# The Public Lands Survey System

### A Dependable Network for Land Ownership



Wisconsin County Surveyors Association

**"This Land is Your Land"** PLSS Forum - April 18, 2019 Darlington, Wisconsin

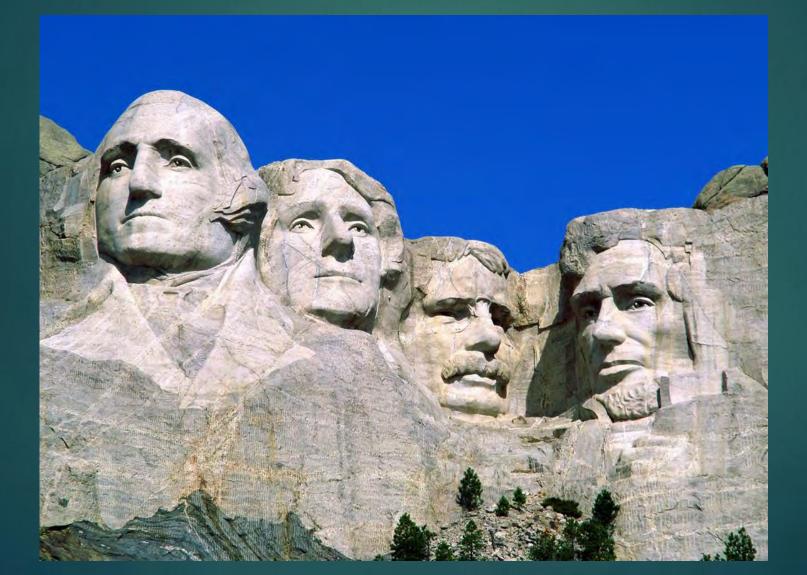
> BRYAN MEYER – LA CROSSE COUNTY SURVEYOR



#### Audio books = 150-160 words per minute

Bryan = Clocked at 192 words per minute (gusts in excess of 200 words per minute)

# Name that National Monument



# MOUNT RUSHMORE

The sculpture features the 60-foot heads of Presidents George Washington (1732–1799), Thomas Jefferson (1743–1826), Theodore Roosevelt (1858–1919), and Abraham Lincoln (1809–1865). The four presidents were chosen, respectively, to represent the birth, the growth, the development, and the preservation of the United States.

# Land surveyors have a different name for that monument







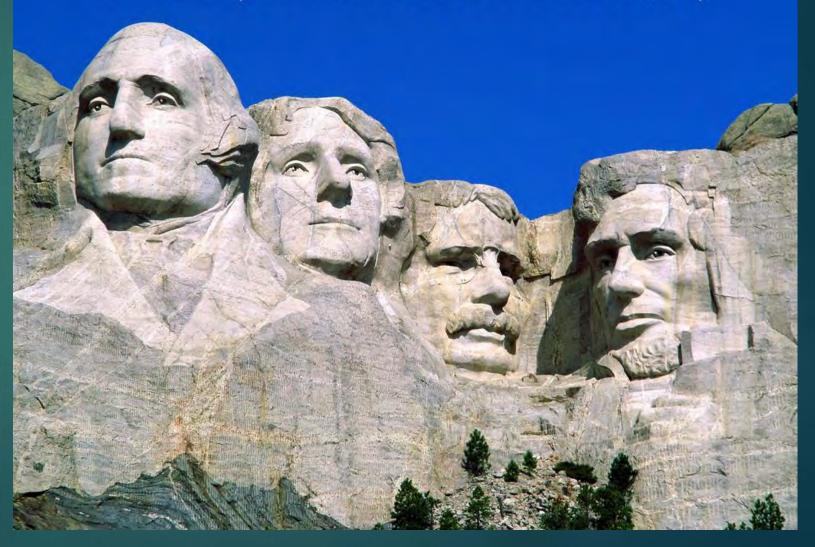
# National Surveyor's Monument

Lincoln = Surveyor

Jefferson = Surveyor

Washington = Surveyor

#### 3 Surveyors and some other guy



For your convenience, many of your questions and comments have already been incorporated into this presentation.

# "Dude, what exactly qualifies you to talk about the Public Land Survey System?"



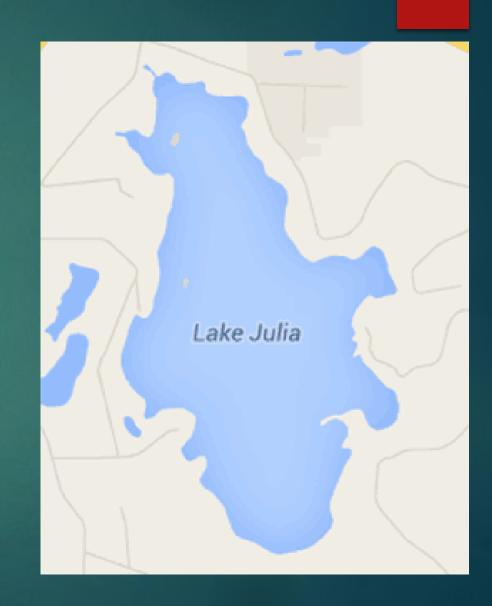
June 1976									
Sunday	Monday	Tuesday	Friday	Saturday					
		1	2	3	4	5			
6	(7)	8	9	10	11	12			
13	14	15	16	17	18	19			
20	21	22	23	24	25	26			
27	28	29	30						

#### H. A. Sime and Associates Tomah, Wisconsin

Historian Mathematician Cartographer Lumberjack Archeologist Interpreter Writer Thinker Moderator







H. A. Sime and Associates Tomah, Wisconsin







Sundo	ay Mond 1	ay Tuesdo	ay Wednesday 3	Thursday 4	Frida 5	y Saturday 6
7			10	11	12	13
14	15	16	17	18	19	20
21	22	23	24 Christmas Eve	25 Christmas Day	26	27
28	29	30	31 New Year's Eve			
-		5 M T	5 6 7 8 4	January 2009 M T W Th F Sa 1 2 3 5 6 7 8 9 10 12 13 14 15 16 17	Notes:	-





LA CROSSE COUNTY

Exceptional services. Extraordinary place.





The thing about my job that I am most passionate about is remonumentation of the Public Land Survey System





### "So, just what is the Public Land Survey System?"

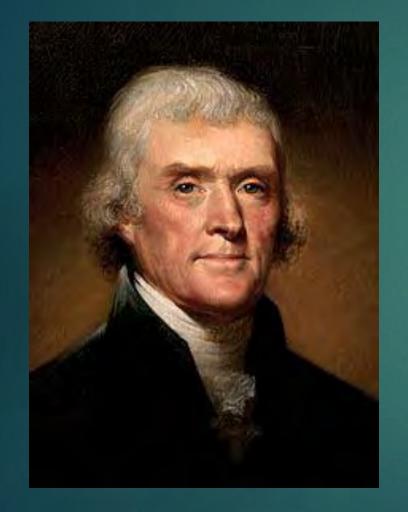


# PUBLIC LAND SURVEY SYSTEM

The Land Ordinance of 1785 was adopted by the United States Congress of the Confederation on May 20, 1785.

Set up a standardized system whereby settlers could purchase title to farmland in the undeveloped west

Congress at the time did not have the power to raise revenue by direct taxation, so land sales provided an important revenue stream.

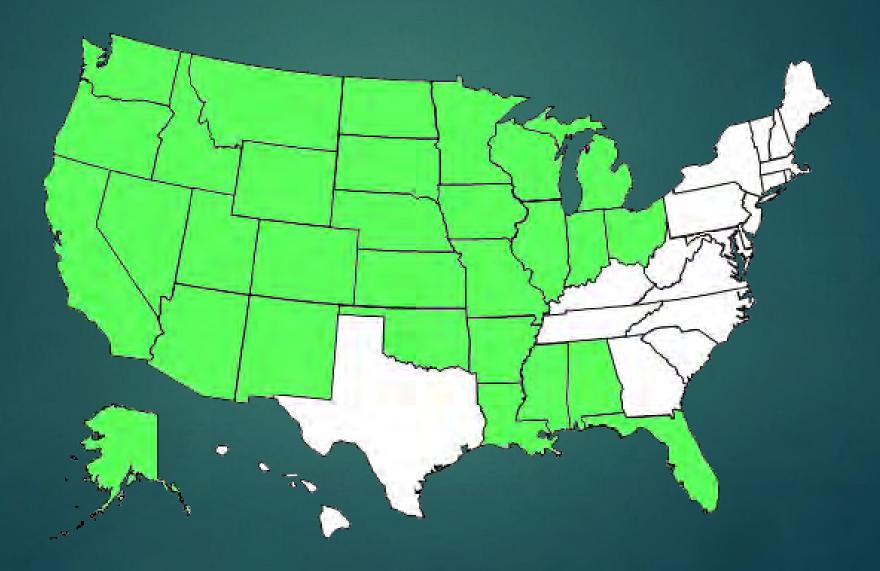


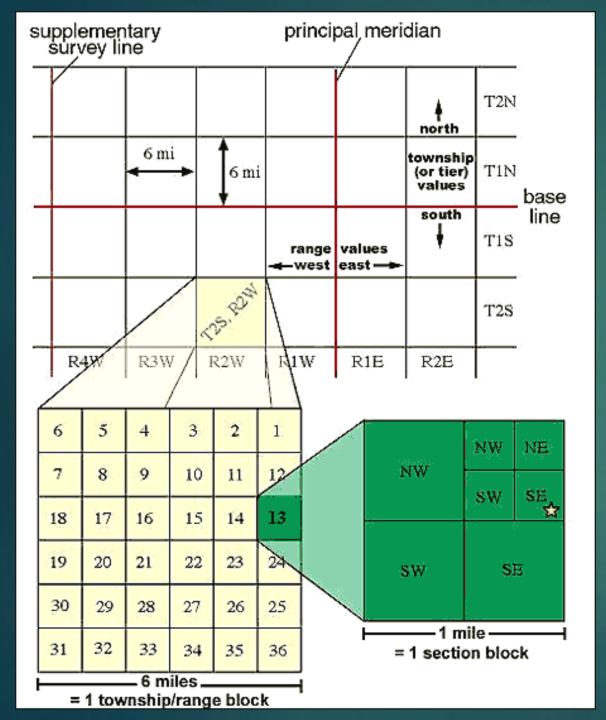
#### **Championed by Thomas Jefferson**

#### Yeoman farmers

160 acres

# Public Lands Survey System (PLSS)





#### PLSS AT A GLANCE

Townships = Roughly gridded 6 by 6 mile squares.

Sections = Roughly gridded 1 by 1 mile squares.



The PLSS is the fundamental way that almost all of the state's land was first systematically marked, divided, and described, and remains the basis for that real property today. The Public Land Survey System (PLSS) has a profound affect on how society operates in Wisconsin; however, it is such an underlying factor that most of us are unaware of it on a daily basis. Public Land Survey System (PLSS)

Wisconsin's first man-made

# INFRASTRUCTURE

#### in fra struc ture

the basic physical and organizational structures and facilities (e.g. buildings, roads, power supplies) needed for the operation of a society or enterprise.









#### Infrastructure that protects land ownership rights



# Markers set in the ground as reference points and guides



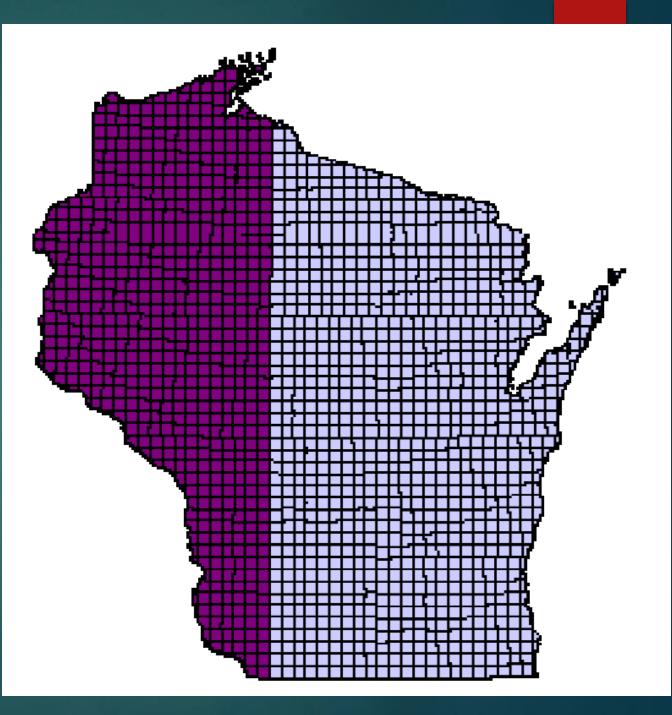
In Wisconsin, the Original Government Survey took place between 1832 and 1866







#### Base line and Principal Meridian





**"Every** section corner monument in the state; the boundaries of each county, city, village, township, farm and lot; the position of roads, lakes and streams, all were surveyed and mapped from this Point of Beginning."

#### THE POINT OF BEGINNING

OFFICIAL MARKER

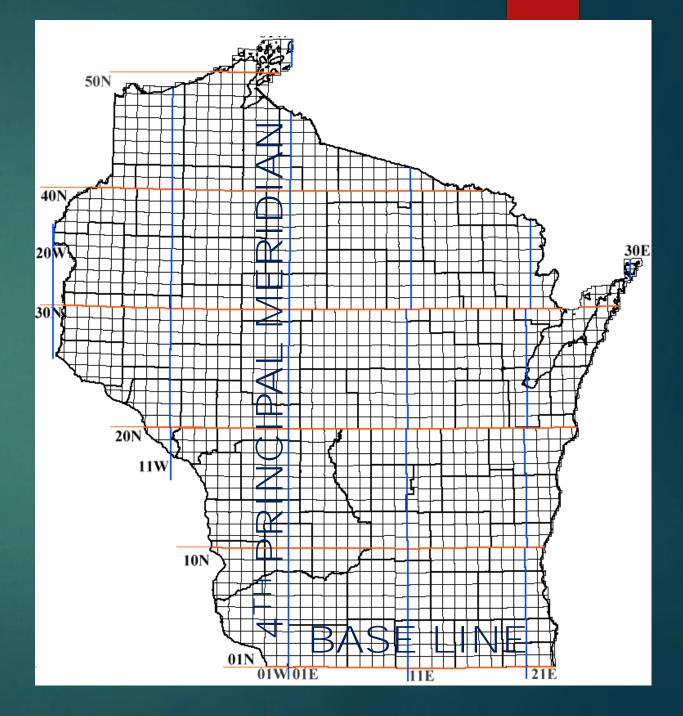
Late in 1831, when Wisconsin was still in Michigan Territory, Lucius Lyon, U.S. Commissioner on the survey of the northern boundary of the State of Illinois, set a post and erected a mound of earth 6 feet square at the base and 6 feet high, at a point 1/2 mile east of here to mark the intersection of that boundary and the 4th Principal Meridian. The Wisconsin public land surveys were begun here in 1832 and were completed "up north" in 1867. Lyon surveyed 16 townships in S.W. Wisconsin in 1832-33, which opened this Territory for settlement. In 1833 Michigan Territory honored this veteran surveyor by electing him their Delegate to Congress. The post and mound he erected at this point were obliterated by fence and power line construction long ago, but the point is now preserved by a new concrete surveyor's monument. Every section corner monument in the state; the boundaries of each county, city, village, township, farm and lot; the position of roads, lakes and streams, all were surveyed and mapped from this Point of Beginning.

Erected 1970

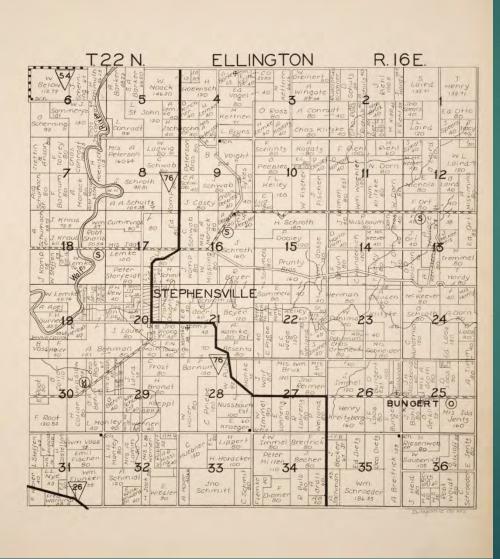


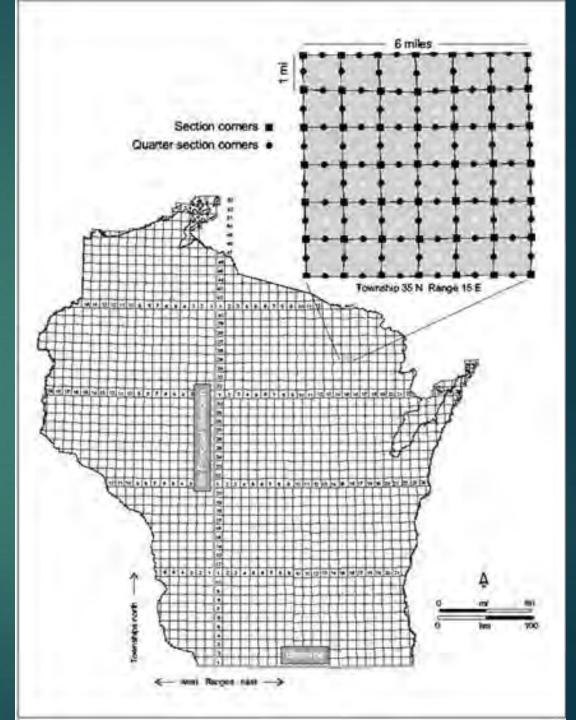
# Townships across Wisconsin

#### 6 mile by 6 mile squares



Each of those 6 mile by 6 mile Townships are then divided into 1 mile by 1 mile squares known as Sections.





						MERIDIAN							
			RJ	w					R	1E			
	6	5	4	3	2	1	6	5	4	3	2	1	
	7	8	8	10	11	12	7	8	8	10	11	12	
T1N	18	17	16	15	14	13	18	17	16	15	14	13	
	19	20	21	22	23	24	19	20	21	22	23	24	
	30	29	28	27	26	25	30	29	28	27	26	25	
BASELINE	31	32	33	34	35	36	31	32	33	34	35	36	
	6	5	4	3	2	1	6	5	4	3	2	1	
	7	8	8	10	11	12	7	8	8	10	11	12	
T1S	18	17	16	15	14	13	18	17	16	15	14	13	
	19	20	21	22	23	24	19	20	21	22	23	24	
	30	29	28	27	26	25	30	29	28	27	26	25	
	31	32	33	34	35	36	31	32	33	34	35	36	

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

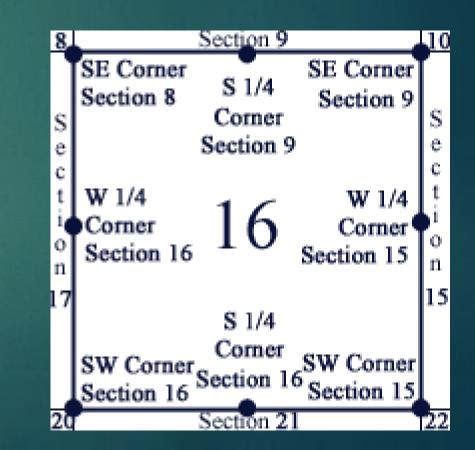
1 township = 6 miles

1 township = 36 sections

# Corners established by the PLSS

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

A corner marker set every half mile on the exterior of every Section.



## **"School Section"**

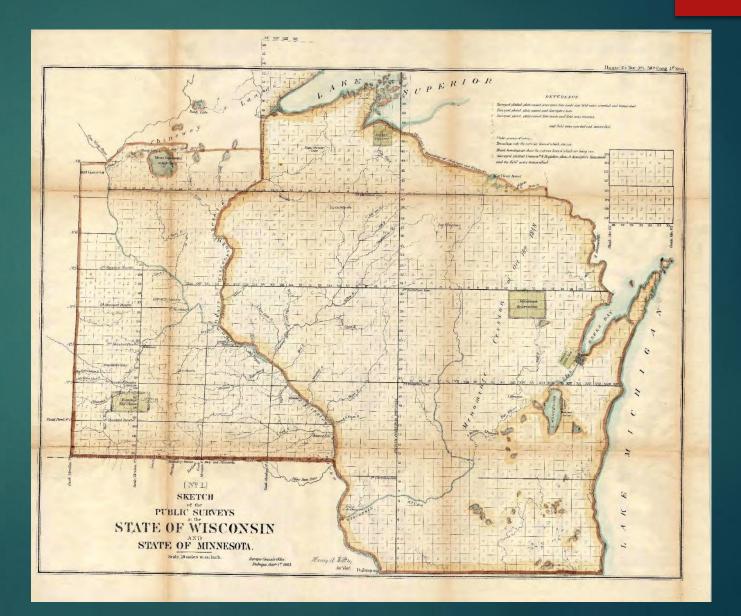
# Land Ordinance of 1785

The ordinance was also significant for establishing a mechanism for funding public education. Section 16 in each township was reserved for the maintenance of public schools.

"There shall be reserved the Lot No. 16, of every township, for the maintenance of public schools within said township."

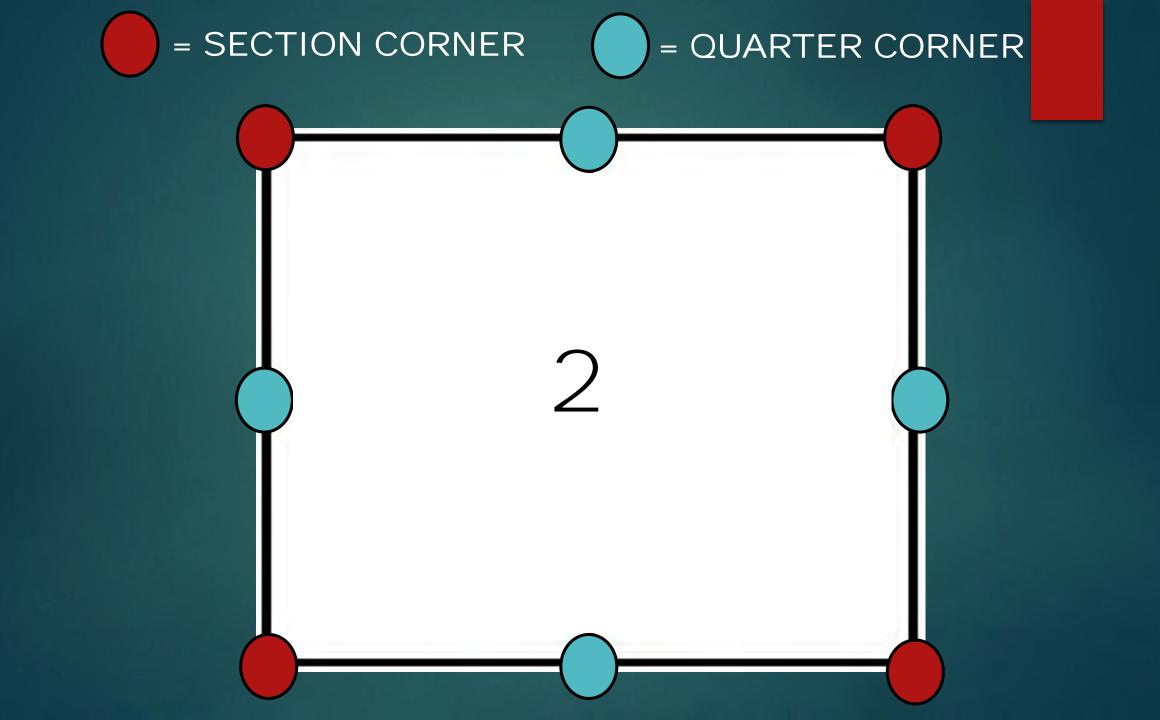
#### Wisconsin's first man-made infrastructure

Markers set basically every half mile across the entire state which serve as reference marks for land ownership.



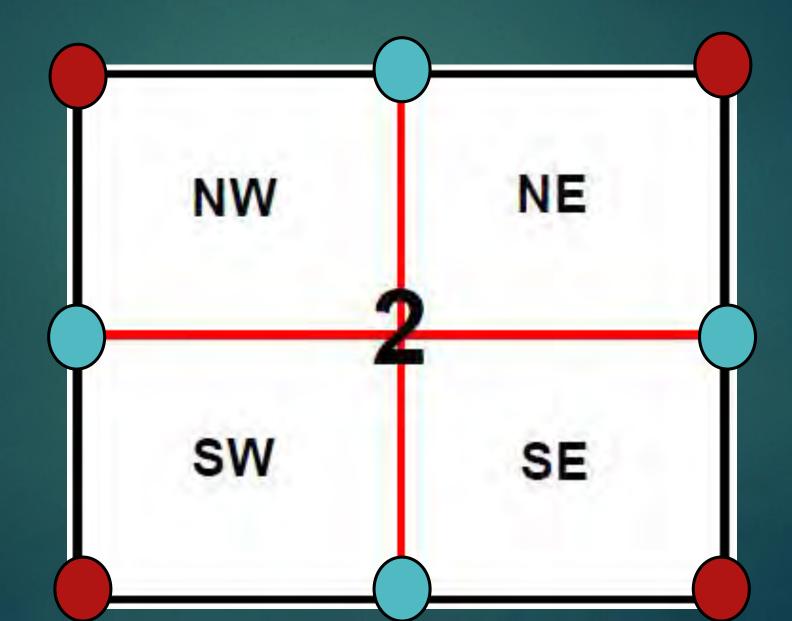
#### **Corners established by the PLSS**

# SECTION CORNERS AND QUARTER CORNERS





#### = QUARTER CORNER



#### Original Government Notes

- Measurements
- Corner established (wood posts typ.)
- Bearing trees
- Terrain
- Assessed timber and soils

RANGE NO. 194 ATH MERIDIAN 74.J. C.L. Var. 8+15' 5B TOWNSHIP NO. 19 NORTH Var 8015 Theat along SBg Sec 31 West along Sto J Sec. 32 12.86 B Cat 12 in dia \$ 90 Creek 15 of Smith as enter Set port go sec.cor prairie no 5 40.00 17.00 Enter tember n-3 June 8 7 37619 20 97 8376 54 to at bet post gr. Lecter. The Cat 2497 1817 \$7.00 Leave bey land "douter Do 247 692443 reder fromp South Slie Wlack Bendial. 80.00 Let port car of Secon of a 32 Jo. 60 Interacted MB 54 lks novels of Cont 12 1 29 24 14 temporary cor but set post cor depen 81 706 12 of Js 18 V 19 7. Co. 1-22 Land & of swamp same any A Cak 115 37 7 30 D. 127 31 7 32 last mile - ust of mele alder, Jamarack, Maple and Sand Eg creek alder swamp befor Swarnt nest of mile rolling ad level mostly well timbered. No R Out Indrate Deck 1845

#### Original Corners of the PLSS



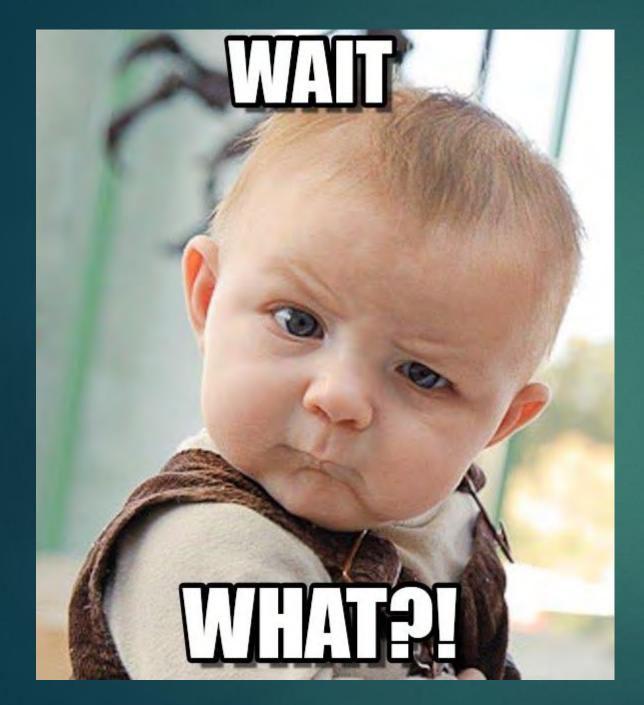




#### Bearing trees

Wood posts (most cases)





### "Wait"

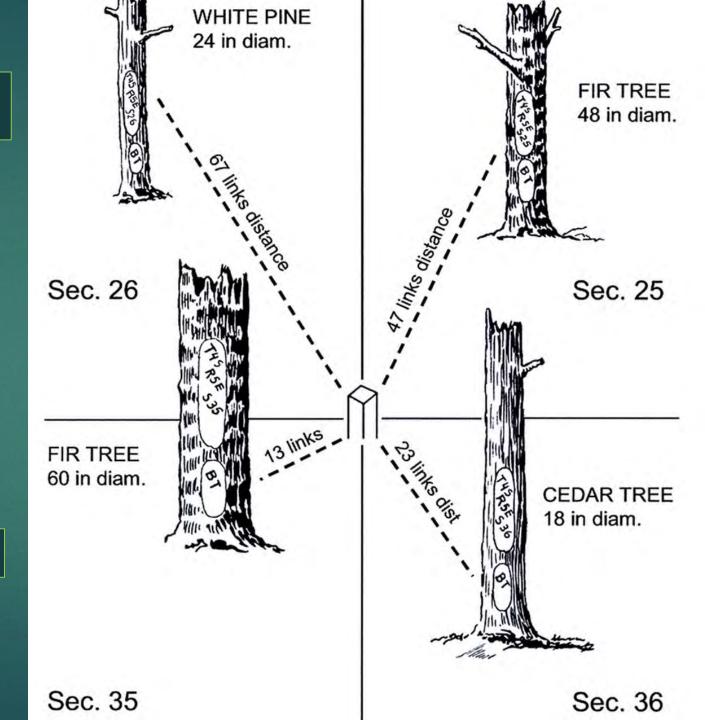
# "Wood posts?"

"Trees?"

#### Marking the Corners

# Wood posts were typically set for the corners

#### Bearing trees or witness trees



"Hey Bryan, do you have any examples of the equipment or wood posts from the PLSS?" If you own land in Wisconsin, these corner monuments effect you and your property ownership rights!





"If these corner locations are so important, shouldn't we be taking steps to recover them and get them back in the ground?"



In order to protect landowner rights, these corners are absolutely necessary!



"Sounds tricky, how do you find or re-establish those corner locations?"



## Look at the evidence

Original Government Survey Evidence

Subsequent survey work done after the OGS

Fence corners and fence lines

Witness testimony



Warrens WI Granberry Granberry Granberry SEPTEMBER 27.29.

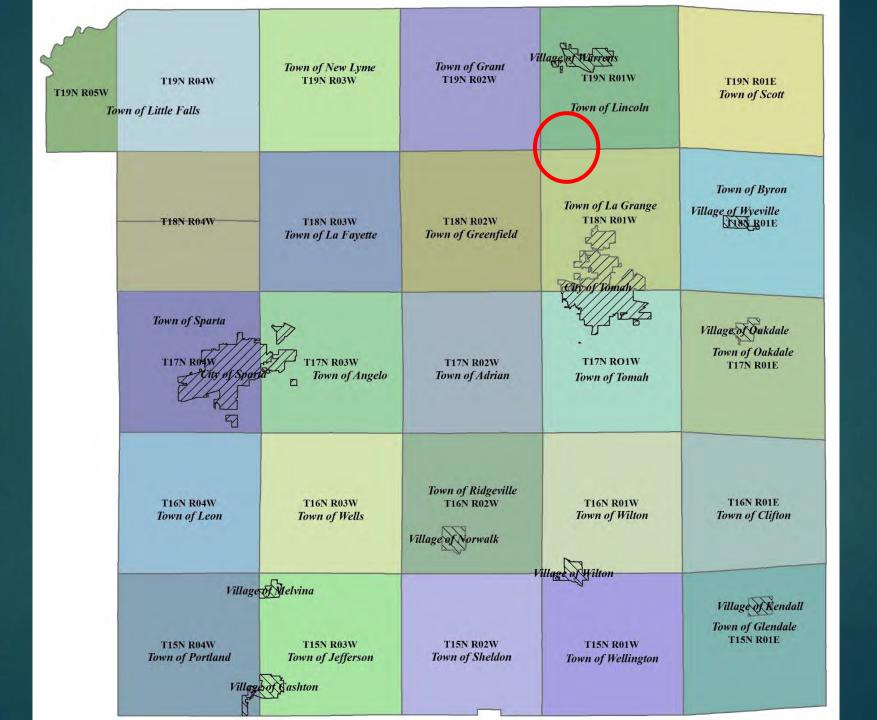






# MONROE COUNTY



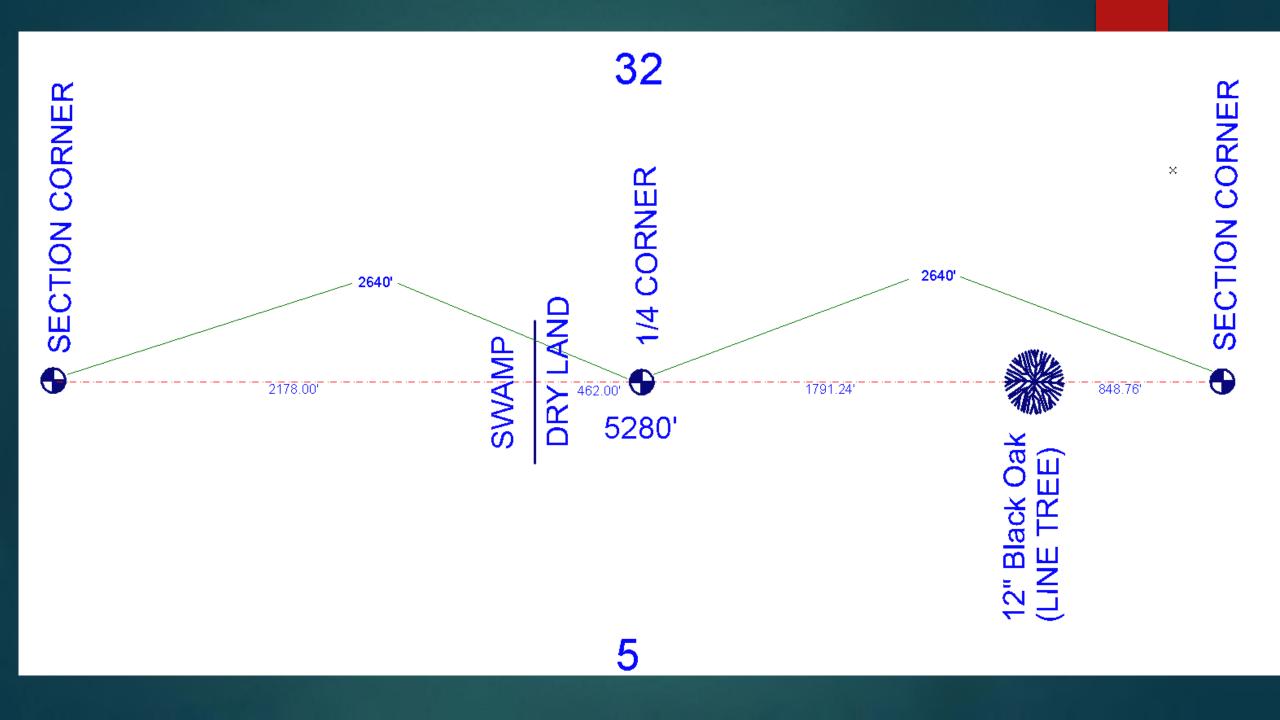


RANGE NO. 197 ATH MERIDIAN HJ. C.L. Var. 8+15 SB TOWNSHIP NO. 19 NORTH North Nav 8+157. West along Stor Sec. 32 West along SBg Sec 31 12.86 B bat 12 in dia \$ 90 Creek 15 of Lovets as enter Set port go afect.cor prairie no 5 40.00 Pine 87 37619 17.00 Enter tember 7-5 to at post ge decicar. I bak 247 1617 Do 247 692443 20 17 85 26 54 #7.00 Leave buy land "donter alder hump south She Work Bendia! 80 00 Let point car of Some 81 2 32 10.60 Intersected AB 54 lks Morels of CONT 12. 7 29 24 14 temporary car. Ed ait part cor Aspen 81 706 12 of J. 18 V 97. Co. 1+2% Land & of swamp same ag A Oak 115 37 7 30 D. 127 31 7 32 last mile - seat of mile alder, Jamarack, Maple and Sand Eg creek alder swamp befor Swarnt rest of mile rolling ad level mostly will timbered . Wall Rak Indrate. Deck 1845

Treet along Sto of Sec. 32 Black 12 in dia 12.86 x 66 = 848.76' 12.86 Set port go sec.cor A0.00 40 x 66 = 2640' Pine 87.376.19 20 97 837 54 #7.00 Leave duy land "denter 47.00 x 66 = 3102' reder fromp south 80.00 Set port car of Secon 11 2 32 80 x 66' = 5280' QON 12 1 29 24 14 depen 81 706 12 Land & of swamp same up Land E of swamp Same East mile – rest of mile act mile - unt 7 mile alder, Jamarack, Maple ad Alder, Tamarack, Maple Aspen Swamp acted Swant

19 x 0.66' = 12.54' 54 x 0.66' = 35.64'

14 x 0.66' = 9.24' 12 x 0.66' = 7.92'







Steve Waak Washburn County



Steve Waak Washburn County



Steve Waak Washburn County



And when we find evidence of the Original Government corner, surveyor's reactions go something like this....







#### Time and the elements took their toll on the initial system.





Raining





Windy



Partly Sunny

Thunderstorms













Partly Cloudy







# Over the years, the vast majority of PLSS evidence was



#### "What if the original government survey evidence is gone?"

# Then what?