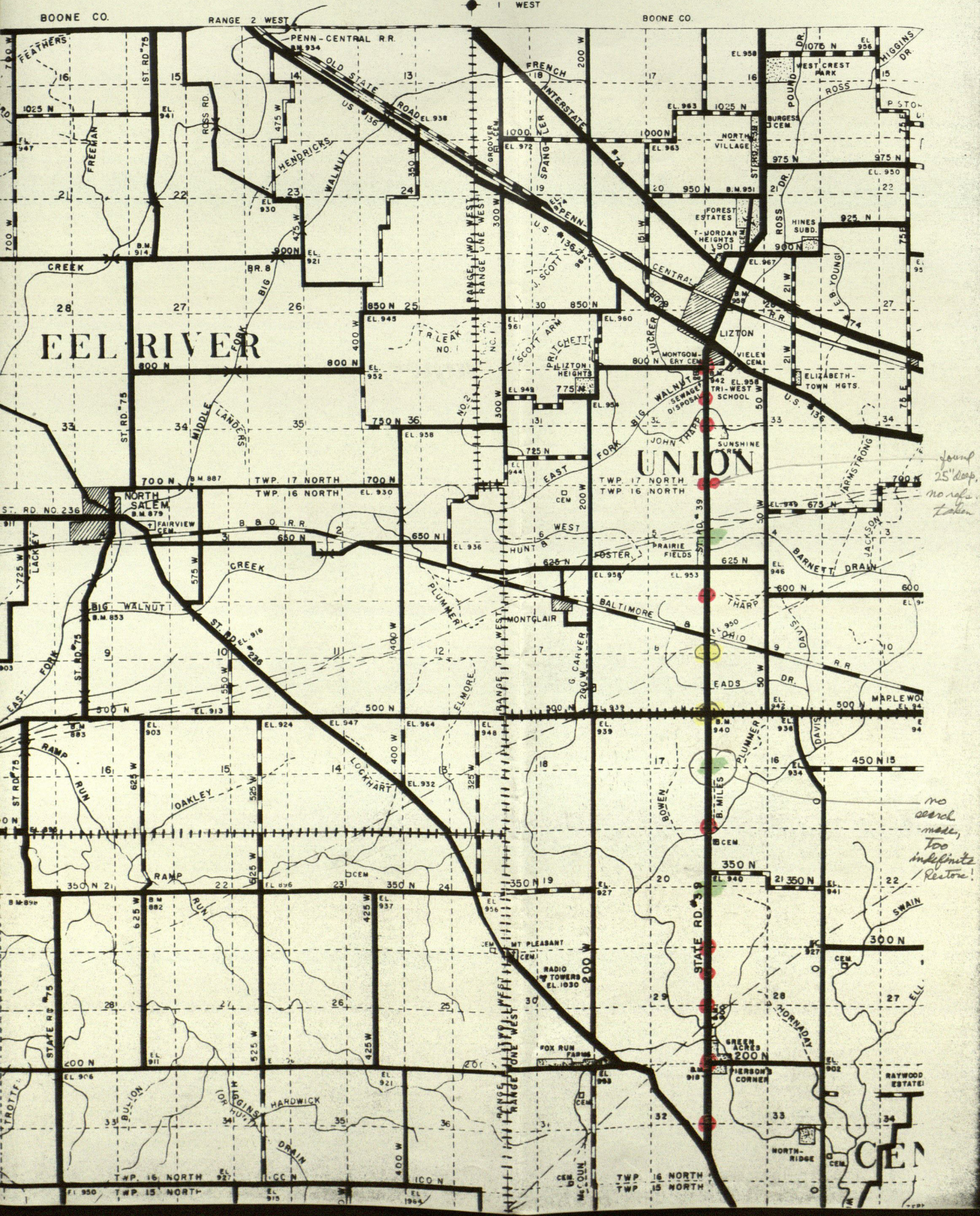


4, 5, 8, 9, 16, 17, 20, 21, 28, 29, 32, 33 - 16-1W
COUNTY

- Type B Man't. found or other mark
- Restore by surveying
- Search for stone



RECORD OF CORNER

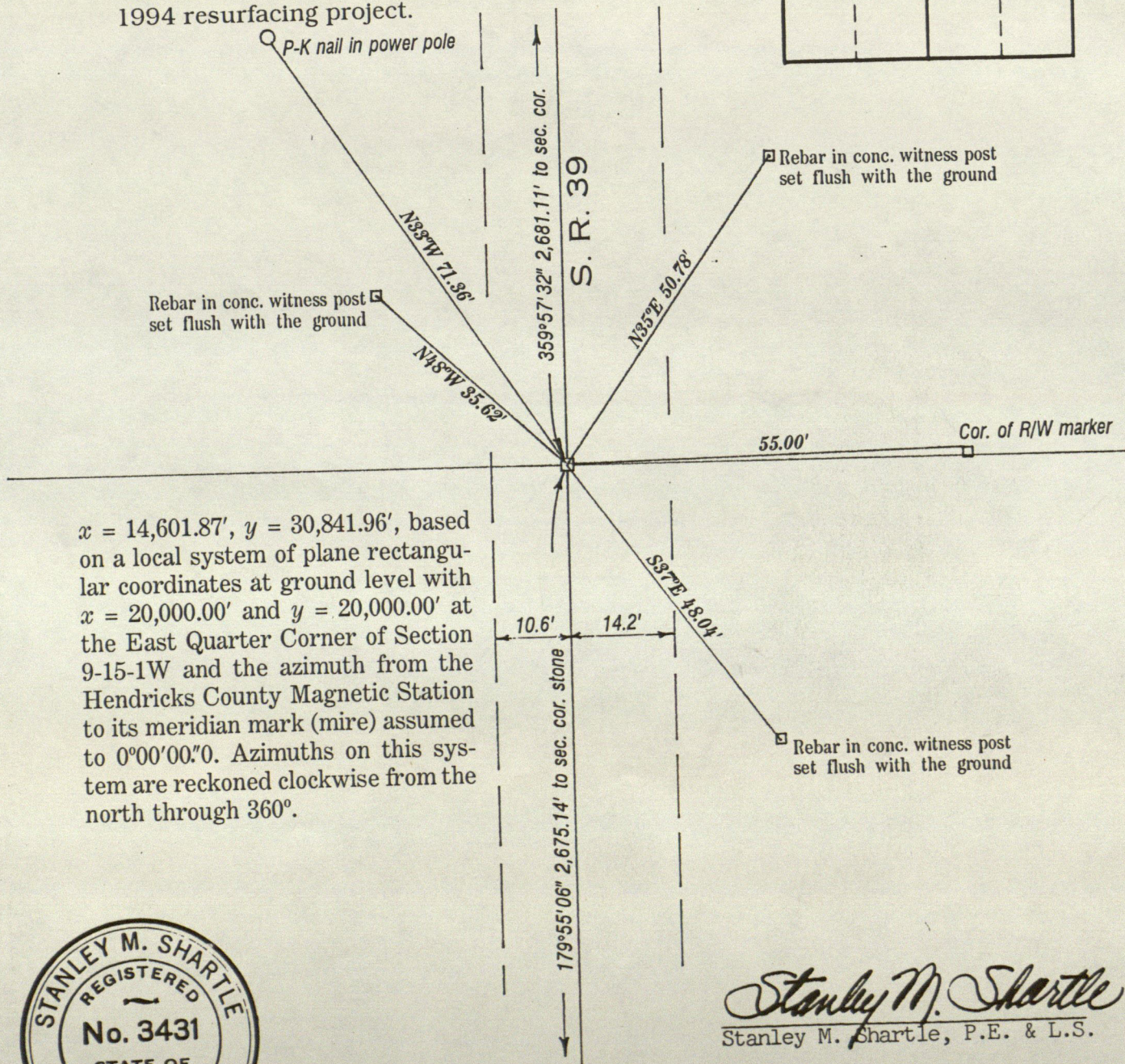
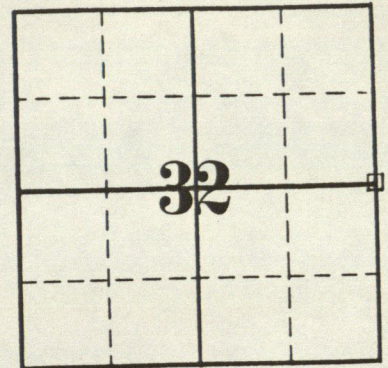
LOCATION OF MONUMENT: SECTION 32, T. 16 N., R. 1 W.

Found: ☒ Set: ☐ Depth: ☐ Flush

Description: Type B Monument

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



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

Date: May 19, 1994

RECORD OF CORNER

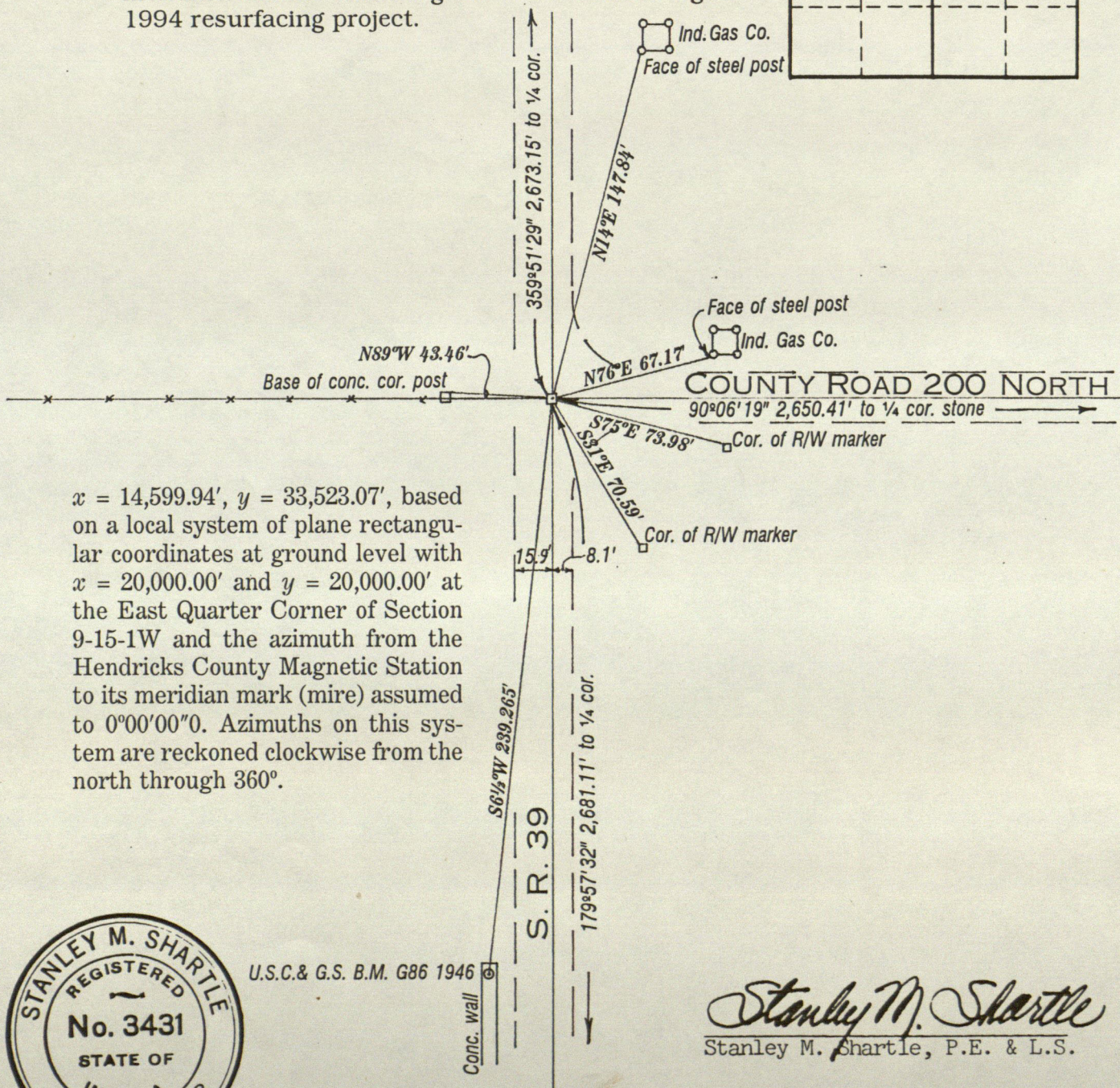
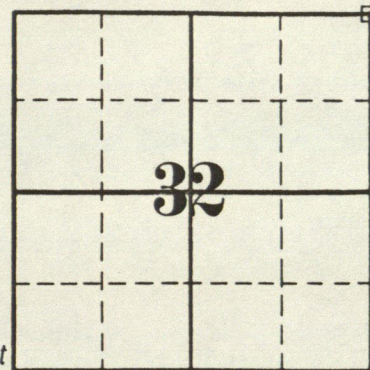
LOCATION OF MONUMENT: SECTION 32, T. 16 N., R. 1 W.

Found: ☒ Set: ☐ Depth: ☐ Flush

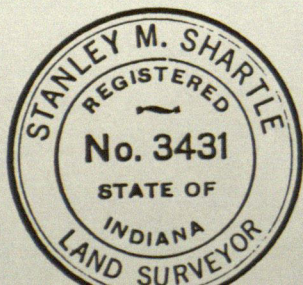
Description: Type B Monument

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



$x = 14,599.94'$, $y = 33,523.07'$, based on a local system of plane rectangular coordinates at ground level with $x = 20,000.00'$ and $y = 20,000.00'$ at the East Quarter Corner of Section 9-15-1W and the azimuth from the Hendricks County Magnetic Station to its meridian mark (mire) assumed to $0^{\circ}00'00''0$. Azimuths on this system are reckoned clockwise from the north through 360° .



U.S.C. & G.S. B.M. G86 1946

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

Date: May 19, 1994

RECORD OF CORNER

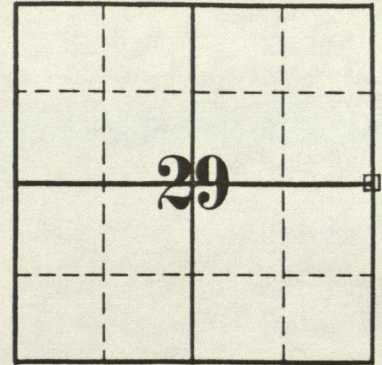
LOCATION OF MONUMENT: SECTION 29, T. 16N., R. 1W.

Found: ☒ Set: ☐ Depth: ☐ Flush

Description: Type B Monument

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



Conc. curb on structure

Conc. curb on structure

$x = 14,593.31'$, $y = 36,196.21'$, based on a local system of plane rectangular coordinates at ground level with $x = 20,000.00'$ and $y = 20,000.00'$ at the East Quarter Corner of Section 9-15-1W and the azimuth from the Hendricks County Magnetic Station to its meridian mark (mire) assumed to $0^{\circ}00'00''.0$. Azimuths on this system are reckoned clockwise from the north through 360° .

N $14^{\circ}W$ 104.31'

359°51'55" 1,326.40' to $\frac{1}{2}$ $\frac{1}{4}$ cor.

N $8\frac{1}{2}^{\circ}E$ 128.92'

N $46\frac{3}{4}^{\circ}E$ 51.38'

S $31\frac{1}{2}^{\circ}W$ 79.06'

15.9'

8.4'

179°51'29" 2,673.15' to sec. cor.

S $31\frac{1}{2}^{\circ}W$ 79.06'

Cor. of R/W marker

Rebar in conc. witness post set flush with the ground

Rebar in conc. witness post set flush with the ground



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

Date: May 19, 1994

RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 29, T. 16 N., R. 1 W.

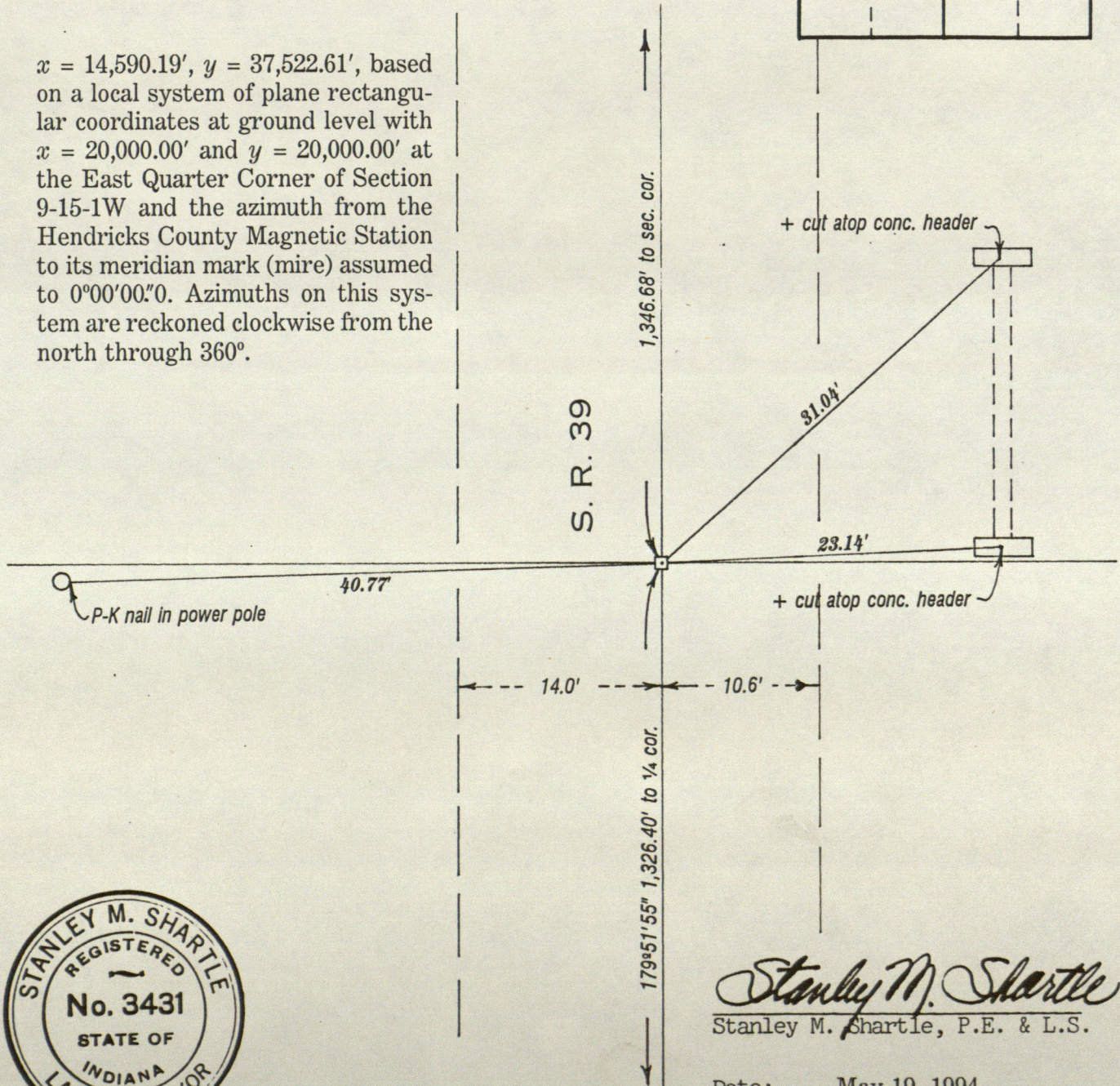
Found: ☒ Set: ☐ Depth: ☐ Flush

Description: Type B Monument

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.

$x = 14,590.19'$, $y = 37,522.61'$, based on a local system of plane rectangular coordinates at ground level with $x = 20,000.00'$ and $y = 20,000.00'$ at the East Quarter Corner of Section 9-15-1W and the azimuth from the Hendricks County Magnetic Station to its meridian mark (mire) assumed to $0^{\circ}00'00".0$. Azimuths on this system are reckoned clockwise from the north through 360° .



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

Date: May 19, 1994

RECORD OF CORNER

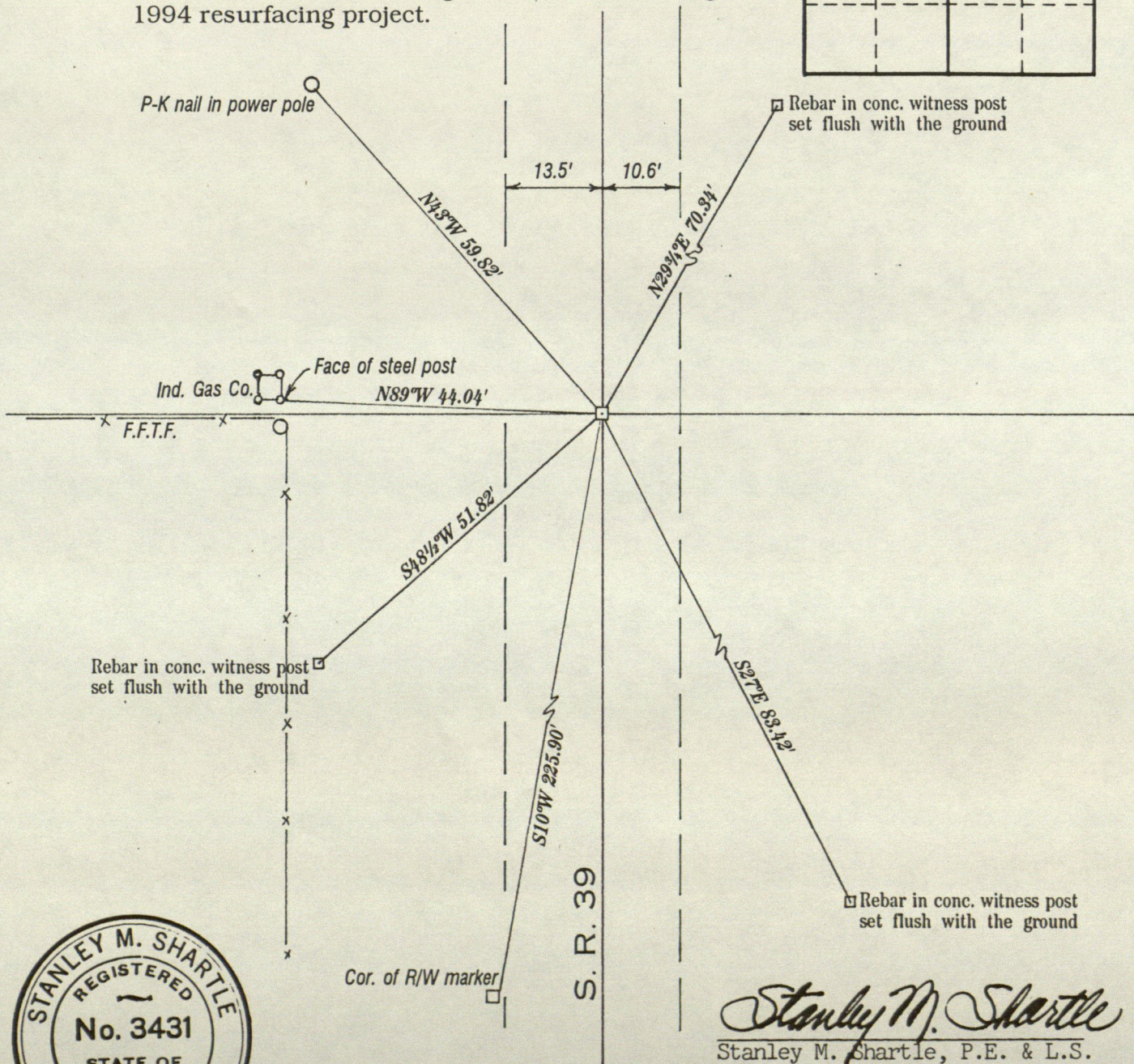
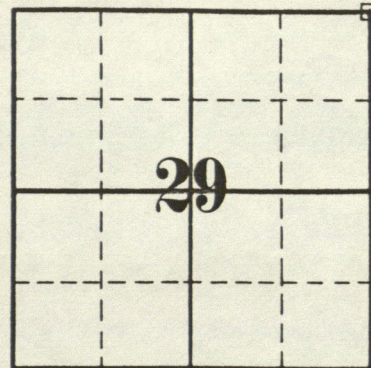
LOCATION OF MONUMENT: SECTION 29, T. 16 N., R. 1 W.

Found: ✓ Set: Depth: Flush

Description: Type B Monument

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



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

Date: May 19, 1994

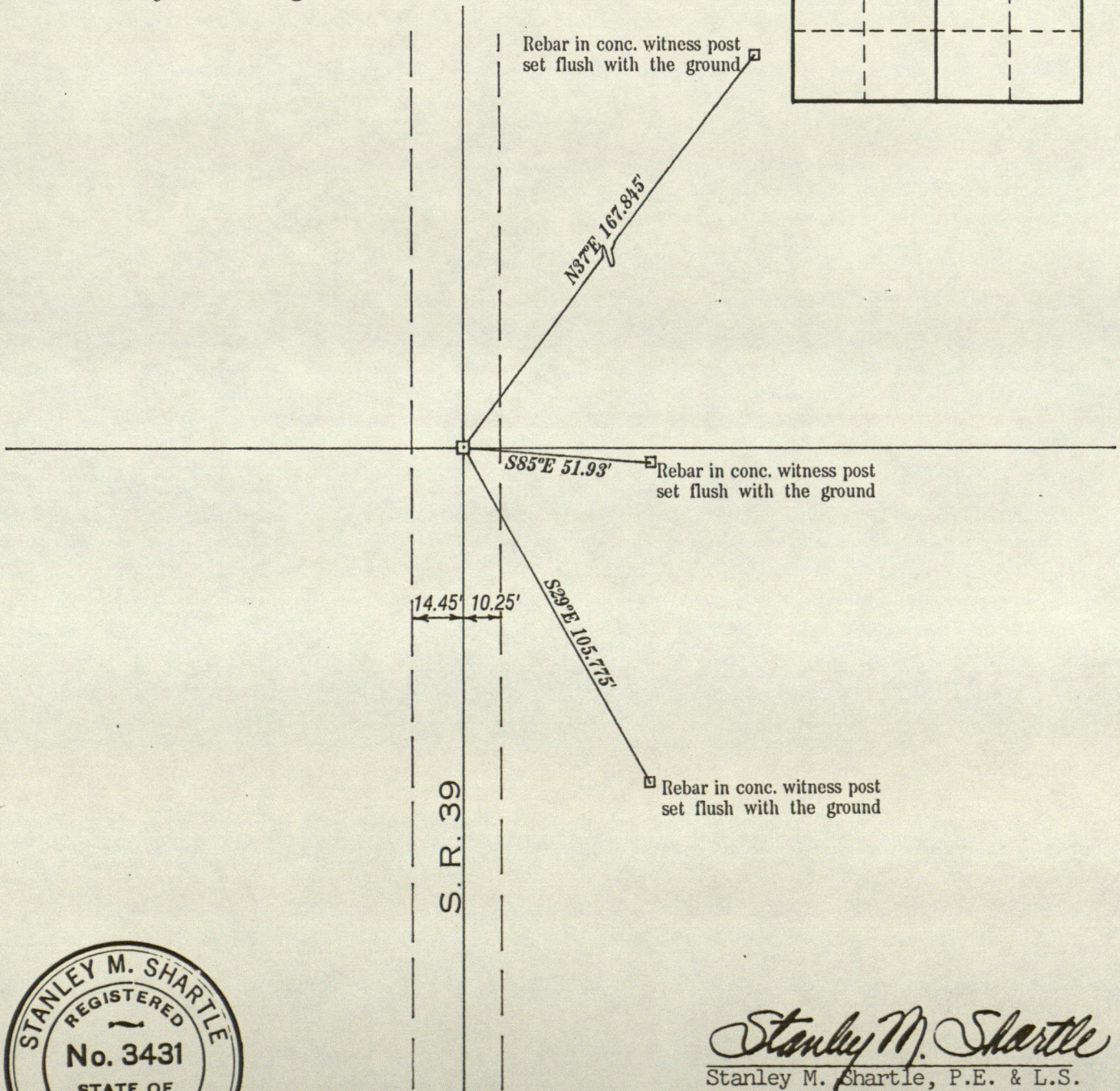
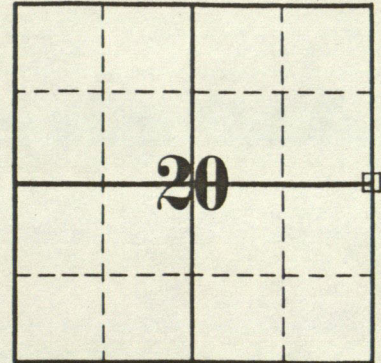
RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 20, T. 16 N., R. 1 W.

Found: Set: ☒ Depth: Flush

Description: Type B Monument

This lost corner was restored by a single proportionate measurement between the southeast and the northeast corners of the section. Bearings to reference objects are magnetic.



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

Date: June 8, 1994

RECORD OF CORNER

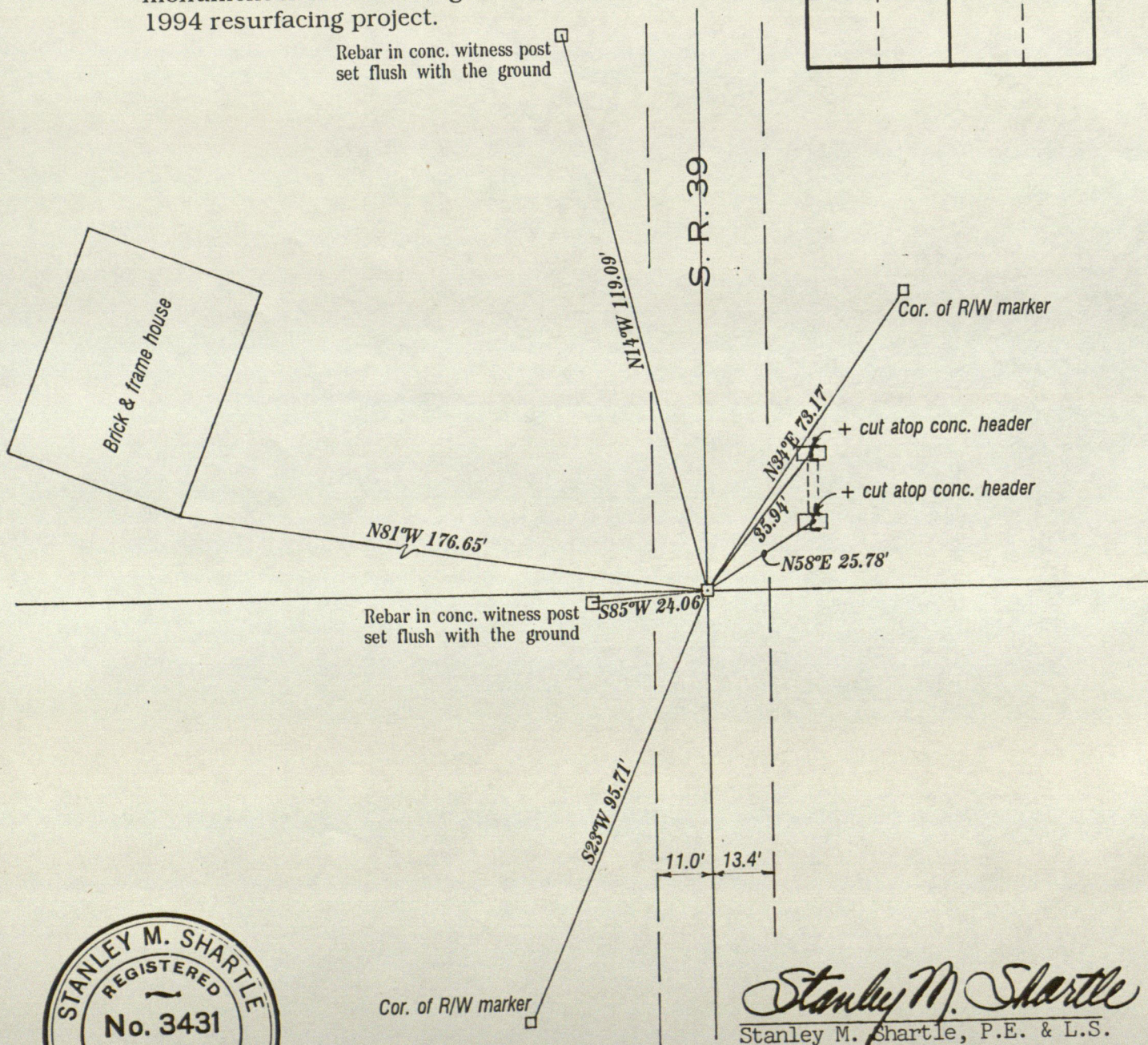
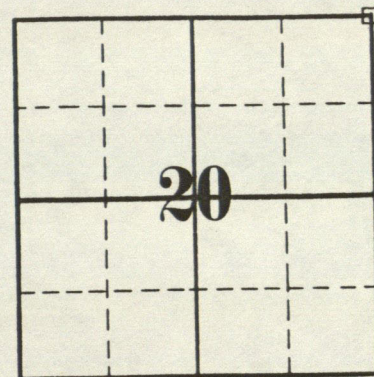
LOCATION OF MONUMENT: SECTION 20, T. 16 N., R. 1 W.

Found: ☒ Set: ☐ Depth: ☐ Flush

Description: Type B Monument

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



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

Date: May 19, 1994

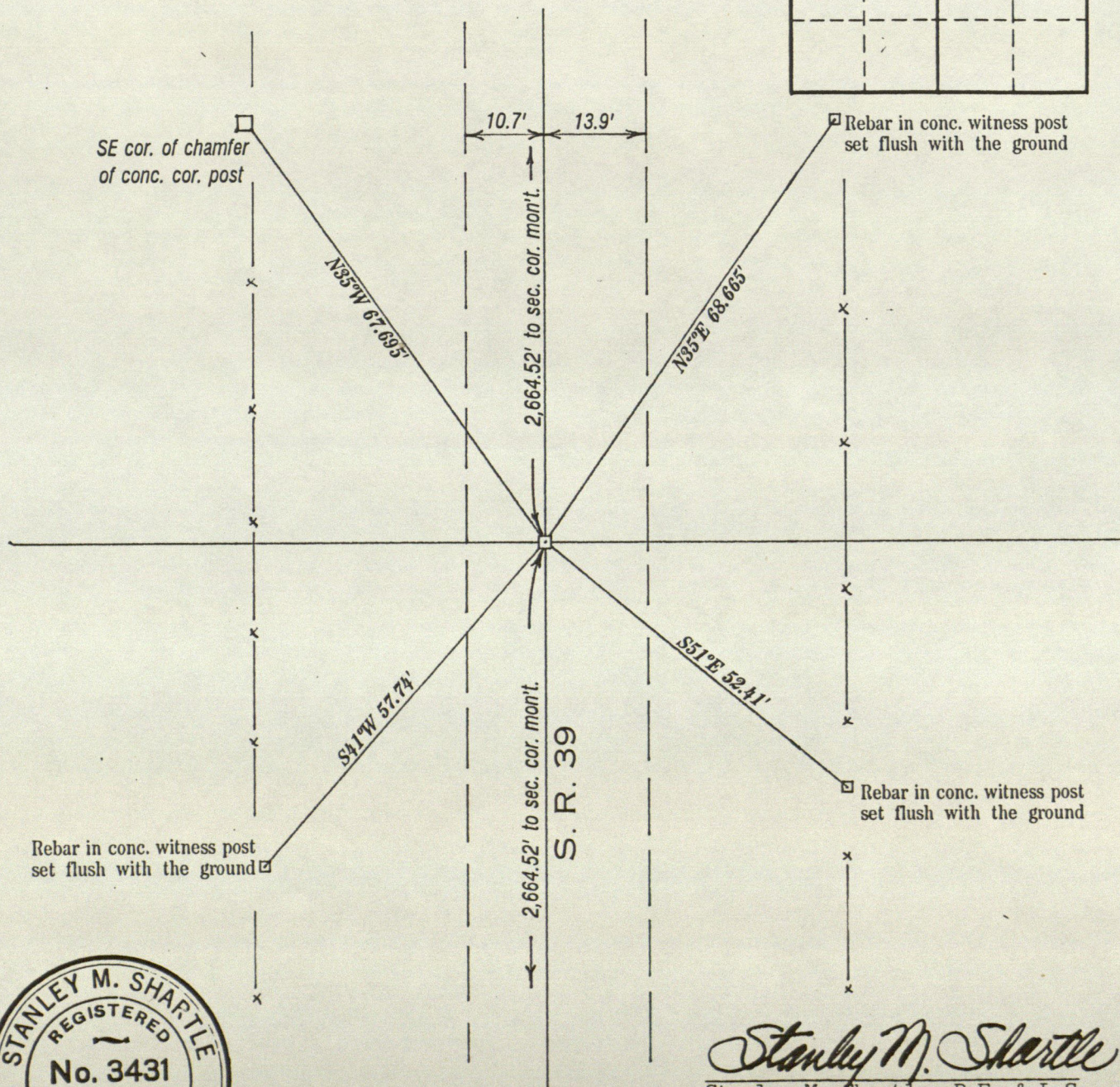
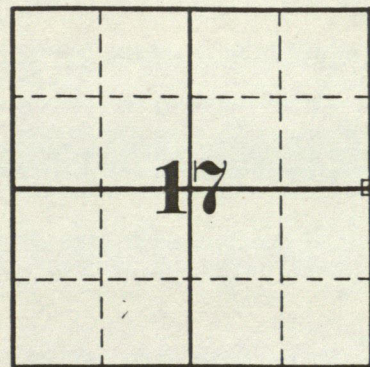
RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 17, T. 16 N., R. 1 W.

Found: Set: ☒ Depth: Flush

Description: Type B Monument

This lost corner was restored by a single proportionate measurement between the southeast and the northeast corners of the section. Bearings to reference objects are magnetic.



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

Date: June 8, 1994

RECORD OF CORNER

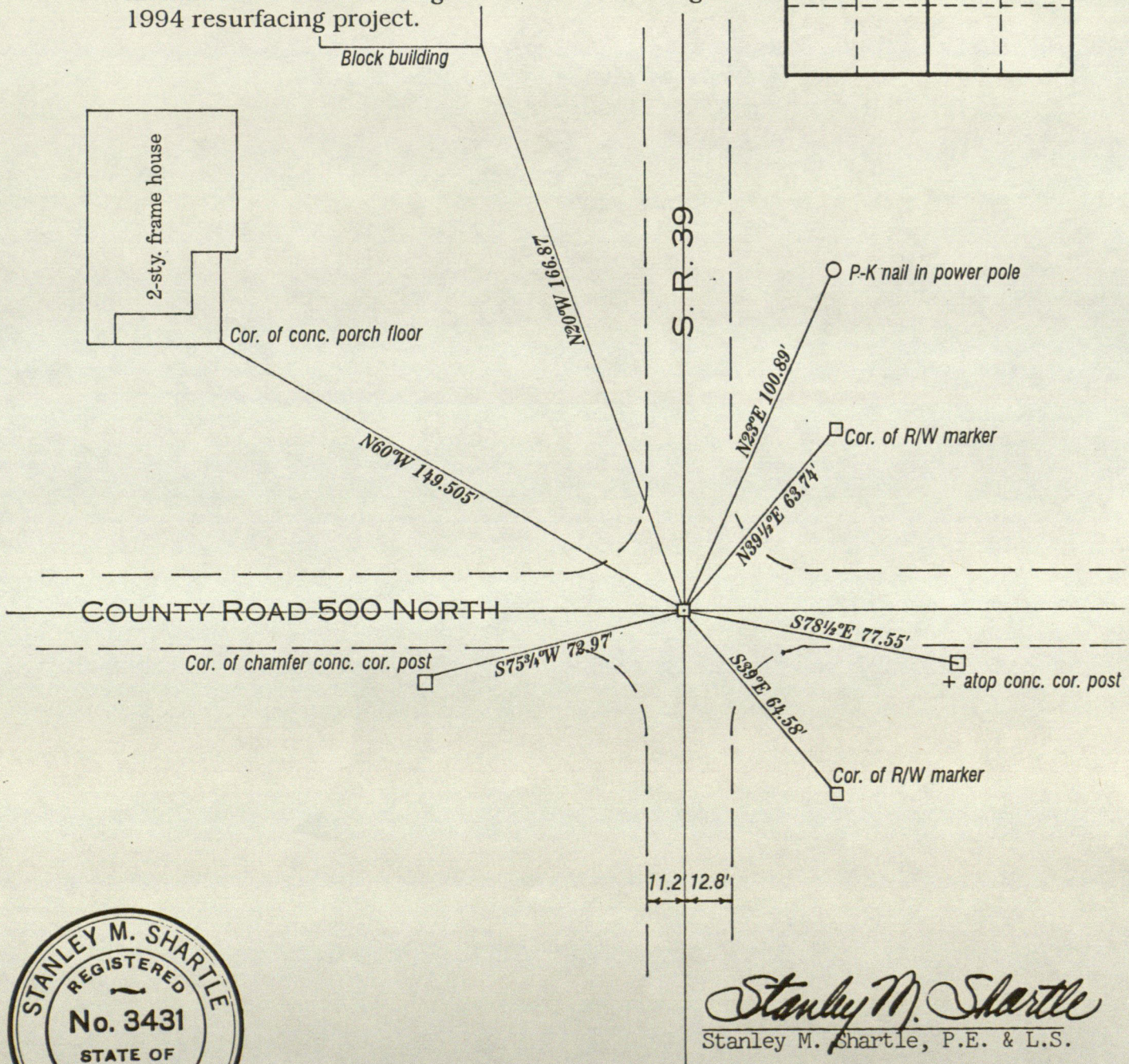
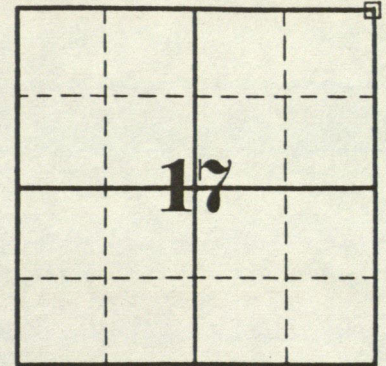
LOCATION OF MONUMENT: SECTION 17, T. 16 N., R. 1 W.

Found: ☒ Set: ☐ Depth: 19 inches

Description: Stone

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



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

Date: May 19, 1994

RECORD OF CORNER

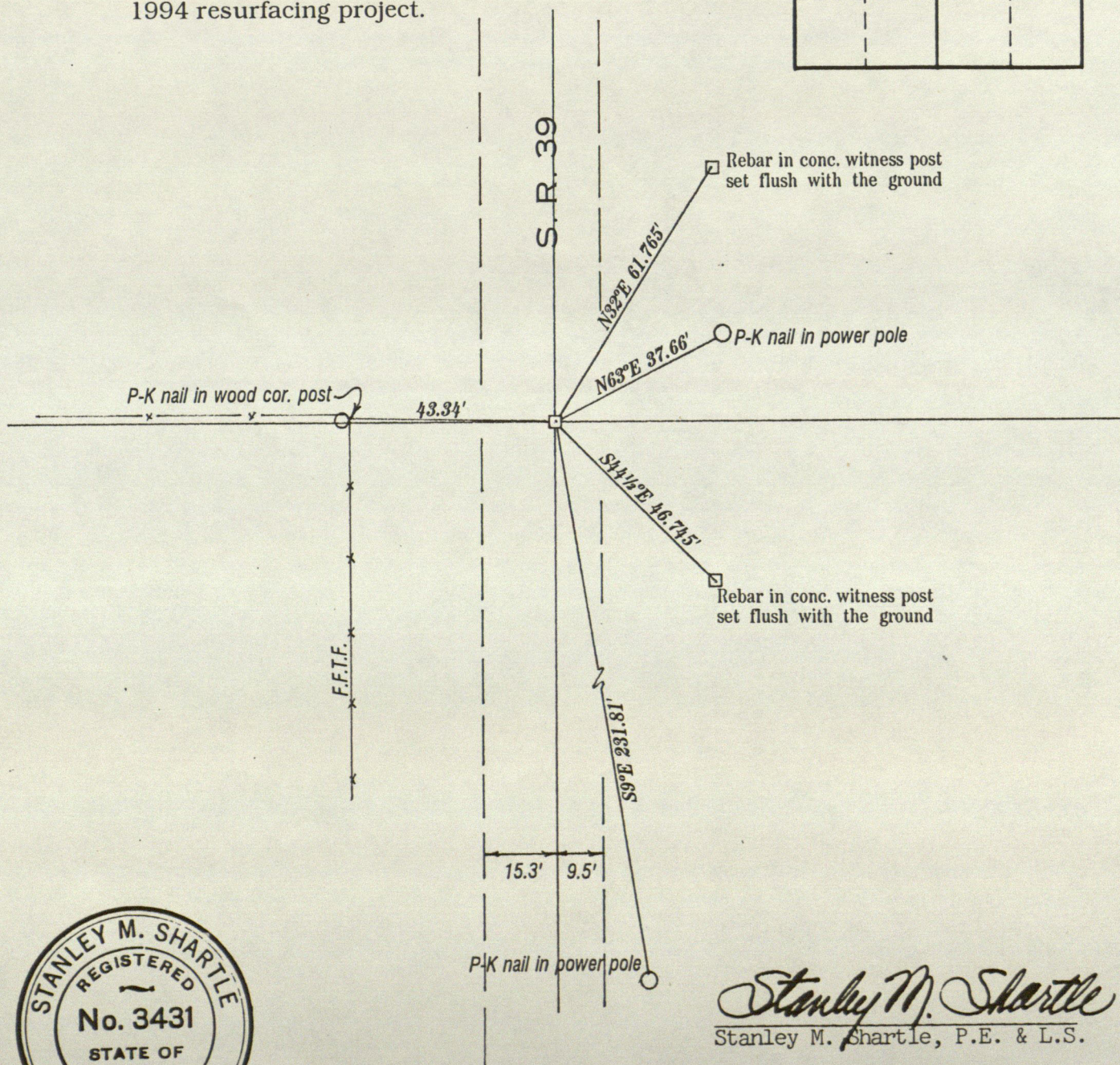
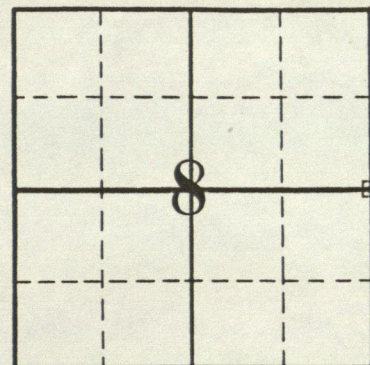
LOCATION OF MONUMENT: SECTION 8, T. 16 N., R. 1 W.

Found: ☒ Set: ☐ Depth: 11 inches

Description: Stone

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



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

Date: May 19, 1994

RECORD OF CORNER

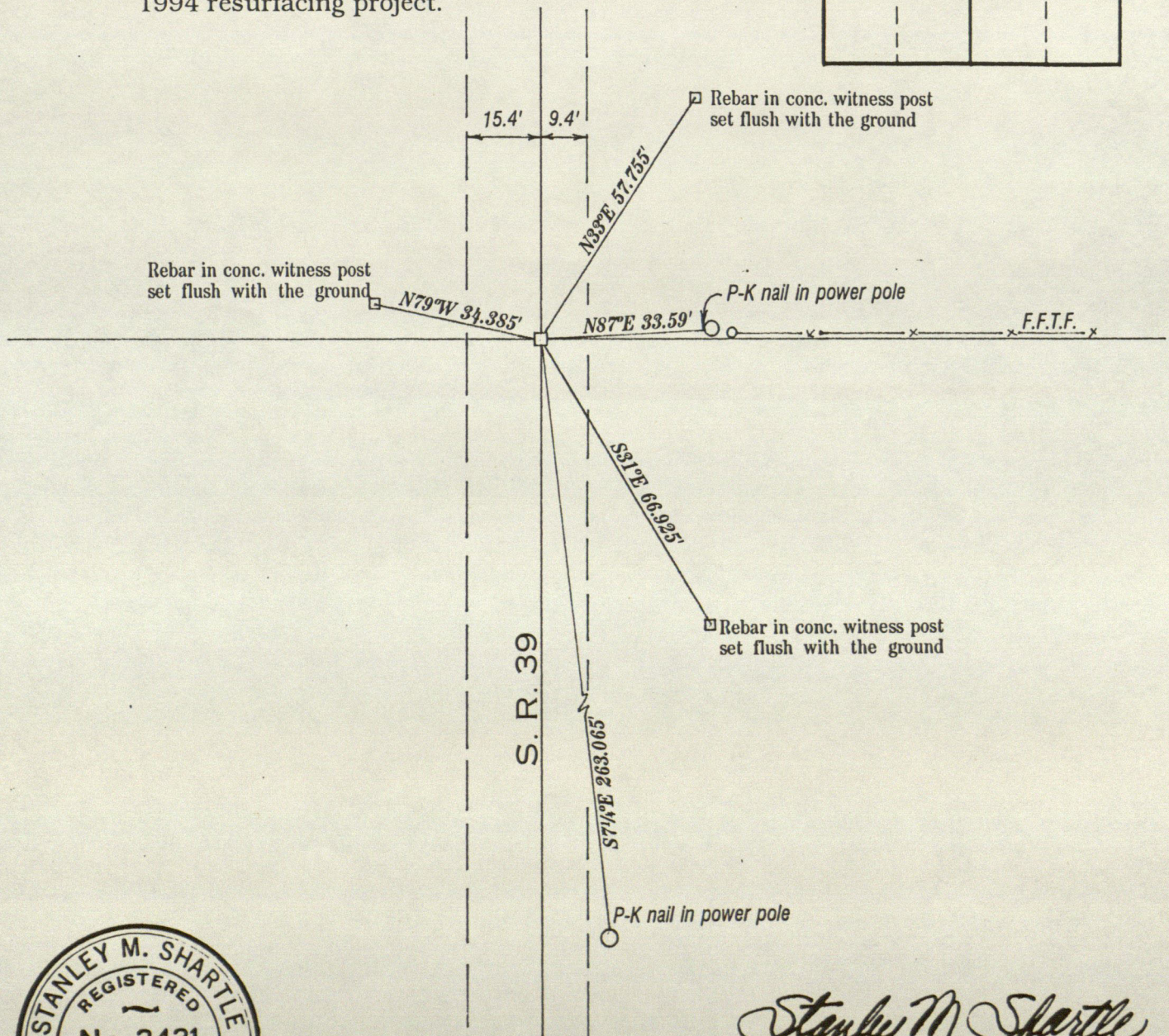
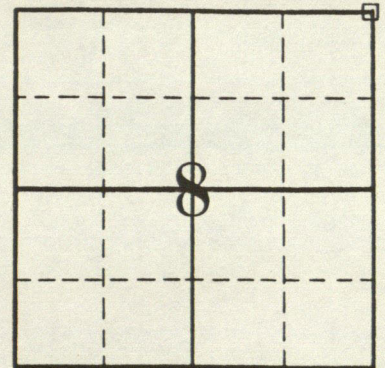
LOCATION OF MONUMENT: SECTION 8, T. 16N., R. 1 W.

Found: ☒ Set: ☐ Depth: ☐ Flush ☐

Description: Type B Monument

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



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

Date: May 19, 1994

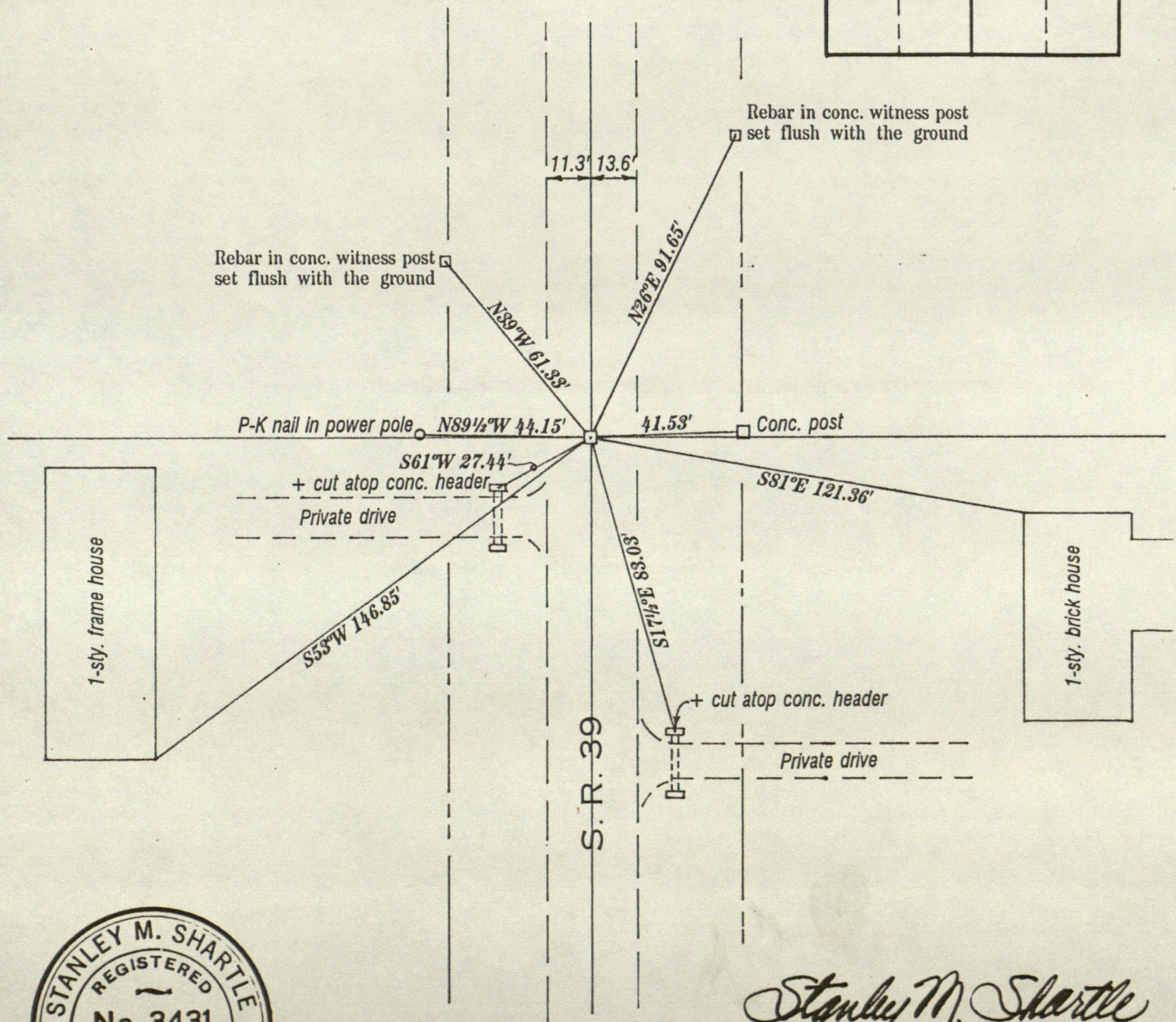
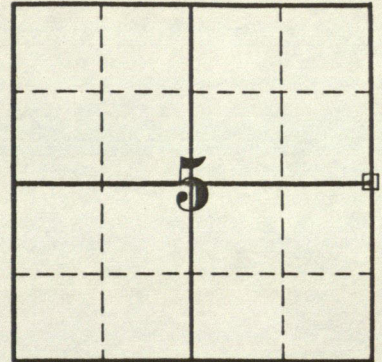
RECORD OF CORNER

LOCATION OF MONUMENT: SECTION 5, T. 16 N., R. 1 W.

Found: ☒ Set: ☐ Depth: ☐ See below ☐

Description: Type B Monument

The top of the corner stone, found 23 inches deep, was necessarily cut off to make room for the Type B Monument set to replace it. Bearings to reference objects are magnetic.



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

Date: June 8, 1994

RECORD OF CORNER

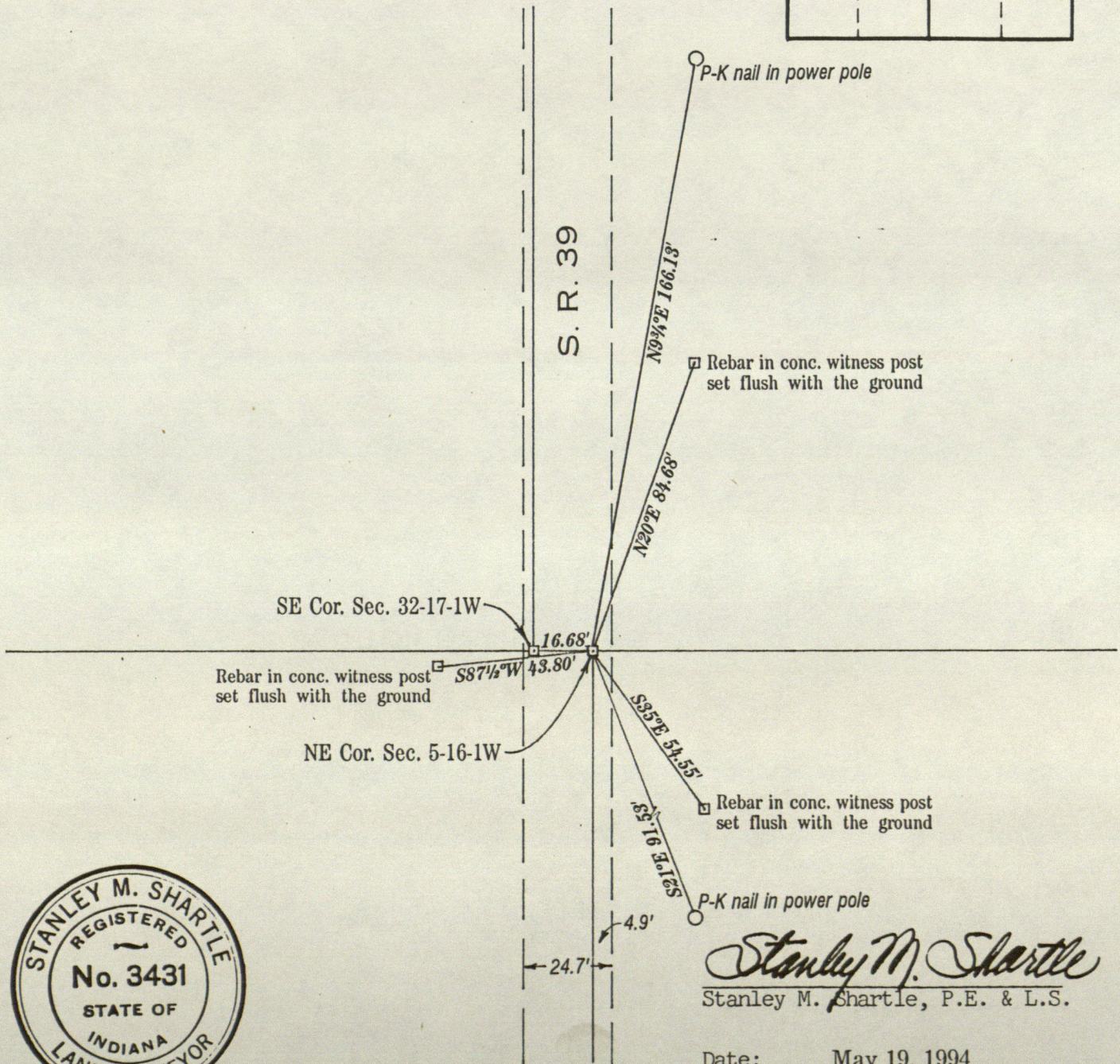
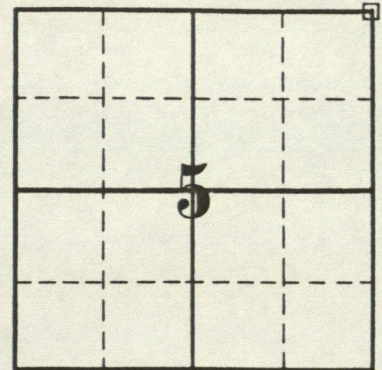
LOCATION OF MONUMENT: SECTION 5, T. 16 N., R. 1 W.

Found: ☒ Set: ☐ Depth: ☐ Flush

Description: Type B Monument

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



RECORD OF CORNER

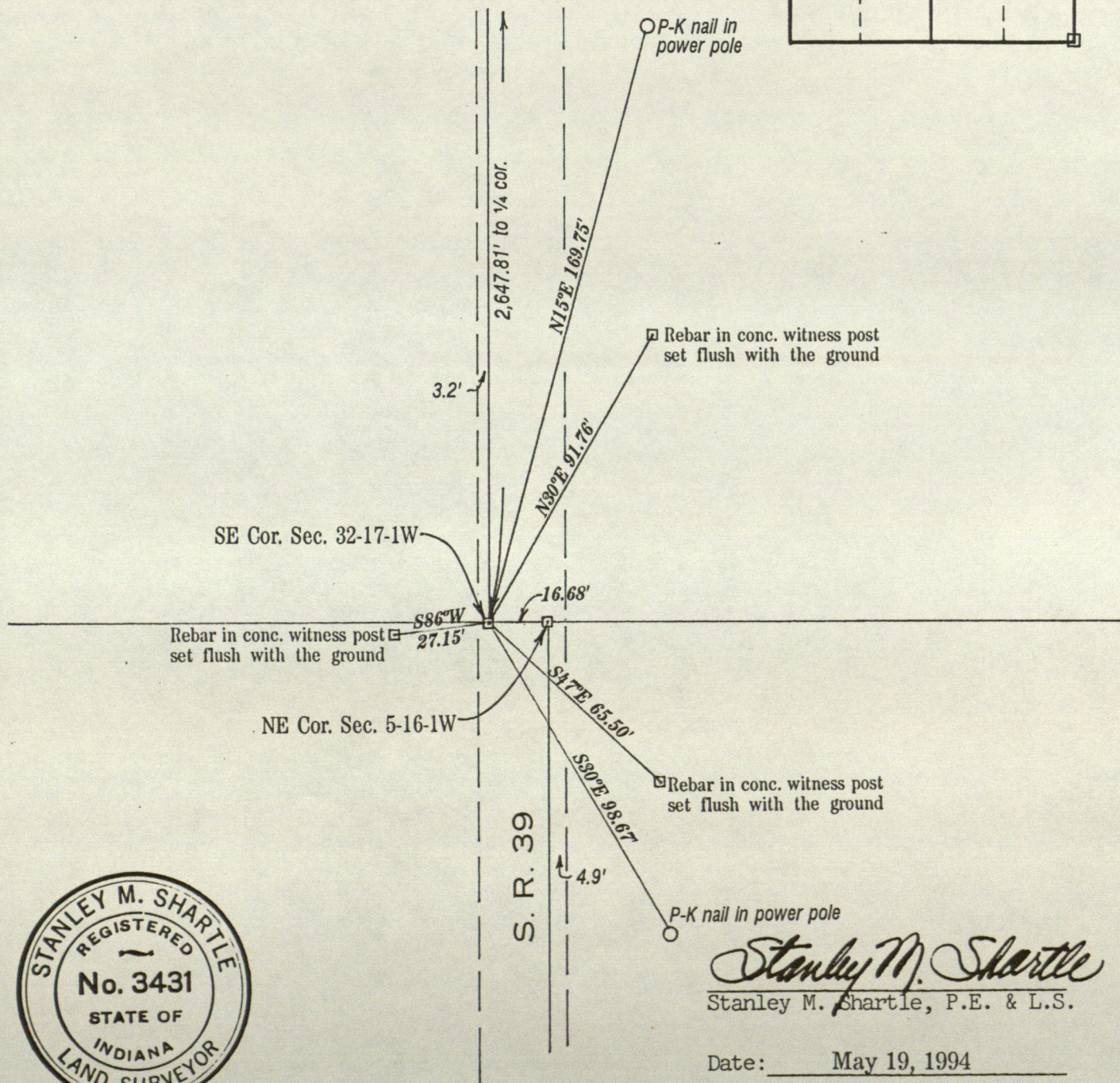
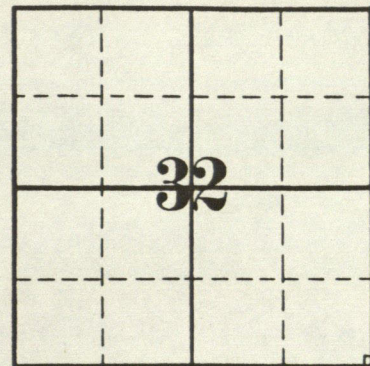
LOCATION OF MONUMENT: SECTION 32, T. 17 N., R. 1 W.

Found: ☒ Set: ☐ Depth: ☐ Flush ☐

Description: Type B Monument

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



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

Date: May 19, 1994

RECORD OF CORNER

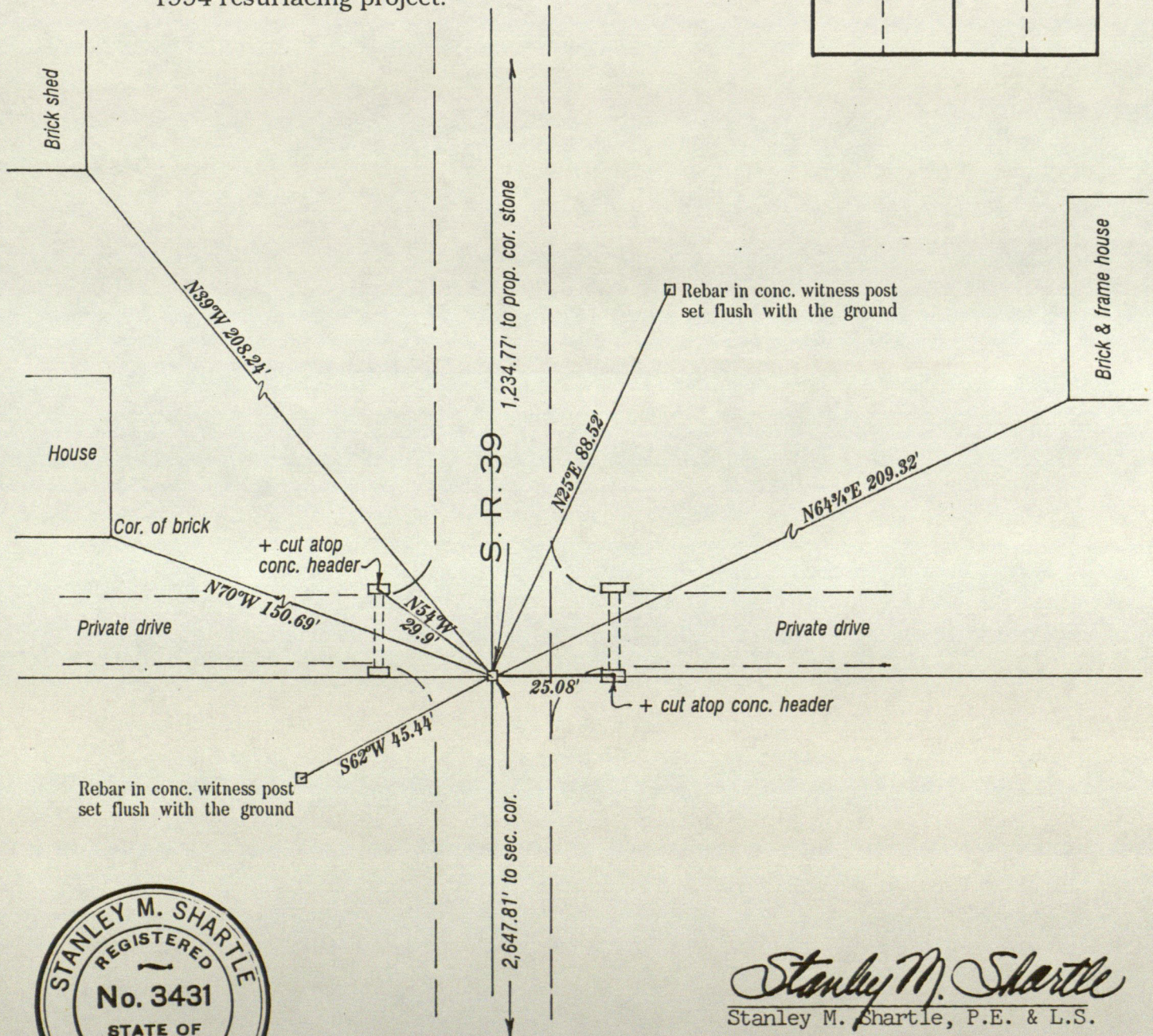
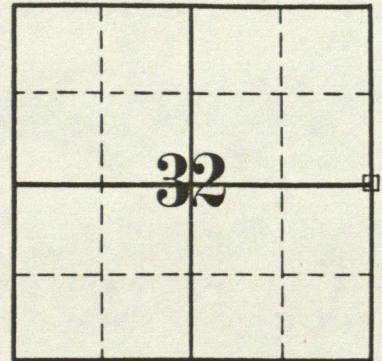
LOCATION OF MONUMENT: SECTION 32, T. 17 N., R. 1 W.

Found: ☒ Set: ☐ Depth: ☐ Flush

Description: Type B Monument

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



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

Date: May 19, 1994

RECORD OF CORNER

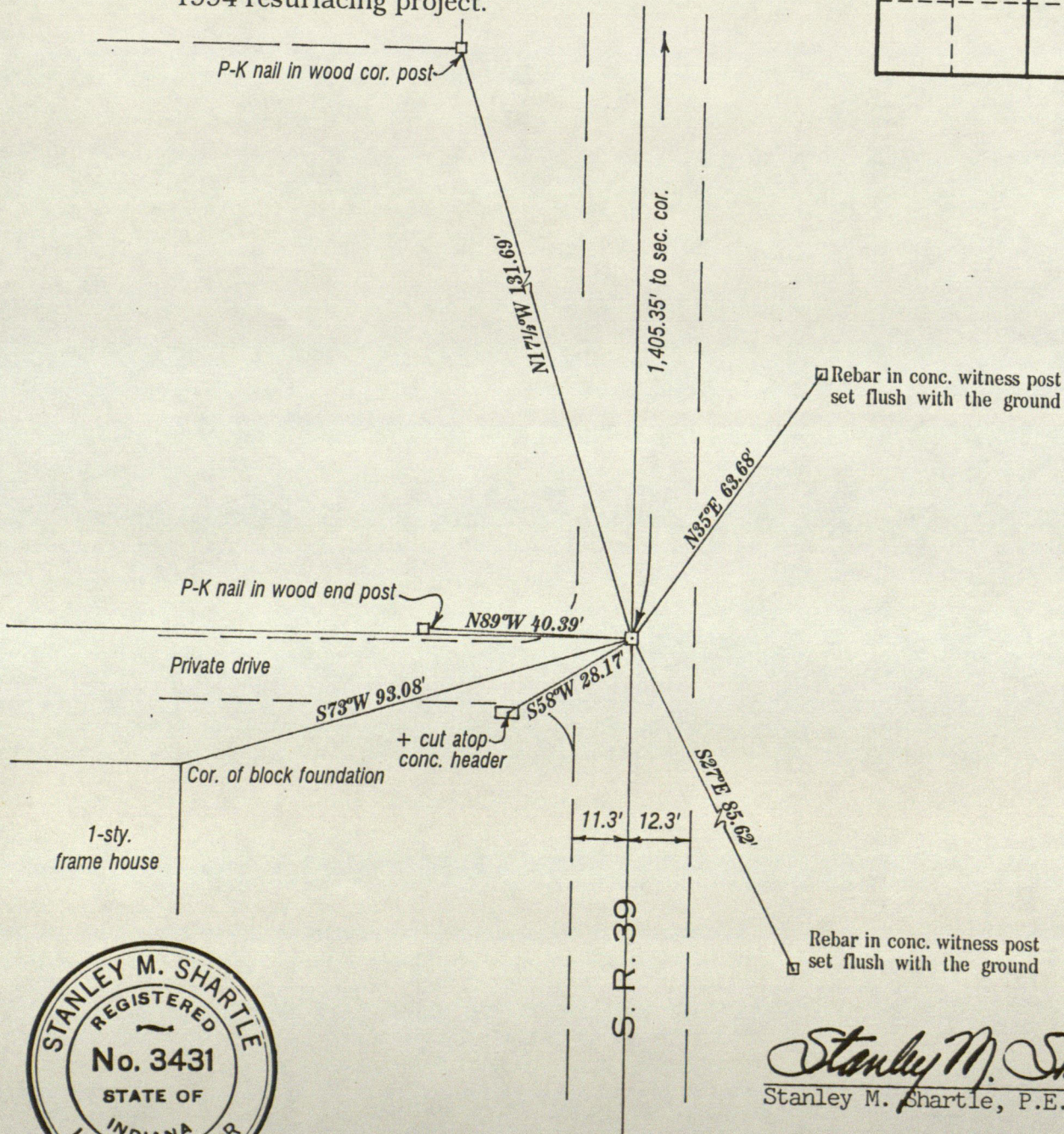
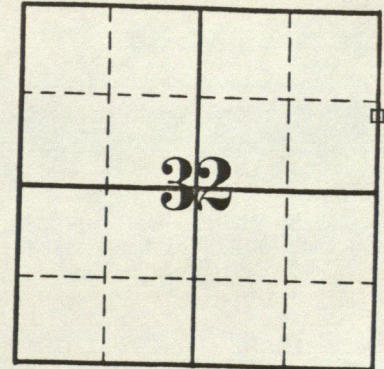
LOCATION OF MONUMENT: SECTION 32, T. 17 N., R. 1 W.

Found: ☒ Set: ☐ Depth: ☐ Flush

Description: Type B Monument

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



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

Date: May 19, 1994

RECORD OF CORNER

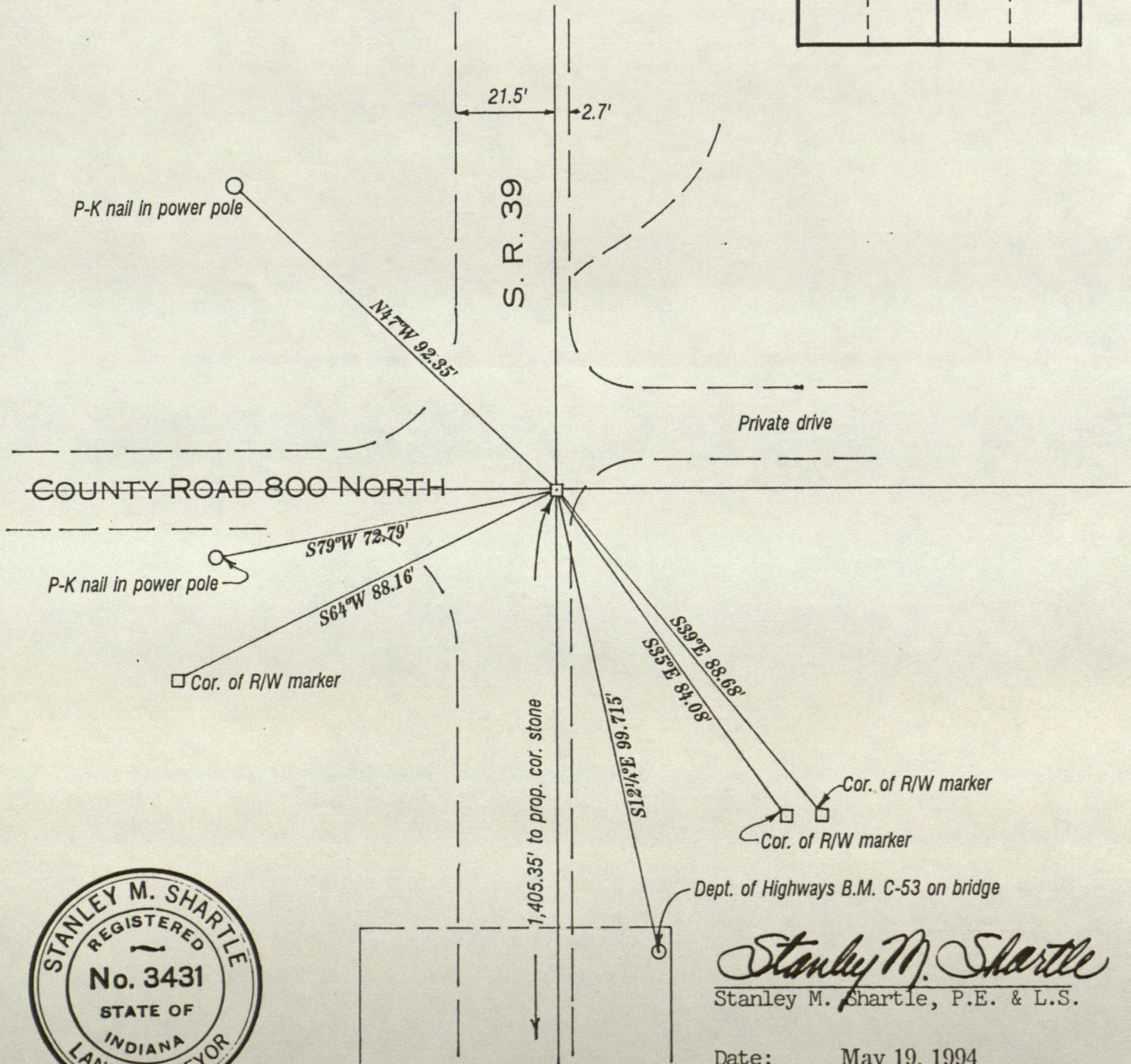
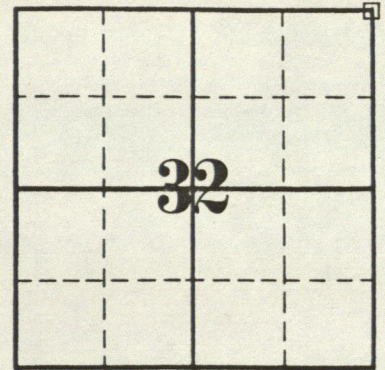
LOCATION OF MONUMENT: SECTION 32, T. 17 N., R. 1 W.

Found: ☒ Set: ☐ Depth: About 3 inches

Description: + on steel rod in conc. monument

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



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

Date: May 19, 1994

RECORD OF CORNER

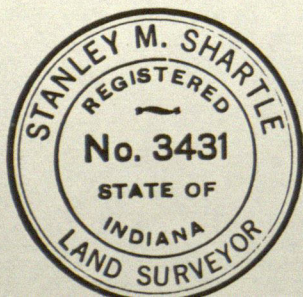
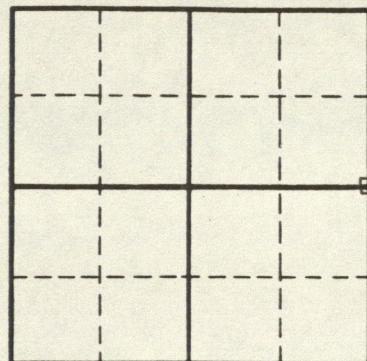
LOCATION OF MONUMENT: SECTION 20, T. 16 N., R. 1 W.

Found: _____ Set: ✓ Depth: _____

Description:

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



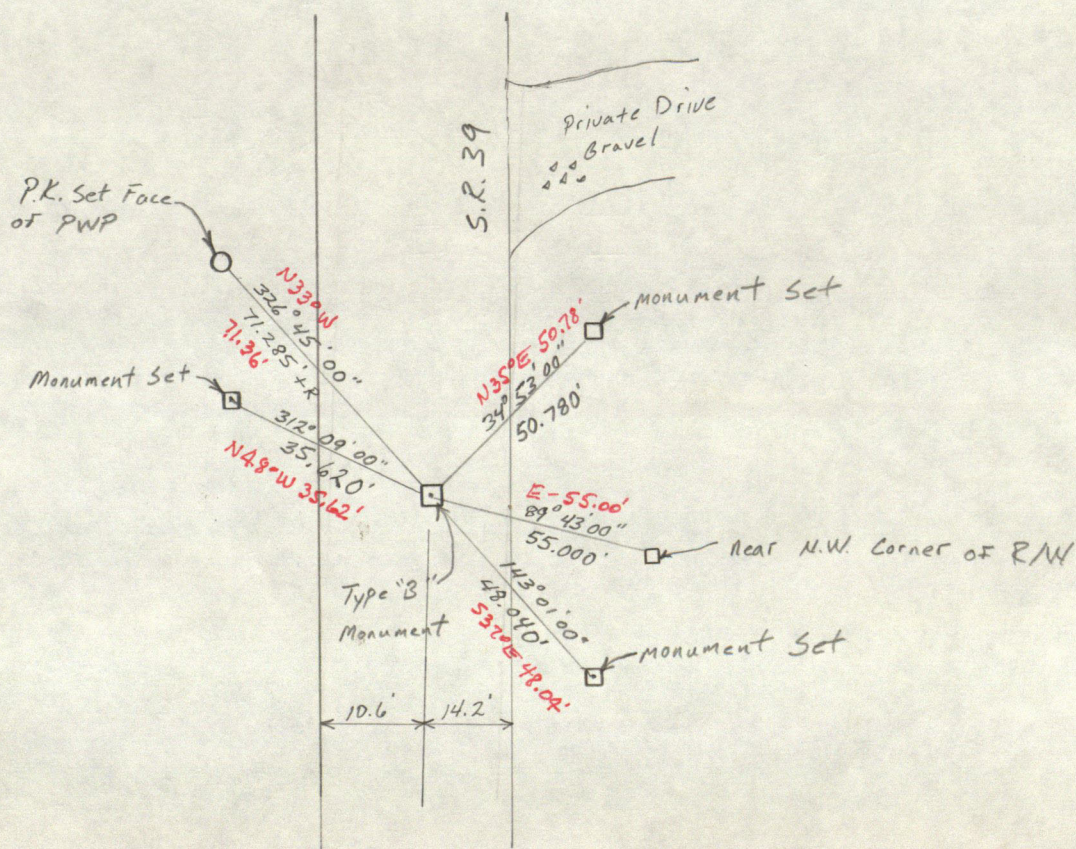
Stanley M. Shurtle
Stanley M. Shurtle, P.E. & L.S.

Date: _____

4-26-94

S.E. Corner of the N.E. 1/4 Section 32

Twp. 16 North, R. 1W.



Made by
STANLEY M. SHARTLE

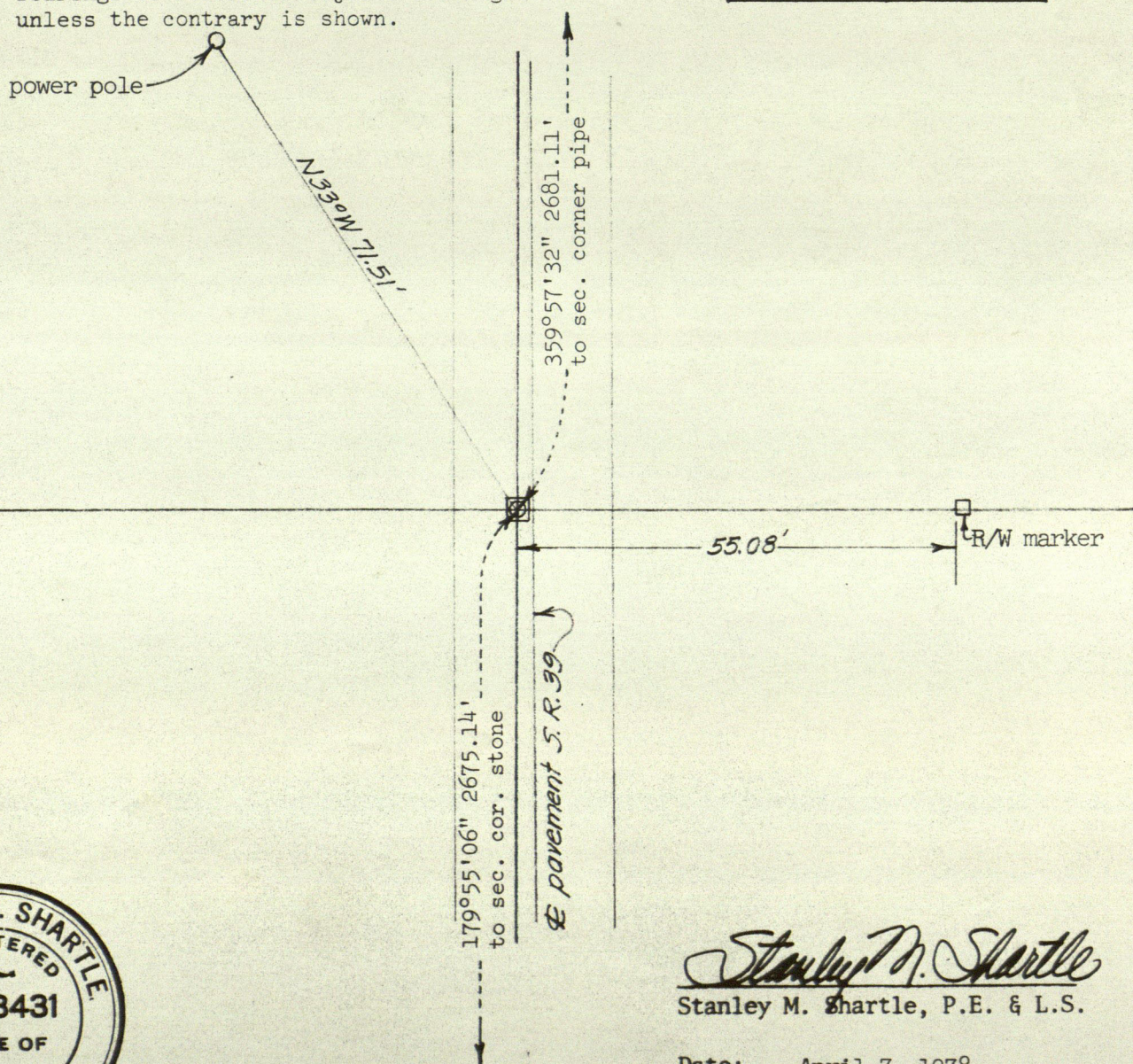
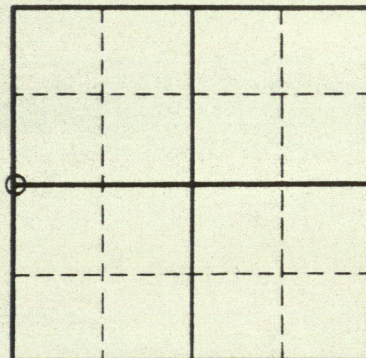
under an appointment by the Surveyor of Hendricks County pursuant to §5 of the Perpetual Corner Records Act of 1965 (Ch. 319) to administer said act.

LOCATION OF MONUMENT: SECTION 33, T. 16 N., R. 1 W.

Found: ☒ Set: ☐ Depth: 3/4 inch

Description: pipe set in concrete

x= 14,601.87', y= 30,841.96', based on a local system of plane rectangular coordinates at ground level with x=20,000.00' and y=20,000.00' at East Qtr.Cor. 9-15-1W and the azimuth from Hend.Cor.Magnetic Sta. to its meridian mark (mire) assumed to be 0°00'00"0. Azimuths on this system are reckoned clockwise from the north thru 360°. Bearings to reference objects are magnetic unless the contrary is shown.

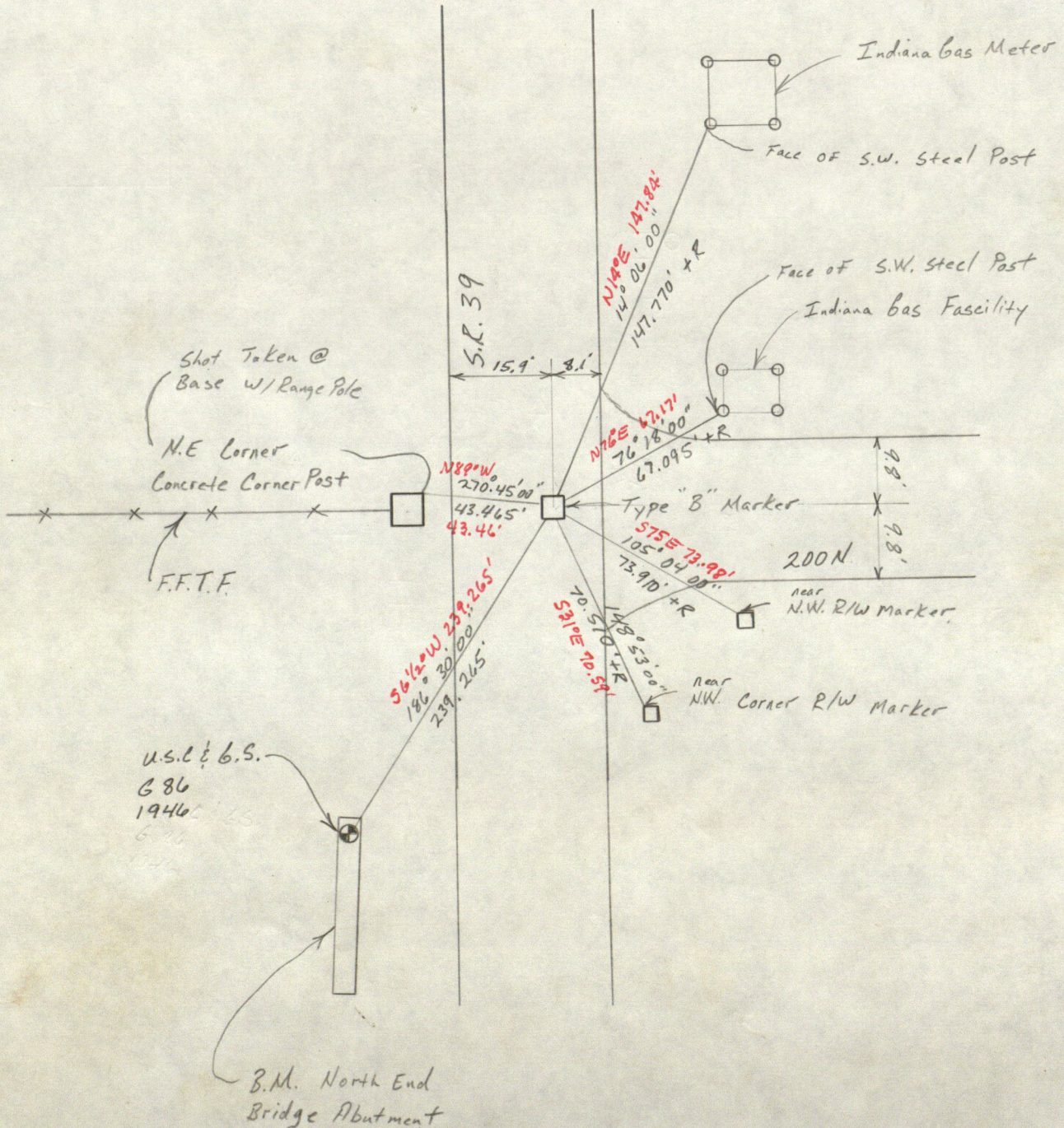


Stanley M. Shartle
Stanley M. Shartle, P.E. & L.S.

Date: April 7, 1978

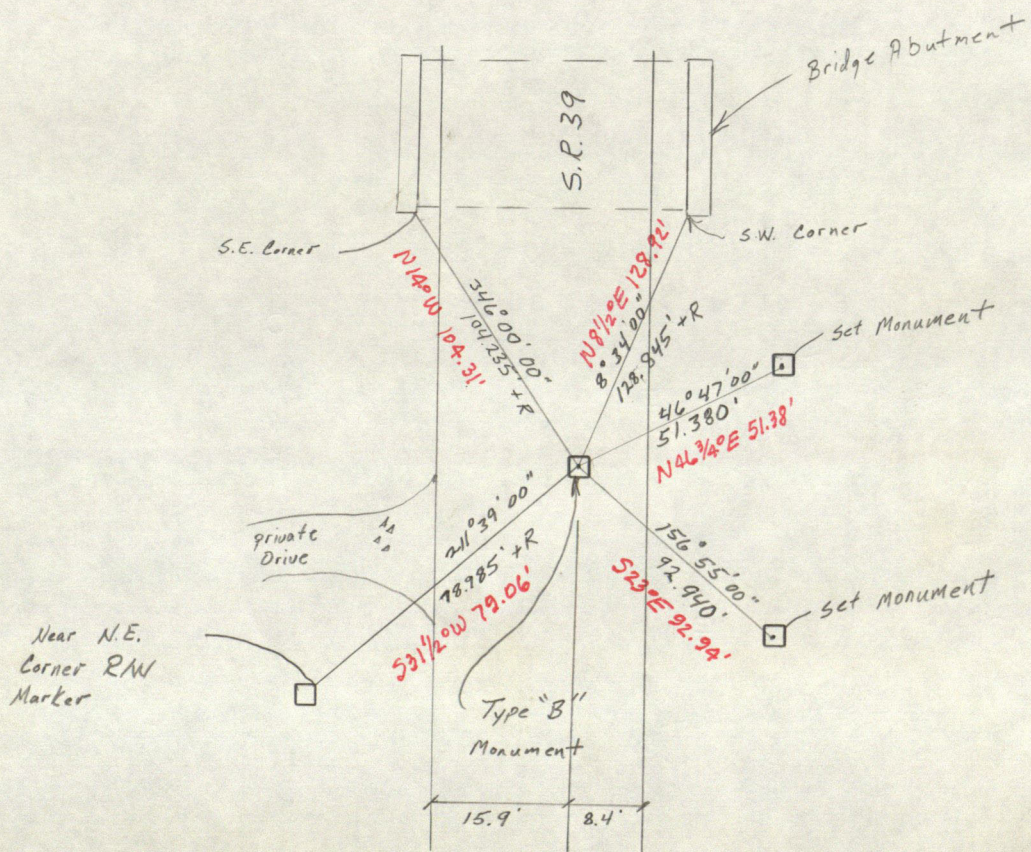
4-26-94

S.E. Corner Section 29



4-26-94

S.E. Corner of the N.E. 1/4 Section 29-16-1W



Made by
STANLEY M. SHARTLE

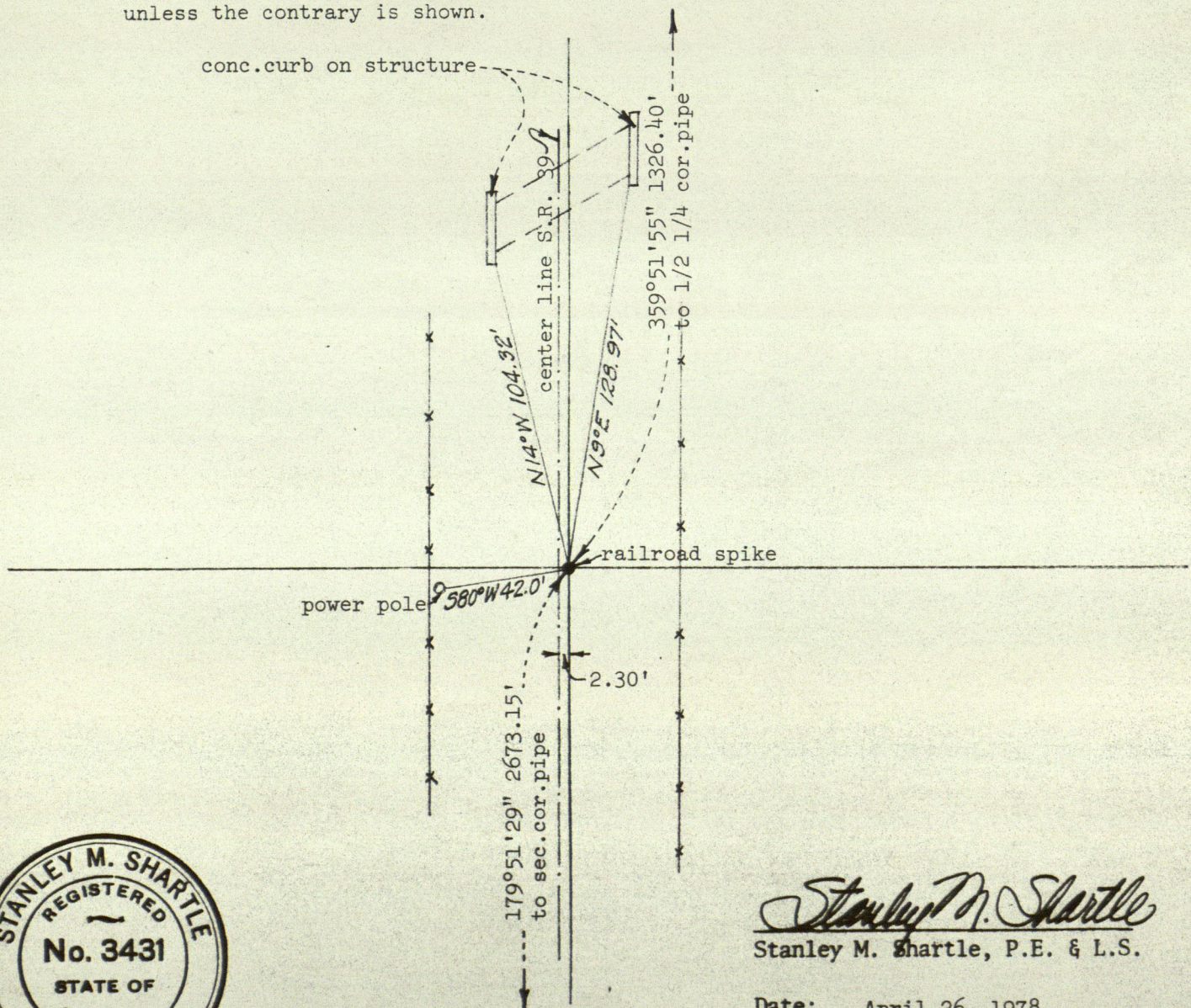
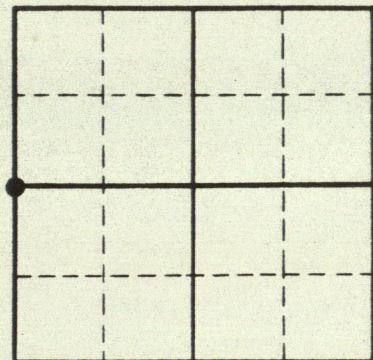
under an appointment by the Surveyor of Hendricks County pursuant to §5 of
the Perpetual Corner Records Act of 1965 (Ch. 319) to administer said act.

LOCATION OF MONUMENT: SECTION 28, T.16 N., R.1 W.

Found: 1978 Set: 1977 Depth: flush

Description: railroad spike

x= 14,593.31', y= 36,196.21', based
on a local system of plane rectangular co-
ordinates at ground level with x=20,000.00'
and y=20,000.00' at East Qtr.Cor. 9-15-1W
and the azimuth from Hend.Co.Magnetic Sta.
to its meridian mark (mire) assumed to be
0°00'00"0. Azimuths on this system are
reckoned clockwise from the north thru 360°.
Bearings to reference objects are magnetic
unless the contrary is shown.

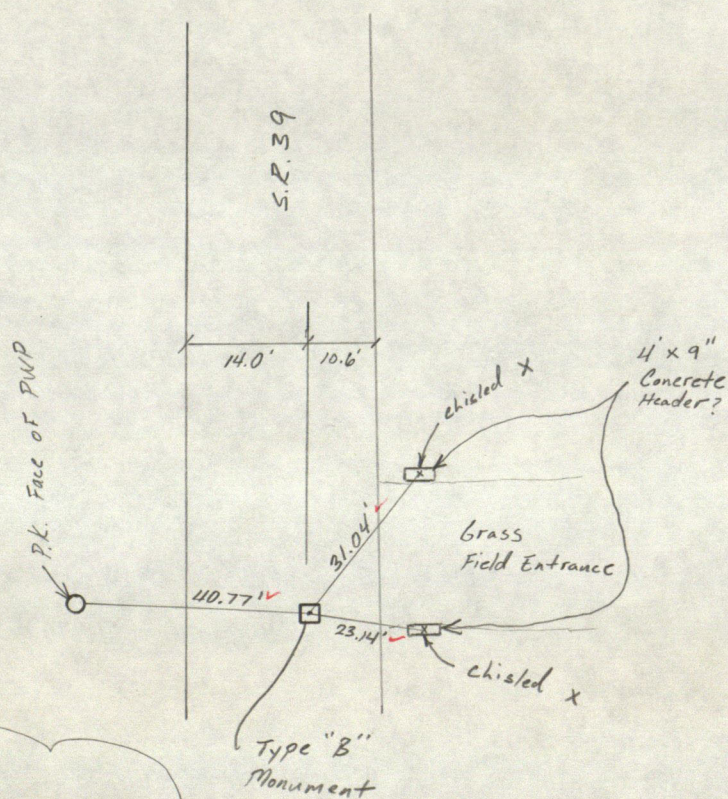


Stanley M. Shartle
Stanley M. Shartle, P.E. & L.S.

Date: April 26, 1978

4-26-94

S.E. Corner of the N.E. $\frac{1}{4}$ of the N.E. $\frac{1}{4}$
of Section 29-16-1W



Note: All distances chained
Temp. = 82°

Made by

STANLEY M. SHARTLE

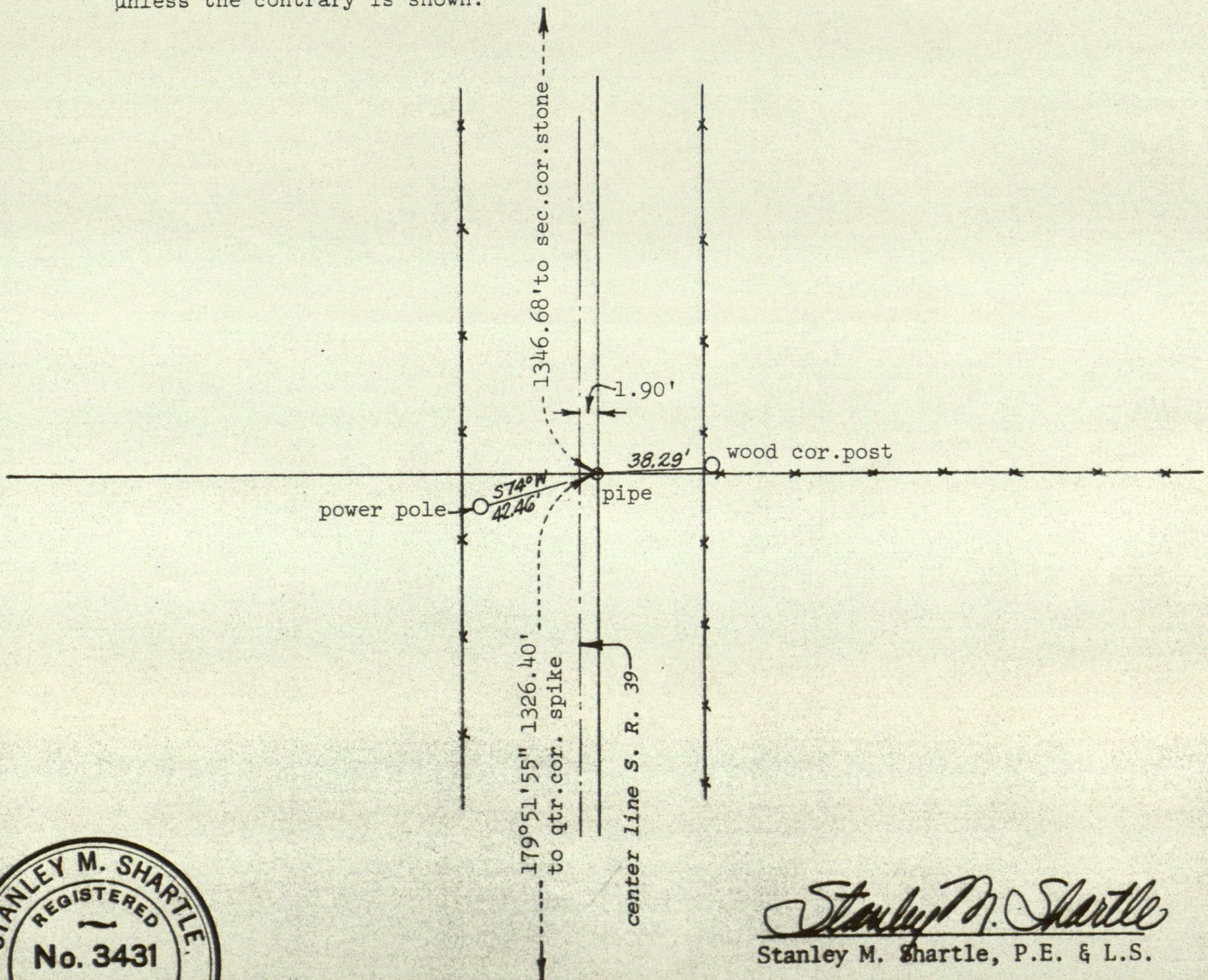
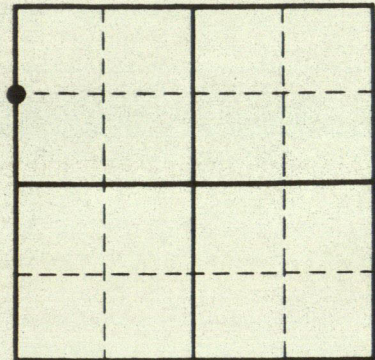
under an appointment by the Surveyor of Hendricks County pursuant to §5 of the Perpetual Corner Records Act of 1965 (Ch. 319) to administer said act.

LOCATION OF MONUMENT: SECTION 28, T. 16 N., R. 1 W.

Found: 1978 Set: 1977 Depth: 1.5 inches

Description: pipe set April 25, 1977

x= 14,590.19', y= 37,522.61', based on a local system of plane rectangular coordinates at ground level with x=20,000.00' and y=20,000.00' at East Qtr.Cor. 9-15-1W and the azimuth from Hend.Co.Magnetic Sta. to its meridian mark (mire) assumed to be 0°00'00"0. Azimuths on this system are reckoned clockwise from the north thru 360°. Bearings to reference objects are magnetic unless the contrary is shown.

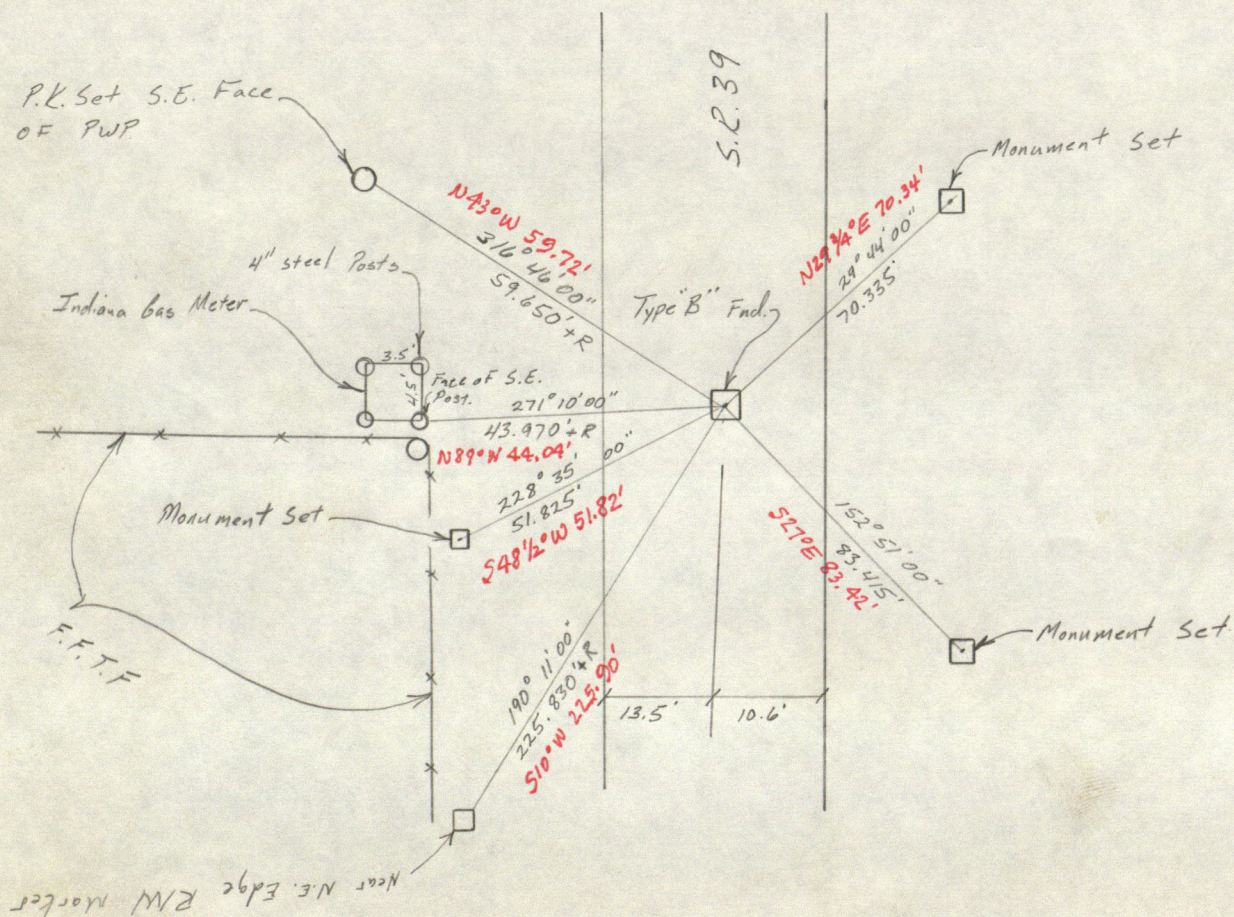


Stanley M. Shartle
Stanley M. Shartle, P.E. & L.S.

Date: April 26, 1978

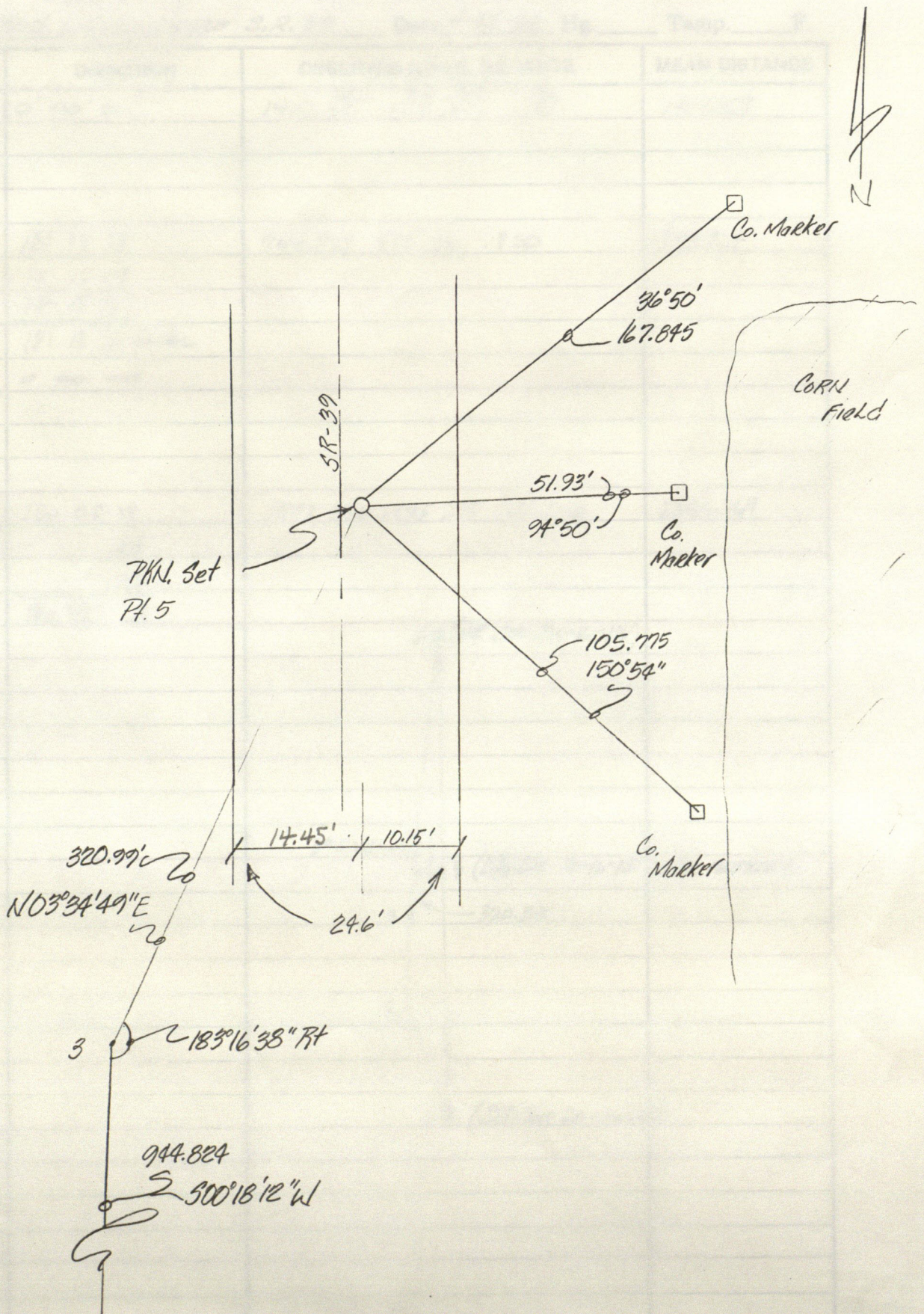
N.E. Corner Section 29-16-TW

4-27-94



E 1/2 mi. Sec. 20-16-1W

G. Niemeyer



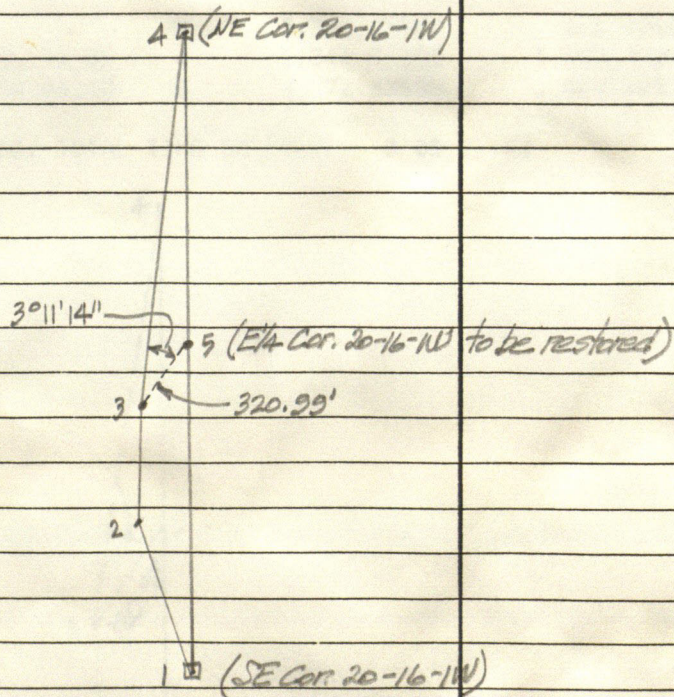
Chester A. Parsons, PE

Stanley M. Shartle, PE LS

PARSONS & SHARTLE ENGINEERS, INC.

Job Hend. Co. cor. stones S.R. 39 Date 4-25-94 Hg. _____ Temp. _____ F.

POINT	DIRECTION	OBSERVED HORIZ. DISTANCE	MEAN DISTANCE
1	0° 00' 00"	1407.395 ³⁵⁵ .395 ³⁶⁰ .400 ³⁷⁵ .395 ³⁶⁰	1407.379
3	181 18 13	944.825 .825 .825 .820	944.824
	181 18 09		
	181 18 15		
	181 18 12 mean		
2	0 00 00	2992.770	
4	180 05 19	2992.840 .745 .775 .785 .770	2992.769
	24		
	26		
	180 05 23		



**** COORDINATE FILE SYSTEM ****

FILE CREATED:

COORDINATE FILE: 2061WA LENGTH= 24 POINTS; TIME ON FILE: 0 00 00.00
COUNTY AT S. R. 39: ***** JOB #1994

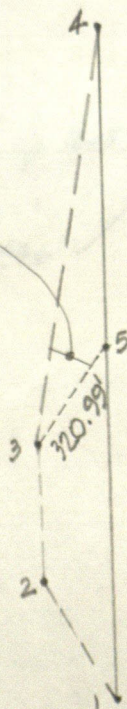
COORDINATE FILE: 2061WA LENGTH = 24 POINTS; TIME ON FILE: 0 00 00.00
COUNTY AT S. R. 39: ***** JOB #1994

***** COGO *****

FROM TYPE	BEARING	DISTANCE	TO	NORTHING	EASTING
ENTER & ASSIGN					
			1	1,000.00000	1,000.00000
START			1	1,000.00000	1,000.00000
1 TRAV NW	1 00 00.00	1407.37900	2	2,407.16465	975.43785
2 TRAV SW	0 18 12.00	944.82400	3	1,462.35389	970.43582
3 TRAV NE	0 23 35.00	2992.76900	4	4,455.05247	980.96639
4 TRAV SE	0 08 59.30	1727.53214	5	2,727.52623	995.48320
5 INV SE	0 08 59.30	1727.53214	1	1,000.00000	1,000.00000
START			2	2,407.16465	975.43785
2 TRAV NE	0 18 12.00	944.82400	3	3,351.97541	980.43988
3 TRAV NE	0 23 35.00	2992.76900	4	6,344.67399	1,000.97046
4 TRAV SW	0 00 37.45	2672.33704	5	3,672.33699	1,000.48523
5 INV SW	0 00 37.45	2672.33704	1	1,000.00000	1,000.00000
START			3	3,351.97541	980.43988
3 S.S. NE	0 23 35.00	2992.76900	4	6,344.67399	1,000.97046
3 S.S. NE	3 34 49.39	320.98810	5	3,672.33699	1,000.48523

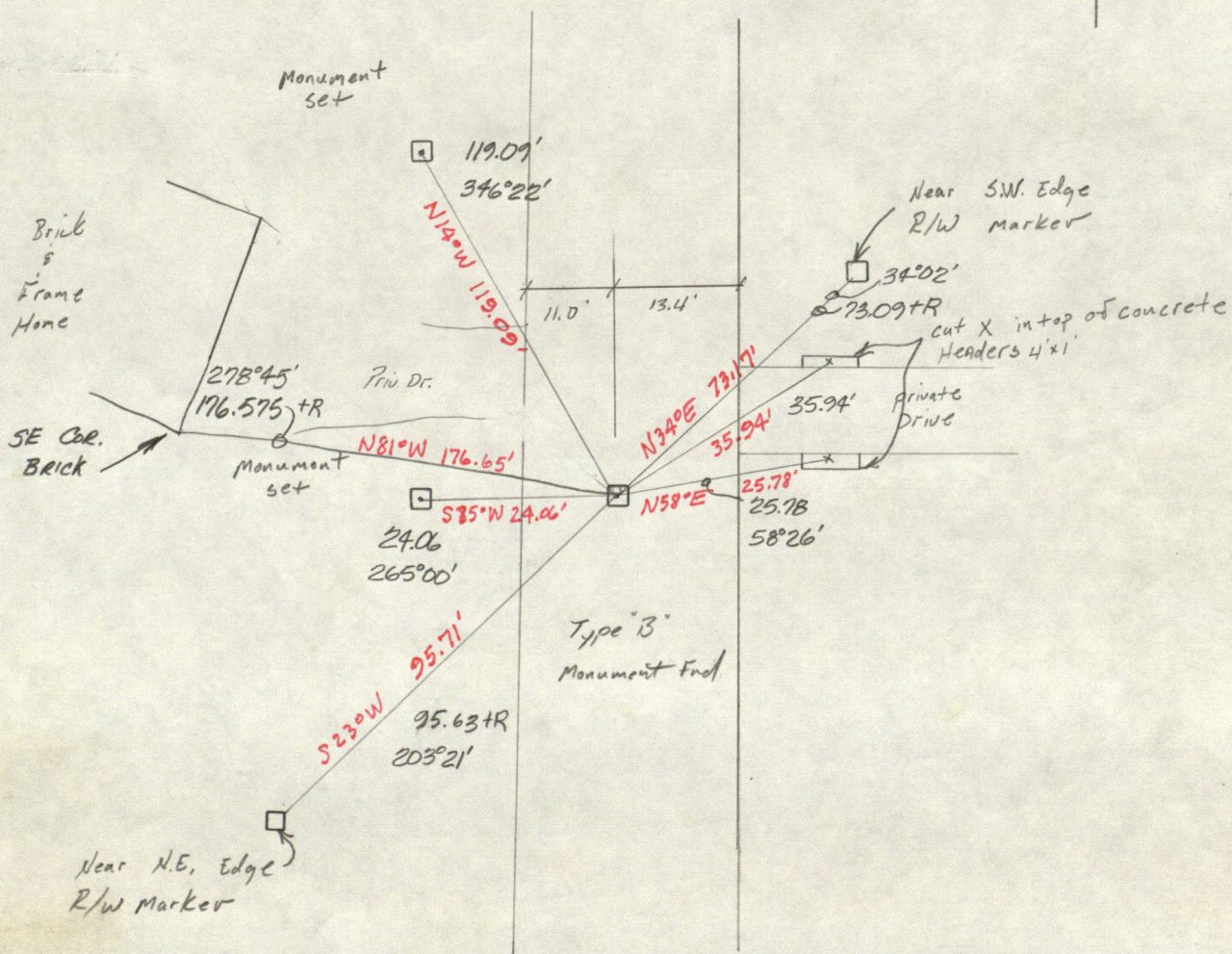
TIME FOR THIS RUN: 0 08 22.62; TOTAL TIME ON FILE: 0 08 22.62
COORDINATES STORED

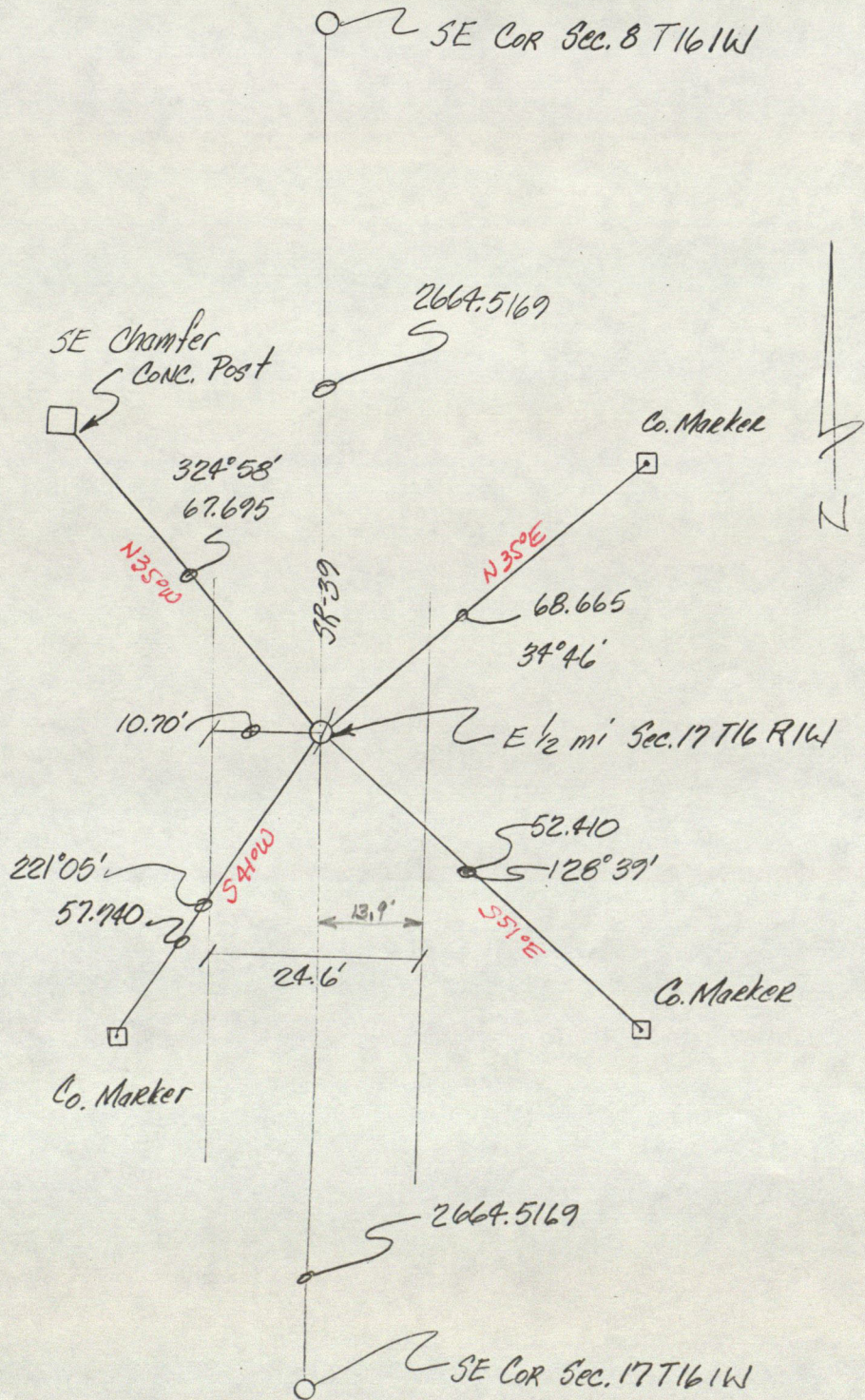
3° 34' 49"
0 23 35
3° 11' 14"



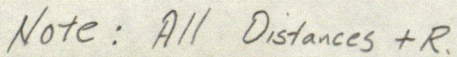
4-29-94

N.E. Corner section 20-16-1W



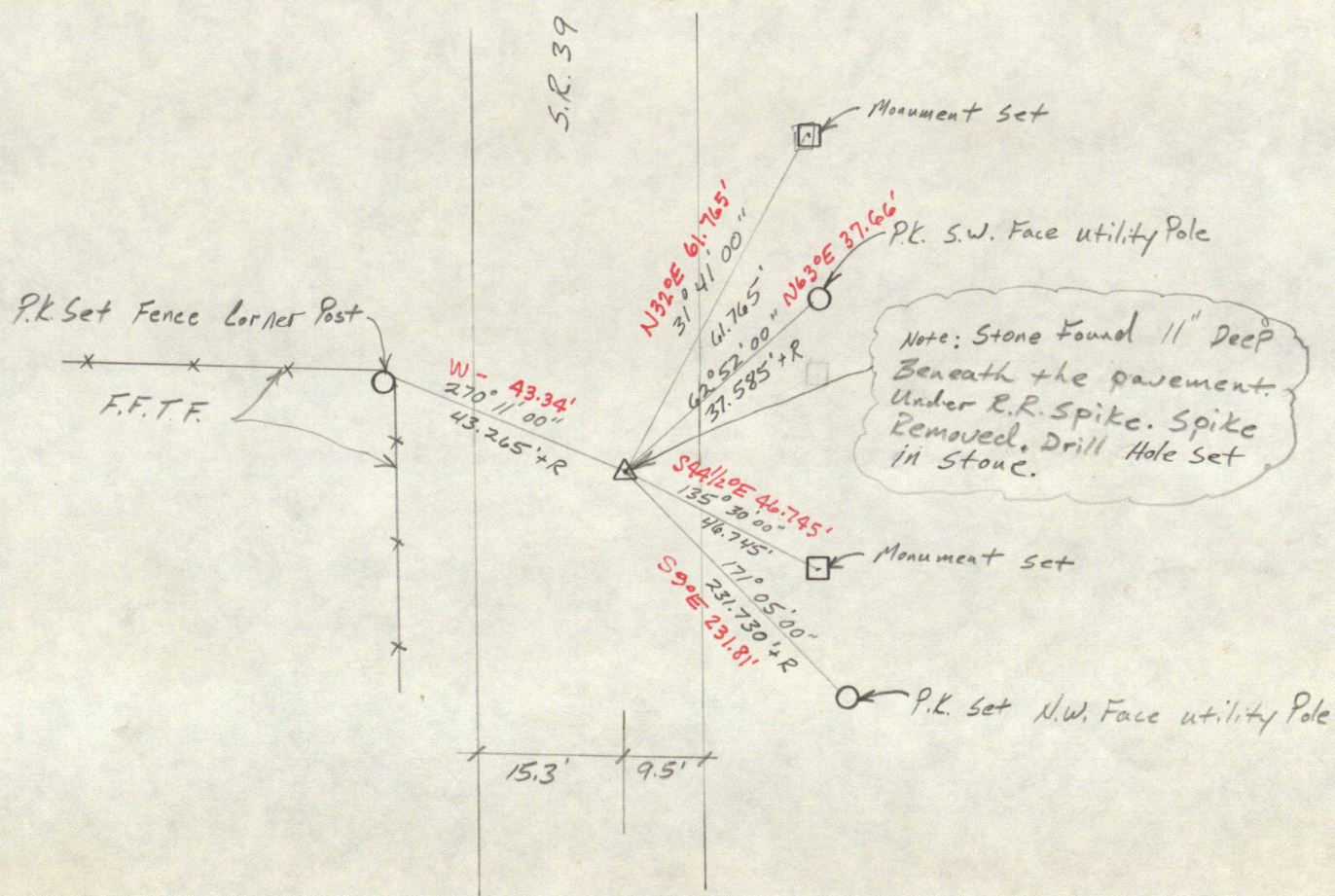


N.E. Corner Section 17-16-1W



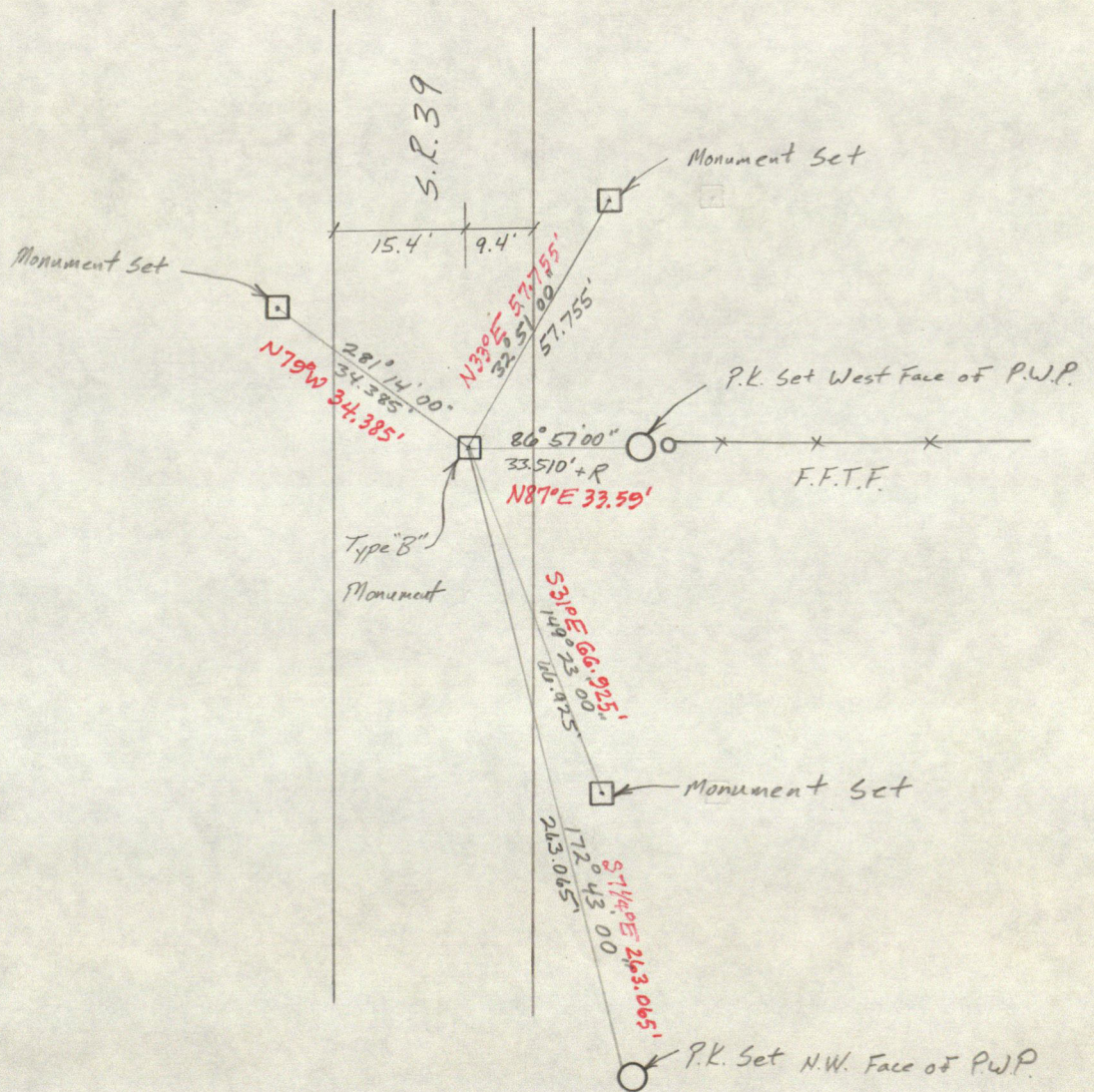
5-2-94

S.E. Corner of the N.E. 1/4 Section 8-16-1W



N.E. Corner Section 8-16-1W

4-27-94



RECORD OF CORNER

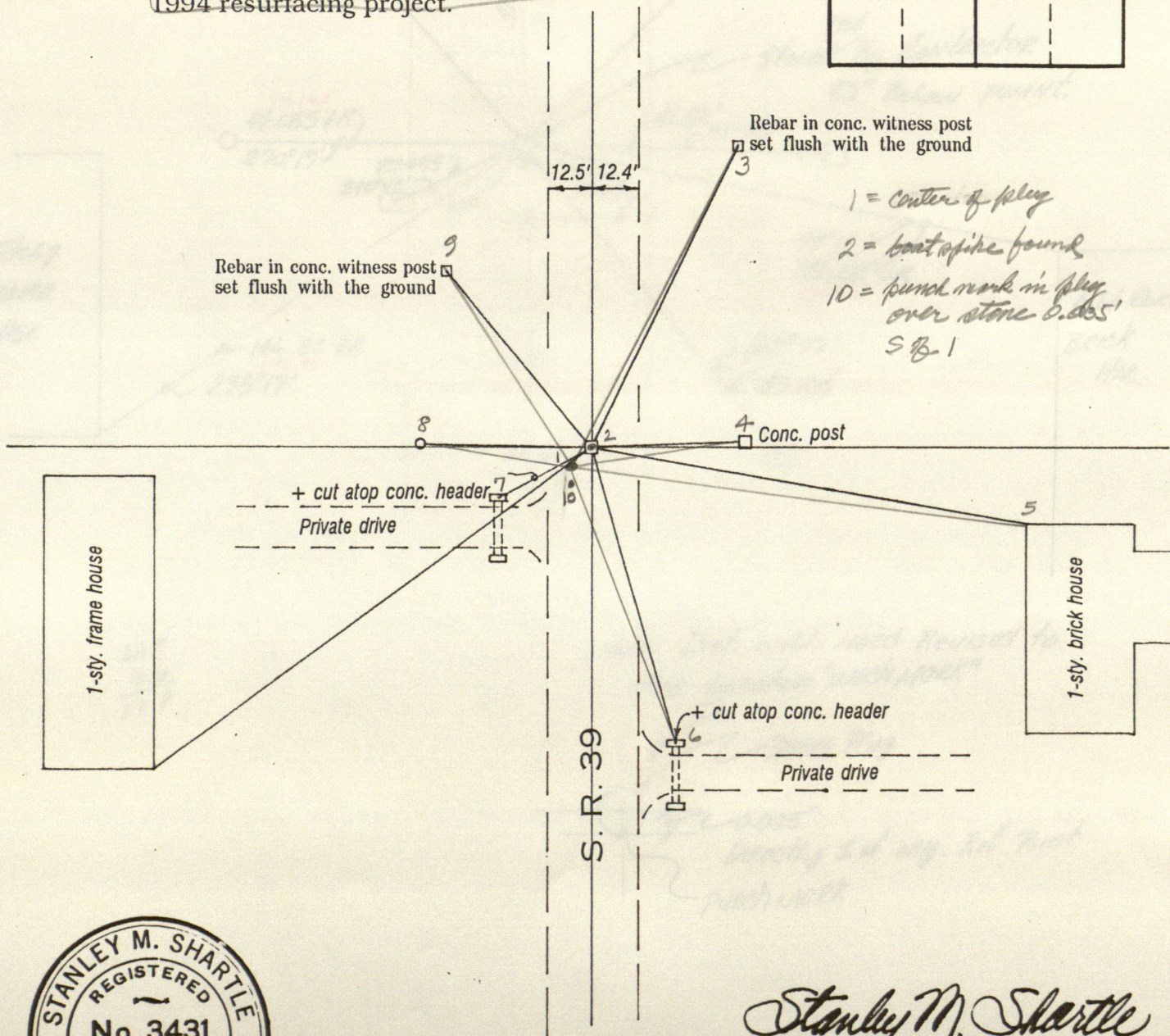
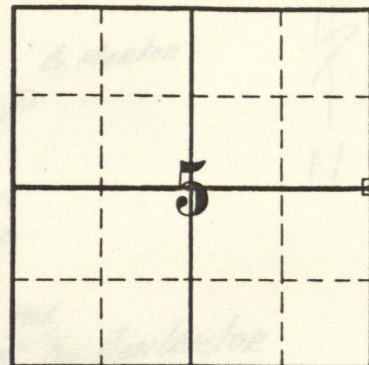
LOCATION OF MONUMENT: SECTION 5, T. 16 N., R. 1 W.

Found: ☒ Set: ☐ Depth: 23" To stone

Description: _____

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.

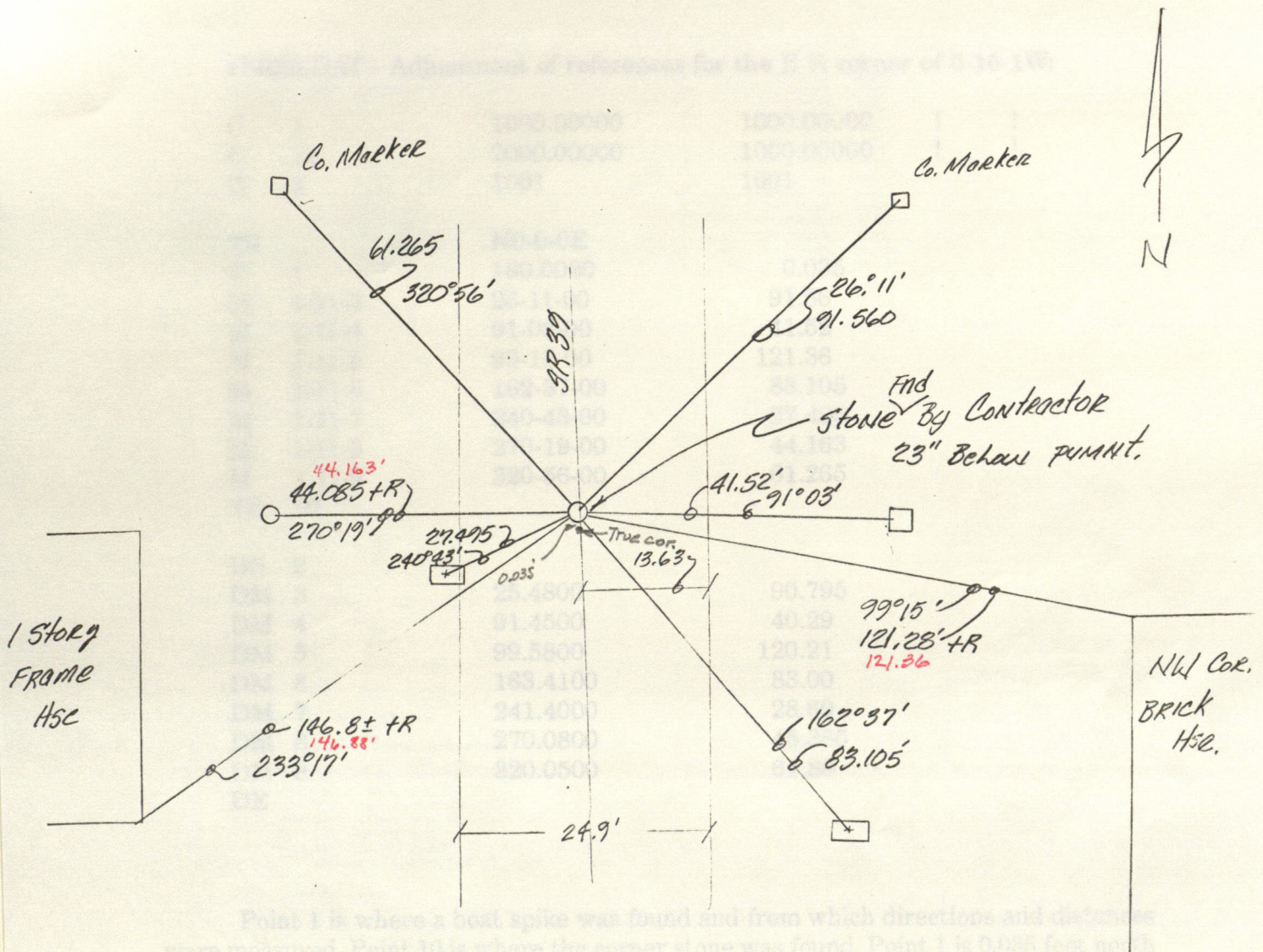


Stanley M. Shartle
Stanley M. Shartle, P.E. & L.S.

Date: _____

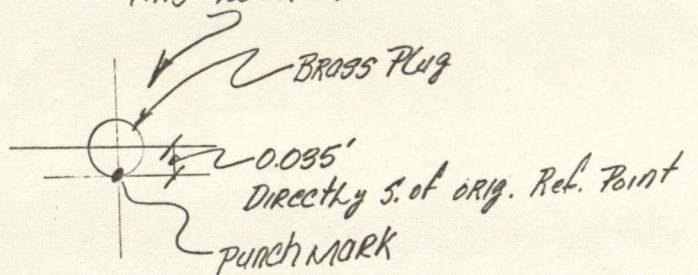
RECORD OF CORNER

SE COR NE 1/4 5-2-14



24.9
13.6
11.3

Note: Dist. will need Revised to this Location "punch MARK"



#SR39.DAT - Adjustment of references for the E ¼ corner of 5-16-1W:

C	1	1000.00000	1000.00000	!	!
C	11	2000.00000	1000.00000	!	!
C	2	1001	1001		
TB		N0-0-0E			
T	1	180.0000	0.035		
M	1-11-3	26-11-00	91.56		
M	1-11-4	91-03-00	41.52		
M	1-11-5	99-15-00	121.36		
M	1-11-6	162-37-00	83.105		
M	1-11-7	240-43-00	27.495		
M	1-11-8	270-19-00	44.163		
M	1-11-9	320-56-00	61.265		
TE	10				
DB	2				
DM	3	25.4800	90.795		
DM	4	91.4500	40.29		
DM	5	99.5800	120.21		
DM	6	163.4100	83.00		
DM	7	241.4000	28.69		
DM	8	270.0800	45.385		
DM	9	320.0500	61.86		
DE					

Point 1 is where a boat spike was found and from which directions and distances were measured. Point 10 is where the corner stone was found. Point 1 is 0.035 feet north of Point 10 and is where a second set of directions and distances were observed. Distances from Point 10 to the reference objects are to be computed.

STAR*NET Adjustment Program
Version 5.040
Copyright 1988 STARPLUS SOFTWARE, INC.
Licensed for Use by Shartle Engineering
Serial Number 10270
Run Date : Wed Jun 08 1994 10:36:43

Default Instrument Standard Error Settings
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 : 0.0080000 US Feet
Centering Error Target : 0.0060000 US Feet

Station	N	E	Description
1	1000.0000	1000.0000	
11	2000.0000	1000.0000	
2	1000.3729	1001.2520	
3	1082.2347	1040.3855	
4	999.2803	1041.5222	
5	980.3863	1119.7746	
6	920.7535	1024.8857	
7	965.5826	976.0451	
8	1000.2417	965.8525	
9	1047.5908	961.3536	
10	999.9650	1000.0000	

Statistical Summary

Number of Stations = 11
Number of Observations = 30
Number of Unknowns = 19
Number of Redundant Obs = 11

Observation	Count	Sum Squares	Error
Angles	8	574.48	13.99
Directions	7	1085.85	20.09
Distances	15	64.15	3.42
Total	30	1674.47	12.34

Adjustment Fails the Chi Square Test at 5% Level

At	From	To	Adj Angle	Residual	StdErr	StdRes
1	11	3	26-09-20.57	-0.01-39.43	13.06	7.5*
1	11	4	90-59-34.90	-0.03-25.10	29.07	7.1*
1	11	5	99-17-59.84	0.02-59.84	10.23	17.6*
1	11	6	162-33-58.19	-0.08-01.81	14.96	12.2*
1	11	7	240-44-36.10	0.01-36.10	43.96	2.2
1	11	8	270-18-49.40	-0.00-10.60	27.33	0.4
1	11	9	320-55-16.22	-0.00-43.78	19.52	2.2
1	DUMMY0001	10	180-00-00.00	0.00-00.00	34363.75	0.0

From	To	Adj Direction	Residual	StdErr	StdRes
2	3	25-51-15.21	0.03-15.21	18.40	10.6*
2	4	91-51-30.95	0.06-30.95	40.74	9.6*
2	5	99-52-34.36	-0.05-25.64	13.83	23.5*
2	6	163-46-18.19	0.05-18.19	19.80	16.1*
2	7	241-37-09.02	-0.02-50.98	57.21	3.0
2	8	270-08-19.65	0.00-19.65	36.59	0.5
2	9	320-06-24.25	0.01-24.25	27.07	3.1*

From	To	Adj Dist	Residual	StdErr	StdRes
1	3	91.6162	0.0562	0.0173	3.3*
1	4	41.5285	0.0085	0.0171	0.5
1	5	121.3699	0.0099	0.0174	0.6
1	6	83.0617	-0.0433	0.0173	2.5
1	7	27.4540	-0.0410	0.0171	2.4
1	8	44.1481	-0.0149	0.0172	0.9
1	9	61.3056	0.0406	0.0172	2.4
1	10	0.0850	-0.0000	0.0170	0.0
2	3	90.7346	-0.0604	0.0173	3.5*
2	4	40.2850	-0.0050	0.0171	0.3
2	5	120.1959	-0.0141	0.0174	0.3
2	6	83.0627	0.0627	0.0173	3.1*
2	7	28.7300	0.0400	0.0171	2.3
2	8	45.3997	0.0147	0.0172	0.9
2	9	61.8172	-0.0428	0.0172	2.5

From	To	Adj Bearing	Residual	StdErr	StdRes
1	DUMMY0001	N00-00-00.00E	0.00-00.00	FIXED	0.0

Adjusted Bearings and Horizontal Distances (US Feet)

From	To	Bearing	Distance
1	3	N25-09-20.57E	91.6162

1	4	S89-00-25.10E	41.5285
1	5	S80-42-00.16E	121.3699
1	6	S17-26-01.81E	83.0617
1	7	S60-44-36.10W	27.4540
1	8	N89-41-10.60W	44.1481
1	9	N39-04-43.73W	61.3056
1	10	S00-00-00.00E	0.0850
2	3	N25-32-59.48E	90.7346
2	4	S88-26-44.79E	40.2850
2	5	S80-25-41.37E	120.1959
2	6	S16-31-57.55E	83.0627
2	7	S61-18-53.29W	28.7300
2	8	S89-50-08.91W	45.3997
2	9	N40-11-51.49W	61.8172
1	11	N00-00-00.00E	1000.0000

Elapsed Time = 00:00:01

 COORDINATE FILE: ~~105153~~ LENGTH = ~~104~~ POINTS; TIME ON FILE: ~~5 48 57.74~~
 MSKTD (~~GTE'S WESTWOOD SITE~~) ***** JOB ~~#1994~~

***** COGO *****

 FROM TYPE BEARING DISTANCE TO NORTHING EASTING

ENTER & ASSIGN

	70	999.96500	1,000.00000
	73	1,082.23470	1,040.38550
	74	999.28030	1,041.52220
	75	980.38630	1,119.77460
	76	920.75380	1,024.88570
	77	986.58260	976.04810
	78	1,000.24170	955.85250
	79	1,047.59080	961.35360
	70	999.96500	1,000.00000
	73	1,082.23470	1,040.38550
	74	999.28030	1,041.52220
	75	980.38630	1,119.77460
	76	920.75380	1,024.88570
	77	986.58260	976.04810
	78	1,000.24170	955.85250
	79	1,047.59080	961.35360
	2	20,094.18739	25,413.10215

START

70 S.S. NE	26 08 45.71	91.64765
70 S.S. SE	89 03 19.01	41.52784
70 S.S. SE	80 42 58.94	121.36425
70 S.S. SE	17 26 27.96	83.02838
70 S.S. SW	60 48 25.36	27.43688
70 S.S. NW	89 38 27.23	44.14837
70 S.S. NW	39 03 28.53	61.33320
70 INV NE	51 58 11.88	30993.36841

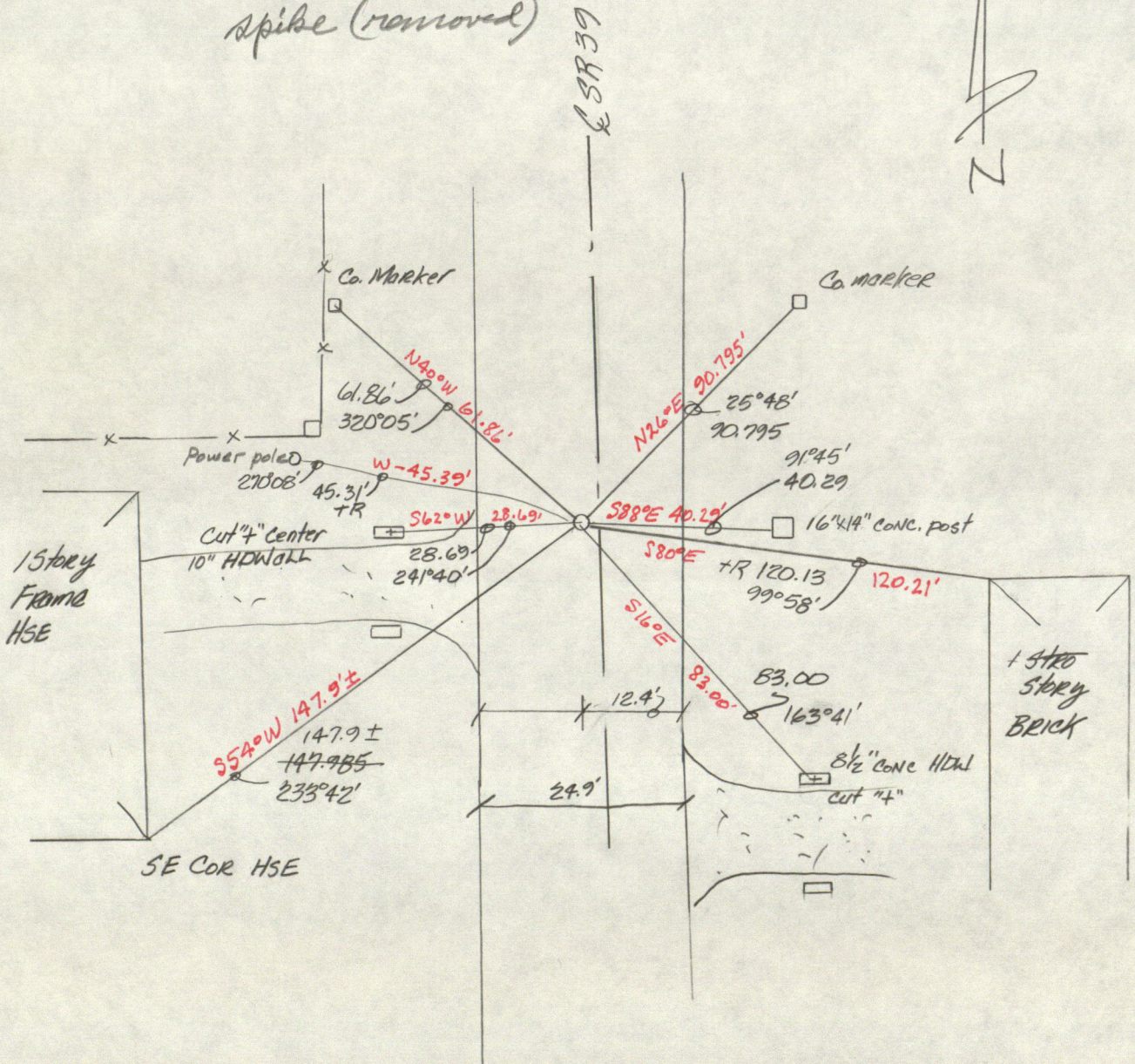
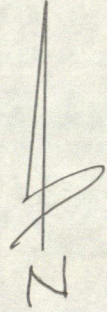
PTS 70 THRU 79 CLEARED

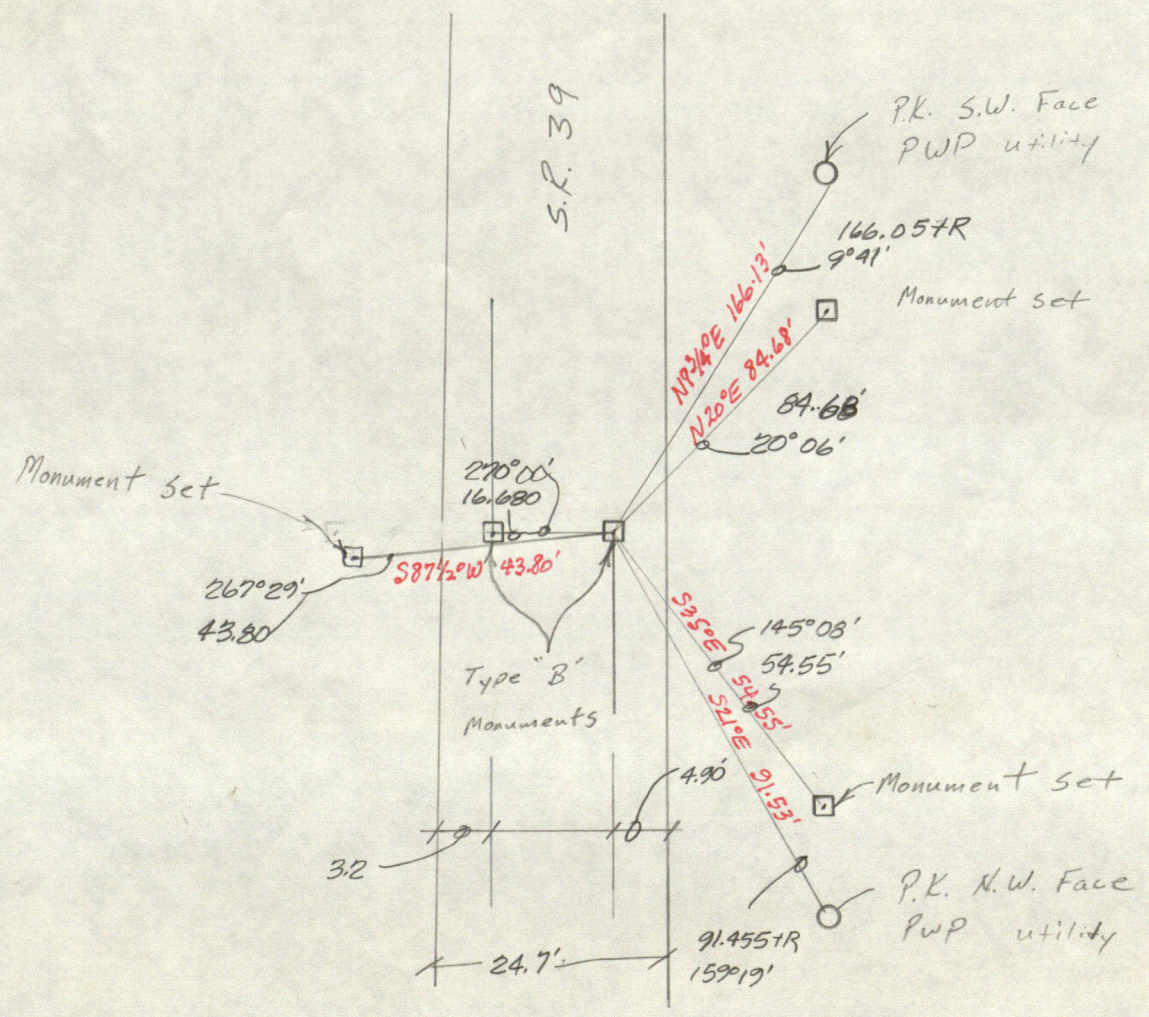


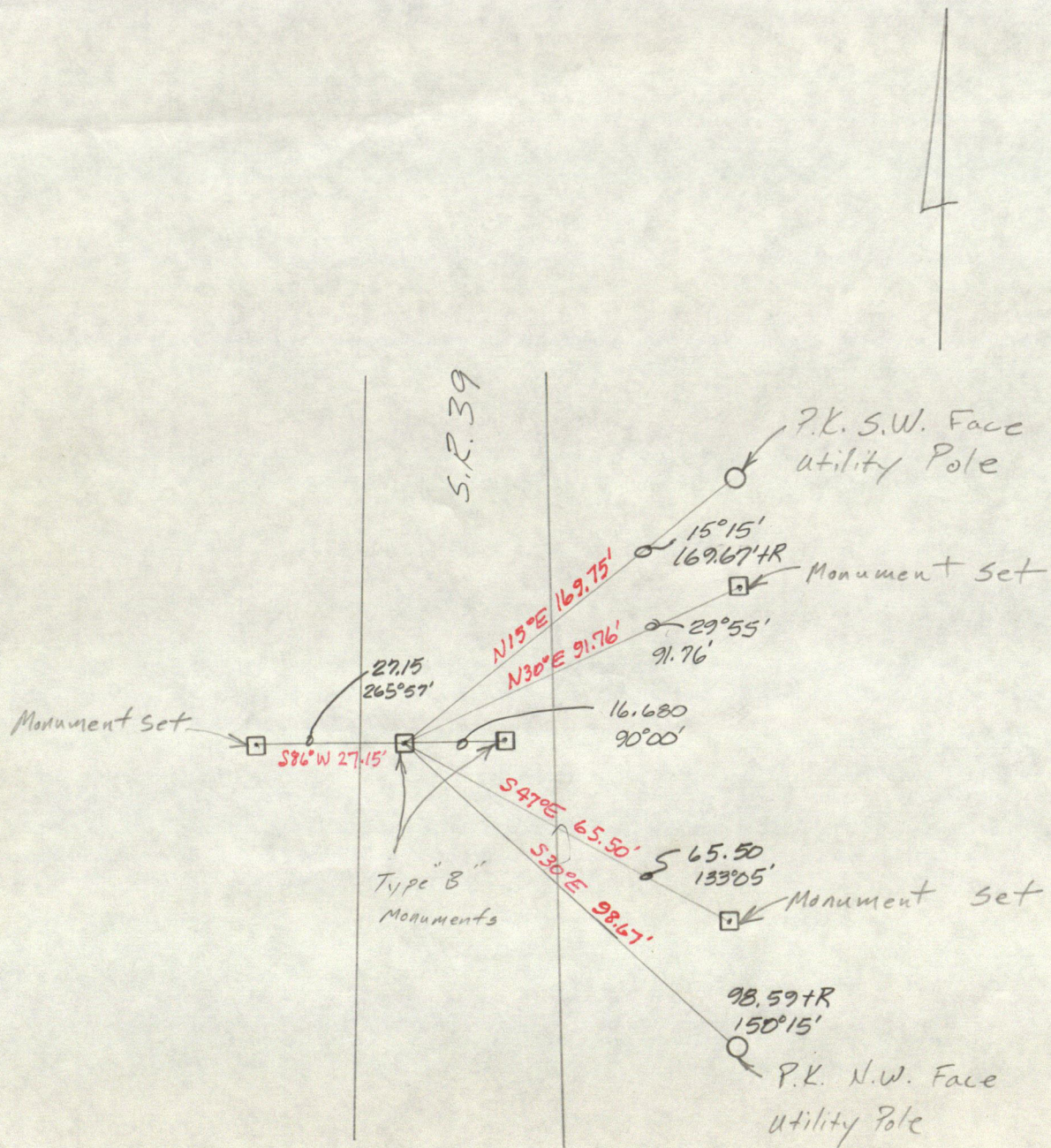
Handwritten signature and date: 8/10/85

OBSOLETE!

These are references to the lost spike (removed)







STANLEY M. SHARTLE
REGISTERED PROFESSIONAL ENGINEER
RURAL ROUTE 1, BOX 33
STILESVILLE, IND. 46180

LOCATION OF MONUMENT: SECTION 32, T. 17 N., R. 1 W.

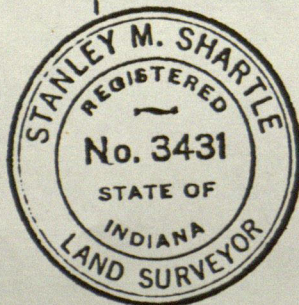
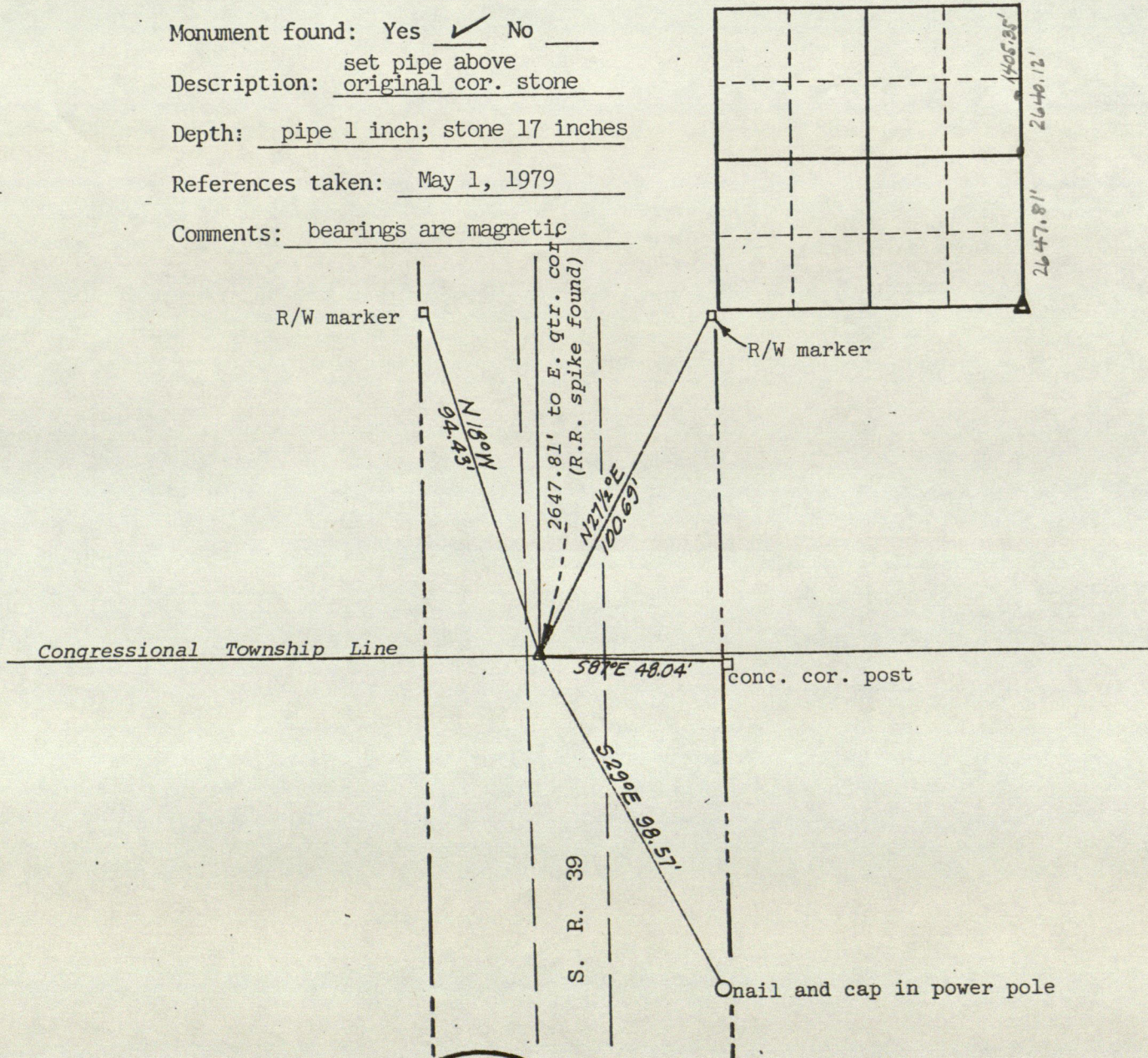
Monument found: Yes ☒ No ☐

Description: set pipe above
original cor. stone

Depth: pipe 1 inch; stone 17 inches

References taken: May 1, 1979

Comments: bearings are magnetic



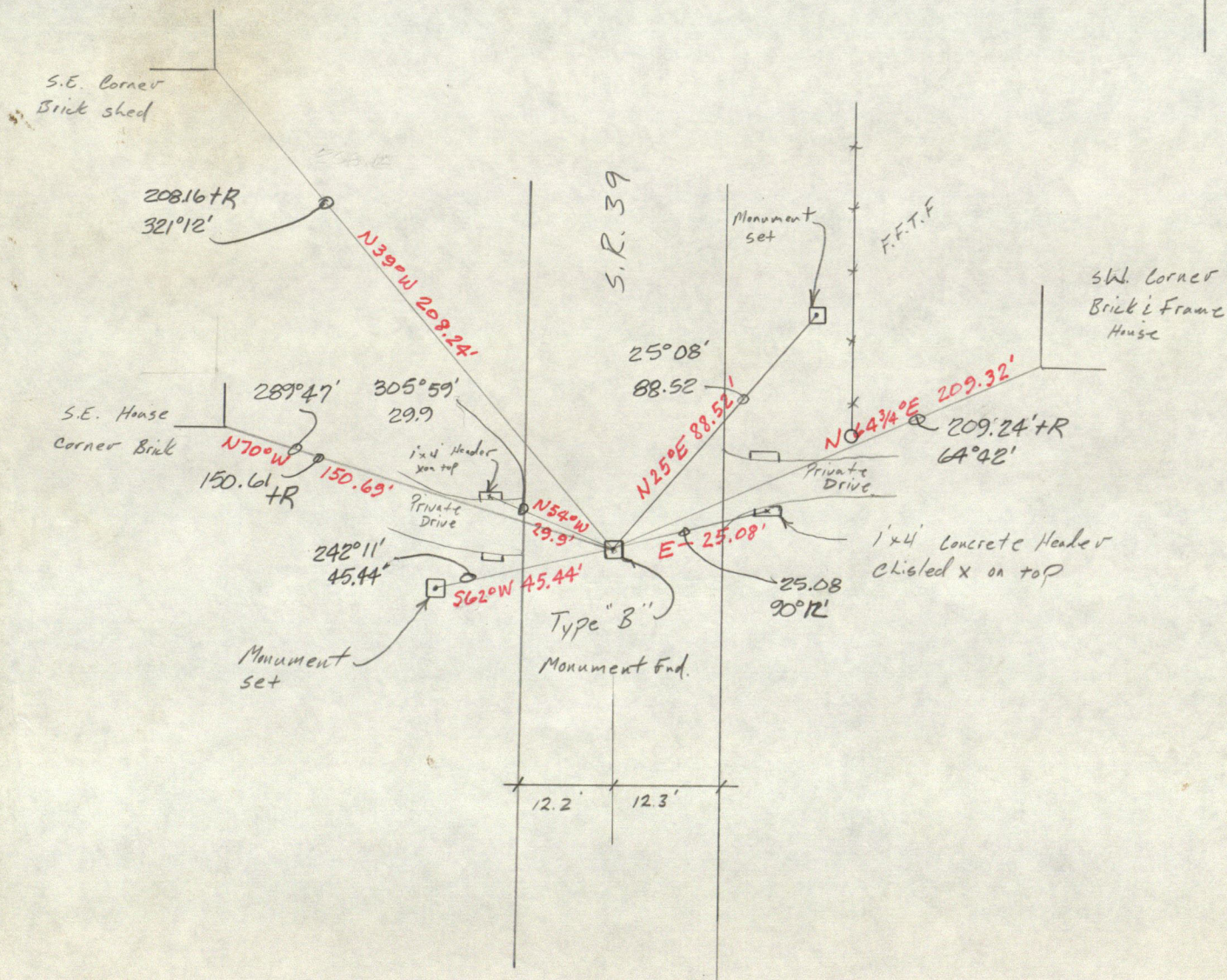
Stanley M. Shartle

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

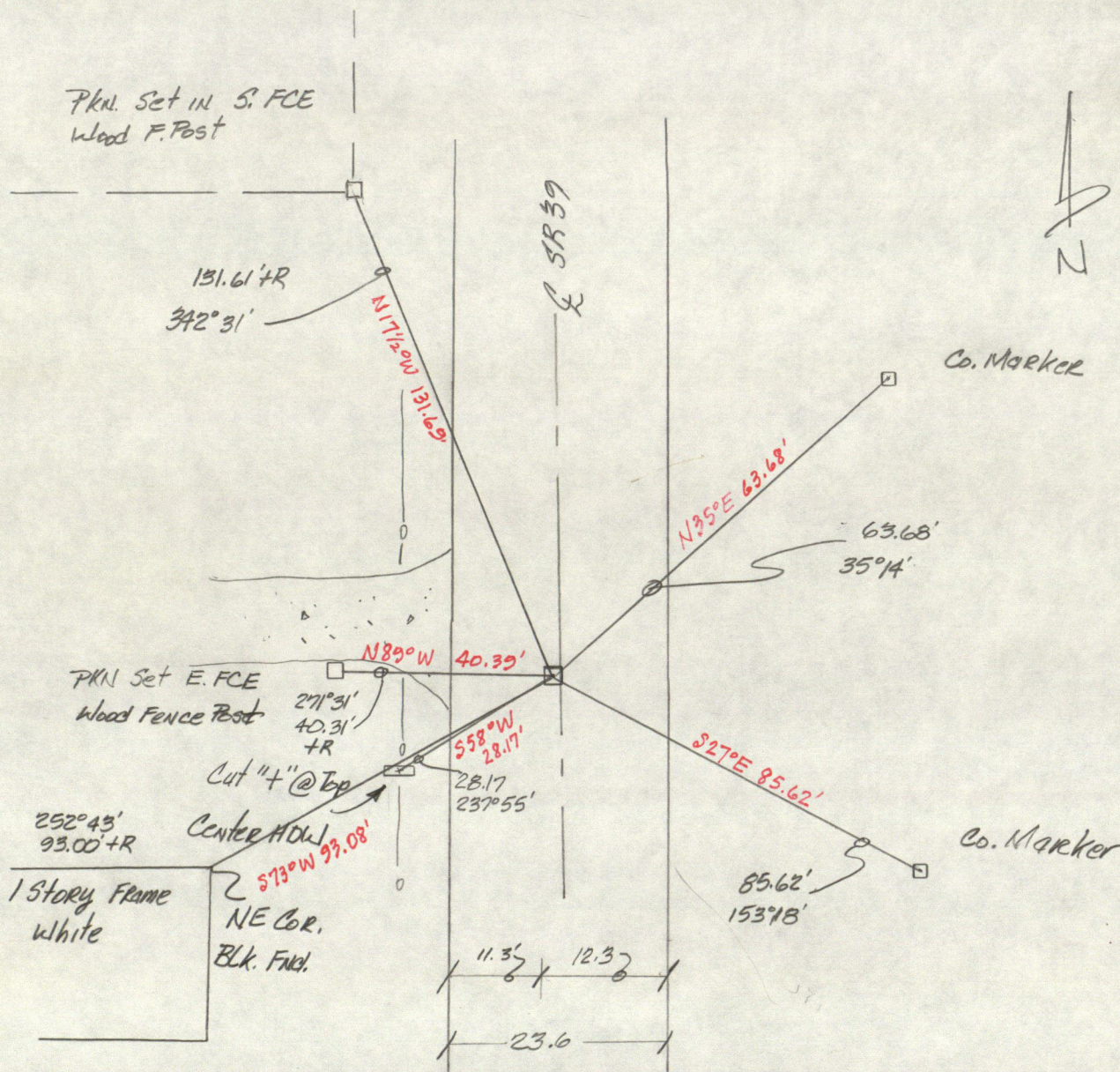
May 1, 1979

Date

Twp 17 North, R. 1 W.



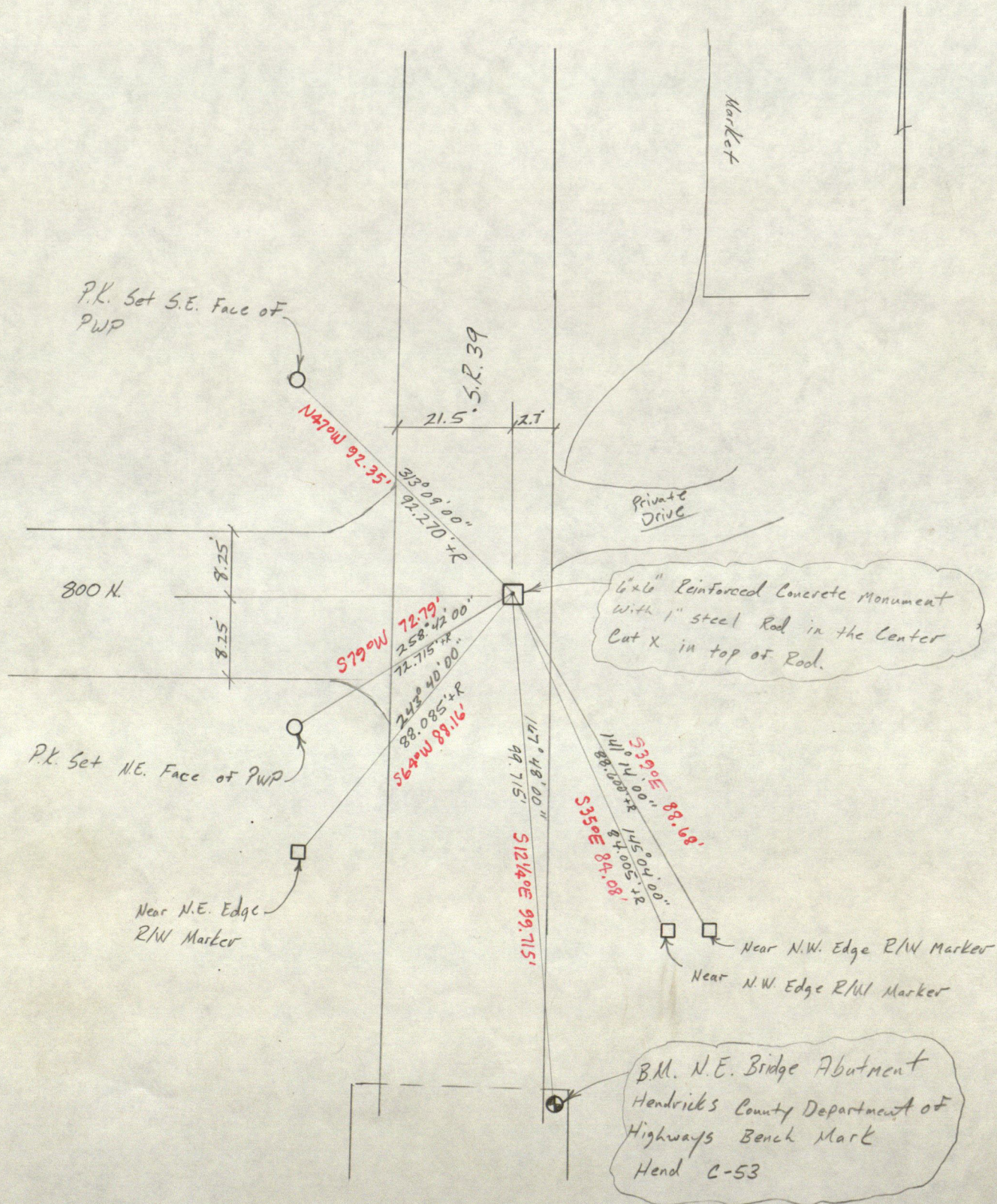
on E
SE COR NE 1/4 of NE 1/4 32-17-141



N.E. Corner Section 32

4-27-94

Twp 17 N., R. 1 W.



RECORD OF CORNER

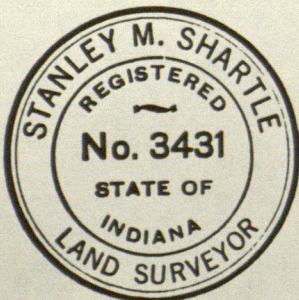
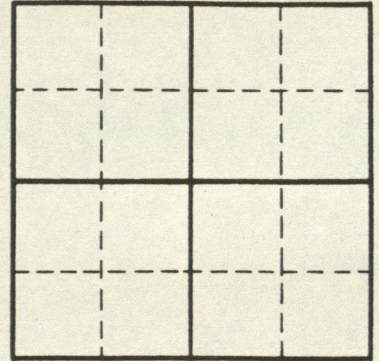
LOCATION OF MONUMENT: SECTION ____, T. ____ N., R. ____

Found: ____ Set: ____ Depth: ____

Description: _____

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

References taken prior to the adjustment by the Indiana Department of Transportation of the corner monument to the finished grade of S. R. 39 during its 1994 resurfacing project.



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

Date: _____

STANLEY M. SHARTLE

REGISTERED PROFESSIONAL ENGINEER

RURAL ROUTE 1, BOX 33

STILESVILLE, IND. 46180

LOCATION OF MONUMENT: SECTION 28, T. 16 N., R. 1 W.

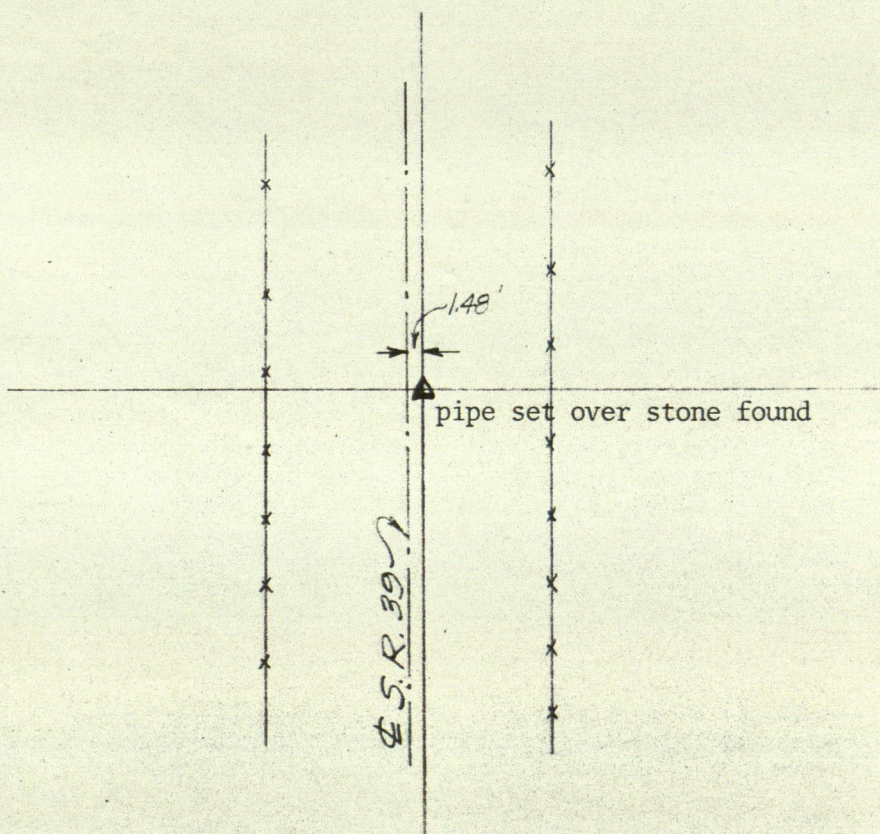
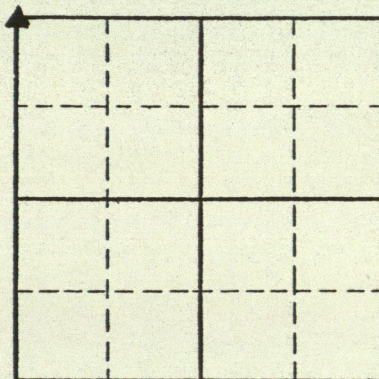
Monument found: Yes ☒ No ☐

Description: Stone 25 inches deep.

Depth: 1" to pipe set over stone

References taken: April 17, 1977

Comments: No references taken



Stanley M. Shartle

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

April 17, 1977

Date

STANLEY M. SHARTLE

REGISTERED PROFESSIONAL ENGINEER

RURAL ROUTE 1, BOX 33

STILESVILLE, IND. 46180

LOCATION OF MONUMENT: SECTION 32, T. 17 N., R. 1 W.

Monument found: Yes ☒ No ☐

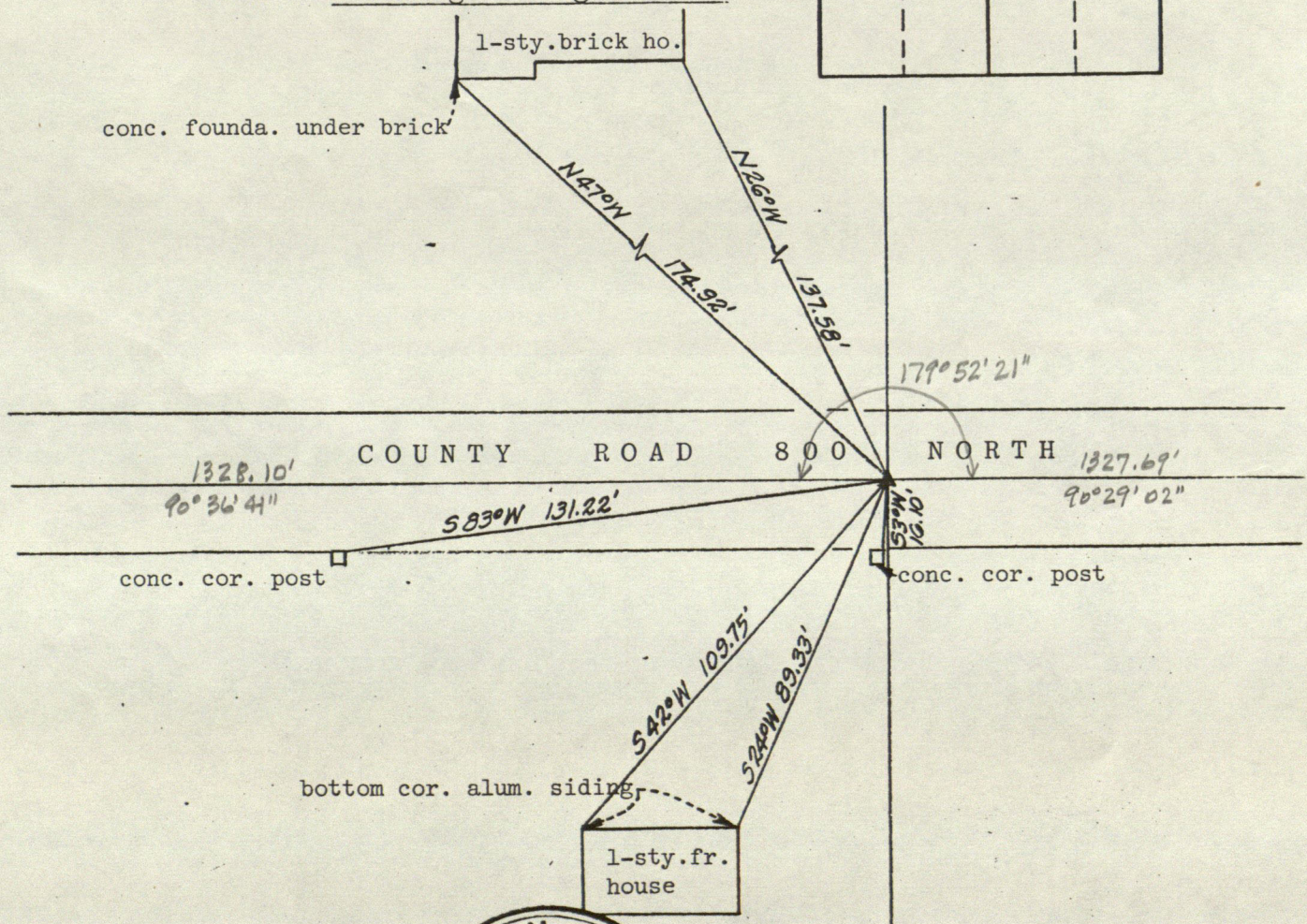
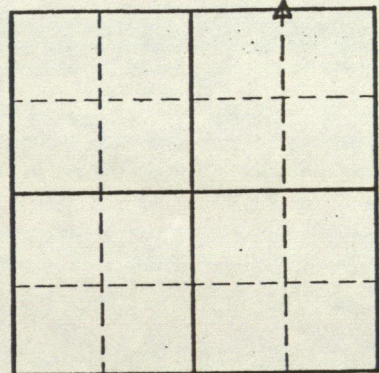
R.R. spike set above

Description: stone with drill hole

Depth: 10 inches

References taken: April 27, 1979

Comments: bearings are magnetic



Stanley M. Shartle

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

April 27, 1979

Date

STANLEY M. SHARTLE

REGISTERED PROFESSIONAL ENGINEER

RURAL ROUTE 1, BOX 33

STILESVILLE, IND. 46180

LOCATION OF MONUMENT: SECTION 32, T. 17 N., R. 1 W.

Monument found: Yes ☒ No ☐

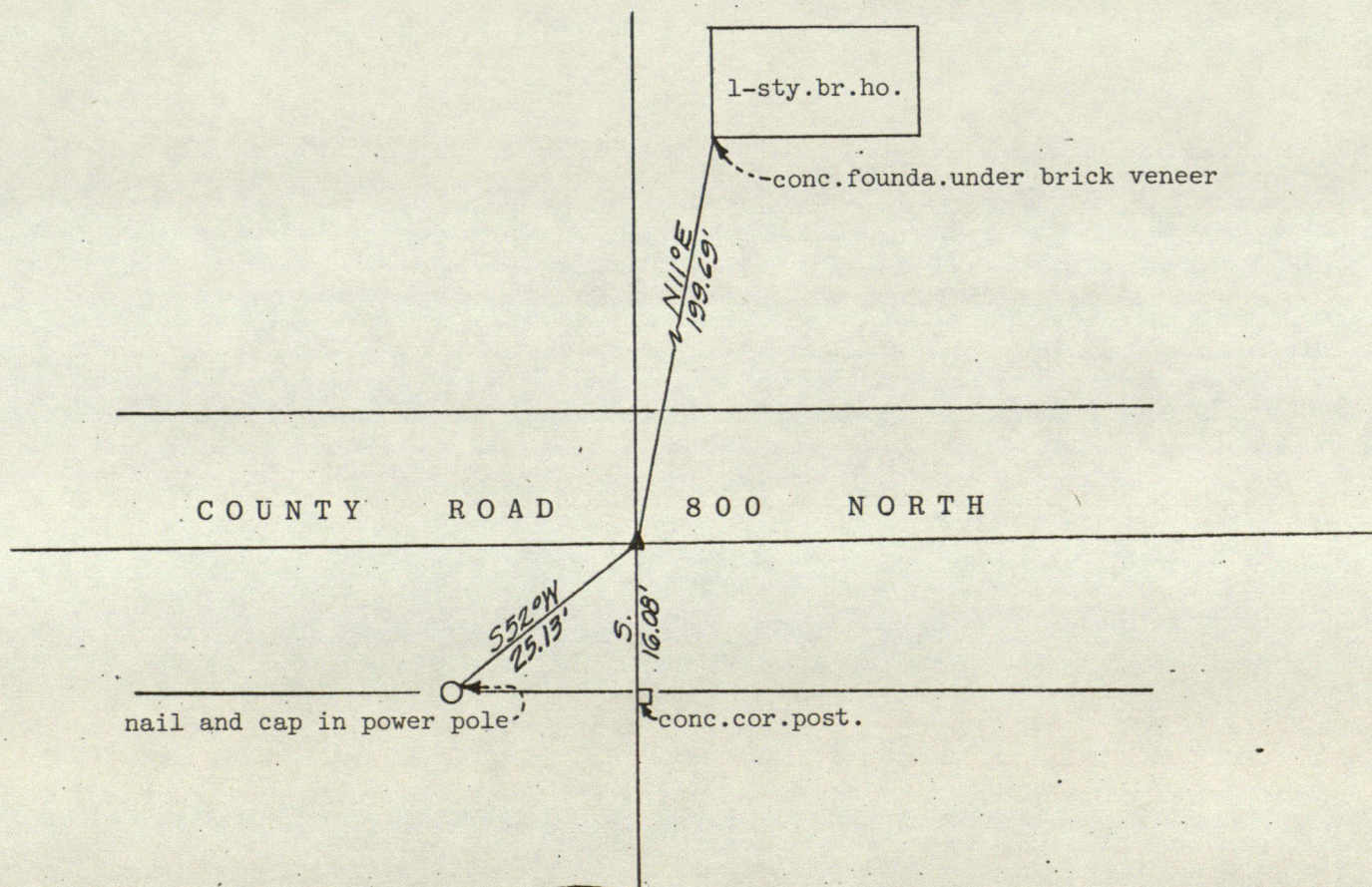
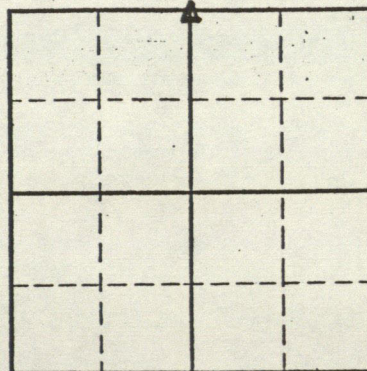
D.H. in stone with I.P. set

Description: beside and bent over top

Depth: 8 inches

References taken: April 27, 1979

Comments: bearings are magnetic

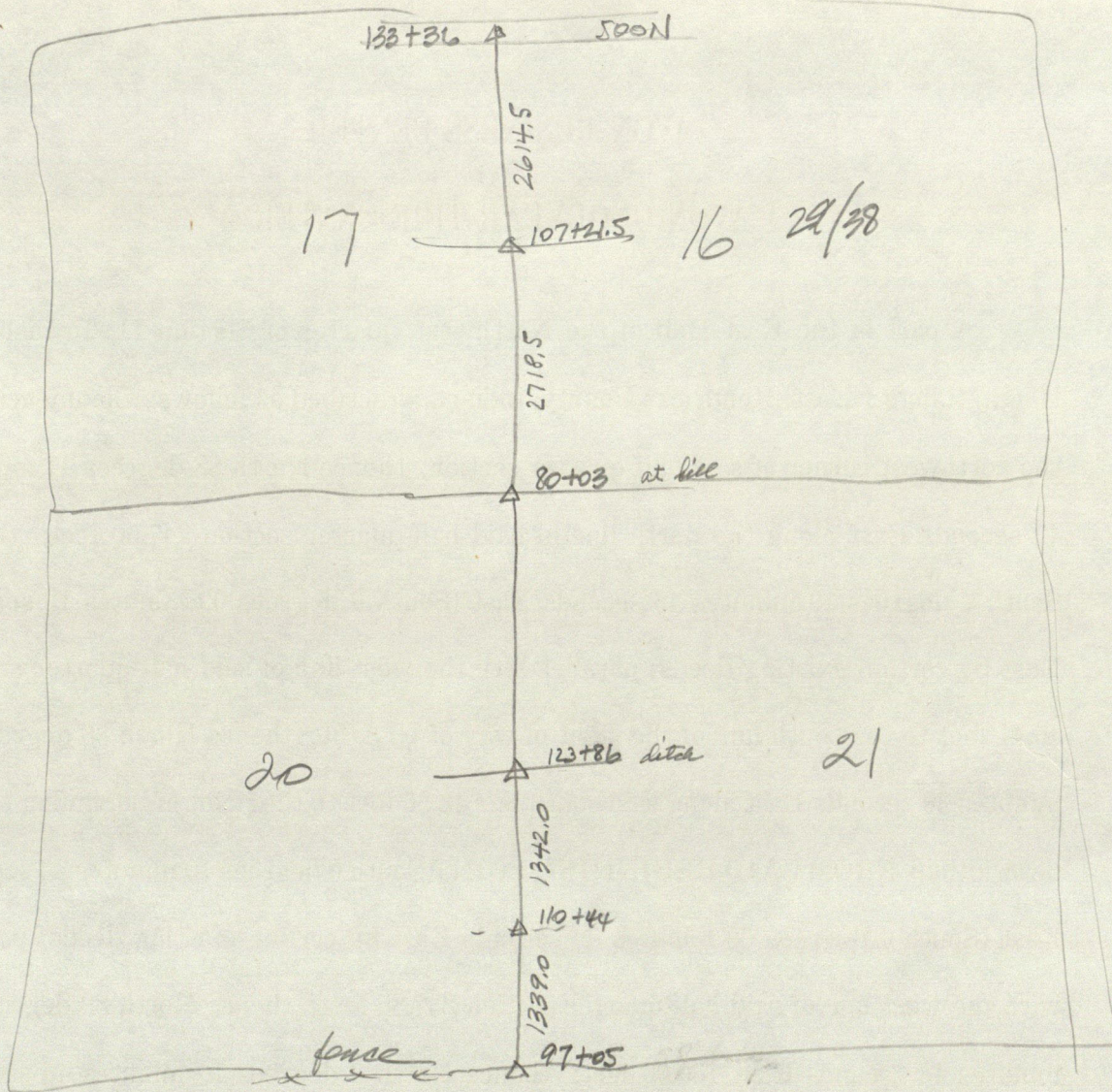


Stanley M. Shartle

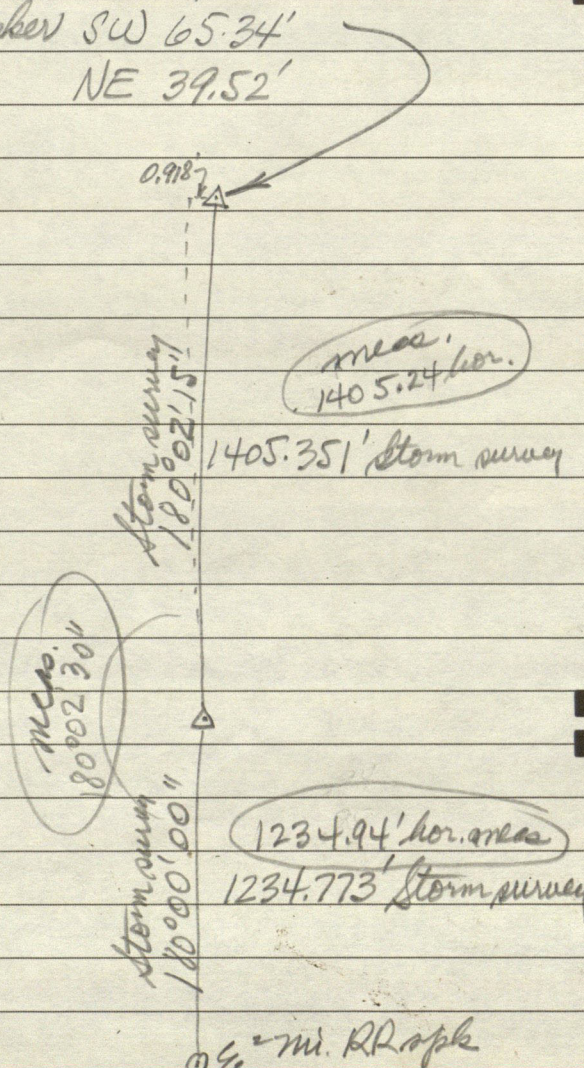
Stanley M. Shartle, P.E. & L.S.

April 27, 1979

Date



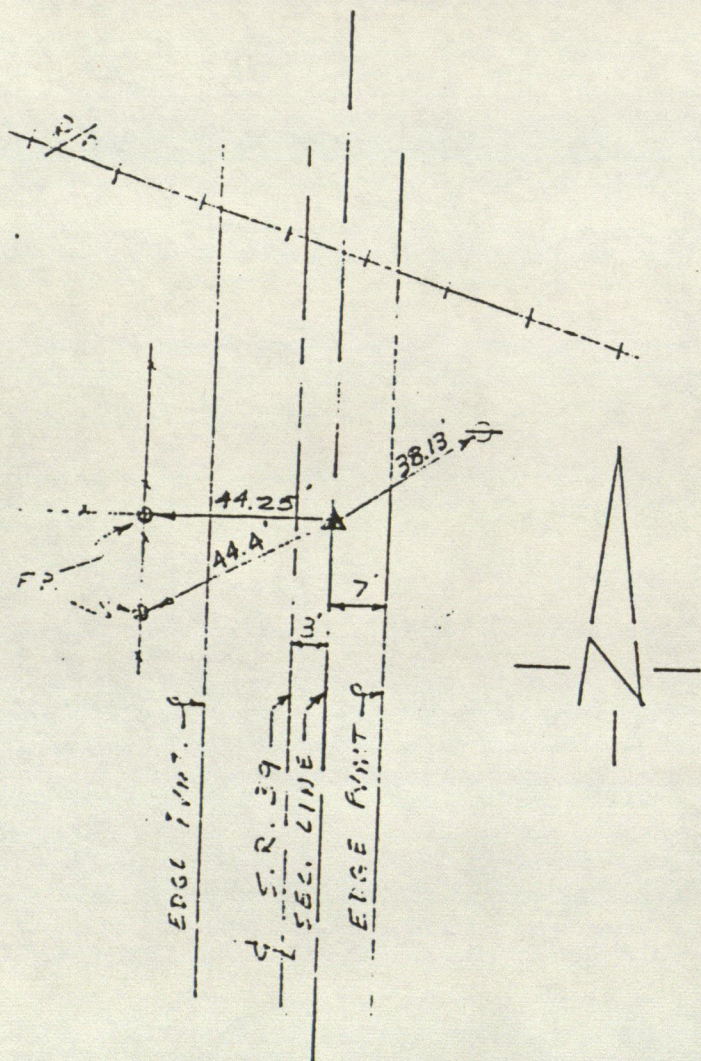
NE cor. 32-17-1W *no pipe in conc.*
~~harrow road~~ *Shuttle 1949*
 S.R. 39 W 2.0'
 NE cor. conc. header SW 37.61'
 SE " " " NW 39.05'
 NE " R/W marker SW 65.34'
 SW " " " NE 39.52'



College ruled

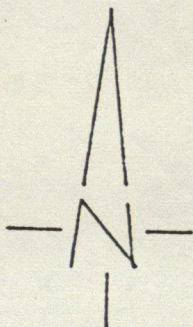
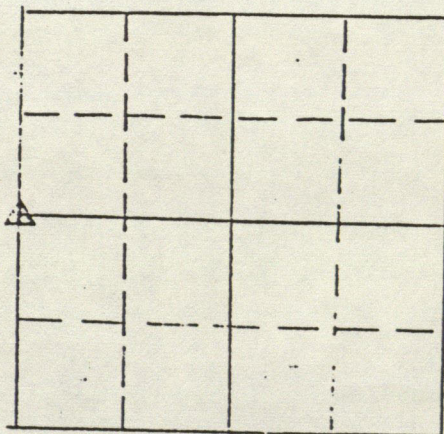
FILLER

100 SHEETS
 11x8½
 COLLEGE & MARGIN
 13-986



W. 1/2 MILE

~~Section 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12~~
 9-16-1W



STONE FD
 8" DEEP
 ROUND, 1/2" DIA. ON TOP
 TIES SET 4-11-75 DRH & SPM

T. N. 16. N. R. N. 17. 2nd M. Ind.

West On the South Boundary of sec. 33. T. 16. N. R. 17.
 40.00 Set a post from which
 W Oak. 18 in diam. bears S 61 E 7 Ank. dist. 25
 Do 24 " " " N 44 E. 20 " "
 80.00 Set a post for the corner 35 & 36 from which
 Buck. 18 in diam. bears N 34 W. 17 lks. dist. 25
 Do 14 " " " S 40 E. 29 " "
 Lands same.

West On the South Boundary of sec. 33. T. 17. N. R. 17.
 40.00 Set a post from which
 Oak. 20 in diam. bears N 16 W. 13 lks. dist. 25
 W Oak. 6 " " " S 5 E. 24 " "
 80.00 Set a post for the corner 31 & 32 from which
 Ash. 14 in diam. bears N 2 E 6 lks. dist. 25
 Poplar. 18 " " " S 20 E. 9 " "
 Lands West is rich and good for farming

West On the South Boundary of sec. 31. T. 17. N. R. 17.
 36.00 To a corner 30 lks. miles. Corner N.W.
 40.00 Set a post from which
 W Oak. 9 in diam. bears S 4 W. 16 lks. dist. 25
 Sugar. 9 " " " N 20 W. 29 " "
 100.74 Intersect the Range Line 940 lks. North of the township
 Township Cor. and set a post from which
 Buck. 14 in diam. bears S 35 E. 23 lks. dist. 25
 Hick. 9 " " " N 10 W. 30 " "
 80.00 Set a post for the corner 31 & 36. T. 17. N. R. 17. 2nd M.
 from which W Oak. 10 in diam. bears S 6 W. 7 lks. dist.
 and a Hick. 9 " " " N 39 E. 4 " "
 Land good for farming; good 2nd rate.

West Boundary. Var. 6. 15. E.

T. N. 16. N. R. N. 17. 2nd M. Ind.

North On the East Boundary of sec. 36. T. 16. N. R. 17.
 38.00 To a Brook 3 lks. miles. Corner W.
 40.00 Set a post from which
 Sugar 18 in diam. bears S 28 E. 44 lks. dist. 25
 Buck. 8 " " " N 38 W. 8 " "
 52.50 To a Brook 10 lks. miles. Corner W.
 80.00 Set a post for the corner 25 & 36 from which
 Sugar. 18 in diam. bears S 4 W. 41 lks. dist. 25
 Buck. 8 " " " N 13 W. 27 " "
 Lands rolling very rich and good for farming.

North On the East Boundary of sec. 25. T. 16. N. R. 17.
 32.00 To a Brook 10 lks. miles. Corner W.
 40.00 Set a post from which
 W. Oak. 9 in diam. bears S 19 W. 11 lks. dist. 25
 Buck. 36 " " " N 22 E. 20 " "
 59.00 To a Brook 6 lks. miles. Corner W.
 80.00 Set a post for the corner 24 & 25 from which
 Buck. 18 in diam. bears S 7 E. 38 lks. dist. 25
 Oak. 14 " " " N 71 W. 31 " "
 Lands same.

North On the East Boundary of sec. 24. T. 16. N. R. 17.
 40.00 Set a post from which
 Sugar. 10 in diam. bears N 75 E. 22 lks. dist. 25
 W Oak. 8 " " " S 82 W. 32 " "
 80.00 Set a post for the corner 23 & 24 from which
 Buck. 12 in diam. bears S 5 W. 16 lks. dist. 25
 Do 7 " " " N 63 E. 31 " "
 Lands similar

North On the East Boundary of sec. 16. N. R.
 40.00 Set a post from which

Glen Hovermale survey.
Pt. SW4 SW4 16-16-111.

20 Oct. 1944.

R. M. Franklin.
S. M. Shartle.

$$\begin{array}{r} 47 \\ 66 \\ \hline 282 \\ 282 \\ \hline 3102 \end{array}$$
$$\begin{array}{r} 109 \\ 66 \\ \hline 654 \\ 654 \\ \hline 71.94 \end{array}$$
$$\begin{array}{r} 145.1 \\ 62 \\ \hline 8706 \\ 8706 \\ \hline 95.766 \end{array}$$
$$\begin{array}{r} 110.9 \\ 66 \\ \hline 6654 \\ 6654 \\ \hline 73.194 \end{array} \qquad \begin{array}{r} 62.1 \\ 66 \\ \hline 3726 \\ 3726 \\ \hline 40.986 \end{array}$$
$$\begin{array}{r} 141.3 \\ 66 \\ \hline 8478 \\ 8428 \\ \hline 93.258 \end{array}$$

Common corner between sections

16-17-20-21, T16N, R.1.W.

Type "C" State Highway monument
found buried 8" below macadam
surface. Witnesses to brass ply on
monument:

NE cor. concrete SW post S23 1/2° W 145.1 lb. (95.77')

SE " " " " N34°23'W 109 lbs. (71.94') gone

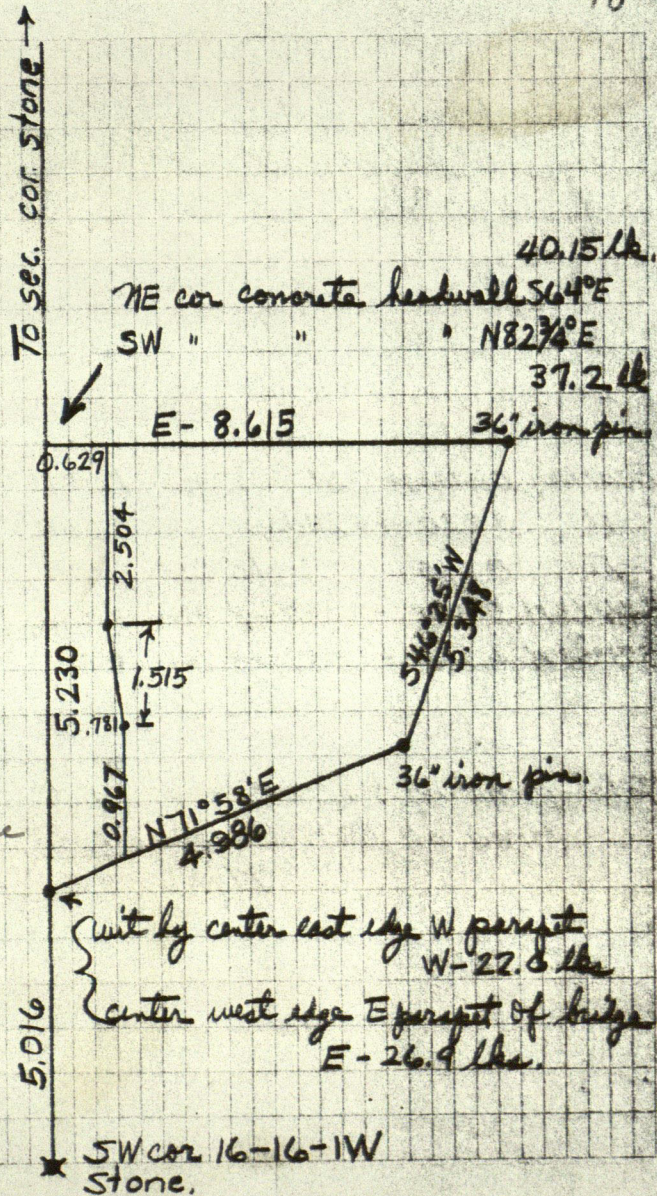
SW " " " " N34°09'E 110.9 lb. (73.19')

W edge " " " - East 62.1 lb. (40.99')

W edge "I.S.P" concrete moit-East 47.0 lbs. (31.02')

NW cor concrete porch floor S44°23'E 101.9 lb. (67.25')

NW cor " " "I.S.P." mount $51\frac{1}{2}^{\circ}$ E 141.3 lb. (93.26')



614.05 Method of Measurement. Cement concrete header and reconstructed cement concrete header will be measured by the linear foot (meter).

614.06 Basis of Payment. The accepted quantities of cement concrete header of the type specified will be paid for at the contract price per linear foot (meter) and per linear foot (meter) for reconstructed cement concrete header complete in place.

Payment will be made under:

Pay Item	Pay Unit
Header, _____, Cement Concrete Linear Foot (meter)	
Header Concrete, Reconstruct Linear Foot (meter)	

Edge protection, metal chairs, excavation, and other related miscellaneous items will not be paid for separately, but the cost thereof shall be included in the cost of the pay item.

SECTION 615—MONUMENTS, MARKERS AND PARKING BARRIERS

615.01 Description. This work shall consist of furnishing and setting, setting only, or resetting right-of-way markers, monuments for marking section or other lines, bench-mark posts and tablets, and parking barriers in accordance with these specifications and in reasonably close conformance with details shown on the plans or as directed.

MATERIALS

615.02 Materials. Materials shall be in accordance with the following:

Portland Cement.....	901.01(b)
Fine Aggregate, Size No. 23	904.01
Coarse Aggregate, Class A, Size No. 5, No. 8, or No. 91	904.02
Reinforcing Steel	910.01

615.03 Reinforced Cement Concrete Right-of-Way Markers. These markers shall conform with the dimensions and lettering shown on the plans. The reinforcement shall be securely held in place by at least 4 spacers of an approved design. The concrete ingredients shall be graded and proportioned to produce a strong dense concrete.

When tested as hereinafter described, a specimen shall support a total load of at least 2400 pounds (1089 kg) before the first crack appears. The specimen will be tested as a simple beam. The distance between supports shall be exactly 24 inches (610 mm) with the load applied at the rate of approximately 1200 pounds (544 kg) per minute in the center of the span. Loading will continue until the first crack appears.

The cement concrete shall absorb no more than 8 percent water. Specimens for absorption may be taken from the markers tested for strength. The absorption test shall be as described in AASHTO T280 except the specimen tested shall be the full cross section marker.

The markers shall have a smooth workmanlike finish free from cracks, patches, honeycomb, exposed reinforcement, and excessive bubble holes. Each marker shall be plainly marked near the bottom with the trademark or initials of the manufacturer and the date of manufacture. These letters and figures shall be no less than one inch (25 mm) in height and shall be indented 1/8 of an inch (3.2 mm).

Right-of-way markers furnished under this specification shall be covered by a type C certification in accordance with 916.

615.04 Monuments. Monuments shall be of the type specified in the proposal, the details of which are shown on the plans. Any portion extending above the ground shall be finished in accordance with 702.20.

Where concrete is required, it shall be class A in accordance with 702. When placed in the forms it shall be tamped in layers until mortar covers the outer surface. The tops of the monuments shall be floated smooth. Monuments may be cast in place or cast outside and then set.

The pin shall be set perpendicular to and flush with the top of the monument while the concrete is plastic and left undisturbed until the concrete has set. The pin shall be good quality copper and shall be one inch (25 mm) in diameter and 5 inches (127 mm) long. If for type D monuments, it shall be drilled in the center with 1/8 of an inch (3.2 mm) drill for a depth of 1 1/2 inches (38 mm) and this hole filled with lead flush with the end of the pin. Castings for protected monuments shall be in accordance with 910.05(a).

615.05 Bench Mark Posts. Bench mark posts shall be of the dimensions shown on the plans and cast in accordance with applicable provisions of 615.03, except the strength shall be determined by concrete cores taken from the finished product. At least 2 concrete cores will be taken from each unit and the average strength of the unit shall be at least 4000 pounds per square inch (28 MPa) with no individual core strength less than 3600 pounds per square inch (25 MPa). Tablets will be furnished by the Department and shall be set in the posts as indicated on the plans.

615.06 Parking Barriers. Parking barriers shall be of the dimensions shown on the plans. The barriers shall be cast and tested in accordance with the applicable requirements of 615.03, except the strength shall be determined by concrete cores taken from the finished product. At least 2 concrete cores will be taken from each unit and the average strength of the unit shall be at least 4000 pounds per square inch (28 MPa) with no individual core strength less than 3600 pounds per square inch (25 MPa).

CONSTRUCTION REQUIREMENTS

615.07 Setting Right-of-Way Markers. The back face of these markers shall be set on right-of-way lines approximately 1000 feet (305 meter) apart as hereinafter provided. They shall be set at all corners of irregular right-of-way lines, opposite each P.C. and P.T. of curves, and not to exceed 500 feet (152 meter) apart on the inside and outside of curves. Care shall be used in locating markers on tangents so that a marker is plainly visible from each of those adjacent.

Markers shall be set plumb, to the depth required on the plans, and with the letters facing the pavement. Portions of the holes not occupied by markers shall be backfilled and compacted in layers with suitable material

615.08 Resetting Right-of-Way Markers. When the proposal provides that existing right-of-way markers be reset, the existing markers shall be removed and reset at designated locations in accordance with 615.07.

Existing monuments which are not required to be disturbed or re-established, but which are disturbed during construction operations, shall be re-established with no additional payment.

If the existing monument is, or contains a brass or copper pin, the pin shall be extended to the surface of the new pavement by attaching a brass or copper pin with at least a one inch (25 mm) diameter and of the length required. Such extensions shall be attached by tapping the original pin and providing a necessary screw attachment such that the extension can be fastened securely to the original pin. The tapped hole shall be at least 1/4 of an inch (6.3 mm) in diameter and no less than one inch deep (25 mm). The screw attachment shall have the same diameter as that for the hole in the original pin and shall be no less than one inch (25 mm) in length.

Where existing monuments are protected and encased in cast iron, such castings shall be adjusted to meet the elevation of the proposed surface by means of an asphalt coated, cast iron, adjustment casting. The size shall be the same as the original casting and of the depth necessary to meet the elevation of the proposed new surface.

plans, or directed, bench mark tablets furnished by the Department shall be placed in newly constructed or existing drainage structures located within the limits of the contracts.

615.12 Reset Bench Mark Posts. When the proposal provides that existing bench mark posts be reset, the existing bench mark posts shall be removed and reset at designated locations in accordance with 615.11.

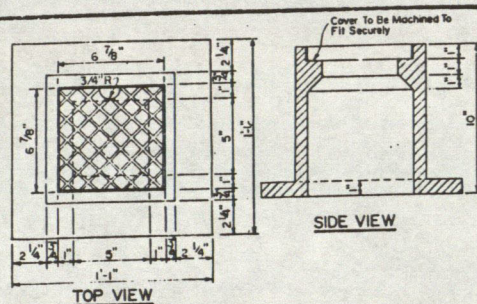
615.14 Basis of Payment. The accepted quantities of right-of-way markers, reset right-of-way markers, monuments, reestablished monuments, castings adjusted to grade monuments, bench mark posts, reset bench mark posts, and parking barriers will be paid for at the contract unit price per each complete in place.

Pay Item	Pay Unit
Right-of-Way Marker.....	Each
Right-of-Way Marker, Reset.....	Each
Monument, _____	Each
type	
Monument, Re-establish	Each
Casting Adjusted to Grade, Monument	Each
Bench Mark Post.....	Each
Bench Mark Post, Reset	Each
Parking Barrier	Each

SECTION 616—RIPRAP AND SLOPEWALL

MATERIALS

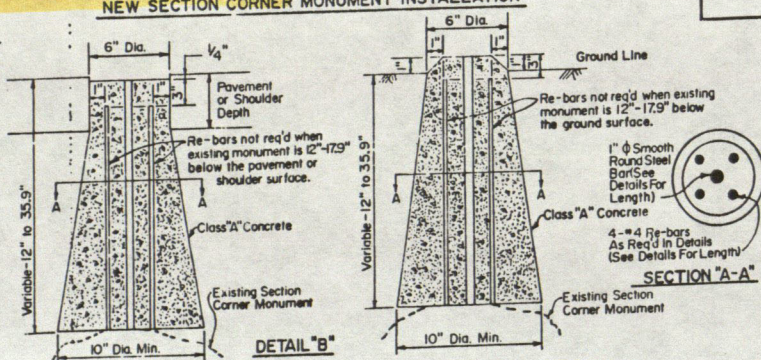
Cement	901.01(b)
Fine Aggregate	904.01
Geotextile	913.18
Coarse Aggregate, Class A, B, C, D, E, or F	904.02
Geotextile	913.18



SURVEY LINE MONUMENT RING & COVER

INSIDE PAVEMENT OR SHOULDER AREA

NEW SECTION CORNER MONUMENT INSTALLATION



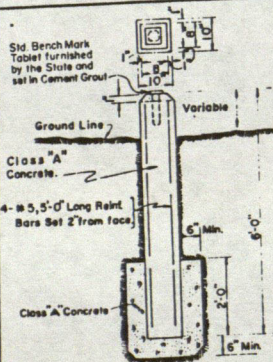
INSIDE PAVEMENT OR SHOULDER AREA

OUTSIDE PAVEMENT OR SHOULDER AREA

EXTENSION OF EXISTING SECTION CORNER MONUMENT

NOTES

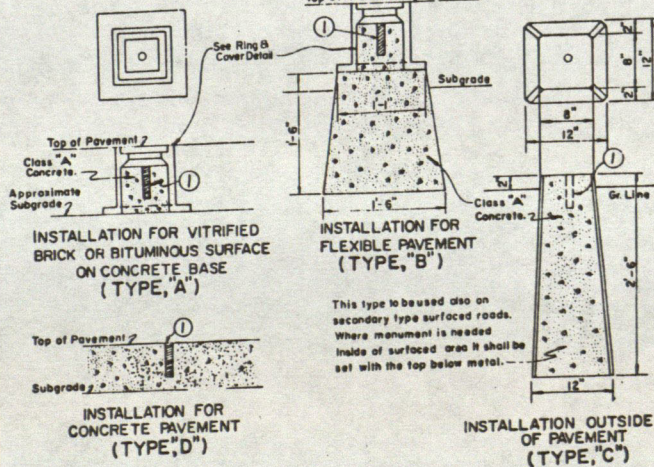
1. If the existing Section Corner Monument is 0" to 11.9" below surface, it shall be removed and replaced as shown in Detail "A".
2. If the existing Section Corner Monument is 12" to 35.9" below surface, the County Surveyor shall determine whether it shall remain in place or be replaced. If the monument is to be replaced, the installation shall be as shown in Detail "A". If the existing monument is to remain in place, it shall be extended as shown in Detail "B".



BENCH MARK POST
SCALE: 1/2" = 1'-0"

REVISIONS

6-1-88	Bench Mark Post; R/W Marker Dim.
3-1-90	Bridge Appr. Details Removed; Revised R/W Marker & Print. Edge Trans.



SURVEY LINE MONUMENTS

MISCELLANEOUS
STANDARDS
STATE OF INDIANA

JULY 1965

RECOMMENDED FOR APPROVAL

APPROVED HW

C. J. Mangelberg
ENGINEER OF PLANT AND SPECIFICATIONS

CHIEF DIVISION OF DESTROYERS

CHIEF HIGHWAY ENGINEER

REVISIONS

5-3-82	Subscribe Note; Ring B Cover Detail; Note ① Survey Line Monu- ments; Section Cor- ner Monuments.
9-4-84	Eliminate Culvert Approaches
8-3-87	Guide Post Details Deleted; Parking Barrier Added; R.C. Bridge Appr. Bill of Materials.

REVISIONS

11-17-66	APPROACH SLAB
6-15-67	2nd OFFSHORE
8-25-67	SUPPLY
11-10-67	FIN. NOTE
2-1-69	1969 SEC
1-4-71	APPROACH SLAB

SHEET

MA

