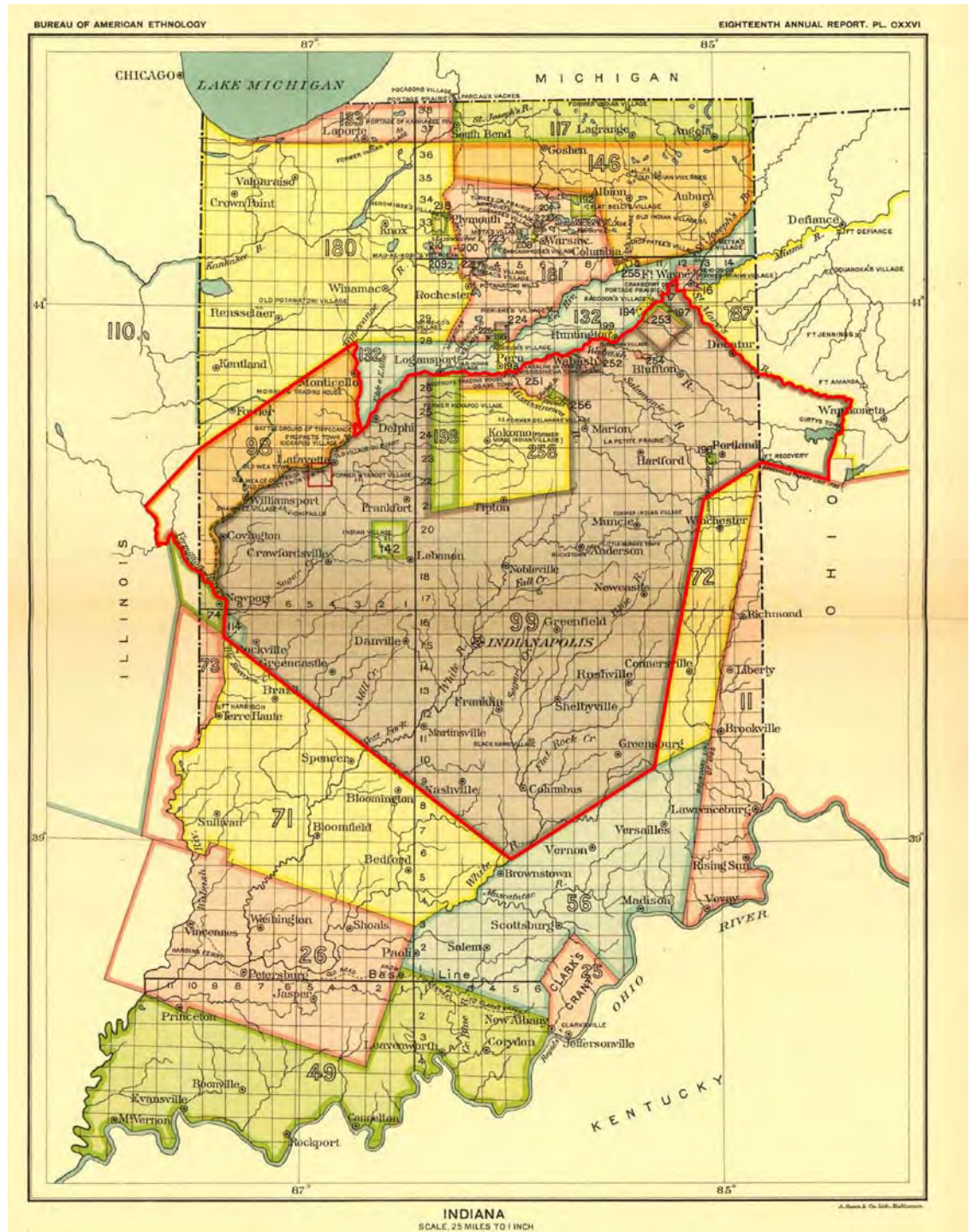


HOOSIER SURVEYOR

QUARTERLY PUBLICATION OF THE INDIANA SOCIETY OF PROFESSIONAL LAND SURVEYORS, INC.
AFFILIATED WITH THE NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS, INC.

VOLUME 42 • NUMBER 2 • FALL 2015

ISPLS, INC.



A map by Charles C. Royce that shows the various treaty parcels in Indiana. Learn more about this map by reading the enclosed article "Who Sold The New Purchase?" by Jim Swift, PS. Be sure to also check out Jim's session "Stone Hunter" at the 2016 ISPLS Convention.

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L to R: Don Williams, Crown Point; Jason Coyle, Fishers; Bernie Guerrettaz, Bloomington; Don West, Carmel; Rich Hudson, Valparaiso; Perry Cloyd, Hope; Eric Banschbach, Indianapolis; Dennis Grumpp, New Palestine; Jim Tibbett, Linton; Sean Suttles, Chandler; Brent Friend, Franklin; and Bryan Catlin, Clayton. Not pictured: Todd Bauer, Leo. Photo provided by Henry Aldridge, Photographic Impressions

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Robert Jason Coyle

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Chair: Don West

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State Coordinator:
 Tony Gregory

HOOSIER SURVEYOR

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EDITOR'S NOTES

Deadlines for copy for various planned issues of the Hoosier Surveyor are as follows:

- Winter - February 1
- Spring - May 1
- Summer - August 1
- Fall - November 1.

The Hoosier Surveyor is published quarterly by the Indiana Society of Professional Land Surveyors to inform land surveyors and related professions, government officials, educational institutions, libraries, contractors, suppliers and associated businesses and industries about land surveying affairs.

Articles and columns appearing in this publication do not necessarily reflect the viewpoints of ISPLS or the Hoosier Surveyor staff, but are published as a service to its members, the general public and for the betterment of the surveying profession. No responsibility is assumed for errors, misquotes or deletions as to its contents.



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PRESIDENT'S MESSAGE

Bernie Guerrettaz PS, 2015 ISPLS President



In the latest issue of the *Hoosier Surveyor* I made a prediction that leading into the Thanksgiving and Christmas Holiday Seasons, we as professionals and in our personal lives would find ourselves with plenty of things to do as the year and its projects close out. Proof is in my backyard here in Monroe, Morgan, and Greene counties as the fury of the I-69 Section Five work is bustling and striving to complete by year's end. I believe that the new sections of I-69 will prove to link communities that until now people considered inconvenient to visit, and will share commerce. The Guerrettaz family will certainly take advantage of it on a trip to Evansville (hopefully) before Christmas, and once January arrives our trips to Vincennes University will use that new corridor to meet up with the kids for supper from time to time.

As we close the calendar year at ISPLS your Board of Directors is considering our next step with regard to the management of our Society. As you may have read, the Board presented an RFP for those services and I am happy to inform you that we received four very impressive proposals from both individuals and organizations. Aspects of the proposals are similar but each is unique on its own merit and all four are Indiana based.

Our initial introduction to an Administrative Management Company (AMC) came in the form of Banning Engineering, P.C. as our Executive Director Jason Coyle, PS, continued in that role while returning to surveying on a daily basis. With the assistance of Ms. Andrea Wade, Administrative Assistant, Jason and your Board of Directors continued to provide the services you as ISPLS Members require. I offer my sincere appreciation to Banning Engineering, P.C. for their commitment to ISPLS, in their capacity as our current AMC and as a Firm Member.

Behind the scenes there are several individuals who equip the Board of Directors with the necessary tools and effort to manage the services ISPLS provides. As the 2015 President of ISPLS I will point to Dennis Grumpp as one of these individuals. Because of Dennis' commitment and attention to detail as our Treasurer the BOD readily has access to the information necessary to assess accurately the variables used in our decision making. Of course Doug Herendeen is another person who keeps our society on a steady course. As the key person in the planning, organization, and oversight of the Annual Convention, Doug once again kept our largest annual event seamlessly on track for January. Considering our reliance on the Annual Convention for many of us to obtain our individual Professional Development Hours and being crucial for ISPLS's revenue stream, the ISPLS 64th Annual Convention will be held January 13-15, 2016 with an outstanding program. Considerable thanks to Doug and the Northeast Chapter of ISPLS in advance for bringing the Annual Convention to us in January as we celebrate Indiana's Bicentennial.

Moving into next year, Rich Hudson will be the 2016 President of ISPLS. Rich will do an excellent job largely because of his work ethic and his years of experience advocating for the Society as a Past President and Board member as well as for our Profession. It has been my pleasure to serve on the Board with Rich over the past few years and I look forward to working with him next year as well.

Please keep an eye out for the Board of Director nominees when the ballot is distributed and please take the time to vote. With the recent electronic voting platform, voting is simple and quick. We anticipate an extremely capable slate of professionals and I thank them all for stepping up as a nominee. Mark Gardner is the Chair of the Nominations Committee and does an extraordinary job for the Society keeping individuals interested in serving.

Finally, I want to remind you of the Indiana Professional Land Surveyors Foundation and its presence at the Annual Convention. This year the Foundation is offering via the raffle a Henry Big Boy 0.44 Magnum Rifle, an iPad, and a Go-Pro Camera. The net proceeds from the raffle benefit the Foundation. Don't forget, aside from the raffle, the Foundation accepts donations so please contact us for more information on how to do so. When you register for the Annual Convention via the flyer you received in your email you will find photos and descriptions of these items. Also, if the Foundation has not yet made it to one of your Chapter meetings, I expect they will visit in the coming months to discuss the Investment Memorandum of Understanding with you.

So with that, I leave you with one last thought. **"Stop Look and Listen"**. Lessons of Operation Safety in the Railroad Industry ring true in our profession too. Pay attention and be safe.

Very truly yours, Bernie



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ISPLS BOARD OF DIRECTORS MEETING HIGHLIGHTS

By Andrea Wade, ISPLS Administrative Assistant

August 8, 2015

The ISPLS Board of Directors met on Saturday, August 8, 2015 at ISPLS Headquarters, Plainfield, Indiana. President Bernie Guerrettaz called the meeting to order at 8:59 a.m. All board members were in attendance with the exception of Eric Banschbach. Other in attendance were Doug Herendeen and Steve Ingram.

Todd Bauer read the ISPLS Mission Statement and Sean Suttles read the Vision Statement. Both statements were also printed in the agenda. There were no adjustments made to the meeting minutes. A motion to approve the agenda was made by Perry Cloyd and seconded by Jim Tibbett. The motion passed by voice vote.

The minutes from the June 27, 2015 meeting were presented for review. A motion to approve the minutes were made by Perry Cloyd and seconded by Jim Tibbett. The motion passed by voice vote.

The written financial reports dated June 30, 2015 were presented for board review by Dennis Grumpp with assets totaling \$242,041.22. Dennis reviewed the income & expense report, investment report, profit & loss budget versus actuals report, the 2014-2015 budget spreadsheet, and the 2015-2016 budget spreadsheet. A motion to accept and receive the financial reports was made by Jim Tibbett and seconded by Don West. The motion passed by voice vote.

Jason Coyle presented the Executive Director's report. Highlights from the report included: Andrea Wade, administrative assistant, was on vacation the previous week. The renewal process is working well this year. The 99-N postcards for the chapters will be filed in the next month or so. The statue of repose went into effect July 1, 2015. Jason has been researching laws concerning railroads including the exemption for surveyors in IC 8-3-15-3. The YourMembership website has been working well for ISPLS during the renewal process. A PS Exam Review Seminar will be held sometime this fall. The Damage Prevention Council is on schedule to receive \$1,000,000.00 in fines by the end of the year. The Indiana Utility Regulatory Commission is trying to decide where to spend this money. It was suggested that ISPLS or a committee may want to apply for a grant from the Damage Prevention Council to provide safety training. The fall issue of the Hoosier Surveyor is in the process of being published, and Jim Swift is preparing a column on surveying history. The Job Creation Committee report is available online. Jason and others are investigating the cost of Accounting and CPA services. Jason is filling out an application for officers and directors insurance and has some questions about portions of the application.

Doug Herendeen and Jason Coyle distributed the schedule and speaker biographies for the January Convention. The membership meeting will be held at a different time this year. The committee is considering removing the spouse's program, but will be keeping a hospitality suite.

Stephen Ingram, CAE, led a planning session focusing on the future of ISPLS and the direction the organization may take. A separate summary of that session was prepared.

The Membership Committee submitted a written report providing an update on membership renewals. Jacob Hoffman attended the last Board of Registration meeting, and his report will be inserted into the next edition of the Hoosier Surveyor. Austin Yake with the Education Committee submitted a written report noting the approval of two new, one hour courses for chapter meetings. The Scholarship Committee submitted a report discussing the John G. McEntyre, Peggy Archer, and Purdue Calumet scholarships. Rich Hudson with the By-Laws Committee is continuing to work on the definition of a "member in good standing", and he will check with the deputy Attorney General. Mark Gardner discussed the President-Elect nominations are due by August 21, 2015. Past President's Council is still working on the Job Creation Committee report. Young Professionals chair, Frank Walkso sent a report via email.

The Indiana Professional Land Surveyors Foundation Liaison, Dan Kovert reported there is no August meeting, and the foundation is currently working on scholarships and a raffle.

The Central Indiana Chapter met on August 6, 2015 and Tracy Pursell from Bloodhound Underground Utility Locators spoke at the meeting. Chapter member Ryan Swingley measured a balloon at GENCON for a world record. The Greenville Treaty Chapter met

(Continued on page 7)

(Continued from page 6)

the week of July 19, 2015. The Hoosier Hills Chapter will be sending a check to the foundation. The Initial Point Chapter is cooperating with the Kentucky Association of Professional Surveyors to reserve a booth at the Kentucky State Fair. The Northwest Chapter presented a scholarship at their July Golf Outing event, and their next meeting is September 10, 2015. The chapter also participated in the South Lake County Agricultural Historical Society, Inc.'s 31st Annual Antique Tractor and Farm Show. Members from the chapter were given a booth at the Tractor and Farm Show, and they also did all the measurements from the tractor pull. The next meeting for the Southwest Chapter will be held September 17, 2015 in Jasper.

Unfinished Business: An email summary of the Job Creation Committee report was sent to the membership. Bernie Guerrettaz will touch base with David Gaston about public records retention.

New Business: Jason Coyle is filling out an application for the Officers and Directors insurance for Walker and Associates. Todd Ensign has sent an agreement for tax services, and the proposed fees are \$5,240.00 for review of all statements, \$3,399.00 for ISPLS taxes and \$1,100.00 for foundation taxes. More quotes are being solicited.

The next meetings will be September 19, 2015 at Banning Engineering, and October 23, 2015 at Vincennes University.

The meeting adjourned at 3:31pm.

September 19, 2015

The ISPLS Board of Directors met Saturday, September 19, 2015 at the ISPLS Headquarters (Banning Engineering) in Plainfield, Indiana. Bernie Guerrettaz called the meeting to order at 9:10 a.m. Almost all board members were in attendance with the exception of Todd Bauer, Perry Cloyd, Dennis Grumpp, Rich Hudson, and Don Williams. Doug Herendeen was in attendance via conference call at 10:55 a.m.

Don West read the ISPLS Mission Statement and Jason Coyle read the Vision Statement. Both statements were printed in the agenda. Adjustments to the agenda were presented, and items 12 'B' and 'C' from the agenda were discussed. These items were concerning the previous planning meeting and potential applicants for the Executive Director position from earlier in the year. A motion to approve the agenda, as amended, was made by Bryan Catlin and seconded by Eric Banschbach. The motion passed by voice vote.

The August 8, 2015 Board of Director meeting minutes were presented for review. A motion to approve the minutes, amended to reflect a date of October 24, 2015 for a future Board of Directors meeting was made by Jim Tibbett and seconded by Don West. The motion passed by voice vote.

In the absence of Dennis Grumpp, Jason Coyle reviewed the ISPLS financial statements with assets totaling at \$281,187.16. Jason discussed the income and expense report, the investment report, the profit and loss budget versus actuals report, and the 2015-2016 budget spreadsheet. All financial documents were dated from August 31, 2015. A motion to accept/receive the financial reports was made by Jim Tibbett and seconded by Eric Banschbach. The motion passed by voice vote.

Executive Director Jason Coyle presented a written report for review. Highlights from the report included: The hours worked by Banning Staff are now tabulated in the report. Membership reports will be ready next week. Jason has been to the Northwest and Southwest Chapter meetings. 990-N e-postcards for the chapters will be filed for each chapter before November 15, 2015. Jason is still looking at laws concerning railroads including the exemption for surveyors in IC 8-3-15-3. YourMembership is being updated page by page. A PS Exam Review Seminar will be held next weekend at Banning Engineering. The next meeting of the Central Indiana Damage Prevention Council is October 2, 2015. There is a new director at the Indiana Professional Licensing Agency.

Doug Herendeen was called in via conference call to discuss the convention report. The Education Committee has approved the revised professional programs and speakers. Joe Hess and the Wandering Cowboys will be the entertainment for Thursday evening during the convention. The foundation is considering Henry Rifles for their raffle. Gift items are being considered this year. The committee is undecided about having a spouse's program or to offer a hospitality suite. A motion to approve the program for the 2016 ISPLS Convention was made by Jim Tibbett and seconded by Bryan Catlin. The motion passed by voice vote.

(Continued on page 9)

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(Continued from page 7)

Jason Coyle reported on behalf of the Publications and Media Committee that the Hoosier Surveyor should be completed by the end of this month. The edition will include articles about the Northwest Chapter and a new column written by Jim Swift. The Membership Committee submitted a written report and provided an update on membership renewals. Walt Reeder and John Silnes were presented for approval as Life Members. A motion to approve Walt Reeder and John Silnes as Life Members of ISPLS was made by Brent Friend and seconded by Don West. The motion passed by voice vote.

The next Board of Registration meeting will be held October 2, 2015. The County Surveyors Liaison contacts are Ken Hedge and Zach Beasley. It was suggested that ISPLS could present at the Indiana Association of Counties of LTAP (Local Technical Assistance Program) Road School meetings next year. The next NSPS (National Society of Professional Surveyors) meeting will be October 10, 2015 in Sandusky, Ohio. Eric Banschbach reported on behalf of the Geodetic Control Workgroup that the Height Mod is ongoing. The new county geodetic coordinate systems have hit a website address snag with EPSG (European Petroleum Surveyors Group). Presentations and a manual are being prepared for the new coordinate systems. From the Education Committee, the courses for the Convention have been approved with the exception of the Technician Program. Eric Banschbach and Bryan Catlin were presented as nominees for President-Elect. A motion to approve the slated candidates for President-Elect was made by Don West and seconded by Brent Friend. The motion passed by voice vote with Eric Banschbach and Bryan Catlin abstaining.

The Board of Directors elections will be coming soon. There was a discussion about changing the day of the Board of Directors meetings from Saturday to a weekday. Jason will bring proposed 2016 meeting dates to the board for further discussion. The Past President's Council is still working on the Job Creation Committee report.

Eric Banschbach provided an update of recent Foundation activity. The IPLSF met September 14, and raffle items were discussed. Four applicants for scholarships were approved (with the Central Indiana Chapter participation for funding). The Hoosier Hills Chapter has sent a check per the MOU (Memorandum of Understanding) between the chapter and the foundation. There has been discussion about naming the statewide scholarship. There was also discussion of financial partnering and providing underground utility training with IURC funds.

The Central Indiana Chapter Annual Golf Outing will be held October 8, 2015, and Chuck Coyle will speak at the outing. Elections for the chapter will be held at the November meeting. The Greenville Treaty Chapter had a recent meeting with no report. The Hoosier Hills Chapter had a meeting in Bedford, Indiana, and the Chapter approved a MOU with the Foundation. Their next meeting is scheduled for October 20, 2015. Jason Coyle spoke at the Northwest Chapter meeting the week of September 1, 2015. The Southwest Chapter met September 17, 2015 in Jasper. Jason Coyle spoke at the meeting, and elections were held. The next meeting will be held in Evansville in November.

Unfinished Business: There was discussion regarding proposed revisions to the RFP (request for proposals) for Association Management Services. The Job Creation Committee, preservation of records, and the memorandum of understanding (regarding the Hoosier Hills Chapter) were discussed earlier in the meeting.

New Business: David Ayala has brought the Indiana Department of Homeland Security's policy for not accepting applications for construction design release when signed by a Surveyor, even when it is for a partial site plan, to the Board of Directors' attention. The Board will continue to investigate this matter. Proposals received for accounting services for ISPLS and the Foundation from NGS (Nysewander, Geans, & Stucky) and Ensign CPA Group were discussed. A motion to approve contracting with Ensign was made by Jim Tibbett and seconded by Don West. The motion passed by voice vote.

Brent Friend has a "Member Benefits" document in Dropbox. He asked the Board of Directors to review the document and provide comments before the information is posted on the ISPLS website. Jason Coyle discussed an issue about the required elements for utility route surveys under the current Indiana Administrative Code. Jim Tibbett had also discussed a problem he has been encountering with Indiana 811. The operators are claiming they are backed up and not issuing a ticket number or scheduling marking.

The next meeting will be held October 24, 2015 at Vincennes University.

The meeting adjourned at 1:59 p.m.

BOARD OF REGISTRATION FOR LAND SURVEYORS

MEETING HIGHLIGHTS - OCTOBER 2, 2015

By Jacob T Hoffman, E.I., P.S.

The Board of Registration for Professional Surveyors (Board) met Friday, October 2, 2015, at 8:30 a.m. The meeting was held at Indiana Government Center South, 302 W. Washington Street, Conference Room 1, Indianapolis, Indiana. Members of the Board present at the meeting were Michael DeBoy, Gary Kent, Christine Arnold, and Doug Lechner.

Natalie Stidd, Deputy Attorney General, supplied the Board with a report of Consumer Complaints and Litigation Cases. Below is a summation of that report:

Consumer Complaints			
Year	Consumer Complaints at Beginning of Year	Consumer Complaints Opened During Year	Consumer Complaints Closed During Year
2011	33	4	15
2012	22	13	25
2013	10	16	16
2014	10	20	6
2015	24	5	10
Complaints Currently Open as of October 1, 2015			19
Average Age of Open Complaints: 11.54 months			
Date of Oldest Open Complaints: December 18, 2013			

Litigation Cases			
Year	Litigation Cases Open at Beginning of Year	Litigation Files Opened During Year	Litigation Files Closed During Year
2011	8	5	3
2012	10	2	4
2013	8	1	4
2014	5	1	4
2015	2	1	2
Cases Currently Open as of October 1, 2015			1
Average Age of Open Cases: 8.65 months			

Action Taken	2011	2012	2013	2014	2015
Admin Complaints Filed	0	5	1	2	0
Cease & Desist Orders Filed	0	1	0	0	0
Summary Suspensions Filed	0	0	0	0	0
Civil Litigation	0	0	0	0	0
Judicial Review	0	1	0	0	0

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The Board met with Dale A. Rasmussen per the request of the Board regarding reinstatement of his license. Mr. Rasmussen's Indiana license had expired in 2002 and he was now seeking reinstatement of the license. Mr. Rasmussen reported that he had maintained his Illinois license along the associated continuing educational requirements since his Indiana license had expired. A motion was made by Mr. Kent and seconded by Mr. DeBoy to reinstate the license. The motion passed with a voice vote.

The Board held an administrative hearing for William W. Wright (Cause No. SBRLS 15-06) in order to review Mr. Wright's denial for application for registration as a Professional Surveyor. Mr. Wright reported that he was a licensed surveyor in Illinois and Nevada and that his application was denied due to his lack of college level surveying courses. Mr. Wright requested that his experience be considered in lieu of the courses. Mr. Wright's Illinois license was issued in 2008 and his Nevada license was issued in 2012. It was discussed that the Board did not have the authority to waive the collegiate requirement for licensure. A motion was made by Mr. Kent and seconded by Mr. DeBoy to deny the petition. The motion passed with a voice vote.

The Board held an administrative hearing for Roheen S. Paul (Cause No. SBRPS 15-07) in order to review Mr. Paul's denial for application for registration as a Professional Surveyor. Mr. Paul reported that his application was denied due to a lack of 60% of his experience being related to boundary surveying. Mr. Paul elaborated on the type of projects that he had worked on and stated that they had included boundary surveying. The Board discussed the experience that was shown on Mr. Paul's application and stated that they would have liked to have seen more experience in the areas of legal descriptions, subdivision design, and section corner recovery. A motion was made by Mr. DeBoy and seconded by Mr. Lechner to deny the petition. The motion passed with a voice vote.

The Board held an administrative hearing for Donald A. Shapiro (Cause No. SBRPS 15-08) in order to review Mr. Shapiro's notice for noncompliance. Mr. Shapiro stated that he was not disputing his noncompliance with the continuing education requirement but was asking for a reduction in the civil penalty of \$5,000. Mr. Shapiro stated that his time for continuing education is limited due to his caretaking of his wife and preparations for an out of state move. Mr. Shapiro stated that he has since taken additional hours to make up the hours he was deficient but did not bring the paperwork to the hearing. A motion was made by Mr. Kent and seconded by Mr. DeBoy to continue the hearing during the next Board meeting. The motion passed with a voice vote.

The Board held an administrative hearing for William Steele (Cause No. SBRPS 13-04) in order to review Mr. Steele's order of proposed default. Mr. Steele was not present at the hearing and did not send representative council. Ms. Stidd began by giving the history of the case and requested that the Board find Mr. Steele in default. A motion was made by Mr. Kent and seconded by Mr. DeBoy to find Mr. Steele in default. The motion passed with a voice vote. Ms. Stidd presented evidence that Mr. Steele believed that he had surrendered his license to the Board and does not feel like he must comply with the Board's final order. A motion was made by Mr. Kent and seconded by Mr. Lechner to revoke Mr. Steele's license. The motion passed with a voice vote.

The Board discussed the renewal application of Larry W. Rollins Jr. Mr. Rollins was not present for the meeting nor did he send representative council. Mr. Rollins's application was found to have never been completed per the request of the Indiana Professional Licensing Agency (IPLA). A motion was made by Mr. DeBoy and seconded by Mr. Kent to deny Mr. Rollins's renewal. The motion passed with a voice vote.

The Board continued with Probationary Reports for J. Bernard Feeney, Michael Sadlon, Ronald Morrison, and Steven Williams. There was substantially nothing to report concerning these individuals since they had not prepared any surveys. Mr. Kent reported that he had reviewed some of Mr. Sadlon's surveyor location reports and that they had looked fine. Mr. Kent reported that Mr. Williams had not completed any surveys in the last quarter and that pursuant to the Board's agreement with him was not obligated to make an appearance at the meeting.

The Board discussed the application for licensure by comity of Jonathan C. Cross. A motion was made by Mr. DeBoy and seconded by Mr. Lechner to deny Mr. Cross's application. The motion passed with a voice vote.

The Board then turned their attention to the discussion items on the agenda. The Board discussed the possibility of computerized testing for the Indiana State Specific Land Surveying Exam. Mr. Chuck Bevington brought up concerns regarding online continuing education providers and the process for course approval. Mr. Kent stated that he and Mr. Bevington would review the current process and would report back with some proposed changes.

The meeting was adjourned at 12:15 p.m. The next scheduled meeting is Friday, February 12, 2016 at Indiana Government Center South, 402 W. Washington Street, Room W064, Indianapolis, Indiana 46204.

INDIANA PROFESSIONAL LAND SURVEYORS FOUNDATION, INC.

Report from Perry Cloyd to the ISPLS Membership - November 20, 2015

The IPLSF is a service organization created for your representation and the advancement of the surveying profession. Two important issues related to the purpose of the foundation:



- I. The foundation will be looking for board members to recommend to ISPLS for approval. If you have an interest in serving please let our Executive Director know.
- II. The question was asked at the board meeting, since Indiana will be celebrating 200 years, is there a “bicentennial anything” from surveyors. Is there? I have heard a couple of ideas but nothing has been official. If you have an idea and need support it should be submitted to the foundation.

With that in mind I want to ask some questions of the membership:

- I just read that **ASCE** has published its **ninth** institute, this one on Utility Engineering & **Surveying**. How many institutes have surveyors created? Why are other professions creating surveying guidelines?
- The basic question is always: What will we leave for future generations?

Since the August 24th Report, the IPLS Foundation BOD has met on two occasions, September 14 and October 12 with no meeting in November, there are several items that have been before the Board:

I. Scholarships: The name of the scholarship was decided at the September meeting, it will be the “Indiana Benchmark Scholarship” and will be dedicated annually to a surveyor who has contributed to the profession.

II. Financial Partnering and Fund Raising Ideas: The foundation board continues to research opportunities to make the services of the surveyor better known to the general public. Please “stand by” as we continue to solicit such opportunities

III. Grants:

- A. Grant applications can be obtained on the ISPLS Website under the Foundation tab.
- B. The foundation is currently investigating a grant to fund continuing education for surveyors and engineers. The funding and structure are currently being researched and developed.

IV. The IPLSF Raffle:

- A. Raffle items for the next convention include a hunting rifle; Unmanned Aerial Vehicle (UAV), iPad, GoPro, with last-chance prizes including Visa Gift cards. Having individual or separate prize raffles is currently under discussion.
- B. There will also be a silent auction; the inventory is being collected. If you have anything you wish to donate contact Jason Coyle, ISPLS Executive Director.

V. IPLSF / Chapter MOU's:

- A. The Foundation now has the Foundation/Chapter MOU agreement in a form that we are able to present this program to the Chapters for their consideration.
- B. The Foundation is still looking at having a presentation in to the CIC Chapter in November.
- C. Hoosier Hills Chapter of ISPLS has agreed to participate and the MOU has been fully executed.
- D. If other chapters have interest or questions please contact a board member for information.

VI. Budget: The proposed Budget for 2015/16 was presented, reviewed and approved. According to the Spending Plan of IPLSF, the Administrative Expenses will reflect a 1% expense and under Business Expense this will show a 4% expense to match the 5% from the Spending Plan. This spending plan was modeled after successful foundations to allow expenditures and growth.

VII. Calendar dates to consider.

- a. February meeting will be a recap of the convention and the start of the year.
- b. April meeting to announce any scholarships winners.
- c. June meeting to set the Budget.

(Continued on page 13)

(Continued from page 12)

d. October meeting to set raffle items and announcing any interest for the nomination of Directors for ISPLS.

VIII. Foundation board liability insurance: We are completing an application for both ISPLS and IPLSF.

IX. Logos have been purchased so we can start using them on our letterhead.



X. Remember... This is your Foundation... Our task is serving the ISPLS Membership. Get involved, let us know what we can do to provide even more!

The next Foundation meeting will be held on Monday evening, December 14, at Banning Engineering.

Respectfully submitted,

Perry D. Cloyd, 2015 President

An advertisement for Harrison Marker Co. The ad is enclosed in a double-line border. On the left, the word "HARRISONs" is written in a large, bold, white, sans-serif font with a black outline, slanted upwards. Below it, the phrase "are stubborn!" is written in a smaller, bold, black, sans-serif font. In the center, there is a detailed illustration of a tall, cylindrical surveying marker with a textured surface and several horizontal bands. To the left of the marker, there is a block of text: "HARRISON markers are highly magnetic with the tenacious position-holding features that surveyors need. If struck by a plow the top can crack off, and the bottom will hold its position." Below this text is the company name "HARRISON MARKER CO." in a bold, black, sans-serif font. Underneath the name is the address "Box 66, Anoka, MN 55303" and the phone number "Telephone (763) 421-1445". To the right of the marker, there are two columns of text: "NOTE THE MARKER'S UNIQUE SHAPE" and "—AND SEE HOW IT RESISTS SIDE AND PULL-OUT THRUSTS." The entire advertisement is set against a white background.

NSPS FALL 2015 MEETING REPORT

By Tony Gregory, NSPS Director - Indiana, PS

The NSPS Fall 2015 meetings were held at the Kalahari Resort in Sandusky, Ohio on Thursday, October 8, and Friday, October 9. The meetings were held in conjunction with the Fall Seminar of the Professional Land Surveyors of Ohio.

The NSPS Board of Directors met on Friday, October 9. Some notable items presented during the reports, and motions passed included:

- Report from Curt Sumner, NSPS Executive Director:
 - Director Lisa Van Horn (Wisconsin) gave a short report on the National Museum of Surveying; also distributed state banners that had been on display in the museum.
 - Curt is working with O*Net with regards to the Department of Labor definitions of the Professional Surveyor and the Surveying Technician.
 - Curt has been participating in NCEES's Future of Surveying Task Force.
 - Curt has continuing work with ABET in accrediting surveying programs.
 - Reported that North Carolina will now allow anyone with GPS to establish boundaries of shellfish beds.
 - Reported that Oregon is looking to eliminate the need for surveyors in hydrographic surveys.
 - Reported that the Bureau of Land Management has proposed using geographic coordinates to mark corners (no monumentation).
 - Reported that LightSquared is again active.
 - NSPS has been asked to take over the management of the CFeds program.
 - NSPS Spring 2016 Business Meetings are being planned for the week of March 14 in Crystal City, Virginia. The meetings will again be held jointly with MAPPS.
- NSPS Budget – Bob Miller, NSPS Treasurer, reported the following:
 - Expected budget surplus of \$60,000.
 - NSPS has moved funds from Comerica to Merrill Lynch – better interest rates.
- NSPS Government Affairs – Pat Smith, Chair of NSPS Joint Government Affairs Committee provided a report to the BOD. Detailed report can be viewed via October 21, 2015 edition of NSPS News and Views:
 - Report at <http://multibriefs.com/briefs/NSPS/NSPS102115.php>
- NSPS/ALTA Committee – Chair Gary Kent reported the following:
 - The new standards will take effect on February 23, 2016, coinciding with the Festival of Terminus.
 - Table A Item 11B is now a required task with additional conditions.
 - Wetland requirements are now revised.
 - Table A Item 6A will list the items if provided.
 - Table A Item 6B will depict the information on the plat.
- NSPS Membership Committee – Chair Wayne Harrison reported that NSPS 100% membership is at 47 states; West Virginia appears to be near joining at 100%; current NSPS membership nearing 17,000.
- NSPS Young Surveyors – Chair Amanda Askren reported the following:
 - The group will facilitate a second webinar – scheduled for May 13
 - Members of the group attended a Leica Conference as guests.
 - 33 states have designated representatives to this group.
 - The 2nd FIG Young Surveyors North American Meeting is scheduled for February, 10, 2016 in Minnesota.
 - Asked for continued awareness of the Young Surveyor Network.
- The following motions were among those passed under “New Business”:
 - An Ad-Hoc Task Force was appointed to review and provide commentary on a proposed rule from the Pipeline Hazardous Materials Safety Agency (requested by NSPS Government Affairs Committee).
 - The NSPS Government Affairs Committee requested that the NSPS Board of Directors request the NSPS President assign to the FEMA subcommittee to study the issues /options and prepare a proposed NSPS position with recommendations regarding National Flood Insurance Program Reforms that an NSPS Government Affairs representative

(Continued on page 15)

(Continued from page 14)

- can provide to the House Financial Services Committee.
- The NSPS Government Affairs Committee requested NSPS Board of Directors grant the Government Affairs Committee and representative the authority to support the addition of the Small Business Administration (SBA) to the Federal Acquisition Regulation (FAR) Council.
- The NSPS Foundation was instructed to rename the Governors Scholarship to the NSPS Board of Directors Scholarship and pass on the former governor's practice of contributing to scholarships to the Board of Directors.
- A program was created where students from 2-year and 4-year surveying programs be allowed to attend an NSPS business meeting as a guest of NSPS.
- 2016 NSPS Budget was adopted.
- Any CST Certified individual, who is or becomes a NSPS Member in good standing, shall have their CST Certification Renewal fee waived.
- Information regarding the BLM's continuing practice of creating new subdivisions of public land in portions of Alaska with geographic coordinates and minimal monumentation is being passed on to the NSPS Government Affairs Committee in order for the committee to coordinate with a representative of BLM.
- 2016 ALTA/NSPS Land Title Survey Standards were approved as recommended by the NSPS ALTA Committee.
- An Ad-Hoc Committee will be formed that will prepare a position statement on Unmanned Aircraft Systems (UAS) regulations and operations.

Central Indiana Chapter elects officers, invests with foundation

By Mike Davis

Central Indiana Chapter members elected Robert "Jason" Coyle as their 2016 president at a Nov. 12 meeting at the Oaken Barrel Brewing Co. in Greenwood. Coyle, who also was president in 2010, served as vice president in 2015 and is the executive director of the Indiana Society of Professional Land Surveyors.

Others holding chapter offices for 2016 will be Joe Mullins, vice president; Eric Banschbach, secretary; and Mark Schepers, who was re-elected as treasurer. Mike Davis, who was president in 2015, was elected to the board of directors. He replaces Luke Jahn, who will complete a three-year term on the board in 2015.

In other business, Doug Herendeen gave an update on plans for the 2016 convention, which will be Jan. 13-15 at the Marriott East Hotel in Indianapolis. Also, Don West said the WFMS Riley Radiothon will be held sometime in February. Chapter members volunteer to answer phones for the fundraiser for Riley Children's Hospital.

Following Schepers' report that the chapter had more than \$21,000 in its treasury, Charles "Chuck" Coyle discussed an opportunity for the chapter to invest funds through the Indiana Professional Land Surveyors Foundation and obtain a better return on its deposits. All 20 members at the meeting voted in favor of investing \$10,000, with an intent to add \$2,500 in each of the next four years. The group's goal is to fund scholarships from the total investment of \$20,000 when that amount is reached.

INDIANA-MICHIGAN STATE LINE COMMISSION - MEETING HIGHLIGHTS

By Mike Davis

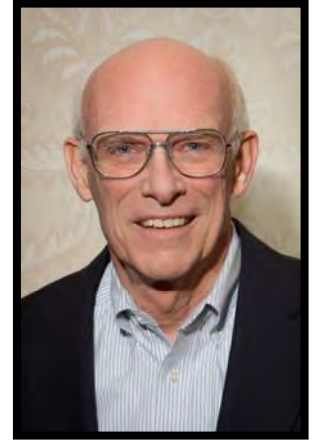
The Indiana-Michigan Boundary Line Commission canceled its Nov. 12 meeting, so minutes of its Aug. 11 meeting have not been approved.

The commission's next meeting is scheduled to be at 11 a.m. on Tuesday, Jan. 12, in a new location — the St. Joseph County Parks and Recreation Building, 602 E. Main St., Centreville, Mich.

Previous meetings were held in the County City Building in South Bend, Ind. The group first met on May 21, 2014.

Commission members from Indiana are John McNamara, PS, chairman, St. Joseph County; Brad Cramer, PS, Elkhart County; Anthony Hendricks, PS, LaPorte County; Rex Pranger, PS, LaGrange County; and Michael Ruff, PS, Steuben County.

Members from Michigan are David Mostrom, PS, vice-chairman, St. Joseph County; John Kamer, PS, Berrien County; Michael Lodzinski, PS, Hillsdale County; Chris Marbach, PS, Cass County; and Edward Reed, PS, Branch County.



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CELEBRATING INDIANA'S BICENTENNIAL

REGISTRATION 64TH ANNUAL I.S.P.L.S. CONVENTION

MARRIOTT EAST INDIANAPOLIS, INDIANA JANUARY 13-15, 2016



LETTERING KEY
Historical information
Points of interest
Buildings of the
Dept. of Conservation
TOWNS AND CITIES

WELCOME TO THE 64TH ANNUAL ISPLS CONVENTION

On behalf of the Northeast Chapter of ISPLS, the ISPLS Board of Directors, and the ISPLS Convention Committee, we would like to extend to you an invitation to attend the 2016 ISPLS Annual Convention! The Indianapolis Marriott East will once again be the site of our event – our eighth year of a ten year contract. The Marriott East has proven to be a great partner in providing wonderful accommodations and a warm atmosphere for our annual conventions.

The 2016 Annual ISPLS Convention will be a great event for Indiana's Professional Surveyors to kick off Indiana's Bicentennial Celebration. It is our hope that this year's convention will ignite and energize all Surveyors to celebrate Indiana's Bicentennial and share the land surveying profession within their communities. The program has been orchestrated to leave attendees invigorated about the profession, better informed about available technologies and armed with the best surveying practices.

Below are just a few highlights of what we have planned. We would encourage you to look through the remainder of the registration brochure to ensure your convention experience is tailored just for you.

- This year's convention will kick off Wednesday afternoon with a couple of sessions featuring two national renowned speakers, Gary Kent and Dennis Mouland. Mr. Kent's session is entitled, "Boundary and Title Conflicts, Surveyor Reports and Rule 12," while Mr. Mouland's presentation is entitled "Basic Logic for the Land Surveyor." Both of these sessions should be very interesting!
- Wednesday afternoon we will introduce and welcome our Sponsors, Vendors and Exhibitors. These equipment and service providers are here to help you make choices regarding new equipment, supplies and services that are needed to conduct a successful business. Like last year, this year's exhibitor's reception will be slightly extended with more appetizers; more door prizes; and more opportunity to socialize with exhibitors and sponsors.
- Hot breakfast? Yes, please! Join us Thursday morning for the Liberty Breakfast Buffet sponsored by Seiler Instrument. The buffet will include: Seasonal Fruits & Berries; Low-fat Yogurt & Granola Assortment; Associated Breakfast Baked Goods; Fresh Scrambled Eggs; Thick Sliced Bacon; Buttermilk Biscuits & Sausage Gravy; and Home Fried Potatoes.
- Thursday will offer up an abundance of great educational sessions. Speakers for these sessions will include Dennis Mouland, Tony Gregory, Kris Kline, Rod Renkenberger and Randy Sexton. We will also be introducing Tony Nettleman, the grandson of Walt Robillard, who should be a great addition to our lineup. Please be sure to check out all the course offerings!
- A significant change to our typical program will be on Thursday afternoon. Thursday's lunch will consist of a plated meal, rather than the typical buffet style. Then immediately following lunch, we will continue with the Annual ISPLS Business Meeting. The Exhibitor's Hall will also be open during this time so you can choose to have more time to visit with the exhibitors or attend the business meeting to hear how the Society and the Foundation continues to work to accomplish their missions.
- Thursday afternoon will continue with educational sessions with presentations from Dennis Mouland, Tony Nettleman, Tony Gregory, Kris Kline, Rod Renkenberger and Randy Sexton.
- Thursday evening will feature our Annual Banquet... Good food, Good company, and... did we mention Good food? This is also a time when we recognize a few of our members for their extra hard work and efforts in promoting our profession, and of course the "changing of the guard", when we recognize the outgoing Officers and Board Members and introduce and install the newly elected ones.
- Immediately following the banquet, we have arranged for Joe Hess (Professional Surveyor and ISPLS Member) and the Wandering Cowboys to perform in Skylight Bistro & Wine Bar of the Marriott. Joe Hess and the Wandering Cowboys have been performing Country Music across the State and were recently finalist in 8 Seconds Saloon's Battle of the Bands. The Band's influences come from Garth Brooks, Alan Jackson, George Strait and many more. They are all about Country Music done right!
- Friday will be another day of great educational offerings from Dennis Mouland, Tony Nettleman, Tony Gregory, Kris Kline, Jim Swift, and GIS Professionals. You will not want to miss Jim Swift's presentation. Jim has given a more condensed version of his seminar, Stone Hunter, around the state and all have enjoyed it. We are certain you will too!
- At the conclusion of Friday's plated lunch, we will hold the ISPLS Foundation Raffle drawing. Be sure to check out the great items included in this year's raffle! Purchase a ticket or two (or ten) to support the Foundation with their endeavors and mission.
- We are also offering a one and two-day Technician's Program. This program is great for field and office technicians looking to further their knowledge base.

There are multiple ways to register for the convention. But the easiest way is on-line at www.ispls.org. You have the convenience of registering for courses and submitting your payment instantly with your debit/credit card or you could ask to be invoiced. Likewise, you are always welcome to mail, e-mail, fax or phone in your registration to the ISPLS office. Be sure to register on or before December 31, 2015 to avoid a late fee. Please don't hesitate to contact R. Jason Coyle, ISPLS Executive Director, or Andrea Wade, Administrative Assistant, with any questions, concerns, or comments you might have.

We are looking forward to seeing each of you at another GREAT ISPLS Convention! See you there!



Bernie Guerrettaz
2015 ISPLS President

PROGRAM • WEDNESDAY, JANUARY 13, 2016

Registration Desk

12:00pm - 6:00pm

The registration desk is located in the hotel's atrium. Attendees can pick up their registration material, name tags and gift at this desk. The attendants at the registration desk would be more than happy to assist you with any of your questions, comments and/or suggestions throughout the duration of the convention.

Exhibit Hall

12:00pm - 6:00pm

Each year we welcome vendors and exhibitors to showcase their products, services and equipment in our exhibit hall. We want our attendees to take every advantage of this opportunity to familiarize themselves with the latest trends and advancements in the surveying industry. Discover many solutions for enhancing your surveying practice. Your name badge is required for admission. **The Exhibit Hall will not be open on Friday.**

Basic Logic for the Land Surveyor

Dennis Mouland, PS • 3 CEU (Mandatory)

1:00pm - 4:00pm

A half day course that starts with some generally illogical thinking by our society, and ends with discussions of real boundary survey issues that are often not treated very logically by our very own profession.

Boundary and Title Conflicts, Surveyor Reports and Rule 12

Gary Kent, PS • 3 CEU (Mandatory)

1:00pm - 4:00pm

The Board of Registration and the Attorney General's office continue to see very substandard surveys and surveyor reports as the subject of complaints. We will discuss some basic boundary law principles, including guidance from Justice Cooley and then the audience will break into small groups to discuss the evidence related to several actual boundary/title conflicts. The small groups will then reconvene as a whole and we will have a dialogue as to what their respective opinions are, how they would attempt to resolve the problem, and what the accompanying surveyor's report should include. Additionally, we will discuss and tabulate comments and suggestions on potential revisions to Rule 12.

Exhibitor's Reception

4:00pm - 6:00pm

Join us in welcoming our vendors and exhibitors to our annual convention. This is a great opportunity to familiarize yourself with our vendors, exhibitors and their products while enjoying a cocktail and hors d'oeuvres. One beverage ticket is included with a full attendee's registration for the Exhibitor's Reception. A cash bar will be available as well. Please drink responsibly. Throughout the reception, we will be introducing you to our vendors and exhibitors and awarding door prizes. You must be present to win.

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PROGRAM • THURSDAY, JANUARY 14, 2016

Registration Desk

7:00am - 4:00pm

The registration desk is located in the hotel's atrium. Attendees can pick up their registration material, name tags and gift at this desk. The attendants at the registration desk would be more than happy to assist you with any of your questions, comments and/or suggestions throughout the duration of the convention.

Exhibit Hall

7:00am - 6:00pm

Each year we welcome vendors and exhibitors to showcase their products, services and equipment in our exhibit hall. We want our attendees to take every advantage of this opportunity to familiarize themselves with the latest trends and advancements in the surveying industry. Discover many solutions for enhancing your surveying practice. Your name badge is required for admission.

Thursday Breakfast Sponsored by Seiler Instrument

7:00am - 8:30am

Join us Thursday morning for the Liberty Breakfast Buffet sponsored by Seiler Instrument. The buffet will include: Seasonal Fruits & Berries; Low-fat Yogurt & Granola Assortment; Associated Breakfast Baked Goods; Fresh Scrambled Eggs; Thick Sliced Bacon; Buttermilk Biscuits & Sausage Gravy; and Home Fried Potatoes.



To Accept or Not to Accept

Dennis Mouland, PS • 6 CEU (Mandatory)

8:30am - 11:30am (Part 1 of 2) & 2:00pm-5:00pm (Part 2 of 2)

A full day course on the fundamental question every surveyor must ask at every corner point of every survey: Do I accept the evidence or reject it? This course will challenge your personal litmus tests for acceptance or rejection. It then goes to the law to find the answer, which might surprise many!

What Will a Professional Land Surveyor Be in 2025?

Tony Gregory, PS • 6 CEU (Mandatory)

8:30am - 11:30am (Part 1 of 2) & 2:00pm - 5:00pm (Part 2 of 2)

Many developments over the past few decades have caused significant change in the land surveying profession. These developments include major advancements in technology, which has caused the use of different techniques and methodologies in the work of the professional land surveyor when compared to those used in past decades. Additionally, increased requirements for professional licensure along with a decline in the availability of land surveying programs at colleges and universities have affected licensure rates. Other professions appear to be encroaching into the providing of services that have traditionally been perceived to be within the practice of the land surveying profession. It is time for the land surveying profession to begin defining how the profession will be sustained in the future. With these factors in mind, this seminar will look at the past, present, and future of the land surveying profession.

Ethics

Dr. Tony Nettleman, PS, Esq. • 3 CEU (Mandatory)

8:30am - 11:30am

This seminar will examine the role of ethics in today's professional relationships. First, the historical foundations of ethics will be examined, including its four branches: meta-ethics, normative ethics, applied ethics, and descriptive ethics. Next, the class will debate how to define the definition of ethics. Third, competing frameworks for making ethical decisions will be analyzed. And fourth, a modern approach to business and personal relationships will be explained followed by the presentation of actual, practical ethical questions. This will help the individual to differentiate between possible "rights" and "wrongs."

War Between the States

Kris Kline, PS • 3 CEU (Elective)

8:30am - 11:30am

This class focuses primarily on U.S. Supreme Court decisions dealing with boundary disputes between states. Specific topics will include riparian state boundary lines, railroad disputes at the state and federal level, and application of acquiescence to state and municipal boundary disputes.

Navigating Un-studied Zone 'A' Flood Hazard Areas And Preparing for the Certified Floodplain Manager Exam

Rod Renkenberger, PS & Randy Sexton, PS • 3 CEU (Elective)

8:30am-11:30am

To provide Professional Land Surveyors with the necessary skill set(s) to navigate Un-studied Zone A Flood Hazard Areas, an opportunity to broaden their knowledge and skills in Floodplain Management, and to promote professional development through the Certified Floodplain Manager (CFM) Program.

PROGRAM • THURSDAY, JANUARY 14, 2016

A Plated Lunch will be served at 11:30am followed by the ISPLS Business Meeting.

ISPLS Business Meeting

12:30pm - 2:00pm

General Membership Business Meeting to discuss the past and future activities of ISPLS and the IPLS Foundation.

The Elusive Center of Section

Dr. Tony Nettleman, PS, Esq. • 3 CEU (Mandatory)

2:00pm - 5:00pm

This seminar will teach students how to perform resurveys of the Public Land Survey System (PLSS). A variety of topics will be discussed, including common types of evidence left by the original surveyors and their correlation with the written record. This lecture will include practical on-the-ground advice to the retracing surveyor as well as the case law that underlies the retracement procedure. Emphasis will be given to corner evidence such as bearing trees, round mounds, topographic calls, and other evidence.

The proper methods of proportioning will also be discussed. Students will learn the correct procedures as outlined in the BLM Manual for single proportioning, double proportioning, and one, two, and three point control. Emphasis will be added to the methods mentioned in the early Land Acts and how they apply to case studies.

Three New Ways to Get into Trouble

Kris Kline, PS • 3 CEU (Elective)

2:00pm-5:00pm

This class focuses on: (1) Lands protected by the Public Trust Doctrine; (2) In-depth discussion of Easements and the Doctrine of Merger; (3) Slander of Title. These issues have recently come home to roost at the doorsteps of some unhappy land surveyors.

Navigating Un-studied Zone 'A' Flood Hazard Areas And Preparing for the Certified Floodplain Manager Exam (Repeat)

Rod Renkenberger, PS & Randy Sexton, PS • 3 CEU (Elective)

2:00pm-5:00pm

To provide Professional Land Surveyors with the necessary skillset(s) to navigate Un-studied Zone A Flood Hazard Areas, an opportunity to broaden their knowledge and skills in Floodplain Management, and to promote professional development through the Certified Floodplain Manager (CFM) Program

ISPLS Social and Banquet

6:00pm - 9:00pm

Join us at 6:00pm in Freedom Hall "A" for a beverage and an opportunity to catch up with colleagues and old friends. Then at 7:00 pm, enjoy a magnificent dinner prepared by the hotel's chef and staff. The evening continues with the recognition of our Trig-Star Winners and Scholarship Recipients, President's Award Ceremony, and swearing in of ISPLS Officers.

ISPLS After Party

9:00pm - 11:00pm

After the Banquet, the night continues with some wonderful live music from ISPLS' very own Joe Hess and the Wandering Cowboys in the Skylight Bistro & Wine Bar of the Marriott. Joe Hess and the Wandering Cowboys have been performing Country Music across the State and were recently finalist in 8 Seconds Saloon's Battle of the Bands. The Band's influences come from Garth Brooks, Alan Jackson, George Strait and many more. They are all about Country Music done right! Make sure to join us for a fun-filled evening with great live music, and feel free to bust out your favorite cowboy boots and hat!

PROGRAM • FRIDAY, JANUARY 15, 2016

Registration Desk

7:00am— 12:00pm

The registration desk is located in the hotel's atrium. Attendees can pick up their registration material, name tags and gifts at this desk. The attendants at the registration desk would be more than happy to assist you with any of your questions, comments and/or suggestions throughout the duration of the convention.

A Continental Breakfast will be offered from 7:00 am - 8:00 am.

Thinking Beyond Technology

Dennis Mouland, PS • 3 CEU (Elective)

8:00am - 11:00am

A half day course on the negative impacts technology has had on society and on the survey profession in particular. It forces us to examine how we do things in the field and office versus how we should be doing things.

Error Analysis Relative to Positional Precision

Tony Gregory, PS • 6 CEU (Mandatory)

8:00am - 11:00am (Part 1 of 2) & 12:45pm - 3:30pm (Part 2 of 2)

Land surveyors have long been expected to understand how errors occur in their measurements, how to quantify the identified errors, and, where possible, how to control them. As technology has changed measurement methods over the past several decades, and as computers have allowed for more thorough means of error analysis and adjustment, today's land surveyor is in a position to deal with and report measurement errors in a very different and more detailed manner than in the past. This seminar will demonstrate the importance of applying fundamental principles of the evaluation of surveying measurements to modern measurement processes.

Three Worlds of Surveying

Dr. Tony Nettleman, PS, Esq. • 6 CEU (Elective)

8:00am - 11:00am (Part 1 of 2) & 12:45pm - 3:30pm (Part 2 of 2)

This seminar will examine all three aspects of the surveying profession: the technical world, the business world, and the legal world. The technical world includes statistics, minimum standards, and suggestions of embracing new technology. The business world involves incorporation, bookkeeping, the survey or/client relationship, marketing, and entrepreneurial skills. The legal world involves understanding statutes and case law, discussions of what laws govern surveyors, and an in-depth discussion of negligence and professional liability.

Indiana Riparian

Kris Kline, PS • 6 CEU (Mandatory)

8:00am - 11:00am (Part 1 of 2) & 12:45pm - 3:30pm (Part 2 of 2)

Waterways represent one of the oldest transportation corridors in our country. This class focuses on the evolution of the many definitions of "Navigable Waterways" with relevant State-specific case law and statutes. Significant U.S. Supreme Court rulings from early formative decisions to the present day will be considered. Ownership of the fee, Rights of Navigation and interpretation of riparian descriptions will be discussed. This class also includes discussion of accretion and erosion, and considers various regulatory issues, including U.S.A.C.E. definitions.

Stone Hunter

Jim Swift, PS • 6 CEU (Elective)

8:00am - 11:00am (Part 1 of 2) & 12:45pm - 3:30pm (Part 2 of 2)

Some people think Jim Swift is a bit strange because he looks for rocks for a living. But that doesn't worry Jim. He can think of nothing better to do with a day's work than be the Stone Hunter. Join Jim as he discusses the current Boone County Section Corner Perpetuation Project and puts it all into an historical perspective. From the French fur trapping era through the American Revolution, from the negotiations of Chief Tecumseh and William Henry Harrison to the original federal surveyors, from the development of early wagon roads to the advent of the motorized vehicle, and from the records of the mid-1800s to modern survey standards, the corner stones of Boone County, Indiana fit into an interesting historical narrative. With maps, pictures and tales of large excavation equipment, this is an interesting look at searching for the best available evidence of the corners of the Public Land Survey System.

IndianaMap - Geospatial Data and Resources for Surveyors

Rick Hill & Chris Dintaman • 3 CEU (Elective)

8:00am - 11:00am

IndianaMap provides more than 260 layers of statewide GIS data to view, analyze, query, and download through web services. To better support broader societal needs and as GIS data and software becomes more ubiquitous, IndianaMap data can now be accessed from a number of websites in a variety of formats, services and options. This workshop will show surveyors how to find, view, query, and download these data using a variety of IndianaMap tools to support their projects and daily work. As part of preparing specific examples for this workshop, IGIC will create a SurveyMonkey poll for ISPLS members to submit detailed questions and help identify specific examples to be addressed.

PROGRAM • FRIDAY, JANUARY 15, 2016

A Plated Lunch will be served at 11:00am followed by the Keynote Speaker and IPLS Foundation Raffle drawing.

Charm School

Dennis Moulard, PS · 3 CEU (Elective)

12:45pm - 3:30pm

A half day course on how our appearance, attitudes, and communication skills impact our profession as a whole, and our own business success. At times humorous, at other times very pointed, this course will challenge your world view of how you impact the rest of the profession as well as yourself.

IndianaMap - Geoprocessing of LiDAR Data for Surveyors

Phil Worrall, IGIC & Chris Morse, USDA NRCS · 3 CEU (Elective)

12:45pm - 3:30pm

IndianaMap provides access to Indiana's 2011 - 2013 statewide Light Detection and Ranging (LiDAR) data. These data can be extracted and downloaded in a number of formats and resolutions to support specific project needs. This workshop will show Surveyors how to view, download, and perform geoprocessing of Indiana's elevation data to support their projects and daily work. As part of preparing specific examples for this workshop, IGIC will create a SurveyMonkey poll for ISPLS members to submit detailed questions and help identify specific examples to be addressed.

TECHNICIAN'S PROGRAM

THURSDAY, JANUARY 14, 2016

Where Survey Software, hardware, and technology is headed in the future

Bruce Carlson · 3 CEU (Elective)

8:30am - 11:30am

Plated Lunch will be offered at 11:30am.

Indiana Geospatial Coordinate System (InGCS)

Matt Badger, PS & Matt Healy, PS, E.I · 3 CEU (Elective)

2:00pm - 5:00pm

The objective of the seminar is to introduce the audience to the Indiana Geospatial Coordinate System (InGCS), compare and contrast it to UTM 16, Indiana State Plane East and West Zones, discuss the advantages of low distortion projections and provide recommended guidelines for use of the InGCS.

FRIDAY, JANUARY 15, 2016

Pipeline Safety

Perry Cloyd, PS · 3 CEU (Elective)

8:00am - 11:00am

The goal of the class is to provide a better understanding of pipeline laws and regulations, discuss the impact/consequence of land development and discuss options available to surveyors.

A Plated Lunch will be served at 11:00am.

Reality Capture Technologies & Modeling Workflows

Matt Davis & Travis LeMoine · 1.5 CEU (Elective)

12:45pm - 2:15pm

Data collection has become a wide field and these tools have rapidly advanced to provide users with many different options designed to fit the needs of any project. We'll explore and compare data collection methods from various sources through more recent innovations such as UAVs & mobile LiDAR. We will investigate data sets created through photogrammetry software, such as Recap and Datugram 3D.

Best Practices using VRS Network

Tom Bryant, PS · 1.5 CEU (Elective)

2:15pm - 3:30pm

To enable greater productivity for a user of the VRS network and be confident in results obtained from the network.

REGISTERED EXHIBITORS WITH MANY MORE EXPECTED



Cincinnati State Technical and Community College

Purdue ISPLS Student Chapter

Indiana Department of Natural Resources - Division of Water

Seiler Instrument

Indiana DOT - Land & Aerial Survey Office

SITECH of Indiana, LLC

Indiana Search Technologies, LLC

Turning Point Systems Group

Precision Midwest

Vincennes University

SPOUSES' PROGRAM • JANUARY 13-15, 2016

Greetings Spouses! Welcome to the 64th Annual ISPLS Convention.

This year's Spouses' Program will be considerably different from in years past. The hospitality suite will be available Wednesday afternoon for those arriving early and would like a chance to relax and catch up with friends. On Thursday morning, join your significant other for a full breakfast buffet in Liberty Hall. Breakfast will be served from 7:00 am - 8:30 am and will include Seasonal Fruits & Berries; Low-fat Yogurt & Granola Assortment; Associated Breakfast Baked Goods; Fresh Scrambled Eggs; Thick Sliced Bacon; Buttermilk Biscuits & Sausage Gravy; and Home Fried Potatoes. You are on your own for the remainder of Thursday morning and Thursday afternoon to do whatever you would like. The hospitality suite will be available with lite refreshments and a place for you to gather with friends. Thursday evening is the annual ISPLS Banquet with social hour starting at 6:00 pm. Be sure to stick around after the banquet with live country music from Joe Hess and the Wandering Cowboys.

On Friday, a light breakfast and refreshments will be available in the hospitality suite at 8:00 am. Once again you will be on your own for the remainder of the day to explore Indianapolis and all it has to offer or just relax and reunite with friends in the hospitality suite.

ISPLS 2016 CONVENTION REGISTRATION FORM

Please indicate your first choice (v) and alternate (A). Registration in a seminar that is a Part 1 of 2 automatically registers you in Part 2.

Wednesday January 13, 2016

- 8:00am - 12:00pm Board of Directors Meeting
 12:00pm - 6:00pm Registration in the Atrium
 Exhibit Hall Opens
- 1:00pm - 4:00pm **Basic Logic for the Land Surveyor**
 Dennis Mouland, PS · 3 CE (Mandatory)
- 1:00pm - 4:00pm **Boundary and Title Conflicts, Surveyor Reports and Rule 12**
 Gary Kent, PS · 3 CEU (Mandatory)
- 4:00pm - 6:00pm Exhibitor Reception

Thursday, January 14, 2016

- 7:00am - 5:00pm Registration in the Atrium
 Exhibit Hall Open
- 7:00am - 8:30am Thursday Breakfast Buffet
- 8:30am - 11:30am **To Accept or Not to Accept - Part 1 of 2**
 Dennis Mouland, PS · 6 CE (Mandatory)
- 8:30am - 11:30am **What Will a Professional Land Surveyor Be in 2025? - Part 1 of 2**
 Tony Gregory, PS · 6 CEU (Mandatory)
- 8:30am - 11:30am **Ethics**
 Dr. Tony Nettleman, PS, Esq. · 3 CEU (Mandatory)
- 8:30am - 11:30am **War Between the States**
 Kris Kline, PS · 3 CEU (Elective)
- 8:30am - 11:30am **Navigating Un-studied Zone 'A' Flood Hazard Areas And Preparing for the Certified Floodplain Manager Exam**
 Rod Renkenberger, PS & Randy Sexton, PS · 3 CEU (Elective)
- 11:30am - 12:30pm Plated Lunch
 12:30pm - 2:00pm ISPLS Business Meeting
- 2:00pm - 5:00pm **To Accept or Not To Accept - Part 2 of 2**
 Dennis Mouland, PS · 6 CE (Mandatory)
- 2:00pm - 5:00pm **What Will a Professional Land Surveyor Be in 2025?- Part 2 of 2**
 Tony Gregory, PS · 6 CEU (Mandatory)
- 2:00pm - 5:00pm **The Elusive Center of Section**
 Dr. Tony Nettleman, PS, Esq. · 3 CEU (Mandatory)
- 2:00pm - 5:00pm **Three New Ways to Get into Trouble**
 Kris Kline, PS · 3 CEU (Elective)
- 2:00pm - 5:00pm **Navigating Un-studied Zone 'A' Flood Hazard Areas And Preparing for the Certified Floodplain Manager Exam (Repeat)**
 Rod Renkenberger, PS & Randy Sexton, PS · 3 CEU (Elective)
- 6:00pm Social & Banquet
 (Please indicate your attendance)

Friday January 15, 2016

- 7:00am - 12:00pm Registration in the Atrium
- 8:00am - 11:00am **Thinking Beyond Technology**
 Dennis Mouland, PS · 3 CEU (Elective)
- 8:00am - 11:00am **Error Analysis Relative to Positional Precision - Part 1 of 2**
 Tony Gregory, PS · 6 CEU (Mandatory)
- 8:00am - 11:00am **Three Worlds of Surveying - Part 1 of 2**
 Dr. Tony Nettleman, PS, Esq. · 6 CEU(Elective)
- 8:00am - 11:00am **Indiana Riparian - Part 1 of 2**
 Kris Kline, PS · 6 CEU (Mandatory)
- 8:00am - 11:00am **Stone Hunter - Part 1 of 2**
 Jim Swift, PS · 6 CEU (Elective)
- 8:00am - 11:00am **IndianaMap - Geospatial Data and Resources for Surveyors**
 Rick Hill & Chris Dintaman · 3 CEU (Elective)
- 11:00am - 12:45pm Lunch with Keynote Speaker
 IPLS Foundation Raffle Drawing
- 12:45pm - 3:30pm **Charm School**
 Dennis Mouland, PS · 3 CEU (Elective)
- 12:45pm - 3:30pm **Error Analysis Relative to Positional Precision- Part 2 of 2**
 Tony Gregory, PS · 6 CEU (Mandatory)
- 12:45pm - 3:30pm **Three Worlds of Surveying - Part 2 of 2**
 Dr. Tony Nettleman, PS, Esq. · 6 CEU (Elective)
- 12:45pm - 3:30pm **Indiana Riparian - Part 2 of 2**
 Kris Kline, PS · 6 CEU (Mandatory)
- 12:45pm - 3:30pm **Stone Hunter - Part 2 of 2**
 Jim Swift, PS · 6 CEU (Elective)
- 12:45pm - 3:30pm **IndianaMap - Geoprocessing of LiDAR Data for Surveyors**
 Phil Worrall & Chris Morse · 3 CEU

Technician's Program

Thursday, January 14, 2016

- 8:00am - 9:30am **Where Survey Software, hardware, and technology is headed in the future**
 Bruce Carlson, PS · 3 CEU (Elective)
- 11:30am - 12:45pm Plated Lunch
- 2:00pm - 5:00pm **Indiana Geospatial Coordinate System**
 Matt Badger, PS & Matt Healy, PS · 3 CEU (Elective)

Friday, January 15, 2016

- 8:00am - 11:00am **Pipeline Safety**
 Perry Cloyd, PS · 3 CEU (Elective)
- 11:00am - 12:45pm Lunch
- 12:45pm - 2:15pm **Reality Capture Technologies & Modeling Workflows**
 Matt Davis & Travis LeMoine · 1.5 CEU (Elective)
- 2:15pm - 3:30pm **Best Practices using VRS Network**
 Tom Bryant, PS · 1.5 CEU (Elective)

ISPLS 2016 CONVENTION REGISTRATION FORM

GENERAL INFORMATION

Registration can be made several different ways. The easiest and most convenient way is through the ISPLS website at www.ispls.org. Registration forms can also be mailed, e-mailed, or faxed to the address or number below. For multiple registrants, please make copies of this form or contact ISPLS for additional forms.

Indiana Society of Professional Land Surveyors, Inc.

853 Columbia Road, Suite #101, Plainfield, IN 46168

Ph.: 317-888-4400 Fax: 317-707-3651

E-mail: execdir@ispls.org or admin@ispls.org

Web: www.ispls.org

Registrations received after 12/31/2015 (including walk-in's) will include a **\$50.00 late fee**, and will be accepted based on available space. A full refund less 10% will be given to those refund requests received on or before 12/31/2015. A full refund less 50% will be given to those refund requests received between 1/1/2016 and 1/8/2016. **After 1/8/2016, no refunds will be made.**

No further Registration will be accepted after 1/8/2016. After 1/8/2016, registration will be at the door and dependent upon the availability of seating.

The **full time registration** fee for the convention includes all handouts, refreshment breaks, two luncheons and the banquet. Please indicate by a (v) that you plan on attending the Banquet on Thursday Night. The **student** (full time) registration fee includes meetings and luncheons only. **One-day** registrant fee includes handouts and luncheons for the day registered.

Convention Handout Material: To reduce the cost of printing, ISPLS will make all program material available on-line through the ISPLS website to individuals registered for the convention.

LODGING

Indianapolis Marriott East

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Convention rates have been arranged. **Please indicate you are attending the 2016 ISPLS Convention when making reservation.** Reservations must be received by 12/29/15 in order to guarantee room and availability.

Room Rate: \$109.00 per night

REGISTER ON-LINE AT WWW.ISPLS.ORG

Name: _____

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Spouse's Name: _____

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<input type="checkbox"/> 2 Day Technician Program (Thurs. & Fri.)	\$150.00
<input type="checkbox"/> Late Fee (After 12/31/15)	\$ 50.00
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<input type="checkbox"/> NSPS Member (One Day)	\$250.00
<input type="checkbox"/> Extra Banquet Ticket Thursday Night	\$ 50.00
<input type="checkbox"/> Admission to Exhibit Hall (Only)	\$ 15.00

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ISPLS 64TH ANNUAL CONVENTION • HOTEL MAP

Indianapolis Marriott East • January 13-15, 2016

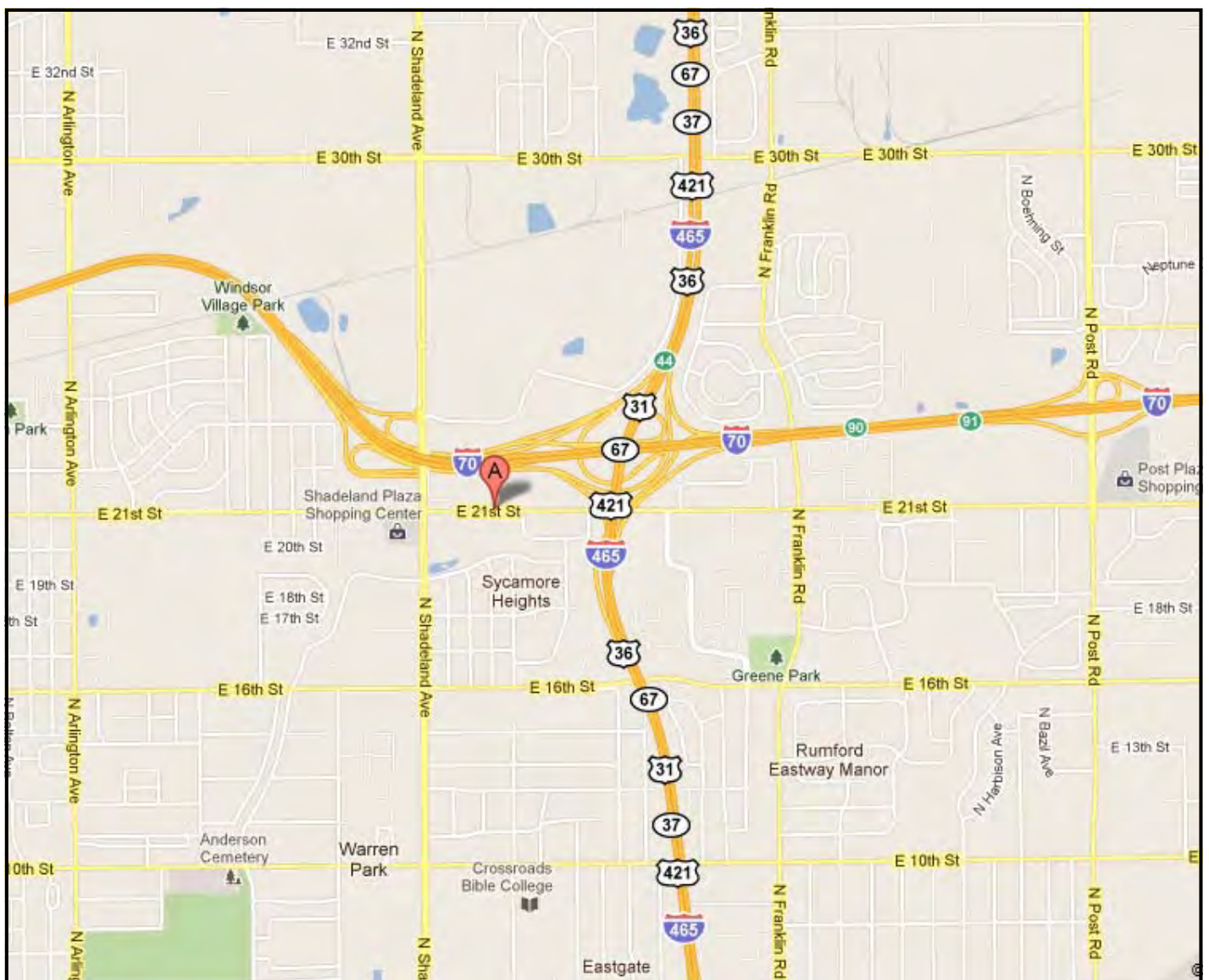
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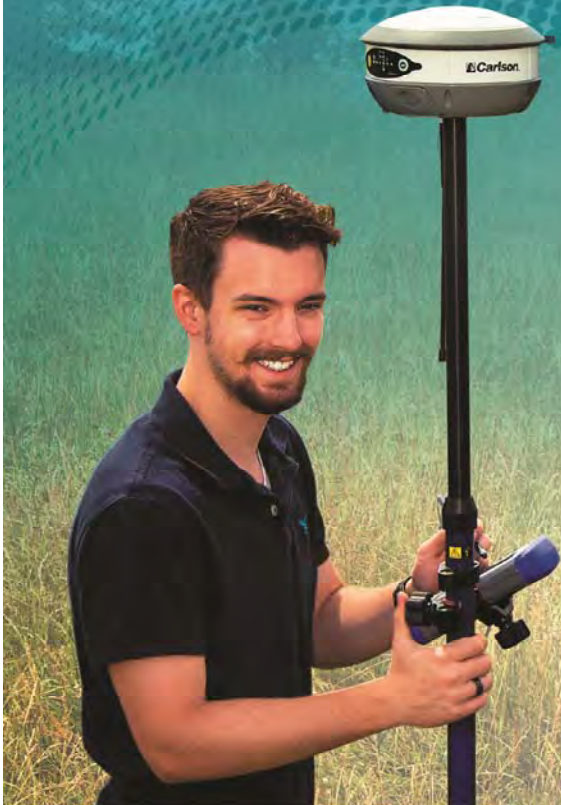
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LEGAL SURVEYS

Bryan F. Catlin, PS



The goal of this column is to provide brief summaries of recent Indiana Court of Appeals and Supreme Court cases involving topics related to surveying practice, certainly not to provide legal advice. Information is gathered from the courts website at www.in.gov/judiciary. Comments or suggestions for future columns are welcome by email to: Bryan.Catlin@indy.gov.

Town of Fortville v. Certain Fortville Annexation Territory Landowners, Indiana Court of Appeals Case No. 30A01-1410-MI-442, July 2, 2015

Here the Town of Fortville adopted a resolution on March 28, 2013 to annex 5,944 acres adjacent to Fortville. On July 14, 2013, (court website says 2014) after a notice and public hearing, Fortville adopted an ordinance to annex a reduced area of 644 acres surrounded on three sides by Fortville. The remonstrators, consisting of ninety-three percent of the owners of parcels in the annexation, on October 11, 2013, filed a petition remonstrating against the proposed annexation. At a bench trial in the Hancock Circuit Court, the only issue was whether the annexation was needed and could be used by Fortville in the reasonably near future as required by Indiana Code 36-4-3-13(c)(2). The court found

that Fortville did not need the annexation for development in the reasonably near future, and the town appealed.

On appeal the Court agreed with Fortville that the wrong standard of evidence was used in ruling against the annexation. The appeals court agreed that only looking at evidence of plans for physical improvements was wrong. Controlling adjacent development, preventing conflicting land uses and distributing the cost of municipal water and emergency services (which the annexation area already enjoyed) among all users were reasons why Fortville did need to annex the land in the reasonably near future. The case was reversed and remanded back to the trial court.

American Cold Storage NA, et al. v. City of Boonville, Indiana Court of Appeals Case No. 87A01-1502-PL-76 August 28, 2015

Here is a case from the Warrick Superior Court making a fourth trip to the appellate courts. Boonville has been facing a declining population and a lack of undeveloped commercial and industrial sites. On July 7, 2008 the city council passed an ordinance to annex 1,165 acres in which Boonville already provides fire protection and police patrols. Boonville has plans for infrastructure improvements in the annexation area and has already built a sewage treatment plant there. On October 3, 2008 more than two hundred landowners filed a remonstrance petition and eventually, after the trial court found for Boonville, the case was again appealed. The landowners want the case reviewed de novo as an issue of statutory interpretation which the Court of Appeals declined to do, noting the true nature of the arguments was a challenge to the sufficiency of the evidence supporting dismissal of the remonstrance petition.

The landowners argued that the trial court was wrong in deciding sixty percent of the land was subdivided and that Boonville needed and could use the territory in the reasonably near future. The landowners argued that to meet the sixty percent subdivided threshold the land would have to go through the local subdivision approval process. The court explained in some detail why it does not agree with this definition of subdivided. By the way, subdivision is not defined in the annexation statute either. The trial court noted that large portions of the annexation area have begun taking on the characteristics of an urban area. Again, the appeals court found that brick and mortar developments are not the only reasons a municipality might need an area in the near future. The judgment of the trial court was affirmed.

Town of Whitestown, Indiana v. Rural Perry Township Landowners, Indiana Court of Appeals Case No. 29A05-1409-MI-437, July 29, 2015

This case from the Hamilton Superior Court is another annexation case. Here fast growing Whitestown in Boone County adopted an ordinance on March 26, 2013 to annex 28 parcels totaling 621.87 acres. One of the parcels was land Whitestown had acquired to build a waste water treatment plant. Remonstrators, including the party Whitestown had acquired the waste water treatment plant parcel from, filed a petition challenging the ordinance on June 7, 2013. As required by Indiana Code, a bench trial was held on March 18, 19, and 20, 2014 where the court found the requirement that the property being annexed was subdivided was not satisfied along with other items from the annexation statutes. The trial court entered judgment for the remonstrators and adopted their proposed findings and conclusions verbatim. Whitestown then appealed.

(Continued on page 30)

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On appeal Whitestown argued the trial court has misinterpreted Indiana Code. The statutory framework of annexation presumes the validity of annexation ordinances, providing the requirements of statutes have been met. The Appeals Court agreed with Whitestown that the trial court misinterpreted the law, since Whitestown only needed to meet the requirements of 36-4-3-13(b) or 36-4-3-13(c), not both. So the question becomes whether or not Whitestown “needed” and could use the area for development in the reasonably near future. The Appeals Court noted that the test is not whether Whitestown could do without the annexed area but whether they could use it for anything other than increased tax collection. Because of ongoing and intended development, as well as the risk of having utility lines in an area where the Boone County Highway Department controlled future road construction, the Appeals Court found the trial court erred in its application of the law. The trial court also upheld the remonstrance under 36-4-3-13(e). The Appeals Court agreed with the trial court’s findings of fact here, but the Appeals Court did not find that they would result in an adverse significant financial impact. It should be noted that the trial court concluded Whitestown was trying to game the system by abating Whitestown taxes in the annexation area for thirteen years. The Appeals Court disagreed, saying Whitestown was “construing the statute in conformity with its plain language.” The trial court judgment was reversed and remanded with instructions to enter judgment in favor of Whitestown.

It was also noted that trial courts sometimes adopt proposed findings verbatim to keep the docket moving, as the courts are busy and may not have the law clerks and other staff an ideal system would allow. While this practice is not prohibited, the Indiana Supreme Court has observed that the practice “weakens our confidence as an appellate court that the findings are the result of considered judgment by the trial court”.

Robert E. Helmer v. TLC Properties, Inc., Indiana Court of Appeals Case No. 45A03-1501-PL-34, August 18, 2015 - MEMORANDUM DECISION - not regarded as precedent

Here Joseph M. Major and his wife Willie May owned real estate in Gary. Willie May died in 1981, and Joseph died intestate in 1985. Their son Joseph W. Major (Major) was their sole heir. There was no administration of the estate, and the property remained in the names of Joseph M. Major and Willie Mae Major. In November 2006, Major executed an Affidavit of Heirship and the next day granted an easement to TLC. He recorded the easement in June 2008 but not the Affidavit of Heirship. Major died in January 2009. Through a 2012 Lake County tax sale Helmer acquired the former Major property. In February 2014 Helmer brought a complaint to quiet title against TLC and others. The Lake Superior Court granted TLC’s motion for summary judgment noting Major, as sole surviving son, was “vested in a fee simple interest in the property upon the death of both parents”, so he could sell an easement without any administration or affidavit.

The Appeals Court affirmed this judgment even though Major did not “place himself into the chain of title”. The court also notes that IC 29-1-2-1 controls the distribution of the estate of a person dying intestate and that IC 29-1-8-3(b) notes an affidavit *may be recorded* in the office of the recorder in the county in which the real property is located. The trial court correctly determined an affidavit is not required.

William G. Zartman, Jr., and Marilyn M. Zartman, Trustees of the William G. Zartman, Jr. and Marilyn M. Zartman Revocable Trust, and William G. Zartman III and Kim R. Zartman v. Donald R. Towne and Larry J. Towne and State of Indiana, Indiana Court of Appeals Case No. 25A05-1410-PL-495, August 25, 2015 - MEMORANDUM DECISION - not regarded as precedent

The families and predecessors of the Townes and the Zartmans have owned adjacent plots of land for decades. Sometime before 1960, a fence was constructed along the northern line of the Townes’ property. Since then, the parties have treated the fence as a boundary line between their lots. Also in the vicinity is South Mud Lake, which has receded with time, such that there is now a swampy area between the lake’s meander line and the lake’s current water line (the Disputed Area). In 2006, William Zartman III (William) destroyed a portion of the fence between the Zartmans’ property and the Townes’s property. William then erected a new fence, which ran in a southwestwardly direction across the Townes’s property, and across the Disputed Area, to South Mud Lake. On April 17, 2008, the Townes filed a complaint against the Zartmans for quiet title, trespass, ejectment, and adverse possession. The Townes amended their complaint to allege that they had acquired additional land, the Disputed Area, by reliction of the water of South Mud Lake. On July 17, 2013, the Zartmans filed a motion to add an additional party, the State of Indiana, which the trial court granted on July 29, 2013. On September 27, 2013, the State filed an answer to the complaint, denying all allegations. It also filed a motion to dismiss itself from the litigation because “the State does not hold title to the subject disputed property.” The State also disclaimed any interest in the disputed property. On October 15, 2013, the Zartmans filed a cross-claim against the State, arguing that the State, rather than the Townes, owned the Disputed Area. The Zartmans filed a brief in opposition to the

(Continued on page 31)

(Continued from page 30)

State's motion to dismiss on November 25, 2013. On November 27, 2013, the trial court granted the State's motion and dismissed it from the litigation.

A bench trial in Fulton Superior Court took place on July 22 and 23, 2014. On September 24, 2014, the trial court entered an order finding in favor of the Townes. The trial court found that William trespassed on the Townes' property when he destroyed a section of fence and constructed a new fence. The Townes incurred damages in the amount of \$2,689.27, and the court ordered judgment in their favor in that amount. The Zartmans then appealed.

On appeal, the Zartmans argued that the trial court erred by dismissing the State from the litigation and erroneously determined that the State had no ownership interest in the Disputed Area.

The apparent reason that the Zartmans asserted the State's interest in the Disputed Area is that if the Townes do not own it, then there is no basis for their claims of trespass and quiet title ownership interest in the Disputed Area or any other portion of the property.

The Appeals Court explained in some detail why the Zartmans' arguments failed and affirmed the judgment of the trial court.

Bryan F. Catlin, PS has been registered as a Land Surveyor in Indiana since 1991. He holds B.S. Land Surveying Engineering and M.S. Engineering (geodesy) degrees from Purdue University.



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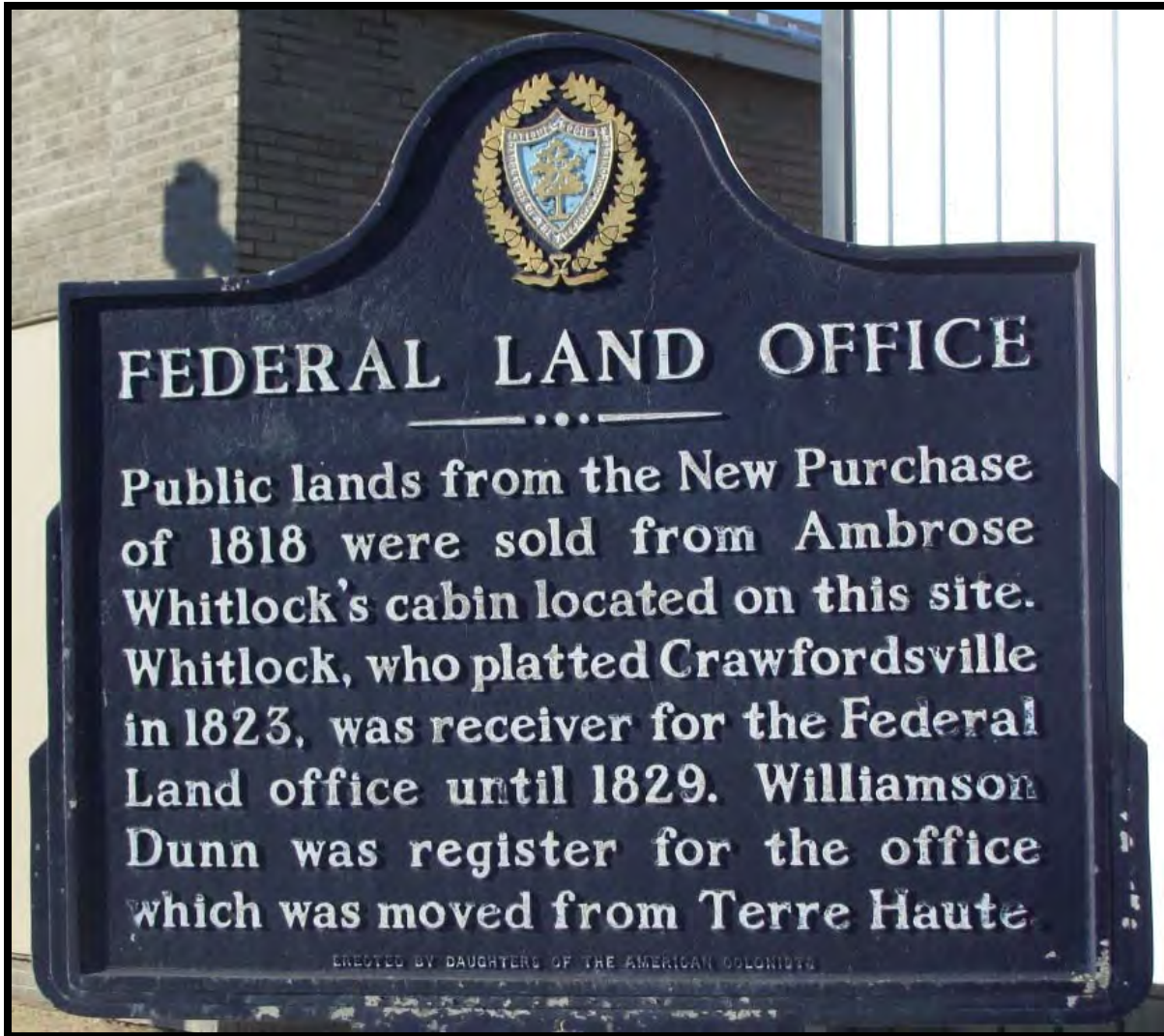
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Who Sold The New Purchase?

By Jim Swift, PS

Some years ago, I was riding a bicycle through my home town of Crawfordsville, Indiana when I stopped to read this historical marker.



The idea of a Land Office sounded pretty cool to me and, being a local kid, I was familiar with the names Whitlock and Dunn. But what, I wondered, was the New Purchase? Clearly it was a land purchase, but purchased from whom? I mentally reviewed my basic U.S. History. I knew that this area was once claimed by France. I also knew that Great Britain had ceded it to the U.S. Government at the conclusion of the Revolutionary War. Being an astute young bicyclist, I concluded that since we had gained rights to the land from Britain by the conquest of war, I figured we probably did not need to purchase it from them as well. Surely, we didn't have to pay for the ground we had won through victory at war. I peddled my bicycle away that afternoon puzzling on the question of who sold the land bought in the New Purchase?

That evening I did a little research and discovered that the United States Government had purchased the land from the native inhabitants, the Indians. That was an interesting concept to me. I had never before thought about the idea that the U.S. Government might have actually purchased this land from the Indians. How, I wondered, did all of that work? Which Indians? What specific land? How much did we pay? I puzzled on those questions as I went to bed that night. 30 years later, they are still interesting.

(Continued on page 33)

(Continued from page 32)

In 1816, Indiana was admitted to the Union as the 19th member of the United States of America. Below is the first map of the State of Indiana, dated 1819. This particular image is a photograph of a post card recently mailed by the Indiana Historical Society.



(Continued on page 34)

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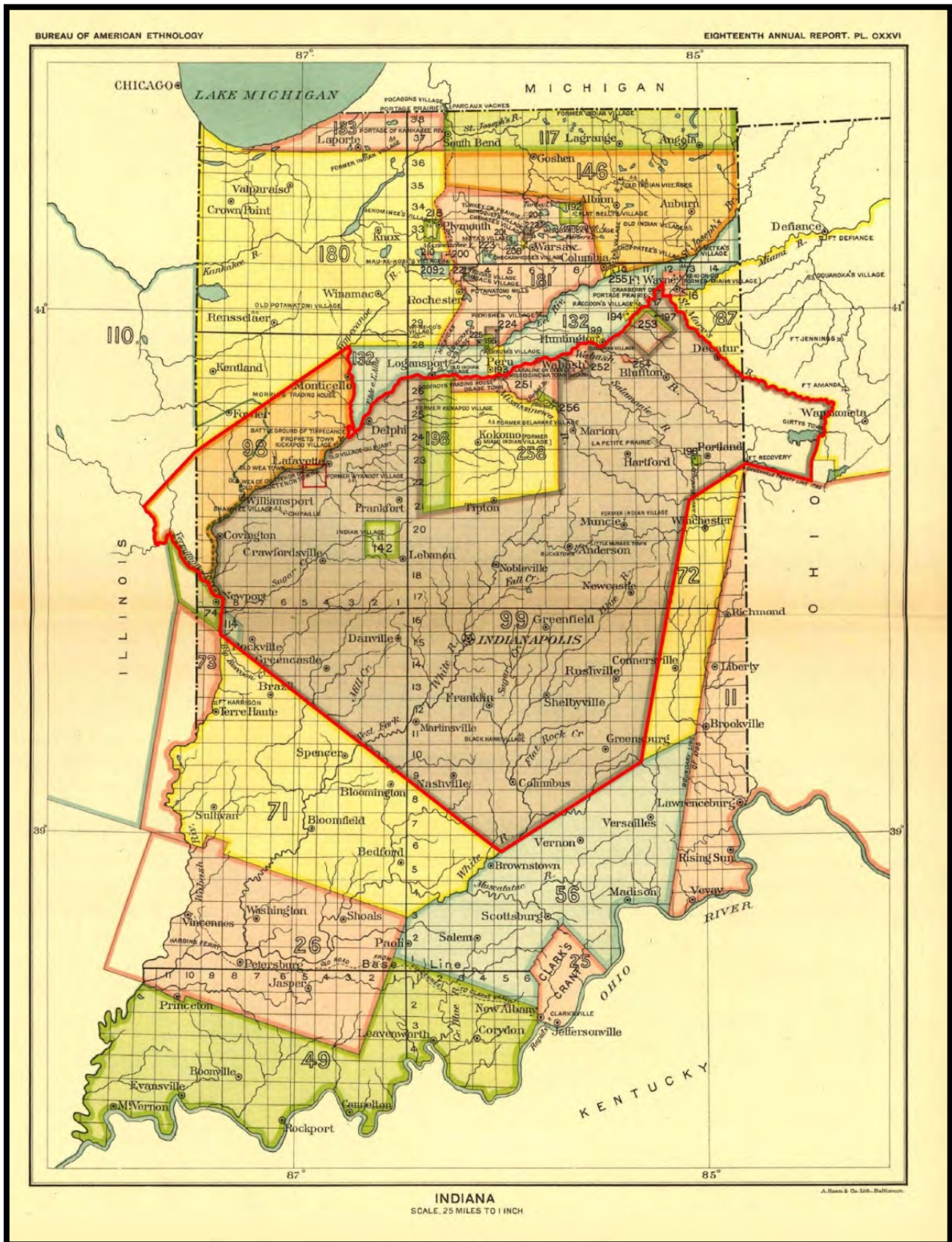
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(Continued from page 33)

Note the areas which appear to be divided into counties, comprising the approximate southern one-third of the state. At the time of admission to the Union, these areas had already been purchased from the Indians, in one case after a hard won victory at battle, and were comfortably under treaty. The land to the north, being the northern two-thirds of the state, was not yet secured by treaty. Based in English law, our concepts of land ownership clearly dictated that before we could survey, sell or settle an area, we needed to secure treaties to the land from the native inhabitants. By 1818, Jonathon Jennings, the first Governor of Indiana, was quite anxious to open the central part of the new state to settlement and he pushed hard for treaties with the Indians. Much negotiation took place. Jennings and the federal agents were on one side and the various native tribes were on the other. Ultimately the negotiations yielded agreements and in early October, 1818, at St. Mary's, Ohio, four separate treaties were concluded. Each treaty represented a separate negotiation between the United States of America and the respective tribes, the Potawatamie, Wea, Delaware and Miami. Each treaty is different, negotiated under different terms. The combined set of treaties is commonly referred to as the New Purchase. Notably, the Shawnee Tribe, which had made a splash in the Indiana Territory just a few years earlier through the exploits of Tecumseh and his brother The Prophet, is not mentioned in any of the treaties.

The following image, being a map by Charles C. Royce (see previous article in the Hoosier Surveyor, Summer 2015), shows the various treaty parcels in Indiana. I have outlined the perimeter of the areas addressed by the New Purchase in red.

(Continued on page 35)



(Continued from page 35)

The Potawatamie Tribe was the first to sign a treaty, concluded on October 2, 1818. The orange colored parcel, number 98, in the northwest portion of the New Purchase represents that area which was granted to the U.S. by them. The treaty describes the ceded territory as, *“Beginning at the mouth of the Tippecanoe river, and running up the same to a point twenty-five miles in a direct line from the Wabash river—thence, on a line as nearly parallel to the general course of the Wabash river as practicable, to a point on the Vermilion river, twenty-five miles from the Wabash river; thence, down the Vermilion river to its mouth, and thence, up the Wabash river, to the place of beginning.”* The treaty also states, *“The Potawatamies also cede to the United States all their claim to the country south of the Wabash river.”* In return, *“The United States agree to pay to the Potawatamies a perpetual annuity of two thousand five hundred dollars in silver; one half of which shall be paid at Detroit, and the other half at Chicago; and all annuities which, by any former treaty, the United States have engaged to pay to the Potawatamies, shall be hereafter paid in silver.”*

Annexed to the treaty is a schedule of grants to private individuals, most of whom are named Burnett. I believe the Burnetts were the children of a Potawatamie woman who was the sister of a chief, and a French trader named Burnett who had established a trading post along the Wabash River near the mouth of the Tippecanoe River. Surveyors working in Tippecanoe County may be familiar with the Burnett Reserve in the area of Prophetstown State Park.

The next natives to sign a treaty were the Wea, also on October 2, 1818. Per the treaty, *“The said Wea tribe of Indians agree to cede to the United State all the lands claimed and owned by the said tribe, within the limits of the states of Indiana, Ohio, and Illinois.”* But they reserved a small area for themselves, being an approximately seven mile by seven mile rhombus shaped area at the mouth of Raccoon Creek, west of present day Rockville. This reserve is shown as the blue colored parcel number 114 in the southwest part of the New Purchase. For this, the Wea received the promise that, *“...the United States agree to pay to the said Wea tribe of Indians, one thousand eight hundred and fifty dollars annually, in addition to the sum of one thousand one hundred and fifty dollars, (the amount of their former annuity,) making a sum total of three thousand dollars; to be paid in silver, by the United States, annually, to the said tribe, on the reservation described by the second article of this treaty.”*

Note the interesting condition that the Potawatamies had to travel to Detroit and Chicago to receive their annual annuity of silver, but the Weas were to receive theirs at the reservation. The Wea treaty also promised to grant one section of land each to two different women, both of whom were daughters of the sister of a chief.

The next day, on October 3, 1818, representatives of the Delaware Tribe signed a treaty. The Delaware were not historically from this area. They were once known as the Lenape and had migrated from the East Coast, roughly the Delaware/New Jersey area, and had been hunting the lands of the White River in central Indiana. In 1809 they had secured an acknowledgement from the Miami of equal right *“to the country watered by the White River.”* But they must not have felt at home here, because they basically gave up and agreed to leave the area entirely. Per Article One of the Treaty with the Delaware, *“The Delaware nation of Indians cede to the United States all their claim to land in the state of Indiana.”* They were promised land west of the Mississippi River, along with *“one hundred and twenty horses, not to exceed in value forty dollars each, and a sufficient number of perogues, to aid in transporting them to the west side of the Mississippi; and a quantity of provisions, proportioned to their numbers, and the extent of their journey.”* They were guaranteed an annuity of four thousand dollars in silver and given three years to vacate the area.

Later the same day, October 3, 1818, the last of the four treaties was concluded with the Miami tribe. They were represented in negotiation by a man known to the Miami as Peshawa and known to Jonathon Jennings and the federal agents as Jean Baptiste de Richardville. He was the son of a French fur trader and a Miami woman who was the sister of a prominent Miami Chief. By all accounts, Richardville was a shrewd businessman. He was fluent in the English, French and Miami languages and he was a fabulous negotiator. It seems he comprehended the importance Jennings placed on opening the central part of his young state to development. He must have known the value of the land, for he negotiated what appears to have been an excellent deal for both his followers and himself, if, that is, one accepts that any of the deals the natives made with the American Government were ultimately good deals. In any case, it appears to have been a much better deal than those made by the other tribes participating in the New Purchase. Refer to the above map and imagine that Jennings’ primary goal was to secure title to all of the land south and east of the Wabash River. Note the numerous green, yellow and brighter pink reserves, including parcels 142, 188, 251-253, and 258. Those areas were all reserved out of the New Purchase by the Miami, along with many private grants, the promise of a saw mill, grist mill, agricultural equipment and a perpetual annuity of fifteen thousand dollars.

The Treaty with the Miami is long, detailed, and makes reference to several interesting concepts. Together with the fascinating character, Jean Baptiste de Richardville, it is worthy of an article itself. For now, I will leave it at that, offering the reader the opportunity to puzzle on another interesting question. How is it that, while the general fortunes of the Indians were fading, the Miami Chief Peshawa became known as the richest man in Indiana?

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The Southwest Chapter's Calibration Base Line: "Evansville CBL"

By Matthew G. Badger, PS

This article is Part 2 of the Southwest Chapter's Calibration Base Line continued from the fall 2013 Edition of the Hoosier Surveyor. At the close of that article, the four marks had been constructed in November of 2013, prior to the freeze/thaw cycle of that winter. The next step in the process was to pause and wait for at least one full freeze/thaw cycle to run its course before any observations were performed on the marks.

Turning the calendar over nearly a full year to August of 2014, I and Bret Sermersheim, PS, performed the necessary Double-Run, Third Order Differential Levels between the four marks. This was carried out with a Trimble DiNi digital level capable of satisfying NGS First Order specifications, a fixed legs tripod, a 3 meter barcoded Nedo precision invar leveling rod and a 15-inch tapered turning pin. NGS does not require that the CBL marks be tied to any specific vertical datum, as only the relative height differences between them are used in the final calculations for the published results. For a little overkill at the "Evansville CBL," it was decided to utilize NGS' OPUS utility to first derive accurate NAVD 88 orthometric heights (using Geoid 12A at that time) at all four marks from three multi-hour GNSS static sessions, and secondly input the level observations into MicroSurvey's Star*Net least squares software so as to preserve the precise relative height differences between all four marks as a result of the differential levels, yet retain accurate NAVD orthometric heights relative to the NGS' CORS. These results were then submitted to NGS. We could have very well assumed a project datum elevation of "100" at the "0 m" mark, but where's the fun in that?

Turning the calendar over to January of 2015, NGS' Steven Breidenbach came with all of the associated hardware to perform the necessary CBL observations. Amongst miscellaneous hand tools, batteries, two-way radios, etc., this included the following items:

- A. Four slip-leg tripods and tribrachs (one at each mark)
- B. One Wild Model ZBL 16 (optical plummet)
- C. One Wild Model NL (optical plummet)
- D. One Leica rotating precision level tribrach adapter
- E. One tribrach adapter with top/center hole (for instrument and target height measurements)
- F. One sectional 2-meter stick/pole with metric graduations (for measuring instrument and target heights)
- G. One Wild Model T2000 electronic theodolite
- H. Two Leica Model DI2002 EDMs
- I. One psychrometer
- J. Two barometers (one at instrument, one at target)
- K. Two thermistors (temperature measurement) (one at instrument, one at target)
- L. One tribrach adapter with 5/8" thread (target)
- M. One AGA triple-prism reflector - *See Photo to the right.*
- N. One tent or umbrella



Conducting the observations was indeed a methodical exercise in repetition. The following list includes the aspects of performing the observations that were conducted by Steve Breidenbach (NGS), myself, Michael Stevenson (Day #1), Calvin Cash (Day #2) and Jason Coyle (Day #2) for publishing the CBL data:

- CBL observations were performed on two different days, with the second day being a reversal of the sequence of observations from the first day.
- The instrument was shielded from direct sunlight during the first day's observations by use of NGS' party tent. The second day was completely overcast, so the tent or an umbrella were not required. *See Photo to the right.*
- Only raw (unadjusted for prism offsets and atmospheric corrections) slope distances were recorded. Computed horizontal distances are a result of the adjusted slope distances, instrument and target heights and the project heights of the marks.
- Only one target was used.
- No horizontal angles were recorded. If the four marks were to lie outside of NGS' tolerance of a "straight line," the CBL would then



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have been considered a “broken” Base Line (see Kentucky’s “PIONEER PARK CBL” for such an example).

- No vertical or zenith angles were recorded.
- Observations were made from each mark to each mark.
- Items “A” through “E” (above) were used to setup precisely over the marks. See included photo on Page 41 for an example (photo from another CBL) of the magnification possible from the Wild Model NL optical plummet.
- Psychrometer readings were taken once per each instrument setup at each mark.
- An example sequence of observations recorded at all marks are as follows from the “0 m” mark on Day #1:
 - Observations from “0 m” mark **with EDM1 #1**
 - ◆ Target at “150 m” mark
 1. Record temperature and barometric readings at instrument and target
 2. Take five direct readings (slope distances)
 3. Reverse scope and take five indirect readings
 4. Record temperature and barometric readings at instrument and target
 5. Repeat steps 1-4 **with EDM1 #2**
 - ◆ Target at “430 m” mark **with EDM1 #1**
 1. Repeat steps 1-5 (above)
 - ◆ Target at “1830 m” mark **with EDM1 #1**
 1. Repeat steps 1-5 (above)

The observations on Day #2 were not considered complete until Steve was sure that the NGS’ tolerances for the differences between Day #1 and Day #2’s measurements were not exceeded; otherwise, we may very well have had to set up camp for a third day.



One Wild Model ZBL 16



One Wild Model NL



One Leica rotating precision level tribach adapter



One tribach adapter with top/center hole



One sectional 2-meter stick/pole with metric graduations



One Wild Model T2000 electronic theodolite



Two Leica Model DI2002 EDMs



One psychrometer

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A complete target setup



Thermistor

After this, Steve went back to Corbin, VA with the collected data to archive, process, adjust and publish the results on NGS' website (<http://www.ngs.noaa.gov/CBLINES/calibration.html>) along with the mark descriptions we provided him.

US DEPARTMENT OF COMMERCE - NOAA
 NOS - NATIONAL GEODETIC SURVEY
 SILVER SPRING MD 20910

CALIBRATION BASE LINE DATA
 BASE LINE DESIGNATION: EVANSVILLE CBL
 PROJECT ACCESSION NUMBER: 15838
 NEAREST TOWN: EVANSVILLE

QUAD: N380873
 INDIANA
 VANDERBURGH COUNTY

LIST OF ADJUSTED DISTANCES (5/10/2015)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR(MM)
0	139.640	150	137.933	149.9993	150.0090	.2
0	139.640	430	134.227	430.0004	430.0344	.3
0	139.640	1830	128.838	1829.9939	1830.0257	.5
150	137.933	430	134.227	280.0011	280.0256	.2
150	137.933	1830	128.838	1679.9944	1680.0191	.3
430	134.227	1830	128.838	1399.9931	1400.0035	.2

BASE LINE DESIGNATION: EVANSVILLE CBL
 STATE: INDIANA
 COUNTY: VANDERBURGH
 NEAREST TOWN: CYNTHIANA
 LATITUDE: N38 10 01.70
 LONGITUDE: W087 37 59.12
 AZIMUTH: 271 DEGREES TRUE NORTH
 SECTIONS 20, 21 & 22, TOWNSHIP 4S, RANGE 11W, 2ND P.M.
 7.5 MINUTE QUADRANGLE: CYNTHIANA

THE BASE LINE IS LOCATED ABOUT 7.1 KM (4.41 MI) SOUTHEAST OF CYNTHIANA, 4.5 KM (2.80) EAST-NORTHEAST OF THE JUNCTION OF INTERSTATE 64 AND STATE HIGHWAY 65, ALONG FRONTAGE ROAD, IN VANDERBURGH COUNTY RIGHT-OF-WAY, SOUTH OF INTERSTATE 64 RIGHT-OF-WAY IN SEC.20,21&22,T.4S.,R.11W.,2ND P.M.

THE BASE LINE IS ON VANDERBURGH COUNTY PROPERTY IN THE RIGHT-OF-WAY.

THE BASE LINE IS AN EAST-WEST LINE WITH THE 0-METER POINT ON THE EAST END. IT CONSISTS OF THE 0, 150, 430, AND 1830-METER POINTS.

THERE IS NO 100-FOOT TAPE CALIBRATION STATION LOCATED AT THIS BASE LINE.

TO REACH THE 0-METER POINT FROM THE JUNCTION OF INTERSTATE 64 AND STATE HIGHWAY 65, GO SOUTH ON STATE HIGHWAY 65 FOR 0.26 KM (0.16 MI) TO THE INTERSECTION OF SCOTT ROAD ON THE LEFT. TURN LEFT AND GO EASTERLY ON SCOTT ROAD FOR 1.51 KM (0.94 MI) TO THE T-INTERSECTION OF PRUITT ROAD. TURN LEFT AND GO NORTHERLY ON PRUITT ROAD FOR 0.41 KM (0.25 MI) TO THE INTERSECTION OF WOODS ROAD. TURN RIGHT AND GO EASTERLY ON WOODS ROAD FOR 1.51 KM (0.94 MI) TO THE T-INTERSECTION OF (NOW) FRONTAGE ROAD AND BIXLER ROAD ON THE RIGHT. CONTINUE EASTERLY ON FRONTAGE ROAD FOR 1.49 KM (0.93 MI) AND THE 0-METER POINT IS ON THE LEFT BETWEEN THE NORTH EDGE OF PAVEMENT OF FRONTAGE ROAD AND THE RIGHT-OF-WAY FENCE OF INTERSTATE 64.

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THE 0-METER POINT IS A STANDARD NATIONAL GEODETIC SURVEY NOAA GEODETIC CONTROL MARK DISK STAMPED--M BADGER 0 M--, SET IN THE TOP OF A 30 CM (12 INCH) DIAMETER CONCRETE POST ENCASED IN A 12.7 CM (5 INCH) PVC PIPE WITH A LOGO CAP STAMPED--SOUTHWEST CHAPTER ISPLS EDM I CALIBRATION BASELINE--, FLUSH WITH THE GROUND. TOP OF DISK IS 22 CM (9 INCHES) BELOW THE TOP OF THE LOGO CAP. THE STATION IS 45 M (147.6 FT) WEST OF A FIELD DIVIDE LINE, 4.4 M (14.4 FT) NORTH OF THE CENTERLINE OF FRONTAGE ROAD, 3.5 M (11.5 FT) SOUTH OF THE RIGHT-OF-WAY FENCE AND 3.4 M (11.2 FT) SOUTH OF AN ORANGE FIBERGLASS WITNESS POST.

THE 150-METER POINT IS A STANDARD NATIONAL GEODETIC SURVEY NOAA GEODETIC CONTROL MARK DISK STAMPED--CASH 150 M--, SET IN THE TOP OF A 30 CM (12 INCH) DIAMETER CONCRETE POST ENCASED IN A 12.7 CM (5 INCH) PVC PIPE WITH A LOGO CAP STAMPED--SOUTHWEST CHAPTER ISPLS EDM I CALIBRATION BASELINE--, FLUSH WITH THE GROUND. TOP OF DISK IS 22 CM (9 INCHES) BELOW THE TOP OF THE LOGO CAP. THE STATION IS 105 M (344.5 FT) EAST OF A FIELD DIVIDE LINE, 3.9 M (12.8 FT) NORTH OF THE CENTERLINE OF FRONTAGE ROAD, 3.8 M (12.5 FT) SOUTH OF THE RIGHT-OF-WAY FENCE AND 3.7 M (12.1 FT) SOUTH OF AN ORANGE FIBERGLASS WITNESS POST.

THE 430-METER POINT IS A STANDARD NATIONAL GEODETIC SURVEY NOAA GEODETIC CONTROL MARK DISK STAMPED--KISSEL 430 M--, SET IN THE TOP OF A 30 CM (12 INCH) DIAMETER CONCRETE POST ENCASED IN A 12.7 CM (5 INCH) PVC PIPE WITH A LOGO CAP STAMPED--SOUTHWEST CHAPTER ISPLS EDM I CALIBRATION BASELINE--, FLUSH WITH THE GROUND. TOP OF DISK IS 22 CM (9 INCHES) BELOW THE TOP OF THE LOGO CAP. THE STATION IS 28.4 M (93.2 FT) NORTHEAST OF THE T-INTERSECTION OF THE CENTERLINES OF FRONTAGE ROAD AND AN UNIMPROVED DRIVE FROM THE SOUTH, 24.6 M (80.7 FT) EAST OF THE CENTER OF THE EAST-MOST GUARD RAIL POST ACROSS FRONTAGE ROAD FROM THE UNIMPROVED DRIVE, 4.1 M (13.5 FT) NORTH OF THE CENTERLINE OF FRONTAGE ROAD, 3.6 M (11.8 FT) SOUTH OF THE RIGHT-OF-WAY FENCE AND 3.5 M (11.5 FT) SOUTH OF AN ORANGE FIBERGLASS WITNESS POST.

THE 1830-METER POINT IS A STANDARD NATIONAL GEODETIC SURVEY NOAA GEODETIC CONTROL MARK DISK STAMPED--G BADGER 1830 M--, SET IN THE TOP OF A 30 CM (12 INCH) DIAMETER CONCRETE POST ENCASED IN A 12.7 CM (5 INCH) PVC PIPE WITH A LOGO CAP STAMPED--SOUTHWEST CHAPTER ISPLS EDM I CALIBRATION BASELINE--, FLUSH WITH THE GROUND. TOP OF DISK IS 22 CM (9 INCHES) BELOW THE TOP OF THE LOGO CAP. THE STATION IS 26 M (85.3 FT) WEST OF THE BEGINNING OF A CURVE IN THE COUNTY ROAD, 5.4 M (17.7 FT) SOUTH OF THE RIGHT-OF-WAY FENCE, 4.4 M (14.4 FT) SOUTH OF AN ORANGE FIBERGLASS WITNESS POST AND 4.3 M (14.1 FT) NORTH OF THE CENTERLINE OF THE COUNTY ROAD.

POSITIONS OF CBL POINTS FOR LOCATION BY HANDHELD GPS. THESE ARE LOW ACCURACY POSITIONS ESTABLISHED FOR RECONNAISSANCE EFFORTS ONLY.

MARK	LATITUDE	LONGITUDE
0	N38 10 01.70	W087 37 59.12
150	N38 10 01.78	W087 38 05.28
430	N38 10 01.94	W087 38 16.78
1830	N38 10 02.71	W087 39 14.29

THIS BASE LINE WAS ESTABLISHED BY THE SOUTHWEST CHAPTER OF THE INDIANA SOCIETY OF PROFESSIONAL LAND SURVEYORS WITH GUIDANCE FROM THE NATIONAL GEODETIC SURVEY (NGS).

USER NOTES: CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR CBL USE ONLY. EARLY MORNING OBSERVATIONS ARE RECOMMENDED TO DECREASE THE EFFECTS OF REFRACTION BETWEEN THE 0M AND 1830 M POINTS. BRUSH MAY NEED TO BE CLEARED BETWEEN THE 430 M AND 1830 M POINTS FOR A CLEAR LINE OF SIGHT. DUE TO THE CREST IN THE GRADE BETWEEN THE 150 M AND 430 M POINTS, THE SETUP HEIGHT AT THE 150 M POINT SHOULD BE APPROXIMATELY 50 CM (20 INCHES) LOWER THAN THE SETUP HEIGHTS AT THE 0 M AND 430 M POINTS FOR INTERVISIBILITY BETWEEN ALL POINTS.

FOR MORE INFORMATION OR TO REPORT A PROBLEM WITH THE BASE LINE CONTACT THE NATIONAL GEODETIC SURVEY-CORBIN TRAINING CENTER, PHONE (540) 373-1243 OR MATTHEW G. BADGER, PHONE (812) 479-6200.

To use the "Evansville CBL" or any other of NGS' CBLs, please first refer to *NOAA Technical Memorandum NOS NGS-10, "Use of Calibration Base Lines"* (http://www.ngs.noaa.gov/PUBS_LIB/TMNOSNGS10.pdf) for the proper field procedures to determine the scale and constant corrections for EDMIs. After the observations have been made, these corrections can be determined by use of NGS' "CALIBRAT" program found at http://www.ngs.noaa.gov/PC_PROD/CALIBRAT/.

Happy measuring!



Magnification possible from the Wild Model NL optical plummet.

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MEMBERSHIP CATEGORIES

PROFESSIONAL MEMBER: A Professional Member of this Corporation shall be limited to Registered Land Surveyors in good standing with the Indiana State Board of Registration for Land Surveyors. A Professional Member shall be eligible to vote, hold office and to participate fully in the affairs of the corporation.

ASSOCIATE: An Associate membership will be granted to those non-registered individuals who are actively engaged in support of the practice of land surveying. An Associate Member is entitled to vote and participate fully in the affairs of the Corporation but shall not be entitled to hold office. Associate Members shall, at such time that they become Registered Land Surveyors in good standing with the Indiana State Board of Registration for Land Surveyors, become Professional Members without further vote of the Board of Directors of this Corporation.

AFFILIATE: An Affiliate membership will be granted to those individuals who qualify under the following provisions:

- a) Anyone who is affiliated with the Land Surveying profession or
- b) Any Non-Resident who is registered and in good standing as a Land Surveyor in a state other than Indiana.

An Affiliate Member is not entitled to vote, or to hold office but will receive newsletters and be invited to participate in meetings.

STUDENT: A Student membership will be granted to those non-registered individuals who are endeavoring to make surveying their chosen career and who are enrolled as a full time student as defined by the university or school they are attending. Membership in this class shall not exceed a total of (5) years. A Student Member is not entitled to vote or hold office, but will receive newsletters and be invited to participate in meetings.

LIFE: Any person holding Professional Member status shall be eligible to petition the Board of Directors to change his membership to that of a Life Member. If the Board of Directors finds that the Professional Member so petitioning has reached the age of 65 years and has been a Professional Member (or Member before July 1, 1999) of this Corporation for at least a total of twenty (20) years, it shall grant the petition and the Professional Member will become a Life Member. If the Board of Directors finds that the Professional Member so petitioning has not fulfilled the above requirements, the Board may grant a petition if it finds that the Professional Member has retired from active practice for reasons of health and is no longer engaged in Land Surveying. Life Members shall be furnished with a Life Membership card and Certificate and such membership shall take effect upon approval by the Board of Directors. Life Members shall not be subject to payment of dues, but shall enjoy all the rights and privileges of full Professional Member status in this Corporation.

To view and read the ISPLS Constitution, By-Laws, Code of Ethics, and the Memorandum of Understanding with NSPS, please visit www.ispls.org and About ISPLS.

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Gibson
Greene
Knox
Martin
Perry
Pike
Posey
Spencer
Vanderburgh
Warrick

St. Joseph Valley:

Elkhart
Fulton
Kosciusko
Marshall
St. Joseph

Tecumseh:

Benton
Carroll
Clinton
Fountain
Montgomery
Tippecanoe
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