

THE SURVEY  
THE PIONEERS  
AND  
THE LAND OFFICE BUSINESS

# The Survey

- Function of the Department of the Treasury
- Geographer of the United States prior to...
- Surveyor General of the United States
- General Land Office established 1812
- Commissioner of GLO was administrative control operating out of Washington D.C.
- Surveyor General of the various territories (ever changing) reported to Commissioner of GLO
- Deputy Surveyors were under contract with and reported to the territorial Surveyor General

# The Big Names

## Thomas Hutchins

- Geographer of the United States, 1781
- Dies on assignment surveying the Seven Ranges of Ohio.
- British Regular Officer who switched sides to the Americans during the Revolutionary War

# The Big Names

## Rufus Putnam

- Military background.
  - Fought in the French and Indian War
  - Revolutionary War General
  - Fought with Anthony Wayne in campaign against Shawnee and Lenape in Ohio
- 1796, first Surveyor General of the United States
- Fired by President Jefferson

# The Big Names

## Andrew Ellicot

- Laid out original Principal Meridian on P.L.S.S. as Ohio / Pennsylvania Line
- Modified Pierre L'Enfant's plan for Washington, D.C.
- Surveyed Florida and Alabama Line
- Taught Merriwether Lewis about surveying.
- Turned down offer from Jefferson to be Surveyor General of the Northwest Territory

# The Big Names

## Albert Gallatin

- Secretary of the Treasury, 1801-1814
- Hands-on management of early Surveys and Land Office affairs.
- Worked closely with Tiffin and Mansfield
- Left post to become Minister to France

# The Big Names

## Thomas Freeman

- First Plat of Fort Wayne Reserve, 1803
- Much Surveying in Vincennes Area –  
Freeman Lines, Freeman Corners.
- Surveyor General of Mississippi Territory
- Peace Trees

# The Big Names

## Israel Ludlow

- Contracted by Rufus Putnam
- Much surveying in Ohio
- Surveyed the Greenville Treaty Line
- Laid out Ludlow's Meridian within the Greenville Treaty Area
- One of the founders of Cincinnati



# The Big Names

## Jared Mansfield

- Surveyor General of the Northwest Territory 1803-1812
- Major early work in southern Indiana
- Precise, excellent survey work set bar for accuracy.
- Did not approve of Freeman's work near Vincennes
- Refined the Township and Range numbering system
- *General Instructions to Deputy Surveyors*, 1804
- Left post to become Professor at West Point

# The Big Names

## Ebenezer Buckingham

- Deputy Surveyor
- Contracted by Mansfield
- Buckingham's Base Line and Indiana Initial Point
- Much surveying in general area of Vincennes

# The Big Names

## Josiah Meigs

- Replaces Mansfield as Surveyor General of the Northwest Territory, 1812-1814
- Political appointment – doesn't know surveying.
- Appointed S.G. 1812. In 1814 he switches jobs with Edward Tiffin and becomes Commissioner of GLO, for which job he was much better suited.
- First daily meteorological observations.
- Notable Grandson – Montgomery Meigs

# The Big Names

## Edward Tiffin

- Physician from Ohio
- First Governor of Ohio, then U.S. Senator
- First Commissioner of General Land Office, 1812
- Surveyor General of Northwest Territory,  
1815-1829 (Jacksonian purge, plus time to retire)
- Effective and Competent.
- Tiffin's Instructions.

# The Deputies

## William D. Harris

- Extended Second Principal Meridian through Boone County and perhaps much of the New Purchase
- Laid out the 6 mile townships west of the Second Principal Meridian in central Indiana
- Methodical, competent, easy to follow
- Did NOT observe Thorntown Reserve as he laid out the Townships in Boone County
- Much surveying elsewhere, including northern part of Indiana/Ohio line in 1817

<p>← 9/23/1819 —→ William D. Harris</p>	<p>← 9/22/1819 —→ William D. Harris</p>	<p>John D. McDonald</p>	<p>John D. McDonald</p>	<p>John</p>
<p>William D. Harris ↑ 9/19/1819</p> <p>D. Collett, 1820</p> <p>← 9/2/1819 —→ William D. Harris</p>	<p>William D. Harris ↑ 9/20/1819</p> <p>John Collet, 1820</p> <p>← 9/1/1819 —→ William D. Harris</p>	<p>William D. Harris ↑ 9/21/1819</p> <p>Stephen Collet, 1820</p> <p>← ———→ John D. McDonald, 1819</p>	<p>William B. Laughlin, 1821</p> <p>← 12/1/1819 —→ — 10/30/1819 —→ John D. McDonald, 1819</p>	<p>John D. McDonald</p>
<p>WDH ↑</p> <p>8/29/1818</p> <p>D. Collett, 1820</p>	<p>WDH ↑</p> <p>8/30/1818</p> <p>John Collet, 1820</p>	<p>WDH ↑</p> <p>8/31/1819</p> <p>Stephen Collet, 1820</p>	<p>JDM, 1819 ↑</p> <p>10/29/1819</p> <p>William B. Laughlin, 1821</p>	<p>JDM, 1819</p>

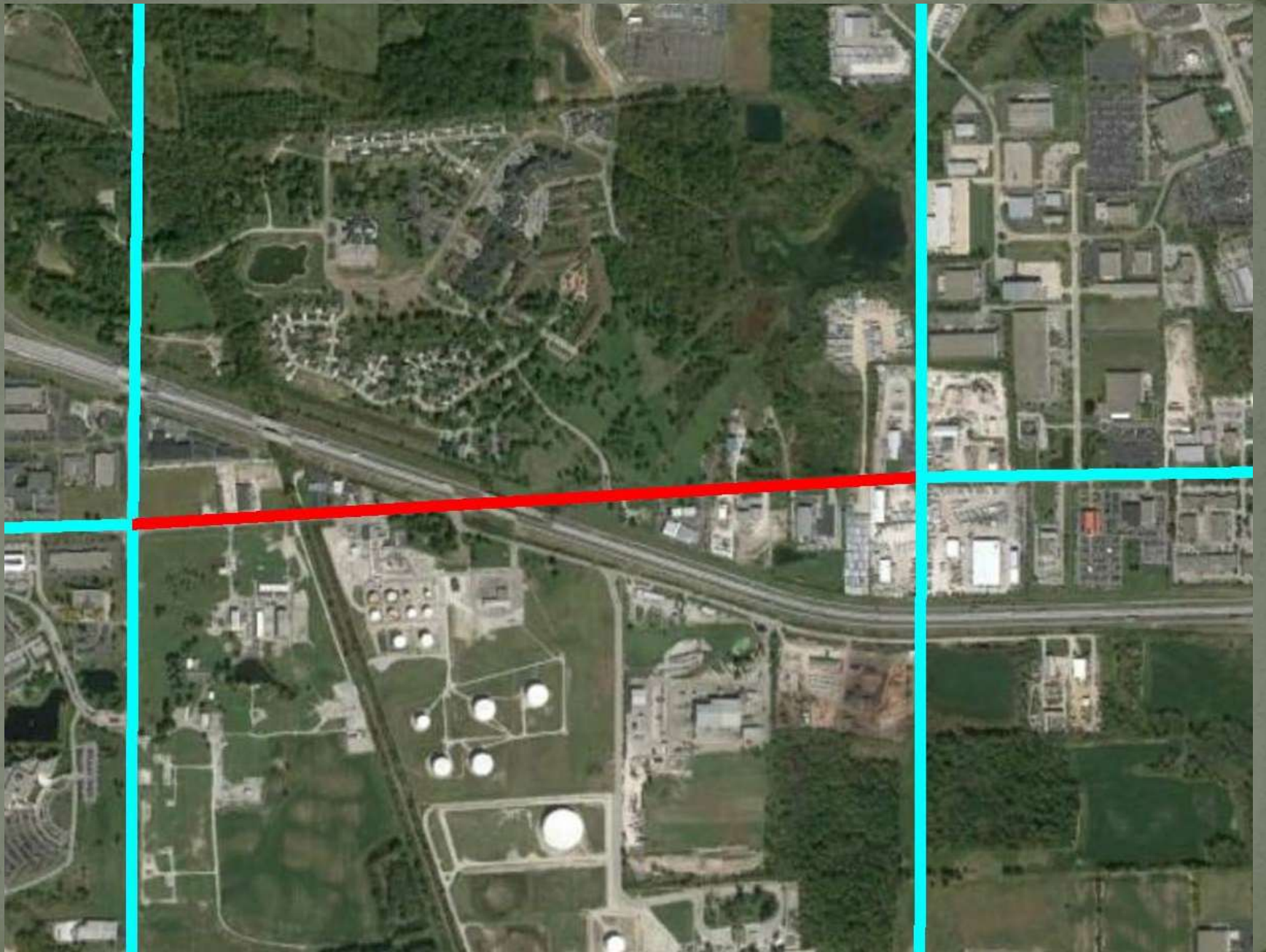
# William D. Harris

Record shows that he surveyed 6 miles per day going west. Going north, he surveyed 6 miles plus had to get back to the P.O.B. for the next day. 6 miles surveying + 12 walking?

# The Deputies

## John D. McDonald

- Laid out the 6 mile townships east of the Second Principal Meridian in central Indiana
- Not methodical, jumps around, NOT easy to follow
- I would put my money on Harris over McDonald every single time!
- McDonald's imprecise surveying is the reason for a big angle in 96<sup>th</sup> St. west of Boone / Hamilton line.
- Surveyed the "Ten O'Clock Line" in 1810-1811. Now there is a story.....





# Boone County Deputies

Townships  
1819  
Subdivide  
1820-1822  
Reserve 1829

<p>↑</p> <p>Thomas Brown, 1822 (non reserve) John Hendricks, 1829 (Indian Reserve)</p> <p>← 10/10/1819 — William D. Harris</p>	<p>↑</p> <p>non reserve, 1822 John Hendricks, 1829 (Indian Reserve)</p> <p>← 10/10/1819 — William D. Harris</p>	<p>↑</p> <p>Thomas Brown, 1822</p> <p>← 12/6/1819 — John D. McDonald, 1819</p>	<p>↑</p> <p>A. Wallace, 1821</p> <p>John D. McDonald</p> <p>JDM, 1819</p> <p>↑ 12/4/1819</p>
<p>↑</p> <p>William D. Harris 10/6/1819</p> <p>Thomas Brown, 1822 (non reserve) John Hendricks, 1829 (Indian Reserve)</p> <p>← 9/23/1819 — William D. Harris</p>	<p>↑</p> <p>William D. Harris 10/7/1819</p> <p>Thomas Brown, 1822</p> <p>← 9/22/1819 — William D. Harris</p>	<p>↑</p> <p>William D. Harris 10/8/1819</p> <p>Thomas Brown, 1822</p> <p>John D. McDonald</p>	<p>↑</p> <p>A. Wallace, 1821</p> <p>John D. McDonald</p> <p>John D. McDonald</p>
<p>↑</p> <p>William D. Harris 9/19/1819</p> <p>D. Collett, 1820</p> <p>← 9/2/1819 — William D. Harris</p>	<p>↑</p> <p>William D. Harris 9/20/1819</p> <p>John Collet, 1820</p> <p>← 9/1/1819 — William D. Harris</p>	<p>↑</p> <p>William D. Harris 9/21/1819</p> <p>Stephen Collet, 1820</p> <p>← 12/1/1819 — John D. McDonald, 1819</p>	<p>↑</p> <p>William B. Laughlin, 1821</p> <p>← 12/1/1819 — John D. McDonald, 1819</p> <p>→ 10/30/1819 — John D. McDonald, 1819</p> <p>John D. McDonald</p>
<p>↑</p> <p>VDH</p> <p>D. Collett, 1820</p> <p>← 8/29/1818 —</p>	<p>↑</p> <p>VDH</p> <p>John Collet, 1820</p> <p>← 8/30/1818 —</p>	<p>↑</p> <p>VDH</p> <p>Stephen Collet, 1820</p> <p>← 8/31/1819 —</p>	<p>↑</p> <p>JDM, 1819</p> <p>William B. Laughlin, 1821</p> <p>← 10/29/1819 —</p> <p>JDM, 1819</p>

	← 9/23/1819 — William D. Harris	← 9/22/1819 — William D. Harris	John D. McDonald	John D. McDonald	Joh			
William D. Harris — 9/19/1819 —↑	D. Collett, 1820	William D. Harris — 9/20/1819 —↑	John Collet, 1820	William D. Harris — 9/21/1819 —↑	Stephen Collet, 1820	William B. Laughlin, 1821	John D. McDonald	
← 9/2/1819 — William D. Harris	← 9/1/1819 — William D. Harris	← 12/1/1819 — — 10/30/1819 —→ John D. McDonald, 1819	John D. McDonald, 1819	John D. McDonald, 1819	John D. McDonald, 1819	John D. McDonald, 1819		
WDH — 8/29/1818 —↑	D. Collett, 1820	WDH — 8/30/1818 —↑	John Collet, 1820	WDH — 8/31/1819 —↑	Stephen Collet, 1820	JDM, 1819 — 10/29/1819 —↑	William B. Laughlin, 1821	JDM, 1819

# The Collett Family

Notable family. Deep Wabash College Connections.  
Good gig as Deputy Surveyors until a certain event.

# Boone County Deputies

William D. Harris, Townships W. of 2<sup>nd</sup> P.M. – 1819

John D. McDonald, Townships E. of 2<sup>nd</sup> P.M. - 1819

D. Collett, J. Collett, S. Collett – 1820

William B. Laughlin – 1821

Andrew Wallace – 1821

Thomas Brown – 1822

John Hendricks, Reserve - 1829

# Actual Survey

- Large self-sufficient crews
- Compass and chain
- 3" x 3" wood posts at corners – scribed with corner info
- Bearing trees at each corner
- Independent lines every 40 chains.
- Report of type & grade of land (early cadastre – GIS)
- Much swampy land in Boone County.
- Paid by the mile – Deputies under contract. MOVE IT!
- No known evidence of fraud in Boone County.
- No meanders in Boone County.
- Thorntown Reserve is the only variation to clean grid.

Source: Manual , Instructions for the Survey of  
Public Lands of the United States 1973, BLM  
Techniccal Bulletin 6 Department of Interior,

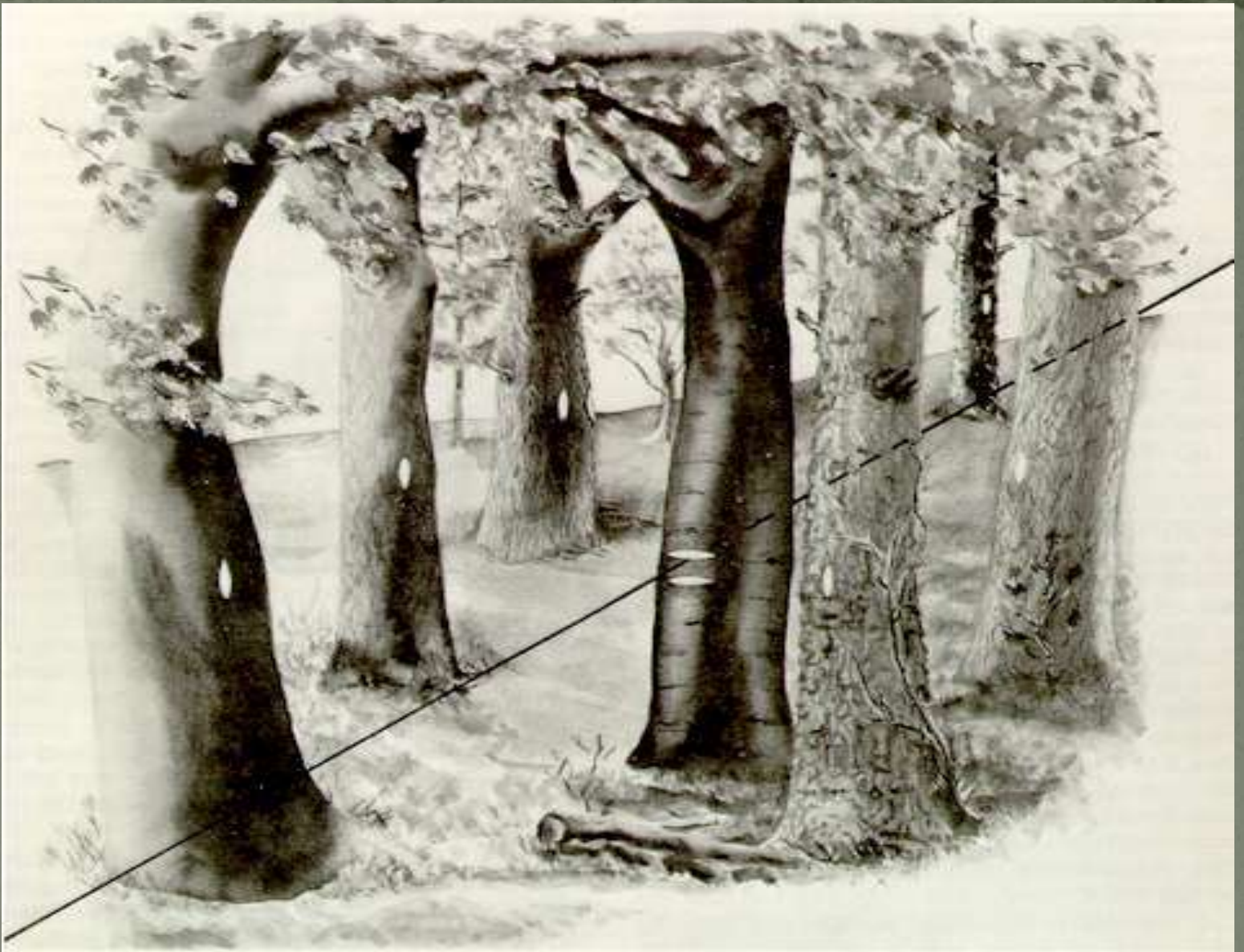
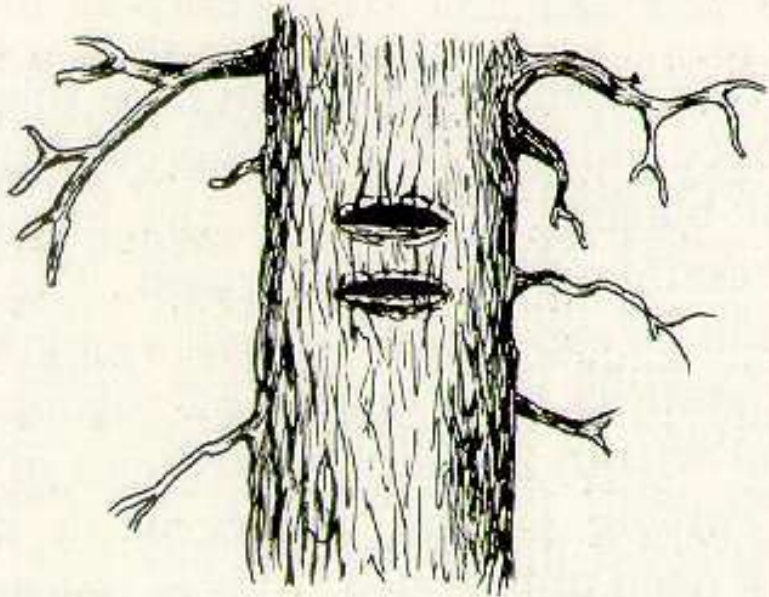
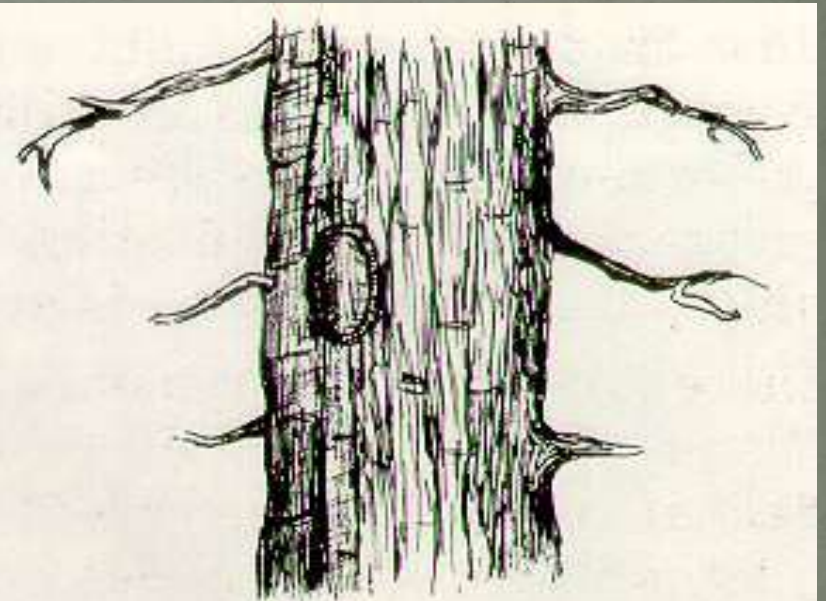


FIGURE 63. - Marking a line through timber.

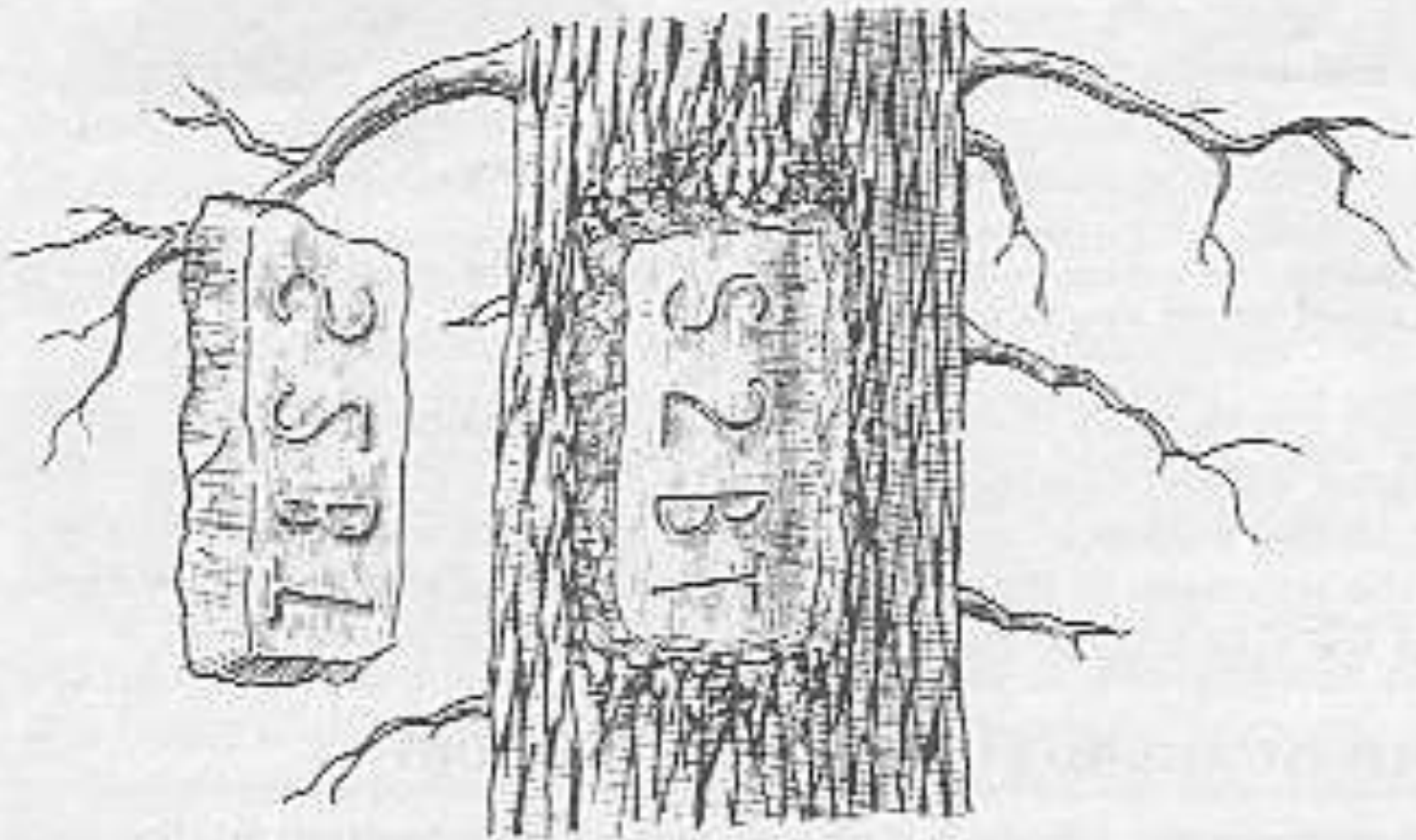


**FIGURE 61.**—Hack marks on a line tree.

Source: Manual , Instructions for the Survey of Public Lands of the United States 1973, BLM Technical Bulletin 6 Department of Interior,



**FIGURE 62.**—A line blaze.



Old bearing tree with overgrowth removed. The original marks are preserved and appear in reverse and relief on the overgrowth.

Source: Restoration of Lost or Obliterated Corners and Subdivision of Sections, U.S. Department of Interior, B.L.M., 1974

SECTION 11 TOWNSHIP 18 NORTH, RANGE 1 EAST.

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DATE	INDEX	WITNESS AND CORNER	SIZE	DIRECTION	DISTANCE				
					Chains	Links	1/2	1/4	
	9	Top of Oak Established on time Set Rocks	45	S 58 W	10	5	9	15	50
		Wch Oak	5, 12, 6	marked + on top		2	8	39	80
			14	North	7	2	8	39	74-50
Apr 6, 1869 W. R. Adrich Jas. Shank Ch. C. By David McBurns. C. S. C.	D	A stone that was set who doubted		Chopped Beech and found mark to satisfy some				40	18 and
	e	Set two Rocks One	5, 4, 2	marked +				20	09
		Top Rock	18, 12, 8	" "					
	Co	Placed the Rock deeper	27, 20, 8	in ground					
	B	Disputed Therefore		chopped into Oak found mark					
		Set two Rocks One	4, 5, 3	marked +					
		Top one	20, 16, 13	+					
		Wh Oak	19	S 8° E		68			
		Wh Oak	27	S 57 1/2 E		99 1/2	B 1	39	95 1/2
		Poplar		S 6° E			1 "	19	99
	11	Set two Rocks One	7, 5, 4 1/2	marked +					
		Top Rock	12, 16, 6	" "					

# The Boone County Surveyor's Record - 4/6/1869

D – A stone that was set. Chopped Beech and found mark to satisfy some who doubted.

B – Disputed. Therefore chopped in Oak. Found mark.

Set two rocks. One 4,5,3 marked +. Top One 20,16,13 +.

Wh Oak 19 [in], S 8 E, 68 [lks] Wh Oak, 27 [in] S 57 1/2 E , 99 1/2 [lks]



The field surveyors left the land physically delineated:

Posts at corners

Bearing trees  
witnessing corners

Original lines  
physically marked.

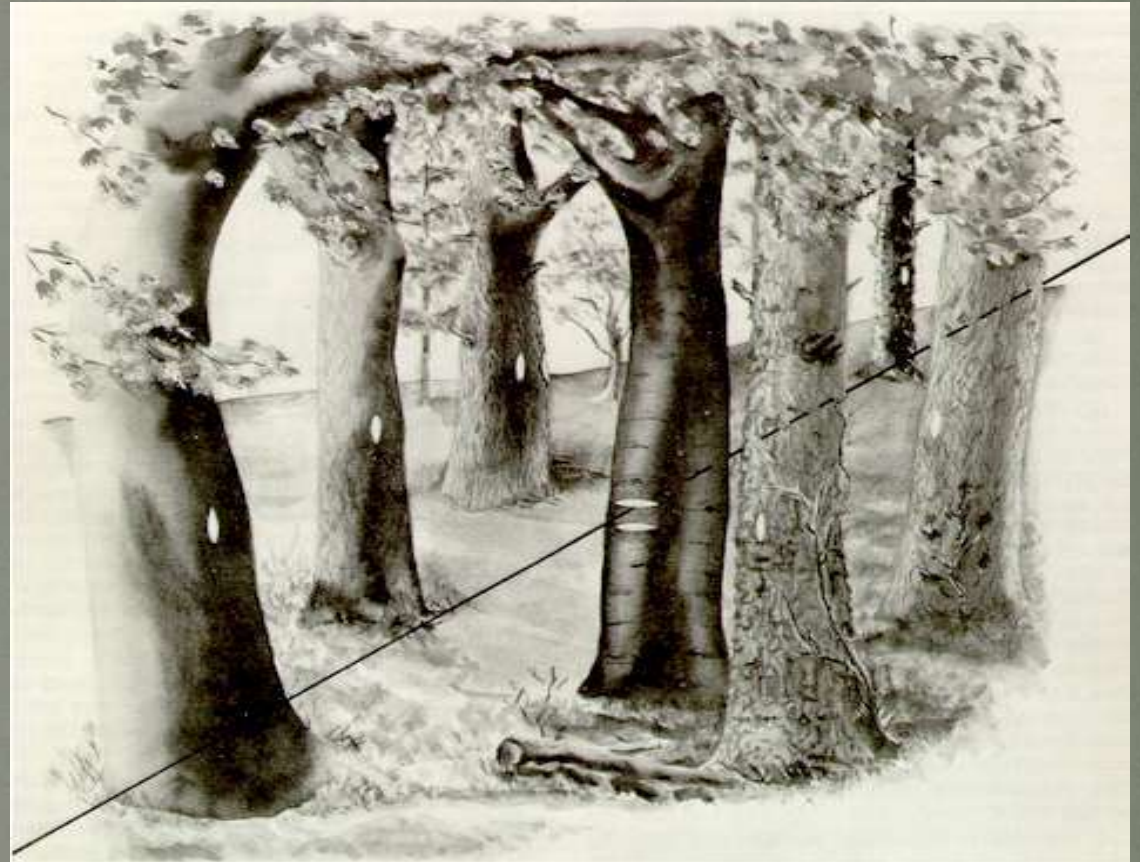


FIGURE 63. - Marking a line through timber.

The field surveyors also made written field notes of the survey describing measurements and land types.

The government used the notes to produce an official plat of the section.

The plat was available for review by potential purchasers prior to auction at the regional Land Office.

The original landowners could find the marks left by the surveyors, including pre-surveyed, well marked section lines.

# The Land Office Business

Sale of Public Lands at Land Offices

First by auction, then by general sale

Township plats were available for review at the Land Office.

Township plats acted as informative GIS and as the primary record at time of purchase.

Modern surveyors are interested in the original field notes but the original purchasers only had the plat.

# The Land Office Business

## One Big Problem.....

- Indiana Statehood 1816
- New Purchase 1818
- Financial Panic 1819
  - Caused in part by unrestrained land speculation - AND
  - Result of massive volcano in S.E. Asia (Mt. Tambora, 1815)
  - Ash coverage caused several cold years in Europe
  - Agricultural Chaos – Famine.
  - U.S. Credit Markets froze
  - Land Office Business slowed considerably
  - But Hey! The World got Frankenstein out of it. 😊

# Federal Land Offices



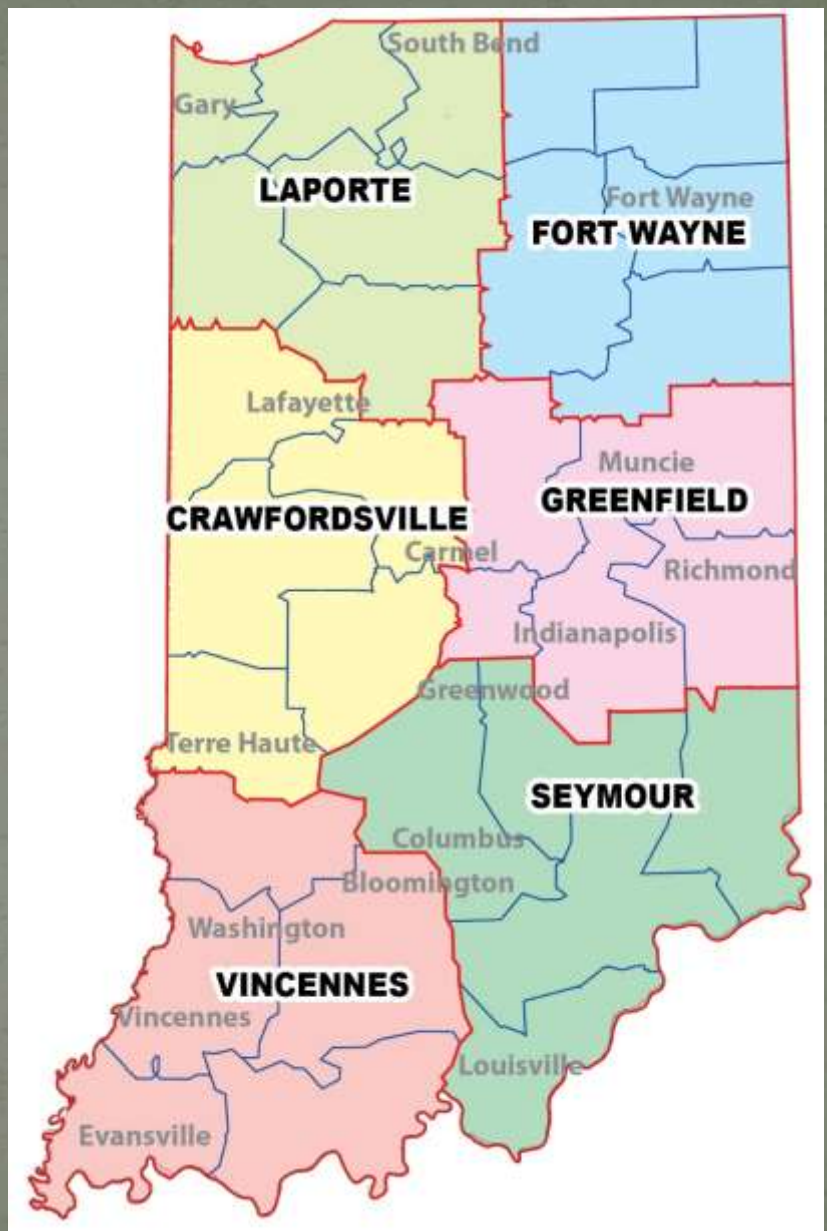
Source: The Land Office Business, Malcolm J. Rohrbough, Oxford University Press, 1968

# Indiana Land Office Districts



# Indiana DOT districts







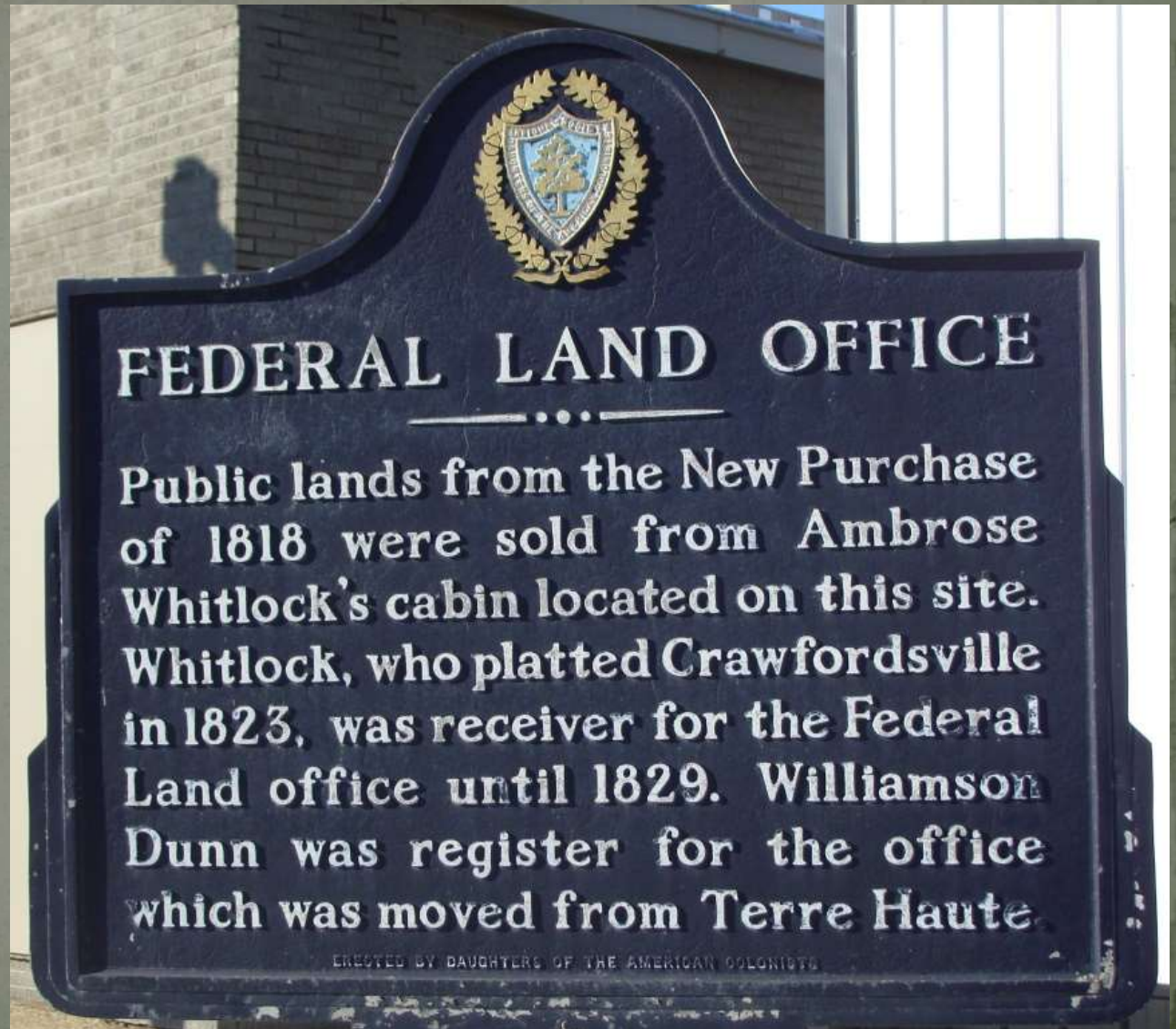
# The Land Office Business

The  
Crawfordsville  
Land Office

Whitlock  
Dunn &  
Ristine

Whitlock and  
Dunn – see  
sign.

Ristine owned  
the tavern!



# Ambrose Whitlock

- Soldier from Virginia, rose through ranks to Major
- Helped construct Fort Washington (Cincinnati) in 1789
- Fought under General Wayne at Battle of Fallen Timbers, 1795
- Helped construct fort at Fort Wayne after Fallen Timbers
- Close personal friends with with William Henry Harrison, his fellow officer from Virginia.
- Witnessed Harrison & Tecumseh meet in 1811, Vincennes.
- Paymaster of the Army for western operations. Danger!
- Founded Crawfordsville, 1823
- Receiver of Public Lands at Crawfordsville until 1829.

# The Land Office Business

The big Land Office Auction

Now that is something I would like to see.....

# The Pioneers

The Pioneers were the first to handle the evidence of the original survey.

Patent Deed in hand, they found their way to their parcel where they found the section corners and lines marked.

What did they do then?

# The Pioneers

I think one of the first things they did was cut down the trees along the section lines to make wagon roads for access.

Think about it – by destroying the evidence of the line they preserved the location of the line.

Because the section lines had been so well marked, the wagon roads ended up EXACTLY on the section lines.

# The Pioneers

What did they do with that post at the corner....?

# The Pioneers

In many cases they likely removed it and replaced it with a rock.

In Boone County we call these  
**PIONEER ROCKS.**

Typically

- Large
- Oriented in Cardinal Directions
- Not Marked
- Reference by measurement,  
but not description, in records.



# The Pioneers

In any case, the wagon roads ended up on the section lines.

Gradually the County Road system developed along the section lines. A Boone County specialty!

And Boy Howdy, they are right on the lines.



# Wagon Roads

1932 Map

Indiana

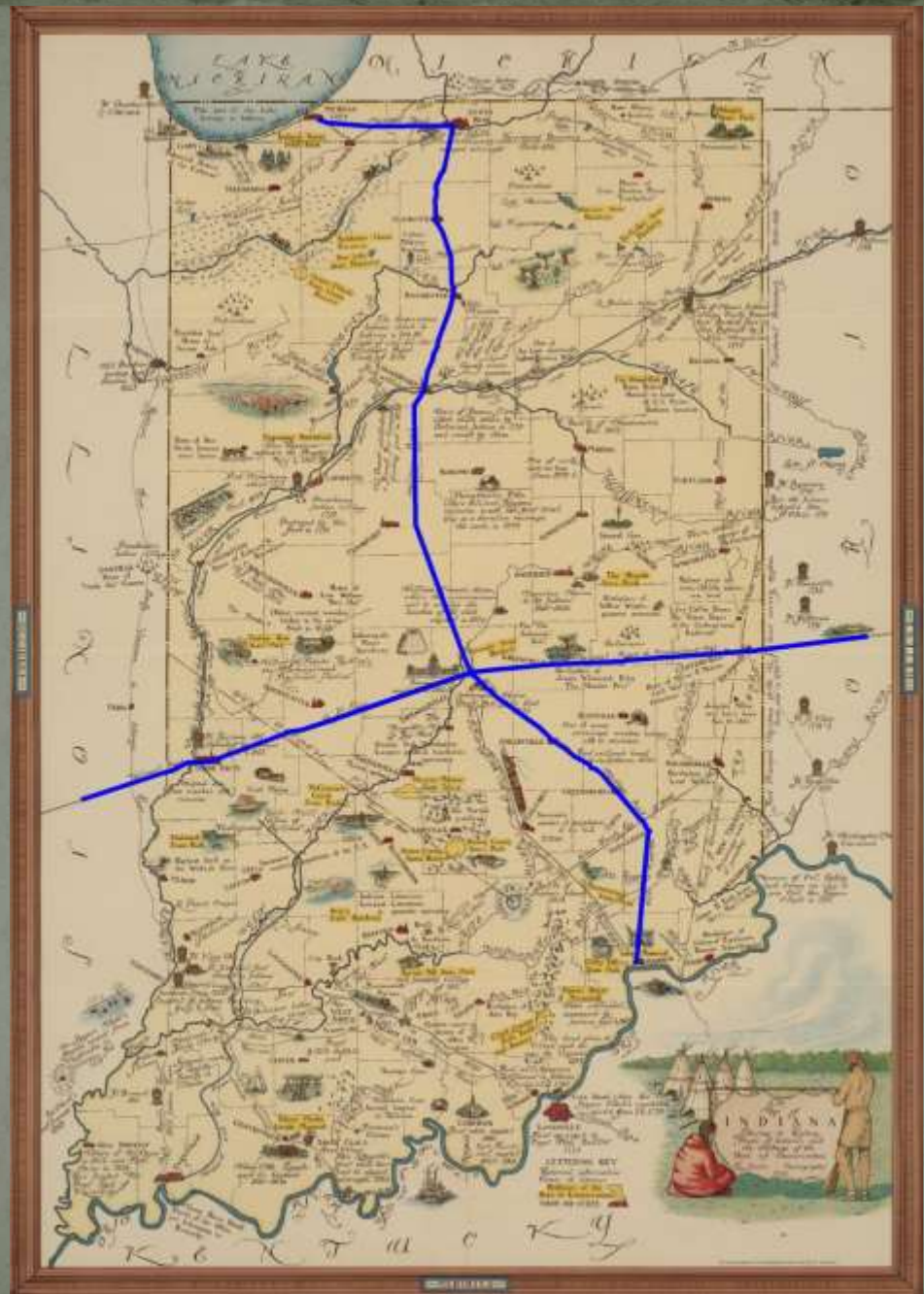
Department of  
Conservation



# Wagon Roads

Michigan Road  
and  
National Road

Federally funded



# Wagon Roads

## The Michigan Road – mid 1800s

The track was passable during the eight months of the year when the weather was favorable but throughout the winter season it was a meandering stream of mud practically useless for travel.

In the central portion of the State, the Michigan Road crossed a level plain covered with woods so dense that the rays of the summer sun penetrated rarely to the forest floor carpeted with leaf mould which retained the accumulated moisture with the avidity of a sponge.....

Source: [www.fhwa.dot.gov/interstate/artgallery.html](http://www.fhwa.dot.gov/interstate/artgallery.html)



# Wagon Roads

## The Michigan Road

The 100-foot-wide right of way for the road through the Pottawatomie Indian lands, between the Wabash River and Lake Michigan, was obtained by a treaty consummated October 16, 1826. The subsequent survey, begun in 1828, located the left-hand right-angled turn at South Bend in order to avoid the soft Kankakee River swamps.

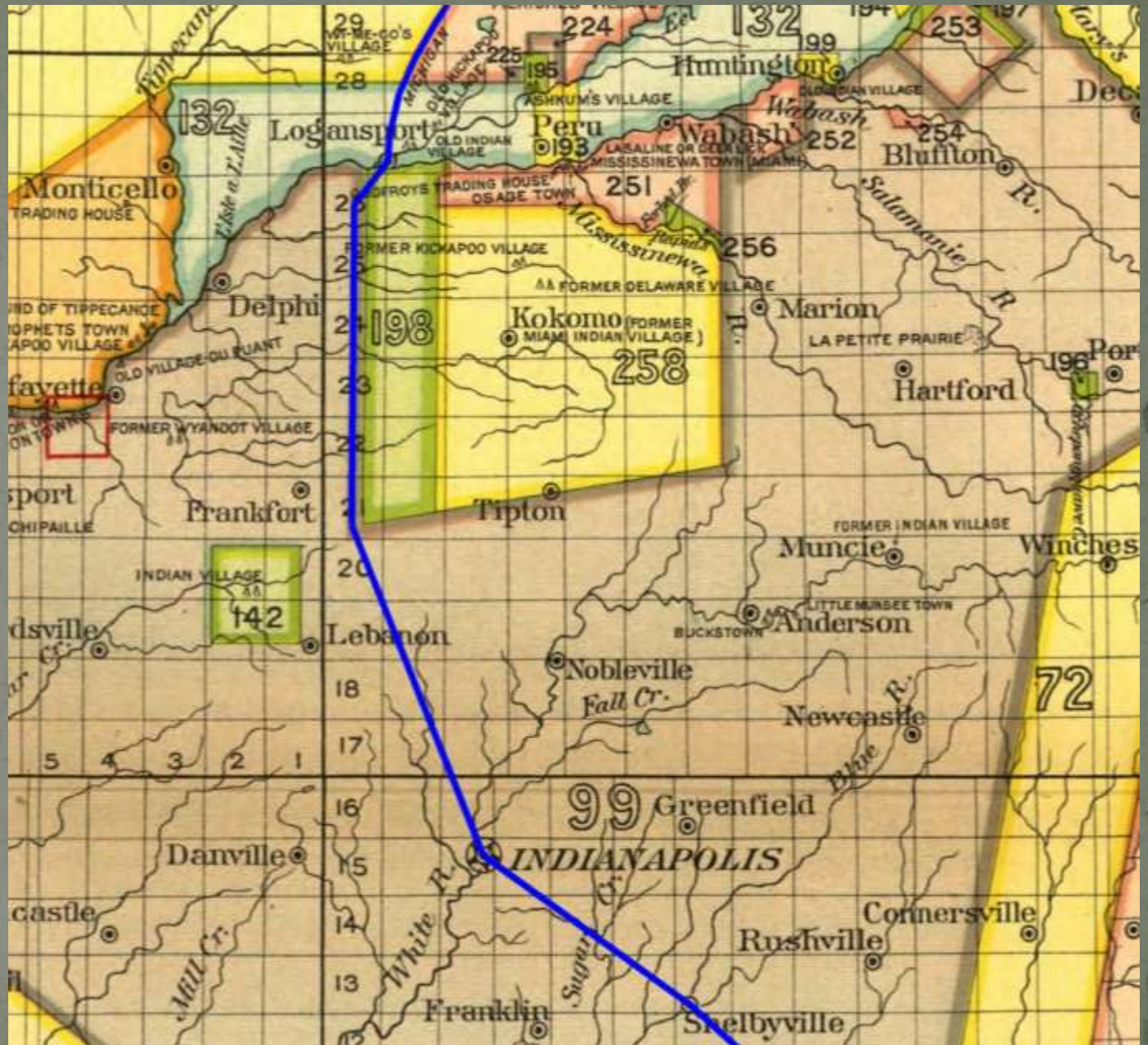
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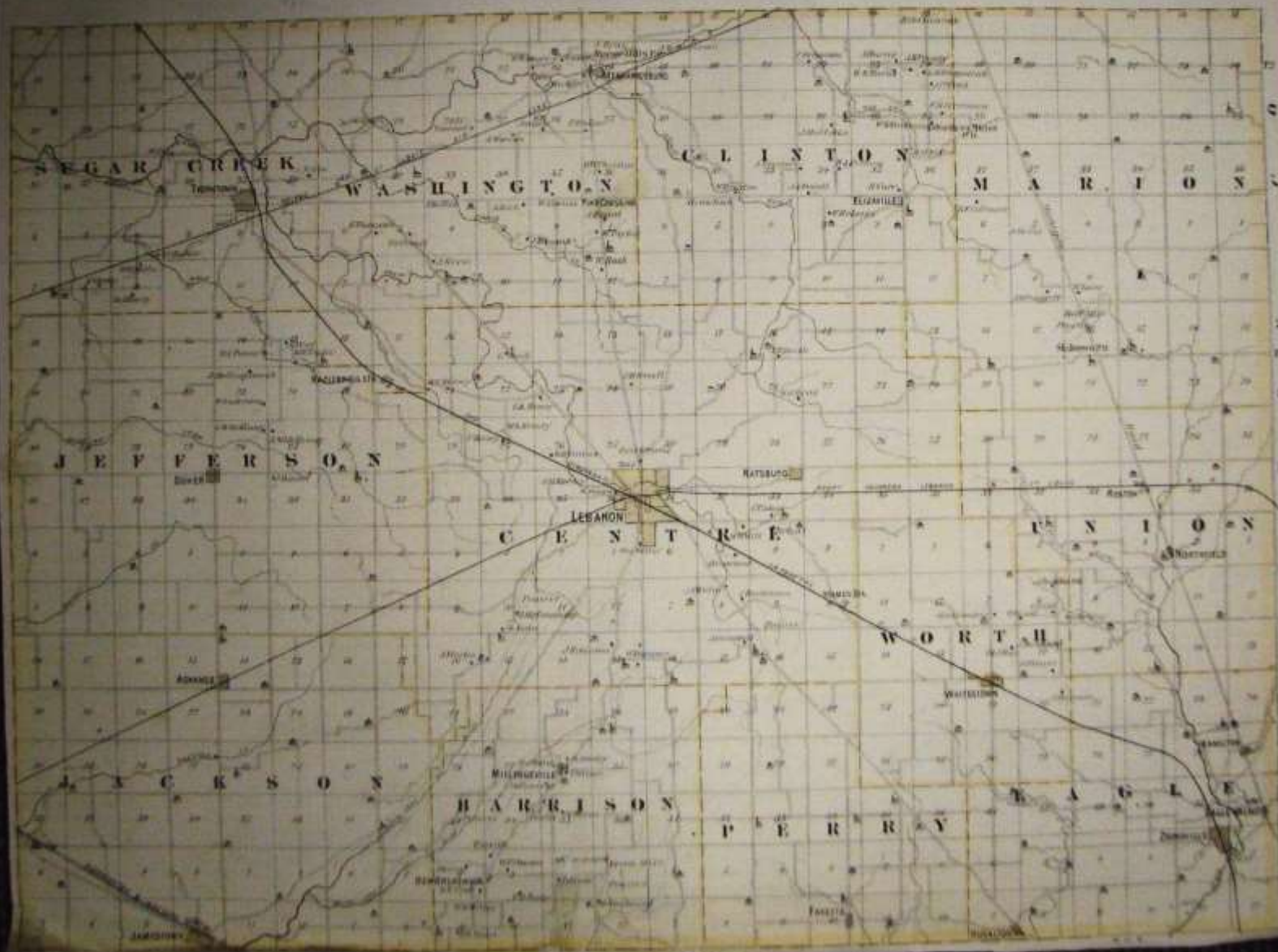
# Wagon Roads

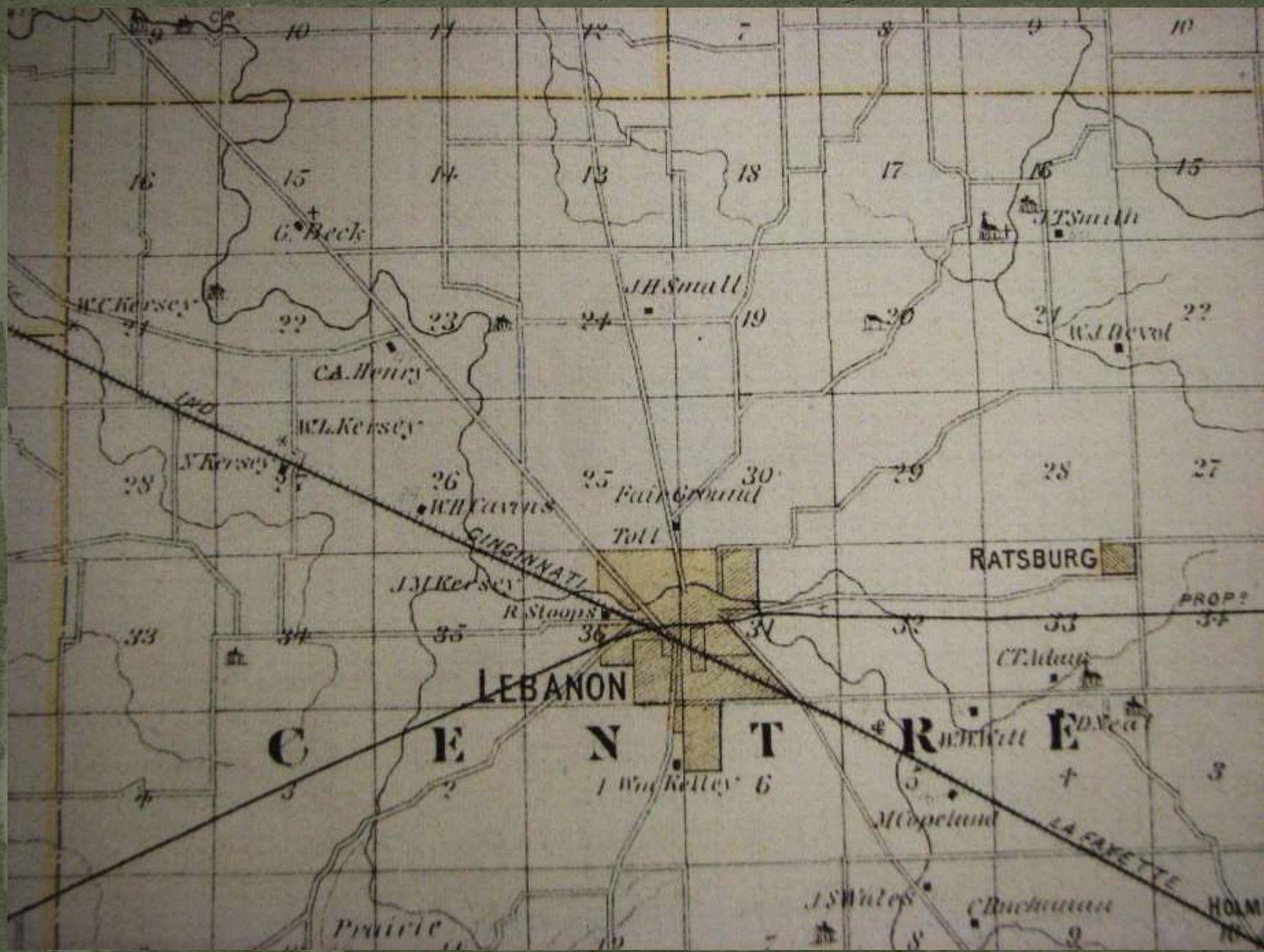
Michigan  
Road and  
The  
Great  
Miami  
Reserve



MAP OF **BOONE** COUNTY.

1876





G. Beck

J.H. Small

J. Smith

W. DeVol

C.A. Henry

W.L. Kersey

Fair Ground

Toll

RATSBURG

J.M. Kersey

R. Stoops

LEBANON

C.T. Adams

C E N E T R E

J. Wm. Kelley

M. Copeland

J.S. Wiles

C. Buchanan

Prairie

HOLM



# Wagon Roads

Early wagon roads tended to be rough, muddy and impassable in certain conditions.

Mid-1800s – Indiana Legislation permitting private companies to seize existing roads with Commissioner's Authorization.

Improve roads and charge tolls –  
GRAVEL ROAD synonymous with TOLL ROAD.

Not popular with the pioneer landowners.

# Wagon Roads

1877 – Indiana Legislation enabling the County Commissioners to improve roads with revenues from assessment of land within two miles of the road.

This leads to the FREE GRAVEL ROAD.

Special Session August 6 1879

And on due consideration had in the premises the Board  
 appoint John S. Black, John M. Shaw & Henry M. Mann  
 Viewers and David M. Burns Engineer, and for the purpose of  
 making said view and survey will meet at the Auditor's Office  
 at eight o'clock A.M. on the 25<sup>th</sup> day of August 1879 and qualify  
 and proceed to view, mark and locate said road and make  
 a Report of the same at the Regular session in September 1879

Petition for Free Gravel Road from Lebanon to New Brunswick

State of Indiana 3<sup>rd</sup>  
 Boone County 3<sup>rd</sup> To the Honorable Board of Commissioners of  
 the County of Boone and State of Indiana

Boone County Road Record – subset of Commissioner's Record.

8/6/1879 Petition for Free Gravel Road from Lebanon to New Brunswick

before the first day of next term of Commissioners Court

Jacob C. Stuckey  
P. B.

**Notice for Free Gravel Road**

Name of Petition for free gravel road is J. H. Green and Charles ...  
by James M. Small and James K. ...  
at ... in Boone County, Missouri.

NOTICE is hereby given that at the March Term, 1892, of Commissioners Court of Boone County, Missouri, in presence of James M. Small, James K. ... et al. The Board appointed ...

Wednesday, the 12th Day of April, 1892, and after being duly sworn as such viewers and engineers will proceed to examine ... the cost of maintaining a certain road in Boone County ...

Mt. Zion Free Gravel Road  
the Master of the Report of Viewers and Engineer on  
Mt Zion Free Gravel Road Petitioned for by James Rank

of Indiana }  
Boone County } S.B.

In Commissioners Court  
June Session 1892

Mt. Zion Free Gravel Road  
Report of Viewers & Engineer

Boone County Road Record – 1892, Clipping of Public Notice included with Petition for Free Gravel Road.

# Wagon Roads

Eventually some roads are taken over from the county by the state and become STATE ROADS.

Lebanon to New Brunswick Free Gravel Road is now State Road 39.

# Wagon Roads

Why the fascination with wagon roads and the details of their development?

Because, in many cases, section corner stones are in roads. To find the old corner stone, one must find the old road.

To find the old road, one is well served to know about the development old roads.











# Wagon Roads

Do gravel roads move?

# Wagon Roads

Yes, they sure do!

# Wagon Roads

Meet my friend Charlie

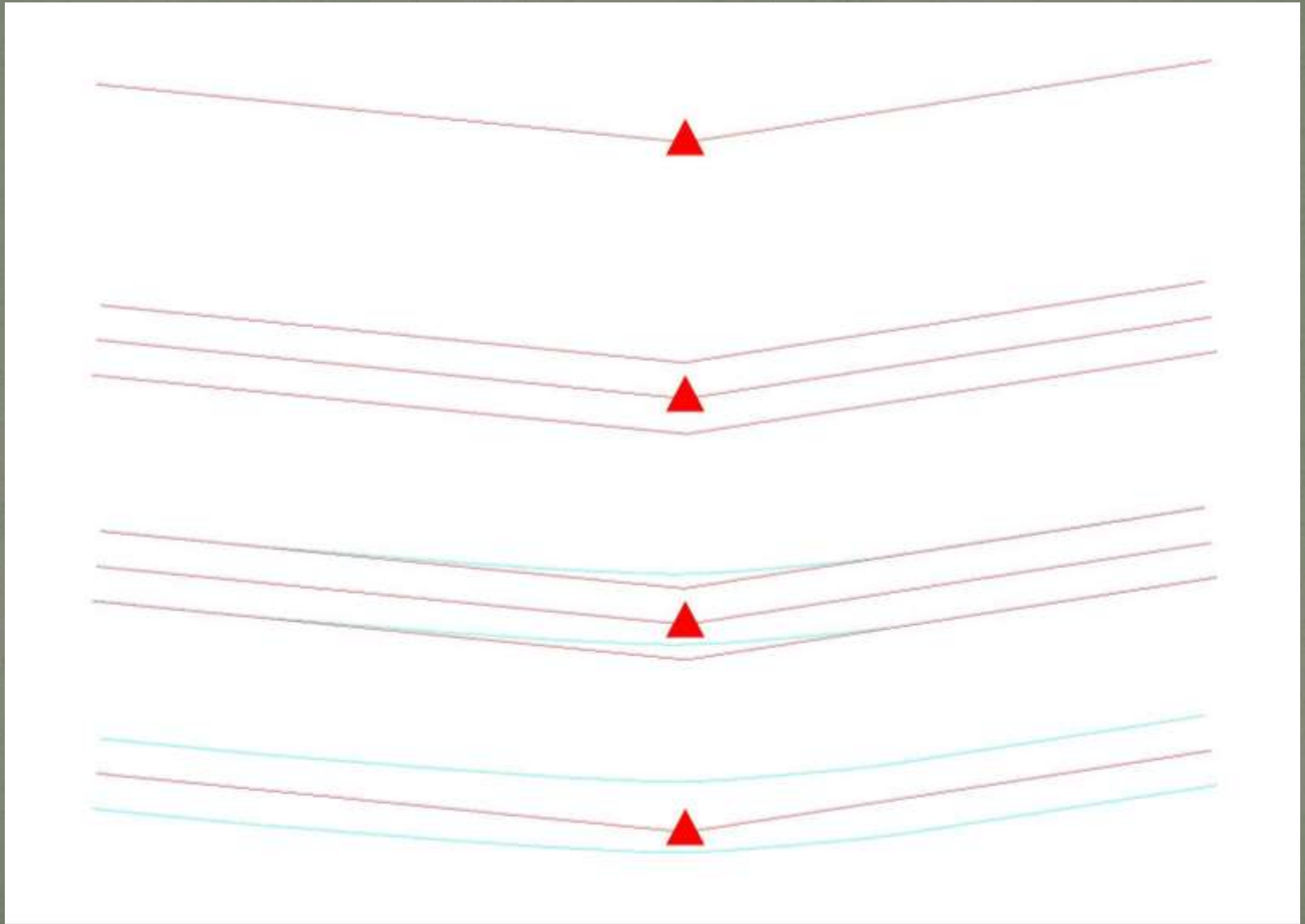


# Wagon Roads

and his 260,000 dollar, six wheel drive, fully computerized, gravel road displacement device.



# The Magical, Mobile Gravel Road



# Wagon Roads

But do roads remain reliable evidence of the original section lines?

YES! The very best evidence!

My Mantra: If we can find the wagon road,  
we can find the section corner.



THE BOONE COUNTY  
SURVEYOR'S RECORD



Aug. 3 1870	10	Set 4 rocks A Stake	10, 7, 5 marked + on N side	Tree as before				
By D.M. Burns C.S.B.C.		Poplar	23	S 25 W	22 1/2	5	10	20 00
	11	A Stake				4	2	40 22 1/2
		Beech	17	N 85 W	144	2	14	20 11
July 13, 1871		From 3 to 4 20.06.				3	2	20 06 1/2
By D.M. Burns C.S.B.C.		East on same	10.50	center R.R. Prince East				2 35
	7	Set Rock	16, 8, 6 marked +					
	H	Reestablished from both trees						
		Set two Rocks. One	7, 6, 3 +					
		Top One	11, 8, 5 +					
	A	The corner of both Sects 5 & 32 reestablished from stump of Elm and a Stake.						
		Set two Rocks. One	9, 6, 5 1/2 +					
		Top one (limestone)	15, 6, 5 +					
	H	See line (var 350) 18.43 from A & A						
		Set two Rocks. One	14, 7, 5 +					
		One under it	5 1/2, 5 1/2, 4 +					
		Also from N North to center R. Prince S 60 1/2 E 1210						
		Prince S 88 1/2 W 10.50. With South line of track to beginning.						
		Containing 3.39 acres.						

7/13/1871 By D.M. Burns, C.S.B.C.

H – Reestablished from both trees

Set two Rocks. One 7,6,3 +, Top One 11,8,5+

A – The corner of both Sects 5 & 32 reestablished from stump of Elm and a stake. Set two Rocks.....

SECTION 16 TOWNSHIP 18 NORTH, RANGE 1 EAST.

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DATE	INDEX	WITNESS AND CORNER	SIZE	DIRECTION	DISTANCE		DISTANCE	
					Links	Links	Links	Links
By W.W. Huchetup C.S. Dale	H	Reestablished by intersecting lines & found an old red oak stump to correspond with the bearing tree. Set Rock Rock	23, 10, 10 + 14, 9, 8; marked W	N 45 W				
July 2 <sup>nd</sup> 1878 By W.W. Huchetup C.S. Dale	Tract	S. School House Lot. Begins at 2 <sup>nd</sup> Thence East 6.95 to center of driveway + Royalton Gravel Road, Thence with same S 45° E 3.65, Thence West 8.33 Thence North 2.50 to beginning. Contains 2 Acres.						34

4/5/1877

H - Reestablished by intersecting line & found an old red oak stump to correspond with the bearing tree.

Set Rock 23, 10, 10 +.

Rock 14, 9, 8 marked W N 45 W, 34 [links]

## SECTION 8 TOWNSHIP 19 NORTH, RANGE 1 EAST.

93

DATE.	INDEX.	WITNESS AND CORNER.	SIZE.	DIRECTION.	DISTANCE.		Folio	P.	DISTANCE.	
					Chains.	Links.			Chains.	Links.
Surveyed May 5 1876 By M. L. Bunker & S.	5	Set a Rock 12.12. by q + 20.01 from S + 2 1/2								
Apr. 22 1880 By Thomas H. Luchter S. J. S. & S.	D	A Rock 20.8.3 which was set stump of NW tree agrees marked the rock + - thence South 39.68 to E								
	E	Reestablished - tree has fallen but is here and retains mark set rock 15.9.9 + on top. Thence North 19.84 to d								
	d	where set a rock 12.10.10 + on top.								
	b	Established corner set rock 18.11.8 in + 2 smaller rocks on sides of it.								

4/22/1880

Corner D – A Rock 20.8.3 which was set – stump of NW tree agrees – marked the rock + - thence South 39.68 to E.

Corner E – Reestablished – tree has fallen but is here and retains mark – set rock 15.9.9 + on top.

## SECTION 22 TOWNSHIP 20 NORTH, RANGE 2 EAST.

417

13

DATE	INDEX	WITNESS AND CORNER	SIZE	DIRECTION	DISTANCE		DISTANCE	
					FOOT	INCH	FOOT	INCH
		+ also two white rocks but by the under						
		a white oak	40 in	S 50° E				
		thence south 10.98 to						
		re established and in digging for to stake						
		rocks found a stake in grading driven						
		nearly 3 feet deep. Then I looked for and found						
		where Elm stood by roots. Set two						
		Rocks, One 16.9 by 5 1/2, Top One 17.13 by 9 in.						
		A rock 18.11 by 6 in. brs S 49 1/2 E, 40."						
		thence south 9.02 to						

2/18/1869

“Reestablish and in digging for to place rocks found a stake in grading driven nearly 3 feet deep. Then I looked for and found where Elm stood by roots. Set two Rocks, One 16.9 by 5 1/2, Top One 17.13 by 9 in. A rock 18.11 by 6 in. brs S 49 1/2 E, 40.”

# Center of Section

Center quarter corner shown here established in 1839 as part of the subdivision of section.

Review of the BCS Surveyor's Record indicates that most center quarter corners had been established and documented by the County Surveyor prior to 1850, or soon thereafter. Many marked by stones.



DATE	INDEX	WITNESS AND CORNER	SIZE	DIRECTION	CHAINS	
					Links	Links
Surveyed Oct. 17 1890 By D.M. Parsons C.S. of B.C.	H.	Re Established from one tree	Set a Rock 12.10 by 6 + 4	four small ones under it		
	D	Found point from which a Walnut	20 in 1 1/2 W	65		
	1	A stake from which two stones bear	north 22 1/2 links one stone 5.4.2 (hole in	both ends) Top one 16.8.6 +		
	2	Two rocks 5.4 by 2 1/2 + 2.0 2 and 9.6 by 4 1/2	+ 5.6 Red Oak 30 in 1 1/4 W	3 lbs		
		H to D 78.84 Bar 4' 22'				
		D " 1 39.42				
		1 " 2 9' 2 to H 17.71				
Surveyed April 27 1898 John W. Fulwider, Dept. J. J. Ashley, C.S. B.C.	D	Established; drove harrow tooth, from which	a rock S 49 E 45 lbs; also a rock N. 45° West 25	links each with hole in top, & a small rock on top of each.	1 2 1/2	1 2 1/2

Top Entry (H) – Reestablished from one tree. Set a Rock 12.10 by + & four small ones under it.

Bottom Entry (D) – Established; drove harrow tooth from which a rock S 49 E..... (Note, BCS tie card of May 23, 1968 record says “No stone, set 30 inch rail.”)



SECTION 14 TOWNSHIP 19 NORTH, RANGE 1 EAST.

141

DATE	INDEX	WITNESS AND CORNER	SIZE	DIRECTION	DISTANCE		E	S	DISTANCE	
					CHAINS	LINKS			CHAINS	LINKS
Oct. 16, 1912. Miss M. Dodd C. S. T. C.	2.	Reset from stump of Oak, found cotton rock in place. Dug deeper and replaced same rock.								
	a.	Established, set a Rock 12 x 4 lbs & marked +. With six tin chips placed under it, from which a Red Oak 14" bears S. 25 W. 18 links.								
	3.	Established, set a rock, 12 x 2 x 5 marked +. A Red Oak 6" br. N. 40 E. 22 links, and a Red Oak stump 12" br. S 25 E 7 links.								
	F	Drove a Red-bud stake.								
	f.	Established. Set three rocks. One 6, 6, 4 + Middle one 8 x 6 x 4 + Top one 10 x 8 x 7 + From 2 to a 40.00 & a to 3 & 3 to 2. 20.00. " 2 " 7 40.20. " 4 " 7 f 20 19.88. " W " a & a to b 19.75. April, 19, 1886. W. F. Quar. C. S. T. C.								

10/16/1912

Corner F – Drove a Red-bud stake. Thanks!

That's a lot of help one hundred years later.

Re-est. by  
stake

Viewers.

Early  
parcelization

Jan. 12 <sup>th</sup> 1872 D.W. Brown C.S.B.C.	2	Re-established by stake. Stake 20 Stake 12 Stake 10 Re-established in stone	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2
Sept 5 <sup>th</sup> 1879 D.W. Brown C.S.B.C.	4	Established cor 5332 17.13 by Min + Stake Established cor 5332 Rock 15.13 x 10 in + on top	4	4	4	4	4
Examined July 16/87 By J. F. Kahley C.S.B.C.	7	Stone already set and correctly located .6 c. 29.67 from survey of 1872 bearing true of original line very. Run line from S to E, 15 locate line of new Highway. Vectors: - 16 x 10 in + on top	7	7	7	7	7
Surveyed Oct 25/1886 By Oliver Clark Esq. B.J. Moore C.S.B.C.	4 5 6 7	Established corner 9.10 $\frac{3}{4}$ ch. from B Set Rock 16x12x9 Mar + Set Rock 12x10x6 " + " 12x15x8 " + Established corner 7.08 $\frac{3}{4}$ ch. from r Set Rock 18x8x6 Mar + tract 4-5-6-7-r-w-v-u contains 21.31 A.	4 5 6 7	4 5 6 7	4 5 6 7	4 5 6 7	4 5 6 7

SECTION 17 TOWNSHIP 19 NORTH, RANGE 1 EAST. 169

DATE	INDEL	WITNESS AND CORNER	SIZE	DIRECTION	DISTANCE		FOOT	IN	DISTANCE	
					Chains	Links			Chains	Links
March 9 1886 By M.D. Brown C.S.B.C.	4	Re-established by measurement (& found point of stake) Set rock 20, 14, 12 + on top North 10 feet 20.18.12								

Re-established by measurement (& found point of stake)  
Set rock 20, 14, 12 + on top. With North 10 feet 20.18.12

			Green	12.9.14	St. 2 E. 1/2	26
			Br. Oak	24	St 67N	17
			Br. Oak	11		
Oct. 4	1880	18	Set rock	12.9.14		
"	"		"Double" Walnut	10.6.6	on top of it ±	176 2006
"	"	f	Found from	5.7.6	1/2 + 5/8	1948
"	"		the stump of		Millikin's beech (green) and	
"	"		Taylor's Poplar	10.6.4	Rock	
"	"		Rock	8.6.5	marked	3 inches
"	"		Rock			

10/4/1880 - Referencing to bearing trees from previous Boone County Surveyor records:

"Found from Millikin's beech (green) and the Stump of Taylor's Poplar."

[Millikin – 9/13/1850 Taylor – 8/23/1854]

12/13 & 12/26,  
1871

Disputing the  
original federal  
survey and  
moving the  
quarter corner  
to a straight  
line.

Hmmm?

I guess, what  
with "all seeing  
its justice."

SECTION 24 TOWNSHIP 20 NORTH, RANGE 1 EAST		433			
CORNER	WITNESSED AND COURSE	BEAR.	DISTANCE	ADJACENT SECTIONS	
				NO.	BEAR. DIST.
E	Re established by running the line from the 25 <sup>th</sup> north to the 10.40 to the 1st range line and was about the same place but not sure that of the line from the middle part of corner lots 199 30 to a rock 14.10 7+	N 10° W	33		
	<i>note.</i> and that Thomas Brown in 1822 found a mistake in running the south line of this section. He mentioned in the the corner of 19430 (to corner of by W. Hall at about high 1821). But the corner of sections 25 and 26 the Government as the corner by was established in 1819 by John Barnes (25-321) and that is the corner that finds me and in there and is the Re established above. Then the line between the sections was straight and by general consent to that corner and its justice all seems its justice Re established in straight line due south of where it was before at a rock N. 8. 8+ and there small ones under it or around it				
	On Ash Rock 13. 8. 6+	N 15° E	144		

SECTION 34 TOWNSHIP 20 NORTH, RANGE 1 EAST

513

19

DATE	INDEX	WITNESS AND CORNER	SIZE	DIRECTION	DISTANCE		DISTANCE	
					CHAINS	LINKS	CHAINS	LINKS
Surveyed Sept 8 1861 T.M. Burns C.S. 70 C.	2	Re-established	new					
	3	Re-established Set Rock 14.16 by 8 in	16 in	N 22° W	12	10	10	30
	2	Re-established from trees One 6.5 by 5 in angle	6.5 x 5 in	N 22° W	16	10	10	30
Surveyed December 30 1863 T.M. Burns C.S. 70 C.	n	Rock Marked .1.	20 in	N 22° W	12	10	10	30
	o	Rock Marked .1.	20 .	N 22° W	16	10	10	30
	n	Set Rock Marked .1.	10 in	N 22° W	20	10	10	30
	n	Set a Marked Rock.	6 .	N 22° W	24	10	10	30
Feb 13 1872 by T.M. Burns C.S.	4	Stone (lost the description)	from 2 to 3 30, 4 in bar 3 30					3 to 4 19.59 1/2

10/8/1861 – Reestablished from trees. Set Rock 28.16 by 8 in. I directed one of the party to mark it as we forgot it.  
2/13/1872 – Stone. I lost the description.

Surveyed					
July 17 1865	73	Re-established some evidence of a tree and by finding the intersection of lines found a small rock at corner and deep under that found point of a stake. Set two Rocks One 12.6 by 6 marked + Top Rock 14.9 by 8 in marked +	16 in	35 1/2 in	31
D.M. Burns					
C.S.M.					
	73	Set Rock 19, 12 by 12 in mark across top Walnut stump 12 in 1 8 1/2 in Walnut 2 " 8 1/2 in	12 in	1 8 1/2 in	23
	1	Re-established from Hickory stump Set two rocks One 14.12 by 12 in marked + on top Top Rock 16.16 by 12 in marked +			67

7/14/1865 – Reestablished. Some evidence of a tree and by finding the intersection of lines found a small rock at corner and deep under that found point of a stake. Set two Rocks One 12.6 by 6 marked +. Top Rock 14.9 by 8 in. marked +.”

SECTION 33 TOWNSHIP 18 NORTH, RANGE 1 EAST.

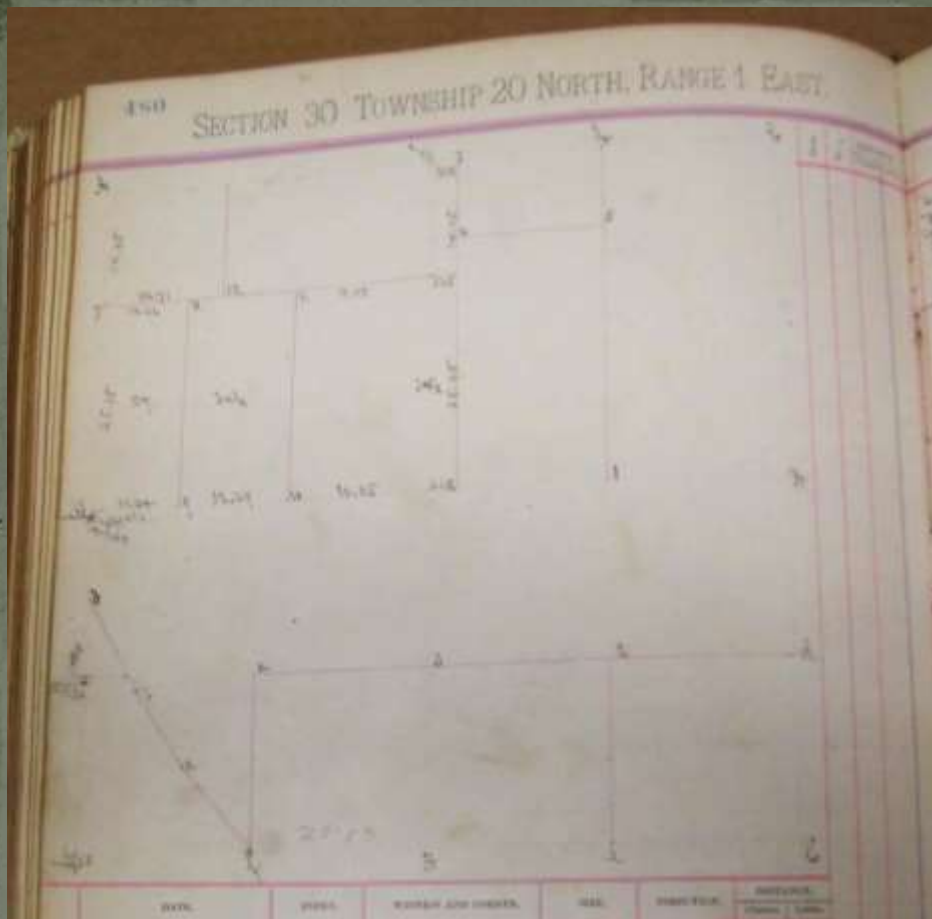
4115

DATE	INDEX	WITNESS AND CORNER	SIZE	DIRECTION	DISTANCE		DISTANCE	
					CHAINS	LINKS	CHAINS	LINKS
Apr 5, 1871 By W. Burns A. B. B.	B	Poplar Reestablished at intersection of lines. Set two Rocks One 5 1/2, 5, 4 +	50	N 75° W			20	15
	a	Pop One Reestablished from stump of Ash	14, 10, 6 +			7	4	20

4/5/1871 – Reestablished at intersection of lines.  
Set Two Rocks One 5 1/2, 5, 4 +, Top One 14, 10, 6+.

Feb 20, 1873 By W. Burns A. B. B.	B	Pop One Reestablished from S.E. Poplar, the other had just been dug out Set two Rocks One 13, 9, 6 +	12, 8, 7 +			5	6	20	142
		Pop One (sandy) A Rock Set two Rocks One 12, 8, 7 +	18, 14, 17 +	S 63° W	253	6	12	15	00

2/20/1873 – Reestablished from S.E. Poplar, the other had just been dug out.  
Set Two Rocks, One 13, 9, 6 +, Top one (sandy) 18, 14, 17+.



This page contains handwritten notes and a continuation of the survey grid. The text is dense and difficult to read due to cursive handwriting. On the left side, there are some legible words: "Surveyed", "20/24", "20/24", and "20/24". The main body of the page is filled with several columns of text, likely detailing survey measurements, bearings, and distances.

2/24/1879

f – Reestablished.....

Being called upon to survey the line from f to 3 in accordance with a deed calling for all that part of the W. frac. West of a certain road which has been recently damaged by crowding the fences to the East, I surveyed the route as I could recognize the same from remain of the old track and information from parties well acquainted with the same with the following result.....



Post in  
cottonwood  
thicket

No date,  
copied from  
other record

August 19,  
1950.

Various  
descriptions,  
stumps,  
stones, brick  
bats

SECTION 35 TOWNSHIP 19 NORTH, RANGE 1 EAST. 309

DATE	BY	WORKS AND OTHERS	DIAL	MAGNITUDE	MAGNITUDE		MAGNITUDE	
					1	2	3	4
William Davis / William S. ...	f	Stake of oak P. oak	15	4 70 S	10	5	1	1883
Surveyed Sept 10 1867 By Wm. Davis CS-20C	4	Stake of oak P. oak	20	4 65 S	50	5	6	20.55
	5	Stake of oak P. oak	15	3 50 W	25	5	4	20.55
	4 & 8	Post in cottonwood thicket		3 20 W	31			
	3	By lat 95-1/2 lat of R. by chain 2. found point from which Road runs NW north 21/2 lat 30 N 30 W 21/2						
Set about W. ... from 1851/18 by ...	7	Established ... from 1 ... Set rock + 14. 12. 8						
		Surveyed by ... 19 Aug 1850 ... ... ... 10 20 00			E-E 1320			... ... ... Smith
					E-S 1330			
					S-1 1327			
					1-7 1318			
					7-F 1306			

Surveyed	6	Established from a stump of ... ... 13.6. 52 + ...						
Set - 1871	7	Established from stump of sugar ... ... 10. 45 1/2 ...						
By ... CS	6	Established ... 11. 6 + Oct 1871 11. 10. 8 + ... 14 3. 7 1/2 E Established ... 20. 10. 32 + ... 20 11. 4 1/2 + ... 20 11. 296						

9 H	see d feet 18. Chopped notch out of B. Oak (See Sec. 18)
6 H	Also found S.W. original stump and rock at corner. Clinton County Surveyor had set Rock N 18 W, 14 links from proper place. Established set Rock, 13.8.6 + found from this stump which is entire. Chopped out notch 9

8/18/1879

H – Chopped notch out of B. Oak (See Sec. 18). Also found S.W. original stump and rock at corner. Clinton County Surveyor had set Rock N 18 W, 14 links from proper place.

		on rock	18, 17, 16 +				
Surveyed by B. F. Barber C. S. B. C. Sept. 4, 1901.		D.	Found stone in center of road, fences indicated corner. Rubi line 10 to C.				
	18.	Estab. Cor. Set Rock.	5 x 19 x 20 under +	A	C	20	73
		Top Rock.	5 x 10 x 19 marked +.	C	2	40	312
	19.	Set Rock.	3 x 6 x 5 1	2	19	10	30 1/2
		Top "	5 x 10 x 19 +	19	3	10	30 1/2
		Point 18 is on line with R & C		C	18	10	41 1/2
		" 19 " " " " 2 & 3.		18	K	10	40 1/2

9/6/1901

D – Found stone in center of road, fences indicated corner.

By [unclear] Dept							
June 25 1867	A	A Stone that was set		A	B	79	20
Elias Lovett +	B	An old stake in pond found from Ash		18	2	19	87
David D. Doyar	2	Rock	18, 14, 12 marked + on top	2	1	19	83
Ch. C.		Wh Oak	24 87 3/4 W	83 1/2	1	A	39
By D. M. Burns		Sump Ash	12 A 3 1/2 E	59	1	F	240
Ch. C.	1	Rock	13, 12, 5 marked + on side	39	E	39	57 1/2
		Buzz Oak St	48 813 W	28	E	2	19
		Sycamore	30 A 34 W	91	2	2	40
	e	Set of rough Rock	20, 8, 6 marked + on st.				
		Beech	8 A 45 3/4 W	19			
		Pine	2 254 E	4			

6/28/1867

H – A Stone that was set.

SECTION 32 TOWNSHIP 20 NORTH, RANGE 1 EAST.

497

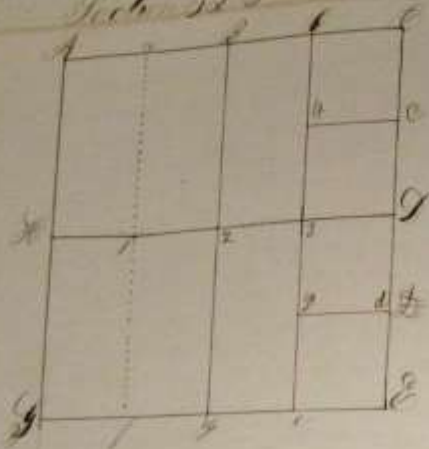
DATE	INDEX	WITNESS AND COURSE	SIZE	DIRECTION	DISTANCE		DIRECTION	
					FEET	INCHES	DEGREES	MINUTES
April 23 <sup>rd</sup> 1862 C.C. Wm. Bennett Jr. Unsurveyed June 23 <sup>rd</sup> 1862 Wm. Bennett C.S. & B.C.	806	Found by measuring the lap						
	2	Found "stone" with corner set to E 76° 40' N at 4.9 by 5 1/2 Set two rocks 7' and 7' 20" by 16" marked X Top Rock 28.18 by 10 in marked 1 For other notes and explanations see Record No 4 Pages 136 & 137						
	6	Set two rocks 4.9 by 5 1/2 Top Rock 28.18						

6/2-3/1862

E – Found by measuring the lap. Drove no stake.

F - Set two rocks, one 7.5.5 in X. Top Rock 28.18by10 in marked 1

For other notes and explanations see Record No 4 pages 136 & 137.



Commenced at 1. a corner  
 with a square mark 15 ft. which  
 proved to be by stepping into one  
 bearing tree

East from 1 on station was 47  
 37.45 Dist. station line 101 links S of 2nd

West from field from 1 was 54  
 37.65 Dist. station from corner  
 East from 1 on station was 47  
 37.45 Dist. station line 101 links S of 2nd

17.33 Corner at 1  
 18.00 Re Est. Set Two Rocks under  
 one 6. 2. 16 Top one 2. 4. 16. 1. 8. marked +

Corner at 1 investigated with  
 bearing tree gone could not tell  
 exactly where it stood. But could  
 see that an ash tree near 2 was  
 stepped into a sugar tree and the

for mark plainly to be seen  
 I then Re Established the corner  
 from this tree set Two stones  
 under one 2. 2. 16 Top one 2. 4. 16. 1. 8.

I was required to Re Est the 2nd  
 foot corner at 1 on south station.  
 Corner lost and both trees gone  
 I then went to south West corner. At  
 this also I found both trees gone I  
 then went to corner of lots 5 & 6 from  
 ship 11. here found a stone at corner  
 and also one bearing tree. I then  
 went off the top West to West 265  
 links. and Re Est the corner of  
 sections 31 & 32. Set Two Rocks  
 under one 8. 2. 8 Top one 2. 4. 16. 1. 8.

East from 1 on station was 47  
 37.45 Dist. station line 101 links S of 2nd  
 West from field from 1 was 54  
 37.65 Dist. station from corner  
 East from 1 on station was 47  
 37.45 Dist. station line 101 links S of 2nd  
 I then went to the corner of 4 & 5  
 from 13. Both of the trees were  
 (I suppose) but a line that I found to make  
 I then went to the corner but there is  
 something wrong in the notes. I find  
 by examination that I can get there  
 out of the four data by placing the  
 corner the proper corner and distance  
 from the 2nd line the corner to the 3rd  
 corner is right. I then went  
 west the lot of 16 years in full  
 notes. To West 373 links. for the  
 corner sections 32 & 33. but please  
 see measurement at other corner

found many plenty to be seen  
I then Re Established the corner  
from this tree Set Two stones  
under one 3. 2 24. Top one 22. 15. 8.  
marked X on top

I was required to Re Est the Duran.  
Soct corner at I on South of Section.  
Corner lost and Both trees gone  
I then went to South West corner. G.  
this also is <sup>lost</sup> and both trees gone. I  
then went to corner of Sects 5 & 6 Town  
Ship 19. here found a stone at corner  
and also one bearing tree. Then mea-  
sured off the lap West. To Wit 265  
links, and Re Est the corner of  
Sections 31 & 32. Set Two Rocks  
under one 8. 7. 5. Top one 24. 16. 8.

Surveyed Aug 10 1868 Paul S.M. Burns C. & S. E. Locators in & on Island Oct 20 1868	+	Rock 12.10 by 5 12 in Re established of both trees marked + by blue to Hickory Rock 5.4 by 3 in marked +	Marked + 12 in 16.13 by 12 in by blue 20 4 500 rods all	2 35 73 1 06	4 6 6 4 6 4 8 2 2 6 6 8 8 6	20.98 19.00 19.00 20.57 10.54 10.00 10.00 10.00	53 53 53 53 53 53 53 53
--	---	--	--	--------------------	---	--	--

Reestablished from stumps of both trees. Rock 16.13 by 12 in.

230 SECTION 1 TOWNSHIP 18 NORTH, RANGE 2 EAST.

DATE	EDGES	WITNESS AND CORRED.	SIZE	DIRECTION	DISTANCE		DISTANCE
					From	To	
Sept 28 + Oct 14, 1891 James R. Barb C.S.B. & Thomas W. Kenchatep Dept Chain Carriers	D	Found rock of proper size but mark worn off by wagons remains of Elm to correspond with witness Remarked rock + and lowered it to level of road.					
	No	Found by intersecting the section with the line from west through Sect. 10 Set rock mark					

9/28 & 10/14, 1891 - Found rock of proper size but mark worn off by wagons – remains of Elm to correspond with witness. Remarked rock + and lowered it to level of road.

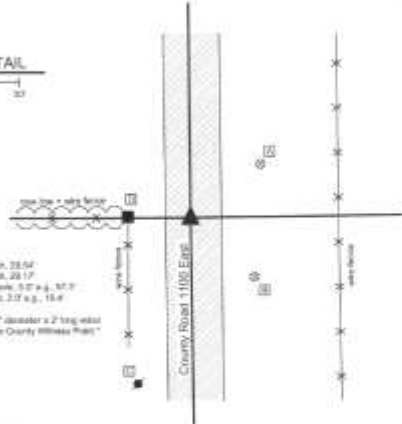
**SECTION CORNER RECORD SE 150-1100**  
**BOONE COUNTY SURVEYOR'S OFFICE**

State Plane grid coordinates NAD83 (NAD83 2011):  
 North: 1739127.94 East: 5193324.63 (U.S. survey feet)  
 Type of monument: Harrison, 4" disk "Section Corner"  
 Depth: One inch below adjacent road surface

Indiana tie card references:  
 IN02\_T18NR2E11\_36  
 IN02\_T18NR2E12\_44

**CORNER WITNESS DETAIL**

SCALE 1" = 30'



- A - Boone County witness mark, Bush, 28.5"
  - B - Boone County witness mark, Bush, 28.1"
  - C - Mag nail set in N.E. side power pole, 5.2' x 8.5"
  - D - Mag nail set in N.E. side wood post, 3.0' x 8.5", 15.4"
- Boone County witness mark is a 10" diameter x 2" long metal bearing a metal tab stamped "Boone County Witness Mark"

This Harrison monument was set over a stone found.  
 A BCS record of August 12, 1868 states "Re Established from stumps of both trees. Rock 16.13.12 in marked +." A BCS record of September 28 and October 14, 1891 states "Found rock of proper size but mark worn off by wagons remains of Elm to correspond with witness. Remark rock + and lowered it to level of road." A BCS tie card dated May 31, 1991 shows the corner as a road nail found. This corner was excavated on April 22, 2009. Prior to excavation a road nail was visible 2 inches deep in a hole in the asphalt. Excavation revealed the record stone found at 24 inches deep. The stone measures 13 inches N-S by 12 inches E-W by 16 inches tall. A vague but discernable etched "+" is on top of the stone. The mark is more discernable by feel than by sight. The Harrison monument was set directly over the etched "+" on the stone. The road nail, removed during excavation, had been 0.3 foot north and 1.4 foot east of the stone.  
 This corner was originally established as a wood post in July, 1821.



*Kenneth E. Hodge*  
 Kenneth E. Hodge, County Surveyor

*James S. Swift*  
 James S. Swift, IN LS 20200054  
 July 14, 2010



**BOONE COUNTY SURVEYOR'S OFFICE SE 150-1100**

**PHOTOGRAPHIC DOCUMENTATION**  
 Date of photography: April 22, 2009

View of the stone as first exposed



View of the stone from above and west



View of the stone from above and east



View of the stone and the wood end post on the east axle of the road.



View of the stone from above, showing the etched mark barely visible on the top of the stone.



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

The Harrison monument was set over a stone found.

A BCS record of August 10, 1868 states "Re Established from stumps of both trees. Rock 16.13.12 in marked +." A BCS record of September 28 and October 14, 1891 states "Found rock of proper size but mark worn off by wagons remains of Elm to correspond with witness. Remark rock + and lowered it to level of road." A BCS tie card dated May 31, 1991 shows the corner as a road nail found. This corner was excavated on April 22, 2009. Prior to excavation a road nail was visible 2 inches deep in a hole in the asphalt. Excavation revealed the record stone found at 24 inches deep. The stone measures 13 inches N-S by 12 inches E-W by 16 inches tall. A vague but discernable etched "+" is on top of the stone. The mark is more discernable by feel than by sight. The Harrison monument was set directly over the etched "+" on the stone. The road nail, removed during excavation, had been 0.3 foot north and 1.4 foot east of the stone.

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



Jan. 31<sup>st</sup> 1880

Thomas W. Huckstep  
C. B. Cole

D

Containing 2 acres.

Note. Being required to make a survey in this Section and Sect 20, I was informed that there had been an appeal taken on Mr D. M. Burns's survey recorded as above (see Survey March 2<sup>nd</sup> 1863) and (No 6, p 271 & No 4, p 117. afterwards) and there being no record here of such appeal I examined the records of the Clerk's Office and found in the files of the Circuit Court March Term 1867 a report made by John Buck Deputy Surveyor of Montgomery County who made a resurvey on Dec 6 & 4. 1865. Found

Set back from which

the Oak

22

N 82 1/2 E

92

which being

the same tree marked by David Burns makes Buck's corner 108 links S. and 60 1/2 W of Burns' corner appears to make the last line

1880 – Thomas W. Huckstep protects the honor of his mentor and father-in-law David M. Burns.

Summary – Someone appealed Burns' survey. The Court ordered a new survey by John Buck, Deputy Surveyor of Montgomery County, Indiana who marked the quarter corner 108 links west of Burns corner, creating a bend in the line.

SECTION 19 TOWNSHIP 20 NORTH, RANGE 1 WEST.

DATE	INDEX	WITNESS AND CORNER	SIZE	DIRECTION	DISTANCE		REMARKS
					CHAINS	LINKS	
							<p>straight, while Buck's makes not only a bend here but also at C &amp; E, but having the sanction of the court I recognized it although there is nothing to show that it was the original point except that former surveyors had taken (or mistaken) it as such in subdividing the section.</p> <p>d. E. L. Set rocks, two.</p> <p>1871 1346 +</p> <p>d. B. 20 00</p>

Huckstep doesn't believe the position of the corner set on the resurvey, "but having the sanction of the court recognized it although there is nothing to show it was the original point except that former Surveyors had taken (or mistaken) it as such in subdividing the section.

May 15 <sup>th</sup> , 1896	d	Set Rock 8x10x14+	3476	33	4	f	20.16
By John W. Fulwider L.S. B. L.		The work was done, all parties being present and giving consent.			e	6	20.16
					f	7	20.04
					f	e	20.04

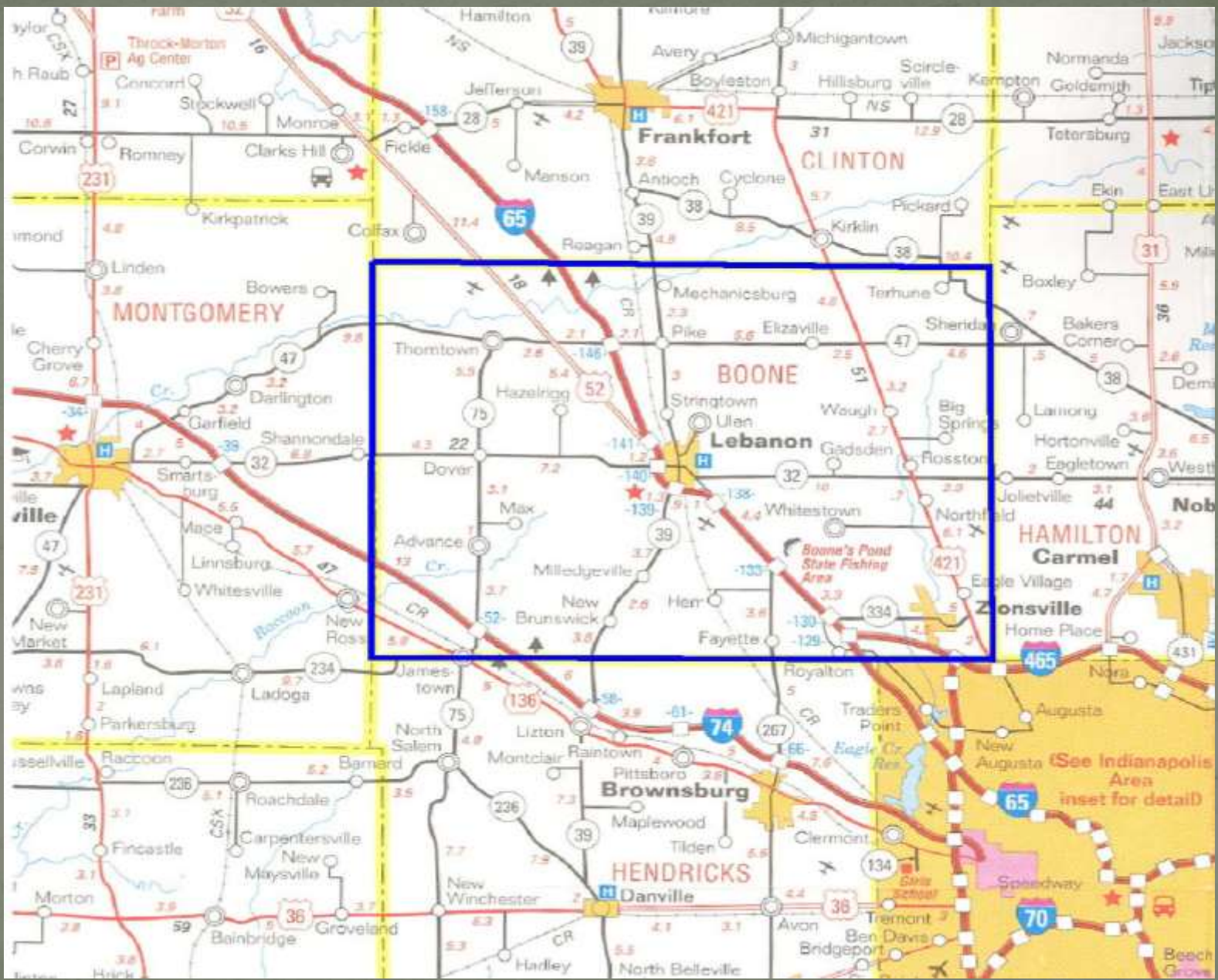
5/15/1896 – d – Set Rock 8 x 10 x 14+ The work was done, all parties being present and giving consent.

INDEX	WITNESS AND CORNER
D	Found stone at D, center of road a recognized corner Run line D to Set rock 8x10x14 under +

3/12/1888

D – Found stone at D, center of road, a recognized corner.

# Boone County



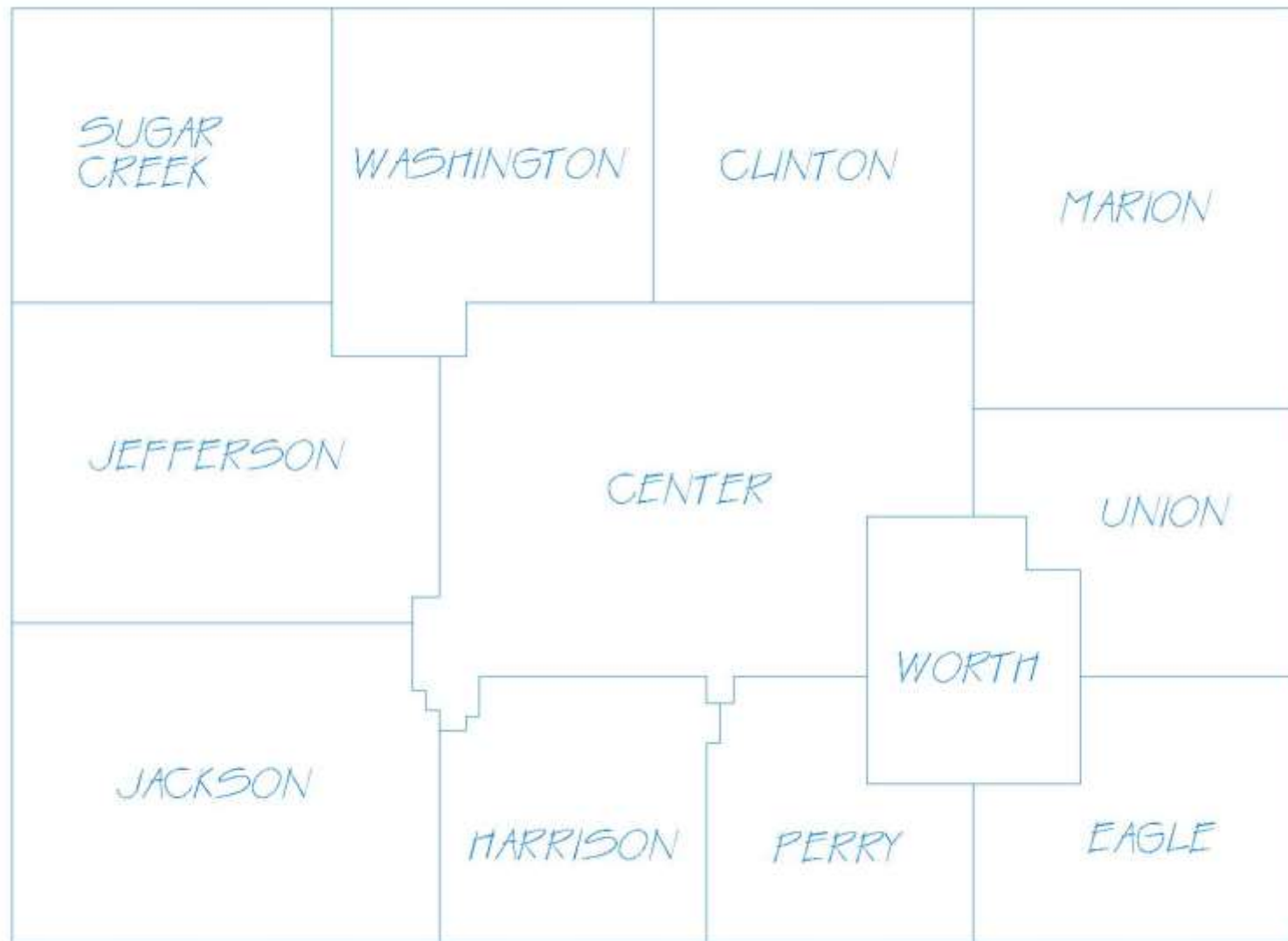


Boone County

24 miles wide

17.5 miles tall

(See Indianapolis Area inset for detail)



**Boone County – Civil Townships**

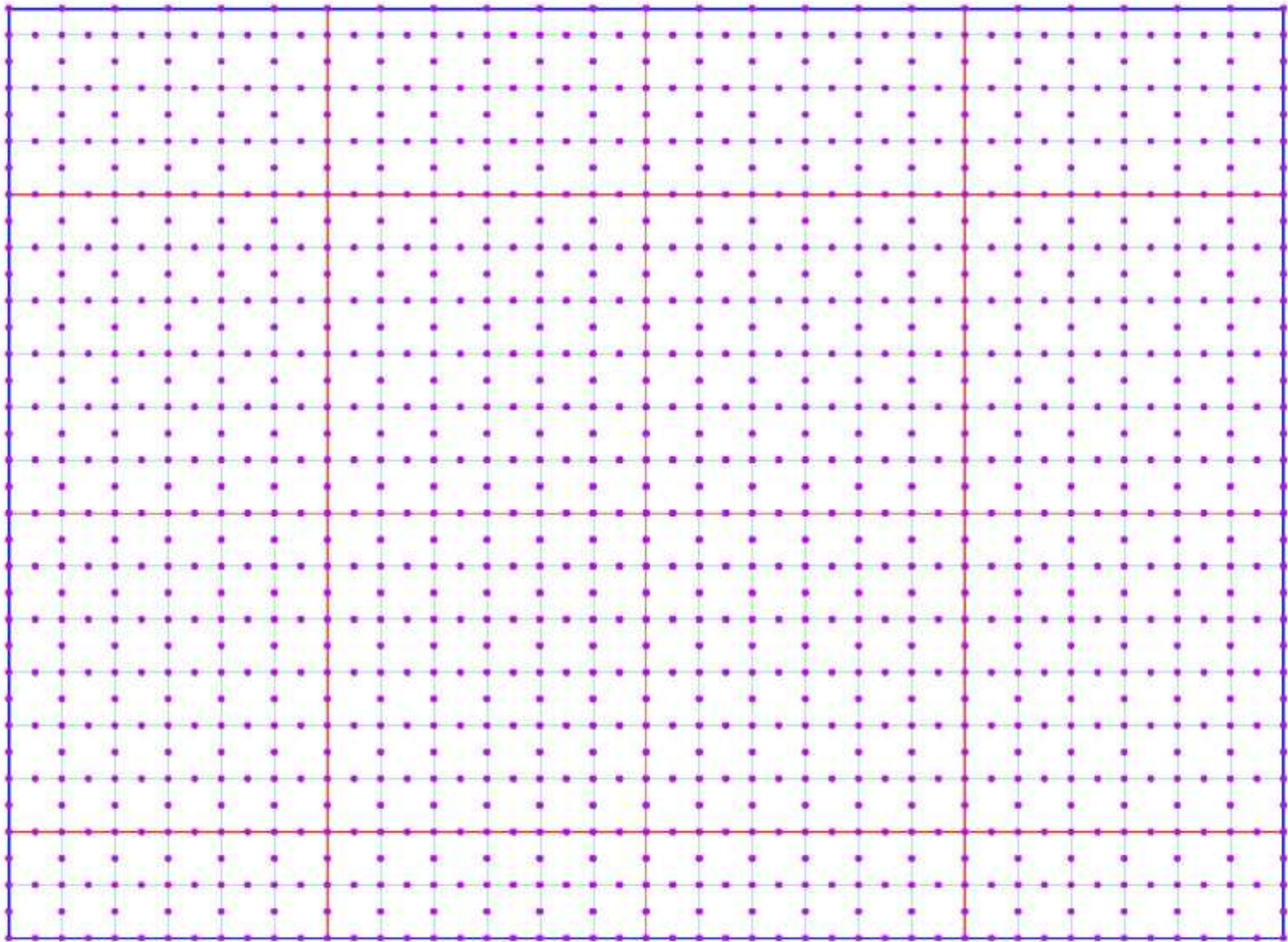
T 20 N R 2 W	T 20 N R 1 W	T 20 N R 1 E	T 20 N R 2 E
T 19 N R 2 W	T 19 N R 1 W	T 19 N R 1 E	T 19 N R 2 E
T 18 N R 2 W	T 18 N R 1 W	T 18 N R 1 E	T 18 N R 2 E
T 17 N R 2 W	T 17 N R 1 W	T 17 N R 1 E	T 17 N R 2 E

## Boone County – Survey Townships

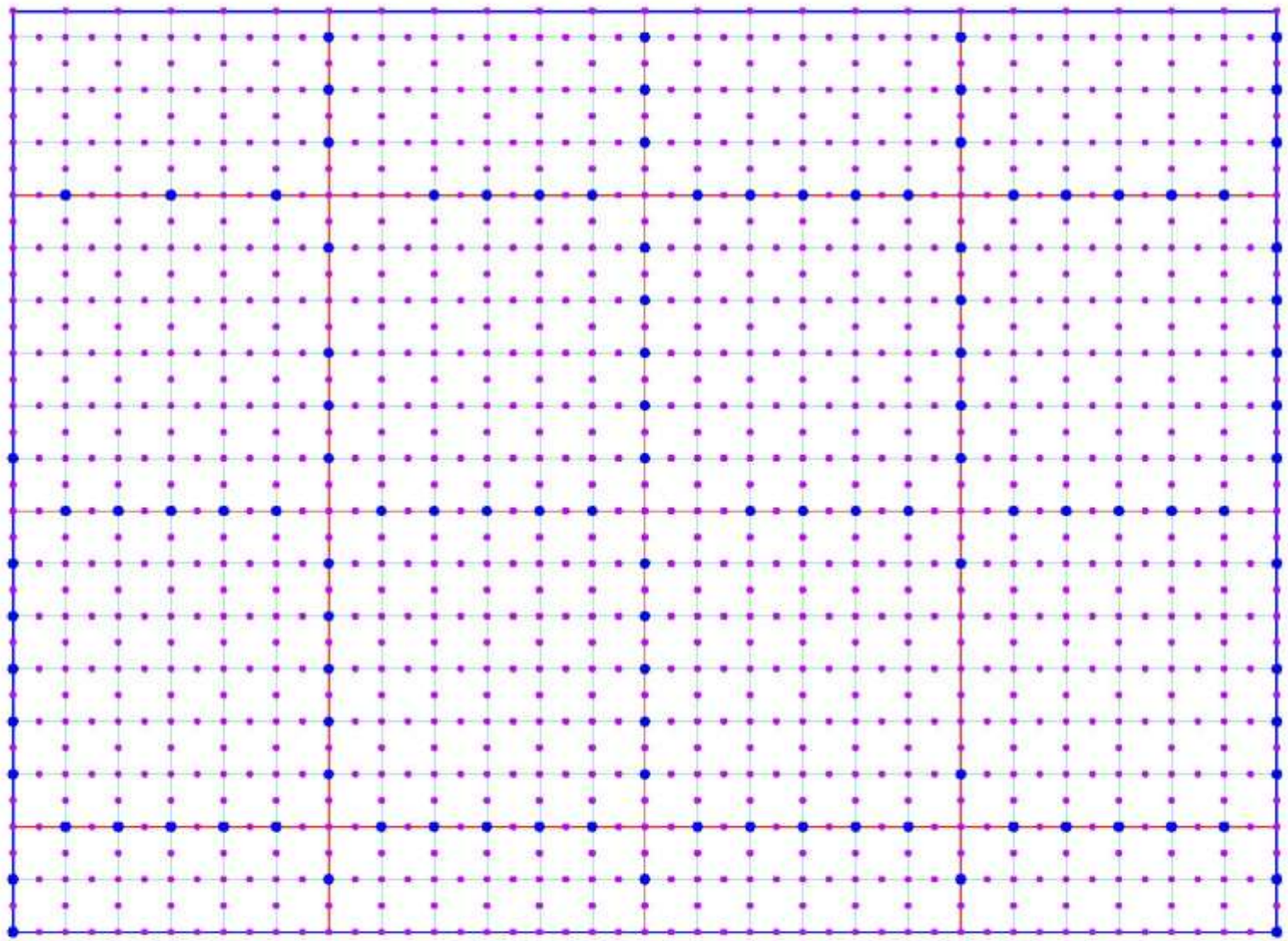


19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36
6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13	18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36
6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13	18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36
6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12

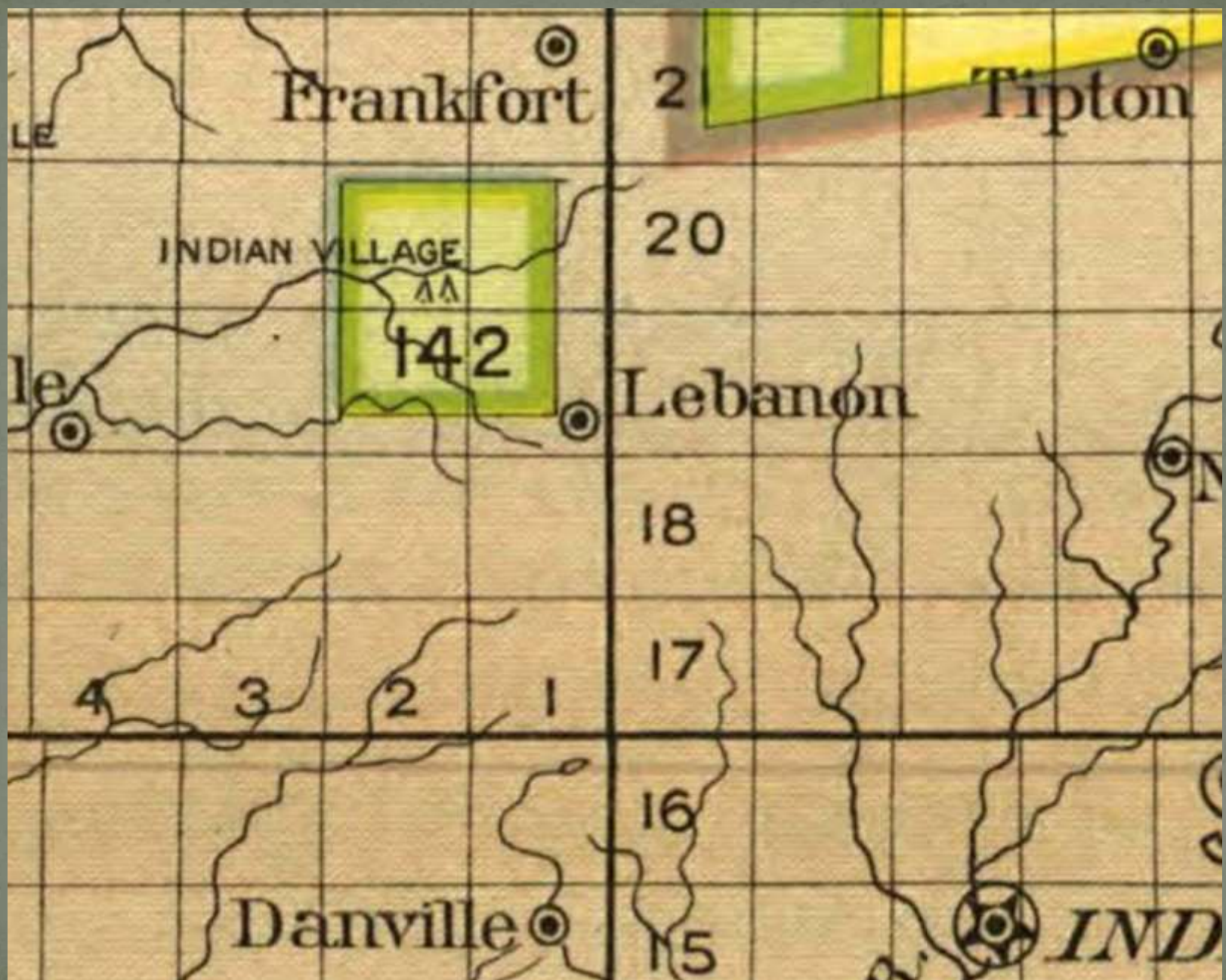
## Boone County – Full Sections



Boone County – Original corners – single, regular



Boone County – original corners, including double



Frankfort

Tipton

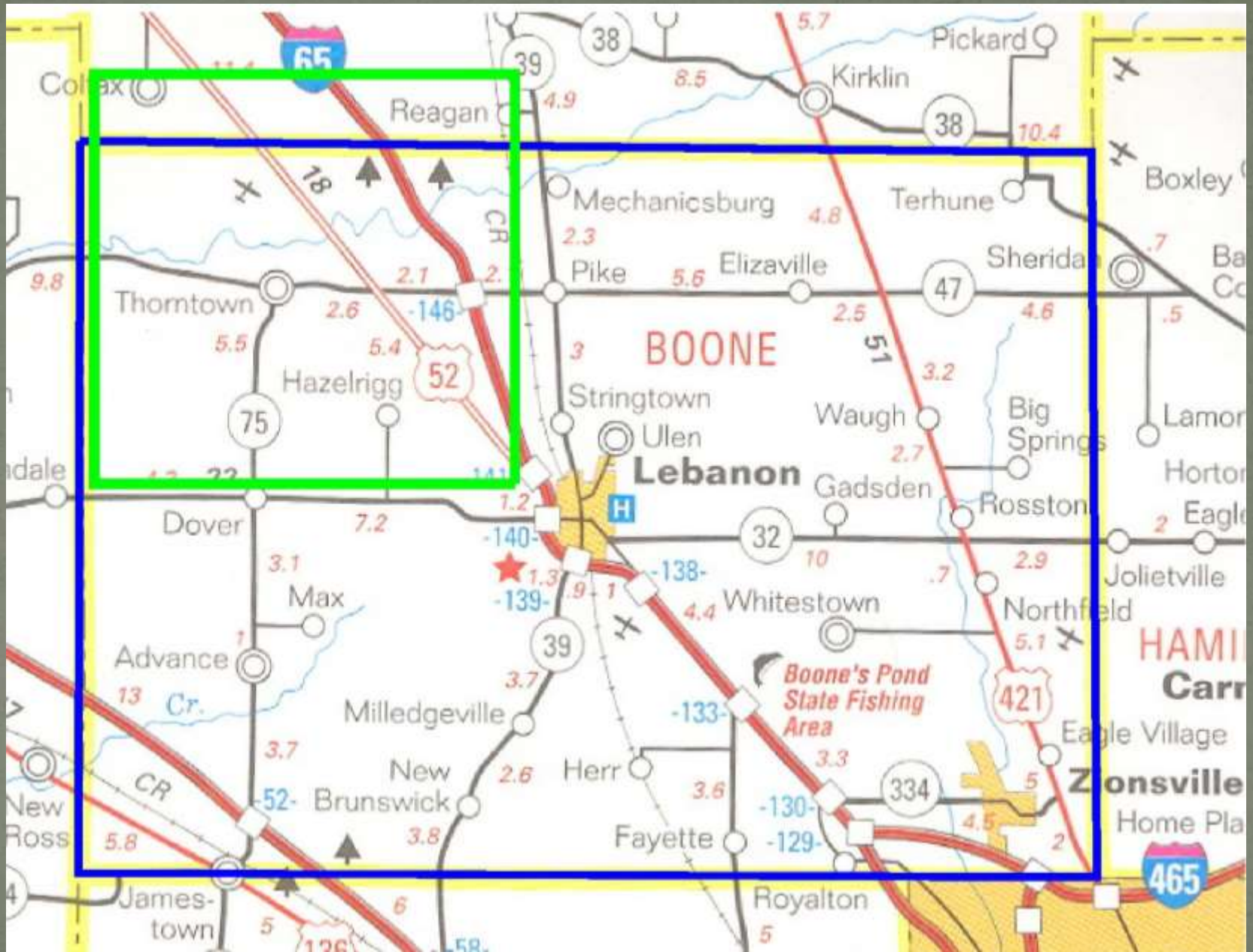
INDIAN VILLAGE  
△△

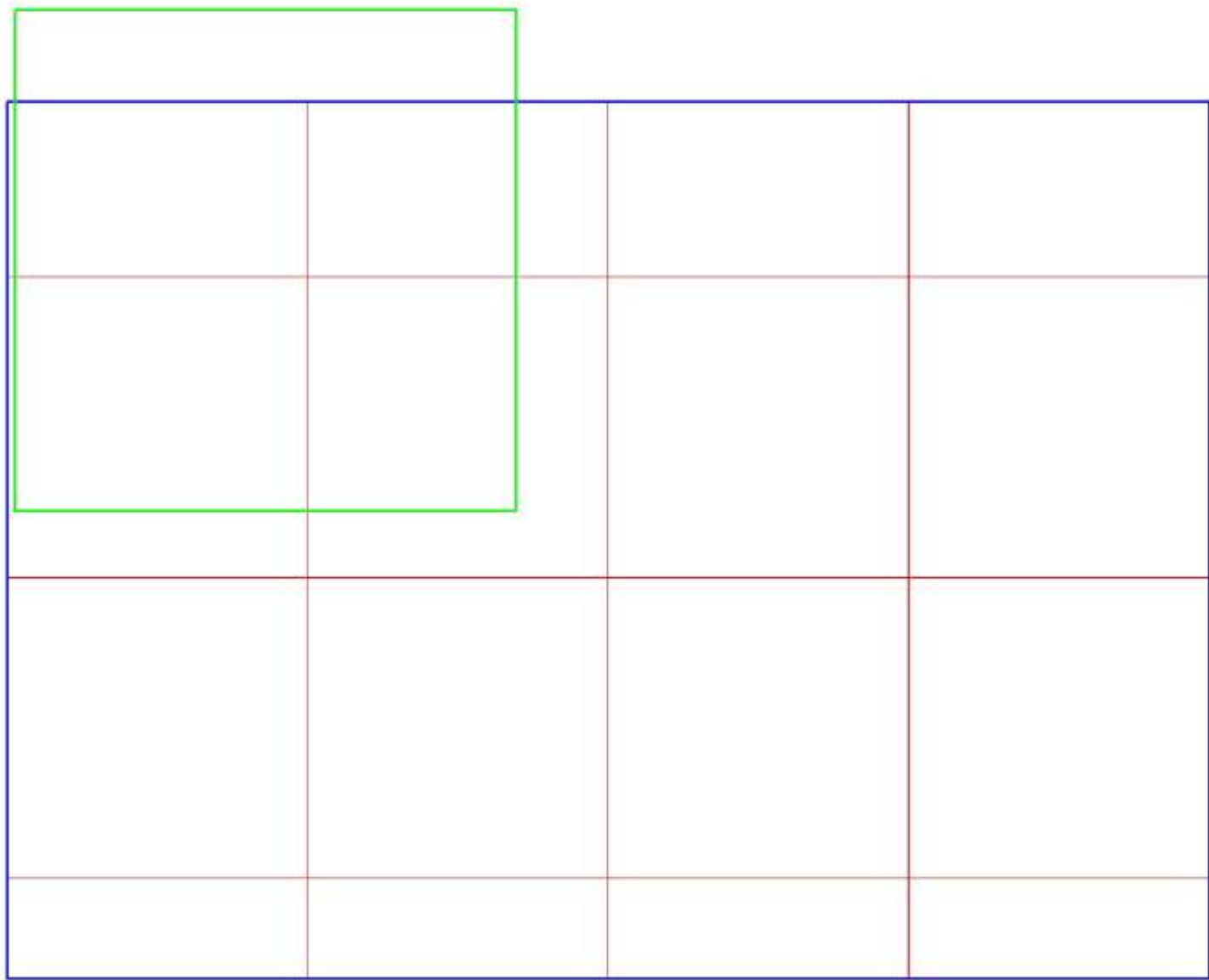
142

Lebanon

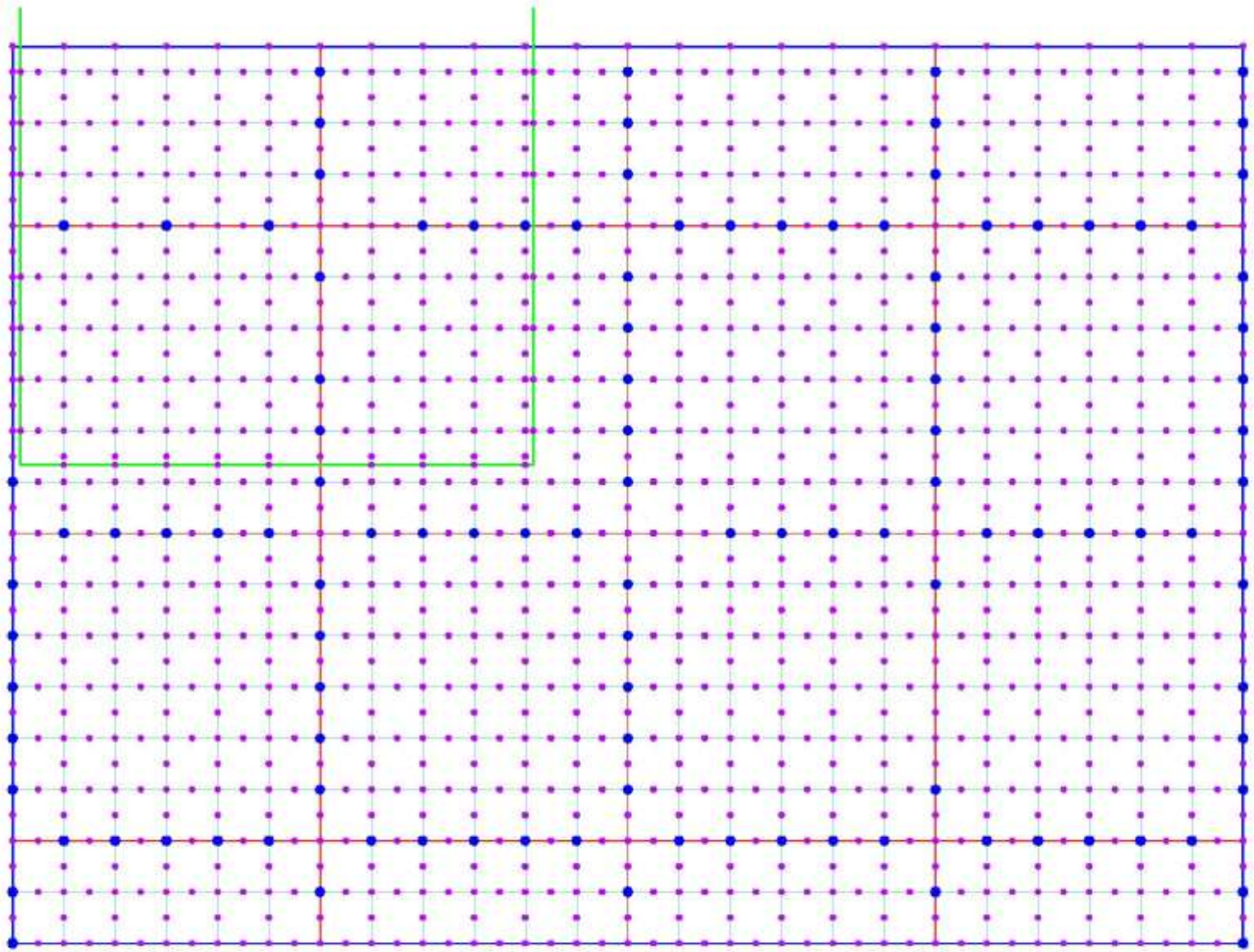
Danville

IND





Boone County – Survey Twps with Indian Reserve



Boone County – All original corners known 2014

Who surveyed the  
Thorntown Reserve?

And when?



# WHO SURVEYED THE THORNTOWN RESERVE?

Spring, 2015 - here is what I knew....

- There was no mention of the survey in the original notes including official microfilm, BCS books, and BCS set of notes certified by State Auditor in 1890.
- The line was never mentioned in the survey of the six-mile townships in 1819. Posts set close to Indian village.
- The line was treated as being readily identifiable in the subdivision surveys of 1822.
- In 1862, David M. Burns, Boone County Surveyor, went to great lengths to answer the same question – but could not answer it, though he wrote a fascinating five-page treatise on his efforts to find the records and the line.

## WHO SURVEYED THE THORNTOWN RESERVE?

And there was that tantalizing reference in the book *Early Indiana Trails and Surveys* by George R. Wilson.

“In the survey of the “Thorntown Reserve,” in 1822, a record is made of an Indian trace leading from Fort Wayne to Fort Harrison. Near by was a cluster of Indian wigwams. This trace could be easily re-located from the survey records which are exceptionally complete. The surveyor was Thomas Brown.”

## WHO SURVEYED THE THORNTOWN RESERVE?

Surely there were field notes, but where?

I wrote to the Bureau of Land Management and had the pleasure of corresponding with Anne C. Dement of the Cadastral Survey / Energy & Mineral Operations.

Anne solved the puzzle.

Anne discovered, buried in the Michigan Collection, two books of field notes, the cover pages of which are shown on the next slide.

*Field Notes*  
*Indian Boundary*  
*Sines,*  
*in*  
*Ohio & Indiana.*

*Field Notes*  
*Indian Grants*  
*&*  
*Reservations.*  
*in*  
*Ohio, Ind.<sup>a</sup> & Mich.*

# WHO SURVEYED THE THORNTOWN RESERVE?

Of these volumes, Anne says,

“Both volumes were transcribed from the original field notes in Cincinnati, Ohio and the transcriptions were certified by William Johnston, Surveyor General of Ohio, Indiana and Michigan on 10 Feb 1845. His office moved to Detroit a few months later which might explain why the GLO staff in Washington, DC lumped these books in with the Michigan records when they were forwarded here. I don't know who has the original field notes these days...they could be in any of the three states that formed the Northwest Territory.”

Anne also notes that most records from the federal survey in Indiana are housed in the National Archives and Records Administration and are not part of the BLM collection.

## WHO SURVEYED THE THORNTOWN RESERVE?

If a surveyor needs a portion of this set of notes scanned and sent to them, the BLM asks that you please send the request to this email address:

[blm\\_es\\_glo\\_surveys@blm.gov](mailto:blm_es_glo_surveys@blm.gov)

I promised Anne that I would tell my fellow surveyors to be nice, patient, and specific when requesting records. 😊

Of benefit to Boone County, volume one of this set contained "*Field Notes of the Indian Reservation, including the Village on Sugar Tree Creek, Ranges 1&2 West, 2<sup>nd</sup> Mer. Townships 19 & 20 North.*"

## Indian Boundary Lines Ind. &amp;

6. S.

"With Notes of the Indian Res-  
-ervation - Including the Village  
on Sugar Tree Creek, & Wauges  
179 West of 2<sup>nd</sup> Mer. Townships  
19 and 20. North.

Var. S. 1/2 Sec. 11.

Beginning in a Prairie well raised,  
a record of a common source of  
Indian Reservation, Thence

East on Temporary line

27.51 a base south of Wauges to Warden  
course S. 75. 2/3 W.

31.01 Enter Timbered land.

47.01 Entered Prairie

50.01 Principal Cluster of Indian Wigwag  
heads S. 21 E. 1/2 Sec.

64.01 Left Prairie

70.01 a beautiful Spring branch to the  
course N. 75. 2/3 W.

117.51 a stream 20 ft. wide course N. W.

227.51 a do. 20 " " " " S. W.

231.51 do do. course N. W.

374.51 The Channel of a branch 10 ft. wide  
course N. W.440.01 Set Post N. 75. 2/3 E. for middle of base  
line.

land 2. rate. Soil. Sugar, &  
Ash, Oak, Beech Walnut Hickory

Thence

South on Standard

16.01 The Channel of a branch 10 ft. wide  
course N. W.

81.01 Set Temporary post N. 74.

Aug 31<sup>st</sup> 1822.

116.01 a stream 20 ft. wide course N. W.

## Indian Boundary Lines Ind. &amp;

6. S.

161.01 Set Temporary post N. 75.

174.51 The Channel of a branch 10 ft. wide  
course S. 75. 2/3 E.226.01 The Channel of a stream 12 ft. wide  
course East

240.01 Set Temporary post N. 75.

265.01 The Channel of a branch 10 ft. wide  
course S. 75. 2/3 E.

281.01 a stream 10 ft. wide course N.

331.01 Set Temporary Post N. 74.

400.01 Set Temporary Post N. 74, which is  
S. 75. 2/3 W. of Indian Reservation &

stands 11.12 N. of line between

posts 18 & 19. N. 75. 2/3 W. of 2<sup>nd</sup> Mer.  
and 115.64 West of 2<sup>nd</sup> Mer. linefrom which post a Beech 16 in. diam.  
head 8 ft. 13 ft. dist. a Beech 10 in.17 ft. 11 ft. dist. also a Wh. Oak  
24 in. diam. head 119 ft. 58 ft. dist. 3a Wh. Oak 24 in. dia. head 115 ft. 10 ft.  
Mark by a bearing tree S. W. - N. B. &Land, 2. rate. Timber, Beech, Ash,  
Sugar, Poplar, Oak, Hickory, &Walnut &c. Aug. 21<sup>st</sup> 1822.North on Standard, which is E. Boundary  
of Indian Reservation81.01 Set post, from which (N. 74 post)  
a Sugar 16 in. dia. head 255 ft. 27 ft. dist.

on Rowwood 5 in. diam. 117 ft. 12 "

Land, level and 2. rate. Timber:  
Beech, Sugar, Ash, Wh. Oak, Spruce,  
Hickory &c. Undergrowth, Spruce

Ash &amp;c.

Reservation line extended North

## THE QUESTION:

Who surveyed the Thorntown Reserve? When?

## THE ANSWER:

Thomas Brown, Deputy, surveyed the perimeter of the Thorntown Reserve as he performed the subdivision surveys of Townships 19 & 20 North, Ranges 1 & 2 West in August and November, 1822.



332.

Indian Boundary Lines. Ind.<sup>a</sup>

6. Se.

from which  
a Wh. Oak 28 in. dia. bears S 97° W, 48 lbs.  
a Hickory 18 " " " N 9° E, 45 "  
an Ironwood 6 in. dia. " N 42° W, 29 "  
Land and Timber, as before &c.  
Nov. 26<sup>th</sup> 1822.

---

North Corrected Cu. M. Boundary of Indian  
Reservation.

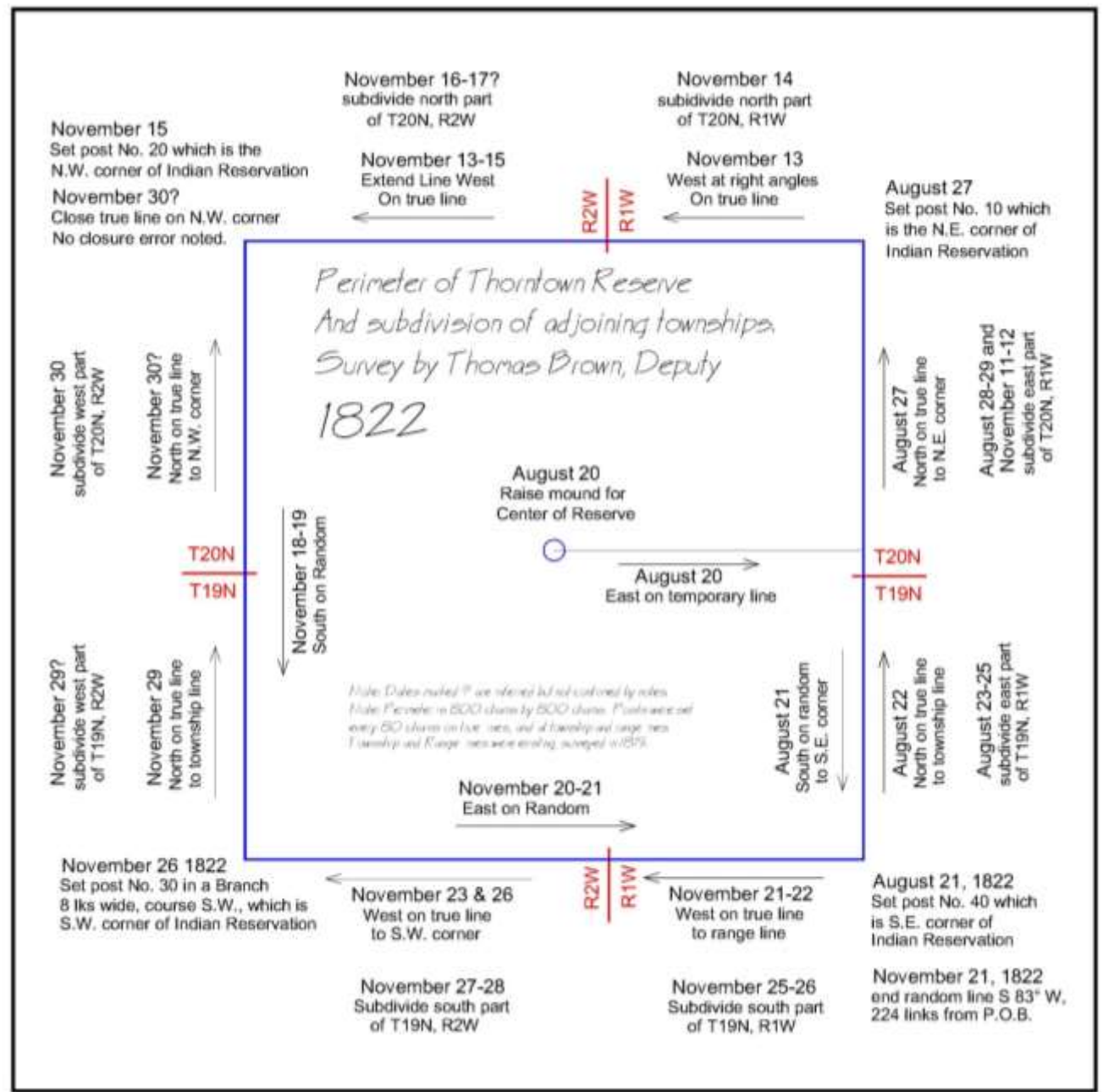
80.00 Set post N° 29 on true line f. wh.  
a Beech 15 in. dia. bears S 34° W, 28 lbs. dist. &  
a Bl. Ash 15 " " " N 83° E, 17 " "  
Land and Timber, the same  
as before. Var. 5° 45' E.

---

Reservation Line extended South  
160.00 Set post N° 28 on true line,

# Survey of the Thorntown Reserve

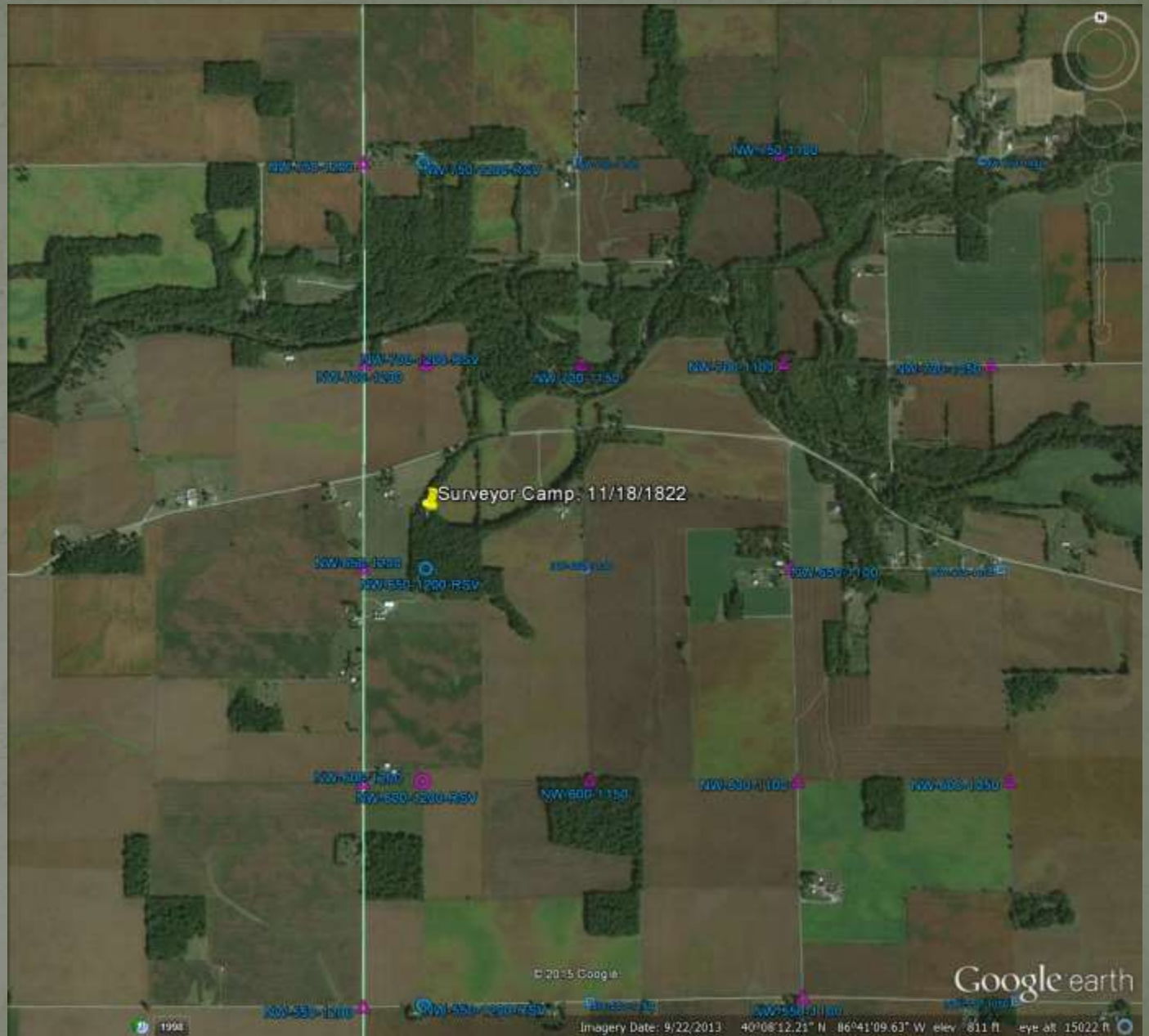
AKA  
Reserve  
at the Village  
on Sugar  
Tree Creek  
Thomas  
Brown,  
1822

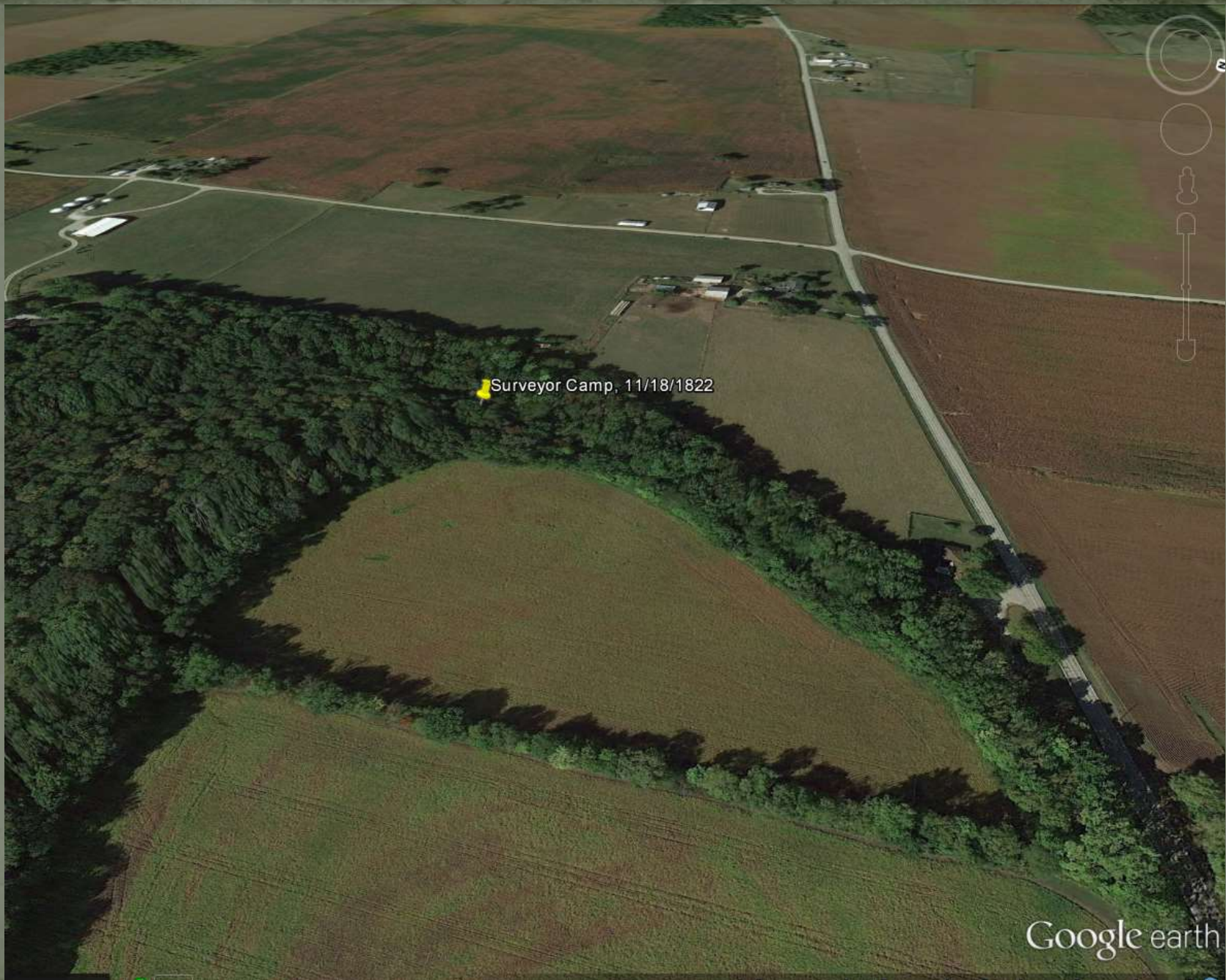


Thomas  
Brown's  
Overnight  
Camp  
11/18/1822

Overhead  
Image:  
Google Earth

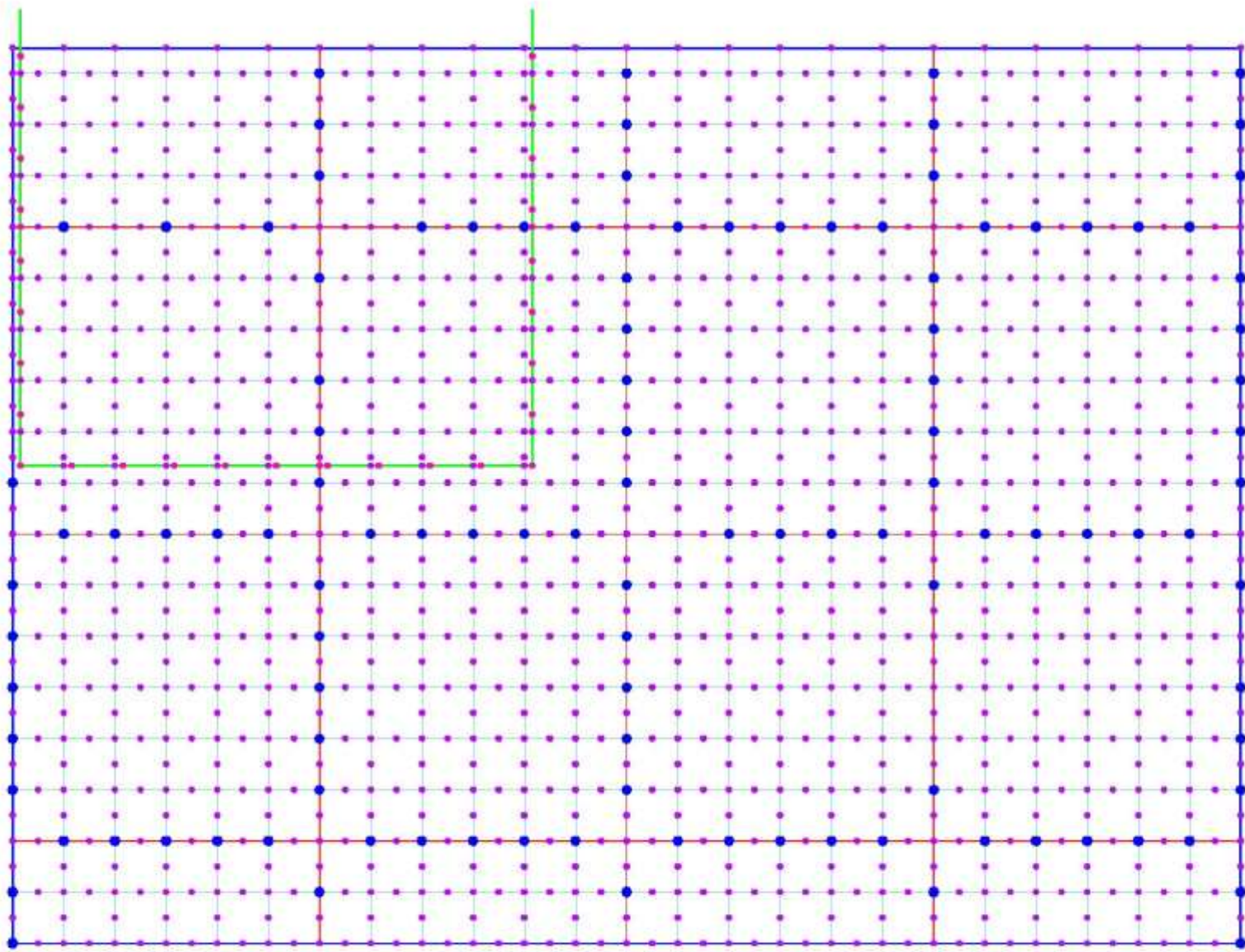
Place marks  
By Swift





Surveyor Camp, 11/18/1822

Google earth

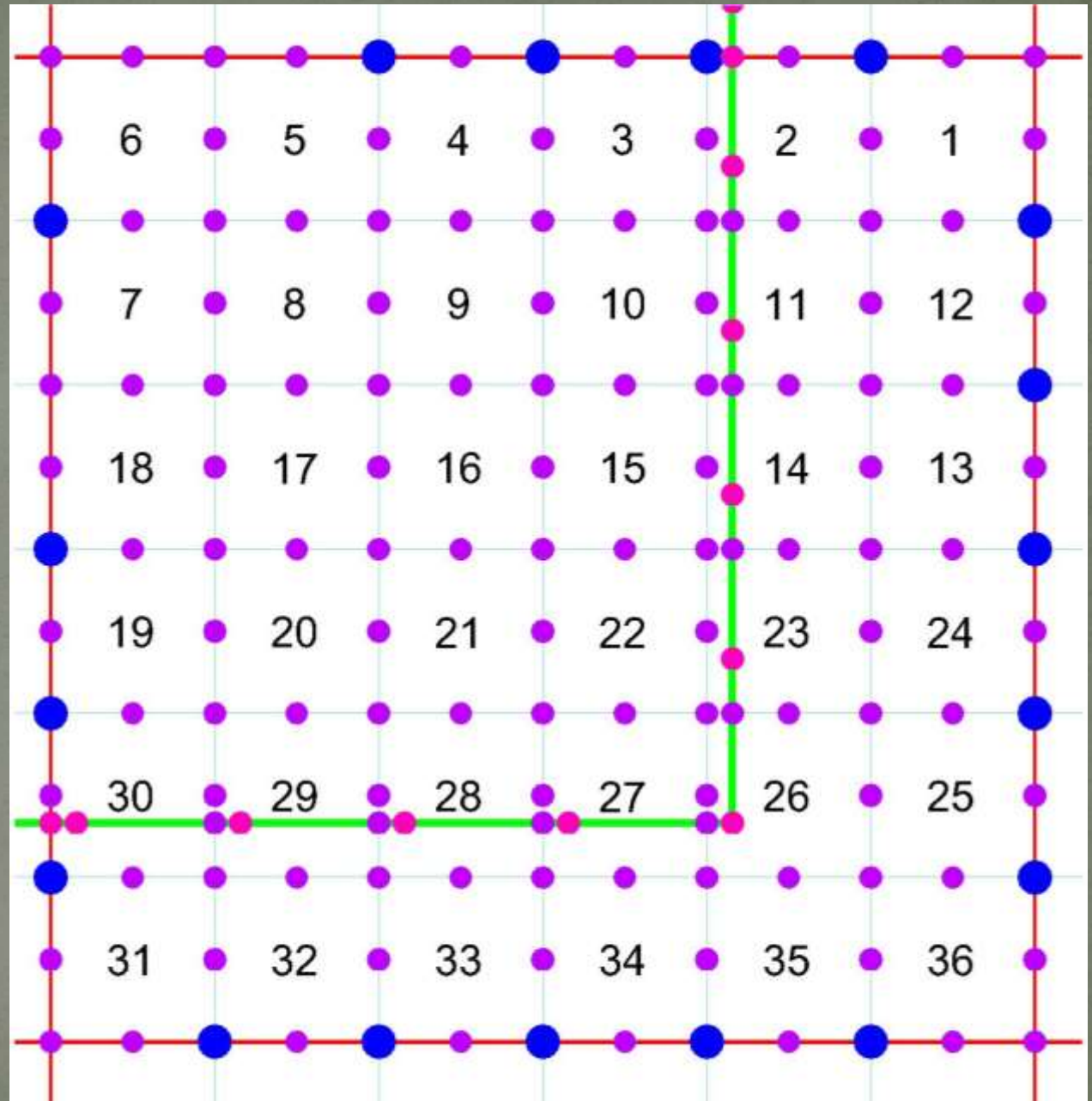


Boone County – all original corners known 2015

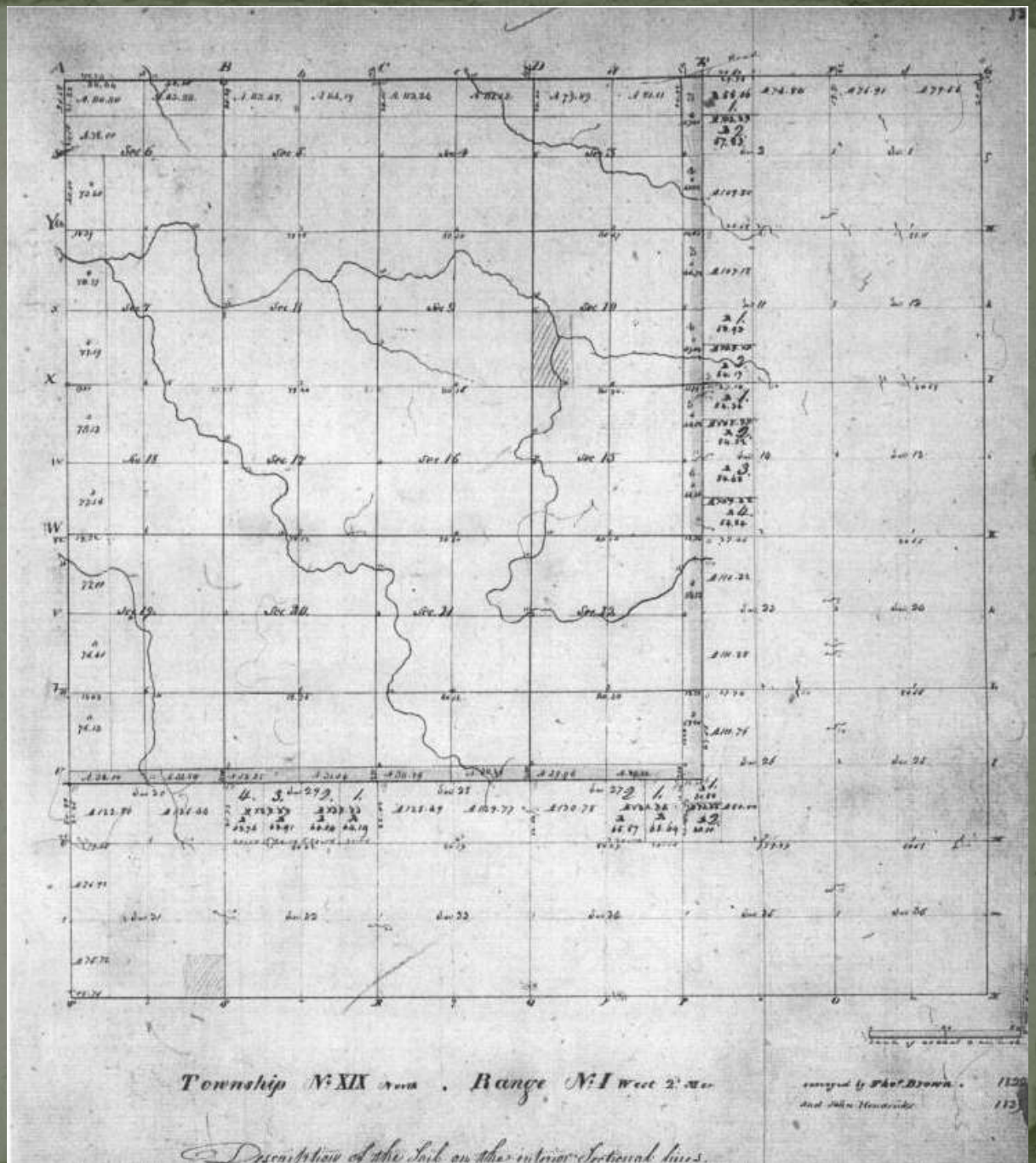
T<sub>19</sub>N, R<sub>1</sub>W

All original  
Section corners

- Blue - double
- Purple – single, called in the standard field notes (1819, 1822 & 1829)
- Pink - single called in the perimeter survey of reserve (1822)



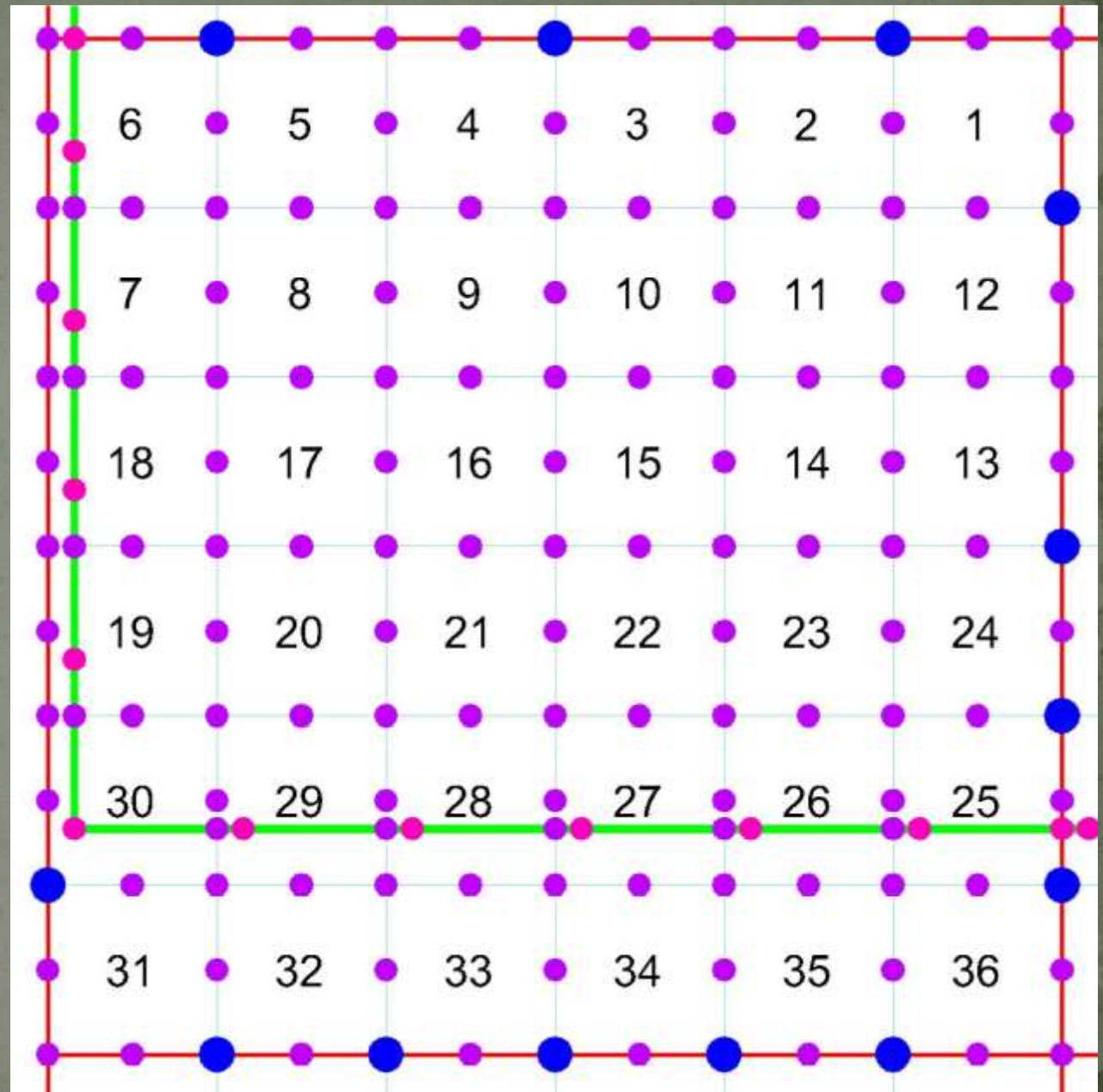
# Original Plat T19N, R1W



T<sub>19</sub>N, R<sub>2</sub>W

All original  
Section corners

- Blue - double
- Purple – single, called in the standard field notes (1819, 1822 & 1829)
- Pink - single called in the perimeter survey of reserve (1822)







Governing Codes  
and  
Basic Premise

# BASIC PREMISE

The federal surveyors left behind them:

- Wood posts at corners
- Bearing trees witnessing corners
- Section lines physically marked on trees
- Written record of what they did

# In Boone County.....

Early Landowners built wagon roads along section lines marked by government surveyors.

Some landowners likely set stones in the holes where posts were removed. "Pioneer Rocks."

Until approximately 1920, County Surveyors perpetuated the original grid by finding or setting and describing stones at the corners. “County Surveyor Rocks.”

By 1920, most of the grid was marked with “corner stones.”

The Boone County Surveyor’s Record contains much documentation about the corners, stones and witnesses.

In general, the stones are still present and remain the best evidence of the original corners. Our job is to find them.

# United States Code

## UNITED STATES CODE

### TITLE 43--PUBLIC LANDS

#### CHAPTER 18--SURVEY OF PUBLIC LANDS

##### Sec. 752. Boundaries and contents of public lands; how ascertained

The boundaries and contents of the several sections, half-sections, and quarter-sections of the public lands shall be ascertained in conformity with the following principles:

First. All the corners marked in the surveys, returned by the Secretary of the Interior or such agency as he may designate, shall be established as the proper corners of sections, or subdivisions of sections, which they were intended to designate; and the corners of half- and quarter-sections, not marked on the surveys, shall be placed as nearly as possible equidistant from two corners which stand on the same line.

Second. The boundary lines, actually run and marked in the surveys returned by the Secretary of the Interior or such agency as he may designate, shall be established as the proper boundary lines of the sections, or subdivisions, for which they were intended, and the length of such lines as returned, shall be held and considered as the true length thereof. And the boundary lines which have not been actually run and marked shall be ascertained, by running straight lines from the established corners to the opposite corresponding corners; but in those portions of the fractional townships where no such opposite corresponding corners have been or can be fixed, the boundary lines shall be ascertained by running from the established corners due north and south or east and west lines, as the case may be, to the watercourse, Indian boundary line, or other external boundary of such fractional township.

Third. Each section or subdivision of section, the contents whereof have been returned by the Secretary of the Interior or such agency as he may designate, shall be held and considered as containing the exact quantity expressed in such return; and the half sections and quarter sections, the contents whereof shall not have been thus returned, shall be held and considered as containing the one-half or the one-fourth part, respectively, of the returned contents of the section of which they may make part.

(R.S. Sec. 2396; Mar. 3, 1925, ch. 462, 43 Stat. 1144; 1946 Reorg. Plan

No. 3, Sec. 403, eff. July 16, 1946, 11 F.R. 7876, 60 Stat. 1100.)

#### Codification

R.S. Sec. 2396 derived from act Feb. 11, 1805, ch. 14, Sec. 2, 2

Stat. 313.

## USC Title 43, Chapter 18, Sec. 752

### Boundaries and contents of public lands

- The corners marked in the surveys ... shall be established as the proper corners of the sections.
- The boundary lines, actually run and marked ... shall be established as the proper boundary lines of the surveys.
- Derived from act of Feb. 11, 1805.
- Non-original corners.... We'll talk.

# Indiana Code

IC 36-2-12-9

Survey to constitute prima facie evidence

Sec. 9. A survey by the surveyor constitutes prima facie evidence in favor of the corners and lines it establishes.

*As added by Acts 1980, P.L.212, SEC.1.*

IC 36-2-12-11

Administration of section; maintenance of corner record book;

contents of record; procedure for establishment and perpetuation of corners

Sec. 11. (a) The surveyor shall administer this section if the surveyor is registered as a land surveyor under IC 25-21.5. If the surveyor is not registered, the surveyor shall, with the approval of the county executive, appoint a person who is registered as a land surveyor and is a resident voter of the county to administer this section. If a resident, registered land surveyor is not available, a land surveyor who resides in another county may be employed.

(b) The surveyor shall keep and maintain a corner record book, that must contain:

- (1) a record and an index by location of all the original government survey corners;
- (2) outline maps of each section, grant, tract, and subdivision or group of sections, grants, tracts, and subdivisions in the county showing the location of each corner on record and stating at the location of each corner on the map where the reference for that corner may be found; and
- (3) a reference index for each corner.

A separate card index system may be used in lieu of the index required by subdivision

(3).

(c) The record of each corner referenced in the record book must contain:

- (1) the location of the corner;
- (2) an accurate description of the monument used to mark the corner such as "stone" or "iron pin";
- (3) the distance and bearings from the corner to three (3) or more permanent objects or structures;
- (4) the date the corner was last checked and the condition of the monument and references;
- (5) the name of the surveyor making the check; and
- (6) the method of establishing or relocating the corner.

(d) The records of the corners shall be established and perpetuated in the following manner:

(1) Each year the surveyor shall check and reference at least five percent (5%) of all corners shown in the corner record book.

(2) The surveyor may enter in the surveyor's corner record book the findings submitted by a private land surveyor who checks and references corners and is registered under IC 25-21.5.

(e) Any money in the county surveyor's corner perpetuation fund collected under IC 36-2-7-10 or IC 36-2-19 may be appropriated in the manner provided by law for the purposes of this section.

*As added by Acts 1980, P.L.212, SEC.1. Amended by P.L.342-1983, SEC.2; P.L.76-1989, SEC.2; P.L.23-1991, SEC.35.*

## IC 36-2-12-9

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*As added by Acts 1980, P.L.212, SEC.1. Amended by P.L.342-1983, SEC.2; P.L.76-1989, SEC.2; P.L.23-1991, SEC.35.*

(b) The surveyor shall keep and maintain a corner record book, that must contain:

(1) a record and an index by location of all the original government survey corners;

(2) outline maps of each section, grant, tract, and subdivision or group of sections, grants, tracts, and subdivisions in the county showing the location of each corner on record and stating at the location of each corner on the map where the reference for that corner may be found; and

(3) a reference index for each corner.

A separate card index system may be used in lieu of the index required by subdivision (3).

# Indiana Code

IC 36-2-12-11

IC 36-2-12-11

Administration of section; maintenance of corner record book;

contents of record; procedure for establishment and perpetuation of corners

Sec. 11. (a) The surveyor shall administer this section if the surveyor is registered as a land surveyor under IC 25-21.5. If the surveyor is not registered, the surveyor shall, with the approval of the county executive, appoint a person who is registered as a land surveyor and is a resident voter of the county to administer this section. If a resident, registered land surveyor is not available, a land surveyor who resides in another county may be employed.

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- (3) a reference index for each corner.

A separate card index system may be used in lieu of the index required by subdivision

(3).

(c) The record of each corner referenced in the record book must contain:

- (1) the location of the corner;
- (2) an accurate description of the monument used to mark the corner such as "stone" or "iron pin";
- (3) the distance and bearings from the corner to three (3) or more permanent objects or structures;
- (4) the date the corner was last checked and the condition of the monument and references;
- (5) the name of the surveyor making the check; and
- (6) the method of establishing or relocating the corner.

(d) The records of the corners shall be established and perpetuated in the following manner:

- (1) Each year the surveyor shall check and reference at least five percent (5%) of all corners shown in the corner record book.

- (2) The surveyor may enter in the surveyor's corner record book the findings submitted by a private land surveyor who checks and references corners and is registered under IC 25-21.5.

- (e) Any money in the county surveyor's corner perpetuation fund collected under IC 36-2-7-10 or IC 36-2-19 may be appropriated in the manner provided by law for the purposes of this section.

*As added by Acts 1980, P.L.212, SEC.1. Amended by P.L.342-1983, SEC.2; P.L.76-1989, SEC.2; P.L.23-1991, SEC.35.*

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# Indiana Code

IC 36-2-12-12

## **Surveyors not trespassers; actual damages**

Sec. 12. While doing work under section 10 or 11 of this chapter, a professional surveyor registered under IC 25-21.5, or the employees of the professional surveyor, an unregistered county surveyor, or the employees of a county surveyor are not considered trespassers and are liable only for the actual damages they cause to property.

*As added by Acts 1980, P.L.212, SEC.1. Amended by P.L.342-1983, SEC.3; P.L.23-1991, SEC.36; P.L.57-2013, SEC.93.*

# Indiana Code

IC 36-2-12-12

What is my take on the “not trespasser” law as a field surveyor / practitioner?

- It's awesome.
- I respect private property nonetheless.
- Ken Hedge, Boone County Surveyor, knows most of the farmers and fields in the county.
- I do what I need to do. So far so good.
- Explain your business and almost everyone will yield to the common good.
- I spend much more time explaining the benefit of spending local tax dollars on this project than I do explaining why I need to drive across a field and dig around a corner post.

# Indiana Code

## IC 36-2-13

SEC.36; P.L.57-2013, SEC.93, IC 36-2-12-13 Corner and Harn monuments; temporary removal; change of location; reimbursement for repair or replacement

Sec. 13. (a) A person may, for excavation, mineral extraction, or other purposes related to the person's business, temporarily remove a monument marking a corner. The person must notify in writing the county surveyor at least thirty (30) days before removing the monument. The person must replace the monument within a reasonable time at the person's expense under the supervision of the county surveyor or, if the county surveyor is not registered under IC 25-21.5 or IC 25-31, the registered person who is selected under section 11 of this chapter. The surveyor shall file a copy of the notice in the corner record book.

(b) Only a county surveyor or a designee may change the location of any monument. A person who wishes to have the location of a monument changed must make a request to the surveyor in writing and furnish written approval of all landowners whose property is affected by the proposed change. The surveyor may approve, reject, or modify the request and shall file a copy of the notice and the landowners' consents in the corner record book.

(c) When, in the construction or maintenance of a state, county, or municipal road or street, it is necessary to remove or bury a monument marking a corner, the owner of the public right-of-way shall notify the county surveyor in writing at least fifteen (15) days before commencing the work.

(d) A county legislative body may adopt an ordinance:

(1) prohibiting a person from moving, changing, or otherwise altering a monument marking a corner without complying with this section; and

(2) prescribing a monetary penalty for a violation of the ordinance. Any money collected shall be deposited in the county surveyor's corner perpetuation fund.

(e) A person who damages or removes a monument marking a corner or high accuracy reference network (HARN) point shall reimburse the county for the cost of repairing or replacing the monument.

(f) If a person who damages or removes a monument marking a corner violates an ordinance under subsection

(d), the person is liable for:

(1) the amount of reimbursement under subsection (e); and

(2) any monetary penalty prescribed by the county legislative body for violation of the ordinance under subsection (d).

*As added by Acts 1980, P.L.212, SEC.1. Amended by P.L.343-1983, SEC.1; P.L.76-1989, SEC.3; P.L.2-1997, SEC.80; P.L.276-2001, SEC.6; P.L.90-2003, SEC.1*

- 30 days notice prior to temporary removal of a monument marking a corner
- Only a county surveyor or a designee may change the location of a monument.
- For street and road work, the owner of the public right-of-way must give county surveyor 15 days notice.
- County legislative body may adopt an ordinance which prohibits altering corner and prescribes penalties for violation of ordinance.
- Any money collected shall be deposited in the county surveyor's corner perpetuation fund.

# Indiana Code

## Summary

Indiana Code gives the County Surveyor the

- Authority
- Right of Entry
- Mechanism for funding

to accomplish Section Corner Perpetuation.

Indiana Code also specifies that “Only a county surveyor or a designee may change the location of any monument.”

Indiana Code also gives the county legislative body the right to pass ordinances to prohibit alteration of corners and impose penalties.

It sure sounds like Section Corner Perpetuation is the job of the

# County Surveyor!

County  
Surveyor!



# Section Corner Perpetuation is.....

Specialized work which requires

- Specific Skills
- Detailed knowledge of the local area
- Detailed knowledge of the unique record set
- Specific, expensive equipment which is not otherwise part of the private surveyor's tool kit
- Competency with that equipment
- Materials and ability to properly excavate and repair public roads.

## Public Safety!

# Section Corner Perpetuation is.....

It is my personal and professional opinion that this specific task cannot be properly accomplished on an ad-hoc basis by private practicing surveyors.

Nor is it a good idea to make them try.

This job should be done by the.....

County

Surveyor!

# So Why the need for 865 IAC 1-12-30?

It seems to me that it is.....

1. A legislative response to the following problems:

- County Surveyors NOT adhering to IC 36-2-11
- Private Surveyors putting all responsibility on the County Surveyor, even if a critical corner is not properly perpetuated.

2. A legislative attempt to address the fact that section corner perpetuation is, indeed, specialized work which requires a specialized skill set.

Overall 865-IAC-1-30 contains excellent advice on section corner perpetuation BUT fails to solve the fundamental problem and places a burden on private surveyors which they are not able to meet and are not in a position to meet.

**SOLUTION:** Place the burden where it belongs – The County Surveyor!  
I know, I know, I know – more easily SAID than DONE.

A tale of finding one corner. It was easy!

Easy, that is, if you know and believe in the unique record set and are willing to dig big holes in the road....

SECTION 25 TOWNSHIP 10 NORTH RANGE 1 WEST

DATE	NO.	DESCRIPTION	AMOUNT	DATE	AMOUNT
Feb 2 1881	1	John Lee	10	11 21 81	10
	2	John Lee	10	11 21 81	10
	3	John Lee	10	11 21 81	10
	4	John Lee	10	11 21 81	10
	5	John Lee	10	11 21 81	10
	6	John Lee	10	11 21 81	10
	7	John Lee	10	11 21 81	10
	8	John Lee	10	11 21 81	10
	9	John Lee	10	11 21 81	10
	10	John Lee	10	11 21 81	10

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	6	John Lee	10	11 21 81	10
	7	John Lee	10	11 21 81	10
	8	John Lee	10	11 21 81	10
	9	John Lee	10	11 21 81	10
	10	John Lee	10	11 21 81	10

SECTION 25 TOWNSHIP 18 NORTH, RANGE 1 WEST.

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DATE	INDEX	WITNESS AND COURSE	SIZE	DIRECTION	DISTANCE		SQUARES	
					Chains	Links	Chains	Links
	H	Reestablished Rock	12 x 22					
		Beech	12	S 38 E	8	4	50	76
	D	White oak	30	N 26 W	7	6	20	19
		Reestablished Rock	12 x 16					
		Red oak	16	N 12 W		3	20	19
		Hickory	18	S 13 W	20	6	20	33

October 12-16, 1857. Corner H (West quarter corner) –

“Reestablished. Rock 12x22.”

Beech 12 inch, S38E, White oak 30 inch, N 26W.

Measurements in side bar.

May 5, 1992

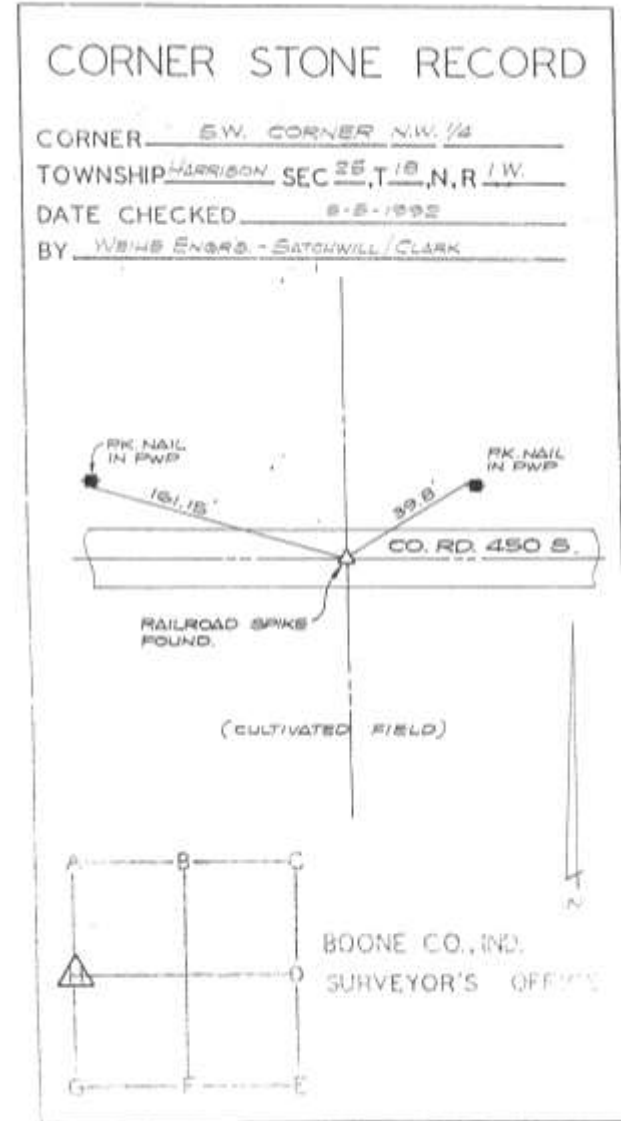
“Railroad spike found.”

No documentation.

Prima facie evidence?

If so, accept and hold unless proven wrong.

But if this spike is the corner, the old post witnessing the title corner 4 chains to the east is 7 feet west of the title line.



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## SECTION 25 TOWNSHIP 18 NORTH, RANGE 1 WEST.

DATE.	INDEX.	WITNESS AND CORNER.	SIZE.	DIRECTION.	DISTANCE.			DISTANCE Chain	LINKS	
					Chain	Links	Feet			
Surveyed April 30 1895 By J. W. Fulwider, C.S.B.C.	10	Set rock	12x8x9+				5	3	20	230
		Rock below	9x10x10				3	4	20	230
		Established in line with	3 3/5				4	10	4	00
	11	Set rock	6x4x8				10	11	25	00
		Old Back	36	West			5			
Surveyed in connection with survey in sect 26 of same date.										

April 30, 1895. No call for the quarter corner, but the sidebar measurements tie to it.

Evidence of title corner (10), center of section (5), and quarter-quarter corner (3). Easy math and confidence in the 1895 measurements yields conclusion that the stone at corner H is approximately 7 feet west of the RR spike.



Why confidence in the 1895 measurements?

Experience with the records!

I apply an index factor of 1.00415 to measurements from 1860 to the late 1880s, based on correlation of found stones and record measurements between them.

I do not apply that index to measurements from 1895.

I think the Boone County Surveyor must have purchased a new chain about 1890. Or maybe a shiny, new steel tape!

Who else is going to have that kind of insight into the records but the County Surveyor or an employee thereof?

Also, in this case, the evidence on the ground correlated with the records.





















# Indiana Administrative Code

## 865 IAC 1-12-30 Section corner perpetuation

Authority: IC 25-21.5-2-14

Affected: IC 25-21.5; IC 36-2-12

Sec. 30. (a) This section outlines the procedures and requirements for registered land surveyors when perpetuating the location of original public land survey or grant corners. As used in this section, "grant" means a subdivision, parcel, or tract of land that existed, or the parent tract of which existed, prior to the commencement of the United States Public Land Survey adjoining such subdivision, parcel, or tract.

(b) The purported location of an original public land survey or grant corner as referenced by the county surveyor of the county in which the corner exists is prima facie evidence of that corner's location. The registered land surveyor's responsibility with regard to the use of or need for original public land survey corners or grant corners in association with an original or retracement survey is not met by merely contacting the county surveyor.

(c) If the:

(1) location of an original public land survey or grant corner is not monumented and referenced by the county surveyor in

accordance with Indiana Code 36-2-12; or

(2) registered land surveyor discovers evidence, or otherwise has reason to believe, that a monument purporting to mark the location of an original public land survey or grant corner is not in the proper location;

and if that corner is necessary for purposes of conducting an original, retracement, or route survey as defined in this rule, the registered land surveyor shall contact the county surveyor and perpetuate that corner's location in accordance with this section if the county surveyor is unable to perpetuate the corner in the time frame required by the registered land surveyor.

## 865 IAC 1-12-30

- If the location of an original public land survey or grant corner is not monumented and referenced by the county surveyor in accordance with Indiana Code 36-2-12; or
- The registered land surveyor has cause to believe that a monument is not in the proper location
- Contact the County Surveyor.
- If the County Surveyor is not able to perpetuate the corner in a timely manner.....

# Indiana Administrative Code

## 865 IAC 1-12-30 Section corner perpetuation, continued

(d) A registered land surveyor shall perpetuate the location of an original public land survey or grant corner by gathering evidence that may assist in determining the original location of that corner. This evidence includes, but is not limited to, the

following:

(1) Copies of:

(A) The original public land survey field notes and plat or transcribed copies of same.

(B) Deeds and plats that reference the location of the corner.

(C) Historic survey records, road, street, highway, and bridge plans, corner records, recorded surveys and other

relevant information from the county surveyor, county recorder or other county, state and municipal offices.

(D) Current or historic aerial photographs.

(E) Records from private surveyors who practice or used to practice in the vicinity of the corner.

(2) Parol evidence from knowledgeable landowners or others who may have information relating to the corner.

(3) The field location of:

(A) Fences. (B) Walls (C) Roadways.

(D) Survey markers (E) Tree lines.

(F) Other lines of possession.

(G) Interrelated or nearby section corners, quarter section corners, quarter-quarter corners, or other aliquot corners of a section, and corners of common report.

## 865 IAC 1-12-30

- Registered Land Surveyor shall perpetuate the location of the corner.
- Gather Evidence.
- Paper evidence – field notes, deeds, plats, historic survey records, plans, aerial photos, surveys, and more....
- Parole evidence from knowledgeable land owners.
- Field evidence – location of fences, walls, roadways, survey markers, tree lines, other lines of possession and nearby section corners and corners of common report.

# Indiana Administrative Code

## 865 IAC 1-12-30 Section corner perpetuation

(e) After evaluating and weighing the evidence outlined in subsection (d), the registered land surveyor shall do the following:

(1) Apply appropriate theory of location to determine the probable locations of the corner.

(2) Excavate or otherwise determine if there is a subsurface monument in those locations unless, in the registered land

surveyor's opinion, there is no substantial possibility of:

(A) a corner stone; or

(B) other historical survey monument;

being found in those locations. Examples of such situations include, but are not limited to, corner locations that fall in

concrete highways, in areas where other excavations have previously taken place, such as, for culverts or sewers, or in areas

of substantial cut or fill, such as, for interstate highway overpasses or underpasses.

Before excavating, the registered land surveyor shall notify the appropriate jurisdictional agencies.

## 865 IAC 1-12-30

- Evaluate the evidence, apply proper theory of location, and determine probable location of corner.
- Excavate or otherwise determine if there is a subsurface monument
- Unless various conditions are present which would indicate that no subsurface monument would exist.
- Before excavating, notify the proper jurisdictional agencies.

# Excavate or otherwise determine....

Ground  
Penetrating  
Radar

Maybe  
someday –  
Maybe  
somewhere

But this unit is  
not effective  
for the vertical  
stones in  
Boone County



# Excavate or otherwise determine....

Small  
Excavation



# Excavate or otherwise determine....

Small  
Excavation  
with  
benefit of  
GPR





# Excavate or otherwise determine....

Medium  
Excavation



# Excavate or otherwise determine....

Large  
Excavation



# Excavate or otherwise determine....

Deep  
Excavation



# Excavate or otherwise determine....

Thoughtful  
Excavation



# Indiana Administrative Code

## 865 IAC 1-12-30 Section corner perpetuation, continued

(f) If, as a result of the corner investigation:

- (1) a corner stone;
- (2) historical survey monument; or
- (3) other evidence;

is found marking the corner, the registered land surveyor shall remonument and reference the corner if necessary to facilitate its recovery by other surveyors.

(g) If, after excavating or otherwise conducting subsurface investigations of the probable locations outlined in subsection (e),

a corner stone, historical survey monument, or other evidence of the corner is not found, the registered land surveyor shall do the following:

- (1) Establish the location of the corner:
  - (A) based on the best available evidence; and
  - (B) in accordance with procedures for lost or obliterated corners outlined in or authorized by the United States Code

in 43 U.S.C. 751, 43 U.S.C. 752, and 43 U.S.C. 753, which are hereby incorporated by reference.

- (2) Monument that location.

## 865 IAC 1-12-30

- If investigation yields found corner stone, historical survey monument or other evidence
- Re-monument it and reference it so other surveyors can find it!
- If corner stone, historical survey monument or other evidence is not found, establish the corner based on best available evidence and in accordance with procedures outlined in U.S. Code (incorporated herein).
- Monument that location.

# Indiana Administrative Code

## 865 IAC 1-12-30 Section corner perpetuation, continued

(h) If the corner was perpetuated for use on an original, retracement, or route survey, the registered land surveyor shall do

the following:

(1) Describe and reference the monument in such a manner that facilitates its recovery by other surveyors.

(2) Document the following:

(A) The chain of history of the corner to the best of his or her knowledge.

(B) The evidence found and weighed.

(C) The search area or areas.

(D) The theory of location applied in re-establishing the corner.

(E) Other relevant information regarding the perpetuation of the corner in the surveyor's report or on the plat of

survey, or both.

(3) Provide a copy of the surveyor's report and plat of survey to the county surveyor.

*(State Board of Registration for Professional Surveyors; 865 IAC 1-12-30; filed May 4, 2006, 1:25 p.m.; 29 IR 3021; readopted*

*filed Nov 9, 2012, 11:26 a.m.; 20121205-IR-865120390RFA)*

## 865 IAC 1-12-30

- If corner was perpetuated for use on a survey....
- Describe and reference it.
- Document it. Chain of history, evidence found and weighed, search area, theory of location, and more.
- Document it on the plat of survey or on the surveyor's report
- Provide a copy of the surveyor's report to the county surveyor.

# Discussion