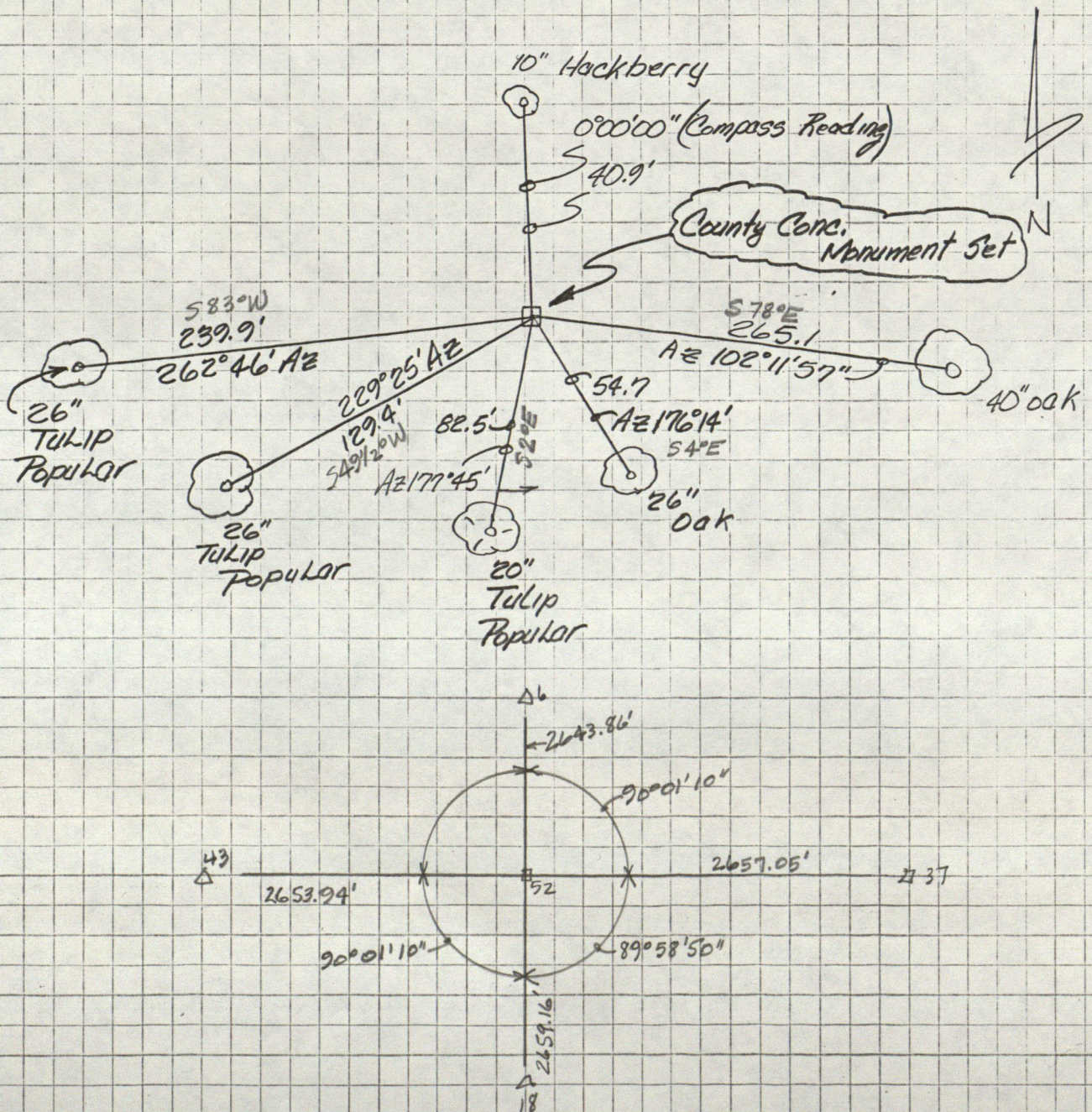
|                    |      |     |    |       |        |     |    |       |            |
|--------------------|------|-----|----|-------|--------|-----|----|-------|------------|
| ANG 37 - 52 - 43 : | C.W. | 180 | 00 | 00.00 | C.C.W. | 180 | 00 | 00.00 | 2653.93822 |
|--------------------|------|-----|----|-------|--------|-----|----|-------|------------|

TIME FOR THIS RUN: 0 04 18.84; TOTAL TIME ON FILE: 10 54 16.04

COORDINATES STORED



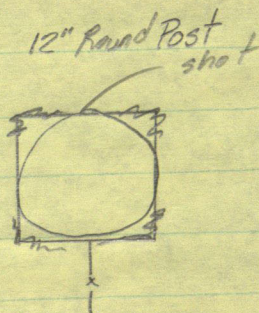
# Center of section 13 T 15 R 2 W



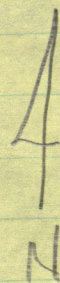
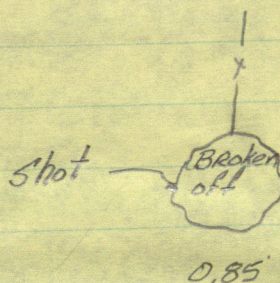


# Whicker

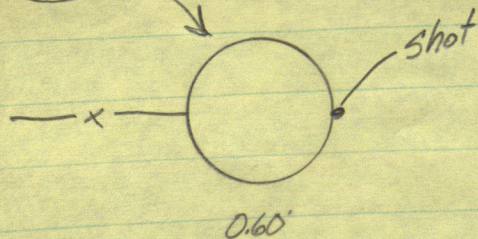
Pt 51



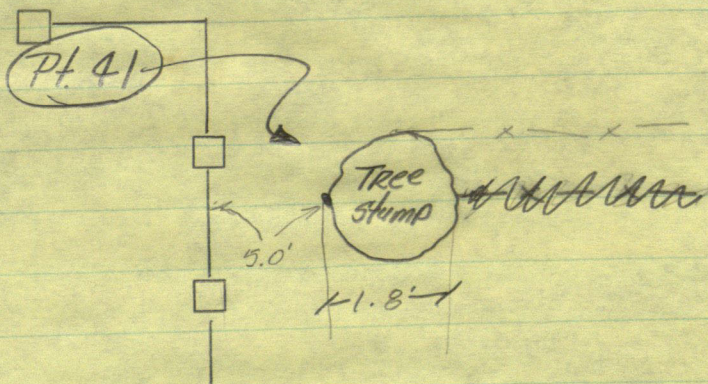
Pt 39



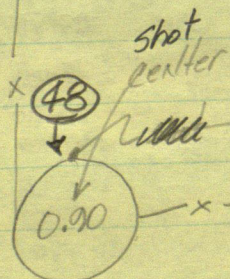
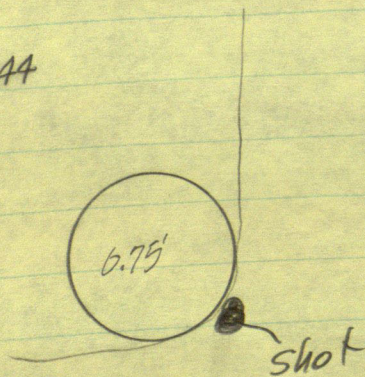
Pt 40



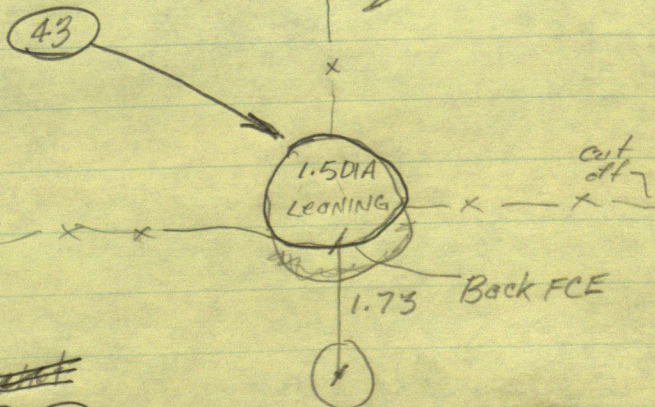
Pt 41



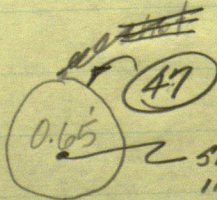
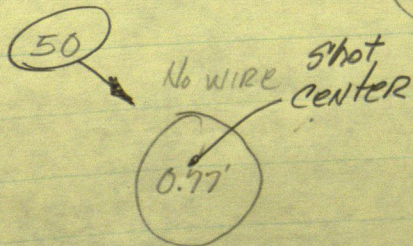
Pt 44



43



50





Point desc. Whicker & Hend. Co.

- 38 Temp. RR Spk Set
39. Broken off Fence Post @ E. side end of Field entrance
40. " " " W. " " " " "
41. old Tree stump w/wire wrapped around
42. Temp. RR Spk Set
43. Stone found @ SW Cor. of NW 1/4 Sec 13
44. Fence post Fnd. @ N. R.O.W. of R.R.
45. Temp. RR Spk Set Near S. Line of NE 1/4 Sec. 13
46. 1/4" pin  $\pm 2'$  above Ground
47. Center of wood post
48. " " " "
49. Bent 5/8" Rebar found
50. Center of wood post
51. Center N. Side of Wood Fence Post

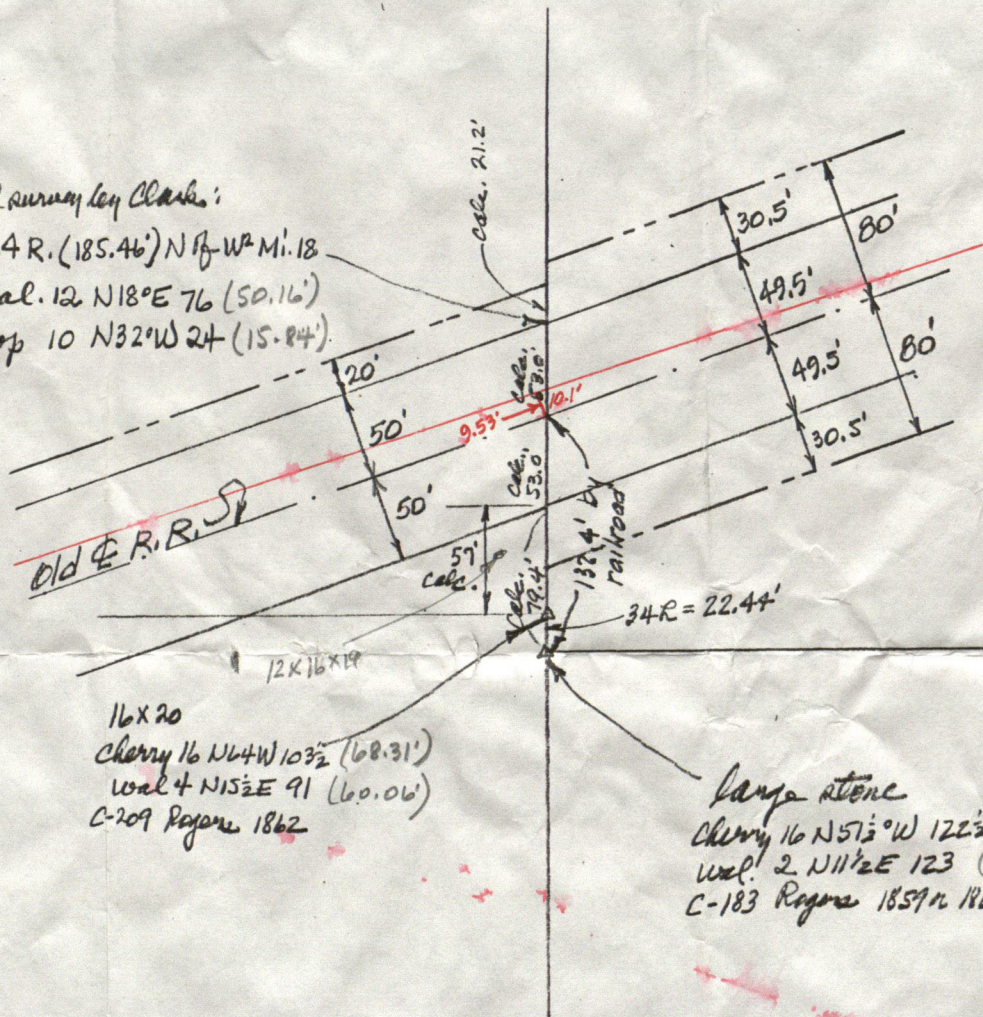


Old survey by Clark:

11.24 R. (185.46') N 1/2 W 1/2 M. 18

Wal. 12 N 18° E 76 (50.16')

Pop 10 N 32° W 24 (15.84')



16x20

Cherry 16 N 64° W 103 1/2 (68.31')

Wal. 4 N 15 1/2° E 91 (60.06')

C-209 Rogers 1862

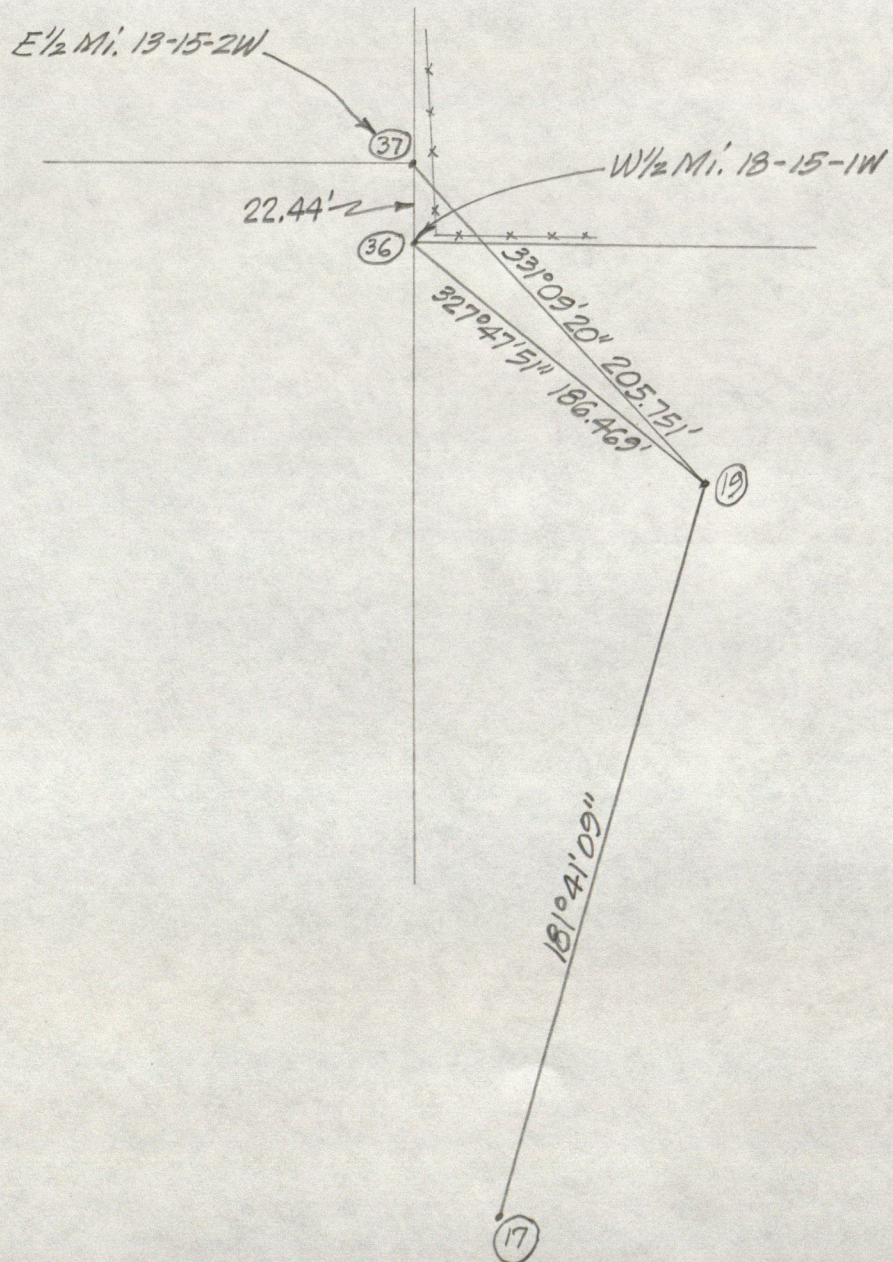
Large stone

Cherry 16 N 57 1/2° W 122 1/2 (80.85')

Wal. 2 N 11 1/2° E 123 (81.18')

C-183 Rogers 1859 & 1860







From Olive Stanley Road notes in Field Book 66:

|                  | <u>Shurtle</u> | <u>Old notes</u> | <u>newer notes</u> |
|------------------|----------------|------------------|--------------------|
| E bridge         | 16+49.0        | 100+06*          | 16+49              |
| cor. stone       | 26+78.7        | 110+36           | 26+78.7            |
| R.R. spike found | 26+81.4        |                  |                    |
| Bridge           |                | 134+77           |                    |
| E culvert        | 51+00.2        | 134+65**         |                    |
| R.R. spike found | 53+36.1        |                  |                    |
| cor. stone       |                | 137+00           | 53+41.6            |
| I. P. found      | 66+29.66       |                  |                    |
| cor. stone       | 66             |                  | 66+32.2            |
| fence N & S      |                | 149+94           |                    |
|                  |                | ↑                | ↑                  |
|                  |                | CCF=0.99853      | CCF=0.99962        |

\* the notes say 99+06 but are surely wrong by 100'

\*\* field notes say 135+65; plans 135+85; both are wrong

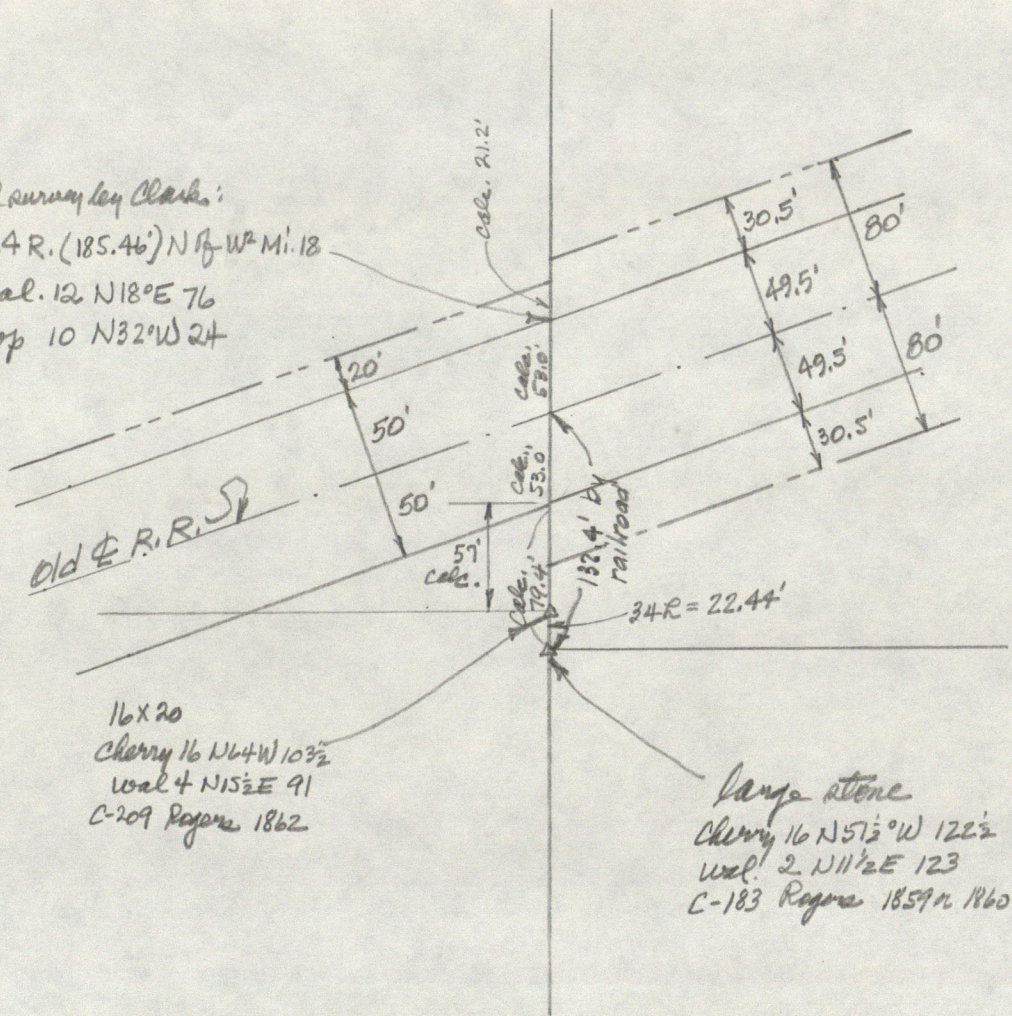


Old survey by Clark:

11.24 R. (185.46') N 76° W M. 18

Wal. 12 N 18° E 76

Pop 10 N 32° W 24



16x20

Cherry 16 N 64° W 103 1/2

Wal 4 N 15 1/2° E 91

C-209 Rogers 1862

Large stone

Cherry 16 N 57 1/2° W 122 1/2

Wal 2 N 11 1/2° E 123

C-183 Rogers 1859 & 1860



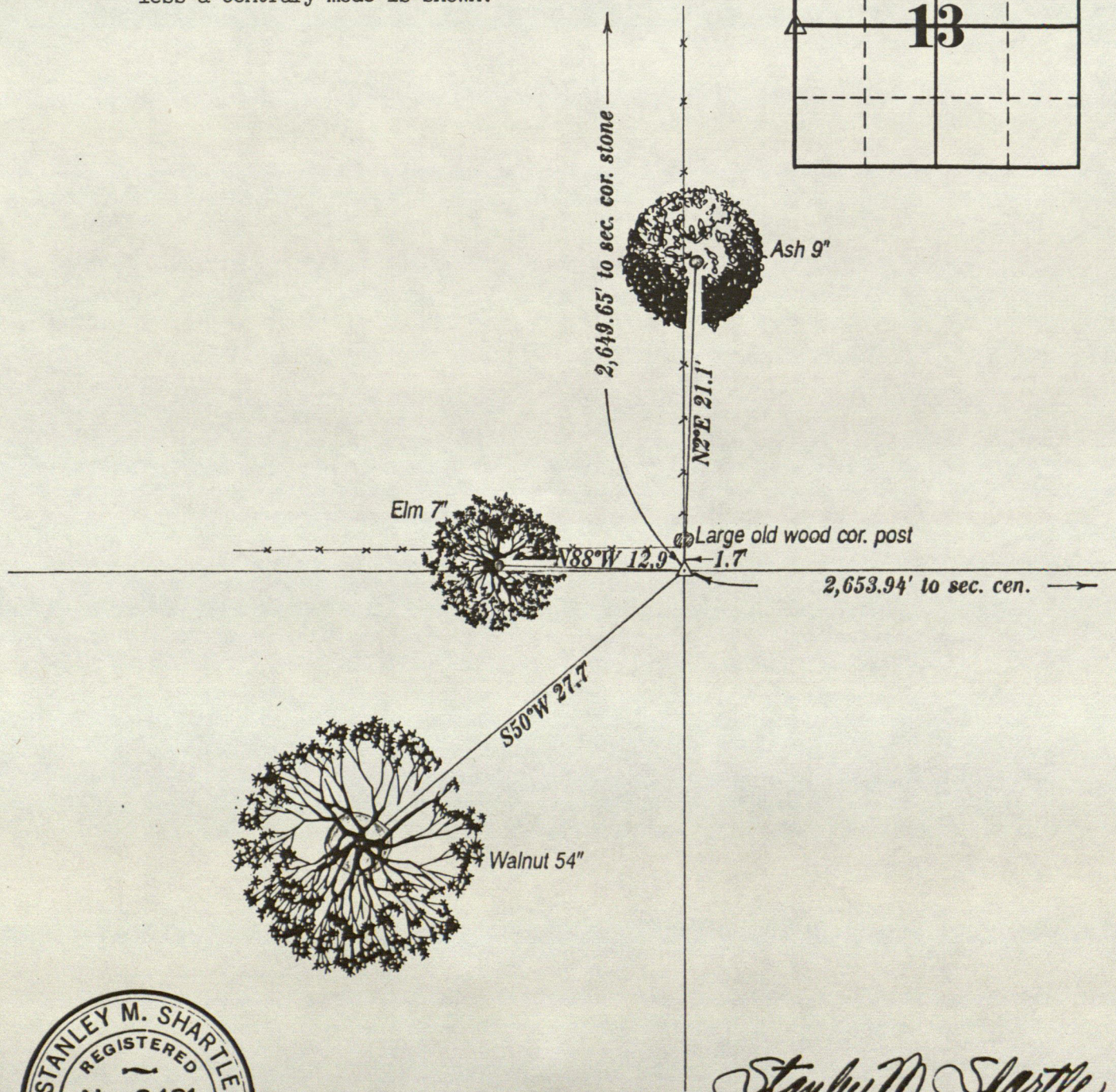
# RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 13, T. 15 N., R. 2 W.

Found: ☒ Set: ☐ Depth: Showing 3 inches

Description: Dimple in large pink-tan stone

Bearings to reference objects are magnetic unless a contrary mode is shown.



*Stanley M. Shartle*  
Stanley M. Shartle, P.E. & L.S.

Date: March 15, 1991



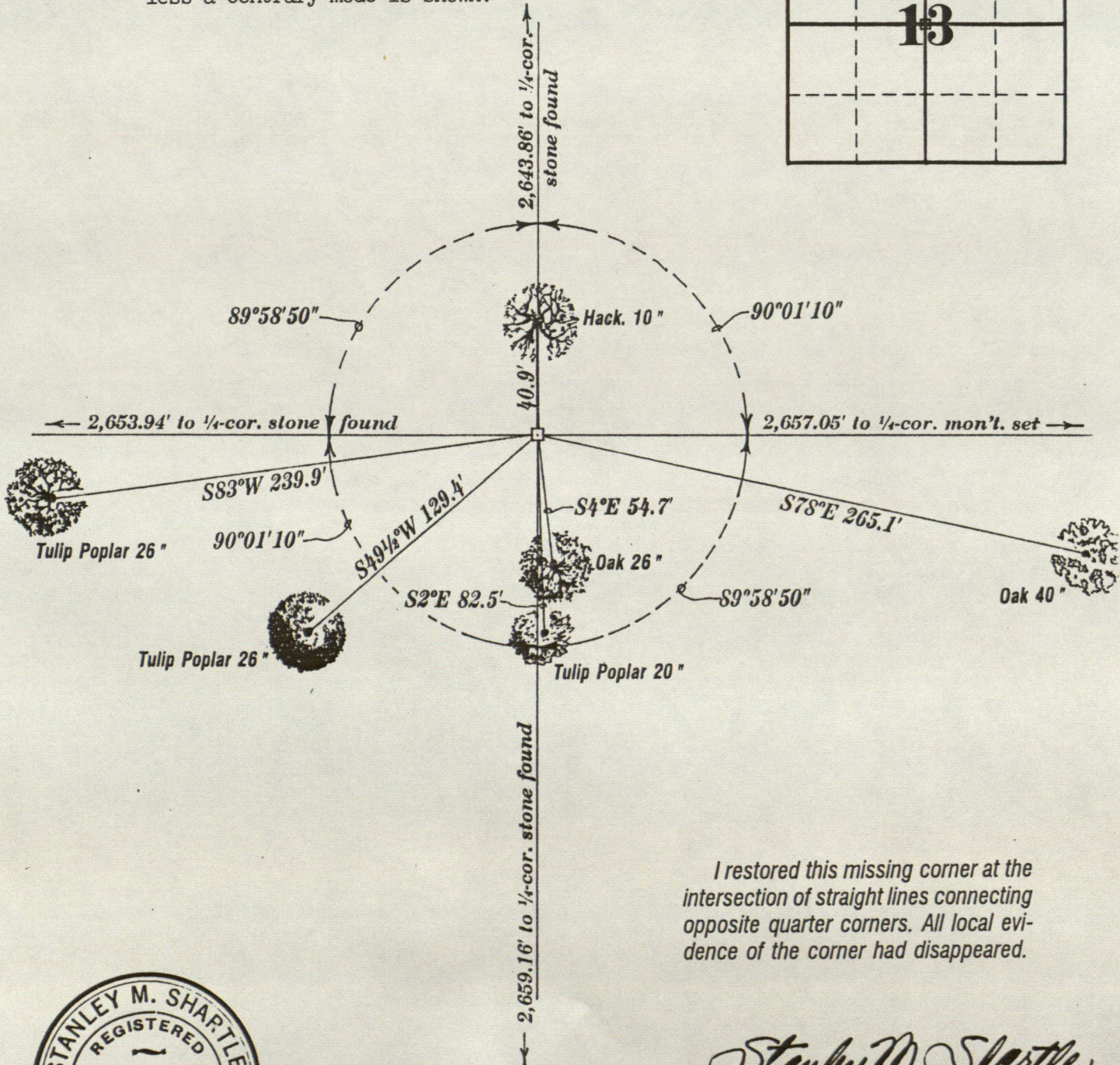
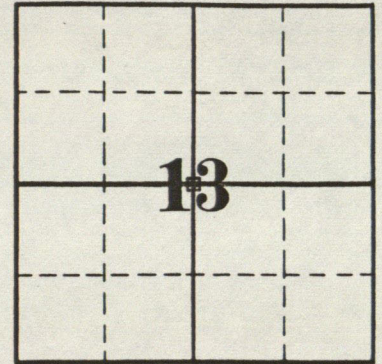
# RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 13, T. 15 N., R. 2 W.

Found:      Set: ☒ Depth: Showing about 4 inches

Description: Rebar in concrete monument

Bearings to reference objects are magnetic unless a contrary mode is shown.



I restored this missing corner at the intersection of straight lines connecting opposite quarter corners. All local evidence of the corner had disappeared.



*Stanley M. Shartle*  
Stanley M. Shartle, P.E. & L.S.

Date: April 1, 1994

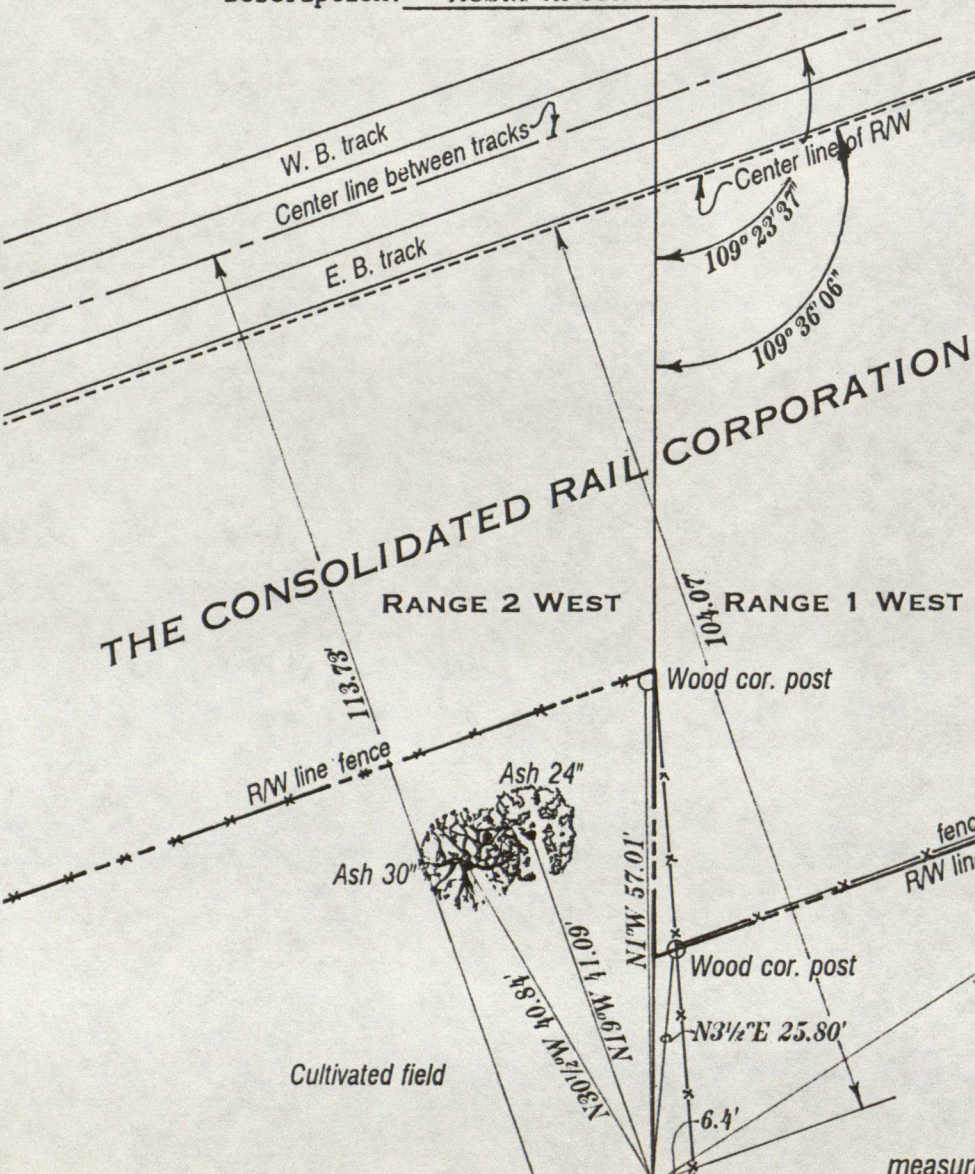
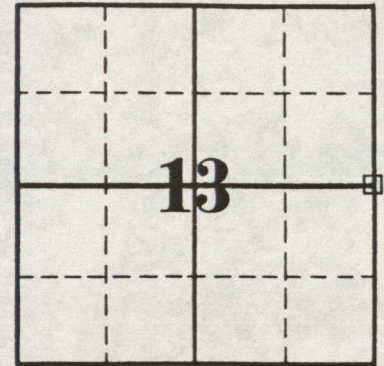


# RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 13, T. 15 N., R. 2 W.

Found:      Set: ☒ Depth: 12 inches

Description: Rebar in conc. monument



E $\frac{1}{4}$  Cor. Sec. 13-15-2W  
Rebar in conc. monument

This obliterated corner restored by measuring northward 34 links (according to work of County Surveyor Cyrus Rogers in 1862) along the range line from the restored west quarter corner of Section 18, T. 15 N., R. 1 W.



W $\frac{1}{4}$  Cor. Sec. 18-15-1W  
Rebar in conc. monument

*Stanley M. Shartle*  
Stanley M. Shartle, P.E. & L.S.

Date: December 27, 1993

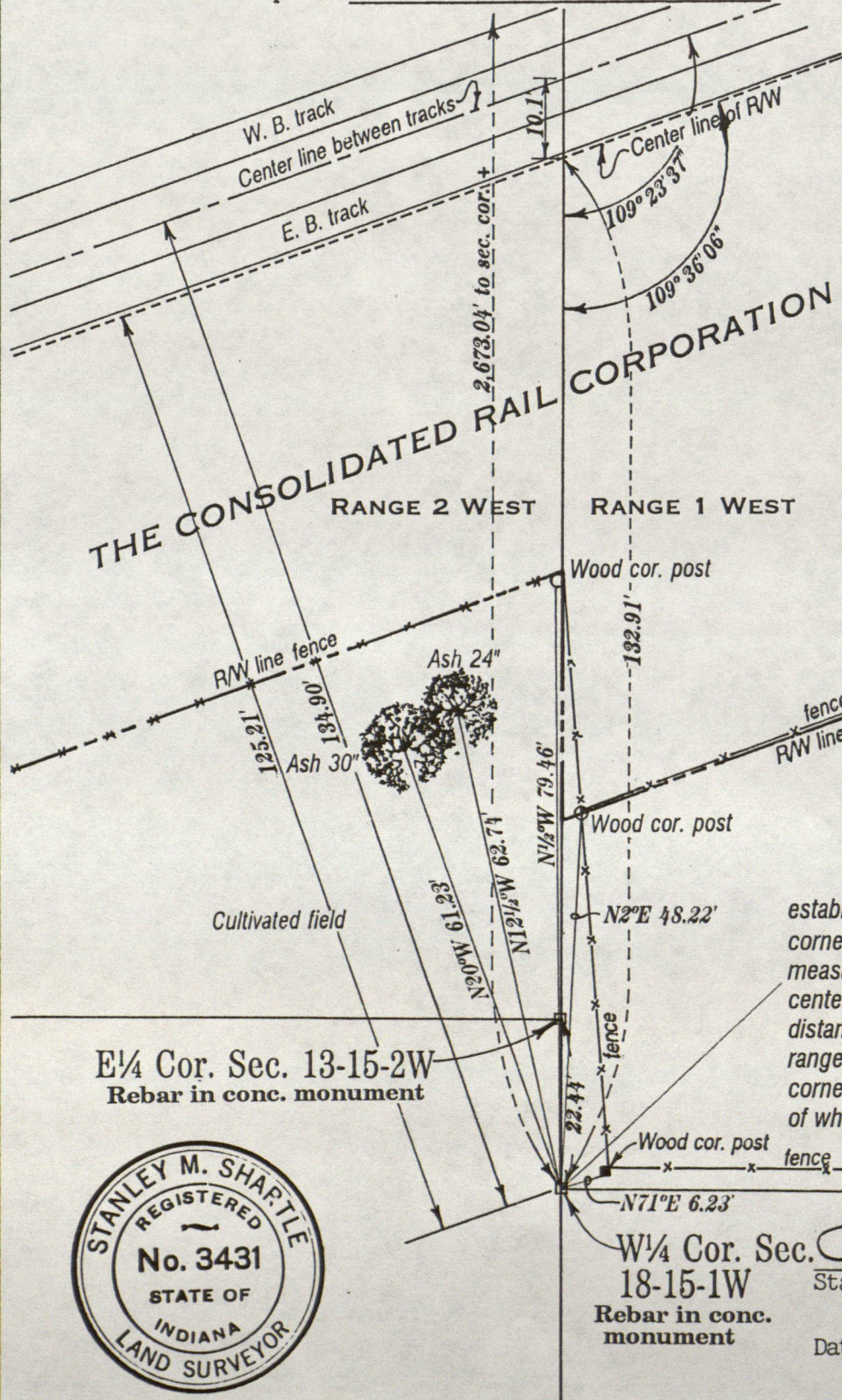
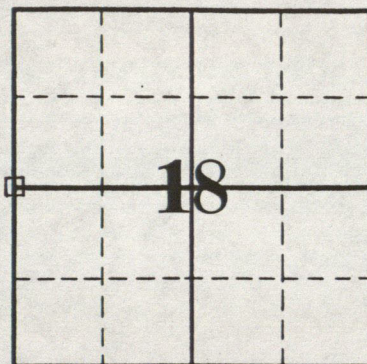


# RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 18, T. 15 N., R. 1 W.

Found:      Set: ☒ Depth: 12 inches

Description: Rebar in conc. monument



County Surveyor Joseph A. Clark established a corner on the range line, which corner, in the 1870's, was 49.5' northwesterly, measured at right angles, from the railroad center line. I measured 11.24 rods (his distance) from that point southward along the range line to restore the obliterated quarter corner. The restored corner is 0.51 feet south of where railroad valuation plans show it to be.



W 1/4 Cor. Sec. 18-15-1W  
Rebar in conc. monument

*Stanley M. Shartle*  
Stanley M. Shartle, P.E. & L.S.

Date: December 27, 1993



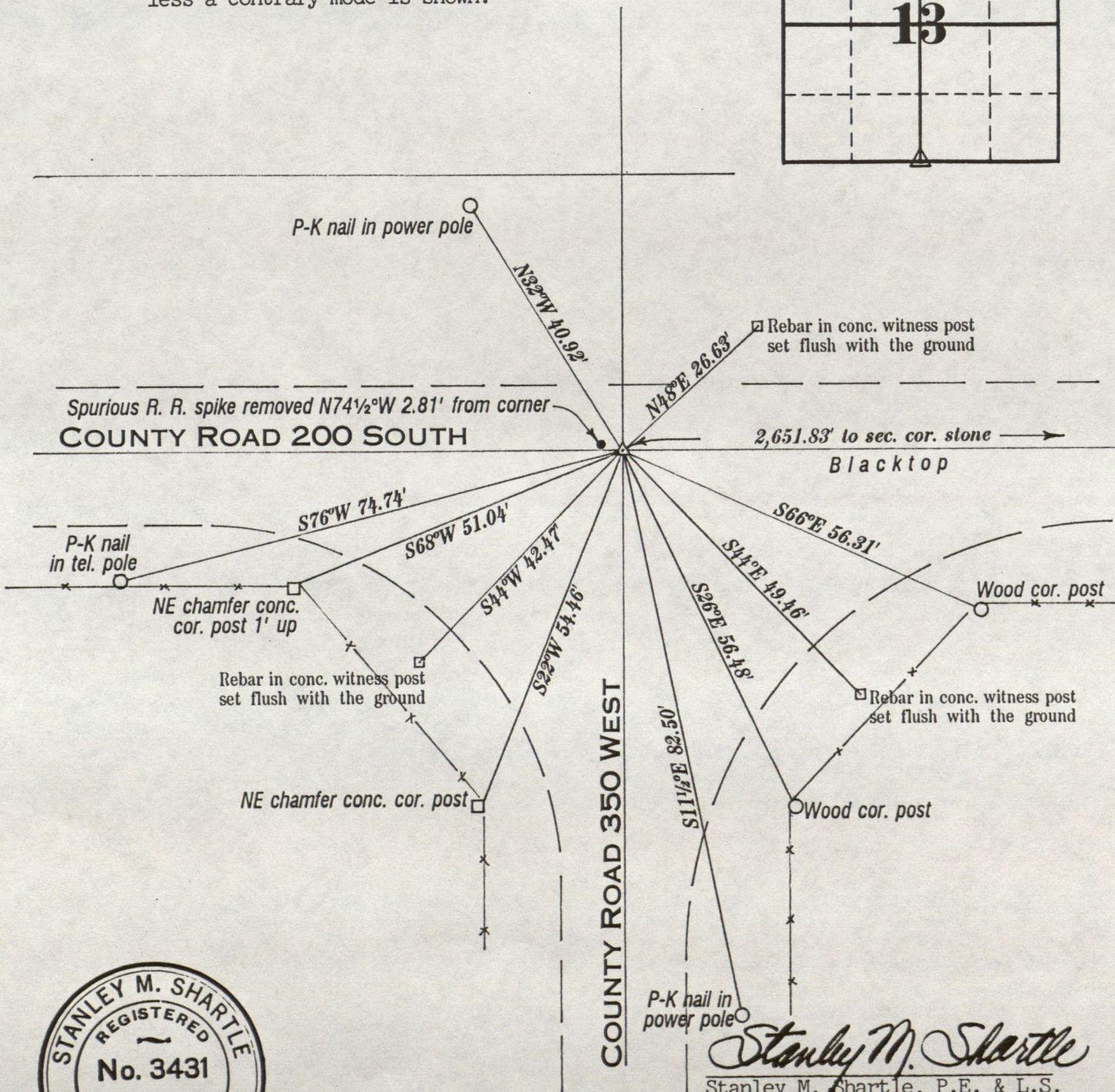
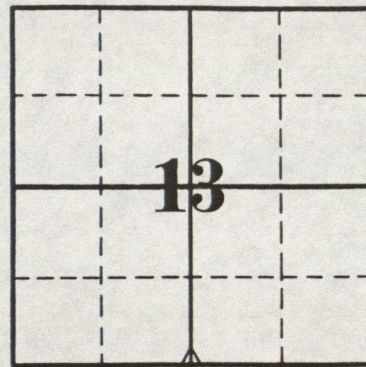
## RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 13, T. 15 N., R. 2 W.

Found: ☒ Set: ☐ Depth: 28½ inches

**Description:** **County cap on I.P. set above  
dimple atop very hard stone**

Bearings to reference objects are magnetic unless a contrary mode is shown.



*Stanley M. Shartle*  
Stanley M. Shartle, P.E. & L.S.

Date: **December 21, 1993**



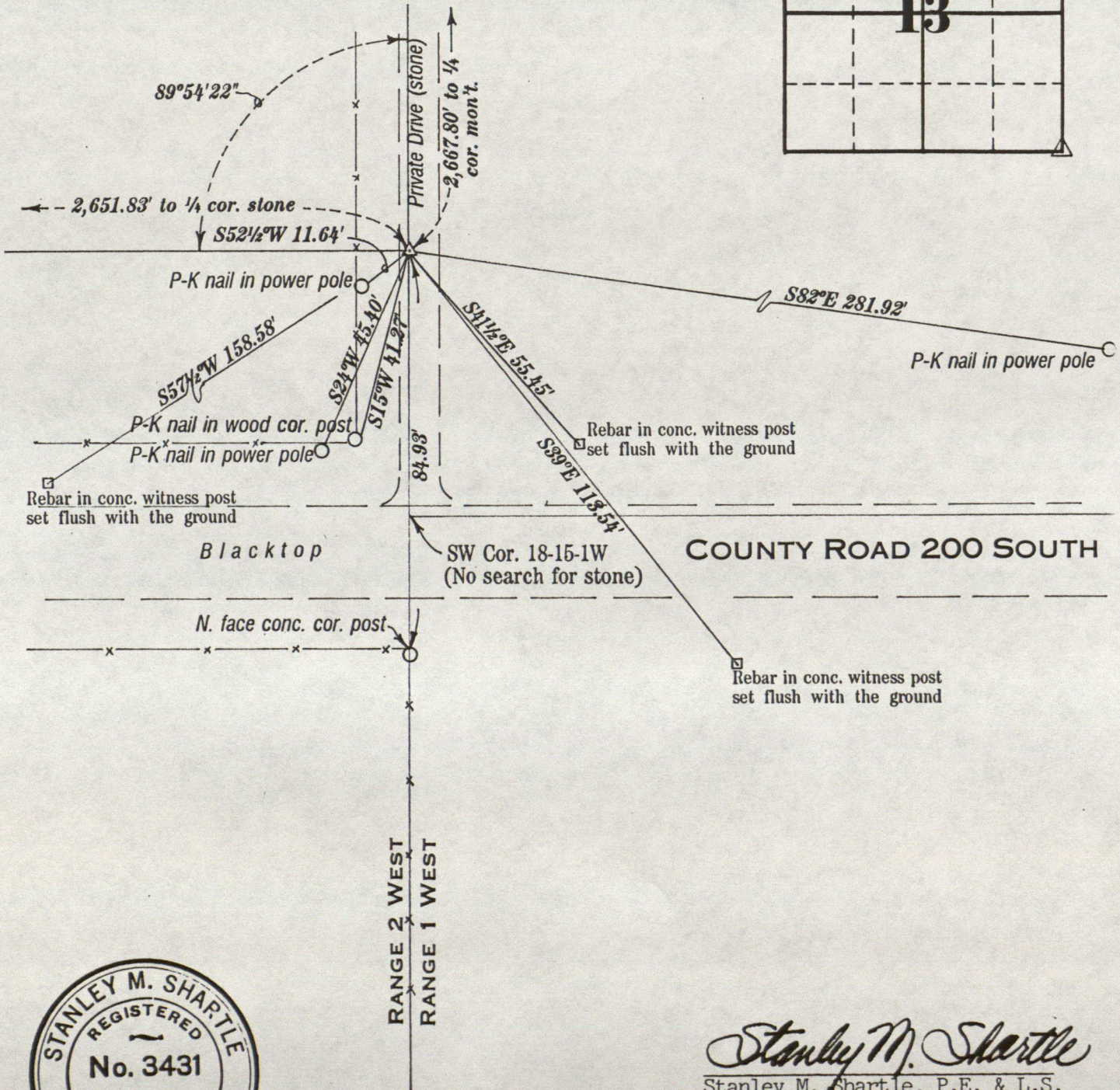
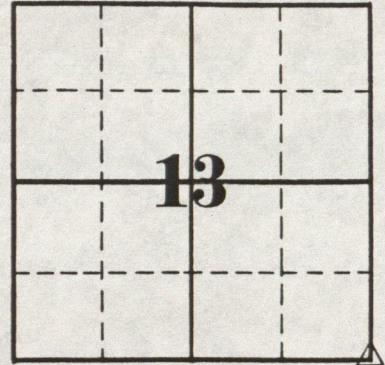
# RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 13, T. 15 N., R. 2 W.

Found: ☒ Set: ☐ Depth: Showing 4 inches

Description: Cross atop broken stone

Bearings to reference objects are magnetic unless a contrary mode is shown.



*Stanley M. Shartle*  
Stanley M. Shartle, P.E. & L.S.

Date: December 14, 1993



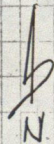
3 1/2 mi. Stone Sec. 13T15R24W

Depth of Stone 2' 4 1/2"  
DRILL hole set

(Subdivision)

Pkn. S.E. Side Pulp

Hend. Co. Marker Post



Pkn. Set N.E. Side  
T.E. Pole

Tablet Set  
Hend. Co.

2005

N.W. F.C.E. F.P. (Wood)

S 68° W  
51.04'

@ face of  
N.E. Chamber  
of Conc. Fence  
Post 1' above  
foundation.

Hend. Co.  
Ret. Marker  
S 44° W

@ face of  
N.E. Chamber  
Conc. Fence Post

(corn stubble)

82.42' R 82.50'  
168° 36' S 112° E  
Pkn @ N.W.  
Side Pulp.

(Pasture)

T. G. Niemeyer  
© R. McElyea

Note to RRSPK Find near Stone  
Found 2.81' West & 0.75' North

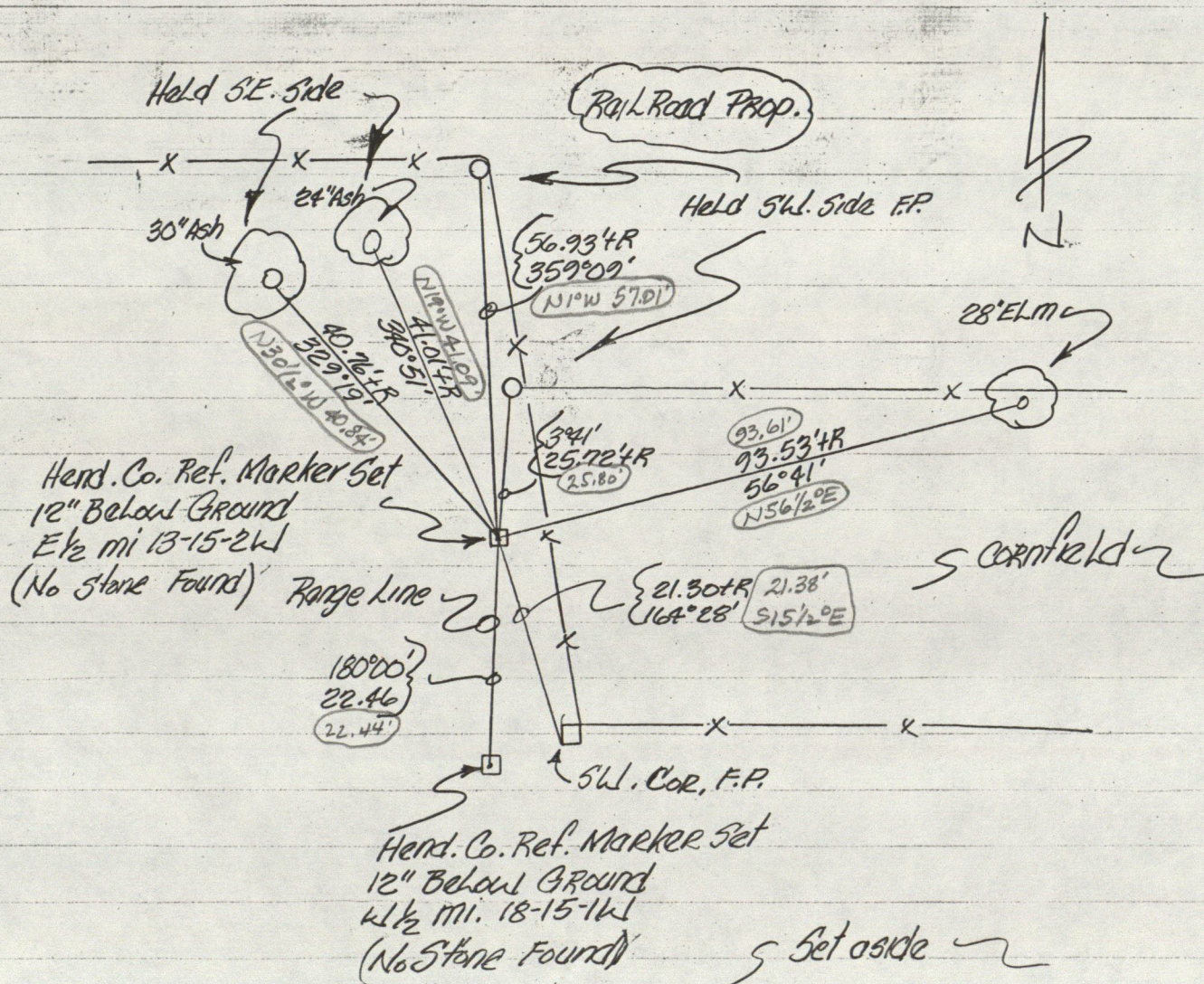
RRSPK Find

2.81' 0.75'  
N 74 1/2° W Stone



(E 1/2 mi. 13-15-26W)

2 of 2

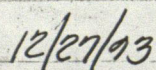


12/27/93

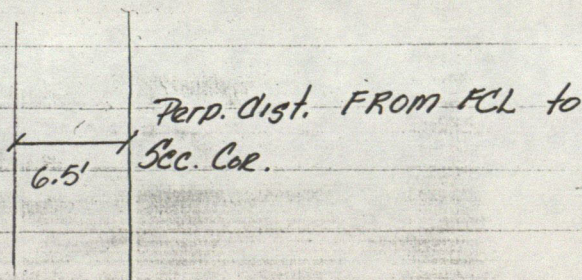
D.G. Niemeyer  
© R. McElyea



10f2



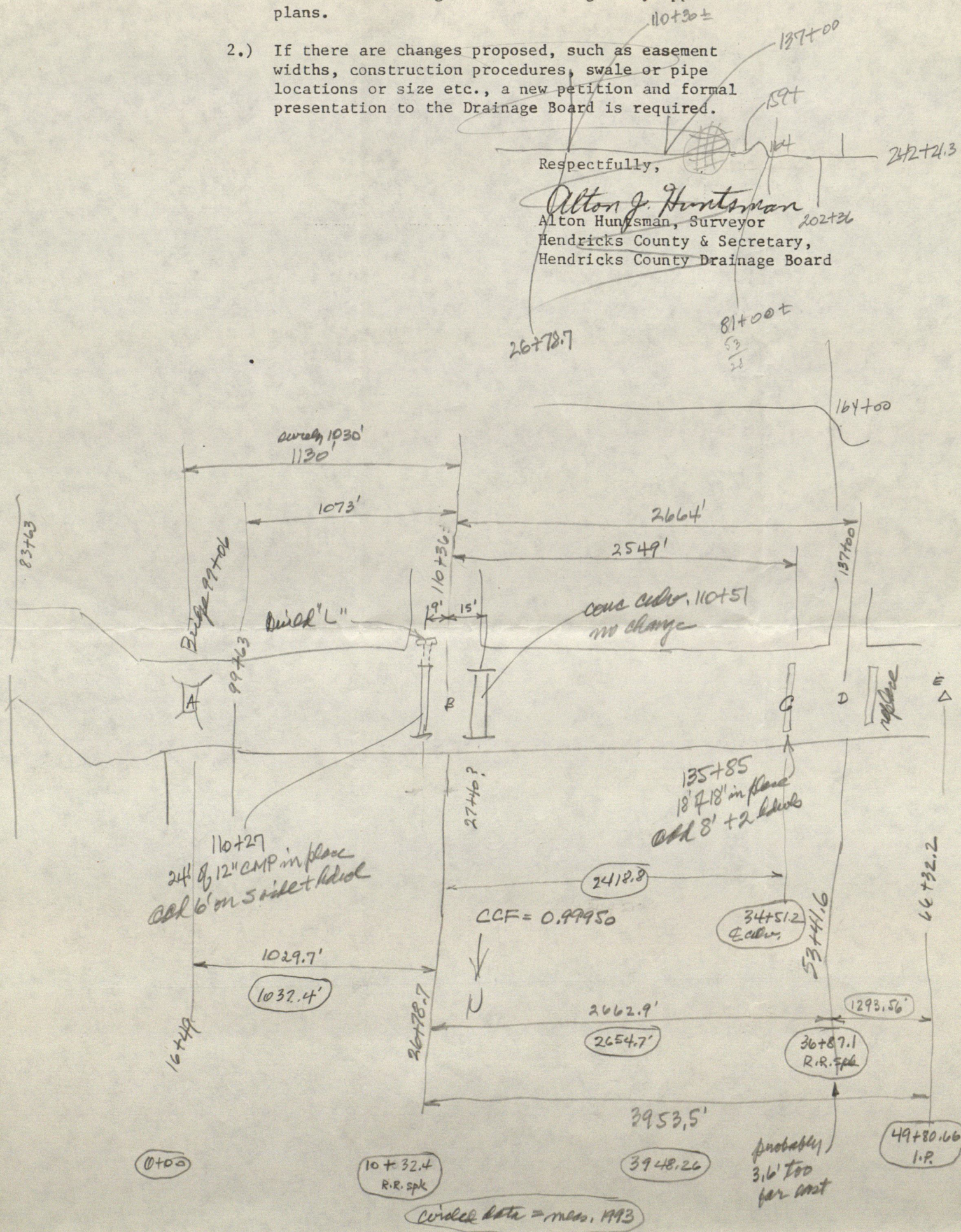

 G. Niemeyer  
 © R. McElroy



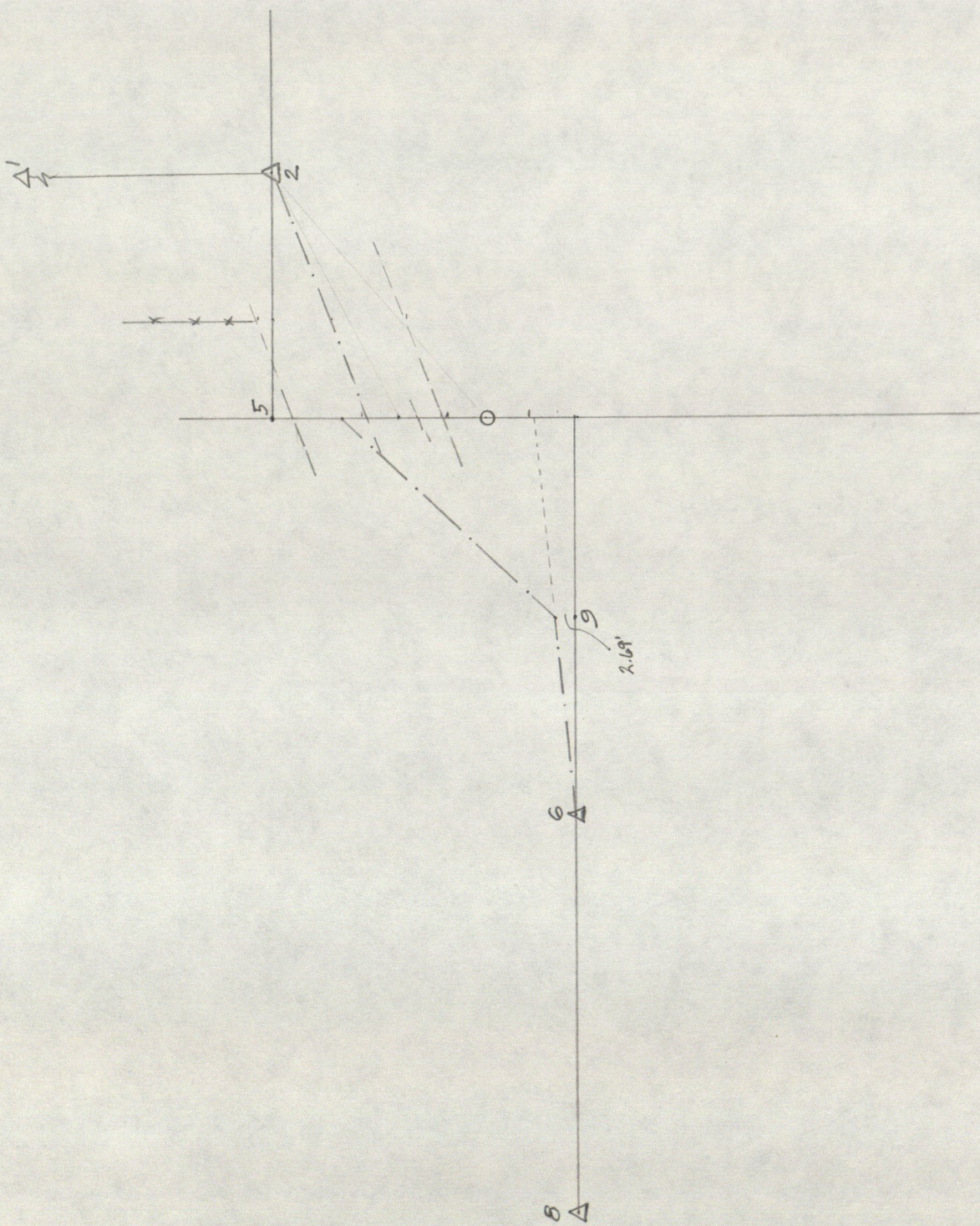


2.) If there are changes proposed, such as easement widths, construction procedures, swale or pipe locations or size etc., a new petition and formal presentation to the Drainage Board is required.

Alton J. Huntsman, Surveyor 2021  
Hendricks County & Secretary,  
Hendricks County Drainage Board









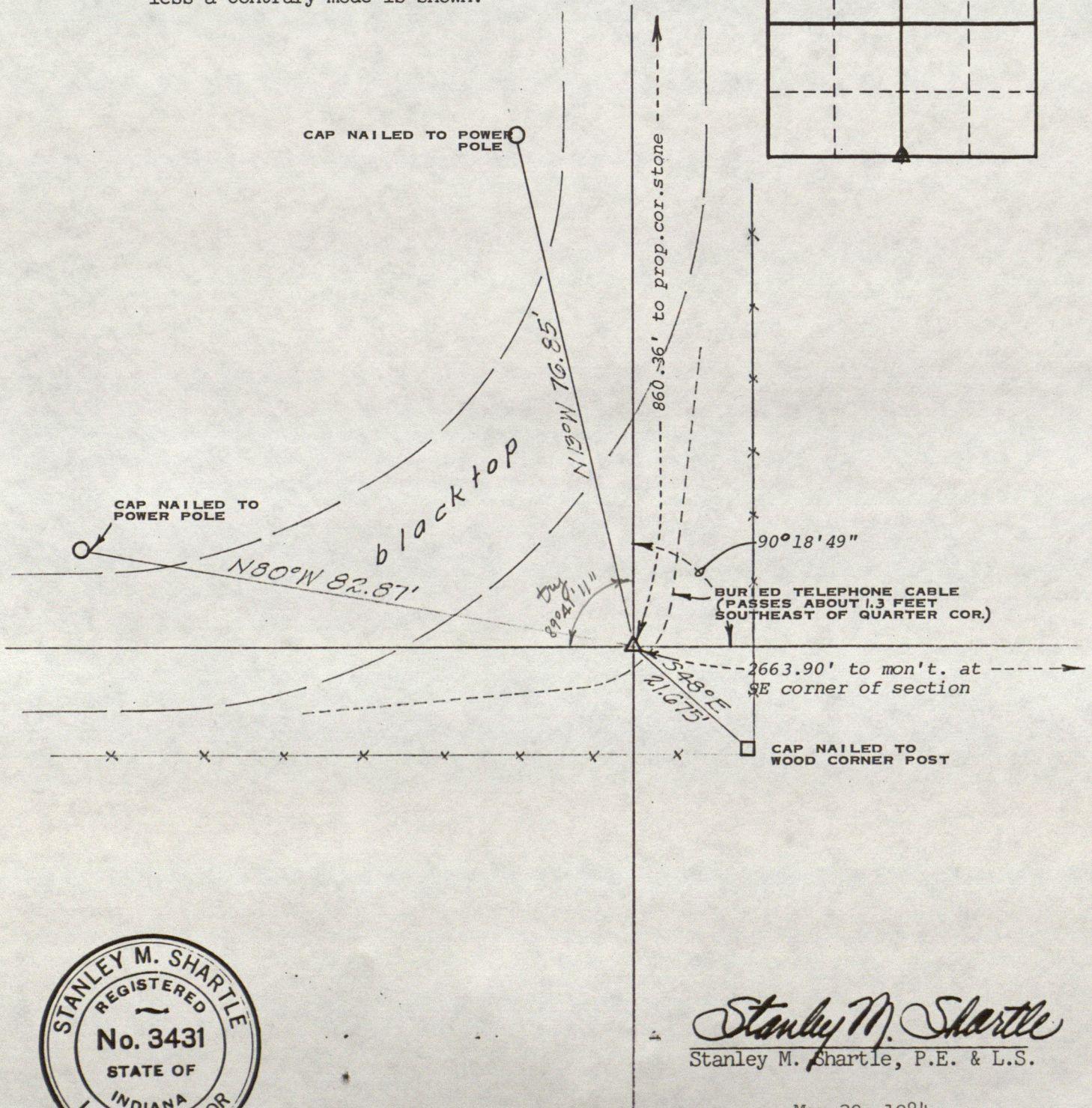
## RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 7, T. 15 N., R. 1 W

Found: ☒ Set: ☐ Depth: 1 inch to top stone  
23 inches to original stone

**Description:** drilled hole in stone set above the original stone

Bearings to reference objects are magnetic unless a contrary mode is shown.



Stanley M. Shartle  
Stanley M. Shartle, P.E. & L.S.

Date: May 30, 1984



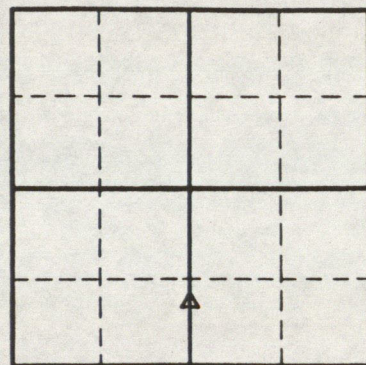
# RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 7, T. 15 N., R. 1 W.

Found: ☒ Set: ☐ Depth: 11 inches

Description: orig. stone with R.R. spike set above

Bearings to reference objects are magnetic unless a contrary mode is shown.



BLOCK  
BLDG.

CAP NAILED TO POWER  
POLE

STEEL GATE  
POST

TWO-STY. FR. HOUSE

PORCH

CORNER OF CONC. PORCH FLOOR

S69°W 74.21'

N35°W  
31.6'

N30°E  
26.96'

N69°E W 112.27'

S16°W 70.50'

860.36' to S 1/4 Mile Stone

STEEL END POST

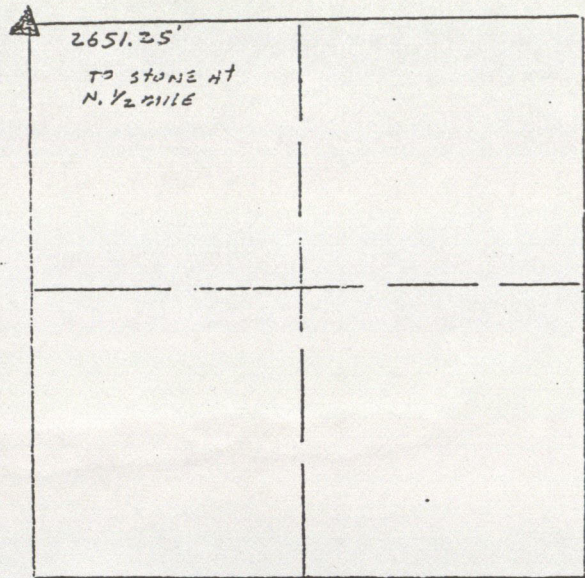


*Stanley M. Shartle*  
Stanley M. Shartle, P.E. & L.S.

Date: May 30, 1984



SEC. 13-T15N-R.2V1.



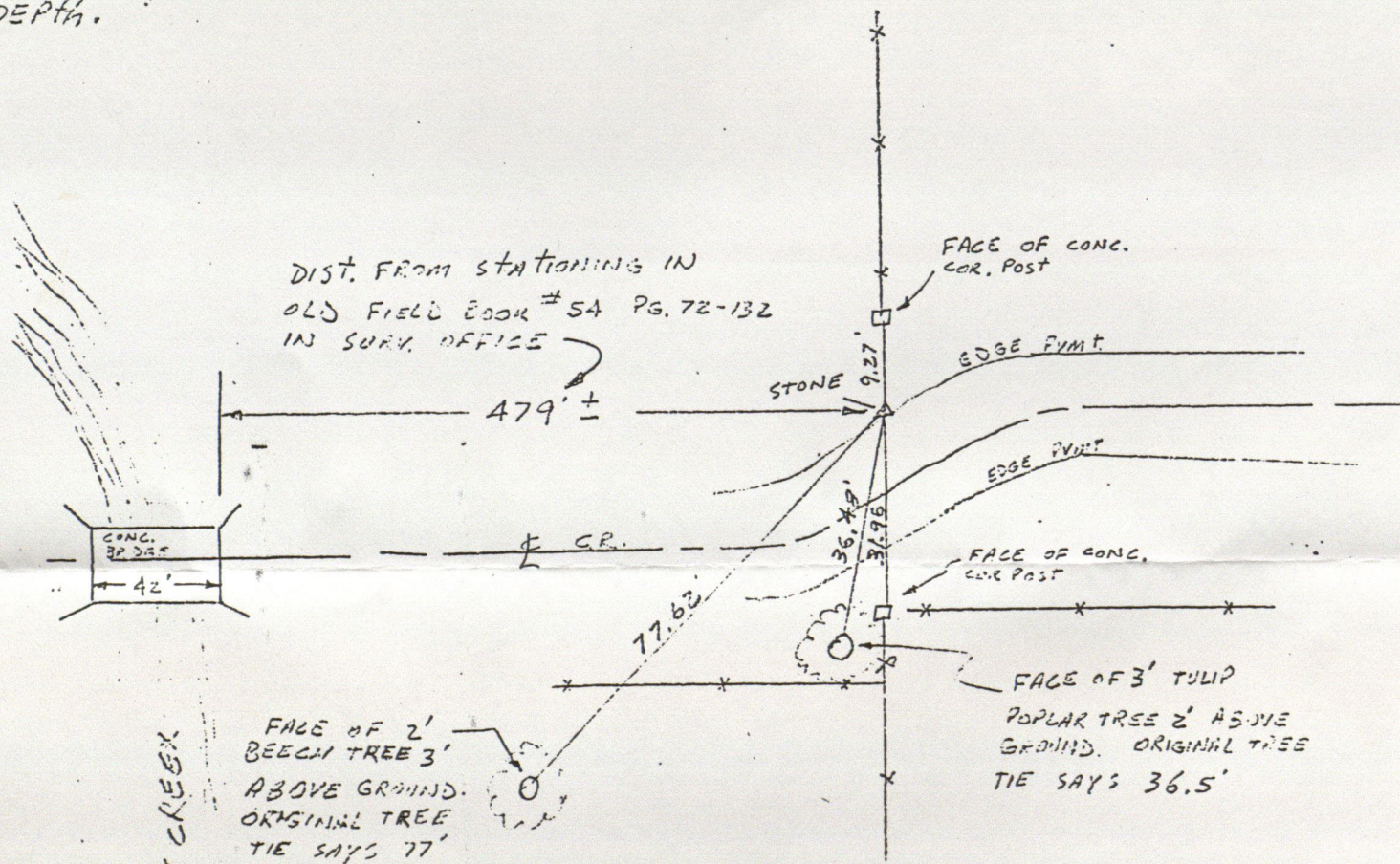
OLD TREE TIES (TWO OF WHICH ARE STILL STANDING + ARE IN GOOD COND.) USED. A SMALL STONE'S 5" OR 6" IN DIA. WERE FD. OVER A LARGER STONE 1' X 8" X 6" WITH THE RIDGE RUNNING N. & S. THE S. END OF THE RIDGE WAS USED BECAUSE IT FIT THE OLD TREE TIES BETTER, THE 4 SMALL STONES WERE REPLACED WITH A 1.7' X 0.1' AXLE SHAFT. OVER THE LARGER STONE. STONE IS ABOUT 3' DEEP.

LIES MADE 5/13/80

V. S. MAXWELL & R.J. SHAMBAUGH



NOTE- THERE IS A FIELD TILE RUNNING E. & W. ABOUT 1.5' S. OF THE STONE AT THE SAME DEPTH.





DEEP

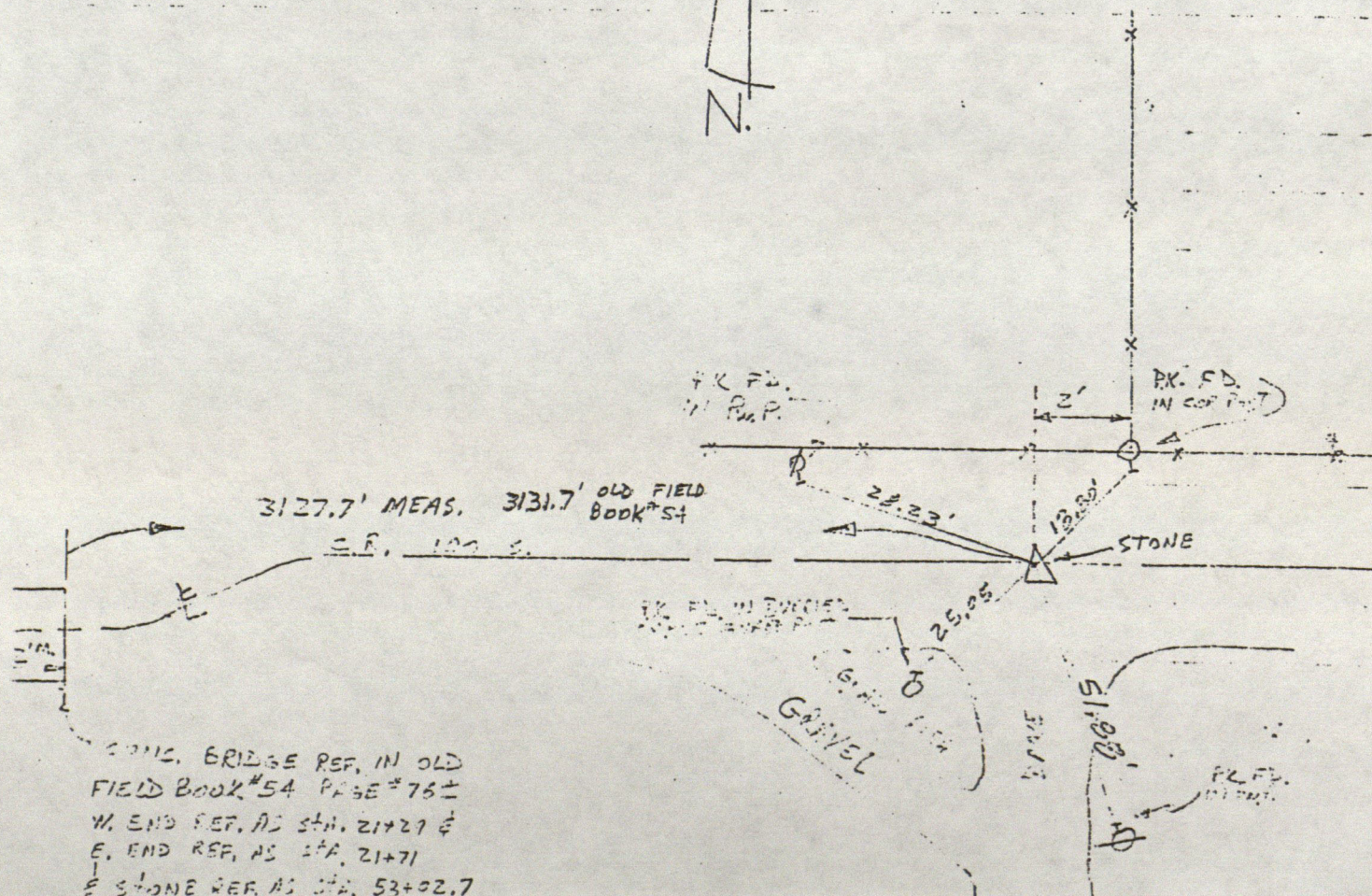
HORSE SHOE WAS LAID ON

SET ON SURFACE OF RD. OVER

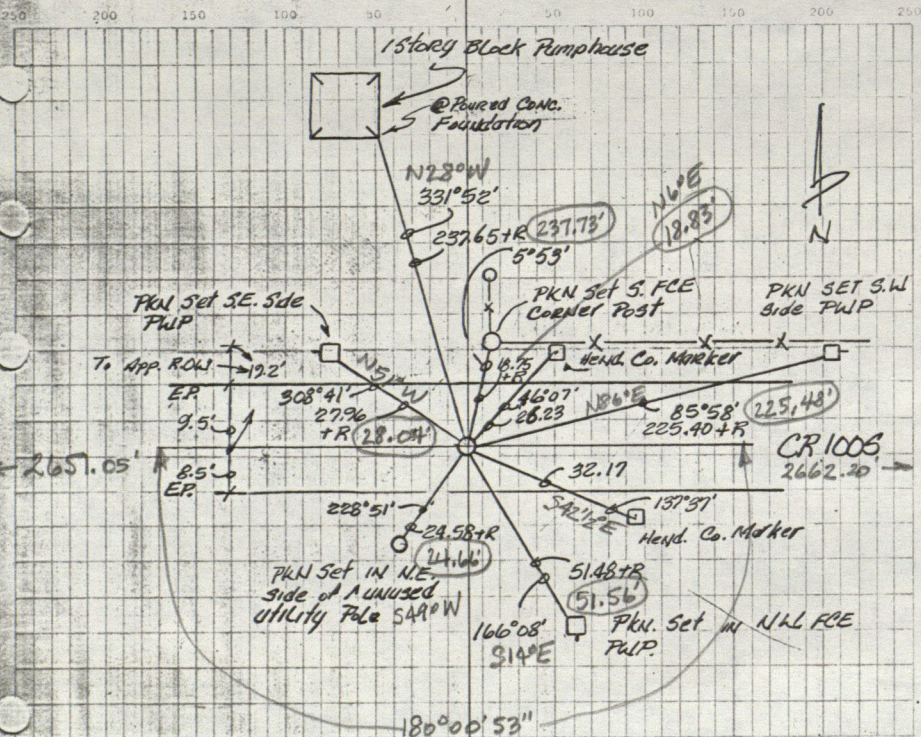
point on stone

LES WERE MADE 4/28/80

Y. S. MAXWELL & E. J. SHAMBAUGH

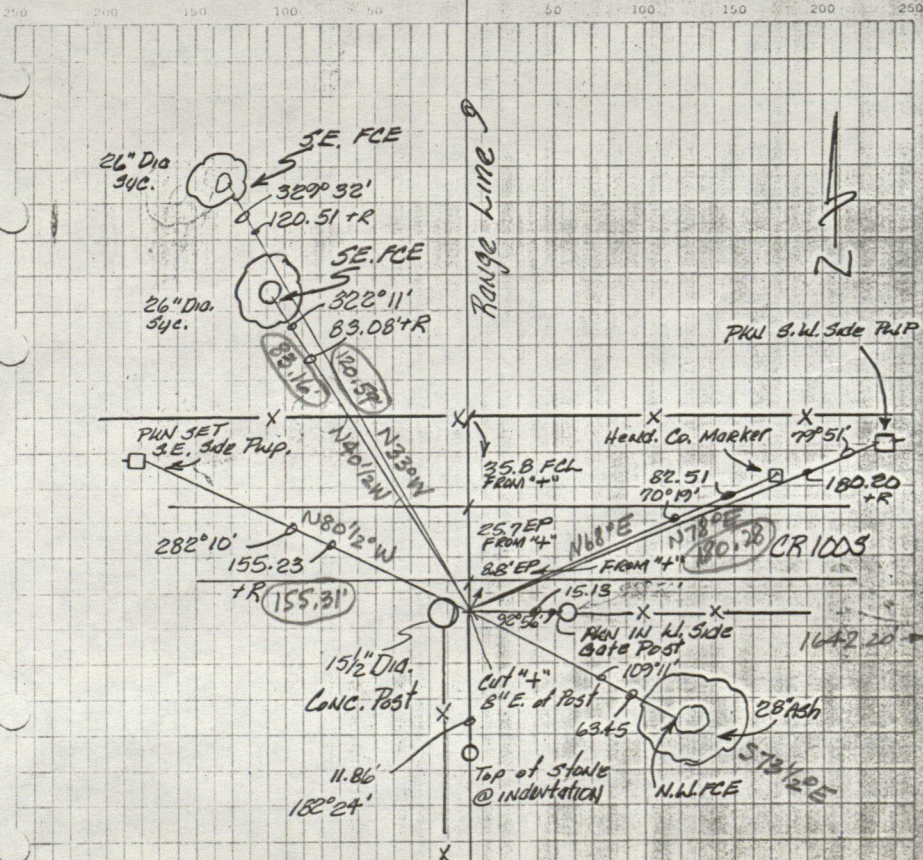






12/1/93  
 G. Niemeyer  
 © R. McElyea

N 1/2 Mile 13-15-210



12/1/93  
 G. Niemeyer  
 © R. McElyea

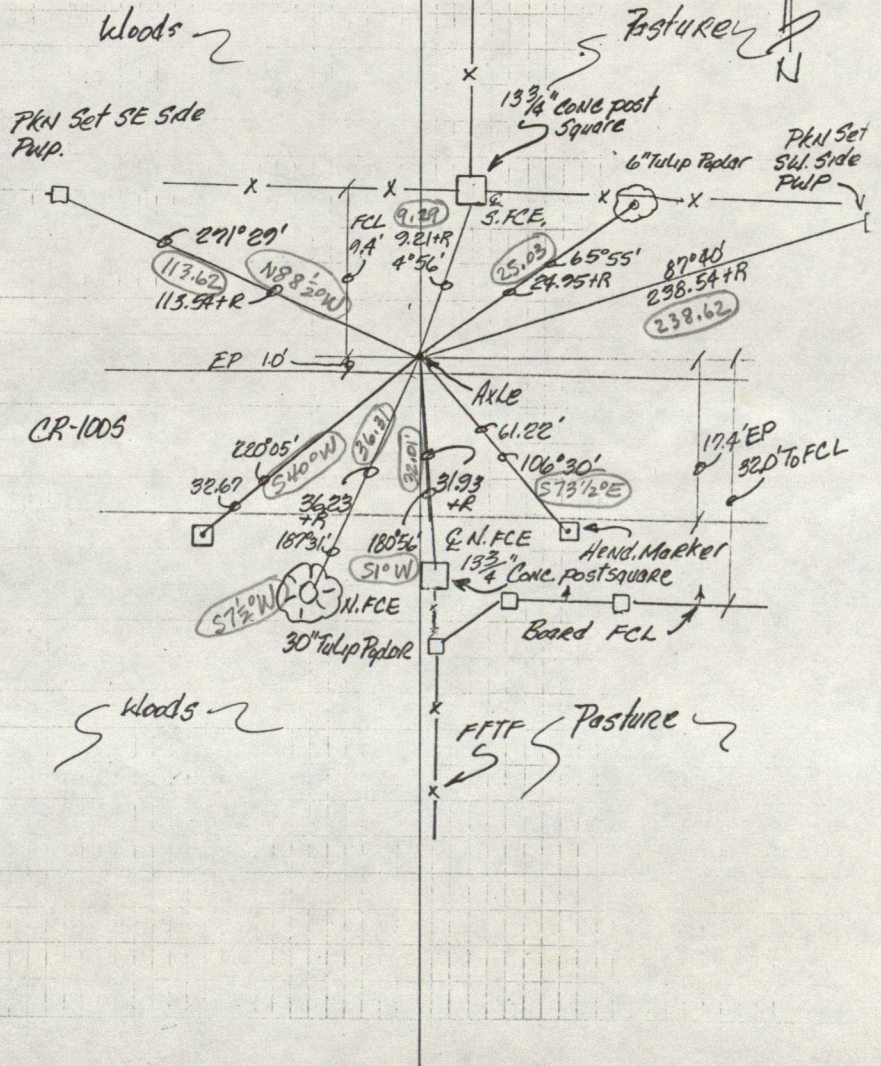
SW Cor. 7-15-1W



PROJ. NO. \_\_\_\_\_ LINE \_\_\_\_\_

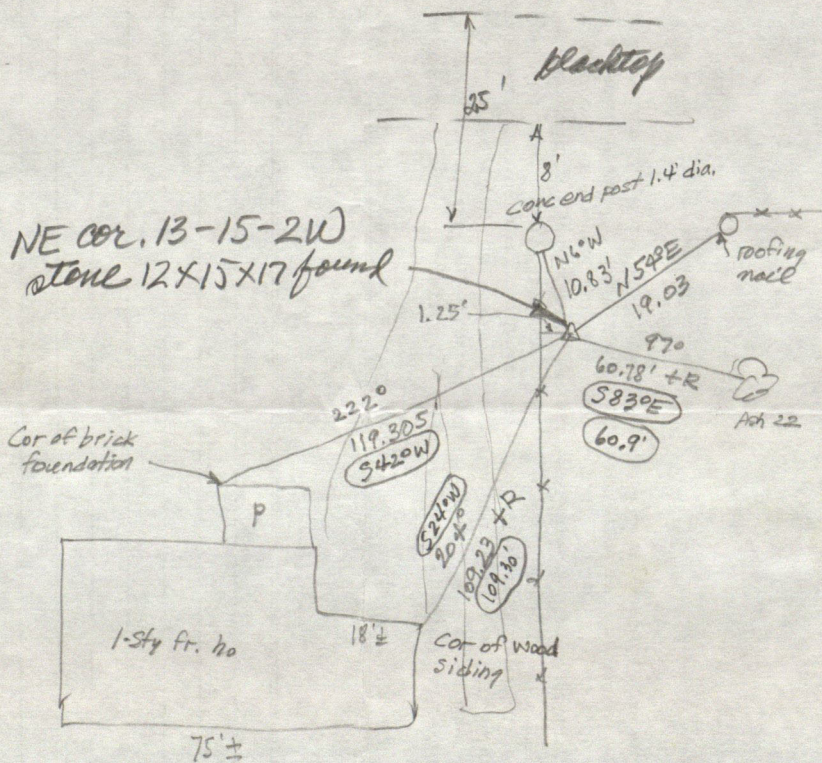
PAGE \_\_\_\_\_ OF \_\_\_\_\_

N.W. Cor. Sec 13



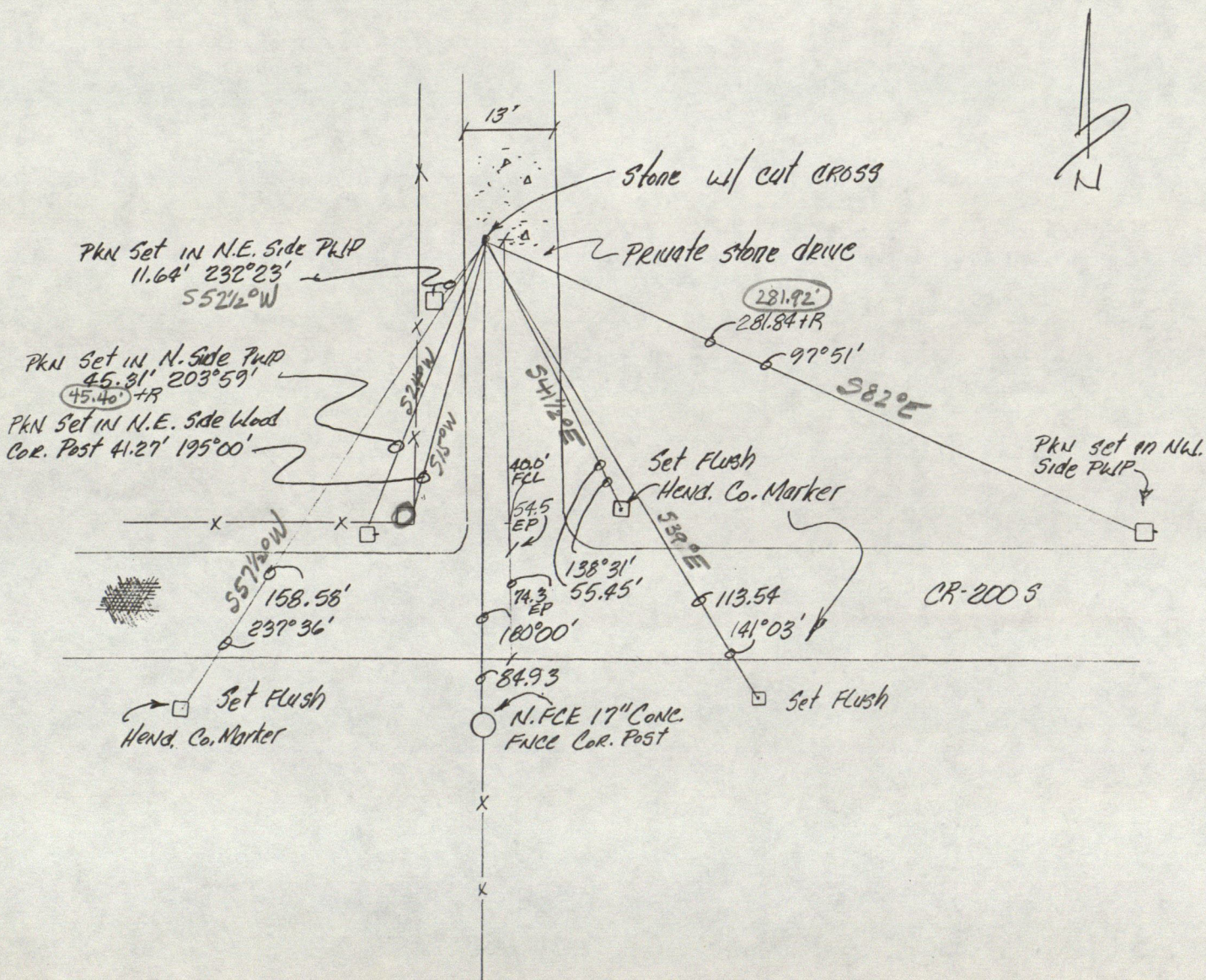


NE cor. 13-15-2W  
 Stone 12x15x17 found





## A handwritten mark consisting of a vertical line intersected by a diagonal stroke from bottom-left to top-right, with a small loop at the end of the diagonal stroke. Below it is a stylized letter 'N'.





# RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 13, T. 15 N., R. 2 W.

Found: ☒ Set: ☐ Depth: ☐

Description: ☐

Bearings to reference objects are magnetic unless a contrary mode is shown.



RANGE 2 WEST  
RANGE 1 WEST

COUNTY ROAD 100 SOUTH

Blacktop

Conc. end Post

N6°W 10.83'

Stone found

Roofing nail in wood gate post

N54°E 19.03'

S83°E 60.9'

1.25'

Ash 28"

2,662.20' to 1/4 cor. stone

S42°W 119.30'

S24°W 109.30'

Cor. of brick foundation

Porch

1-Sty. Frame House

Cor. of wood siding

The U. S. survey says the closing corner (SW corner of Sec. 7-15-1W) is 18 links south of this standard corner. In 1862, County Surveyor Cyrus Rogers reported in Book C, page 209, that the closing corner is north instead of south. I have found Rogers to be correct.



*Stanley M. Shartle*  
Stanley M. Shartle, P.E. & L.S.

Date: December 1, 1993



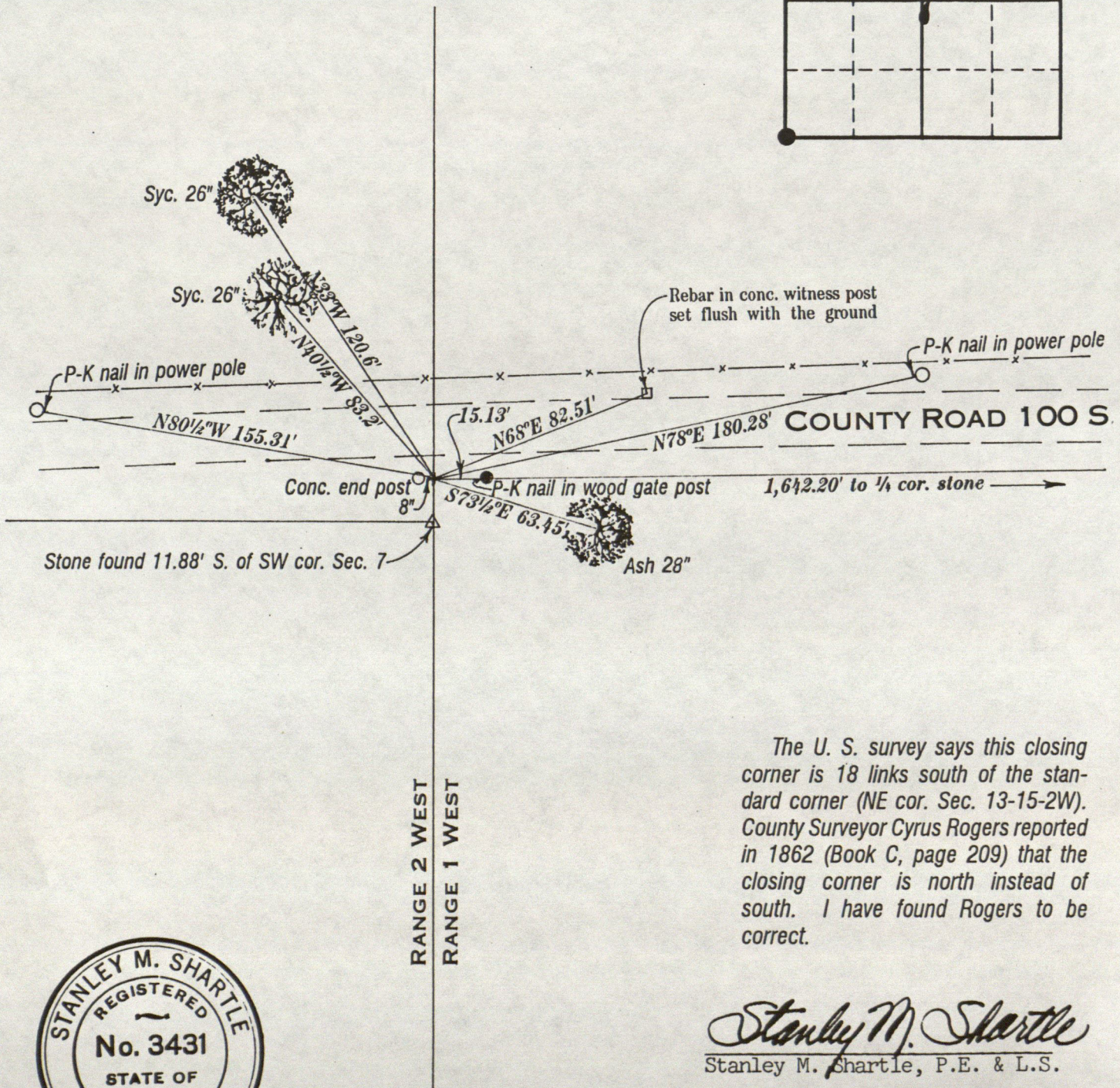
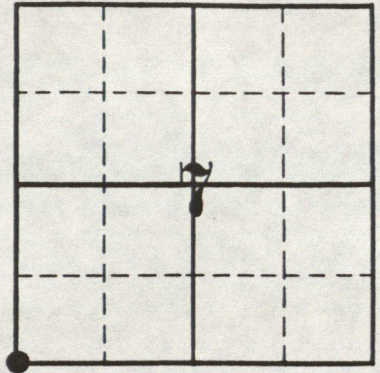
# RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 7, T. 15 N., R. 1 W.

Found:      Set: ☒ Depth: At surface

Description: + cut on conc. footing of end post

Bearings to reference objects are magnetic unless a contrary mode is shown.



*Stanley M. Shartle*  
Stanley M. Shartle, P.E. & L.S.

Date: December 1, 1993



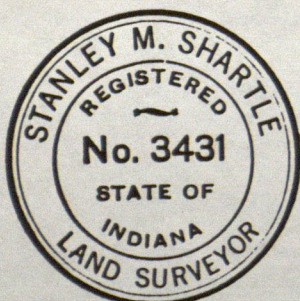
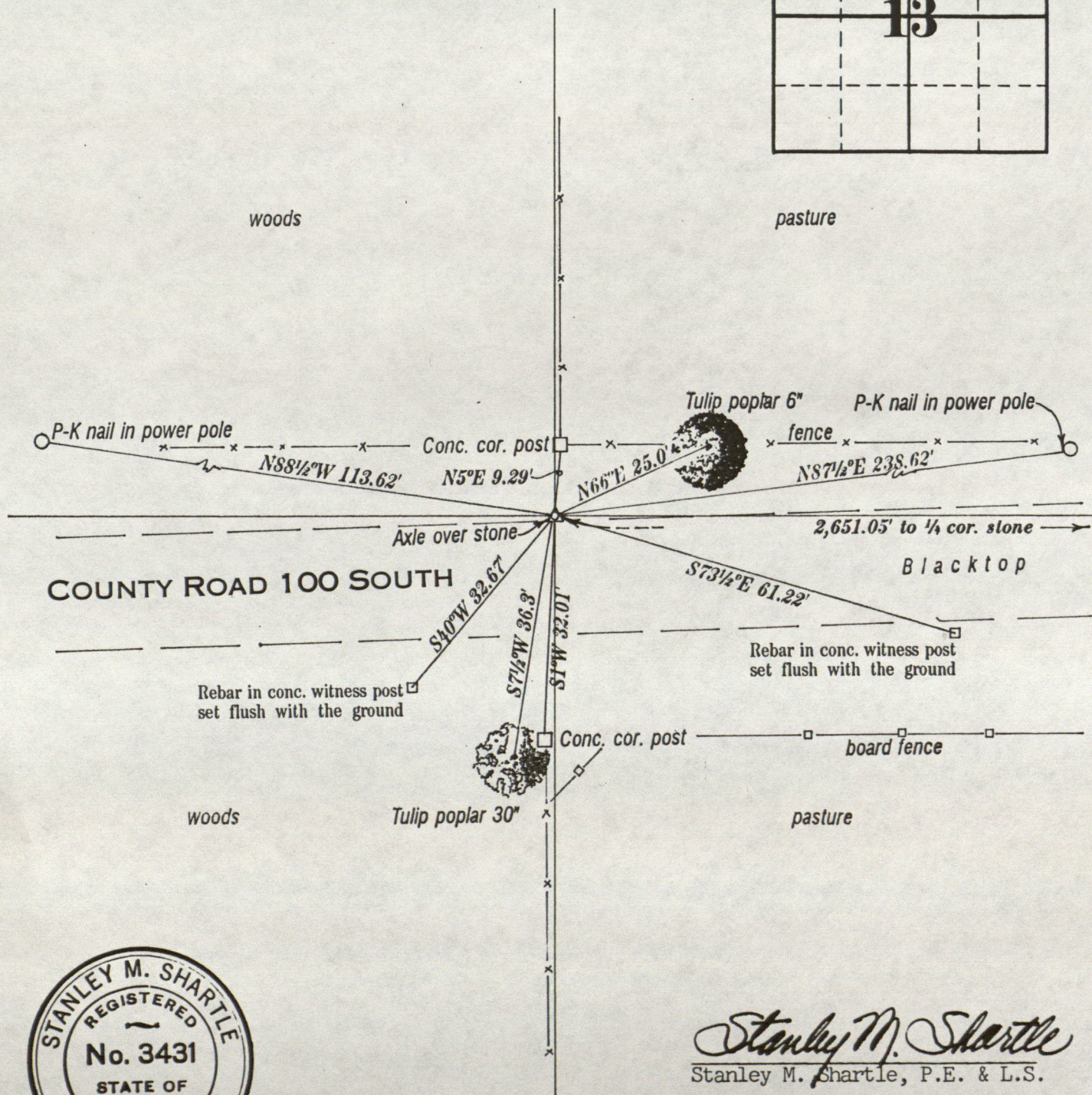
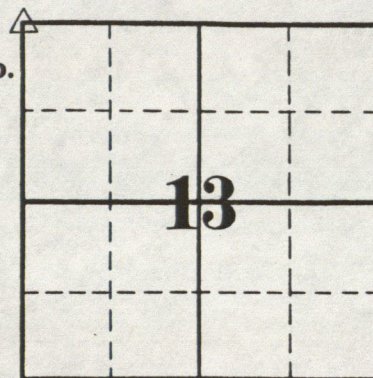
# RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 13, T. 15 N., R. 2 W.

Found: ☒ Set: ☐ Depth: 8 inches

Description: 1 1/4" x 20" axle set over orig. stone 3' ± deep.

Bearings to reference objects are magnetic unless a contrary mode is shown.



*Stanley M. Shartle*  
Stanley M. Shartle, P.E. & L.S.

Date: December 2, 1993



# RECORD OF CORNER

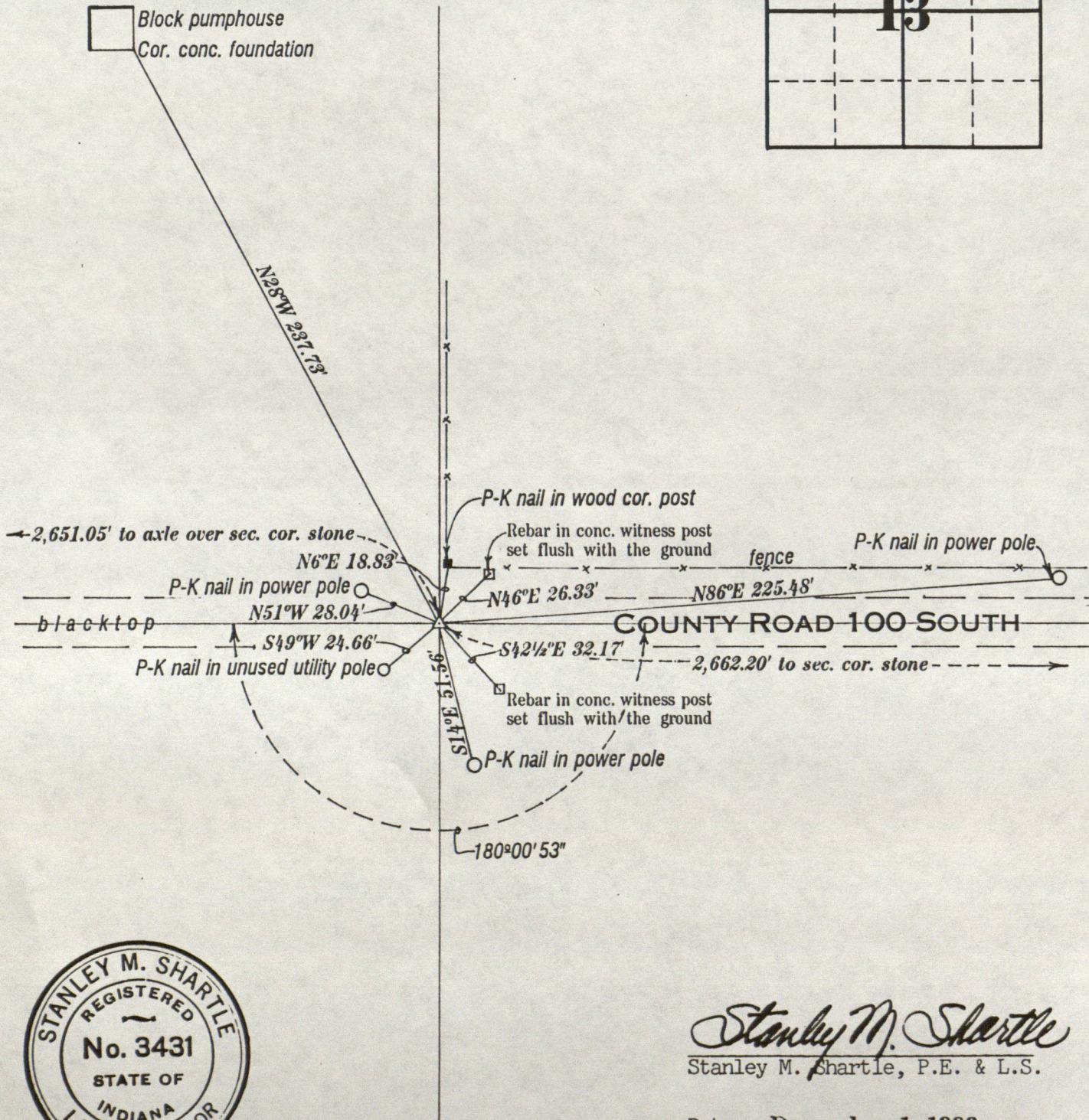
LOCATION OF MONUMENT: SECTION 13, T. 15 N., R. 2 W.

Found: ☒ Set: ☐ Depth: 4 inches

Description: Shallow drill hole in stone

Bearings to reference objects are magnetic unless a contrary mode is shown.

☐ Block pumphouse  
Cor. conc. foundation



*Stanley M. Shartle*  
Stanley M. Shartle, P.E. & L.S.

Date: December 1, 1993



TELEPHONE 317-272-7912

| DATE    | NUMBER OF HOURS WORKED                      |                                           |                                            |                                          |                                      | BRIEF DESCRIPTION OF SERVICES RENDERED; SEE COLUMN DESCRIPTIONS BELOW FOR DETAILS |
|---------|---------------------------------------------|-------------------------------------------|--------------------------------------------|------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------|
|         | 1<br>Office Work<br>One Man<br>\$36 per hr. | 2<br>Other<br>Office Work<br>\$40 per hr. | 3<br>Field Work<br>One Man<br>\$45 per hr. | 4<br>Court<br>Appearance<br>\$50 per hr. | 5<br>Cobra<br>Digger<br>\$10 per hr. |                                                                                   |
| Dec. 13 |                                             |                                           | 1.0                                        |                                          |                                      | S 1/4 Cor. 13-15-2W                                                               |
| " 20    |                                             |                                           | 1.5                                        |                                          |                                      | E 1/4 " " " "                                                                     |
| " 21    | 2.0                                         |                                           |                                            |                                          |                                      | S 1/4 " " " " plat + calcs.                                                       |
| " 22    | 2.1                                         |                                           |                                            |                                          |                                      | E 1/4 " " " " & calcs.                                                            |
| " 27    | 1.9                                         |                                           |                                            |                                          |                                      | " " " " " "                                                                       |
| " 27    | 2.0                                         |                                           |                                            |                                          |                                      | W 1/2 " 18-15-1W & calcs.                                                         |
| -1994-  |                                             |                                           |                                            |                                          |                                      |                                                                                   |
| Mar. 3  | 1.0                                         |                                           |                                            |                                          |                                      | cen. Sec. 13-15-2W calcs.                                                         |
| " 11    | 3.7                                         |                                           |                                            |                                          |                                      | SE Cor. 92-16-2E & NE Cor. 5-15-2E                                                |
| " 31    | 0.3                                         |                                           |                                            |                                          |                                      | Calcs. " " "                                                                      |
| Apr. 1  | 1.3                                         |                                           |                                            |                                          |                                      | Plat for Cen. Sec. 13-15-2W                                                       |
| Mar. 15 | 1.0                                         |                                           |                                            |                                          |                                      | " " W 1/4 Cor. " " "                                                              |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
|         |                                             |                                           |                                            |                                          |                                      |                                                                                   |
| TOTALS  | 15.3 hrs.<br>\$550.80                       | hrs.<br>\$                                | 2.5 hrs.<br>\$112.50                       | hrs.<br>\$                               | hrs.<br>\$                           | TOTAL \$ 663.30                                                                   |

\*Professional is a Registered Land Surveyor and Registered Professional Engineer.



TELEPHONE 317-272-7912

| DATE<br>1993 | NUMBER OF HOURS WORKED                      |                                           |                                            |                                          |                                      | BRIEF DESCRIPTION OF SERVICES<br>RENDERED; SEE COLUMN<br>DESCRIPTIONS BELOW FOR DETAILS |
|--------------|---------------------------------------------|-------------------------------------------|--------------------------------------------|------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------|
|              | 1<br>Office Work<br>One Man<br>\$36 per hr. | 2<br>Other<br>Office Work<br>\$40 per hr. | 3<br>Field Work<br>One Man<br>\$45 per hr. | 4<br>Court<br>Appearance<br>\$50 per hr. | 5<br>Cobra<br>Digger<br>\$10 per hr. |                                                                                         |
| Nov. 17      | 0.9                                         |                                           |                                            |                                          |                                      | NW Cor. 20-15-1E research                                                               |
| " 17         | 2.8                                         |                                           |                                            |                                          |                                      | NE Cor. & cor. 13-15-2W "                                                               |
| " 18         |                                             |                                           | 0.5                                        |                                          |                                      | NW Cor. 20-15-1E                                                                        |
| " 22         | 2.0                                         |                                           | 2.5                                        |                                          |                                      | NE " 13-15-2W                                                                           |
| " 23         |                                             |                                           | 1.0                                        |                                          |                                      | NW " 20-15-1E                                                                           |
| " 23         |                                             |                                           | 6.0                                        |                                          |                                      | 13-15-2W Corners                                                                        |
| " 30         | 2.5                                         |                                           |                                            |                                          |                                      | Plat for NW Cor. 20-15-1E & NE 13-15-2W                                                 |
| Dec. 1       | 1.2                                         |                                           |                                            |                                          |                                      | " " SW cor. 7-13-1W                                                                     |
| " 1          | 1.3                                         |                                           |                                            |                                          |                                      | " " N 1/4 cor. 13-15-2W                                                                 |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
|              |                                             |                                           |                                            |                                          |                                      |                                                                                         |
| TOTALS       | 10.7 hrs.<br>\$385.20                       | hrs.<br>\$                                | 10.0 hrs.<br>\$450.00                      | hrs.<br>\$                               | hrs.<br>\$                           | TOTAL \$ 835.20                                                                         |

\*Professional is a Registered Land Surveyor and Registered Professional Engineer.