

SECTION CORNER RECORD

BOONE COUNTY SURVEYOR'S OFFICE

NE 200-700

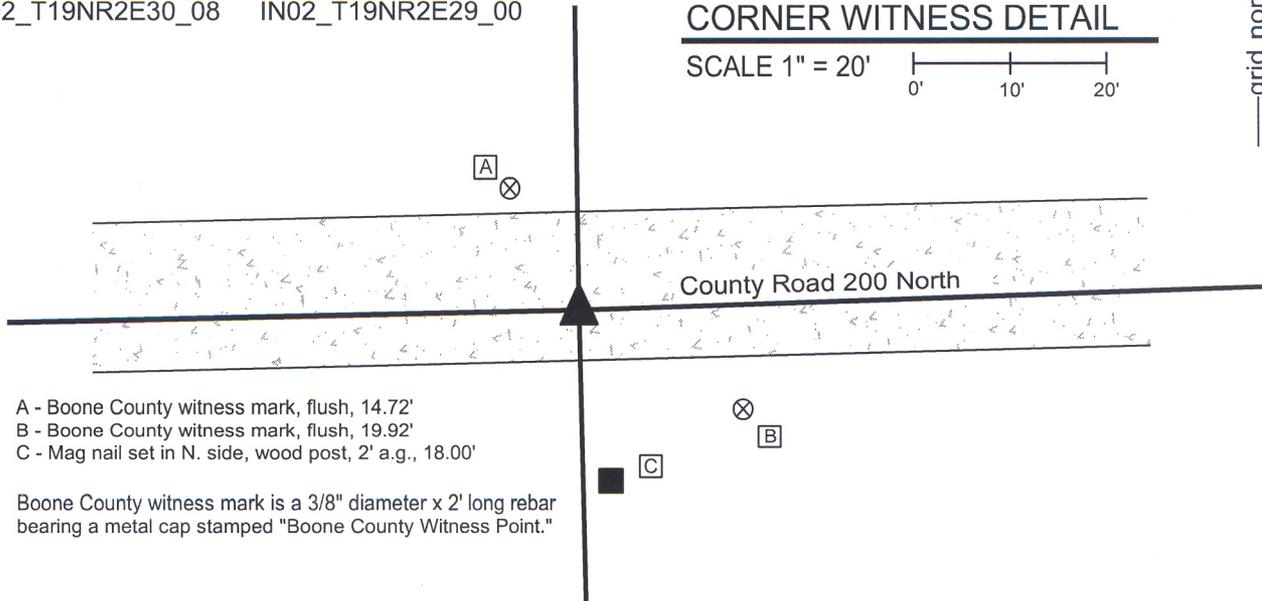
State Plane grid coordinates NAD83 (NSRS 2007):
 North: 1756791.75 East: 3161700.86 (U.S. survey feet)

Type of monument: Harrison, 4" disk 'Section Corner'
 Depth: Six inches below the adjacent gravel road surface.

Indiana tie card references:
 IN02_T19NR2E19_76 IN02_T19NR2E20_80
 IN02_T19NR2E30_08 IN02_T19NR2E29_00

CORNER WITNESS DETAIL

SCALE 1" = 20'



- A - Boone County witness mark, flush, 14.72'
- B - Boone County witness mark, flush, 19.92'
- C - Mag nail set in N. side, wood post, 2' a.g., 18.00'

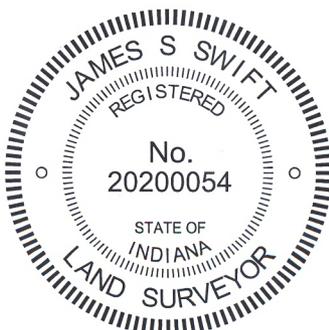
Boone County witness mark is a 3/8" diameter x 2' long rebar bearing a metal cap stamped "Boone County Witness Point."

The harrison monument was set over a stone found.

A BCS record of January 28, 1869 states "Reestablished from Ash. Set two Rocks. One 5 1/2, 5 by 4 in. marked +. Top Rock 15, 7 by 6 inch. marked + on side." A BCS tie card dated April 1970 states "No stone, set rail."

This corner was excavated on June 14, 2010. Prior to excavation a railroad rail was found 3 inches below the surface of the gravel road, leaning substantially towards the east. Excavation revealed several stones at various depths and positions. A stone which was accepted as being the record lower stone was found at 22 inches deep, 4 feet west and 0.3 feet south of the top of the rail, as originally found. This stone was 5 inches tall by 5 1/2 inches N-S by 7 inches E-W with a clearly visible "+" etched in the top center. Two of the dimensions of the stone match the record dimensions but the E-W dimension does not match the record dimension of 4 inches. Analysis of this situation yielded the conclusion that this is the stone mentioned in the 1869 record and that the variation in the one dimension is most likely to have been a notation error. The fact that the smallest dimension of the stone, as found, is the vertical dimension fits with the character of the stone as being the lower stone. It has been observed at numerous other corners that when the County Surveyors of the second half of the 19th century set two rocks at a corner, the lower stone was usually set horizontally, acting as a base and the upper stone was set vertically. The character of the stone found at this corner matches that observation. The etched "+" on the top, center of the stone is also characteristic of the lower stone. Furthermore, the depth of the stone, being embedded in the clay layer below the road, approximately 14 inches below the bottom of the road bed, fits well with the fact that the upper stone was recorded to be 15 inches tall, hence would have protruded slightly into the bottom of the road bed. This is also characteristic of other top, vertical stones set by County Surveyors in that era. The found stone was held as the marking the corner and the harrison monument was set directly over the etched "+" on the top of the stone.

Another stone was found 1.5 feet East and 0.3 foot South of the record stone, being at 4 inches deep and measuring 13 inches tall by 10 inches N-S by 6 inches E-W with no visible marks. Two other stones were found against each other, approximately 0.8 foot south of the record stone, being 13x9x6 inches at 13 inches deep and 9x5x3 inches deep at 23 inches, respectively. The latter stone was against the lower west edge of the former stone. The rail and three extra stones were removed during excavation. This corner was originally established as a wood post in July, 1821.



Kenneth E. Hedge
 Kenneth E. Hedge, County Surveyor

James S. Swift
 James S. Swift, IN LS 20200054

July 25, 2011, Revised February 6, 2013

Marion Twp

Section 19 T19N, R2E	Section 20 T19N, R2E
Section 30 T19N, R2E	Section 29 T19N, R2E

Union Twp

PHOTOGRAPHIC DOCUMENTATION

Date of photography: June 14, 2010

The railroad rail and the first stone exposed.



The railroad rail and the second stone exposed.



View of the rail, the first stone exposed and the post on the south side of the road.



The record lower stone with etched mark on top.



For details and documentation, refer to related sheet "Section Corner Record."

SECTION CORNER RECORD

BOONE COUNTY SURVEYOR'S OFFICE

NE 250-600

State Plane grid coordinates NAD83 (NSRS 2007):

Corner 1: North: 1759350.20 East: 3156238.64 (U.S. survey feet)

Corner 2: North: 1759309.95 East: 3156239.61 (U.S. survey feet)

Corner 1 & 2:

Type of monument: Harrison, 4" disk 'Section Corner'

Depth: One inch below adjacent road surface

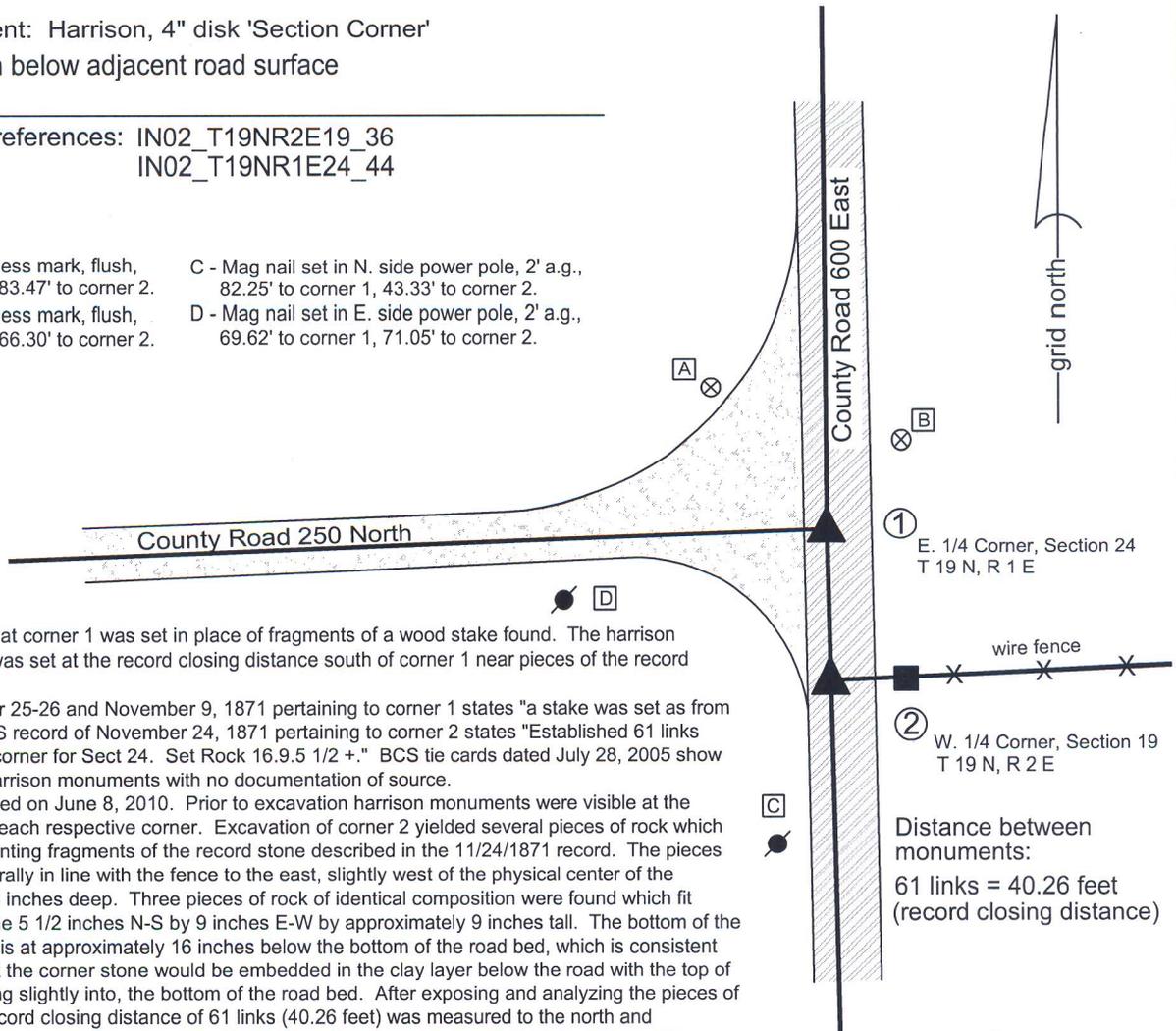
Indiana tie card references: IN02_T19NR2E19_36
IN02_T19NR1E24_44

- A - Boone County witness mark, flush, 47.98' to corner 1, 83.47' to corner 2.
- B - Boone County witness mark, flush, 30.54' to corner 1, 66.30' to corner 2.

- C - Mag nail set in N. side power pole, 2' a.g., 82.25' to corner 1, 43.33' to corner 2.
- D - Mag nail set in E. side power pole, 2' a.g., 69.62' to corner 1, 71.05' to corner 2.

CORNER WITNESS DETAIL

SCALE 1" = 50'



The harrison monument at corner 1 was set in place of fragments of a wood stake found. The harrison monument at corner 2 was set at the record closing distance south of corner 1 near pieces of the record stone found.

A BCS record of October 25-26 and November 9, 1871 pertaining to corner 1 states "a stake was set as from stump of walnut." A BCS record of November 24, 1871 pertaining to corner 2 states "Established 61 links south of the qtr section corner for Sect 24. Set Rock 16.9.5 1/2 +." BCS tie cards dated July 28, 2005 show both corners as being harrison monuments with no documentation of source.

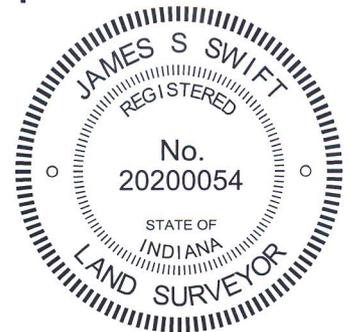
This corner was excavated on June 8, 2010. Prior to excavation harrison monuments were visible at the surface in the vicinity of each respective corner. Excavation of corner 2 yielded several pieces of rock which are accepted as representing fragments of the record stone described in the 11/24/1871 record. The pieces of rock were found generally in line with the fence to the east, slightly west of the physical center of the roadway beginning at 26 inches deep. Three pieces of rock of identical composition were found which fit together to create a stone 5 1/2 inches N-S by 9 inches E-W by approximately 9 inches tall. The bottom of the lower piece of the stone is at approximately 16 inches below the bottom of the road bed, which is consistent with the expectation that the corner stone would be embedded in the clay layer below the road with the top of the stone at, or protruding slightly into, the bottom of the road bed. After exposing and analyzing the pieces of stone at corner 2, the record closing distance of 61 links (40.26 feet) was measured to the north and excavation was performed at corner 1. The 1871 record calls for a stake set at this corner. Excavation revealed evidence of the stake in the form of pieces of wood in the clay layer below the road, beginning at the top of the clay layer (26 inches deep) to approximately 5 inches below that. The position of the fragments of wood fit very well with the record distance from the pieces of rock found at corner 2 and the fragments were accepted as representing the "stake" set in 1871. It is noted that wood stakes from that era have been found in the sub-surface clay at other corners and those stakes have been in similar condition to what was found at this corner. The evidence of the monuments from 1871, which fit relative to each other and also fit with the evidence of occupation to the east at corner 2 (fence) and the road to the west at corner 1, were held as marking the position of the corners. A harrison monument was set in the position of the fragments of the stake marking corner 1. A harrison monument was set at the record closing distance south of corner 1 on the line connecting corner 1 with the standard corner to the south, in the approximate position of the pieces of rock found at that corner. The harrison monuments which were present prior to excavation were 0.9 foot east and 2.8 feet north of monuments set after excavation. No other evidence was found below the previously existing harrisons.

Corner 1 was originally established as a wood post in 1819. Corner 2 was not monumented during the original federal survey.

① E. 1/4 Corner, Section 24
T 19 N, R 1 E

② W. 1/4 Corner, Section 19
T 19 N, R 2 E

Distance between monuments:
61 links = 40.26 feet
(record closing distance)



Kenneth E. Hedge
Kenneth E. Hedge, County Surveyor

James S. Swift
James S. Swift, IN LS 20200054
July 25, 2011, Revised February 6, 2013

Center Twp	Marion Twp
Section 24 T19N, R1E	Section 19 T19N, R2E

PHOTOGRAPHIC DOCUMENTATION

Date of photography: June 8, 2010

Pieces of wood and the associated discoloration from the "stake" at the standard corner (corner 1).



View of the fragments of the closing corner (corner 2) stone as first exposed.



Pieces of wood from the "stake" shown as found at the base of the road bed (corner 1).



View of the fragments of the closing corner (corner 2) stone from above



Pieces of wood from the 1871 "stake" removed from the of the road bed, with scale (corner 1).



The three fragments of the stone pieced together. This represents the bottom of the record stone and is shown upside down in this picture.



For details and documentation, refer to related sheet "Section Corner Record."

SECTION CORNER RECORD

NE-300-600

BOONE COUNTY SURVEYOR'S OFFICE

State Plane grid coordinates NAD83 (NSRS 2007):

Corner 1: North: 1762016.52 East: 3156220.05 (U.S. survey feet)

Corner 2: North: 1761973.59 East: 3156220.35 (U.S. survey feet)

Corners 1 & 2:

Type of monument: Harrison, 4" disk 'Section Corner'

Depth: One inch below adjacent road surface

Indiana tie card references:

IN02_T19NR1E13_80 IN02_T19NR1E24_08

IN02_T19NR2E18_72 IN02_T19NR2E19_00

- A - Boone County witness mark, flush, 28.11' to corner 1, 68.49' to corner 2.
- B - Mag nail set in N. side wood post, 1' a.g., 46.22' to corner 1, 19.39' to corner 2.
- C - Boone County witness mark, flush, 58.99' to corner 1, 17.82' to corner 2.
- D - Mag nail set in N. side power pole, 2' a.g., 41.07' to corner 1, 17.70' to corner 2.

S.E. Corner, Section 13
N.E. Corner, Section 14
T 19 N, R 1 E ①

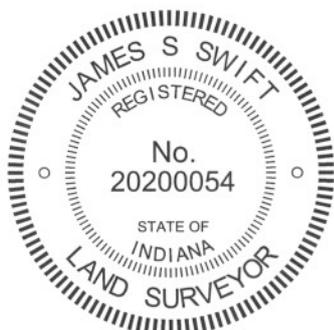
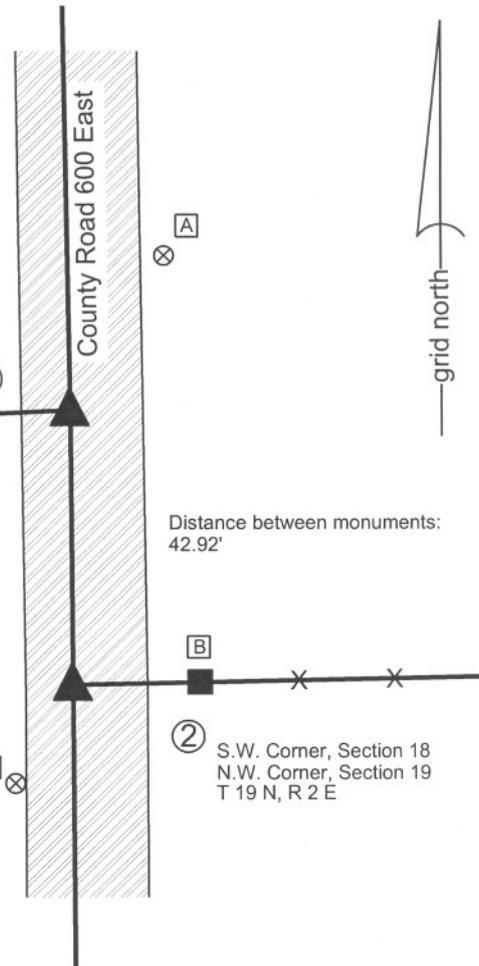
Distance between monuments:
42.92'

② S.W. Corner, Section 18
N.W. Corner, Section 19
T 19 N, R 2 E

The harrison monuments were set in place of railroad rails found. A BCS record of November 23, 1871 states "Reestablished by lap 66 lk south from corner Sections 13 & 24 from trees. Set rock 17, 11 by 6 + on E. side." A BCS tied card dated October 14, 1971 states Stone found, RRR put in." BCS tie cards dated July 28, 2005 show both corners as marked by harrison monuments with no documentation of source. Corner 1 was excavated on June 3, 2010. Corner 2 was excavated on June 18, 2010. Prior to excavation, harrison monuments were found at both corners. Excavation of corner 1 revealed a railroad rail found at 7 inches deep, directly below the harrison monument. No other evidence was found and it was accepted that the rail was set in place of the stone found in 1971. Excavation of corner 2 revealed a railroad rail found at 10 inches deep, 0.1' east of the harrison. No other evidence was found and it was accepted that the rail at corner 2 was also set in place of the stone found in 1971. It is not specifically known whether stones were found at both corners in 1971, but the tie card shows ties to both corners. In any case, the rails were held as the best evidence of the position of the corners. The harrison monument at corner 1 was set in place of the rail. The harrison monument was set at the same north-south position as the rail, but was set on the line between corner 1 and the standard corner to the south, approximately 0.4 feet west of the rail. It is noted that the rails, as measured from the top center of each, were 42.92 feet apart, which distance matches the 2005 tie cards for the harrison monuments. The 1971 tie card shows a distance of 43.2 separating the corners. The record closing distance of 66 links is equal to 43.56 feet. The physical distance between the found rails was held as the closing distance, or "lap" as referred to in the 1871 record. Corner 1 was originally established as a wood post in July, 1819. Corner 2 was originally established as a wood post in July, 1821.

CORNER WITNESS DETAIL

SCALE 1" = 30' 0' 15' 30'



Kenneth E. Hedge
Kenneth E. Hedge, County Surveyor

James S. Swift
James S. Swift, IN LS 20200054
July 25, 2011

Center Twp	Marion Twp
Section 13 T19N, R1E	Section 18 T19N, R2E
Section 24 T19N, R1E	Section 19 T19N, R2E

SECTION CORNER RECORD

BOONE COUNTY SURVEYOR'S OFFICE

NE 300-650

State Plane grid coordinates NAD83 (NSRS 2007):
 North: 1762026.71 East: 3158981.48 (U.S. survey feet)

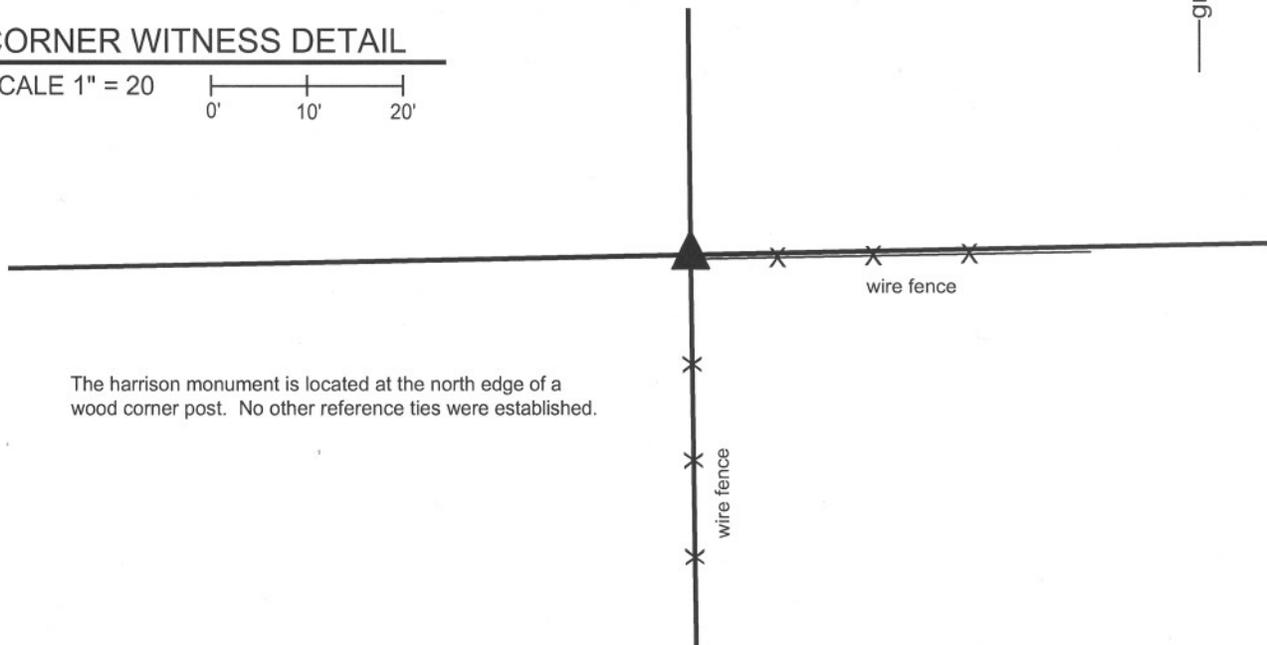
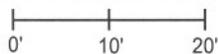
Type of monument: Harrison, 4" disk 'Section Corner'
 Depth: three inches above adjacent grade

Indiana tie card references:
 IN02_T19NR2E18_76
 IN02_T19NR2E19_04



CORNER WITNESS DETAIL

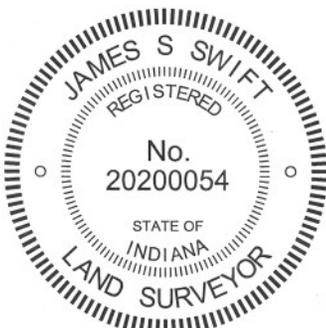
SCALE 1" = 20'



The harrison monument is located at the north edge of a wood corner post. No other reference ties were established.

The harrison monument was set in place of a stone found. A BCS record of November 23, 1871 states "Reestablished from Oak tree and stake. Set a Rock 13.11.6 marked +." No recent BCS tie cards were found referencing this corner. This corner was excavated on October 12, 2011. The record stone, as described in the 1871 record, was found at the north edge of a wood corner post. Neither the post nor the fencing attached to it appears to be old. The stone was not vertical as found, and appears to have fallen towards the south. As found, the etched + on the stone was towards the south edge of the stone. When the stone was stood up, hence the south edge, as found, leaned north until the etched + was on top, the stone matched the characteristics of other found stones, being vertical and oriented in cardinal directions, with the etched + being on the top center. It is noted that many stones have the etched + on a side, but the character of this particular rock was such that it appeared that the + would have been placed on the top. As noted above, the adjacent post does not appear to be old. An old corner post was found nearby, lying on the ground. The conclusion reached while investigating the physical situation at the corner was that the stone was likely disturbed while the corner post was being replaced. The stone, being on the north edge of the hole in which the new post was placed, may have fallen over towards the south. It is not known whether this conclusion is correct, but it is known that the record stone from 1871 was found at the north edge of the post. The the position of the corner was held as the position of the found stone. As stood up the etched + was in the same approximate position as the top of the stone as originally found. Uncertainties of several inches may be associated the position and orientation of the stone. The stone measures 13 inches by 11 inches by 6 inches, as stated in the 1871 record. The harrison monument was set over the etched + mark on the stone, as stood up.

This corner was originally established as a wood post in July, 1821.



Kenneth E. Hedge
 Kenneth E. Hedge, County Surveyor

James S. Swift
 James S. Swift, IN LS 20200054

March 1, 2012

Marion Twp

Section 18
 T19N, R2E

Section 19
 T19N, R2E

PHOTOGRAPHIC DOCUMENTATION

Date of photography: October 12 & 14, 2011

View of the stone as first exposed.



The stone removed from the hole, stood vertical.



Same as above, view from opposite direction.



The harrison monument set over the stone.



The stone placed back in the hole, vertical.



For details and documentation, refer to related sheet "Section Corner Record."