Role of the County Surveyor Vernon County, WI



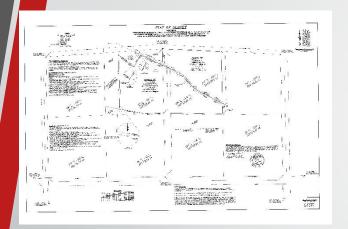
PLSS & Survey Forum

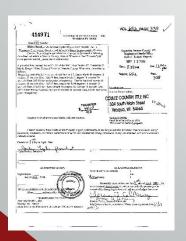
Darlington, WI - April 18, 2019



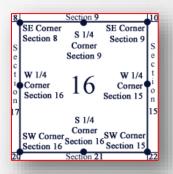
INFRASTRUCTURE!!!!!

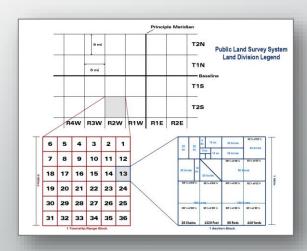
State Stat. 59.74 (2)(i) Jan. 1, 1970; established that counties maintain 5% every year.







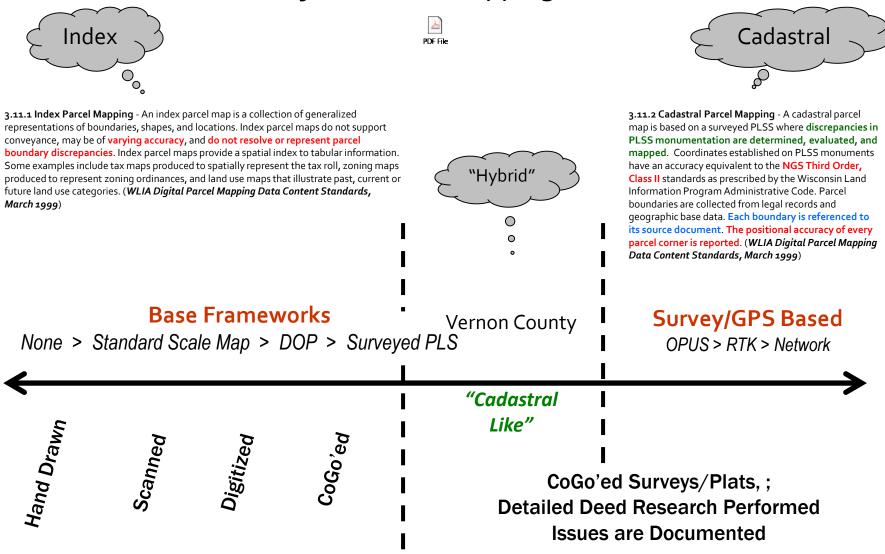




Importance of County Surveyor to Land Information Program

- 16.967 Land information program.
 - (7) Aid to counties.
 - (a) A county board that has established a county land information office under s. 59.72 (3) may apply to the department on behalf of any local governmental unit, as defined in s. 59.72 (1) (c), located wholly or partially within the county for a grant for any of the following projects, except that a county shall complete the project under subd. 1. and make public records in the land information system accessible on the Internet before the county may expend any grant moneys under this paragraph for any other purpose:
 - 1. The design, development, and implementation of a land information system that contains and integrates, at a minimum, property and ownership records with boundary information, including a parcel identifier referenced to the U.S. public land survey; tax and assessment information; soil surveys, if available; wetlands identified by the department of natural resources; a modern geodetic reference system; current zoning restrictions; and restrictive covenants.
 - 2. The preparation of parcel property maps that refer boundaries to the public land survey system and are suitable **for use by local governmental units for <u>accurate land title boundary line or land survey line</u> information.**
 - 2m. In coordination with the department, the creation, maintenance, or updating of a digital parcel map.
 - 2013 Legislation Act 13 & Statewide Parcel Strategic Initiative

Continuum of WI Parcel Mapping Realms



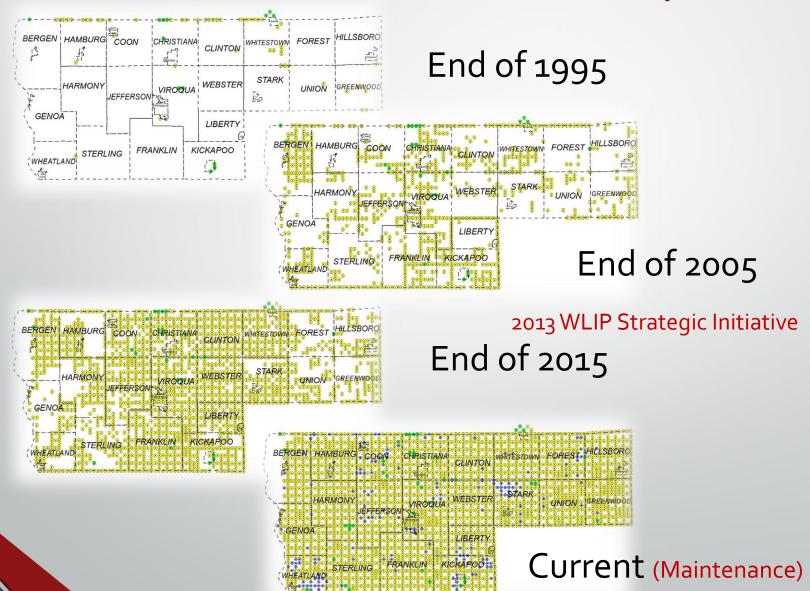
All WI parcel custodians are moving toward Cadastral Mapping



History of Vernon County Surveyors

- Full-time Co Surveyor 1851 1923?
- None 1923?-1996 (PLSS Period of "Neglect")
 - ✓ loss of evidence & "multiple" monuments set representing same corner
- ·---- 1994 Vernon County Officially Began to Participate in WLIP -----
 - 1996-2000 (Beginning of Modern Remonumentation Efforts)
 - ✓ 1996-2000 Contracted for several Remonumentation Projects & Bounty Program without oversight by a County Surveyor
 - ✓ Several Corners Remonumented Incorrectly
 - Part-time 2000-2006
 - None 2006 2015 (contracted for review of "tie sheets"/surveys from 2008 2015)
 - Part-time 2015-2019
 - Full-time 2019

Remonumentation History



Resurrecting Full-time County Surveyor

- Feb. 2018, LIC began Discussing PLSS Corner Maintenance Plan & County Surveyor Position
 - ✓ Analyzed maintenance of corners on a 20 yr cycle (~ 5% per year)
 - ✓ Need for office hours & availability to public/staff/surveyors
 - ✓ Review of Surveys (CSM Review Ordinance)
 - Attending WI Co Surveyor's and Land Information Council Meetings
 - ✓ Performance of surveys for County Departments
 - ✓ Asked to compare with other counties (1 ½ to 2 yrs ahead)
- Tallied Money Spent over 22 Years on Remonumentation
 - ✓ Over \$1.2 million invested on PLSS Infrastructure
- Concluded that the above items justified a full-time
 Position

Resurrecting Full-time County Surveyor

County Board

Level of Service Comparison -

Not an "Apples to Apples" Comparison

Contracted

Basic County Surveyor Duties

Maintenance of PLSS – level is dependent on contract terms

Counties with Full-Time Surveyors want these

Full-Time Position

Basic County Surveyor Duties - more time available to staff & public

Maintenance of PLSS - taken care of as major part of job..." takes ownership"

Greatest Availability to:

- Staff
- Private Surveyors
- Public

County's Professional Expert on land surveying matters:

- Parcel Mapping/Property Listing Guidance
- Awareness of Local Gov. Ordinances
- Resource for Local Units of Gov.

Performs any Land Surveys Needed by the County

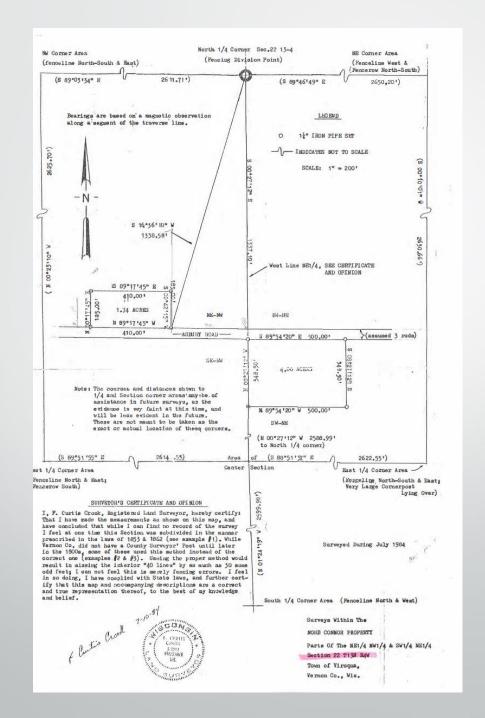
Available about 1 day per week to assist Land Conservation Dept. with project surveys & Highway Dept. as needed

Eliminates potential for "Conflict of Interest" – not allowed to perform private survey work within County



Examples of Support for Land Information\Parcel Mapping

- Authoritative/respected contact to private surveyors
 - ✓ clarification about information on a survey
 - ✓ request corrections to survey maps if needed
- Advises on interpretation & mapping of "conflicting" and/or "unclear" legal descriptions/surveys
- Center of Sections & "40" Corners
- Unique PLSS Section breakdown situations



So what does a County Surveyor Do?

- Perform maintenance on approximately 2800 PLSS Corners
- Maintain the county survey records
- Survey Map Review
 - ✓ Ensure the quality of survey maps being filed or recorded
- Assists other Professional Land Surveyors with questions
 - ✓ The County Surveyor is the expert for the county
- Assists land owners with questions about their property
- Assists other county departments with survey issues
 - ✓ 1000's of questions in regards to parcel mapping issues
 - ✓ Survey of new County Highway Shop
 - ✓ Assist Economic Development with FEMA buyout program

Maintenance of PLSS Corners

- Goal of 5% of corners per year (20 yrs)
- Total of about 2800 corners county wide
- About 140 corners per year (about 3 per week)
- Administer Bounty Program
 - ✓ Determine eligibility
 - ✓ Review submitted tie sheets
- What would the cost of yearly maintenance be for full time Co Surveyor vs contracted maintenance?

Protecting the Infrastructure

- State Statute 59.74(2)(e)(1)
- We don't just make it up. If you intentionally destroy a PLSS corner monument location you can be liable for damages & the replacement costs

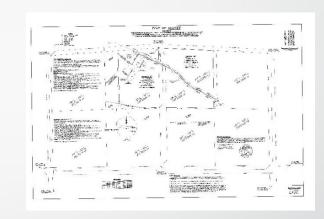


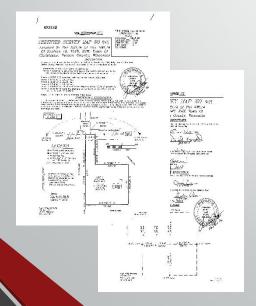
Maintaining the County Survey Records

- Vernon County has over 6000 Survey Maps on file
 - ✓ In addition to the paper copies on file, digital copies of each are also maintained
- There are over 3000 PLSS Corner Records on file
- A full time County Surveyor can set aside time to maintain the files. Insure ease of access and kept orderly
- So, who would be maintaining these files without a County Surveyor?

Survey Review

- Vernon County has reviewed CSM's for compliance since 2008
- Prior to having a county surveyor it was done by a contracted reviewer





- This leads to a question of relevancy to Vernon County
- Many surveyors in the area have expressed satisfaction

Date of CSM PLS# Sec T N, R W/E	
Vernon County Certified Survey Map Review Checklist	
1. "Certified Survey Map No " is shown on each sheet. s236.34(1m)(c)	
 Shows location by Govt Lot, 1/4-1/4, Section, Town, Range & County on each sheet. s236.34(1m)(c) 	
3. CSM contains no more than 4 parcels of land (including lots and outlots). s236.34(1)(am)	
4. Ratio of error may not exceed 1 / 3000 for any lot. s236.34(1m)(a)	
5. Each sheet signed and sealed by a Professional Land Surveyor. s236.34(1m)(a)	
Each seal shall be signed and dated in a contrasting color. AE 2.02(7)(b)	
6. Includes a binding Margin of 1.5" and 0.5" margin on all other sides on durable white paper. s236.34	(1m)(c)
 Includes a 3" x 3" blank square in the upper right corner. VC CSM Review Ordinance (Ord. No. 2015-1) 	
 8. Includes a graphic scale of not more than 500 feet to an inch. s236.34(1m)(c) 	
9. If more than one sheet, then each sheet shall be numbered consecutively and total number of sheet	.s.
s236.34(1m)(c)	
10. Street side lines are monumented if a lot corner falls within a street. s236.15(1)(ac)	
 All monuments are identified by type, outside diameter, length and weight or by Legend. s236.20(2) 	(b)
12. Set monuments are at least 18" long and weighing not less than 1.13 lbs/linear ft. s236.15(1)(c)	
13. Shows length and bearing of all exterior boundaries and interior lot lines. s236.20(2)(c)	
14. Shows 'recorded as' bearings and distances if different. s236.20(2)(c)	
15. All lots and outlots must be consecutively numbered. s236.20(2)(e)	
16. All easements are shown by centerline bearing and width or boundary bearings and distances. s236	i.20(2)(c)
17. Shows the exact width of all easements, streets and alleys. s236.20(2)(g)	
18. Shows the centerline of all streets. s236.20(2)(h)	
19. Shows the names of adjoining streets, highways and subdivisions underscored by dashed/dotted lir s236.20(3)(d)	
20. Shows a North Arrow on all sheets with a map feature, which is referenced to a boundary line of th	e quarter
section in which the survey is located. s236.20(2)(i)	
21. Shows the area in square feet of each lot and outlot. s236.20(2)(j)	
22. Shows curve information on all curves or in a curve table (the main chord must be shown as a dash	ed/dotted
line). s236.20(2)(k)	
Radius Central Angle Chord Bearing	
RadiusCentral AngleChord Bearing Chord LengthTangent Bearings (Main Curve)	
23. Shows the location of the survey by bearing and distance from a boundary line of a quarter section	in which
the survey is located. The monuments at the ends of the boundary line are described and bearin	g and
distance are shown. s236.20(3)(b)	
24. Shows all monuments used to determine the location of the survey boundary. AE-7.05(4)	
25. Surveyor has complied with the requirements regarding Public Land Survey Monument Records. Al	
26. Shows meander lines with bearings and distances and the distance to the ordinary high water mark	. Not less
than 20 feet from the ordinary high water mark. s236.20(2)(g) & s236.15(1)(d)	
27. Shows ordinary high water mark as determined by the DNR or an approximate ordinary high water s236.025(1)	mark.
28. Includes required statement for an approximate ordinary high water mark. s236.025(3)	
29. Includes required statement for any lots or outlots that extend beyond the ordinary high water mai	k.
s236.20(6)	
30. Includes a certificate by the Professional Land Surveyor that includes the description of the propert	y, who
directed the survey and that it complies with 236.34 and with the VC CSM Review Ordinance.	
s236.34(1m)(d) and VC CSM Review Ordinance (Ord. No. 2015-1)	
31. Includes a notarized owner's certificate. VC CSM Review Ordinance (Ord. No. 2015-1)	
32. Includes the name and address of the surveyor and the client. VC CSM Review Ordinance (Ord. No. 201	5-1)
33. Includes all required certificates for any dedications. s236.34(1m)(e)	
Reviewed by: Review Date:	_
Passed (no comments) Passed (comments) Flagged	
Comments:	

Answering Questions

- The County Surveyor is the focal point of questions
- Land Owners, Surveyors, Property Lister, & other County Departments
 - ✓ Land owners often don't know who else to turn to.
 - ✓ Other surveyors need an expert on county/town requirements.
 - ✓ Highway Department, Land Information, any department dealing with property issues.
- Without the County Surveyor who answers them?

Summary

- 22 years of investment in PLSS infrastructure
- Maintenance of this infrastructure is important even in a rural environment
- The Vernon County Board agreed that the PLSS is important to the County & it's citizens
- Decided a full time position funded by the tax levy was justified (voted 24 to 3)
- Questions?